

3R - 137

# REPORTS

DATE:

10/19/2006

# ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

320141  
320137

October 19, 2006

Project No. 05161-003

Mr. Glen von Gonten  
NMOCD  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

2006 OCT 20 PM 3 35

Phone (505) 476-3440

**RE: SECOND QUARTERLY MONITORING REPORT**

Dear Mr. von Gonten:

Enclosed please find one (1) copy of the report entitled, *Second Quarterly Monitoring Report*. This report details the second quarterly monitoring for the North Hogback 12-1, North Hogback 12-4, and North Hogback 12-9 locations on the Navajo Nation in San Juan County, New Mexico.

We appreciate the opportunity to be of service. If you should have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully Submitted,  
**ENVIROTECH, INC.**



Greg W. Crabtree, EIT  
Environmental Engineer  
[gcrabtree@envirotech-inc.com](mailto:gcrabtree@envirotech-inc.com)

Enclosure: One (1) copy

**DUNCAN OIL  
SECOND QUARTERLY MONITORING REPORT  
NORTH HOGBACK 12-1, 12-4, AND 12-9  
NAVAJO NATION  
SAN JUAN COUNTY, NEW MEXICO**

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Appendices:    Appendix A, Laboratory Water Sample Results  
                  Appendix B, Field Notes and Inspection Forms

**INTRODUCTION**

Envirotech, Inc. has completed the second quarterly monitoring of seven (7) monitor wells at the Duncan Oil North Hogback 12-1, 12-4, and 12-9 well sites. Contaminated soil was previously excavated from the sites in September and October of 2005 and monitor wells were installed. The contaminated soil was transported to Envirotech's NMOCD permitted landfarm at Hilltop, NM, for remediation. Water samples collected at the time of excavation indicated that the three (3) sites previously referenced had residual contaminants in the groundwater above the guidelines set forth by the USEPA and adopted by the NNEPA.

**GROUNDWATER SAMPLING AND ANALYSIS**

Groundwater sampling was performed on seven (7) monitor wells on October 2, 2006. A representative was present from the NNEPA to inspect the sampling. Previously water was not present in either monitor well at the North Hogback 12-1 well site; however, during this sampling event sufficient water was present in both monitor wells to obtain a sample. Prior to sampling a minimum of three (3) well volumes of water was bailed out of each well with a new disposable bailer.

Water levels were calculated from the surveying data to draw a water level map. Water levels and groundwater gradient for the North Hogback 12-4 and 12-9 are shown on *Figure 4*. A water level map with the water gradient indicated is shown in *Figure 1* for the North Hogback 12-4 location. It appears that the groundwater is moving from east-northeast to west-southwest across the 12-4 site. Water levels for the individual wells are tabulated in **Table 1** below.

**Table 1: Water Levels**

Name	Casing Elevation	Water Level	Water Elevation
N. Hogback 12-1 MW-1	5025.84	17.00	5008.84
N. Hogback 12-1 MW-2	5027.47	18.06	5009.41
N. Hogback 12-9 MW-1	5026.12	14.94	5018.25
N. Hogback 12-9 MW-2	5025.61	10.97	5017.48
N. Hogback 12-4 MW-1	4966.45	6.57	4960.20
N. Hogback 12-4 MW-2	4966.60	6.94	4959.98
N. Hogback 12-4 MW-3	4967.44	8.8	4959.39

**North Hogback 12-9**

Samples were collected from the two (2) monitor wells at the North Hogback 12-9 and analyzed for lead, manganese, and iron via USEPA Method 6010B. Results from this analysis are summarized in **Table 2** below and laboratory certificates are presented in *Appendix C, Laboratory Water Sample Results*.

**Table 2: Summary of Laboratory Metals Analysis for North Hogback 12-9**

Analyte	Monitor Well #1	Monitor Well #2	Regulated Level
Iron (ppm)	0.306	0.219	<b>1.0</b>
Manganese (ppm)	<b>0.504</b>	<b>0.541</b>	<b>0.2</b>
Lead (ppm)	ND	ND	<b>0.050</b>

Values in bold exceed the USEPA and NNEPA regulated level

Manganese concentrations increased by 1.8-2.4 times the values reported in the first quarter sampling event.

#### North Hogback 12-1

Samples were collected from the two (2) monitor wells at the North Hogback 12-1 and analyzed for benzene, toluene, ethylbenzene, and total xylene (BTEX) via USEPA method 8021. Results from this analysis are summarized in **Table 3** below and laboratory certificates are presented in *Appendix A, Laboratory Water Sample Results*.

**Table 3: Summary of Laboratory BTEX Analysis for North Hogback 12-1**

Analyte	Monitor Well #1	Monitor Well #2	Regulated Level
Benzene (ppb)	4.3	<b>5.9</b>	<b>5.0</b>
Toluene (ppb)	2.4	3.0	<b>1,000</b>
Ethylbenzene (ppb)	3.9	7.1	<b>700</b>
Total Xylenes (ppb)	12.2	15.8	<b>10,000</b>

Values in bold exceed the USEPA and NNEPA regulated level

Benzene was the only analyte of concern above the NNEPA regulated level at 5.9 ppb.

