# ExxonMobil Refining and Supply Company

2300 Clayton Road, Suite 1250 P.O. Box 4032 Concord, CA 94524-4032 (925) 246-8747 Telephone (925) 246-8798 Facsimile gene.n.ortega@exxon.com **Gene N. Ortega** Senior Engineer Environmental Remediation

# EXonMobil

Refining & Supply

February 22, 2001

Mr. Scott Seery Alameda County Health Agency 1131 Harbor Bay Parkway Alameda, CA 94501-6577

Subject:

Former Exxon RAS #7-3399, 2991 Hopyard Road, Pleasanton, California

Dear Mr. Seery:

Attached for your review and comment is a copy of the *Well Installation Report* dated February 2001 for the above-referenced site. The report was prepared by ETIC Engineering, Inc. of Pleasant Hill, California, and documents the installation of three offsite groundwater monitoring wells. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached report is true and correct.

Please note that from this date forward, I will be the ExxonMobil contact for this site. If you have any questions or comments, please contact me at (925) 246-8747.

Sincerely,

Gene N. Ortega Senior Engineer

Attachment: ETIC Well Installation Report dated February 2001

c: w/attachment:

Mr. Chuck Headlee - Regional Water Quality Control Board, San Francisco Bay Region

Mr. Matthew Katen – Zone 7 Water Agency

Mr. Stephen Cusenza - City of Pleasanton Public Works Department

Mr. Thomas Elson - Luhdorff and Scalmanini Consulting Engineers

Mr. Winson B. Low - Valero Energy Corporation

Mr. Jude Marcal – U.S. Bank

c: w/o attachment:

Ms. Christa Marting - ETIC Engineering, Inc.



# **Well Installation Report**

# Former Exxon Retail Site 7-3399 2991 Hopyard Road Pleasanton, California

Prepared for

ExxonMobil Refining and Supply Company P.O. Box 4032 2300 Clayton Road, Suite 1250 Concord, California 94524-4032

Prepared by

ETIC Engineering, Inc. 2285 Morello Avenue Pleasant Hill, California 94523 (925) 602-4710

Joseph T. Muehleck Project Manager

Heidi Dieffenbach-Carle, R.G. #6793

Senior Geologist

2/21/01 Date

(OC)

13 P. February 20, 2001

Date

February 2001

# CONTENTS

		<u>Page</u>
	OF FIG CONT <i>A</i>	URES AND TABLES CTS
OLLE	CONTE	
1.	INTRO	DDUCTION1
2.	SITE	BACKGROUND2
	2.1	SITE LOCATION AND LAND USE2
	2.2	SITE LOCATION AND EAND USE
	2.3	REGIONAL GEOLOGY AND HYDROGEOLOGY
	2.4	GEOLOGY AND HYDROGEOLOGY IN SITE VICINITY3
3.	SUBS	URFACE INVESTIGATION5
	3.1	DRILLING OF SOIL BORINGS5
	3.2	SOIL SAMPLING5
	3.3	WELL INSTALLATION6
	3.4	WELL DEVELOPMENT6
	3.5	GROUNDWATER SAMPLING7
	3.6	SURVEYING OF GROUNDWATER MONITORING WELLS7
	3.7	WELL DESTRUCTION7
	3.8	WASTE CONTAINMENT AND DISPOSAL7
4.	RESU.	LTS8
	4.1	SITE GEOLOGY AND HYDROGEOLOGY8
	4.2	SOIL ANALYTICAL METHODS AND RESULTS8
	4.3	GROUNDWATER ANALYTICAL METHODS AND RESULTS8
5.	SUMM	IARY10
DEFE	D TD 1675	
REFE	RENCE	S11
FIGUI TABL		
APPEI	NDIX A	: Correspondence from the Alameda County Health Agency
	NDIX B	
	NDIX C	: Protocols for Borehole and Well Drilling, Completion, Development, and
		Sampling
	NDIX D	
	NDIX E	1
	NDIX F	
APPE	NDIX G	: Non-hazardous Waste Manifests

# LIST OF FIGURES AND TABLES

# Former Exxon RS 7-3399

Number	<u>Description</u>
Figures	
1	Site plan.
2	Site vicinity map showing geologic cross-section lines.
3	Geologic cross-section A-A'.
4	Geologic cross-section B-B'.
5	Site plan showing groundwater elevations and groundwater sample analytical results for 26 September 2000.
Tables	
1	Well construction details.
2	Groundwater monitoring data.

#### SITE CONTACTS

Site Name:

Former Exxon Retail Site 7-3399

Site Address:

2991 Hopyard Road Pleasanton, California

ExxonMobil Project Manager:

Gene N. Ortega

ExxonMobil Refining and Supply Company

P.O. Box 4032

2300 Clayton Road, Suite 1250 Concord, California 94524-4032

(925) 246-8747

Consultant to ExxonMobil:

ETIC Engineering, Inc. 2285 Morello Avenue

Pleasant Hill, California 94523

(925) 602-4710

ETIC Project Manager:

Joseph T. Muehleck

Regulatory Oversight:

Scott Seery

Alameda County Health Agency

1131 Harbor Bay Parkway

Alameda, California 94501-6577

(510) 567-6783

Chuck Headlee

California Regional Water Quality Control Board

San Francisco Bay Region 1515 Clay Street, Suite 1400 Oakland, California 94612

(510) 622-2300

Matthew Katen

Zone 7 Water Agency 5997 Parkside Drive

Pleasanton, California 94588

(925) 484-2600

Stephen Cusenza

City of Pleasanton Public Works Department

P.O. Box 520

Pleasanton, California 94588

(925) 931-5507

#### 1. INTRODUCTION

This report documents the installation of three offsite groundwater monitoring wells (MW12A, MW13, and MW14) and the installation and destruction of one groundwater monitoring well (MW12) in the vicinity of former Exxon Retail Site (RS) 7-3399, located at 2991 Hopyard Road, Pleasanton, California (Figures 1 and 2).

ETIC Engineering, Inc. (ETIC) was retained by ExxonMobil Refining and Supply Company (ExxonMobil) to install the wells as part of a scope of work agreed upon by the Alameda County Health Agency (ACHA) and other interested parties at a meeting held on 2 May 2000. The meeting was attended by representatives from the ACHA, the City of Pleasanton, the Zone 7 Water Agency (Zone 7), the California Regional Water Quality Control Board San Francisco Bay Region, ETIC, and ExxonMobil. The well installations were requested to monitor groundwater between the site and two water supply wells. The water supply wells belong to the City of Pleasanton (Pleasanton well 7) and Zone 7 (well Hop 4) and are located within 1,000 feet of the site, as shown on Figure 2.

ETIC prepared and submitted a work plan, dated May 2000, detailing the proposed installation of the offsite wells (ETIC 2000a). The work plan called for the installation of the wells using air rotary drilling. Due to space constraints and the amount of water produced by air rotary drilling below the water table, it was later decided that sonic drilling would be a more practical method for installing the wells. As such, ETIC prepared and submitted an addendum to the work plan, dated August 2000 (ETIC 2000b), which outlined the installation of the wells using the sonic drilling method. Concurrence of the proposed work was given in a letter from the ACHA dated 10 August 2000. A copy of the letter from the ACHA is included in Appendix A.

# Scope of Work

The investigation consisted of the following activities:

- From 15 through 30 August 2000, four soil borings, MW12, MW12A, MW13, and MW14, were drilled to depths of 132, 136, 73, and 143 feet below ground surface (bgs), respectively. The borings were located to the north and northwest of the site across Valley Avenue and drilled using the sonic drilling method. The borings were completed as groundwater monitoring wells with 2-inch casings. MW12A was drilled and installed as a groundwater monitoring well to replace MW12, which had a damaged casing.
- Due to its damaged casing, well MW12 was destroyed by pressure grouting.
- Wells MW12A, MW13, and MW14 were developed on 20 September 2000.
- On 26 September 2000, groundwater samples were collected from MW12A, MW13, and MW14 along with the other onsite and offsite wells in conjunction with quarterly groundwater monitoring (ETIC 2000c).

#### 2. SITE BACKGROUND

#### 2.1 SITE LOCATION AND LAND USE

Former Exxon RS 7-3399 is an active retail service station located at 2991 Hopyard Road, on the southeast corner of the intersection with Valley Avenue in Pleasanton, California. The site has six pump islands and two 10,000-gallon and one 12,000-gallon double-walled fiberglass underground storage tanks (USTs) for dispensing three grades of gasoline. Auto repair is conducted in the onsite station building. The site is relatively flat and at an elevation of approximately 321 feet.

#### 2.2 SITE HISTORY AND STATUS

Former fuel USTs, originally installed in 1971, were removed from the site in 1988. The current fuel USTs have been in place since that time. The station underwent upgrades in 1997, at which time a 1,000-gallon used-oil tank was removed (Delta 1997). Former and current station features are shown in Figure 1. Operation of the site was taken over by Valero Energy Corporation in June 2000.

Environmental assessment and remedial actions have been conducted at the site since 1988 and have included: soil and groundwater monitoring (1988-present), excavation to 31 feet bgs (39 feet bgs in one 8-by-8-foot area) in the area of the former fuel USTs (1988), liquid-phase hydrocarbon (LPH) removal (1988-1990), groundwater extraction (1988-1990), soil vapor extraction (1989-1993 and 1997-1998), and air sparging/bioventing (1997-2000). Investigations and remedial actions from 1988 to 1996 are summarized in a Problem Assessment Report/Remedial Action Plan (PAR/RAP) prepared by Delta Environmental Consultants, Inc. (Delta 1996). Remedial actions since that time are summarized in the second/third quarter 1999 monitoring report (Delta 1999).

Remedial actions to date have focused on the saturated clayey sand to gravel zone encountered from approximately 35 to 55 feet bgs, where water had been first encountered (referred to as Zone 1), and the silts and clays overlying this zone. Groundwater and soil vapor extraction influent concentrations had approached asymptotic levels before shutdown of the respective systems. With the exception of MW9, hydrocarbon concentrations in groundwater samples collected from wells screened in this zone have generally shown a stable or decreasing trend. Methyl tertiary butyl ether (MTBE) has been detected in several wells in Zone 1 since quarterly MTBE analysis began in 1995. MTBE has been detected at higher concentrations in groundwater samples recently collected from a perched water table located approximately 10 feet beneath portions of the site.

Well MW9 was pressure grouted and replaced with newly installed well MW9A in November 2000 as outlined in the Work Plan for Well Replacement dated October 2000 (ETIC 2000d). A report documenting the well replacement will be submitted under separate cover.

A groundwater extraction system is under construction at the site. Groundwater extraction is initially proposed from wells OW2, VR1, and MW9A. Extracted groundwater will be pumped from the extraction wells to the existing treatment compound via underground double-contained pipes. Groundwater will be treated by pre-filtration, and by adsorption by granular activated carbon (GAC) to remove dissolved chemicals to meet discharge permit limits. A permit to discharge the treated groundwater has been obtained from the Dublin-San Ramon Services District and is in effect. The system is described in greater detail in a letter to the ACHA dated 13 December 2000 (ETIC 2000e).

## 2.3 REGIONAL GEOLOGY AND HYDROGEOLOGY

The site is located in the north-central portion of the Livermore Valley, within the Coast Range Geomorphic Province. The Livermore Valley slopes gently toward the west.

The Livermore Valley is underlain by non-water bearing rocks and water bearing rocks and sediments (DWR 1974). The non-water bearing rocks are marine sandstone, shale, and conglomerate, and sandstone of Eocene to Miocene age. These rocks are exposed in the hills surrounding Livermore Valley and are found at depths greater than 1,000 feet beneath the valley floor.

The Plio-Pleistocene age Livermore Formation overlaps the Tassajara Formation beneath the north portion of the valley and is exposed over broad regions south of the valley. Sediments of this formation consist primarily of clayey gravel in a sandy clay matrix. Sedimentary units south of the valley dip gently north, are nearly level beneath the valley floor, and dip gently south beneath the north edge of the valley (DWR 1974).

Surficial valley-fill materials overlie both the Tassajara Foundation and the Livermore Formation and range in thickness from a few feet to approximately 400 feet. The Pleistocene to Holocene age sediments include unconsolidated sand, gravel, and clay which occur as terrace deposits, alluvial fan deposits with gravelly clayey facies, alluvium, basin deposits, or channel deposits of active streams (DWR 1974).

Groundwater beneath the area of investigation is located within the Livermore groundwater basin. The sediments and water bearing units comprising the basin include valley-fill materials, the Tassajara Formation, and the Livermore Formation (DWR 1974). The Livermore Valley groundwater basin is characterized by hydrologic discontinuities, and is segregated into sub-basins on the basis of localized faults. The Livermore Valley groundwater system is a multi-layered system with an unconfined aquifer overlying sequential partially confined aquifers. Groundwater in the basin generally flows to the west (DWR 1974). The principal streams in the area are Arroyo Valley Creek and Arroyo Mocho Creek, which flow toward the western end of the valley. Both creeks are greater than one half mile from the site.

## 2.4 GEOLOGY AND HYDROGEOLOGY IN SITE VICINITY

Figure 2 shows the locations of geologic cross-sections A-A' and B-B' (Figures 3 and 4) representing subsurface conditions in the vicinity. Larger copies of Figures 3 and 4 are provided in a sleeve in the back of this document. It should be noted that previous cross-sections related to this site showed two different locations for Pleasanton well 7 and Pleasanton test hole 7. It has been determined that they are in the same location. The log used for cross-section A-A' was from Pleasanton test hole 7 because it was considered to be more accurate (Binkley 1968). Three water bearing zones, named Zones 1, 2, and 3 for the purposes of this report, have been identified to the total depth explored beneath the site vicinity. Although these zones were encountered at varying depths, a typical geologic section is described below:

• Zone 1 - A clayey sand to gravel zone from approximately 35 to 55 feet bgs. Silts and clays from approximately 55 to 67 feet bgs underlying this zone are indicated in the areas explored.

\*

- Zone 2 A silty sand to gravelly sand is present beneath the silts and clays from approximately 67 to 82 feet bgs. Similar water levels in MW5S, screened in Zone 1, and MW5D, screened in Zone 2, indicate that these two zones may be hydraulically connected. Beneath Zone 2 in the areas explored, a clay layer is present from approximately 82 to 120 feet bgs.
- Zone 3 Beneath the clay layer another saturated zone is observed which grades from silty sand to gravel to the total depth explored beneath the site vicinity (143 feet bgs). Similar lithology is observed in Pleasanton well 7. The uppermost screen in Pleasanton well 7 is located in this zone.

A perched water table has recently been discovered at an approximate depth of 10 feet bgs beneath portions of the site. In December 1999, six monitoring wells (PMW1-PMW6) were installed in this perched zone. UST backfill wells OW1 and OW2 are also considered to be part of this zone. Well VR1, screened from approximately 10-30 feet bgs in the former UST overexcavation area, appears to cross this zone, although water has been encountered at an approximate depth of 20 feet bgs since routine gauging began in June 1999 in this well.

Groundwater flow direction in the perched zone has been estimated to be to the east to southeast during the four gauging events to date in December 1999, April 2000, June 2000, and September 2000. Groundwater flow direction in Zone 1 during these four gauging events was to the northwest. Depth to water has ranged from approximately 28 to 55 feet bgs in this zone, and was measured at approximately 43 feet bgs in September 2000. Groundwater flow direction could not be estimated in deeper zones beneath the site vicinity. The direction and gradient of groundwater flow in the perched zone and Zone 1 estimated for 26 September 2000 is provided on Figure 5.

Pump tests conducted in 1988 did not indicate any hydraulic communication between Pleasanton well 7 and Zone 1 beneath the site (Delta 1996). Recent pumping and injection tests at Zone 7 wells (Hop 4, 6, and 9) (Figure 2) indicate that there may be some communication with MW8. The top of the shallowest screen in the Zone 7 wells is at approximately 215 feet bgs (Hop 6). MW8 is screened in Zone 3 from 118 to 133 feet bgs.

#### 3. SUBSURFACE INVESTIGATION

ETIC observed the installation of groundwater monitoring wells MW12, MW12A, MW13, and MW14 and the destruction of well MW12 from 15 through 30 August 2000. The wells were drilled and installed by Boart Longyear (C-57 License #694686). The wells were installed to monitor groundwater between the site and two water supply wells. The water supply wells belong to the City of Pleasanton (Pleasanton well 7) and Zone 7 (well Hop 4) and are located within 1,000 feet of the site, as shown in Figure 2. Permits were obtained from Zone 7 prior to drilling. Copies of the permits are provided in Appendix B.

- MW13 was installed to monitor groundwater in Zone 2 between the site and wells Hop 4 and 9 at a similar depth to MW5D.
- MW12 was installed to monitor groundwater in Zone 3 between the site and wells Hop 4 and 9.
   MW12 was later destroyed by pressure grouting due to a damaged casing and was replaced with well MW12A.
- MW14 was installed to monitor groundwater in Zone 3 between the site and Pleasanton well 7.

#### 3.1 DRILLING OF SOIL BORINGS

The borings were drilled using the sonic drilling method. The rig was equipped with an 8.3-inch diameter outer casing and a 10-foot-long, 6.3-inch-diameter inner core barrel. The sonic drilling method uses a combination of rotation, hydraulic pressure, and mechanical oscillation to advance the outer casing and an inner core barrel. The inner core barrel is advanced into the formation until full or until the sample blocks the passage of additional material into the barrel. The outer casing is advanced to prevent collapse of the borehole during retrieval of soil via the inner core barrel. A more detailed description of the sonic drilling method is provided in Appendix C.

Prior to drilling each well, a hole, designated as the delineation area, was cleared to a depth of 4 feet bgs using a hand auger. This procedure was performed to ensure that there were no obstructions near the potential path of the drill barrels. The barrels and downhole equipment were cleaned by pressure washing before drilling began and upon completion of each borehole. Equipment rinsate water was collected in a trough, pumped into 55-gallon drums, and temporarily stored on the site. Field methods and procedures are described in the protocols, presented in Appendix C.

#### 3.2 SOIL SAMPLING

Soil samples were collected continuously from the surface to the total depth of all borings with the exception of MW12A, where no samples were collected from the surface to 110 feet bgs. The samples were collected by driving the inner core barrel into the formation. The soil inside the inner core barrel was retrieved to the surface and transferred into a cylindrical polyethylene bag.

The contents of the cylindrical bags were examined for geologic descriptions. Soil descriptions are recorded on the soil boring logs presented in Appendix D. Selected samples were collected from the cylindrical bags and placed in sealed 1-gallon bags for particle-size analysis.

All soil cuttings generated during drilling were placed into 55-gallon drums and temporarily stored on the site.

#### 3.3 WELL INSTALLATION

Borings MW12, MW12A, MW13, and MW14 were completed as groundwater monitoring wells, in general accordance with ETIC's protocols (Appendix C) and local regulations. After it was discovered that the casing in well MW12 had partially collapsed (see below), the construction of the subsequent wells was altered in order to avoid similar problems. Well construction details are summarized in Table 1 and are shown on the soil boring logs and well construction diagrams provided in Appendix D.

Well MW12 was constructed with 2-inch-diameter Schedule 40 polyvinyl chloride (PVC) blank well casing and screened with 0.020-inch machine-slotted Schedule 40 PVC casing. A filter pack of #3 sand was placed to approximately 2 feet above the top of the screened interval of the well. The annular space was then sealed with a 2-foot layer of hydrated bentonite pellets, followed by neat cement grout to just below ground surface. After its construction, an obstruction was discovered at approximately 42 feet bgs. A video camera was lowered into the well and the obstruction appeared to be due to the partial collapse of the PVC casing. ETIC surmised that the casing may have collapsed due to the heating of the grout seal as it cured. As such, the construction of the remaining wells was altered in order to try to prevent any future casing problems. MW12 was later destroyed (Section 3.7).

Wells MW12A and MW14 were constructed with 2-inch-diameter Schedule 40 PVC blank well casing and screened with 0.020-inch machine-slotted Schedule 40 PVC casing. A filter pack of #3 sand was placed to approximately 2 feet above the top of the screened interval of the wells. The annular space was then sealed with a 2-foot layer of hydrated bentonite, followed by volclay grout to 20 feet bgs and then by neat cement grout to just below ground surface.

Well MW13 was constructed with 2-inch-diameter Schedule 40 PVC blank well casing from ground surface to 11.5 feet bgs, with 2-inch-diameter Schedule 40 stainless steel blank well casing from 11.5 to 61.5 feet bgs, and screened with 0.020-inch machine-slotted Schedule 80 PVC casing. A filter pack of #3 sand was placed to approximately 4 feet above the top of the screened interval of the well. The annular space was then sealed with a 2-foot layer of hydrated bentonite pellets, followed by neat cement grout to just below ground surface.

## 3.4 WELL DEVELOPMENT

Wells MW12A, MW13, and MW14 were developed on 20 September 2000. Each well was surged and purged using an electric submersible pump. At least 8 casing volumes of water were removed from each well, until groundwater parameters stabilized and the water was free of silt.

Well development procedures are described in Appendix C, and the records of well development are presented in Appendix E.

## 3.5 GROUNDWATER SAMPLING

Groundwater samples were collected from MW12A, MW13, and MW14 along with the other onsite and offsite wells on 26 September 2000 in conjunction with quarterly groundwater monitoring.

Groundwater samples were collected with clean disposable bailers. The samples were labeled with the time, date, location, and sample identification number and placed in a cooler with ice for delivery to Sequoia Analytical in Redwood City, California. Groundwater sampling procedures are described in Appendix C.

### 3.6 SURVEYING OF GROUNDWATER MONITORING WELLS

The top-of-casing elevation of wells MW12A, MW13, and MW14 will be surveyed by a licensed land surveyor.

#### 3.7 WELL DESTRUCTION

Well MW12 was destroyed on 30 August 2000 due to a partially collapsed casing. A permit from Zone 7 was obtained prior to well destruction. The well lid and cap were removed and the well was destroyed by grouting the casing with neat cement grout. The grout was pumped into the well under pressure up to the top of the well. The area was resurfaced with asphalt to match surrounding conditions.

### 3.8 WASTE CONTAINMENT AND DISPOSAL

Forty-two 55-gallon drums of soil were generated during drilling activities. The soil was placed in 55-gallon drums and temporarily stored on the site. Three composite soil samples were collected from the drums, submitted to Sequoia Analytical in Redwood City, California, and analyzed for Total Petroleum Hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene, and xylenes (BTEX), and total lead in order to characterize the soil for proper disposal. The soil was removed from the site on 25 September 2000 by Dillard Environmental Services of Byron, California, and transported to the Vasco Landfill in Livermore, California. The laboratory analytical report and chain-of-custody documentation are included in Appendix F. A copy of the non-hazardous waste manifest is provided in Appendix G.

Ten 55-gallon drums of equipment rinsate water and other water was generated during drilling activities. The water was placed in 55-gallon drums and temporarily stored on the site. The water was removed from the site on 29 September 2000 by Service Station Systems of San Jose, California, and transported to the Crosby and Overton, Inc. treatment facility in Long Beach, California. A copy of the non-hazardous waste manifest is provided in Appendix G.

#### 4. RESULTS

#### 4.1 SITE GEOLOGY AND HYDROGEOLOGY

Lithology observed in MW12, MW12A, MW13, and MW14 is characteristic of that observed in other borings at the site and vicinity as detailed in Section 2.4. The three water bearing zones, Zones 1, 2, and 3, were encountered during the current investigation. Zone 1 was encountered in all borings (where logged) beneath layers of silty clay and clay and was characterized as layers of sand and gravel with sand. A confining unit separating Zone 1 and Zone 2 was discovered in all borings (where logged) composed of layers of silty clay and silt with clay. A layer of gravelly clay was observed as part of the confining unit in MW12 and MW13. The confining unit was 8.5 feet thick in MW12 and MW13 and 14.5 feet thick in MW14. Zone 3 was encountered beneath a clay unit and was composed of layers of sand and gravel with sand. In MW12, an additional layer of clayey silt (3 feet thick) was observed within Zone 3. Detailed soil descriptions are presented on the boring logs in Appendix D.

Static water levels in wells MW12A, MW13, and MW14 were measured on 26 September 2000. The levels for the wells were measured at 48.26 feet, 45.62 feet, and 46.90 feet below top of casing, respectively. A gradient in Zone 3 has not been determined because the wells have not yet been surveyed.

### 4.2 SOIL ANALYTICAL METHODS AND RESULTS

Selected soil samples were collected for laboratory analysis from borings MW12 and MW14. The soil samples were submitted to Southern Petroleum Laboratories (SPL), Inc. in Houston, Texas, and subcontracted by SPL to McBride-Ratcliff and Associates, Inc. in Houston, Texas, for particle-size analysis by ASTM D422. Copies of the laboratory reports and chain-of-custody documentation are provided in Appendix F.

The samples chosen for particle-size analysis were mostly from the permeable zones encountered in each of the soil borings. Analysis of these samples was done in order to provide additional data for determining the relative hydraulic conductivity of the permeable zones. The results of this analysis generally correlate well with soil classifications on the boring logs.

### 4.3 GROUNDWATER ANALYTICAL METHODS AND RESULTS

Groundwater samples were collected from MW12A, MW13, and MW14 along with other wells on 26 September 2000 in conjunction with quarterly groundwater monitoring. The samples were analyzed for TPH-g by EPA Method 8015, BTEX by EPA Method 8021, and MTBE by EPA Method 8260. Current and historical groundwater analytical results are summarized in Table 2 and results for MTBE, BTEX, and TPH-g are presented on Figure 5. Additional information, including copies of the laboratory analytical report and chain-of-custody documentation for these and other onsite and offsite wells, was provided in the third quarter groundwater monitoring report submitted under separate cover (ETIC 2000c).

In the groundwater sample collected from MW13, benzene was detected at a concentration of 0.504  $\mu$ g/L and MTBE was detected at 1.62  $\mu$ g/L. TPH-g, BTEX, and MTBE were not detected in

#### 5. SUMMARY

From 15 through 30 August 2000, ETIC observed the installation of four groundwater monitoring wells (MW12, MW12A, MW13, and MW14) at former Exxon RS 7-3399 (MW12A was installed to replace MW12, which was damaged and properly destroyed). The well installations were requested to monitor groundwater between the site and water supply wells in the area. Soil samples were collected continuously from the borings and selected samples were analyzed for particle size to provide additional data for determining the relative hydraulic conductivity of the permeable zones.

Lithology observed in MW12, MW12A, MW13, and MW14 is characteristic of that observed in other borings at the site and vicinity. Static water levels in wells MW12A, MW13, and MW14 were measured at 48.26 feet, 45.62 feet, and 46.90 feet below top of casing, respectively.

Groundwater samples were collected from the wells and analyzed for TPH-g, BTEX, and MTBE. In MW13, benzene was detected at a concentration of  $0.504 \,\mu\text{g/L}$  and MTBE was detected at  $1.62 \,\mu\text{g/L}$ . TPH-g, BTEX, and MTBE were not detected in groundwater samples from MW12A or MW14 at concentrations above laboratory reporting limits.

The newly installed wells have been incorporated into the quarterly monitoring schedule for the site. Gauging and analytical results will be reported quarterly.

#### REFERENCES

Binkley (Thad C. Binkley Associates Consulting Engineers). 1968. Well No. 7 Report and Data. Pleasanton Township County Water District, Pleasanton, California. Binkley, San Jose, California.

Delta (Delta Environmental Consultants, Inc.). 1996. Problem Assessment Report/Remedial Action Plan, Exxon Service Station No. 7-3399, 2991 Hopyard Road, Pleasanton, California. Delta, Rancho Cordova, California. 30 May.

Delta (Delta Environmental Consultants, Inc.). 1997. Soil Sampling Results from Used Oil Tank Removal and Product Distribution Upgrade, Exxon Service Station No. 7-3399, 2991 Hopyard Road, Pleasanton, California. Letter to Exxon Company, U.S.A., Concord, California. Delta, Rancho Cordova, California. 17 June.

Delta (Delta Environmental Consultants, Inc.). 1999. Second Quarter 1999 Ground Water Monitoring and Remediation System Status Report and Supplemental Third Quarter 1999 Sampling Report, Exxon Service Station No. 7-3399, 2991 Hopyard Road, Pleasanton, California. Delta, Rancho Cordova, California. 13 September.

DWR (California Department of Water Resources). 1974. Evaluation of Groundwater Resources, Livermore and Sunol Valleys. Bulletin No. 118-2. June.

ETIC (ETIC Engineering, Inc.). 2000a. Work Plan for Well Installation, Exxon Retail Site 7-3399, 2991 Hopyard Road, Pleasanton, California. ETIC, Walnut Creek, California. May.

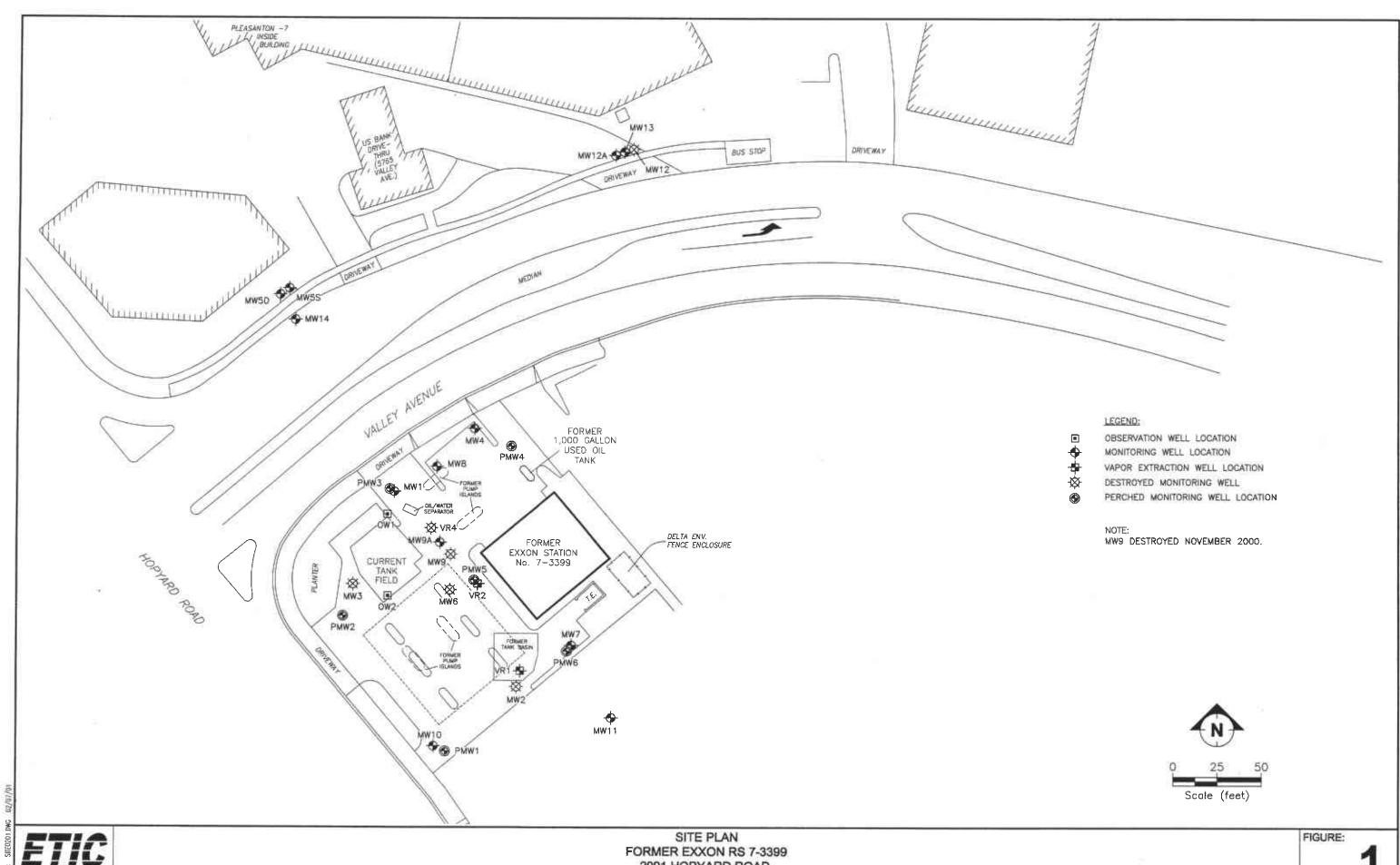
ETIC (ETIC Engineering, Inc.). 2000b. Addendum to Work Plan for Well Installation, Exxon Retail Site 7-3399, 2991 Hopyard Road, Pleasanton, California. ETIC, Walnut Creek, California. August.

ETIC (ETIC Engineering, Inc.). 2000c. Report of Groundwater Monitoring, Third Quarter 2000, Exxon Retail Site 7-3399, 2991 Hopyard Road, Pleasanton, California. ETIC, Walnut Creek, California. December.

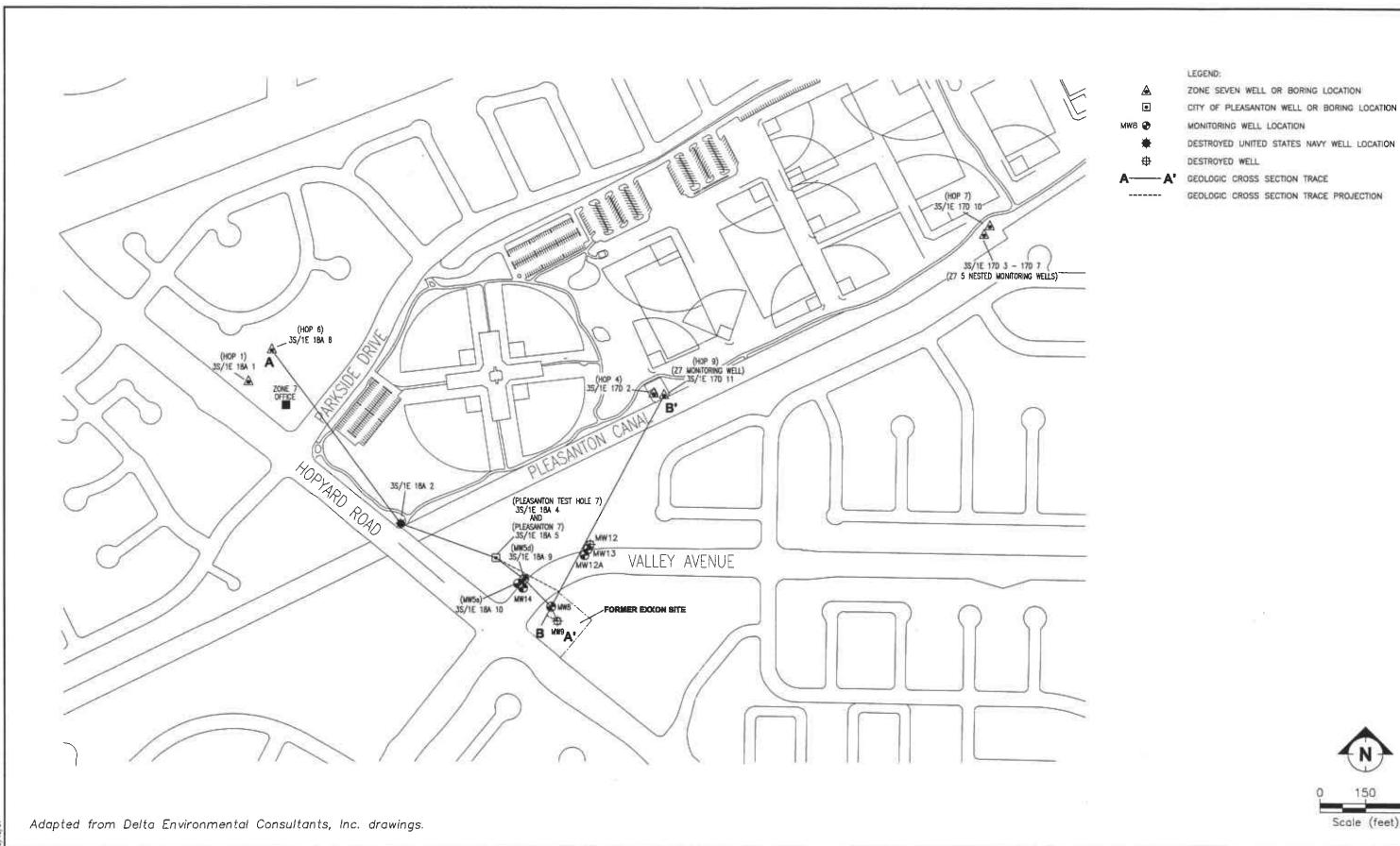
ETIC (ETIC Engineering, Inc.). 2000d. Work Plan for Well Replacement, Former Exxon Retail Site 7-3399, 2991 Hopyard Road, Pleasanton, California. ETIC, Walnut Creek, California. October.

ETIC (ETIC Engineering, Inc.). 2000e. Letter to the ACHA, Former Exxon Retail Site 7-3399, 2991 Hopyard Road, Pleasanton, California. ETIC, Walnut Creek, California. 13 December.

RWQCB (California Regional Water Quality Control Board). 1990. Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites. RWQCB, Oakland, California.



2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA



ETIC Engineering, Inc.

