## ExxonMobil Refining and Supply Company

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## ExonMobil

Refining & Supply

May 1, 2001

MAY 1 0 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 Replacement Report* dated April 2001 for the above-referenced site. The report was prepared by ETIC Engineering, Inc. of Pleasant Hill, California, and documents the destruction of groundwater monitoring well MW9 and its replacement with well MW9A. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached report is true and correct.

If you have any questions or comments, please contact me at (925) 246-8747.

Sincerely,

Gene N. Ortega Territory Manager

Attachment: ETIC Well Replacement Report dated April 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

c: w/o attachment:

Ms. Christa Marting - ETIC Engineering, Inc.



MAY 1 0 2001

## Well Replacement 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

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Joseph T. Muehleck
Project Manager

Heidi Du fe Jacl-Cale
Heidi Dieffenbach-Carle, R.G. #6793
Senior Geologist

Date

Date

Date

Date

Date

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Date

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April 2001

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#### SITE CONTACTS

Site Name:

Former Exxon Retail Site 7-3399

Site Address:

2991 Hopyard Road Pleasanton, California

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#### 1. INTRODUCTION

This report documents the replacement of one groundwater monitoring well (MW9 with MW9A) at former Exxon Retail Site (RS) 7-3399, located at 2991 Hopyard Road, Pleasanton, California (Figure 1). ETIC Engineering, Inc. (ETIC) was retained by ExxonMobil Refining and Supply Company (ExxonMobil) to replace the well due to an obstruction discovered in the well during groundwater pump testing performed at the site in June and July 2000. A publication of approximately 26 feet below ground surface (b) at the discovered at a depth of approximately 26 feet below ground surface (b) at the discovered with the discovered at a depth of approximately 26 feet below ground surface (b) at the discovered with the di

#### Scope of Work

The investigation consisted of the following activities:

- On 3 November 2000, well MW9 was destroyed by pressure grouting.
- On 3 November 2000, one soil boring, MW9A, was drilled to a depth of 58 feet bgs and sampled
  to a depth of 59 feet bgs. The boring was completed as a groundwater monitoring well with a
  6-inch casing.
- On 28 November 2000, well MW9A was developed.
- On 28 December 2000, a groundwater sample was collected from MW9A along with the other
  onsite and offsite wells in conjunction with quarterly groundwater monitoring (ETIC 2001a).

#### 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 from 1996 to 1999 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 collected from a perched water table located approximately 10 feet beneath portions of the site.

A new groundwater extraction system was constructed at the site and started in March 2001. Grequetwater is currently being extracted from wells VR1 and MW9A. Extracted groundwater is pumped from the extraction wells to the existing treatment compound via underground double-contained pipes. Groundwater is treated by pre-filtration, and by adsorption by granular activated carbon to remove dissolved chemicals to meet discharge limits established under a permit with the Dublin-San Ramon Services District. The system is described in greater detail in a letter to the ACHA dated 13 December 2000 (ETIC 2000b).

Regional and site geology and hydrogeology have most recently been described in the Well Installation Report dated February 2001 (ETIC 2001b).

#### 3. SUBSURFACE INVESTIGATION

eTIC observed the installation of one groundwater monitoring well (MW9A) and the destruction of well MW9 on 3 November 2000. Well MW9A was installed to replace well MW9 because an obstruction and possible breach of casing was observed at approximately 26 feet bgs. This work was performed by Woodward Drilling Company (C-57 License #710079). Permits were obtained from the Zone 7 Water Agency prior to the drilling and well destruction. Copies of the permits are provided in Appendix B.

#### 3.1 DRILLING OF SOIL BORING

Boring MW9A was drilled using a truck-mounted drill rig equipped with 12-inch-diameter hollow-stem augers. Prior to drilling the boring, a 12- to 15-inch-diameter hole, designated as the delineation area, was cleared to a depth of 8 feet bgs using the vacuum method described in Appendix C. This procedure was performed to ensure that there were no obstructions near the potential path of the drill augers. The hollow-stem augers and downhole equipment were cleaned by pressure washing before drilling began and upon completion of the borehole. Equipment rinsate 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 at 5-foot intervals to the total depth of the boring. Soil samples were collected by driving a 2-inch-diameter California-modified split-spoon sampler containing 6-inch brass or stainless steel sleeves ahead of the augers into undisturbed soil. A sleeve from each sample interval was sealed with Teflon tape, capped, labeled, and placed in an ice-packed cooler for delivery to a state-certified laboratory for analysis. The contents of the remaining sleeves were examined for soil characteristics and screened in the field with an organic vapor analyzer (OVA) to determine the relative hydrocarbon content. Soil descriptions and OVA readings are recorded on the soil boring log presented in Appendix D.

All soil cuttings generated during drilling were placed on and covered with plastic sheeting and temporarily stored on the site.

#### 3.3 WELL INSTALLATION

Boring MW9A was completed as a groundwater monitoring well, in accordance with ETIC's protocols (Appendix C) and local regulations. Well construction details are summarized in Table 1 and are shown on the soil boring log and well construction diagram provided in Appendix D.

Well MW9A was constructed with 6-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.

#### 3.4 WELL DEVELOPMENT

Well MW9A was developed on 28 November 2000. The well was surged with a surge block and purged using a PVC pipe lowered into the well and attached to a vacuum apparatus. Approximately 8 casing volumes of water was removed from the well.

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

#### 3.5 GROUNDWATER SAMPLING

Groundwater samples were collected from MW9A along with the other onsite and offsite wells on 28 December 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 a state-certified laboratory for analysis. Groundwater sampling procedures are described in Appendix C.

#### 3.6 SURVEYING OF GROUNDWATER MONITORING WELL

The top-of-casing elevation of well MW9A was surveyed by a licensed surveyor on 28 March 2001.

#### 3.7 WELL DESTRUCTION

Well MW9 was destroyed on 3 November 2000. A permit from the Zone 7 Water Agency 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 and the area was resurfaced to match surrounding conditions.

#### 3.8 WASTE CONTAINMENT AND DISPOSAL

Approximately 3 cubic yards of soil was generated during drilling activities. Soil cuttings accumulated during drilling were placed on and covered with plastic sheeting and stored on the site. A four point composite sample was collected from the soil cuttings and submitted to Sequoia Analytical in Morgan Hill, California. The soil was analyzed for Total Petroleum Hydrocarbons as gasoline (TPH-g), benzene, toluene, ethylbenzene, and xylenes (BTEX), total lead, and volatile organic compounds in order to characterize the soil for proper disposal. The laboratory analytical report and chain-of-custody documentation are included in Appendix F. The soil was removed from the site and transported to an ExxonMobil-approved disposal facility in January 2001. A copy of the non-hazardous waste manifest is included in Appendix G.

Equipment rinsate water was placed in five 55-gallon drums. The water was removed from the site and transported to an ExxonMobil-approved treatment facility in February 2001. A copy of the non-hazardous waste manifest is included in Appendix G.

#### 4. RESULTS

#### 4.1 SITE GEOLOGY AND HYDROGEOLOGY

Lithology observed in MW9A is characteristic of that observed in other borings at the site and vicinity. Soils encountered in the boring consisted of sandy silt from the surface to 10.5 feet bgs, clays from 10.5 to approximately 36 feet bgs, sands and gravels from approximately 36 to 57 feet bgs, and clay from approximately 57 to 59 feet bgs (the total sampled depth of the boring).

The static water level in well MW9A, measured on 28 December 2000, was 43.72 feet from top of casing. The soil lithology is described on the soil boring log provided in Appendix D.

#### 4.2 SOIL ANALYTICAL METHODS AND RESULTS

Selected soil samples were collected for laboratory analysis from boring MW9A on 3 November 2000. The soil samples were submitted to Sequoia Analytical in Morgan Hill, California. The samples were analyzed for TPH-g by modified EPA Method 8015, BTEX by EPA Method 8020, and MTBE by EPA Method 8260. Analytical results are summarized in Table 2. The laboratory report and chain-of-custody documentation are provided in Appendix F.

Benzene was detected at a maximum concentration of 0.331 mg/kg (26-26.5 feet). TPH-g was detected at a maximum concentration of 606 mg/kg (15.5-16 feet). MTBE was detected at a maximum concentration of 0.936 mg/kg (21-21.5 feet).

#### 4.3 GROUNDWATER ANALYTICAL METHODS AND RESULTS

Groundwater samples were collected from MW9A along with other wells on 28 December 2000 in conjunction with quarterly groundwater monitoring. A report documenting the fourth quarter monitoring event was submitted under separate cover (ETIC 2001a). The samples were analyzed for TPH-g by modified EPA Method 8015, BTEX by EPA Method 8020, and MTBE by EPA Method 8260. December 2000 groundwater monitoring results are summarized in Figure 2. The laboratory analytical report and chain-of-custody documentation for groundwater samples are included in Appendix F.

Benzene was detected at a concentration of 14.5  $\mu$ g/L, TPH-g was detected at a concentration of 1,040  $\mu$ g/L, and MTBE was detected at a concentration of 65.5  $\mu$ g/L in the groundwater sample from well MW9A.

#### 5. SUMMARY

On 3 November 2000, ETIC observed the installation of groundwater monitoring well MW9A and the destruction of well MW9 at former Exxon RS 7-3399, located at 2991 Hopyard Road, Pleasanton, California. MW9A was installed to replace MW9, which had a partial obstruction and possible breached casing at approximately 26 feet bgs.

Lithology observed in MW9A is characteristic of that observed in other borings at the site and vicinity.

Selected soil samples were collected for laboratory analysis from boring MW9A. The samples were analyzed for TPH-g by modified EPA Method 8015, BTEX by EPA Method 8020, and MTBE by EPA Method 8260B. Benzene was detected at a maximum concentration of 0.331 mg/kg (26-26.5 feet). TPH-g was detected at a maximum concentration of 606 mg/kg (15.5-16 feet). MTBE was detected at a maximum concentration of 0.936 mg/kg (21-21.5 feet).

Groundwater samples were collected from MW9A along with other wells on 28 December 2000 in conjunction with quarterly groundwater monitoring. The samples were analyzed for TPH-g by modified EPA Method 8015, BTEX by EPA Method 8020, and MTBE by EPA Method 8260. Benzene was detected at a concentration of 14.5  $\mu$ g/L, TPH-g was detected at a concentration of 1,040  $\mu$ g/L, and MTBE was detected at a concentration of 65.5  $\mu$ g/L in the groundwater sample from well MW9A.

#### REFERENCES

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.

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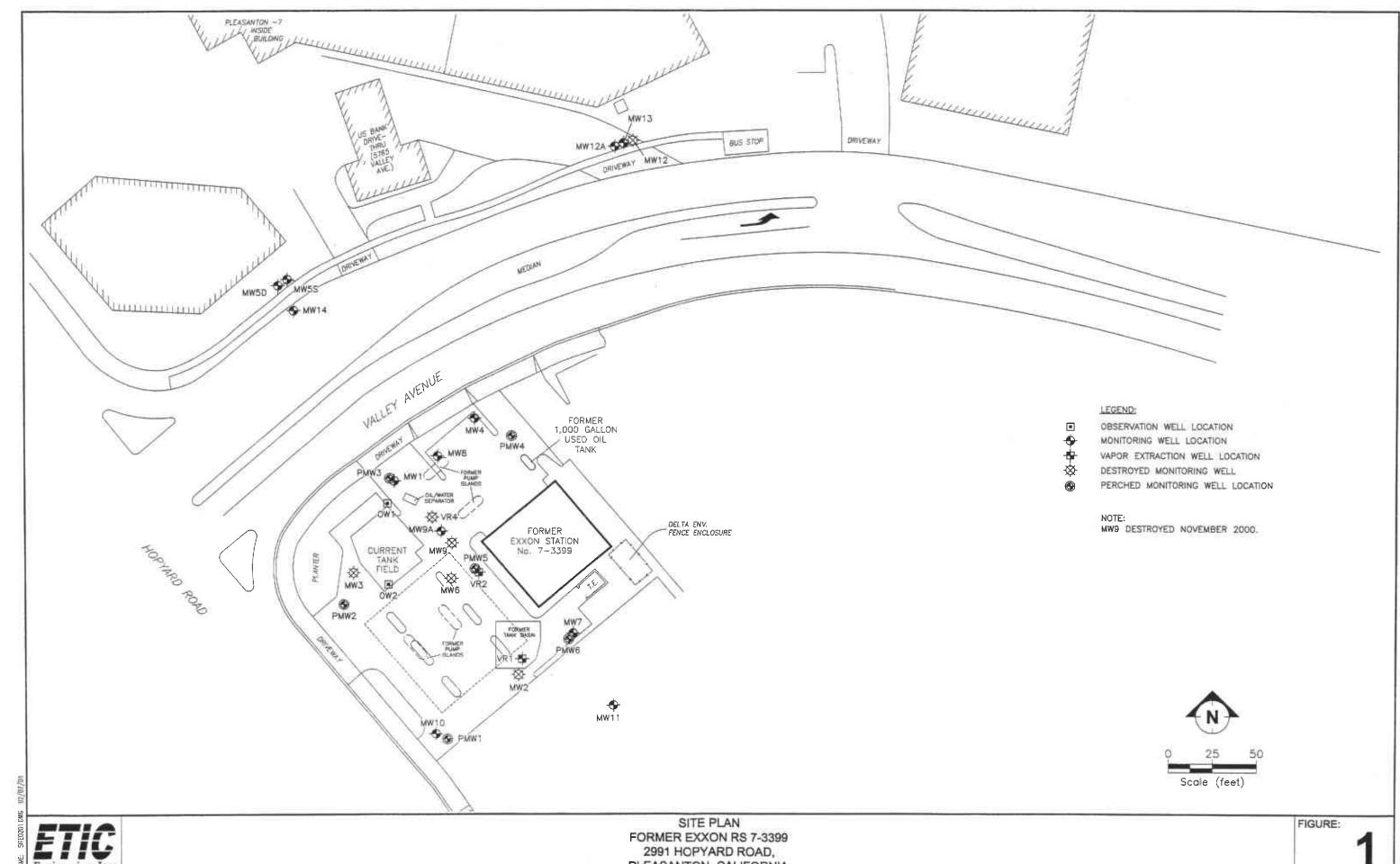
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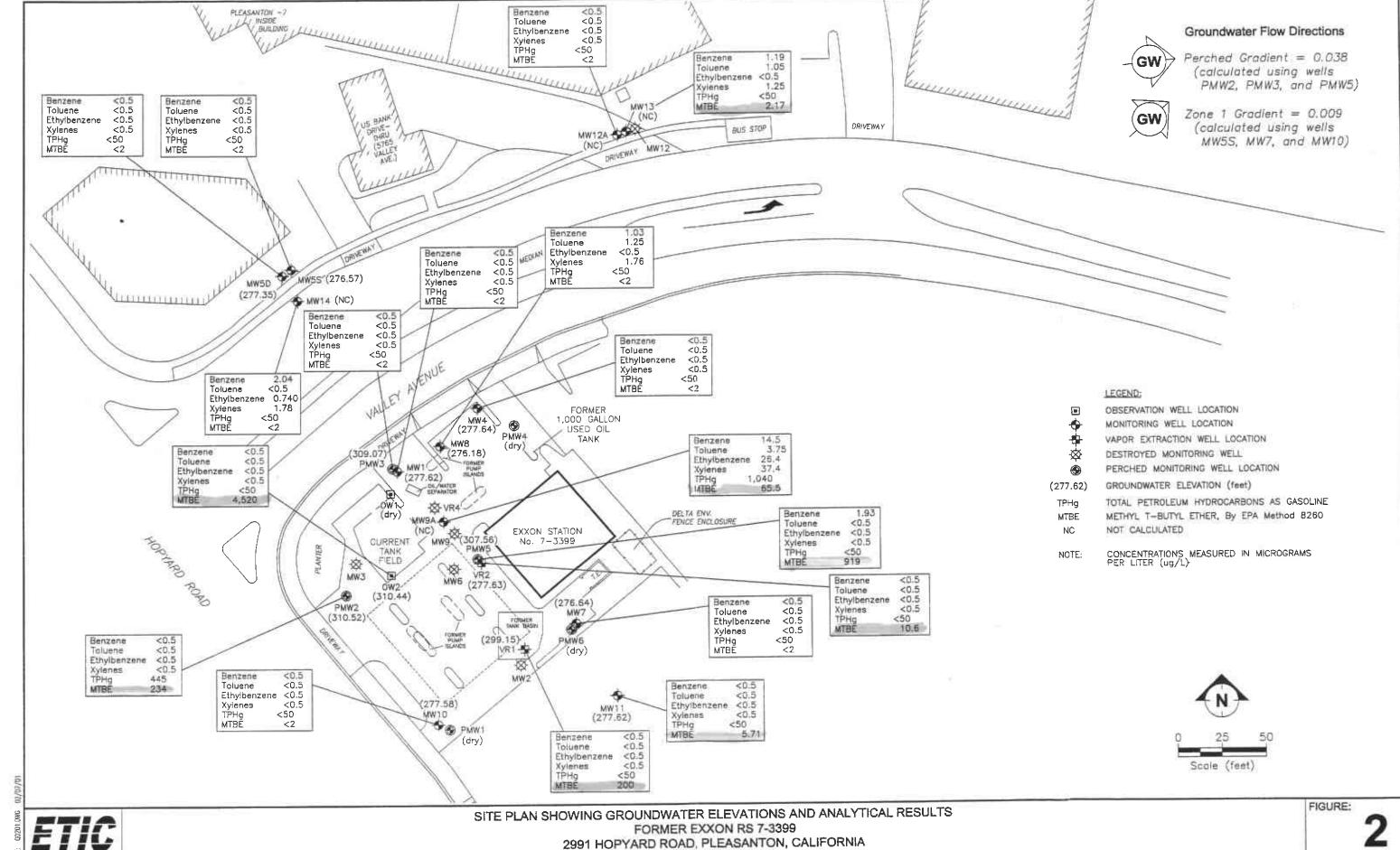
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ETIC (ETIC Engineering, Inc.). 2001a. Report of Groundwater Monitoring, Fourth Quarter 2000, Former Exxon Retail Site 7-3399, 2991 Hopyard Road, Pleasanton, California. ETIC, Pleasant Hill, California. March.

ETIC (ETIC Engineering, Inc.). 2001b. Well Installation Report, Former Exxon Retail Site 7-3399, 2991 Hopyard Road, Pleasanton, California. ETIC, Pleasant Hill, California. February.