#### North Hogback 12-4

All three (3) monitor wells at this location were sampled for BTEX via USEPA method 8021B. Prior to sampling three (3) well volumes were bailed from each well. The contaminants of concern analyzed for in Method 8021B are all below the regulated levels. A summary of the laboratory results is presented in **Table 4** below. All the contaminants of concern are below the USEPA's regulated level for groundwater at the 12-4 site.

**Table 4: Summary of Laboratory BTEX Analysis for North Hogback 12-4**

Analyte	Monitor Well #1	Monitor Well #2	Monitor Well #3	Regulated Level
Benzene (ppb)	ND	3.1	ND	<b>5.0</b>
Toluene (ppb)	1.9	1.6	ND	<b>1,000</b>
Ethylbenzene (ppb)	1.3	2.8	0.7	<b>700</b>
Total Xylenes (ppb)	1.9	6.7	ND	<b>10,000</b>

ND – indicates analyte is below the method detection limit

None of the analytes of concern analyzed for at the North Hogback 12-4 are above the regulated levels.

**SUMMARY AND CONCLUSIONS**

Envirotech has completed the second quarterly monitoring of seven (7) monitor wells at the North Hogback 12-1, 12-4, and 12-9 well sites. All of the contaminants of concern analyzed for are below the USEPA's regulated level at the North Hogback 12-4. Envirotech recommends one (1) additional quarter of sampling at this location. At the North Hogback 12-9 location, manganese was slightly higher than the regulated level in both monitor wells at 0.504 and 0.541 ppm respectively. Envirotech recommends an additional three (3) quarters of sampling at this location. At the North Hogback 12-1 location, benzene was slightly higher than the regulated level in monitor well #2 at 5.9 ppb Envirotech recommends an additional three (3) quarters of sampling at this location.

We appreciate the opportunity to be of service. Should you have any questions or require additional information, please contact our office at (505) 632-0615.

Respectfully submitted,  
**ENVIROTECH, INC.**

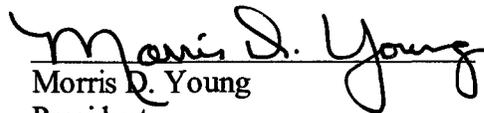
Reviewed By:



Greg Crabtree, EIT  
Environmental Engineer  
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Jack Collins  
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NMCES #038  
[myoung@envirotech-inc.com](mailto:myoung@envirotech-inc.com)