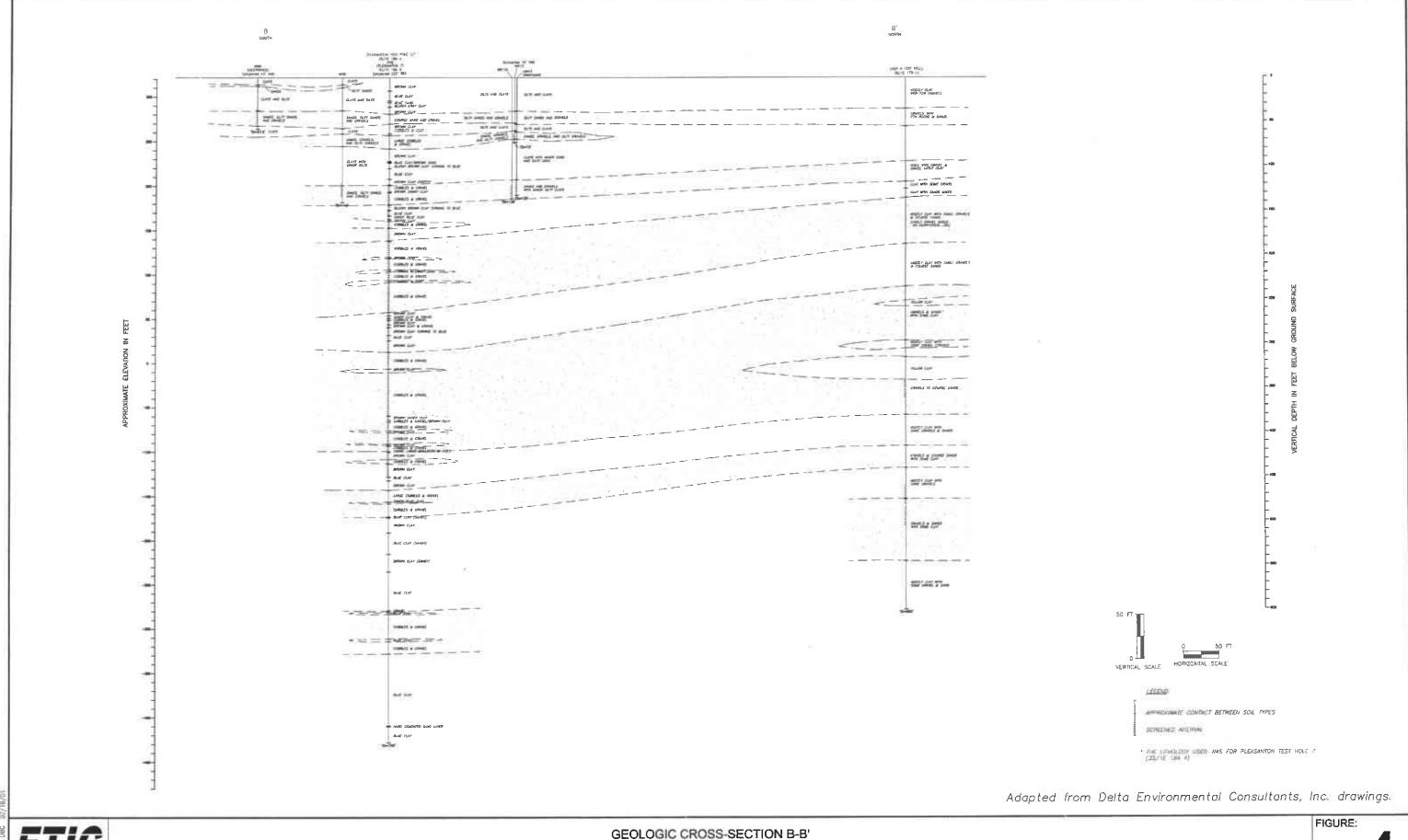
GEOLOGIC CROSS-SECTION TRACE LOCATION MAP FORMER EXXON RS 7-3399 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA FIGURE:

2

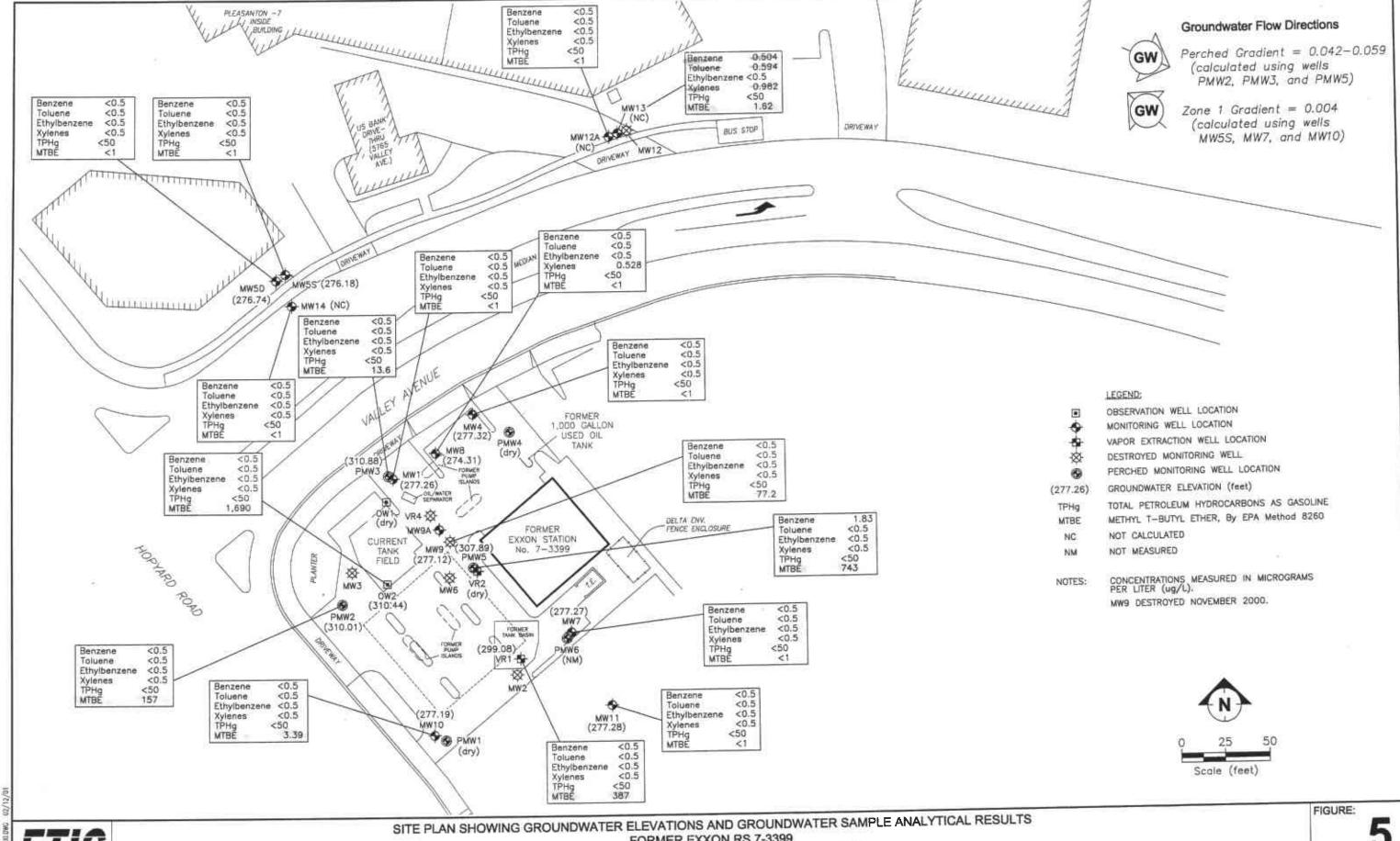
EQUIPMENT ATTA ATTA prime like BEST CAN All ter THE PART SEC. Cont many cont A NUMBER OF STREET me (maps West carriers and sure steer car treed to star. 10000 And their core corner of corner Tomory cont SE ST ASSET Jack MT (1885) MH CP DEPTH TO Mr. L.Frifaire 2 Get streets apper del AND MORE THE OF HER SE The tary one makes 50 FT W District of APPHORNATE CONTACT BETWEEN SOL TYPES aug poli \*\* THE LITHOCOUGH NOTED FOR MAN MAS USED TO FILL W THE DAP IN LITHOLOUGH W WHIRE FROM D-FEET TO JO FEET MELOW CROWNS SURFACE THE LITHOLOGY LISED WAS FOR PLEASANTON TEST HOLD 7 (35/TE FBM 4). Adapted from Delta Environmental Consultants, Inc. drawings. FIGURE:

ETIC Engineering, Inc.

GEOLOGIC CROSS-SECTION A-A' FORMER EXXON RS 7-3399 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA



ETIC Engineering, Inc.



Engineering, Inc.

FORMER EXXON RS 7-3399 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA 26 SEPTEMBER 2000

TABLE 1 CONSTRUCTION DETAILS FOR WELLS, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well No.	Date Installed	Elevation TOC* (ft)	Casing Material	Totał Depth (ft bgs)	Well Depth (ft bgs)	Borehole Diameter (inches)	Casing Diameter (inches)	Screened Interval (feet)	Slot Size (inches)	Filter Pack Interval (feet)	Filter Pack Material	Status
MWI	04/01/88	320.52		57	57		4	32-57	0.020	30-57		Active
MW2ª	04/02/88	NM		57	57		4	37-57	0.020	34-57		Destroyed
MW3 <sup>b</sup>	04/04/88	NM		60	56		4	36-56	0.020	35-60		Destroyed
MW4	04/06/88	321.56		60	57		4	37-57	0.020	36-60	<del></del>	Active
MW5D	05/10/88	321.79		82.0	77.5		4	67.5-77.5	0.020	64-77.5		Active
MW5S	05/11/88	320.52		58	55		4	40-55	0.020	37.5-38		Active
MW6°	05/11/88	NM		59	55		4	40-55	0.020	36-59		Destroyed
MW7	07/12/88	321.27	••	56.5	53		5	28-53	0.020	25-56.5		Active
MW8	09/30/89	321.86	PVC	140	133	14	4	118-133	0.020	114-133		Active
MW9	10/04/89	320.26	PVC	57.5	54.5	10	4	34.5-54.5	0.020	34-54.5	***	Active
MW10	10/06/89	322.99	PVC	60.5	60	10	4	40-60	0.020	38-60		Active
MW-11	11/02/89	321.73	PVC	55.5	55	10	4	35-55	0.020	33-55	~-	Active
MW12e	08/17/00	NM	PVC	132	131.5	8.33	2	114.5-131.5	0.020	112.5-132	#3 Sand	Destroyed
MW12A	08/30/00	NM	PVC	136	130.5	8.33	2	115.5-130.5	0.020	113.5-130.5	#3 Sand	Active
MW13	08/23/00	NM	PVC and Steel <sup>f</sup>	73	72	8.33	2	61.5-72	0.020	57.5-73	#3 Sand	Active
MW14	08/29/00	NM	PVC	143	136	8.33	2	121.5-136.5	0.020	119.5-143	#3 Sand	Active
VRI	10/24/88	321.00	PVC	30	30	10	4	10-30	0.020	10-30		Active
VR2	11/20/89	320.18	PVC	45.5	45	8	2	35-45	0.020	33-45.5		Active
VR3 <sup>d</sup>	11/20/89	318.73	PVC	35.5	35	8	2	5-35	0.020	4-35.5		Destroyed

TABLE 1 CONSTRUCTION DETAILS FOR WELLS, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Well No.	Date Installed	Elevation TOC* (ft)	Casing Material	Total Depth (ft bgs)	Well Depth (ft bgs)	Borehole Diameter (inches)	Casing Diameter (inches)	Screened Interval (feet)	Slot Size (inches)	Filter Pack Interval (feet)	Filter Pack Material	Status
VR4 <sup>d</sup>	11/24/89	321.19	PVC	35.5	32.5	8	2	12.5-32.5	0.020	4-35.5		Destroyed
OWi		322.45	<b>~</b> ~				4				m re	Active
OW2		321.55					4			**		Active
PMW1	12/16/99	322.75	PVC	16	16	10	4	6-16	0.010	5.5-16	#2/12 Sand	Active
PMW2	12/16/99	322.37	PVC	16	16	10	4	6-16	0.010	5.5-16	#2/12 Sand	Active
PMW3	12/16/99	321,27	PVC	16	16	10	4	6-16	0.010	5.5-16	#2/12 Sand	Active
PMW4	12/16/99	321.37	PVC	16	16	10	4	6-16	0.010	5.5-16	#2/12 Sand	Active
PMW5	12/16/99	320.04	PVC	35.5	16	10	4	6-16	0.010	5.5-16	#2/12 Sand	Active
PMW6	12/17/99	321.38	PVC	16	16	10	4	6-16	0.010	5.5-16	#2/12 Sand	Active

TOC Top of casing.

NM Not measured.

Measured from notch/mark on north edge of well casing.

ft bgs Feet below ground surface.

Information not available.
a Destroyed July 12, 1988.
b Destroyed August 29, 1988.
c Destroyed October 24 1988.

d Destroyed October 24 1988.
d Destroyed November 5, 1999.
e Destroyed August 30, 2000.

f PVC screen from 61.5-72, stainless steel blank from 11.5-61.5, PVC blank from surface to 11.5.

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (μg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (μg/L)	MTBE (μg/L)
MW1	04/02/88	321.44	NM	NC	NM	<0.5	1.7	<0.5	<0.5	<20	NA
	04/06/88		36.34	285.10	0.00	NS	NS	NS	NS	NS	NS
	04/08/88		36.29	285.15	0.00	NS	NS	NS	NS	NS	NS
	04/19/88		36.36	285.08	0.00	NS	NS	NS	NS	NS	NS
	06/06/88		38.16	283.28	0.00	NS	NS	NS	NS	NS	NS
	06/23/88		38.71	282.73	0.00	NS	NS	NS	NS	NS	NS
	06/28/88		39.16	282.28	0.00	NS	NS	NS	NS	NS	NS
	07/06/88		39.73	281.71	0.00	<0.5	< 0.5	< 0.5	<0.5	<20	NA
	07/13/88		40.22	281.22	0.00	< 0.5	<0.5	< 0.5	<0.5	<20	NA
	08/12/88		NM	NC	NM	NS	NS	NS	NS	NS	NS
	08/26/88		41.90	279.54	0.00	NS	NS	NS	NS	NS	NS
	09/07/88		42.27	279.17	0.00	<0.5	<0.5	<0.5	<0.5	<20	NA
	12/07/88		43.94	277.50	0.00	NS	NS	NS	NS	NS	NS
	12/19/88		43.70	277.74	0.00	NS	NS	NS	NS	NS	NS
	02/09/89		42.53	278.91	0.00	NS	NS	NS	NS	NS	NS
	03/03/89		NM	NC	NM	1.6	< 0.5	<0.5	<0.5	<20	NA
	03/08/89		41.96	279.48	0.00	NS	NS	NS	NS	NS	NS
	04/03/89		41.59	279.85	0.00	NS	NS	NS	NS	NS	NS
	04/26/89		41.67	279.77	0.00	NS	NS	NS	NS	NS	NS
	06/30/89		43.79	277.65	0.00	< 0.5	<0.5	<0.5	<0.5	<20	NA
	07/17/89		44.74	276.70	0.00	<0.5	<0.5	<0.5	<0.5	23	NA
	07/18/89		44.76	276.68	0.00	NS	NS	NS	NS	NS	NS
	07/19/89		44.82	276.62	0.00	NS	NS	NS	NS	NS	NS
	07/20/89		44.85	276.59	0.00	< 0.5	<0.5	<0.5	< 0.5	<20	NA
	07/21/89		44.95	276.49	0.00	NS	NS	NS	NS	NS	NS
	07/26/89		45.42	276.02	0.00	< 0.5	<0.5	<0.5	<0.5	<20	NA
	08/02/89		NM	NC	NM	< 0.5	<0.5	<0.5	<0.5	<20	NA
	08/03/89		46.18	275.26	0.00	NS	NS	NS	NS	NS	NS
	08/17/89		47.12	274.32	0.00	NS	NS	NS	NS	NS	NS
	09/13/89		49.08	272.36	0.00	39	0.6	<0.5	5.1	220	NA
	11/28/89		50.21	271.23	0.00	NS	NS	NS	NS	NS	NS
	12/20/89		NM	NC	NM	56	0.72	<0.5	0.71	220	NA
	01/09/90		49.31	272.13	0.00	NS	NS	NS	NS	NS	NS

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

		Reference	Depth to	Groundwater	LPH			Ethyl-	Total	TPH as	
Monitoring		Elevation	Water	Elevation	Thickness	Benzene	Toluene	benzene	Xylenes	gasoline	MTBE
Well	Date	(feet)	(feet)	(feet)	(feet)	(μg/L)	$(\mu g/L)$	(µg/L)	(μg/L)	(μg/L)	(μg/L)
										<u> </u>	· · · · · ·
MW1	01/25/90	321.44	NM	NC	NM	18	1.6	< 0.5	1.8	57	NA
	01/26/90		49.29	272.15	0.00	NS	NS	NS	NS	NS	NS
	02/23/90		49.02 <sup>a</sup>	272.42	0.00	NS	NS	NS	NS	NS	NS
	02/23/90		49.02	272.42	0.00	NS	NS	NS	NS	NS	NS
	02/27/90		NM	NC	NM	3.2	2.3	< 0.5	3.2	55	NA
	03/26/90		48.71°	272.73	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<20	NA
	03/26/90		48.70	272.74	0.00	NS	NS	NS	NS	NS	NS
	04/18/90		48.79	272.65	0.00	1.1	1.6	<0.5	3.1	25	NA
	05/17/90		49.40	272.04	0.00	< 0.5	<0.5	< 0.5	< 0.5	<20	NA
	06/11/90		50.83	270.61	0.00	<0.5	<0.5	< 0.5	< 0.5	<20	NA
	07/30/90		52.17	269.27	0.00	<0.5	< 0.5	< 0.5	< 0.5	<20	NA
	08/27/90		53.44	268.00	0.00	<0.5	< 0.5	< 0.5	< 0.5	<20	NA
	09/28/90		53,40	268.04	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	NA.
	12/27/90		NM	NC	NM	NS	NS	NS	NS	NS	NS
	03/20/91		53.35	268.09	0.00	NS	NS	NS	NS	NS	NS
	06/20/91		53.55	267.89	0.00	NS	NS	NS	NS	NS	NS
	09/12/91		NM	NC	NM	NS	NS	NS	NS	NS	NS
	12/30/91		NM	NC	NM	NS	NS	NS	NS	NS	NS
	01/30/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	02/16/93		NM	NC	NM	NS	NS	NS	NS	NS	NS
	03/02/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	03/24/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	04/14/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	05/21/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	06/08/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	07/14/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	08/10/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	09/16/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	10/07/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	11/09/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	12/10/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	01/26/93		NM	NC	NM	NS	NS	NS	NS	NS	NS
	02/16/93		NM	NC	NM	NS	NS	NS	NS	NS	NS

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (μg/L)	TPH as gasoline (µg/L)	MTBE (μg/L)
MW1	03/11/93	321.44	53.09	268.35	0.00	NS	NS	NS	NS	NS	NS
	04/12/93		53.32	268.12	0.00	NS	NS	NS	NS	NS	NS
	06/01/93		53.40	268.04	0.00	NS	NS	NS	NS	NS	NS
	07/15/93		59.80	261.64	0.00	NS	NS	NS	NS	NS	NS
	08/15/93		53.45	267.99	0.00	NS	NS	NS	NS	NS	NS
	09/29/93		53.43	268.01	0.00	NS	NS	NS	NS	NS	NS
	09/30/93		NM	NC	NM	< 0.5	< 0.5	< 0.5	<0.5	<50	NA
	10/28/93		53.38	268.06	0.00	NS	NS	NS	NS	NS	NS
	11/23/93		53.46	267.98	0.00	NS	NS	NS	NS	NS	NS
	11/24/93		NM	NC	NM	< 0.5	< 0.5	< 0.5	<0.5	<50	NA
	03/10-11/94		53.46	267.98	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	05/04-05/94		53.34	268.10	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	09/01/94 <sup>e</sup>		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	11/16/94		52.09	269.35	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	02/15/95		49.41	272.03	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	05/09/95		39.97	281.47	0.00	<0.5	< 0.5	< 0.5	< 0.5	<50	NA
	08/21/95		40.68	280.76	0.00	< 0.5	0.83	< 0.5	< 0.5	<50	<2.5
	11/30/95		38.99	282.45	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	< 5.0
	03/28/96		35.70	285.74	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	< 5.0
	05/31/96		34.17	287.27	0.00	< 0.5	<0.5	< 0.5	<0.5	52	< 5.0
	08/28/96		38.37	283.07	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	<5.0
	11/18/96		38.40	283.04	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	<5.0
	02/28/97		33.29	288.15	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	< 2.5
	05/23/97		33.63	287.91	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	<2.5
	09/23/97		38.05	283.39	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	29
	12/30/97		36.74	284.70	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	NA
	03/24/98		31.65	289.79	0.00	1.4	2.5	< 0.5	1.4	< 50	16
	06/15/98		29.28	292.16	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	22
	09/11/98		34.94	286.50	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
	12/09/98		31.14	290.30	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.0 <sup>f</sup>
	03/31/99		28.10	293.34	0.00	< 0.5	< 0.5	<0.5	< 0.5	<50	124/131 <sup>1</sup>
	06/30/99		33.94	287.50	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
	08/03/99		37.94	283.50	0.00	NS	NS	NS	NS	NS	NS

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (μg/L)	MTBE (μg/L)
MW1	09/24/99	320.52	44.92	275.60	0.00	<0.5	<0.5	<0.5	<0.5	<50	<0.5 <sup>f</sup>
	12/22/99		9.93	310.59	0.00	1.9	1.4	1.5	7.3	<50	990 <sup>f</sup>
	01/21/00		39.35	281.17	0.00	<1.0	<1.0	<1.0	<1.0	<50	<5.0 <sup>f</sup>
	04/04/00		34.70	285.82	0.00	<1	<1	<1	<1	<50	<1
	06/28/00		39.72	280.80	0.00	<0.5	<0.5	<0.5	<0.5	<50	<1 <sup>f</sup>
	09/26/00		43.26	277.26	0.00	<0.5	<0.5	<0.5	<0.5	<50	<1 <sup>f</sup>
MW2	04/02/88	NM	NM	NC	0.25	NS	NS	NS	NS	NS	NS
	04/04/88		NM	NC	1.5	NS	NS	NS	NS	NS	NS
	04/05/88		NM	NC	1.5	NS	NS	NS	NS	NS	NS
	04/06/88		39.31	NC	3.2	NS	NS	NS	NS	NS	NS.
	04/08/88		NM	NC	NM	NS	NS	NS	NS	NS	NS
	04/19/88		38.90	NC	2.48	NS	NS	NS	NS	NS	NS
	06/06/88		38.78	NC	0.26	NS	NS	NS	NS	NS	NS
	06/23/88		39.23	NC	0.13	NS	NS	NS	NS	NS	NS
	06/28/88		39.72	NC	NM	NS	NS	NS	NS	NS	NS
	07/06/88		40.31	NC	Slight sheen	25,700	18,500	2,900	21,400	62,000	NA
	07/12/88		Well destroyed		_	·	•	,	,	*****	
MW3	04/06/88	NM	37.19	NC	0.00	<0.5	<0.5	<0.5	<0.5	20	NA
	04/08/88		37.14	NC	0.00	NS	NS	NS	NS	NS	NS
	04/19/88		37.22	NC	0.00	NS	NS	NS	NS	NS	NS
	06/06/88		39.02	NC	0.00	NS	NS	NS	NS	NS	NS
	06/23/88		39.58	NC	0.00	NS	NS	NS	NS	NS	NS
	06/28/88		40.04	NC	0.00	NS	NS	NS	NS	NS	NS
	07/06/88		40.60	NC	0.00	< 0.5	< 0.5	< 0.5	<0.5	<20	NA
	07/13/88		41.09	NC	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<20	NA
	08/12/88		NM	NC	NM	NS	NS	NS	NS	NS	NS
	08/26/88		42.77	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<20	NA
	08/29/88		Well destroyed								
MW4	04/08/88	321.56	36.41	285.15	0.00	NS	NS	NS	NS	NS	NS
	04/11/88		NM	NC	NM	1.8	16.3	0.6	7.1	80	NA

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (μg/L)	TPH as gasoline (μg/L)	MTBE (μg/L)
MW4	04/19/88	321.56	36.51	285.05	0.00	NS	NS	NS	NS	NS	NS
	06/06/88		38.26	283.30	0.00	NS	NS	NS	NS	NS	NS
	06/23/88		38.83	282.73	0.00	NS	NS	NS	NS	NS	NS
	06/28/88		39.28	282.28	0.00	NS	NS	NS	NS	NS	NS
	07/06/88		39.85	281.71	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<20	NA
	07/13/88		40.31	281.25	0.00	< 0.5	0.9	< 0.5	< 0.5	<20	NA
	08/12/88		NM	NC	NM	NS	NS	NS	NS	NS	NS
	08/26/88		42.01	279.55	0.00	NS	NS	NS	NS	NS	NS
	09/07/88		NM	NC	NM	NS	NS	NS	NS	NS	NS
	12/07/88		NM	NC	NM	NS	NS	NS	NS	NS	NS
	12/19/88		43.83	277.73	0.00	NS	NS	NS	NS	NS	NS
	02/09/89		42.67	278.89	0.00	NS	NS	NS	NS	NS	NS
	03/08/89		42.11	279.45	0.00	3.8	1.0	< 0.5	< 0.5	440	NA
	04/03/89		41.73	279.83	0.00	NS	NS	NS	NS	NS	NS
	04/26/89		41.79	279.77	0.00	NS	NS	NS	NS	NS	NS
	06/30/89		43.88	277.68	0.00	< 0.5	< 0.5	< 0.5	< 0.5	100	NA
	07/17/89		44.85	276.71	0.00	< 0.5	< 0.5	< 0.5	< 0.5	390	NA
	07/18/89		44.88	276.68	0.00	NS	NS	NS	NS	NS	NS
	07/19/89		44.92	276.64	0.00	NS	NS	NS	NS	NS	NS
	07/20/89		44.98	276.58	0.00	< 0.5	< 0.5	< 0.5	< 0.5	200	NA
	07/21/89		45.04	276.52	0.00	NS	NS	NS	NS	NS	NS
	07/26/89		45.50	276.06	0.00	< 0.5	< 0.5	<0.5	< 0.5	66	NA
	08/02/89		NM	NC	NM	NS	NS	NS	NS	NS	NS
	08/03/89		46.28	275.28	0.00	NS	NS	NS	NS	NS	NS
	08/17/89		47.22	274.34	0.00	NS	NS	NS	NS	NS	NS
	09/13/89		49.19	272.37	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<20	NA
	11/28/89		50.34	271.22	0.00	NS	NS	NS	NS	NS	NS
	12/20/89		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<20	NA
	01/09/90		49.47	272.09	0.00	NS	NS	NS	NS	NS	NS
	01/26/90		49.36	272.20	0.00	NS	NS	NS	NS	NS	NS
	02/23/90		49.18 <sup>a</sup>	272.38	0.00	NS	NS	NS	NS	NS	NS
	02/23/90		49.15	272.41	0.00	NS	NS	NS	NS	NS	NS
	03/26/90		48.84 <sup>a</sup>	272.72	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<20	NA

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (μg/L)
MW4	03/26/90	321.56	48.83	272.73	0.00	NS	NS	NS	NS	NS	NS
	04/18/90		48.90	272.66	0.00	NS	NS	NS	NS	NS	NS
	05/17/90		50.03	271.53	0.00	NS	NS	NS	NS	NS	NS
	06/11/90		50.98	270.58	0.00	NS	NS	NS	NS	NS	NS
	07/30/90		53.57	267.99	0.00	NS	NS	NS	NS	NS	NS
	08/01/90		NM	NC	NM	< 0.5	< 0.5	< 0.5	<0.5	<20	NA
	08/27/90		53.61	267.95	0.00	NS	NS	NS	NS	NS	NS
	09/28/90		53.57	267.99	0.00	NS	NS	NS	NS	NS	NS
	12/27/90		53.68	267.88	0.00	< 0.5	<0.5	<0.5	<0.5	<50	NA
	03/20/91		53.56	268.00	0.00	< 0.5	< 0.5	< 0.5	<0.5	<50	NA
	06/20/91		53.75	267.81	0.00	NS	NS	NS	NS	NS	NS
	09/12/91		53.70	267.86	0.00	NS	NS	NS	NS	NS	NS
	12/30/91		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	01/30/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	03/02/92		53,83	267.73	0.00	NS	NS	NS	NS	NS	NS
	03/24/92		53.73	267.83	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	04/14/92		53.76	267.80	0.00	NS	NS	NS	NS	NS	NS
	05/21/92		54.73	266.83	0.00	NS	NS	NS	NS	NS	NS
	06/08/92		53.80	267.76	0.00	NS	NS	NS	NS	NS	NS
	07/14/92		53.60	267.96	0.00	NS	NS	NS	NS	NS	NS
	08/10/92		53.71	267.85	0.00	NS	NS	NS	NS	NS	NS
	09/16/92		53.89	267.67	0.00	NS	NS	NS	NS	NS	NS
	10/07/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	11/09/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	12/10/92		53.83	267.73	0.00	57	34	11	200	600	NA
	01/26/93		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	02/16/93		53.64	267.92	0.00	NS	NS	NS	NS	NS	NS
	03/11/93		53.54	268.02	0.00	NS	NS	NS	NS	NS	NS
	04/12/93		53.62	267.94	0.00	20	10	22	80	360	NA
	06/01/93		53.52	268.04	0.00	NS	NS	NS	NS	NS	NS
	07/15/93		53.80	267.76	0.00	NS	NS	NS	NS	NS	NS
	08/15/93		53.65	267.91	0.00	NS	NS	NS	NS	NS	NS
	09/29/93		54.23	267.33	0.00	NS	NS	NS	NS	NS	NS

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (μg/L)	TPH as gasoline (µg/L)	MTBE (μg/L)
MW4	09/30/93	321.56	NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<50	NA
	10/28/93		53.54	268.25	0.00	NS	NS	NS	NS	NS	NS
	11/23/93		53.57	267.99	0.00	NS	NS	NS	NS	NS	NS
	11/24/93		NM	NC	NM	< 0.5	< 0.5	<0.5	< 0.5	< 50	NA
	03/10-11/94		53.64	267.92	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	05/04-05/94		53.54	268.02	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	NA
	09/01/94 <sup>e</sup>		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	11/16/94		52.96	268.60	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	NA
	02/15/95		50.37	271.19	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	NA
	05/09/95		44.86	276.70	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	NA
	08/21/95		41.71	279.85	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	2.6
	11/30/95		39.95	281.61	0.00	< 0.5	< 0.5	<0.5	< 0.5	<50	<5.0
	03/28/96		36.76	284.80	0.00	< 0.5	<0.5	< 0.5	< 0.5	< 50	<5.0
	05/31/96		35.19	286.37	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	<5.0
	08/28/96		39.39	282.17	0.00	NS	NS	NS	NS	NS	NS
	11/18/96		39.42	282.14	0.00	NS	NS	NS	NS	NS	NS
	02/28/97		34.38	287.18	0.00	NS	NS	NS	NS	NS	NS
	05/23/97		34.66	286.90	0.00	NS	NS	NS	NS	NS	NS
	09/23/97		39.05	282.51	0.00	< 0.5	< 0.5	< 0.5	<0.5	<50	<2.5
	12/30/97		37.78	283.78	0.00	NS	NS	NS	NS	NS	NS
	03/24/98		NM	NC	NM	NS	NS	NS	NS	NS	NS
	06/15/98		30.32	291.24	0.00	NS	NS	NS	NS	NS	NS
	09/11/98		35.97	285.59	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
	12/09/98		32.93	288.63	0.00	NS	NS	NS	NS	NS	NS
	03/31/99		29.71	291.85	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	< 2.0
	06/30/99		34.99	286.57	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	2.65/3.12 <sup>f,h</sup>
	08/03/99		38.52	283.04	0.00	NS	NS	NS	NS	NS	NS
	09/24/99		42.93	278.63	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	$1.12^{f}$
	12/22/99		NM	NC	NM	NS	NS	NS	NS	NS	NS
	04/04/00		NM	, NC	NM	NS	NS	NS	NS	NS	NS
	06/28/00		NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<50	<1 <sup>f</sup>
	09/26/00		44.24	277.32	0.00	<0.5	<0.5	<0.5	<0.5	<50	<1 <sup>f</sup>

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (μg/L)							
											<u> </u>							
MW5S	05/25/88	321.64	38.46	283.18	0.00	< 0.5	0.9	< 0.5	< 0.5	<20	NA							
	06/06/88		38.86	282.78	0,00	NS	NS	NS	NS	NS	NS							
	06/23/88		39.52	282.12	0,00	NS	NS	NS	NS	NS	NS							
	06/28/88		39.84	281.80	0.00	NS	NS	NS	NS	NS	NS							
	07/06/88		40.45	281.19	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<20	NA							
	07/13/88		40.90	280.74	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<20	NA							
	07/22/88		41.30	280.34	0.00	0.9	4.1	1.3	8.7	50	NA							
	08/05/88		23.84 <sup>b</sup>	297.80	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<20	NA							
	08/12/88		42.21	279.43	0.00	NS	NS	NS	NS	NS	NS							
	08/26/88		42.55	279.09	0.00	NS	NS	NS	NS	NS	NS							
	09/07/88		42.94	278.70	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<20	NA							
	12/07/88		44.67	276.97	0.00	NS	NS	NS	NS	NS	NS							
	02/09/89		43.19	278.45	0.00	NS	NS	NS	NS	NS	NS							
	03/08/89		42.11	279.53	0.00	< 0.5	< 0.5	< 0.5	<1.0	<20	NA							
	04/26/89		41.84	279.80	0.00	NS	NS	NS	NS	NS	NS							
	06/30/89									43.95	277.69	0.00	< 0.5	< 0.5	< 0.5	<0.5	<20	NA
	07/17/89								44.91	276.73	0.00	< 0.5	<0.5	<0.5	<0.5	<20	NA	
	07/18/89		44.93	276.71	0.00	NS	NS	NS	NS	NS	NS							
	07/19/89		44.98	276.66	0.00	NS	NS	NS	NS	NS	NS							
	07/20/89		45.02	276.62	0.00	< 0.5	<0.5	<0.5	< 0.5	<20	NA							
	07/21/89		45.10	276.54	0.00	NS	NS	NS	NS	NS	NS							
	07/26/89		45.57	276.07	0.00	<0.5	<0.5	< 0.5	<0.5	<20	NA							
	08/02/89		NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<20	NA							
	08/03/89		46.31	275.33	0.00	NS	NS	NS	NS	NS	NS							
	08/17/89		47.25	274.39	0.00	NS	NS	NS	NS	NS	NS							
	09/13/89		49.22	272.42	0.00	<0.5	<0.5	<0.5	<0.5	<20	NA							
	11/28/89		50.39	271.25	0.00	NS	NS	NS	NS	NS	NS							
	12/20/89		NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<20	NA							
	01/09/90		49.51	272.13	0.00	NS	NS	NS	NS	NS	NS							
	01/26/90		49.40	272.24	0.00	NS	NS	NS	NS	NS	NS							
	02/23/90		49.20 <sup>a</sup>	272.44	0.00	NS	NS	NS	NS	NS	NS							
	02/23/90		49.20	272.44	0.00	NS	NS	NS	NS	NS	NS							
	03/26/90		48.89 <sup>a</sup>	272.75	0.00	<0.5	<0.5	<0.5	<0.5	<20	NA							

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (μg/L)	Toluene (μg/Ľ)	Ethyl- benzene (µg/L)	Total Xylenes (μg/L)	TPH as gasoline (μg/L)	MTBE (µg/L)
MW5S	03/26/90	321.64	48.88	272.76	0.00	NS	NS	NS	NS	NS	NS
	04/18/90		48.95	272.69	0.00	NS	NS	NS	NS	NS	NS
	05/17/90		50.06	271.58	0.00	NS	NS	NS	NS	NS	NS
	06/11/90		50.98	270.66	0.00	NS	NS	NS	NS	NS	NS
	07/30/90		53.40	268.24	0.00	NS	NS	NS	NS	NS	NS
	08/01/90		NM	NC	NM	< 0.5	<0.5	<0.5	<0.5	<50	NA
	08/27/90		53.60	268.04	0.00	NS	NS	NS	NS	NS	NS
	09/28/90		53.55	268.09	0.00	NS	NS	NS	NS	NS	NS
	12/27/90		53.61	268.03	0.00	<0.5	<0.5	< 0.5	<0.5	<50	NA
	03/20/91		53.56	268.08	0.00	NS	NS	NS	NS	NS	NS
	06/20/91		53.73	267.91	0.00	NS	NS	NS	NS	NS	NS
	09/12/91		53.78	267.86	0.00	NS	NS	NS	NS	NS	NS
	12/30/91		53.80	267.84	0.00	NS	NS	NS	NS	NS	NS
	01/30/92		53.82	267.82	0.00	NS	NS	NS	NS	NS	NS
	03/02/92		53.82	267.82	0.00	NS	NS	NS	NS	NS	NS
	04/14/92		53.74	267.90	0.00	NS	NS	NS	NS	NS	NS
	05/21/92		53.77	267.87	0.00	NS	NS	NS	NS	NS	NS
	06/08/92		53.81	267.83	0.00	NS	NS	NS	NS	NS	NS
	07/14/92		53.74	267.90	0.00	NS	NS	NS	NS	NS	NS
	08/10/92		53.78	267.86	0.00	NS	NS	NS	NS	NS	NS
	09/16/92		53.90	267.74	0.00	NS	NS	NS	NS	NS	NS
	10/07/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	11/09/92		53.87	267.77	0.00	NS	NS	NS	NS	NS	NS
	12/10/92		53.78	267.86	0.00	NS	NS	NS	NS	NS	NS
	01/26/93		53.38	268.26	0.00	NS	NS	NS	NS	NS	NS
	02/16/93		53.44	268,20	0.00	NS	NS	NS	NS	NS	NS
	03/11/93		53.28	268.36	0.00	NS	NS	NS	NS	NS	NS
	04/12/93		53.42	268.22	0.00	11	5.9	13	48	220	NA
	06/01/93		53.56	268.08	0.00	NS	NS	NS	NS	NS	NS
	07/15/93		53.00	268.64	0.00	NS	NS	NS	NS	NS	NS
	08/15/93		53.60	268.04	0.00	NS	NS	NS	NS	NS	NS
	09/29/93		53.62	268.02	0.00	NS	NS	NS	NS	NS	NS
	09/30/93		NM	NC	NM	< 0.5	<0.5	< 0.5	< 0.5	<50	NA

