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MARKETING DEPARTMENT
ENVIRONMENTAL ENGINEERING

J. F. (Frank) Medlin
Senior Staff Engineer

October 6, 1993

Re: Comprehensive Site Assessment
Exxon RAS # 4-3998
4701 West Market St.
Greensboro, North Carolina

Mr. Larry Coble
NCDEHNR
Winston-Salem Regional Office
8025 North Point Boulevard
Winston-Salem, North Carolina 27106

Dear Mr. Coble:

Please find attached one (1) bound copy of the Comprehensive Site Assessment, (CSA) for the above referenced site.

No Free Product was found during the site investigation. Soil and ground water analyses above the North Carolina " action levels " have been defined and are indicated in the report. One concern is noted in that Exxon could not gain offsite access to the south of the property (ground water upgradient direction) and data indicates that ground water hydrocarbon impact has occurred in this area. Due to Exxon's inability to gain upgradient offsite access, an offsite source of concern is noted.

It is Exxon's understanding that there are other retail gasoline facilities in the immediate area that have documented environmental problems. Once you have had the opportunity to review this report, please contact me as I want to discuss how Exxon should proceed with a remediation plan, if required. Exxon plans no further environmental assessment work on this site until the site CSA report is addressed by your office.

You can reach me at the letterhead address or call (704) 529 - 4263 on any questions or comments.

Sincerely,

FOR EXXON COMPANY, U.S.A.

James F. Medlin

JFM:jfm

Attachment

c: File

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COMPREHENSIVE SITE ASSESSMENT REPORT

EXXON COMPANY, USA

EXXON LOCATION 4-3998

4701 WEST MARKET STREET

GREENSBORO, NORTH CAROLINA

DELTA PROJECT NO. 50-92-037

COMPREHENSIVE SITE ASSESSMENT REPORT

EXXON COMPANY, USA

EXXON LOCATION 4-3998

4701 WEST MARKET STREET

GREENSBORO, NORTH CAROLINA

DELTA PROJECT NO. 50-92-037

This report was prepared by:

Delta Environmental Consultants, Inc.
6701 Carmel Road, Suite 200
Charlotte, North Carolina 28226-3901

July 1993

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COMPREHENSIVE SITE ASSESSMENT REPORT
EXXON COMPANY, USA
EXXON LOCATION #4-3998
GREENSBORO, NORTH CAROLINA
DELTA PROJECT NO. 50-92-037

1.0 INTRODUCTION

1.1 Purpose

The purpose of this report is to present information obtained during assessment activities which occurred from August 1992 through June 1993. The assessment was initiated in response to a suspected release from the underground storage tank system at the facility. Indications of a release were discovered during tank field upgrades at the site. The initial results of this assessment were outlined in our Initial Subsurface Investigation Report dated September 30, 1992. The purpose of this phase of the assessment was to delineate the horizontal and vertical extent of impacted ground water and soil, both on-site and off-site.

1.2 Site Location

The site is located at 4701 West Market Street in Greensboro, North Carolina as shown on Figure 1. The site is located at the intersection of West Market Street and Spring Garden Street. The adjacent properties consist of other retail businesses including another service station, and a plumbing repair shop.

1.3 Site History

There are currently four underground storage tanks on site. The tank capacity and contents are listed below:

Tank Capacity	Tank Contents
12,000 gallons	Regular Unleaded
12,000 gallons	Plus Unleaded
12,000 gallons	Supreme Unleaded
1,000 gallons	Used Oil

These tanks were installed in 1991 following the removal of older tanks from a former tank basin located near the southeast corner of the property (Figure 2). According to the Tank Excavation Assessment Report which was submitted to the North Carolina Department of Environment, Health, and Natural

Resources (NCDEHNR), when the tanks were removed, petroleum constituents were detected in the soils near the former tank basin and product line trenches. This site is currently active.

2.0 SITE DESCRIPTION

2.1 Site Geology

The site is located in the Carolina Slate belt of North Carolina which is composed primarily of rocks of volcanic or sedimentary origin that have been subjected to low-grade metamorphism. The Carolina Slate belt is bordered on the southeast by the sedimentary rocks of the Triassic basins and on the northwest by the igneous and higher grade metamorphic rocks of the Charlotte belt. Surficial rocks in the vicinity consist of metamorphosed granite which is megacrystic, well foliated, and locally contains hornblende. The overlying soil consists of reddish brown, silty clay with a measured thickness of approximately 30 feet in one of the soil borings advanced at the site. Geologic cross sections are included as Figure 3 and Figure 4.

2.2 Sensitive Receptors

A Sensitive Receptor Survey was completed for this site by Pilko & Associates, Inc. in December, 1991. According to this survey, there are no surface water bodies, basements, tunnels/subways, or private water wells located within 1,000 feet of the site, or municipal wells within 2000 feet of the site (Figure 5). Water is provided to the site by the City of Greensboro. The water supply is derived from Lake Townsend located to the north of the site. The primary aquifer has the classification of Class II, and is a sole source aquifer. The depth to the aquifer was estimated to be 15 feet.

2.3 Local Land Usage

The surrounding properties consist primarily of commercial properties. These properties include another service station, other retail businesses, and a plumbing repair shop.

3.0 SITE INVESTIGATION

3.1 Soil Borings/Sampling

A total of four soil borings were advanced during the June 1992 phase of the investigation. Four additional borings were advanced in March 1993 during the second phase of assessment. Seven of these soil borings were completed as a shallow ground water monitoring wells and one was completed as a type III deep ground water monitoring well. During the borehole advancement of the seven shallow monitoring wells, soil samples were collected at five foot intervals using a split spoon sampling barrel. Each soil sample was scanned for organic vapors using a photoionization detector (PID) or a flame ionization detector (FID).

The readings for each sample were recorded and the soil sample with the highest organic vapor reading was submitted to the laboratory and analyzed for benzene, toluene, ethylbenzene, and xylenes (BTEX) using EPA Methods 8020, for total petroleum hydrocarbon (TPH) using Methods 3550/5030, and for oil and grease using Method 9071.

3.2 Ground Water Monitoring Well Installation/Sampling

Each of the shallow boreholes was competed as a two-inch diameter, ground water monitoring well. The depths of monitoring wells MW-1 through MW-7 range from 20 to 32 feet below grade. Deep monitoring well DW-8 was completed to a total depth of 60 feet. Each well was checked for the presence of liquid phase hydrocarbons (LPH) and the depth to ground water was measured using an electronic water level indicator. No LPH was detected in any of the wells.

Monitoring wells were completed in accordance with the provisions set forth in monitoring well permit number 40-1045-WM-0456, issued on August 11, 1992 by the North Carolina Department of Environment, Health and Natural Resources (NCDEHNR). Copies of the permit as well as well construction records are included as Appendix A.

Ground water samples were collected on August 20, 1992, March 25, 1993, and June 22, 1993, and submitted to the laboratory and analyzed for volatile halocarbons using EPA Method 601, for BTEX using Method 602 and for base/neutral/acid extractable organics using Method 625.

4.0 RESULTS

4.1 Soil Quality Results

The results of the soil scanning revealed values ranging from 0.2 parts per million (ppm) to 110 ppm. The highest vapor values were detected in the samples from SB/MW-2 and SB/MW-3. A summary of the organic vapor screening results can be found in Table 1. Of the soil samples submitted for laboratory analyses, the highest BTEX and TPH concentrations were also found in the samples from SB/MW-2 and SB/MW-3. The results of these analyses are shown in Table 2. The laboratory results for the soil samples collected during the second phase of the assessment are included in Appendix B. Figure 6 is an isopleth map showing the extent of impacted soil.

4.2 Aquifer Characteristics

Aquifer tests to measure hydraulic conductivity were performed in monitoring wells MW-2 and MW-4. The tests consisted of a sudden removal of water from the well and the subsequent measuring of water recovery verses time using a pressure transducer and data logger. Analysis of the data was conducted using the method of Bouwer and Rice (1976). The results revealed hydraulic conductivity values for monitoring wells MW-2 and MW-4 were 0.849 ft/day and 0.795 ft/day, respectively. Aquifer test data and calculations can be found in Appendix C. The thickness of the surficial aquifer was found to be 41.28 feet. A hydraulic gradient of 0.016 feet per foot was calculated between ground water surface elevation contour lines 73 and 77 (Figure 7). Average hydraulic conductivity, 0.822 ft/day was calculated for the site based on the aquifer test results, the hydraulic gradient and aquifer thickness.

Water level measurements from each monitoring well are shown in Table 3. The most recent data show depth to ground water in the shallow monitoring wells ranges from 18.85 to 25.61 feet below grade. Based on these data, a ground water elevation contour map (Figure 7) was constructed. The map shows

the ground water flow direction is predominantly to the north northeast. The ground water flow velocity was calculated using Darcy's Law and found to be 0.038 ft/day. A hydrograph showing the changes in water levels in each of the seven shallow ground water monitoring wells is included on Figure 8a and Figure 8b.

4.3 Ground Water Quality Results

A summary of the ground water sampling results can be found in Table 4. The complete laboratory reports for the 1993 sampling events are included as Appendix D. The initial analytical results for ground water samples collected from the monitoring wells in August 1992, showed elevated BTEX concentrations in samples from monitoring wells MW-1, MW-2 and MW-3. The analytical results for ground water samples collected from these monitoring wells in 1993, also showed elevated BTEX concentrations in the samples from MW-1, MW-2, and MW-3. Several other targeted constituents were also detected (using EPA Methods 601 and 625) in the ground water samples from monitoring wells MW-1, MW-2 and MW-3, with the most significant being naphthalene. A dissolved phase hydrocarbon isopleth map (Figure 9) was constructed using the total BTEX value for each sample.

Additional monitoring wells are located on the adjacent properties to the north and to the south of the site. One of these wells (designated Johns on Figure 6) is located on the property occupied by John's Plumbing. According to a November 1992 report prepared by Pyramid Environmental, Inc., a ground water sample from this monitoring well was collected and submitted to the laboratory for analysis using EPA method 8020 (BTEX). They reported that BTEX constituents were not detected in this sample at levels above the method detection limits.

A second monitoring well (designated BP on Figure 6) is located on the adjacent property to the north (beyond West Market Street), which is occupied by a British Petroleum (BP) station. According to a report prepared by Law Engineering in January 1991, the analytical results for ground water samples collected from this monitoring well, as well as several other monitoring wells on the BP property, showed significant ground water contamination in the vicinity of their underground storage tank field. Of the

samples reported to contain detectable level of petroleum constituents, the values for MW-4 (closest to Exxon's property) were the lowest concentrations.

5.0 FINDINGS

A summary of information collected during this investigation is encompassed in the tables and figures contained herein. Laboratory analytical results indicate the presence of petroleum hydrocarbons in the soil and ground water in the areas near monitoring wells MW-1, MW-2 and MW-3. Based on the water levels measured in the monitoring wells, ground water appears to be flowing northeastward beneath the site toward MW-3. The extent of the impacted soil and ground water has essentially been defined and it appears that no significant off-site migration of contaminants has occurred. Analytical results provided to Delta for a ground water sample from the adjacent property (Johns Plumbing) south of the site, indicate that petroleum constituents are not present in the ground water at this location. An attempt to verify the ground water condition to the south was made, but the adjacent property owner denied Delta's request to install additional monitoring wells on that property or to collect additional samples from the existing monitoring well. At the adjacent facility to the north (BP station), a petroleum release from their UST system has been documented. Their release reportedly has impacted the ground water to the north of the Exxon site, and appears to be migrating eastward. Impacted ground water from the Exxon site does not appear to have migrated northward to the BP site.

6.0 REMARKS

The conclusions in this report represent our professional opinions. These opinions were arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

This report was prepared by:

DELTA ENVIRONMENTAL CONSULTANTS, INC.

R. David Clary
Staff Geologist

7/19/93
Date

J. David Curlis, P.G.
Project Manager, License #1147

7-19-93
Date

/amh

TABLE 1

ORGANIC VAPOR ANALYZER READINGS - PPM
EXXON SITE NO. 4-3998
WEST MARKET STREET
GREENSBORO, NORTH CAROLINA
DELTA PROJECT NO. 50-92-037

	SB/MW-1	SB/MW-2	SB/MW-3	SB/MW-4	SB/MW-5	SB/MW-6	SB/MW-7	SB/DW-8
Date Sampled:	08-13-92	08-13-92	08-14-92	08-14-92	03-25-93	03-25-93	03-25-93	03-25-93
Sample Depth (ft-bgl)								
5-7	5	60	10	0.2	0	0	20	20
10-12	5	100	15	0.2	0	0	24	28
15-17	8	NR	100	0.2	0	0	25	30
20-22	NR	100	110	0.2	0	0	20	27

Notes:

PPM = Parts per million.
NR = No reading recorded.

TABLE 2

SOIL ANALYSES
EXXON SITE NO. 4-3998
WEST MARKET STREET
GREENSBORO, NORTH CAROLINA
DELTA PROJECT NO. 50-92-037

	SB/MW-1	SB/MW-2	SB/MW-3	SB/MW-4	SB/MW5	SBMW/6	SB/MW-7	SB/DW-8
Date Sampled:	08-13-92	08-13-92	08-14-92	08-14-92	3/24/93	3/24/93	3/24/93	3/25/93
Sample Depth (ft-bgl)	15-17	20-22	20-22	20-22	15-17	15-17	15-17	15-17
Compounds:								
Benzene	15.0	1,500	470	<2.0	NA	NA	NA	NA
Toluene	2.0	6,300	3,400	<2.0	NA	NA	NA	NA
Ethylbenzene	2.2	760	700	<2.0	NA	NA	NA	NA
Xylenes (ug/Kg)	10.0	4,500	4,000	<2.0	NA	NA	NA	NA
TPH - 3550	<10	15	64	<10	<10	<10	<10	<10
TPH - 5030 (mg/Kg)	0.22	48	44	<0.05	<0.05	<0.05	0.59	<0.05

Notes:

ug/kg - micrograms per kilogram
mg/kg - milligrams per kilogram

TABLE 3
WATER LEVEL MEASUREMENTS
EXXON SITE NO. 4-3998
4701 WEST MARKET STREET
GREENSBORO, NORTH CAROLINA
DELTA PROJECT NO. 50-92-037

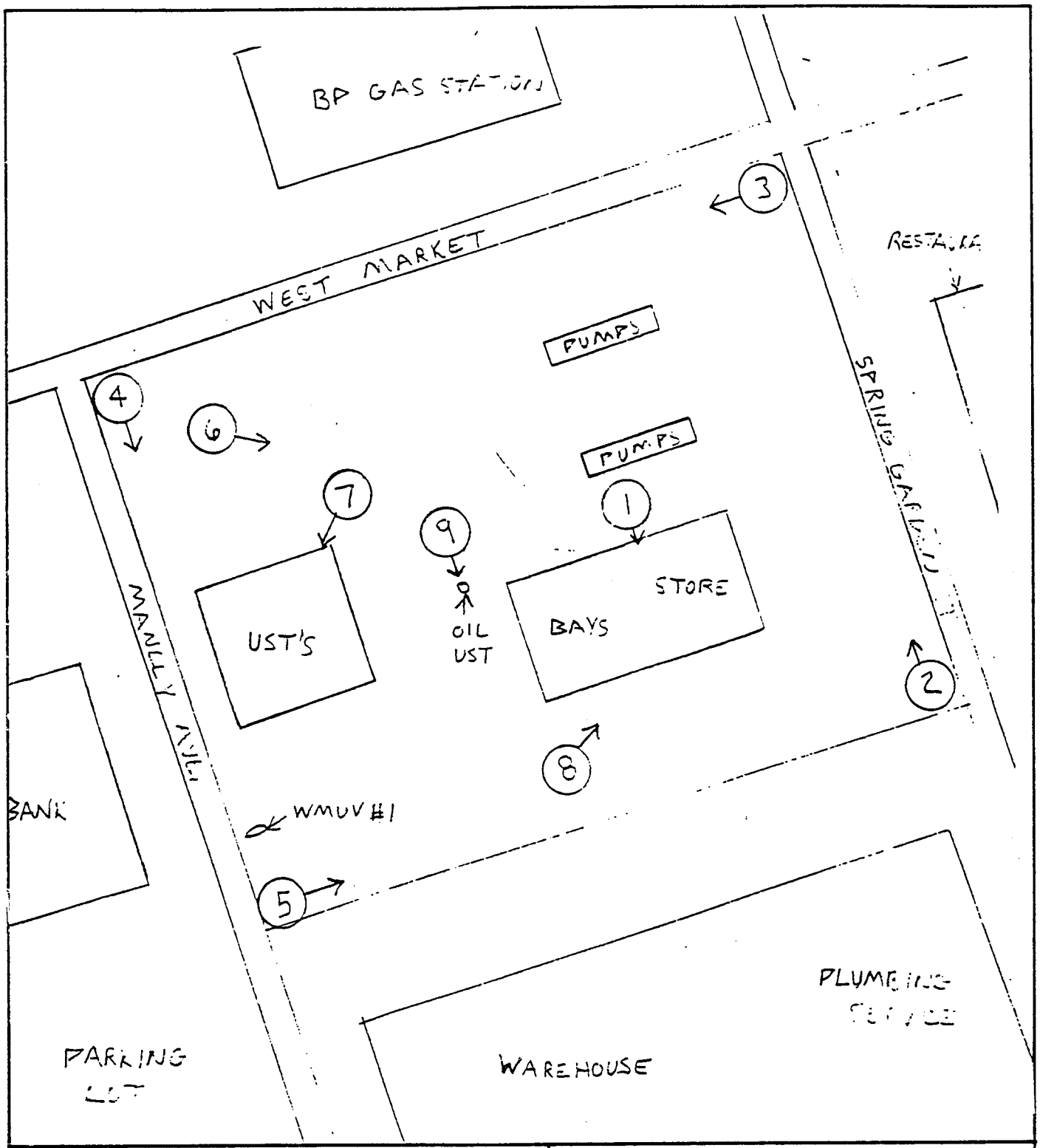
WELL NUMBER	DEPTH TO SCREEN	REFERENCE ELEVATION	DATE MEASURED	DEPTH TO GROUND WATER	WATER TABLE ELEVATION
MW-1	10	96.5	8/20/92	23.45	73.05
			3/25/93	18.77	77.73
			6/11/93	19.23	77.27
MW-2	15	96.56	8/20/92	22.99	73.57
			3/25/93	18.9	77.66
			6/11/93	18.85	77.71
MW-3	15	96.92	8/20/92	24.49	72.43
			3/25/93	20.91	76.01
			6/11/93	20.74	76.18
MW-4	15	97.92	8/20/92	24.5	73.42
			3/25/93	22.62	75.3
			6/11/93	21.36	76.56
MW-5	17	97.24	3/25/93	22.05	75.19
			6/11/93	21.88	75.36
MW-6	17	96.15	3/25/93	21.1	75.05
			6/11/93	20.71	75.44
MW-7	17	98.64	3/25/93	26.6	72.04
			6/11/93	25.61	73.03
DW-8	55	98.0	3/25/93	9.5	88.5
			6/11/93	22.41	75.59

NOTES:
1) NO LIQUID PHASE HYDROCARBONS OBSERVED IN ANY OF THE WELLS.
2) MW-5, MW-6, MW-7 AND DW-8 WERE INSTALLED ON 3/24-26/93.
3) ALL MEASUREMENTS IN FEET

TABLE 4
WATER ANALYSES
EXXON SITE NO.4-3998
4701 WEST MARKET STREET
GREENSBORO, NORTH CAROLINA
DELTA PROJECT NO. 50-92-037

WELL NUMBER	MW-1			MW-2			MW-3			MW-4			MW-5*		MW-6*		MW-7*		DW-8*	
DATE SAMPLED	8/20/92	3/25/93	6/22/93	8/20/92	3/25/93	6/22/93	8/20/92	3/25/93	6/22/93	8/20/92	3/25/93	6/22/93	3/25/93	6/22/93	3/25/93	6/22/93	3/25/93	6/22/93	3/26/93	6/22/93
COMPOUNDS																				
EPA 601																				
1,2-Dichlororethane	<150	<1500	<800	<80	<300	<800	400	<1500	<800	<3	<3	<3	<3	<3.0	<3	<3.0	<3	<3.0	<3	<3.0
1,1,2,2-Tetrachloroethane	<50	<1.0	<300	40	<1.0	<300	110	<1.0	<300	<1	<1.0	<1	<1	<1.0	<1.0	<1.0	13	<1.0	<1.0	<1.0
Chloroform	<50	<1.0	<300	<30	<1.0	<300	<30	<1.0	<300	<1	<1.0	<1	<1	<1.0	<1.0	<1.0	<1.0	<1.0	11	<1.0
ALL EPA 601 COMPOUNDS	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
EPA 602																				
Benzene	5000	3500	4200	1400	2000	8100	11000	9700	13000	<2.0	1.9	1.5	<1.0	<1.0	<1.0	<1.0	1.9	<5.0	<1.0	<1.0
Toluene	35000	21000	18000	4900	7300	40000	41000	35000	50000	<2.0	4.7	<1.0	<1.0	<1.0	<1.0	<1.0	1.9	<5.0	<1.0	<1.0
Ethylbenzene	3900	3100	3400	1600	1200	4700	4500	3600	3900	<2.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	1.9	<5.0	<1.0	<1.0
Xylenes	22000	17000	19000	6000	5900	24000	26000	19000	22000	4	11	16	<1.0	<1.0	<1.0	<1.0	3.4	<5.0	<1.0	<1.0
Total BTEX	65900	44600	44600	13900	16400	76800	84800	67300	88900	4	17.6	17.5	<1.0	<1.0	<1.0	<1.0	9.1	<5.0	<1.0	<1.0
MTBE	<500	<250	<500	<250	<250	<2500	<500	<1000	<2500	<10	<10	<10.0	<10	<10	<10	<10	36.0	<50	<10	<10
EPA 625																				
Phenol	N/A	<6.0	<1.5	<1.5	<3.0	<1.5	N/A	<15	<3.0	N/A	<1.5	N/A	6.2	<1.5	21.3	<1.5	15.1	<1.5	<1.5	<1.5
Naphthalene	N/A	320	216	169	370	369	N/A	440	348	N/A	<1.6	N/A	<1.6	<1.6	5.4	<1.6	3.2	<1.6	<1.6	<1.6
Anthracene	N/A	<7.6	<1.9	<1.9	<3.8	<1.9	N/A	<19	<3.8	N/A	<1.9	N/A	3.2	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9	<1.9
Bis(2-ethylhexy -phthalate)	N/A	<10	2.5	<2.5	<5	56.8	N/A	<25	17.2	N/A	<2.5	N/A	8.5	<2.5	15.2	<2.5	<2.5	<2.5	<2.5	<2.5
Butyl Benzyl Phthalate	N/A	<10	<2.5	<2.5	<10	<2.5	N/A	<25	<5.0	N/A	<2.5	N/A	BDL	<2.5	19.0	<2.5	<2.5	<2.5	<2.5	<2.5
Fluorene	N/A	<7.6	<1.9	<1.9	<7.6	<1.9	N/A	<19	<3.8	N/A	<1.9	N/A	BDL	<1.9	4.0	<1.9	2.5	<1.9	<1.9	<1.9
Phenanthrene	N/A	<21.6	<5.4	<5.4	<21.6	<5.4	N/A	<54	<10.8	N/A	<5.4	N/A	BDL	<5.4	11.1	<5.4	7.8	<5.4	<5.4	<5.4
All other EPA 625 compounds	N/A	BDL	BDL	BDL	BDL	BDL	N/A	BDL	BDL	N/A	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL

Notes:
1) Results in micrograms per liter (ug/l)
2) BDL - Below Detection Limit
3) N/A - Not Analized
4) * - Installed in March 1993



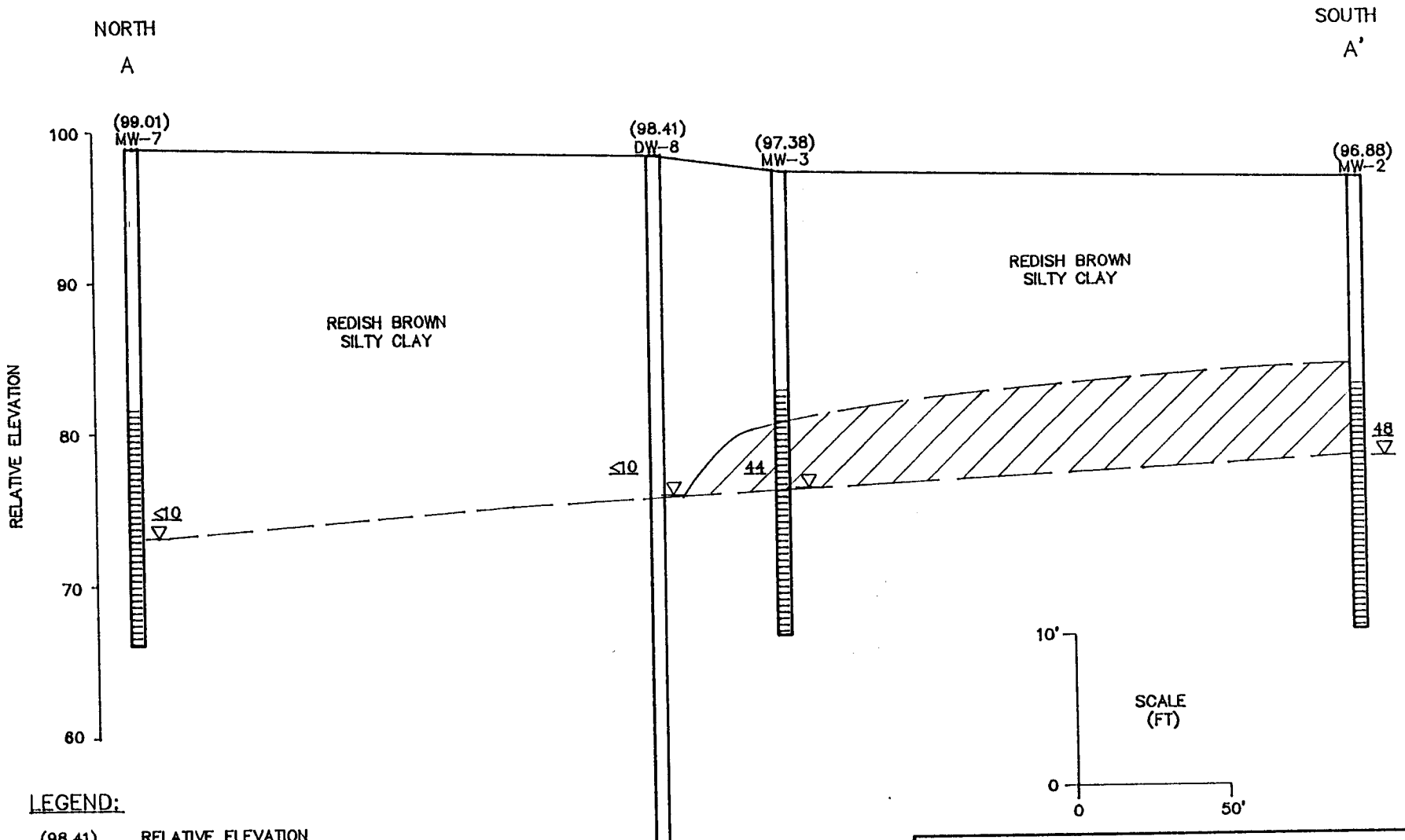
N

NOTE:

THIS MAP ADAPTED FROM PILCO & ASSOCIATES, INC.

Delta
Environmental Consultants, Inc.
Charlotte, North Carolina 28226

FIGURE NO. 1	CLIENT/LOCATION EXXON COMPANY USA GREENSBORO, NC		
DELTA PROJECT NO. 50-92-037	DESCRIPTION VICINITY MAP RAS #4-3998		
DRAWN BY C. HAITHCOX			
REVIEWED BY	DATE 9-30-92	SCALE UNKNOWN	CAD NO. 037-VM

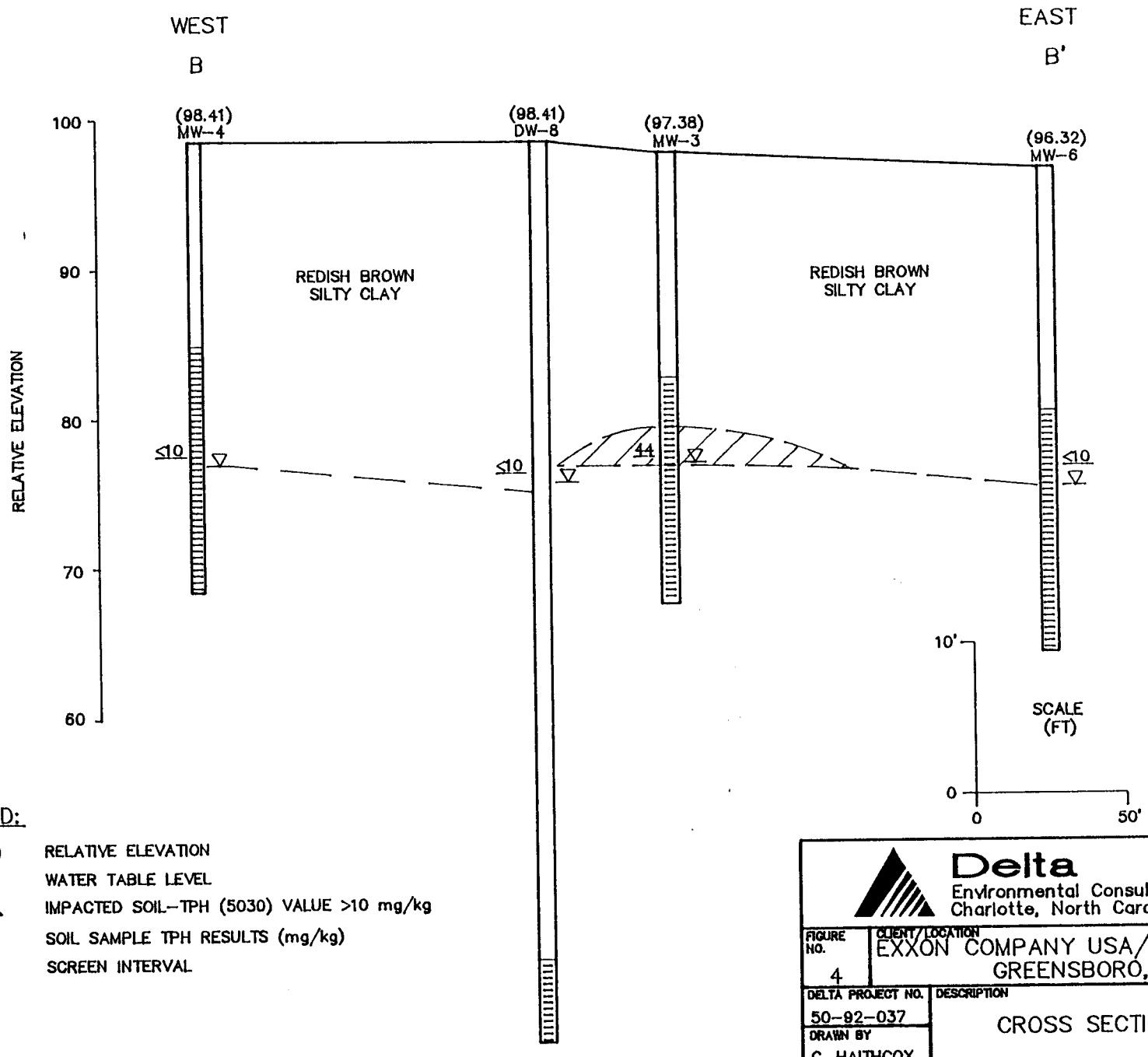


LEGEND:

(98.41)	RELATIVE ELEVATION
▽	WATER TABLE LEVEL
	IMPACTED SOIL–TPH (5030) VALUE >10 mg/kg
44	SOIL SAMPLE TPH RESULTS (mg/kg)
	SCREEN INTERVAL

Delta
Environmental Consultants, Inc.
Charlotte, North Carolina 28226

FIGURE NO. 3	CLIENT/LOCATION EXXON COMPANY, USA/RAS #4-3998 GREENSBORO, NC		
DELTA PROJECT NO. 50-92-037	DESCRIPTION CROSS SECTION A–A'		
DRAWN BY C. HAITHCOX			
REVIEWED BY	DATE 7-19-193	SCALE SHOWN	CAD NO. 037-CS-A

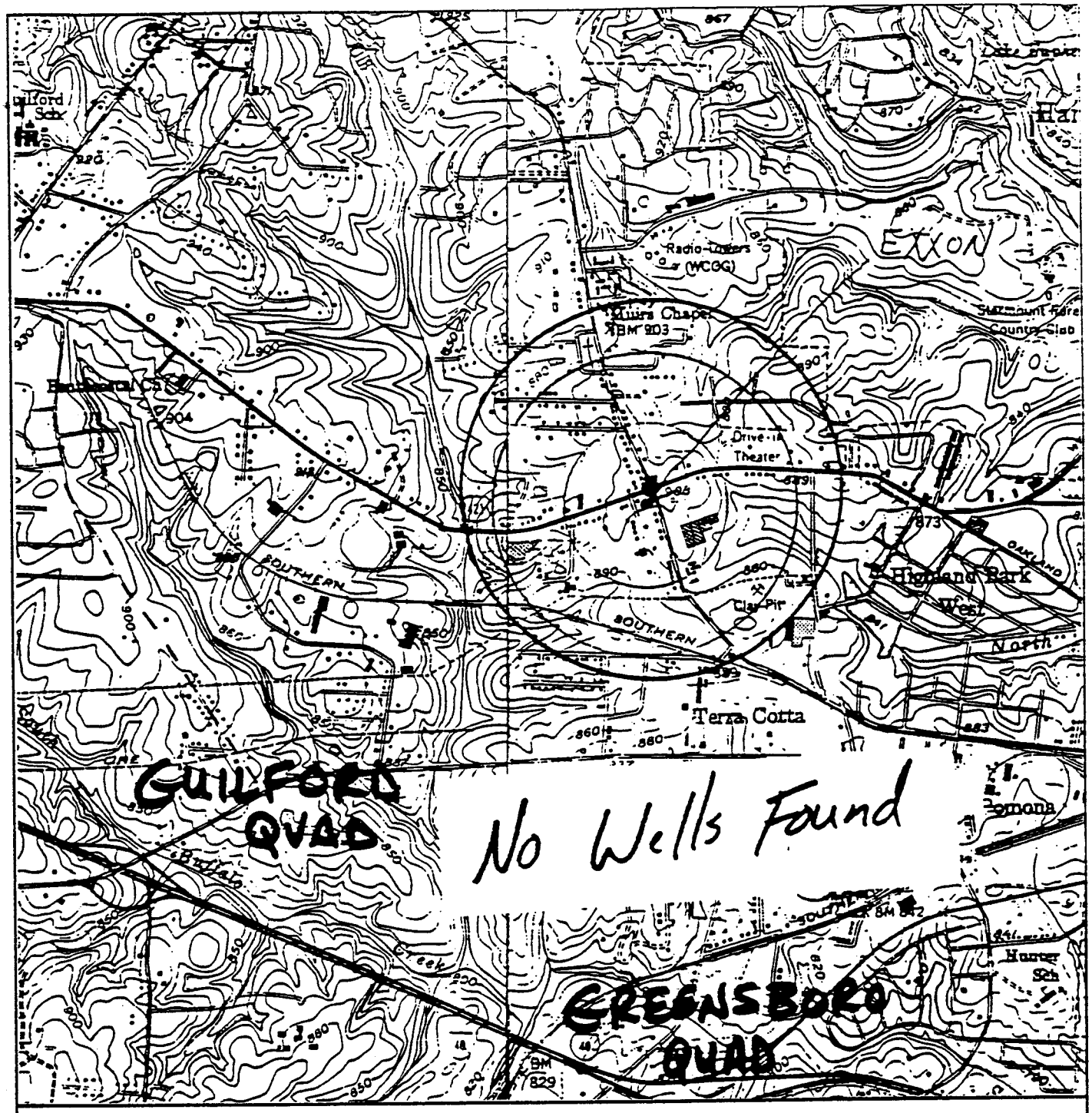


LEGEND:

(98.41)	RELATIVE ELEVATION
▽	WATER TABLE LEVEL
	IMPACTED SOIL-TPH (5030) VALUE >10 mg/kg
44	SOIL SAMPLE TPH RESULTS (mg/kg)
	SCREEN INTERVAL

Delta
Environmental Consultants, Inc.
Charlotte, North Carolina 28226

FIGURE NO. 4	CLIENT/LOCATION EXXON COMPANY USA/RAS #4-3998 GREENSBORO, NC		
DELTA PROJECT NO. 50-92-037	DESCRIPTION CROSS SECTION B-B'		
DRAWN BY C. HAITHCOX			
REVIEWED BY	DATE 7-19-93	SCALE SHOWN	CAD NO. 037-CS-B



GREENSBORO QUAD

N

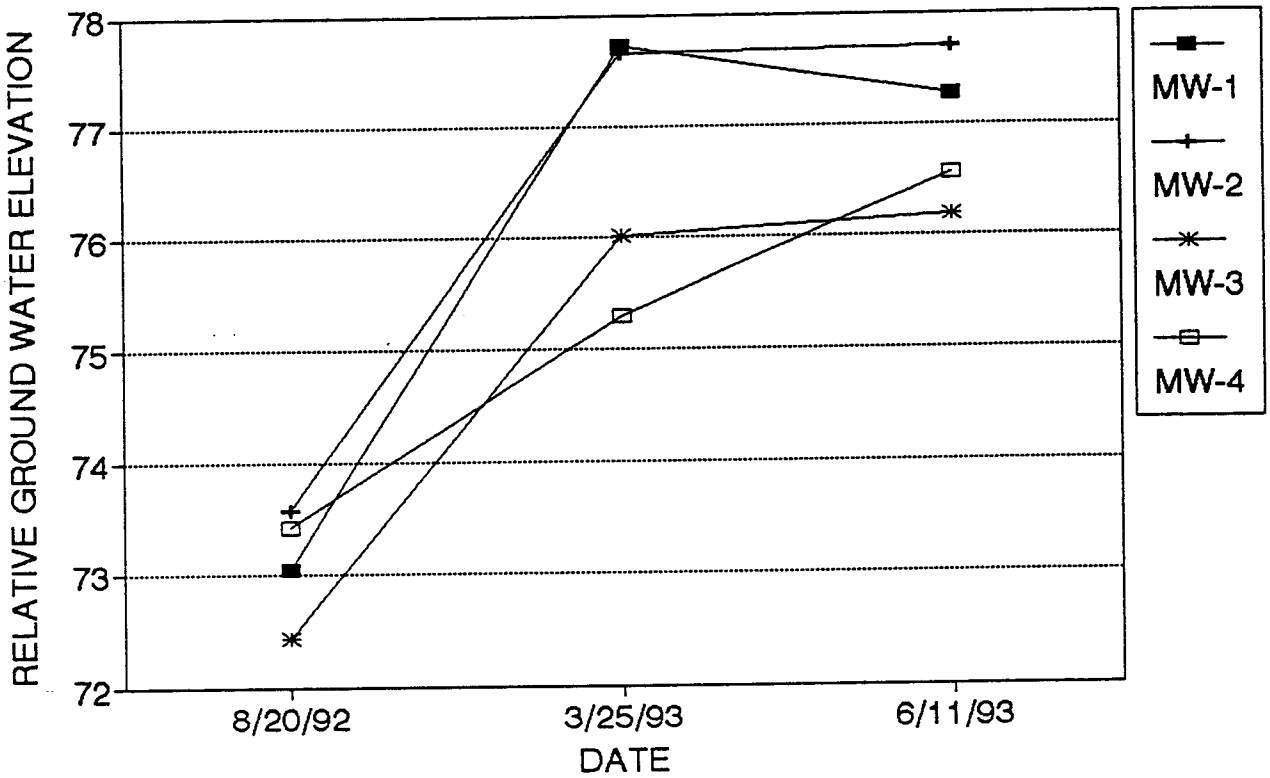
0 1 MILE

SCALE

Delta
Environmental Consultants, Inc.
Charlotte, North Carolina 28226

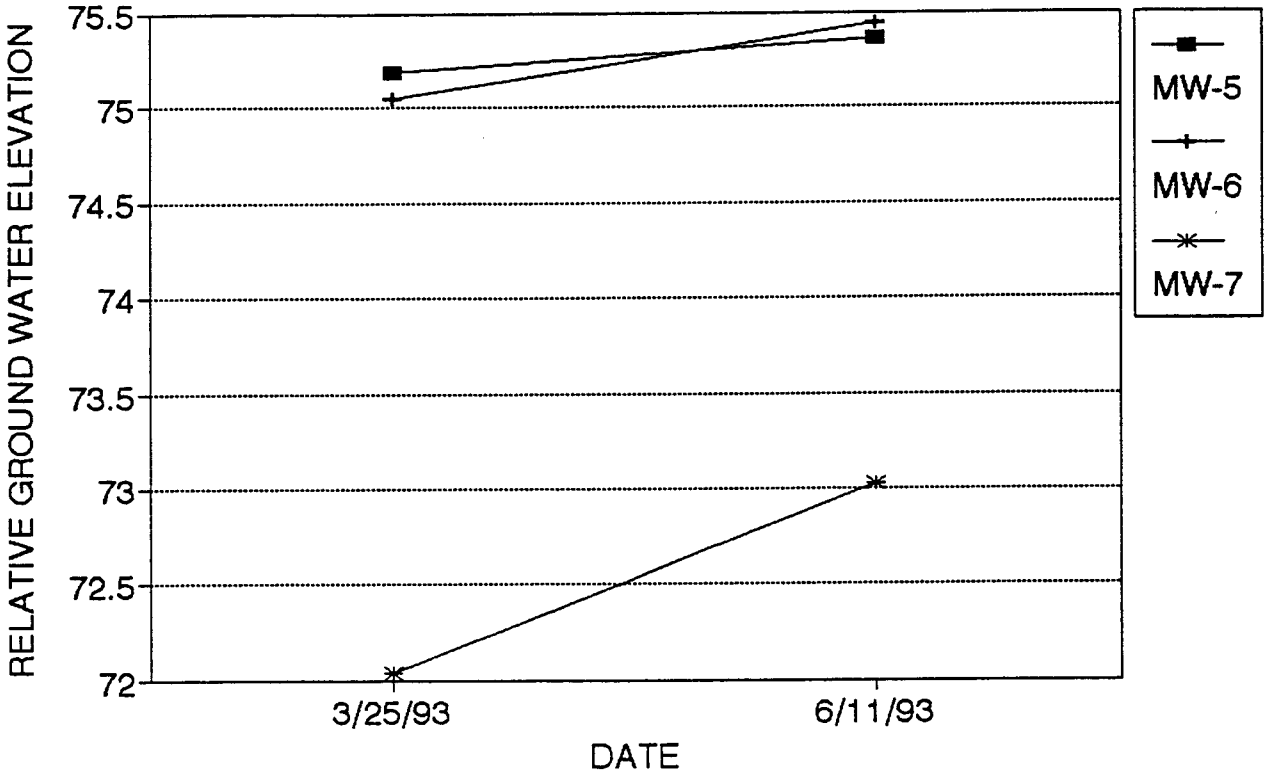
FIGURE NO.	CLIENT/LOCATION
5	EXXON COMPANY USA GREENSBORO, NC

DELTA PROJECT NO.	DESCRIPTION		
50-92-037	SENSITIVE RECEPTOR MAP RAS #4-3998		
DRAWN BY C. HAITHCOX			
REVIEWED BY	DATE 9-30-92	SCALE AS SHOWN	CAD NO. 037-TOPO

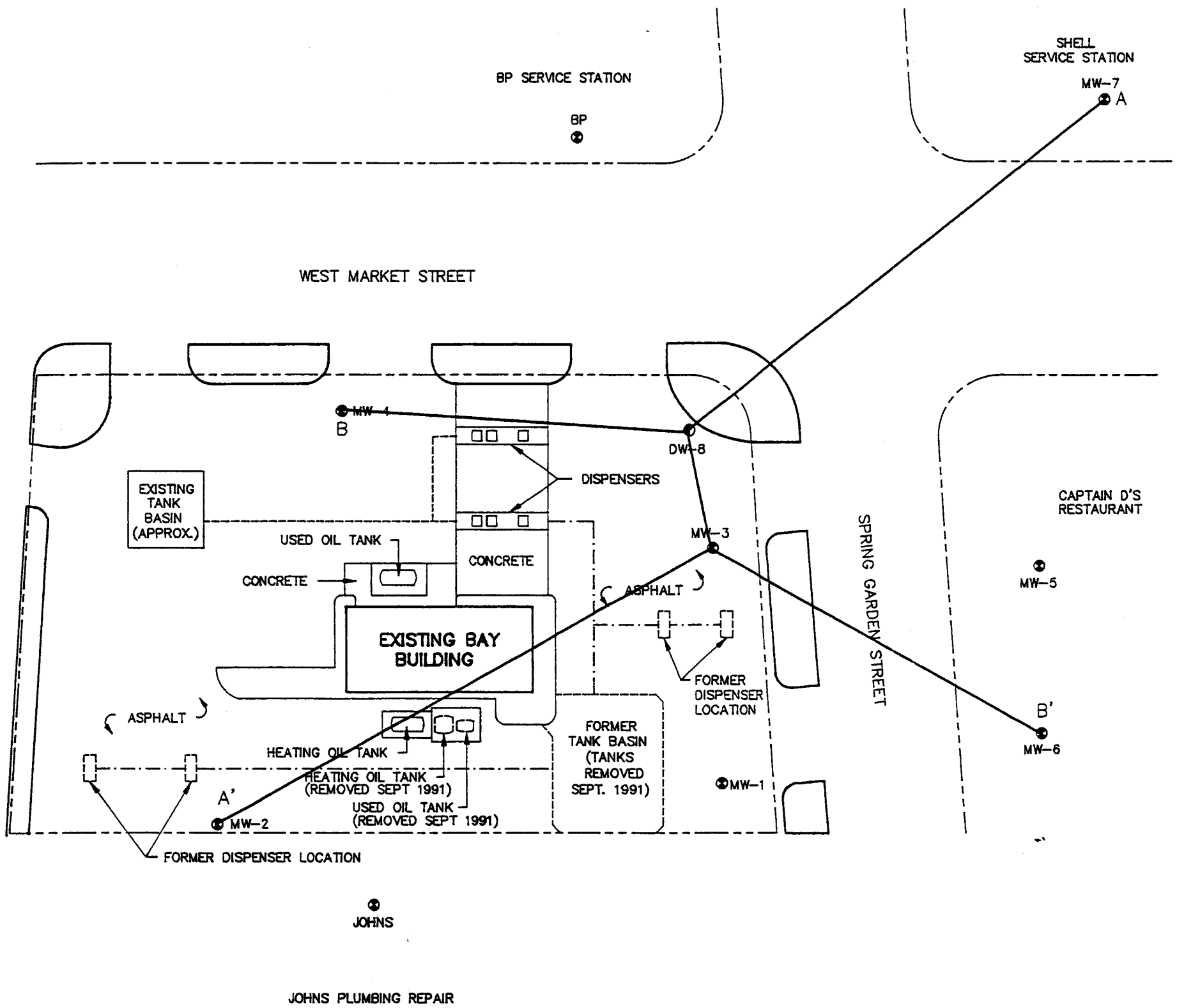


Delta
Environmental Consultants, Inc.
Charlotte, North Carolina 28226

FIGURE NO. 8A	CLIENT/LOCATION EXXON COMPANY GREENSBORO, NC		
DELTA PROJECT NO. 50-92-037	DESCRIPTION HYDROGRAPH FOR MONITORING WELLS 1 – 4		
DRAWN BY C. HAITHCOX			
REVIEWED BY	DATE 7-7-93	SCALE SHOWN	CAD NO. 037-H



Delta Environmental Consultants, Inc. Charlotte, North Carolina 28226			
FIGURE NO. 8B	CLIENT/LOCATION EXXON COMPANY GREENSBORO, NC		
DELTA PROJECT NO. 50-92-037	DESCRIPTION HYDROGRAPH FOR MONITORING WELLS 5 – 7		
DRAWN BY C. HAITHCOX			
REVIEWED BY	DATE 7-7-93	SCALE SHOWN	CAD NO. 037-H



LEGEND:

