

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Warren E & P	Contact	Chris Herold
Address	5420 LBJ Freeway, Suite 600 Dallas TX 75240	Telephone No.	307-710-0820
Facility Name	Eagle Mesa Unit #6003	Facility Type	Well pad

Surface Owner	Navajo Nation	Mineral Owner	Indian Lease : NOOC 14302717	API No.	30-043-20192 EMU H #603 (24292)
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	14	10N	04W	330	FWL	330	FBL	Sandoval

Latitude 35.2837624 Longitude -107.2208027 NAD83

NATURE OF RELEASE

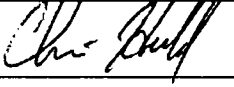
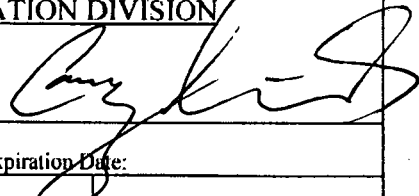
Type of Release	production oil	Volume of Release	unknown	Volume Recovered	none
Source of Release	well operations	Date and Hour of Occurrence	unknown	Date and Hour of Discovery	3-7-17
Was Immediate Notice Given?	☒ Yes ☐ No ☐ Not Required	If YES, To Whom?	Kandi Ossa - Warren E & P on 3-7-17		
By Whom?	Lucas Vargo - ENM	Date and Hour	met on site 3/5/17 11:00am		
Was a Watercourse Reached?	☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* Oil was spill on surface clean up exposed old pit that had oil and contaminated soil. Well had been plugged and released by SYNERGY Operating LLC

Describe Area Affected and Cleanup Action Taken.* An area ~ 100 ft x 70 ft x 5 ft was excavated ~ 1200 cyds of material was hauled to Envirotech landfill. Soil tests determined when the 5000 ppm threshold limit was reached in contaminated areas. DRO/GRO/PRO, Benzene and BTEX tests were run. See attachments for test results and the map of the site. The site will be reseeded as weather permits.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:		OIL CONSERVATION DIVISION	
Printed Name:	Chris Herold	Approved by Environmental Specialist:	
Title:	Environmental Tech	Approval Date:	1/24/18
E-mail Address:	cherold@warrenresources.com	Expiration Date:	
Date:	10-7-2017	Conditions of Approval:	Attached ☐
Phone:	307-710-0820		

* Attach Additional Sheets If Necessary

#NCS 18 02429252

125

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State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

OIL CONS. DIV DIST. 3

Form C-141
Revised April 3, 2017

OCT 10 2017
Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Warren E & P	Contact	Chris Herold
Address	5420 LBJ Freeway, Suite 600 Dallas TX 75240	Telephone No.	307-710-0820
Facility Name	Eagle Mesa Unit H#003	Facility Type	well pad

Surface Owner	Navajo Nation	Mineral Owner	Indian Lease : NOOC 14202717	API No.	30-043-20192 EMU H #003 [24202]
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	14	19N	04W	330	FNL	330	FEL	Sandoval

Latitude 35.8837624 Longitude -107.2208023 NAD83

NATURE OF RELEASE

Type of Release	production oil	Volume of Release	unknown	Volume Recovered	none
Source of Release	well operations	Date and Hour of Occurrence	unknown	Date and Hour of Discovery	3-7-17
Was Immediate Notice Given?	☒ Yes ☐ No ☐ Not Required	If YES, To Whom?	Kandi Ossa - Warren E & P on 3-7-17		
By Whom?	Lucas Vargo - BLM	Date and Hour	met on site 5/5/17 11:00am		
Was a Watercourse Reached?	☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* Oil was spill on surface clean up exposed old pit that had oil and contaminated soil. Well had been plugged and released by SYNERGY Operating LLC

Describe Area Affected and Cleanup Action Taken.* An area @ 100 ft x 70 ft X 5 ft was excavated - 1200 cyds of material was hauled to Envirotech landfill. Soil tests determined when the 5000 ppm threshold limit was reach in contaminated areas. DRO/GRO/ORO , Benzene and BTEX tests were run . See attachments for test results and the map of the site. The site will be reseeded as weather permits.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:		OIL CONSERVATION DIVISION	
Printed Name: Chris Herold		Approved by Environmental Specialist:	
Title: Enviromental Tech	Approval Date:	Expiration Date:	
E-mail Address: cherold@warrenresources.com	Conditions of Approval:	Attached ☐	
Date: 10-2-2017	Phone: 307-710-0820		