PLEASANTON, CALIFORNIA



28 DECEMBER 2000

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

Well No.	Date Installed	Elevation TOC*	Casing	Total Depth	Well Depth	Borehole Diameter	Casing Diameter	Screened	Slot Size	Filter Pack	Filter Pack	
140.	Date instance	(ft)	Material	(ft bgs)	(ft bgs)	(inches)	(inches)	Interval (feet)	(inches)	Interval (feet)	Material	Status
MW1	04/01/88	320.52		57	57		4	32-57	0.020	30-57		Active
MW2 <sup>a</sup>	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		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 <sup>g</sup>	10/04/89	320.26	PVC	57.5	54.5	10	4	34.5-54.5	0.020	34-54.5		Detroyed
MW9A	11/03/00	321.17	PVC	59	58	12.25	6	35.0-55.0 55.0-58.0 <sup>h</sup>	0.020	33.0-58.0	#3 Sand	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
MW12 <sup>e</sup>	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
VR1	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

TABLE 1 WELL CONSTRUCTION DETAILS, 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
VR3 <sup>d</sup>	11/20/89	318.73	PVC	35.5	35	8	2	5-35	0.020	4-35.5		Destroyed
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
OW1		322.45					4		-			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.	

Top of casing.

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

ft bgs Feet below ground surface.

Not measured. NM

Information not available.

Destroyed 12 July 1988.

Destroyed 29 August 1988.

Destroyed 24 October 1988.

Destroyed 5 November 1999.

Destroyed 30 August 2000.

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

Destroyed 3 November 2000.

Depth of PVC sump at base of well. h

TABLE 2 SOIL ANALYTICAL DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

			Concentration (mg/kg)										
		Depth				Total	TPH as						
Sample ID	Date	(feet)	Benzene	Toluene	Ethyl-benzene	Xylenes	gasoline	MTBE					
MW1	4/1/88	34.5					<2.0						
MW2	4/2/88	34.5					<2.0	<b></b>					
MW3	4/4/88	35			<del></del>	<del></del>	<2.0						
MW5S	4/6/88	35					<2.0						
MW5D	5/3/88	40	< 0.005	< 0.005	< 0.005	< 0.005	<2.0						
MW6	5/11/88	36	< 0.005	< 0.005	< 0.005	< 0.005	<2.0						
MW8	9/28/89	38.5	< 0.005	< 0.005	< 0.005	<0.005	<2.0						
	9/30/89	74	<0.005	< 0.005	< 0.005	< 0.005	<2.0						
MW9	10/4/89	6	4.9	40	26	150	1,500						
	10/4/89	21	23	1,230	51	240	3,000						
	10/4/89	36	0.89	0.37	0.16	0.4	9.3						
	10/4/89	38	100	560	150	720	6,200						
	10/4/89	41	3.6	424	18	90	900						
MW9A	11/3/00	11-11.5	0.0389	0.0071	0.0119	0.0085	2.71	0.522					
141 44 37-7	11/3/00	15.5-16	< 0.250	2.76	12.7	46.4	606	0.919					
	11/3/00	21-21.5					38.5	0.919					
			<0.0250	0.161	0.155	0.265		0.702					
	11/3/00	26-26.5	0.331	2.73	1.98	8.79	41.6						
	11/3/00	31-31.5	0.133	1.01	0.558	2.47	12.1	0.524					
	11/3/00	35-35,5	0.0829	0.0854	0.163	0.34	2.56	0.354					
	11/3/00	37.5-38	0.0059	0.009	0.0093	0.0267	<1.0	< 0.100					
	11/3/00	39-39.5	< 0.00500	0.006	0.0074	0.0168	<1.0	< 0.100					
	11/3/00	45-45.5	<0.00500	<0.00500	<0.00500	0.0099	<1.0	< 0.100					
	11/3/00	49.5-50	< 0.00500	0.0065	< 0.00500	0.0136	<1.0	< 0.100					
	11/3/00	55-55.5	< 0.0100	0.0147	0.143	0.156	20.8	< 0.100					
	11/3/00	58.5-59	<0.00500	< 0.00500	0.0119	0.018	2.78	< 0.100					
MW10	10/6/88	20	< 0.005	< 0.005	< 0.005	< 0.005	<2.0						
	10/6/88	35	< 0.005	< 0.005	< 0.005	< 0.005	<2.0						
MW11	11/2/88	20	< 0.005	< 0.005	< 0.005	0.087	<2.0						
	11/2/88	40	< 0.005	< 0.005	< 0.005	< 0.005	<2.0						
	11/2/88	45	< 0.005	0.059	< 0.005	< 0.005	<2.0						
PMW-3	12/16/99	5	< 0.005	<0.005	< 0.005	<0.005	<1.0	<0.010					
	12/16/99	10	< 0.005	< 0.005	< 0.005	< 0.005	<1.0	0.0063					
	12/16/99	15	< 0.005	< 0.005	< 0.005	< 0.005	<1.0	<0.010					
PMW-4	12/16/99	5	< 0.005	< 0.005	< 0.005	< 0.005	<1.0	< 0.010					
	12/16/99	10	< 0.005	< 0.005	< 0.005	< 0.005	<1.0	< 0.010					

TABLE 2 SOIL ANALYTICAL DATA, FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD, PLEASANTON, CALIFORNIA

			Concentration (mg/kg)								
Sample ID	Date	Depth (feet)	Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH as gasoline	МТВЕ			
PMW-4	12/16/99	15	< 0.005	< 0.005	< 0.005	< 0.005	<1.0	< 0.010			
PMW-6	12/16/99 12/16/99	5 10	<0.005 <0.005	<0.005 <0.005	<0.005 <0.005	<0.005 <0.005	<1.0 <1.0	<0.010 <0.010			
	12/16/99	15	0.160	< 0.005	9.0	0.035	55	< 0.010			

a = Estimated value between method detection limit (MDL) and practical quantitation limit (PQL). mg/kg = Milligrams per kilogram.

TPH = Total Petroleum Hydrocarbons by EPA Method 8015 Modified.

MTBE = Methyl tertiary butyl ether by EPA Method 8260B.

<sup>-- =</sup> Not analyzed.



Correspondence from the Alameda County Health Agency

#### ALAMEDA COUNTY

#### HEALTH CARE SERVICES

DAVID J. KEARS, Agency Director



Receive\*

NOV 0 3 2000

CORR. RECA

Fig Engineering the

ENVIRONMENTAL HEALTH SERVICES ENVIRONMENTAL PROTECTION 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502-6577 (510) 567-6700 FAX (510) 337-9335

October 27, 2000

STID 1932

Mr. Darin Rouse ExxonMobil Refining and Supply Company P.O. Box 4032 Concord, CA 94524-4032

RE: Exxon Service Station #7-3399, 2991 Hopyard Road, Pleasanton – Well MW-9 replacement

Dear Mr. Rouse:

We are in receipt of the October 2000 ETIC Engineering, Inc. (ETIC) workplan for the replacement of monitoring well MW-9. Well MW-9's replacement will become a primary point for groundwater extraction from the shallow, on-site water-bearing zone ("Zone 1"). This well will be one of an array of extraction wells that also includes wells OW-2 and VR-1, both screened in a shallower "perched" water-bearing zone and located in the current and former underground storage tank cavities, respectively.

The cited ETIC workplan has been accepted as submitted.

I understand that associated field activities have been scheduled to begin the week of October 29th. Please contact me at (510) 567-6783 if you anticipate a change to this schedule.

Sincerely,

Scott O. Seery, CHMM

Hazardous Materials Specialist

cc: Tom Peacock, ACDEH

Steve Cusenza, Pleasanton Public Works Department

Chuck Headlee, RWQCB

Matt Katen, Zone 7

Danielle Stefani, Livermore-Pleasanton Fire Department

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

Appendix B

**Permits** 



## ALAMEDA COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT

5997 PARKSIDE DRIVE

PLEASANTON, CALIFORNIA 94588-5127

PHONE (925) 484-2600 FAX (925) 462-3914

October 26, 2000

# FILE COPY

Received

OCT 2 7 2000

ETIC Engineering Inc.

Mr. Joe Muehleck ETIC Engineering, Inc. 144 Mayhew Way Walnut Creek, CA 94596

Dear Mr. Muehleck:

Enclosed are drilling permits 20196 and 20198 for the destruction of well 3S/1E 18H14 (MW-9) and the construction of a replacement monitoring well at 2991 Hopyard Road in Pleasanton for Exxon Mobil Refining & Supply Company. Also enclosed are current drilling permit applications for your files.

Please note that permit condition A-2 requires that a well destruction and construction report be submitted after completion of the work. The report should include a description of methods and materials used to destroy the well, drilling and completion logs, location sketch, date of destruction, and permit number. Please submit the original of your completion report. We will forward your submittal to the California Department of Water Resources.

If you have any questions, please contact me at extension 235 or Matt Katen at extension 234.

Sincerely,

Wyman Hong

Water Resources Technician II

Wyman Hong

Enc.

P:/WRE\GPOs\GPO1\GPO1.DESTRUCTION.wpd

## ZUNE / WATER AGENCY

5997 PARK DE DRIVE PLEASANTON, CALIFORNIA 94588-5. VOICE (925) 484-2600 X235

FAX (925) 462-3914

# DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE	FOR OFFICE
LOCATION OF PROJECT HOPYARD ROAD + VALLEY AVE PLEASANTON, CA (299) JOPHARO ROAD	PERMIT NUMBER 20196 WELL NUMBER 3S/IE 18H14 (MW-9) APN
California Coordinates Sourceft .Accuracy±ft.  CCNft. CCEft.  APN	PERMIT CONDITIONS
CLIENT EXXON MOBIL REFINING + SUPPLY CO.  Address TO BOX 4032 Phone 725-246-8768  City CONSOLO, CA Zip 34524-4032  PPLICANT  Name ETEC ENGINEERING  Fax 925-777-7915  Iddress 144 MAYHEW WAY Phone 925-977-7914  Ity WALNUT CREEK, CA Zip 74576  TYPE OF PROJECT	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.  3. Permit is void if project not begun within 90 days of approval date.  B. WATER SUPPLY WELLS
eli Construction Geotechnical Investigation Cathodic Protection General Genera	<ol> <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 wellhead.</li> <li>GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS</li> </ol>
Orille G Other G  DRILLER'S LICENSE NO. C57 7/00 79  VELL PROJECTS	<ol> <li>Minimum surface seal thickness is two inches of cement grout placed by fremie.</li> <li>Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet.</li> <li>GEOTECHNICAL Backfill bore hole with compacted cuttings or heavy bentonite and upper two feet with search places.</li> </ol>
Drill Hole Diameterin. Maximum Casing Diameterin. Depthft. Surface Seal Depthft. Number  GOTECHNICAL PROJECTS Number of Borings Maximum Hole Diameter in Depth 6	heavy bentonite and upper two feet with compacted cattings of 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 tremie.  WELL DESTRUCTION. See attached.  SPECIAL CONDITIONS
E TIMATED STARTING DATE ///2 /00 ESTIMATED COMPLETION DATE ///3 /00	Maria Ahra sa
County Ordinance No. 73-68.  APPLICANTS  SINATURE  Date  CZC/20	Approved Mynan Hong Date 10/23/00 Wyman Hong 8/6/99

# Zone 7 Water Resources Engineering Groundwater Protection Ordinance

Exxon Mobil Refining & Supply Company
2991 Hopyard Road
Pleasanton
Wells 35/1E 18H14 (MW-9)
Permit 20196

#### <u>Destruction</u> Requirements:

- 1. Clean out all bridged or poorly compacted materials to the bottom of the well.
- 2. Sound the well as deeply as practicable and record for your report.
- 3. Pressure grout the casing to two feet below the finished grade or original ground, whichever is the lower elevation.
- 4. Remove the casing, seal, and gravel pack to two feet below the finished grade or original ground, whichever is the lower elevation (optional).
- 5. After the seal has set, backfill the remaining hole with compacted material(optional).



## ZONE 7 WATER AGENCY

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

### DRILLING PERMIT APPLICATION

FOR OFFICE
PERMIT NUMBER 20198 WELL NUMBER 3S/1E 18H21
APN
PERMIT CONDITIONS
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 weil projects, or drilling logs and location sketch for geotechnical projects.  3. Permit is void if project not begun within 90 days of approva date.  8. WATER SUPPLY WELLS  1. Minimum surface seal thickness is two inches of cement grout placed by tremie.  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.  3. An access port at least 0.5 inches in diameter is required on the wellhead for water level measurements.  4. A sample port is required on the discharge pipe near the wellhead.  6. 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.  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 tremie.  F. WELL DESTRUCTION. See attached.  G. SPECIAL CONDITIONS  Approved Manual Monitoring Date 10/23/00  Wyman Hong Date 10/23/00

## Appendix C

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

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

#### DRILLING

Prior to drilling, all boreholes will be cleared of underground utilities to a depth of at least 4 feet below ground surface (bgs) in "non-critical zones" and to 8 feet bgs in "critical zones". Critical zones are defined as locations that are within 10 feet from the furthest edge of any underground storage tank (UST), within 10 feet of the product dispenser islands, and the entire area between the UST field and the product dispenser islands. If only borings are being installed, an 8- to 12-inch-diameter circle will be cut in the surface cover at each boring location. If wells are being installed, a 10-inch circle to a 24-inch circle or a 2-foot by 2-foot square will be cut in the surface cover at each well location. A hole, greater than the diameter of the drilling tool being used, will then be cleared at each boring location, using a hand auger or vacuum excavation system. The vacuum system consists of a water lance, used to disturb native soil by injecting water into the soil, and a vacuum, used to remove the soil.

Boreholes are drilled with a truck-mounted rotary drill, using hollow-stem continuous-flight augers. The diameter of the augers is selected to provide an annular space between the boring wall and the well casing of no less than 2 inches.

All augers are pressure-washed or 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. All fluids generated during cleaning of drilling equipment are contained in sealed 55-gallon drums. All waste generated during drilling activities is stored onsite until appropriate disposal is arranged. The drums are labeled with the 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 (USCS), blow counts for soil sampling intervals, organic vapor analyzer (OVA) readings, relative moisture content of the soils, and initial and static water levels.

#### SOIL SAMPLING

Soil samples are collected using a 2-inch-diameter by 18- or 24-inch-long modified California split-spoon sampler containing three or four 6-inch-long brass or stainless steel liners. The sampler and liners are scrubbed in potable water and Alconox or equivalent detergent and rinsed with potable water after use at each sampling interval.

At each sample depth, the sampler is driven 18 or 24 inches ahead of the augers into undisturbed soil. When the sampler is retrieved, either the lowermost or the middle sample liner is removed and the ends of the tube are covered with aluminum foil or Teflon tape and sealed with plastic caps. The soil-filled liner is labeled with the borehole number, sample depth, site location, date, and time. The samples are placed in zip-lock bags and stored in a cooler containing ice.

Soil from one of the liners is removed and placed in a sealed plastic bag. The soil is scanned with an OVA equipped with a flame ionization detector (FID) or photoionization detector (PID), and the readings are noted on the soil boring logs. The soil from the remaining liner(s) is examined and classified according to the Unified Soil Classification System.

Soil samples are delivered, under chain of custody, to a laboratory certified by the California Department of Health Services (DHS) for analyses.

#### WELL INSTALLATION

The boreholes are completed as groundwater monitoring wells, vapor extraction wells, groundwater extraction wells, or air sparging wells. The wells are typically constructed by installing Schedule 40 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 and the depth to groundwater. 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 1 to 2 feet above the top of the screen. The sand is placed through the inner opening of the augers as they are slowly removed. A transitional seal is completed above the sand pack by adding 1 to 2 feet of bentonite pellets and hydrating them with 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 no less than 72 hours after completion or prior to establishing the bentonite seal during the drilling activities. Development typically consists of surging the screened interval of the well with a flapper valve surge block of the same diameter as the well for approximately 10 minutes. The well is then purged with a vacuum truck and a 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 and apparent turbidity.

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. Purged water is transported to an appropriate treatment facility.

#### **GROUNDWATER SAMPLING**

The wells are sampled at least 72 hours after grout placement and at least 48 hours after development. Prior to groundwater sample collection, each well is purged until at least 3 casing volumes have been removed. Wells that purge dry are allowed to recover prior to sampling. The pH, specific conductivity, and temperature of the groundwater removed are recorded during purging to ensure that the physical parameters are stable prior to sampling. All samples are collected with a factory cleaned disposable bailer. The bailer is operated by hand using new rope or Teflon-coated

stainless steel wire. The 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 40-ml glass volatile organic analysis (VOA) vials and/or 1-liter amber bottles with Teflon-lined septum caps as appropriate. The sample bottles contain appropriate preservatives, typically hydrochloric acid. VOA vials 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 used. The sample vials are placed in a cooler with ice for delivery to the laboratory. Standard chain-of-custody procedures are followed.

#### WELL SURVEY

The elevation of the top of the well casing is surveyed by state licensed land surveyor. A small notch is cut in the top of the well casing to mark the survey point and to ensure that this point is used for all future water level measurements. A loop originating and ending at the datum is closed to  $\pm 0.01$  feet according to standard methods.