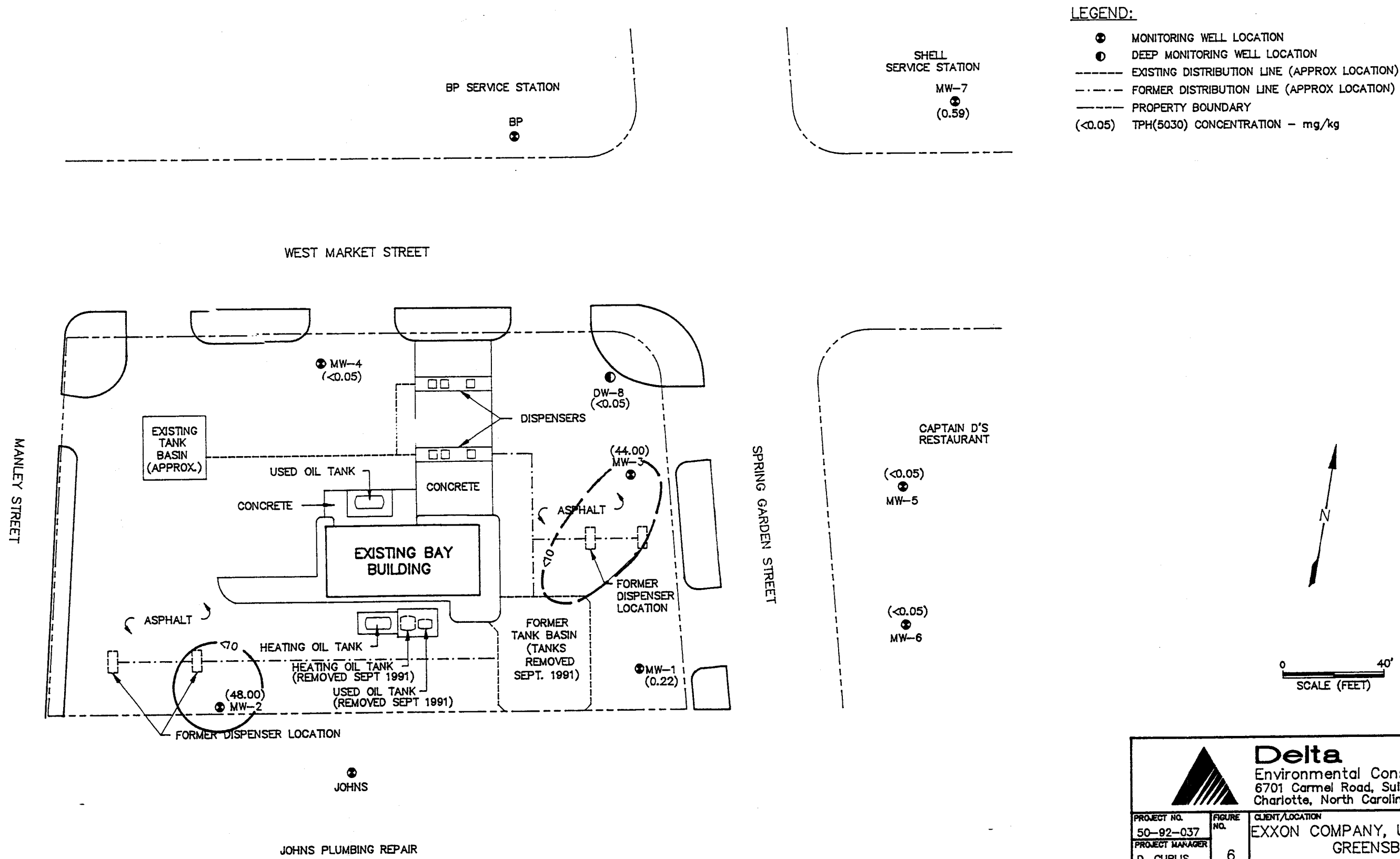
- MONITORING WELL LOCATION
- DEEP MONITORING WELL LOCATION
- EXISTING DISTRIBUTION LINE (APPROX LOCATION)
- FORMER DISTRIBUTION LINE (APPROX LOCATION) – REMOVED SEPT 1991
- PROPERTY BOUNDARY

N

0 40'
SCALE (FEET)

Delta
Environmental Consultants, Inc.
6701 Carmel Road, Suite 200
Charlotte, North Carolina 28226

PROJECT NO. 50-92-037	FIGURE NO. 2	CLIENT/LOCATION EXXON COMPANY, USA GREENSBORO, NC
PROJECT MANAGER D. CURLIS		
DESIGNED BY	DRAWING DESCRIPTION SITE MAP WITH CROSS SECTION LOCATIONS	
DRAWN BY C. GREENE		
REVIEWED BY	DATE 7-7-93	SCALE AS SHOWN / CAD NO. 037-SM / SHEET OF

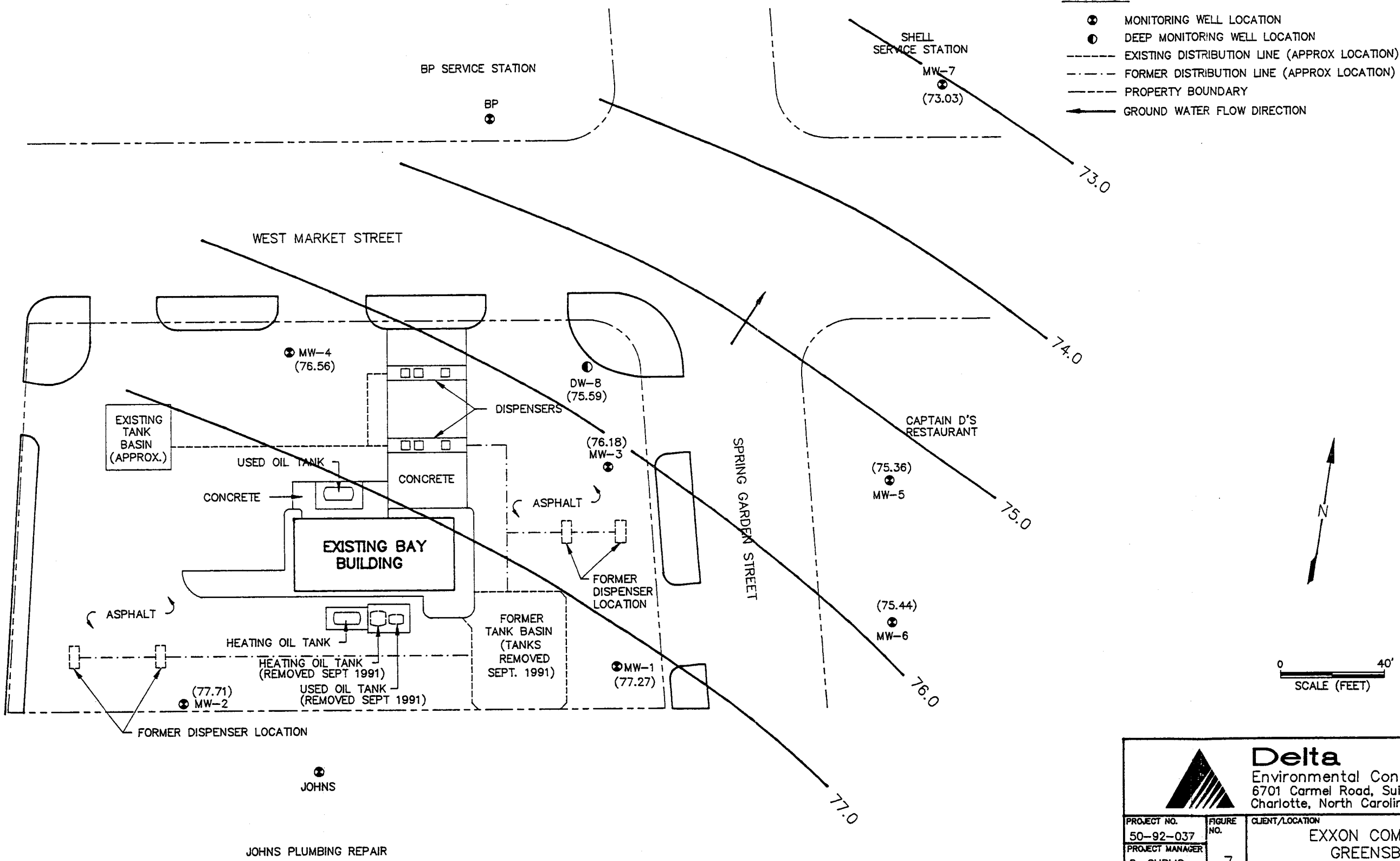


LEGEND:

- MONITORING WELL LOCATION
- DEEP MONITORING WELL LOCATION
- EXISTING DISTRIBUTION LINE (APPROX LOCATION)
- FORMER DISTRIBUTION LINE (APPROX LOCATION) – REMOVED SEPT 1991
- PROPERTY BOUNDARY
- (<0.05) TPH(5030) CONCENTRATION – mg/kg

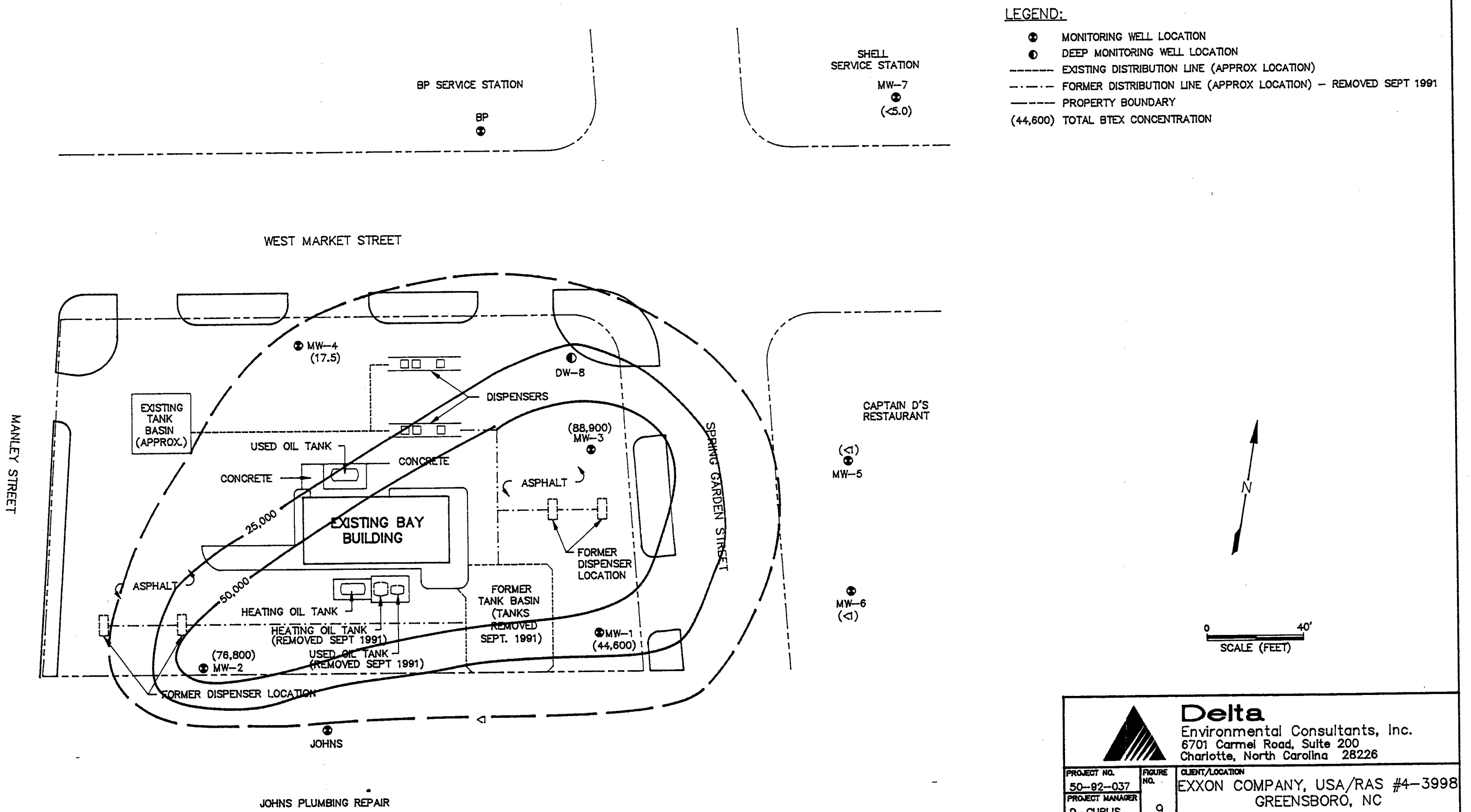
Delta
Environmental Consultants, Inc.
6701 Carmel Road, Suite 200
Charlotte, North Carolina 28226

PROJECT NO. 50-92-037	FIGURE NO. 6	CLIENT/LOCATION EXXON COMPANY, USA/RAS #4-3998 GREENSBORO, NC
PROJECT MANAGER D. CURLIS		
DESIGNED BY	DRAWING DESCRIPTION IMPACTED SOIL CONTOUR MAP	
DRAWN BY C. GREENE		
REVIEWED BY	DATE 7-19-193	SCALE AS SHOWN
	CAD NO. 037-SM	SHEET OF



Delta
Environmental Consultants, Inc.
6701 Carmel Road, Suite 200
Charlotte, North Carolina 28226

PROJECT NO. 50-92-037	FIGURE NO. 7	CLIENT/LOCATION EXXON COMPANY, USA GREENSBORO, NC
PROJECT MANAGER D. CURLIS		
DESIGNED BY	DRAWING DESCRIPTION GROUND WATER CONTOUR MAP (6-11-93)	
DRAWN BY C. GREENE		
REVIEWED BY	DATE 7-7-93	SCALE AS SHOWN / CAD NO. 037-SM / SHEET OF



Delta
Environmental Consultants, Inc.
6701 Carmel Road, Suite 200
Charlotte, North Carolina 28226

PROJECT NO. 50-92-037	FIGURE NO. 9	CLIENT/LOCATION EXXON COMPANY, USA/RAS #4-3998 GREENSBORO, NC
PROJECT MANAGER D. CURLIS		
DESIGNED BY	DRAWING DESCRIPTION DISSOLVED PHASE HYDROCARBON (BTEX) SAMPLED 6-22-93	
DRAWN BY C. GREENE		
REVIEWED BY	DATE 7-19-193	SCALE AS SHOWN / CAD NO. 037-SM / SHEET OF

APPENDICES

APPENDIX A

MONITORING WELL CONSTRUCTION DETAILS/PERMITS

AUG 11 1992

State of North Carolina
Department of Environment, Health and Natural Resources
Winston-Salem Regional Office

James G. Martin, Governor
William W. Cobey, Jr., Secretary

Margaret Plemmons Foster
Regional Manager

DIVISION OF ENVIRONMENTAL MANAGEMENT
GROUNDWATER SECTION

August 11, 1992

Delta Environmental Consultants, Inc.
6701 Carmel Road, Suite 200
Charlotte, NC 28226

SUBJECT: MONITOR WELL CONSTRUCTION
PERMIT NO. 40-1045-WM-0456
GUILFORD COUNTY
FILE NAME: Exxon Company USA RAS #43998

Dear Sir:

In accordance with your application received August 6, 1992, we are forwarding herewith Monitor Well Construction Permit No. 40-1045-WM-0456 for the construction of six monitor wells in the Charlotte Belt Hydrogeologic Unit.

Henceforth, correspondence and data relating to these wells shall be designated as specified in the subject heading above.

This Permit will be effective from the date of its issuance and shall be subject to the conditions and limitations as specified therein.

Sincerely,

Sherri V. Knight

Sherri V. Knight
Groundwater Supervisor

SVK/LDC/ahl
Enclosure
cc: Groundwater Section - Central Office
Guilford County Health Department
Exxon Company, USA
WSRO Files

8025 North Point Boulevard, Suite 100, Winston-Salem, N.C. 27106-3203 • Telephone 919-896-7007 • Fax 919-896-7005

An Equal Opportunity Affirmative Action Employer

NORTH CAROLINA

ENVIRONMENTAL MANAGEMENT COMMISSION

DEPARTMENT OF ENVIRONMENT, HEALTH AND NATURAL RESOURCES

PERMIT FOR THE CONSTRUCTION OF A MONITOR WELL OR WELL SYSTEM

In accordance with the provisions of Article 7, Chapter 87, North Carolina General Statutes, and other applicable Laws, Rules, and Regulations.

PERMISSION IS HEREBY GRANTED TO

Delta Environmental Consultants, Inc.

FOR THE CONSTRUCTION OF SIX MONITOR WELLS in the Charlotte Belt Hydrogeologic unit located at 4701 W. Market Street, Greensboro, North Carolina in Guilford County in accordance with the application dated July 29, 1992, and in conformity with the specifications and supporting data, all of which are filed with the Department of Environment, Health and Natural Resources and are considered a part of this Permit.

This Permit is for well construction only, and does not waive any provisions or requirements or any other applicable laws or regulations.

Construction of a well under this Permit shall be in compliance with the North Carolina Well Construction Regulations and Standards, and any other laws and regulations pertaining to well construction.

This Permit will be effective from the date of its issuance until February 11, 1993, and shall be subject to other specified conditions, limitations or exceptions as follows:

1. A permanent identification plate with the date of construction, depth of well, screen interval, depth of grout, drilling contractor, and his registration number shall be attached to the well head or the outer protective steel casing.

2. The well construction completion form and all water quality data are to be submitted to the Central Office of the Groundwater Section P. O. Box 29535, Raleigh, North Carolina 27611.

3. All laboratory analysis of Groundwater samples collected from the permitted monitor wells are to be submitted to North Carolina Department of Environment, Health, and Natural Resources, Groundwater Section, P. O. Box 29535, Raleigh, N. C. 27611 with a copy to the North Carolina Department of Environment, Health and Natural Resources, Groundwater Section, 8025 North Point Boulevard, Suite 100, Winston-Salem, N. C. 27106 within 60 days of well completion, and quarterly thereafter.

4. All additional investigative findings in relation to the pollution sources being monitored, as indicated under "Additional Information" of form GW-22M ("Item J" of form GW-22B) of permit application, are to be submitted to North Carolina Department of Environment, Health and Natural Resources, Groundwater Section, P. O. Box 29535, Raleigh, N. C. 27611 with a copy to North Carolina Department of Environment, Health, and Natural Resources, Groundwater Section, 8025 North Point Boulevard, Suite 100, Winston-Salem, N. C. 27106 within 60 days of well completion, and quarterly thereafter.

5. The well shall be afforded a means of protection against vandalism, damage, or unauthorized use.

6. When any monitor well is no longer useful for its intended purpose, it shall be abandoned in compliance with North Carolina Administrative Code 15. 2C.0113 and a well abandonment form sent to the North Carolina Department of Environment, Health, and Natural Resources, Groundwater Section, P. O. Box 29535, Raleigh, N. C. 27611 with a copy to North Carolina Department of Environment, Health and Natural Resources, Groundwater Section, 8025 North Point Boulevard, Suite 100, Winston-Salem, N. C. 27106.

7. The monitor well shall be constructed in accordance with the Groundwater Section's recommended construction details as outlined in attachment #1.

8. A county monitor well construction permit shall be required by the county health departments where applicable. In Forsyth County, contact the Forsyth County Health Department, Division of Environmental Health, P.O. Box 686, Winston-Salem, NC 27102-0686.

Permit issued this the 11th day of August 1992

FOR THE NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION

For Larry D. Coble, Regional Supervisor
Division of Environmental Management

By Authority of the Environmental Management Commission

Permit No. 40-1045-WM-0456

North Carolina - Department of Environment, Health, and Natural Resources
Division of Environmental Management - Groundwater Section
P.O. Box 29535 - Raleigh, N.C. 27626-0535
Phone (919) 733-3221

FOR OFFICE USE ONLY
QUAD. NO. _____ SERIAL NO. _____
Lat. _____ Long. _____ RO _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

SEP 15 1992

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR: Performance Design Systems

DRILLER REGISTRATION NUMBER: 1337

STATE WELL CONSTRUCTION PERMIT NUMBER: 40-1045-WM-0456

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: Greensboro County: Guilford
4701 W. Market St.
(Road, Community, or Subdivision and Lot No.)

2. OWNER Exxon
ADDRESS P.O. Box 30451
(Street or Route No.)
Charlotte, NC 28230
City or Town State Zip Code

3. DATE DRILLED 8-13-92 USE OF WELL Monitoring
4. TOTAL DEPTH 30.0'
5. CUTTINGS COLLECTED YES [X] NO [ ]
6. DOES WELL REPLACE EXISTING WELL? YES [ ] NO [X]
7. STATIC WATER LEVEL Below Top of Casing: _____ FT.
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS 0.0 FT. Above Land Surface*

* Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118

9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): N/A
11. CHLORINATION: Type N/A Amount _____
12. CASING:

	Depth From	Depth To	Ft.	Diameter	Wall Thickness or Weight/Ft.	Material
	0.0	15.0		2.0"	SCH 40	PVC

13. GROUT:

	Depth From	Depth To	Ft.	Material	Method
	0.0	14.0		Portland/Bent.	Slurry

14. SCREEN:

	Depth From	Depth To	Ft	Diameter	in.	Slot Size	in.	Material
	15.0	30.0		2.0		.010		PVC

15. SAND/GRAVEL PACK:

	Depth From	Depth To	Ft.	Size	Material
	14.0'	30.0		20/60	Fine silica sand

16. REMARKS: MW #1 BENTONITE SEAL FROM 12.0' TO 14.0'

DEPTH

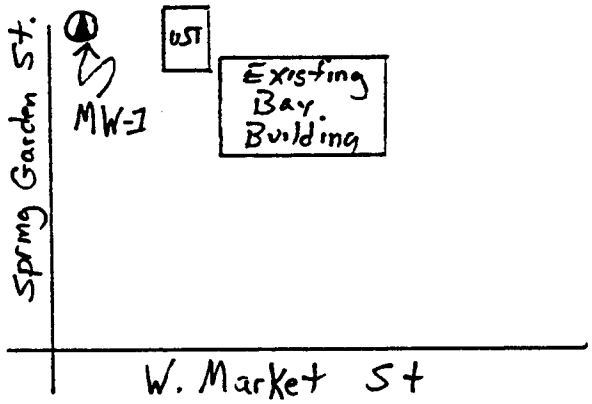
From	To
0.0'	30.0'

DRILLING LOG

Formation Description
Redish brown silty clay

If additional space is needed use back of form

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)



I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

George Flute 8-25-92
SIGNATURE OF CONTRACTOR OR AGENT DATE

Submit original to Division of Environmental Management and copy to well owner.

GW-1 REV. 9/91

North Carolina - Department of Environment, Health, and Natural Resources
Division of Environmental Management - Groundwater Section
P.O. Box 29535 - Raleigh, N.C. 27626-0535
Phone (919) 733-3221

FOR OFFICE USE ONLY
QUAD. NO. _____ SERIAL NO. _____
Lat. _____ Long. _____ RO _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent.

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR: Performance Design Systems

DRILLER REGISTRATION NUMBER: 1337

STATE WELL CONSTRUCTION PERMIT NUMBER: 40-1045-WM-0456

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: Greensboro County: Guilford
4701 W. Market St.
(Road, Community, or Subdivision and Lot No.)

2. OWNER Exxon
ADDRESS P.O. Box 30451
(Street or Route No.)
Charlotte NC 28230
City or Town State Zip Code

3. DATE DRILLED 8-13-92 USE OF WELL Monitoring
4. TOTAL DEPTH 35.0'
5. CUTTINGS COLLECTED YES [X] NO [ ]
6. DOES WELL REPLACE EXISTING WELL? YES [ ] NO [X]
7. STATIC WATER LEVEL Below Top of Casing: N/A FT.
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS 0.0 FT. Above Land Surface*

* Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118

9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): N/A
11. CHLORINATION: Type N//A Amount _____

DEPTH From	DEPTH To	DRILLING LOG Formation Description
0.0'	35.0'	Redish brown silty clay

If additional space is needed use back of form

12. CASING:

	Depth From	Depth To	Diameter	Wall Thickness or Weight/Ft.	Material
	0.0	15.0	2.0"	SCH. 40	PVC

13. GROUT:

	Depth From	Depth To	Material	Method
	0.0	14.0	Portland Cemt./Bent	Slurry

14. SCREEN:

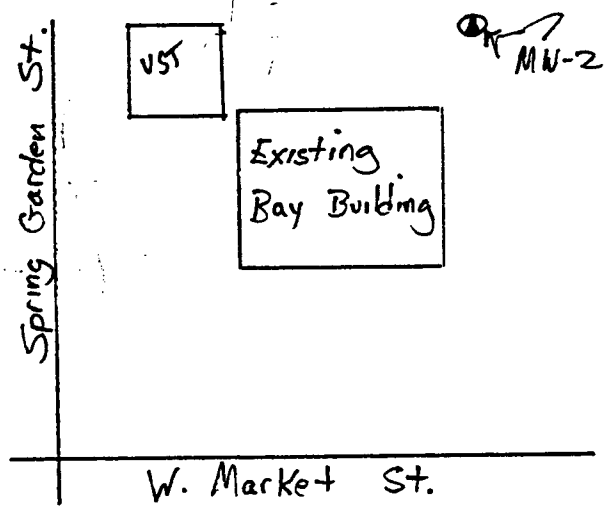
	Depth From	Depth To	Diameter	Slot Size	Material
	15.0	35.0	2.0 in.	.010 in.	PVC
			in.	in.	
			in.	in.	

15. SAND/GRAVEL PACK:

	Depth From	Depth To	Size	Material
	14.0	35.0	20/60	Silica sand

16. REMARKS: MW-2 BENTONITE SEAL FROM 12.0' to 14.0'

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)



I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT 8-25-92 DATE

Submit original to Division of Environmental Management and copy to well owner.

GW-1 REV. 9/91

North Carolina - Department of Environment, Health, and Natural Resources
Division of Environmental Management - Groundwater Section
P.O. Box 29535 - Raleigh, N.C. 27626-0535
Phone (919) 733-3221

FOR OFFICE USE ONLY
QUAD. NO. _____ SERIAL NO. _____
Lat. _____ Long. _____ RO _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR: Performance Design Systems

DRILLER REGISTRATION NUMBER: 1337

STATE WELL CONSTRUCTION PERMIT NUMBER: 40-1045-WM-0456

1. WELL LOCATION: (Show sketch of the location below)
   Nearest Town: Greensboro County: Guilford
   4701 W. Market St.
   (Road, Community, or Subdivision and Lot No.)
2. OWNER Exxon
   ADDRESS P.O. Box 30451
   (Street or Route No.)
   Charlotte N.C. 28230
   City or Town State Zip Code
3. DATE DRILLED 8-14-92 USE OF WELL Monitoring
4. TOTAL DEPTH 30.0'
5. CUTTINGS COLLECTED YES [X] NO [ ]
6. DOES WELL REPLACE EXISTING WELL? YES [ ] NO [X]
7. STATIC WATER LEVEL Below Top of Casing: N/A FT.
   (Use "+" if Above Top of Casing)
8. TOP OF CASING IS 0.0 FT. Above Land Surface*

* Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118

9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): N/A
11. CHLORINATION: Type N/A Amount _____
12. CASING:

	Depth From	Depth To	Diameter	Wall Thickness or Weight/Ft.	Material
	0.0	15.0	2.0"	SCH 40	PVC

13. GROUT:

	Depth From	Depth To	Material	Method
	0.0	14.0	Portland/ Bent.	Slurry

14. SCREEN:

	Depth From	Depth To	Diameter	Slot Size	Material
	15.0	30.0	2.0 in.	.010 in.	PVC
			in.	in.	
			in.	in.	

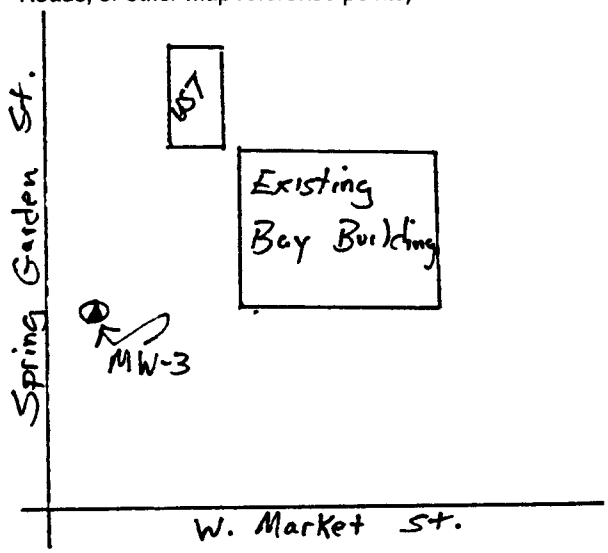
15. SAND/GRAVEL PACK:

	Depth From	Depth To	Size	Material
	14.0	30.0	20/60	Silica Sand

DEPTH From	DEPTH To	DRILLING LOG Formation Description
0.0	30.0	Redish brown silty clay

If additional space is needed use back of form

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)



16. REMARKS: MW-3 BENTONITE SEAL FROM 12.0 to 14.0 feet

I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

George Fluster 8-25-92
SIGNATURE OF CONTRACTOR OR AGENT DATE

Submit original to Division of Environmental Management and copy to well owner.

GW-1 REV. 9/91

North Carolina - Department of Environment, Health, and Natural Resources
Division of Environmental Management - Groundwater Section
P.O. Box 29535 - Raleigh, N.C. 27626-0535
Phone (919) 733-3221

FOR OFFICE USE ONLY
QUAD. NO. _____ SERIAL NO. _____
Lat. _____ Long. _____ RO _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR: Performance Design Systems

DRILLER REGISTRATION NUMBER: 1337

STATE WELL CONSTRUCTION PERMIT NUMBER: 40-1045-WM-0456

1. WELL LOCATION: (Show sketch of the location below)
   Nearest Town: Greensboro County: Guilford
   4701 W. Market St.
   (Road, Community, or Subdivision and Lot No.)
2. OWNER Exxon
   ADDRESS P.O. Box 30451
   (Street or Route No.)
   Charlotte NC 28230
   City or Town State Zip Code
3. DATE DRILLED 8-14-92 USE OF WELL MOnitoring
4. TOTAL DEPTH 30.0'
5. CUTTINGS COLLECTED YES [X] NO [ ]
6. DOES WELL REPLACE EXISTING WELL? YES [ ] NO [X]
7. STATIC WATER LEVEL Below Top of Casing: N/A FT.
   (Use "+" if Above Top of Casing)
8. TOP OF CASING IS 0.0 FT. Above Land Surface*

* Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118

9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): N/A
11. CHLORINATION: Type N/A Amount _____
12. CASING:

	Depth From	Depth To	Diameter	Wall Thickness or Weight/Ft.	Material
	0.0	15.0	2.0	SCH 40	PVC

13. GROUT:

	Depth From	Depth To	Material	Method
	0.0	14.0	Portland Cem/Bent.	Slurry

14. SCREEN:

	Depth From	Depth To	Diameter	Slot Size	Material
	15.0	30.0	2.0 in.	.010 in.	PVC
			in.	in.	
			in.	in.	

15. SAND/GRAVEL PACK:

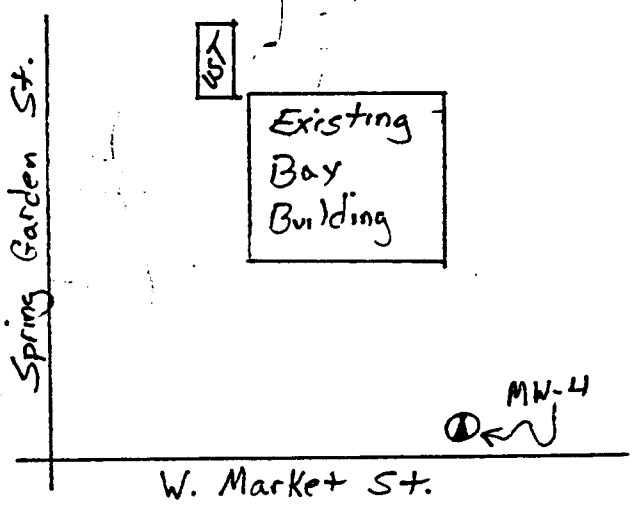
	Depth From	Depth To	Size	Material
	14.0	30.0	20/60	Silica Sand

16. REMARKS: MW-4 Bentonite seal from 12.0 to 14.0 feet

DEPTH From - To	DRILLING LOG Formation Description
0.0 - 30.0	Redish browh silty clay

If additional space is needed use back of form

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)



I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

George Slater 8-25-92
SIGNATURE OF CONTRACTOR OR AGENT DATE

GW-1 REV. 9/91

Submit original to Division of Environmental Management and copy to well owner.

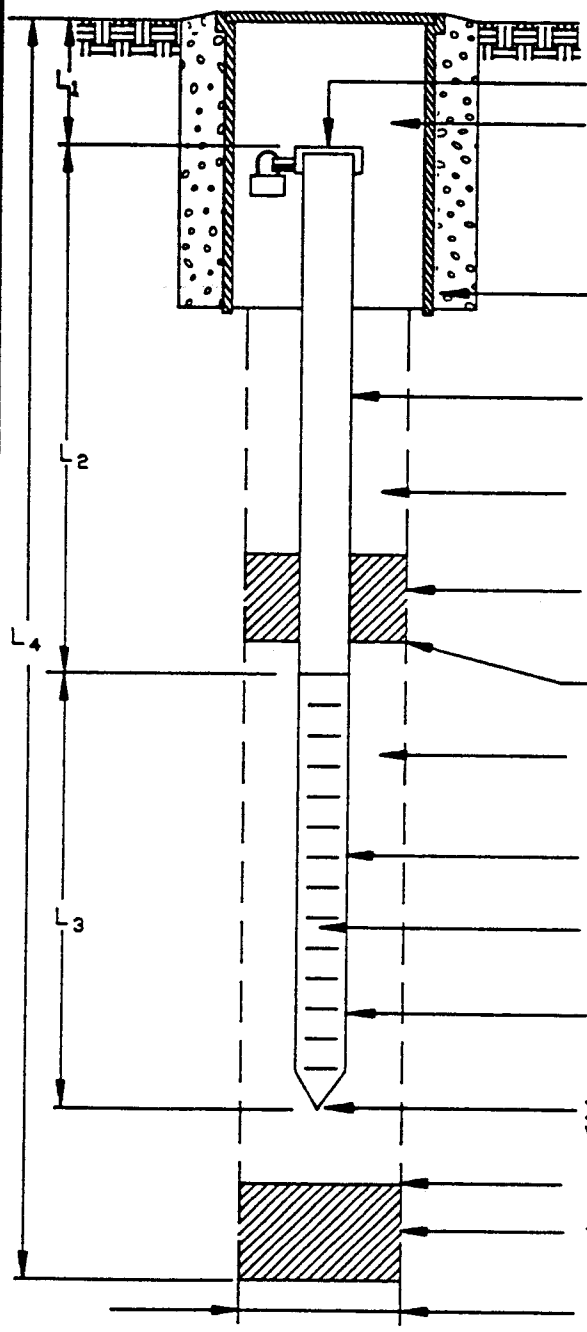
INSTALLATION OF FLUSH GRADE MONITORING WELL

PROJECT: Exxon U.S.A. Greensboro, NC

MONITORING WELL NO. MW-5

JOB NO. 50-92-037.01

TOP OF RISER ELEVATION: _____



WATER-TIGHT CAP	
FLUSH GRADE WELL CONSTRUCTION	
DIAMETER & MATERIAL	8"Steel Manhole Cover
TOTAL LENGTH	
LENGTH ABOVE GROUND	0
THICKNESS & TYPE OF SEAL	Cement to Surface
DIAMETER, MATERIAL & JOINT TYPE OF RISER PIPE	2" Sch 40 PVC Flush Thread
TYPE OF BACKFILL AROUND RISER	Neat cement Grout
THICKNESS & TYPE OF SEAL	2' Bentonite Pellets
DISTANCE OF FILTER SAND ABOVE TOP OF SCREEN	2'
TYPE OF FILTER AROUND SCREEN	Medium washed sand
MONITORING WELL MATERIAL	PVC
SCREEN GAUGE OR SIZE OF OPENING (SLOT SIZE)	0.01"(#10 Slot)
DIAMETER & LENGTH OF SCREEN	2" x 15'
DEPTH TO THE BOTTOM OF MONITORING WELL	32'
DEPTH TO BOTTOM OF FILTER SAND	32'
THICKNESS & TYPE OF SEAL	None
DIAMETER OF BOREHOLE	6.25"

L_1 = 0.5 FT
L_2 = 17 FT
L_3 = 15 FT
L_4 = 32 FT

MONITORING WELL WATER LEVEL MEASUREMENTS		
DATE	TIME	WATER LEVEL *

(*) DEPTH BELOW TOP OF RISER BOX _____

INSTALLATION COMPLETED:
DATE: 3-29-93
TIME: _____

Delta Environmental Consultants, Inc.

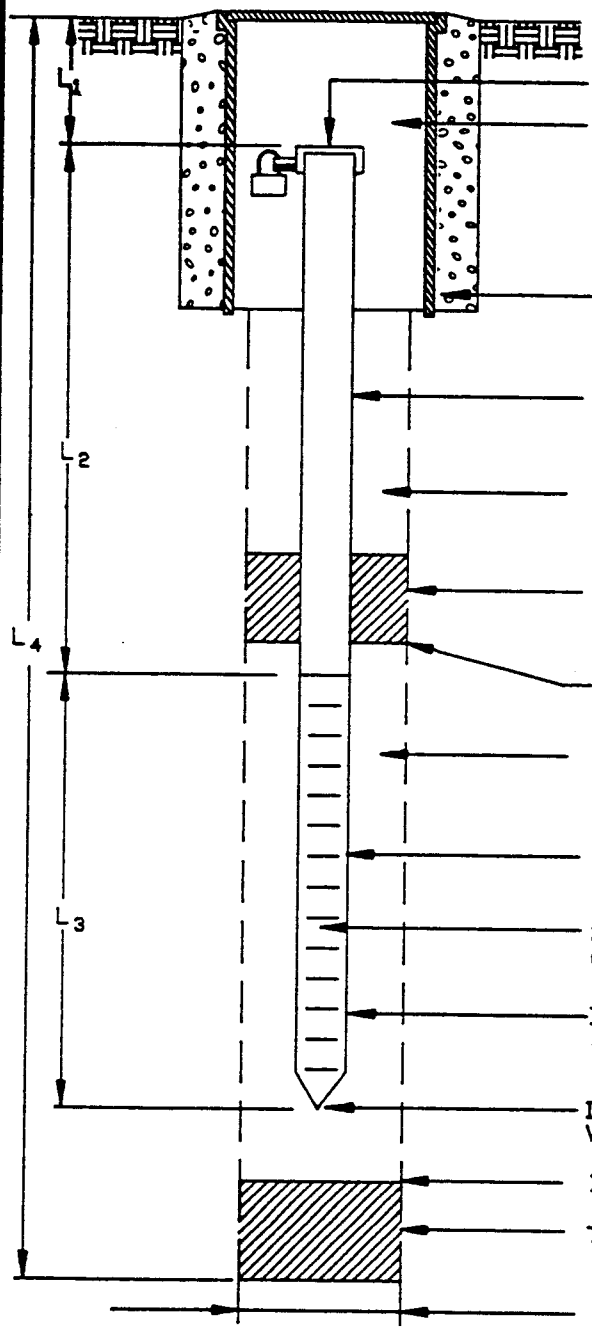
INSTALLATION OF FLUSH GRADE MONITORING WELL

PROJECT: Exxon U.S.A. Greensboro, NC

MONITORING WELL NO. MW-6

JOB NO. 50-92-037.01

TOP OF RISER ELEVATION: _____



WATER-TIGHT CAP	
FLUSH GRADE WELL CONSTRUCTION	
DIAMETER & MATERIAL	8"Steel Manhole Cover
TOTAL LENGTH	
LENGTH ABOVE GROUND	0
THICKNESS & TYPE OF SEAL	Cement to Surface
DIAMETER, MATERIAL & JOINT TYPE OF RISER PIPE	2" Sch 40 PVC Flush Thread
TYPE OF BACKFILL AROUND RISER	Neat cement Grout
THICKNESS & TYPE OF SEAL	2' Bentonite Pellets
DISTANCE OF FILTER SAND ABOVE TOP OF SCREEN	2'
TYPE OF FILTER AROUND SCREEN	Medium washed sand
MONITORING WELL MATERIAL	PVC
SCREEN GAUGE OR SIZE OF OPENING (SLOT SIZE)	0.01"(#10 Slot)
DIAMETER & LENGTH OF SCREEN	2" x 15'
DEPTH TO THE BOTTOM OF MONITORING WELL	32'
DEPTH TO BOTTOM OF FILTER SAND	32'
THICKNESS & TYPE OF SEAL	None
DIAMETER OF BOREHOLE	6.25"

L_1 = 0.5 FT
L_2 = 17 FT
L_3 = 15 FT
L_4 = 32 FT

MONITORING WELL WATER LEVEL MEASUREMENTS		
DATE	TIME	WATER LEVEL *

(*) DEPTH BELOW TOP OF RISER BOX _____

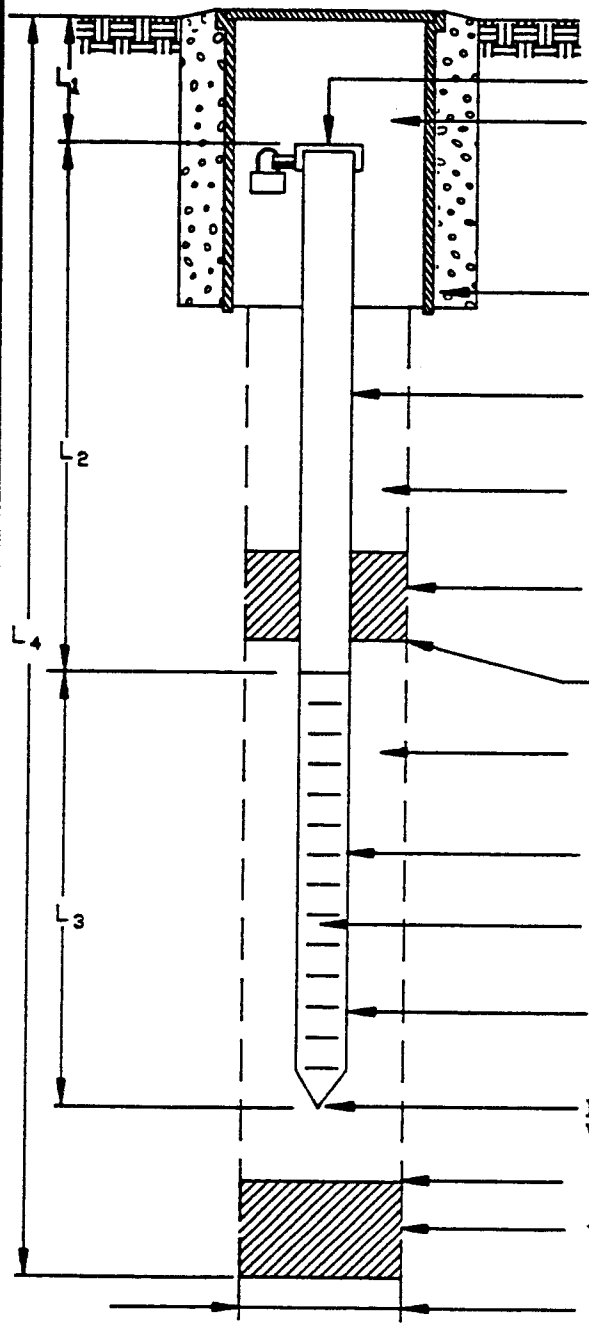
INSTALLATION COMPLETED:
DATE: 3-29-93
TIME: _____

Delta Environmental Consultants, Inc.

INSTALLATION OF FLUSH GRADE MONITORING WELL

PROJECT: Exxon U.S.A. Greensboro, NC MONITORING WELL NO. MW-7

JOB NO. 50-92-037.01 TOP OF RISER ELEVATION: _____



WATER-TIGHT CAP	
FLUSH GRADE WELL CONSTRUCTION	
DIAMETER & MATERIAL	8"Steel Manhole Cover
TOTAL LENGTH	
LENGTH ABOVE GROUND	0
THICKNESS & TYPE OF SEAL	Cement to Surface
DIAMETER, MATERIAL & JOINT TYPE OF RISER PIPE	2" Sch 40 PVC Flush Thread
TYPE OF BACKFILL AROUND RISER	Neat cement Grout
THICKNESS & TYPE OF SEAL	2' Bentonite Pellets
DISTANCE OF FILTER SAND ABOVE TOP OF SCREEN	2'
TYPE OF FILTER AROUND SCREEN	Medium washed sand
MONITORING WELL MATERIAL	PVC
SCREEN GAUGE OR SIZE OF OPENING (SLOT SIZE)	0.01"(#10 Slot)
DIAMETER & LENGTH OF SCREEN	2" x 15'
DEPTH TO THE BOTTOM OF MONITORING WELL	32'
DEPTH TO BOTTOM OF FILTER SAND	32'
THICKNESS & TYPE OF SEAL	None
DIAMETER OF BOREHOLE	6.25"

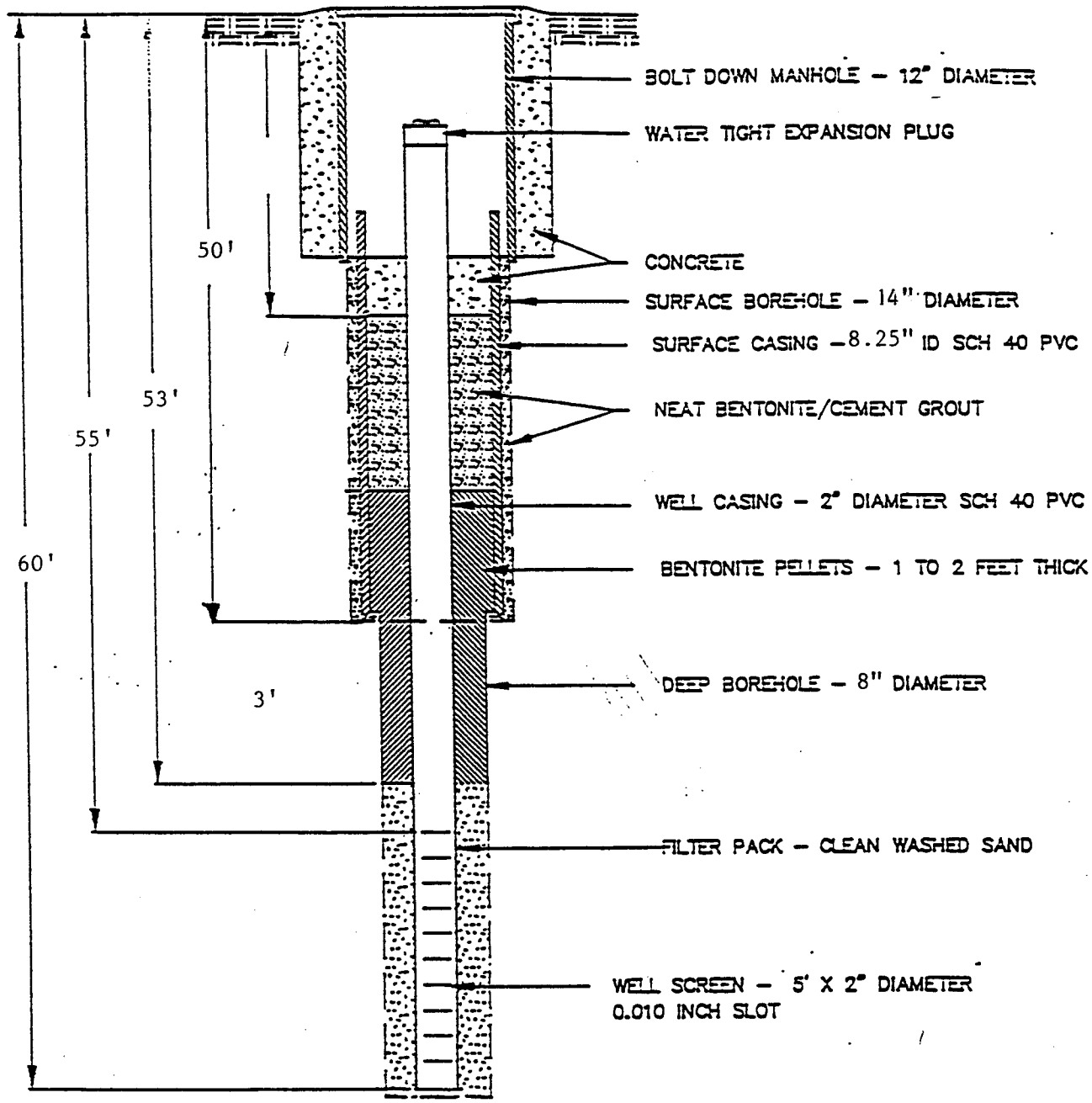
L_1 = 0.5 FT
L_2 = 17 FT
L_3 = 15 FT
L_4 = 32 FT

MONITORING WELL WATER LEVEL MEASUREMENTS		
DATE	TIME	WATER LEVEL *

(*) DEPTH BELOW TOP OF RISER BOX _____

INSTALLATION COMPLETED:
DATE: 3-29-93
TIME: _____

Delta Environmental Consultants, Inc.



NOTE: DRAWING NOT TO SCALE

FIGURE
INSTALLED DETAIL MONITORING WELL

DW-8

PROJECT NO		DRAWN BY C.B.G.	Delta Environmental Consultants, Inc.
DATE 7-15-91	CAD NO. 027-IDMW	REVIEW BY	

Performance
DESIGN SYSTEMS

P.O. BOX 26413 • CHARLOTTE, N.C. 28221 • (704) 335-8845

Location: Exxon Station #43998
4701 W. Market St.
Client: Delta Environmental
Project#: 50-92-037.01

Driller: Roy Wilcox
Drill Crew: Chris
Boring Date: 8-13-92
Boring #: MW #1

Method: Hammer adv.____, Thru auger X, Rotary ____. Split Spoon X, Shelby Tube ____.

Static water level 25.0

Sample	Sample Depth	N Value	Sample Type	Water Presence	Description Remarks
	0.0-3.0		post holed	No	Redish silty clay
1	10.0-12.0		SS	No	Redish silty clay
2	20.0-22.0		SS	Moist	Redish silty clay
	22.0-25.0		Auger	Wet	Redish silty clay
	25.0-30.0		Auger	Wet	Redish silty clay
					BORING TERMINATED AT 22.0

Performance
DESIGN SYSTEMS

P.O. BOX 26413 • CHARLOTTE, N.C. 28221 • (704) 335-8845

Location: Exxon #43998
4701 W. Market St. Greensboro, NC
Client: Delta Environmental
Project#: 50-92-037.01

Driller: Roy Wilcox
Drill Crew: Chris
Boring Date: 8-13-92
Boring #: MW #2

Method: Hammer adv. ____, Thru auger X, Rotary ____. Split Spoon X, Shelby Tube ____.

Static water level 25.0

Sample	Sample Depth	N Value	Sample Type	Water Presence	Description Remarks
	0.0 - 3.0		Post holed	No	Red brown silty clay
1	10.0-12.0		SS	No	Red brown silty clay
2	20.0-22.0		SS	Yes	Red brown silty clay
3	30.0-32.0		SS	Yes	Red brown silty clay
	32.0-35.0		Auger	Yes	Red brown silty clay
					BORING TERMINATED AT 32.0

Performance
DESIGN SYSTEMS

P.O. BOX 26413 • CHARLOTTE, N.C. 28221 • (704) 335-8845

Location: Exxon #43998
4701 W. Market St. Greensboro, NC
Client: Delta Environmental
Project#: 50-92-037.01

Driller: Roy Wilcox
Drill Crew: Chris
Boring Date: 8-14-92
Boring #: MW #3

Method: Hammer adv.____, Thru auger X, Rotary ____. Split Spoon X, Shelby Tube ____.