**FIGURES**

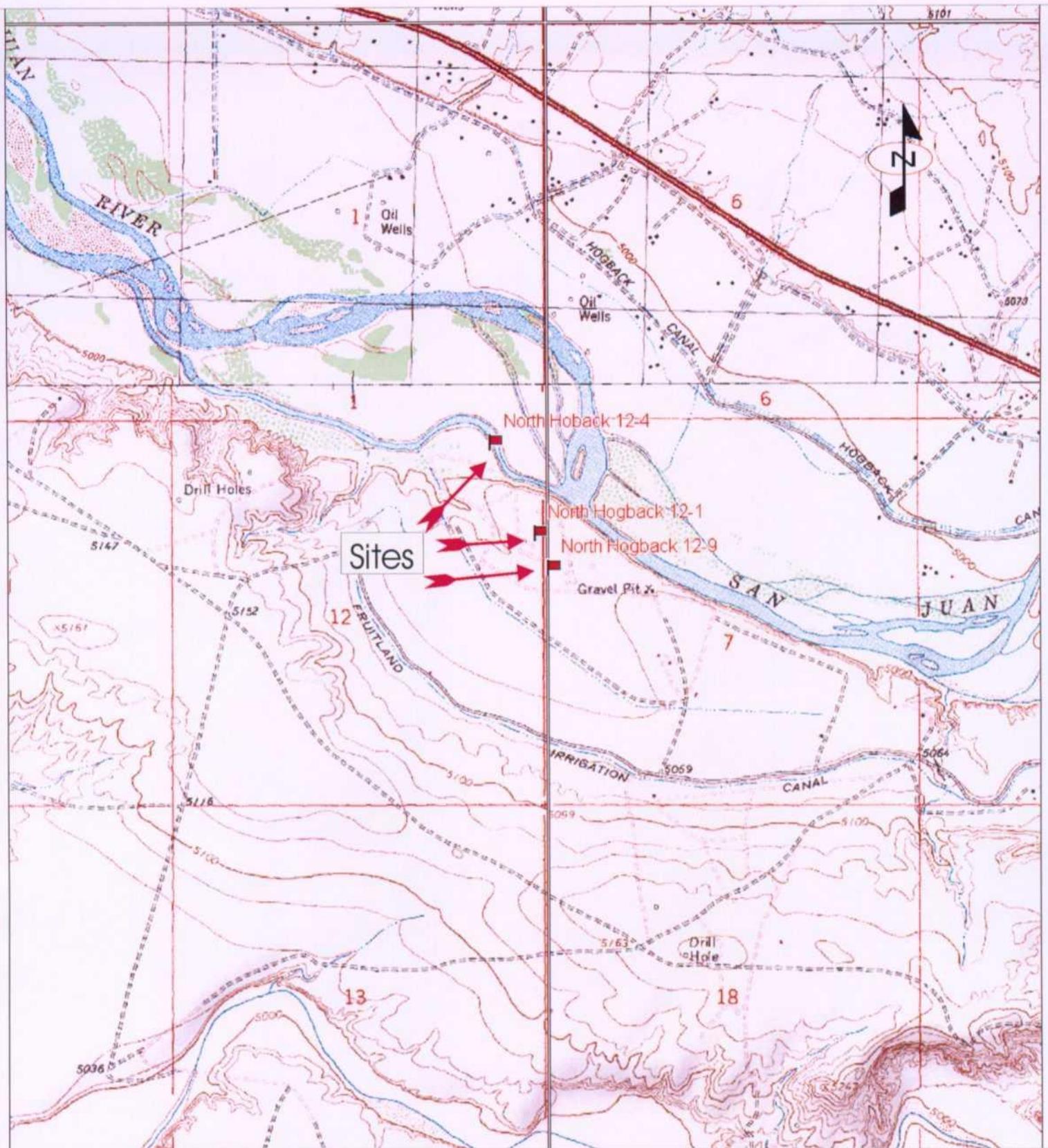
Figure 1, Vicinity Map

Figure 2, North Hogback 12-1 and 12-9 Site Map

Figure 3, North Hogback 12-4 Site Map

Figure 4, North Hogback 12-1 and 12-9 Water  
Level Map

Figure 5, North Hogback 12-4 Water Level Map



Source: The Hogback North, New Mexico 7.5 Minute U.S.G.S. Topographic Quadrangle Map  
 Scale: 1:24,000 1" = 2000'

North Hogback 12-1, 12-4, & 12-9  
 Section 12, Township 29N, Range 16W  
 San Juan County, NM

### ENVIROTECH INC.

ENVIRONMENTAL SCIENTISTS & ENGINEERS  
 5796 U.S. HIGHWAY 64  
 FARMINGTON, NEW MEXICO 87401  
 PHONE (505) 632-0615

Vicinity Map

Figure 1

DRAWN BY:  
 Greg Crabtree

PROJECT MANAGER:  
 C. Jack Collins

PROJECT No 05161-003

Date Drawn: 7/20/06



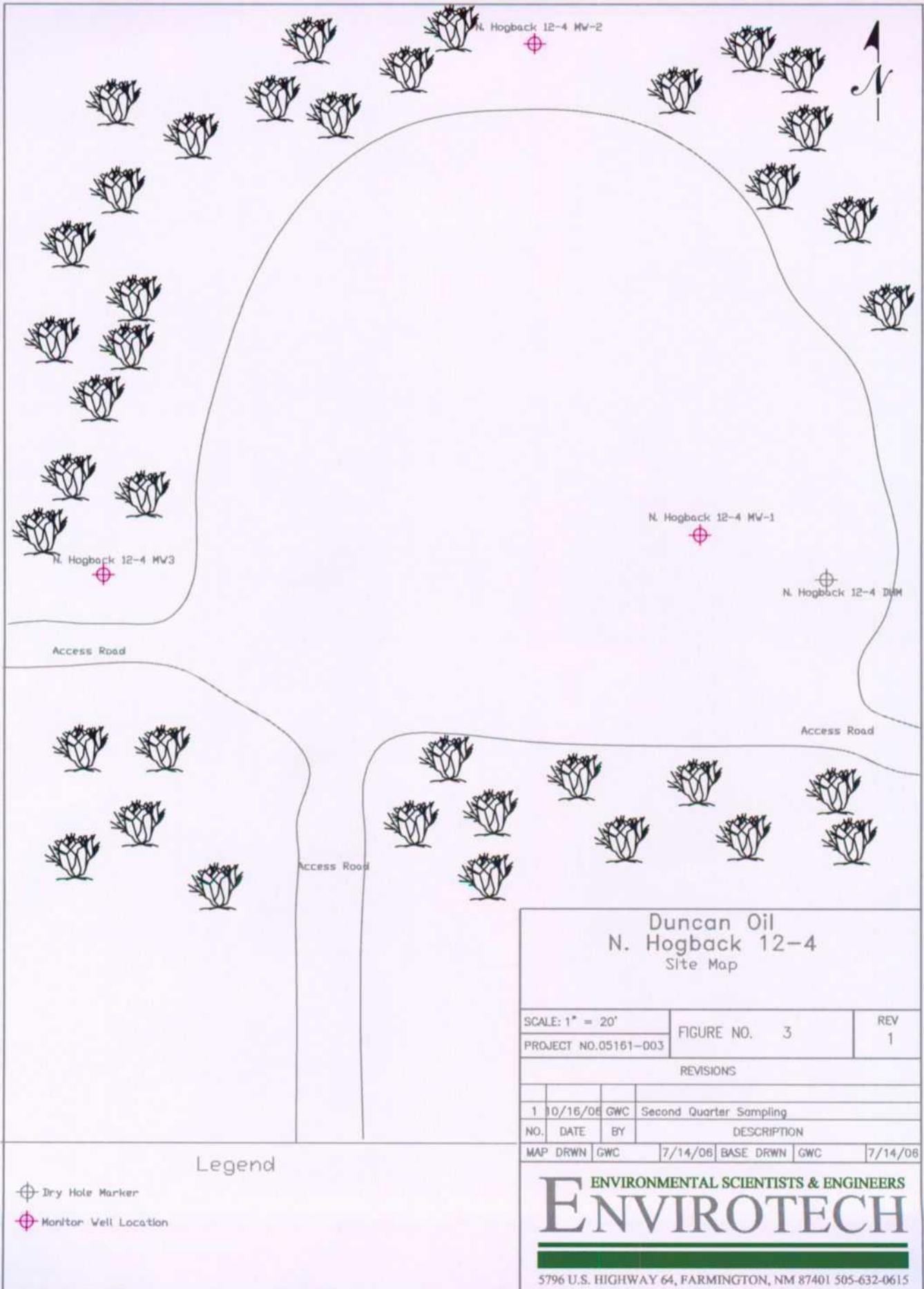
<b>Duncan Oil North Hogback 12-1 and 12-9 Site Map</b>			
SCALE: 1" = 100'		FIGURE NO. 2	REV 1
PROJECT NO. 05161-003			
REVISIONS			
1	10/18/06	GWC	Second Quarter Sampling
NO.	DATE	BY	DESCRIPTION
MAP DRWN	GWC	7/14/06	BASE DRWN GWC 7/14/06