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (µg/L)
MW5S	10/28/93	321.64	54.62	267.02	0.00	NS	NS	NS	NS	NS	NS
	11/23/93	521.04	53.62	268.02	0.00	NS	NS	NS	NS	NS	NS
	03/10-11/94		53.61	268.03	0.00	<0.5	<0.5	< 0.5	<0.5	<50	NA
	05/04-05/94		53.52	268.12	0.00	< 0.5	< 0.5	< 0.5	<0.5	<50	NA
	09/01/94 <sup>e</sup>		NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<50	NA
	11/16/94		53.05	268.59	0.00	< 0.5	< 0.5	< 0.5	<0.5	<50	NA
	09/01/94		NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<50	NA
	11/16/94		NM	NC	NM	<0.5	< 0.5	<0.5	<0.5	<50	NA
	02/15/95		50.55	271.09	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA
	05/09/95		44.96	276.68	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA
	08/21/95		41.77	279.87	0.00	< 0.5	<0.5	<0.5	<0.5	<50	<2.5
	11/30/95		39.95	281.69	0.00	<0.5	< 0.5	<0.5	<0.5	<50	<5.0
	03/28/96		36.80	284.84	0.00	< 0.5	<0.5	<0.5	<0.5	<50	<5.0
	05/31/96		35.28	286.36	0.00	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	08/28/96		39.46	282.18	0.00	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	11/18/96		39.47	282.17	0.00	< 0.5	< 0.5	<0.5	<0.5	<50	<5.0
	02/28/97		34.44	287.20	0.00	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	05/23/97		34.72	286.92	0.00	< 0.5	<0.5	<0.5	<0.5	<50	<2.5
	09/23/97		39.09	282.55	0.00	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	12/30/97		37.83	283.81	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	03/24/98		32.76	288.88	0.00	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	06/15/98		30.46	291.18	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
	09/11/98		36.04	285.60	0.00	<0.5	< 0.5	< 0.5	<0.5	<50	<2.5
	12/09/98		33.00	288.64	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.0 <sup>f</sup>
	03/31/99		29.20	292.44	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	< 2.0
	06/30/99		35.08	286.56	0.00	<0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
	08/03/99		38.62	283.02	0.00	NS	NS	NS	NS	NS	NS
	09/24/99	320.52	42.89	277.63	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<0.5 <sup>f</sup>
	12/22/99		42.05	278.47	0.00	<1.0	<1.0	<1.0	<1.0	<50	<5.0 <sup>f</sup>
	04/04/00		35.91	284.61	0.00	<1	<1	<1	<1	<50	<1
	06/28/00		40.75	279.77	0.00	< 0.5	< 0.5	<0.5	<0.5	<50	<1 f
	09/26/00		44.34	276.18	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<1 f

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (μg/L)	TPH as gasoline (μg/L)	MTBE (μg/L)	
MW5D	05/25/88	321.79	38.55	283.24	0.00	<0.5	3.1	<0.5	<0.5	<20	NA	
	06/06/88		38.90	282.89	0.00	NS	NS	NS	NS	NS	NS	
	06/23/88		39.56	282.23	0.00	NS	NS	NS	NS	NS	NS	
	06/28/88		40.23	281.56	0.00	NS	NS	NS	NS	NS	NS	
	07/06/88		40.69	281.10	0.00	<0.5	< 0.5	<0.5	< 0.5	<20	NA	
	07/13/88		41.22	280.57	0.00	< 0.5	< 0.5	< 0.5	<0.5	40	NA	
	08/12/88		42.34	279.45	0.00	NS	NS	NS	NS	NS	NS	
	08/26/88		42.60	279.19	0.00	NS	NS	NS	NS	NS	NS	
	09/07/88		42.99	278.80	0.00	NS	NS	NS	NS	NS	NS	
	12/07/88		44.58	277.21	0.00	NS	NS	NS	NS	NS	NS	
	02/09/89 <sup>c</sup>		NM	NC	NM	NS	NS	NS	NS	NS	NS	
	03/08/89 <sup>d</sup>		NM	NC	NM	< 0.5	< 0.5	<0.5	< 0.5	<20	NA	
	03/08/89		42.49	279.30	0.00	NS	NS	NS	NS	NS	NS	
	04/03/89		42.21	279.58	0.00	NS	NS	NS	NS	NS	NS	
	04/26/89		42.36	279.43	0.00	NS	NS	NS	NS	NS	NS	
	06/30/89		44.79	277.00	0.00	< 0.5	< 0.5	<0.5	<0.5	<20	NA	
	07/17/89		45.73	276.06	0.00	< 0.5	< 0.5	< 0.5	<0.5	<20	NA	
	07/18/89		45.75	276.04	0.00	NS	NS	NS	NS	NS	NS	
	07/19/89		44.89	276.90	0.00	NS	NS	NS	NS	NS	NS	
	07/20/89		46.02	275.77	0.00	< 0.5	< 0.5	<0.5	< 0.5	<20	NA	
	07/21/89		46.18	275.61	0.00	NS	NS	NS	NS	NS	NS	
	07/26/89		46.83	274.96	0.00	< 0.5	< 0.5	< 0.5	<0.5	<20	NA	
	08/02/89		NM	NC	NM	< 0.5	< 0.5	< 0.5	<0.5	<20	NA	
	08/03/89		47.67	274.12	0.00	NS	NS	NS	NS	NS	NS	
	08/17/89		48.27	273.52	0.00	NS	NS	NS	NS	NS	NS	
	09/13/89		50.60	271.19	0.00	< 0.5	< 0.5	<0.5	< 0.5	<20	NA	
	11/28/89		51.16	270.63	0.00	NS	NS	NS	NS	NS	NS	
	12/20/89			NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<20	NA
	01/09/90		50.42	271.37	0.00	NS	NS	NS	NS	NS	NS	
	01/26/90		50.10	271.69	0.00	NS	NS	NS	NS	NS	NS	
	02/23/90		50.08	<b>2</b> 71.71	0.00	NS	NS	NS	NS	NS	NS	
	03/26/90		49.80 <sup>f</sup>	271.99	0.00	NS	NS	NS	NS	NS	NS	
	03/26/90		49.77	272.02	0.00	< 0.5	< 0.5	<0.5	<0.5	<20	NA	

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (μg/L)		
MW5D	04/18/90	321.79	49.80	271.99	0.00	NS	NS	NS	NS	NS	NS		
	05/17/90		51.32	270.47	0.00	NS	NS	NS	NS	NS	NS		
	06/11/90		52.10	269.69	0.00	NS	NS	NS	NS	NS	NS		
	07/30/90		53.47	268.32	0.00	NS	NS	NS	NS	NS	NS		
	08/01/90		NM	NM	NM	<0.5	<0.5	<0.5	<0.5	<20	NA.		
	08/27/90		58.24	263.55	0.00	NS	NS	NS	NS	NS	NS		
	09/29/90		60.70	261.09	0.00	NS	NS	NS	NS	NS	NS		
	12/27/90		62.52	259.27	0.00	<0.5	< 0.5	< 0.5	< 0.5	<50	NA		
	03/20/91		59.18	262.61	0.00	< 0.5	<0.5	<0.5	<0.5	<50	NA		
	06/20/91		65.02	256.77	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA		
	09/12/91		DRY	DRY	NM	NS	NS	NS	NS	NS	NS		
	12/30/91		DRY	DRY	NM	NS	NS	NS	NS	NS	NS		
	01/30/92		DRY	DRY	NM	NS	NS	NS	NS	NS	NS		
	03/02/92		DRY	DRY	NM	NS	NS	NS	NS	NS	NS		
	03/24/92		74.98	246.81	0.00	NS	NS	NS	NS	NS	NS		
	04/14/92		74.42	247.37	0.00	NS	NS	NS	NS	NS	NS		
	05/21/92				75.67	246.12	0.00	NS	NS	NS	NS	NS	NS
	06/08/92						NM	NC	Dry	NS	NS	NS	NS
	07/14/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS		
	08/10/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS		
	09/16/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS		
	10/07/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS		
	11/09/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS		
	12/10/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS		
	01/26/93		NM	NC	Dry	NS	NS	NS	NS	NS	NS		
	02/16/93		76.47	245.32	0.00	NS	NS	NS	NS	NS	NS		
	03/11/93		74.03	247.76	0.00	NS	NS	NS	NS	NS	NS		
	04/12/93			70.96	250.83	0.00	1.0	1.0	2.5	7.4	<50	NA	
	06/01/93		67.64	254.15	0.00	NS	NS	NS	NS	NS	NS		
	07/15/93		54.40	267.39	0.00	<0.5	<0.5	<0.5	< 0.5	<50	NA		
	08/15/93		67.85	253.94	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA		
	09/29/93		67.62	254.17	0.00	NS	NS	NS	NS	NS	NS		
	09/30/93		NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<50	NA		

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (μg/L)	MTBE (μg/L)
MW5D	10/28/93	321.79	66.15	255.49	0.00	NS	NS	NS	NS	NS	NS
	11/23/93		64.80	256.84	0.00	< 0.5	< 0.5	<0.5	< 0.5	<50	NA.
	03/10-11/94		59.10	262.69	0.00	< 0.5	< 0.5	<0.5	< 0.5	<50	NA
	05/04-05/94		55.66	265.13	0.00	< 0.5	< 0.5	< 0.5	<0.5	<50	NA
	09/01/94 <sup>e</sup>		NM	NC	NM	< 0.5	< 0.5	<0.5	<0.5	<50	NA
	11/16/94		54.36	268.74	0.00	< 0.5	< 0.5	< 0.5	<0.5	<50	NA
	02/15/95		51.20	270.59	0.00	NS	NS	NS	NS	NS	NS
	05/09/95		45.49	276.30	0.00	NS	NS	NS	NS	NS	NS
	05/12/95		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	08/21/95		42.35	279.44	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
	11/30/95		43.60	278.19	0.00	5.4	10	1.4	12	77	<5.0
	03/28/96		37.12	284.67	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<5.0
	05/31/96		35.67	286.12	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	< 5.0
	08/28/96		40.22	281.57	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<5.0
	11/18/96		39.89	281.90	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	< 5.0
	02/28/97		34.75	287.04	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
Duplicate	02/28/97		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
Rinseate	02/28/97		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	< 50	<2.5
	05/23/97		35.21	286.58	0.00	< 0.5	< 0.5	< 0.5	<0.5	< 50	<2.5
Duplicate	05/23/97		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
Rinseate	05/23/97		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
	09/23/97		39.58	282.21	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
Duplicate	09/23/97		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	< 50	<2.5
Rinseate	09/23/97		NM	NC	NM	< 0.5	1.5	< 0.5	< 0.5	<50	3.0
	12/30/97		38.30	283.49	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
Duplicate	12/30/97		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
Rinseate	12/30/97		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	< 50	NA
	03/24/98		32.77	289.02	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	<2.5
	06/15/98		30.69	291.10	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	<2.5
Duplicate	06/15/98		NM	NC	NM	< 0.5	<0.5	< 0.5	< 0.5	<50	<2.5
	09/11/98		36.68	285.11	0.00	< 0.5	< 0.5	<0.5	<0.5	<50	33
Duplicate	09/11/98		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<50	35
	10/28/98		NM	NC	NM	< 0.5	<0.5	<0.5	< 0.5	< 50	<2.0 <sup>f</sup>

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (μg/L)	TPH as gasoline (µg/L)	MTBE (μg/L)
MW5D	12/09/98	321.79	32.70	289.09	0.00	<0.5	<0.5	<0.5	<0.5	<50	<2.0 <sup>f</sup>
Duplicate	12/09/98		NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<50	<2.0 <sup>f</sup>
Rinseate	12/09/98		NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<50	<2.0 <sup>f</sup>
	03/31/99		28.91	292.88	0.00	< 0.5	<0.5	< 0.5	<0.5	<50	<2.0
Duplicate	03/31/99		NM	NC	NM	<0.5	<0.5	<0.5	< 0.5	<50	<2.0
•	06/30/99		35.90	289.89	0.00	<0.5	< 0.5	<0.5	< 0.5	<50	<2.5
Duplicate	06/30/99		NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<50	3.3/<0.5 <sup>f,h</sup>
Rinseate	06/30/99		NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	08/03/99		40.39	281.40	0.00	<0.5	<0.5	<0.5	<0.5	<50	<0.5 <sup>f</sup>
Duplicate	08/03/99		NM	NC	NM	<0.5	< 0.5	<0.5	< 0.5	<50	<0.5 <sup>f</sup>
•	09/24/99		44.25	277.54	0.00	<0.5	< 0.5	<0.5	<0.5	<50	<0.5 <sup>f</sup>
Duplicate	09/24/99		NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<50	<0.5 <sup>f</sup>
Rinseate	09/24/99		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<50	<0.5 <sup>f</sup>
	12/22/99		38.51	283.28	0.00	<1.0	<1.0	<1.0	<1.0	<50	<5.0 <sup>f</sup>
Duplicate	12/22/99		NM	NC	NM	<1.0	<1.0	<1.0	<1.0	<50	<5.0 <sup>f</sup>
•	04/04/00		30.05	291.74	0.00	<1	<1	<1	<1	<50	<1
	06/28/00		42.00	279.79	0.00	<0.5	<0.5	<0.5	<0.5	<50	1.47 <sup>f</sup>
	09/26/00		45.05	276.74	0.00	<0.5	< 0.5	<0.5	<0.5	<50	<1 <sup>f</sup>
MW6	05/11/88	NM	37.31	NC	0.00	NS	NS	NS	NS	NS	NS
	05/17/88		NM	NM	NM	< 0.5	< 0.5	< 0.5	< 0.5	<20	NA
	06/06/88		38.70	, NC	0.00	NS	NS	NS	NS	NS	NS
	06/23/88		39.23	NC	0.00	NS	NS	NS	NS	NS	NS
	06/28/88		39.74	NC	0.00	31.8	7.5	5.4	<b>6</b> .7	440	NA
	07/13/88		40.78	NC	0.00	162.3	7.7	22.5	14.1	290	NA
	08/05/88		41.72	NC	0.00	245	5.2	47.1	23.7	1,180	NA
	08/12/88		42.14	NC	0.00	NS	NS	NS	NS	NS	NS
	08/17/88		NM	NC	NM	NS	NS	NS	NS	NS	NS
	08/26/88		42.51	NC	0.00	NS	NS	NS	NS	NS	NS
	09/07/88		42.85	NC	0.00	474	16	262	136	2,920	NA
	10/24/88		Well destroyed							•	
MW7	07/13/88	321.27	40.50	280.77	0.00	860	1,910	710	4,420	16,700	NA

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (μg/L)	MTBE (µg/L)	
MW7	07/22/88	321.27	41.85ª	279.42	0.00	136	85	5	58	460	NA	
	08/05/88		41.45 <sup>a</sup>	279.82	0.00	73.3	52.8	2.3	28.1	270	NA	
	08/12/88		42.69	278.58	NM	NS	NS	NS	NS	NS	NS	
	09/07/88		42.60	278.67	NM	NS	NS	NS	NS	NS	NS	
	12/07/88		NM	NC	NM	NS	NS	NS	NS	NS	NS	
	01/17/89		43.20	278.07	NM	NS	NS	NS	NS	NS	NS	
	02/09/89		NM	NC	NM	600	688	10	448	6,700	NA	
	06/30/89		NM	NC	NM	180	50	13	40	1,100	NA	
	08/02/89		NM	NC	NM	1.6	< 0.5	< 0.5	0.6	31	NA	
	09/13/89		NM	NC	NM	<0.5	2.6	< 0.5	12	87	NA	
	10/12/89		49.93	271.34	0.00	NS	NS	NS	NS	NS	NS	
	11/28/89		57.61 <sup>a</sup>	263.66	0.00	NS	NS	NS	NS	NS	NS	
	12/20/89		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<20	NA	
	01/09/90	•		57.57°	263.70	0.00	NS	NS	NS	NS	NS	NS
	01/26/90		57.54	263.73	0.00	NS	NS	NS	NS	NS	NS	
	01/26/90		49.08	272.19	0.00	NS	NS	NS	NS	NS	NS	
	02/23/90		55.26 <sup>a</sup>	266.01	0.00	NS	NS	NS	NS	NS	NS	
	02/23/90		48.93	272.34	0.00	NS	NS	NS	NS	NS	NS	
	03/26/90		57.52°	263.75	0.00	NS	NS	NS	NS	NS	NS	
	03/26/90		48.60	272.67	0.00	NS	NS	NS	NS	NS	NS	
	04/18/90		57.55ª	263.72	0.00	NS	NS	NS	NS	NS	NS	
	05/17/90		57.40 <sup>a</sup>	263.87	0.00	NS	NS	NS	NS	NS	NS	
	06/11/90		50.68	270.59	0.00	NS	NS	NS	NS	NS	NS	
	07/30/90		NM	NC	NM	NS	NS	NS	NS	NS	NS	
	08/27/90		53.05	268.22	0.00	NS	NS	NS	NS	NS	NS	
	09/28/90		NM	NC	NM	NS	NS	NS	NS	NS	NS	
	12/27/90		NM	NC	NM	NS	NS	NS	NS	NS	NS	
	03/20/91		54.11	267.16	0.00	NS	NS	NS	NS	NS	NS	
	06/20/91		55.14	266.13	0.00	< 0.5	1.8	0.6	4.1	74	NA	
	09/12/91		55.84	265.43	0.00	3.5	< 0.5	1.7	6.8	< 50	NA	
	12/30/91		55.21	266.06	0.00	< 0.5	< 0.5	<0.5	< 0.5	<50	NA	
	01/30/92		54.88	266.39	0.00	NS	NS	NS	NS	NS	NS	
	03/02/92		NM	NC	NM	NS	NS	NS	NS	NS	NS	

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (μg/L)	TPH as gasoline (μg/L)	MTBE (μg/L)
MW7	03/24/92	321.27	NM	NC	NM	NS	NS	NS	NS	NS	NS
	04/14/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	05/21/92		53.36	267.91	0.00	NS	NS	NS	NS	NS	NS
	06/08/92		54.20	267.07	0.00	<0.5	< 0.5	< 0.5	<0.5	<50	NA.
	07/14/92		53.31	267.96	0.00	NS	NS	NS	NS	NS	NS
	08/10/92		54.01	267.26	0.00	NS	NS	NS	NS	NS	NS
	09/16/92		55.97	265.30	0.00	NS	NS	NS	NS	NS	NS
	10/07/92		56.09	265.18	0.00	NS	NS	NS	NS	NS	NS
	11/09/92		54.16	267.11	0.00	NS	NS	NS	NS	NS	NS
	12/10/92		56.02	265.25	0.00	NS	NS	NS	NS	NS	NS
	01/26/93		56.15	265.12	0.00	NS	NS	NS	NS	NS	NS
	02/16/93		56.23	265.04	0.00	28	30	17	200	600	NA
	03/11/93		55.82	265.45	0.00	NS	NS	NS	NS	NS	NS
	04/12/93		55.45	265.82	0.00	NS	NS	NS	NS	NS	NS
	06/01/93		54.90	266.37	0.00	NS	NS	NS	NS	NS	NS
	07/15/93		54.50	266.77	0.00	NS	NS	NS	NS	NS	NS
	08/15/93		54.25	267.02	0.00	NS	NS	NS	NS	NS	NS
	09/29/93		54.55	<b>2</b> 66.72	0.00	NS	NS	NS	NS	NS	NS
	09/30/93		NM	NC	NM	NS	NS	NS	NS	NS	NS
	10/28/93		54.94	266.92	0.00	NS	NS	NS	NS	NS	NS
	11/23/93		54.73	266.54	0.00	NS	NS	NS	NS	NS	NS
	11/24/93		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	03/10-11-94		52.83	268.44	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	05/04-05/94		52.77	268.50	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	09/01/94°		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	11/16/94		52.74	268.53	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	02/15/95		50.05	271.22	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	05/09/95		44.61	276.66	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	08/21/95		41.40	279.87	0.00	< 0.5	< 0.5	< 0.5	< 0.5	< 50	4.1
	11/30/95		39.64	281.63	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<5.0
	03/28/96		36.42	284.85	0.00	< 0.5	< 0.5	<0.5	<0.5	<50	<5.0
	05/31/96		34.87	286.40	0.00	<0.5	< 0.5	< 0.5	< 0.5	<50	<5.0
	08/28/96		39.11	282.16	0.00	NS	NS	NS	NS	NS	NS

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (μg/L)	MTBE (µg/L)
MW7	11/18/96	321.27	39.10	282,17	0.00	NS	NS	NS	NS	NS	NS
	02/28/97		34.03	287.24	0.00	NS	NS	NS	NS	NS	NS
	05/23/97		34.36	286.91	0.00	NS	NS	NS	NS	NS	NS
	09/23/97		38.66	282.61	0.00	< 0.5	< 0.5	<0.5	<0.5	<50	4.4
	12/30/97		37.45	283.82	0.00	NS	NS	NS	NS	NS	NS
	03/24/98		NM	NC	NM	NS	NS	NS	NS	NS	NS
	06/15/98		30.05	291.22	0.00	NS	NS	NS	NS	NS	NS
	09/11/98		35.63	285.64	0.00	< 0.5	< 0.5	<0.5	<0.5	<50	<2.5
	12/09/98		21.54	299.73	NM	NS	NS	NS	NS	NS	NS
	03/31/99		28.84	292.43	0.00	< 0.5	< 0.5	< 0.5	<0.5	<50	<2.0
	06/30/99		34.68	286.59	0.00	5.96	< 0.5	< 0.5	< 0.5	<50	<2.5
	08/03/99		38.22	283.05	0.00	NS	NS	NS	NS	NS	NS
	09/24/99		42.59	278.68	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	11.7 <sup>f</sup>
	12/22/99		41.69	279.58	0.00	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0 <sup>f</sup>
	04/04/00		35.45	285.82	0.00	<1	<1	<1	<1	<50	<1
	06/28/00		40.46	280.81	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	4.88 <sup>f</sup>
	09/26/00		44.00	<b>2</b> 77.27	0.00	<0.5	<0.5	<0.5	<0.5	<50	<1 f
MW8	10/01/89	321.86	53.88	267.98	0.00	NS	NS	NS	NS	NS	NS
	10/03/89		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<20	NA
	11/28/89		53.74	268.12	0.00	NS	NS	NS	NS	NS	NS
	12/20/89		NM	NC	NM	< 0.5	< 0.5	< 0.5	0.61	<20	NA
	01/09/90		57.90	263.96	0.00	NS	NS	NS	NS	NS	NS
	01/26/90		53.57	268.29	0.00	NS	NS	NS	NS	NS	NS
	01/31/90		NM	NC	NM	< 0.5	< 0.5	< 0.5	0.87	<20	NA
	02/09/90		NM	NC	NM	< 0.5	< 0.5	< 0.5	1.1	<20	NA
	(Blank)		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<20	NA
	02/23/90		52.16	269.70	0.00	NS	NS	NS	NS	NS	NS
	03/26/90		52.80 <sup>a</sup>	269.06	0.00	< 0.5	< 0.5	<0,5	< 0.5	<20	NA
	(Blank)		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<20	NA
	04/18/90		51.60	270.26	0.00	<0.5	0.58	< 0.5	1.1	<20	NA
	05/17/90		58.21	263.65	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<20	NA
	06/11/90		58.65	263.21	0.00	<0.5	<0.5	<0.5	< 0.5	<20	NA

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (μg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (μg/L)	TPH as gasoline (μg/L)	MTBE (μg/L)
MW8	07/30/90	321.86	64.33	257.53	0.00	NS	NS	NS	NS	NS	NS
	08/01/90		NM	NC	NM	< 0.5	< 0.5	<0.5	<0.5	<20	NA NA
	08/27/90		70.41	251.45	0.00	<0.5	<0.5	<0.5	0.5	<20	NA
	09/28/90		71.93	249.93	0.00	< 0.5	< 0.5	<0.5	0.5	<50	NA NA
	12/27/90		66.60	255.26	0.00	<0.5	< 0.5	<0.5	0.6	<50	NA
	03/20/91		60.75	261.11	0.00	< 0.5	<0.5	< 0.5	<0.5	<50	NA
	06/20/91		88.77	233.09	0.00	<0.5	<0.5	<0.5	0.6	<50	NA
	09/12/91		103.17	218.69	0.00	NS	NS	NS	NS	NS	NS
	10/14/91		NM	NC	NM	<0.5	<0.5	< 0.5	<0.5	<50	NA
	12/30/91		81.15	240.71	0.00	<0.5	<0.5	<0.5	< 0.5	<50	NA
	01/30/92		81.69	240.17	0.00	NS	NS	NS	NS	NS	NS
	03/02/92		78.45	243.41	0.00	NS	NS	NS	NS	NS	NS
	03/24/92		76.55	245.31	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	04/14/92		75.56	246.30	0.00	NS	NS	NS	NS	NS	NS
	05/21/92		86.99	234.87	0.00	NS	NS	NS	NS	NS	NS
	06/08/92		91.69	230.17	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	07/14/92		94.65	227.21	0.00	NS	NS	NS	NS	NS	NS
	08/10/92		95.02	226.84	0.00	NS	NS	NS	NS	NS	NS
	09/16/92		91.90	229.96	0.00	< 0.5	0.9	< 0.5	< 0.5	<50	NA
	10/07/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	11/09/92		84.35	237.51	0.00	NS	NS	NS	NS	NS	NS
	12/10/92		82.20	239.66	0.00	< 0.5	0.6	< 0.5	< 0.5	<50	NA
	01/26/93		78.63	243.23	0.00	NS	NS	NS	NS	NS	NS
	02/16/93		76.90	244.96	0.00	0.7	0.6	< 0.5	2.3	<50	NA
	03/11/93		74.39	247.47	0.00	NS	NS	NS	NS	NS	NS
	04/12/93		71.20	250.66	0.00	26	7.3	11	38	230	NA
	06/01/93		68.04	253.82	0.00	NS	NS	NS	NS	NS	NS
	07/15/93		78.05	243.81	0.00	NS	NS	NS	NS	NS	NS
	08/15/93		78.45	243.41	0.00	NS	NS	NS	NS	NS	NS
	09/29/93		73.64	248.22	0.00	NS	NS	NS	NS	NS	NS
	09/30/93		NM	NC	NM	< 0.5	< 0.5	< 0.5	<0.5	<50	NA
	10/28/93		67.53	253.91	0.00	NS	NS	NS	NS	NS	NS
	11/23/93		64.68	256.76	0.00	NS	NS	NS	NS	NS	NS

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (μg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (μg/L)
MW8	11/24/93	321.86	NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<50	NA
	03/10-11/94		59.26	262.60	0.00	< 0.5	<0.5	<0.5	<0.5	<50	NA NA
	05/04-05/94		56.84	265.02	0.00	<0.5	<0.5	<0.5	<0.5	<50 <50	NA NA
	09/01/94 <sup>e</sup>		NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<50	NA NA
	11/16/94		55.47	266.39	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA
	02/15/95		52.00	269.86	0.00	NS	NS	NS	NS	NS	NS
	05/09/95		46.60	275.26	0.00	NS	NS	NS	NS	NS	NS
	05/12/95		NM	NC	NM	2.3	1.2	2.0	7.4	<50	NA
	08/21/95		43.86	278.00	0.00	<0.5	<0.5	< 0.5	<0.5	<50	<2.5
	11/30/95		41.25	280.61	0.00	< 0.5	< 0.5	0.69	2.7	<50	<5.0
	03/28/96		37.71	284.15	0.00	<0.5	<0.5	<0.5	<0.5	<50	<5.0
	05/31/96		36.71	285.15	0.00	< 0.5	< 0.5	< 0.5	<0.5	<50	<5.0
	08/28/96		42.80	279.06	0.00	< 0.5	< 0.5	< 0.5	<0.5	<50	<5.0
	11/18/96		40.78	281.08	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<5.0
	02/28/97		35.14	286.72	0.00	< 0.5	< 0.5	< 0.5	<0.5	<50	<2.5
Duplicate	02/28/97		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
Rinseate	02/28/97		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
	05/23/97		36.41	285.45	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
Duplicate	05/23/97		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
Rinseate	05/23/97		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
	09/23/97		41.22	280.64	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
Duplicate	09/23/97		NM	NC	NM	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
Rinseate	09/23/09		NM	NC	NM	< 0.5	<0.5	< 0.5	<0.5	<50	<2.5
	12/30/97		39.81	282.05	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
Duplicate	12/30/97		NM	NC	NM	< 0.5	< 0.5	<0.5	<0.5	<50	NA
Rinseate	12/30/97		NM	NC	NM	< 0.5	0.52	<0.5	<0.5	<50	3.2 <sup>f</sup>
	03/24/98		31.46	290.40	0.00	<0.5	< 0.5	<0.5	<0.5	<50	<2.5
	06/15/98		31.43	290.43	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA
Duplicate	06/15/98		NM	NC	NM	< 0.5	< 0.5	< 0.5	<0.5	<50	NA
	09/11/98		38.73	283.13	0.00	<0.5	<0.5	<0.5	<0.5	<50	<2.5
Duplicate	09/11/98		NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<50	<2.5

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (μg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (µg/L)	MTBE (μg/L)
MW8	12/09/98	321.86	28.96	292.90	0.00	<0.5	<0.5	<0.5	<0.5	<50	<2.0 <sup>f</sup>
Duplicate	12/09/98		NM	NC	NM	<0.5	<0.5	< 0.5	< 0.5	<50	<2.0 <sup>f</sup>
Rinseate	12/09/98		NM	NC	NM	< 0.5	< 0.5	<0.5	<0.5	<50	<2.0 <sup>f</sup>
	03/31/99		25.05	296.81	0.00	<0.5	<0.5	<0.5	<0.5	<50	<2.0
Duplicate	03/31/99		NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<50	<2.0
Rinseate	03/31/99		NM	NC	NM	< 0.5	< 0.5	< 0.5	<0.5	<50	<2.0
	06/30/99		42.62	279.24	0.00	<0.5	<0.5	<0.5	<0.5	<50	<2.5
Duplicate	06/30/99		NM	NC	NM	< 0.5	<0.5	< 0.5	<0.5	<50	13.1/1.18 <sup>f,h</sup>
Rinseate	06/30/99		NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<50	<2.5
	08/03/99		51.59	270.27	0.00	<0.5	<0.5	<0.5	< 0.5	<50	$0.672^{f}$
Duplicate	08/03/99		NM	NC	NM	< 0.5	<0.5	<0.5	<0.5	<50	0.659 <sup>f</sup>
Rinseate	08/03/99		NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<50	<0.5 <sup>f</sup>
	09/24/99		50.95	270.91	0.00	<0.5	< 0.5	<0.5	<0.5	<50	$0.777^{f}$
Duplicate	09/24/99		NM	NC	NM	<0.5	<0.5	<0.5	<0.5	<50	0.776 <sup>f</sup>
•	12/22/99		38.59	<b>2</b> 83. <b>2</b> 7	0.00	<1.0	<1.0	<1.0	<1.0	<50	<5.0 <sup>f</sup>
Duplicate	12/22/99		NM	NC	NM	<1.0	<1.0	<1.0	<1.0	<50	<5.0 <sup>f</sup>
Rinseate	12/22/99		NM	NC	NM	<1.0	<1.0	<1.0	<1.0	<50	<5.0 <sup>f</sup>
	04/04/00		36.21	285.65	0.00	<1	<1	<1	<1	<50	3.3/<5 <sup>f</sup>
	06/28/00		46.51	275.35	0.00	< 0.5	< 0.5	< 0.5	<0.5	< 50	<1 <sup>f</sup>
	09/26/00		47.55	<b>274</b> .31	0.00	< 0.5	< 0.5	< 0.5	0.528	<50	<1 <sup>f</sup>
MW9	10/03/89	321.44	NM	NC	NM	1,000	9,200	3,000	13,000	89,000	NA
	10/12/89		50.24	271.20	0.00	NS	NS	NS	NS	NS	NS
	11/28/89		50.59	270.85	0.10	NS	NS	NS	NS	NS	NS
	12/01/89		50.32	271.12	0.02	NS	NS	NS	NS	NS	NS
	12/07/89		50.13	271.31	0.16	NS	NS	NS	NS	NS	NS
	12/13/89		49.91	271.53	Slight Sheen	NS	NS	NS	NS	NS	NS
	12/20/89		49.78	271.66	Slight Sheen	6,300	31,000	9,500	55,000	190,000	NA
	01/02/90		NM	NC	NM	NS	NS	NS	NS	NS	NS
	01/09/90		49.39	272.05	Slight Sheen	NS	NS	NS	NS	NS	NS
	01/25/90		NM	NC	NM	2,400	9,400	2,700	15,000	77,000	NA
	01/26/90		49.30	272.14	0.00	NS	NS	NS	NS	NS	NS
	02/23/90		49.06 <sup>a</sup>	272.38	0.00	1,200	7,100	2,300	14,000	97,000	NA

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (μg/L)	TPH as gasoline (μg/L)	MTBE (μg/L)
MW9	02/23/90	321.44	49.05	272.39	0.00	NS	NS	NS	NS	NS	NS
	03/26/90		48.75 <sup>a</sup>	272.69	0.00	1,800	7,700	2,000	11,000	89,000	NA
	03/26/90		48.73	272.71	Slight sheen	NS	NS	NS	NS	NS	NS
	04/18/90		48.81	272.63	0.00	2,000	7,500	2,500	16,000	110,000	NA
	05/17/90		49.96	271.48	0.00	1,500	5,700	2,300	14,000	81,000	NA
	06/11/90		51.58	269.86	0.00	NS	NS	NS	NS	NS	NS
	06/20/90		NM	NC	NM	< 0.5	< 0.5	< 0.5	<0.5	430	NA.
	07/30/90		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	08/27/90		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	09/28/90		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	12/27/90		NM	NC	NM	NS	NS	NS	NS	NS	NS
	03/20/91		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	06/20/91		49.63	271.81	NM	NS	NS	NS	NS	NS	NS
	09/12/91		NM	NC	NM	NS	NS	NS	NS	NS	NS
	12/30/91		NM	NC	NM	NS	NS	NS	NS	NS	NS
	01/30/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	03/02/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	03/24/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	04/14/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	05/21/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	06/08/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	07/14/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	08/10/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	09/16/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	10/07/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	11/09/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	12/10/92		NM	NC	NM	NS	NS	NS	NS	NS	NS
	01/26/93		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	02/16/93		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	03/11/93		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	04/12/93		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	06/01/93		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	07/15/93		NM	NC	Dry	NS	NS	NS	NS	NS	NS