Static water level 25.0

Sample	Sample Depth	N Value	Sample Type	Water Presence	Description Remarks
	0.0 - 3.0		post holed	No	Red brown silty clay
1	10.0-12.0	2,2,3,4	SS	No	Red brown silty clay
2	20.0-22.0	3,2,2,2	SS	Yes	Red brown silty clay
	22.0-30.0		Auger	Yes	Red brown silty clay
					BORING TERMINATED AT 22.0

Performance
DESIGN SYSTEMS

P.O. BOX 26413 • CHARLOTTE, N.C. 28221 • (704) 335-8845

Location: Exxon # 43998
4701 W. Market St. Greensboro, NC
Client: Delta Environmental
Project#: 50-92-037.01

Driller: Roy Wilcox
Drill Crew: Chris
Boring Date: 8-14-92
Boring #: MW #4

Method: Hammer adv.____, Thru auger X, Rotary ____. Split Spoon X, Shelby Tube ____.

Static water level 25.0

Sample	Sample Depth	N Value	Sample Type	Water Presence	Description Remarks
	0.0 - 3.0		post hole	No	Redish silt sand
	0.0 - 10.0		Auger	No	Redish silt sand
	10.0-12.0	2,3,5,7	SS	No	Redish silt sand
	10.0-20.0		Auger	NO	Redish silt sand
	20.0-22.0	2,2,2,5	SS	Moist	Redish silt sand
	20.0-30.0		Auger	Wet	Redish silt sand
					BORING TERMINATED AT 22.0

APPENDIX B

SOIL LABORATORY RESULTS

NDRC LABORATORIES, INC.

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon 4-3998

JOB NUMBER : D93-3537
REPORT DATE : 8-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
5	SB-5 Greensboro, NC	Soil	24-MAR-1993
6	SB-6 Greensboro, NC	Soil	24-MAR-1993
7	SB-7 Greensboro, NC	Soil	24-MAR-1993
8	SB-8 Greensboro, NC	Soil	25-MAR-1993

TPH BY GAS CHROMATOGRAPHY, EPA 8000		5	6	7	8
Total Petroleum Hydrocarbon	mg/Kg	< 10	< 10	< 10	< 10

TRPH BY EPA METHOD MODIFIED 8015, EPA 5030/8015		5	6	7	8
Total Petroleum Hydrocarbon	µg/Kg	< 50	< 50	590	< 50

MISCELLANEOUS ANALYSES		5	6	7	8
Total Solids	%	73.5	77.2	76.2	72.9

David R. Folsom

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-5
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-5
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 24-MAR-1993
PREPARATION METHOD : EPA 3550
PREPARED BY : TLR
PREPARED ON : 29-MAR-1993
ANALYSIS METHOD : EPA 8000
ANALYZED BY : MGD
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 1

TPH BY GAS CHROMATOGRAPHY		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Petroleum Hydrocarbon	10 mg/Kg	< 10 mg/Kg

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
o-Terphenyl (SS)	100 mg/Kg	83.5 %

NDRC Laboratories, Inc.

David R. Godwin

David R. Godwin, Ph.D.
Chief Executive Officer

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-5
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-5
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 24-MAR-1993
ANALYSIS METHOD : EPA 5030/8015
ANALYZED BY : RJD
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 1

TRPH BY EPA METHOD MODIFIED 8015		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Petroleum Hydrocarbon	50 µg/Kg	< 50 µg/Kg

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Fluorobenzene	50.0 µg/Kg	88.0 %

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-5
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-5
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 24-MAR-1993

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Solids	0.01 %	73.5 %
Analyzed using EPA 160.3 on 29-MAR-1993 by KOB		

NDRC Laboratories, Inc.

David R. Godwin, Ph.D.
Chief Executive Officer

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-6
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-6
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 24-MAR-1993
PREPARATION METHOD : EPA 3550
PREPARED BY : TLR
PREPARED ON : 29-MAR-1993
ANALYSIS METHOD : EPA 8000
ANALYZED BY : MGD
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 1

TPH BY GAS CHROMATOGRAPHY		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Petroleum Hydrocarbon	10 mg/Kg	< 10 mg/Kg

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
o-Terphenyl (SS)	100 mg/Kg	75.6 %

NDRC Laboratories, Inc.

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-6
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-6
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 24-MAR-1993
ANALYSIS METHOD : EPA 5030/8015
ANALYZED BY : RJD
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 1

TRPH BY EPA METHOD MODIFIED 8015		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Petroleum Hydrocarbon	50 µg/Kg	< 50 µg/Kg

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Fluorobenzene	50.0 µg/Kg	88.0 %

NDRC Laboratories, Inc. David R. Godwin

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Chief Executive Officer

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-6
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-6
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 24-MAR-1993

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Solids	0.01 %	77.2 %
Analyzed using EPA 160.3 on 29-MAR-1993 by KOB		

NDRC Laboratories, Inc.

David R. Godwin

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Chief Executive Officer

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-7
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-7
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 24-MAR-1993
PREPARATION METHOD : EPA 3550
PREPARED BY : TLR
PREPARED ON : 29-MAR-1993
ANALYSIS METHOD : EPA 8000
ANALYZED BY : MGD
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 1

TPH BY GAS CHROMATOGRAPHY		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Petroleum Hydrocarbon	10 mg/Kg	< 10 mg/Kg

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
o-Terphenyl (SS)	100 mg/Kg	88.9 %

NDRC Laboratories, Inc.

David R. Godwin

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Chief Executive Officer

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-7
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-7
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 24-MAR-1993
ANALYSIS METHOD : EPA 5030/8015
ANALYZED BY : RJD
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 1

TRPH BY EPA METHOD MODIFIED 8015		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Petroleum Hydrocarbon	50 µg/Kg	590 µg/Kg

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Fluorobenzene	50.0 µg/Kg	79.0 %

NDRC Laboratories, Inc. David R. Godwin

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-7
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-7
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 24-MAR-1993

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Solids	0.01 %	76.2 %
Analyzed using EPA 160.3 on 29-MAR-1993 by KOB		

NDRC Laboratories, Inc.

David R. Godwin

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Chief Executive Officer

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-8
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-8
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
PREPARATION METHOD : EPA 3550
PREPARED BY : TLR
PREPARED ON : 29-MAR-1993
ANALYSIS METHOD : EPA 8000
ANALYZED BY : MGD
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 1

TPH BY GAS CHROMATOGRAPHY		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Petroleum Hydrocarbon	10 mg/Kg	< 10 mg/Kg

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
o-Terphenyl (SS)	100 mg/Kg	92.8 %

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-8
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-8
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 5030/8015
ANALYZED BY : RJD
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 1

TRPH BY EPA METHOD MODIFIED 8015		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Petroleum Hydrocarbon	50 µg/Kg	< 50 µg/Kg

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Fluorobenzene	50.0 µg/Kg	81.0 %

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Chief Executive Officer

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-8
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Soil
ID MARKS : SB-8
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993

MISCELLANEOUS ANALYSES		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Total Solids	0.01 %	72.9 %
Analyzed using EPA 160.3 on 29-MAR-1993 by KOB		

NDRC Laboratories, Inc.

David R. Godwin, Ph.D.
Chief Executive Officer

Level I QC ORIGINAL

CHAIN OF CUSTODY RECORD

EXXON Company, USA
Regional Laboratory Program

NDRC Laboratories, Inc. 1089 East Collins Blvd, Richardson, Texas 75081 (214) 238-5591 (Voice), (214) 238-5592 (Fax)
Attn: Belinda Feuerbacher, Project Manager

Consultant's Name : Delta Environmental Consultants Inc — Page ___ of ___
Address : 6701 Carmel Rd, suite 200, Charlotte NC 28226
Project : Exxon Co. USA — Consultant Proj # : 50-92-037 — Consultant Work Release # : 92077663
Project Contact : David Curlis — Phone : 704-541-9896 Fax : 704-543-4035 — Laboratory Work Release # : 09 3 53148
Alternate Contact : Luba Gross — Phone : Fax : — Site Location : Greensboro NC
EXXON Contact : FRANK EE / C&M (circle one) — Phone : Fax : — EXXON RAS # : 4-3998
Sampled by (print) : Luba Gross — Sampler's Signature : Luba L. Gross
Shipment Method : Burlington — Air Bill # : 971-808-246
Shipment Date : 03/25/93

ANALYSIS REQUIRED
Number of Containers

Sample Condition as Received
Temperature °C: <4°C
Cooler # : EX1117
Inbound Sealed Yes No
Outbound Sealed Yes No

SAMPLE ID	DATE	TIME	MATRIX WATER/ SOIL	PRSV	SAMPLE LOCATION/ DESCRIPTION	601	602 (BTEX/MTBE)	625	TPH 3550 8015/ 5030 TPH 8015					COMMENTS
MW-1	03/25		water		monitoring well	3	3	2	→	2 ambers & VOAs				3537 -1
MW-2						3	3	2		"				-2
MW-3						3	3	2		"			BTX:TPH	-3
MW-4						3	3	2		"			Due 4-2-93	-4
SB-5	03/24		soil		soil borings	[redacted]			2	2 ZLOMs			All Else	-5
SB-6									2	"			Due 4-6-93	-6
SB-7									2	"				-7
SB-8	03/25								2	"				-8
trip blank			water		trip blank					2 VOAs				-9

Turn around time ☐ 24 hr ☐ 48 hr ☐ 72 hr ☒ Standard ☐ Other ___ — Total # of Containers : 40 + 2 trip blank

(1) Relinquished by Signature	Date	(2) Relinquished by Signature	Date	(3) Relinquished by Signature	Date
Luba Gross	03/25/93	Luba Gross	03/25/93	Luba Gross	03/25/93
Company :	Time:	Company :	Time:	Company :	Time:
(1) Received by Signature	Date	(2) Received by Signature	Date	(3) Received by Signature	Date
~~Luba Gross~~		B. W. [illegible]	3-26-93		
Company :	Time:	Company : NDRC	Time: 18:00	Company :	Time:

Distribution : White - Original Yellow - Exxon Pink - NDRC Laboratories, Inc. Goldenrod - Consultant

APPENDIX C

AQUIFER TEST DATA AND CALCULATIONS

HORIZONTAL GROUND WATER FLOW VELOCITY CALCULATION
EXXON RAS 4- 3998
GREENSBORO, NORTH CAROLINA
DELTA NO. 50-92-037

EQUATION: Velocity $= \frac{K}{n_e} \frac{dh}{dl}$

where
- K = average hydraulic conductivity
- N_e = effective porosity
- dh/dl = hydraulic gradient

and assuming an effective porosity of:

35% or .34 for clayey silt;

and assuming an average hydraulic conductivity of:

0.822 ft/day;

and a calculated hydraulic gradient of:

0.016;

V = (0.822 ft/day)/(0.34) * 0.016

V = 0.038 ft/day

DELTA ENVIRONMENTAL CONSULTANTS, INC.
SLUG TEST DATA ANALYSIS - BOUWER AND RICE METHOD
For an Unconfined Aquifer with a Partially Penetrating Well

ROJECT DATA INPUT

roject:	EXXON CO.,USA			
Site Name:	EXXON CO.,USA			
Location:	GREENSBORO,NC			
elta No:	50-92-037			
ata Collected By:		L.Gross	Date:	03/24/93
ata Analyzed By:		L.Gross	Date:	06/28/93
Analysis Reviewed By:		D.Curlis	Date:	07/02/93

EST WELL DATA INPUT

ell No:	MW-4, Slug Out		
Method:	Pressure Transducer and Datalogger		
Total Depth Of Well From Measuring Point:		30.000	ft
Static Depth To Water From Measuring Point:		22.590	ft
epth To Top Of Screen From Measuring Point:		15.000	ft
Length of Screen:		15.000	ft
Radius Of Hole:		0.333	ft
Radius Of Casing:		0.083	ft
Porosity Of Sandpack:		0.350	as a decimal

CALCULATED TEST WELL PARAMETERS

Le =	7.410	ft (effective screen length of well)
Lw =	7.410	ft (saturated thickness penetrated by well)
Rw =	0.333	ft (radius of borehole)
Rc =	0.083	ft (radius of casing)
Re =	0.208	ft (effective radial distance over which drawdown is dissipated)
Le/Rw =	22.252	dimensionless
A =	2.272	dimensionless
B =	0.362	dimensionless
ln(Re/Rw) =	1.880	dimensionless

UIFER (SATURATED ZONE) PARAMETERS INPUT

H =	41.28	ft (aquifer thickness - estimate to be 2 x Lw if unknown)

SLUG TEST DATA INPUT, DRAWDOWN, AND BEST FIT LINE FROM REGRESSION ANALYSIS

EXX
MW-
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Time (min.)	Depth below MP(ft)	Drawdown (ft)	Log(y)	Drawdown (Best Fit Line)	Logger Field Data
0.0000	22.86	0.270	-0.56864	0.116	0.42
0.0033	22.86	0.270	-0.56864	0.116	0.42
0.0066	22.85	0.260	-0.58503	0.116	0.41
0.0099	22.85	0.260	-0.58503	0.116	0.41
0.0133	22.83	0.240	-0.61979	0.116	0.39
0.0166	22.83	0.240	-0.61979	0.116	0.39
0.0200	22.81	0.220	-0.65758	0.116	0.37

0.0300	22.80	0.210	-0.67778	0.116	0.36
0.0333	22.80	0.210	-0.67778	0.116	0.36
0.0500	22.78	0.190	-0.72125	0.116	0.34
0.0666	22.77	0.180	-0.74473	0.115	0.33
0.0833	22.75	0.160	-0.79588	0.115	0.31
0.1000	22.75	0.160	-0.79588	0.115	0.31
0.1166	22.75	0.160	-0.79588	0.115	0.31
0.1333	22.74	0.150	-0.82391	0.115	0.3
0.1500	22.74	0.150	-0.82391	0.115	0.3
0.1666	22.74	0.150	-0.82391	0.114	0.3
0.1833	22.74	0.150	-0.82391	0.114	0.3
0.2000	22.74	0.150	-0.82391	0.114	0.3
0.2116	22.72	0.130	-0.88606	0.114	0.28
0.2333	22.72	0.130	-0.88606	0.114	0.28
0.2500	22.72	0.130	-0.88606	0.113	0.28
0.2666	22.72	0.130	-0.88606	0.113	0.28
0.2833	22.72	0.130	-0.88606	0.113	0.28
0.3000	22.72	0.130	-0.88606	0.113	0.28
0.3166	22.72	0.130	-0.88606	0.113	0.28
0.3333	22.72	0.130	-0.88606	0.112	0.28
0.4167	22.70	0.110	-0.95861	0.111	0.26
0.5000	22.70	0.110	-0.95861	0.111	0.26
0.5833	22.70	0.110	-0.95861	0.110	0.26
0.6667	22.70	0.110	-0.95861	0.109	0.26
0.7500	22.70	0.110	-0.95861	0.108	0.26
0.8333	22.70	0.110	-0.95861	0.107	0.26
0.9167	22.69	0.100	-1.00000	0.106	0.25
1.0000	22.69	0.100	-1.00000	0.105	0.25
1.0833	22.69	0.100	-1.00000	0.104	0.25
1.1667	22.69	0.100	-1.00000	0.103	0.25
1.2500	22.69	0.100	-1.00000	0.102	0.25
1.3333	22.69	0.100	-1.00000	0.102	0.25
1.4166	22.69	0.100	-1.00000	0.101	0.25
1.5000	22.69	0.100	-1.00000	0.100	0.25
1.5833	22.69	0.100	-1.00000	0.099	0.25
1.6667	22.69	0.100	-1.00000	0.098	0.25
1.7500	22.69	0.100	-1.00000	0.097	0.25
1.8333	22.69	0.100	-1.00000	0.097	0.25
1.9167	22.69	0.100	-1.00000	0.096	0.25
2.0000	22.69	0.100	-1.00000	0.095	0.25
2.5000	22.69	0.100	-1.00000	0.090	0.25
3.0000	22.67	0.080	-1.09691	0.086	0.23
3.5000	22.67	0.080	-1.09691	0.082	0.23
4.0000	22.67	0.080	-1.09691	0.078	0.23
4.5000	22.66	0.070	-1.15490	0.074	0.22
5.0000	22.66	0.070	-1.15490	0.070	0.22
5.5000	22.66	0.070	-1.15490	0.067	0.22
6.0000	22.66	0.070	-1.15490	0.063	0.22
6.5000	22.66	0.070	-1.15490	0.060	0.22
7.0000	22.66	0.070	-1.15490	0.057	0.22
7.5000	22.66	0.070	-1.15490	0.055	0.22
8.0000	22.64	0.050	-1.30103	0.052	0.2
8.5000	22.64	0.050	-1.30103	0.049	0.2
9.0000	22.64	0.050	-1.30103	0.047	0.2
9.5000	22.64	0.050	-1.30103	0.045	0.2
10.0000	22.64	0.050	-1.30103	0.042	0.2
12.0000	22.64	0.050	-1.30103	0.035	0.2
14.0000	22.62	0.030	-1.52288	0.028	0.18
16.0000	22.62	0.030	-1.52288	0.023	0.18
18.0000	22.61	0.020	-1.69897	0.019	0.17
20.0000	22.61	0.020	-1.69897	0.015	0.17
22.0000	22.61	0.020	-1.69897	0.013	0.17
24.0000	22.59	0.000	ERR	0.010	0.15
26.0000	22.59	0.000	ERR	0.008	0.15
28.0000	22.59	0.000	ERR	0.007	0.15
30.0000	22.59	0.000	ERR	0.006	0.15

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REGRESSION ANALYSIS INPUT

me T1 = 1.0000 min (time that regression analysis starts)
me T2 = 4.5000 min (time that regression analysis ends)

REGRESSION ANALYSIS OUTPUT

Regression Output:

nstant	-0.93460418165847
d Err of Y Est	0.019544019189948
R Squared	0.85143406071821
No. of Observations	18
egrees of Freedom	16
X Coefficient(s)	-0.0438584
Std Err of Coef.	0.00458012

TPUT FROM BEST FIT LINE

Y(0) = 0.116 ft (= drawdown y @ t=0, derived from y intercept of best fit line on y/t plot)

INPUT FROM BEST FIT LINE

t = 1.5000 min (= time t, where t>0, at which Yt will be selected)
Y(t) = 0.100 ft (= drawdown y @ time t, derived from best fit line of y/t plot)

CALCULATED HYDRAULIC CONDUCTIVITY

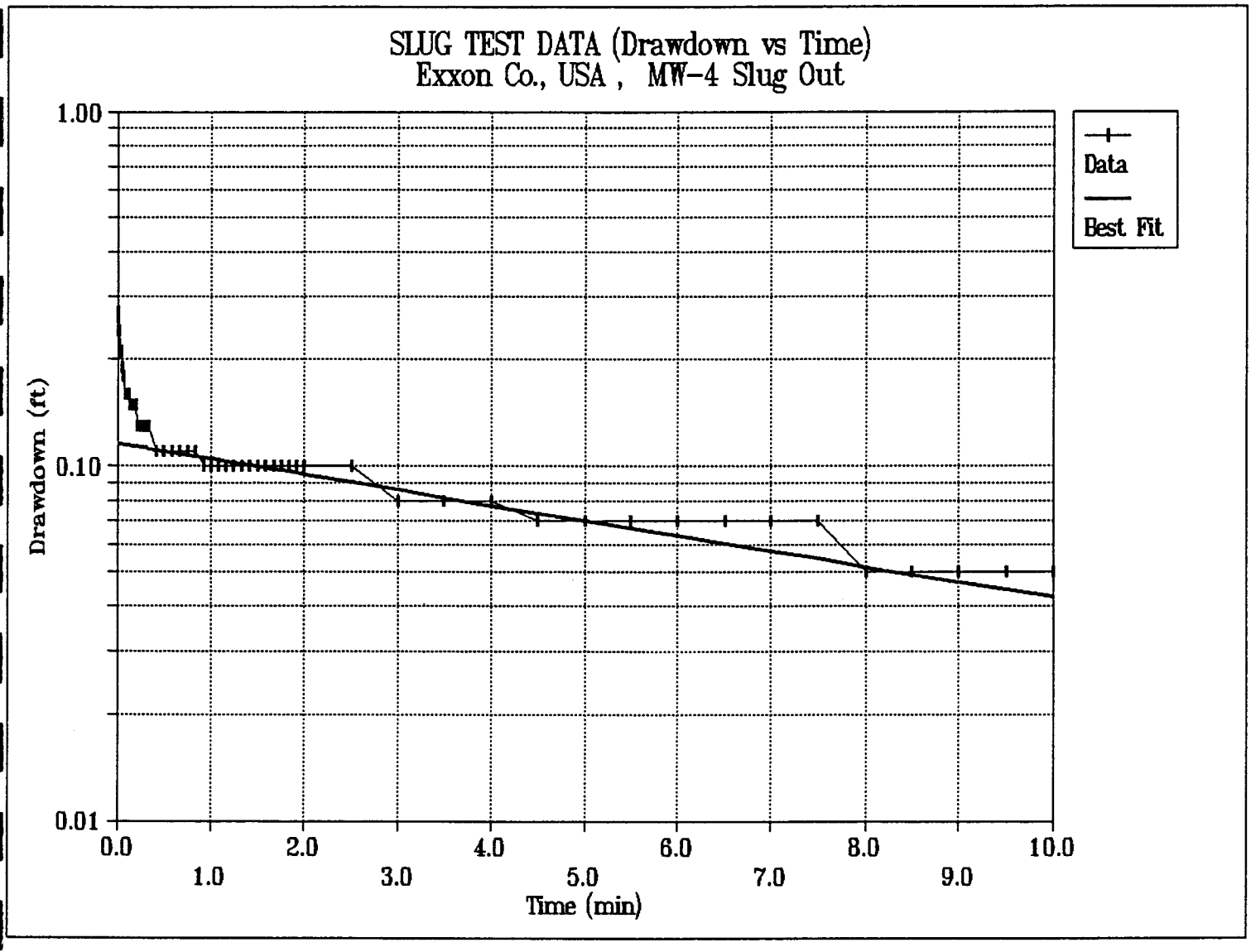
K = 9.20E-06 ft/sec
K = 5.52E-04 ft/min
K = 7.95E-01 ft/day
K = 5.94E+00 gpd/ft^2
K = 2.80E-04 cm/sec
K = 2.80E-06 m/sec
K = 2.42E-01 m/day

REFERENCES

Bouwer, H. and Rice, R. C., 1976, A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers With Completely or Fully Penetrating Wells, Water Resources Research, v. 12, pp. 423-428.

Bouwer, H., 1989, The Bouwer and Rice Slug Test - An Update, Groundwater, Vol. 27, No. 3, pp. 304-309.

Bouwer, H., 1989, DISCUSSION OF: The Bouwer and Rice Slug Test - An Update, Groundwater, Vol. 27, No. 5, p. 715.


SLUG TEST DATA (Drawdown vs Time)
Exxon Co., USA , MW-4 Slug Out
1.00
0.10
0.01
Drawdown (ft)
0.0
1.0
2.0
3.0
4.0
5.0
6.0
7.0
8.0
9.0
10.0
Time (min)
Data
Best Fit

North Carolina - Department of Environment, Health, and Natural Resources
Division of Environmental Management - Groundwater Section
P.O. Box 29535 - Raleigh, N.C. 27626-0535
Phone (919) 733-3221

FOR OFFICE USE ONLY
QUAD. NO. _____ SERIAL NO. _____
Lat. _____ Long. _____ RO _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR: Performance Design Systems

DRILLER REGISTRATION NUMBER: 1337

STATE WELL CONSTRUCTION PERMIT NUMBER: 40-1045-WM-0456

1. WELL LOCATION: (Show sketch of the location below)
Nearest Town: Greensboro County: Guilford
4701 W. Market St.
(Road, Community, or Subdivision and Lot No.)

2. OWNER Exxon
ADDRESS P.O. Box 30451
(Street or Route No.)
Charlotte (City or Town) NC (State) 28230 (Zip Code)

3. DATE DRILLED 8-14-92 USE OF WELL MOnitoring
4. TOTAL DEPTH 30.0'
5. CUTTINGS COLLECTED YES [X] NO [ ]
6. DOES WELL REPLACE EXISTING WELL? YES [ ] NO [X]
7. STATIC WATER LEVEL Below Top of Casing: N/A FT.
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS 0.0 FT. Above Land Surface*
* Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118
9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): N/A
11. CHLORINATION: Type N/A Amount _____
12. CASING:

Depth From	To	Ft.	Diameter	Wall Thickness or Weight/Ft.	Material
0.0	15.0		2.0	SCH 40	PVC

13. GROUT:

Depth From	To	Ft.	Material	Method
0.0	14.0		Portland Cem/Bent.	Slurry

14. SCREEN:

Depth From	To	Ft.	Diameter	Slot Size	Material
15.0	30.0		2.0 in.	.010 in.	PVC
			in.	in.	
			in.	in.	

15. SAND/GRAVEL PACK:

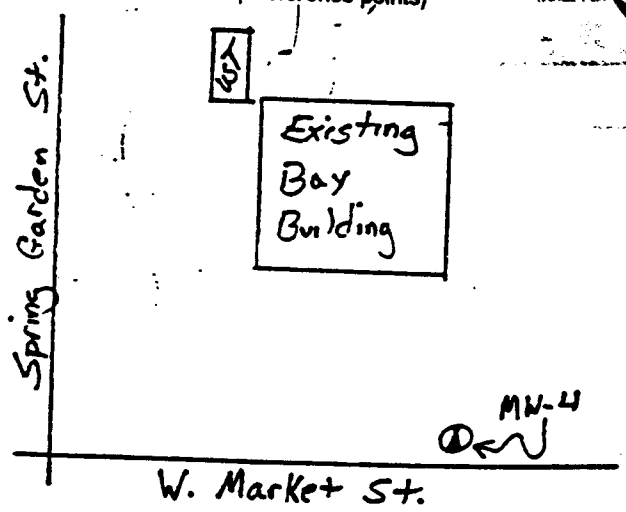
Depth From	To	Ft.	Size	Material
14.0	30.0		20/60	Silica Sand

16. REMARKS: MW-4 Bentonite seal from 12.0 to 14.0 feet

DEPTH From	To	DRILLING LOG X Formation Description
0.0	30.0	Redish brown silty clay

If additional space is needed use back of form

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)



I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

George Flanter 8-25-92
SIGNATURE OF CONTRACTOR OR AGENT DATE

GW-1 REV. 9/91

Submit original to Division of Environmental Management and copy to well owner.

DELTA ENVIRONMENTAL CONSULTANTS, INC.
SLUG TEST DATA ANALYSIS - BOUWER AND RICE METHOD
For an Unconfined Aquifer with a Partially Penetrating Well

OJECT DATA INPUT
oject: EXXON CO.,USA
te Name: EXXON CO.,USA
Location: GREENSBORO,NC
Delta No: 50-92-037
ta Collected By: L.Gross Date: 03/24/93
ta Analyzed By: L.Gross Date: 06/28/93
Analysis Reviewed By: D.Curlis Date: 07/02/93

ST WELL DATA INPUT
ll No: MW-2, Slug Out
thod: Pressure Transducer and Datalogger

Total Depth Of Well From Measuring Point:	35.000	ft
Static Depth To Water From Measuring Point:	18.820	ft
pth To Top Of Screen From Measuring Point:	15.000	ft
Length of Screen:	20.000	ft
Radius Of Hole:	0.333	ft
Radius Of Casing:	0.083	ft
Porosity Of Sandpack:	0.350	as a decimal

LCULATED TEST WELL PARAMETERS

Le =	16.180	ft (effective screen length of well)
Lw =	16.180	ft (saturated thickness penetrated by well)
Rw =	0.333	ft (radius of borehole)
Rc =	0.083	ft (radius of casing)
Re =	0.208	ft (effective radial distance over which drawdown is dissipated)
Le/Rw =	48.589	dimensionless
A =	3.009	dimensionless
B =	0.511	dimensionless
(Re/Rw) =	2.560	dimensionless

AQUIFER (SATURATED ZONE) PARAMETERS INPUT
H = 41.28 ft (aquifer thickness - estimate to be 2 x Lw if unknown)

UG TEST DATA INPUT, DRAWDOWN, AND BEST FIT LINE FROM REGRESSION ANALYSIS

Time (min.)	Depth below MP(ft)	Drawdown (ft)	Log(y)	Drawdown (Best Fit Line)	Logger Field Data
0.0000	19.85	1.030	0.01284	0.144	7.19
0.0033	19.80	0.980	-0.00877	0.144	7.24
0.0066	19.80	0.980	-0.00877	0.144	7.24

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0.0099	19.80	0.980	-0.00877	0.144	7.24
0.0133	19.80	0.980	-0.00877	0.144	7.24
0.0166	19.80	0.980	-0.00877	0.144	7.24
0.0200	19.77	0.950	-0.02228	0.144	7.27
0.0233	19.74	0.920	-0.03621	0.144	7.3
0.0266	19.71	0.890	-0.05061	0.144	7.33
0.0300	19.71	0.890	-0.05061	0.144	7.33
0.0333	19.71	0.890	-0.05061	0.144	7.33
0.0500	19.63	0.810	-0.09151	0.143	7.41
0.0666	19.58	0.760	-0.11919	0.143	7.46
0.0833	19.52	0.700	-0.15490	0.142	7.52
0.1000	19.47	0.650	-0.18709	0.142	7.57
0.1166	19.42	0.600	-0.22185	0.142	7.62
0.1333	19.37	0.550	-0.25964	0.141	7.67
0.1500	19.33	0.510	-0.29243	0.141	7.71
0.1666	19.30	0.480	-0.31876	0.140	7.74
0.1833	19.26	0.440	-0.35655	0.140	7.78
0.2000	19.23	0.410	-0.38722	0.140	7.81
0.2116	19.20	0.380	-0.42022	0.139	7.84
0.2333	19.17	0.350	-0.45593	0.139	7.87
0.2500	19.15	0.330	-0.48149	0.138	7.89
0.2666	19.14	0.320	-0.49485	0.138	7.9
0.2833	19.12	0.300	-0.52288	0.138	7.92
0.3000	19.11	0.290	-0.53760	0.137	7.93
0.3166	19.09	0.270	-0.56864	0.137	7.95
0.3333	19.07	0.250	-0.60206	0.136	7.97
0.4167	19.04	0.220	-0.65758	0.134	8
0.5000	19.01	0.190	-0.72125	0.132	8.03
0.5833	18.99	0.170	-0.76955	0.131	8.05
0.6667	18.98	0.160	-0.79588	0.129	8.06
0.7500	18.98	0.160	-0.79588	0.127	8.06
0.8333	18.96	0.140	-0.85387	0.125	8.08
0.9167	18.96	0.140	-0.85387	0.123	8.08
1.0000	18.95	0.130	-0.88606	0.121	8.09
1.0833	18.95	0.130	-0.88606	0.120	8.09
1.1667	18.95	0.130	-0.88606	0.118	8.09
1.2500	18.93	0.110	-0.95861	0.116	8.11
1.3333	18.93	0.110	-0.95861	0.115	8.11
1.4166	18.93	0.110	-0.95861	0.113	8.11
1.5000	18.93	0.110	-0.95861	0.111	8.11
1.5833	18.93	0.110	-0.95861	0.110	8.11
1.6667	18.93	0.110	-0.95861	0.108	8.11
1.7500	18.93	0.110	-0.95861	0.107	8.11
1.8333	18.93	0.110	-0.95861	0.105	8.11
1.9167	18.93	0.110	-0.95861	0.104	8.11
2.0000	18.92	0.100	-1.00000	0.102	8.12
2.5000	18.92	0.100	-1.00000	0.094	8.12
3.0000	18.90	0.080	-1.09691	0.086	8.14
3.5000	18.90	0.080	-1.09691	0.079	8.14
4.0000	18.90	0.080	-1.09691	0.072	8.14
4.5000	18.88	0.060	-1.22185	0.066	8.16
5.0000	18.88	0.060	-1.22185	0.061	8.16
5.5000	18.88	0.060	-1.22185	0.056	8.16
6.0000	18.88	0.060	-1.22185	0.051	8.16
6.5000	18.88	0.060	-1.22185	0.047	8.16
7.0000	18.87	0.050	-1.30103	0.043	8.17
7.5000	18.87	0.050	-1.30103	0.039	8.17
8.0000	18.87	0.050	-1.30103	0.036	8.17
8.5000	18.87	0.050	-1.30103	0.033	8.17
9.0000	18.87	0.050	-1.30103	0.030	8.17
9.5000	18.87	0.050	-1.30103	0.028	8.17
10.0000	18.87	0.050	-1.30103	0.026	8.17
12.0000	18.85	0.030	-1.52288	0.018	8.19
14.0000	18.85	0.030	-1.52288	0.013	8.19
16.0000	18.84	0.020	-1.69897	0.009	8.2
18.0000	18.84	0.020	-1.69897	0.006	8.2
20.0000	18.84	0.020	-1.69897	0.005	8.2
22.0000	18.82	0.000	ERR	0.003	8.22
24.0000	18.82	0.000	ERR	0.002	8.22
26.0000	18.82	0.000	ERR	0.002	8.22
28.0000	18.82	0.000	ERR	0.001	8.22

REGRESSION ANALYSIS INPUT

Time T1 = 1.2500 min (time that regression analysis starts)

me T2 = 4.5000 min (time that regression analysis ends)

EXX
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GRESSION ANALYSIS OUTPUT

Regression Output:

Constant	-0.84035184808713
d Err of Y Est	0.024912448836742
Squared	0.911827101128
No. of Observations	15
Degrees of Freedom	13

Coefficient(s)	-0.0751044
d Err of Coef.	0.00647747

UTPUT FROM BEST FIT LINE

Y(0) = 0.144 ft (= drawdown y @ t=0, derived from y intercept of best fit line on y/t plot)

INPUT FROM BEST FIT LINE

t = 1.5833 min (= time t, where t>0, at which Yt will be selected)

Y(t) = 0.110 ft (= drawdown y @ time t, derived from best fit line of y/t plot)

LCULATED HYDRAULIC CONDUCTIVITY

K = 9.82E-06 ft/sec

K = 5.89E-04 ft/min

K = 8.49E-01 ft/day

K = 6.35E+00 gpd/ft^2

K = 3.00E-04 cm/sec

K = 3.00E-06 m/sec

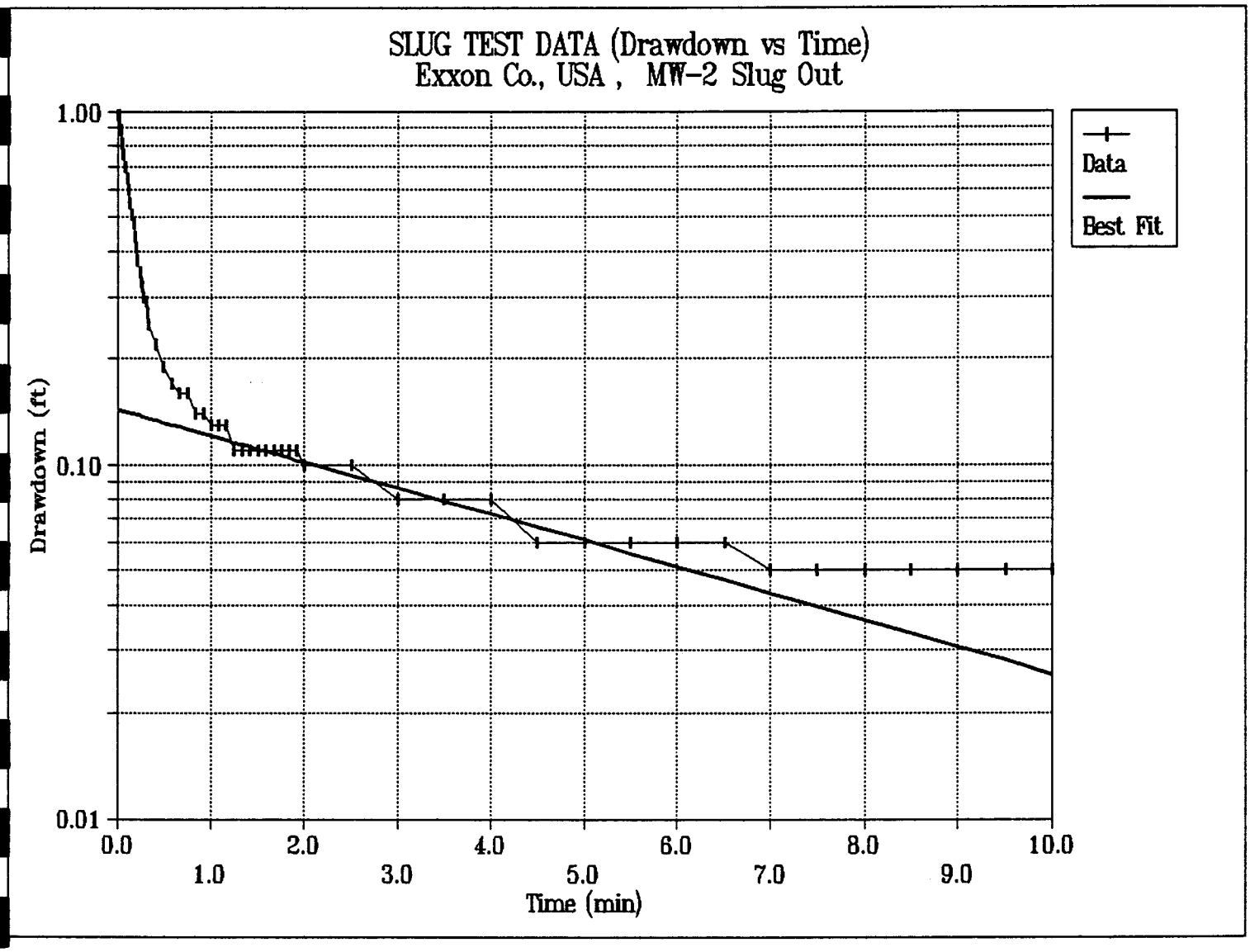
K = 2.59E-01 m/day

REFERENCES

Bouwer, H. and Rice, R. C., 1976, A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers With Completely or Fully Penetrating Wells, Water Resources Research, v. 12, pp. 423-428.

Bouwer, H., 1989, The Bouwer and Rice Slug Test - An Update, Groundwater, Vol. 27, No. 3, pp. 304-309.

Bouwer, H., 1989, DISCUSSION OF: The Bouwer and Rice Slug Test - An Update, Groundwater, Vol. 27, No. 5, p. 715.


SLUG TEST DATA (Drawdown vs Time)
Exxon Co., USA , MW-2 Slug Out
1.00
0.10
0.01
Drawdown (ft)
0.0
1.0
2.0
3.0
4.0
5.0
6.0
7.0
8.0
9.0
10.0
Time (min)
Data
Best Fit

North Carolina - Department of Environment, Health, and Natural Resources
Division of Environmental Management - Groundwater Section
P.O. Box 29535 - Raleigh, N.C. 27626-0535
Phone (919) 733-3221

FOR OFFICE USE ONLY
QUAD. NO. _____ SERIAL NO. _____
Lat. _____ Long. _____ RO _____
Minor Basin _____
Basin Code _____
Header Ent. _____ GW-1 Ent. _____

WELL CONSTRUCTION RECORD

DRILLING CONTRACTOR: Performance Design Systems

DRILLER REGISTRATION NUMBER: 1337

STATE WELL CONSTRUCTION PERMIT NUMBER: 40-1045-WM-0456

WELL LOCATION: (Show sketch of the location below)
Nearest Town: Greensboro County: Guilford
4701 W. Market St.
(Road, Community, or Subdivision and Lot No.)

1. OWNER Exxon
ADDRESS P.O. Box 30451
(Street or Route No.)
Charlotte NC 28230
City or Town State Zip Code

3. DATE DRILLED 8-13-92 USE OF WELL Monitoring
4. TOTAL DEPTH 35.0'
5. CUTTINGS COLLECTED YES [X] NO [ ]
6. DOES WELL REPLACE EXISTING WELL? YES [ ] NO [X]
7. STATIC WATER LEVEL Below Top of Casing: N/A FT.
(Use "+" if Above Top of Casing)
8. TOP OF CASING IS 0.0 FT. Above Land Surface*
*Casing Terminated at/or below land surface is illegal unless a variance is issued in accordance with 15A NCAC 2C .0118
9. YIELD (gpm): N/A METHOD OF TEST N/A
10. WATER ZONES (depth): N/A
11. CHLORINATION: Type N/A Amount _____
12. CASING:

	Depth From	Depth To	Diameter	Wall Thickness or Weight/Ft.	Material
	0.0	15.0	2.0"	SCH. 40	PVC

13. GROUT:

	Depth From	Depth To	Material	Method
	0.0	14.0	Portland Cemt./Bent	Slurry

14. SCREEN:

	Depth From	Depth To	Diameter	Slot Size	Material
	15.0	35.0	2.0 in.	.010 in.	PVC
			in.	in.	
			in.	in.	

15. SAND/GRAVEL PACK:

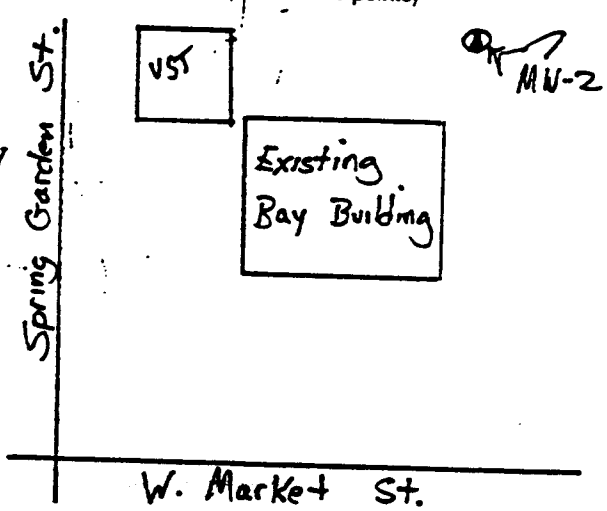
	Depth From	Depth To	Size	Material
	14.0	35.0	20/60	Silica sand

16. REMARKS: MW-2 BENTONITE SEAL FROM 12.0' to 14.0'

DEPTH From	DEPTH To	DRILLING LOG Formation Description
0.0'	35.0'	Redish brown silty clay

If additional space is needed use back of form

LOCATION SKETCH
(Show direction and distance from at least two State Roads, or other map reference points)

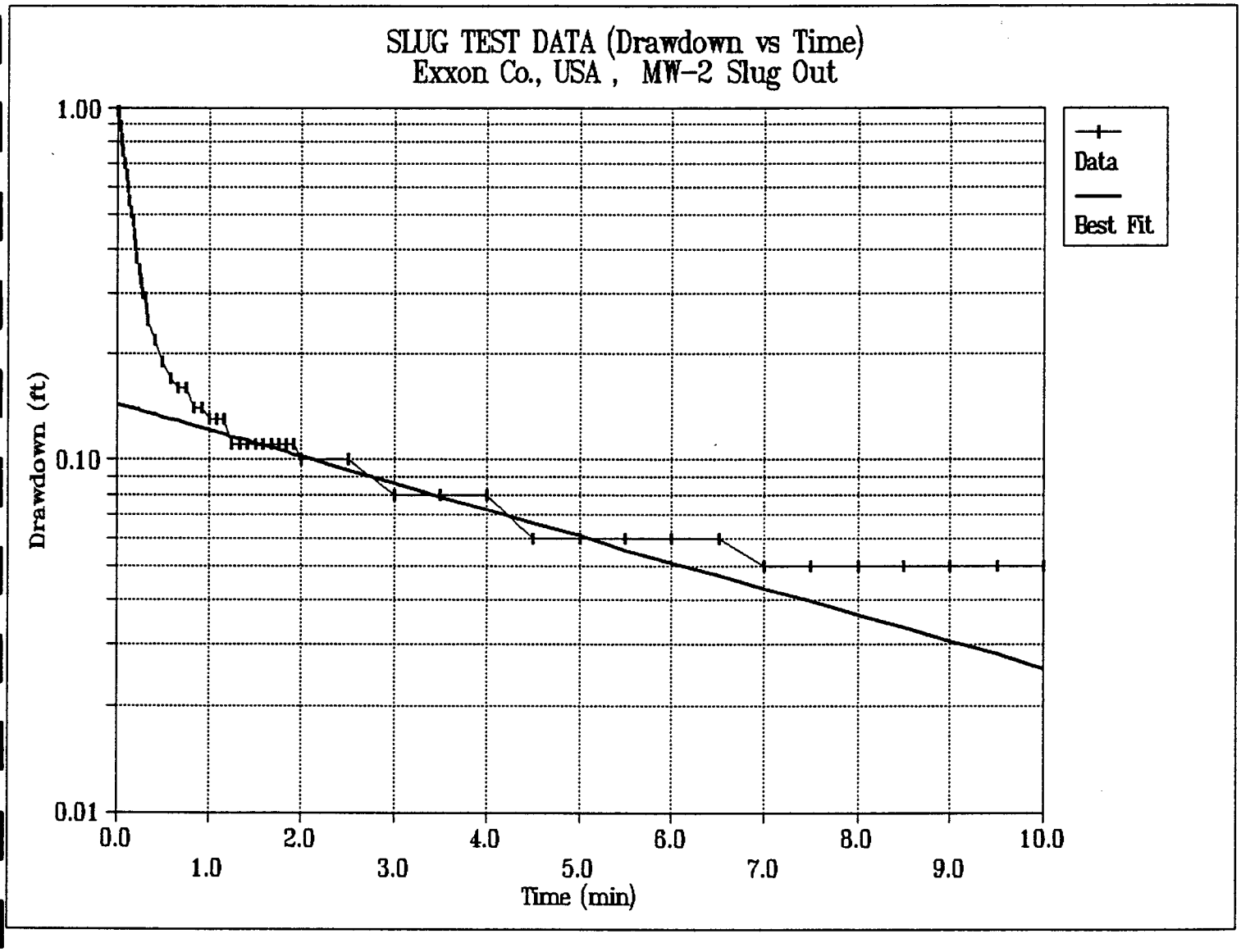


I DO HEREBY CERTIFY THAT THIS WELL WAS CONSTRUCTED IN ACCORDANCE WITH 15A NCAC 2C, WELL CONSTRUCTION STANDARDS, AND THAT A COPY OF THIS RECORD HAS BEEN PROVIDED TO THE WELL OWNER.

SIGNATURE OF CONTRACTOR OR AGENT 8-25-92 DATE

Submit original to Division of Environmental Management and copy to well owner.

GW-1 REV. 9/91


SLUG TEST DATA (Drawdown vs Time)
Exxon Co., USA , MW-2 Slug Out
1.00
0.10
0.01
Drawdown (ft)
0.0
1.0
2.0
3.0
4.0
5.0
6.0
7.0
8.0
9.0
10.0
Time (min)
Data
Best Fit

APPENDIX D

GROUND WATER LABORATORY RESULTS

NDRC LABORATORIES, INC.