Legend

-  Dry Hole Marker
-  Monitor Well Location

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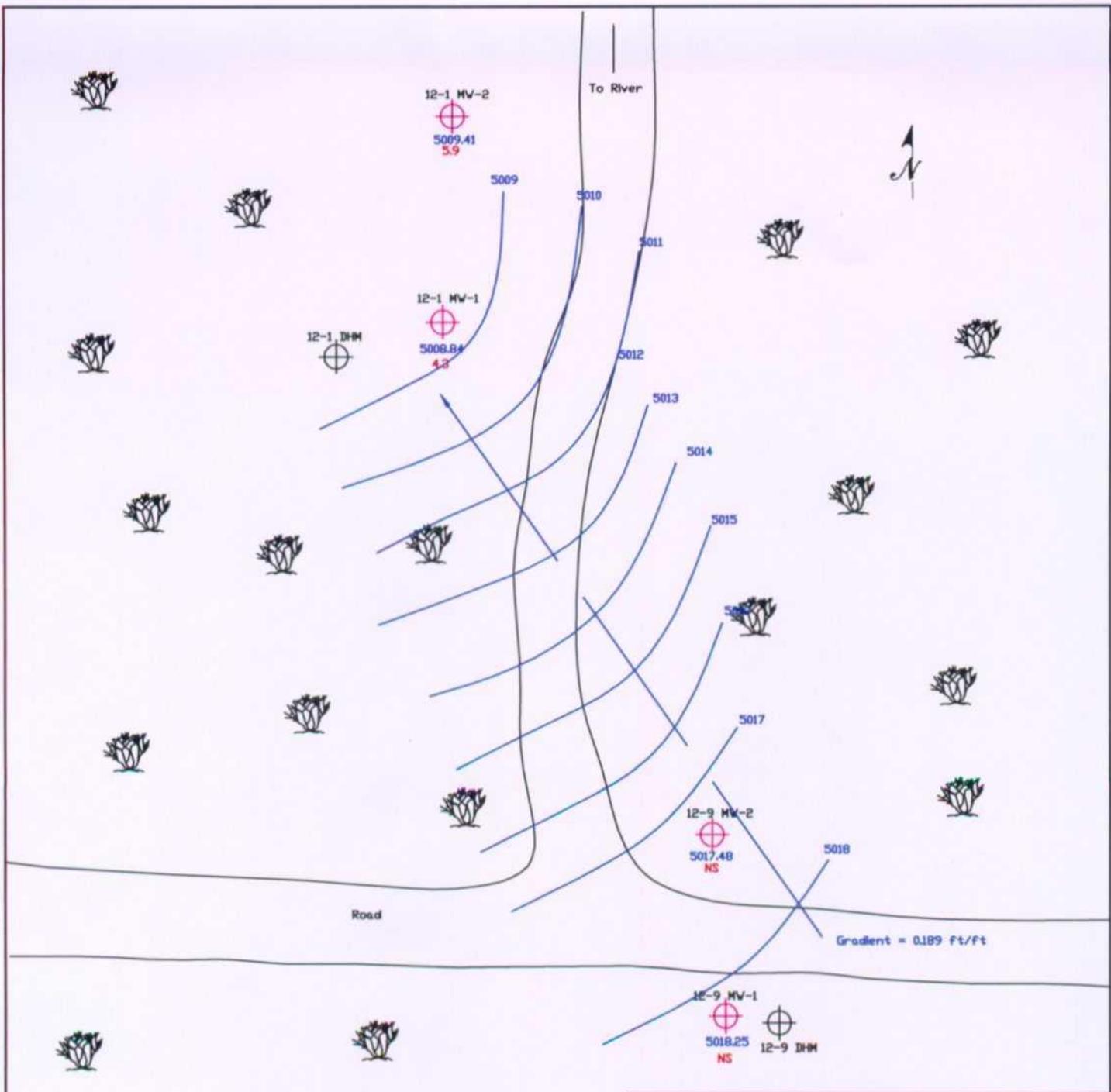
**Legend**