# Appendix D

**Boring Log and Well Completion Diagram** 

	MAJOR DIVIS	SIONS			TYPICAL NAMES
	ODAVELO	Clean gravels with	GW	A A A	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.
<b>DARSE-GRAINED SOILS</b> more than half is coarser than No. 200 sieve	larger than No. 4	Gravels with	GM		Silty gravels, silty gravels with sand.
AINE latis (200 s		over 12% fines	GC		Clayey gravels, clayey gravels with sand.
COARSE-GRAINED more than half is co	SANDS	Clean sands with	sw		Well graded sands with or without gravel, little or no fines.
OARS more tha	more than half coarse fraction is	little or no fines	SP		Poorly graded sands with or without gravel, little or no fines.
S	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.
			ML		Inorganic silts and very fine sands, rock flour, silts with sands and gravels.
FINE-GRAINED SOILS more than half is finer than No. 200 sieve	SILTS ANI liquid limit 5		CL		Inorganic clays of low to medium plasticity, clays with sands and gravels, lean clays.
NED half is	***		OL		Organic silts or clays of low plasticity.
INE-GRAINED SOILS more than half is finer than No. 200 sieve	•••		МН		Inorganic silts, micaceous or diatomacious, fine sandy or silty soils, elastic silts.
mor the	SILTS ANI liquid limit grea		СН		Inorganic clays of high plasticity, fat clays.
		F-114-1	ОН		Organic silts or clays of medium to high plasticity.
	HIGHLY ORGANIC	SOILS	Pt		Peat and other highly organic soils.
	SYMBOLS	\$ ************************************		,	DRILL LOG ROCK TYPES
$\nabla$	First Encountered Gr Static Groundwater	oundwater			Limestone
2000 P	Portland Ceme	nt			Dolomite
	Blank Casing Bentonite Pelle	·			Mudstone
					Siltstone
	Filter Pack	i			Sandstone
	Screened Casir	ng 			Igneous
ETI		UNIFIED SOIL CLA	SSIFIC	ATION S	YSTEM DESCRIPTIONS

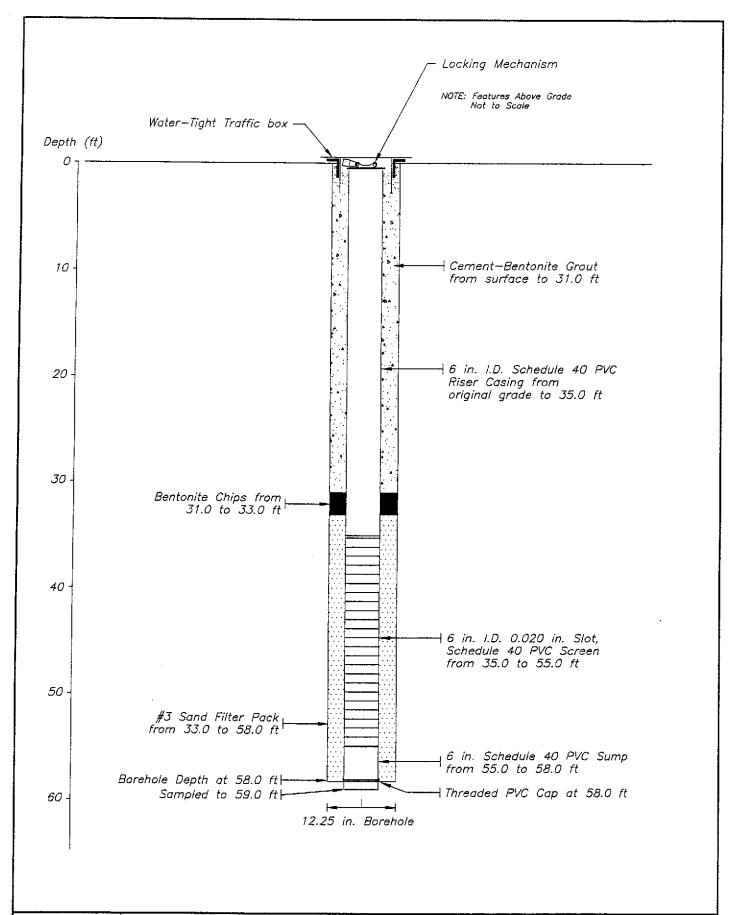
Engineering, Inc.

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

	neering			MW	<b>'</b> ΩΛ	CLIENT EXXOR  DRILLING AN SAMPLING M		Borel	d with an 12.2	o 8 feet bgs 25" OD Holl	LOCATION 2991 Hop Pleasant susing vacuum ow stem Auger t spoon sample	rig.
	OF SC RDINA	OIL BO	RING:	IVIVV	3A	WATER L	EVEL	43.57		The Late opin	DRII	LING
0001	NUINA	IES.				TIME	TIME 17				START TIME	FINISH
ELEV	'ATION	TOP O	F CAS	ING:		DATE	•	11/3/0	0		DATE	DATE
		LOW SI	JRFAC	E:		REFERE	REFERENCE TOC 11/3					
INC	HES   <u>o</u> c	5. CC	<b>(D</b>				SURFA	CE COND	DITIONS		oncrete (8")	<del>-</del> -
DRIVEN	DRIVEN COVER				GRAPHIC LOG	DESCR	RIPTION B	<b>Y</b> :		an Campbell		
					0 —		co	NCRETE	(8")			<u>.</u>
18	18	12 16 20	7		3	MH	plas	sticity, mo	ist.	·	ft, low to mediu	
					13			k carbon:			nd red mottling, nard, high plasti	
18	18	9 9 11	11		15 — 16 — 17 — 18 —		@1	5: SAME:	increase in b	lue color.		
			•		19 —	CL		TY CLAY		gray (5/1), s	oft to firm, med	ium

_	<b></b>	4				CLIENT		SITE NUMBER	LOCATION
Engir	neering	, Inc.				Exxo	n Mobil	7-3399	2991 Hopyard Rd Pleasanton, CA
INC	HES						LOG OF S	OIL BORING:	
DRIVEN	RECOVER	BLOWS/6" SAMPLER	PID READING	WELL	DEPTH (feet)	GRAPHIC LOG		N	IW9A
18	18	10 12	318		21 – N		SILTY CL plasticity,	AY (CL): bluish gray (5/1 moist.	), soft to firm, medium
		18			22 —	CL//	@21 feet	appearance of fine sand	
					23 —				
			_		24 —		GLAY (CH	1): olive (5Y 4/3), firm to	hard, high plasticity, moist.
18	18	4 20	256		25 —	СН			
		25	250		26 - X				
					27				
					29 —				
		12			30				
18	18	20	81		31 – <sub>X</sub>				
					32				
					33 —				
18	18	15 40			34 —				
	•	50	76		35 — 36 —	CH	@ 34.5 SA	AME: color change to pa	le olive (5Y 6/4).
						SP		P): olive (5Y 4/3), poorly entation, nonplastic fine	graded, medium to coarse, s, saturated.
12	12	38 50/3"	37		38 —	sw:		n GRAVEL (SW): dark o	
6		50/4"			39 -X	GM		eak cementation, mediu ed gravel clasts up to 1 c	
6	6		9		40 —		sand, subi		slive (5Y 5/6/), fine to coarse to 2 cm, weak to moderate
6	6	50/4"			42	P GW-GM?	graded, fir		N-GM): olive (5Y 5/4), well unded gravel clasts up to 2 fines, moist to wet
6	6	50/4"			43		on noar		
-					44 —	SM		ND (SM): olive (5Y 5/6), and, weak cementation,	

						CLIENT		SITE NUMBER	LOCATION
Engineering, Inc.						Exxon Mobil		7-3399	2991 Hopyard Ro Pleasanton, CA
DRIVEN	RECOVER 55	BLOWS/6" SAMPLER	PID READING	WELL DEPTH DETAIL (feet)		GRAPHIC LOG OF S		OIL BORING:	
12	12	15 50/4"	2		46 —	SM	44.5-46.5: SILTY SAND (SM): olive (5Y 5/6), poorly graded, fine to medium sand, weak cementation, nonplastic fines, wet.  46.5-48.75: GRAVEL with SAND (GW): very dark gray (5Y		
12	12	20 50/4"			47 —	9 9 GW 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	3/1), well (		prounded gravel clasts up
12	12	50/4"	3.6		49 — 50 —	SP	to coarse,	9.5: SAND (SP): olive (5Y 4/3), poorly graded, medium as, weak cementation, nonplastic fines, saturated.	
12	12	 50/5.5"			51 —	GW,	3/1), well g to 2 cm, so	<ul> <li>GRAVEL with SAND (GW): very dark gray (5Y graded, subangular to subrounded gravel clasts upone coarse sand, weak cementation, saturated.</li> </ul>	prounded gravel clasts up ementation, saturated.
	1 tie				52 — 53 —			5: SAND (SP): olive (5Y 4 weak cementation, nonpi	/3), poorly graded, mediun astic fines, saturated.
6	6	50/5"			54	SW	medium to	coarse sand, weak ceme	gray (5Y 4/3), well graded entation, nonplastic fines,
6	6	50/3"	1		55 — 56 —	sw	saturated.		
12	12	33 50/5"	21.5		57 —		56.75-59: moist.	CLAY (CH): olive (5Y 5/4	), hard, high plasticity,
12	12	50/5.5*			58 — 59 —		Boring terr Sampled to	ninated at 58'. o 59'.	
					60 —				
		1			62 —				
					64 —				
					65				
					67				
					68				
					70 —				



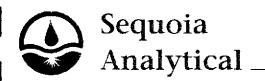


WELL COMPLETION DIAGRAM FOR GROUNDWATER MONITORING WELL MW9A FORMER EXXON RS 7-3399, 2991 HOPYARD ROAD PLEASANTON, CALIFORNIA Appendix E

Well Development Form

olect Name: ETIC / EXXXX	2266	Project Number:	- A
dress: 2991 What was RID		Reg. Agency: _	
PLEASANTONS		Other Requireme	ents:
ell Number: 94		Well Lock Numb	er:
rge/Sampler(s):			
	<u> </u>		
Land of the state	WELL VOLUME CA	LCULATION	
Well Casing Total Well Depth		Gallons Per Linear Foot	1 Well Volume (gal.)
Diameter (In.) Depth (ft.) Goundwate	PLICAN OF CAM	X 0.17	=
	**	X 0.65	₹ .
4.5	24: 906	X 0,83 X 1,5	. 13.59
6 53.3 - 44	24 - 900		
GROUNDWATER	SURFACE INSPE	CTION (BAILER C	HECK)
eating Product (ft.) (in.):	Sheen/Irides	cence:	Odor:
			13.4
GROUND	water purging	PURGE METHOD	
Stainless Steel Baller;   Submersible	e Pump: 🔲 Alr Di	aphragm Pump; 🕻	Other Wiewer Th
Marie Committee of the	* ************************************		•
ignant Volume		<b>.</b>	Color/Turbidity
lumes : Purged	Conductivity	y Temp. of °C	(other)
rged (gal.) Time pH	MSysTumnos	01 50	(5010)
- C 7	2.85	15.5	CLOUNT
0 8 9:26 7.1			
1 20 9:51 STOP	JULIAGE -	50ket 2	
2 <u>- 10:10 Ti</u>	20 2041	16.0	MUDAS
s 40 10:24 51	of fullance	SUFE 22	MUNAY
4	7 2031	16:4	20 STROKES
	DP PURENCE	SURLE _	
	<del>24</del> <u>-2 39</u>	<u> </u>	mussy.
	25 2.42	17.6	MURRY
	31 2.45	17.8	CLOURY
9 110 TOTAL PU	11-te-		
10	<u> </u>		
DEPTH TO BOTTON	6) 12:10=	57.60	
SACO OT 5.5 Valendi Garages	ROUNDWATER SA <u>Sample C</u>	(MYLING	
ter Level Recovery  Depth to GW (ft.)	<u>Sample C</u>		lo. Presentation Method/p
Depth to GW (ft.)	1 liter (1)	amber glass	
After Purging	40 m², V0		
0.8 (P-I) = 80% Recov	ery 500 m2, p	olypropylene	
Before Sampling% Total Rec		·	
S) / (P-I) X 100 =% Total Rec	covery.		
	Turbidity	(ÑTII):	
npie Date/Time:	furbiony	((410). <u></u>	
PUR	GED WATER CON	TAINMENT	
🤯 "			
gallons stored in 2 55 gallon	s drum(s).	Any previous drum	s? Capacity
ganerio oterpe in ee ganeri			

# Appendix F Laboratory Analytical Reports



27 November, 2000

Christa Marting ETIC Engineering Inc - WC (Exxon) 144 Mayhew Way Walnut Creek, CA 94596

RE: Exxon Sequoia Report: MJK0284

Enclosed are the results of analyses for samples received by the laboratory on 11/06/00 17:00. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ron Chew

Project Manager

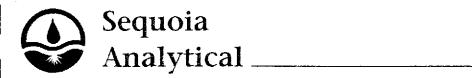
CA ELAP Certificate #1210

Received

DEC 1 2000

ETIC Engineering Inc.





144 Mayhew Way Walnut Creek CA, 94596 Project: Exxon

Project Number: 7-3399

Project Manager: Christa Marting

Reported:

11/27/00 14:56

#### ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
MW9A,11'-11.5'	MJK0284-01	Soil	11/03/00 09:15	11/06/00 17:00
MW9A,15.5'-16'	MJK0284-02	Soil	11/03/00 09:20	11/06/00 17:00
MW9A,21'-21.5'	MJK0284-03	Soil	11/03/00 09:30	11/06/00 17:00
MW9A,26'-26.5'	MJK0284-04	Soil	11/03/00 09:45	11/06/00 17:00
MW9A,31'-31.5'	MJK0284-05	Soil	11/03/00 09:50	11/06/00 17:00
MW9A,35'-35.5'	MJK0284-06	Soil	11/03/00 09:53	11/06/00 17:00
MW9A,37.5'-38'	MJK0284-07	Soil	11/03/00 10:00	11/06/00 17:00
MW9A,39'-39.5'	MJK0284-08	Soil	11/03/00 10:03	11/06/00 17:00
MW9A,45'-45.5'	MJK0284-09	Soil	11/03/00 10:30	11/06/00 17:00
MW9A,49.5'-50'	MJK0284-10	Soil	11/03/00 10:45	11/06/00 17:00
MW9A,55'-55.5'	MJK0284-11	Soil	11/03/00 11:00	11/06/00 17:00
MW9A,58.5'-59'	MJK0284-12	Soil	11/03/00 11:30	11/06/00 17:00

Sequoia Analytical - Morgan Hill

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.

Ron Chew, Project Manager



ETIC Engineering Inc - WC (Exxon) 144 Mayhew Way Walnut Creek CA, 94596

Project: Exxon Project Number: 7-3399

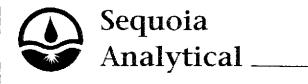
Project Manager: Christa Marting

Reported: 11/27/00 17:44

# Conventional Chemistry Parameters by APHA/EPA Methods

Sequoia Analytical - Morgan Hill

-
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ETIC Engineering Inc - WC (Exxon)

144 Mayhew Way

Walnut Creek CA, 94596

Project: Exxon

Project Number: 7-3399

Project Manager: Christa Marting

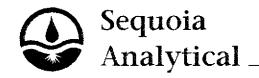
Reported:

11/27/00 17:44

# Conventional Chemistry Parameters by APHA/EPA Methods

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW9A,49.5'-50' (MJK0284-10) Soil	Sampled: 11/03/	00 10:45 Re	ceived:	11/06/00 17	:00	-		,	
Moisture	7.50	0.0100	%	1	0K13007	11/10/00	11/13/00	EPA 160.3	
MW9A,55'-55.5' (MJK0284-11) Soil	Sampled: 11/03/	00 11:00 Re	ceived:	11/06/00_17	:00				
Moisture	12.1	0.0100	%	-	0K13007	11/10/00	11/13/00	EPA 160.3	-
MW9A,58.5'-59' (MJK0284-12) Soil	Sampled: 11/03/0	00 11:30 Re	ceived:	11/06/00 17	:00				
Moisture	25.1	0.0100	%	ī	0K13007	11/10/00	11/13/00	EPA 160.3	



144 Mayhew Way

Walnut Creek CA, 94596

Project: Exxon

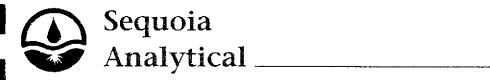
Project Number: 7-3399

Project Manager: Christa Marting

Reported: 11/27/00 14:56

#### Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT

		14016 111							
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW9A,11'-11.5' (MJK0284-01) Soil	Sampled: 11/03	/00_09:15 R	eceived:	11/06/00 17	<b>':00</b>			-	
Purgeable Hydrocarbons as Gasoline	2.71	1.00	mg/kg	1	0110078	11/14/00	11/15/00	DHS LUFT	P-02
Benzene .	0.0389	0.00500	"	•	н	n	11	"	
Toluene	0.00710	0.00500	н	**	**	**	H	19	
Ethylbenzene	0.0119	0.00500	H	rj	11	н	n	**	
Xylenes (total)	0.00850	0.00500	17	Ħ	**	n	H	11	
Surrogate: a,a,a-Trifluorotoluene		117%	60.0	-140	"	"	n	ır	
MW9A,15.5'-16' (MJK0284-02) Soil	Sampled: 11/03	/00 09:20 R	eceived: 1	1/06/00 17	:00				
Purgeable Hydrocarbons as Gasoline	606	50.0	mg/kg	50	0110078	11/14/00	11/15/00	DHS LUFT	P-02
Benzene	ND	0.250	11	**	**	**	н	tr	
Toluene	2.76	0.250	**	et	n	n	12	**	
Ethylbenzene	12.7	0.250		II .	**	п	IF	#	
Xylenes (total)	46.4	0.250	н	11	"	п	D	n	
Surrogate: a,a,a-Trifluorotoluene		ND %	60.0	-140	,,	**	"	n	S-06
MW9A,21'-21.5' (MJK0284-03) Soil	Sampled: 11/03/	/00 09:30 R	eceived: 1	1/06/00 17	:00				
Purgeable Hydrocarbons as Gasoline	38.5	5.00	mg/kg	5	0110078	11/14/00	11/16/00	DHS LUFT	P-03
Benzene	ND	0.0250	n	IF	*	tr	u	11	
Toluene	0.161	0.0250	н	н	tt	п	U	u	
Ethylbenzene	0.155	0.0250	"	**	ш	)1	n	"	
Xylenes (total)	0.265	0.0250	P	**	и	"	H		
Surrogate: a,a,a-Trifluorotoluene		59.5 %	60.0-	-140	,,	,,	"	"	S-06
MW9A,26'-26.5' (MJK0284-04) Soil	Sampled: 11/03/	00 09:45 Re	ceived: 1	1/06/00 17:	:00				
Purgeable Hydrocarbons as Gasoline	41.6	5.00	mg/kg	5	0110078	11/14/00	11/15/00	DHS LUFT	P-02
Веплепе	0.331	0.0250	11	11	"	11	11	"	
Toluene	2.73	0.0250	н	78	**	"	н	n	
Ethylbenzene	1.98	0.0250	, II	n	н	**	11	b	
Xylenes (total)	8.79	0.0250	If	**	и .	11	†ı	**	
Surrogate: a,a,a-Trifluorotoluene		25.3 %	60.0-	140	"	"	rr	н	S-06