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon 4-3998

JOB NUMBER : D93-3537
REPORT DATE : 8-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-1 Greensboro, NC	Water	25-MAR-1993
2	MW-2 Greensboro, NC	Water	25-MAR-1993
3	MW-3 Greensboro, NC	Water	25-MAR-1993
4	MW-4 Greensboro, NC	Water	25-MAR-1993

VOLATILE HALOCARBONS, EPA 601		1	2	3	4
Bromodichloromethane	µg/L	< 500	< 100	< 500	< 1
Bromoform	µg/L	< 1000	< 200	< 1000	< 2
Bromomethane	µg/L	< 6000	< 1200	< 6000	< 12
Carbon tetrachloride	µg/L	< 1000	< 200	< 1000	< 2
Chlorobenzene	µg/L	< 1500	< 300	< 1500	< 3
Chloroethane	µg/L	< 3000	< 600	< 3000	< 6
2-Chloroethylvinyl ether	µg/L	< 1500	< 300	< 1500	< 3
Chloroform	µg/L	< 500	< 100	< 500	< 1
Chloromethane	µg/L	< 2500	< 500	< 2500	< 5
Dibromochloromethane	µg/L	< 500	< 100	< 500	< 1
1,2-Dichlorobenzene	µg/L	< 1000	< 200	< 1000	< 2
1,3-Dichlorobenzene	µg/L	< 2000	< 400	< 2000	< 4
1,4-Dichlorobenzene	µg/L	< 1500	< 300	< 1500	< 3
Dichlorodifluoromethane	µg/L	< 10000	< 2000	< 10000	< 20
1,1-Dichloroethene	µg/L	< 1000	< 200	< 1000	< 2
1,2-Dichloroethane	µg/L	< 1500	< 300	< 1500	< 3
1,1-Dichloroethane	µg/L	< 500	< 100	< 500	< 1
trans-1,2-Dichloroethene	µg/L	< 500	< 100	< 500	< 1
1,2-Dichloropropane	µg/L	< 500	< 100	< 500	< 1
cis-1,3-Dichloropropene	µg/L	< 1000	< 200	< 1000	< 2

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon 4-3998

JOB NUMBER : D93-3537
REPORT DATE : 8-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-1 Greensboro, NC	Water	25-MAR-1993
2	MW-2 Greensboro, NC	Water	25-MAR-1993
3	MW-3 Greensboro, NC	Water	25-MAR-1993
4	MW-4 Greensboro, NC	Water	25-MAR-1993

VOLATILE HALOCARBONS, EPA 601 (Continued..)		1	2	3	4
trans-1,3-Dichloropropene	µg/L	< 1000	< 200	< 1000	< 2
Methylene chloride	µg/L	< 2500	< 500	< 2500	< 5
1,1,2,2-Tetrachloroethane	µg/L	< 500	< 100	< 500	< 1
Tetrachloroethene	µg/L	< 500	< 100	< 500	< 1
1,1,1-Trichloroethane	µg/L	< 500	< 100	< 500	< 1
1,1,2-Trichloroethane	µg/L	< 500	< 100	< 500	< 1
Trichloroethene	µg/L	< 500	< 100	< 500	< 1
Trichlorofluoromethane	µg/L	< 2500	< 500	< 2500	< 5
Vinyl chloride	µg/L	< 2500	< 500	< 2500	< 5

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon 4-3998

JOB NUMBER : D93-3537
REPORT DATE : 8-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-1 Greensboro, NC	Water	25-MAR-1993
2	MW-2 Greensboro, NC	Water	25-MAR-1993
3	MW-3 Greensboro, NC	Water	25-MAR-1993
4	MW-4 Greensboro, NC	Water	25-MAR-1993

ACID EXTRACTABLE ORGANICS, EPA 625		1	2	3	4
4-Chloro-3-methylphenol	µg/L	< 12.0	< 12.0	< 30	< 3.0
2-Chlorophenol	µg/L	< 13.2	< 13.2	< 33	< 3.3
2,4-Dichlorophenol	µg/L	< 10.8	< 10.8	< 27	< 2.7
2,4-Dimethylphenol	µg/L	< 10.8	< 10.8	< 27	< 2.7
4,6-Dinitro-2-methylphenol	µg/L	< 80.0	< 80.0	< 200	< 20.0
2,4-Dinitrophenol	µg/L	< 168	< 168	< 420	< 42.0
2-Methylphenol	µg/L	< 20.0	< 20.0	< 50	< 5.0
2-Nitrophenol	µg/L	< 14.4	< 14.4	< 36	< 3.6
4-Nitrophenol	µg/L	< 9.6	< 9.6	< 24	< 2.4
Pentachlorophenol	µg/L	< 14.4	< 14.4	< 36	< 3.6
Phenol	µg/L	< 6.0	< 6.0	< 15	< 1.5
2,4,6-Trichlorophenol	µg/L	< 10.8	< 10.8	< 27	< 2.7

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625		1	2	3	4
Acenaphthene	µg/L	< 7.6	< 7.6	< 19	< 1.9
Acenaphthylene	µg/L	< 14.0	< 14.0	< 35	< 3.5
Anthracene	µg/L	< 7.6	< 7.6	< 19	< 1.9
Benzidine	µg/L	< 176	< 176	< 440	< 44.0
Benzo(a)anthracene	µg/L	< 31.2	< 31.2	< 78	< 7.8
Benzo(b)fluoranthene	µg/L	< 19.2	< 19.2	< 48	< 4.8

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SUMMARY REPORT

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PROJECT : 50-92-037 Exxon 4-3998

JOB NUMBER : D93-3537
REPORT DATE : 8-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-1 Greensboro, NC	Water	25-MAR-1993
2	MW-2 Greensboro, NC	Water	25-MAR-1993
3	MW-3 Greensboro, NC	Water	25-MAR-1993
4	MW-4 Greensboro, NC	Water	25-MAR-1993

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625 (Continued..)		1	2	3	4
Benzo(k)fluoranthene	µg/L	< 10.0	< 10.0	< 25	< 2.5
Benzo(g,h,i)perylene	µg/L	< 16.4	< 16.4	< 41	< 4.1
Benzo(a)pyrene	µg/L	< 10.0	< 10.0	< 25	< 2.5
Bis(2-chloroethoxy)methane	µg/L	< 21.2	< 21.2	< 53	< 5.3
Bis(2-chloroethyl)ether	µg/L	< 22.8	< 22.8	< 57	< 5.7
Bis(2-chloroisopropyl)ether	µg/L	< 22.8	< 22.8	< 57	< 5.7
Bis(2-ethylhexyl)phthalate	µg/L	< 10.0	< 10.0	< 25	< 2.5
4-Bromophenylphenyl ether	µg/L	< 7.6	< 7.6	< 19	< 1.9
Butyl benzyl phthalate	µg/L	< 10.0	< 10.0	< 25	< 2.5
2-Chloronaphthalene	µg/L	< 7.6	< 7.6	< 19	< 1.9
4-Chlorophenylphenyl ether	µg/L	< 16.8	< 16.8	< 42	< 4.2
Chrysene	µg/L	< 10.0	< 10.0	< 25	< 2.5
Dibenz(a,h)anthracene	µg/L	< 10.0	< 10.0	< 25	< 2.5
2,3,7,8-Tetrachorodibenzodioxin		Negative	Negative	Negative	Negative
Di-n-butylphthalate	µg/L	< 10.0	< 10.0	< 25	< 2.5
1,3-Dichlorobenzene	µg/L	< 7.6	< 7.6	< 19	< 1.9
1,4-Dichlorobenzene	µg/L	< 17.6	< 17.6	< 44	< 4.4
1,2-Dichlorobenzene	µg/L	< 7.6	< 7.6	< 19	< 1.9
3,3'-Dichlorobenzidine	µg/L	< 66.0	< 66.0	< 165	< 16.5

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon 4-3998

JOB NUMBER : D93-3537
REPORT DATE : 8-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-1 Greensboro, NC	Water	25-MAR-1993
2	MW-2 Greensboro, NC	Water	25-MAR-1993
3	MW-3 Greensboro, NC	Water	25-MAR-1993
4	MW-4 Greensboro, NC	Water	25-MAR-1993

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625 (Continued..)		1	2	3	4
Diethylphthalate	µg/L	< 7.6	< 7.6	< 19	< 1.9
Dimethylphthalate	µg/L	< 6.4	< 6.4	< 16	< 1.6
2,4-Dinitrotoluene	µg/L	< 22.8	< 22.8	< 57	< 5.7
2,6-Dinitrotoluene	µg/L	< 7.6	< 7.6	< 19	< 1.9
Di-n-octylphthalate	µg/L	< 10.0	< 10.0	< 25	< 2.5
1,2-Diphenylhydrazine	µg/L	< 80.0	< 80.0	< 200	< 20.0
Fluoranthene	µg/L	< 8.8	< 8.8	< 22	< 2.2
Fluorene	µg/L	< 7.6	< 7.6	< 19	< 1.9
Hexachlorobenzene	µg/L	< 7.6	< 7.6	< 19	< 1.9
Hexachlorobutadiene	µg/L	< 3.6	< 3.6	< 9	< 0.9
Hexachlorocyclopentadiene	µg/L	< 20.0	< 20.0	< 50	< 5.0
Hexachloroethane	µg/L	< 6.4	< 6.4	< 16	< 1.6
Indeno(1,2,3-cd)pyrene	µg/L	< 14.8	< 14.8	< 37	< 3.7
Isophorone	µg/L	< 8.8	< 8.8	< 22	< 2.2
Naphthalene	µg/L	320	370	440	< 1.6
Nitrobenzene	µg/L	< 7.6	< 7.6	< 19	< 1.9
N-Nitrosodimethylamine	µg/L	< 20.0	< 20.0	< 50	< 5.0
N-Nitrosodiphenylamine	µg/L	< 20.0	< 20.0	< 50	< 5.0
N-Nitrosodipropylamine	µg/L	< 20.0	< 20.0	< 50	< 5.0

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BEAUMONT **DALLAS** **HOUSTON**

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JOB NUMBER : D93-3537
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1	MW-1 Greensboro, NC	Water	25-MAR-1993
2	MW-2 Greensboro, NC	Water	25-MAR-1993
3	MW-3 Greensboro, NC	Water	25-MAR-1993
4	MW-4 Greensboro, NC	Water	25-MAR-1993

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625 (Continued..)		1	2	3	4
Phenanthrene	µg/L	< 21.6	< 21.6	< 54	< 5.4
Pyrene	µg/L	< 7.6	< 7.6	< 19	< 1.9
1,2,4-Trichlorobenzene	µg/L	< 7.6	< 7.6	< 19	< 1.9

TENTATIVELY IDENTIFIED COMPOUNDS		1	2	3	4
1-Methylnaphthalene	µg/L	-	-	170	-
2-Methylnaphthalene	µg/L	59	70	120	-
Decane	µg/L	-	60	-	-
Diethylbenzene	µg/L	-	88	-	-
Dihydro-1H-indene	µg/L	240	260	240	-
Dihydro-1H-indenone	µg/L	-	-	110	-
Dihydrodimethyl-1H-indene	µg/L	-	-	110	-
Dihydromethyl-1H-indene	µg/L	35	40	260	-
Dimethylethylthiophene	µg/L	-	-	130	-
Ethyldimethylbenzene	µg/L	-	130	170	-
Ethylmethylbenzene	µg/L	860	1100	1400	-
Methyl-methylbenzene	µg/L	-	-	170	-
Methyl-methylethylbenzene	µg/L	30	45	130	-
Methyl-propylbenzene	µg/L	99	-	-	-

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon 4-3998

JOB NUMBER : D93-3537
REPORT DATE : 8-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-1 Greensboro, NC	Water	25-MAR-1993
2	MW-2 Greensboro, NC	Water	25-MAR-1993
3	MW-3 Greensboro, NC	Water	25-MAR-1993
4	MW-4 Greensboro, NC	Water	25-MAR-1993

TENTATIVELY IDENTIFIED COMPOUNDS (Continued..)		1	2	3	4
Methylcyclohexenone	µg/L	180	-	-	-
Methylethylbenzene	µg/L	370	360	-	-
Methylheptanone	µg/L	-	-	230	-
Methylpropylbenzene	µg/L	-	90	140	-
No compounds detected	µg/L	-	-	-	10
Propynylbenzene	µg/L	-	50	-	-
Tetramethylbenzene	µg/L	20	-	180	-
Trimethylbenzene	µg/L	330	390	640	-
Unidentified aromatic	µg/L	-	-	110	-
Unidentified compound	µg/L	-	0	-	-
Unidentified oxygenated compound	µg/L	-	40	580	-

BTEX ANALYSIS, EPA 602		1	2	3	4
Benzene	µg/L	3500	2000	9700	1.9
Toluene	µg/L	21000	7300	35000	4.7
Ethyl benzene	µg/L	3100	1200	3600	< 1.0
Xylenes	µg/L	17000	5900	19000	11.0
BTEX (total)	µg/L	44600	16400	67300	17.6

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JOB NUMBER : D93-3537
REPORT DATE : 8-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-1 Greensboro, NC	Water	25-MAR-1993
2	MW-2 Greensboro, NC	Water	25-MAR-1993
3	MW-3 Greensboro, NC	Water	25-MAR-1993
4	MW-4 Greensboro, NC	Water	25-MAR-1993

METHYL TERTIARY BUTYL ETHER, EPA 602		1	2	3	4
Methyl Tertiary Butyl Ether	µg/L	< 250	< 250	< 1000	< 10.0

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon 4-3998

JOB NUMBER : D93-3537
REPORT DATE : 8-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
9	Trip Blank Greensboro, NC	Water	25-MAR-1993

VOLATILE HALOCARBONS, EPA 601		9			
Bromodichloromethane	µg/L	< 1			
Bromoform	µg/L	< 2			
Bromomethane	µg/L	< 12			
Carbon tetrachloride	µg/L	< 2			
Chlorobenzene	µg/L	< 3			
Chloroethane	µg/L	< 6			
2-Chloroethylvinyl ether	µg/L	< 3			
Chloroform	µg/L	< 1			
Chloromethane	µg/L	< 5			
Dibromochloromethane	µg/L	< 1			
1,2-Dichlorobenzene	µg/L	< 2			
1,3-Dichlorobenzene	µg/L	< 4			
1,4-Dichlorobenzene	µg/L	< 3			
Dichlorodifluoromethane	µg/L	< 20			
1,1-Dichloroethene	µg/L	< 2			
1,2-Dichloroethane	µg/L	< 3			
1,1-Dichloroethane	µg/L	< 1			
trans-1,2-Dichloroethene	µg/L	< 1			
1,2-Dichloropropane	µg/L	< 1			
cis-1,3-Dichloropropene	µg/L	< 2			

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JOB NUMBER : D93-3537
REPORT DATE : 8-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
9	Trip Blank Greensboro, NC	Water	25-MAR-1993

VOLATILE HALOCARBONS, EPA 601 (Continued..)		9			
trans-1,3-Dichloropropene	µg/L	< 2			
Methylene chloride	µg/L	< 5			
1,1,2,2-Tetrachloroethane	µg/L	< 1			
Tetrachloroethene	µg/L	< 1			
1,1,1-Trichloroethane	µg/L	< 1			
1,1,2-Trichloroethane	µg/L	< 1			
Trichloroethene	µg/L	< 1			
Trichlorofluoromethane	µg/L	< 5			
Vinyl chloride	µg/L	< 5			

BTEX ANALYSIS, EPA 602		9			
Benzene	µg/L	< 1.0			
Toluene	µg/L	< 1.0			
Ethyl benzene	µg/L	< 1.0			
Xylenes	µg/L	< 1.0			
BTEX (total)	µg/L	< 1.0			

METHYL TERTIARY BUTYL ETHER, EPA 602		9			
Methyl Tertiary Butyl Ether	µg/L	< 10.0			

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-1
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-1
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : FJP
ANALYZED ON : 30-MAR-1993
DILUTION FACTOR : 5000

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	500	µg/L	<	500	µg/L
Bromoform	1000	µg/L	<	1000	µg/L
Bromomethane	6000	µg/L	<	6000	µg/L
Carbon tetrachloride	1000	µg/L	<	1000	µg/L
Chlorobenzene	1500	µg/L	<	1500	µg/L
Chloroethane	3000	µg/L	<	3000	µg/L
2-Chloroethylvinyl ether	1500	µg/L	<	1500	µg/L
Chloroform	500	µg/L	<	500	µg/L
Chloromethane	2500	µg/L	<	2500	µg/L
Dibromochloromethane	500	µg/L	<	500	µg/L
1,2-Dichlorobenzene	1000	µg/L	<	1000	µg/L
1,3-Dichlorobenzene	2000	µg/L	<	2000	µg/L
1,4-Dichlorobenzene	1500	µg/L	<	1500	µg/L
Dichlorodifluoromethane	10000	µg/L	<	10000	µg/L
1,1-Dichloroethene	1000	µg/L	<	1000	µg/L
1,2-Dichloroethane	1500	µg/L	<	1500	µg/L
1,1-Dichloroethane	500	µg/L	<	500	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3537-1
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	500	µg/L	<	500	µg/L
1,2-Dichloropropane	500	µg/L	<	500	µg/L
cis-1,3-Dichloropropene	1000	µg/L	<	1000	µg/L
trans-1,3-Dichloropropene	1000	µg/L	<	1000	µg/L
Methylene chloride	2500	µg/L	<	2500	µg/L
1,1,2,2-Tetrachloroethane	500	µg/L	<	500	µg/L
Tetrachloroethene	500	µg/L	<	500	µg/L
1,1,1-Trichloroethane	500	µg/L	<	500	µg/L
1,1,2-Trichloroethane	500	µg/L	<	500	µg/L
Trichloroethene	500	µg/L	<	500	µg/L
Trichlorofluoromethane	2500	µg/L	<	2500	µg/L
Vinyl chloride	2500	µg/L	<	2500	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	107	%

NDRC Laboratories, Inc.

David R. Godwin, Ph.D.
Chief Executive Officer

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-1
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-1
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 29-MAR-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : MCS
ANALYZED ON : 31-MAR-1993
DILUTION FACTOR : 4

ACID EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
4-Chloro-3-methylphenol	12.0	µg/L	<	12.0	µg/L
2-Chlorophenol	13.2	µg/L	<	13.2	µg/L
2,4-Dichlorophenol	10.8	µg/L	<	10.8	µg/L
2,4-Dimethylphenol	10.8	µg/L	<	10.8	µg/L
4,6-Dinitro-2-methylphenol	80.0	µg/L	<	80.0	µg/L
2,4-Dinitrophenol	168	µg/L	<	168	µg/L
2-Methylphenol	20.0	µg/L	<	20.0	µg/L
2-Nitrophenol	14.4	µg/L	<	14.4	µg/L
4-Nitrophenol	9.6	µg/L	<	9.6	µg/L
Pentachlorophenol	14.4	µg/L	<	14.4	µg/L
Phenol	6.0	µg/L	<	6.0	µg/L
2,4,6-Trichlorophenol	10.8	µg/L	<	10.8	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3537-1
ANALYSIS METHOD : EPA 625

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Phenol-d5 (SS)	100 µg/L	61.0 %
2-Fluorophenol (SS)	100 µg/L	52.8 %
2,4,6-Tribromophenol (SS)	100 µg/L	41.7 %

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ANALYSIS METHOD : EPA 625
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ANALYZED ON : 31-MAR-1993
DILUTION FACTOR : 4

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Acenaphthene	7.6	µg/L	<	7.6	µg/L
Acenaphthylene	14.0	µg/L	<	14.0	µg/L
Anthracene	7.6	µg/L	<	7.6	µg/L
Benzidine	176	µg/L	<	176	µg/L
Benzo(a)anthracene	31.2	µg/L	<	31.2	µg/L
Benzo(b)fluoranthene	19.2	µg/L	<	19.2	µg/L
Benzo(k)fluoranthene	10.0	µg/L	<	10.0	µg/L
Benzo(g,h,i)perylene	16.4	µg/L	<	16.4	µg/L
Benzo(a)pyrene	10.0	µg/L	<	10.0	µg/L
Bis(2-chloroethoxy)methane	21.2	µg/L	<	21.2	µg/L
Bis(2-chloroethyl)ether	22.8	µg/L	<	22.8	µg/L
Bis(2-chloroisopropyl)ether	22.8	µg/L	<	22.8	µg/L
Bis(2-ethylhexyl)phthalate	10.0	µg/L	<	10.0	µg/L
4-Bromophenylphenyl ether	7.6	µg/L	<	7.6	µg/L
Butyl benzyl phthalate	10.0	µg/L	<	10.0	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3537-1
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
2-Chloronaphthalene	7.6	µg/L	<	7.6	µg/L
4-Chlorophenylphenyl ether	16.8	µg/L	<	16.8	µg/L
Chrysene	10.0	µg/L	<	10.0	µg/L
Dibenz(a,h)anthracene	10.0	µg/L	<	10.0	µg/L
2,3,7,8-Tetrachorodibenzodioxin			Negative		
Di-n-butylphthalate	10.0	µg/L	<	10.0	µg/L
1,3-Dichlorobenzene	7.6	µg/L	<	7.6	µg/L
1,4-Dichlorobenzene	17.6	µg/L	<	17.6	µg/L
1,2-Dichlorobenzene	7.6	µg/L	<	7.6	µg/L
3,3'-Dichlorobenzidine	66.0	µg/L	<	66.0	µg/L
Diethylphthalate	7.6	µg/L	<	7.6	µg/L
Dimethylphthalate	6.4	µg/L	<	6.4	µg/L
2,4-Dinitrotoluene	22.8	µg/L	<	22.8	µg/L
2,6-Dinitrotoluene	7.6	µg/L	<	7.6	µg/L
Di-n-octylphthalate	10.0	µg/L	<	10.0	µg/L
1,2-Diphenylhydrazine	80.0	µg/L	<	80.0	µg/L
Fluoranthene	8.8	µg/L	<	8.8	µg/L
Fluorene	7.6	µg/L	<	7.6	µg/L
Hexachlorobenzene	7.6	µg/L	<	7.6	µg/L
Hexachlorobutadiene	3.6	µg/L	<	3.6	µg/L
Hexachlorocyclopentadiene	20.0	µg/L	<	20.0	µg/L
Hexachloroethane	6.4	µg/L	<	6.4	µg/L
Indeno(1,2,3-cd)pyrene	14.8	µg/L	<	14.8	µg/L
Isophorone	8.8	µg/L	<	8.8	µg/L
Naphthalene	6.4	µg/L		320	µg/L
Nitrobenzene	7.6	µg/L	<	7.6	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3537-1
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
N-Nitrosodimethylamine	20.0	µg/L	<	20.0	µg/L
N-Nitrosodiphenylamine	20.0	µg/L	<	20.0	µg/L
N-Nitrosodipropylamine	20.0	µg/L	<	20.0	µg/L
Phenanthrene	21.6	µg/L	<	21.6	µg/L
Pyrene	7.6	µg/L	<	7.6	µg/L
1,2,4-Trichlorobenzene	7.6	µg/L	<	7.6	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Nitrobenzene-d5(SS)	50.0	µg/L	109	%
2-Fluorobiphenyl(SS)	50.0	µg/L	117	%
Terphenyl-d14 (SS)	50.0	µg/L	111	%

NDRC Laboratories, Inc. David R. Godwin

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-1
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-1
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYZED BY : MCS
ANALYZED ON : 31-MAR-1993

TENTATIVELY IDENTIFIED COMPOUNDS				
COMPOUND	RETENTION TIME	FRACTION	RESULT	
Ethylmethylbenzene	10.12	ABN	860	µg/L
Trimethylbenzene	10.27	ABN	330	µg/L
Methylethylbenzene	10.53	ABN	370	µg/L
Dihydro-1H-indene	11.84	ABN	240	µg/L
Methylcyclohexenone	12.26	ABN	180	µg/L
Tetramethylbenzene	13.64	ABN	20	µg/L
Dihydromethyl-1H-indene	14.13	ABN	35	µg/L
2-Methylnaphthalene	17.20	ABN	59	µg/L
Trimethylbenzene	10.98	ABN	870	µg/L
Trimethylbenzene	11.57	ABN	370	µg/L
Methyl-methylethylbenzene	12.37	ABN	55	µg/L
Methyl-propylbenzene	12.56	ABN	99	µg/L
Methyl-methylethylbenzene	13.43	ABN	70	µg/L
Methyl-methylethylbenzene	13.74	ABN	30	µg/L
Dihydromethyl-1H-indene	14.36	ABN	40	µg/L
Tetramethylbenzene	12.83	ABN	67	µg/L

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SAMPLE MATRIX : Water
ID MARKS : MW-1
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 100

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	100	µg/L	3500	µg/L	
Toluene	100	µg/L	21000	µg/L	
Ethyl benzene	100	µg/L	3100	µg/L	
Xylenes	100	µg/L	17000	µg/L	
BTEX (total)			44600	µg/L	#

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	50.0	µg/L	101	%

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

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REPORT DATE : 8-APR-1993

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ADDRESS : 6701 Carmel Road Suite 200
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ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-1
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : CNA
ANALYZED ON : 27-MAR-1993
DILUTION FACTOR : 25

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	250 µg/L	< 250 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	82.0 %

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-2
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-2
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : FJP
ANALYZED ON : 1-APR-1993
DILUTION FACTOR : 1000

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	100	µg/L	<	100	µg/L
Bromoform	200	µg/L	<	200	µg/L
Bromomethane	1200	µg/L	<	1200	µg/L
Carbon tetrachloride	200	µg/L	<	200	µg/L
Chlorobenzene	300	µg/L	<	300	µg/L
Chloroethane	600	µg/L	<	600	µg/L
2-Chloroethylvinyl ether	300	µg/L	<	300	µg/L
Chloroform	100	µg/L	<	100	µg/L
Chloromethane	500	µg/L	<	500	µg/L
Dibromochloromethane	100	µg/L	<	100	µg/L
1,2-Dichlorobenzene	200	µg/L	<	200	µg/L
1,3-Dichlorobenzene	400	µg/L	<	400	µg/L
1,4-Dichlorobenzene	300	µg/L	<	300	µg/L
Dichlorodifluoromethane	2000	µg/L	<	2000	µg/L
1,1-Dichloroethene	200	µg/L	<	200	µg/L
1,2-Dichloroethane	300	µg/L	<	300	µg/L
1,1-Dichloroethane	100	µg/L	<	100	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3537-2
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	100	µg/L	<	100	µg/L
1,2-Dichloropropane	100	µg/L	<	100	µg/L
cis-1,3-Dichloropropene	200	µg/L	<	200	µg/L
trans-1,3-Dichloropropene	200	µg/L	<	200	µg/L
Methylene chloride	500	µg/L	<	500	µg/L
1,1,2,2-Tetrachloroethane	100	µg/L	<	100	µg/L
Tetrachloroethene	100	µg/L	<	100	µg/L
1,1,1-Trichloroethane	100	µg/L	<	100	µg/L
1,1,2-Trichloroethane	100	µg/L	<	100	µg/L
Trichloroethene	100	µg/L	<	100	µg/L
Trichlorofluoromethane	500	µg/L	<	500	µg/L
Vinyl chloride	500	µg/L	<	500	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	121	%

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ID MARKS : MW-2
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 29-MAR-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : MCS
ANALYZED ON : 1-APR-1993
DILUTION FACTOR : 4

ACID EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
4-Chloro-3-methylphenol	12.0	µg/L	<	12.0	µg/L
2-Chlorophenol	13.2	µg/L	<	13.2	µg/L
2,4-Dichlorophenol	10.8	µg/L	<	10.8	µg/L
2,4-Dimethylphenol	10.8	µg/L	<	10.8	µg/L
4,6-Dinitro-2-methylphenol	80.0	µg/L	<	80.0	µg/L
2,4-Dinitrophenol	168	µg/L	<	168	µg/L
2-Methylphenol	20.0	µg/L	<	20.0	µg/L
2-Nitrophenol	14.4	µg/L	<	14.4	µg/L
4-Nitrophenol	9.6	µg/L	<	9.6	µg/L
Pentachlorophenol	14.4	µg/L	<	14.4	µg/L
Phenol	6.0	µg/L	<	6.0	µg/L
2,4,6-Trichlorophenol	10.8	µg/L	<	10.8	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3537-2
ANALYSIS METHOD : EPA 625

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Phenol-d5 (SS)	100 µg/L	48.3 %
2-Fluorophenol (SS)	100 µg/L	54.5 %
2,4,6-Tribromophenol (SS)	100 µg/L	61.0 %

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ANALYZED BY : MCS
ANALYZED ON : 1-APR-1993
DILUTION FACTOR : 4

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Acenaphthene	7.6	µg/L	<	7.6	µg/L
Acenaphthylene	14.0	µg/L	<	14.0	µg/L
Anthracene	7.6	µg/L	<	7.6	µg/L
Benzidine	176	µg/L	<	176	µg/L
Benzo(a)anthracene	31.2	µg/L	<	31.2	µg/L
Benzo(b)fluoranthene	19.2	µg/L	<	19.2	µg/L
Benzo(k)fluoranthene	10.0	µg/L	<	10.0	µg/L
Benzo(g,h,i)perylene	16.4	µg/L	<	16.4	µg/L
Benzo(a)pyrene	10.0	µg/L	<	10.0	µg/L
Bis(2-chloroethoxy)methane	21.2	µg/L	<	21.2	µg/L
Bis(2-chloroethyl)ether	22.8	µg/L	<	22.8	µg/L
Bis(2-chloroisopropyl)ether	22.8	µg/L	<	22.8	µg/L
Bis(2-ethylhexyl)phthalate	10.0	µg/L	<	10.0	µg/L
4-Bromophenylphenyl ether	7.6	µg/L	<	7.6	µg/L
Butyl benzyl phthalate	10.0	µg/L	<	10.0	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3537-2
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
2-Chloronaphthalene	7.6	µg/L	<	7.6	µg/L
4-Chlorophenylphenyl ether	16.8	µg/L	<	16.8	µg/L
Chrysene	10.0	µg/L	<	10.0	µg/L
Dibenz(a,h)anthracene	10.0	µg/L	<	10.0	µg/L
2,3,7,8-Tetrachorodibenzodioxin			Negative		
Di-n-butylphthalate	10.0	µg/L	<	10.0	µg/L
1,3-Dichlorobenzene	7.6	µg/L	<	7.6	µg/L
1,4-Dichlorobenzene	17.6	µg/L	<	17.6	µg/L
1,2-Dichlorobenzene	7.6	µg/L	<	7.6	µg/L
3,3'-Dichlorobenzidine	66.0	µg/L	<	66.0	µg/L
Diethylphthalate	7.6	µg/L	<	7.6	µg/L
Dimethylphthalate	6.4	µg/L	<	6.4	µg/L
2,4-Dinitrotoluene	22.8	µg/L	<	22.8	µg/L
2,6-Dinitrotoluene	7.6	µg/L	<	7.6	µg/L
Di-n-octylphthalate	10.0	µg/L	<	10.0	µg/L
1,2-Diphenylhydrazine	80.0	µg/L	<	80.0	µg/L
Fluoranthene	8.8	µg/L	<	8.8	µg/L
Fluorene	7.6	µg/L	<	7.6	µg/L
Hexachlorobenzene	7.6	µg/L	<	7.6	µg/L
Hexachlorobutadiene	3.6	µg/L	<	3.6	µg/L
Hexachlorocyclopentadiene	20.0	µg/L	<	20.0	µg/L
Hexachloroethane	6.4	µg/L	<	6.4	µg/L
Indeno(1,2,3-cd)pyrene	14.8	µg/L	<	14.8	µg/L
Isophorone	8.8	µg/L	<	8.8	µg/L
Naphthalene	6.4	µg/L		370	µg/L
Nitrobenzene	7.6	µg/L	<	7.6	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

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ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
N-Nitrosodimethylamine	20.0	µg/L	<	20.0	µg/L
N-Nitrosodiphenylamine	20.0	µg/L	<	20.0	µg/L
N-Nitrosodipropylamine	20.0	µg/L	<	20.0	µg/L
Phenanthrene	21.6	µg/L	<	21.6	µg/L
Pyrene	7.6	µg/L	<	7.6	µg/L
1,2,4-Trichlorobenzene	7.6	µg/L	<	7.6	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Nitrobenzene-d5(SS)	50.0	µg/L	59.6	%
2-Fluorobiphenyl(SS)	50.0	µg/L	63.6	%
Terphenyl-d14 (SS)	50.0	µg/L	64.9	%

NDRC Laboratories, Inc. David R. Godwin

David R. Godwin, Ph.D.
Chief Executive Officer

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-2
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-2
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYZED BY : MCS
ANALYZED ON : 1-APR-1993

TENTATIVELY IDENTIFIED COMPOUNDS				
COMPOUND	RETENTION TIME	FRACTION	RESULT	
Ethylmethylbenzene	10.11	ABN	1100	µg/L
Trimethylbenzene	10.26	ABN	370	µg/L
Methylethylbenzene	10.53	ABN	360	µg/L
Decane	11.06	ABN	60	µg/L
Dihydro-1H-indene	11.83	ABN	260	µg/L
Propynylbenzene	12.04	ABN	50	µg/L
Methylpropylbenzene	12.21	ABN	210	µg/L
Diethylbenzene	12.31	ABN	88	µg/L
Ethyldimethylbenzene	12.38	ABN	130	µg/L
Dihydromethyl-1H-indene	14.13	ABN	40	µg/L
Dihydromethyl-1H-indene	14.35	ABN	76	µg/L
2-Methylnaphthalene	17.22	ABN	70	µg/L
Trimethylbenzene	10.90	ABN	940	µg/L
Trimethylbenzene	11.55	ABN	390	µg/L
Methylpropylbenzene	12.55	ABN	90	µg/L
Methyl-methylethylbenzene	12.78	ABN	45	µg/L
Unidentified oxygenated compound	10.41	ABN	40	µg/L

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BEAUMONT DALLAS HOUSTON

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ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-2
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : CNA
ANALYZED ON : 27-MAR-1993
DILUTION FACTOR : 25

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	25 µg/L	2000 µg/L
Toluene	25 µg/L	7300 µg/L
Ethyl benzene	25 µg/L	1200 µg/L
Xylenes	25 µg/L	5900 µg/L
BTEX (total)		16400 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	50.0 µg/L	84.0 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-2
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
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ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-2
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PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : CNA
ANALYZED ON : 27-MAR-1993
DILUTION FACTOR : 25

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	250 µg/L	< 250 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	84.0 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-3
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-3
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : FJP
ANALYZED ON : 30-MAR-1993
DILUTION FACTOR : 5000

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	500	µg/L	<	500	µg/L
Bromoform	1000	µg/L	<	1000	µg/L
Bromomethane	6000	µg/L	<	6000	µg/L
Carbon tetrachloride	1000	µg/L	<	1000	µg/L
Chlorobenzene	1500	µg/L	<	1500	µg/L
Chloroethane	3000	µg/L	<	3000	µg/L
2-Chloroethylvinyl ether	1500	µg/L	<	1500	µg/L
Chloroform	500	µg/L	<	500	µg/L
Chloromethane	2500	µg/L	<	2500	µg/L
Dibromochloromethane	500	µg/L	<	500	µg/L
1,2-Dichlorobenzene	1000	µg/L	<	1000	µg/L
1,3-Dichlorobenzene	2000	µg/L	<	2000	µg/L
1,4-Dichlorobenzene	1500	µg/L	<	1500	µg/L
Dichlorodifluoromethane	10000	µg/L	<	10000	µg/L
1,1-Dichloroethene	1000	µg/L	<	1000	µg/L
1,2-Dichloroethane	1500	µg/L	<	1500	µg/L
1,1-Dichloroethane	500	µg/L	<	500	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3537-3
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	500	µg/L	<	500	µg/L
1,2-Dichloropropane	500	µg/L	<	500	µg/L
cis-1,3-Dichloropropene	1000	µg/L	<	1000	µg/L
trans-1,3-Dichloropropene	1000	µg/L	<	1000	µg/L
Methylene chloride	2500	µg/L	<	2500	µg/L
1,1,2,2-Tetrachloroethane	500	µg/L	<	500	µg/L
Tetrachloroethene	500	µg/L	<	500	µg/L
1,1,1-Trichloroethane	500	µg/L	<	500	µg/L
1,1,2-Trichloroethane	500	µg/L	<	500	µg/L
Trichloroethene	500	µg/L	<	500	µg/L
Trichlorofluoromethane	2500	µg/L	<	2500	µg/L
Vinyl chloride	2500	µg/L	<	2500	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	106	%

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ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-3
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 29-MAR-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : MCS
ANALYZED ON : 5-APR-1993
DILUTION FACTOR : 10

ACID EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
4-Chloro-3-methylphenol	30	µg/L	<	30	µg/L
2-Chlorophenol	33	µg/L	<	33	µg/L
2,4-Dichlorophenol	27	µg/L	<	27	µg/L
2,4-Dimethylphenol	27	µg/L	<	27	µg/L
4,6-Dinitro-2-methylphenol	200	µg/L	<	200	µg/L
2,4-Dinitrophenol	420	µg/L	<	420	µg/L
2-Methylphenol	50	µg/L	<	50	µg/L
2-Nitrophenol	36	µg/L	<	36	µg/L
4-Nitrophenol	24	µg/L	<	24	µg/L
Pentachlorophenol	36	µg/L	<	36	µg/L
Phenol	15	µg/L	<	15	µg/L
2,4,6-Trichlorophenol	27	µg/L	<	27	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3537-3
ANALYSIS METHOD : EPA 625

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Phenol-d5 (SS)	100 µg/L	17.1 %
2-Fluorophenol (SS)	100 µg/L	18.4 %
2,4,6-Tribromophenol (SS)	100 µg/L	19.7 %

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ANALYSIS METHOD : EPA 625
ANALYZED BY : MCS
ANALYZED ON : 5-APR-1993
DILUTION FACTOR : 10

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Acenaphthene	19	µg/L	<	19	µg/L
Acenaphthylene	35	µg/L	<	35	µg/L
Anthracene	19	µg/L	<	19	µg/L
Benzidine	440	µg/L	<	440	µg/L
Benzo(a)anthracene	78	µg/L	<	78	µg/L
Benzo(b)fluoranthene	48	µg/L	<	48	µg/L
Benzo(k)fluoranthene	25	µg/L	<	25	µg/L
Benzo(g,h,i)perylene	41	µg/L	<	41	µg/L
Benzo(a)pyrene	25	µg/L	<	25	µg/L
Bis(2-chloroethoxy)methane	53	µg/L	<	53	µg/L
Bis(2-chloroethyl)ether	57	µg/L	<	57	µg/L
Bis(2-chloroisopropyl)ether	57	µg/L	<	57	µg/L
Bis(2-ethylhexyl)phthalate	25	µg/L	<	25	µg/L
4-Bromophenylphenyl ether	19	µg/L	<	19	µg/L
Butyl benzyl phthalate	25	µg/L	<	25	µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D93-3537-3
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
2-Chloronaphthalene	19	µg/L	<	19	µg/L
4-Chlorophenylphenyl ether	42	µg/L	<	42	µg/L
Chrysene	25	µg/L	<	25	µg/L
Dibenz(a,h)anthracene	25	µg/L	<	25	µg/L
2,3,7,8-Tetrachorodibenzodioxin			Negative		
Di-n-butylphthalate	25	µg/L	<	25	µg/L
1,3-Dichlorobenzene	19	µg/L	<	19	µg/L
1,4-Dichlorobenzene	44	µg/L	<	44	µg/L
1,2-Dichlorobenzene	19	µg/L	<	19	µg/L
3,3'-Dichlorobenzidine	165	µg/L	<	165	µg/L
Diethylphthalate	19	µg/L	<	19	µg/L
Dimethylphthalate	16	µg/L	<	16	µg/L
2,4-Dinitrotoluene	57	µg/L	<	57	µg/L
2,6-Dinitrotoluene	19	µg/L	<	19	µg/L
Di-n-octylphthalate	25	µg/L	<	25	µg/L
1,2-Diphenylhydrazine	200	µg/L	<	200	µg/L
Fluoranthene	22	µg/L	<	22	µg/L
Fluorene	19	µg/L	<	19	µg/L
Hexachlorobenzene	19	µg/L	<	19	µg/L
Hexachlorobutadiene	9	µg/L	<	9	µg/L
Hexachlorocyclopentadiene	50	µg/L	<	50	µg/L
Hexachloroethane	16	µg/L	<	16	µg/L
Indeno(1,2,3-cd)pyrene	37	µg/L	<	37	µg/L
Isophorone	22	µg/L	<	22	µg/L
Naphthalene	16	µg/L		440	µg/L
Nitrobenzene	19	µg/L	<	19	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3537-3
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
N-Nitrosodimethylamine	50	µg/L	<	50	µg/L
N-Nitrosodiphenylamine	50	µg/L	<	50	µg/L
N-Nitrosodipropylamine	50	µg/L	<	50	µg/L
Phenanthrene	54	µg/L	<	54	µg/L
Pyrene	19	µg/L	<	19	µg/L
1,2,4-Trichlorobenzene	19	µg/L	<	19	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Nitrobenzene-d5(SS)	50.0	µg/L	88.6	%
2-Fluorobiphenyl(SS)	50.0	µg/L	97.2	%
Terphenyl-d14 (SS)	50.0	µg/L	70.4	%

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BEAUMONT DALLAS HOUSTON

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REPORT NUMBER : D93-3537-3
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-3
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYZED BY : MCS
ANALYZED ON : 5-APR-1993

TENTATIVELY IDENTIFIED COMPOUNDS				
COMPOUND	RETENTION TIME	FRACTION	RESULT	
Ethylmethylbenzene	10.08	ABN	1400	µg/L
Trimethylbenzene	10.21	ABN	640	µg/L
Methylheptanone	10.97	ABN	230	µg/L
Dihydro-1H-indene	11.79	ABN	240	µg/L
Methylpropylbenzene	12.24	ABN	140	µg/L
Ethyldimethylbenzene	12.32	ABN	170	µg/L
Tetramethylbenzene	13.66	ABN	180	µg/L
Dihydromethyl-1H-indene	14.06	ABN	200	µg/L
Dimethylethylthiophene	15.45	ABN	130	µg/L
Dihydrodimethyl-1H-indene	16.28	ABN	110	µg/L
Dihydro-1H-indenone	16.38	ABN	110	µg/L
2-Methylnaphthalene	17.13	ABN	120	µg/L
Ethylmethylbenzene	10.48	ABN	650	µg/L
Trimethylbenzene	10.88	ABN	1400	µg/L
Trimethylbenzene	11.50	ABN	460	µg/L
Methyl-methylethylbenzene	12.73	ABN	130	µg/L
Methyl-methylethylbenzene	13.36	ABN	160	µg/L
Methyl-methylbenzene	13.57	ABN	170	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3537-3
ANALYSIS METHOD : EPA 625/8270

TENTATIVELY IDENTIFIED COMPOUNDS				
COMPOUND	RETENTION TIME	FRACTION	RESULT	
Dihydromethyl-1H-indene	14.29	ABN	260	µg/L
Unidentified oxygenated compound	12.15	ABN	580	µg/L
Unidentified aromatic	12.51	ABN	270	µg/L
Unidentified aromatic	14.17	ABN	110	µg/L
1-Methylnaphthalene	17.44	ABN	170	µg/L

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REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
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ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-3
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 100

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	100	µg/L	9700	µg/L	
Toluene	100	µg/L	35000	µg/L	
Ethyl benzene	100	µg/L	3600	µg/L	
Xylenes	100	µg/L	19000	µg/L	
BTEX (total)			67300	µg/L	#

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	50.0	µg/L	90.0	%

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

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PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 100

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	1000 µg/L	< 1000 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	90.0 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-4
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-4
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : FJP
ANALYZED ON : 31-MAR-1993
DILUTION FACTOR : 10

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	1	µg/L	<	1	µg/L
Bromoform	2	µg/L	<	2	µg/L
Bromomethane	12	µg/L	<	12	µg/L
Carbon tetrachloride	2	µg/L	<	2	µg/L
Chlorobenzene	3	µg/L	<	3	µg/L
Chloroethane	6	µg/L	<	6	µg/L
2-Chloroethylvinyl ether	3	µg/L	<	3	µg/L
Chloroform	1	µg/L	<	1	µg/L
Chloromethane	5	µg/L	<	5	µg/L
Dibromochloromethane	1	µg/L	<	1	µg/L
1,2-Dichlorobenzene	2	µg/L	<	2	µg/L
1,3-Dichlorobenzene	4	µg/L	<	4	µg/L
1,4-Dichlorobenzene	3	µg/L	<	3	µg/L
Dichlorodifluoromethane	20	µg/L	<	20	µg/L
1,1-Dichloroethene	2	µg/L	<	2	µg/L
1,2-Dichloroethane	3	µg/L	<	3	µg/L
1,1-Dichloroethane	1	µg/L	<	1	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3537-4
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	1	µg/L	<	1	µg/L
1,2-Dichloropropane	1	µg/L	<	1	µg/L
cis-1,3-Dichloropropene	2	µg/L	<	2	µg/L
trans-1,3-Dichloropropene	2	µg/L	<	2	µg/L
Methylene chloride	5	µg/L	<	5	µg/L
1,1,2,2-Tetrachloroethane	1	µg/L	<	1	µg/L
Tetrachloroethene	1	µg/L	<	1	µg/L
1,1,1-Trichloroethane	1	µg/L	<	1	µg/L
1,1,2-Trichloroethane	1	µg/L	<	1	µg/L
Trichloroethene	1	µg/L	<	1	µg/L
Trichlorofluoromethane	5	µg/L	<	5	µg/L
Vinyl chloride	5	µg/L	<	5	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	99.2	%

NDRC Laboratories, Inc.

David R. Godwin, Ph.D.
Chief Executive Officer

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-4
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-4
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 29-MAR-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : MCS
ANALYZED ON : 31-MAR-1993
DILUTION FACTOR : 1

ACID EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
4-Chloro-3-methylphenol	3.0	µg/L	<	3.0	µg/L
2-Chlorophenol	3.3	µg/L	<	3.3	µg/L
2,4-Dichlorophenol	2.7	µg/L	<	2.7	µg/L
2,4-Dimethylphenol	2.7	µg/L	<	2.7	µg/L
4,6-Dinitro-2-methylphenol	20.0	µg/L	<	20.0	µg/L
2,4-Dinitrophenol	42.0	µg/L	<	42.0	µg/L
2-Methylphenol	5.0	µg/L	<	5.0	µg/L
2-Nitrophenol	3.6	µg/L	<	3.6	µg/L
4-Nitrophenol	2.4	µg/L	<	2.4	µg/L
Pentachlorophenol	3.6	µg/L	<	3.6	µg/L
Phenol	1.5	µg/L	<	1.5	µg/L
2,4,6-Trichlorophenol	2.7	µg/L	<	2.7	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3537-4
ANALYSIS METHOD : EPA 625

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Phenol-d5 (SS)	100 µg/L	86.3 %
2-Fluorophenol (SS)	100 µg/L	94.7 %
2,4,6-Tribromophenol (SS)	100 µg/L	124 %

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ANALYSIS METHOD : EPA 625
ANALYZED BY : MCS
ANALYZED ON : 31-MAR-1993
DILUTION FACTOR : 1

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Acenaphthene	1.9	µg/L	<	1.9	µg/L
Acenaphthylene	3.5	µg/L	<	3.5	µg/L
Anthracene	1.9	µg/L	<	1.9	µg/L
Benzidine	44.0	µg/L	<	44.0	µg/L
Benzo(a)anthracene	7.8	µg/L	<	7.8	µg/L
Benzo(b)fluoranthene	4.8	µg/L	<	4.8	µg/L
Benzo(k)fluoranthene	2.5	µg/L	<	2.5	µg/L
Benzo(g,h,i)perylene	4.1	µg/L	<	4.1	µg/L
Benzo(a)pyrene	2.5	µg/L	<	2.5	µg/L
Bis(2-chloroethoxy)methane	5.3	µg/L	<	5.3	µg/L
Bis(2-chloroethyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-chloroisopropyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-ethylhexyl)phthalate	2.5	µg/L	<	2.5	µg/L
4-Bromophenylphenyl ether	1.9	µg/L	<	1.9	µg/L
Butyl benzyl phthalate	2.5	µg/L	<	2.5	µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D93-3537-4
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
2-Chloronaphthalene	1.9	µg/L	<	1.9	µg/L
4-Chlorophenylphenyl ether	4.2	µg/L	<	4.2	µg/L
Chrysene	2.5	µg/L	<	2.5	µg/L
Dibenz(a,h)anthracene	2.5	µg/L	<	2.5	µg/L
2,3,7,8-Tetrachorodibenzodioxin			Negative		
Di-n-butylphthalate	2.5	µg/L	<	2.5	µg/L
1,3-Dichlorobenzene	1.9	µg/L	<	1.9	µg/L
1,4-Dichlorobenzene	4.4	µg/L	<	4.4	µg/L
1,2-Dichlorobenzene	1.9	µg/L	<	1.9	µg/L
3,3'-Dichlorobenzidine	16.5	µg/L	<	16.5	µg/L
Diethylphthalate	1.9	µg/L	<	1.9	µg/L
Dimethylphthalate	1.6	µg/L	<	1.6	µg/L
2,4-Dinitrotoluene	5.7	µg/L	<	5.7	µg/L
2,6-Dinitrotoluene	1.9	µg/L	<	1.9	µg/L
Di-n-octylphthalate	2.5	µg/L	<	2.5	µg/L
1,2-Diphenylhydrazine	20.0	µg/L	<	20.0	µg/L
Fluoranthene	2.2	µg/L	<	2.2	µg/L
Fluorene	1.9	µg/L	<	1.9	µg/L
Hexachlorobenzene	1.9	µg/L	<	1.9	µg/L
Hexachlorobutadiene	0.9	µg/L	<	0.9	µg/L
Hexachlorocyclopentadiene	5.0	µg/L	<	5.0	µg/L
Hexachloroethane	1.6	µg/L	<	1.6	µg/L
Indeno(1,2,3-cd)pyrene	3.7	µg/L	<	3.7	µg/L
Isophorone	2.2	µg/L	<	2.2	µg/L
Naphthalene	1.6	µg/L	<	1.6	µg/L
Nitrobenzene	1.9	µg/L	<	1.9	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3537-4
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
N-Nitrosodimethylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodiphenylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodipropylamine	5.0 µg/L	< 5.0 µg/L
Phenanthrene	5.4 µg/L	< 5.4 µg/L
Pyrene	1.9 µg/L	< 1.9 µg/L
1,2,4-Trichlorobenzene	1.9 µg/L	< 1.9 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Nitrobenzene-d5(SS)	50.0 µg/L	109 %
2-Fluorobiphenyl(SS)	50.0 µg/L	126 %
Terphenyl-d14 (SS)	50.0 µg/L	112 %

NDRC Laboratories, Inc. David R. Godwin

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-4
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-4
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYZED BY : MCS
ANALYZED ON : 31-MAR-1993

TENTATIVELY IDENTIFIED COMPOUNDS			
COMPOUND	RETENTION TIME	FRACTION	RESULT
No compounds detected		ABN	< 10 µg/L

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SAMPLE MATRIX : Water
ID MARKS : MW-4
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	1.9 µg/L
Toluene	1.0 µg/L	4.7 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	11.0 µg/L
BTEX (total)		17.6 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	50.0 µg/L	108 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

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DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 1

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	10.0 µg/L	< 10.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	108 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3537-9
REPORT DATE : 8-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : Trip Blank
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : FJP
ANALYZED ON : 31-MAR-1993
DILUTION FACTOR : 10

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	1	µg/L	<	1	µg/L
Bromoform	2	µg/L	<	2	µg/L
Bromomethane	12	µg/L	<	12	µg/L
Carbon tetrachloride	2	µg/L	<	2	µg/L
Chlorobenzene	3	µg/L	<	3	µg/L
Chloroethane	6	µg/L	<	6	µg/L
2-Chloroethylvinyl ether	3	µg/L	<	3	µg/L
Chloroform	1	µg/L	<	1	µg/L
Chloromethane	5	µg/L	<	5	µg/L
Dibromochloromethane	1	µg/L	<	1	µg/L
1,2-Dichlorobenzene	2	µg/L	<	2	µg/L
1,3-Dichlorobenzene	4	µg/L	<	4	µg/L
1,4-Dichlorobenzene	3	µg/L	<	3	µg/L
Dichlorodifluoromethane	20	µg/L	<	20	µg/L
1,1-Dichloroethene	2	µg/L	<	2	µg/L
1,2-Dichloroethane	3	µg/L	<	3	µg/L
1,1-Dichloroethane	1	µg/L	<	1	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3537-9
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	1	µg/L	<	1	µg/L
1,2-Dichloropropane	1	µg/L	<	1	µg/L
cis-1,3-Dichloropropene	2	µg/L	<	2	µg/L
trans-1,3-Dichloropropene	2	µg/L	<	2	µg/L
Methylene chloride	5	µg/L	<	5	µg/L
1,1,2,2-Tetrachloroethane	1	µg/L	<	1	µg/L
Tetrachloroethene	1	µg/L	<	1	µg/L
1,1,1-Trichloroethane	1	µg/L	<	1	µg/L
1,1,2-Trichloroethane	1	µg/L	<	1	µg/L
Trichloroethene	1	µg/L	<	1	µg/L
Trichlorofluoromethane	5	µg/L	<	5	µg/L
Vinyl chloride	5	µg/L	<	5	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	96.2	%

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SAMPLE MATRIX : Water
ID MARKS : Trip Blank
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : CNA
ANALYZED ON : 27-MAR-1993
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	50.0 µg/L	94.0 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

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ANALYSIS METHOD : EPA 602
ANALYZED BY : CNA
ANALYZED ON : 27-MAR-1993
DILUTION FACTOR : 1

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	10.0 µg/L	< 10.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	94.0 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED: 26-MAR-1993