- Dry Hole Marker
- Monitor Well Location

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**Duncan Oil  
North Hogback  
12-1 and 12-9 Site Map**

SCALE: 1" = 100'	FIGURE NO. 4	REV 1
PROJECT NO. 05161-003		

REVISIONS			
NO.	DATE	BY	DESCRIPTION
1	10/16/06	GWC	Second Quarter Sampling
MAP DRWN	GWC	7/14/06	BASE DRWN GWC 7/14/06

**Legend**

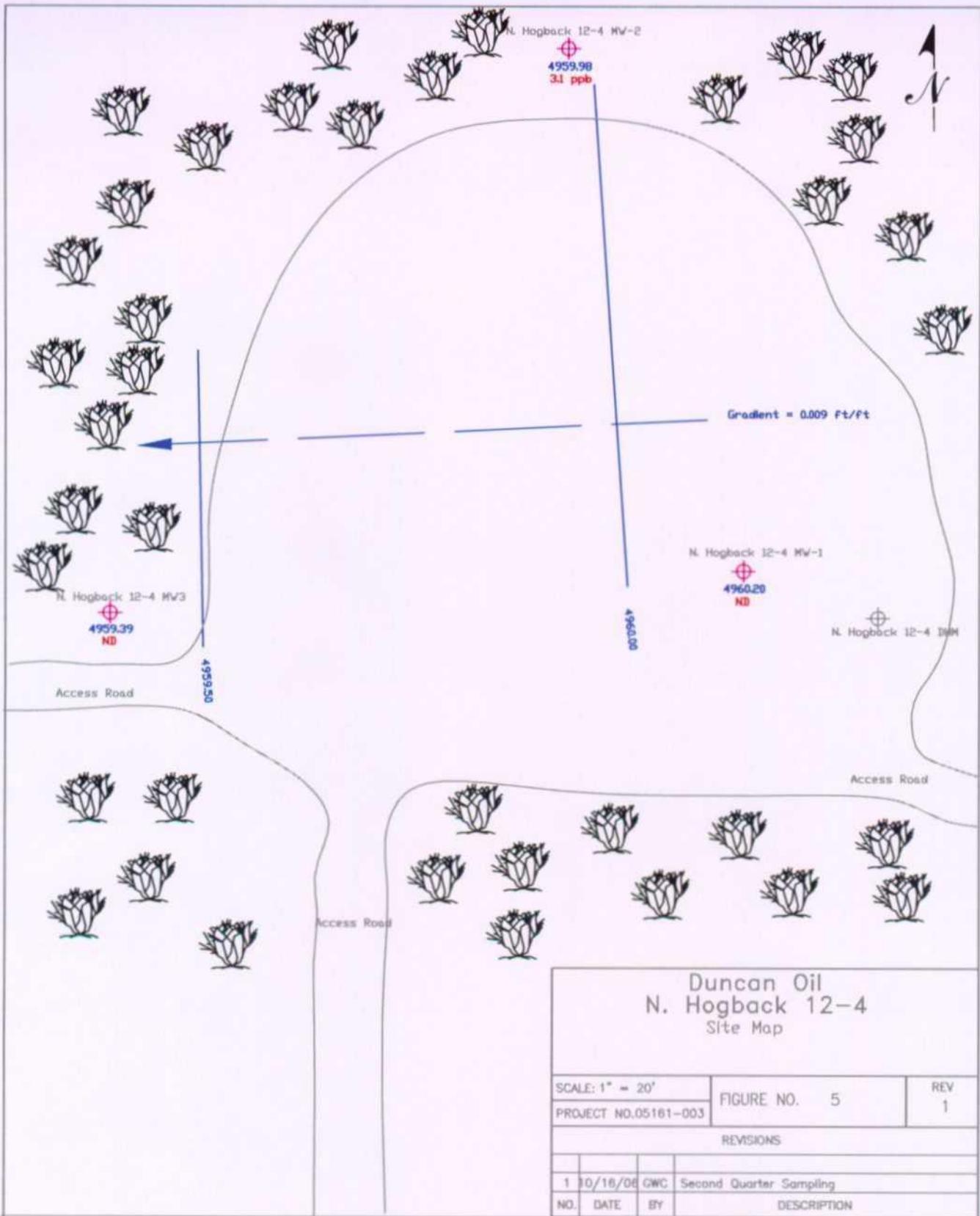
- Dry Hole Marker
- Monitor Well Location
- 5014.64 Water Level Elevation
- 4.3 Benzene Concentration