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (μg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (μg/L)	MTBE (μg/L)
MW9	08/15/93	321.44	NM	NC	Dry	NS	NS	NS	NS	NS	NS
	09/29/93		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	10/28/93		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	11/23/93		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	03/10-11/94		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	05/04-05/94		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	11/16/94		52.62	268.82	0.00	NS	NS	NS	NS	NS	NS
	02/15/95		49.76	271.68	0.00	< 0.5	<0.5	< 0.5	<0.5	<50	NA
	05/09/95		44.30	277.14	0.00	<0.5	<0.5	<0.5	<0.5	<50	NA NA
	08/21/95		41.11	280.33	0.00	270	51	5.2	140	1,100	<25
	11/30/95		39.40	282.04	0.00	920	680	120	870	6,600	<100
	03/28/96		36.13	285.31	0.00	72	28	1.8	49	360	<100
	05/31/96		34.56	286.88	0.00	2,800	510	<50	400	8,200	<5.0
	08/28/96		38.80	282.64	0.00	1.6	<0.5	< 0.5	9.6	160	28
	11/18/96		38.74	282.70	0.00	2,000	610	130	790	7,100	<200
	02/28/97		33.74	287.70	0.00	2,900	2,600	280	2,400	22,000	4,200
	05/23/97		33.77	287.67	0.00	5,300	5,200	800	3,900	32,000	1,600
	09/23/97	320.68	38.17	282.51	0.00	<0.5	<0.5	< 0.5	<0.5	<50	20
	12/30/97		38.83	281.85	0.00	840	750	80	310	4,600	1,100 <sup>f</sup>
	03/24/98		31.32	289.36	0.00	11,000	16,000	1,200	6,200	62,000	7,000
	06/15/98		28.72	291.96	0.00	1.8	2.7	<0.5	3.8	<50	8.1
	09/11/98		31.52	289.16	0.00	1.5	0.97	< 0.5	1.1	<50	7.1
	12/09/98		28.92	291.76	0.00	1.4	2.9	< 0.5	< 0.5	<50	7.9 <sup>f</sup>
	03/31/99		27.77	292.91	0.00	2,560	4,100	118	3,090	18,400	3,850/4,950
	06/30/99		32.57	288.11	0.00	0.883	1.43	< 0.5	1.24	<50	7.05/5.81 <sup>f,h</sup>
	08/03/99		36.24	284.44	0.00	1.20	1.70	< 0.5	0.60	91.1	<0.5 <sup>f</sup>
	09/24/99	320.26	41.65	278.61	0.00	2.60/3.13 <sup>i</sup>	1.06	< 0.5	1.17	<50	3.92 <sup>f</sup>
	12/22/99		40.55	279.71	0.00	860/870 <sup>i</sup>	380/380 <sup>i</sup>	<5.0/<5.0 <sup>i</sup>	2,190/2,170 <sup>i</sup>	7,300	4,300 <sup>f</sup>
	04/04/00		34.69	285.57	0.00	2.7	2.5	<1	9	<50	310/300 <sup>f</sup>
	06/28/00		39.31	280.95	0.00	111	2.98	<0.5	14.9	207	488 <sup>f</sup>
	09/26/00		43.14	277.12	0.00	<0.5	<0.5	<0.5	<0.5	<50	77.2 <sup>f</sup>
MW10	10/12/89	322.99	51.93	271.06	0.00	<0.5	<0.5	<0.5	<0.5	20	NA

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (μg/L)	TPH as gasoline (μg/L)	MTBE (μg/L)
MW10	11/28/89	322.99	51.88	<b>27</b> 1.11	0.00	NS	NS	NS	NS	NS	NS
	12/20/89		51.47	271.52	0.00	<0.5	<0.5	< 0.5	<0.5	<20	NA
	01/09/90		50.98	272.01	0.00	NS	NS	NS	NS	NS	NS
	01/26/90		50.87	272.12	0.00	NS	NS	NS	NS	NS NS	NS
	02/23/90		50.67ª	272.32	0.00	NS	NS	NS	NS	NS	NS NS
	02/23/90		50.65	272.34	0.00	NS	NS	NS	NS	NS	NS NS
	03/26/90		50.36°	272.63	0.00	<0.5	<0.5	< 0.5	< 0.5	<20	NA
	03/26/90		50.35	272.64	0.00	NS	NS	NS	NS	NS	NS NS
	04/18/90		50.45	272.54	0.00	NS	NS	NS	NS	NS	NS
	06/11/90		51.16	271.83	0.00	NS	NS	NS	NS	NS NS	NS
	07/30/90		55.72	267.27	0.00	NS	NS	NS	NS	NS	NS
	08/27/90		57.75	265.24	0.00	<0.5	< 0.5	< 0.5	< 0.5	<20	NA NA
	09/28/90		NM	NC	NM	NS	NS	NS	NS	NS	NS NS
	12/27/90		58.08	264.91	0.00	NS	NS	NS	NS	NS NS	NS NS
	03/20/91		57.80	265.19	0.00	NS	NS	NS	NS	NS	NS NS
	06/20/91		58.00	264.99	0.00	NS	NS	NS	NS	NS	NS NS
	09/12/91		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	12/30/91		NM	NC	NM	NS	NS	NS	NS	NS	NS NS
	01/30/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS NS
	03/02/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	03/24/92		58.53	264.46	0.00	NS	NS	NS	NS	NS	NS NS
	04/14/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS NS
	05/21/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	06/08/92		NM	NC	Dry	NS	NS	NS	NS	NS ·	
	07/14/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS NS
	08/10/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	09/16/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS NS
	10/07/92		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	11/09/92		NM	NC	Dry	NS	NS	NS	NS	NS NS	NS NS
	12/10/92		NM	NC	Dry	NS	NS	NS	NS	NS NS	NS
	01/26/93		NM	NC	Dry	NS	NS	NS	NS	NS NS	NS NS
	02/16/93		58.23	264.76	0.00	NS	NS	NS	NS	NS	NS
	03/11/93		57.81	265.18	0.00	NS	NS	NS	NS	NS	NS NS

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (μg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	TPH as gasoline (µg/L)	MTBE (μg/L)
MW10	04/12/93	322.99	57.84	265.15	0.00	21	11	21	75	350	NA
	06/01/93		57.88	265.11	NM	NS	NS	NS	NS	NS	NS
	07/15/93		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	08/15/93		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	09/29/93		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	10/28/93		NM	NC	.Dry	NS	NS	NS	NS	NS	NS
	11/23/93		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	03/10-11/94		NM	NC	Dry	NS	NS	NS	NS	NS	NS
	05/04-05/94		57.21	265.78	Dry	NS	NS	NS	NS	NS	NS
	09/01/94 <sup>e</sup>		NM	NC	NM	< 0.5	< 0.5	< 0.5	<0.5	<50	NA
	11/16/94		54.82	268.17	0.00	< 0.5	< 0.5	< 0.5	<0.5	<50	NA
	02/15/95		51.90	271.09	0.00	< 0.5	< 0.5	< 0.5	<0.5	<50	NA
	05/09/95		46.32	276.67	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	08/21/95		43.06	279.93	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
	11/30/95		41.34	281.65	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	< 5.0
	03/28/96		38.15	284.84	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	< 5.0
	05/31/96		36.61	286.38	0.00	< 0.5	<0.5	< 0.5	< 0.5	< 50	< 5.0
	08/28/96		40.86	282.13	0.00	NS	NS	NS	NS	NS	NS
	11/18/96		40.90	282.09	0.00	NS	NS	NS	NS	NS	NS
	02/28/97		35.75	287.24	0.00	NS	NS	NS	NS	NS	NS
	05/23/97		36.07	286.92	0.00	NS	NS	NS	NS	NS	NS
	09/23/97		40.41	282.58	0.00	NS	NS	NS	NS	NS	NS
	12/30/97		38.20	284.79	0.00	NS	NS	NS	NS	NS	NS
	03/24/98		34.12	288.87	0.00	NS	NS	NS	NS	NS	NS
	06/15/98		31.79	291.20	0.00	NS	NS	NS	NS	NS	NS
	09/11/98		35.40	287.59	0.00	NS	NS	NS	NS	NS	NS
	12/09/98		34.32	288.67	0.00	NS	NS	NS	NS	NS	NS
	03/31/99		30.55	292.44	0.00	<0.5	< 0.5	< 0.5	< 0.5	<50	<2.0
	06/30/99		36.36	286.63	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<2.5
	08/03/99		39.95	283.04	0.00	NS	NS	NS	NS	NS	NS
	09/24/99		44.40	278.59	0.00	< 0.5	<0.5	< 0.5	0.87	<50	19.30
	12/22/99		43.39	279.60	0.00	9.5	5.3	3.9	<b>25</b> ,1	140	<5.0 <sup>f</sup>
	04/04/00		37.18	285.81	0.00	<1	<1	<1	<1	<50	<1

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	TPH as gasoline (μg/L)	MTBE (μg/L)
MW10	06/28/00 09/26/00	322.99	42.19 45.80	280.80 277.19	0.00	<0.5	<0.5	<0.5	<0.5	<50	<1 f
	07/20/00		43.80	2//.19	0.00	< 0.5	< 0.5	< 0.5	<0.5	<50	3.39 <sup>f</sup>
MW11	11/10/89	321.77	50.64	272.13	0.00	NS	NS	NS	NS	NS	NS
	11/16/89		NM	NC	NM	4.1	9.4	0.74	20	150	NA
	11/28/89		50.51	272.26	0.00	NS	NS	NS	NS	NS	NS
	12/20/89		51.47	271.30	0.00	7.2	7.5	2.9	13	150	NA
	01/09/90		49.68	273.09	0.00	NS	NS	NS	NS	NS	NS
	01/26/90		49.55	273.22	0.00	NS	NS	NS	NS	NS	NS
	02/23/90		49.37 <sup>a</sup>	273,40	0.00	NS	NS	NS	NS	NS	NS
	02/23/90		49.35	273.42	0.00	NS	NS	NS	NS	NS	NS
	03/26/90		49.03 <sup>a</sup>	273.74	0.00	< 0.5	< 0.5	< 0.5	2.7	32	NA
	04/18/90		49.12	273.65	0.00	NS	NS	NS	NS	NS	NS
	05/17/90		50.30	272.47	0.00	NS	NS	NS	NS	NS	NS
	06/11/90		51.16	271.61	0.00	NS	NS	NS	NS	NS	NS
	07/30/90		53.50	269.27	0.00	< 0.5	<0.5	< 0.5	3.8	26	NA
	08/27/90		53.65	269.12	0.00	NS	NS	NS	NS	NS	NS
	09/28/90		53.62	269.15	0.00	NS	NS	NS	NS	NS	NS
	12/27/90		53.63	269.14	0.00	NS	NS	NS	NS	NS	NS
	03/20/91		53.26	269.51	0.00	NS	NS	NS	NS	NS	NS
	06/20/91		53.60	269.17	0.00	NS	NS	NS	NS	NS	NS
	09/12/91		53.60	269.17	0.00	NS	NS	NS	NS	NS	NS
	12/30/91		53.95	268.82	0.00	NS	NS	NS	NS	NS	NS
	01/30/92		53.65	269.12	0.00	NS	NS	NS	NS	NS	NS
	03/02/92		53.68	269.09	0.00	NS	NS	NS	NS	NS	NS
	03/24/92		53.70	269.07	0.00	NS	NS	NS	NS	NS	NS
	04/14/92		53.66	269.11	0.00	NS	NS	NS	NS	NS	NS
	05/21/92		53.62	269.15	0.00	NS	NS	NS	NS	NS	NS
	06/08/92		53.61	269.16	0.00	NS	NS	NS	NS	NS	NS
	07/14/92		53.53	269.24	0.00	NS	NS	NS	NS	NS	NS
	08/10/92		53.58	269.19	0.00	NS	NS	NS	NS	NS	NS
	09/16/92		53.60	269.17	0.00	NS	NS	NS	NS	NS	NS
	10/07/92		DRY	DRY	NM	NS	NS	NS	NS	NS	NS

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (μg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (μg/L)	TPH as gasoline (μg/L)	MTBE (μg/L)
MWII	11/09/92	321.77	DRY	DRY	NM	NS	NS	NS	NS	NS	NS
	12/10/92		53.59	269.18	0.00	NS	NS	NS	NS	NS	NS
	01/26/93		53.67	269.10	0.00	NS	NS	NS	NS	NS	NS
	02/16/93		53.60	269.17	0.00	NS	NS	NS	NS	NS	NS
	03/11/93		53.58	269.19	0.00	NS	NS	NS	NS	NS	NS
	04/12/93		53.54	269.23	0.00	< 0.5	< 0.5	<0.5	<0.5	<50	NA
	06/01/93		53.52	269.25	0.00	NS	NS	NS	NS	NS	NS
	07/15/93		53.60	<b>269</b> .17	0.00	NS	NS	NS	NS	NS	NS
	08/15/93		53,55	269.22	0.00	NS	NS	NS	NS	NS	NS
	09/29/93		53.62	269.15	0.00	NS	NS	NS	NS	NS	NS
	09/30/93		NM	NC	NM	NS	NS	NS	NS	NS	NS
	10/28/93		53.63	269.14	0.00	NS	NS	NS	NS	NS	NS
	11/23/93		53.58	268.19	0.00	NS	NS	NS	NS	NS	NS
	11/24/93		NM	NC	NM	< 0.5	< 0.5	<0.5	<0.5	<50	NA
	03/10-11/94		53.61	268.16	0.00	NS	NS	NS	NS	NS	NS
	05/04-05/94		53.51	268.26	0.00	NS	NS	NS	NS	NS	NS
	11/16/94		53.46	268.31	0.00	NS	NS	NS	NS	NS	NS
	02/15/95		50.57	271.20	0.00	< 0.5	<0.5	<0.5	<0.5	<50	NA
	05/09/95		45.05	276.72	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	NA
	08/21/95		41.88	279.89	0.00	< 0.5	< 0.5	< 0.5	<0.5	<50	2.8
	11/30/95		40.04	281.73	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<5.0
	03/28/96		36.90	284.87	0.00	< 0.5	< 0.5	< 0.5	<0.5	<50	<5.0
	05/31/96		35.34	286.43	0.00	< 0.5	< 0.5	< 0.5	<0.5	<50	<5.0
	08/28/96		39.56	282.21	0.00	NS	NS	NS	NS	NS	NS
	11/18/96		39.56	282.21	0.00	NS	NS	NS	NS	NS	NS
	02/28/97		34.50	287.27	0.00	NS	NS	NS	NS	NS	NS
	05/23/97		34.80	286.97	0.00	NS	NS	NS	NS	NS	NS
	09/23/97		39.18	282.59	0.00	NS	NS	NS	NS	NS	NS
	12/30/97		37.94	283.83	0.00	NS	NS	NS	NS	NS	NS
	03/24/98		32.86	289.65	NM	NS	NS	NS	NS	NS	NS
	06/15/98		30.49	291.28	0.00	NS	NS	NS	NS	NS	NS
	09/11/98		35.96	285.81	0.00	NS	NS	NS	. NS	NS	NS
	12/09/98		33.06	288.71	0.00	NS	NS	NS	NS	NS	NS

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring		Reference Elevation	Depth to Water	Groundwater Elevation	LPH Thickness	Danmana	Т-1	Ethyl-	Total	TPH as	
Well	Date	(feet)	(feet)	(feet)	(feet)	Benzene (µg/L)	Toluene (μg/L)	benzene (μg/L)	Xylenes (μg/L)	gasoline (µg/L)	MTBE
		(/	(-547)	(1001)	(1001)	(MS/L)	(#E/L)	(μg/L)	(μg/L)	(μg/L)	(µg/L)
MWH	03/31/99	321.77	29.31	292.46	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	2.79/2.64 <sup>f</sup>
	06/30/99		35.15	286.62	0.00	< 0.5	< 0.5	< 0.5	<0.5	<50	<2.5
	08/03/99		38.65	283.12	0.00	NS	NS	NS	NS	NS	NS
	09/24/99	321.73	43.08	278.65	0.00	< 0.5	<0.5	< 0.5	<0.5	< 50	3.93 <sup>f</sup>
	12/22/99		40.94	280.79	0.00	<1.0	<1.0	<1.0	<1.0	<50	<5.0 <sup>f</sup>
	04/04/00		35.91	285.82	0.00	<1	<1	<1	<1	<50	<1
	06/28/00		40.46	281.27	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	<1 <sup>f</sup>
	09/26/00		44.45	277.28	0.00	< 0.5	< 0.5	<0.5	<0.5	<50	<1 f
MW12A	09/26/00		48.26	NC	0.00	<0.5	<0.5	<0.5	<0.5	<50	<1 <sup>f</sup>
MW13	09/26/00		45.62	NC	0.00	0.504	0.594	<0.5	0.982	<50	1.62 <sup>f</sup>
MW14	09/26/00		46.90	NC	0.00	<0.5	<0.5	<0.5	<0.5	<50	<1 <sup>f</sup>
VR1	03/24/92		NM	NC	NM	1.7	<0.5	<0.5	<0.5	<50	NA
	06/30/99		19.52	NC	0.00	<0.5	< 0.5	<0.5	< 0.5	< 50	6.83/7.31 <sup>f,h</sup>
	08/03/99		19.53	NC	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	2.49 <sup>f</sup>
	09/24/99	321.00	19.73	301.27	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	5.94 <sup>f</sup>
	12/22/99		21.35	299.65	0.00	<1.0	<1.0	<1.0	<1.0	< 50	10 <sup>f</sup>
	04/04/00		19.23	301.77	0.00	<1	<1	<1	<1	<50	4,500/5,500 <sup>f</sup>
	06/28/00		20.42	300.58	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	1,370 <sup>f</sup>
	09/26/00		21.92	299.08	0.00	<0.5	<0.5	<0.5	<0.5	<50	387 <sup>f</sup>
VR2	06/30/99		33.63	NC	0.00	<0.5	<0.5	<0.5	<0.5	<50	1,080/1,160 <sup>f,l</sup>
	08/03/99		37.19	NC	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	3,390 <sup>f</sup>
	09/24/99	320.18	41.54	278.64	0.00	2,650	<50	<50	309	5,170	1,030 <sup>f</sup>
	12/22/99		40.63	279.55	0.00	<1.0	<1.0	<1.0	<1.0	<50	34 <sup>f</sup>
	01/21/00		39.04	281.14	0.00	<1.0	<1.0	<1.0	<1.0	<50	17 <sup>f</sup>
	04/04/00		35.63	284.55	0.00	<1	<1	<1	<1	<50	370/400 <sup>f</sup>
	06/28/00		39.28	280.90	0.00	1.12	<1	<1	<1	<50	268 <sup>f</sup>
	09/26/00		DRY	NC	NM	NS	NS	NS	NS	NS	NS

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (µg/L)	Toluene (μg/L)	Ethyl- benzene (μg/L)	Total Xylenes (μg/L)	TPH as gasoline (µg/L)	MTBE (μg/L)
VR3	06/30/99		9.15	NC	0.00	<0.5	<0.5	<0.5	<0.5	<50	1,220/1,380 <sup>f,h</sup>
	08/03/99		8.19	NC	0.00	< 0.5	<0.5	<0.5	< 0.5	<50	16,100 <sup>f</sup>
	09/24/99	318.73	8.97	309.76	0.00	7.20	1.14	<1.0	1.94	122	10,900 <sup>f</sup>
	Well destroye	ed 11/05/99							,,,,,	122	10,700
VR4	06/30/99		8.50	NC	0.00	<0.5	<0.5	<0.5	<0.5	<50	1.46
	08/03/99		8.69	NC	0.00	<0.5	<0.5	<0.5	<0.5 <0.5	71.7 <sup>g</sup>	146 3.96 <sup>f</sup>
	09/24/99	321.19	9.10	312.09	0.00	0.890	2.22	0.800	3.15		3.96 90.6 <sup>f</sup>
	Well destroye		2.10	312.07	0.00	0.090	2.22	0.800	3.13	79.6	90.6
OWI	09/24/99	322.45	10.37	312.08	0.00	2.10	1.41	<0.5	7.33	110	7 01 0f
	12/22/99	3.2 <b>2</b> . 12	10.93	311.52	0.00	12	<5.0	<5.0	7.22 5.2	119 360	7,810 <sup>f</sup> 44,000 <sup>f</sup>
	04/04/00		10.83	311.62	0.00	12	<1	<1	3.2 <1		
	06/28/00		11.91	310.54	0.00	1.20	<1	<1	<1 <1	120	5,300/6,800 <sup>f</sup>
	09/26/00		DRY	NC	NM	NS	NS	NS	NS	<100 NS	1,530 <sup>f</sup> NS
OW2	09/24/99	321.55	9.48	312.07	0.00	31.1	<0.5	<0.5	20.6	275 <sup>g</sup>	177,000 <sup>f</sup>
	12/22/99	321.33	10,13	311.42	0.00	<5.0	<5.0	<5.0	5.2	410	85,000 <sup>f</sup>
	04/04/00		10.00	NC	NM	NS	NS	NS	NS	NS	83,000 NS
	06/28/00		11.00	310.55	0.00	<50	<50	<50	<50		45,400 <sup>f</sup>
	09/26/00		11.11	310.44	0.00	<0.5	<0.5	<0.5	<0.5	<5,000 <50	45,400 1,690 <sup>f</sup>
PMW1	12/22/99	322.75	NM	NC	Dry	NS	NS	NS	NS	NS	NS
	04/04/00	022,70	NM	NC	NM	NS	NS	NS	NS NS	NS NS	NS NS
	06/28/00		13.72	309.03	0.00	<0.5	< 0.5	< 0.5	<0.5	<50	NS <1 <sup>f</sup>
	09/26/00		DRY	NC	NM	NS	NS	NS	NS	NS	NS
											- 1.2
PMW2	12/22/99	322.37	12.85	309.52	0.00	NS	NS	NS	NS	NS	NS
	04/04/00		10.65	311.72	0.00	<1	<1	<1	<1	< 50	740/720 <sup>f</sup>
	06/28/00		11.50	310.87	0.00	< 0.5	< 0.5	< 0.5	< 0.5	<50	1,570 <sup>f</sup>
	09/26/00		12.36	310.01	0.00	<0.5	<0.5	<0.5	<0.5	<50	157 <sup>f</sup>
PMW3	12/22/99	321.27	12.61	308.66	0.00	NS	NS	NS	NS	NS	NS

TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

Monitoring Well	Date	Reference Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	LPH Thickness (feet)	Benzene (μg/L)	Toluene (μg/L)	Ethyl- benzene (µg/L)	Total Xylenes (μg/L)	TPH as gasoline (μg/L)	MTBE (μg/L)
						-				<u> </u>	
PMW3	04/04/00	321.27	9.78	311.49	0.00	<1	<1	<1	<1	<50	250/310 <sup>f</sup>
	06/28/00		10.52	310.75	0.00	< 0.5	<0.5	< 0.5	< 0.5	<50	31.5 <sup>f</sup>
	09/26/00		10.39	310.88	0.00	<0.5	<0.5	<0.5	<0.5	< 50	13.6 <sup>f</sup>
PMW4	12/22/99	321.37	15.32	306.05	0.00	NS	NS	NS	NS	NS	NS
	04/04/00		10.60	310.77	0.00	<1	<1	<1	<1	<50	28/27 <sup>f</sup>
	06/28/00		14.00	307.37	0.00	<0.5	< 0.5	<0.5	<0.5	<50	3.73 <sup>f</sup>
	09/26/00		DRY	NC	NM	NS	NS	NS	NS	NS	NS
PMW5	12/22/99	320.04	13.19	306.85	0.00	1.0	<1.0	<1.0	<1.0	<50	810 <sup>f</sup>
	04/04/00		9.61	310.43	0.00	<1	<1	<1	<1	<50	680/890 <sup>f</sup>
	06/28/00		10.10	309.94	0.00	1.79	< 0.5	< 0.5	<0.5	<50	629 <sup>f</sup>
	09/26/00		12.15	307.89	0.00	1.83	<0.5	<0.5	<0.5	<50	743 <sup>f</sup>
PMW6	12/22/99	321.38	NM	NC	Dry	NS	NS	NS	NS	NS	NS
	04/04/00		15.10	NC	NM	NS	NS	NS	NS	NS	NS
	06/28/00		14.60	NC	NM	NS	NS	NS	NS	NS	NS
	09/26/00		NM	NC	NM	NS	NS	NS	NS	NS	NS
Rinse Blank	09/26/00					<0.5	<0.5	<0.5	<0.5	<50	<1 <sup>f</sup>

a = Water level recorded during pumping of MW7.

Depth to groundwater = Measured from notch/mark on north edge of well casing. LPH = Liquid-phase hydrocarbons.

b = Anomalous water level possibly due to recharge from a perched water zone.

c = Casing head cut to lower elevation.

d = Casing head damaged by construction.

e = Results obtained past the technical holding time.

f = Methyl tertiary butyl ether by EPA Method 8260.

g = Unidentified Hydrocarbon C6-C12.

h = Analysis performed outside of EPA recommended hold time.

### TABLE 2 GROUNDWATER MONITORING DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

		Reference	Depth to	Groundwater	LPH			Ethyl-	Total	TPH as	
Monitoring		Elevation	Water	Elevation	Thickness	Benzene	Toluene	benzene	Xylenes	gasoline	MTBE
Well	Date	(feet)	(feet)	(feet)	(feet)	(µg/L)	(μg/L)	(µg/L)	(µg/L)	(μg/L)	(µg/L)

TPH = Total Petroleum Hydrocarbons.

MTBE = Methyl tertiary butyl ether.

NA = Not analyzed.

NC = Not calculated.

ND = Not detected at or above the laboratory's reporting limits.

NM = Not measured.

NS = Not sampled.

 $\mu$ g/L = Micrograms per liter.



Correspondence from the Alameda County Health Agency

" FILE CORR. REC'D

## ALAMEDA COUNTY HEALTH CARE SERVICES

**AGENCY** 

DAVID J. KEARS, Agency Director



August 10, 2000

STID 1932

Mr. Darin Rouse Exxon Company, U.S.A. P.O. Box 4032 Concord, CA 94524-4032 ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335



AUG 1 6 2000

\_TIC Engineering .nc.

RE: Exxon Service Station #7-3399, 2991 Hopyard Road, Pleasanton

Dear Mr. Rouse:

We are in receipt of the May 17, 2000 ETIC Engineering, Inc. (ETIC) workplan, as revised by ETIC in an addendum dated August 1, 2000. The cited workplan, as revised, proposes the locations, depths and screen intervals for the completion of two discrete clusters of sentinel wells (3 wells, total) in off-site locations north and northwest of the subject site. The revised workplan also describes the use of sonic drilling to advance the boreholes for these wells. All critical elements of this pending work are the result of a series of scoping meetings between the various interested and regulatory parties which appear at the end of this letter.

I understand that drilling has been scheduled to begin on Tuesday, August 15, 2000. Please contact me at (510) 567-6783 if you anticipate a change in this schedule.

Sincerely,

Scott O. Seery, CHMM

Hazardous Materials Specialist

cc: Steve Cusenza, Pleasanton Public Works Department

Chuck Headlee, RWQCB

Matt Katen, Zone 7

Øanielle Stefani, Livermore-Pleasanton Fire Department

Joe Muehleck, ETIC Engineering, Inc., 144 Mayhew Way, Walnut Creek, CA 94524-4032

Appendix B

**Permits** 



## **ZONE 7 WATER AGENCY**

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588-5127 VOICE (925) 484-2600 X235 FAX (925) 462-3914

#### DRILLING PERMIT APPLICATION

MWIZ, MW13, 14

FOR APPLICANT TO COMPLETE	FOR OFFICE
LOCATION OF PROJECT HOPYARD ROAD + VALLEY AVENUE PLEASANTON, CA	PERMIT NUMBER
California Coordinates Sourceft ,Accuracy±ft.  CCNft. CCEft.  APN	APNPERMIT CONDITIONS
CLIENT Name EXXON MOBIL REFINING AND SUPPLY CO Address FO BOX YOBZ Phone 925-246-8768 City CONCORD CA Zip 94574-4032  APPLICANT Name ETIC ENGINEERING FAX 725-777-7915  Address 144 MATHEW WAT Phone 925-777-7914 City WANN-CREEK CA Zip 94576	Circled Permit Requirements Apply  A. GENERAL  1. A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date.  2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.
TYPE OF PROJECT  Well Construction Geotechnical Investigation Cathodic Protection General Gene	<ol> <li>Permit is void if project not begun within 90 days of approval date.</li> <li>WATER SUPPLY WELLS</li> <li>Minimum surface seal thickness is two inches of cement grout placed by tremie.</li> <li>Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.</li> <li>An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.</li> <li>A sample port is required on the discharge pipe near the</li> </ol>
RILLING METHOD:  Mud Rotary   Air Rotary   Auger   Cable   Other   RILLER'S LICENSE NO.   C57   C4   C57   C	wellhead.  GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS  1. Minimum surface seal thickness is two inches of cement grout placed by tremie.  2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.
BOART LENGYEAR  WELL PROJECTS  Drill Hole Diameter	D. GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement grout shall be used in place of compacted cuttings.  E. CATHODIC. Fill hole above anode zone with concrete placed by
REOTECHNICAL PROJECTS  Number of Borings Maximum  Hole Diameter in. Depth ft.  ESTIMATED STARTING DATE S/15/CC  ESTIMATED COMPLETION DATE 9/1/CC	tremie.  F. WELL DESTRUCTION. See attached.  G. SPECIAL CONDITIONS  * New driller and drilling method. 8/14/00
thereby agree to comply with all requirements of this permit and Alameda county Ordinance No. 73-68.  APPLICANT'S  BIGNATURE  Date	Approved Wyman Hong Date 5/18/00  8/6/99

9. PERMITS

# ALL MAGE IN THE

## ZONE 7 WATER AGENCY FILE COPY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588-5127 VOICE (925) 484-2600 X235 FAX (925) 462-3914

#### DRILLING PERMIT APPLICATION

MW12 A FOR OFFICE FOR APPLICANT TO COMPLETE PERMIT NUMBER 20145 OCATION OF PROJECT HOPYARD ROAD +
VALLEY AVE. PLEASANTON, CA WELL NUMBER \_\_\_\_\_ California Coordinates Source\_\_\_\_\_ft .Accuracy±\_\_\_\_ PERMIT CONDITIONS Circled Permit Requirements Apply CLIENT EXXON MOBIL REFINING + SUPPLY CO. Iddress Fo Box 4032 Phone 725-246-8768
City Concerd, CA Zip 94524-4032 **GENERAL** A permit application should be submitted so as to arrive at the Zone 7 office five days prior to proposed starting date. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs Fax 425-177and location sketch for geotechnical projects. Address 144 MAYHEW WAY Phone 925-977-79/4 Permit is void if project not begun within 90 days of approval LITY WALNUT CREEK CA Zip \_ WATER SUPPLY WELLS В TYPE OF PROJECT 1. Minimum surface seal thickness is two inches of cement Well Construction Geotechnical Investigation grout placed by tremie. General Cathodic Protection 2. Minimum seal depth is 50 feet for municipal and industrial wells Water Supply Contamination. or 20 feet for domestic and irrigation wells unless a lesser depth Well Destruction Monitoring is specially approved. 3. An access port at least 0.5 inches in diameter is required ROPOSED WATER SUPPLY WELL USE on the wellhead for water level measurements. lew Domestic □ Replacement Domestic A sample port is required on the discharge pipe near the Ω Irrigation Municipal wellhead. Industrial WELLS INCLUDING GROUNDWATER MONITORING PIEZOMETERS RILLING METHOD: Minimum surface seal thickness is two inches of cement grout Air Rotary Auger Mud Rotary placed by tremie. Other Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet. RILLER'S LICENSE NO. C57 - 694686
BOART LONGYEAR GEOTECHNICAL. Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In WELL PROJECTS areas of known or suspected contamination, tremied cement grout Drill Hole Diameter 8 in. Casing Diameter 2 in. shall be used in place of compacted cuttings. CATHODIC. Fill hole above anode zone with concrete placed by Surface Seal Depth > 26 ft tremie. WELL DESTRUCTION. See attached. F **GEOTECHNICAL PROJECTS** SPECIAL CONDITIONS G. Number of Borings Maximum Hole Diameter \_ ESTIMATED STARTING DATE 8/25/00 ESTIMATED COMPLETION DATE 8/3//00 8/6/99 hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68. APPLICANT'S APPLICANT'S
SIGNATURE 3/23/00



## ZONE 7 WATER AGENCY

FILE COPY

5997 PARKSIDE DRIVE PLEASANTON, CALIFORNIA 94588-5127 VOICE (925) 484-2600 X235 FAX (925) 462-3914

## DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE DESTRU	Z FOR OFFICE
OCATION OF PROJECT HOPYARD ROAD + VALLEY AVE. PLEASANTON, CA	PERMIT NUMBER 20144  WELL NUMBER 3S/1E 18H20  APN
California Coordinates Sourceft .Accuracy±ft. CNft. CCEft. PN	PERMIT CONDITIONS  Circled Permit Requirements Apply
CILIENT  Iame  EXXON MOBEL  REFLAING + SUPPLY Co.  Iddress TO BOX 4032 Phone 125-246-8768  City CONCORD, CA Zip 94524-4032  IPPLICANT  Iame  ETIC  Fax 925-977-7915  Address  Address	<ul> <li>A. GENERAL</li> <li>1. A permit application should be submitted so as to arrive at the Zone 7 office five days pror to proposed starting date.</li> <li>2. Submit to Zone 7 within 60 days after completion of permitted work the original Department of Water Resources Water Well Drillers Report or equivalent for well projects, or drilling logs and location sketch for geotechnical projects.</li> <li>3. Permit is void if project not begun within 90 days of approval date.</li> <li>B. WATER SUPPLY WELLS</li> <li>1. Minimum surface seal thickness is two inches of cement grout placed by tremie.</li> <li>2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.</li> <li>3. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.</li> <li>4. A sample port is required on the discharge pipe near the wellhead.</li> <li>C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS</li> <li>1. Minimum surface seal thickness is two inches of cement grout placed by tremie.</li> </ul>
Cable Other O  DRILLER'S LICENSE NO. C57 - 694696  BOART LONG YEAR  WELL PROJECTS MALLER II. Maximum  Casing Diameter  in. Maximum  Casing Diameter  in. Depth 137 ft.  Surface Scal Depth 20 ft. Number  I	Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet     GEOTECHNICAL. Backfill bare hole with compacted cuttings or heavy bentonite and upper two feet with compacted material. In areas of known or suspected contamination, tremied cement ground shall be used in place of compacted cuttings.  E. CATHODIC. Fill hole above anode zone with concrete placed by tremie.  WELL DESTRUCTION. See attached.  SPECIAL CONDITIONS.
Number of Borings Maximum Hole Diameter in. Depth ft.  ESTIMATED STARTING DATE \$\frac{1}{2}\frac{1}{0}\frac{0}{0}\$  ESTIMATED COMPLETION DATE \$\frac{1}{3}\frac{1}{1}\frac{0}{0}\frac{0}{0}\$  I hereby agree to comply with all requirements of this permit and Alameda	Approved — // // // // // Date 8/24/00 // // // // // // // // // // // //
County Ordinance No. 73-68.  APPLICANT'S  SIGNATURE  Date \$\frac{23}{23}\leftag{0}	<del>-</del>

## Zone 7 Water Resources Engineering Groundwater Protection Ordinance

Exxon Mobil Refining & Supply Company
Valley Avenue & Hopyard Road
Pleasanton
Wells 35/1E 18H20
Permit 20144

#### **Destruction Requirements:**

- 1. Sound the well as deeply as practicable and record for your report.
- 2. Remove the casing, seal, and gravel pack to two feet below the finished grade or original ground, whichever is the lower elevation.
- 3. Fill the entire casing with cement grout using a tremie pipe. Allow the sealing material to spill over the top of the casing to fill any annular space between the casing and soil.
- 4. After the seal has set, backfill the remaining hole with compacted material.

## Appendix C

**Protocols for Borehole and Well Drilling, Completion, Development, and Sampling** 

## PROTOCOLS FOR BOREHOLE AND WELL DRILLING, COMPLETION, DEVELOPMENT, AND SAMPLING

#### SONIC DRILLING

Prior to drilling, all boreholes are cleared of underground utilities using an independent utility locating contractor and USAlert. A 24-inch circle or a 2-foot by 2-foot square is cut in the surface cover at each well location. An area larger than the bit diameter is hand augered to 4 feet to ensure that there are no obstructions near the potential path of the drill bit and casing.

Boreholes are drilled with a truck-mounted sonic drill equipped with 8.33-inch diameter steel conductor casing. Refer to the attached Sonic Drilling Method Description (provided by Boart Longyear) for further information. The diameter of the casing is selected to provide an annular space between the boring wall and the well casing of no less than 2 inches.

All down-hole equipment is steam-cleaned before drilling begins and before each new borehole is drilled. All drill cuttings are either placed on and covered with plastic sheeting or contained in sealed 55-gallon drums or steel roll-off bins. All fluids generated during drilling activities are contained in sealed 55-gallon drums. All waste generated during drilling activities is stored onsite until appropriate transport to an ExxonMobil—approved disposal or treatment facility is arranged. The drums are labeled with the borehole numbers, site description (including owner's name), and date. The drill cuttings are disposed of at a proper facility based on results of soil sample analysis.

During drilling, an ETIC geologist generates a soil boring log for each borehole. The boring logs contain detailed geological information, including descriptions of the soils classified according to the Unified Soil Classification System, blow counts, organic vapor analyzer readings (if applicable), moisture content of the soils, and initial and static water levels.

#### SOIL SAMPLING

Due to the nature of sonic drilling, no undisturbed soil samples are collected. Soil cuttings are examined for soil characteristics and logging purposes and classified according to the Unified Soil Classification System.

#### BOREHOLE GROUTING

Should boreholes be terminated, they are abandoned with a cement grout containing less than 5 percent pure sodium bentonite. The grout is pumped through a grouting tube positioned at the bottom of the boreholes.

#### WELL INSTALLATION

The boreholes are completed as groundwater monitoring wells, vapor extraction wells, groundwater extraction wells, or air sparging wells. The wells are constructed by installing Schedule 40 polyvinyl chloride (PVC) flush-threaded casing through the inner opening of the auger. The screened interval consists of slotted casing of the appropriate slot size and length placed at depths depending on soil conditions encountered during drilling. A threaded end plug or a slip cap secured with a stainless steel screw is placed on the bottom of the well.

A filter pack of clean sand of appropriate size is placed in the annular space around the well screen to approximately 2 to 4 feet above the top of the screen. The sand is placed through the inner opening of the outer casings as they are slowly removed. The sand is sealed by adding 1–2 feet of bentonite pellets and hydrating them with deionized water. A surface seal is then created by placing neat cement grout containing less than 5 percent bentonite from the top of the bentonite seal to just below the ground surface.