144 Mayhew Way

Walnut Creek CA, 94596

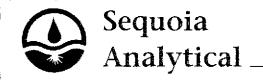
Project: Exxon

Project Number: 7-3399
Project Manager: Christa Marting

Reported: 11/27/00 14:56

### Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT

		- 1	<u>J</u>						
Anaiyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW9A,31'-31.5' (MJK0284-05) Soil	Sampled: 11/03	3/00 09:50 R	eceived: 1	1/06/00 17	':00				
Purgeable Hydrocarbons as Gasoline	12,1	5.00	mg/kg	5	0110078	11/14/00	11/15/00	DHS LUFT	P-02
Benzene	0.133	0.0250	н	H	н	п	*1	a	
Toluene	1.01	0.0250	11	*1	п	17	п	II .	
Ethylbenzene	0.558	0.0250	71	Ü	*	77	п	п	
Xylenes (total)	2.47	0.0250	n	17	11	4)	)1	II .	
Surrogate: a,a,a-Trifluorotoluene		21.8 %	60.0	-140	n	"	"	"	S-06
MW9A,35'-35.5' (MJK0284-06) Soil	Sampled: 11/03	/00 09:53 R	eceived: I	1/06/00 17	:00				
Purgeable Hydrocarbons as Gasoline	2.56	1.00	mg/kg	1	0110078	11/14/00	11/15/00	DHS LUFT	P~01
Benzene	0.0829	0.00500	"	n	11	11	tı	"	
Toluene	0.0854	0.00500	#1	u	н		D	н "	
Ethylbenzene	0.163	0.00500	n	10	*1	и	II.	N	
Xylenes (total)	0.340	0.00500	11	p	u u	n	10	п	
Surrogate: a,a,a-Trifluorotoluene		109 %	60.0	-140	"	н	ft	"	
MW9A,37.5'-38' (MJK0284-07) Soil	Sampled: 11/03	/00 10:00 R	eceived: 1	1/06/00 17:	:00				
Purgeable Hydrocarbons as Gasoline	ND	1.00	mg/kg	1	0110078	11/14/00	11/15/00	DHS LUFT	
Benzene	0.00590	0.00500	**	P	#1	#	N	e e	
Toluene	0.00900	0.00500	4	is .	п	n	11	it	
Ethylbenzene	0.00930	0.00500	ш	If	II .	**	н	11	
Xylenes (total)	0.0267	0.00500	17	н	10	п	10	н	
Surrogate: a,a,a-Trifluorotoluene		102 %	60.0-	140	"	,,	"	"	
MW9A,39'-39.5' (MJK0284-08) Soil	Sampled: 11/03/	/00 10:03 Re	ceived: 1	1/06/00 17:	:00				
Purgeable Hydrocarbons as Gasoline	ND	1.00	mg/kg	1	0110078	11/14/00	11/15/00	DHS LUFT	
Benzene	ND	0.00500	"	n	п	ч	Ħ	H	
Toluene	0.00600	0.00500	II	14	n	TT	**	M	
Ethylbenzene	0.00740	0.00500	i+	71		Ħ	11	n	
Xylenes (total)	0.0168	0.00500	fi	Ħ	ır	п	Ħ	u .	
Surrogate: a,a,a-Trifluorotoluene		92.0 %	60.0-	140	"	"	"	"	



144 Mayhew Way

Walnut Creek CA, 94596

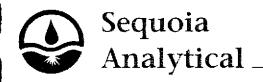
Project: Exxon

Project Number: 7-3399
Project Manager: Christa Marting

Reported: 11/27/00 14:56

# Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT

	30	equota An	arytica	ı - San C	_arios				
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW9A,45'-45.5' (MJK0284-09) Soil	Sampled: 11/03	/00 10:30 R	eceived:	11/06/00 17	7:00				
Purgeable Hydrocarbons as Gasoline	ND	1.00	mg/kg	l	0110078	11/14/00	11/15/00	DHS LUFT	
Benzene	ND	0.00500	11	11	u	н	11	11	
Toluene	ND	0.00500	11	D	11	ıı	u	u	
Ethylbenzene	ND	0.00500	D	II	n	п	I7	D	
Xylenes (total)	0.00990	0.00500	le .	11	II .	II	•	17	
Surrogate: a,a,a-Trifluorotoluene 🦂		95.5 %	60.0	0-140	"	"	n	"	
MW9A,49.5'-50' (MJK0284-10) Soil	Sampled: 11/03	/00 10:45 R	eceived:	11/06/00 17	<b>':00</b>				
Purgeable Hydrocarbons as Gasoline	ND	1.00	mg/kg	l	0110078	11/14/00	11/16/00	DHS LUFT	
Benzene	ND	0.00500	11	n	11	**	**	u	
Toluene	0.00650	0.00500	н	Ħ	47	п	Ħ	ú	
Ethylbenzene	ND	0.00500	U	"	II .	D	Ħ	19	
Xylenes (total)	0.0136	0.00500		n	н	11	n	•	
Surrogate: a,a,a-Trifluorotoluene		94.0 %	60.0	)-140	n	"	n	н	
MW9A,55'-55.5' (MJK0284-11) Soil	Sampled: 11/03/	/00 11:00 R	eceived: 1	11/06/00 17	:00				
Purgeable Hydrocarbons as Gasoline	20.8	2.00	mg/kg	2	0110054	11/15/00	11/17/00	DHS LUFT	P-0:
Benzene	ND	0.0100	tr.	II .	n	ii .	19	u	
Toluene	0.0147	0.0100	ш	II.	U	n	*1	#	
Ethylbenzene	0.143	0.0100	n	H	H	10	u	17	
Xylenes (total)	0.156	0.0100		71		**	U	11	
Surrogate: a,a,a-Trifluorotoluene		63.5 %	60.0	-140	"	"	"	y.	S-00
MW9A.58.5'-59' (MJK0284-12) Soil	Sampled: 11/03/	00 11:30 Re	eceived: 1	11/06/00 17	:00				
Purgeable Hydrocarbons as Gasoline	2.78	1.00	mg/kg	1	0110054	11/15/00	11/16/00	DHS LUFT	P-03
Benzene	ND	0.00500	H	U	u	ti .	16	31	
Toluene	ND	0.00500	ŧı	II.	u	н	**	n	
Ethylbenzene	0.0119	0.00500	II	19	п	II	н	H	
Xylenes (total)	0.0180	0.00500	н	11	H	79	II	11	
Surrogate: a,a,a-Trifluorotoluene		79.5 %	60.0	-140	"	"	"	n	



ETIC Engineering Inc - WC (Exxon)

144 Mayhew Way

Walnut Creek CA, 94596

Project: Exxon

Project Number: 7-3399

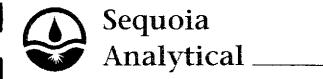
Project Manager: Christa Marting

Reported:

11/27/00 14:56

#### MTBE by EPA Method 8260B Sequoia Analytical - San Carlos

	<del></del>	·							
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW9A,11'-11.5' (MJK0284-01) Soil	Sampled: 11/03	/00 09:15 R	eceived: 1	11/06/00 17	<b>':00</b>				
Methyl tert-butyl ether	0.522	0.100	mg/kg	1	0110074	11/15/00	11/15/00	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		104 %	70.0	-121	"	11	"	"	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
MW9A,15.5'-16' (MJK0284-02) Soil	Sampled: 11/03	/00 09:20 R	eceived: 1	1/06/00 17	:00				
Methyl tert-butyl ether	0.919	0.500	mg/kg	5	0110074	11/15/00	11/16/00	EPA 8260A	•
Surrogate: 1,2-Dichloroethane-d4		85.6 %	70.0	-121	"	"	"	"	
MW9A,21'-21.5' (MJK0284-03) Soil	Sampled: 11/03	/00 09:30 R	eceived: 1	1/06/00 17	:00				
Methyl tert-butyl ether	0.936	0.100	mg/kg	1	0110074	11/15/00	11/15/00	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		100 %	70.0	-121	"	"	. "	"	-
MW9A,26'-26.5' (MJK0284-04) Soil	Sampled: 11/03	/00 09:45 R	eceived: 1	1/06/00 17	:00				
Methyl tert-butyl ether	0.702	0.100	mg/kg	1	0110074	11/15/00	11/15/00	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		101 %	70.0	-121	"	"	"	. "	
MW9A,31'-31.5' (MJK0284-05) Soil	Sampled: 11/03	/00 09:50 R	eceived: 1	1/06/00 17	:00				
Methyl tert-butyl ether	0.524	0.100	mg/kg	l	0110074	11/15/00	11/15/00	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		100 %	70.0	-121	11	"	"	"	
MW9A,35'-35.5' (MJK0284-06) Soil	Sampled: 11/03	/00 09:53 Re	ceived: 1	1/06/00 17	:00				
Methyl tert-butyl ether	0.354	0.100	mg/kg	1	0110074	11/15/00	11/15/00	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		104 %	70.0-	-121	"	"	<b>)</b> †	η	
MW9A,37.5'-38' (MJK0284-07) Soil	Sampled: 11/03	/00 10:00 Re	ceived: 1	1/06/00 17	:00				
Methyl tert-butyl ether	ND	0.100	mg/kg	1	0110074	11/15/00	11/15/00	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		100 %	70.0-	-121	"	77	,,	0	<del></del>



144 Mayhew Way

Walnut Creek CA, 94596

Project: Exxon

Project Number: 7-3399

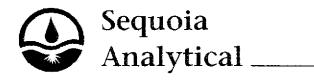
Project Manager: Christa Marting

Reported:

11/27/00 14:56

#### MTBE by EPA Method 8260B Sequoia Analytical - San Carlos

	200	1 4014 1 111	ary crea		MITOU				
Алаlyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW9A,39'-39.5' (MJK0284-08) Soil	Sampled: 11/03/0	0 10:03 R	eceived: }	1/06/00 17	:00				
Methyl tert-butyl ether	ND	0.100	mg/kg	1	0110074	11/15/00	11/15/00	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		99.2 %	70.0	-121	"	"	"	"	
MW9A,45'-45.5' (MJK0284-09) Soil	Sampled: 11/03/0	0 10:30 R	eceived: 1	1/06/00 17	:00				
Methyl tert-butyl ether	ND	0.100	mg/kg	1	0110074	11/15/00	11/15/00	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		100 %	70.0	-121	,,	rt	"	"	
MW9A,49.5'-50' (MJK0284-10) Soil	Sampled: 11/03/0	0 10:45 R	eceived: 1	1/06/00 17	:00				
Methyl tert-butyl ether	ND	0.100	mg/kg	1	0110074	11/15/00	11/15/00	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		92.0 %	70.0	-121	"	71	"	"	
MW9A,55'-55.5' (MJK0284-11) Soil	Sampled: 11/03/0	0 11:00 R	eçeived: 1	1/06/00 17	:00				
Methyl tert-butyl ether	ND	0.100	mg/kg	1	0110074	11/15/00	11/16/00	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		101 %	70.0	-121	19	"	"	,,	
MW9A,58.5'-59' (MJK0284-12) Soil	Sampled: 11/03/0	0 11:30 R	eceived: 1	1/06/00 17	:00				
Methyl tert-butyl ether	ND	0.100	mg/kg	1	0110074	11/15/00	11/16/00	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		88.0 %	70.0	-121	**	"	"	. "	



ETIC Engineering Inc - WC (Exxon)

144 Mayhew Way

Walnut Creek CA, 94596

Project: Exxon

Project Number: 7-3399

Project Manager: Christa Marting

Reported:

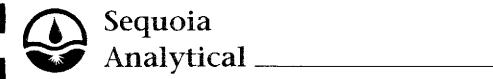
11/27/00 14:56

#### Conventional Chemistry Parameters by APHA/EPA Methods - Quality Control Sequoia Analytical - Morgan Hill

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes

Batch 0K13007 - General Preparation

Duplicate (0K13007-DUP1)		MJK028		Prepared: 11/10/00 Analyzed: 11/13/00		<del>-</del>
Moisture	250	0.100	%	251	0.399	20



144 Mayhew Way

Project: Exxon Project Number: 7-3399

Walnut Creek CA, 94596 Project Manager: Christa Marting

Reported: 11/27/00 14:56

# Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT - Quality Control Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0110054 - EPA 5030B [P/T]										
Blank (0110054-BLK1)				Prepared	& Analyze	d: 11/09/	00			
Purgeable Hydrocarbons as Gasoline	ND	1.00	mg/kg							
Benzene	ND	0.00500	It							
Toluene	ND	0.00500	н							
Ethylbenzene	ND	0.00500	71							
Xylenes (total)	ND	0.00500	e e							
Surrogate: a,a,a-Trifluorotoluene	0.215		n	0.200	· · ·	108	60.0-140			
Blank (0110054-BLK2)				Prepared	& Analyze	:d: 11/10/	00			
Purgeable Hydrocarbons as Gasoline	ND	1.00	mg/kg							
Benzene	ND	0.00500	n							
Toluene	ND	0.00500	77							
Ethylbenzene	ND	0.00500	10							
Xylenes (total)	ND	0.00500	"							
Surrogate. a,a,a-Trifluorotoluene	0.245		"	0.200		123	60.0-140			
Blank (0110054-BLK3)				Prepared a	& Analyze	d: 11/13/0	00			
Purgeable Hydrocarbons as Gasoline	ND	1.00	mg/kg	······································	<del></del>					
Benzene	ND	0.00500	If							
Toluene	ND	0.00500	н							
Ethylbenzene	ND	0.00500	*1							
Xylenes (total)	ND	0.00500	n							
Surrogate: a,a,a-Trifluorotoluene	0.257		įr .	0.200		128	60.0-140			
Blank (0110054-BLK4)				Prepared o	& Analyze	d: 11/15/0	00			
Purgeable Hydrocarbons as Gasoline	ND	1.00	mg/kg				,			
Benzene	ND	0.00500	u							
Toluene	ND	0.00500	п							
Ethylbenzene	ND	0.00500	U							
Xylenes (total)	ND	0.00500	н							
Surrogate: a,a,a-Trifluorotoluene	0.238		"	0.200		119	60.0-140		······································	



144 Mayhew Way

Walnut Creek CA, 94596

Project: Exxon

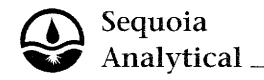
Project Number: 7-3399

Project Manager: Christa Marting

Reported: 11/27/00 14:56

## Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT - Quality Control Sequoia Analytical - San Carlos

T .							<del></del>			
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0110054 - EPA 5030B [P/T]	_		-							
LCS (0110054-BS1)	-			Prepared a	& Analyze	d: 11/09/	00	··· -	·	
Benzene	0.235	0.00500	mg/kg	0.200		117	70.0-130			<u> </u>
Toluene	0.210	0.00500	.,	0.200		105	70.0-130			
Ethylbenzene	0.214	0.00500	Ħ	0.200		107	70,0-130			
Xylenes (total)	0.605	0.00500	н	0.600		101	70.0-130			
Surrogate: a,a,a-Trifluorotoluene	0.236		n	0.200		118	60.0-140			
LCS (0110054-BS2)				Prepared &	& Analyze	d: 11/09/0	00			
Purgeable Hydrocarbons as Gasoline	4.87	1.00	mg/kg	5.00		97.4	70.0-130			
Surrogate: a,a,a-Trifluorotoluene	0.225			0.200		112	60.0-140			
LCS (0110054-BS3)				Prepared &	& Analyze	d: 11/10/0	00			
Benzene	0.242	0.00500	mg/kg	0.200		121	70.0-130			······································
Toluene	0.224	0.00500	19	0.200		112	70.0-130			
Ethylbenzene	0.230	0.00500	n	0.200		115	70.0-130			
Xylenes (total)	0.662	0.00500	IF	0.600		110	70.0-130			
Surrogate: a,a.a-Trifluorotoluene	0.242	<u> </u>	77	0.200		121	60.0-140			
LCS (0110054-BS4)				Prepared &	k Analyze	d: 11/10/0	00			
Purgeable Hydrocarbons as Gasoline	4.51	1.00	mg/kg	5.00	<del></del>	90.2	70.0-130			
Surrogate: a,a,a-Trifluorotoluene	0.201	<u> </u>	"	0.200	· · · · · · · · · · · · · · · · · · ·	101	60.0-140			
LCS (0110054-BS5)				Prepared &	Ł Analyzeo	d: 11/13/0	0			
Benzene	0.235	0.00500	mg/kg	0.200	<del></del>	117	70.0-130			
Toluene	0.217	0.00500	"	0.200		108	70.0-130			
Ethylbenzene	0.225	0.00500	v	0.200		112	70.0-130			
Xylenes (total)	0.634	0.00500	11	0.600		106	70.0-130			
Surrogate: a,a,a-Trifluorotoluene	0.248		"	0.200		124	60.0-140		******	



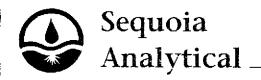
144 Mayhew Way Walnut Creek CA, 94596 Project: Exxon

Project Number: 7-3399
Project Manager: Christa Marting

Reported: 11/27/00 14:56

## Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT - Quality Control Sequoia Analytical - San Carlos

Analyte	Domit	Reporting	T 7 7.e	Spike	Source	0/000	%REC	p. m	RPD	
	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Note
Batch 0110054 - EPA 5030B [P/T]	·						<u></u> -			
LCS (0110054-BS6)				Prepared	& Analyze	:d: 11/13/	00			
Purgeable Hydrocarbons as Gasoline	4.83	1.00	mg/kg	5.00		96.6	70.0-130			
Surrogate: a,a,a-Trifluorotoluene	0.211		"	0.200		105	60.0-140			
LCS (0110054-BS7)				Prepared a	& Analyze	:d: 11/15/	00			
Benzene	0.242	0.00500	mg/kg	0.200	· · · · · · · · ·	121	70.0-130			
Toluene	0.222	0.00500		0.200		111	70.0-130			
Ethylbenzene	0.229	0.00500	н	0.200		114	70.0-130			
Xylenes (total)	0.660	0.00500	*1	0.600		110	70.0-130			
Surrogate: a,a,a-Trifluorotoluene	0.236		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	0.200		118	60.0-140			
LCS (0110054-BS8)				Prepared &	& Analyze	d: 11/15/0	00			
Purgeable Hydrocarbons as Gasoline	4.41	1.00	mg/kg	5.00	<u></u> _	88.2	70.0-130			
Surrogate: a,a,a-Trifluorotoluene	0.222		"	0.200		111	60.0-140		<del></del>	
Matrix Spike (0110054-MS1)	Sou	urce: L01109	7-01	Prepared:	11/09/00	Analyzed	: 11/10/00			
urgeable Hydrocarbons as Gasoline	5.93	1.00	mg/kg	5.00	ND	119	60.0-140			•
urrogate: a,a,a-Trifluorotoluene	0.176	· <del>-</del> ·	"	0.200		88.0	60.0-140		<del></del>	
Matrix Spike Dup (0110054-MSD1)	Sou	urce: L01109	7-01	Prepared:	11/09/00	Analyzed	: 11/10/00			
urgeable Hydrocarbons as Gasoline	4.91	1.00	mg/kg	5.00	ND	98.2	60.0-140	19.2	25.0	
urrogate: a,a,a-Trifluorotoluene	0.166		"	0.200	<del></del>	83.0	60.0-140	<del></del>	• • •	
Batch 0110078 - EPA 5030B [P/T]										
Blank (0110078-BLK1)				Prepared &	k Analyze	d: 11/14/0	00	<del></del>		
urgeable Hydrocarbons as Gasoline	ND	1.00	mg/kg	-r				<del></del>		
enzene	ND	0.00500	"							
oluene	ND	0.00500	74							
thylbenzene	ND	0.00500		6						
ylenes (total)	ND	0.00500	IJ							
urrogate: a,a,a-Trifluorotoluene	0.231		,,	0.200		116	60.0-140			