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Duncan Oil  
N. Hogback 12-4  
Site Map

SCALE: 1" = 20'	FIGURE NO. 5	REV 1
PROJECT NO.05181-003		

REVISIONS			
NO.	DATE	BY	DESCRIPTION
1	10/18/06	GWC	Second Quarter Sampling
MAP DRWN	GWC	7/14/06	BASE DRWN GWC 7/14/06

**Legend**

- Dry Hole Marker
- Monitor Well Location
- 4959.00 Water Level Contour
- 3.1 ppb Benzene Concentration
- 4958.64 Water Level Elevation

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**APPENDIX A**

**Laboratory Water Sample Results**

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## TRACE METAL ANALYSIS

Client:	Duncan Oil	Project #:	05161-003
Sample ID:	N. Hogback 12-9 MW - 1	Date Reported:	10-04-06
Laboratory Number:	38687	Date Sampled:	10-02-06
Chain of Custody:	1555	Date Received:	10-02-06
Sample Matrix:	Water	Date Analyzed:	10-04-06
Preservative:	Cool	Date Digested:	10-03-06
Condition:	Cool & Intact	Analysis Needed:	Fe, Mn, Pb

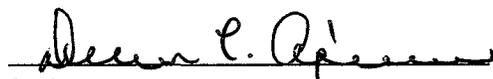
Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Iron	0.306	0.001
Manganese	0.504	0.001
Lead	ND	0.001

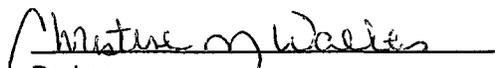
ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.  
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Comments:

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## TRACE METAL ANALYSIS

Client:	Duncan Oil	Project #:	05161-003
Sample ID:	N. Hogback 12-9 MW - 2	Date Reported:	10-04-06
Laboratory Number:	38688	Date Sampled:	10-02-06
Chain of Custody:	1555	Date Received:	10-02-06
Sample Matrix:	Water	Date Analyzed:	10-04-06
Preservative:	Cool	Date Digested:	10-03-06
Condition:	Cool & Intact	Analysis Needed:	Fe, Mn, Pb

Parameter	Concentration (mg/L)	Det. Limit (mg/L)
Iron	0.219	0.001
Manganese	0.541	0.001
Lead	ND	0.001

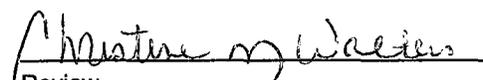
ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.  
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Comments:

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## TRACE METAL ANALYSIS Quality Control / Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	10-04-TM QA/QC	Date Reported:	10-04-06
Laboratory Number:	38687	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Analysis Requested:	Fe, Mn, Pb	Date Analyzed:	10-04-06
Condition:	N/A	Date Digested:	10-03-06

Blank & Duplicate Conc. (mg/L)	Instrument Blank (mg/L)	Detection Limit	Sample (mg/L)	Duplicate (mg/L)	% Diff.	Acceptance Range
	ND	0.001	0.306	0.303	1.0%	0% - 30%
	ND	0.001	0.504	0.508	0.8%	0% - 30%
	ND	0.001	ND	ND	0.0%	0% - 30%

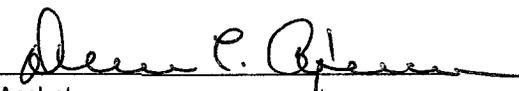
Spike Conc. (mg/L)	Spike Added	Sample (mg/L)	Spiked Sample	Percent Recovery	Acceptance Range
	0.500	0.306	0.808	100.2%	80% - 120%
	0.500	0.504	1.00	99.6%	80% - 120%
	0.500	ND	0.501	100.2%	80% - 120%

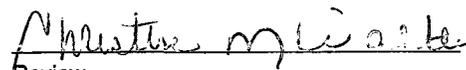
ND - Parameter not detected at the stated detection limit.

References: Method 3050B, Acid Digestion of Sediments, Sludges and Soils.  
SW-846, USEPA, December 1996.

Method 6010B, Analysis of Metals by Inductively Coupled Plasma Atomic Emission Spectroscopy, SW-846, USEPA, December 1996.

Comments: **QA/QC for samples 38687 - 38688**

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Duncan Oil	Project #:	05161-003
Sample ID:	N. Hogback 12-1 MW-1	Date Reported:	10-04-06
Chain of Custody:	1555	Date Sampled:	10-02-06
Laboratory Number:	38689	Date Received:	10-02-06
Sample Matrix:	Water	Date Analyzed:	10-04-06
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
<b>Benzene</b>	<b>4.3</b>	<b>1</b>	<b>0.2</b>
<b>Toluene</b>	<b>2.4</b>	<b>1</b>	<b>0.2</b>
<b>Ethylbenzene</b>	<b>3.9</b>	<b>1</b>	<b>0.2</b>
<b>p,m-Xylene</b>	<b>8.4</b>	<b>1</b>	<b>0.2</b>
<b>o-Xylene</b>	<b>3.8</b>	<b>1</b>	<b>0.1</b>
<b>Total BTEX</b>	<b>22.8</b>		

ND - Parameter not detected at the stated detection limit.