The well is finished at the surface with a slightly raised, traffic-rated, watertight steel traffic box set in concrete. The traffic box is secured with bolts and the casing is further secured with a locking well cap.

#### WELL DEVELOPMENT

The wells are developed after completion. Development consists of surging the screened interval of the well for approximately 15 minutes. The well is then purged, with a vacuum truck and dedicated PVC stinger or disposable tubing, an inertial pump, a submersible electric pump, a centrifugal pump, an air-lift pump, or a PVC bailer until at least 3 casing volumes are removed and the water is free of silt.

A record of the purging methods and volumes of water purged is maintained. All purge water is contained on the site in properly labeled 55-gallon drums. Purge water is transported to an ExxonMobil-approved treatment facility.

#### GROUNDWATER SAMPLING

All samples are collected with a factory cleaned disposable bailer. The bailer is operated by hand on a new rope or on Teflon-coated stainless steel wire. Sampling personnel wear clean Nitrile gloves during sampling operations and while handling sample bottles.

The groundwater samples are emptied from the bailer directly into the sample bottles with a bottom-emptying device. The samples are collected in either 40-ml glass volatile organic analysis vials or 1-liter amber bottles with Teflon-lined septum caps. The sample bottles contain appropriate preservatives, typically hydrochloric acid. The samples are filled to the top of the bottle so that there are no air bubbles.

The sample bottles are labeled with the well number, date, location, sampler's initials, and preservative. The sample vials are placed in an iced cooler for delivery to a certified laboratory for analysis. Standard chain-of-custody procedures are followed.

## **Attachment C-1**

## **Sonic Drilling Method Description**

(provided by Boart Longyear)

## The Principle of Sonic Drilling

Sonic Drilling, Rotasonic, Rotosonic, Sonicore, Vibratory or Resonantsonic Drilling, are some of the many names given to a dual cased drilling system that employs the use of high frequency mechanical vibration to take continuous core samples of overburden and most bedrock formations, and to advance casing into the ground for well construction and other purposes.

Any of the names above can be used because they all describe a high frequency vibratory drilling system that is basically the same. The only differences are the rig designs, the operators, and some of the downhole tools and methods of operation that various sonic drillers or companies use. For ease, and to be consistent, we will refer to this system or method as sonic drilling throughout this article.

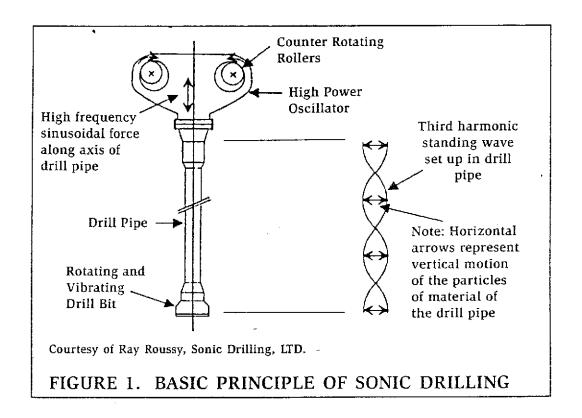
The word sonic appears in most of these names because this drilling technique vibrates the entire drill string at a frequency rate between 50 and 150 hertz or cycles per second. This frequency falls within the lower range of sound vibration that can be detected by the human ear, thus the term sonic has been commonly used to describe this drilling system.

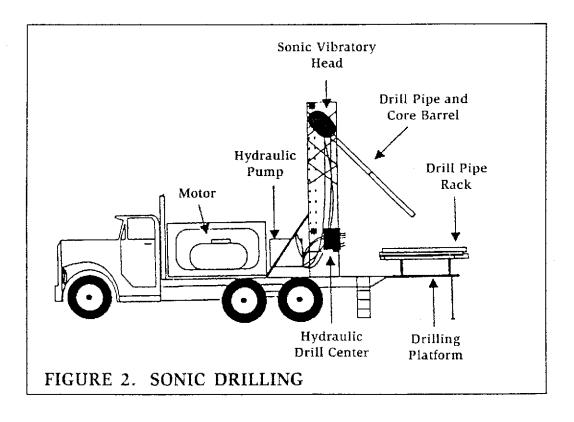
The Rota- or Roto- part of the drilling technique refers to the rotational power that can be applied in hard formations to slowly rotate the drill string to evenly distribute the energy and the wear at the drill bit face.

A sonic drill rig looks and operates very much like any conventional top-drive rotary or auger rig. The main difference is that a sonic drill rig has a specially designed hydraulically powered drill head or oscillator which generates adjustable high frequency vibrational forces. The sonic head is attached directly to the core barrel, drill pipe or outer casing, sending the high frequency vibrations down through the drill steel to the face of the drill bit creating the displacement, fracturing or shearing action depending upon the foundation being drilled.

The oscillator uses two eccentric, counter rotating balance weights or rollers that are timed to direct 100 percent of the vibration at 0 degrees and 180 degrees. There is an air spring system in the drill head that insulates or separates the vibration from the drill rig itself. This principle is shown in Figure 1.

The vibrational frequency is controlled to suit operating conditions and to achieve optimum drilling rates. When the vibrations coincide with the natural resonate frequency of the steel drill rod or casing a natural phenomenon called resonance occurs, therefore the word resonant. A complete or detailed discussion of resonance is beyond the scope of this article. However, a brief explanation of what resonance does with this system is to allow the rig to transfer timed vibrational energy into the top of the drill string, utilizing the natural stored energy of the steel, to cause the drill string to act like a flywheel or a spring delivering tremendous amounts of energy directly to the bit face. This, plus the fact that the soil particles along the side of the drill string tend to fluidize or move away from the drill string allows for very fast penetration rates. In many overburden formations, a sonic drill rig can achieve rates of one foot per second.





#### Sonic Bore Hole Advancement

**Process:** The processes which result in borehole advancement are fracturing, shearing and displacement. Drilling through cobbles, boulders and rock is caused by fracturing of the material by the inertial moment of the drill bit. Shearing takes place in dense silts, clay and shales, provided the amplitude of the drill bit is high enough to overcome the elasticity of the formation material. Displacement occurs when unconsolidated formation material is moved away by the vibrating drill bit. We have 3 drill basic drill bit face designs:

- 1) "Crowd in" moves all the bit face material into the core barrel.
- 2) "Crowd out" moves all the bit face material into the borehole wall.
- 3) "Neutral" lets the bit face material seek the path of least resistance..

Very few, if any, drill cuttings are conveyed to the surface, except for the core sample itself. As a result the volume of drill cuttings generated during sonic drilling is in most cases only 10% to 20% of the volume created by hollow stem auger, rotary, or cable tool methods.

Operation: Optimum penetration rates are obtained when the vibration frequency and down-pressure work in harmony. Experienced drillers have a "feel" when this occurs, and it is monitored by watching the oil pressure gauges in the system. The driller watches the pressure gauges and modifies the frequency of the vibration being generated, the rotation, or the down pressure for the conditions encountered. Adjustments to the frequency are accomplished with a lever which controls two hydraulic motors that drive the counter-rotating rollers.

Several design features in addition to the use of vibration increases the speed and efficiency of the drilling process. The head, which combines rotation and vibration as previously discussed, is able to pivot 90 degrees. This allows rapid connection of flush-threaded drill pipe by rotating a male-threaded adapter on the head and aligning a length of female-threaded drill pipe directly to the adapter on the head. A fully automated, hydraulic, rotating wrench allows easy breakdown of the drill pipe connections. Once the connection is broken, the head and drill pipe are pivoted to the horizontal position, the rotation is reversed, and the drill pipe is "unscrewed" from the head.

<u>Safety:</u> Another feature of the sonic drill rig is a raised drilling platform. The drilling platform is approximately four feet above the ground surface, allowing a safer and cleaner work environment. Drilling operations are conducted without the inconvenience often caused by ground surface conditions (mud, snow, etc.). The drill pipe is stacked on racks on the platform, which increases the speed of adding and removing the drill string. Figure 2 on page 3 is a diagram which displays these features.

## Appendix D

**Boring Logs and Well Completion Diagrams** 

	MAJOR DIVIS	SIONS			TYPICAL NAMES
		Clean gravels with	GW	0 0 0 0 0 0	Well graded gravels with or without sand, little or no fines.
S _	GRAVELS more than half coarse fraction is	little or no fines	GP		Poorly graded gravels with or without sand, little or no fines.
OARSE-GRAINED SOILS more than half is coarser than No. 200 sieve	larger than No. 4 sieve size	Gravels with	GM	11 21 21 11 11 11 12 12 11 11 11 12 12 11 11 11	Silty gravels, silty gravels with sand.
Malf is 200 s		over 12% fines	GC		Clayey gravels, clayey gravels with sand.
COARSE-GRAINED more than half is co than No. 200 sie	SANDS	Clean sands with	SW		Well graded sands with or without gravel, little or no fines.
COAR More th	more than half coarse fraction is	little or no fines	SP		Poorly graded sands with or without gravel, little or no fines.
J	smaller than No. 4 sieve size	Sands with	SM		Silty sands with or without gravel.
		over 12% fines	sc		Clayey sands with or without gravel.
ø.	68 TO 4 N	2 01 13/0	ML		Inorganic silts and very fine sands, rock flour, silts with sands and gravels.
SOIL is finer sieve	SILTS ANI liquid limit 5		CL		Inorganic clays of low to medium plasticity, clays with sands and gravels, lean clays.
haff n 200			OL		Organic silts or clays of low plasticity.
FINE-GRAINED SOILS more than half is finer than No. 200 sieve	SILTS AN	) CLAVE	МН		Inorganic silts, micaceous or diatomacious, fine sandy or silty soils, elastic silts.
ENE ⊕	liquid limit grea	<del>_</del>	СН		Inorganic clays of high plasticity, fat clays.
			OH		Organic silts or clays of medium to high plasticity.
<del></del>	HIGHLY ORGANIC	SOILS	Pt		Peat and other highly organic soils.
	SYMBOLS	<b>S</b> ,			DRILL LOG ROCK TYPES
$\nabla$	First Encountered Gr Static Groundwater	oundwater			Limestone
	Portland Cemer	nt			Dolomite
	Blank Casing Bentonite Pelle				Mudstone
	Filter Deel				Siltstone
	Filter Pack				Sandstone
	Screened Casir	ng			igneous



UNIFIED SOIL CLASSIFICATION SYSTEM DESCRIPTIONS AND SYMBOLS USED ON ETIC DRILL LOGS

E	Ti	C			· · · · · · · · · · · · · · · · · · ·	CLIENT	Mobil	1	NUMBER 7-3399	}	OCATION 2991 Hop Pleasant	
	oering	, Inc. OIL BO	RING:	ΜV	/12	DRILLING ANI SAMPLING MI		Drilled	le cleared to with a Sonic ! ed with a 6.28	Orill Rig with	sing a hand a 8.33" OD Ca	auger. asing.
COOL	RDINAT	FEO.				WATER LI	EVEL	51.9				LING
COOr	VDII VA	; E3.				TIME		0914			START TIME	FINISH TIME
ELEV	ATION	тор о	F CASI	NG:		DATE		8/22/00				
CASIN	IG BEI	.ow st	JRFAC	E:		REFEREN	NCE	TOC			DATE 8/15/00	8/17/00
INC							SURFA	CE CONDIT	TONS		<u> </u>	<u> </u>
DRIVEN	RECOVER	BLOWS/6" SAMPLER	PID READING	WELL DETAIL	DEPTH (feet)	GRAPHIC LOG	DERCE	RIPTION BY:		Aspl	halt (2.5")	-
N N	F.	SAN	등품	1			DESCR	GF HUN BY.		Н. Ваггу а	nd B. Cam	pbell
	<u>,</u>		<u> </u>		0	 	ASI	PHALT (2.5	5") (EV ODAVEL	(O\40, -  -		- (0.5)
1	-				1—	; GW ,	4/2)	), well grade	EY GRAVEL ed, medium c	ementation,	damp, subai	n (2.5Y ngular to
			_		2 —	CL	SIL	TY CLAY (	avel to 1.5″, fi CL): olive brow	vn (2.5Y 4/3	3), medium pi	asticity,
					3			dium stiff, d vei to 1".	amp; fine to c	coarse sand	, some subar	ngular
					4 —							
					5 —		CLA	YEY SILT	(ML): dark ye	llowich brou	un (10VP <i>NA</i>	\ ea#
					6 —	ML ML			lamp; some c			<i>)</i> , aoit,
					<u> </u>							
					3 7— 6							
					8 —							
					9 —							
					्र 10 —		SILT	TY CLAY ((	CL): olive (5Y	4/3), mediu	m to high pla	sticity.
	ŀ					CL		damp.	, <b>(</b>			,,
					11—							
					12 —		SAM	1E: olive ye	llow mottling,	increase in	silt content.	
					13 —		ــ					
					हैं। () ()			YEY SILT some fine	(ML): olive (5' sand.	Y 4/3), low p	plasticity to no	onplastic,
-					14 —							
					15 —							
					16 —				e gray (5Y 4/: came silty at			
					17	CL	mott		only at	. J., JONOWA	J.J. (10	
	-											
					18							
_					19 —							
					20 —	CL	CLA'		k olive gray (	5Y 3/2), har	d, medium pla	asticity,

<u></u>		! 🛖			<del></del>	CLIENT		SITE NUMBER	LOCATION
	neering,	t, Inc.		 		Exxc	on Mobil	7-3399	2991 Hopyard Rd. Pleasanton, CA
INC	CHES						LOG OF	SOIL BORING:	
DRIVEN	RECOVER	BLOWS/6" SAMPLER	PID READING	WELL ETAIL	DEPTH (feet)	GRAPHIC LOG			IW12
					21 —	CL	SILTY CI damp; fin	LAY (CL): olive gray (5Y 4/ m at 20.5'.	/2), soft, medium plasticity,
					22 — 23 —				
					24 —		SAME: so	oft.	
					25 —	ĆL ,			
					26 — 27 —		SAME: ca	olor changes to olive (5Y 5/	/3), firm.
					28 —	CL	CLAY (CI damp; be	L): olive gray (5Y 4/2), med came sandy between 28-2	dium plasticity, firm to hard, 29, fine sand.
					29 — 30 —				
			r		31—	ĆL /	SANDY C fine sand.	CLAY (CL): olive (5Y 5/3), s	oft, low plasticity, damp,
					32 — 33 —			.AY (CL): grayish brown (2.	.5Y 5/2), hard, medium
					34 —	CL//	plasticity, o	damp.	
					35 — 36 —		SAME: ra	re well-rounded gravel to 0	).5 <b>"</b> .
					37 —	CL.	SANDY CI nonplastic gravel to 0	CLAY (CL): light olive brown c, damp; fine to medium sar 0.25".	ı (2.5Y 5/3), firm, ınd, rare subrounded
_					38 — 39 —X		j		
					40	SM	cementation	ND WITH GRAVEL (SM): pon, subrounded to angular tines, moist.	pale olive (5Y 6/3), weak gravel clasts up to 2cm,
<del>-  </del>					41 —		,		
			(2) (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4	$\Delta$	43	A A A A	medium to	WITH SAND (GW): olive (5 coarse sand, subrounded c, nonplastic fines; minor sill	gravel clasts up to 8cm,
					44 —			·	<u> </u>

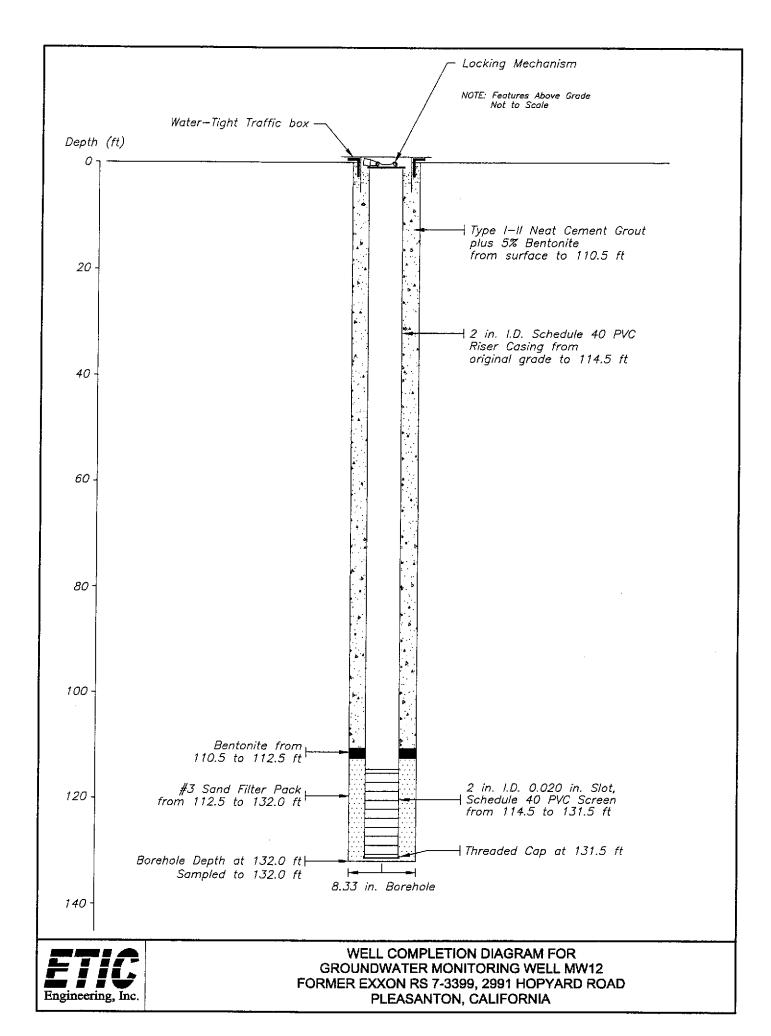
	77 5	<b>~</b>	_			<del></del>	CLIENT		SITE NUMBER	LOCATION	
Engin	neering,	, Inc.					Exxo	on Mobil	7-3399	2991 Hopyard Rd. Pleasanton, CA	
INC	HES							LOG OF	SOIL BORING:	<del></del>	
DRIVEN	RECOVER	BLOWS/6" SAMPLER	PID READING	DE.	ELL TAIL	DEPTH (feet)	GRAPHIC LOG	GRAPHIC RANAIA O			
						46	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	🖣 medium t	. WITH SAND (GW): olive to coarse sand, subrounde lk, nonplastic fines; minor	ed gravel clasts up to 8cm,	
				-		47 — 48 —	4	, ,			
				-		49 — 50 —	P	SAME: sa	aturated, subrounded to re	ounded gravel to 8cm.	
						51	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7				
			<u>-</u>	-		52 — 53 —			LAY (CL): pale olive (5Y 6, icity, damp.	/3), white stringers, hard,	
				-		54 — 55 —	ML		TH MINOR CLAY (ML): oli	ve (5Y 5/4), soft, low	
				-		56 —X	CL.	SILTY CL plasticity,	_AY (CL): olive (5Y 5/4), fi damp.	rm to hard, medium-high	
						58 — 59 —		GRAVEL	LY CLAY (CL): olive (2.5Y	/ 5/2) firm madium	
				-		60 —	CL	plasticity,		r 5/3), 11m, medium ar gravel clasts up to 5.5cm,	
						61 — 62 —	ĞW-GM ,	graded, w	RAVEL WITH SAND (GW- veak, medium to coarse sa to 4cm, nonplastic fines, v	and, subrounded gravel	
						63 — 64 —	SW	medium to	ITH GRAVEL (SW): office (o coarse sand, subrounde		
_						65 — 66 —			nplastic fines, wet.		
						67 — 68 —	SP/GW	subrounde	TH GRAVEL (SP/GW): of ed gravel clasts up to 3cm es to almost GW below 67		
						69	///cL//	medium p	AY (CL): light olive brown lasticity, damp; white strin te spots visible at variable	ngers from 72 to 75.5;	

	T!	7				CLIENT		SITE NUMBER	LOCATION			
Engine		Inc.				Exxo	n Mobil	7-3399	2991 Hopyard Ro Pleasanton, CA			
DRIVEN	RECOVER <sup>M</sup>	BLOWS/6" SAMPLER	PID READING	WELL DETAIL	DEPTH (feet)	GRAPHIC LOG	LOG OF SOIL BORING:					
					71—							
					72 — 73 —	CL /	SILTY CLAY (CL): light olive brown (2.5Y 5/6), firm to medium plasticity, damp; white stringers from 72 to 75 some white spots visible at variable depths.					
					74 — 75 —							
	-				76 –X							
					77 — 78 —							
					79 —		SAME: ra	are subrounded gravel to 4	lcm at 79'.			
					80 — 81 —	CL CL	SAME: ol	ive (5Y 4/3) mottling starti	ng at 80'.			
					82 — 83 —							
			6		84 —							
					85 — 86 —		SAME: te	st at 85' -> dry strength =	hìgh.			
					87 —		SAME: or	nly minor mottling below 8	8': becomes sandy below			
	-				88 — 89 —		88'.	,	,,,,			
			3		90 — 91 —	CL						
					92 —	SP-SM	SAND WI weak, fine	TH SILT (SP-SM): olive (5 s sand, low plastic fines, w	5Y 4/3), poorly graded, ret.			
			(		93 — 94 —	, , , , , , , ,	medium p	AY (CL): light olive brown lasticity, damp; some whit	(2.5Y 5/6), firm to hard, te spots visible at variable			
					95 —		depths.					

·

_	<del></del>				<u> </u>		CLIENT		SITE NUMBER	LOCATION		
ngi	ineering	g, Inc.					Exxc	on Mobil	7-3399	2991 Hopyard Rd. Pleasanton, CA		
INC	CHES	T	·					LOG OF	SOIL BORING:			
DRIVEN	RECOVER	BLOWS/6" SAMPLER	PID READING		VELL ETAIL	DEPTH (feet)	GRAPHIC LOG	_		/W12		
						96 — 97 —	CL	SILTY C medium depths.	CLAY (CL): light olive brown plasticity, damp; some whit	ı (2.5Y 5/6), firm to hard, ite spots visible at variable		
			-	_		98 — 99 —		SAME: c	color change to pale yellow	' (5Y 7/3) below 98'.		
_						100 101		SAME: g	SAME: grades to very hard below 100'.			
				1		102 —		SAME: grades to firm between 105-108'; hard below 108'.				
						103 — 104 —						
						105 — 106 —	CL					
					ARC ASS	107 — 108 —						
						109 — 110 —		SAME: n	minor very fine sand content	t below 109'.		
				Secretary	3-12-15-15-15-15-15-15-15-15-15-15-15-15-15-	111 — 112 —	CL					
						113 —						
						114 —		SAND (SP): dark olive brown (2.5Y 3/3), poorly graded,				
						116 — 117 —	SP	medium to coarse sand, gravel content increases from none		tent increases from none nor silt content, moist,		
						118 119	2 CWP 7	GRAVEL WITH SAND (GW): dark olive brown (2.5Y 3/3), well graded, weak, subrounded to subangular clasts up to 6.5cm,				
	<b></b> '				∄ ∥	120 —	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	nonplasti	weak, subrounded to suban ic fines, moist.	iguiar ciasis up to o.com,		

		<b>~</b>				CLIENT		SITE NUMBER	LOCATION				
	eering,	Inc.				Exxo	n Mobil	7-3399	2991 Hopyard Ro Pleasanton, CA				
DRIVEN	RECOVER D	BLOWS/6" SAMPLER	PID READING	WELL DETAIL	DEPTH (feet)	GRAPHIC LOG	LOG OF S	OIL BORING:	IW12				
					121	* '	graded, w	WITH SAND (GW): dark of eak, subrounded to subate fines, moist.	olive brown (2.5Y 3/3), well ngular clasts up to 6.5cm,				
					123 — 124 —	CLIML	CLAYEY and plasticity,	SILT (CL/ML): olive brown damp; some medium to c	n (2.5Y 5/6), soft, low oarse sand.				
					125 — 126 —	SP	SAND (SP): dark olive brown (2.5Y 3/3), poorly grad medium sand, weak, nonplastic fines, moist.						
					127 — 128 —	P q P q	GRAVEL WITH SAND (GW): light olive brown (2.5) graded, weak, subrounded to subangular clasts up						
	129 - 130 - 131 - 132 -					\$ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	nonplastic fines, moist.  SAME: very coarse gravel, subrounded clasts up to 8cm.  GRAVEL WITH SAND (GW): light olive brown (2.5Y 5/4), v graded, weak, subrounded to subangular clasts up to 5cm, nonplastic fines, moist.						
						P GW P							
					133 —		Boring terr Sampled to	ninated at 132 feet below o 132 feet below ground s	ground surface. surface.				
					135 —								
	-				137 —								
	140				140								
143 ————————————————————————————————————						_							
					144	_							



E	Ti	C					CLIENT	Mobil		NUMBER 7-3399		ocation 2991 Hop Pleasant	
•••	eering		RING:	M	<b>W</b> 1	2A	DRILLING ANI SAMPLING MI	_	Drilled v	vith a Sonic	Drill Rig with	sing a hand a 8.33" OD Ca foot sampler	auger. asing.
							WATER LI	EVEL	57.04			DRIL	LING
COOF	RDINA	res:					TIME		1639			START TIME	FINISH TIME
ELEV	ATION	TOP O	F CAS	ING:			DATE		8/30/00				
CASIN	IG BEI	-OW SU	JRFAC	E:			REFERE	NCE	TOC			8/28/00	DATE 8/30/00
INC		S/6" ER	NG.		ELL	DEPTH	GRAPHIC	SURFA	ACE CONDIT	IONS	A	sphalt	
DRIVEN	RECOVER	BLOWS/6" SAMPLER	PID READING	DE	TAIL	(feet)	LOG	DESCF	RIPTION BY:		H. Barry aı	nd B. Camp	obeli
						0 — 1 — 2 — 3 — 5 — 6 — 7 — 9 — 11 — 11 —	GW CL	LOC ASS SAI 4/2, sub SIL me- gra	G OF MW12 PHALT (2.5 NDY, CLAY, ), well grade rounded grade TY CLAY (0 dium stiff, de vel to 1".  AYEY SILT	E FOR 0-110 ") EY GRAVEL od, medium of avel to 1.5", i CL): olive bro amp; fine to o	P BGS (included): dark comentation, fine to coarse wan (2.5Y 4/3 coarse sand, fillowish broweday, rare fine fine fine fine fine fine fine fin	)), medium pi some subar rn (10YR 4/4	talics).  In (2.5Y Ingular to Ilasticity, Ingular Ilasticity, Ilas
						12 —		SAI	ME: olive ye	llow mottling	ı, increase in	silt content.	
						13 —	ML		YEY SILT ( ; some fine		5Y 4/3), low p	plasticity to n	onplastic,
						15 — 16 —	CL	han				plasticity, firn ish brown (10	
						18 — 19 — 20 —	CL	CLA dan		k olive gray (	(5Y 3/2), han	d, medium pl	asticity,

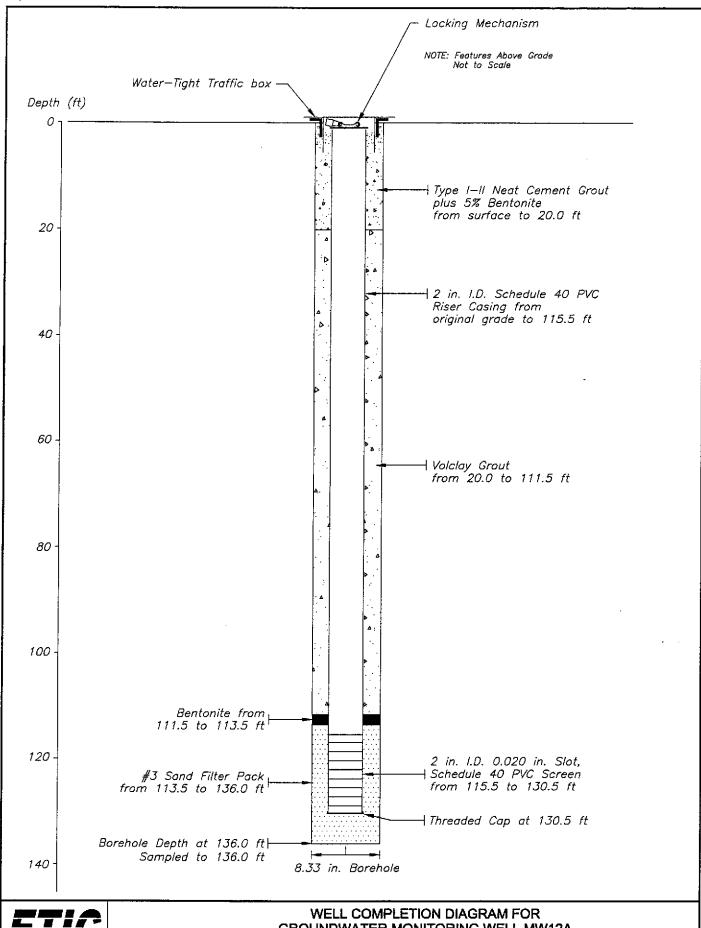
					CLIENT		SITE NUMBER	LOCATION
Engineeri	ng, Inc.				Exxo	on Mobil	7-3399	2991 Hopyard Rd Pleasanton, CA
DRIVEN ZI DA PECOVER SI	BLOWS/6" SAMPLER	PID READING	WELL DETAII		GRAPHIC LOG	LOG OF S	OIL BORING:	W12A
				21—	<u>-</u>	SILTY CL damp; firm		2), soft, medium plasticity,
				22 — 23 — 24 —		SAME: so	ft.	
				25 — 26 —	CL	SAME: co	for changes to olive (5Y 5	/3). firm.
				27 — 28 — 29 —	CL	CLAY (CL,		lium plasticity, firm to hard,
		7		30 — 31 —	CL /	SANDY Ci fine sand.	LAY (CL): olive (5Y 5/3), s	oft, low plasticity, damp,
				32 — 33 — 34 —	CL	SILTY CLA plasticity, o	AY (CL): grayish brown (2. damp.	5Y 5/2), hard, medium
;				35 — 36 —		SANDY CL	e well-rounded gravel to 0 .AY (CL): light olive brown	ı (2.5Y 5/3), firm,
				37 — 38 — 39 —		nonplastic, gravel to 0	damp; fine to medium sa .25".	nd, rare subrounded
				40 — 41 — 42 —	SM	SILTY SAND WITH GRAVEL (SM): pale olive (5Y 6/ cementation, subrounded to angular gravel clasts up nonplastic fines, moist.		oale olive (5Y 6/3), weak gravel clasts up to 2cm,
				43 — 44 —	*	GRAVEL WITH SAND (GW): olive (5Y 5/3), well graded, medium to coarse sand, subrounded gravel clasts up to 8cr wet, weak, nonplastic fines; minor silt.		

	Ti	1 1 1					CLIENT		SITE NUMBER	LOCATION		
Ingine	eering,	Inc.					Exxo	n Mobil	7-3399	2991 Hopyard Rd Pleasanton, CA		
INCH	ES							LOG OF	SOIL BORING:			
	RECOVER	BLOWS/6" SAMPLER	PID READING		ELL T <b>AIL</b>	DEPTH (feet)	GRAPHIC LOG			W12A		
				NO.		M	σ' σ σ' σ		•			
$\dashv$						46		4				
					13.24.24 23.24.24	47 —	A A A A A	<del>-</del>				
						47						
-						48 —	Δ · Δ · Δ · Δ · Δ · Δ · Δ · Δ · Δ · Δ ·	4				
							P GW		. WITH SAND (GW): olive	(5Y 5/3), well graded, led gravel clasts up to 8cm,		
						49 —	4 6 4 6 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	wet, wea				
$\perp$						50 —	A A A A A	,	-			
				1234		N						
+						51 - N	A A A A A A	SAME: saturated, subrounded to rounded gravel to 8				
						50	0 0 0 0					
						52	9 p 9 p					
$\rightarrow$						53 —		SILTY C	3). white stringers, hard.			
				70 TO 10 TO			CL	SILTY CLAY (CL): pale olive (5Y 6/3), white stringer low plasticity, damp.				
$\top$						54		1				
						55 —			TH MINOR CLAY (ML): of	ive (5Y 5/4), soft, low		
						<b>55</b>		plasticity	, damp.			
+						56 – <sup> X</sup>						
	ŀ						CL///	SILTY Cl plasticity		îrm to hard, medium-high		
						57 —		ризиску,	, vamp.			
$\perp$						58	<i>#//////</i>	1				
			3			:						
						59	////cL///		LY CLAY (CL): olive (2.5)	Y 5/3), firm, medium ar gravel clasts up to 5.5cm,		
						60 —			, subrounded to subangur inor coarse sand.	ar graver clasis up to o.ocin,		
+					No. 17 and Sec.	61—	(////////	]				
							2. 2. 2. 2. 2. 5. 2. 5. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.			/-GM): olive (5Y 5/4), well		
$\top$						62	ĞŴ-GM		veak, medium to coarse s to 4cm, nonplastic fines,			
						63 —	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	j	. ,			
	ļ		[		(A. 65) (2. (A.			]				
+						64 <u>X</u>	SW		TH GRAVEL (SW): olive			
	}		,			δς. (2)			to coarse sand, subround ic fines, wet.	ed clasts up to 4.5cm, weak,		
$\top$				3. 40.3 3. 2. 3.		65 —		oripiada				
_						66						
	}						SP/GW	SAND WITH GRAVEL (SP/GW): olive (5Y 4/3), poor				
+						67 —		subrounded gravel clasts up to 3cm, weak, nonplastic fi wet; grades to almost GW below 67.5'.				
						<sub>68</sub> _\[ \]						
$\top$			i i			00						
$\perp$						69 —	77777777	SILTY CL	AY (CL): light olive browl	n (2.5Y 5/6), firm to hard.		
	-		[				///ct///	medium į	olasticity, damp; white stri	ngers from 72 to 75.5;		
					1,000	70 —	<del>//</del> //////	some wh	ite spots visible at variable	e depths.		