144 Mayhew Way

Walnut Creek CA, 94596

Project: Exxon

Project Number: 7-3399

Project Manager: Christa Marting

Reported: 11/27/00 14:56

## Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT - Quality Control Sequoia Analytical - San Carlos

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0110078 - EPA 5030B [P/T]										
LCS (0110078-BS1)	,	-		Prepared a	& Analyze	:d: 11/14/	00		··········	
Benzene	0.225	0.00500	mg/kg	0.200	<del>-</del>	112	70.0-130	<del>-</del>		<del></del>
Toluene	0.210	0.00500	II .	0.200		105	70.0-130			
Ethylbenzene	0.212	0.00500	н	<b>.</b> -0.200		106	70.0-130			
Xylenes (total)	0.612	0.00500	11	0.600		102	70.0-130			
Surrogate: a,a,a-Trifluorotoluene	0.219		"	0.200		109	60.0-140			
LCS (0110078-BS2)				Prepared a	& Analyze	d: 11/14/	00			
Purgeable Hydrocarbons as Gasoline	4.70	1.00	mg/kg	5.00		94.0	70.0-130			
Surrogate: a,a,a-Trifluorotoluene	0.224		"	0.200		112	60.0-140		<del></del>	· -
Matrix Spike (0110078-MS1)	So	urce: L01113	4-01	Prepared &	& Analyze	d: 11/14/	00			
Benzene	0.209	0.00500	mg/kg	0.200	ND	105	60.0-140			
Toluene	0.192	0.00500	н	0.200	ND	96.0	60.0-140			
Ethylbenzene	0.197	0.00500	u .	0.200	ND	98.5	60.0-140			
Xylenes (total)	0.561	0.00500	"	0.600	ND	93.5	60.0-140			
Surrogate: a.a.a-Trifluorotoluene	0.202		ır	0.200		101	60.0-140			
Matrix Spike Dup (0110078-MSD1)	So	urce: L01113	4-01	Prepared &	à Analyze	d: 11/14/0	00			
Benzene	0.198	0.00500	mg/kg	0.200	ND	99.0	60.0-140	5.88	25.0	
Toluene	0.182	0.00500	10	0.200	ND	91.0	60.0-140	5.35	25.0	
Ethylbenzene	0.187	0.00500	ŢĬ	0.200	ND	93.5	60.0-140	5.21	25.0	
Xylenes (total)	0.538	0.00500	11	0.600	ND	89.7	60.0-140	4.15	25.0	
Surrogate: a.a.a-Trifluorotoluene	0.193		Ħ	0.200		96.5	60.0-140			



144 Mayhew Way

Wainut Creek CA. 94596

Project: Exxon

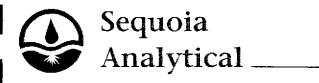
Project Number: 7-3399

Project Manager: Christa Marting

Reported:

11/27/00 14:56

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 0110074 - EPA 5030B [P/T]										
Blank (0110074-BLK2)				Prepared:	11/15/00	Analyzed	i: 11/16/00			
Methyl tert-butyl ether	ND	0.100	mg/kg							
Surrogate: 1,2-Dichloroethane-d4	2.49		H	2.50		99.6	70.0-121		<del></del>	· · · · · · · · · · · · · · · · · · ·
LCS (0110074-BS2)				Prepared:	11/15/00	Analyzed	l: 11/16/00			
Methyl tert-butyl ether	2.76	0.100	mg/kg	2.50		110	70.0-130			
Surrogate: 1,2-Dichloroethane-d4	2.79		"	2.50		112	70.0-121			
Matrix Spike (0110074-MS1)	So	urce: L01112	2-20	Prepared a	& Analyze	d: 11/15/	00			
Methyl tert-butyl ether	2.63	0.100	mg/kg	2.50	ND	105	60.0-140			
Surrogate: 1,2-Dichloroethane-d4	2.41		"	2.50		96.4	70.0-121			·····
Matrix Spike Dup (0110074-MSD1)	So	urce: L01112	2-20	Prepared of	& Analyze	ed: 11/15/	00			
Methyl tert-butyl ether	2.55	0.100	mg/kg	2.50	ND	102	60.0-140	2.90	25.0	
Surrogate: 1,2-Dichloroethane-d4	2.28		"	2.50		91.2	70.0-121			



ETIC Engineering Inc - WC (Exxon)

144 Mayhew Way

Walnut Creek CA, 94596

Project: Exxon

Project Number: 7-3399

Project Manager: Christa Marting

Reported:

11/27/00 14:56

#### Notes and Definitions

P-02 Chromatogram Pattern: Weathered Gasoline C6-C12

P-03 Chromatogram Pattern: Unidentified Hydrocarbons C6-C12

S-06 The recovery of this surrogate is outside control limits due to sample dilution required from high analyte concentration and/or

matrix interferences.

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 - Morgan Hill

# EXXON COMPANY, U.S.A.

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

CHAIN OF CUSTODY	
	Pageof _2_

Consultant's Name:	ETIC	C Engin	uring	· · · · ·					<u> </u>		Page _	L_of_	2	
Address:   44   Project #:	Mayh	ica way	, wa	lan	- Cr	call	C4			Site Lo	cation: 2	2791 1-10	pyare Roa.	,
Project #:	(A)	Brec		Con	sultani	t Projec	t#: TM339	79.3		Consu	ltant Wo	rk Releas	e#: 2000799	8
Project #: Project Contact: J	ne M	uehlica		Pho	ne #: <i>(</i>	925)	977-791	4				rk Releas		
EXXON Contact:	acin ,	Rouse		Pho	ne #: /	925	246-876	: . 8'				7-3		
Sampled by (print):	Bryan	n Campb	e ll				ire:							
Shipment Method:	0000	ff			Bill #:		1				พรห	(0284	-5	
TAT: 🗋 24 hr 🔲 48	hr 🗓 72	2 hr 🔲 96 h	r ∭X Sta	ndard	(10 da	y)		, p	NALYSI	S REQU				
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	MT 80 by EPA 8260	Percer Nosstrae		No No
MW9A, 11-11.5h	11/3/00	0915	50:	/	None		01	X			X	X		
MW91,15.5'-16'	- 1	0920					6≥	X	,		X	X		
MW9A, 21-21.5'		0930					03	X			X	X		
MW9A, 26-26.5'		0945					04	X			X	X		
Mw94,31-31.51	1	0950					05	X	, ,		X	X		
MW94,15'-35.5'	1	0953					06	X			X	X		
MW91,37.5-38	į.	1000		-			07	X			X	X		
MW1A,79-39.5	1	1003					08	X			X	$\times$		
MW91, 45:45.5	1 .	1030					09							
RELINQUISHED E	BY / AFF	ILIATION	Date	9	Tit	me	ACCEPT	TED / AFF	ILIATIO	N	Date	Time	Additional Comme	ents
Bryan Camp	6011		11/6/00		170	0	Model	1/2/30	WOLE		1/6	1700		
Mark Coll			11/6		170	0	Marce las	vin /	FQ		11/6	1700		
Muilaure	Copito	1 BAY	11/7				Mi hu	e /cr	of fol	BAU	11/2	11.70		
$\mathcal{O}$	/					··········	UILA MAY	11/1/6	1.7) N		11100	1.11-1.7		

Pink - Client

Yellow - Sequoia

680 Chesapeake Dr.
Redwood City, CA 94063
(650) 364-9600 • FAX (650) 364-9233

# EXXON COMPANY, U.S.A.

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

#### **CHAIN OF CUSTODY**

Consultant's Name: FTIC Engine	ering							Page	2_ of _0	2
Address: 144 Mayher Way	waln	UT CA	cek,	CA			Site Lo	cation: 2	2991 h	ION years Ross
Project #:	) (	C <b>o</b> nsultan	t Projec	it#: <i>T/</i> 133	99.3		Consul	tant Wor	k Releas	10p yeure Rods se #: 20002958
Project Contact: Jos Muchlick	F	Phone #: (	925	)977-79	14		Labora	tory Wor	k Releas	se #:
EXXON Contact: Darin Rouse	<u></u>	<b>Pho</b> ne #: (	925	246-8	768		EXXON	RAS #:	7-3	399
Sampled by (print): Bryan Campbel	/ 15	Sampler's	Signati	ıre:						
Shipment Method: Nop off		Air Bill #: MTK0284							$\sum$	
TAT: 0 24 hr 0 48 hr 0 72 hr 0 96 hr	□ 48 hr □ 72 hr □ 96 hr ∕ Standard (10 day)  ANALYSIS REQUIRED									
Sample Collection Collection Description Date Time	Matrix Soil/Water/	'Air Prsv	# of Cont.	Sequoia's Sample #	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520	MTBS 604 8260	, , , , , , , , , , , , , , , , , , ,	Temperature:
MW9A, 49.5-50 11/3/00 1045	Soil	None	1	10			<del></del>			
MW9A,55-55.5 1100			1	11	X	·		X	X	
MW9A, 49.5-50 11/3/00 1045 MW9A, 55-55.5 100 MW9A, 58.51-59 V 1130	V		1	12	X			X	X	
DEL MOUSCHED BY (A SERVATION)							:			
RELINQUISHED BY / AFFILIATION	Date	Ti.	me	ACCEP	TED / AF	FILIATIO	ON	Date	Time	Additional Comments
Bryan Campbell	11/6/00	170	00	Mark Col	<u>U/Se</u>	nvolh	·-	uf	1700	
Made Colle / Seg	1/6	170	20	Mike G	oxin [ S	SEQ		11/6	1700	
· ( Vintanse Copital By	uf		·	Chefring	1	oiFeV B	41/	1 4 / 1	11.78	

Pink - Client

Yellow - Sequoia

White - Sequoia

15 January, 2001

Joe Muehleck ETIC Engineering Inc - WC (Exxon) 2285 Morello Avenue Pleasant Hill, CA 94523

RE: Exxon

Sequoia Report: MKA0089

Enclosed are the results of analyses for samples received by the laboratory on 01/03/01 14:15. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

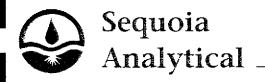
Ron Chew

Project Manager

CA ELAP Certificate #1210



JAN 1 8 2001



ETIC Engineering Inc - WC (Exxon)

2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon

Project Number: 7-3399 Project Manager: Joe Muehleck

Reported: 01/15/01 19:12

ANALYTICAL REPORT FOR SAMPLES

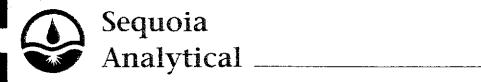
Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received	
MW-5D	MKA0089-01	Water	12/28/00 09:10	01/03/01 14:15	_
MW-5S	MKA0089-02	Water	12/28/00 09:25	01/03/01 14:15	
MW-9A	MKA0089-03	Water	12/28/00 13:20	01/03/01 14:15	
MW-13	MKA0089-04	Water	12/28/00 09:45	01/03/01 14:15	
MW-12A	MKA0089-05	Water	12/28/00 09:55	01/03/01 14:15	
MW-14	MKA0089-06	Water	12/28/00 08:55	01/03/01 14:15	
MW-4	MKA0089-07	Water	12/28/00 12:35	01/03/01 14:15	
PMW-2	MKA0089-08	Water	12/28/00 14:00	01/03/01 14:15	
PMW-3	MKA0089-09	Water	12/28/00 13:40	01/03/01 14:15	
MW-1	MKA0089-10	Water	12/28/00 13:45	01/03/01 14:15	
MW-7	MKA0089-11	Water	12/28/00 12:45	01/03/01 14:15	
MW-8	MKA0089-12	Water	12/28/00 11:00	01/03/01 14:15	
MW-11	MKA0089-13	Water	12/28/00 11:45	01/03/01 14:15	
VR-1	MKA0089-14	Water	12/28/00 11:15	01/03/01 14:15	
VR-2	MKA0089-15	Water	12/28/00 13:00	01/03/01 14:15	
MW-10	MKA0089-16	Water	12/28/00 11:10	01/03/01 14:15	
PMW-5	MKA0089-17	Water	12/28/00 12:50	01/03/01 14:15	
OW-2	MKA0089-18	Water	12/28/00 10:30	01/03/01 14:15	

Sequoia Analytical - Morgan Hill

Ron Chew, Project Manager

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.





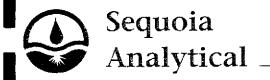
2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon

Project Number: 7-3399 Project Manager: Joe Muehleck Reported: 01/15/01 19:12 ·

# Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT

Sequoia Analytical - Morgan Hill

	Seque	ia Alia	iy ticai	- Morga	шпш				
Analyte	Result	eporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Note
MW-5D (MKA0089-01) Water	Sampled: 12/28/00 09:10	Receive	d: 01/03/	01 14:15					
Purgeable Hydrocarbons	ND	50.0	u <b>g</b> /1	1	1A10004	01/10/01	01/10/01	DHS LUFT	
Benzene	ND	0.500	11	**	79	11	н	H	
Toluene	ND	0.500	u	п	#1	n	п	n	
Ethylbenzene	ND	0.500	U	(1	u	н	II	19	
Xylenes (total)	ND	0.500	D		"	н		**	
Surrogate: a,a,a-Trifluorotoluene		104 %	70-	130	"	"	"	п	
MW-5S (MKA0089-02) Water	Sampled: 12/28/00 09:25	Received	d: 01/03/0	01 14:15					
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1A10004	01/10/01	01/10/01	DHS LUFT	
Benzene	ND	0.500	H	**	ħ	#	11	11	
Toluene	ND	0.500	н	n	н	**	11		
Ethylbenzene	ND	0.500	#1	*1	,,	**	Ħ	rr .	
Xylenes (total)	ND	0.500	u .	н	ų	II	II	•	
Surrogate: a,a,a-Trifinorotolnene		102 %	70-	130	"	"	"	**	
MW-9A (MKA0089-03) Water	Sampled: 12/28/00 13:20	Receive	d: 01/03/	01 14:15					
Purgeable Hydrocarbons	1040	100	ug/l	2	1A10002	01/10/01	01/10/01	DHS LUFT	P-0
Вепzепе	14.5	1.00	н	n	+1	77	#	п	
<b>Coluene</b>	3.75	1.00	77	**	4	11	11	н	
Ethylbenzene	26.4	1.00	Ħ	4	#	ti	11	Ħ	
Kylenes (total)	37.4	1.00	н	Ħ	Ħ	II	н	**	
Surrogate: a,a,a-Trifluorotoluene		103 %	70	130	)1	"	n	n	
MW-13 (MKA0089-04) Water	Sampled: 12/28/00 09:45	Received	: 01/03/0	1 14:15					
urgeable Hydrocarbons	. ND	50.0	ug/l	1	1A10004	01/10/01	01/10/01	DHS LUFT	
<b>.</b>	1.19	0.500	11	"	11	**	<del>ļ</del> 1	1+	
Benzene		0.500	et	n	19	π	u u	п	
Senzene Foluene	1.05	0.500							
	1.05 ND	0.500	D	н	**	"	10	7)	
Γoluene			1)	11	н	(† H	) t	7)	

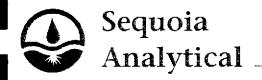


2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon

Project Number: 7-3399 Project Manager: Joe Muehleck Reported: 01/15/01 19:12

#### Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT Sequoia Analytical - Morgan Hill

Analyte	R Result	eporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-12A (MKA0089-05) Water	Sampled: 12/28/00 09:5	5 Receiv	ed: 01/03	3/01 14:15					
Purgeable Hydrocarbons	ND	50.0	ug/l	I	1A10004	01/10/01	01/10/01	DHS LUFT	
Benzene	ND	0.500	u	н	ŧı	D.	19	U	
Toluene	ND	0.500	n .	**	n	II .	)7	u .	
Ethylbenzene	ND	0.500	п		+1	n	ir	n se	
Xylenes (total)	ND	0.500	ш	n	п	p	11	II .	
Surrogate: a,a,a-Trifluorotoluene		97.7%	70-	130	н	,,	"	"	
MW-14 (MKA0089-06) Water	Sampled: 12/28/00 08:55	Receive	d: 01/03/0	)1 14:15					
Purgeable Hydrocarbons	ND	50.0	ug/l	l	1A10004	01/10/01	01/10/01	DHS LUFT	
Benzene	2.04	0.500	II .	"	n	"	H	*	
Toluene	ND	0.500	0	*	ti	I†	šI	n .	
Ethylbenzene	0.740	0.500	п	11	II	17	TI TI	P	
Xylenes (total)	1.78	0.500	11	ti		**	r:	19	
Surrogate: a,a,a-Trifluorotoluene		104%	70-	130	n	¥f.	"	"	
MW-4 (MKA0089-07) Water S	Sampled: 12/28/00 12:35	Received	01/03/01	14:15			,		
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1A10004	01/10/01	01/10/01	DHS LUFT	
Benzene	ND	0.500	н	. "	It	II	71	и	
Toluene	ND	0.500	71	, n	19	p	**	и	
Ethylbenzene	ND	0.500	11	II .	D	Ħ	11	17	
Xylenes (total)	ND	0.500	**	"	11	H	**	P	
Surrogate: a,a,a-Trifluorotoluene		99.4 %	70-	130	n	"	11	tr	
PMW-2 (MKA0089-08) Water	Sampled: 12/28/00 14:00	Receive	d: 01/03/0	01 14:15					
Purgeable Hydrocarbons	445	50.0	ug/l	1	1A10004	01/10/01	01/10/01	DHS LUFT	
Benzene	ND	0.500	19	ч	11	n	tı	**	
Toluene	ND	0.500	1+	U	19	n	11	#	
Ethylbenzene	ND	0.500	**	11	15	"	u	11	
Xylenes (total)	ND	0.500	ıt	В	н-		11	11	
Surrogate: a,a,a-Trifluorotoluene		101 %	70-	130	"	"	n	,,	