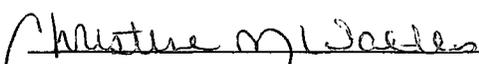
Surrogate Recoveries:	Parameter	Percent Recovery
	<b>fluorobenzene</b>	<b>99.8 %</b>
	<b>1,4-difluorobenzene</b>	<b>99.8 %</b>
	<b>4-bromochlorobenzene</b>	<b>99.8 %</b>

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

### Comments:

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Duncan Oil	Project #:	05161-003
Sample ID:	N. Hogback 12-1 MW-2	Date Reported:	10-04-06
Chain of Custody:	1555	Date Sampled:	10-02-06
Laboratory Number:	38690	Date Received:	10-02-06
Sample Matrix:	Water	Date Analyzed:	10-04-06
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
<b>Benzene</b>	<b>5.9</b>	<b>1</b>	<b>0.2</b>
<b>Toluene</b>	<b>3.0</b>	<b>1</b>	<b>0.2</b>
<b>Ethylbenzene</b>	<b>7.1</b>	<b>1</b>	<b>0.2</b>
<b>p,m-Xylene</b>	<b>10.7</b>	<b>1</b>	<b>0.2</b>
<b>o-Xylene</b>	<b>5.1</b>	<b>1</b>	<b>0.1</b>

**Total BTEX** 31.8

ND - Parameter not detected at the stated detection limit.

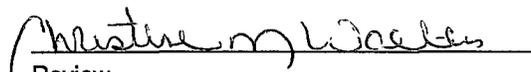
Surrogate Recoveries:	Parameter	Percent Recovery
	<b>fluorobenzene</b>	<b>99.8 %</b>
	<b>1,4-difluorobenzene</b>	<b>99.8 %</b>
	<b>4-bromochlorobenzene</b>	<b>99.8 %</b>

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

### Comments:

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Duncan Oil	Project #:	05161-003
Sample ID:	H, Hogback 12-4 MW-2	Date Reported:	10-04-06
Chain of Custody:	1555	Date Sampled:	10-02-06
Laboratory Number:	38691	Date Received:	10-02-06
Sample Matrix:	Water	Date Analyzed:	10-04-06
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
<b>Benzene</b>	<b>3.1</b>	<b>1</b>	<b>0.2</b>
<b>Toluene</b>	<b>1.6</b>	<b>1</b>	<b>0.2</b>
<b>Ethylbenzene</b>	<b>2.8</b>	<b>1</b>	<b>0.2</b>
<b>p,m-Xylene</b>	<b>4.4</b>	<b>1</b>	<b>0.2</b>
<b>o-Xylene</b>	<b>2.3</b>	<b>1</b>	<b>0.1</b>
<b>Total BTEX</b>	<b>14.2</b>		

ND - Parameter not detected at the stated detection limit.

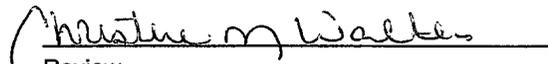
Surrogate Recoveries:	Parameter	Percent Recovery
	<b>fluorobenzene</b>	<b>99.8 %</b>
	<b>1,4-difluorobenzene</b>	<b>99.8 %</b>
	<b>4-bromochlorobenzene</b>	<b>99.8 %</b>

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

### Comments:

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Duncan Oil	Project #:	05161-003
Sample ID:	H, Hogback 12-4 MW-3	Date Reported:	10-04-06
Chain of Custody:	1555	Date Sampled:	10-02-06
Laboratory Number:	38692	Date Received:	10-02-06
Sample Matrix:	Water	Date Analyzed:	10-04-06
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
Benzene	ND	1	0.2
Toluene	ND	1	0.2
Ethylbenzene	0.7	1	0.2
p,m-Xylene	ND	1	0.2
o-Xylene	ND	1	0.1
<b>Total BTEX</b>	<b>0.7</b>		

ND - Parameter not detected at the stated detection limit.