		$\overline{}$				~~~	CLIENT		SITE NUMBER	LOCATION				
Ingine	ering,	Inc.					Exxo	n Mobil	7-3399	2991 Hopyard Ro Pleasanton, CA				
INCH	ES							LOGIOE	SOIL BORING:					
DRIVEN	RECOVER	BLOWS/6" SAMPLER	PID READING	WE DET		DEPTH (feet)	GRAPHIC LOG			W12A				
						71								
						72 —	CL	SILTY C	LAY (CL): light olive brow plasticity, damp; white sti	m (2.5Y 5/6), firm to hard, ringers from 72 to 75.5;				
-						73 —		some wi	hite spots visible at variab	le depths.				
				-37-31 -37-31		74								
						75								
						75 — ∇								
					2555 1852	76 – <sup>K</sup>								
						77 —								
						78 —								
								DA145.	rare subrounded gravel to	Acm at 70'				
						79 —		SAME: 1	are subrourided graver id					
						80	///CL//							
				- 12		81		SAME: 0	olive (5Y 4/3) mottling sta	rting at 80'.				
			-			t. ≱ €								
						82 —								
					1.300 1745	83 —								
						84 —	4/////							
			-			0.5		SAME:	test at 85' -> dry strength	= high.				
						85 —								
						86 —								
	<del></del>					87	<del>//</del> /////							
_						88			only minor mottling below	88'; becomes sandy below				
								88'.						
						89	CL							
						90								
			<u> </u>			91 —								
			-					SAND	NITH SILT (SP-SM): olive ine sand, low plastic fines	e (5Y 4/3), poorly graded, wet				
						92 🔻	SP-SM	ਾ weak, π	ne sanu, iuw piasuc nnes	, 1106				
	<u> </u>					93 —	77//////			o prepara and the				
						94 —	CL	SILTY 0	CLAY (CL): light olive bro n plasticity, damp; some v	wn (2.5Y 5/6), firm to hard, vhite spots visible at variable				
			-					depths.						
		<del> </del>			3-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	95 —	<del>//</del> /////	<u> </u>						

	Tif						CLIENT		SITE NUMBER	LOCATION				
Engin	eering, Inc	c.					Exxo	n Mobil	7-3399	2991 Hopyard Re Pleasanton, CA				
DRIVEN		SAMPLER	PID READING	WE DET		DEPTH (feet)	GRAPHIC LOG	LOG OF S	SOIL BORING:	W12A				
						96 — 97 —	gL//		AY (CL): light olive brown lasticity, damp; some wh	(2.5Y 5/6), firm to hard, te spots visible at variable				
						98 — 99 —		SAME: co	lor change to pale yellow	(5Y 7/3) below 98'.				
						100 — 101 —		SAME: gr	AME: grades to very hard below 100'.					
						102 103								
						104 105								
						106	CL	SAME: gn	ades to firm between 105	-108'; hard below 108'.				
						107 — 108 —		SAME: mi	nor very fine sand conten	t holow 100'				
						109 — 110 —		MW12 LOG	BETWEEN 0-110' BELOW 3 BELOW 110' BELOW G	GROUND SURFACE				
					. Spele	111 — 112 —	CL.	plasticity, o	AY (CL): olive (5Y 5/4), fir damp; minor very fine sar rse sand below 111.5′; sa					
						113 — 114 —								
						115 — 116 —								
						117 — 118 —	SP	medium to at 115.5' to	ND (SP): dark olive brown (2.5Y 3/3), poorly graded, dium to coarse sand, gravel content increases from non 15.5' to GW at 118.5', weak minor nonplastic silt, moist prounded gravel clasts to 5cm.					
						119 — 120 —	P GWP V	graded, we	VITH SAND (GW): dark o eak, subrounded to subar fines, weak.	live brown (2.5Y 3/3), well gular clasts up to 6.5cm,				

					CLIENT		SITE NUMBER	LOCATION
Engineering	, Inc.				Exxo	n Mobil	7-3399	2991 Hopyard Rd. Pleasanton, CA
DRIVEN NI DRIVEN NI DAN	BLOWS/6" SAMPLER	PID READING	WELL DETAIL	DEPTH (feet)	GRAPHIC LOG	LOG OF S	SOIL BORING:	V12A
DRIVEN	BI OWS/E	PID	DETAIL		GRAPHIC LOG	graded, we nonplastic CLAYEY plasticity, SAND (Si medium si medium si 13cm, nor si 13cm, nor si 15cm, nor si	WITH SAND (GW): dark of yeak, subrounded to subant chang, some medium to complete the subant change of the subrounded to subant change of the subrounded to subant change of the subrounded to subplastic fines, moist.	live brown (2.5Y 3/3), well gular clasts up to 6.5cm,  (2.5Y 5/6), soft, low barse sand.  3/3), poorly graded, moist.
				141 ———————————————————————————————————				

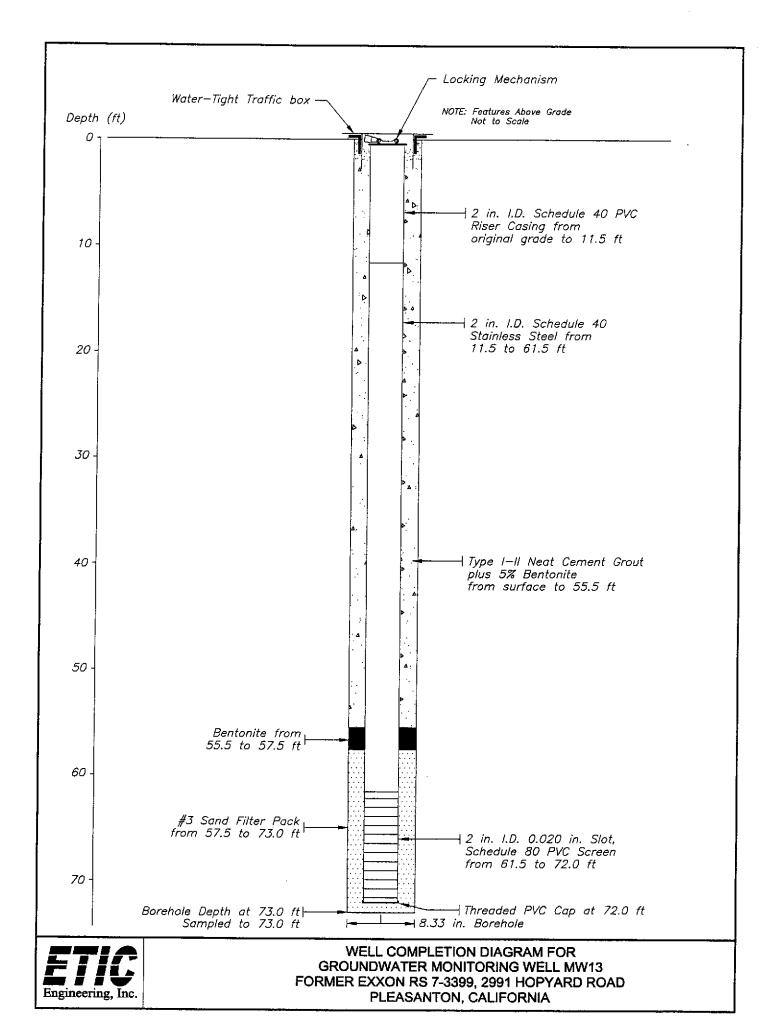


ETIC Engineering, Inc. WELL COMPLETION DIAGRAM FOR GROUNDWATER MONITORING WELL MW12A FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD PLEASANTON, CALIFORNIA

E	Ti	C					CLII	ENT Ex	xon	Mobil	S	ITE !	7-3399		LC	OCATION 2991 Hop Pleasant	-
	eering	, Inc. OIL BO	RING:	М	W	13		ILLING MPLIN		THODS	Drille	d w	ith a Sonic D	Drill Rig	with	sing a hand a 8.33" OD Ca foot sampler	asing.
						_	W	ATEF	R LE	EVEL	44.63	3'					LING.
COOF	RDINAT	res:						Ti	ME		0755	;				START TIME	FINISH TIME
=1 FV/	ATION	TOP O	F CASI	ING:					١TE		8/21/0	ກ					
		.ow st					R	EFE			BGS					DATE 8/18/00	DATE 8/23/00
INC	HES									SURFACE CONDITIONS							
z	VER	S/6"	S NG	WE		DEPTH	G	RAPHI	IC					1	Asph	nalt (2.5")	
DRIVEN	RECOVER	BLOWS/6" SAMPLER	PID READING	DET	AIL	(feet)		LOG		DESCR	IPTION E	Y:			B. C	ampbell	
				4	7 8	0 —	727		,,,,	ASI	PHALT (	2.5"	)				
				-2.4		1		GC								(GC): dark	
						2							?), medium ovel to 1.5", f			, damp, suba e sand.	ingular to
								CL		SIL	- TY CLAY	- / (Cl	L): olive bro	wn (2.5	Y 4/3	i), medium p	lasticity,
						3—			$\prod$							subangular	
						4				\	_						
						5 —				C) 4	VEV OII	T /	MI \ dods a	lloudab	bross	m (10VP 1/4	the A
							CLAYEY SILT (ML): dark yellowish low plasticity, damp, some clay, rare								·), SUIL,		
						6 —											
	<del></del>					7 —											
						8 —											
						9		///									
İ										SIL	TY CLAY	r (Cl	L): olive (5Y	4/3), m	nediu	m to high pla	sticity.
		•				10 —		ÇĻ.			, damp.	, (Ο.	_,,				
$\dashv$						11				CAL	AF. In one		.i= eilt ===t=				
						12 —				SAI	vi⊏. INCTE	:45 <b>0</b>	in silt conte	all.			
						13				_						<u></u> -	
					1765% 1765%	13		ML					ML): olive (5 sand, damp.		low t	o medium pl	asticity,
	<u></u>					14					•		•				
						15 —	4										
						16 —				O. A	V (OL)	- li	(EV A	M)	di	plantinity fir	ma ta
						17 —	<i>[//</i>	CL		hard	i, damp;	bec	ame silty at	،∠), ≀ne≀ 16ft; ye	osum Slowi	plasticity, fir ish brown (10	OYR 5/4)
						45				mot	tling.						
						18 -											
						19 —		<i>44.</i>	4	_							
						20		CL		CLA dam		dark	colive gray (	(5Y 3/2)	), han	d, medium p	lasticity,
					5-15	20		<u>/CL</u>	//Z	Juil	-r						

	Ţ,	<u> </u>					CLIENT		SITE NUMBER	LOCATION	
Ingin	eering,	Inc.					Exxo	n <b>Mo</b> bil	7-3399	2991 Hopyard Ro Pleasanton, CA	
INCH					- 41			LOG OF S	SOIL BORING:		
DRIVEN	RECOVER	BLOWS/6" SAMPLER	PID READING		ELL TAIL	DEPTH (feet)	GRAPHIC LOG		N.	IW13	
	_					21		SILTY CL damp; firm		/2), soft, medium plasticity,	
						22					
						23 —	4/////				
	i							SAME: so	ft at 23'.		
						24 —	CL				
					253 355	25 —		OAME: -4	051 lb 415	- (EV E(0)	
						26		SAME: at	25' color changes to olive	יסיס (פון מוס זות).	
						27 —					
						28 —		CLAY (CL	\ albia mai/5\/ 4(0\ ma	diran alasticke flore to be ad	
						29	CL//		ones sandy between 28	dium plasticity, firm to hard, -29', fine sand.	
						29					
						30 —		SANDYC	LAY (Ct.): plive (5Y 5/3)	soft, low plasticity, damp,	
						31	CL	fine sand.	LRT (OL): 0446 (31 3/3),	soit, iow plasticity, dailip,	
	ŀ					00					
						32 —					
					200	33 —					
						34 —			AY (CL): grayish brown (2		
	-							plasticity, on below 34'.	damp; soft 31-32'; firm 32	-34', hard to very hard	
						35 —					
						36 —					
	-					37				n (2.5Y 5/3), firm, medium	
T						31	CL//	plasticity, o		nd, rare subrounded gravel	
						38 —		<b></b>			
						39 —		<b></b>			
	-			And the second of the second o			SM	subrounde	ND (SM): pale olive (5Y 6 ed to subangular clasts up	/3), weak, minor gravel, to 2cm, nonplastic fines,	
						40		moist.	- •		
-						41		GRAVEL WITH SAND (GW): olive (5Y 5/3), well graded, medium to coarse sand, subrounded gravel clasts up to 8cm,			
						42 —					
	}										
						43 —	- GW				
						44 —			nonplastic fines, minor s		
	}				$\left  \begin{array}{c} 1 \\ 1 \end{array} \right $	15					
				Section 1	1	45 —	0 0 0 0 4	<del></del>			

CLIENT SITE NUMBER LOCATION 2991 Hopyard Rd. Exxon Mobil 7-3399 Engineering, Inc. Pleasanton, CA INCHES LOG OF SOIL BORING: BLOWS/6" SAMPLER RECOVER PID READING WELL DEPTH **GRAPHIC MW13** DRIVEN **DETAIL** (feet) LOG SILTY CLAY (CL): light olive brown (2.5Y 5/6), firm to hard, medium plasticity, damp. ÇĹ. Boring terminated at 73 feet below ground surface. 73 Sampled to 73 feet below ground surface. 75 -76 **77** · 78 -79 81 82 83 85 -86 87 88 89 90 -91 -92 93 94 95 -



Ē	Ti	C	<u>-</u>		•		CLIENT	Mobil		TE NUM	BER 7-3399	1	LOCATION 2991 Hop Pleasant		
	eering	, Inc. OIL BO	RING:	N	١w	14	DRILLING AN		3 Drille	d with a	Sonic I	Orill Rig with	using a hand a n 8.33" OD Ca n-foot sample	asing.	
COOL	RDINA	TEQ.				-	WATER LI	EVEL	51.24	٠				LING	
,001	CONTA	1 E3.					TIME		1016				START	FINISH TIME	
LEV	ATION	TOP O	F CASI	NG:			DATE		8/30/0	0					
CASI	NG BEI	LOW SI	JRFAC	<b>E</b> :			REFERE	NCE	TOC				DATE 8/22/00	DATE 8/29/00	
INC								SURFA	CE COND	DITIONS	•	L		<u></u>	
ŒN	ECOVER	BLOWS/6" SAMPLER	PID READING		ELL TAIL	DEPTH (feet)	GRAPHIC LOG	ļ	···			Asp	halt (2.5")	,	
DRIVEN	REC	BLO	PE EA					DESCR	RIPTION B	Υ:		В. (	Campbell		
				ि	7	0 —		ASI	PHALT (2	2.5")					
						1-	9 P 9 P 9		•	-	ID (GW	); brown (7.	5YR 5/4). we	ll graded.	
						2	ູ້ ັຸGW ັ້	fine	RAVEL WITH SAND (GW): brown (7.5YR 5/4), well graded ne to coarse sand, subrounded to subangular clasts up to cm, nonplastic fines, damp.						
						3 —	CL		TY CLAY		lack (7.	5YR, 2.5/1)	, soft, mediun	n	
			-			4	SP	·	-		enish o	rav (4/1), p	corly graded,	verv fine	
-	•				74 m 57 13 m 51 13 m 51	5 —	. 3F						ilcity, moist.	rory mio	
+						6 —		CL/	YEY SIL	T (ML):	olive (5	Y 4/3), soft,	, low to medic	ım	
					د بازد از بازد از	7_	ML ML	paz	oudky, old	- anato	, , ,,,,	101.			
Ī						8 —									
$\forall$						9 —	CL						ft to firm, low	silt	
-				1. 12		10 —		<u>ه</u> ٠. ,	tent, med					_	
$\downarrow$						11—	///sc///		NYEY SAI plasticity,		): dark o	live gray (5	Y 3/2), soft to	firm,	
						12	CL.						it to firm, low:	silt	
		-				12 —	ML	, \	tent, medi 	_					
						13			YEY SIL <sup>-</sup> ticity, slov				low to mediu	m	
						14 - X		CLA	 ·Y (CL): b	lack (5Y	· 2.5/1),	black strea	ıks (carbon),	iron	
_						15 —		oxid	e staining	y, firm to	hard, r	nedium to h	nigh plasticity,	moist.	
						16									
						16	CL								
$\top$				4-107		17									
+						18 —									
4						19									
			·	4959 Weet		20									
				- 1-1-1-1	1.00	20 —	<del>77</del> //////								

Engineerin INCHES  SECONER  SE	BLOWS/6" 'Sal	PID READING	WELL DETAIL	DEPTH	Exxo	on Mobil	7-3399	2991 Hopyard Rd
) e:	BLOWS/6" SAMPLER	PID READING		ПЕРТИ			I	Pleasanton, CA
		17		(feet)	GRAPHIC LOG	LOG OF	SOIL BORING:	IW14
				21 —	CL.	SAME: Le	ess iron oxide staining. Fr From 22' down, firm.	om 21-22', soft, medium
				23 — 24 — 25 —	CL	CLAY (CL minor silt	-): olive (5Y 4/4), firm, me content.	dlum plasticity, moist;
				26 — 27 — 28 —	CL	SAME (CI to soft to f	L): color change to dark o	live gray (5Y 3/2); change
				30 — 31 — 32 —		SAME (CI	-): other mottled colors pri and brownish colors.	esent including bluish,
				33 — 34 — 35 —	CL			
				36 — 37 —	CL	SAME (CL hard.	.): color change to olive (5	Y 5/4); change to firm to
				38 — 39 —	SP/SM	poorly grad	TH SILT AND GRAVEL (Sided, weak cementation, sinplastic fines, moist.	
				40 🐰	SP	fine sand o gravel, nor	c): olive brown (2.5Y 4/4), content, subrounded grave aplastic fines, moist.	el clasts up to ¾*, minor
				42	GW F	weak, suba fines, mois	t, fine to coarse sand; sat	ists up to 4cm, nonplastic urated below 43'.
				43 — 44 —X	GW GW	sand with g	<ul><li>V): higher sand content, a gravel.</li><li>V): low sand content, almost the properties of the</li></ul>	imost (SP); poorly graded

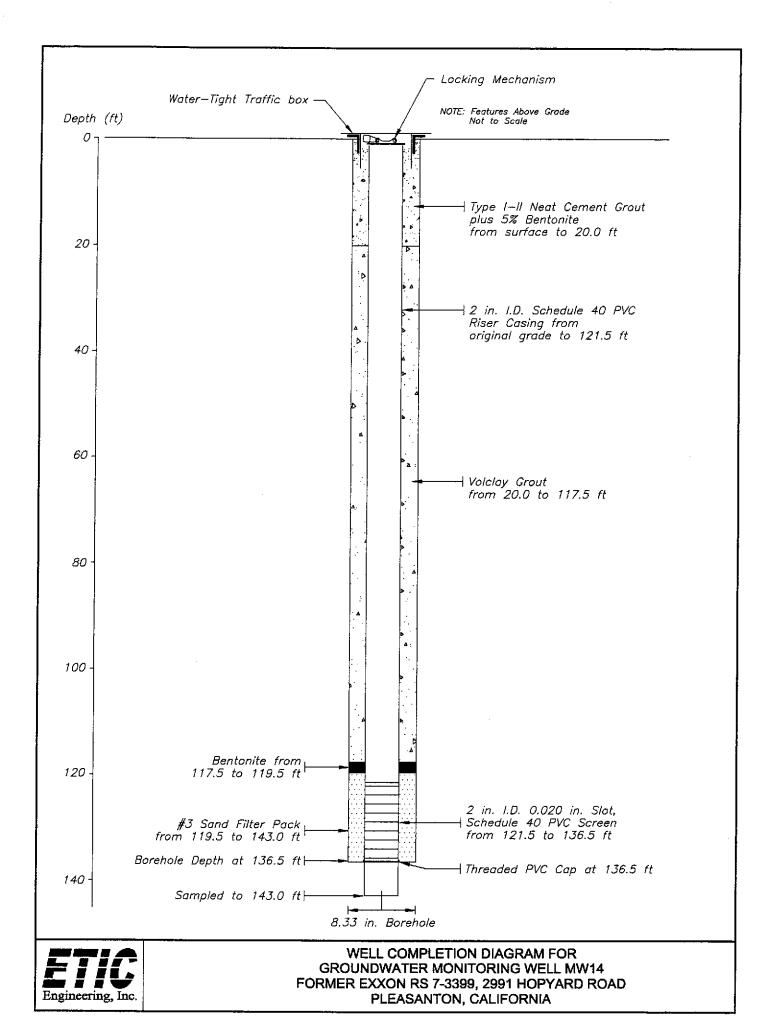
	<del></del>	<u> </u>			-	CLIENT		SITE NUMBER	LOCATION
Engin	eering,	Inc.				Exxo	n Mobil	7-3399	2991 Hopyard Ro Pleasanton, CA
INC							LOG OF	SOIL BORING:	
DRIVEN	RECOVER	BLOWS/6" SAMPLER	PID READING	WELL DETAIL	DEPTH (feet)	GRAPHIC LOG		N	IW14
					46 — 47 —		CANE (C	MADA law and analysis also	
					48	9 GW 7 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	SAME (G	W): low sand content, alr	nost all gravels.
					50 —	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	SAME (G	W): at 49.5, subrounded	to subangular clasts of 6cm
					52 — 53 —X	GW-GM.	(10YR 5/4	), well graded, fine to coa	GW-GM): yellowish brown arse sand, subrounded to
					54 55 X		subangula saturated	ar gravel clasts up to 5cm	, weak, nonplastic fines,
	-				56 — 57 —	CL	SILTY CL moist, cari	AY (CL): olive color (5Y 5 bonate stringers.	i/4), firm, medium plasticity,
			6		58 — 59 —	CL	SAME: co carbonate	lor change to dark greeni nodules, moist, medium	sh gray (4/1), silty clay with plasticity.
	•				60 — 61 — 62 —	CL	SAME: ch	anges from firm to hard.	
			13   13   13   13   13   13   13   13		63 — 64 —	CL	SAME: col	or change to olive (5Y 5/	4).
					65 — 66 —	ML	CLAYEY S	SILT (ML): olive (5Y 5/4),	soft, low plasticity, moist,
					67 <del> </del>   68 69		SILTY SAM	ND WITH GRAVEL (SM):	olive (5Y 5/6), medium to
					70	SM	coarse sar subangular	d, fine gravel up to 0.8cm r, nonplastic fines, wet.	n, weak cementation,

	71	<b>~</b>	-			CLIENT	-	SITE NUMBER	LOCATION
Engin	eering,	Inc.				Exxo	Exxon Mobil 7-3399 2991 Hoj Pleasan		
INC						-	LOGOES	SOIL BORING:	
DRIVEN	RECOVER	BLOWS/6* SAMPLER	PID READING	WELL DETAIL	DEPTH (feet)	GRAPHIC LOG			/W14
					71— 72—	SM	SAME: m (SP).	inor lenses (<1") of medi	um poorty graded sand
					73 — 74 — 75 —		SAME: sa	turated below 73'.	
					76 —	GW°,	graded, co	WITH SAND (GW): olive parse sand, subangular to m, weak cementation, no	brown (2.5Y 4/4), well o subrounded gravel clasts anplastic fines, saturated.
			2. A 1. A		78 — 79 —	CL	hard to ve	AY WITH SAND (CL): lig ry hard, medium plasticit very minor carbonate de	ht olive brown (2.5Y 5/6), y, moist, small charcoal posits.
					80 — 81 —	CL	SAME: cha	anges from hard to soft/f	irm.
					82 — 83 — 84 —	CL	SAME: mir deposits, h	nor sand, charcoal abser nard.	nt, an increase in carbonate
					85 — 86 —	CL	SAME: mir	nor iron oxide.	
					87 — 88 — 89 —	CL.	SAME.		
					90 — 91 —	CL	SAME: soft	ter, change from hard to	soft.
					92 — 93 —	CL	SILTY CLA medium pla	Y (CL): dark greenish gr esticity, moist, carbonate	ay (2 gray 4/1), firm, nodules present.
					94 —	SP-SM	SAND WITI weak, fine s	H SILT (SP-SM): olive (5 sand, low plasticity, wet.	Y 4/3), poorly graded,

Î

CLIENT SITE NUMBER LOCATION 2991 Hopyard Rd. Exxon Mobil 7-3399 Engineering, Inc. Pleasanton, CA INCHES LOG OF SOIL BORING: BLOWS/6" SAMPLER RECOVER PID READING WELL DEPTH GRAPHIC DRIVEN **MW14** DETAIL (feet) LOG SILTY CLAY (CL): olive (5Y 5/3), firm to hard, medium 96 plasticity, moist, carbonate and iron oxide present; small sand lens at varying depths (96'). 97 98 100 -101-102 — 103 -104 · 105 -106 -107 -108 -109 -110 -112 -113 -114 115 116 SANDY SILT WITH GRAVEL (ML): olive (5Y 5/4), soft to very ML soft, low plasticity, minor fine gravel, moist. 120

CLIENT SITE NUMBER LOCATION 2991 Hopyard Rd. Exxon Mobil 7-3399 Engineering, Inc. Pleasanton, CA INCHES LOG OF SOIL BORING: BLOWS/6" SAMPLER PID READING RECOVER DEPTH WELL **GRAPHIC** DRIVEN **MW14** DETAIL (feet) LOG SANDY SILT WITH GRAVEL (ML): olive (5Y 5/4), soft to very soft, low plasticity, minor fine gravel, moist. 121 122 SILTY SAND (SM): olive (5Y 4/3), wet, fine sand, moderate 123 SM cementation, nonplastic fines. 124 125 126 GRAVEL WITH SAND (GW): dark olive brown (2.5Y 3/3), 127 weak, well graded, subrounded to subangular clasts up to 6.5cm, nonplastic fines, wet, iron oxide nodules. 128 129 130 CLAYEY GRAVEL WITH SAND (GC): light olive brown (2.5Y 5/6), medium to coarse sand, angular to subrounded gravel up GC to 4cm, medium plasticity, saturated. 131 133 GRAVEL WITH SAND (GW): well graded gravel with sand. medium to coarse sand, subangular to subrounded gravel 134 clasts up to 6.5cm, weak cementation, nonplastic, wet. 135 136 137 138 SAND WITH SILT AND GRAVEL (SW-SM): light olive brown (2.5Y 5/4), well graded, medium to coarse sand, subangular to 139 SW-SM subrounded gravel clasts up to 2.5cm, weak, nonplastic fines, 140 GRAVEL WITH SAND (GW): light olive brown (2.5Y 5/4), well graded, coarse sand, subrounded clasts up to 6.5cm, weak. GW . nonplastic fines, wet. GM SILTY GRAVEL WITH SAND (GM): light clive brown (2.5Y 5/6), well graded gravel, high clay content almost to CL/ML matrix, subangular to subrounded gravel clasts to 3 inches. 144 moderate cementation, low to medium plasticity fines, moist. Boring terminated at 136.5 feet below ground surface. Sampled to 143 feet below ground surface. 145



Appendix E

Well Development Forms

## FIELD SUMMARY REPORT



Client: FXXOW  TM3399,3  Project No.: FM > 56	Station No.: 7-3399
Project No.: TM 3399, 3	Task No.:
Sample Team: John Ortega / KEIN 30	NES
Date: 9/21/20	·
No. of Drums on Site: Water Soil	Empty
• Summary:	
ON SEPE 1200	
co over suffey a traffic prob.	lea
Set up traffice contrell	
open mw-14 allew to e	gw:11.brade
garge = Depth of Had & Depth	A Bother (ATT TO NOTIES)
Bo Surge well with pump /p	urce aller even ense volume
Project well cheir	
Cheereel up and Observed	l street.
OFF STREET AT 1445	
Set on mw-1212-mw-13	
	1. brake and que ( see Notes
Perge + Surge Both Surge + Pu	12 /1
Close wells - Chen up	
Secure sile	
Purgi marin Buill he dispose	ed at Pouric
off 5-22 1630	
-	

144 Mayhew Way, Walnut Creek, CA 94596 • Phone: 925.977.7914 • Fax: 925.977.7915 • License No. 624022



MONITORING WELL DATA FORM

Client: Exxon			·	$\exists$	Date:	9/20/2000	)
Project Number	er: <i>TM</i> 3399.3				Station Number		
Site Location: 2991 Hopeya	ard Rd, Pleasa	nton, CA			Samplers:	John Ortega	
MONITORING WELL NUMBER	DEPTH TO WATER (TOC)	DEPTH TO PRODUCT (TOE)	A Committee of the Comm	AMOUNT OF PRODUCT REMOVED	MONITORING WELL INTEGRITY	DEPTH-TO BOTTOM (TOC)	WELL CASING DIAMETER:
mw-14	50.74			7	START	111.86	Z"
<u></u>					FJWFS/14EN	135.64	
MW-1214	53.15				TTARI	110.10	211
				<u></u>	FEUZSHEN	17.5.90	7
MW-13	45. 25				STALF FINDSHED	66.10	2"
<u> </u>				7	FINASHED	71.92	
<u>, , , , , , , , , , , , , , , , , , , </u>							

wall Development Engineering, Inc GROUNDWATER PURGE AND SAMPLE Project Name: Exxon 7-3399 Well No: MW-13 Date: 9/20/00 Well Oer Project No: TM3399.3 Personnel: SOLYN ONTEWA GAUGING DATA Water Level Measuring Method: Measuring Point Description: TOC Total Depth Depth to Water Water Column WELL PURGE Multiplier for Casing Volume Total Purge (feet) (feet) (feet) Casing Diameter **VOLUME** (gal) Volume (gal) CALCULATION DRELLED TO 27.75 45.25 5.0 73.0 50.00 0.04 0.16 0.64 **PURGING DATA** Purge Method: Submersible Pump Purge Depth: Screen Purge Rate: (gpm) Time 1550 1552 1554 1556 1555 1500 Volume Purge (gal) 5 10 15 20 25 30 Temperature (C) 20.4 20. 3 20. L 20.3 20.3 20.4 7.03 7.02 **4**.63 7.01 7.01 7.01 Spec.Cond.(umhos) 2.09 2-05-2.05 2.09 *).* 49 2,05 Turbidity/Color Odor (Y/N) الكالأ N W N Casing Volumes CLOUELL Dewatered (Y/N) Comments/Observbations: Surco CHSZ HAO D <u>92</u> SAMPLING DATA Time Sampled: Approximate Depth to Water During Sampling: (leet) Comments: Number of Volume Filled Analysis Container Type Perservative Turbidity/ Color **Containers** (mL or L) Method

Disposal: CONIC
(0000)
NONE
NONE

ETIC

Well Development

Engineering, Inc.		— GROUNDV	VATER PURG	E AND SAMPLI	=	
Project Name:	Exxon 7-3399			Well No: かい		te: 5/20/0
Project No:	TM3399.3			Personnel: 3	Das	17.17
GAUGING DA	TA				- J	
Water Level Me	easuring Method:			Measuring Point	Description: TO	0
WELL PURGE	Total Depth	Depth to Wate	r Water Colum	n Multiplier for	Casing Volum	e . Total Purge
VOLUME	(feet)	(feet)	(feet)	Casing Diamete		Volume (ga
CALCULATION	DRSLUB TO			1 2 4 6	ALL STREET STREET STREET STREET	
	73.00	945.25	727.75	0.04 0.16 0.64 1.4	7 < ^ (	🛡 50-00
PURGING DAT	Α			12.01 0.10 0.07 1		
Purge Method:	Submersible Pu	тр	Purge Depth:	Screen Pu	rge Rate:	(gpm)
Time -	1602	1604				
Volume Purge (gal)	35	40				
Temperature ( C)	20.2	20. 2				
pH 🗆 🗆	6.99	6.98				
Spec Cond (umbos)	2.08	2.08				
Turbidity/Color .						
Odor (Y/N)	2	W				
Casing Volumes	Chen	Cheen				
Dewatered (Y/N)	N	LA /				
omments/Observ	bations:				<u> </u>	
Pong was	Icl Not war	Kalta	8 tuse vol	ul		· · · · · · · · · · · · · · · · · · ·
CAMBUNODAT						
SAMPLING DATA Time Sampled:	A		Approximate Duet			
Comments:			Арргохинате ферг	h to Water During Sar	npling:	(feet)
	Julian de la	Service and account				
Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
EX1	3	Voa	HCL	40 ml		TPH-g, BTEX, MTBE
-						
<u> </u>			·			
Total Purge Volum		gallons)		Disposal: Ro	MFC	
Weather Condition						
Condition of Well E			ng:			
Well Head Condition						
roblems Encount	ered During Purg	ing and Samplin	g:			
Comments:	PLINGVEXT purge form.xlxlShi					

Engineering, Inc.		U	vell	Deb		
Project Name:	Exxon 7-3399	GROUNDW	ATER PURG	E AND SAMPL		-1-1-
Project No:	TM3399.3		<del></del>	Well No: MW		e: 9/26/0
CALIGNIC DAT				r dradillett. 3	0 py 1	2/2
GAUGING DAT Water Level Me		:		Measuring Poin	t Description: TO	2
WELL PURGE VOLUME	Total Depth (feet)	Depth to Water (feet)	Water Colum (feet)	er en venamere de la la casa	Gasing Volum	
CALCULATION	130.00 (	53.15	76.85	1 2 4	6 .44 1Z.0	) (zo. (
PURGING DATA Purge Method:						
or March 1985 and All States of the State of	Submersible Pa	лтр Т	Purge Depth:	Screen P	urge Rate:	(gpm)
Time	1458	1502	1505	15-08	1541	1515
Volume Purge (gal)	12.0	24-0	36-0	48.0	60	72
Temperature ( C)	21-4	20.0	20.0	70.1	20.1	20.0
эΗ	8.05	7.64	7.63	7.64	7.64	7.65
Spec.Cond.(umhos)	1.01	1.04	1.05	1.03	1.05	1.04
Furbidity/Color:						
Odor (Y/N)	N	W	W	ŔŮ	W	N/
Casing Volumes	5,14	Silh	Sille	3:1/4c	5:14	50/4
ewatered (Y/N)	W	200	W	n	1 2	N
mments/Observt	pations:				1	1 70
Depkh of	Both	Sturt	110.86	feet	Sorse	well de
AMPLING DATA	the mes	Whif Boll	<u> </u>	4. 10 Leg +	= /	ul com e
ime Sampled:		A	Approximate Dept	h to Water During S	ampling:	(feet)
omments:	-					
ample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
EX1	3	Voa	HCL	40 ml	and the second of the second o	TPH-g, BTEX, MTE
			·····			

WONE

NONZ

Comments:
F:Projects70113:PCALIC:3.4MPUNG(EXT purge jorn.xls/Sheet)

Well Head Conditions Requiring Correction:

Condition of Well Box and Casing at Time of Sampling:

Problems Encountered During Purging and Sampling:

467	
<u> </u>	 -
	7
T	

well Dev.

Engineering, Inc.		- GPOLINDY	VATED DUDG	T AND CAME	_	
Project Name:	Exxon 7-3399	GROUNDY	VATER PURG	Well No: MW-		Date: 9/21/00
Project No:	TM3399.3			Personnel;	·•	, , , , ,
GAUGING DAT Water Level Me	A asuring Method:			Measuring Point	Description:	2-12 TOC
WELL PURGE VOLUME	Total Depth (feet)	Depth to Wate (feet)	r Water Columi (feet)			olume Total Purge
CALCULATION	130.00 C	53.15	\$76.85°	1 2 4 6	T /3 /	9/20.0
PURGING DATA Purge Method:	A Submersible Pu	ımp	Purge Depth:	<i>Screen</i> Pu	rge Rate:	(gpm)
Time	1518	1521	15725	1525		
Volume Purge (gal)	84.0	96.0	108.0	120.0		
Temperature ( C)	19.9	19.9	70.0	20.0		
DH.	7.64	7-63	7-61	7.61		
Spec.Cond.(umhos)	0.914	0.916	0.909	0.910		
F Turbidity/Color				0.770		
Odar (Y/N)	W	N	W	N		
Casing Volumes	Charles	Chen	Ohen	Chear		
Dewatered (Y/N)	NI	n/	n	in I		
Comments/Observt	pations:	70				
SAMPLING DATA	1	<u> </u>				
Time Sampled:			Approximate Dept	h to Water During Sai	mpling:	(feet)
Comments:						
Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ (	Color Analysis Method
EX1	3	Voa	HCL	40 ml		TPH-g. BTEX, MTBE
					$\sim$	
Total Purge Volum	e: /	gallons)		Disposal:	WITC	
Weather Condition		<u> </u>		Dioposai.	wit (	
Condition of Well B	lox and Casing a	at Time of Sampli	ing:		· · · · · · · · · · · · · · · · · · ·	
Well Head Condition	ons Requiring Co	prrection:				
Problems Encounte	ered During Purg	ing and Samplin	g:			
Comments; F:\Project\tall3\PUBLIC\\$AMPI	LINGVEXT purge form.xtx/Sh	scet l				

well Development Engineering, Inc. **GROUNDWATER PURGE AND SAMPLE** Project Name: Exxon 7-3399 Weil No: MU /- 14 Date: 9 Project No: TM3399.3 Personnei: **GAUGING DATA** Water Level Measuring Method: Measuring Point Description: TOC Total Depth Depth to Water Multiplier for Water Column. Casing Volume WELL PURGE Total Purge (feet) (feet) : (feet) Casing Diameter (gal) VOLUME: Volume (gal) CALCULATION DRELLED FO 4 50.74 85.53 140.00 136.00 14.0 0.04 0.16 0.64 **PURGING DATA** Purge Method: Submersible Pump Purge Depth: Screen Purge Rate: (gpm) Time 1335 1340 1344 1348 1353 1356 Volume Purge (gal) 14.0 28.0 42-0 72.0 86.0 Temperature ( C) 19.0 15, 1 18.4 18.4 рΗ 7.42 7.32 1.42 2.43 7.37 Spec.Cond.(umhos) 0.99 1,00 0.931 0,53 0.934 Turbidity/Color Odor (Y/N)  $\mathcal{W}$ N W iΛl N Casing Volumes Dewatered (Y/N) Comments/Observbations: ラブARIT Dench 111.86 135.64 Voken SAMPLING DATA Time Sampled: Approximate Depth to Water During Sampling: (feet) Comments: Number of Volume Filled Sample Number Analysis Container Type Perservative Turbidity/ Color Containers (mL or L) Method EX1 Voa HCL 40 ml TPH-g, BTEX, MTBE

Total Purge Volume: 140 (gallons) Disposal: LowEC

Weather Conditions: Cheer

Condition of Well Box and Casing at Time of Sampling: Work Cool

Well Head Conditions Requiring Correction: Would

Problems Encountered During Purging and Sampling: Value

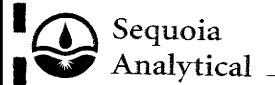
Comments:

Projects 10113 PUBLIC SAMPLING [EXT purgs form xts] Sheet 1

Project Name:	Exxon 7-3399		ATER PURG	Well No: MW	-14 Date	e: 9/20/0
Project No:	TM3399.3			Personnel:	5 <i>0</i>	
GAUGING DAT	TA					20/2
Water Level Me	asuring Method:			Measuring Point	Description: $Q_{OC}$	;
WELL PURGE	Total Depth	Depth to Wate	r - Water Column	Multiplier for	Casing Volume	e / «Total Pur
VOLUME	(feet)	(feet)	(feet)	Casing Diamete		Volume (g
CALCULATION	(			X)1 2 4 6		
		Ĭ .		0.04 0.16 0.64 1.4	4	<u> </u>
PURGING DATA						
Purge Method:	Submersible Pu	ump	Purge Depth:	Screen Pu	rge Rate:	(gpm)
Time	13/00	1403	1406	1409		
Volume Purge (gal)	100	154	128	1480		
.Temperature (,C)	18.1	18.2	15.0	18.0		<del> </del>
Hq	2.43	7.42	7.43	7.43		
Spec.Cond.(umhos)	0-55	0-96	0.52	0.53		
Turbidity/Color				0.77		<u> </u>
Odar (Y/N)	1/1	W	14)	W		
Casing Volumes	Clarely	Cloud	Chen	Chea		
Dewatered (Y/N)		NO	W	N		
Comments/Observ	bations:	<u> </u>	<u> </u>	, ,		
						4
SAMPLING DATA Time Sampled:	A j		Annrovimata Dont	h ta Watar During Ca	maling:	(fo.e.()
Comments:			Approximate Debt	h to Water During Sa	ախում։	(feet)
	Application of the second	Proposition of the state of the				
Sample Number	Number of Containers	Container Type	Perservative	Volume Filled (mL or L)	Turbidity/ Color	Analysis Method
EX1	3	Voa	HCL	40 ml	PRINT THURSDAY TO BE	TPH-g, BTEX, MTI
	e e de dessage de la constante					
	1e:	(gallons)		Diagonali		
Total Purge Volum	· · · · · · · · · · · · · · · · · · ·	(ganoris)		Disposal:	$\sim$	
Total Purge Volun Weather Condition	is:					
		at Time of Sampli	ing:			
Weather Condition	Box and Casing		ing:			
Weather Condition Condition of Well I	Box and Casing ons Requiring C	orrection:				

## Appendix F

Laboratory Analytical Reports and Chain-of-Custody Documentation



7 September 2000

oe Muehleck

ETIC Engineering

44 Mayhew Way

Walnut Creek, CA 94596

E: Exxon

nclosed are the results of analyses for samples received by the laboratory on 31-Aug-00 15:15. If you have any lestions concerning this report, please feel free to contact me.