REPORT NUMBER: D93-3537

REPORT DATE: 8-APR-1993

SUBMITTED BY: Delta Environmental

LABORATORY QUALITY CONTROL REPORT

HALOGENATED VOLATILE ORGANICS

BATCH No.	----	MATRIX	Water
PREP METHOD	EPA 601	ANALYSIS METHOD	EPA 601
PREP DATE	3/31/93	ANALYSIS DATE	3/31/93
PREP TECHNICIAN / ANALYST	FJP	SPIKED SAMPLE ID No.	D93-3535-4

ANALYTE	Bromodichloromethane	Chloroform	Chlorobenzene	1,2-Dichlorobenzene	Vinyl Chloride
METHOD BLANK	< 1.0 µg/L	< 1.0 µg/L	< 3.0 µg/L	< 2.0 µg/L	< 5.0 µg/L
MS % RECOVERY	108	121	114	100	103
LCS % RECOVERY	119	120	125	118	88.7
MS/MSD RPD	3.4	3.8	0.8	2.8	2.5
SPIKE LEVEL	10 µg/L	10 µg/L	10 µg/L	10 µg/L	10 µg/L

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
RPD: Relative Percent Difference

COMMENTS:

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED: 26-MAR-1993 REPORT NUMBER: D93-3537

SUBMITTED BY: Delta Environmental

LABORATORY QUALITY CONTROL REPORT

BTEX \ VOLATILE AROMATICS

BATCH No.	----	**MATRIX**	Water
PREP METHOD	EPA 602	**ANALYSIS METHOD**	EPA 602
PREP DATE	3/27/93	**ANALYSIS DATE**	3/27/93
PREP TECHNICIAN / ANALYST	CNA	**SPIKED SAMPLE ID No.**	Reagent Water

ANALYTE	**Benzene**	**Ethyl Benzene**	**MTBE**
METHOD BLANK	< 1.0 µg/L	< 1.0 µg/L	< 10 µg/L
MS % RECOVERY	94.0	95.0	108
LCS % RECOVERY	93.0	95.0	109
MS/MSD RPD	3.2	4.3	2.0
SPIKE LEVEL	50 µg/L	50 µg/L	50 µg/L

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
RPD: Relative Percent Difference

COMMENTS:

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED: 26-MAR-1993

REPORT NUMBER: D93-3537

SUBMITTED BY: Delta Environmental

LABORATORY QUALITY CONTROL REPORT

ANALYTE	TPH	TPH	Total Solids
BATCH No.	006	----	----
MATRIX	Soil	Soil	Soil
PREP METHOD	EPA 3550	EPA 5030	----
PREP DATE	3/25/93	3/29/93	----
PREP TECHNICIAN	TLR	RJD	----
ANALYSIS METHOD	EPA 8000	EPA 8015	EPA 160.3
ANALYSIS DATE	3/26/93	3/29/93	3/29/93
ANALYST	MGD	RJD	KOB
METHOD BLANK	< 10 mg/Kg	< 50 µg/Kg	----
MS % RECOVERY	98.2	101	----
LCS % RECOVERY	93.5	115	----
DUPLICATE RPD	----	----	0.1
MS/MSD RPD	6.7	21.9	----
SPIKE LEVEL	83.3 mg/Kg	250 µg/Kg	----
SPIKED SAMPLE ID No.	D93-3417-6	D93-3347-8	----
DUPLICATE SAMPLE ID No.	----	----	D93-3588-13

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
RPD: Relative Percent Difference

COMMENTS:

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:NDRC Contract: 625_B004

Lab Code: HP003 Case No.: MCS SAS No.E 3/30/93 SDG No.A 4/2/93

Matrix Spike - EPA Sample No.: 3597-1 RP

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	200.00	0.00	150.00	76	12-110
2-Chlorophenol	200.00	0.00	160.00	80	27-123
1,4-Dichlorobenzene	100.00	0.00	89.00	89	36- 97
N-Nitroso-di-n-prop.(1)	100.00	0.00	95.00	95	41-116
1,2,4-Trichlorobenzene	100.00	0.00	89.00	89	39- 98
4-Chloro-3-methylphenol	200.00	0.00	170.00	87	23- 97
Acenaphthene	100.00	0.00	88.00	88	46-118
4-Nitrophenol	200.00	0.00	160.00	79	10- 80
2,4-Dinitrotoluene	100.00	0.00	76.00	76	24- 96
Pentachlorophenol	200.00	0.00	200.00	98	9-103
Pyrene	100.00	0.00	99.00	99	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	200.00	150.00	77	1	42	12-110
2-Chlorophenol	200.00	160.00	81	1	40	27-123
1,4-Dichlorobenzene	100.00	91.00	91	2	28	36- 97
N-Nitroso-di-n-prop.(1)	100.00	97.00	97	2	38	41-116
1,2,4-Trichlorobenzene	100.00	92.00	92	3	28	39- 98
4-Chloro-3-methylphenol	200.00	170.00	86	1	42	23- 97
Acenaphthene	100.00	88.00	88	0	31	46-118
4-Nitrophenol	200.00	150.00	74	6	50	10- 80
2,4-Dinitrotoluene	100.00	76.00	76	0	38	24- 96
Pentachlorophenol	200.00	200.00	98	0	50	9-103
Pyrene	100.00	110.00	110	10	31	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of qc limits

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS: SW-846 EPA METHOD 8270

Level I QC ORIGINAL

CHAIN OF CUSTODY RECORD

EXXON Company, USA
Regional Laboratory Program

NDRC Laboratories, Inc. 1089 East Collins Blvd, Richardson, Texas 75081 (214) 238-5591 (Voice), (214) 238-5592 (Fax)
Attn: Belinda Feuerbacher, Project Manager

Page ___ of ___

Consultant's Name : Delta Environmental Consultants INC
Address : 6701 Carmel Rd, suite 200, Charlotte NC 28226
Project : EXXON Co. USA
Consultant Proj # : 50-92-037
Consultant Work Release # : 92077663
Project Contact : David Curlis
Phone : 704-541-9898 Fax : 704-543-4035
Laboratory Work Release # : 09353148
Alternate Contact : LUBA GROSS
Phone : Fax :
Site Location : Greensboro NC
EXXON Contact : FRANK EE / C&M (circle one)
Phone : Fax :
EXXON RAS # : 4-3998
Sampled by (print) : Luba Gross
Sampler's Signature : Luba L. Gross
Shipment Method : Burlington
Air Bill # : 971-808-246
Shipment Date : 03/25/93

ANALYSIS REQUIRED
Number of Containers

Sample Condition as Received
Temperature °C : <4°C
Cooler # : EX117
Inbound Sealed Yes No
Outbound Sealed Yes No

SAMPLE ID	DATE	TIME	MATRIX WATER/ SOIL	PRSV	SAMPLE LOCATION/ DESCRIPTION	601	602 (BTEX/MTBE)	625	TPH 3550 8020 / 5030 TPH 8015				COMMENTS	
MW-1	03/25		water		monitoring well	3	3	2	→	2 ambers & VOAS			3537	-1
MW-2	↓		↓		↓	3	3	2		"				-2
MW-3						3	3	2		"			BTX-TPH	-3
MW-4						3	3	2		"			Due 4-2-93	-4
SB-5	03/24		soil		soil borings	[redacted]			2	2 ZLOMES			All else	-5
SB-6	↓		↓		↓				2	"			Due 4-6-93	-6
SB-7									2	"				-7
SB-8	03/25								2	"				-8
trip blank			water		trip blank					2 VOAS				-9

Turn around time ☐ 24 hr ☐ 48 hr ☐ 72 hr ☒ Standard ☐ Other _____

Total # of Containers : 40 + 2 trip blank

(1) Relinquished by Signature	Date	(2) Relinquished by Signature	Date	(3) Relinquished by Signature	Date
Luba Gross	03/25/93	Luba Gross	03/25/93	Luba Gross	03/25/93
Company :	Time:	Company :	Time:	Company :	Time:
(1) Received by Signature	Date	(2) Received by Signature	Date	(3) Received by Signature	Date
~~Luba Gross~~		B. W[illegible]	3-26-93		
Company :	Time:	Company : NDRC	Time: 18:00	Company :	Time:

Distribution : White - Original Yellow - Exxon Pink - NDRC Laboratories, Inc. Goldenrod - Consultant

NDRC LABORATORIES, INC. № 23619

Dallas - 1089 East Collins Blvd. • Richardson, Texas 75081 • (214) 238-5591 • Fax (214) 238-5592

SAMPLE PRESERVATION INFORMATION SHEET

Field Sampling ☐ Incoming Samples ☐

GENERAL

Company: Delta Env. Job No: 3537

No. of Cooler(s): 1 Temperature of Cooler(s): <4°

PRESERVATION INFORMATION

Sample No.	Temperature of Sample	Sample Container	Volume	Preservation used *	Initial pH	Final pH	Bottles generated	Comments
3537-1		1-AG	1L	8	4.8	4.8	1	NH
-1					1	1		
-2					5.1	5.1		
-2					1	1		
-3					4.5	4.5		
-3					1	1		
-4					5.1	5.1		
-4					1	1		

PRESERVATION USED *

1 - Cool to 4° C
2 - H_2SO_4 to pH < 2
3 - HNO_3 to pH < 2
4 - HCL to pH < 2
5 - NaOH to pH > 12
6 - $Na_2S_2O_2$ 0.008%
7 - 2 mL Zinc Acetate and NaOH to pH > 12
8 - None required

KRN
Preserved by

2-26-92
Date/Time

APR 12 1993

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon SS# 4-3998

JOB NUMBER : D93-3535
REPORT DATE : 6-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-5 Greensboro, NC	Water	25-MAR-1993
2	MW-6 Greensboro, NC	Water	25-MAR-1993
3	MW-7 Greensboro, NC	Water	25-MAR-1993
4	Trip Blank Greensboro, NC	Water	25-MAR-1993

VOLATILE HALOCARBONS, EPA 601		1	2	3	4
Bromodichloromethane	µg/L	< 1	< 1	< 1	< 1
Bromoform	µg/L	< 2	< 2	< 2	< 2
Bromomethane	µg/L	< 12	< 12	< 12	< 12
Carbon tetrachloride	µg/L	< 2	< 2	< 2	< 2
Chlorobenzene	µg/L	< 3	< 3	< 3	< 3
Chloroethane	µg/L	< 6	< 6	< 6	< 6
2-Chloroethylvinyl ether	µg/L	< 3	< 3	< 3	< 3
Chloroform	µg/L	< 1	< 1	< 1	< 1
Chloromethane	µg/L	< 5	< 5	< 5	< 5
Dibromochloromethane	µg/L	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	µg/L	< 2	< 2	< 2	< 2
1,3-Dichlorobenzene	µg/L	< 4	< 4	< 4	< 4
1,4-Dichlorobenzene	µg/L	< 3	< 3	< 3	< 3
Dichlorodifluoromethane	µg/L	< 20	< 20	< 20	< 20
1,1-Dichloroethene	µg/L	< 2	< 2	< 2	< 2
1,2-Dichloroethane	µg/L	< 3	< 3	< 3	< 3
1,1-Dichloroethane	µg/L	< 1	< 1	< 1	< 1
trans-1,2-Dichloroethene	µg/L	< 1	< 1	< 1	< 1
1,2-Dichloropropane	µg/L	< 1	< 1	< 1	< 1
cis-1,3-Dichloropropene	µg/L	< 2	< 2	< 2	< 2

David R. Folsom

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon SS# 4-3998

JOB NUMBER : D93-3535
REPORT DATE : 6-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-5 Greensboro, NC	Water	25-MAR-1993
2	MW-6 Greensboro, NC	Water	25-MAR-1993
3	MW-7 Greensboro, NC	Water	25-MAR-1993
4	Trip Blank Greensboro, NC	Water	25-MAR-1993

VOLATILE HALOCARBONS, EPA 601 (Continued..)		1	2	3	4
trans-1,3-Dichloropropene	µg/L	< 2	< 2	< 2	< 2
Methylene chloride	µg/L	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	µg/L	< 1	< 1	13	< 1
Tetrachloroethene	µg/L	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	µg/L	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	µg/L	< 1	< 1	< 1	< 1
Trichloroethene	µg/L	< 1	< 1	< 1	< 1
Trichlorofluoromethane	µg/L	< 5	< 5	< 5	< 5
Vinyl chloride	µg/L	< 5	< 5	< 5	< 5

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon SS# 4-3998

JOB NUMBER : D93-3535
REPORT DATE : 6-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-5 Greensboro, NC	Water	25-MAR-1993
2	MW-6 Greensboro, NC	Water	25-MAR-1993
3	MW-7 Greensboro, NC	Water	25-MAR-1993
4	Trip Blank Greensboro, NC	Water	25-MAR-1993

ACID EXTRACTABLE ORGANICS, EPA 625		1	2	3	4
4-Chloro-3-methylphenol	µg/L	< 3.0	< 3.0	< 3.0	-
2-Chlorophenol	µg/L	< 3.3	< 3.3	< 3.3	-
2,4-Dichlorophenol	µg/L	< 2.7	< 2.7	< 2.7	-
2,4-Dimethylphenol	µg/L	< 2.7	< 2.7	< 2.7	-
4,6-Dinitro-2-methylphenol	µg/L	< 20.0	< 20.0	< 20.0	-
2,4-Dinitrophenol	µg/L	< 42.0	< 42.0	< 42.0	-
2-Methylphenol	µg/L	< 5.0	< 5.0	< 5.0	-
2-Nitrophenol	µg/L	< 3.6	< 3.6	< 3.6	-
4-Nitrophenol	µg/L	< 2.4	< 2.4	< 2.4	-
Pentachlorophenol	µg/L	< 3.6	< 3.6	< 3.6	-
Phenol	µg/L	6.2	21.3	15.1	-
2,4,6-Trichlorophenol	µg/L	< 2.7	< 2.7	< 2.7	-

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625		1	2	3	4
Acenaphthene	µg/L	< 1.9	< 1.9	< 1.9	-
Acenaphthylene	µg/L	< 3.5	< 3.5	< 3.5	-
Anthracene	µg/L	3.2	< 1.9	< 1.9	-
Benzidine	µg/L	< 44.0	< 44.0	< 44.0	-
Benzo(a)anthracene	µg/L	< 7.8	< 7.8	< 7.8	-
Benzo(b)fluoranthene	µg/L	< 4.8	< 4.8	< 4.8	-

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon SS# 4-3998

JOB NUMBER : D93-3535
REPORT DATE : 6-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-5 Greensboro, NC	Water	25-MAR-1993
2	MW-6 Greensboro, NC	Water	25-MAR-1993
3	MW-7 Greensboro, NC	Water	25-MAR-1993
4	Trip Blank Greensboro, NC	Water	25-MAR-1993

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625 (Continued..)		1	2	3	4
Benzo(k)fluoranthene	µg/L	< 2.5	< 2.5	< 2.5	-
Benzo(g,h,i)perylene	µg/L	< 4.1	< 4.1	< 4.1	-
Benzo(a)pyrene	µg/L	< 2.5	< 2.5	< 2.5	-
Bis(2-chloroethoxy)methane	µg/L	< 5.3	< 5.3	< 5.3	-
Bis(2-chloroethyl)ether	µg/L	< 5.7	< 5.7	< 5.7	-
Bis(2-chloroisopropyl)ether	µg/L	< 5.7	< 5.7	< 5.7	-
Bis(2-ethylhexyl)phthalate	µg/L	8.5	15.2	< 2.5	-
4-Bromophenylphenyl ether	µg/L	< 1.9	< 1.9	< 1.9	-
Butyl benzyl phthalate	µg/L	< 2.5	19.0	< 2.5	-
2-Chloronaphthalene	µg/L	< 1.9	< 1.9	< 1.9	-
4-Chlorophenylphenyl ether	µg/L	< 4.2	< 4.2	< 4.2	-
Chrysene	µg/L	< 2.5	< 2.5	< 2.5	-
Dibenz(a,h)anthracene	µg/L	< 2.5	< 2.5	< 2.5	-
2,3,7,8-Tetrachorodibenzodioxin		Negative	Negative	Negative	-
Di-n-butylphthalate	µg/L	< 2.5	< 2.5	< 2.5	-
1,3-Dichlorobenzene	µg/L	< 1.9	< 1.9	< 1.9	-
1,4-Dichlorobenzene	µg/L	< 4.4	< 4.4	< 4.4	-
1,2-Dichlorobenzene	µg/L	< 1.9	< 1.9	< 1.9	-
3,3'-Dichlorobenzidine	µg/L	< 16.5	< 16.5	< 16.5	-

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon SS# 4-3998

JOB NUMBER : D93-3535
REPORT DATE : 6-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-5 Greensboro, NC	Water	25-MAR-1993
2	MW-6 Greensboro, NC	Water	25-MAR-1993
3	MW-7 Greensboro, NC	Water	25-MAR-1993
4	Trip Blank Greensboro, NC	Water	25-MAR-1993

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625 (Continued..)		1	2	3	4
Diethylphthalate	µg/L	< 1.9	< 1.9	< 1.9	-
Dimethylphthalate	µg/L	< 1.6	< 1.6	< 1.6	-
2,4-Dinitrotoluene	µg/L	< 5.7	< 5.7	< 5.7	-
2,6-Dinitrotoluene	µg/L	< 1.9	< 1.9	< 1.9	-
Di-n-octylphthalate	µg/L	< 2.5	< 2.5	< 2.5	-
1,2-Diphenylhydrazine	µg/L	< 20.0	< 20.0	< 20.0	-
Fluoranthene	µg/L	< 2.2	< 2.2	< 2.2	-
Fluorene	µg/L	< 1.9	4.0	2.5	-
Hexachlorobenzene	µg/L	< 1.9	< 1.9	< 1.9	-
Hexachlorobutadiene	µg/L	< 0.9	< 0.9	< 0.9	-
Hexachlorocyclopentadiene	µg/L	< 5.0	< 5.0	< 5.0	-
Hexachloroethane	µg/L	< 1.6	< 1.6	< 1.6	-
Indeno(1,2,3-cd)pyrene	µg/L	< 3.7	< 3.7	< 3.7	-
Isophorone	µg/L	< 2.2	< 2.2	< 2.2	-
Naphthalene	µg/L	< 1.6	5.4	3.2	-
Nitrobenzene	µg/L	< 1.9	< 1.9	< 1.9	-
N-Nitrosodimethylamine	µg/L	< 5.0	< 5.0	< 5.0	-
N-Nitrosodiphenylamine	µg/L	< 5.0	< 5.0	< 5.0	-
N-Nitrosodipropylamine	µg/L	< 5.0	< 5.0	< 5.0	-

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon SS# 4-3998

JOB NUMBER : D93-3535
REPORT DATE : 6-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-5 Greensboro, NC	Water	25-MAR-1993
2	MW-6 Greensboro, NC	Water	25-MAR-1993
3	MW-7 Greensboro, NC	Water	25-MAR-1993
4	Trip Blank Greensboro, NC	Water	25-MAR-1993

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625 (Continued..)		1	2	3	4
Phenanthrene	µg/L	< 5.4	11.1	7.8	-
Pyrene	µg/L	< 1.9	< 1.9	< 1.9	-
1,2,4-Trichlorobenzene	µg/L	< 1.9	< 1.9	< 1.9	-

TENTATIVELY IDENTIFIED COMPOUNDS		1	2	3	4
1-Methylnaphthalene	µg/L	-	19	12	-
Benzopyranone	µg/L	-	14	-	-
Dimethylnaphthalene	µg/L	-	16	-	-
Heptadecanoic acid	µg/L	-	15	-	-
Octadecanoic acid	µg/L	-	13	-	-
Unidentified acid	µg/L	-	21	-	-
Unidentified aromatic	µg/L	11	18	14	-
Unidentified compound	µg/L	-	27	-	-
Unidentified ketone	µg/L	-	-	16	-
Unknown halogenated hydrocarbon	µg/L	-	-	13	-

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon SS# 4-3998

JOB NUMBER : D93-3535
REPORT DATE : 6-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-5 Greensboro, NC	Water	25-MAR-1993
2	MW-6 Greensboro, NC	Water	25-MAR-1993
3	MW-7 Greensboro, NC	Water	25-MAR-1993
4	Trip Blank Greensboro, NC	Water	25-MAR-1993

BTEX ANALYSIS, EPA 602		1	2	3	4
Benzene	µg/L	< 1.0	< 1.0	1.9	< 1.0
Toluene	µg/L	< 1.0	< 1.0	1.9	< 1.0
Ethyl benzene	µg/L	< 1.0	< 1.0	1.9	< 1.0
Xylenes	µg/L	< 1.0	< 1.0	3.4	< 1.0
BTEX (total)	µg/L	< 1.0	< 1.0	9.1	< 1.0

METHYL TERTIARY BUTYL ETHER, EPA 602		1	2	3	4
Methyl Tertiary Butyl Ether	µg/L	< 10.0	< 10.0	36.0	< 10.0

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3535-1
REPORT DATE : 6-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-5
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : FJP
ANALYZED ON : 1-APR-1993
DILUTION FACTOR : 10

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	1	µg/L	<	1	µg/L
Bromoform	2	µg/L	<	2	µg/L
Bromomethane	12	µg/L	<	12	µg/L
Carbon tetrachloride	2	µg/L	<	2	µg/L
Chlorobenzene	3	µg/L	<	3	µg/L
Chloroethane	6	µg/L	<	6	µg/L
2-Chloroethylvinyl ether	3	µg/L	<	3	µg/L
Chloroform	1	µg/L	<	1	µg/L
Chloromethane	5	µg/L	<	5	µg/L
Dibromochloromethane	1	µg/L	<	1	µg/L
1,2-Dichlorobenzene	2	µg/L	<	2	µg/L
1,3-Dichlorobenzene	4	µg/L	<	4	µg/L
1,4-Dichlorobenzene	3	µg/L	<	3	µg/L
Dichlorodifluoromethane	20	µg/L	<	20	µg/L
1,1-Dichloroethene	2	µg/L	<	2	µg/L
1,2-Dichloroethane	3	µg/L	<	3	µg/L
1,1-Dichloroethane	1	µg/L	<	1	µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D93-3535-1
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	1	µg/L	<	1	µg/L
1,2-Dichloropropane	1	µg/L	<	1	µg/L
cis-1,3-Dichloropropene	2	µg/L	<	2	µg/L
trans-1,3-Dichloropropene	2	µg/L	<	2	µg/L
Methylene chloride	5	µg/L	<	5	µg/L
1,1,2,2-Tetrachloroethane	1	µg/L	<	1	µg/L
Tetrachloroethene	1	µg/L	<	1	µg/L
1,1,1-Trichloroethane	1	µg/L	<	1	µg/L
1,1,2-Trichloroethane	1	µg/L	<	1	µg/L
Trichloroethene	1	µg/L	<	1	µg/L
Trichlorofluoromethane	5	µg/L	<	5	µg/L
Vinyl chloride	5	µg/L	<	5	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	105	%

NDRC Laboratories, Inc.

David R. Godwin, Ph.D.
Chief Executive Officer

NDRC LABORATORIES, INC.

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3535-1
REPORT DATE : 6-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-5
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 25-MAR-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 2-APR-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : MCS
ANALYZED ON : 3-APR-1993
DILUTION FACTOR : 1

ACID EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
4-Chloro-3-methylphenol	3.0	µg/L	<	3.0	µg/L
2-Chlorophenol	3.3	µg/L	<	3.3	µg/L
2,4-Dichlorophenol	2.7	µg/L	<	2.7	µg/L
2,4-Dimethylphenol	2.7	µg/L	<	2.7	µg/L
4,6-Dinitro-2-methylphenol	20.0	µg/L	<	20.0	µg/L
2,4-Dinitrophenol	42.0	µg/L	<	42.0	µg/L
2-Methylphenol	5.0	µg/L	<	5.0	µg/L
2-Nitrophenol	3.6	µg/L	<	3.6	µg/L
4-Nitrophenol	2.4	µg/L	<	2.4	µg/L
Pentachlorophenol	3.6	µg/L	<	3.6	µg/L
Phenol	1.5	µg/L		6.2	µg/L
2,4,6-Trichlorophenol	2.7	µg/L	<	2.7	µg/L

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1089 East Collins Blvd., Richardson, Texas 75081 • (214) 238-5591 • FAX (214) 238-5592

BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3535-1
ANALYSIS METHOD : EPA 625

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Phenol-d5 (SS)	100 µg/L	71.3 %
2-Fluorophenol (SS)	100 µg/L	73.0 %
2,4,6-Tribromophenol (SS)	100 µg/L	104 %

NDRC Laboratories, Inc. David R. Godwin

David R. Godwin, Ph.D.
Chief Executive Officer

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3535-1
REPORT DATE : 6-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-5
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 25-MAR-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 29-MAR-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : MCS
ANALYZED ON : 3-APR-1993
DILUTION FACTOR : 1

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Acenaphthene	1.9	µg/L	<	1.9	µg/L
Acenaphthylene	3.5	µg/L	<	3.5	µg/L
Anthracene	1.9	µg/L		3.2	µg/L
Benzidine	44.0	µg/L	<	44.0	µg/L
Benzo(a)anthracene	7.8	µg/L	<	7.8	µg/L
Benzo(b)fluoranthene	4.8	µg/L	<	4.8	µg/L
Benzo(k)fluoranthene	2.5	µg/L	<	2.5	µg/L
Benzo(g,h,i)perylene	4.1	µg/L	<	4.1	µg/L
Benzo(a)pyrene	2.5	µg/L	<	2.5	µg/L
Bis(2-chloroethoxy)methane	5.3	µg/L	<	5.3	µg/L
Bis(2-chloroethyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-chloroisopropyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-ethylhexyl)phthalate	2.5	µg/L		8.5	µg/L
4-Bromophenylphenyl ether	1.9	µg/L	<	1.9	µg/L
Butyl benzyl phthalate	2.5	µg/L	<	2.5	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3535-1
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
2-Chloronaphthalene	1.9	µg/L	<	1.9	µg/L
4-Chlorophenylphenyl ether	4.2	µg/L	<	4.2	µg/L
Chrysene	2.5	µg/L	<	2.5	µg/L
Dibenz(a,h)anthracene	2.5	µg/L	<	2.5	µg/L
2,3,7,8-Tetrachorodibenzodioxin			Negative		
Di-n-butylphthalate	2.5	µg/L	<	2.5	µg/L
1,3-Dichlorobenzene	1.9	µg/L	<	1.9	µg/L
1,4-Dichlorobenzene	4.4	µg/L	<	4.4	µg/L
1,2-Dichlorobenzene	1.9	µg/L	<	1.9	µg/L
3,3'-Dichlorobenzidine	16.5	µg/L	<	16.5	µg/L
Diethylphthalate	1.9	µg/L	<	1.9	µg/L
Dimethylphthalate	1.6	µg/L	<	1.6	µg/L
2,4-Dinitrotoluene	5.7	µg/L	<	5.7	µg/L
2,6-Dinitrotoluene	1.9	µg/L	<	1.9	µg/L
Di-n-octylphthalate	2.5	µg/L	<	2.5	µg/L
1,2-Diphenylhydrazine	20.0	µg/L	<	20.0	µg/L
Fluoranthene	2.2	µg/L	<	2.2	µg/L
Fluorene	1.9	µg/L	<	1.9	µg/L
Hexachlorobenzene	1.9	µg/L	<	1.9	µg/L
Hexachlorobutadiene	0.9	µg/L	<	0.9	µg/L
Hexachlorocyclopentadiene	5.0	µg/L	<	5.0	µg/L
Hexachloroethane	1.6	µg/L	<	1.6	µg/L
Indeno(1,2,3-cd)pyrene	3.7	µg/L	<	3.7	µg/L
Isophorone	2.2	µg/L	<	2.2	µg/L
Naphthalene	1.6	µg/L	<	1.6	µg/L
Nitrobenzene	1.9	µg/L	<	1.9	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3535-1
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
N-Nitrosodimethylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodiphenylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodipropylamine	5.0 µg/L	< 5.0 µg/L
Phenanthrene	5.4 µg/L	< 5.4 µg/L
Pyrene	1.9 µg/L	< 1.9 µg/L
1,2,4-Trichlorobenzene	1.9 µg/L	< 1.9 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Nitrobenzene-d5(SS)	50.0 µg/L	81.6 %
2-Fluorobiphenyl(SS)	50.0 µg/L	88.0 %
Terphenyl-d14 (SS)	50.0 µg/L	58.2 %

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3535-1
REPORT DATE : 6-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-5
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYZED BY : MCS
ANALYZED ON : 3-APR-1993

TENTATIVELY IDENTIFIED COMPOUNDS			
COMPOUND	RETENTION TIME	FRACTION	RESULT
Unidentified aromatic	20.91	ABN	11 µg/L
Unidentified aromatic	32.71	ABN	11 µg/L

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ADDRESS : 6701 Carmel Road Suite 200
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ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-5
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : RJD
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	50.0 µg/L	94.0 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

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ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-5
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : CNA
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 1

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	10.0 µg/L	< 10.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	94.0 %

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3535-2
REPORT DATE : 6-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-6
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : FJP
ANALYZED ON : 1-APR-1993
DILUTION FACTOR : 10

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	1	µg/L	<	1	µg/L
Bromoform	2	µg/L	<	2	µg/L
Bromomethane	12	µg/L	<	12	µg/L
Carbon tetrachloride	2	µg/L	<	2	µg/L
Chlorobenzene	3	µg/L	<	3	µg/L
Chloroethane	6	µg/L	<	6	µg/L
2-Chloroethylvinyl ether	3	µg/L	<	3	µg/L
Chloroform	1	µg/L	<	1	µg/L
Chloromethane	5	µg/L	<	5	µg/L
Dibromochloromethane	1	µg/L	<	1	µg/L
1,2-Dichlorobenzene	2	µg/L	<	2	µg/L
1,3-Dichlorobenzene	4	µg/L	<	4	µg/L
1,4-Dichlorobenzene	3	µg/L	<	3	µg/L
Dichlorodifluoromethane	20	µg/L	<	20	µg/L
1,1-Dichloroethene	2	µg/L	<	2	µg/L
1,2-Dichloroethane	3	µg/L	<	3	µg/L
1,1-Dichloroethane	1	µg/L	<	1	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3535-2
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
trans-1,2-Dichloroethene	1 µg/L	< 1 µg/L
1,2-Dichloropropane	1 µg/L	< 1 µg/L
cis-1,3-Dichloropropene	2 µg/L	< 2 µg/L
trans-1,3-Dichloropropene	2 µg/L	< 2 µg/L
Methylene chloride	5 µg/L	< 5 µg/L
1,1,2,2-Tetrachloroethane	1 µg/L	< 1 µg/L
Tetrachloroethene	1 µg/L	< 1 µg/L
1,1,1-Trichloroethane	1 µg/L	< 1 µg/L
1,1,2-Trichloroethane	1 µg/L	< 1 µg/L
Trichloroethene	1 µg/L	< 1 µg/L
Trichlorofluoromethane	5 µg/L	< 5 µg/L
Vinyl chloride	5 µg/L	< 5 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene (SS)	50.0 µg/L	86.1 %

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SAMPLE MATRIX : Water
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: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 25-MAR-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 29-MAR-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : MCS
ANALYZED ON : 1-APR-1993
DILUTION FACTOR : 1

ACID EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
4-Chloro-3-methylphenol	3.0	µg/L	<	3.0	µg/L
2-Chlorophenol	3.3	µg/L	<	3.3	µg/L
2,4-Dichlorophenol	2.7	µg/L	<	2.7	µg/L
2,4-Dimethylphenol	2.7	µg/L	<	2.7	µg/L
4,6-Dinitro-2-methylphenol	20.0	µg/L	<	20.0	µg/L
2,4-Dinitrophenol	42.0	µg/L	<	42.0	µg/L
2-Methylphenol	5.0	µg/L	<	5.0	µg/L
2-Nitrophenol	3.6	µg/L	<	3.6	µg/L
4-Nitrophenol	2.4	µg/L	<	2.4	µg/L
Pentachlorophenol	3.6	µg/L	<	3.6	µg/L
Phenol	1.5	µg/L		21.3	µg/L
2,4,6-Trichlorophenol	2.7	µg/L	<	2.7	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3535-2
ANALYSIS METHOD : EPA 625

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Phenol-d5 (SS)	100 µg/L	101 %
2-Fluorophenol (SS)	100 µg/L	104 %
2,4,6-Tribromophenol (SS)	100 µg/L	123 %

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ANALYSIS METHOD : EPA 625
ANALYZED BY : MCS
ANALYZED ON : 1-APR-1993
DILUTION FACTOR : 1

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Acenaphthene	1.9	µg/L	<	1.9	µg/L
Acenaphthylene	3.5	µg/L	<	3.5	µg/L
Anthracene	1.9	µg/L	<	1.9	µg/L
Benzidine	44.0	µg/L	<	44.0	µg/L
Benzo(a)anthracene	7.8	µg/L	<	7.8	µg/L
Benzo(b)fluoranthene	4.8	µg/L	<	4.8	µg/L
Benzo(k)fluoranthene	2.5	µg/L	<	2.5	µg/L
Benzo(g,h,i)perylene	4.1	µg/L	<	4.1	µg/L
Benzo(a)pyrene	2.5	µg/L	<	2.5	µg/L
Bis(2-chloroethoxy)methane	5.3	µg/L	<	5.3	µg/L
Bis(2-chloroethyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-chloroisopropyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-ethylhexyl)phthalate	2.5	µg/L		15.2	µg/L
4-Bromophenylphenyl ether	1.9	µg/L	<	1.9	µg/L
Butyl benzyl phthalate	2.5	µg/L		19.0	µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D93-3535-2
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
2-Chloronaphthalene	1.9	µg/L	<	1.9	µg/L
4-Chlorophenylphenyl ether	4.2	µg/L	<	4.2	µg/L
Chrysene	2.5	µg/L	<	2.5	µg/L
Dibenz(a,h)anthracene	2.5	µg/L	<	2.5	µg/L
2,3,7,8-Tetrachorodibenzodioxin			Negative		
Di-n-butylphthalate	2.5	µg/L	<	2.5	µg/L
1,3-Dichlorobenzene	1.9	µg/L	<	1.9	µg/L
1,4-Dichlorobenzene	4.4	µg/L	<	4.4	µg/L
1,2-Dichlorobenzene	1.9	µg/L	<	1.9	µg/L
3,3'-Dichlorobenzidine	16.5	µg/L	<	16.5	µg/L
Diethylphthalate	1.9	µg/L	<	1.9	µg/L
Dimethylphthalate	1.6	µg/L	<	1.6	µg/L
2,4-Dinitrotoluene	5.7	µg/L	<	5.7	µg/L
2,6-Dinitrotoluene	1.9	µg/L	<	1.9	µg/L
Di-n-octylphthalate	2.5	µg/L	<	2.5	µg/L
1,2-Diphenylhydrazine	20.0	µg/L	<	20.0	µg/L
Fluoranthene	2.2	µg/L	<	2.2	µg/L
Fluorene	1.9	µg/L		4.0	µg/L
Hexachlorobenzene	1.9	µg/L	<	1.9	µg/L
Hexachlorobutadiene	0.9	µg/L	<	0.9	µg/L
Hexachlorocyclopentadiene	5.0	µg/L	<	5.0	µg/L
Hexachloroethane	1.6	µg/L	<	1.6	µg/L
Indeno(1,2,3-cd)pyrene	3.7	µg/L	<	3.7	µg/L
Isophorone	2.2	µg/L	<	2.2	µg/L
Naphthalene	1.6	µg/L		5.4	µg/L
Nitrobenzene	1.9	µg/L	<	1.9	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3535-2
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
N-Nitrosodimethylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodiphenylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodipropylamine	5.0 µg/L	< 5.0 µg/L
Phenanthrene	5.4 µg/L	11.1 µg/L
Pyrene	1.9 µg/L	< 1.9 µg/L
1,2,4-Trichlorobenzene	1.9 µg/L	< 1.9 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Nitrobenzene-d5(SS)	50.0 µg/L	109 %
2-Fluorobiphenyl(SS)	50.0 µg/L	102 %
Terphenyl-d14 (SS)	50.0 µg/L	101 %

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BEAUMONT DALLAS HOUSTON

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REPORT DATE : 6-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
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ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-6
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYZED BY : MCS
ANALYZED ON : 1-APR-1993

TENTATIVELY IDENTIFIED COMPOUNDS				
COMPOUND	RETENTION TIME	FRACTION	RESULT	
1-Methylnaphthalene	17.52	ABN	19	µg/L
Dimethylnaphthalene	19.44	ABN	16	µg/L
Benzopyranone	19.76	ABN	14	µg/L
Heptadecanoic acid	28.19	ABN	15	µg/L
Octadecanoic acid	29.73	ABN	13	µg/L
Unidentified compound	41.24	ABN	27	µg/L
Unidentified aromatic	20.90	ABN	18	µg/L
Unidentified acid	29.52	ABN	21	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

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: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-6
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : RJD
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	50.0 µg/L	94.0 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

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1089 East Collins Blvd., Richardson, Texas 75081 • (214) 238-5591 • FAX (214) 238-5592

BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3535-2
REPORT DATE : 6-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-6
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : CNA
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 1

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	10.0 µg/L	< 10.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	94.0 %

NDRC Laboratories, Inc. David R. Godwin

David R. Godwin, Ph.D.
Chief Executive Officer

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3535-3
REPORT DATE : 6-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-7
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : FJP
ANALYZED ON : 1-APR-1993
DILUTION FACTOR : 10

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	1	µg/L	<	1	µg/L
Bromoform	2	µg/L	<	2	µg/L
Bromomethane	12	µg/L	<	12	µg/L
Carbon tetrachloride	2	µg/L	<	2	µg/L
Chlorobenzene	3	µg/L	<	3	µg/L
Chloroethane	6	µg/L	<	6	µg/L
2-Chloroethylvinyl ether	3	µg/L	<	3	µg/L
Chloroform	1	µg/L	<	1	µg/L
Chloromethane	5	µg/L	<	5	µg/L
Dibromochloromethane	1	µg/L	<	1	µg/L
1,2-Dichlorobenzene	2	µg/L	<	2	µg/L
1,3-Dichlorobenzene	4	µg/L	<	4	µg/L
1,4-Dichlorobenzene	3	µg/L	<	3	µg/L
Dichlorodifluoromethane	20	µg/L	<	20	µg/L
1,1-Dichloroethene	2	µg/L	<	2	µg/L
1,2-Dichloroethane	3	µg/L	<	3	µg/L
1,1-Dichloroethane	1	µg/L	<	1	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3535-3

ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	1	µg/L	<	1	µg/L
1,2-Dichloropropane	1	µg/L	<	1	µg/L
cis-1,3-Dichloropropene	2	µg/L	<	2	µg/L
trans-1,3-Dichloropropene	2	µg/L	<	2	µg/L
Methylene chloride	5	µg/L	<	5	µg/L
1,1,2,2-Tetrachloroethane	1	µg/L		13	µg/L
Tetrachloroethene	1	µg/L	<	1	µg/L
1,1,1-Trichloroethane	1	µg/L	<	1	µg/L
1,1,2-Trichloroethane	1	µg/L	<	1	µg/L
Trichloroethene	1	µg/L	<	1	µg/L
Trichlorofluoromethane	5	µg/L	<	5	µg/L
Vinyl chloride	5	µg/L	<	5	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	115	%

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3535-3
REPORT DATE : 6-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-7
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 25-MAR-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 29-MAR-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : MCS
ANALYZED ON : 31-MAR-1993
DILUTION FACTOR : 1

ACID EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
4-Chloro-3-methylphenol	3.0	µg/L	<	3.0	µg/L
2-Chlorophenol	3.3	µg/L	<	3.3	µg/L
2,4-Dichlorophenol	2.7	µg/L	<	2.7	µg/L
2,4-Dimethylphenol	2.7	µg/L	<	2.7	µg/L
4,6-Dinitro-2-methylphenol	20.0	µg/L	<	20.0	µg/L
2,4-Dinitrophenol	42.0	µg/L	<	42.0	µg/L
2-Methylphenol	5.0	µg/L	<	5.0	µg/L
2-Nitrophenol	3.6	µg/L	<	3.6	µg/L
4-Nitrophenol	2.4	µg/L	<	2.4	µg/L
Pentachlorophenol	3.6	µg/L	<	3.6	µg/L
Phenol	1.5	µg/L		15.1	µg/L
2,4,6-Trichlorophenol	2.7	µg/L	<	2.7	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3535-3
ANALYSIS METHOD : EPA 625

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Phenol-d5 (SS)	100	µg/L	84.8	%
2-Fluorophenol (SS)	100	µg/L	91.6	%
2,4,6-Tribromophenol (SS)	100	µg/L	98.2	%

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REPORT DATE : 6-APR-1993

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ADDRESS : 6701 Carmel Road Suite 200
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ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-7
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 25-MAR-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 29-MAR-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : MCS
ANALYZED ON : 31-MAR-1993
DILUTION FACTOR : 1

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Acenaphthene	1.9	µg/L	<	1.9	µg/L
Acenaphthylene	3.5	µg/L	<	3.5	µg/L
Anthracene	1.9	µg/L	<	1.9	µg/L
Benzidine	44.0	µg/L	<	44.0	µg/L
Benzo(a)anthracene	7.8	µg/L	<	7.8	µg/L
Benzo(b)fluoranthene	4.8	µg/L	<	4.8	µg/L
Benzo(k)fluoranthene	2.5	µg/L	<	2.5	µg/L
Benzo(g,h,i)perylene	4.1	µg/L	<	4.1	µg/L
Benzo(a)pyrene	2.5	µg/L	<	2.5	µg/L
Bis(2-chloroethoxy)methane	5.3	µg/L	<	5.3	µg/L
Bis(2-chloroethyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-chloroisopropyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-ethylhexyl)phthalate	2.5	µg/L	<	2.5	µg/L
4-Bromophenylphenyl ether	1.9	µg/L	<	1.9	µg/L
Butyl benzyl phthalate	2.5	µg/L	<	2.5	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3535-3
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
2-Chloronaphthalene	1.9	µg/L	<	1.9	µg/L
4-Chlorophenylphenyl ether	4.2	µg/L	<	4.2	µg/L
Chrysene	2.5	µg/L	<	2.5	µg/L
Dibenz(a,h)anthracene	2.5	µg/L	<	2.5	µg/L
2,3,7,8-Tetrachorodibenzodioxin			Negative		
Di-n-butylphthalate	2.5	µg/L	<	2.5	µg/L
1,3-Dichlorobenzene	1.9	µg/L	<	1.9	µg/L
1,4-Dichlorobenzene	4.4	µg/L	<	4.4	µg/L
1,2-Dichlorobenzene	1.9	µg/L	<	1.9	µg/L
3,3'-Dichlorobenzidine	16.5	µg/L	<	16.5	µg/L
Diethylphthalate	1.9	µg/L	<	1.9	µg/L
Dimethylphthalate	1.6	µg/L	<	1.6	µg/L
2,4-Dinitrotoluene	5.7	µg/L	<	5.7	µg/L
2,6-Dinitrotoluene	1.9	µg/L	<	1.9	µg/L
Di-n-octylphthalate	2.5	µg/L	<	2.5	µg/L
1,2-Diphenylhydrazine	20.0	µg/L	<	20.0	µg/L
Fluoranthene	2.2	µg/L	<	2.2	µg/L
Fluorene	1.9	µg/L		2.5	µg/L
Hexachlorobenzene	1.9	µg/L	<	1.9	µg/L
Hexachlorobutadiene	0.9	µg/L	<	0.9	µg/L
Hexachlorocyclopentadiene	5.0	µg/L	<	5.0	µg/L
Hexachloroethane	1.6	µg/L	<	1.6	µg/L
Indeno(1,2,3-cd)pyrene	3.7	µg/L	<	3.7	µg/L
Isophorone	2.2	µg/L	<	2.2	µg/L
Naphthalene	1.6	µg/L		3.2	µg/L
Nitrobenzene	1.9	µg/L	<	1.9	µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D93-3535-3
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
N-Nitrosodimethylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodiphenylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodipropylamine	5.0 µg/L	< 5.0 µg/L
Phenanthrene	5.4 µg/L	7.8 µg/L
Pyrene	1.9 µg/L	< 1.9 µg/L
1,2,4-Trichlorobenzene	1.9 µg/L	< 1.9 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Nitrobenzene-d5(SS)	50.0 µg/L	101 %
2-Fluorobiphenyl(SS)	50.0 µg/L	94.5 %
Terphenyl-d14 (SS)	50.0 µg/L	66.5 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3535-3
REPORT DATE : 6-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-7
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYZED BY : MCS
ANALYZED ON : 31-MAR-1993

TENTATIVELY IDENTIFIED COMPOUNDS				
COMPOUND	RETENTION TIME	FRACTION	RESULT	
1-Methylnaphthalene	17.54	ABN	12	µg/L
Unidentified ketone	13.46	ABN	16	µg/L
Unknown halogenated hydrocarbon	16.87	ABN	13	µg/L
Unidentified aromatic	20.92	ABN	14	µg/L

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ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-7
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : RJD
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	1.9 µg/L
Toluene	1.0 µg/L	1.9 µg/L
Ethyl benzene	1.0 µg/L	1.9 µg/L
Xylenes	1.0 µg/L	3.4 µg/L
BTEX (total)		9.1 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	50.0 µg/L	88.0 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

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ID MARKS : MW-7
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : CNA
ANALYZED ON : 29-MAR-1993
DILUTION FACTOR : 1

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	10.0 µg/L	36.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	88.0 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 26-MAR-1993

REPORT NUMBER : D93-3535-4
REPORT DATE : 6-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : Trip Blank
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 25-MAR-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : FJP
ANALYZED ON : 31-MAR-1993
DILUTION FACTOR : 10

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	1	µg/L	<	1	µg/L
Bromoform	2	µg/L	<	2	µg/L
Bromomethane	12	µg/L	<	12	µg/L
Carbon tetrachloride	2	µg/L	<	2	µg/L
Chlorobenzene	3	µg/L	<	3	µg/L
Chloroethane	6	µg/L	<	6	µg/L
2-Chloroethylvinyl ether	3	µg/L	<	3	µg/L
Chloroform	1	µg/L	<	1	µg/L
Chloromethane	5	µg/L	<	5	µg/L
Dibromochloromethane	1	µg/L	<	1	µg/L
1,2-Dichlorobenzene	2	µg/L	<	2	µg/L
1,3-Dichlorobenzene	4	µg/L	<	4	µg/L
1,4-Dichlorobenzene	3	µg/L	<	3	µg/L
Dichlorodifluoromethane	20	µg/L	<	20	µg/L
1,1-Dichloroethene	2	µg/L	<	2	µg/L
1,2-Dichloroethane	3	µg/L	<	3	µg/L
1,1-Dichloroethane	1	µg/L	<	1	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3535-4
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
trans-1,2-Dichloroethene	1 µg/L	< 1 µg/L
1,2-Dichloropropane	1 µg/L	< 1 µg/L
cis-1,3-Dichloropropene	2 µg/L	< 2 µg/L
trans-1,3-Dichloropropene	2 µg/L	< 2 µg/L
Methylene chloride	5 µg/L	< 5 µg/L
1,1,2,2-Tetrachloroethane	1 µg/L	< 1 µg/L
Tetrachloroethene	1 µg/L	< 1 µg/L
1,1,1-Trichloroethane	1 µg/L	< 1 µg/L
1,1,2-Trichloroethane	1 µg/L	< 1 µg/L
Trichloroethene	1 µg/L	< 1 µg/L
Trichlorofluoromethane	5 µg/L	< 5 µg/L
Vinyl chloride	5 µg/L	< 5 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene (SS)	50.0 µg/L	95.4 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED: 26-MAR-1993

REPORT NUMBER: D93-3535

REPORT DATE: 6-APR-1993

SUBMITTED BY: Delta Environmental

LABORATORY QUALITY CONTROL REPORT

HALOGENATED VOLATILE ORGANICS

BATCH No.	----	MATRIX	Water
PREP METHOD	EPA 601	ANALYSIS METHOD	EPA 601
PREP DATE	3/31/93	ANALYSIS DATE	3/31/93
PREP TECHNICIAN / ANALYST	FJP	SPIKED SAMPLE ID No.	D93-3535-4

ANALYTE	Bromodichloromethane	Chloroform	Chlorobenzene	1,2-Dichlorobenzene	Vinyl Chloride
METHOD BLANK	< 1.0 µg/L	< 1.0 µg/L	< 3.0 µg/L	< 2.0 µg/L	< 5.0 µg/L
MS % RECOVERY	108	121	114	100	103
LCS % RECOVERY	119	120	125	118	88.7
MS/MSD RPD	3.4	3.8	0.8	2.8	2.5
SPIKE LEVEL	10 µg/L	10 µg/L	10 µg/L	10 µg/L	10 µg/L

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
RPD: Relative Percent Difference

COMMENTS:

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED: 26-MAR-1993

REPORT NUMBER: D93-3535

SUBMITTED BY: Delta Environmental

LABORATORY QUALITY CONTROL REPORT

BTEX \ VOLATILE AROMATICS

BATCH No.	----	MATRIX	Water
PREP METHOD	EPA 602	ANALYSIS METHOD	EPA 602
PREP DATE	3/30/93	ANALYSIS DATE	3/30/93
PREP TECHNICIAN / ANALYST	RJD	SPIKED SAMPLE ID No.	D93-3605-1

ANALYTE	Benzene	Ethyl Benzene	MTBE
METHOD BLANK	< 1.0 µg/L	< 1.0 µg/L	< 10 µg/L
MS % RECOVERY	90.9	90.9	103
LCS % RECOVERY	94.2	94	108
MS/MSD RPD	1.09	1.41	1.92
SPIKE LEVEL	50 µg/L	50 µg/L	50 µg/L

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
RPD: Relative Percent Difference

COMMENTS:

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name:NDRC Contract: 625_B004

Lab Code: HP003 Case No.: MCS SAS No.E 3/30/93 SDG No.A 4/2/93

Matrix Spike - EPA Sample No.: 3597-1 RP

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	200.00	0.00	150.00	76	12-110
2-Chlorophenol	200.00	0.00	160.00	80	27-123
1,4-Dichlorobenzene	100.00	0.00	89.00	89	36- 97
N-Nitroso-di-n-prop.(1)	100.00	0.00	95.00	95	41-116
1,2,4-Trichlorobenzene	100.00	0.00	89.00	89	39- 98
4-Chloro-3-methylphenol	200.00	0.00	170.00	87	23- 97
Acenaphthene	100.00	0.00	88.00	88	46-118
4-Nitrophenol	200.00	0.00	160.00	79	10- 80
2,4-Dinitrotoluene	100.00	0.00	76.00	76	24- 96
Pentachlorophenol	200.00	0.00	200.00	98	9-103
Pyrene	100.00	0.00	99.00	99	26-127