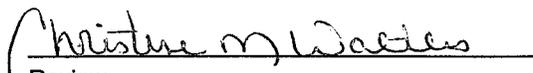
Surrogate Recoveries:	Parameter	Percent Recovery
	fluorobenzene	99.8 %
	1,4-difluorobenzene	99.8 %
	4-bromochlorobenzene	99.8 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

### Comments:

  
Analyst

  
Review

# ENVIROTECH LABS

PRactical SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Duncan Oil	Project #:	05161-003
Sample ID:	H, Hogback 12-4 MW-1	Date Reported:	10-04-06
Chain of Custody:	1555	Date Sampled:	10-02-06
Laboratory Number:	38693	Date Received:	10-02-06
Sample Matrix:	Water	Date Analyzed:	10-04-06
Preservative:	Cool	Analysis Requested:	BTEX
Condition:	Cool & Intact		

Parameter	Concentration (ug/L)	Dilution Factor	Det. Limit (ug/L)
<b>Benzene</b>	<b>ND</b>	<b>1</b>	<b>0.2</b>
<b>Toluene</b>	<b>1.9</b>	<b>1</b>	<b>0.2</b>
<b>Ethylbenzene</b>	<b>1.3</b>	<b>1</b>	<b>0.2</b>
<b>p,m-Xylene</b>	<b>0.9</b>	<b>1</b>	<b>0.2</b>
<b>o-Xylene</b>	<b>1.0</b>	<b>1</b>	<b>0.1</b>
<b>Total BTEX</b>	<b>5.1</b>		

ND - Parameter not detected at the stated detection limit.

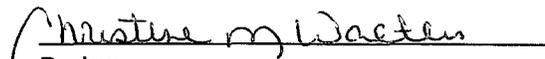
Surrogate Recoveries:	Parameter	Percent Recovery
	<b>fluorobenzene</b>	<b>99.8 %</b>
	<b>1,4-difluorobenzene</b>	<b>99.8 %</b>
	<b>4-bromochlorobenzene</b>	<b>99.8 %</b>

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

### Comments:

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS QUALITY ASSURANCE REPORT

Client:	N/A	Project #:	N/A
Sample ID:	10-04-BTEX QA/QC	Date Reported:	10-04-06
Laboratory Number:	38689	Date Sampled:	N/A
Sample Matrix:	Water	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	10-04-06
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF:	%Diff. Accept. Range 0 - 15%	Blank Conc	Detect. Limit
Benzene	5.0672E+007	5.0825E+007	0.30%	ND	0.2
Toluene	6.5864E+007	6.6062E+007	0.30%	ND	0.2
Ethylbenzene	2.5131E+007	2.5206E+007	0.30%	ND	0.2
p,m-Xylene	1.1679E+008	1.1714E+008	0.30%	ND	0.2
o-Xylene	5.7293E+007	5.7466E+007	0.30%	ND	0.1

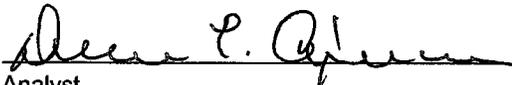
Duplicate Conc. (ug/L)	Sample	Duplicate	%Diff.	Accept Limit
Benzene	4.3	4.3	0.0%	0 - 30%
Toluene	2.4	2.4	0.0%	0 - 30%
Ethylbenzene	3.9	3.9	0.0%	0 - 30%
p,m-Xylene	8.4	8.3	0.5%	0 - 30%
o-Xylene	3.8	3.8	0.0%	0 - 30%

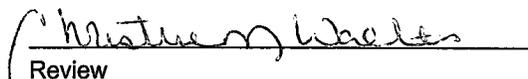
Spike Conc. (ug/L)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Limits
Benzene	4.3	50.0	54.2	99.8%	39 - 150
Toluene	2.4	50.0	52.3	99.8%	46 - 148
Ethylbenzene	3.9	50.0	53.8	99.8%	32 - 160
p,m-Xylene	8.4	100	108	99.8%	46 - 148
o-Xylene	3.8	50.0	53.7	99.8%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.  
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for sample 38689 - 38693, 38700

  
Analyst

  
Review

# CHAIN OF CUSTODY RECORD

Client / Project Name		Project Location		ANALYSIS / PARAMETERS													
05161-003		05161-003		Client No.		Lab Number		Sample Matrix		No. of Containers		FOUR		80218		Remarks	
Sample No./ Identification	Sample Date	Sample Time	Lab Number	Sample Matrix	No. of Containers		FOUR		80218		Remarks						
	10/2/06	1305	38687	WATER	1		FOUR		80218								
	10/2/06	1306	38688	WATER	1		FOUR		80218								
	10/2/06	1403	38689		1		FOUR		80218								
	10/2/06	1430	38690		1		FOUR		80218								
	10/2/06	1505	38691		1		FOUR		80218								
	10/2/06	1527	38692		1		FOUR		80218								
	10/2/06	1545	38693		1		FOUR		80218								
Relinquished by: (Signature)		Date			Time		Received by: (Signature)		Date		Time						
<i>[Signature]</i>		10/2/06		1725		<i>[Signature]</i>		10/2/06		1125							
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time							
						<i>[Signature]</i>											
Relinquished by: (Signature)		Date		Time		Received by: (Signature)		Date		Time							
						<i>[Signature]</i>											

**ENVIROTECH INC.**

5796 U.S. Highway 64  
 Farmington, New Mexico 87401  
 (505) 632-0615

Sample Receipt

Y	N	N/A
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Received Intact		
<input checked="" type="checkbox"/>		
Cool - Ice/Blue Ice		
<input checked="" type="checkbox"/>		

**APPENDIX B**

Field Notes and Inspection Forms