Sincerely,

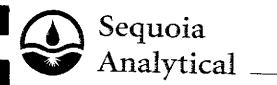
Richard Stover

Roject Manager

### Received

SEP 1 1 2000

ETIC Engineering Inc.



1455 McDowell Blvd. North, Ste. D Petaluma, CA 94954 (707) 792-1865 FAX (707) 792-0342 www.sequoialabs.com

ETIC Engineering 144 Mayhew Way Walnut Creek CA, 94596

Project: Exxon

Project Number: 2991 Hopyard Rd. Project Manager: Joe Muehleck

Reported: 07-Sep-00 09:21

#### ANALYTICAL REPORT FOR SAMPLES

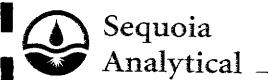
Sample ID				
Dample 1D	Laboratory ID	Matrix	Date Sampled	Date Received
Comp 1	P009058-01	Soil	30-Aug-00 00:00	31-Aug-00 15:15
Comp 2	P009058-02	Soil	30-Aug-00 00:00	•
Comp 3	P009058-03	Soil	30-Aug-00 00:00	_
			J	

equoia Analytical - Petaluma

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.







ETIC Engineering 144 Mayhew Way Walnut Creek CA, 94596

Project: Exxon

Project Number: 2991 Hopyard Rd. Project Manager: Joe Muehleck

Reported: 07-Sep-00 09:21

# Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M

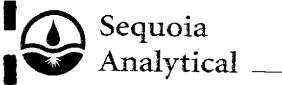
	Sequoia Analytical - Petaluma										
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note		
Comp 1 (P009058-01) Soil	Sampled: 30-Aug-00 00:00	Received:	31-Aug-0	0 15:15			<u></u>				
Gasoline	ND	1000	ug/kg	1	0090039	05-Sep-00	05-Sep-00	EPA 8015M/8020M			
Benzene	ND	5.00	**	п	14	н	17	# 0012MV9020M			
Toluene	ND	5.00	н	17	н	IT	16	14			
Ethylbenzene	ND	5.00		14	19	r.	п	II .			
Xylenes (total)	ND	5.00		. "	11	н	**	и			
Surrogate: a,a,a-Trifluorotoluene		98.5 %	65-	135	"	"	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	п			
Surrogate: 4-Bromofluorobenzene		95.8 %	65-135		rt	"	"	n			
Comp 2 (P009058-02) Soil	Sampled: 30-Aug-00 00:00	Received:	31-Aug-0	0 15:15							
Gasoline	ND	1000	u <b>g</b> /kg	1	0090039	05-Sep-00	05-Sep-00	EPA 8015M/8020M			
Benzene	ND	5.00	II .	10	H	**	**	*			
Toluene	ND	5.00	19		**	11	D	et			
Ethylbenzene	ND	5.00	Iŧ	**	U-	II .	II.	п			
Kylenes (total)	ND	5.00	18	II .	н	n .	**	н			
Surrogate: a,a,a-Trifluorotoluene		97.8 %	65-135		"	"	n	н	·		
Surrogate: 4-Bromofluorobenzene		94.3 %	65-135		"	ır	n	rr			
Comp 3 (P009058-03) Soil S	Sampled: 30-Aug-00 00:00	Received: 3	31-Aug-00	15:15							
Gasoline	ND	1000	ug/kg	1	0090039	05-Sep-00	05-Sep-00	EPA 8015M/8020M			
Benzene	ND	5.00	+1	n	IP.	н	"	0013NV802QW			
oluene	ND	5.00	17	**	æ	"	II.	D.			
Ethylbenzene	ИD	5.00	**	IJ	ıı	ır	н	н			
(ylenes (total)	ND	5.00	п	н	н	) i	u	ч			
urrogate: a,a,a-Trifluorotoluene		98.3 %	65-135		n	. "	"	"	<del></del>		
Surrogate: 4-Bromofluorobenza	ene	91.5 %	65-1		"	"	"	n			

Sequoia Analytical - Petaluma

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.







1455 McDowell Blvd. North, Ste. D Petaluma, CA 94954 (707) 792-1865 FAX (707) 792-0342 www.sequoialabs.com

ETIC Engineering 144 Mayhew Way Walnut Creek CA, 94596

Project: Exxon

Project Number: 2991 Hopyard Rd. Project Manager: Joe Muehleck

Reported: 07-Sep-00 09:21

#### Total Metals by EPA 6000/7000 Series Methods

Sequoia Analytical - Petaluma

Analyte	Resuit	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Comp 1 (P009058-01) Soil	Sampled: 30-Aug-00 00:00	Received:	31-Aug-0	0 15:15	·				
Lead	ND	7.50	mg/kg	1	0090019	02-Sep-00	05-Sep-00	EPA 6010B	
Comp 2 (P009058-02) Soil	Sampled: 30-Aug-00 00:00	Received:	31-Aug-0	0 15:15					
ead	ND	7.50	mg/kg	l	0090019	02-Sep-00	05-Sep-00	EPA 6010B	
Comp 3 (P009058-03) Soil	Sampled: 30-Aug-00 00:00	Received:	31-Aug-0	0 15:15					
_ead	ND	7.50	mg/kg	1	0090019	02-Sep-00	05-Sep-00	EPA 6010B	
							•		

Sequoia Analytical - Petaluma

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





1455 McDowell Blvd, North, Ste. D Petaluma, CA 94954 (707) 792-1865 FAX (707) 792-0342 www.sequoialabs.com

ETIC Engineering 144 Mayhew Way Walnut Creek CA, 94596

Project: Exxon

Project Number: 2991 Hopyard Rd. Project Manager: Joe Muehleck

Reported: 07-Sep-00 09:21

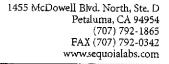
# Total Petroleum Hydrocarbons as Gasoline and BTEX by EPA 8015M/8020M - Quality Control Sequoia Analytical - Petaluma

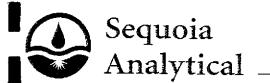
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0090039 - EPA 5030 soils										
Blank (0090039-BLK1)				Prepared	& Analyze	d: 05_Se	00			
Gasoline	ND	1000	ug/kg	rioparou	oc / illuly 20	.a. 05-66	3-00			<del></del>
Веплене	ND	5.00	**							
Toluene	ND	5.00	H							
Ethylbenzene	ND	5.00								
Xylenes (total)	ND	5.00	*							
Surrogate: a,a,a-Trifluorotoluene	574		"	600		95.7	65-135	<del></del>	<del></del>	
Surrogate: 4-Bromofluorobenzene	602		#	600		100	65-135			
LCS (0090039-BS1)				Prepared a	& Analyze	d: 05-Sen	-00			
Benzene	190	5.00	ug/kg	200	<u> </u>	95.0	65-135			
Toluene	187	5.00	.,	200		93.5	65-135			
Ethylbenzene	181	5.00	n	200		90.5	65-135			
Xylenes (total)	612	5.00	n	600		102	65-135			
Surrogate: a,a,a-Trifluorotoluene	572		"	600		95.3	65-135			**
Matrix Spike (0090039-MS1)	Sou	rce: <b>P0090</b> 01	7-01	Pτepared &	z Analyzer	1.05-Sen	-00			
Benzene	221	5.00	ug/kg	200	ND	111	65-135	<del></del>		
oluene	209	5.00	"	200	ND	105	65-135			
Ithylbenzene	193	5.00	11	200	ND	96.2	65-135			
Zylenes (total)	642	5.00	44	600	ND	107	65-135			ė.
urrogate: a,a,a-Trifluorotoluene	629	<u> </u>	U	600		105	65-135			
Tatrix Spike Dup (0090039-MSD1)	Sour	ce: P009007	7-01	Prepared &	. Analyzed	- 05-Sen-				
enzene	221	5.00	ug/kg	200	ND	111	65-135	0	20	·
oluene	207	5.00	*	200	ND	104	65-135	0.962	20	
thylbenzene	190	5.00	ıı	200	ND	94.7	65-135	1.57	20	
ylenes (total)	634	5.00	į1	600	ND	105	65-135	1.25	20	
urrogate: a,a,a-Trifluorotoluene	616		"	600		103	65-135			

Sequoia Analytical - Petaluma

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.







ETIC Engineering 144 Mayhew Way Walnut Creek CA, 94596

Project: Exxon

Project Number: 2991 Hopyard Rd. Project Manager: Joe Muehleck

Reported: 07-Sep-00 09:21

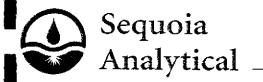
### Total Metals by EPA 6000/7000 Series Methods - Quality Control Sequoia Analytical - Petaluma

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0090019 - EPA 3050B							·			
Blank (0090019-BLK1)				Prepared:	02-Sep-00	) Analyze	d: 05 <b>-</b> Sep-	00		
Lead	ND	7.50	mg/kg	· ·	•		<u></u>			
LCS (0090019-BS1)				Prepared:	02-Sep-00	) Analyze	d: 05-Sep-	00		
Lead	46.7	7.50	mg/kg	50.0	<del></del>	93.4	80-120			
Matrix Spike (0090019-MS1)	Sou	ırce: P00904	3-06	Prepared:	02-Sep-00	) Analyze	d: 05-Sep-	00		
Lead	43.2	5.77	mg/kg	38.5	19.7	61.0	75-125			QM-01
Matrix Spike Dup (0090019-MSD1)	Sou	rce: P00904	3-06	Prepared:	02-Sep-00	) Analyzed	d: 05-Sep-	00		
ead ead	34.1	5.07	mg/kg	33.8	19.7	42.6	75-125	23.5	20	QM-01,QR-0 3

Sequoia Analytical - Petaluma

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.





1455 McDowell Blyd. North, Ste. D Petaluma, CA 94954 (707) 792-1865 FAX (707) 792-0342 www.sequoialabs.com

ETIC Engineering 144 Mayhew Way Walnut Creek CA, 94596

Project: Exxon

Project Number: 2991 Hopyard Rd. Project Manager: Joe Muehleck

Reported: 07-Sep-00 09:21

#### Notes and Definitions

QM-01 The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.

QR-03 The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch

accepted based on LCS and/or LCSD recovery and/or RPD values.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

Sequoia Analytical - Petaluma

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.



# EXXON COMPANY-U.S.A

P.O. Box 2180, Houston, TX 77002-7426

**CHAIN OF CUSTODY** 

Consultant's Name:	ETIC	Engir	verin	o							Page	$\int_{-\infty}^{\infty}$ of $\int_{-\infty}^{\infty}$	<u> </u>	
Address: 144 M	ayhew	way	wat	$n_{\ell}$	it (	Cree	k CA			Site Lo			T	2110ic
Project #: TM33	<u> 99.3 </u>			Con	sultar	nt Projec	et #:			Consul	tant W	291 Hz ork Releas	<i>p-jara i</i> se #: <i>2.00</i>	12958
Project Contact: 1	oe Mu	ebleck	•	Pho	ne #: (	925	977-7914					ork Releas		
EXXON Contact:	irin ka	1SC		Pho	ne #;	925	246 8768	3,		EXXON	RAS	#: 7-33	379	
Sampled by (print):	ryan (a	um phell	2			Signatu	ire:	ee						
Shipment Method:		*******			3ill #:			T				والمستوال والمستوال والمستوال		
<b>TAT:</b> □ 24 hr □ 48	hr /1 <b>X</b> 72 hr	☐ 96 hr	☐ Standar	d (10	) day)	( 24	THINGS		ANALYSI	S REQUI	RED			
Sample Description	Collection Date	Collection Time	Matrix Soil/Wate		Prsv	# of Cont.	Sequoia's Sample #	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520	Total		Temperatur Inbound Se Outbound S	
Deum 12	8-30-00	1555	501		Nore		P009058-0	X			×		Coms	osir 1
DRUM 2						j							7	
DRIUM 3						i								
DRUM 4					$\bot$	1								
DRUM 5.					1_	1								31 (
DRUM 6-						1	COOLER C	TOTODA	CEALS II	утаст Г				
DRUM 7.						1	COOLERC	USTODI	ŧ I	NTACT [	L I			
DRUM 8.						1	COOLER T	EMPERA		5	°c			
DRUM 9	<b>1</b>	<u> </u>	1		1	1		$oxedsymbol{igstar}$			/			
RELINQUISHED	BY / AFFIL	IATION	Date		7	ime	ACCEP	TED / A	FFILIATIO	אכ	Date	Time	Additiona	al Comments
Bryan Cam	Pheil		8/30/0	0	170	0	Markt	[L:	Segu	ia	7.31	1150	Campi San 01.	19 in
Mackle	offin ,		831		120	5	Chirsa	ey/Ca		RAY	8/3	1 15:25	106/2	nes about
Mufeer	en/Capite	1/BAY	831					Men	(mb)		8/3	1844	Ef 3C	MOSIT
473	,		9/1/0	D			L	2UU ~	WH1	Oth	>9/	1/00 15/	5 amp	125-

Pink - Client

Yellow - Sequoia

l i.

White - Sequoia

Redwood City, CA 94063

P.O. Box 2180, Houston, TX 77002-7426

EXXON COMPANY-U.S.A

**CHAIN OF CUSTODY** 

Consultant's Name:	ETIC	Engir	reerina							Page	2_ of _	5	
Address: 144 Ma	whew It	Jan 4	nlnut	Case	ek C	4			Site Lo				=
Project #: TM 33	99.3	<i>J</i>			tant Projec				Consu	Itant Wo	<i>k[]/ []</i> rk Belea	topyard Rd se #:200295-8	_
Project Contact: Tr	P MILLO	hlack		Phone	#: 925	977-791	4				rk Relea:		-
EXXON Contact: D	orin Ro	aluse .		Phone	#: 925	246 8768	<del>/</del> २				7-33		Client
Sampled by (print)!	Bryan (	ample	11	Sample	r's Signati	ure:					<u> / ac</u>	<i>31 1</i>	1
Shipment Method:	U			Air Bill	#:					·			<u>.</u>
TAT: 24 hr 48	hr 72 hr	👊 96 hr	☐ Standar	d (10 <b>d</b> a	ıy)			ANALYS	IS REQU	IRED			1
Sample Description	Collection Date	Collection Time	Matrix Soil/Water		sv # of Cont.	Sequoia's Sample #	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520	Total		Temperature:inbound Seal: Yes No Outbound Seal: Yes No	1
DRUM -10	8-30-00	1555	sal	N	are 1		X			X		Composit \$ 1	Sequoia
DRUM 1/					1						<del></del>	1	7
DRUM 12					1					<del></del>			Yellow
DRUM 15 H					1								
DRUM -198					1							51	الْأِا
DRUM - 76					1							1	
Drum 18								P009	058-(	)2		Composit Z	Sequoia
DRUM 18					1								
Rum 22/9	<u> </u>				j		1			1			White
RELINQUISHED	BY / AFFIL	IATION	Date		Time	ACCEP	TED / AF	FILIATI	ON	Date	Time	Additional Comments	
Bryan Car	phel	<del></del>	8/3010.	0 17	700	Mad	Coll.	Seg	evoir-	8.21	1150	Same as Page 1	
Mark A	Vi		8:31	12	05	Chei &	aye,	Corto	L B44	,		page 1	
Chinfred	/capito	BAY	8/3/				MANO	/ भूप	b) (	831	1844		
700	•	1	9-1-00			- 6	TIME	-					ad .

Redwood City, CA 94063

(650) 364-9600 • FAX (650) 364-9233

EXXOLCOMBANY S.

P.O. Box 2180, Houston, TX 77002-7426

CHAIN OF CUSTODY

Consultant's Name:	ETIC	Engin	eering	ì							Dogo	3 of _		
Address:	auhew	- Way	Wal	hut	- Cho	ook	CA			Site	rage	or	<u>)</u>	
Project #: TM33	79:3	J		Con	sultan	t Proje				Consu	Itant Mc	off Palas	Hoppro	Al
Project Contact:	oe Mue	hleck	****	Pho	ne #:	925	977-7914	<i></i>		Labora	tory Wo	rk Relea	se #.º 200	2958
EXXON Contact: DO	erin Ro	use		Pho	ne #: ‹	125	246-876	, <u>a</u>						
Sampled by (print):	xyan a	mpbel	l	Sam	pler's	Signat	ure;				TIAO #	7-3	344	
Shipment Method:	,			Air E	3ill #:						· · · · · · · · · · · · · · · · · · ·			
<b>TAT:</b> □ 24 hr □ 48	hr 📈 72 hr	□ 96 hr	□ Standa	rd_(10	day)				ANALYS	IS REQU	IRED			
Sample Description	Collection Date	Collection Time	Matri Soil/Wate		Prsv	# of Cont.	Sequoia's Sample #	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520	Total		Temperature: Inbound Seal: Outbound Sea	Yes No
DRUM -23	83000	1555	soil		Von			×			X		Compa	ocie Z
DRUM -2\$						1				<del></del>				
RUM - 25						1								
Deum - 26						1								
Delim - 26 Delim - 26						1								
Jeum -28						1								
DRUM - 28						ı								
DRUM 29						l				<del></del>				
RUM 32	$\downarrow$	$\bigvee$		•	1	1								
RELINQUISHED I		IATION	Date		Tii	me	ACCEP	TED / AF	FILIATIO	ON	Date	Time	Additional (	<u>`</u>
Bryan Camp.	bo11		8/301	001	700	9	Mochle	[L. ].	Egvoi	i.	8.31	150	Sane	
Mark	Coll.		8.31	_	120	5	Chin fa	//	go to		8/31	15:25	Page	1
Christaisen	/cepite	1 BAY	8/3/				JE STATE OF THE ST	1	(dir		831	1844		
940		•	8/011				Vin	()						

## EXXON COMPANY LIS.A

P.O. Box 2180, Houston, TX 77002-7426

**CHAIN OF CUSTODY** 

Page 4 of 5 Site Location: 500 / 11 Pink - Client Yellow - Sequoia 111

White - Sequoia

Consultant's Name:	ETIC	Ergina	orina					· · · · · · · · · · · · · · · · · · ·				/~	
Address: 144 M	upew 1	war u	hourt a	00 V	CA.				I	Page	4 of _	<u>&gt;</u>	
Project #: 7M 3.	399.3	<del></del>		onsultant			·		Site Li	ocation:	2991 F	topyara	1 Rd 2958
Project Contact: J	or Mue	teleck				777-7914			Lohar	iitant Wo	rk Relea	se #:200	2958
EXXON Contact:	Darin 1	lause	1 P	hone #: (2)	<u>ک</u> کر	246 876	R		EVVO	L DAO	rk Relea	se #:	
Sampled by (print):	Bryan C	ampbel	l s	ampler's S	ignatu	re;	9		EXXO	# CAN	7-33	399	
Snipment Method:			A	ir Bill #:					<u> </u>		<del></del>		
TAT: 🗓 24 hr 🗓 48	hr 72 hr	□ 96 hr	□ Standard	(10 day)	· · · · · · · · · · · · · · · · · · ·			ANALYSI	S REQU	IRED			
Sample Description	Collection Date	Collection Time	Matrix	Prsv	# of	Sequoia's	TPH/Gas BTEX/	TPH/ Diesel	TRPH S.M.			Temperature	:
200011711011	Date	Title	Soil/Water/A	air i	Cont.	Sample #	8015/ 8020	EPA 8015	5520	Total Lead		Inbound Sea Outbound Se	ıl: Yes No eal: Yes No
DRUM 32	83000	1555	Soil	1			Х		<del></del>	X		(1	
Deun -35				1					· · · · · · · · · · · · · · · · · · ·			Comp	051- 2
DRUM -37				1						+			,
Denn -38				IP	NGI	058						(2.1	<u>/</u>
DELIM -39				1						+		Comp.	051+3 12 31 9
Perry - 40				1									· · · · · · · · · · · · · · · · · · ·
Delun -41									•••				<del></del>
Deury , 42				1									
DRUM 143	$\overline{}$	4	$\overline{\psi}$	1									/
RELINQUISHED I	BY / AFFIL	IATION	Date	Time	e	ACCEPT	TED / AF	FILIATIO	)N	Date	Time	Additional	Comments
Byan Camp	bc4		8/30/00	1700	,	Mille	1//					Sare	
Mach	Coll:		8:31	1205		Mai fans	- / / .	egooid		8.31	1150	Page	
Chinfage	Lepito	IRAY	8/31			M	WWW.	oito/		831	1844		
703	7		9-1		<u></u>			110	<u> </u>	역기	املا	·	

oequoia Analyticai

Redwood City, CA 94063 (650) 364-9600 • FAX (650) 364-9233

P.O. Box 2180, Houston, TX 77002-7426

. DOX 2100,	11005toll, 1X 7700Z=742
CHAIN	OF CUSTODY

Consultant's Name:	ETIC	Erain	œrino	<u> </u>							Page 5	of		
Address: 144 Wo	lyhow	Way	Wal	nu	+Ci	eek	<i>C</i> 4			Site Lo	cation:	2991 H	bound Od	
Project #: TM 3						t Projec				Consu	Itant Wor	k Releas	ie #: 2007958	
Project Contact:	be Mu	ehleck		Pho	ne #:C	125	777-PH				tory Wor			
EXXON Contact:	arın 1	louse	·	Pho	ne #:C	US 2	146-876	3			I RAS #:			_
Sampled by (print):	Bryan 1	amphe	QQ	Sam	pler's	Signatu	ıre:	angeria de						- 1
Shipment Method:	J	V		Air E	3iII #:									
<b>TAT:</b> 🗋 24 hr 🗀 48	hr <b>(</b> 72 hr	r 🛄 96 hr	□ Standar	rd (10	) day)		······································		ANALYS	IS REQU	IRED			
Sample Description	Collection Date	Collection Time	Matrix Soil/Wate		Prsv	# of Cont.	Sequoia's Sample #	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520	10th Carl		Temperature: Inbound Seal: Yes No Outbound Seal: Yes No	
DRUM - 44	8 හ ග	1555	soil			1		X			X		Campas it 3	
DRUM 45	83000	1555	Soil			J		X			X		Campas it 3	-   in
														_   \$
														<u> </u>
								<u> </u>						-
							·							
					_									I
														\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
RELINQUISHED	BY / AFFIL	LIATION	Date	,	Ti	ime	ACCEP	TED / AI	FFILIATI	ON	Date	Time	Additional Comment	s
Bryan Cam	phen		8/3010	10	170	U	Mark 1:	211.	Beau	pia	4:31	1150	Same as	
Marke	liki-		8.3/	, <u> </u>	120	10	Chirlan	ven /cc	pitol		8/31	15:25	Page 1.	
Chi Care	/ccp401	BAY	8/3/	<u>'</u>				MANA	, , , , , , , ,	nb)	8/31	1884		
40/3		,	9-1				<i>l</i> /	MMA	)					



#### Case Narrative for: **EXXON Company U.S.A.**

#### Certificate of Analysis Number: 00100273

Report To:

ETIC Engineering Inc.

Joe Muehleck

144 Mayhew Way

Walnut Creek

California 94596-

ph: (925) 977-7914

fax: (925) 977-7915

Project Name:

TM3399.3

Site:

7-3399,20002958

Site Address:

2991 Hopyard Road

Pleasanton

CA

PO Number:

LWR#20008062

State:

California

State Cert. No.:

Date Reported:

10/27/00

Your samples were subcontracted to McBride-Ratcliff and Associates for Particle Size and Grain Size analyses. The samples were assigned to their Lab No. 79998016.

Any data flags or quality control exceptions associated with this report will be footnoted in the analytical result page(s) or the quality control

Please do not hesitate to contact us if you have any questions or comments pertaining to this data report. Please reference the above

This report shall not be reproduced except in full, without the written approval of the laboratory. The reported results are only representative of the samples submitted for testing.

SPL, Inc. is pleased to be of service to you. We anticipate working with you in fulfilling all your current and future analytical needs.

Received

NOV 0 9 2000

ethic breamening lac

mall ut

10/27/00

Date



# **EXXON Company U.S.A.**

Certificate of Analysis Number:

00100273

Report To:

x To:

ETIC Engineering Inc.

Joe Muehleck

144 Mayhew Way

Walnut Creek

California 94596-

ph: (925) 977-7914

ETIC Engineering Inc.

Joe Muehleck

fax: (925) 977-7915

fax: (925) 977-7915

Project Name:

TM3399.3

Site:

7-3399,20002958

Site Address:

2991 Hopyard Road

Pleasanton

CA

PO Number:

LWR#20008062

State:

California

State Cert. No.:

Date Reported:

10/26/00

Client Sample ID	Lab Sample I	D Matrix	Date Collected			
	· · · · · ·			Date Received	COC ID	ŀ
/12, 45.5 ft-46 ft	00100273-01	Ta	<u> </u>			
12, 55.5 ft-56 ft		Sail	8/15/00 11:30:00 AM	10/11/00 10:00:00 AM		
12, 67.5 ft-68 ft	00100273-02	Soil	8/15/00 1:05:00 PM	10/11/00 10:00:00 AM		
12, 75.5 ft-76 ft	00100273-03	Soil	8/15/00 3:55:00 PM	10/11/00 10:00:00 AM		
2, 119 ft-119.5 ft	00100273-04	Soil	8/15/00 4:36:00 PM	10/11/00 10:00:00 AM		_]
4, 13.5 ft-14 ft	00100273-05	Soil	8/16/00 1:30:00 PM	10/11/00 10:00:00 AM		
4, 43.5 ft-44 ft	00100273-06	Soil	8/22/00 12:03:00 PM			$\Box$
4, 60.5 ft-61 ft	00100273-07	Sail	8/22/00 2:25:00 PM	10/11/00 10:00:00 AM		$\neg$
, 74.5 ft-75 ft	00100273-08	Soil	8/22/00 3:43:00 PM	10/11/00 10:00:00 AM		7
I, 83.0 ft-83.5 ft	00100273-09	Soil	8/22/00 4:16:00 PM	10/11/00 10:00:00 AM		7
, 125.0 ft-125.5 ft	00100273-10	Soil	8/23/00 9:14:00 AM	10/11/00 10:00:00 AM		7
,	00100273-11	Soil	8/23/00 2:45:00 PM	10/11/00 10:00:00 AM		7
		<del></del>	70,00   101	10/11/00 10:00:00 AM		7 7

ria West est Sonia

10/26/00

Date

Project Manager

Joel Grice Laboratory Director

Ted Yen Quality Assurance Officer



Client Sample ID MW12, 45.5 ft-46 ft

Collected:

Site:

8/15/00 11:30:00 SPL Sample ID:

00100273-01

Analyses/Method

Result

Rep.Limit

Dil. Factor QUAL

7-3399,20002958

Date Analyzed Analyst

Seq. #

Some West

West, Sonia Project Manager

Qualifiers:

ND/U - Not Detected at the Reporting Limit

- 8 Analyte detected in the associated Method Blank
- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution



TO:

Mrs. Sonia West

SPL

8880 Interchange Drive Houston, Texas 77054 DATE OF REPORT: PROJECT NUMBER:

October 25, 2000

79998016

PAGE 1 OF 3

TEST METHOD(s):

ASTM D422, Standard Test Method for Particle-Size Analysis of Soils

**NOTE:** Eleven soil samples were delivered to the MRA lab by SPL. The samples were contained in sealed jars. The samples were extracted in the MRA laboratory and found to be in good condition.

RESULTS OF LABORATORY TEST(S)

Sample Identification	000100273-01A	000100273-02A	000100273-03A	000100273-04A
Date of Test	October 25, 2000	October 25, 2000	October 25, 2000	October 25, 2000
Soil Description	Coarse to Fine Gravel and Sand	Brown & Tan Clay w/ Silt & Sand	Fine Gravel and Coarse to Fine Sand	Brown Clay w/ Silt & Sand

Sieve or Particle Size	% Passing	% Passing	% Passing	% Passing
1 ½ in	100.0	100.0	100.0	100.0
1 in	100.0	100.0	100.0	100.0
3/4 in	76.4	100.0	100.0	100.0
½ in	64.8	100.0	94.5	100.0
3/8 in	53.7	100.0	80.8	100.0
No. 4	39.8	100.0	69.8	100.0
No. 10	26.1	100.0	50.7	99.0
No. 20	15.9	100.0	27.7	97.1
No. 40	10.3	100.0	11.1	95.3
No. 60	8.3	96.4	3.9	92.6
No. 100	7.0	94.8	2.8	88.1
No. 200	5.4	91.2	2.1	76.6



Seq.#

Dil. Factor QUAL Date Analyzed Analyst

Client Sample ID MW12, 55.5 ft-56 ft Collected: 8/15/00 1:05:00 SPL Sample ID: 00100273-02 Site: 7-3399,20002958 Analyses/Method Result

Rep.Limit

na Wat

West, Sonia Project Manager

Qualiflers:

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

\* - Surrogate Recovery Outside Advisable QC Limits

J - Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution



Client Sample ID MW12, 67.5 ft-68 ft Collected: 8/15/00 3:55:00 SPL Sample ID: 00100273-03 Site: 7-3399,20002958 Analyses/Method Result Dil. Factor QUAL Date Analyzed Analyst Rep.Limit Seq.#

ma West

West, Sonia Project Manager

Qualifiers:

ND/U - Not Detected at the Reporting Limit

- B Analyte detected in the associated Method Blank
- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution



Client Sample ID MW12, 75.5 ft-76 ft

Collected: 8/15/00 4:36:00

SPL Sample ID:

00100273-04

Site:

7-3399,20002958

Analyses/Method

Result

Rep.Limit

Dil. Factor QUAL

Date Analyzed Analyst

Seq. #

ma West

West, Sonia Project Manager

Qualifiers:

ND/U - Not Detected at the Reporting Limit

B - Analyte detected in the associated Method Blank

\* - Surrogate Recovery Outside Advisable QC Limits

J - Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution



Client Sample ID MW12, 119 ft-119.5 ft

Collected: 8/16/00 1:30:00

SPL Sample ID:

00100273-05

Site:

7-3399,20002958

Analyses/Method

Result

Rep.Limit

Dil. Factor QUAL Date Analyzed Analyst

Seq.#

Tona West

West, Sonia Project Manager

Qualifiers:

ND/U - Not Detected at the Reporting Limit

- B Analyte detected in the associated Method Blank
- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution



TO:

Mrs. Sonia West

SPL

8880 Interchange Drive Houston, Texas 77054 DATE OF REPORT:

October 25, 2000

PROJECT NUMBER: 79998016

PAGE 2 OF 3

TEST METHOD(s):

ASTM D422, Standard Test Method for Particle-Size Analysis of Soils

**RESULTS OF LABORATORY TEST(S)** 

	1120021	O O' ENDOUNION!	1631(3)	
Sample Identification	000100273-05A	000100273-06A	000100273-07A	000100273-08A
Date of Test	October 25, 2000	October 25, 2000	October 25, 2000	October 25, 2000
Soil Description	Fine Gravel and Coarse to Fine Sand	Tan & Gray to Dark Gray Clay	Coarse to Fine Gravel and Coarse to Fine Sand	Gray Clay w/ Silt & Sand

Sieve or Particle Size	% Passing	% Passing	% Passing	% Passing
2 in	100.0	100.0	100.0	100.0
1 ½ in	100,0	100.0	74.5	100.0
1 in	100.0	100.0	63.9	100.0
3/4 in	100.0	100.0	58.7	100.0
½ in	82.2	100,0	48.9	100.0
3/8 in	75.2	100.0	41.8	100.0
No. 4	54.3	100.0	30.6	100.0
No. 10	33.9	100.0	20.9	100.0
No. 20	19.5	100.0	15.0	100,0
No. 40	11.9	100.0	11.8	100.0
No. 60	8.7	99.9	10.3	100.0
No. 100	6.7	99.9	9.2	97.3
No. 200	5.3	99.3	7.6	89.5



Client Sample ID MW14, 13.5 ft-14 ft

Collected: 8/22/00 12:03:00

SPL Sample ID: 00100273-06

Site:

7-3399,20002958

Analyses/Method

Result

Rep.Limit

Dil. Factor QUAL Date Analyzed Analyst

Seq. #

Tona West

West, Sonia Project Manager

Qualifiers:

ND/U - Not Detected at the Reporting Limit

- B Analyte detected in the associated Method Blank
- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution



Client Sample ID MW14, 43.5 ft-44 ft

Collected: 8/22/00 2:25:00

SPL Sample ID:

00100273-07

Site:

7-3399,20002958

Analyses/Method

Result

Rep.Limit

Dil. Factor QUAL Date Analyzed Analyst

Seq.#

na Wet

West, Sonia Project Manager

Qualifiers:

ND/U - Not Detected at the Reporting Limit

- B Analyte detected in the associated Method Blank
- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution



 Client Sample ID
 MW14, 60.5 ft-61 ft
 Collected:
 8/22/00 3:43:00
 SPL Sample ID:
 00100273-08

 Site: 7-3399,20002958

 Analyses/Method
 Result
 Rep.Limit
 Dil. Factor QUAL
 Date Analyzed
 Analyst
 Seq. #

Donia West

West, Sonia Project Manager

Qualifiers:

ND/U - Not Detected at the Reporting Limit

- B Analyte detected in the associated Method Blank
- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated Value between MDL and PQL
- >MCL Result Over Maximum Contamination Limit(MCL)
- D Surrogate Recovery Unreportable due to Dilution
- MI Matrix Interference



Site: 7-3399,20002958

Analyses/Method Result Rep.Limit Dil. Factor QUAL Date Analysed Analyst Seq. #

Some West

West, Sonia Project Manager

Qualifiers:

ND/U - Not Detected at the Reporting Limit

- B Analyte detected in the associated Method Blank
- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution



TO:

Mrs. Sonia West

SPL

8880 Interchange Drive Houston, Texas 77054 DATE OF REPORT:

October 25, 2000

PROJECT NUMBER: 79998016

PAGE 3 OF 3

TEST METHOD(s):

ASTM D422, Standard Test Method for Particle-Size Analysis of Soils

**RESULTS OF LABORATORY TEST(S)** 

	TIZOUZIO OI EADI	ONATORT (EST(S)	
Sample Identification	000100273-9A	000100273-10A	000100273-11A
Date of Test	October 25, 2000	October 25, 2000	October 25, 2000
Soil Description	Brown Clayey Sand w/ Silt	Brown Clay w/ Silt & Sand	Fine Gravel and Coarse to Fine Sand

Sieve or Particle Size	% Passing	% Passing	% Passing
2 in	100.0	100.0	100.0
1 ½ in	100.0	100.0	100.0
1 in	100.0	100.0	100.0
3/4 in	100.0	100.0	69.4
½ in	100.0	100.0	57.7
3/8 in	100.0	100.0	50.1
No. 4	97.7	100.0	31.5
No. 10	95.8	100.0	15.1
No. 20	94.7	99.6	5.9
No. 40	93.7	99.3	2.4
No. 60	89.8	99.2	1.5
No. 100	76.3	99.1	1.1
No. 200	45.2	98.9	0.9

Note: The grain size data are presented graphically on the attached Figures.