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	200.00	150.00	77	1	42	12-110
2-Chlorophenol	200.00	160.00	81	1	40	27-123
1,4-Dichlorobenzene	100.00	91.00	91	2	28	36- 97
N-Nitroso-di-n-prop.(1)	100.00	97.00	97	2	38	41-116
1,2,4-Trichlorobenzene	100.00	92.00	92	3	28	39- 98
4-Chloro-3-methylphenol	200.00	170.00	86	1	42	23- 97
Acenaphthene	100.00	88.00	88	0	31	46-118
4-Nitrophenol	200.00	150.00	74	6	50	10- 80
2,4-Dinitrotoluene	100.00	76.00	76	0	38	24- 96
Pentachlorophenol	200.00	200.00	98	0	50	9-103
Pyrene	100.00	110.00	110	10	31	26-127

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of qc limits

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS: SW-846 EPA METHOD ~~8270~~ 625

Level I QC

CHAIN OF CUSTODY RECORD

ORIGINAL

Exxon Company, USA
Regional Laboratory Program

NDRC Laboratories, Inc. 1089 East Collins Blvd, Richardson, Texas 75081 (214) 238-5591 (Voice), (214) 238-5592 (Fax)
Attn: Belinda Feuerbacher, Project Manager

Page ___ of ___

Consultant's Name : Delta Environmental Consultants, Inc.
Address : 6701 Carmel Rd, suite 200, Charlotte NC 28226
Project : EXXON Co. USA
Consultant Proj # : 50-92-037
Consultant Work Release # : 92077663
Project Contact : David Curlis
Phone : 704-541-9890 Fax : 704-543-4035
Laboratory Work Release # : 09353147
Alternate Contact : LUBA GROSS
Phone : Fax :
Site Location : Greensboro NC
EXXON Contact : FRANK EE / C&M (circle one)
Phone : Fax :
EXXON RAS # : 4-3998
Sampled by (print) : Luba Gross
Sampler's Signature : Luba Gross
Shipment Method : Burlington
Air Bill # : 698218213
Shipment Date : 03/25/93

ANALYSIS REQUIRED
Number of Containers

Sample Condition as Received
Temperature °C : ___
Cooler # : ___
Inbound Sealed Yes No
Outbound Sealed Yes No

SAMPLE ID	DATE	TIME	MATRIX WATER/ SOIL	PRSV	SAMPLE LOCATION/ DESCRIPTION	601	602 (BTEX/MTBE)	625						COMMENTS
MW-5	03/25/93		W		monitoring well	3	3	2		2 Ambers / 6 VOAs				ok 3535 -1
MW-6						3	3	2						-2
MW-7						3	3	2						-3
trip blank					trip blank									-4
														Due 4/2/93
														625 Due 4/6/93

Turn around time ☐ 24 hr ☐ 48 hr ☐ 72 hr ☒ Standard ☐ Other ___

Total # of Containers : 24 + 2 trip blank

(1) Relinquished by Signature	Date	(2) Relinquished by Signature	Date	(3) Relinquished by Signature	Date
Luba Gross	03/25/93	Luba Gross	03/25/93	Luba Gross	03/25/93
Company :	Time:	Company :	Time:	Company :	Time:
(1) Received by Signature	Date	(2) Received by Signature	Date	(3) Received by Signature	Date
				David Hoyt	3/26/93
Company :	Time:	Company :	Time:	Company : NDRC	Time: 9:00

Distribution : White - Original Yellow - Exxon Pink - NDRC Laboratories, Inc. Goldenrod - Consultant

NDRC LABORATORIES, INC. № 23612

Dallas - 1089 East Collins Blvd. • Richardson, Texas 75081 • (214) 238-5591 • Fax (214) 238-5592

SAMPLE PRESERVATION INFORMATION SHEET

Field Sampling ☐ Incoming Samples ☐

GENERAL

Company: Delta Environmental Job No: 3535

No. of Cooler(s): 1 Temperature of Cooler(s): <4° C

PRESERVATION INFORMATION

Sample No.	Temperature of Sample	Sample Container	Volume	Preservation used *	Initial pH	Final pH	Bottles generated	Comments
3535-1		2+1G	1L	8	5.1	5.1	2	NP
-2		1	1	1	1	1	1	1
-3		2+1G	1L	8	5.0	5.0	2	NP

PRESERVATION USED *

1 - Cool to 4° C
2 - H_2SO_4 to pH < 2
3 - HNO_3 to pH < 2
4 - HCL to pH < 2
5 - NaOH to pH > 12
6 - $Na_2S_2O_2$ 0.008%
7 - 2 mL Zinc Acetate and NaOH to pH > 12
8 - None required

YLK
Preserved by

3/26/93
Date/Time

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon 4-3998

JOB NUMBER : D93-3597
REPORT DATE : 6-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	DW-8 Greensboro, NC	Water	26-MAR-1993
2	Trip Blank Greensboro, NC	Water	26-MAR-1993

VOLATILE HALOCARBONS, EPA 601		1	2		
Bromodichloromethane	µg/L	< 1	< 1		
Bromoform	µg/L	< 2	< 2		
Bromomethane	µg/L	< 12	< 12		
Carbon tetrachloride	µg/L	< 2	< 2		
Chlorobenzene	µg/L	< 3	< 3		
Chloroethane	µg/L	< 6	< 6		
2-Chloroethylvinyl ether	µg/L	< 3	< 3		
Chloroform	µg/L	11	< 1		
Chloromethane	µg/L	< 5	< 5		
Dibromochloromethane	µg/L	< 1	< 1		
1,2-Dichlorobenzene	µg/L	< 2	< 2		
1,3-Dichlorobenzene	µg/L	< 4	< 4		
1,4-Dichlorobenzene	µg/L	< 3	< 3		
Dichlorodifluoromethane	µg/L	< 20	< 20		
1,1-Dichloroethene	µg/L	< 2	< 2		
1,2-Dichloroethane	µg/L	< 3	< 3		
1,1-Dichloroethane	µg/L	< 1	< 1		
trans-1,2-Dichloroethene	µg/L	< 1	< 1		
1,2-Dichloropropane	µg/L	< 1	< 1		
cis-1,3-Dichloropropene	µg/L	< 2	< 2		

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
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JOB NUMBER : D93-3597
REPORT DATE : 6-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	DW-8 Greensboro, NC	Water	26-MAR-1993
2	Trip Blank Greensboro, NC	Water	26-MAR-1993

VOLATILE HALOCARBONS, EPA 601 (Continued..)		1	2		
trans-1,3-Dichloropropene	µg/L	< 2	< 2		
Methylene chloride	µg/L	< 5	< 5		
1,1,2,2-Tetrachloroethane	µg/L	< 1	< 1		
Tetrachloroethene	µg/L	< 1	< 1		
1,1,1-Trichloroethane	µg/L	< 1	< 1		
1,1,2-Trichloroethane	µg/L	< 1	< 1		
Trichloroethene	µg/L	< 1	< 1		
Trichlorofluoromethane	µg/L	< 5	< 5		
Vinyl chloride	µg/L	< 5	< 5		

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SUMMARY REPORT

CLIENT : Delta Environmental
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JOB NUMBER : D93-3597
REPORT DATE : 6-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	DW-8 Greensboro, NC	Water	26-MAR-1993
2	Trip Blank Greensboro, NC	Water	26-MAR-1993

ACID EXTRACTABLE ORGANICS, EPA 625		1	2		
4-Chloro-3-methylphenol	µg/L	< 3.0	-		
2-Chlorophenol	µg/L	< 3.3	-		
2,4-Dichlorophenol	µg/L	< 2.7	-		
2,4-Dimethylphenol	µg/L	< 2.7	-		
4,6-Dinitro-2-methylphenol	µg/L	< 20.0	-		
2,4-Dinitrophenol	µg/L	< 42.0	-		
2-Methylphenol	µg/L	< 5.0	-		
2-Nitrophenol	µg/L	< 3.6	-		
4-Nitrophenol	µg/L	< 2.4	-		
Pentachlorophenol	µg/L	< 3.6	-		
Phenol	µg/L	< 1.5	-		
2,4,6-Trichlorophenol	µg/L	< 2.7	-		

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625		1	2		
Acenaphthene	µg/L	< 1.9	-		
Acenaphthylene	µg/L	< 3.5	-		
Anthracene	µg/L	< 1.9	-		
Benzidine	µg/L	< 44.0	-		
Benzo(a)anthracene	µg/L	< 7.8	-		
Benzo(b)fluoranthene	µg/L	< 4.8	-		

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SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon 4-3998

JOB NUMBER : D93-3597
REPORT DATE : 6-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	DW-8 Greensboro, NC	Water	26-MAR-1993
2	Trip Blank Greensboro, NC	Water	26-MAR-1993

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625 (Continued..)		1	2		
Benzo(k)fluoranthene	µg/L	< 2.5	-		
Benzo(g,h,i)perylene	µg/L	< 4.1	-		
Benzo(a)pyrene	µg/L	< 2.5	-		
Bis(2-chloroethoxy)methane	µg/L	< 5.3	-		
Bis(2-chloroethyl)ether	µg/L	< 5.7	-		
Bis(2-chloroisopropyl)ether	µg/L	< 5.7	-		
Bis(2-ethylhexyl)phthalate	µg/L	< 2.5	-		
4-Bromophenylphenyl ether	µg/L	< 1.9	-		
Butyl benzyl phthalate	µg/L	< 2.5	-		
2-Chloronaphthalene	µg/L	< 1.9	-		
4-Chlorophenylphenyl ether	µg/L	< 4.2	-		
Chrysene	µg/L	< 2.5	-		
Dibenz(a,h)anthracene	µg/L	< 2.5	-		
2,3,7,8-Tetrachorodibenzodioxin		Negative	-		
Di-n-butylphthalate	µg/L	< 2.5	-		
1,3-Dichlorobenzene	µg/L	< 1.9	-		
1,4-Dichlorobenzene	µg/L	< 4.4	-		
1,2-Dichlorobenzene	µg/L	< 1.9	-		
3,3'-Dichlorobenzidine	µg/L	< 16.5	-		

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon 4-3998

JOB NUMBER : D93-3597
REPORT DATE : 6-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	DW-8 Greensboro, NC	Water	26-MAR-1993
2	Trip Blank Greensboro, NC	Water	26-MAR-1993

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625 (Continued..)		1	2		
Diethylphthalate	µg/L	< 1.9	-		
Dimethylphthalate	µg/L	< 1.6	-		
2,4-Dinitrotoluene	µg/L	< 5.7	-		
2,6-Dinitrotoluene	µg/L	< 1.9	-		
Di-n-octylphthalate	µg/L	< 2.5	-		
1,2-Diphenylhydrazine	µg/L	< 20.0	-		
Fluoranthene	µg/L	< 2.2	-		
Fluorene	µg/L	< 1.9	-		
Hexachlorobenzene	µg/L	< 1.9	-		
Hexachlorobutadiene	µg/L	< 0.9	-		
Hexachlorocyclopentadiene	µg/L	< 5.0	-		
Hexachloroethane	µg/L	< 1.6	-		
Indeno(1,2,3-cd)pyrene	µg/L	< 3.7	-		
Isophorone	µg/L	< 2.2	-		
Naphthalene	µg/L	< 1.6	-		
Nitrobenzene	µg/L	< 1.9	-		
N-Nitrosodimethylamine	µg/L	< 5.0	-		
N-Nitrosodiphenylamine	µg/L	< 5.0	-		
N-Nitrosodipropylamine	µg/L	< 5.0	-		

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon 4-3998

JOB NUMBER : D93-3597
REPORT DATE : 6-APR-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	DW-8 Greensboro, NC	Water	26-MAR-1993
2	Trip Blank Greensboro, NC	Water	26-MAR-1993

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625 (Continued..)		1	2		
Phenanthrene	µg/L	< 5.4	-		
Pyrene	µg/L	< 1.9	-		
1,2,4-Trichlorobenzene	µg/L	< 1.9	-		

TENTATIVELY IDENTIFIED COMPOUNDS		1	2		
Unidentified glycol ether	µg/L	26	-		

BTEX ANALYSIS, EPA 602		1	2		
Benzene	µg/L	< 1.0	< 1.0		
Toluene	µg/L	< 1.0	< 1.0		
Ethyl benzene	µg/L	< 1.0	< 1.0		
Xylenes	µg/L	< 1.0	< 1.0		
BTEX (total)	µg/L	< 1.0	< 1.0		

METHYL TERTIARY BUTYL ETHER, EPA 602		1	2		
Methyl Tertiary Butyl Ether	µg/L	< 10.0	< 10.0		

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 28-MAR-1993

REPORT NUMBER : D93-3597-1
REPORT DATE : 6-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : DW-8
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 26-MAR-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : FJP
ANALYZED ON : 1-APR-1993
DILUTION FACTOR : 10

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	1	µg/L	<	1	µg/L
Bromoform	2	µg/L	<	2	µg/L
Bromomethane	12	µg/L	<	12	µg/L
Carbon tetrachloride	2	µg/L	<	2	µg/L
Chlorobenzene	3	µg/L	<	3	µg/L
Chloroethane	6	µg/L	<	6	µg/L
2-Chloroethylvinyl ether	3	µg/L	<	3	µg/L
Chloroform	1	µg/L		11	µg/L
Chloromethane	5	µg/L	<	5	µg/L
Dibromochloromethane	1	µg/L	<	1	µg/L
1,2-Dichlorobenzene	2	µg/L	<	2	µg/L
1,3-Dichlorobenzene	4	µg/L	<	4	µg/L
1,4-Dichlorobenzene	3	µg/L	<	3	µg/L
Dichlorodifluoromethane	20	µg/L	<	20	µg/L
1,1-Dichloroethene	2	µg/L	<	2	µg/L
1,2-Dichloroethane	3	µg/L	<	3	µg/L
1,1-Dichloroethane	1	µg/L	<	1	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3597-1
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	1	µg/L	<	1	µg/L
1,2-Dichloropropane	1	µg/L	<	1	µg/L
cis-1,3-Dichloropropene	2	µg/L	<	2	µg/L
trans-1,3-Dichloropropene	2	µg/L	<	2	µg/L
Methylene chloride	5	µg/L	<	5	µg/L
1,1,2,2-Tetrachloroethane	1	µg/L	<	1	µg/L
Tetrachloroethene	1	µg/L	<	1	µg/L
1,1,1-Trichloroethane	1	µg/L	<	1	µg/L
1,1,2-Trichloroethane	1	µg/L	<	1	µg/L
Trichloroethene	1	µg/L	<	1	µg/L
Trichlorofluoromethane	5	µg/L	<	5	µg/L
Vinyl chloride	5	µg/L	<	5	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	92.6	%

NDRC Laboratories, Inc.

David R. Godwin, Ph.D.
Chief Executive Officer

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SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
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ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : DW-8
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 26-MAR-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 30-MAR-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : MCS
ANALYZED ON : 1-APR-1993
DILUTION FACTOR : 1

ACID EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
4-Chloro-3-methylphenol	3.0	µg/L	<	3.0	µg/L
2-Chlorophenol	3.3	µg/L	<	3.3	µg/L
2,4-Dichlorophenol	2.7	µg/L	<	2.7	µg/L
2,4-Dimethylphenol	2.7	µg/L	<	2.7	µg/L
4,6-Dinitro-2-methylphenol	20.0	µg/L	<	20.0	µg/L
2,4-Dinitrophenol	42.0	µg/L	<	42.0	µg/L
2-Methylphenol	5.0	µg/L	<	5.0	µg/L
2-Nitrophenol	3.6	µg/L	<	3.6	µg/L
4-Nitrophenol	2.4	µg/L	<	2.4	µg/L
Pentachlorophenol	3.6	µg/L	<	3.6	µg/L
Phenol	1.5	µg/L	<	1.5	µg/L
2,4,6-Trichlorophenol	2.7	µg/L	<	2.7	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3597-1
ANALYSIS METHOD : EPA 625

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Phenol-d5 (SS)	100 µg/L	89.4 %
2-Fluorophenol (SS)	100 µg/L	96.5 %
2,4,6-Tribromophenol (SS)	100 µg/L	107 %

NDRC Laboratories, Inc. David R. Godwin

David R. Godwin, Ph.D.
Chief Executive Officer

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: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : DW-8
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 26-MAR-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 30-MAR-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : MCS
ANALYZED ON : 1-APR-1993
DILUTION FACTOR : 1

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Acenaphthene	1.9	µg/L	<	1.9	µg/L
Acenaphthylene	3.5	µg/L	<	3.5	µg/L
Anthracene	1.9	µg/L	<	1.9	µg/L
Benzidine	44.0	µg/L	<	44.0	µg/L
Benzo(a)anthracene	7.8	µg/L	<	7.8	µg/L
Benzo(b)fluoranthene	4.8	µg/L	<	4.8	µg/L
Benzo(k)fluoranthene	2.5	µg/L	<	2.5	µg/L
Benzo(g,h,i)perylene	4.1	µg/L	<	4.1	µg/L
Benzo(a)pyrene	2.5	µg/L	<	2.5	µg/L
Bis(2-chloroethoxy)methane	5.3	µg/L	<	5.3	µg/L
Bis(2-chloroethyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-chloroisopropyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-ethylhexyl)phthalate	2.5	µg/L	<	2.5	µg/L
4-Bromophenylphenyl ether	1.9	µg/L	<	1.9	µg/L
Butyl benzyl phthalate	2.5	µg/L	<	2.5	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3597-1
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
2-Chloronaphthalene	1.9	µg/L	<	1.9	µg/L
4-Chlorophenylphenyl ether	4.2	µg/L	<	4.2	µg/L
Chrysene	2.5	µg/L	<	2.5	µg/L
Dibenz(a,h)anthracene	2.5	µg/L	<	2.5	µg/L
2,3,7,8-Tetrachorodibenzodioxin			Negative		
Di-n-butylphthalate	2.5	µg/L	<	2.5	µg/L
1,3-Dichlorobenzene	1.9	µg/L	<	1.9	µg/L
1,4-Dichlorobenzene	4.4	µg/L	<	4.4	µg/L
1,2-Dichlorobenzene	1.9	µg/L	<	1.9	µg/L
3,3'-Dichlorobenzidine	16.5	µg/L	<	16.5	µg/L
Diethylphthalate	1.9	µg/L	<	1.9	µg/L
Dimethylphthalate	1.6	µg/L	<	1.6	µg/L
2,4-Dinitrotoluene	5.7	µg/L	<	5.7	µg/L
2,6-Dinitrotoluene	1.9	µg/L	<	1.9	µg/L
Di-n-octylphthalate	2.5	µg/L	<	2.5	µg/L
1,2-Diphenylhydrazine	20.0	µg/L	<	20.0	µg/L
Fluoranthene	2.2	µg/L	<	2.2	µg/L
Fluorene	1.9	µg/L	<	1.9	µg/L
Hexachlorobenzene	1.9	µg/L	<	1.9	µg/L
Hexachlorobutadiene	0.9	µg/L	<	0.9	µg/L
Hexachlorocyclopentadiene	5.0	µg/L	<	5.0	µg/L
Hexachloroethane	1.6	µg/L	<	1.6	µg/L
Indeno(1,2,3-cd)pyrene	3.7	µg/L	<	3.7	µg/L
Isophorone	2.2	µg/L	<	2.2	µg/L
Naphthalene	1.6	µg/L	<	1.6	µg/L
Nitrobenzene	1.9	µg/L	<	1.9	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3597-1
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
N-Nitrosodimethylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodiphenylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodipropylamine	5.0 µg/L	< 5.0 µg/L
Phenanthrene	5.4 µg/L	< 5.4 µg/L
Pyrene	1.9 µg/L	< 1.9 µg/L
1,2,4-Trichlorobenzene	1.9 µg/L	< 1.9 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Nitrobenzene-d5(SS)	50.0 µg/L	112 %
2-Fluorobiphenyl(SS)	50.0 µg/L	103 %
Terphenyl-d14 (SS)	50.0 µg/L	92.4 %

NDRC Laboratories, Inc. David R. Godwin

David R. Godwin, Ph.D.
Chief Executive Officer

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 28-MAR-1993

REPORT NUMBER : D93-3597-1
REPORT DATE : 6-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : DW-8
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 26-MAR-1993
ANALYZED BY : MCS
ANALYZED ON : 1-APR-1993

TENTATIVELY IDENTIFIED COMPOUNDS			
COMPOUND	RETENTION TIME	FRACTION	RESULT
Unidentified glycol ether	29.63	ABN	26 µg/L

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BEAUMONT **DALLAS** **HOUSTON**

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: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : DW-8
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 26-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : RJD
ANALYZED ON : 30-MAR-1993
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	50.0 µg/L	95.0 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 28-MAR-1993

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REPORT DATE : 6-APR-1993

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ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : DW-8
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 26-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : RJD
ANALYZED ON : 30-MAR-1993
DILUTION FACTOR : 1

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	10.0 µg/L	< 10.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	95.0 %

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 28-MAR-1993

REPORT NUMBER : D93-3597-2
REPORT DATE : 6-APR-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : Trip Blank
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 26-MAR-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : FJP
ANALYZED ON : 31-MAR-1993
DILUTION FACTOR : 10

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	1	µg/L	<	1	µg/L
Bromoform	2	µg/L	<	2	µg/L
Bromomethane	12	µg/L	<	12	µg/L
Carbon tetrachloride	2	µg/L	<	2	µg/L
Chlorobenzene	3	µg/L	<	3	µg/L
Chloroethane	6	µg/L	<	6	µg/L
2-Chloroethylvinyl ether	3	µg/L	<	3	µg/L
Chloroform	1	µg/L	<	1	µg/L
Chloromethane	5	µg/L	<	5	µg/L
Dibromochloromethane	1	µg/L	<	1	µg/L
1,2-Dichlorobenzene	2	µg/L	<	2	µg/L
1,3-Dichlorobenzene	4	µg/L	<	4	µg/L
1,4-Dichlorobenzene	3	µg/L	<	3	µg/L
Dichlorodifluoromethane	20	µg/L	<	20	µg/L
1,1-Dichloroethene	2	µg/L	<	2	µg/L
1,2-Dichloroethane	3	µg/L	<	3	µg/L
1,1-Dichloroethane	1	µg/L	<	1	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-3597-2
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	1	µg/L	<	1	µg/L
1,2-Dichloropropane	1	µg/L	<	1	µg/L
cis-1,3-Dichloropropene	2	µg/L	<	2	µg/L
trans-1,3-Dichloropropene	2	µg/L	<	2	µg/L
Methylene chloride	5	µg/L	<	5	µg/L
1,1,2,2-Tetrachloroethane	1	µg/L	<	1	µg/L
Tetrachloroethene	1	µg/L	<	1	µg/L
1,1,1-Trichloroethane	1	µg/L	<	1	µg/L
1,1,2-Trichloroethane	1	µg/L	<	1	µg/L
Trichloroethene	1	µg/L	<	1	µg/L
Trichlorofluoromethane	5	µg/L	<	5	µg/L
Vinyl chloride	5	µg/L	<	5	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	105	%

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SAMPLE MATRIX : Water
ID MARKS : Trip Blank
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 26-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : RJD
ANALYZED ON : 30-MAR-1993
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	50.0 µg/L	94.0 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

NDRC Laboratories, Inc.

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SAMPLE MATRIX : Water
ID MARKS : Trip Blank
: Greensboro, NC
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 26-MAR-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : RJD
ANALYZED ON : 30-MAR-1993
DILUTION FACTOR : 1

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	10.0 µg/L	< 10.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	94.0 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED: 28-MAR-1993

REPORT NUMBER: D93-3597

REPORT DATE: 6-APR-1993

SUBMITTED BY: Delta Environmental

LABORATORY QUALITY CONTROL REPORT

HALOGENATED VOLATILE ORGANICS

BATCH No.	----	MATRIX	Water
PREP METHOD	EPA 601	ANALYSIS METHOD	EPA 601
PREP DATE	3/31/93	ANALYSIS DATE	3/31/93
PREP TECHNICIAN / ANALYST	FJP	SPIKED SAMPLE ID No.	D93-3535-4

ANALYTE	Bromodichloromethane	Chloroform	Chlorobenzene	1,2-Dichlorobenzene	Vinyl Chloride
METHOD BLANK	< 1.0 µg/L	< 1.0 µg/L	< 3.0 µg/L	< 2.0 µg/L	< 5.0 µg/L
MS % RECOVERY	108	121	114	100	103
LCS % RECOVERY	119	120	125	118	88.7
MS/MSD RPD	3.4	3.8	0.8	2.8	2.5
SPIKE LEVEL	10 µg/L	10 µg/L	10 µg/L	10 µg/L	10 µg/L

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
RPD: Relative Percent Difference

COMMENTS:

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED: 28-MAR-1993

REPORT NUMBER: D93-3597

SUBMITTED BY: Delta Environmental

LABORATORY QUALITY CONTROL REPORT

BTEX \ VOLATILE AROMATICS

BATCH No.	----	MATRIX	Water
PREP METHOD	EPA 602	ANALYSIS METHOD	EPA 602
PREP DATE	3/30/93	ANALYSIS DATE	3/30/93
PREP TECHNICIAN / ANALYST	RJD	SPIKED SAMPLE ID No.	D93-3605-1

ANALYTE	Benzene	Ethyl Benzene	MTBE
METHOD BLANK	< 1.0 µg/L	< 1.0 µg/L	< 10 µg/L
MS % RECOVERY	90.9	90.9	103
LCS % RECOVERY	94.2	94	108
MS/MSD RPD	1.09	1.41	1.92
SPIKE LEVEL	50 µg/L	50 µg/L	50 µg/L

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
RPD: Relative Percent Difference

COMMENTS:

NDRC LABORATORIES, INC. № 23578

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SAMPLE PRESERVATION INFORMATION SHEET

Field Sampling ☐ Incoming Samples ☐

GENERAL

Company: Delta Job No: 3597

No. of Cooler(s): 1 Temperature of Cooler(s): <40

PRESERVATION INFORMATION

Sample No.	Temperature of Sample	Sample Container	Volume	Preservation used *	Initial pH	Final pH	Bottles generated	Comments
3597-1		1AG	1L	8	11.6	11.6	1	NP
1		1	1	1	1	1	1	1

NJK

PRESERVATION USED *

1 - Cool to 4° C
2 - H_2SO_4 to pH < 2
3 - HNO_3 to pH < 2
4 - HCL to pH < 2
5 - NaOH to pH > 12
6 - $Na_2S_2O_2$ 0.008%
7 - 2 mL Zinc Acetate and NaOH to pH > 12
8 - None required

NJK
Preserved by

4PM 3-28-93
Date/Time

ORIGINAL

CHAIN OF CUSTODY RECORD

EXXON Company, USA
Regional Laboratory Program

Level 1 QC

NDRC Laboratories, Inc. 1089 East Collins Blvd, Richardson, Texas 75081 (214) 238-5591 (Voice), (214) 238-5592 (Fax)
Attn: Belinda Feuerbacher, Project Manager

Consultant's Name : Delta Environmental Consultants, Inc. — Page ___ of ___

Address : 6701 Carmel Rd, Suite 200, Charlotte NC 28226

Project : EXXON Co. USA — Consultant Proj # : 50-92-037 — Consultant Work Release # : 92077663

Project Contact : David Curlis — Phone : 704 541 9890 Fax : 704 543 4035 — Laboratory Work Release # : 09353187

Alternate Contact : LUBA Gross — Phone : — Fax : — Site Location : Greensboro NC

EXXON Contact : FRANK — EE / C&M (circle one) — Phone : — Fax : — EXXON RAS # : 4-3998

Sampled by (print) : Luba Gross — Sampler's Signature : Luba L. Gross

Shipment Method : Burlington — Air Bill # : 69824822Y

Shipment Date : 03/26/93

Sample Condition as Received
Temperature °C : <4°C
Cooler # : EX1169
Inbound Sealed (Yes) No
Outbound Sealed (Yes) No

ANALYSIS REQUIRED
Number of Containers

SAMPLE ID	DATE	TIME	MATRIX WATER/ SOIL	PRSV	SAMPLE LOCATION/ DESCRIPTION	601	602 BTEX MTBE	625						COMMENTS
PW-8	03/26/93		W		Deep well	3	3	2						3597 -1
Trip Blank														-2
												BTX		Due 4-5-93
												ALL ELSE		Due 4-6-93

Turn around time ☐ 24 hr ☐ 48 hr ☐ 72 hr ☒ Standard ☐ Other _____ Total # of Containers :

(1) Relinquished by Signature	Date	(2) Relinquished by Signature	Date	(3) Relinquished by Signature	Date
Luba L. Gross	03/26/93	Luba Gross	03/26/93	Luba Gross	03/26/93
Company : Delta	Time:	Company : Delta	Time:	Company : Delta	Time:
(1) Received by Signature	Date	(2) Received by Signature	Date	(3) Received by Signature	Date
				B. Wilson	3-28-93
Company :	Time:	Company :	Time:	Company : NDRC	Time: 12:00

Distribution: White - Original Yellow - Exxon Pink - NDRC Laboratories, Inc. Goldenrod - Consultant

JUL - 6 1993

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon SS# 4-3998

JOB NUMBER : D93-7201
REPORT DATE : 30-JUN-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-1 Greensboro, NC	Water	22-JUN-1993
2	MW-2 Greensboro, NC	Water	22-JUN-1993
3	MW-3 Greensboro, NC	Water	22-JUN-1993
4	MW-4 Greensboro, NC	Water	22-JUN-1993

VOLATILE HALOCARBONS, EPA 601		1	2	3	4
Bromodichloromethane	µg/L	< 300	< 300	< 300	< 1
Bromoform	µg/L	< 500	< 500	< 500	< 2
Bromomethane	µg/L	< 3000	< 3000	< 3000	< 12
Carbon tetrachloride	µg/L	< 500	< 500	< 500	< 2
Chlorobenzene	µg/L	< 800	< 800	< 800	< 3
Chloroethane	µg/L	< 1500	< 1500	< 1500	< 6
2-Chloroethylvinyl ether	µg/L	< 800	< 800	< 800	< 3
Chloroform	µg/L	< 300	< 300	< 300	< 1
Chloromethane	µg/L	< 1300	< 1300	< 1300	< 5
Dibromochloromethane	µg/L	< 300	< 300	< 300	< 1
1,2-Dichlorobenzene	µg/L	< 500	< 500	< 500	< 2
1,3-Dichlorobenzene	µg/L	< 1000	< 1000	< 1000	< 4
1,4-Dichlorobenzene	µg/L	< 800	< 800	< 800	< 3
Dichlorodifluoromethane	µg/L	< 5000	< 5000	< 5000	< 20
1,1-Dichloroethene	µg/L	< 500	< 500	< 500	< 2
1,2-Dichloroethane	µg/L	< 800	< 800	< 800	< 3
1,1-Dichloroethane	µg/L	< 300	< 300	< 300	< 1
trans-1,2-Dichloroethene	µg/L	< 300	< 300	< 300	< 1
1,2-Dichloropropane	µg/L	< 300	< 300	< 300	< 1
cis-1,3-Dichloropropene	µg/L	< 500	< 500	< 500	< 2

Martin Jaffus VZ

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon SS# 4-3998

JOB NUMBER : D93-7201
REPORT DATE : 30-JUN-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-1 Greensboro, NC	Water	22-JUN-1993
2	MW-2 Greensboro, NC	Water	22-JUN-1993
3	MW-3 Greensboro, NC	Water	22-JUN-1993
4	MW-4 Greensboro, NC	Water	22-JUN-1993

VOLATILE HALOCARBONS, EPA 601 (Continued..)		1	2	3	4
trans-1,3-Dichloropropene	µg/L	< 500	< 500	< 500	< 2
Methylene chloride	µg/L	< 1300	< 1300	< 1300	< 5
1,1,2,2-Tetrachloroethane	µg/L	< 300	< 300	< 300	< 1
Tetrachloroethene	µg/L	< 300	< 300	< 300	< 1
1,1,1-Trichloroethane	µg/L	< 300	< 300	< 300	< 1
1,1,2-Trichloroethane	µg/L	< 300	< 300	< 300	< 1
Trichloroethene	µg/L	< 300	< 300	< 300	< 1
Trichlorofluoromethane	µg/L	< 1300	< 1300	< 1300	< 5
Vinyl chloride	µg/L	< 1300	< 1300	< 1300	< 5

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon SS# 4-3998

JOB NUMBER : D93-7201
REPORT DATE : 30-JUN-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-1 Greensboro, NC	Water	22-JUN-1993
2	MW-2 Greensboro, NC	Water	22-JUN-1993
3	MW-3 Greensboro, NC	Water	22-JUN-1993
4	MW-4 Greensboro, NC	Water	22-JUN-1993

ACID EXTRACTABLE ORGANICS, EPA 625		1	2	3	4
4-Chloro-3-methylphenol	µg/L	< 3.0	< 3.0	< 6.0	-
2-Chlorophenol	µg/L	< 3.3	< 3.3	< 6.6	-
2,4-Dichlorophenol	µg/L	< 2.7	< 2.7	< 5.4	-
2,4-Dimethylphenol	µg/L	< 2.7	< 2.7	< 5.4	-
4,6-Dinitro-2-methylphenol	µg/L	< 20.0	< 20.0	< 40.0	-
2,4-Dinitrophenol	µg/L	< 42.0	< 42.0	< 84.0	-
2-Methylphenol	µg/L	< 5.0	< 5.0	< 10.0	-
2-Nitrophenol	µg/L	< 3.6	< 3.6	< 7.2	-
4-Nitrophenol	µg/L	< 2.4	< 2.4	< 4.8	-
Pentachlorophenol	µg/L	< 3.6	< 3.6	< 7.2	-
Phenol	µg/L	< 1.5	< 1.5	< 3.0	-
2,4,6-Trichlorophenol	µg/L	< 2.7	< 2.7	< 5.4	-

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625		1	2	3	4
Acenaphthene	µg/L	< 1.9	< 1.9	< 3.8	-
Acenaphthylene	µg/L	< 3.5	< 3.5	< 7.0	-
Anthracene	µg/L	< 1.9	< 1.9	< 3.8	-
Benzidine	µg/L	< 44.0	< 44.0	< 88.0	-
Benzo(a)anthracene	µg/L	< 7.8	< 7.8	< 15.6	-
Benzo(b)fluoranthene	µg/L	< 4.8	< 4.8	< 9.6	-

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon SS# 4-3998

JOB NUMBER : D93-7201
REPORT DATE : 30-JUN-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-1 Greensboro, NC	Water	22-JUN-1993
2	MW-2 Greensboro, NC	Water	22-JUN-1993
3	MW-3 Greensboro, NC	Water	22-JUN-1993
4	MW-4 Greensboro, NC	Water	22-JUN-1993

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625 (Continued..)		1	2	3	4
Benzo(k)fluoranthene	µg/L	< 2.5	< 2.5	< 5.0	-
Benzo(g,h,i)perylene	µg/L	< 4.1	< 4.1	< 8.2	-
Benzo(a)pyrene	µg/L	< 2.5	< 2.5	< 5.0	-
Bis(2-chloroethoxy)methane	µg/L	< 5.3	< 5.3	< 10.6	-
Bis(2-chloroethyl)ether	µg/L	< 5.7	< 5.7	< 11.4	-
Bis(2-chloroisopropyl)ether	µg/L	< 5.7	< 5.7	< 11.4	-
Bis(2-ethylhexyl)phthalate	µg/L	2.5	56.8	17.2	-
4-Bromophenylphenyl ether	µg/L	< 1.9	< 1.9	< 3.8	-
Butyl benzyl phthalate	µg/L	< 2.5	< 2.5	< 5.0	-
2-Chloronaphthalene	µg/L	< 1.9	< 1.9	< 3.8	-
4-Chlorophenylphenyl ether	µg/L	< 4.2	< 4.2	< 8.4	-
Chrysene	µg/L	< 2.5	< 2.5	< 5.0	-
Dibenz(a,h)anthracene	µg/L	< 2.5	< 2.5	< 5.0	-
2,3,7,8-Tetrachorodibenzodioxin		Negative	Negative	Negative	-
Di-n-butylphthalate	µg/L	< 2.5	< 2.5	< 5.0	-
1,3-Dichlorobenzene	µg/L	< 1.9	< 1.9	< 3.8	-
1,4-Dichlorobenzene	µg/L	< 4.4	< 4.4	< 8.8	-
1,2-Dichlorobenzene	µg/L	< 1.9	< 1.9	< 3.8	-
3,3'-Dichlorobenzidine	µg/L	< 16.5	< 16.5	< 33.0	-

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon SS# 4-3998

JOB NUMBER : D93-7201
REPORT DATE : 30-JUN-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-1 Greensboro, NC	Water	22-JUN-1993
2	MW-2 Greensboro, NC	Water	22-JUN-1993
3	MW-3 Greensboro, NC	Water	22-JUN-1993
4	MW-4 Greensboro, NC	Water	22-JUN-1993

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625 (Continued..)		1	2	3	4
Diethylphthalate	µg/L	< 1.9	< 1.9	< 3.8	-
Dimethylphthalate	µg/L	< 1.6	< 1.6	< 3.2	-
2,4-Dinitrotoluene	µg/L	< 5.7	< 5.7	< 11.4	-
2,6-Dinitrotoluene	µg/L	< 1.9	< 1.9	< 3.8	-
Di-n-octylphthalate	µg/L	< 2.5	< 2.5	< 5.0	-
1,2-Diphenylhydrazine	µg/L	< 20.0	< 20.0	< 40.0	-
Fluoranthene	µg/L	< 2.2	< 2.2	< 4.4	-
Fluorene	µg/L	< 1.9	< 1.9	< 3.8	-
Hexachlorobenzene	µg/L	< 1.9	< 1.9	< 3.8	-
Hexachlorobutadiene	µg/L	< 0.9	< 0.9	< 1.8	-
Hexachlorocyclopentadiene	µg/L	< 5.0	< 5.0	< 10.0	-
Hexachloroethane	µg/L	< 1.6	< 1.6	< 3.2	-
Indeno(1,2,3-cd)pyrene	µg/L	< 3.7	< 3.7	< 7.4	-
Isophorone	µg/L	< 2.2	< 2.2	< 4.4	-
Naphthalene	µg/L	216	369	348	-
Nitrobenzene	µg/L	< 1.9	< 1.9	< 3.8	-
N-Nitrosodimethylamine	µg/L	< 5.0	< 5.0	< 10.0	-
N-Nitrosodiphenylamine	µg/L	< 5.0	< 5.0	< 10.0	-
N-Nitrosodipropylamine	µg/L	< 5.0	< 5.0	< 10.0	-

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon SS# 4-3998

JOB NUMBER : D93-7201
REPORT DATE : 30-JUN-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
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2	MW-2 Greensboro, NC	Water	22-JUN-1993
3	MW-3 Greensboro, NC	Water	22-JUN-1993
4	MW-4 Greensboro, NC	Water	22-JUN-1993

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625 (Continued..)		1	2	3	4
Phenanthrene	µg/L	< 5.4	< 5.4	< 10.8	-
Pyrene	µg/L	< 1.9	< 1.9	< 3.8	-
1,2,4-Trichlorobenzene	µg/L	< 1.9	< 1.9	< 3.8	-

TENTATIVELY IDENTIFIED COMPOUNDS		1	2	3	4
2-Methylnaphthalene	µg/L	60	70	-	-
Benzoic acid	µg/L	33	-	-	-
Diethylbenzene	µg/L	-	42	-	-
Dihydromethylindene	µg/L	-	20	-	-
Ethylmethylbenzene	µg/L	250	630	74	-
Isopropylbenzene	µg/L	54	91	-	-
Methyl isopropylbenzene	µg/L	-	-	68	-
Methyl sec-butylbenzene	µg/L	-	170	-	-
Methylacetophenone	µg/L	-	-	24	-
Methylheptanol	µg/L	28	-	-	-
Methylindan	µg/L	15	-	28	-
Methylisopropylbenzene	µg/L	44	-	-	-
Methylpropylbenzene	µg/L	31	110	-	-
Nonanol	µg/L	-	110	-	-

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon SS# 4-3998

JOB NUMBER : D93-7201
REPORT DATE : 30-JUN-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
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2	MW-2 Greensboro, NC	Water	22-JUN-1993
3	MW-3 Greensboro, NC	Water	22-JUN-1993
4	MW-4 Greensboro, NC	Water	22-JUN-1993

TENTATIVELY IDENTIFIED COMPOUNDS (Continued..)		1	2	3	4
Propylbenzene	µg/L	78	180	120	-
Sec-butylbenzene	µg/L	57	-	-	-
Tetramethylbenzene	µg/L	-	10	21	-
Trimethylbenzene	µg/L	130	300	540	-
Unidentified alcohol	µg/L	46	-	170	-
Unidentified alkane	µg/L	31	-	-	-
Unidentified alkanes (naphtha)	µg/L	-	-	1600	-
Unidentified alkylisothiocyanate	µg/L	29	-	-	-
Unidentified amide	µg/L	17	-	64	-
Unidentified carbonyl	µg/L	24	-	160	-
Unidentified carboxylate	µg/L	-	-	260	-
Unidentified ether	µg/L	-	-	73	-
Unidentified heteroaromatic	µg/L	-	-	33	-

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon SS# 4-3998

JOB NUMBER : D93-7201
REPORT DATE : 30-JUN-1993

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2	MW-2 Greensboro, NC	Water	22-JUN-1993
3	MW-3 Greensboro, NC	Water	22-JUN-1993
4	MW-4 Greensboro, NC	Water	22-JUN-1993

BTEX ANALYSIS, EPA 602		1	2	3	4
Benzene	µg/L	4200	8100	13000	1.5
Toluene	µg/L	18000	40000	50000	< 1.0
Ethyl benzene	µg/L	3400	4700	3900	< 1.0
Xylenes	µg/L	19000	24000	22000	16.0
BTEX (total)	µg/L	44600	76800	88900	17.5

METHYL TERTIARY BUTYL ETHER, EPA 602		1	2	3	4
Methyl Tertiary Butyl Ether	µg/L	< 500	< 2500	< 2500	< 10.0

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SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon SS# 4-3998

JOB NUMBER : D93-7201
REPORT DATE : 30-JUN-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
5	Trip Blank Greensboro, NC	Water	22-JUN-1993

VOLATILE HALOCARBONS, EPA 601		5			
Bromodichloromethane	µg/L	< 1			
Bromoform	µg/L	< 2			
Bromomethane	µg/L	< 12			
Carbon tetrachloride	µg/L	< 2			
Chlorobenzene	µg/L	< 3			
Chloroethane	µg/L	< 6			
2-Chloroethylvinyl ether	µg/L	< 3			
Chloroform	µg/L	< 1			
Chloromethane	µg/L	< 5			
Dibromochloromethane	µg/L	< 1			
1,2-Dichlorobenzene	µg/L	< 2			
1,3-Dichlorobenzene	µg/L	< 4			
1,4-Dichlorobenzene	µg/L	< 3			
Dichlorodifluoromethane	µg/L	< 20			
1,1-Dichloroethene	µg/L	< 2			
1,2-Dichloroethane	µg/L	< 3			
1,1-Dichloroethane	µg/L	< 1			
trans-1,2-Dichloroethene	µg/L	< 1			
1,2-Dichloropropane	µg/L	< 1			
cis-1,3-Dichloropropene	µg/L	< 2			

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SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon SS# 4-3998

JOB NUMBER : D93-7201
REPORT DATE : 30-JUN-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
5	Trip Blank Greensboro, NC	Water	22-JUN-1993

VOLATILE HALOCARBONS, EPA 601 (Continued..)		5			
trans-1,3-Dichloropropene	µg/L	< 2			
Methylene chloride	µg/L	< 5			
1,1,2,2-Tetrachloroethane	µg/L	< 1			
Tetrachloroethene	µg/L	< 1			
1,1,1-Trichloroethane	µg/L	< 1			
1,1,2-Trichloroethane	µg/L	< 1			
Trichloroethene	µg/L	< 1			
Trichlorofluoromethane	µg/L	< 5			
Vinyl chloride	µg/L	< 5			

BTEX ANALYSIS, EPA 602		5			
Benzene	µg/L	< 1.0			
Toluene	µg/L	< 1.0			
Ethyl benzene	µg/L	< 1.0			
Xylenes	µg/L	< 1.0			
BTEX (total)	µg/L	< 1.0			

METHYL TERTIARY BUTYL ETHER, EPA 602		5			
Methyl Tertiary Butyl Ether	µg/L	< 10.0			

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7201-1
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-1
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : BSR
ANALYZED ON : 26-JUN-1993
DILUTION FACTOR : 2500

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	300	µg/L	<	300	µg/L
Bromoform	500	µg/L	<	500	µg/L
Bromomethane	3000	µg/L	<	3000	µg/L
Carbon tetrachloride	500	µg/L	<	500	µg/L
Chlorobenzene	800	µg/L	<	800	µg/L
Chloroethane	1500	µg/L	<	1500	µg/L
2-Chloroethylvinyl ether	800	µg/L	<	800	µg/L
Chloroform	300	µg/L	<	300	µg/L
Chloromethane	1300	µg/L	<	1300	µg/L
Dibromochloromethane	300	µg/L	<	300	µg/L
1,2-Dichlorobenzene	500	µg/L	<	500	µg/L
1,3-Dichlorobenzene	1000	µg/L	<	1000	µg/L
1,4-Dichlorobenzene	800	µg/L	<	800	µg/L
Dichlorodifluoromethane	5000	µg/L	<	5000	µg/L
1,1-Dichloroethene	500	µg/L	<	500	µg/L
1,2-Dichloroethane	800	µg/L	<	800	µg/L
1,1-Dichloroethane	300	µg/L	<	300	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7201-1
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	300	µg/L	<	300	µg/L
1,2-Dichloropropane	300	µg/L	<	300	µg/L
cis-1,3-Dichloropropene	500	µg/L	<	500	µg/L
trans-1,3-Dichloropropene	500	µg/L	<	500	µg/L
Methylene chloride	1300	µg/L	<	1300	µg/L
1,1,2,2-Tetrachloroethane	300	µg/L	<	300	µg/L
Tetrachloroethene	300	µg/L	<	300	µg/L
1,1,1-Trichloroethane	300	µg/L	<	300	µg/L
1,1,2-Trichloroethane	300	µg/L	<	300	µg/L
Trichloroethene	300	µg/L	<	300	µg/L
Trichlorofluoromethane	1300	µg/L	<	1300	µg/L
Vinyl chloride	1300	µg/L	<	1300	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	106	%

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REPORT DATE : 30-JUN-1993

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: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-1
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 24-JUN-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : BJC
ANALYZED ON : 25-JUN-1993
DILUTION FACTOR : 1

ACID EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
4-Chloro-3-methylphenol	3.0	µg/L	<	3.0	µg/L
2-Chlorophenol	3.3	µg/L	<	3.3	µg/L
2,4-Dichlorophenol	2.7	µg/L	<	2.7	µg/L
2,4-Dimethylphenol	2.7	µg/L	<	2.7	µg/L
4,6-Dinitro-2-methylphenol	20.0	µg/L	<	20.0	µg/L
2,4-Dinitrophenol	42.0	µg/L	<	42.0	µg/L
2-Methylphenol	5.0	µg/L	<	5.0	µg/L
2-Nitrophenol	3.6	µg/L	<	3.6	µg/L
4-Nitrophenol	2.4	µg/L	<	2.4	µg/L
Pentachlorophenol	3.6	µg/L	<	3.6	µg/L
Phenol	1.5	µg/L	<	1.5	µg/L
2,4,6-Trichlorophenol	2.7	µg/L	<	2.7	µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D93-7201-1
ANALYSIS METHOD : EPA 625

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Phenol-d5 (SS)	100 µg/L	50.5 %
2-Fluorophenol (SS)	100 µg/L	56.8 %
2,4,6-Tribromophenol (SS)	100 µg/L	26.3 %

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: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 24-JUN-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : BJC
ANALYZED ON : 25-JUN-1993
DILUTION FACTOR : 1

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Acenaphthene	1.9	µg/L	<	1.9	µg/L
Acenaphthylene	3.5	µg/L	<	3.5	µg/L
Anthracene	1.9	µg/L	<	1.9	µg/L
Benzidine	44.0	µg/L	<	44.0	µg/L
Benzo(a)anthracene	7.8	µg/L	<	7.8	µg/L
Benzo(b)fluoranthene	4.8	µg/L	<	4.8	µg/L
Benzo(k)fluoranthene	2.5	µg/L	<	2.5	µg/L
Benzo(g,h,i)perylene	4.1	µg/L	<	4.1	µg/L
Benzo(a)pyrene	2.5	µg/L	<	2.5	µg/L
Bis(2-chloroethoxy)methane	5.3	µg/L	<	5.3	µg/L
Bis(2-chloroethyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-chloroisopropyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-ethylhexyl)phthalate	2.5	µg/L		2.5	µg/L
4-Bromophenylphenyl ether	1.9	µg/L	<	1.9	µg/L
Butyl benzyl phthalate	2.5	µg/L	<	2.5	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7201-1
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
2-Chloronaphthalene	1.9	µg/L	<	1.9	µg/L
4-Chlorophenylphenyl ether	4.2	µg/L	<	4.2	µg/L
Chrysene	2.5	µg/L	<	2.5	µg/L
Dibenz(a,h)anthracene	2.5	µg/L	<	2.5	µg/L
2,3,7,8-Tetrachorodibenzodioxin			Negative		
Di-n-butylphthalate	2.5	µg/L	<	2.5	µg/L
1,3-Dichlorobenzene	1.9	µg/L	<	1.9	µg/L
1,4-Dichlorobenzene	4.4	µg/L	<	4.4	µg/L
1,2-Dichlorobenzene	1.9	µg/L	<	1.9	µg/L
3,3'-Dichlorobenzidine	16.5	µg/L	<	16.5	µg/L
Diethylphthalate	1.9	µg/L	<	1.9	µg/L
Dimethylphthalate	1.6	µg/L	<	1.6	µg/L
2,4-Dinitrotoluene	5.7	µg/L	<	5.7	µg/L
2,6-Dinitrotoluene	1.9	µg/L	<	1.9	µg/L
Di-n-octylphthalate	2.5	µg/L	<	2.5	µg/L
1,2-Diphenylhydrazine	20.0	µg/L	<	20.0	µg/L
Fluoranthene	2.2	µg/L	<	2.2	µg/L
Fluorene	1.9	µg/L	<	1.9	µg/L
Hexachlorobenzene	1.9	µg/L	<	1.9	µg/L
Hexachlorobutadiene	0.9	µg/L	<	0.9	µg/L
Hexachlorocyclopentadiene	5.0	µg/L	<	5.0	µg/L
Hexachloroethane	1.6	µg/L	<	1.6	µg/L
Indeno(1,2,3-cd)pyrene	3.7	µg/L	<	3.7	µg/L
Isophorone	2.2	µg/L	<	2.2	µg/L
Naphthalene	1.6	µg/L		216	µg/L
Nitrobenzene	1.9	µg/L	<	1.9	µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D93-7201-1
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
N-Nitrosodimethylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodiphenylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodipropylamine	5.0 µg/L	< 5.0 µg/L
Phenanthrene	5.4 µg/L	< 5.4 µg/L
Pyrene	1.9 µg/L	< 1.9 µg/L
1,2,4-Trichlorobenzene	1.9 µg/L	< 1.9 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Nitrobenzene-d5(SS)	50.0 µg/L	67.7 %
2-Fluorobiphenyl(SS)	50.0 µg/L	76.0 %
Terphenyl-d14 (SS)	50.0 µg/L	65.9 %

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BEAUMONT DALLAS HOUSTON

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ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-1
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYZED BY : BJC
ANALYZED ON : 25-JUN-1993

TENTATIVELY IDENTIFIED COMPOUNDS			
COMPOUND	RETENTION TIME	FRACTION	RESULT
Isopropylbenzene	5.82	ABN	54 µg/L
Unidentified alcohol	5.89	ABN	46 µg/L
Methylheptanol	6.04	ABN	28 µg/L
Unidentified alkane	6.11	ABN	31 µg/L
Propylbenzene	6.23	ABN	78 µg/L
Ethylmethylbenzene	6.41	ABN	250 µg/L
Trimethylbenzene	6.48	ABN	120 µg/L
Trimethylbenzene	6.88	ABN	230 µg/L
Unidentified alkylisothiocyanate	7.00	ABN	29 µg/L
Trimethylbenzene	7.24	ABN	130 µg/L
Methylpropylbenzene	7.58	ABN	31 µg/L
Methylisopropylbenzene	7.68	ABN	84 µg/L
Unidentified carbonyl	7.74	ABN	24 µg/L
Sec-butylbenzene	7.81	ABN	57 µg/L
Methylisopropylbenzene	7.97	ABN	44 µg/L
Unidentified amide	8.31	ABN	17 µg/L
Methylindan	8.95	ABN	15 µg/L
Benzoic acid	9.26	ABN	33 µg/L
2-Methylnaphthalene	10.79	ABN	60 µg/L

NDRC Laboratories, Inc.