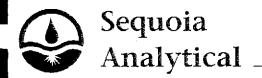
2285 Morello Avenue Pleasant Hill CA. 94523 Project: Exxon

Project Number: 7-3399 Project Manager: Joe Muehleck Reported: 01/15/01 19:12

# Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT

Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
	Sampled: 12/28/00 13:4				Daten	Trepared	- Tulaly Zea	Wichiod	
Purgeable Hydrocarbons	ND	50.0	u <u>e</u> /]	1	1A10004	01/10/01	01/10/01	DHS LUFT	
Benzene	ND	0.500	u <sub>E</sub> ,	,,	17210004	и и	# ·	"	
Toluene	ND	0.500	*1	11	*	•	0	п	
Ethylbenzene	ND	0.500	11	19	H	ţ1	lt	U	
Xylenes (total)	• ND	0.500	0	**	"	н	11	U	
Surrogate: a,a,a-Trifluorotoluene		102 %	70-	130	17	#	tr	"	•
MW-1 (MKA0089-10) Water S.	ampled: 12/28/00 13:45	Received	: 01/03/01	14:15					
Purgeable Hydrocarbons	ND	50.0	ug/l	Ī	1A10002	01/10/01	01/10/01	DHS LUFT	
Benzene	ND	0.500	19		,,	n	P	11	
Toluene	ND	0.500	17	н	и	Ħ	e	th	
Ethylbenzene	ND	0.500	1+	**	11	Ħ	н	n	
Xylenes (total)	ND	0.500	"	n	9	H	н	**	
Surrogate: a,a,a-Trifluorotoluene		94.0 %	70	130	**	, "	n	п	
MW-7 (MKA0089-11) Water Sa	ampled: 12/28/00 12:45	Received:	01/03/01	14:15					
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1A10002	01/10/01	01/10/01	DHS LUFT	
Benzene	ND	0.500	H	11	n	**	**	H	
Toluene	ND	0.500	u	11	it	n	<b>#</b>	1+	
Ethylbenzene	ND	0.500	o	ч	P	H.	"	D	
Xylenes (total)	ND	0.500	U	π	**	11	•	n	
Surrogate: a,a,a-Trifluorotoluene		96.9 %	70-1	130	п	"	77	"	
MW-8 (MKA0089-12) Water Sa	ampled: 12/28/00 11:00	Received:	01/03/01	14:15					
Purgeable Hydrocarbons	ND	50.0	ug/l	i	1A10002	01/10/01	01/10/01	DHS LUFT	
Benzene	1.03	0.500	"	**	Ħ	n	11	n	
Toluene	1.25	0.500	"	u	41	*1	**	æ	
Ethylbenzene	ND	0.500	**	"		*1	н	n	
Xylenes (total)	1.76	0.500	77	"	p	a	u	u	
Surrogate: a,a,a-Trifluorotoluene		99.9 %	70-1	30	,,	n	"	"	



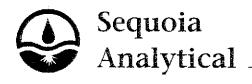
Project: Exxon

2285 Morello Avenue Pleasant Hill CA. 94523

Project Number: 7-3399 Project Manager: Joe Muehleck Reported: 01/15/01 19:12

#### Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT Sequoia Analytical - Morgan Hill

					<del></del>	<del></del>			
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-11 (MKA0089-13) Water	Sampled: 12/28/00 11:4	15 Received	i: 01/03/0	01 14:15					
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1A10002	01/10/01	01/10/01	DHS LUFT	
Benzene	ND	0.500	75	п	Ħ	17	νί	II .	
Toluene	ND	0.500	•	U	14	ir	Ħ	)1	
Ethylbenzene	. ND	0.500	ıţ	п	,	77	u	r	
Xylenes (total)	ND	0.500	н	н	18	ŧ1	n	н	
Surrogate: a,a,a-Trifluorotoluen	2	97.1 %	70-	130	п	, ,,	n	u	
VR-1 (MKA0089-14) Water S	Sampled: 12/28/00 11:15	Received:	01/03/01	14:15					
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1A10002	01/10/01	01/10/01	DHS LUFT	
Benzene	ND	0.500	n	н	lj	D	It	n	
Toluene	ND	0.500	U	n	II .	ш	If	π	
Ethylbenzene	ND	0.500	**	11	<b>19</b>	**	n	Ħ	
Xylenes (total)	ND	0.500	n	и	и	78	**	ų	
Surrogate: a,a,a-Trifluorotoluene	2	89.5 %	70-	130	"	"	rr	"	
VR-2 (MKA0089-15) Water S	sampled: 12/28/00 13:00	Received:	01/03/01	14:15					
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1A10002	01/10/01	01/10/01	DHS LUFT	
Веплепе	ND	0.500	11	н	4	Ħ	H	n	
Toluene	ND	0.500	п	79	n	n	u	17	
Ethylbenzene	ND	0.500	Ħ	**	U	n	ш	H	
Xylenes (total)	ND	0.500	11	19	п	н	U	n	
Surrogate: a,a,a-Trifluorotoluene	?	93.2 %	70	130	"	н	"	ıı .	··
MW-10 (MKA0089-16) Water	Sampled: 12/28/00 11:1	0 Received	I: 01/03/0	1 14:15					
Purgeable Hydrocarbons	ND	50.0	ug/l	I	1A10002	01/10/01	01/10/01	DHS LUFT	<u></u>
Benzene	ND	0.500	19	n	**	**	n	n	
Toluene	ND	0.500	17	п	**	**	tt	II.	
Ethylbenzene	ND	0.500	10	ø		n	1 <del>1</del>	)+	
Xylenes (total)	ND	0.500	и	п	11	н	11	P	
Surrogate: a,a,a-Trifluorotoluene		94.7 %	70	130	'n	"	ır	. "	



ETIC Engineering Inc - WC (Exxon)

2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon

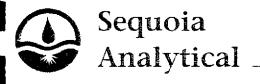
Project Number: 7-3399 Project Manager: Joe Muehleck

Reported: 01/15/01 19:12

# Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT

Sequoia Analytical - Morgan Hill

Analyte	Result	eporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PMW-5 (MKA0089-17) Water	Sampled: 12/28/00 12:50	Receive	d: 01/03/01	1 14:15					
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1A11003	01/11/01	01/11/01	DHS LUFT	
Benzene	1.93	0.500	ıı	0	77	н		ti-	
Toluene	ND	0.500	11	11	n	**		н	
Ethylbenzene	ND	0.500	н	Ħ	ti	**	n	II	
Xylenes (total)	ND	0.500	n	ıı	н	11	14	u .	
Surrogate: a,a,a-Trifluorotoluene		85.6 %	70-13	30	n	,,	"	#	
OW-2 (MKA0089-18) Water S	Sampled: 12/28/00 10:30	Received:	01/03/01 1	4:15					
Purgeable Hydrocarbons	ND	50.0	ug/l	1	1A10002	01/10/01	01/10/01	DHS LUFT	
Benzene	ND	0.500	ii .	*	76	н	**		
Toluene	ND	0.500	19	n	п	**	11	19	
Ethylbenzene	ND	0.500	ır	ц	11	u u	н	**	
Xylenes (total)	ND	0.500	n	"	74	11	IJ	16	
Surrogate: a,a,a-Trifluorotoluene		95.2 %	70-13	30	"	"	"	"	



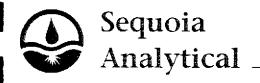
ETIC Engineering Inc - WC (Exxon)

2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon

Project Number: 7-3399 Project Manager: Joe Muehleck Reported: 01/15/01 19:12

#### MTBE by EPA Method 8260B Sequoia Analytical - San Carlos

Analyte	Result	eporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
MW-5D (MKA0089-01) Water	Sampled: 12/28/00 09:10	Receive	d: 01/03/0	1 14:15					
Methyl tert-butyl ether	ND	2.00	ug/l	1	1010034	01/10/01	01/10/01	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		94.0 %	76-1	14	"	rr	"	"	
MW-5S (MKA0089-02) Water	Sampled: 12/28/00 09:25	Received	1: 01/03/01	1 14:15					
Methyl tert-butyl ether	ND	2.00	ug/l	i	1010034	01/10/01	01/10/01	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		102 %	76-1	14	"	,,	"	"	
MW-9A (MKA0089-03) Water	Sampled: 12/28/00 13:20	Receive	d: 01/03/0	1 14:15					
Methyl tert-butyl ether	65.5	5.00	ນຍ/ໄ	2.5	1010034	01/10/01	01/10/01	EPA 8260A	<del></del>
Surrogate: 1,2-Dichloroethane-d4		102 %	76-1	14	"	,,	77	"	
MW-13 (MKA0089-04) Water	Sampled: 12/28/00 09:45	Received	l: 01/03/01	14:15					
Methyl tert-butyl ether	2.17	2.00	ug/l	1	1010034	01/10/01	01/10/01	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		99.0 %	76-1	14	"	"	"	"	
MW-12A (MKA0089-05) Water	Sampled: 12/28/00 09:55	Receive	ed: 01/03/	01 14:15					
Methyl tert-butyl ether	ND	2.00	ug/l	l	1010034	01/10/01	01/10/01	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		104 %	76-1	14	"	**	"	n	
MW-14 (MKA0089-06) Water	Sampled: 12/28/00 08:55	Received	l: 01/03/01	14:15					
Methyl tert-butyl ether	ND	2.00	ug/!	1	1010034	01/10/01	01/10/01	EPA 8260A	
Surrogate: 1,2 <b>-</b> Dichloroethane-d4		101 %	76-1.	14	"	п	n	"	
MW-4 (MKA0089-07) Water S	ampled: 12/28/00 12:35 I	Received:	01/03/01	14:15					
Methyl tert-butyl ether	ND	2.00	ug/l	1	1010029	01/11/01	01/11/01	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		102 %	76-1	14	"	,,	"	"	



ETIC Engineering Inc - WC (Exxon)

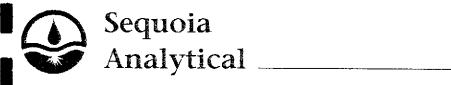
2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon

Project Number: 7-3399 Project Manager: Joe Muehleck Reported:

01/15/01 19:12

#### MTBE by EPA Method 8260B Sequoia Analytical - San Carlos

1 I									
Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
PMW-2 (MKA0089-08) Water Sampled: I	2/28/00 14:00	Receive	d: 01/03/0	14:15	······································			<del></del>	
Methyl tert-butyl ether	234	6.66	ug/l	3.33	1010034	01/10/01	01/10/01	EPA 8260A	· <del></del>
Surrogate: 1,2-Dichloroethane-d4		95.4 %	76-	114	"	"	11	rr	
PMW-3 (MKA0089-09) Water Sampled: 1	2/28/00 13:40	Received	i: 01/03/0	14:15					
Methyl tert-butyl ether	ND	2.00	ug/l	1	1010034	01/10/01	01/10/01	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		101 %	76-1	114	11	"	n	"	
MW-1 (MKA0089-10) Water Sampled: 12	/28/00 13:45	Received:	01/03/01	14:15					
Methyl tert-butyl ether	ND	2.00	ug/l	1	1010034	01/10/01	01/10/01	EPA 8260A	<del></del>
Surrogate: 1,2-Dichloroethane-d4		98.4 %	76-1	114	"	"	п	It	
MW-7 (MKA0089-11) Water Sampled: 12.	/28/00 12:45	Received:	01/03/01	14:15					
Methyl tert-butyl ether	ND	2.00	ug/l	1	1010034	01/10/01	01/10/01	EPA 8260A	<del></del>
Surrogate: 1,2-Dichloroethane-d4		94.8 %	76-1	14	,,	**	17	"	
MW-8 (MKA0089-12) Water Sampled: 12/	28/00 11:00	Received:	01/03/01	14:15					
Methyl tert-butyl ether	ND	2.00	ug/l	I	1010034	01/10/01	01/10/01	EPA 8260A	<del></del>
Surrògate: 1,2-Dichloroethane-d4		104 %	76-1	14	rr	"	,,	"	
MW-11 (MKA0089-13) Water Sampled: 12	2/28/00 <u>1</u> 1:45	Received	: 01/03/0	1 14:15					
Methyl tert-butyl ether	5.71	2.00	սջ/l	I	1010034	01/10/01	01/10/01	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		100 %	76-1	14	9	17	rr	п	
VR-1 (MKA0089-14) Water Sampled: 12/2	8/00 11:15 F	Received: 0	1/03/01 1	4:15					
Methyl tert-butyl ether	200	2.00	ug/!	1	1010034	01/10/01	01/10/01	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		96.8 %	76-1	14	"	"	"	,,	



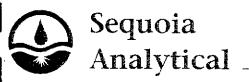
ETIC Engineering Inc - WC (Exxon)

2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon

Project Number: 7-3399 Project Manager: Joe Muehleck Reported: 01/15/01 19:12

#### MTBE by EPA Method 8260B

Analyte	Result	Reporting Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
VR-2 (MKA0089-15) Water Sampled: 12/2	28/00 13:00	Received:	01/03/01	14:15					
Methyl tert-butyl ether	10.6	2.00	ug/l	1	1010034	01/10/01	01/10/01	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		96.6 %	76-	114	"	"	"	"	
MW-10 (MKA0089-16) Water Sampled: 1	2/28/00 11:	10 Received	i: 01/03/6	01 14:15					
Methyl tert-butyl ether	ND	2.00	ug/l	1	1010034	01/10/01	01/10/01	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		98.0 %	76-	114	**	"	"	"	
PMW-5 (MKA0089-17) Water Sampled: 1	<u>2/28/00 12:</u> :	50 Received	t: 01/03/0	01 14:15					
Methyl tert-butyl ether	919	10.0	ug/l	5	1010034	01/10/01	01/10/01	EPA 8260A	· <del></del>
Surrogate: 1,2-Dichloroethane-d4		104 %	76-	114	**	77	. "	"	
OW-2 (MKA0089-18) Water Sampled: 12/	28/00 10:30	Received:	01/03/01	14:15					
Methyl tert-butyl ether	4520	50.0	ug/l	25	1010040	01/10/01	01/10/01	EPA 8260A	
Surrogate: 1,2-Dichloroethane-d4		108 %	76	114	"	"	"	и	



ETIC Engineering Inc - WC (Exxon)

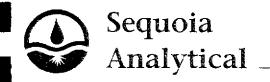
2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon

Project Number: 7-3399 Project Manager: Joe Muehleck

Reported: 01/15/01 19:12

# Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1A10002 - EPA 5030B [P/T]						<del>-</del> "	•			
Blank (1A10002-BLK1)		<u> </u>		Prepared	& Analyze	d: 01/10/	01			
Purgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	D							
Foluene	ND	0.500	"							
Ethylbenzene	ND	0.500	μ							
Kylenes (total)	ND	0.500	н							
Surrogate: a.a,a-Trifluorotoluene	9.49		,,	10.0		94.9	70-130			
LCS (1A10002-BS1)				Prepared of	& Analyze	d: 01/10/0	)1			
Purgeable Hydrocarbons	248	50.0	ug/l	250		99.2	70-130		· · · · · · · · · · · · · · · · · · ·	
iurrogate: a,a,a-Trifluorotoluene	9.19		· · · · · · · · · · · · · · · · · · ·	10.0		91.9	70-130			
Matrix Spike (1A10002-MS1)	Soi	urce: MKA0(	89-10	Prepared &	k Analyze	d: 01/10/0	)1			
urgeable Hydrocarbons	258	50.0	កតិ∖្រ	250	ND	103	60-140	_ <del></del>		
urrogate: a.a.a-Trifluorotoluene	9.99		Jf	10.0		99.9	70-130			
Matrix Spike Dup (1A10002-MSD1)	Sou	arce: MKA00	89-10	Prepared &	k Analyze	d: 01/10/0	01			
urgeable Hydrocarbons	256	50.0	ug/l	250	ND	102	60-140	0.778	25	
urrogate: a,a,a-Trifluorotoluene	9.60		ır	10.0		96.0	70-130			
Batch 1A10004 - EPA 5030B [P/T]										
lank (1A10004-BLK1)		<u>*</u>		Prepared 8	k Analyze	i: 01/10/0	1			
urgeable Hydrocarbons	ND	50.0	ug/l							
enzene	ND	0.500	"							
oluene	ND	0.500	11							
thylbenzene	ND	0.500	**							
ylenes (total)	ND	0.500	** -							
urrogate: a,a,a-Trifluorotoluene	10,2			10.0		102	70-130			



2285 Morello Avenue

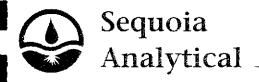
Project Exxon
Project Number: 7-3399
Project Manager: Joe Muehleck

Reported: 01/15/01 19:12

Pleasant Hill CA, 94523

# Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1A10004 - EPA 5030B [P/T]										
LCS (1A10004-BS1)				Prepared .	& Analyze	:d: 01/10/0	) I			
Benzene	10.8	0.500	ขฐ/เ	10.0	·	108	70-130			
Toluene	10.4	0.500	le .	10.0		104	70-130			
Ethylbenzene	10.2	0.500	Ħ	10.0		102	70-130			
Xylenes (total)	31.4	0.500	It	30.0		105	70-130			
Surrogate: a,a,a-Trifluorotoluene	10.1		11	10.0		101	70-130	* y * ***		
Matrix Spike (1A10004-MS1)	So	игсе: МКА00	089-01	Prepared a	& Analyze	d: 01/10/0	)1			
Benzene	11.0	0.500	ug/l	10.0	ND	110	60-140	<b>-</b>		
Toluene	10.5	0.500	*	10.0	ND	105	60-140			
Ethylbenzene	10.4	0.500	н	10.0	ND	104	60-140			
Xylenes (total)	31.6	0.500	н	30.0	ND	105	60-140			
Surrogate: a.a,a-Trifluorotoluene	10.2		п	10.0		102	70-130			
Matrix Spike Dup (1A10004-MSD1)	So	urce: MKA00	89-01	Prepared &	& Analyze	d: 01/10/0	1			
Benzene	10.9	0.500	ug/l	10.0	ND	109	60-140	0.913	25	
Гојиеле	10.4	0.500	Ħ	10.0	ND	104	60-140	0.957	25	
Ethylbenzene	10.3	0.500	11	10.0	ND	103	60-140	0.966	25	
Xylenes (total)	31.4	0.500	н	30.0	ND	105	60-140	0.635	25	
Surrogate: a,a,a-Trifluorotoluene	10.1		"	10.0		101	70-130			
Batch 1A11003 - EPA 5030B [P/T]										
Blank (1A11003-BLK1)				Prepared &	k Analyzeo	d: 01/11/0	1			
ourgeable Hydrocarbons	ND	50.0	ug/l							
Benzene	ND	0.500	0							
foluene	ND	0.500	D							
Ethylbenzene	ND	0.500	11							
Kylenes (total)	ND	0.500	n							
urrogate: a,a,a-Trifluorotoluene	8.95		"	10.0		89.5	70-130			