By foll Chronch



Client Sample ID MW14, 83.0 ft-83.5 ft

Collected:

8/23/00 9:14:00

00100273-10

Site:

7-3399,20002958

Analyses/Method

Result

Rep.Limit

Dil. Factor QUAL Date Analyzed Analyst

SPL Sample ID:

Seq. #

me West

West, Sonia Project Manager

Qualifiers:

ND/U - Not Detected at the Reporting Limit

- B Analyte detected in the associated Method Blank
- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated Value between MDL and PQL

>MCL - Result Over Maximum Contamination Limit(MCL)

D - Surrogate Recovery Unreportable due to Dilution



 Client Sample ID MW14, 125.0 ft-125.5 ft
 Collected: 8/23/00 2:45:00
 SPL Sample ID: 00100273-11

 Site: 7-3399,20002958

 Analyses/Method
 Result
 Rep.Limit
 Dil. Factor QUAL
 Date Analyzed Analyst
 Seq. #

Sonia West

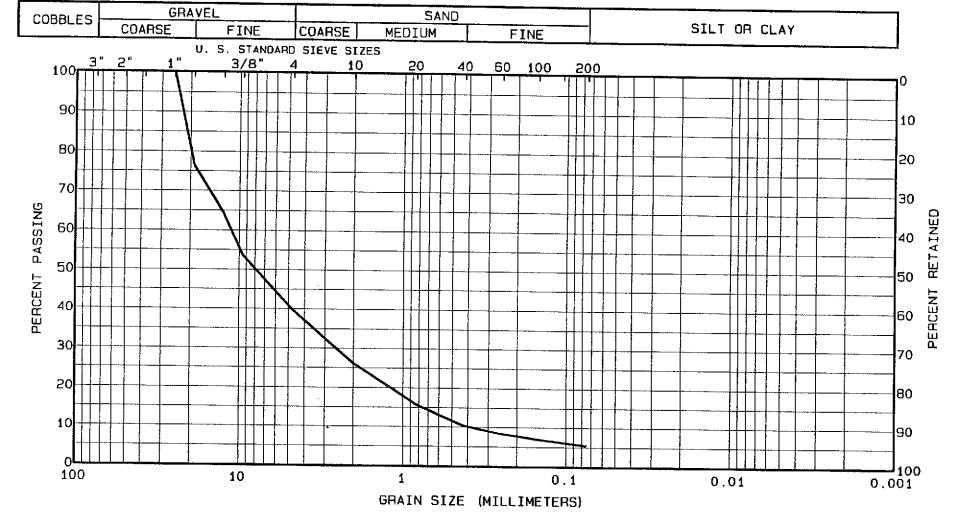
West, Sonia Project Manager

Qualifiers:

ND/U - Not Detected at the Reporting Limit

- 8 Analyte detected in the associated Method Blank
- \* Surrogate Recovery Outside Advisable QC Limits
- J Estimated Value between MDL and PQL
- >MCL Result Over Maximum Contamination Limit(MCL)
- D Surrogate Recovery Unreportable due to Dilution
- MI Matrix Interference

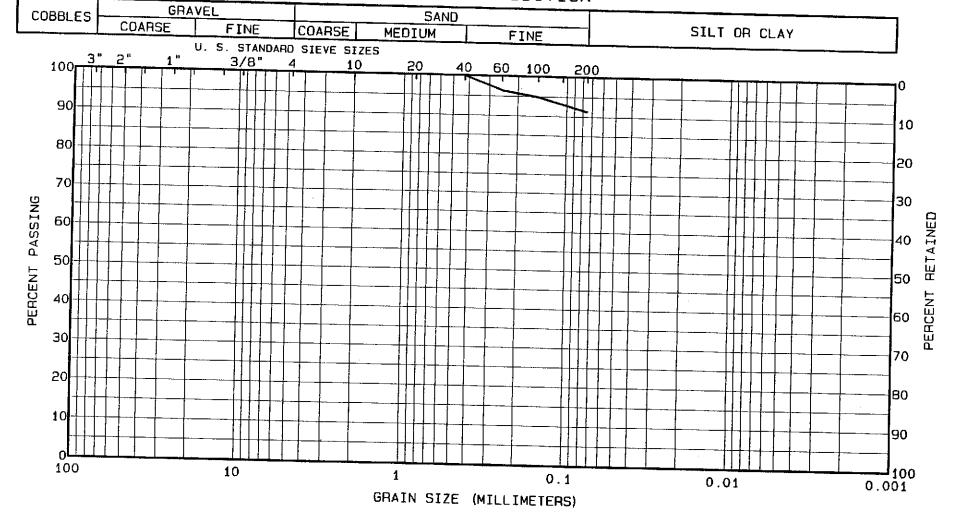
# QUALITY CONTROL DOCUMENTATION



File No. 79998018 Figure No.

Depth,	(feet)	Comments	Classification	Symbol
1A			C-F GR & C-F SA	
				<del>-  </del>
	Depth,	Depth, (feet)  1A	Depth, (feet) Comments  1A	3.2002112001311

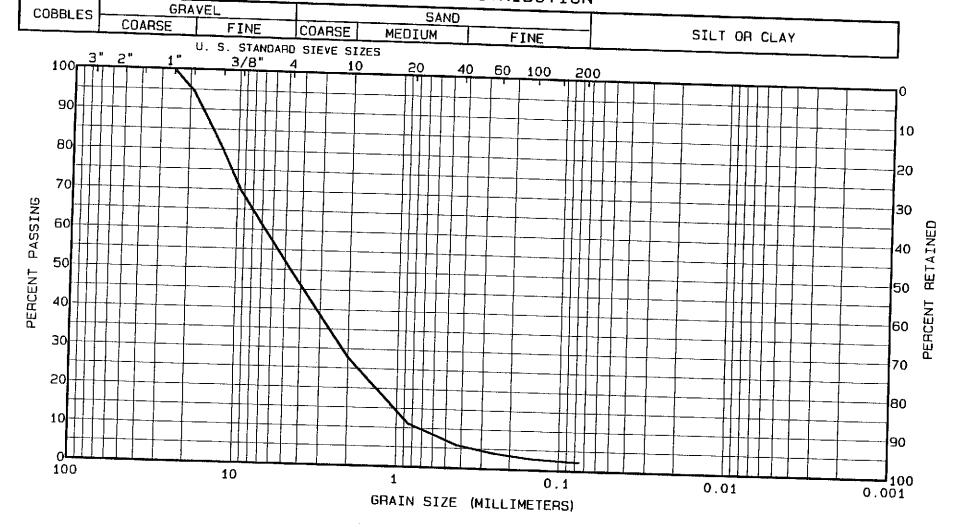
McBride-Ratcliff and Associates, Inc.



File No. 79998018 Figure No.

Boring No.	Depth,	(feet)	Comments	Classification	Ta
00100273	<del> </del>	<del></del>		Classification	Symbol
00100273	2A			BR & T CL W/ SI&SA	
					<del>-  </del>
	<u> </u>				1

McBride-Ratcliff and Associates, Inc.

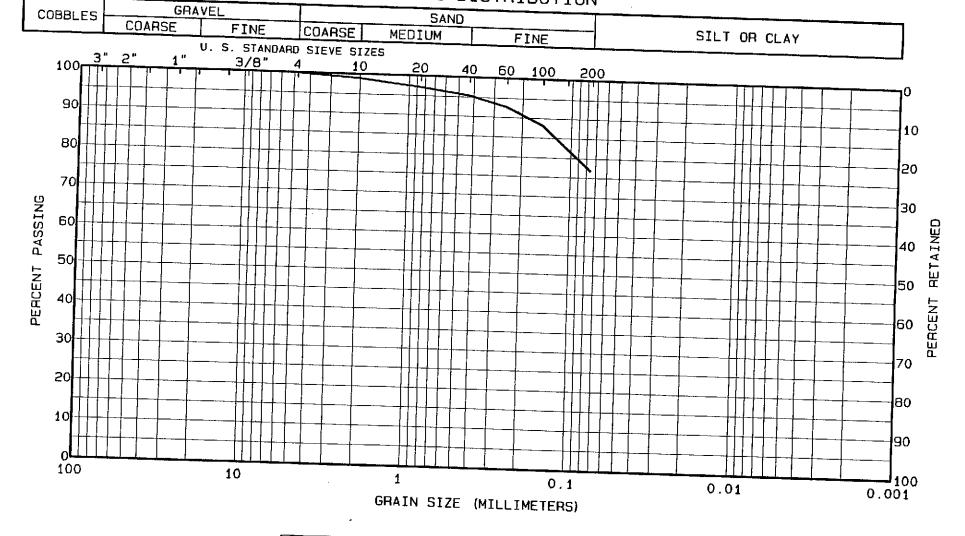


Depth. (feet) Comments Classification Symbol 00100273 ЗА F GR & CO TO F SA 79998018

Boring No.

File No. Figure No.

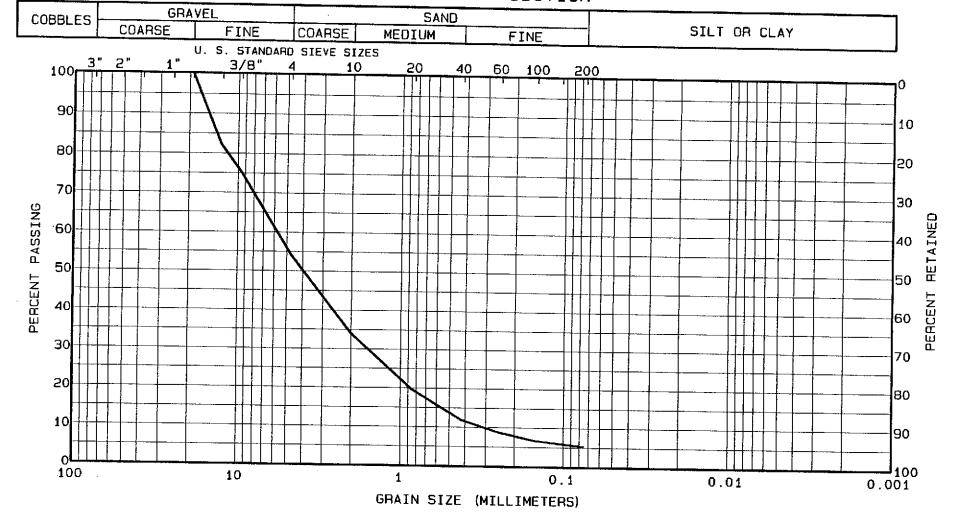
McBride-Ratcliff and Associates, Inc.



File No.	79998018
Figure No.	

Boring No.	Depth, (feet)	Comments	Classification	<u> </u>
00100273	4A		019331110801011	Symbol
	77		BR CL W/ SI & SA	
				<del> </del>
<del></del>				

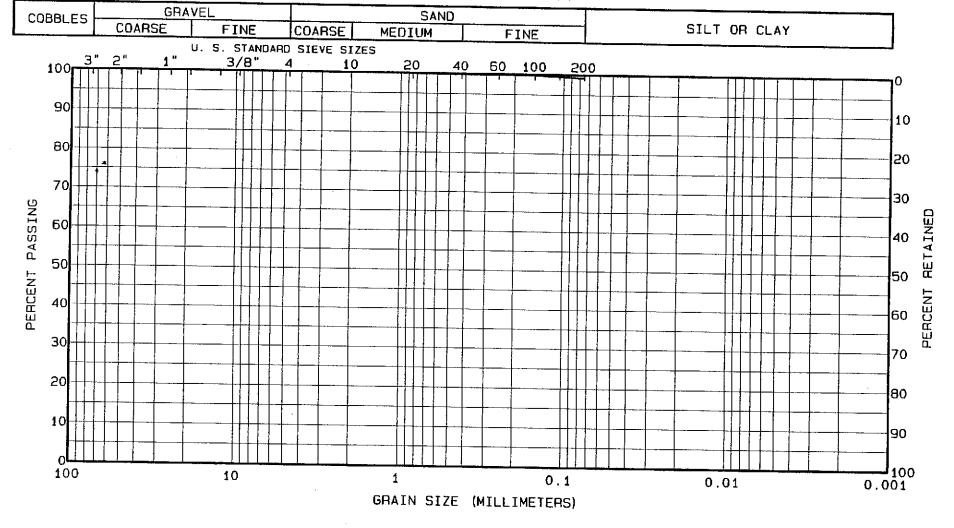
McBride-Ratcliff and Associates, Inc.



File No. 79998018 Figure No.

Boring No.	Depth,	(feet)	Comments	Classification	Symbol
00100273	5A			F GR & CO TO F SA	

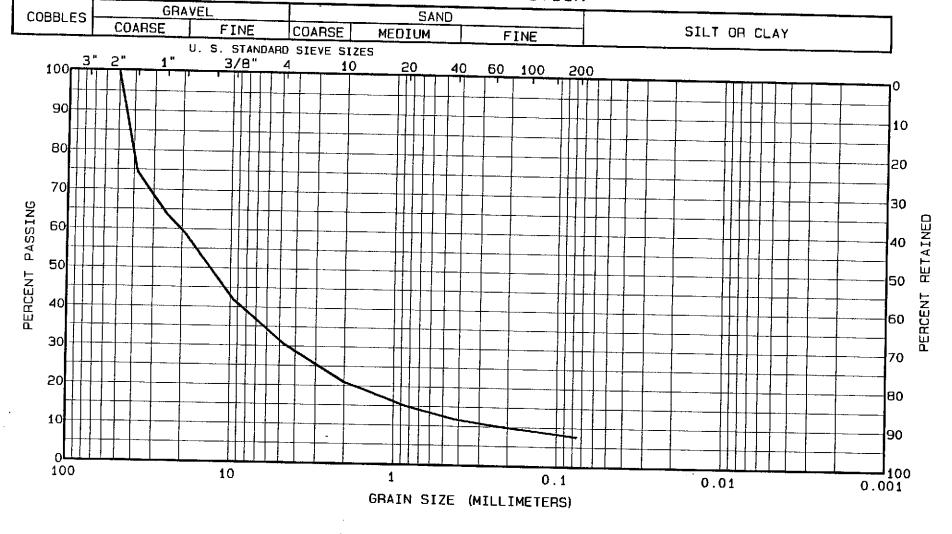
McBride-Ratcliff and Associates, Inc.



Boring No. Depth, (feet) Comments Classification Symbol
00100273 6A T, GR & DK GR CL ———

File No. 79998018 Figure No.

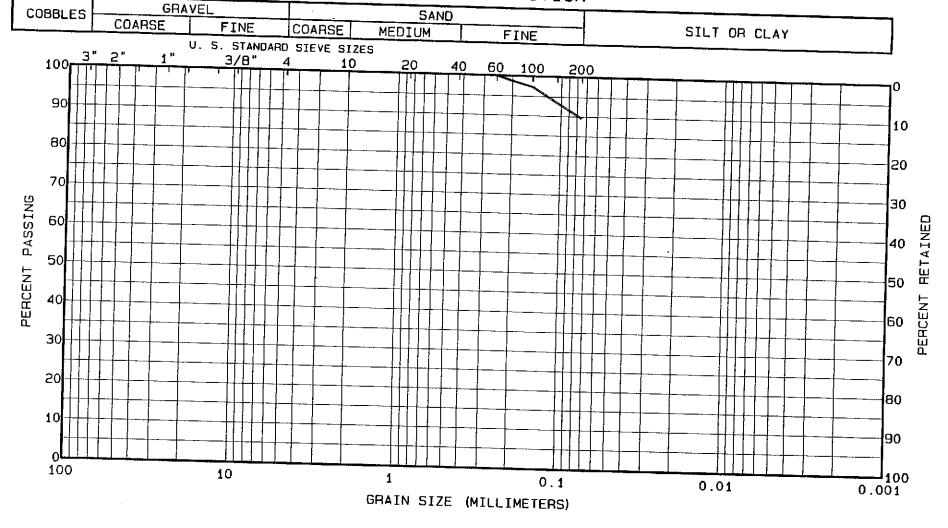
McBride-Ratcliff and Associates, Inc.



File No. 79998018 Figure No.

Boring No.	Depth,	(feet)	Comments	Classification	Symbol
00100273	7A			C-F GR & C-F SA	
					_
					<del></del>

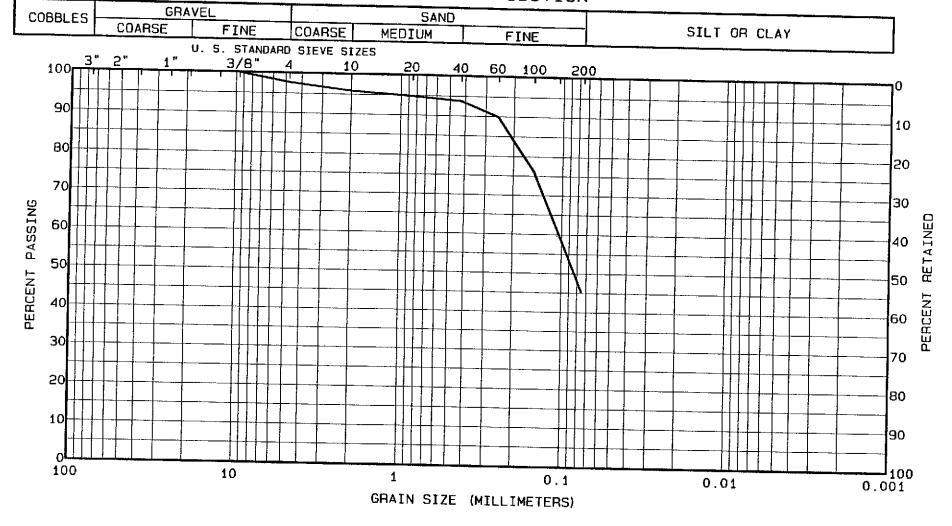
McBride-Ratcliff and Associates, Inc.



File No. 79998018 Figure No.

Boring No.	Depth,	(feet)	Comments	Classification	Sumb = 1
00100273	8A				Symbol
00100273	DA			GR CL W/ SI & SA	-
	!				<del></del>
<del></del>	<del> </del>	<del></del>	<del> </del>		1
· · · · · · · · · · · · · · · · · · ·					

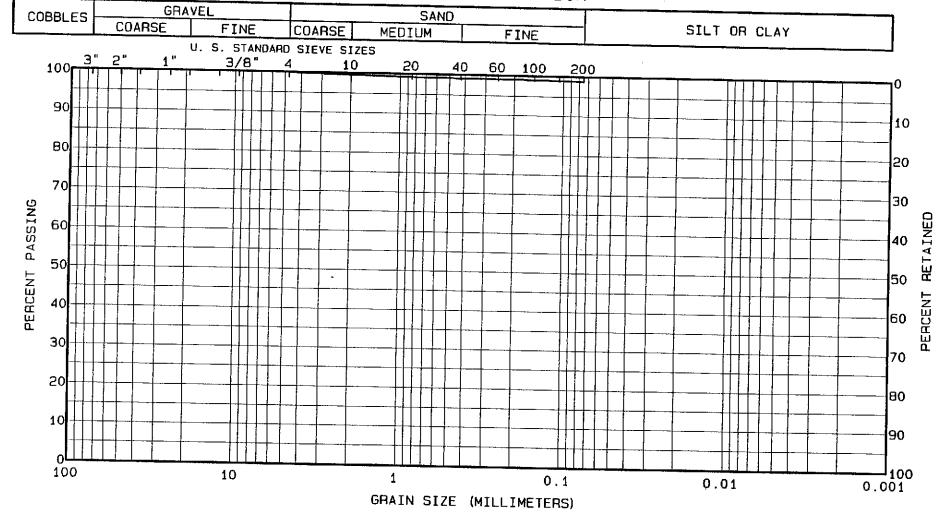
McBride-Ratcliff and Associates. Inc.



Boring No. Depth, (feet) Comments Classification Symbol
00100273 9A BR SA CL W/ SI

File No. 79998018 Figure No.

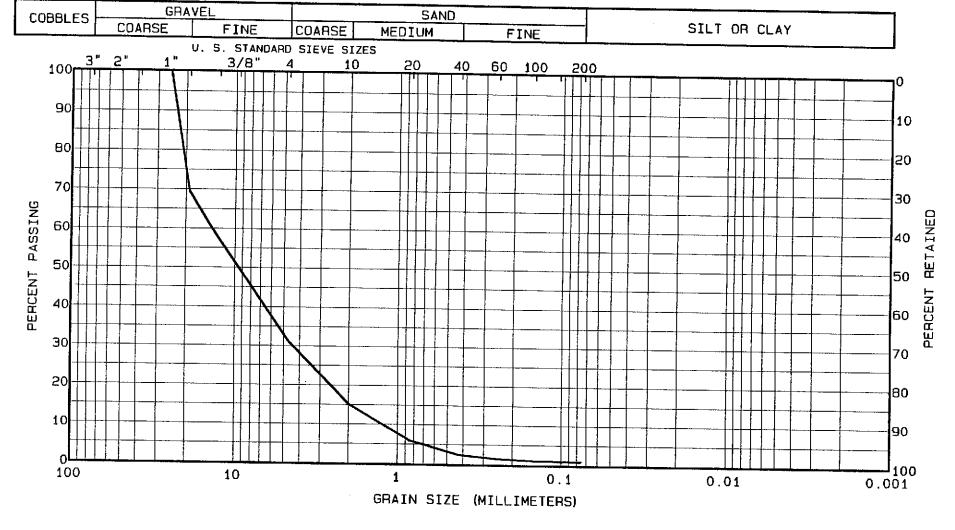
McBride-Ratcliff and Associates, Inc.



File No. 79998018 Figure No.

Depth,	(feet)	Comments	Classification	Symbol
10A			BR CL W/ SI & SA	
		<u> </u>		
	<del></del>	Depth, (feet)		404

McBride-Ratcliff and Associates, Inc.



File No. 79998018 Figure No.

Boring No.	Depth,	(feet)	Comments	Classification	Symbol
00100273	11A			F GR & CO TO F SA	
			<del> </del>		

McBride-Ratcliff and Associates, Inc.

# CHAIN OF CUSTODY

AND

SAMPLE RECEIPT CHECKLIST

<u>UU/UUA/</u>0 EXXON COMPANY, USA. CHAIN OF CUSTODY RECORD NO. (West Coast) Exxon Engineer: Dario Rause. Phone: (925)246-8768 **ANALYSIS REQUEST:** OTHER Address: 144 Mayhous Way Fax: (925) 977-7915 (CHECK APPROPRIATE BOX) FLASH POINT applicat Block ASTON RAS #: 7-3399 Facility/State ID # (TN Only): Consultant Project #: TM3399 3 AFE # (Terminal Only): Location: 2991 Hopyard (City) Pleasanton (State) CA OXYGENATES (7) 8250 Consultant Work Release #: 2002 958 8020 6260 Sampled By: Bryan Campbell DATE TIME COMP GRAB MATRIX OTHER PRESERVATIVE H<sub>2</sub>O SOIL AIR MW12, 45.5'-46' 8.15.00 1130 None MW12.55.5'-56 8.15.00 1305 MW12,675'-18 850155 8.15.00 1636 MW12,75,5'-76' MW12, 119-119,5 816001330 32200 1203 B2200 1425 MWH, 545'-55' A 22-00 1457 MW14 40.5-61 82200 1543 MW14, 74.51-751 1322 co 16/6 SPECIAL DETECTION LIMITS (Specify) \* Grain size analysis ASTM OYZZ 24 HR. 72 HR. \* >200 Sieve 96 HR. \* 48 HR **EXXON UST** 8 Business X \*Contact US Prior CONTRACT NO. SPECIAL REPORTING REQUIREMENTS (Specify) LAB USE ONLY Storage Location to Sending Sample C41483 Other PDF □ · □ EDD QA/QC Level FAX C-O-C WIREPORT Standard CLP ... FAX 🗀 WORK ORDER #: (1/10i) 273 LAB WORK RELEASE # Other [.] Relinquished By Sampler:

(3) Van Cangbe V
Relinquished: Date Time 10/11/00 1700 CUSTODY Received By: RECORD Relinquished: Date Time Received By Cooler Temp: Triplicate: Original - White Lab's Copy • Green Client Copy • Yellow

Other FAX C-O-C W/REPORT WORK ORDER #: LAB WORK RELEASE #:  CUSTODY Relinquished: Date Time Received By:												_			17 <u>L</u>	<u>//_/</u>	1	$\mathcal{L}$					_	_	_				
EXECUTE Engineer: QUILLY TOURS Phone [25] ZHO 5108  Consultant Co. Name ETIC ETO Consult Tour Multiplicat Address [14] Mu	EXXŌ	N CO	MPANY	΄, Τ	SA.				(We:	st Coast)	CH	AIN C	OF C	JSTC	DY F	RECO	ORD I	NO.								Page	2	of	2
Consultant Co Name ETIC EM  Address: LILL May Not National Consultant Consult	Exxon Engineer:	Irin 1	2410	Phe	one:	25)	24	0-8	376	8	-																	ОТШ	
## #	Consultant Co. Name	ETIC	Em	Co	ntact: _	Joe	Mu	eh	leck							{(	CHEC	CK AI	PPRO	PRI	ATE	вох	.)					Oin	-IX
## #	Address: 14	H Man	pole	11 fa	× (92) Oz	5) 9 1<97	777 10	<u>- 79</u>	915							!	13.2		·		NLY 🗆		ם	TCLP [	0	D TAO			1 XX
Consultant Work Release #  Consultant Work Relea	RAS #: 7-339	9										1.	1080				VAV.		_	8270	cs al	518.	17.	E S	OTAL	A F	010		10
TAT 24 HR 72 HR 48 HR 99 HR 5 Business X Control LIS from 10 Senting Sample CONTRACT NO. Cd. 4483  CHECORD  Refinquished:	AFE # (Terminal Only	·):		Co	nsultant	Project	#:			•		9	8015	02 🗆			ਲ		929			₽ ₽	FALS,	0	T QV	E	NO 8		
TAT 24 HR 72 HR 48 HR 99 HR 5 Business X Control LIS from 10 Senting Sample CONTRACT NO. Cd. 4483  CHECORD  Refinquished:	Location: 2941	Hopy	ard ld. (	City) C&M	Pieg	SON	tog	(S	tate) <u>∠</u> □ SD	<u>A</u>	NERS	3	3RO 🗆		8260	7) 8260 C	113.1	9	□ 0£3	1	81/8082 🗆	OVENES II				SPROSIVITY	DROCARB		4
TAT 24 HR 72 HR 48 HR 99 HR 5 Business X Control LIS from 10 Senting Sample CONTRACT NO. Cd. 4483  CHECORD  Refinquished:	Consultant Work Rele	ase #:	(h)	0/00	11						IATNO	R SIZ	8015 (	D 82	Z0 🗆	TES (	₹		ı	8100		Š	rotal	AL 23	SOLVE	B	E HY	B.1	п   °
TAT 24 HR 72 HR 48 HR 99 HR 5 Business X Control LIS from 10 Senting Sample CONTRACT NO. Cd. 4483  CHECORD  Refinquished:						lanınl	MAAT	DIV			<u>ا</u> ا	TAIN	ည္ည	8 .	171 28	SEN.		8260	II-VO	PAH	PEST	JE I	ALS.	ξ	, DIS	È	3EAB!		$\pm 1 3$
TAT 72 HR 48 HR 96 HR 100 Sending Sample CONTRACT NO. C41483  CONTRACT N	SAMPLE	= 1.U.				GRAB			ROTHER	PRESERVATIVE	S.	8	TPH.	BTE	MTB	ř	O&G	УQL	SEN	g. Ž	PCB	효	MET.	EA	LEAC	¥.	PUR	TPH/	YOT G
TAT  24 HR	MWH 83.0'	<u>-835'</u>	823 <i>0</i> 7	09/1	/			X)		None	1	X																	$\rightarrow$
24 HR ' 72 HR ' 48 HR ' 96 HR ' 8 Business X 'Contact US Prior to Sending Sample CHPT Other L   Standard M CLPT Other L   Relinquished By Sampler:   Date   Relinquished:   Relinq	MW14, 125.0	'-125.5'	3.230	1449	5	<u></u>		ς .		1	1	X																	下
24 HR ' 72 HR ' 48 HR ' 96 HR ' 8 Business X 'Contact US Prior to Sending Sample CHPT Other L   Standard M CLPT Other L   Relinquished By Sampler:   Date   Relinquished:   Relinq																													1
24 HR					1																								
24 HR																		$\neg$		$\dashv$					<b></b>				-
24 HR ' 72 HR ' 48 HR ' 96 HR ' 8 Business X 'Contact US Prior to Sending Sample CHPT Other L   Standard M CLPT Other L   Relinquished By Sampler:   Date   Relinquished:   Relinq				<u> </u>			<u> </u>	+-										$\dashv$		一	-		<del> </del>				Н	$\dashv$	+
24 HR ' 72 HR ' 48 HR ' 96 HR ' 8 Business X 'Contact US Prior to Sending Sample CHPT Other L   Standard M CLPT Other L   Relinquished By Sampler:   Date   Relinquished:   Relinq				<u> </u>	1				+	• •	<del> </del>								$\dashv$			<del> </del>	<u> </u>	$\vdash$	-	<u> </u>			
24 HR				<del> </del>		<del>  </del>	<u> </u>	-	+-+	<del></del>	<u> </u>								-				 	ļ		<u> </u>		-	+
24 HR ' 72 HR ' 48 HR ' 96 HR ' 8 Business X 'Contact US Prior to Sending Sample CHPT Other L   Standard M CLPT Other L   Relinquished By Sampler:   Date   Relinquished:   Relinq				<del>                                     </del>		-		-			ļ	ļ						$\dashv$	-					ļ		ļ	<u> </u>		
24 HR								-		<del></del>						-								ļ <u>.</u>	ļ	<b> </b>			
24 HR	TAT			<u> </u>	Spec	IAL DET	FECTION	N 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ITS (See	.ai6.i\				l or	MARI							L	<u> </u>	<u></u>	L		Ш		
Section   Sect	(1)							cny)	* Grain Sice analysis ASTM 0422																				
8 Business X Contact US Prior to Sending Sample  CONTRACT NO. C41483  PDF									<b>.</b>																				
Other CA/QC Level Other FAX _ FAX C-O-C W/REPORT WORK ORDER #: LAB WORK RELEASE #:  CUSTODY Relinquished: Date Time Received By:  Relin	8 Business X *Contact US Prior CONTRACT NO. SPECIAL REPORTING REQUIREMENTS						ENTS (Sp	ecify) LAB USE ONLY Lot # Storage Location																					
CUSTODY Relinquished:  Relinquished:    Custodard   Cu	1	ending Sample	C41483		l		_																			•	•		
CUSTODY Relinquished:  Relinquished:  FAX   FAX C-O-C W/REPORT  WORK ORDER #: LAB WORK RELEASE #:    Date   Time   Received By:					PDF	J	L	I FDD	<b>}</b>																				
CUSTODY Relinquistred:  Relinquistred:  Relinquistred:  Date Time Received By:  Relinquished:  Date Time Received By:  National Cooler Temp: 3c		<b></b>			FAX [	J	)	(FAX	C-O-C V	WREPOR	Т			wo	RK (	ORDE	R#:					LAI	B WC	ORK I	RELE	ASE	#:		
Relinquistred:  Relinquistred:  Date Time Received By:  Relinquished:  Date Time Received By:  National Process of the Cooler Temp: 3c	<u> </u>	Relinquishe				r			··········					ne				Ву:											
RECORD  Relinquished:  Date Time Received By:  National Horizontal Cooler Temp: 3c	CUSTODY			mp	bell	<u> </u>				· · · · · ·		Ø.					<del></del>												
Relinquished:  Date Time Received By:  Way but # Cooler Temp: 3c	i	Lewidnistie.	u.	1						Dai	ıe	1	I ir	116		Kece //	ived	ву:	(	-/	1	/			/	1			
	ILCOND.	Relinquishe	d:							Dai	te		Tir	ne	十	Fece	iv <b>e</b> d	By:		Ħ		<del>'</del>		14	4/	10c	<del>/</del>	100	<i>P</i> —
	Triplicate: Origin	nal • M/hito	1 al-1-	Corre	Cross		Client	Can	- Valla						_//	New 1		G		1 1	<u>~</u>	_		Cool	er Te	mp:	3	<u>u</u>	



#### Sample Receipt Checklist

Workorder:	00100273		Received by:		Estrada, Ruben
Date and Time Received:	10/11/00 10:00:00 AM		Carrier name:		FedEx
Temperature:	3	<u> </u>			
Shipping container/cooler in	good condition?	Yes 🔽	No 🗌	Not Present	
Custody seals intact on ship	pping container/cooler?	Yes 🗌	No 🗌	Not Present	<b>☑</b>
Custody seals intact on sam	ple bottles?	Yes 🗌	No 🗌	Not Present	<b>⊻</b>
Chain of custody present?		Yes 🗌	No 🗹		
Chain of custody signed whe	en relinquished and received?	Yes 🗹	No 🗀		
Chain of custody agrees with	sample labeis?	Yes 🗹	No 🗌		
Samples in proper container	/bottle?	Yes 🗹	No 🗌		
Sample containers intact?		Yes 🗹	No 🗌		
Sufficient sample volume for	indicated test?	Yes 🗹	No 🗌		
All samples received within h	nolding time?	Yes 🗹	No 🗌		
Container/Temp Blank tempe	erature in compliance?	Yes 🗹	No 🗌		
Water - VOA vials have zero	headspace?	Yes 🗌	No 🗀	Not Present	✓
Water - pH acceptable upon	receipt?	Yes 🗌	No 🗹		

# Appendix G

Non-hazardous Waste Manifests

10/10/2000 MON 10:34 PAX 825 634 0568

ILLAKD ENVIKONMENTAL

FILE COPY

# Dillard Trucking, Inc. dba \*Dillard Environmental Services\* P.O. Box 579 • Byron, California 94514

Telephone: 925-634-6850 • Facsimile: 925-634-0569

VIA FACSIMILE 925-977-7915

October 16, 2000

**ETIC** 

Attn: Mr. Bryan Campbell

RE: Exxon #7-3399/2991 Hopyard Road Pleasanton, California

Dear Mr. Bryan Campbell

Please be advised that 42 drums of bulk soil from the above referenced site has been removed. The bulk soil was transported for disposal to Vasco Landfill on Sept.25, 2000.

Should you have any questions, please do not hesitate to call.

Sincerely,

Lynette Smith

Lynette Smith

Customer Service Representative

LS:DJP

cc: file

At Er: HP LaserJet 3100;

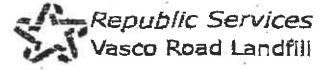
Vehicle License Number/State

DILLARD ENVIRONMENTAL

925 447 0499;

5epi -00 1:2SPM; Ø1002

Page 1/2



#### WASTE APPROVAL FORM/NON-HAZARDOUS WASTE MANIFEST

#### **WASTE STREAM INFORMATION** Date Tuesday, September 12, 2000 Generator Exxon Mobil #7-3399 Generator Location 2991 Hopyard Rd Pleasanton CA SWIC Number 02712 Bill To Dillard-Exxon Approval Date 9/12/00 Espiration Date 9/12/01 Waste Description Dehris Direct Baris) Management The shove is a recommendation of the Varco Road Landfill. It must be understood that management of the wests for disposal must be in compliance with The facility's possible and applicable ordered, state and legal regulations. The approval is haved upon a review of the definential provided by the generalist and is made, provided by the generalist and is made, provided by the secretary of the disposal facility of a made, provided executally equivalent in democrat composition and plusical properties to that as defined above. If A The PROPERTIES TO THE TOWN OF THIS FORM MUST ACCOMPANY EACH LOAD, ONE COPT WILL BE RETAINED BY THE YASCO HOAD LANDETLL. Generator Signature DES JOB#2003/317 TRANSPORTER INFORMATION Po# 09-35398 Transporter to complete this section Transporter Name DILLARD ENVIRONMENTAL SERVICES Transporter Address P. a. Box 579 Transporter City, State, Zip BYRON, CA 94514 Transporter Phone Number (925)634-6850 Driver Name Truck Number

Driver Signatur

DESTINATION INFORMATION

I herby certify that the above particul material hat been uppopted and in the first of my knowledge the faregoing is true and accurate.

Signature of Varso Rost Lundill employee

4001 North Vesco Boad, Livermore - Phone: 925-447-0491 - Nax: 925-447-3086 or 925-447-0449

Brym-

# FILE CHAZARDOUS W

NO.001264

AAZARDOUS WASTE DATA FORM - ⊈gon Mobil E,X,E,M,P,T P.O. Box 4999 The Woodlands, TX. 77380-4999 PHONE NO. (281 ) 2963655 WEIGHT OR VOLUME UNITS Gallans CONTAINERS: — TYPE: □TANK TRUCK PORUMS □DUMP TRUCK □CARTONS □OTHER. WASTE DESCRIPTION Waste Water/Well Water Well Purging/Development GENERATING PROCESS COMPONENTS OF WASTE COMPONENTS OF WASTE Water 99-100 PETROLEUM Hydrocarbons < 1 pH 7-9 □ SOLID TIONID STADGE SLURRY TOTHER HANDLING INSTUCTIONS: Wear Appropriate Proper Protective Equipment GENERATOR CERTIFICATION: This is to certify that the above named waste materials are 100% non-hazardous and are not regulated according to either 40 CFR (USEPA) or applicable state regulations. In addition the above named waste materials are properly described, packaged, marked, labeled and are in proper condition for transportation according to all applicable regulations. TYPED OR PRINTED FULL NAME & SIGNATURE DATE Service Station Systems, Inc. NAME A R 0 0 0 0 0 0 6 0 9 8 1236 N. Fifth Street ADDRESS SERVICE ORDER NO. San Jose, CA 95112 CITY, STATE, ZIP 408 971-2445 PHONE NO. TYPED OR PRINTED FULL NAME & SIGNATURE NAME Crosby And Overton, Inc. ADDRESS 1630 W. 17th Street LANDFILL CITY, STATE, ZIP Long Beach, CA 90813 PHONE NO. (562) 432-5445

DISCREPANCY RM NO. 01-741 8/83

QUANTITY:

HANSPORTER

TYPED OR PRINTED FULL NAME & SIGNATURE

EMERGENCY CONTACT TELEPHONE NUMBER 21. Generator's US EPA ID No ARDOUS MANIFEST Sontinuation Sheet) emior's Name 24. Transporter Transporter O Transporter's Phone 31. Unit 30. Total 28. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Numb NO STATE 1142 (R) 30 1 2 TE V25 JANS 4. APPROPRIATE CONTRACTOR OF THE Special Handling Instructions and Additional Information Company of the second s BURE THE IN THE PROPERTY OF THE PARTY AND 12 12 mg to 11 Signature Month Day Year Transporter Acidocwiedgement of Receipt of Materials (\*\*