Martin Jeffus

Martin Jeffus
General Manager

NDRC LABORATORIES, INC.

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7201-1
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-1
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 28-JUN-1993
DILUTION FACTOR : 50

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	50	µg/L	4200	µg/L	
Toluene	50	µg/L	18000	µg/L	
Ethyl benzene	50	µg/L	3400	µg/L	
Xylenes	50	µg/L	19000	µg/L	
BTEX (total)			44600	µg/L	#

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	50.0	µg/L	86.0	%

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

NDRC Laboratories, Inc. Martin Jeffus VZ

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General Manager

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 23-JUN-1993

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SAMPLE MATRIX : Water
ID MARKS : MW-1
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DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 28-JUN-1993
DILUTION FACTOR : 50

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	500 µg/L	< 500 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	86.0 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7201-2
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-2
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : BSR
ANALYZED ON : 26-JUN-1993
DILUTION FACTOR : 2500

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	300	µg/L	<	300	µg/L
Bromoform	500	µg/L	<	500	µg/L
Bromomethane	3000	µg/L	<	3000	µg/L
Carbon tetrachloride	500	µg/L	<	500	µg/L
Chlorobenzene	800	µg/L	<	800	µg/L
Chloroethane	1500	µg/L	<	1500	µg/L
2-Chloroethylvinyl ether	800	µg/L	<	800	µg/L
Chloroform	300	µg/L	<	300	µg/L
Chloromethane	1300	µg/L	<	1300	µg/L
Dibromochloromethane	300	µg/L	<	300	µg/L
1,2-Dichlorobenzene	500	µg/L	<	500	µg/L
1,3-Dichlorobenzene	1000	µg/L	<	1000	µg/L
1,4-Dichlorobenzene	800	µg/L	<	800	µg/L
Dichlorodifluoromethane	5000	µg/L	<	5000	µg/L
1,1-Dichloroethene	500	µg/L	<	500	µg/L
1,2-Dichloroethane	800	µg/L	<	800	µg/L
1,1-Dichloroethane	300	µg/L	<	300	µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D93-7201-2
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	300	µg/L	<	300	µg/L
1,2-Dichloropropane	300	µg/L	<	300	µg/L
cis-1,3-Dichloropropene	500	µg/L	<	500	µg/L
trans-1,3-Dichloropropene	500	µg/L	<	500	µg/L
Methylene chloride	1300	µg/L	<	1300	µg/L
1,1,2,2-Tetrachloroethane	300	µg/L	<	300	µg/L
Tetrachloroethene	300	µg/L	<	300	µg/L
1,1,1-Trichloroethane	300	µg/L	<	300	µg/L
1,1,2-Trichloroethane	300	µg/L	<	300	µg/L
Trichloroethene	300	µg/L	<	300	µg/L
Trichlorofluoromethane	1300	µg/L	<	1300	µg/L
Vinyl chloride	1300	µg/L	<	1300	µg/L

QUALITY CONTROL DATA					
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED		
Bromofluorobenzene (SS)	50.0	µg/L	84.0	%	**

** Surrogate recovery affected by dilution factor of 2500

NDRC Laboratories, Inc. Martin Jeffus

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BEAUMONT DALLAS HOUSTON

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SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-2
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 24-JUN-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : BJC
ANALYZED ON : 25-JUN-1993
DILUTION FACTOR : 1

ACID EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
4-Chloro-3-methylphenol	3.0	µg/L	<	3.0	µg/L
2-Chlorophenol	3.3	µg/L	<	3.3	µg/L
2,4-Dichlorophenol	2.7	µg/L	<	2.7	µg/L
2,4-Dimethylphenol	2.7	µg/L	<	2.7	µg/L
4,6-Dinitro-2-methylphenol	20.0	µg/L	<	20.0	µg/L
2,4-Dinitrophenol	42.0	µg/L	<	42.0	µg/L
2-Methylphenol	5.0	µg/L	<	5.0	µg/L
2-Nitrophenol	3.6	µg/L	<	3.6	µg/L
4-Nitrophenol	2.4	µg/L	<	2.4	µg/L
Pentachlorophenol	3.6	µg/L	<	3.6	µg/L
Phenol	1.5	µg/L	<	1.5	µg/L
2,4,6-Trichlorophenol	2.7	µg/L	<	2.7	µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D93-7201-2
ANALYSIS METHOD : EPA 625

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Phenol-d5 (SS)	100 µg/L	49.2 %
2-Fluorophenol (SS)	100 µg/L	72.4 %
2,4,6-Tribromophenol (SS)	100 µg/L	73.1 %

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ANALYSIS METHOD : EPA 625
ANALYZED BY : BJC
ANALYZED ON : 25-JUN-1993
DILUTION FACTOR : 1

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Acenaphthene	1.9	µg/L	<	1.9	µg/L
Acenaphthylene	3.5	µg/L	<	3.5	µg/L
Anthracene	1.9	µg/L	<	1.9	µg/L
Benzidine	44.0	µg/L	<	44.0	µg/L
Benzo(a)anthracene	7.8	µg/L	<	7.8	µg/L
Benzo(b)fluoranthene	4.8	µg/L	<	4.8	µg/L
Benzo(k)fluoranthene	2.5	µg/L	<	2.5	µg/L
Benzo(g,h,i)perylene	4.1	µg/L	<	4.1	µg/L
Benzo(a)pyrene	2.5	µg/L	<	2.5	µg/L
Bis(2-chloroethoxy)methane	5.3	µg/L	<	5.3	µg/L
Bis(2-chloroethyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-chloroisopropyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-ethylhexyl)phthalate	2.5	µg/L		56.8	µg/L
4-Bromophenylphenyl ether	1.9	µg/L	<	1.9	µg/L
Butyl benzyl phthalate	2.5	µg/L	<	2.5	µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D93-7201-2
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
2-Chloronaphthalene	1.9	µg/L	<	1.9	µg/L
4-Chlorophenylphenyl ether	4.2	µg/L	<	4.2	µg/L
Chrysene	2.5	µg/L	<	2.5	µg/L
Dibenz(a,h)anthracene	2.5	µg/L	<	2.5	µg/L
2,3,7,8-Tetrachorodibenzodioxin			Negative		
Di-n-butylphthalate	2.5	µg/L	<	2.5	µg/L
1,3-Dichlorobenzene	1.9	µg/L	<	1.9	µg/L
1,4-Dichlorobenzene	4.4	µg/L	<	4.4	µg/L
1,2-Dichlorobenzene	1.9	µg/L	<	1.9	µg/L
3,3'-Dichlorobenzidine	16.5	µg/L	<	16.5	µg/L
Diethylphthalate	1.9	µg/L	<	1.9	µg/L
Dimethylphthalate	1.6	µg/L	<	1.6	µg/L
2,4-Dinitrotoluene	5.7	µg/L	<	5.7	µg/L
2,6-Dinitrotoluene	1.9	µg/L	<	1.9	µg/L
Di-n-octylphthalate	2.5	µg/L	<	2.5	µg/L
1,2-Diphenylhydrazine	20.0	µg/L	<	20.0	µg/L
Fluoranthene	2.2	µg/L	<	2.2	µg/L
Fluorene	1.9	µg/L	<	1.9	µg/L
Hexachlorobenzene	1.9	µg/L	<	1.9	µg/L
Hexachlorobutadiene	0.9	µg/L	<	0.9	µg/L
Hexachlorocyclopentadiene	5.0	µg/L	<	5.0	µg/L
Hexachloroethane	1.6	µg/L	<	1.6	µg/L
Indeno(1,2,3-cd)pyrene	3.7	µg/L	<	3.7	µg/L
Isophorone	2.2	µg/L	<	2.2	µg/L
Naphthalene	1.6	µg/L		369	µg/L
Nitrobenzene	1.9	µg/L	<	1.9	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7201-2
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
N-Nitrosodimethylamine	5.0	µg/L	<	5.0	µg/L
N-Nitrosodiphenylamine	5.0	µg/L	<	5.0	µg/L
N-Nitrosodipropylamine	5.0	µg/L	<	5.0	µg/L
Phenanthrene	5.4	µg/L	<	5.4	µg/L
Pyrene	1.9	µg/L	<	1.9	µg/L
1,2,4-Trichlorobenzene	1.9	µg/L	<	1.9	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Nitrobenzene-d5(SS)	50.0	µg/L	58.1	%
2-Fluorobiphenyl(SS)	50.0	µg/L	71.2	%
Terphenyl-d14 (SS)	50.0	µg/L	67.1	%

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7201-2
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-2
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYZED BY : BJC
ANALYZED ON : 25-JUN-1993

TENTATIVELY IDENTIFIED COMPOUNDS				
COMPOUND	RETENTION TIME	FRACTION	RESULT	
Isopropylbenzene	5.83	ABN	91	µg/L
Nonanol	5.92	ABN	110	µg/L
Propylbenzene	6.25	ABN	180	µg/L
Ethylmethylbenzene	6.40	ABN	630	µg/L
Trimethylbenzene	6.50	ABN	270	µg/L
Trimethylbenzene	6.90	ABN	570	µg/L
Trimethylbenzene	7.26	ABN	300	µg/L
Diethylbenzene	7.75	ABN	42	µg/L
Methylpropylbenzene	7.82	ABN	110	µg/L
Methyl sec-butylbenzene	7.99	ABN	170	µg/L
Tetramethylbenzene	8.55	ABN	10	µg/L
Dihydromethylindene	8.97	ABN	20	µg/L
2-Methylnaphthalene	10.79	ABN	70	µg/L

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BEAUMONT DALLAS HOUSTON

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SAMPLE MATRIX : Water
ID MARKS : MW-2
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 25-JUN-1993
DILUTION FACTOR : 250

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	250 µg/L	8100 µg/L
Toluene	250 µg/L	40000 µg/L
Ethyl benzene	250 µg/L	4700 µg/L
Xylenes	250 µg/L	24000 µg/L
BTEX (total)		76800 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	50.0 µg/L	87.0 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

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Martin Jeffus
General Manager

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ID MARKS : MW-2
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 25-JUN-1993
DILUTION FACTOR : 250

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	2500 µg/L	< 2500 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	87.0 %

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7201-3
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-3
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : BSR
ANALYZED ON : 26-JUN-1993
DILUTION FACTOR : 2500

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	300	µg/L	<	300	µg/L
Bromoform	500	µg/L	<	500	µg/L
Bromomethane	3000	µg/L	<	3000	µg/L
Carbon tetrachloride	500	µg/L	<	500	µg/L
Chlorobenzene	800	µg/L	<	800	µg/L
Chloroethane	1500	µg/L	<	1500	µg/L
2-Chloroethylvinyl ether	800	µg/L	<	800	µg/L
Chloroform	300	µg/L	<	300	µg/L
Chloromethane	1300	µg/L	<	1300	µg/L
Dibromochloromethane	300	µg/L	<	300	µg/L
1,2-Dichlorobenzene	500	µg/L	<	500	µg/L
1,3-Dichlorobenzene	1000	µg/L	<	1000	µg/L
1,4-Dichlorobenzene	800	µg/L	<	800	µg/L
Dichlorodifluoromethane	5000	µg/L	<	5000	µg/L
1,1-Dichloroethene	500	µg/L	<	500	µg/L
1,2-Dichloroethane	800	µg/L	<	800	µg/L
1,1-Dichloroethane	300	µg/L	<	300	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7201-3
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	300	µg/L	<	300	µg/L
1,2-Dichloropropane	300	µg/L	<	300	µg/L
cis-1,3-Dichloropropene	500	µg/L	<	500	µg/L
trans-1,3-Dichloropropene	500	µg/L	<	500	µg/L
Methylene chloride	1300	µg/L	<	1300	µg/L
1,1,2,2-Tetrachloroethane	300	µg/L	<	300	µg/L
Tetrachloroethene	300	µg/L	<	300	µg/L
1,1,1-Trichloroethane	300	µg/L	<	300	µg/L
1,1,2-Trichloroethane	300	µg/L	<	300	µg/L
Trichloroethene	300	µg/L	<	300	µg/L
Trichlorofluoromethane	1300	µg/L	<	1300	µg/L
Vinyl chloride	1300	µg/L	<	1300	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	90.0	%

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SAMPLE MATRIX : Water
ID MARKS : MW-3
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 24-JUN-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : BJC
ANALYZED ON : 30-JUN-1993
DILUTION FACTOR : 2

ACID EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
4-Chloro-3-methylphenol	6.0	µg/L	<	6.0	µg/L
2-Chlorophenol	6.6	µg/L	<	6.6	µg/L
2,4-Dichlorophenol	5.4	µg/L	<	5.4	µg/L
2,4-Dimethylphenol	5.4	µg/L	<	5.4	µg/L
4,6-Dinitro-2-methylphenol	40.0	µg/L	<	40.0	µg/L
2,4-Dinitrophenol	84.0	µg/L	<	84.0	µg/L
2-Methylphenol	10.0	µg/L	<	10.0	µg/L
2-Nitrophenol	7.2	µg/L	<	7.2	µg/L
4-Nitrophenol	4.8	µg/L	<	4.8	µg/L
Pentachlorophenol	7.2	µg/L	<	7.2	µg/L
Phenol	3.0	µg/L	<	3.0	µg/L
2,4,6-Trichlorophenol	5.4	µg/L	<	5.4	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7201-3
ANALYSIS METHOD : EPA 625

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Phenol-d5 (SS)	100 µg/L	34.3 %
2-Fluorophenol (SS)	100 µg/L	31.3 %
2,4,6-Tribromophenol (SS)	100 µg/L	39.4 %

NDRC Laboratories, Inc. Martin Jeffus VZ

Martin Jeffus
General Manager

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7201-3
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-3
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 24-JUN-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : BJC
ANALYZED ON : 30-JUN-1993
DILUTION FACTOR : 2

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Acenaphthene	3.8	µg/L	<	3.8	µg/L
Acenaphthylene	7.0	µg/L	<	7.0	µg/L
Anthracene	3.8	µg/L	<	3.8	µg/L
Benzidine	88.0	µg/L	<	88.0	µg/L
Benzo(a)anthracene	15.6	µg/L	<	15.6	µg/L
Benzo(b)fluoranthene	9.6	µg/L	<	9.6	µg/L
Benzo(k)fluoranthene	5.0	µg/L	<	5.0	µg/L
Benzo(g,h,i)perylene	8.2	µg/L	<	8.2	µg/L
Benzo(a)pyrene	5.0	µg/L	<	5.0	µg/L
Bis(2-chloroethoxy)methane	10.6	µg/L	<	10.6	µg/L
Bis(2-chloroethyl)ether	11.4	µg/L	<	11.4	µg/L
Bis(2-chloroisopropyl)ether	11.4	µg/L	<	11.4	µg/L
Bis(2-ethylhexyl)phthalate	5.0	µg/L		17.2	µg/L
4-Bromophenylphenyl ether	3.8	µg/L	<	3.8	µg/L
Butyl benzyl phthalate	5.0	µg/L	<	5.0	µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D93-7201-3
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
2-Chloronaphthalene	3.8	µg/L	<	3.8	µg/L
4-Chlorophenylphenyl ether	8.4	µg/L	<	8.4	µg/L
Chrysene	5.0	µg/L	<	5.0	µg/L
Dibenz(a,h)anthracene	5.0	µg/L	<	5.0	µg/L
2,3,7,8-Tetrachorodibenzodioxin			Negative		
Di-n-butylphthalate	5.0	µg/L	<	5.0	µg/L
1,3-Dichlorobenzene	3.8	µg/L	<	3.8	µg/L
1,4-Dichlorobenzene	8.8	µg/L	<	8.8	µg/L
1,2-Dichlorobenzene	3.8	µg/L	<	3.8	µg/L
3,3'-Dichlorobenzidine	33.0	µg/L	<	33.0	µg/L
Diethylphthalate	3.8	µg/L	<	3.8	µg/L
Dimethylphthalate	3.2	µg/L	<	3.2	µg/L
2,4-Dinitrotoluene	11.4	µg/L	<	11.4	µg/L
2,6-Dinitrotoluene	3.8	µg/L	<	3.8	µg/L
Di-n-octylphthalate	5.0	µg/L	<	5.0	µg/L
1,2-Diphenylhydrazine	40.0	µg/L	<	40.0	µg/L
Fluoranthene	4.4	µg/L	<	4.4	µg/L
Fluorene	3.8	µg/L	<	3.8	µg/L
Hexachlorobenzene	3.8	µg/L	<	3.8	µg/L
Hexachlorobutadiene	1.8	µg/L	<	1.8	µg/L
Hexachlorocyclopentadiene	10.0	µg/L	<	10.0	µg/L
Hexachloroethane	3.2	µg/L	<	3.2	µg/L
Indeno(1,2,3-cd)pyrene	7.4	µg/L	<	7.4	µg/L
Isophorone	4.4	µg/L	<	4.4	µg/L
Naphthalene	3.2	µg/L		348	µg/L
Nitrobenzene	3.8	µg/L	<	3.8	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7201-3
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
N-Nitrosodimethylamine	10.0	µg/L	<	10.0	µg/L
N-Nitrosodiphenylamine	10.0	µg/L	<	10.0	µg/L
N-Nitrosodipropylamine	10.0	µg/L	<	10.0	µg/L
Phenanthrene	10.8	µg/L	<	10.8	µg/L
Pyrene	3.8	µg/L	<	3.8	µg/L
1,2,4-Trichlorobenzene	3.8	µg/L	<	3.8	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Nitrobenzene-d5(SS)	50.0	µg/L	73.9	%
2-Fluorobiphenyl(SS)	50.0	µg/L	80.5	%
Terphenyl-d14 (SS)	50.0	µg/L	64.8	%

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7201-3
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-3
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYZED BY : BJC
ANALYZED ON : 30-JUN-1993

TENTATIVELY IDENTIFIED COMPOUNDS				
COMPOUND	RETENTION TIME	FRACTION	RESULT	
Ethylmethylbenzene	5.83	ABN	74	µg/L
Unidentified alcohol	5.91	ABN	170	µg/L
Unidentified amide	5.98	ABN	64	µg/L
Unidentified carbonyl	6.12	ABN	160	µg/L
Propylbenzene	6.24	ABN	120	µg/L
Unidentified ether	6.28	ABN	73	µg/L
Ethylmethylbenzene	6.42	ABN	420	µg/L
Trimethylbenzene	6.49	ABN	220	µg/L
Trimethylbenzene	6.88	ABN	540	µg/L
Unidentified carboxylate	6.99	ABN	260	µg/L
Unidentified alkanes (naphtha)	7.00	ABN	1600	µg/L
Trimethylbenzene	7.25	ABN	190	µg/L
Methyl isopropylbenzene	7.69	ABN	68	µg/L
Methyl isopropylbenzene	8.35	ABN	23	µg/L
Tetramethylbenzene	8.55	ABN	21	µg/L
Methylindan	8.95	ABN	28	µg/L
Methylacetophenone	9.24	ABN	24	µg/L
Unidentified heteroaromatic	10.96	ABN	33	µg/L
Ethylmethylbenzene	6.64	ABN	260	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

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SAMPLE MATRIX : Water
ID MARKS : MW-3
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 29-JUN-1993
DILUTION FACTOR : 250

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	250	µg/L	13000	µg/L	
Toluene	250	µg/L	50000	µg/L	
Ethyl benzene	250	µg/L	3900	µg/L	
Xylenes	250	µg/L	22000	µg/L	
BTEX (total)			88900	µg/L	#

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	50.0	µg/L	90.0	%

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

NDRC Laboratories, Inc. Martin Jeffus

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SAMPLE MATRIX : Water
ID MARKS : MW-3
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 29-JUN-1993
DILUTION FACTOR : 250

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	2500 µg/L	< 2500 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	90.0 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7201-4
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-4
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : BSR
ANALYZED ON : 28-JUN-1993
DILUTION FACTOR : 10

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	1	µg/L	<	1	µg/L
Bromoform	2	µg/L	<	2	µg/L
Bromomethane	12	µg/L	<	12	µg/L
Carbon tetrachloride	2	µg/L	<	2	µg/L
Chlorobenzene	3	µg/L	<	3	µg/L
Chloroethane	6	µg/L	<	6	µg/L
2-Chloroethylvinyl ether	3	µg/L	<	3	µg/L
Chloroform	1	µg/L	<	1	µg/L
Chloromethane	5	µg/L	<	5	µg/L
Dibromochloromethane	1	µg/L	<	1	µg/L
1,2-Dichlorobenzene	2	µg/L	<	2	µg/L
1,3-Dichlorobenzene	4	µg/L	<	4	µg/L
1,4-Dichlorobenzene	3	µg/L	<	3	µg/L
Dichlorodifluoromethane	20	µg/L	<	20	µg/L
1,1-Dichloroethene	2	µg/L	<	2	µg/L
1,2-Dichloroethane	3	µg/L	<	3	µg/L
1,1-Dichloroethane	1	µg/L	<	1	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7201-4
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	1	µg/L	<	1	µg/L
1,2-Dichloropropane	1	µg/L	<	1	µg/L
cis-1,3-Dichloropropene	2	µg/L	<	2	µg/L
trans-1,3-Dichloropropene	2	µg/L	<	2	µg/L
Methylene chloride	5	µg/L	<	5	µg/L
1,1,2,2-Tetrachloroethane	1	µg/L	<	1	µg/L
Tetrachloroethene	1	µg/L	<	1	µg/L
1,1,1-Trichloroethane	1	µg/L	<	1	µg/L
1,1,2-Trichloroethane	1	µg/L	<	1	µg/L
Trichloroethene	1	µg/L	<	1	µg/L
Trichlorofluoromethane	5	µg/L	<	5	µg/L
Vinyl chloride	5	µg/L	<	5	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	93.0	%

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7201-4
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-4
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 29-JUN-1993
DILUTION FACTOR : 1

BTEX ANALYSIS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Benzene	1.0	µg/L		1.5	µg/L
Toluene	1.0	µg/L	<	1.0	µg/L
Ethyl benzene	1.0	µg/L	<	1.0	µg/L
Xylenes	1.0	µg/L		16.0	µg/L
BTEX (total)				17.5	µg/L #

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene(SS)	50.0	µg/L	95.0	%

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

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REPORT NUMBER : D93-7201-4
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
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: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-4
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 29-JUN-1993
DILUTION FACTOR : 1

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	10.0 µg/L	< 10.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	95.0 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7201-5
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : Trip Blank
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : BSR
ANALYZED ON : 26-JUN-1993
DILUTION FACTOR : 10

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	1	µg/L	<	1	µg/L
Bromoform	2	µg/L	<	2	µg/L
Bromomethane	12	µg/L	<	12	µg/L
Carbon tetrachloride	2	µg/L	<	2	µg/L
Chlorobenzene	3	µg/L	<	3	µg/L
Chloroethane	6	µg/L	<	6	µg/L
2-Chloroethylvinyl ether	3	µg/L	<	3	µg/L
Chloroform	1	µg/L	<	1	µg/L
Chloromethane	5	µg/L	<	5	µg/L
Dibromochloromethane	1	µg/L	<	1	µg/L
1,2-Dichlorobenzene	2	µg/L	<	2	µg/L
1,3-Dichlorobenzene	4	µg/L	<	4	µg/L
1,4-Dichlorobenzene	3	µg/L	<	3	µg/L
Dichlorodifluoromethane	20	µg/L	<	20	µg/L
1,1-Dichloroethene	2	µg/L	<	2	µg/L
1,2-Dichloroethane	3	µg/L	<	3	µg/L
1,1-Dichloroethane	1	µg/L	<	1	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7201-5
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	1	µg/L	<	1	µg/L
1,2-Dichloropropane	1	µg/L	<	1	µg/L
cis-1,3-Dichloropropene	2	µg/L	<	2	µg/L
trans-1,3-Dichloropropene	2	µg/L	<	2	µg/L
Methylene chloride	5	µg/L	<	5	µg/L
1,1,2,2-Tetrachloroethane	1	µg/L	<	1	µg/L
Tetrachloroethene	1	µg/L	<	1	µg/L
1,1,1-Trichloroethane	1	µg/L	<	1	µg/L
1,1,2-Trichloroethane	1	µg/L	<	1	µg/L
Trichloroethene	1	µg/L	<	1	µg/L
Trichlorofluoromethane	5	µg/L	<	5	µg/L
Vinyl chloride	5	µg/L	<	5	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	90.0	%

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7201-5
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : Trip Blank
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 25-JUN-1993
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	50.0 µg/L	92.0 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

NDRC Laboratories, Inc. Martin Jeffus VZ

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BEAUMONT **DALLAS** **HOUSTON**

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SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : Trip Blank
: Greensboro, NC
PROJECT : 50-92-037 Exxon SS# 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 25-JUN-1993
DILUTION FACTOR : 1

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	10.0 µg/L	< 10.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	92.0 %

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED: 23-JUN-1993

REPORT NUMBER: D93-7201

REPORT DATE: 30-JUN-1993

SUBMITTED BY: Delta Environmental

LABORATORY QUALITY CONTROL REPORT

ANALYTE	Benzene	Ethyl Benzene	MTBE	Vinyl Chloride	Chloroform
BATCH No.	----	----	----	----	----
MATRIX	Water	Water	Water	Water	Water
PREP METHOD	EPA 602	EPA 602	EPA 602	EPA 601	EPA 601
PREP DATE	6/28/93	6/28/93	6/28/93	6/26/93	6/26/93
PREP TECHNICIAN	CNA	CNA	CNA	BSR	BSR
ANALYSIS METHOD	EPA 602	EPA 602	EPA 602	EPA 601	EPA 601
ANALYSIS DATE	6/28/93	6/28/93	6/28/93	6/26/93	6/26/93
ANALYST	PSS	PSS	PSS	BSR	BSR
METHOD BLANK	< 1.0 µg/L	< 1.0 µg/L	< 10.0 µg/L	< 5.0 µg/L	< 1.0 µg/L
MS % RECOVERY	91.7	92.0	105	90.0	125
LCS % RECOVERY	92.6	92.5	107	85.1	113
DUPLICATE RPD	----	----	----	----	----
MS/MSD RPD	2.05	2.79	2.80	7.61	12.7
SPIKE LEVEL	50 µg/L	50 µg/L	50 µg/L	10 µg/L	10 µg/L
SPIKED SAMPLE ID No.	Reagent Water	Reagent Water	Reagent Water	D93-7036-4	D93-7036-4
DUPLICATE SAMPLE ID No.	----	----	----	----	----

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
RPD: Relative Percent Difference

COMMENTS:

NDRC LABORATORIES, INC.

A member of Inchcape Environmental

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED: 23-JUN-1993 REPORT NUMBER: D93-7201

SUBMITTED BY: Delta Environmental

LABORATORY QUALITY CONTROL REPORT

ANALYTE	Bromodichloromethane	Chlorobenzene	1,2 Dichlorobenzene
BATCH No.	----	----	----
MATRIX	Water	Water	Water
PREP METHOD	EPA 601	EPA 601	EPA 601
PREP DATE	6/26/93	6/26/93	6/26/93
PREP TECHNICIAN	BSR	BSR	BSR
ANALYSIS METHOD	EPA 601	EPA 601	EPA 601
ANALYSIS DATE	6/26/93	6/26/93	6/26/93
ANALYST	BSR	BSR	BSR
METHOD BLANK	< 1.0 µg/L	< 3.0 µg/L	< 2.0 µg/L
MS % RECOVERY	114	88.4	122
LCS % RECOVERY	92.1	83.3	118
DUPLICATE RPD	----	----	----
MS/MSD RPD	13.1	0.788	5.33
SPIKE LEVEL	10 µg/L	10 µg/L	10 µg/L
SPIKED SAMPLE ID No.	D93-7036-4	D93-7036-4	D93-7036-4
DUPLICATE SAMPLE ID No.	----	----	----

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
RPD: Relative Percent Difference

COMMENTS:

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: INCHCAPE Contract: NDRC

Lab Code: HP002 Case No.: BJAC SAS No.: 6/24/93 SDG No.: 6/25/93

Matrix Spike - EPA Sample No.: Reag H20 MS(LCS) & MSD 625-023

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	100.00	0.00	65.00	65	10-135
2-Chlorophenol	100.00	0.00	67.00	67	45-110
1,4-Dichlorobenzene	50.00	0.00	29.00	58	35-115
N-Nitroso-di-n-prop.(1)	50.00	6.30	34.00	55	35-130
1,2,4-Trichlorobenzene	50.00	0.00	32.00	64	50-115
4-Chloro-3-methylphenol	100.00	0.00	73.00	73	45-120
Acenaphthene	50.00	0.00	38.00	76	46-118
4-Nitrophenol	100.00	0.00	72.00	72	35-120
2,4-Dinitrotoluene	50.00	0.00	31.00	62	15-150
Pentachlorophenol	100.00	0.00	82.00	82	30-140
Pyrene	50.00	0.00	36.00	72	30-145

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	100.00	63.00	63	3	25	10-135
2-Chlorophenol	100.00	68.00	68	1	20	45-110
1,4-Dichlorobenzene	50.00	33.00	67	14	15	35-115
N-Nitroso-di-n-prop.(1)	50.00	34.00	55	0	25	35-130
1,2,4-Trichlorobenzene	50.00	34.00	68	6	15	50-115
4-Chloro-3-methylphenol	100.00	70.00	70	4	25	45-120
Acenaphthene	50.00	39.00	77	1	20	46-118
4-Nitrophenol	100.00	65.00	65	10	50	35-120
2,4-Dinitrotoluene	50.00	26.00	52	17	40	15-150
Pentachlorophenol	100.00	79.00	79	3	30	30-140
Pyrene	50.00	39.00	78	8	20	30-145

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of qc limits

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS: SW-846 EPA METHOD 8270

Level I QC

CHAIN OF CUSTODY RECORD

EXXON Company, USA
Regional Laboratory Program

ORIGINAL

Inchcape Testing Services
NDRC Laboratories

1089 East Collins Blvd, Richardson, Texas 75081 (214) 238-5591 (Voice), (214) 238-5592 (Fax)
Attn: Belinda Feuerbacher, Project Director

Page 1 of 2

Consultant's Name: Delta Environmental Consultants, Inc
Address: 6701 Carmel Rd. Suite 200 Charlotte, N.C. 28226-3901

Project: 50-92-037 (Exxon)
Consultant Proj #: 50-92-037
Consultant Work Release #: 92077663

Project Contact: David Curlis
Phone (704) 541-9890 Fax: (704) 543-4035
Laboratory Work Release #: 09356184

Alternate Contact: Luba Gross / David Clary
Phone: " Fax: "
Site Location: Greensboro, N.C.

EXXON Contact: Frank Medlin EP / C&M (circle one)
Phone: ~~"~~ Fax: ~~"~~
EXXON RAS #: 4-3998

Sampled by (print): R. David Clary
Sampler's Signature: R. David Clary

Shipment Method: Overnight-Air
Air Bill #: ~~698248191~~ 971812855
Shipment Date: 6/22/93

Sample Condition as Received
Temperature °C: amb
Cooler #: EX 112
Inbound Sealed Yes No
Outbound Sealed Yes No

ANALYSIS REQUIRED
Number of Containers

SAMPLE ID	DATE	TIME	MATRIX WATER/ SOIL	PRSV	SAMPLE LOCATION/ DESCRIPTION	601	BTEX ONLY	625						COMMENTS
MW 1	6/22/93	16:35	water	HCl	Monitoring well		X				7201	-1	2	BTEX ONLY Due 6/30/93!
MW 2	↓	16:55	↓	HCl	↓		X					2	3	
MW 3		16:15		HCl			X					3	3	625 Due 7/2/93!
MW 4		13:45		HCl			X					4	3	
MW 1		16:35		NP		X						(1)	3	
MW 2		16:55				X						(2)	3	
MW 3		16:15				X						(3)	3	
MW 4		13:45				X						(4)	3	
MW 1		16:35						X				(7)	1	
MW 2	↓	16:55	↓	↓	↓			X				(2)	1	

Turn around time ☐ 24 hr ☐ 48 hr ☐ 72 hr ☐ Standard ☐ Other _____
Total # of Containers: 25

(1) Relinquished by Signature	Date	(2) Relinquished by Signature	Date	(3) Relinquished by Signature	Date
				R. David Clary	6/22/93
Company:	Time:	Company:	Time:	Company: Delta	Time: 18:15
(1) Received by Signature	Date	(2) Received by Signature	Date	(3) Received by Signature	Date
		R. David Clary	6/22/93	[illegible]	6/23/93
Company:	Time:	Company: Delta	Time: 11:00	Company: Inchcape	Time: 10:35

Distribution: White – Original Yellow – Exxon Pink – NDRC Laboratories Goldenrod – Consultant

CHAIN OF CUSTODY RECORD

EXXON Company, USA
Regional Laboratory Program

Inchcape Testing Services
NDRC Laboratories

1089 East Collins Blvd, Richardson, Texas 75081 (214) 238-5591 (Voice), (214) 238-5592 (Fax)
Attn: Belinda Feuerbacher, Project Director

Page 2 of 2

Consultant's Name : Delta			
Address : 6701 Carmel Rd. Suite 200 Charlotte N.C. 28226-3901			
Project : Exxon	Consultant Proj # : 50-92-037		Consultant Work Release # : 92077663
Project Contact :	Phone :	Fax :	Laboratory Work Release # : 09356184
Alternate Contact :	Phone :	Fax :	Site Location :
EXXON Contact : Frank Modlin EE / C&M (circle one)	Phone :	Fax :	EXXON RAS # : 4-3998
Sampled by (print) : R. David Clary	Sampler's Signature : R. David Clary		
Shipment Method : Overnight Air	Air Bill # : ~~6592497191~~ 971812855		
Shipment Date : 6/22/93			

MW4 cancel per David Curtis

SAMPLE ID	DATE	TIME	MATRIX WATER/ SOIL	PRSV	SAMPLE LOCATION/ DESCRIPTION	625	601	BTEX MTBE					
MW 3	6/22	16:15	water	NP	monitoring well	X						(3)	1
MW 4	6/22	13:45	↓	↓		~~X~~			Received Broken			(4)	1
Trip Blank							X	X				7201-5	2

ANALYSIS REQUIRED
Number of Containers

Sample Condition as Received
Temperature °C : 4/0C
Cooler # : EX112
Inbound Sealed (Yes) No
Outbound Sealed (Yes) No

COMMENTS

Turn around time ☐ 24 hr ☐ 48 hr ☐ 72 hr ☐ Standard ☐ Other _____ Total # of Containers : 4

(1) Relinquished by Signature	Date	(2) Relinquished by Signature	Date	(3) Relinquished by Signature R. David Clary	Date 6/22/93
Company :	Time:	Company :	Time:	Company : Delta	Time: 18:15
(1) Received by Signature	Date	(2) Received by Signature R. David Clary	Date 6/22/93	(3) Received by Signature [illegible]	Date 6/23/93
Company :	Time:	Company : Delta	Time: 11:00	Company : Inchcape	Time: 10:35

Distribution: White – Original Yellow – Exxon Pink – NDRC Laboratories Goldenrod – Consultant

NDRC LABORATORIES, INC.

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SAMPLE PRESERVATION INFORMATION SHEET

Field Sampling ☐ Incoming Samples ☐

GENERAL

Company: DELTA Job No: 7201-1-5

No. of Cooler(s): 1 Temperature of Cooler(s): <4°C

PRESERVATION INFORMATION

Sample No.	Temperature of Sample	Sample Container	Volume	Preservation used *	Initial pH	Final pH	Bottles generated	Comments
7201-1		1AG	1L	8	4.9	4.9	1	NP
-2		1	1	1	5.0	5.0	1	1
-3		1	1	1	4.4	4.4	1	1

PRESERVATION USED *

1 - Cool to 4° C
2 - H_2SO_4 to pH < 2
3 - HNO_3 to pH < 2
4 - HCL to pH < 2
5 - NaOH to pH > 12
6 - $Na_2S_2O_2$ 0.008%
7 - 2 mL Zinc Acetate and NaOH to pH > 12
8 - None required

KRH
Preserved by

6/22/93
Date/Time

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon 4-3998

JOB NUMBER : D93-7194
REPORT DATE : 30-JUN-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-5 Greensboro, ~~TX~~ NC	Water	22-JUN-1993
2	MW-6 Greensboro, ~~TX~~ NC	Water	22-JUN-1993
3	MW-7 Greensboro, ~~TX~~ NC	Water	22-JUN-1993
4	DW-8 Greensboro, ~~TX~~ NC	Water	22-JUN-1993

VOLATILE HALOCARBONS, EPA 601		1	2	3	4
Bromodichloromethane	µg/L	< 1	< 1	< 1	< 1
Bromoform	µg/L	< 2	< 2	< 2	< 2
Bromomethane	µg/L	< 12	< 12	< 12	< 12
Carbon tetrachloride	µg/L	< 2	< 2	< 2	< 2
Chlorobenzene	µg/L	< 3	< 3	< 3	< 3
Chloroethane	µg/L	< 6	< 6	< 6	< 6
2-Chloroethylvinyl ether	µg/L	< 3	< 3	< 3	< 3
Chloroform	µg/L	< 1	< 1	< 1	< 1
Chloromethane	µg/L	< 5	< 5	< 5	< 5
Dibromochloromethane	µg/L	< 1	< 1	< 1	< 1
1,2-Dichlorobenzene	µg/L	< 2	< 2	< 2	< 2
1,3-Dichlorobenzene	µg/L	< 4	< 4	< 4	< 4
1,4-Dichlorobenzene	µg/L	< 3	< 3	< 3	< 3
Dichlorodifluoromethane	µg/L	< 20	< 20	< 20	< 20
1,1-Dichloroethene	µg/L	< 2	< 2	< 2	< 2
1,2-Dichloroethane	µg/L	< 3	< 3	< 3	< 3
1,1-Dichloroethane	µg/L	< 1	< 1	< 1	< 1
trans-1,2-Dichloroethene	µg/L	< 1	< 1	< 1	< 1
1,2-Dichloropropane	µg/L	< 1	< 1	< 1	< 1
cis-1,3-Dichloropropene	µg/L	< 2	< 2	< 2	< 2

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon 4-3998

JOB NUMBER : D93-7194
REPORT DATE : 30-JUN-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-5 Greensboro, TX	Water	22-JUN-1993
2	MW-6 Greensboro, TX	Water	22-JUN-1993
3	MW-7 Greensboro, TX	Water	22-JUN-1993
4	DW-8 Greensboro, TX	Water	22-JUN-1993

VOLATILE HALOCARBONS, EPA 601 (Continued..)		1	2	3	4
trans-1,3-Dichloropropene	µg/L	< 2	< 2	< 2	< 2
Methylene chloride	µg/L	< 5	< 5	< 5	< 5
1,1,2,2-Tetrachloroethane	µg/L	< 1	< 1	< 1	< 1
Tetrachloroethene	µg/L	< 1	< 1	< 1	< 1
1,1,1-Trichloroethane	µg/L	< 1	< 1	< 1	< 1
1,1,2-Trichloroethane	µg/L	< 1	< 1	< 1	< 1
Trichloroethene	µg/L	< 1	< 1	< 1	< 1
Trichlorofluoromethane	µg/L	< 5	< 5	< 5	< 5
Vinyl chloride	µg/L	< 5	< 5	< 5	< 5

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SUMMARY REPORT

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JOB NUMBER : D93-7194
REPORT DATE : 30-JUN-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-5 Greensboro, TX	Water	22-JUN-1993
2	MW-6 Greensboro, TX	Water	22-JUN-1993
3	MW-7 Greensboro, TX	Water	22-JUN-1993
4	DW-8 Greensboro, TX	Water	22-JUN-1993

ACID EXTRACTABLE ORGANICS, EPA 625		1	2	3	4
4-Chloro-3-methylphenol	µg/L	< 3.0	< 3.0	< 3.0	< 3.0
2-Chlorophenol	µg/L	< 3.3	< 3.3	< 3.3	< 3.3
2,4-Dichlorophenol	µg/L	< 2.7	< 2.7	< 2.7	< 2.7
2,4-Dimethylphenol	µg/L	< 2.7	< 2.7	< 2.7	< 2.7
4,6-Dinitro-2-methylphenol	µg/L	< 20.0	< 20.0	< 20.0	< 20.0
2,4-Dinitrophenol	µg/L	< 42.0	< 42.0	< 42.0	< 42.0
2-Methylphenol	µg/L	< 5.0	< 5.0	< 5.0	< 5.0
2-Nitrophenol	µg/L	< 3.6	< 3.6	< 3.6	< 3.6
4-Nitrophenol	µg/L	< 2.4	< 2.4	< 2.4	< 2.4
Pentachlorophenol	µg/L	< 3.6	< 3.6	< 3.6	< 3.6
Phenol	µg/L	< 1.5	< 1.5	< 1.5	< 1.5
2,4,6-Trichlorophenol	µg/L	< 2.7	< 2.7	< 2.7	< 2.7

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625		1	2	3	4
Acenaphthene	µg/L	< 1.9	< 1.9	< 1.9	< 1.9
Acenaphthylene	µg/L	< 3.5	< 3.5	< 3.5	< 3.5
Anthracene	µg/L	< 1.9	< 1.9	< 1.9	< 1.9
Benzidine	µg/L	< 44.0	< 44.0	< 44.0	< 44.0
Benzo(a)anthracene	µg/L	< 7.8	< 7.8	< 7.8	< 7.8
Benzo(b)fluoranthene	µg/L	< 4.8	< 4.8	< 4.8	< 4.8

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JOB NUMBER : D93-7194
REPORT DATE : 30-JUN-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-5 Greensboro, TX	Water	22-JUN-1993
2	MW-6 Greensboro, TX	Water	22-JUN-1993
3	MW-7 Greensboro, TX	Water	22-JUN-1993
4	DW-8 Greensboro, TX	Water	22-JUN-1993

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625 (Continued..)		1	2	3	4
Benzo(k)fluoranthene	µg/L	< 2.5	< 2.5	< 2.5	< 2.5
Benzo(g,h,i)perylene	µg/L	< 4.1	< 4.1	< 4.1	< 4.1
Benzo(a)pyrene	µg/L	< 2.5	< 2.5	< 2.5	< 2.5
Bis(2-chloroethoxy)methane	µg/L	< 5.3	< 5.3	< 5.3	< 5.3
Bis(2-chloroethyl)ether	µg/L	< 5.7	< 5.7	< 5.7	< 5.7
Bis(2-chloroisopropyl)ether	µg/L	< 5.7	< 5.7	< 5.7	< 5.7
Bis(2-ethylhexyl)phthalate	µg/L	< 2.5	< 2.5	< 2.5	< 2.5
4-Bromophenylphenyl ether	µg/L	< 1.9	< 1.9	< 1.9	< 1.9
Butyl benzyl phthalate	µg/L	< 2.5	< 2.5	< 2.5	< 2.5
2-Chloronaphthalene	µg/L	< 1.9	< 1.9	< 1.9	< 1.9
4-Chlorophenylphenyl ether	µg/L	< 4.2	< 4.2	< 4.2	< 4.2
Chrysene	µg/L	< 2.5	< 2.5	< 2.5	< 2.5
Dibenz(a,h)anthracene	µg/L	< 2.5	< 2.5	< 2.5	< 2.5
2,3,7,8-Tetrachorodibenzodioxin		Negative	Negative	Negative	Negative
Di-n-butylphthalate	µg/L	< 2.5	< 2.5	< 2.5	< 2.5
1,3-Dichlorobenzene	µg/L	< 1.9	< 1.9	< 1.9	< 1.9
1,4-Dichlorobenzene	µg/L	< 4.4	< 4.4	< 4.4	< 4.4
1,2-Dichlorobenzene	µg/L	< 1.9	< 1.9	< 1.9	< 1.9
3,3'-Dichlorobenzidine	µg/L	< 16.5	< 16.5	< 16.5	< 16.5

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

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JOB NUMBER : D93-7194
REPORT DATE : 30-JUN-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-5 Greensboro, TX	Water	22-JUN-1993
2	MW-6 Greensboro, TX	Water	22-JUN-1993
3	MW-7 Greensboro, TX	Water	22-JUN-1993
4	DW-8 Greensboro, TX	Water	22-JUN-1993

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625 (Continued..)		1	2	3	4
Diethylphthalate	µg/L	< 1.9	< 1.9	< 1.9	< 1.9
Dimethylphthalate	µg/L	< 1.6	< 1.6	< 1.6	< 1.6
2,4-Dinitrotoluene	µg/L	< 5.7	< 5.7	< 5.7	< 5.7
2,6-Dinitrotoluene	µg/L	< 1.9	< 1.9	< 1.9	< 1.9
Di-n-octylphthalate	µg/L	< 2.5	< 2.5	< 2.5	< 2.5
1,2-Diphenylhydrazine	µg/L	< 20.0	< 20.0	< 20.0	< 20.0
Fluoranthene	µg/L	< 2.2	< 2.2	< 2.2	< 2.2
Fluorene	µg/L	< 1.9	< 1.9	< 1.9	< 1.9
Hexachlorobenzene	µg/L	< 1.9	< 1.9	< 1.9	< 1.9
Hexachlorobutadiene	µg/L	< 0.9	< 0.9	< 0.9	< 0.9
Hexachlorocyclopentadiene	µg/L	< 5.0	< 5.0	< 5.0	< 5.0
Hexachloroethane	µg/L	< 1.6	< 1.6	< 1.6	< 1.6
Indeno(1,2,3-cd)pyrene	µg/L	< 3.7	< 3.7	< 3.7	< 3.7
Isophorone	µg/L	< 2.2	< 2.2	< 2.2	< 2.2
Naphthalene	µg/L	< 1.6	< 1.6	< 1.6	< 1.6
Nitrobenzene	µg/L	< 1.9	< 1.9	< 1.9	< 1.9
N-Nitrosodimethylamine	µg/L	< 5.0	< 5.0	< 5.0	< 5.0
N-Nitrosodiphenylamine	µg/L	< 5.0	< 5.0	< 5.0	< 5.0
N-Nitrosodipropylamine	µg/L	< 5.0	< 5.0	< 5.0	< 5.0

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BEAUMONT **DALLAS** **HOUSTON**

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JOB NUMBER : D93-7194
REPORT DATE : 30-JUN-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
1	MW-5 Greensboro, TX	Water	22-JUN-1993
2	MW-6 Greensboro, TX	Water	22-JUN-1993
3	MW-7 Greensboro, TX	Water	22-JUN-1993
4	DW-8 Greensboro, TX	Water	22-JUN-1993

BASE-NEUTRAL EXTRACTABLE ORGANICS, EPA 625 (Continued..)		1	2	3	4
Phenanthrene	µg/L	< 5.4	< 5.4	< 5.4	< 5.4
Pyrene	µg/L	< 1.9	< 1.9	< 1.9	< 1.9
1,2,4-Trichlorobenzene	µg/L	< 1.9	< 1.9	< 1.9	< 1.9

BTEX ANALYSIS, EPA 602		1	2	3	4
Benzene	µg/L	< 1.0	< 1.0	< 5.0	< 1.0
Toluene	µg/L	< 1.0	< 1.0	< 5.0	< 1.0
Ethyl benzene	µg/L	< 1.0	< 1.0	< 5.0	< 1.0
Xylenes	µg/L	< 1.0	< 1.0	< 5.0	< 1.0
BTEX (total)	µg/L	< 1.0	< 1.0	< 5.0	< 1.0