ETIC Engineering Inc - WC (Exxon)

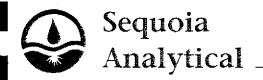
2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon

Project Number: 7-3399 Project Manager: Joe Muehleck Reported:

01/15/01 19:12

# Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT - Quality Control Sequoia Analytical - Morgan Hill

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1A11003 - EPA 5030B [P/T]										
LCS (1A11003-BS1)				Prepared a	& Analyze	:d: 01/11/0	01			
Purgeable Hydrocarbons	249	50.0	บg/โ	250		99.6	70-130			
Surrogate: a,a,a-Trifluorotoluene	10.9		n	10.0		109	70-130			
Matrix Spike (1A11003-MS1)	So	urce: MKA01	135-01	Prepared a	& Analyze	:d: 01/11/0	)1			
Purgeable Hydrocarbons	256	50.0	u <u>ē</u> ∕l	250	ND	102	60-140			
Surrogate: a,a,a-Trifluorotoluene	10.6		#	10.0		106	70-130			
Matrix Spike Dup (1A11003-MSD1)	So	urce: MKA0]	135-01	Prepared a	& Analyze	:d: 01/11/0	)1			
Purgeable Hydrocarbons	229	50.0	п6/ј	250	ND	91.6	60-140	11.1	25	
Surrogate: a,a,a-Trifluorotoluene	11.0		,,	10.0		110	70-130			1



2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon

Project Number: 7-3399 Project Manager: Joe Muehleck Reported:

01/15/01 19:12

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1010029 - EPA 5030B [P/T]										
Blank (1010029-BLK1)				Prepared	& Analyze	:d: 01/08/0	01			
Methyl tert-butyl ether	ND	2.00	นg/1							
Surrogate: 1,2-Dichloroethane-d4	49.2		и .	50.0		98.4	76-114			
Blank (1010029-BLK2)				Prepared	& Analyze	:d: 01/11/0	10			
Methyl tert-butyl ether	ND	2.00	ug/l						· · · · · · · · · · · · · · · · · · ·	
Surrogate: 1,2-Dichloroethane-d4	49.4		n	50.0		98.8	76-114			
LCS (1010029-BS1)				Prepared	& Analyze	d: 01/0 <b>8</b> /0	01			
Methyl tert-butyl ether	41.4	2.00	u <b>g</b> /l	50.0		82.8	70-130			
Surrogate: 1,2-Dichloroethane-d4	49.1		,,	50.0		98.2	76-114			
LCS (1010029-BS2)				Prepared a	& Analyze	d: 01/11/0	)1			
Methyl tert-butyl ether	42.3	2.00	ug/l	50.0		84.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	50.1		"	50.0		100	76-114			
Matrix Spike (1010029-MS1)	So	urce: L10102	3-04	Prepared of	& Analyze	d: 01/08/0	)1			
Methyl tert-butyl ether	78.3	2.00	ug/i	50.0	37.3	82.0	60-140			
Surrogate: 1.2-Dichloroethane-d4	51.5			50.0		103	76-114		<b></b>	
Matrix Spike Dup (1010029-MSD1)	Soi	urce: L10102	3-04	Prepared &	& Analyze	d: 01/08/0	)1			
Methyl tert-butyl ether	75.9	2.00	ug/l	50.0	37.3	77.2	60-140	3.11	25	
Surrogate: 1,2-Dichloroethane-d4	52.6	· · · · · · · · · · · · · · · · · · ·		50.0		105	76-114			
Batch 1010034 - EPA 5030B [P/T]										
Blank (1010034-BLK1)				Prepared &	& Analyze	d: 01/10/0	<del></del> 1			
Methyl tert-butyl ether	ND	2.00	นg/โ	• • • • • • • • • • • • • • • • • • • •						
Surrogate: 1,2-Dichloroethane-d4	50.9		·	50.0		102	76-114			

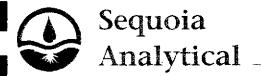


2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon

Project Number: 7-3399 Project Manager: Joe Muehleck Reported:

01/15/01 19:12

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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1010034 - EPA 5030B [P/T]										
Blank (1010034-BLK2)				Prepared	& Analyz	ed: 01/10/	01			
Methyl tert-butyl ether	ND	2.00	นg/l						<del></del>	
Surrogate: 1,2-Dichloroethane-d4	50.1		"	50.0		100	76-114			
LCS (1010034-BS1)				Prepared .	& Analyz	ed: 01/10/	01			
Methyl tert-butyl ether	51.3	2.00	นย/ใ	50.0		103	70-130			•
Surrogate: 1,2-Dichloroethane-d4	49.6		"	50.0		99.2	76-114			
LCS (1010034-BS2)				Prepared a	& Analyz	ed: 01/10/	01			
Methyl tert-butyl ether	54.3	2.00	ug/l	50.0	<del></del>	109	70-130			
Surrogate: 1.2-Dichloroethane-d4	52.7		"	50.0		105	76-114			
Matrix Spike (1010034-MS1)	So	urce: MKA00	089-02	Prepared a	& Analyze	ed: 01/10/0	01			
Methyl tert-butyl ether	49.2	2.00	ug/l	50.0	ND	98.4	60-140			
Surrogate: 1.2-Dichloroethane-d4	51,5		л	50.0		103	76-114			
Matrix Spike Dup (1010034-MSD1)	So	urce: MKA00	89-02	Prepared &	& Analyze	ed: 01/10/0	) i			
Methyl tert-butyl ether	50.6	2.00	ug/l	50.0	ND	101	60-140	2.81	25	
Surrogate: 1,2-Dichloroethane-d4	50.9		11	50.0		102	76-114			<del></del>
Batch 1010040 - EPA 5030B [P/T]										
Blank (1010040-BLK1)				Prepared &	k Analyze	d: 01/10/0	)1			-
Methyl tert-butyl ether	ND	2,00	ug/l						<del></del>	
Surrogate: 1,2-Dichloroethane-d4	50.1		"	50.0		100	76-114			•
Blank (1010040-BLK2)				Prepared &	& Analyze	d: 01/11/0	)1			
Methyl tert-butyl ether	ND	2.00	ug/i							
Surrogate: 1,2-Dichloroethane-d4	51.3		Jr	50.0		103	76-114			



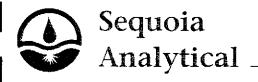
ETIC Engineering Inc - WC (Exxon)

2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon

Project Number: 7-3399 Project Manager: Joe Muehleck Reported:

01/15/01 19:12

1										
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1010040 - EPA 5030B [P/T]										
LCS (1010040-BS1)				Prepared	& Analyzo	ed: 01/10/	01			
Methyl tert-butyl ether	54.3	2.00	ug/l	50.0		109	70-130			
Surrogate: 1,2-Dichloroethane-d4	52.7		"	50.0		105	76-114	*		
LCS (1010040-BS2)				Prepared	& Analyze	ed: 01/11/0	01			
Methyl tert-butyl ether	49.1	2.00	ug/l	50.0		98.2	70-130			
Surrogate: 1.2-Dichloroethane-d4	50.6		<i>(1</i>	50.0		101	76-114			
Matrix Spike (1010040-MS1)	So	urce: L10105	3-03	Prepared:	01/10/01	Analyzed	: 01/11/01			
Methyl tert-butyl ether	54.3	2.00	п6/ј	50.0	ND	109	60-140			
Surrogate: 1,2-Dichloroethane-d4	52.0		н	50.0		104	76-114			
Matrix Spike Dup (1010040-MSD1)	So	urce: L10105	3-03	Prepared:	01/10/01	Analyzed	: 01/11/01			
Methyl tert-butyl ether	48.6	2.00	ug/l	50.0	ND	97.2	60-140	11.1	25	
Surrogate: 1,2-Dichloroethane-d4	50.5		"	50.0		101	76-114			



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ETIC Engineering Inc - WC (Exxon)

2285 Morello Avenue Pleasant Hill CA, 94523 Project: Exxon

Project Number: 7-3399

Project Manager: Joe Muehleck

Reported:

01/15/01 19:12

#### Notes and Definitions

P-01 Chromatogram Pattern: Gasoline C6-C12

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

### EXXCT COMPANT, U.S.A.

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

**CHAIN OF CUSTODY** 

Consultant's Name:	ETI							<del>-   </del>	···		Page	/_ of	D	
Address: 2285	Mocel	In Aug	\$100	usa	ci I	Hill	CA 948	こつづ		Site Lo				=
Project #:				Cor	ısultar	t Projec	it #: 110230	a I	* * * * * * * * * * * * * * * * * * * *	Consul	tant Wor	<i>L74   1</i> k Releas	Hopegued Rel se #: 2000 295	
Project Contact: Jo	e Mue	hleck	-	Pho	one #:(	925)	602-47-10	- <del>[-</del> !		Labora	tary Wai	k Releas	in #1	۸,
EXXON Contact: 1)	4RIN	LOVSIZ	**	Pho	one #(	925)	246-876	8					3399	
Sampled by (print):	John C	rlesa		San	npler's	Signatu	ire July	Ala	· · · · · · · · · · · · · · · · · · ·					
Shipment Method:		U		Air	Bill #:		Julia		)	Pleusanton, CA				
<b>TAT:</b> □ 24 hr □ 48	hr 🗀 72	hr □ 96 hr	Standa	dard (10 day) ANALY:					ANALYSI	SIS REQUIRED (MKA 0089)				
Sample Description	Collectio Date	n Collection Time	Matri Soil/Wate		Prsv	# of Cont.	Sequoia's Sample #	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520	m1 <b>B</b> 12 8260		Temperature:Inbound Seal: Yes N Outbound Seal: Yes N	lo lo
MW-5D	12/28/0	910	HzC	)	1401	6	01	X			X			
mw-55		925					ov				X			
MW-9A		1320					03				X			
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(MW-12A		955					05				1			$\dashv$
1 mw-14		855					64	<i>y</i>		•.	1			
1mw-4		1235					67	y			/			
1 PMW-2		1400					08	1			1			-
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RELINQUISHED	BY / AFF	ILIATION	Date	,	Ti	me	ACCEP	TED / AF	FILIATIO	ON	Date	Time	Additional Commen	ts .
)lln ()	12		1/5/01	0/ 14:15 Memalargerson 1/3/6, 14:15 MTB						MTBE 64826	<i>z</i> d			
- Konsur,	sen gen	o wc	11410	_				1			1-4	1100		
<u> </u>	22		1-4				Hans T	1 ep			1-4	1938		

Pink - Client

Yelfow - Sequoia

White - Sequoid



Sequoia Analytical 680 Chesapeake Dr. Redwood City, CA 94063 (650) 364-9600 • FAX (650) 364-9233

### EXXON COMPANY, U.S.A.

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

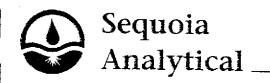
### **CHAIN OF CUSTODY**

Consultant's Name:	BET	IC									Page <u>2</u> of <u>2</u>				
Address: <b>22</b> 85	More	llo Av	e, P	lea	SceUs	1 HiV	1 UA 94	(523)		Site Lo			Hopeyard L	#	
Project #:				Cor	ısultan	t Projec	ot#: UP 33	99.1	**	Consul	tant Wor	k Releas	ie #: 7000195	4	
Project Contact:	ae Mue	hleck	-	Pho	ne #:	1925	) 602-4	710				k Releas			
	ALIW !		*	Pho	ne #: (	1025	) Z46-B7	268-						-	
	John						ure: Jahr			EXXON RAS #: 7-3399					
Shipment Method:		0			Bill #:	<del>-</del>	- Just			Heusanton, Old					
TAT: 24 hr 48	hr 🛭 72 hr	. □ 96 hr	Stand	dard (10 day) ANA					ANALYSI	ISIS REQUIRED (MKA 0089)					
Sample Description	Collection Date	Collection Time	Mati Soil/Wai		Prsv	# of Cont.	Sequoia's Sample #	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520	МТВЕ В4 8260		lemperature: Inbound Seal: Yes I Outbound Seal: Yes I		
MW-1	12/28/00	1345	Hzć	)	HCL	b	10	X			X				
MN-7		1245	1			6	//	X			<i>X</i>				
-MN-8		1100				6	N	1			Į,				
MW-11		1145				6	13	1			Y				
-VR-1		115				6	14	1			1				
UR-2		1300				6	15	Y			X			_ <u>_</u>	
/MW-10		1110				6	14	X			N				
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OW-2	¥	1030		ı	1	6	18	W							
RELINQUISHED	RELINQUISHED BY / AFFILIATION				Ti	me	- 1 E	TED / AF	FILIATIO	NC	Date	Time	Additional Commen	ts	
July (9e	July (9 = 1/3					/ , , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				-wc	1/3/01	14:15			
fonalde ge	emald c gensen 114						401 Remalacgenses				1-4	1100	<b>,</b>		
4	2	,·	5-4	-4 -49B							1-4	1938			

Pink - Client

Yellow - Sequoia

White - Sequoia



November 21, 2000

Joe Muehleck ETIC Engineering Inc - WC (Exxon) 144 Mayhew Way Walnut Creek, CA 94596

RE: Exxon 7-3399 / MJK0217

Dear Joe Muehleck

Enclosed are the results of analyses for sample(s) received by the laboratory on November 6, 2000. If you have any questions concerning this report, please feel free to contact me.

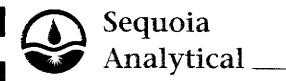
Sincerely,

Ron Chew Project Manager

Received

NOV 2 7 2000

ETIC Engineering Inc.



885 Jarvis Drive Morgan Hill, CA 95037 (408) 776-9600 FAX (408) 782-6308 www.sequoialabs.com

ETIC Engineering Inc - WC (Exxon) 144 Mayhew Way

Wainut Creek, CA 94596

Project: Exxon

Project Number: 7-3399

Project Manager: Joe Muehleck

Sampled: 11/3/00

Received: 11/6/00

Reported: 11/21/00 12:43

### ANALYTICAL REPORT FOR SAMPLES:

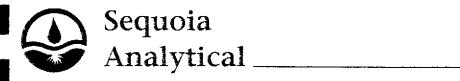
Sample Description	Laboratory Sample Number	Sample Matrix	Date Sampled
STRP1, Composite	MJK0217-01	Soil	11/3/00

Sequoia Analytical - Morgan Hill

Ron Chew, Project Manager

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.





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ETIC Engineering Inc - WC (Exxon) 144 Mayhew Way

Project: Exxon
Project Number: 7-3399

Sampled: 11/3/00 Received: 11/6/00

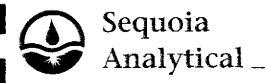
Walnut Creek, CA 94596

Project Manager: Joe Muehleck

Reported: 11/21/00 12:43

### Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT Sequoia Analytical - Morgan Hill

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
STRP1, Composite			MJK021	7-01			Soil	
Purgeable Hydrocarbons	0K16005	11/16/00	11/17/00	DHS LUFT	50.0	597	mg/kg	P-01
Benzene	**	n	ri .	DHS LUFT	0.250	0.618	" .	
Toluene	**	ır	н	DHS LUFT	0.250	16.5	н	
Ethylbenzene	II	п	**	DHS LUFT	0.250	11.6	19	
Xylenes (total)	n	H	17	DHS LUFT	0.250	48.9	**	
Surrogate: a,a,a-Trifluorotoluene	ır	"	"	70-130		NR	%	S-02
Surrogate: 4-Bromofluorobenzene	"	"	rt	60-140		NR	"	S-01



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ETIC Engineering Inc - WC (Exxon)
144 Mayhew Way

Project: Exxon Project Number: 7-3399 Sampled: 11/3/00 Received: 11/6/00

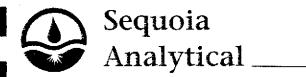
Walnut Creek, CA 94596

Project Manager: Joe Muehleck

Reported: 11/21/00 12:43

### Total Metals by EPA 6000/7000 Series Methods Sequoia Analytical - Morgan Hill

Analyte	Batch Number	Date Prepared	Date Analyzed	Specific Method	Reporting Limit	Result	Units	Notes*
STRP1, Composite Lead	0K13012	11/13/00	<u>MJK021</u> 11/14/00	<u>7-01</u> EPA 6010A	10.7	ND	<u>Soil</u> mg/kg	



ETIC Engineering Inc - WC (Exxon) 144 Mayhew Way Walnut Creek, CA 94596

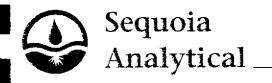
Project: Exxon
Project Number: 7-3399
Project Manager: Joe Muehleck