METHYL TERTIARY BUTYL ETHER, EPA 602		1	2	3	4
Methyl Tertiary Butyl Ether	µg/L	< 10.0	< 10.0	< 50.0	< 10.0

Martin Jaffus VZ

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BEAUMONT DALLAS HOUSTON

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon 4-3998

JOB NUMBER : D93-7194
REPORT DATE : 30-JUN-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
5	Trip Blank Greensboro, TX	Water	22-JUN-1993

VOLATILE HALOCARBONS, EPA 601		5			
Bromodichloromethane	µg/L	< 1			
Bromoform	µg/L	< 2			
Bromomethane	µg/L	< 12			
Carbon tetrachloride	µg/L	< 2			
Chlorobenzene	µg/L	< 3			
Chloroethane	µg/L	< 6			
2-Chloroethylvinyl ether	µg/L	< 3			
Chloroform	µg/L	< 1			
Chloromethane	µg/L	< 5			
Dibromochloromethane	µg/L	< 1			
1,2-Dichlorobenzene	µg/L	< 2			
1,3-Dichlorobenzene	µg/L	< 4			
1,4-Dichlorobenzene	µg/L	< 3			
Dichlorodifluoromethane	µg/L	< 20			
1,1-Dichloroethene	µg/L	< 2			
1,2-Dichloroethane	µg/L	< 3			
1,1-Dichloroethane	µg/L	< 1			
trans-1,2-Dichloroethene	µg/L	< 1			
1,2-Dichloropropane	µg/L	< 1			
cis-1,3-Dichloropropene	µg/L	< 2			

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BEAUMONT **DALLAS** **HOUSTON**

SUMMARY REPORT

CLIENT : Delta Environmental
PROJECT : 50-92-037 Exxon 4-3998

JOB NUMBER : D93-7194
REPORT DATE : 30-JUN-1993

SAMPLE NO.	ID MARKS	MATRIX	DATE SAMPLED
5	Trip Blank Greensboro, TX	Water	22-JUN-1993

VOLATILE HALOCARBONS, EPA 601 (Continued..)		5			
trans-1,3-Dichloropropene	µg/L	< 2			
Methylene chloride	µg/L	< 5			
1,1,2,2-Tetrachloroethane	µg/L	< 1			
Tetrachloroethene	µg/L	< 1			
1,1,1-Trichloroethane	µg/L	< 1			
1,1,2-Trichloroethane	µg/L	< 1			
Trichloroethene	µg/L	< 1			
Trichlorofluoromethane	µg/L	< 5			
Vinyl chloride	µg/L	< 5			

BTEX ANALYSIS, EPA 602		5			
Benzene	µg/L	< 1.0			
Toluene	µg/L	< 1.0			
Ethyl benzene	µg/L	< 1.0			
Xylenes	µg/L	< 1.0			
BTEX (total)	µg/L	< 1.0			

METHYL TERTIARY BUTYL ETHER, EPA 602		5			
Methyl Tertiary Butyl Ether	µg/L	< 10.0			

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7194-1
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-5
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : BSR
ANALYZED ON : 28-JUN-1993
DILUTION FACTOR : 10

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	1	µg/L	<	1	µg/L
Bromoform	2	µg/L	<	2	µg/L
Bromomethane	12	µg/L	<	12	µg/L
Carbon tetrachloride	2	µg/L	<	2	µg/L
Chlorobenzene	3	µg/L	<	3	µg/L
Chloroethane	6	µg/L	<	6	µg/L
2-Chloroethylvinyl ether	3	µg/L	<	3	µg/L
Chloroform	1	µg/L	<	1	µg/L
Chloromethane	5	µg/L	<	5	µg/L
Dibromochloromethane	1	µg/L	<	1	µg/L
1,2-Dichlorobenzene	2	µg/L	<	2	µg/L
1,3-Dichlorobenzene	4	µg/L	<	4	µg/L
1,4-Dichlorobenzene	3	µg/L	<	3	µg/L
Dichlorodifluoromethane	20	µg/L	<	20	µg/L
1,1-Dichloroethene	2	µg/L	<	2	µg/L
1,2-Dichloroethane	3	µg/L	<	3	µg/L
1,1-Dichloroethane	1	µg/L	<	1	µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D93-7194-1
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
trans-1,2-Dichloroethene	1 µg/L	< 1 µg/L
1,2-Dichloropropane	1 µg/L	< 1 µg/L
cis-1,3-Dichloropropene	2 µg/L	< 2 µg/L
trans-1,3-Dichloropropene	2 µg/L	< 2 µg/L
Methylene chloride	5 µg/L	< 5 µg/L
1,1,2,2-Tetrachloroethane	1 µg/L	< 1 µg/L
Tetrachloroethene	1 µg/L	< 1 µg/L
1,1,1-Trichloroethane	1 µg/L	< 1 µg/L
1,1,2-Trichloroethane	1 µg/L	< 1 µg/L
Trichloroethene	1 µg/L	< 1 µg/L
Trichlorofluoromethane	5 µg/L	< 5 µg/L
Vinyl chloride	5 µg/L	< 5 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene (SS)	50.0 µg/L	82.0 %

NDRC Laboratories, Inc. Martin Jeffus VZ

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BEAUMONT DALLAS HOUSTON

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SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-5
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 24-JUN-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : BJC
ANALYZED ON : 25-JUN-1993
DILUTION FACTOR : 1

ACID EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
4-Chloro-3-methylphenol	3.0	µg/L	<	3.0	µg/L
2-Chlorophenol	3.3	µg/L	<	3.3	µg/L
2,4-Dichlorophenol	2.7	µg/L	<	2.7	µg/L
2,4-Dimethylphenol	2.7	µg/L	<	2.7	µg/L
4,6-Dinitro-2-methylphenol	20.0	µg/L	<	20.0	µg/L
2,4-Dinitrophenol	42.0	µg/L	<	42.0	µg/L
2-Methylphenol	5.0	µg/L	<	5.0	µg/L
2-Nitrophenol	3.6	µg/L	<	3.6	µg/L
4-Nitrophenol	2.4	µg/L	<	2.4	µg/L
Pentachlorophenol	3.6	µg/L	<	3.6	µg/L
Phenol	1.5	µg/L	<	1.5	µg/L
2,4,6-Trichlorophenol	2.7	µg/L	<	2.7	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7194-1
ANALYSIS METHOD : EPA 625

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Phenol-d5 (SS)	100 µg/L	61.1 %
2-Fluorophenol (SS)	100 µg/L	60.7 %
2,4,6-Tribromophenol (SS)	100 µg/L	74.7 %

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PREPARED BY : TLR
PREPARED ON : 24-JUN-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : BJC
ANALYZED ON : 25-JUN-1993
DILUTION FACTOR : 1

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Acenaphthene	1.9	µg/L	<	1.9	µg/L
Acenaphthylene	3.5	µg/L	<	3.5	µg/L
Anthracene	1.9	µg/L	<	1.9	µg/L
Benzidine	44.0	µg/L	<	44.0	µg/L
Benzo(a)anthracene	7.8	µg/L	<	7.8	µg/L
Benzo(b)fluoranthene	4.8	µg/L	<	4.8	µg/L
Benzo(k)fluoranthene	2.5	µg/L	<	2.5	µg/L
Benzo(g,h,i)perylene	4.1	µg/L	<	4.1	µg/L
Benzo(a)pyrene	2.5	µg/L	<	2.5	µg/L
Bis(2-chloroethoxy)methane	5.3	µg/L	<	5.3	µg/L
Bis(2-chloroethyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-chloroisopropyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-ethylhexyl)phthalate	2.5	µg/L	<	2.5	µg/L
4-Bromophenylphenyl ether	1.9	µg/L	<	1.9	µg/L
Butyl benzyl phthalate	2.5	µg/L	<	2.5	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7194-1
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
2-Chloronaphthalene	1.9	µg/L	<	1.9	µg/L
4-Chlorophenylphenyl ether	4.2	µg/L	<	4.2	µg/L
Chrysene	2.5	µg/L	<	2.5	µg/L
Dibenz(a,h)anthracene	2.5	µg/L	<	2.5	µg/L
2,3,7,8-Tetrachorodibenzodioxin			Negative		
Di-n-butylphthalate	2.5	µg/L	<	2.5	µg/L
1,3-Dichlorobenzene	1.9	µg/L	<	1.9	µg/L
1,4-Dichlorobenzene	4.4	µg/L	<	4.4	µg/L
1,2-Dichlorobenzene	1.9	µg/L	<	1.9	µg/L
3,3'-Dichlorobenzidine	16.5	µg/L	<	16.5	µg/L
Diethylphthalate	1.9	µg/L	<	1.9	µg/L
Dimethylphthalate	1.6	µg/L	<	1.6	µg/L
2,4-Dinitrotoluene	5.7	µg/L	<	5.7	µg/L
2,6-Dinitrotoluene	1.9	µg/L	<	1.9	µg/L
Di-n-octylphthalate	2.5	µg/L	<	2.5	µg/L
1,2-Diphenylhydrazine	20.0	µg/L	<	20.0	µg/L
Fluoranthene	2.2	µg/L	<	2.2	µg/L
Fluorene	1.9	µg/L	<	1.9	µg/L
Hexachlorobenzene	1.9	µg/L	<	1.9	µg/L
Hexachlorobutadiene	0.9	µg/L	<	0.9	µg/L
Hexachlorocyclopentadiene	5.0	µg/L	<	5.0	µg/L
Hexachloroethane	1.6	µg/L	<	1.6	µg/L
Indeno(1,2,3-cd)pyrene	3.7	µg/L	<	3.7	µg/L
Isophorone	2.2	µg/L	<	2.2	µg/L
Naphthalene	1.6	µg/L	<	1.6	µg/L
Nitrobenzene	1.9	µg/L	<	1.9	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7194-1
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
N-Nitrosodimethylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodiphenylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodipropylamine	5.0 µg/L	< 5.0 µg/L
Phenanthrene	5.4 µg/L	< 5.4 µg/L
Pyrene	1.9 µg/L	< 1.9 µg/L
1,2,4-Trichlorobenzene	1.9 µg/L	< 1.9 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Nitrobenzene-d5(SS)	50.0 µg/L	68.7 %
2-Fluorobiphenyl(SS)	50.0 µg/L	78.9 %
Terphenyl-d14 (SS)	50.0 µg/L	72.4 %

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7194-1
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-5
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 28-JUN-1993
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	50.0 µg/L	93.0 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

NDRC Laboratories, Inc. Martin Jeffus

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ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 28-JUN-1993
DILUTION FACTOR : 1

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	10.0 µg/L	< 10.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	93.0 %

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7194-2
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-6
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : BSR
ANALYZED ON : 28-JUN-1993
DILUTION FACTOR : 10

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	1	µg/L	<	1	µg/L
Bromoform	2	µg/L	<	2	µg/L
Bromomethane	12	µg/L	<	12	µg/L
Carbon tetrachloride	2	µg/L	<	2	µg/L
Chlorobenzene	3	µg/L	<	3	µg/L
Chloroethane	6	µg/L	<	6	µg/L
2-Chloroethylvinyl ether	3	µg/L	<	3	µg/L
Chloroform	1	µg/L	<	1	µg/L
Chloromethane	5	µg/L	<	5	µg/L
Dibromochloromethane	1	µg/L	<	1	µg/L
1,2-Dichlorobenzene	2	µg/L	<	2	µg/L
1,3-Dichlorobenzene	4	µg/L	<	4	µg/L
1,4-Dichlorobenzene	3	µg/L	<	3	µg/L
Dichlorodifluoromethane	20	µg/L	<	20	µg/L
1,1-Dichloroethene	2	µg/L	<	2	µg/L
1,2-Dichloroethane	3	µg/L	<	3	µg/L
1,1-Dichloroethane	1	µg/L	<	1	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7194-2
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	1	µg/L	<	1	µg/L
1,2-Dichloropropane	1	µg/L	<	1	µg/L
cis-1,3-Dichloropropene	2	µg/L	<	2	µg/L
trans-1,3-Dichloropropene	2	µg/L	<	2	µg/L
Methylene chloride	5	µg/L	<	5	µg/L
1,1,2,2-Tetrachloroethane	1	µg/L	<	1	µg/L
Tetrachloroethene	1	µg/L	<	1	µg/L
1,1,1-Trichloroethane	1	µg/L	<	1	µg/L
1,1,2-Trichloroethane	1	µg/L	<	1	µg/L
Trichloroethene	1	µg/L	<	1	µg/L
Trichlorofluoromethane	5	µg/L	<	5	µg/L
Vinyl chloride	5	µg/L	<	5	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	88.0	%

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ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-6
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 24-JUN-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : BJC
ANALYZED ON : 25-JUN-1993
DILUTION FACTOR : 1

ACID EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
4-Chloro-3-methylphenol	3.0	µg/L	<	3.0	µg/L
2-Chlorophenol	3.3	µg/L	<	3.3	µg/L
2,4-Dichlorophenol	2.7	µg/L	<	2.7	µg/L
2,4-Dimethylphenol	2.7	µg/L	<	2.7	µg/L
4,6-Dinitro-2-methylphenol	20.0	µg/L	<	20.0	µg/L
2,4-Dinitrophenol	42.0	µg/L	<	42.0	µg/L
2-Methylphenol	5.0	µg/L	<	5.0	µg/L
2-Nitrophenol	3.6	µg/L	<	3.6	µg/L
4-Nitrophenol	2.4	µg/L	<	2.4	µg/L
Pentachlorophenol	3.6	µg/L	<	3.6	µg/L
Phenol	1.5	µg/L	<	1.5	µg/L
2,4,6-Trichlorophenol	2.7	µg/L	<	2.7	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7194-2
ANALYSIS METHOD : EPA 625

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Phenol-d5 (SS)	100 µg/L	43.3 %
2-Fluorophenol (SS)	100 µg/L	52.2 %
2,4,6-Tribromophenol (SS)	100 µg/L	71.2 %

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ANALYSIS METHOD : EPA 625
ANALYZED BY : BJC
ANALYZED ON : 25-JUN-1993
DILUTION FACTOR : 1

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Acenaphthene	1.9	µg/L	<	1.9	µg/L
Acenaphthylene	3.5	µg/L	<	3.5	µg/L
Anthracene	1.9	µg/L	<	1.9	µg/L
Benzidine	44.0	µg/L	<	44.0	µg/L
Benzo(a)anthracene	7.8	µg/L	<	7.8	µg/L
Benzo(b)fluoranthene	4.8	µg/L	<	4.8	µg/L
Benzo(k)fluoranthene	2.5	µg/L	<	2.5	µg/L
Benzo(g,h,i)perylene	4.1	µg/L	<	4.1	µg/L
Benzo(a)pyrene	2.5	µg/L	<	2.5	µg/L
Bis(2-chloroethoxy)methane	5.3	µg/L	<	5.3	µg/L
Bis(2-chloroethyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-chloroisopropyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-ethylhexyl)phthalate	2.5	µg/L	<	2.5	µg/L
4-Bromophenylphenyl ether	1.9	µg/L	<	1.9	µg/L
Butyl benzyl phthalate	2.5	µg/L	<	2.5	µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D93-7194-2
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
2-Chloronaphthalene	1.9 µg/L	< 1.9 µg/L
4-Chlorophenylphenyl ether	4.2 µg/L	< 4.2 µg/L
Chrysene	2.5 µg/L	< 2.5 µg/L
Dibenz(a,h)anthracene	2.5 µg/L	< 2.5 µg/L
2,3,7,8-Tetrachorodibenzodioxin		Negative
Di-n-butylphthalate	2.5 µg/L	< 2.5 µg/L
1,3-Dichlorobenzene	1.9 µg/L	< 1.9 µg/L
1,4-Dichlorobenzene	4.4 µg/L	< 4.4 µg/L
1,2-Dichlorobenzene	1.9 µg/L	< 1.9 µg/L
3,3'-Dichlorobenzidine	16.5 µg/L	< 16.5 µg/L
Diethylphthalate	1.9 µg/L	< 1.9 µg/L
Dimethylphthalate	1.6 µg/L	< 1.6 µg/L
2,4-Dinitrotoluene	5.7 µg/L	< 5.7 µg/L
2,6-Dinitrotoluene	1.9 µg/L	< 1.9 µg/L
Di-n-octylphthalate	2.5 µg/L	< 2.5 µg/L
1,2-Diphenylhydrazine	20.0 µg/L	< 20.0 µg/L
Fluoranthene	2.2 µg/L	< 2.2 µg/L
Fluorene	1.9 µg/L	< 1.9 µg/L
Hexachlorobenzene	1.9 µg/L	< 1.9 µg/L
Hexachlorobutadiene	0.9 µg/L	< 0.9 µg/L
Hexachlorocyclopentadiene	5.0 µg/L	< 5.0 µg/L
Hexachloroethane	1.6 µg/L	< 1.6 µg/L
Indeno(1,2,3-cd)pyrene	3.7 µg/L	< 3.7 µg/L
Isophorone	2.2 µg/L	< 2.2 µg/L
Naphthalene	1.6 µg/L	< 1.6 µg/L
Nitrobenzene	1.9 µg/L	< 1.9 µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D93-7194-2
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
N-Nitrosodimethylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodiphenylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodipropylamine	5.0 µg/L	< 5.0 µg/L
Phenanthrene	5.4 µg/L	< 5.4 µg/L
Pyrene	1.9 µg/L	< 1.9 µg/L
1,2,4-Trichlorobenzene	1.9 µg/L	< 1.9 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Nitrobenzene-d5(SS)	50.0 µg/L	60.5 %
2-Fluorobiphenyl(SS)	50.0 µg/L	101 %
Terphenyl-d14 (SS)	50.0 µg/L	78.9 %

NDRC Laboratories, Inc. Martin Jeffus

Martin Jeffus
General Manager

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7194-2
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-6
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 28-JUN-1993
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	50.0 µg/L	94.0 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

NDRC Laboratories, Inc. Martin Jeffus VZ

Martin Jeffus
General Manager

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7194-2
REPORT DATE : 30-JUN-1993

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ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-6
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 28-JUN-1993
DILUTION FACTOR : 1

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	10.0 µg/L	< 10.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	94.0 %

NDRC Laboratories, Inc. Martin Jeffus

Martin Jeffus
General Manager

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7194-3
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-7
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : BSR
ANALYZED ON : 29-JUN-1993
DILUTION FACTOR : 10

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	1	µg/L	<	1	µg/L
Bromoform	2	µg/L	<	2	µg/L
Bromomethane	12	µg/L	<	12	µg/L
Carbon tetrachloride	2	µg/L	<	2	µg/L
Chlorobenzene	3	µg/L	<	3	µg/L
Chloroethane	6	µg/L	<	6	µg/L
2-Chloroethylvinyl ether	3	µg/L	<	3	µg/L
Chloroform	1	µg/L	<	1	µg/L
Chloromethane	5	µg/L	<	5	µg/L
Dibromochloromethane	1	µg/L	<	1	µg/L
1,2-Dichlorobenzene	2	µg/L	<	2	µg/L
1,3-Dichlorobenzene	4	µg/L	<	4	µg/L
1,4-Dichlorobenzene	3	µg/L	<	3	µg/L
Dichlorodifluoromethane	20	µg/L	<	20	µg/L
1,1-Dichloroethene	2	µg/L	<	2	µg/L
1,2-Dichloroethane	3	µg/L	<	3	µg/L
1,1-Dichloroethane	1	µg/L	<	1	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7194-3
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	1	µg/L	<	1	µg/L
1,2-Dichloropropane	1	µg/L	<	1	µg/L
cis-1,3-Dichloropropene	2	µg/L	<	2	µg/L
trans-1,3-Dichloropropene	2	µg/L	<	2	µg/L
Methylene chloride	5	µg/L	<	5	µg/L
1,1,2,2-Tetrachloroethane	1	µg/L	<	1	µg/L
Tetrachloroethene	1	µg/L	<	1	µg/L
1,1,1-Trichloroethane	1	µg/L	<	1	µg/L
1,1,2-Trichloroethane	1	µg/L	<	1	µg/L
Trichloroethene	1	µg/L	<	1	µg/L
Trichlorofluoromethane	5	µg/L	<	5	µg/L
Vinyl chloride	5	µg/L	<	5	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	96.0	%

NDRC Laboratories, Inc. Martin Jeffus

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REPORT NUMBER : D93-7194-3
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ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-7
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 24-JUN-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : BJC
ANALYZED ON : 25-JUN-1993
DILUTION FACTOR : 1

ACID EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
4-Chloro-3-methylphenol	3.0	µg/L	<	3.0	µg/L
2-Chlorophenol	3.3	µg/L	<	3.3	µg/L
2,4-Dichlorophenol	2.7	µg/L	<	2.7	µg/L
2,4-Dimethylphenol	2.7	µg/L	<	2.7	µg/L
4,6-Dinitro-2-methylphenol	20.0	µg/L	<	20.0	µg/L
2,4-Dinitrophenol	42.0	µg/L	<	42.0	µg/L
2-Methylphenol	5.0	µg/L	<	5.0	µg/L
2-Nitrophenol	3.6	µg/L	<	3.6	µg/L
4-Nitrophenol	2.4	µg/L	<	2.4	µg/L
Pentachlorophenol	3.6	µg/L	<	3.6	µg/L
Phenol	1.5	µg/L	<	1.5	µg/L
2,4,6-Trichlorophenol	2.7	µg/L	<	2.7	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7194-3
ANALYSIS METHOD : EPA 625

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Phenol-d5 (SS)	100 µg/L	51.6 %
2-Fluorophenol (SS)	100 µg/L	66.0 %
2,4,6-Tribromophenol (SS)	100 µg/L	78.0 %

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BEAUMONT DALLAS HOUSTON

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REPORT DATE : 30-JUN-1993

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SAMPLE MATRIX : Water
ID MARKS : MW-7
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 24-JUN-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : BJC
ANALYZED ON : 25-JUN-1993
DILUTION FACTOR : 1

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Acenaphthene	1.9	µg/L	<	1.9	µg/L
Acenaphthylene	3.5	µg/L	<	3.5	µg/L
Anthracene	1.9	µg/L	<	1.9	µg/L
Benzidine	44.0	µg/L	<	44.0	µg/L
Benzo(a)anthracene	7.8	µg/L	<	7.8	µg/L
Benzo(b)fluoranthene	4.8	µg/L	<	4.8	µg/L
Benzo(k)fluoranthene	2.5	µg/L	<	2.5	µg/L
Benzo(g,h,i)perylene	4.1	µg/L	<	4.1	µg/L
Benzo(a)pyrene	2.5	µg/L	<	2.5	µg/L
Bis(2-chloroethoxy)methane	5.3	µg/L	<	5.3	µg/L
Bis(2-chloroethyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-chloroisopropyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-ethylhexyl)phthalate	2.5	µg/L	<	2.5	µg/L
4-Bromophenylphenyl ether	1.9	µg/L	<	1.9	µg/L
Butyl benzyl phthalate	2.5	µg/L	<	2.5	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7194-3
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
2-Chloronaphthalene	1.9	µg/L	<	1.9	µg/L
4-Chlorophenylphenyl ether	4.2	µg/L	<	4.2	µg/L
Chrysene	2.5	µg/L	<	2.5	µg/L
Dibenz(a,h)anthracene	2.5	µg/L	<	2.5	µg/L
2,3,7,8-Tetrachorodibenzodioxin			Negative		
Di-n-butylphthalate	2.5	µg/L	<	2.5	µg/L
1,3-Dichlorobenzene	1.9	µg/L	<	1.9	µg/L
1,4-Dichlorobenzene	4.4	µg/L	<	4.4	µg/L
1,2-Dichlorobenzene	1.9	µg/L	<	1.9	µg/L
3,3'-Dichlorobenzidine	16.5	µg/L	<	16.5	µg/L
Diethylphthalate	1.9	µg/L	<	1.9	µg/L
Dimethylphthalate	1.6	µg/L	<	1.6	µg/L
2,4-Dinitrotoluene	5.7	µg/L	<	5.7	µg/L
2,6-Dinitrotoluene	1.9	µg/L	<	1.9	µg/L
Di-n-octylphthalate	2.5	µg/L	<	2.5	µg/L
1,2-Diphenylhydrazine	20.0	µg/L	<	20.0	µg/L
Fluoranthene	2.2	µg/L	<	2.2	µg/L
Fluorene	1.9	µg/L	<	1.9	µg/L
Hexachlorobenzene	1.9	µg/L	<	1.9	µg/L
Hexachlorobutadiene	0.9	µg/L	<	0.9	µg/L
Hexachlorocyclopentadiene	5.0	µg/L	<	5.0	µg/L
Hexachloroethane	1.6	µg/L	<	1.6	µg/L
Indeno(1,2,3-cd)pyrene	3.7	µg/L	<	3.7	µg/L
Isophorone	2.2	µg/L	<	2.2	µg/L
Naphthalene	1.6	µg/L	<	1.6	µg/L
Nitrobenzene	1.9	µg/L	<	1.9	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7194-3
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
N-Nitrosodimethylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodiphenylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodipropylamine	5.0 µg/L	< 5.0 µg/L
Phenanthrene	5.4 µg/L	< 5.4 µg/L
Pyrene	1.9 µg/L	< 1.9 µg/L
1,2,4-Trichlorobenzene	1.9 µg/L	< 1.9 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Nitrobenzene-d5(SS)	50.0 µg/L	71.9 %
2-Fluorobiphenyl(SS)	50.0 µg/L	76.6 %
Terphenyl-d14 (SS)	50.0 µg/L	50.6 %

NDRC Laboratories, Inc. Martin Jeffus

Martin Jeffus
General Manager

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7194-3
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : MW-7
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 29-JUN-1993
DILUTION FACTOR : 5

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	5.0 µg/L	< 5.0 µg/L
Toluene	5.0 µg/L	< 5.0 µg/L
Ethyl benzene	5.0 µg/L	< 5.0 µg/L
Xylenes	5.0 µg/L	< 5.0 µg/L
BTEX (total)		< 5.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	50.0 µg/L	87.0 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

NDRC Laboratories, Inc. Martin Jeffus

Martin Jeffus
General Manager

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7194-3
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
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ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 29-JUN-1993
DILUTION FACTOR : 5

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	50.0 µg/L	< 50.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	87.0 %

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7194-4
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : DW-8
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : BSR
ANALYZED ON : 28-JUN-1993
DILUTION FACTOR : 10

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	1	µg/L	<	1	µg/L
Bromoform	2	µg/L	<	2	µg/L
Bromomethane	12	µg/L	<	12	µg/L
Carbon tetrachloride	2	µg/L	<	2	µg/L
Chlorobenzene	3	µg/L	<	3	µg/L
Chloroethane	6	µg/L	<	6	µg/L
2-Chloroethylvinyl ether	3	µg/L	<	3	µg/L
Chloroform	1	µg/L	<	1	µg/L
Chloromethane	5	µg/L	<	5	µg/L
Dibromochloromethane	1	µg/L	<	1	µg/L
1,2-Dichlorobenzene	2	µg/L	<	2	µg/L
1,3-Dichlorobenzene	4	µg/L	<	4	µg/L
1,4-Dichlorobenzene	3	µg/L	<	3	µg/L
Dichlorodifluoromethane	20	µg/L	<	20	µg/L
1,1-Dichloroethene	2	µg/L	<	2	µg/L
1,2-Dichloroethane	3	µg/L	<	3	µg/L
1,1-Dichloroethane	1	µg/L	<	1	µg/L

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BEAUMONT DALLAS HOUSTON

REPORT NUMBER : D93-7194-4
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	1	µg/L	<	1	µg/L
1,2-Dichloropropane	1	µg/L	<	1	µg/L
cis-1,3-Dichloropropene	2	µg/L	<	2	µg/L
trans-1,3-Dichloropropene	2	µg/L	<	2	µg/L
Methylene chloride	5	µg/L	<	5	µg/L
1,1,2,2-Tetrachloroethane	1	µg/L	<	1	µg/L
Tetrachloroethene	1	µg/L	<	1	µg/L
1,1,1-Trichloroethane	1	µg/L	<	1	µg/L
1,1,2-Trichloroethane	1	µg/L	<	1	µg/L
Trichloroethene	1	µg/L	<	1	µg/L
Trichlorofluoromethane	5	µg/L	<	5	µg/L
Vinyl chloride	5	µg/L	<	5	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	96.0	%

NDRC Laboratories, Inc. Martin Jeffus

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7194-4
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : DW-8
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 24-JUN-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : BJC
ANALYZED ON : 25-JUN-1993
DILUTION FACTOR : 1

ACID EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
4-Chloro-3-methylphenol	3.0	µg/L	<	3.0	µg/L
2-Chlorophenol	3.3	µg/L	<	3.3	µg/L
2,4-Dichlorophenol	2.7	µg/L	<	2.7	µg/L
2,4-Dimethylphenol	2.7	µg/L	<	2.7	µg/L
4,6-Dinitro-2-methylphenol	20.0	µg/L	<	20.0	µg/L
2,4-Dinitrophenol	42.0	µg/L	<	42.0	µg/L
2-Methylphenol	5.0	µg/L	<	5.0	µg/L
2-Nitrophenol	3.6	µg/L	<	3.6	µg/L
4-Nitrophenol	2.4	µg/L	<	2.4	µg/L
Pentachlorophenol	3.6	µg/L	<	3.6	µg/L
Phenol	1.5	µg/L	<	1.5	µg/L
2,4,6-Trichlorophenol	2.7	µg/L	<	2.7	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7194-4
ANALYSIS METHOD : EPA 625

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Phenol-d5 (SS)	100 µg/L	61.5 %
2-Fluorophenol (SS)	100 µg/L	63.2 %
2,4,6-Tribromophenol (SS)	100 µg/L	79.4 %

NDRC Laboratories, Inc. Martin Jeffus

Martin Jeffus
General Manager

NDRC LABORATORIES, INC.

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7194-4
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : DW-8
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
PREPARATION METHOD : EPA 3520
PREPARED BY : TLR
PREPARED ON : 24-JUN-1993
ANALYSIS METHOD : EPA 625
ANALYZED BY : BJC
ANALYZED ON : 25-JUN-1993
DILUTION FACTOR : 1

BASE-NEUTRAL EXTRACTABLE ORGANICS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Acenaphthene	1.9	µg/L	<	1.9	µg/L
Acenaphthylene	3.5	µg/L	<	3.5	µg/L
Anthracene	1.9	µg/L	<	1.9	µg/L
Benzidine	44.0	µg/L	<	44.0	µg/L
Benzo(a)anthracene	7.8	µg/L	<	7.8	µg/L
Benzo(b)fluoranthene	4.8	µg/L	<	4.8	µg/L
Benzo(k)fluoranthene	2.5	µg/L	<	2.5	µg/L
Benzo(g,h,i)perylene	4.1	µg/L	<	4.1	µg/L
Benzo(a)pyrene	2.5	µg/L	<	2.5	µg/L
Bis(2-chloroethoxy)methane	5.3	µg/L	<	5.3	µg/L
Bis(2-chloroethyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-chloroisopropyl)ether	5.7	µg/L	<	5.7	µg/L
Bis(2-ethylhexyl)phthalate	2.5	µg/L	<	2.5	µg/L
4-Bromophenylphenyl ether	1.9	µg/L	<	1.9	µg/L
Butyl benzyl phthalate	2.5	µg/L	<	2.5	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7194-4
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
2-Chloronaphthalene	1.9 µg/L	< 1.9 µg/L
4-Chlorophenylphenyl ether	4.2 µg/L	< 4.2 µg/L
Chrysene	2.5 µg/L	< 2.5 µg/L
Dibenz(a,h)anthracene	2.5 µg/L	< 2.5 µg/L
2,3,7,8-Tetrachorodibenzodioxin		Negative
Di-n-butylphthalate	2.5 µg/L	< 2.5 µg/L
1,3-Dichlorobenzene	1.9 µg/L	< 1.9 µg/L
1,4-Dichlorobenzene	4.4 µg/L	< 4.4 µg/L
1,2-Dichlorobenzene	1.9 µg/L	< 1.9 µg/L
3,3'-Dichlorobenzidine	16.5 µg/L	< 16.5 µg/L
Diethylphthalate	1.9 µg/L	< 1.9 µg/L
Dimethylphthalate	1.6 µg/L	< 1.6 µg/L
2,4-Dinitrotoluene	5.7 µg/L	< 5.7 µg/L
2,6-Dinitrotoluene	1.9 µg/L	< 1.9 µg/L
Di-n-octylphthalate	2.5 µg/L	< 2.5 µg/L
1,2-Diphenylhydrazine	20.0 µg/L	< 20.0 µg/L
Fluoranthene	2.2 µg/L	< 2.2 µg/L
Fluorene	1.9 µg/L	< 1.9 µg/L
Hexachlorobenzene	1.9 µg/L	< 1.9 µg/L
Hexachlorobutadiene	0.9 µg/L	< 0.9 µg/L
Hexachlorocyclopentadiene	5.0 µg/L	< 5.0 µg/L
Hexachloroethane	1.6 µg/L	< 1.6 µg/L
Indeno(1,2,3-cd)pyrene	3.7 µg/L	< 3.7 µg/L
Isophorone	2.2 µg/L	< 2.2 µg/L
Naphthalene	1.6 µg/L	< 1.6 µg/L
Nitrobenzene	1.9 µg/L	< 1.9 µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7194-4
ANALYSIS METHOD : EPA 625

BASE-NEUTRAL EXTRACTABLE ORGANICS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
N-Nitrosodimethylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodiphenylamine	5.0 µg/L	< 5.0 µg/L
N-Nitrosodipropylamine	5.0 µg/L	< 5.0 µg/L
Phenanthrene	5.4 µg/L	< 5.4 µg/L
Pyrene	1.9 µg/L	< 1.9 µg/L
1,2,4-Trichlorobenzene	1.9 µg/L	< 1.9 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Nitrobenzene-d5(SS)	50.0 µg/L	62.8 %
2-Fluorobiphenyl(SS)	50.0 µg/L	74.9 %
Terphenyl-d14 (SS)	50.0 µg/L	61.8 %

NDRC Laboratories, Inc. Martin Jeffus

Martin Jeffus
General Manager

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7194-4
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : DW-8
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 28-JUN-1993
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	50.0 µg/L	92.0 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

NDRC Laboratories, Inc. Martin Jeffus

Martin Jeffus
General Manager

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7194-4
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
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SAMPLE MATRIX : Water
ID MARKS : DW-8
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 28-JUN-1993
DILUTION FACTOR : 1

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	10.0 µg/L	< 10.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	92.0 %

NDRC Laboratories, Inc. Martin Jeffus VZ

Martin Jeffus
General Manager

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7194-5
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : Trip Blank
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 601
ANALYZED BY : BSR
ANALYZED ON : 28-JUN-1993
DILUTION FACTOR : 10

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
Bromodichloromethane	1	µg/L	<	1	µg/L
Bromoform	2	µg/L	<	2	µg/L
Bromomethane	12	µg/L	<	12	µg/L
Carbon tetrachloride	2	µg/L	<	2	µg/L
Chlorobenzene	3	µg/L	<	3	µg/L
Chloroethane	6	µg/L	<	6	µg/L
2-Chloroethylvinyl ether	3	µg/L	<	3	µg/L
Chloroform	1	µg/L	<	1	µg/L
Chloromethane	5	µg/L	<	5	µg/L
Dibromochloromethane	1	µg/L	<	1	µg/L
1,2-Dichlorobenzene	2	µg/L	<	2	µg/L
1,3-Dichlorobenzene	4	µg/L	<	4	µg/L
1,4-Dichlorobenzene	3	µg/L	<	3	µg/L
Dichlorodifluoromethane	20	µg/L	<	20	µg/L
1,1-Dichloroethene	2	µg/L	<	2	µg/L
1,2-Dichloroethane	3	µg/L	<	3	µg/L
1,1-Dichloroethane	1	µg/L	<	1	µg/L

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BEAUMONT **DALLAS** **HOUSTON**

REPORT NUMBER : D93-7194-5
ANALYSIS METHOD : EPA 601

VOLATILE HALOCARBONS					
TEST REQUESTED	DETECTION LIMIT		RESULTS		
trans-1,2-Dichloroethene	1	µg/L	<	1	µg/L
1,2-Dichloropropane	1	µg/L	<	1	µg/L
cis-1,3-Dichloropropene	2	µg/L	<	2	µg/L
trans-1,3-Dichloropropene	2	µg/L	<	2	µg/L
Methylene chloride	5	µg/L	<	5	µg/L
1,1,2,2-Tetrachloroethane	1	µg/L	<	1	µg/L
Tetrachloroethene	1	µg/L	<	1	µg/L
1,1,1-Trichloroethane	1	µg/L	<	1	µg/L
1,1,2-Trichloroethane	1	µg/L	<	1	µg/L
Trichloroethene	1	µg/L	<	1	µg/L
Trichlorofluoromethane	5	µg/L	<	5	µg/L
Vinyl chloride	5	µg/L	<	5	µg/L

QUALITY CONTROL DATA				
SURROGATE COMPOUND	SPIKE LEVEL		SPIKE RECOVERED	
Bromofluorobenzene (SS)	50.0	µg/L	92.0	%

NDRC Laboratories, Inc. Martin Jeffus

Martin Jeffus
General Manager

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED : 23-JUN-1993

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REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : Trip Blank
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 28-JUN-1993
DILUTION FACTOR : 1

BTEX ANALYSIS		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Benzene	1.0 µg/L	< 1.0 µg/L
Toluene	1.0 µg/L	< 1.0 µg/L
Ethyl benzene	1.0 µg/L	< 1.0 µg/L
Xylenes	1.0 µg/L	< 1.0 µg/L
BTEX (total)		< 1.0 µg/L #

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
Bromofluorobenzene(SS)	50.0 µg/L	93.0 %

Based upon Good Laboratory Practice, the result is rounded to the appropriate number of significant figures.

NDRC Laboratories, Inc. Martin Jeffus

Martin Jeffus
General Manager

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BEAUMONT **DALLAS** **HOUSTON**

DATE RECEIVED : 23-JUN-1993

REPORT NUMBER : D93-7194-5
REPORT DATE : 30-JUN-1993

SAMPLE SUBMITTED BY : Delta Environmental
ADDRESS : 6701 Carmel Road Suite 200
: Charlotte, NC 28226
ATTENTION : Mr. David Curlis

SAMPLE MATRIX : Water
ID MARKS : Trip Blank
: Greensboro, TX
PROJECT : 50-92-037 Exxon 4-3998
DATE SAMPLED : 22-JUN-1993
ANALYSIS METHOD : EPA 602
ANALYZED BY : PSS
ANALYZED ON : 28-JUN-1993
DILUTION FACTOR : 1

METHYL TERTIARY BUTYL ETHER		
TEST REQUESTED	DETECTION LIMIT	RESULTS
Methyl Tertiary Butyl Ether	10.0 µg/L	< 10.0 µg/L

QUALITY CONTROL DATA		
SURROGATE COMPOUND	SPIKE LEVEL	SPIKE RECOVERED
4-Bromofluorobenzene (SS)	50.0 µg/L	93.0 %

NDRC Laboratories, Inc. Martin Jeffus VZ

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED: 23-JUN-1993

REPORT NUMBER: D93-7194

REPORT DATE: 30-JUN-1993

SUBMITTED BY: Delta Environmental

LABORATORY QUALITY CONTROL REPORT

ANALYTE	Benzene	Ethyl Benzene	MTBE
BATCH No.	----	----	----
MATRIX	Water	Water	Water
PREP METHOD	EPA 602	EPA 602	EPA 602
PREP DATE	6/28/93	6/28/93	6/28/93
PREP TECHNICIAN	CNA	CNA	CNA
ANALYSIS METHOD	EPA 602	EPA 602	EPA 602
ANALYSIS DATE	6/28/93	6/28/93	6/28/93
ANALYST	PSS	PSS	PSS
METHOD BLANK	< 1.0 µg/L	< 1.0 µg/L	< 10.0 µg/L
MS % RECOVERY	91.7	92.0	105
LCS % RECOVERY	92.6	92.5	107
DUPLICATE RPD	----	----	----
MS/MSD RPD	2.05	2.79	2.80
SPIKE LEVEL	50 µg/L	50 µg/L	50 µg/L
SPIKED SAMPLE ID No.	Reagent Water	Reagent Water	Reagent Water
DUPLICATE SAMPLE ID No.	----	----	----

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
RPD: Relative Percent Difference

COMMENTS:

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BEAUMONT DALLAS HOUSTON

DATE RECEIVED: 23-JUN-1993

REPORT NUMBER: D93-7194

SUBMITTED BY: Delta Environmental

LABORATORY QUALITY CONTROL REPORT

ANALYTE	Vinyl Chloride	Chloroform	Bromodichlorome thane	Chlorobenzene	1,2 Dichlorobenzene
BATCH No.	----	----	----	----	----
MATRIX	Water	Water	Water	Water	Water
PREP METHOD	EPA 601	EPA 601	EPA 601	EPA 601	EPA 601
PREP DATE	6/26/93	6/26/93	6/26/93	6/26/93	6/26/93
PREP TECHNICIAN	BSR	BSR	BSR	BSR	BSR
ANALYSIS METHOD	EPA 601	EPA 601	EPA 601	EPA 601	EPA 601
ANALYSIS DATE	6/26/93	6/26/93	6/26/93	6/26/93	6/26/93
ANALYST	BSR	BSR	BSR	BSR	BSR
METHOD BLANK	< 5.0 µg/L	< 1.0 µg/L	< 1.0 µg/L	< 3.0 µg/L	< 2.0 µg/L
MS % RECOVERY	90.0	125	114	8804	122
LCS % RECOVERY	85.1	113	92.1	83.3	118
DUPLICATE RPD	----	----	----	----	----
MS/MSD RPD	7.61	12.7	13.1	0.788	3.33
SPIKE LEVEL	10 µg/L	10 µg/L	10 µg/L	10 µg/L	10 µg/L
SPIKED SAMPLE ID No.	D93-7036-4	D93-7036-4	D93-7036-4	D93-7036-4	D93-7036-4
DUPLICATE SAMPLE ID No.	----	----	----	----	----

MS: Matrix Spike
MSD: Matrix Spike Duplicate
LCS: Laboratory Control Sample
RPD: Relative Percent Difference

COMMENTS:

3C

WATER SEMIVOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: INCHCAPE Contract: NDRC

Lab Code: HP002 Case No.: BJAC SAS No.: 6/21/93 SDG No.: 6/22/93

Matrix Spike - EPA Sample No.: Reag. H20 MS & MSD

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC LIMITS REC.
Phenol	100.00	0.00	80.00	80	10-135
2-Chlorophenol	100.00	0.00	86.00	86	45-110
1,4-Dichlorobenzene	50.00	0.00	38.00	76	35-115
N-Nitroso-di-n-prop.(1)	50.00	0.00	42.00	85	35-130
1,2,4-Trichlorobenzene	50.00	0.00	39.00	78	50-115
4-Chloro-3-methylphenol	100.00	0.00	89.00	89	45-120
Acenaphthene	50.00	0.00	43.00	87	46-118
4-Nitrophenol	100.00	0.00	100.00	100	35-120
2,4-Dinitrotoluene	50.00	0.00	43.00	86	15-150
Pentachlorophenol	100.00	0.00	93.00	93	30-140
Pyrene	50.00	0.00	44.00	87	30-145

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	100.00	78.00	78	2	25	10-135
2-Chlorophenol	100.00	82.00	82	4	20	45-110
1,4-Dichlorobenzene	50.00	34.00	67	12	15	35-115
N-Nitroso-di-n-prop.(1)	50.00	40.00	79	7	25	35-130
1,2,4-Trichlorobenzene	50.00	36.00	73	6	15	50-115
4-Chloro-3-methylphenol	100.00	86.00	86	3	25	45-120
Acenaphthene	50.00	40.00	80	8	20	46-118
4-Nitrophenol	100.00	96.00	96	4	50	35-120
2,4-Dinitrotoluene	50.00	34.00	69	21	40	15-150
Pentachlorophenol	100.00	92.00	92	1	30	30-140
Pyrene	50.00	42.00	84	3	20	30-145

(1) N-Nitroso-di-n-propylamine

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of qc limits

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS: SW-846 EPA METHOD 8270

ORIGINAL

CHAIN OF CUSTODY RECORD

Level IOC

EXXON Company, USA
Regional Laboratory Program

Inchcape Testing Services
NDRC Laboratories

1089 East Collins Blvd, Richardson, Texas 75081 (214) 238-5591 (Voice), (214) 238-5592 (Fax)
Attn: Belinda Feuerbacher, Project Director

Page 1 of 2

Consultant's Name: Delta Environmental Consultants
Address: 6701 Carmel Rd Suite 200 Charlotte, N.C. 28226-3901
Project: Exxon - Greensboro
Consultant Proj #: 50-92-037
Consultant Work Release #: 92077663
Project Contact: David Curlis
Phone (704) 541-9890 Fax:
Laboratory Work Release #: 09356183
Alternate Contact: Lutz Gross / David Clary
Phone (704) 541-9890 Fax:
Site Location: Greensboro
EXXON Contact: Frank Medlin (EE) C&M (circle one)
Phone: — Fax: —
EXXON RAS #: 4-3998
Sampled by (print): R. David Clary
Sampler's Signature: R. David Clary
Shipment Method: Overnight Air
Air Bill #: 6982489 1
Shipment Date: 6/22/93

Sample Condition as Received
Temperature °C: ____
Cooler #: ____
Inbound Sealed Yes No
Outbound Sealed Yes No

SAMPLE ID	DATE	TIME	MATRIX (WATER) SOIL	PRSV	SAMPLE LOCATION/ DESCRIPTION	BTEX/MTBE	601	625						COMMENTS
mw5	6/22/93	15:30	SOIL	HCl	monitoring wells	X3			7194		-1		3	
mw6		15:45	water			X3					2		3	
mw7		15:00				X3					3		3	Due 6-30-93
mw8		13:30				X3					4		3	
mw5		15:30		NP			X3				(1)		3	
mw6		15:45					X3				(2)		3	
mw7		15:00					X3				(3)		3	
mw8		13:30					X3				(4)		3	
mw5		15:30						X1			(1)		1	
mw6		15:45						X1			(2)		1	
mw7		15:00						X1			(3)		1	

Total # of Containers: 27

Turn around time ☐ 24 hr ☐ 48 hr ☐ 72 hr ☐ Standard ☐ Other _____

(1) Relinquished by Signature	Date	(2) Relinquished by Signature	Date	(3) Relinquished by Signature R. David Clary	Date 6/22/93
Company:	Time:	Company:	Time:	Company: Delta	Time: 18:15
(1) Received by Signature	Date	(2) Received by Signature R. David Clary	Date 6/22/93	(3) Received by Signature Nikki Brucker	Date 6/23/93
Company:	Time:	Company: Delta	Time: 11:00	Company: NDRC	Time: 9:30

Distribution: White – Original Yellow – Exxon Pink – NDRC Laboratories Goldenrod – Consultant

CHAIN OF CUSTODY RECORD

EXXON Company, USA
Regional Laboratory Program

Inchcape Testing Services
NDRC Laboratories

1089 East Collins Blvd, Richardson, Texas 75081 (214) 238-5591 (Voice), (214) 238-5592 (Fax)
Attn: Belinda Feuerbacher, Project Director

Page 2 of 7

Consultant's Name : Delta
Address : 6701 Carmel Rd. Suite 200 Charlotte N.C. 28226-3901
Project : Exxon - Greensboro
Consultant Proj # : 50-92-037
Consultant Work Release # : 92077663
Project Contact :
Phone : Fax :
Laboratory Work Release # : 09356183
Alternate Contact :
Phone : Fax :
Site Location : Greensboro, N.C.
EXXON Contact : Frank Medlin (EE) C&M (circle one)
Phone : Fax :
EXXON RAS # : 4-3998
Sampled by (print) : R. David Clary
Sampler's Signature : R David Clary
Shipment Method : Overnight
Air Bill # : 6932489191
Shipment Date : 6/22/93

ANALYSIS REQUIRED
Number of Containers

Sample Condition as Received
Temperature °C : ____
Cooler # : ____
Inbound Sealed Yes No
Outbound Sealed Yes No

SAMPLE ID	DATE	TIME	MATRIX WATER/SOIL	PRSV	SAMPLE LOCATION/ DESCRIPTION	625	601	BTEX MTBE						COMMENTS
MW 8	6/22/93	13:30		N/A	monitoring well	X						(4)	1	
Trip Blank							X	X			-5		2	

Turn around time ☐ 24 hr ☐ 48 hr ☐ 72 hr ☐ Standard ☐ Other _____
Total # of Containers : 3

(1) Relinquished by Signature	Date	(2) Relinquished by Signature	Date	(3) Relinquished by Signature R David Clary	Date 6/22/93
Company :	Time:	Company :	Time:	Company : Delta	Time: 18:15
(1) Received by Signature	Date	(2) Received by Signature R David Clary	Date 6/22/93	(3) Received by Signature Mike Buckles	Date 6/23/93
Company :	Time:	Company : Delta	Time: 18:00	Company : NDRC	Time: 9:20

Distribution: White – Original Yellow – Exxon Pink – NDRC Laboratories Goldenrod – Consultant

NDRC LABORATORIES, INC.

Dallas - 1089 East Collins Blvd. • Richardson, Texas 75081 • (214) 238-5591 • Fax (214) 238-5592

SAMPLE PRESERVATION INFORMATION SHEET

Field Sampling ☐ Incoming Samples ☐

GENERAL

Company: Delta Env. Job No: 7194

No. of Cooler(s): 1 Temperature of Cooler(s): 4°

PRESERVATION INFORMATION

Sample No.	Temperature of Sample	Sample Container	Volume	Preservation used *	Initial pH	Final pH	Bottles generated	Comments
7194-1		HNG	1L	8	4.8	4.8	1	NP
-2		1	1	1	4.9	4.9	1	1
-3		1	1	1	5.1	5.1	1	1
-4		1	1	1	11.6	11.6	1	1

KRN

PRESERVATION USED *

1 - Cool to 4° C
2 - H_2SO_4 to pH < 2
3 - HNO_3 to pH < 2
4 - HCL to pH < 2
5 - NaOH to pH > 12
6 - $Na_2S_2O_2$ 0.008%
7 - 2 mL Zinc Acetate and NaOH to pH > 12
8 - None required

KRN
Preserved by

6-23-93
Date/Time