Sampled: 11/3/00 Received: 11/6/00

Reported: 11/21/00 12:43

#### Volatile Organic Compounds by EPA Method 8010B Sequoia Analytical - Morgan Hill

	Batch	Date	Date	Specific	Reporting			<del></del>
Analyte	Number	Prepared	Analyzed	Method	Limit	Result	Units	Notes*
CONTRACT III								
STRP1, Composite			MJK021	•			<u>Soil</u>	
Bromodichloromethane	0K17010	11/17/00	11/17/00	EPA 8010B	100	ND	ug/kg	
Bromoform	11	†I	п	EPA 8010B	100	ND	**	
Bromomethane	11	r#	n	EPA 8010B	200	ND	"	
Carbon tetrachloride	10	12	"	EPA 8010B	100	ND	•	
Chlorobenzene	IF	ff	11	EPA 8010B	100	ND	19	
Chloroethane	II .	D	H	EPA 8010B	200	ND	**	
2-Chloroethylvinyl ether	*1	10	n	EPA 8010B	100	ND	19	
Chloroform	**	It	O.	EPA 8010B	100	ND	**	
Chloromethane	11	17	n	EPA 8010B	200	ND	n	
Dibromochloromethane	11	It	R	EPA 8010B	100	ND ·	π	
1,3-Dichlorobenzene	n	n	II .	EPA 8010B	100	ND	7*	
1,4-Dichlorobenzene	H	"	"	EPA 8010B	100	ND	14	
1,2-Dichlorobenzene	19	r	n	EPA 8010B	100	ND	н	
1, 1-Dichloroethane	18	H	re	EPA 8010B	100	ND	H	
1,2-Dichloroethane	It	**	11	EPA 8010B	100	ND	II.	
1,1-Dichloroethene	п	r <del>†</del>	**	EPA 8010B	100	ND	n	
cis-1,2-Dichloroethene	н	II.	Ħ	EPA 8010B	100	ND	n	
trans-1,2-Dichloroethene	19	11	R	EPA 8010B	100	ND	п	
1,2-Dichloropropane	rı .	n	a	EPA 8010B	100	ND	п	
cis-1,3-Dichloropropene	*	н	н	EPA 8010B	100	ND	**	
trans-1,3-Dichloropropene	n .	"	н	EPA 8010B	100	ND	ŧi	
Methylene chloride	D .	**	н	EPA 8010B	0001	ND	н	
1,1,2,2-Tetrachloroethane	11	19	19	EPA 8010B	100	ND	н	
Tetrachloroethene	*1	IF.	**	EPA 8010B	100	ND	н	
1,1,1-Trichloroethane	н	IF	**	EPA 8010B	100	ND	n	
1,1,2-Trichloroethane	н	IF.	If	EPA 8010B	100	ND	71	
Trichloroethene		п	17	EPA 8010B	100	ND	"	
Trichlorofluoromethane	19	II .		EPA 8010B	100	ND		
Vinyl chloride	"	11	If	EPA 8010B	200	ND	н	
Surrogate: 4-Bromofluorobenzene	"	It	,	60-140	200	104	%	
1.2-Dibromoethane	17	11	R		100			
1,2-Dioromound				EPA 8010B	100	ND	ug/kg	



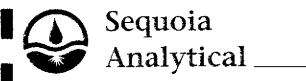
ETIC Engineering Inc - WC (Exxon)
Project: Exxon
Sampled: 11/3/00
144 Mayhew Way
Project Number: 7-3399
Received: 11/6/00
Walnut Creek, CA 94596
Project Manager: Joe Muehleck
Reported: 11/21/00 12:43

## Total Purgeable Hydrocarbons (C6-C12) and BTEX by DHS LUFT/Quality Control Sequoia Analytical - Morgan Hill

	Date	Spike	Sample	QC	F	Reporting Limit	Recov.	RPD	RPD
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%	Limit	% Notes*
Batch: 0K16005	Date Prepa	red: 11/1	6/00		Extract	tion Method: EF	PA 5030	B [P/T]	
Blank	0K16005-E								
Purgeable Hydrocarbons	11/16/00			NĐ	mg/kg	1.00			
Benzene	11			NĐ	19	0.00500			
Toluene	H			ND	tr	0.00500			
Ethylbenzene	11			ND	rt .	0.00500			
Xylenes (total)	P\$			ND	IP	0.00500			
Surrogate: a,a,a-Trifluorotoluene	"	0.200		0.187	.,,	70-130	93. <b>5</b>		
Surrogate: 4-Bromofluorobenzene	H	0.200		0.203	77	60-140	101		
LCS	0K16005-E	S1							
Purgeable Hydrocarbons	11/16/00	5.00		5.20	mg/kg	70-130	104		
Surrogate: a,a,a-Trifluorotoluene	11	0.200		0.306	"	70-130	153		
Surrogate: 4-Bromofluorobenzene	/t	0.200		0.170	"	60-140	85.0		
Matrix Spike	0K16005-N	(SI MJ)	K0249-23						
Purgeable Hydrocarbons	11/16/00	5.00	ND	5.16	mg/kg	60-140	95.3		
Surrogate: a,a,a-Trifluorotoluene	"	0.200		0.132	"	70-130	66.0		
Surrogate: 4-Bromofluorobenzene	"	0.200		0.137	"	60-140	68.5		
Matrix Spike Dup	0K16005-N	ISD1 MJ1	K0249-23						
Purgeable Hydrocarbons	11/16/00	5.00	ND	5.01	mg/kg	60-140	92.3	25	2.95
Surrogate: a,a,a-Trifluorotoluene	11	0.200		0.299	"	70-130	149		
Surrogate: 4-Bromofluorobenzene	**	0.200		0 138	"	60-140	69.0		
. <del>-</del>									

Sampled: 11/3/00

Received: 11/6/00



ETIC Engineering Inc - WC (Exxon) 144 Mayhew Way

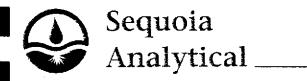
Walnut Creek. CA 94596 Project Manag

Project: Exxon
Project Number: 7-3399

Project Manager: Joe Muehleck Reported: 11/21/00 12:43

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

	Date	Spike	Sample	QC	-	Reporting Limit	Recov.	RPD	RPD	
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%	Limit	%	Notes*
Batch: 0K13012 Blank	Date Prepar 0K13012-B		<u>3/00</u>		Extrac	tion Method: EI	PA 30501	<u>B</u>		
Lead	11/14/00	MIXI		ND	mg/kg	10.0				
LCS Lead	<u>0K13012-B3</u> 11/14/00	<u>\$1</u> 50.0		52.2	mg/kg	80-120	104			
Matrix Spike Lead	<u>0K13012-M</u> 11/14/00	1 <mark>S1 MJ</mark> 51.0	<u>K0372-01</u> 19.6	128	mg/kg	80-120	NR			Q-02
Matrix Spike Dup Lead	<u>0K13012-M</u> 11/14/00	ISD1 MJI 48.5	K0372-01 19.6	117	mg/kg	80-120	NR	20	8.98	Q-02



ETIC Engineering Inc - WC (Exxon) 144 Mayhew Way

Walnut Creek, CA 94596

Project: Exxon
Project Number: 7-3399
Project Manager: Joe Muehleck

Sampled: 11/3/00 Received: 11/6/00

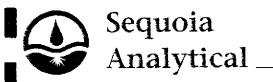
Reported: 11/21/00 12:43

# Volatile Organic Compounds by EPA Method 8010B/Quality Control Sequoia Analytical - Morgan Hill

	Date	Spike	Sample	QC	3	Reporting Limit R	ecov.	RPD	RPD
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%	Limit	% Notes*
Batch: 0K17010	Date Prepa		<u>7/00</u>		Extrac	tion Method: EPA	5030I	3 [P/T]	
Blank	<u>0K17010-E</u>	LK1							
Bromodichloromethane	11/17/00			ND	ug/kg	100			
Bromoform	H			ND	ri	100			
Bromomethane -	11			ND	H	200			
Carbon tetrachloride	n			ND	11	100			
Chlorobenzene	r+			ND	11	100			
Chloroethane	"			ND	71	200			
2-Chloroethylvinyl ether	н			ND	11	100			
Chloroform	0			ND	ii .	100			
Chloromethane	**			ND	11	200			
Dibromochloromethane	**			ND	11	100			
1,3-Dichlorobenzene	**			ND	n	100			
1,4-Dichlorobenzene	tt.			ND	11	100			
1,2-Dichlorobenzene	IF.			ND	**	100		-	
1,1-Dichloroethane	D			ND	PT	100			
1,2-Dichloroethane	n			ND	н	100			
1,1-Dichloroethene	н			ND	19	100			
cis-1,2-Dichloroethene	ře.			ND	0	100			
trans-1,2-Dichloroethene	18			ND	11	100			
1,2-Dichloropropane				ND	D	100			•
cis-1,3-Dichloropropene	10			ND	IP.	100			
trans-1,3-Dichloropropene	H			ND	II-	100			
Methylene chloride	D			ND	II.	1000			
1,1,2,2-Tetrachloroethane	II.			ND	11	100			
Tetrachloroethene	п		,	ND	11	100			
1,1,1-Trichloroethane	II.			ND	п	100			
1,1,2-Trichloroethane	n			ND	н	100			
Trichloroethene	п			ND	II	100			
Trichlorofluoromethane	н			ND	IF	100			
Vinyl chloride	21			ND	it.	200			
Surrogate: 4-Bromofluorobenzene	"	250	<del></del>	244	71	60-140	97.6		
1,2-Dibromoethane	Ħ			ND	n .	100	22		
LCS	0K17010-B	S1	•						
Chlorobenzene	11/17/00	250		271	ug/kg	70-130	108		
1,1-Dichloroethene		250		269	II	70-130	108		
Trichloroethene	11	250		303	IP.	70-130	121		
Surrogate: 4-Bromofluorobenzene	<i>"</i>	250		220		60-140	88.0		

Sequoia Analytical - Morgan Hill

<sup>\*</sup>Refer to end of report for text of notes and definitions.

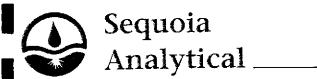


ETIC Engineering Inc - WC (Exxon) Project: Exxon Sampled: 11/3/00
144 Mayhew Way Project Number: 7-3399 Received: 11/6/00
Walnut Creek, CA 94596 Project Manager: Joe Muehleck Reported: 11/21/00 12:43

# Volatile Organic Compounds by EPA Method 8010B/Quality Control Sequoia Analytical - Morgan Hill

	Date	Spike	Sample	QC	I	Reporting Limit	Recov.	RPD	RPD
Analyte	Analyzed	Level	Result	Result	Units	Recov. Limits	%	Limit	% Notes*
Matrix Spike	0K17010-N	<u>4S1 MJ</u>	K0217-01						
Chlorobenzene	11/17/00	250	ND	260	ug/kg	60-140	104		
1,1-Dichloroethene	Ħ	250	ND	233	\$ <b>#</b>	60-140	93.2		
Trichloroethene	19	250	ND	297	**	60-140	119		
Surrogate: 4-Bromofluorobenzene	''	250		196	n	60-140	78.4		
Matrix Spike Dup	<u>0K17010-N</u>	<u> 1SD1 MJ</u>	K0217-01						
Chlorobenzene	11/17/00	250	ND	260	ug/kg	60-140	104	25	0
1,1-Dichloroethene	U.	250	ND	219	11	60-140	87.6	200	6.19
Trichloroethene	ıf	250	ND	273	9	60-140	109	25	8.42
Surrogate: 4-Bromofluorobenzene	"	250		210	"	60-140	84.0	-	





ETIC Engineering Inc - WC (Exxon)

144 Mayhew Way

Walnut Creek, CA 94596

Project: Exxon

Project Number: 7-3399

Project Manager: Joe Muehleck

Sampled: 11/3/00

Received: 11/6/00

Reported: 11/21/00 12:43

#### Notes and Definitions

#	Note
P-01	Chromatogram Pattern: Gasoline C6-C12
Q-02	The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
S-01	The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interferences.
S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample.
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
Recov.	Recovery
RPD	Relative Percent Difference



# 680 Chesapeake Dr. Redwood City, CA 94063 (415) 364-9600 • FAX (415) 364-9233

### EXXON COMPANY, U.S.A.

P.O. Box 2180, Houston, TX 77002-7426 CHAIN OF CUSTODY

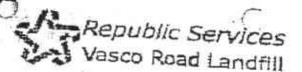
Consultant's Name:	ETIC	Engine	esing								Page _	of ]							
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Address: 144 M. Project #: The state of the	943-B	nc		Cons	sultant	Project	1#: TM339	19.7		Consu	tant Wor	k Releas	e#: 20002958						
Project Contact: J	oe Mue	hlick.		Phon	ne #: <i>(</i>	(925)	977-7919	/		Labora	tory Wor	k Releas	e #:						
EXXON Contact:	Parin R	ouse	·	Phon	ne #: <i>(</i>	(925)	246-876	8		EXXON RAS #: 7-3399									
Sampled by (print): ¿	Bran C	ampbell		Sam	pler's	Signatu	re:												
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TAT: 🛘 24 hr 🔻 48	hr 🔲 72 l	nr 🚨 96 hi	Sta	ındard	(10 da	y)		А	NALYS	YSIS REQUIRED MJK0217									
Sample Description	Collection Date	Collection Time	Matri Soli/Wate		Prsv	# of Cont.	Sequoia's Sample #	TPH/Gas BTEX/ 8015/ 8020	TPH/ Diesel EPA 8015	TRPH S.M. 5520	Total Lead 601015	EP4 8010*	Temperature: Inbound Seal: Yes No Outbound Seal: Yes No						
STKP1, Composit	11/3/00	1446	Soil	/	None	1	01	X			X	X							
			ģ				,												
RELINQUISHED	BY/AFFIL	IATION	Dat	te	Ti	ime	ACCEPT	ED / AFF	ILIATIO	ON	Date	Time	Additional Comment						
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MARRY IN/SEDMU 11/7

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### Appendix G

Non-hazardous Waste Manifests



- Grow Drum - 2.4 ywds

Date

#### WASTE APPROVAL FORM/NON-HAZARDOUS WASTE MANIFEST WASTE STREAM INFORMATION Date Tuesday, January 02, 2001 Generator Exxon Mobil #7-3399 Generator Location 2991 Hopyard Rd. SWIC Number Pleasanton 02820 Bill To CA Dillard-Exxon Approval Date 1/2/01 Expiration Date 1/2/02 Waste Description Sail Management The short is a recommendation of the Varior Road Landfill. It wast be predictions that management of the wrote for disposal must be in compliance with inc. facility's person and applicable federal, state and local regulations. The approval is based upon a retirem of the information provided by the generated Direct Burial but the except on the giologic feeligh of a shall seasoning exceptable edited for the constant of the physical probessive to that ONE SIGNED AND COMPLETED COPY OF THIS FORM MUST ACCOMPANY EACH LOAD. ONE COPY WILL BE RETAINED cherutor Signature TRANSPORTER INFORMATION DTI Job # 2003/331DL Transporter to complete this section Transporter Name Pa # 09-35020. DILLARD ENVIRONMENTAL Transporter Address SERVICES P.o. Box 579 Transporter City, State, Zip BYRON , CA 94514 Transporter Prone Number (925) 634- 6850 Driver Name MUM Truck Numbe Volicia License Number/State · · Driver Signature Date DESTINATION INFORMATION I herby eartify the the above named material had been accepted and to the hest after knowledge the foregoing is true until security Signature of Vesco Road Landfill suployer

4001 North Vzeco Raud, Livermore - Phones 025-447-4491 - Fax: 925-447-3486 or 925-447-4640

TSD . CILITY TRANSPORTER

NO.001284 FTL

# NON-HAZARDOUS WASTE DATA FORM

NAME Exxon Mobil		LD E	X E M P T	
ADDRESS P.O. Box 4999		VSA SEE THE SEE	generated	1/28 1/3
CITY, STATE, ZIP The Woodlands	TX. 77380-4999	And - we -	PHONE NO. (28	1 1296-3655
ADDRESS SITE Site Address	· #7-3399	PT SERVICE OF	11 28 (STANCON MAIL)	:
291 14	opyard Rowant	n (A 9	1564	*1
			WEIGHT OR VOL	UME UNITS
			420	Callons
	PPM %  99-100 s.  carbons <1 s.  LIQUID SLUDGE S.  copriate Proper Proper Proper State regulations. In addition the for transportation according to all as	COMPONENTS OF CO	l Purging/	ppm sonot regulated accord- y described, packaged,
		EPA [	- /	
Service Station	Systems, Inc.	NO. C	A, R, 0, 0, 0	0,0,0,6,0,9,8
1236 N. Fifth Str	reet	SER"	VICE ORDER NO	
San Jose, CA 9	5112	PICK	UP DATE 2-	100
PHONE NO. 408 971-2445	- Cina Romer	z Park	Burra /	2
TRUCK, UNIT, I.D. NO.	TYPED OR PRINTED FULL NAME	& SIGNATURE	0	DATE
Crosby and Overton	n, Inc. PANETIA	SO EPA LD. NO.	A D 0 2 1	
ADDRESS 1630 W. 17th St		0	LANDFILL OT	METHOD 5-01
CITY STATE DIP LONG BEACH, (	CA. 90813	1	ink the	<u> </u>
CITY, STATE, ZIP	1	=	110-11	anen
PHONE NO. (568) 432-5445	- LIQUEDURINED FULL NAME	Line	lebyf	1 02.12.0

UNIFORM HAZARDOUS WASTE MANIFEST (Continuation Sheet)	24 <i>3114</i> 2	Dog	lanifest ument No.	22. Page	Informati	on in the s by Federa	ihaded aleas is no I law.	
EHON.				L. State Manifest Document Number  M. State Generator's ID				
4. Transporter Company Name 6. Transporter Company Name	27. US EPA ID Number 27. US EPA ID Number 1000 9366 81		4480	O. Trans P. State	State Transporter's ID  Transporter's Phone 5/0633-03  State Transporter's ID  Transporter's Phone 5/0638-168			
8. US DOT Description (including Proper Shipping Name H			29. Conta		30. - Total Quantity	31. Unit Wt/Voi	938-168 R. Waste No.	
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evodA beleiu alanetem not anarothaed lancitibb  OPERATORS OF TREATM  ISPOSAL FACILITIES  Acyclinolication Space OF TREATM	OWNERS AND STORAGE OR DI	ber of the	mun hod	entificat	moer Ive digit ide	A LD NU. P.A. twe	ed Above in 1995	
Special Handling Instructions and Additional Information.	ini da Wijare			21.01.D	ovu ilik e	45	P	
Transporter Acknowledgement of Receipt of	of Materials Signature	400	au .	* 45 mg (	The state of the	131)	Date Month Day	
Transporter Acknowledgement of Receipt of Bripted/Typed Name	of Materials Signatures	(VII	200		Nase	8	Month Day	
or minutes to sage hosebon youngerould! these This includes time for cavinaving memorial regarding the burden estimal Branch PM-223, U.S. Environment	ne and disposal facility	ent, storag	treatme	tes for	d 10 minut d data, and	ers, and	r transporte structions is	

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