* Attach Additional Sheets If Necessary

Date Reported	Sample ID	Benzene mg/kg	BTEX mg/kg	GRO mg/kg	DRO mg/kg	ORO mg/kg		
7/11/2017	Bottom Trench			131	61600		base line - original sample before clean up site	File P706041A
7/11/2017	SE Corner East Side			ND	23900		base line - original sample before clean up site	File P706041A
7/13/2017	South Side Floor			22	16900		base line - original sample before clean up site	File P706043A
7/13/2017	OL #1			ND	1250		Off location small area #1	File P706043A
7/13/2017	OL #2			ND	531		Off Location small area #2	File P706043A
7/13/2017	OL #3			ND	2180		Off Location small area #3	File P706043A
7/13/2017	OL #4			ND	1660		Off Location small area #4	File P706043A
7/13/2017	North Wall			ND	20000		base line - original sample before clean up site	File P706043A
7/13/2017	Pit - west Side			ND	2420		base line - original sample before clean up site	File P706043A
7/13/2017	Composite 1	ND	0.2	ND	47000		base line - original sample before clean up site	File P707001A

7/13/2017	West Wall			ND	657		base line - original sample before clean up site	File P707001A
7/13/2017	South Wall			ND	19400		base line - original sample before clean up site	File P707001A
7/20/2017	Composite 1	ND	0.2	ND	47000		base line - original sample before clean up site	File P707001A add BTEX
7/20/2017	West Wall	ND	ND	ND	657	75.8	base line - original sample before clean up site	File P707001A add BTEX
7/20/2017	South Wall	ND	ND	ND	19400	3240	base line - original sample before clean up site	File P707001A add BTEX
8/8/2017	S Wall	ND	ND	ND	192	ND		File P708020A
8/8/2017	SW Wall	ND	ND	ND	350	ND		File P708020A
8/8/2017	West Wall	ND	ND	ND	923	ND		File P708020A
8/8/2017	NW Wall	ND	ND	ND	200	98.7		File P708020A
8/8/2017	North Wall	ND	ND	ND	13100	645	addition clean up necessary *1	File P708020A
8/8/2017	SE Corner	ND	ND	ND	485	70.3		File P708020A
8/9/2017	N Bottom	ND	ND	ND	1950	142	*1	File P708021A
8/9/2017	N Wall	ND	ND	ND	245	63.4	*1	File P708021A
8/11/2017	Base 1	ND	ND	ND	1340	63.6		File P708031A
8/11/2017	Base 2	ND	ND	ND	2450	54.5		File P708031A
8/11/2017	Base 3	ND	ND	ND	926	ND		File P708031A
8/11/2017	Base 4	ND	ND	ND	338	ND		File P708031A
8/11/2017	Base 5	ND	ND	ND	633	ND		File P708031A
8/11/2017	Noth Wall #2	ND	ND	ND	70.7	ND		File # 708039A
8/11/2017	South East Corner #2	ND	ND	ND	477	91		File # 708039A
8/11/2017	North East Corner	ND	ND	ND	3050	70.9		File # 708039A

8/11/2017	Excavation 2 -North Wall	ND	ND	ND	1680	55.2		File P708032A
8/11/2017	Excavation 2 -East Wall	ND	ND	ND	6110	ND	additional clean up necessary *2	File P708032A
8/11/2017	Excavation 2-South Wall	ND	ND	ND	4400	ND		File P708032A
8/11/2017	Excavation 2-West Wall	ND	ND	ND	5800	ND	additional clean up necessary *3	File P708032A
8/11/2017	Excavation 2-North Bottom	ND	ND	ND	439	ND		File P708032A
8/11/2017	Excavation 2- South Bottom	ND	ND	ND	1570	ND		File P708032A
8/16/2017	Excavation #2- West Section -West Wall (b)	ND	ND	ND	4800	ND	*3	File P708046A
8/16/2017	Excavation #2- West Section -South Wall (b)	ND	ND	ND	1210	ND	*3	File P708046A
8/16/2017	Excavation #2- West Section -North Wall (b)	ND	ND	ND	4540	ND	*3	File P708046A
8/16/2017	Excavation #2- West Section -West Bottom	ND	ND	ND	2370	ND	*3	File P708046A
8/16/2017	Excavation #2- East Wall	ND	ND	ND	4340	ND	*2	File P708046A



Analytical Report

Report Summary

Client: Warren E & P

Chain Of Custody Number:

Samples Received: 6/28/2017 4:55:00PM

Job Number: 17039-C-0001

Work Order: P706041

Project Name/Location: Cuba

Report Reviewed By:

A handwritten signature in dark ink, appearing to read 'Walter Hinchman', followed by a large, stylized initial 'WH'.

Date: 7/11/17

Walter Hinchman, Laboratory Director

A handwritten signature in dark ink, appearing to read 'Tim Cain', with a large, stylized initial 'TC'.

Date: 7/11/17

Tim Cain, Quality Assurance Officer

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



Warren E & P

Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name:

Cuba

Project Number:

17039-C-0001

Project Manager:

Chris Herold

Reported:

11-Jul-17 08:01

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Bottom Trench	P706041-01A	Soil	06/28/17	06/28/17	Glass Jar, 4 oz.
SE Corner East Side	P706041-02A	Soil	06/28/17	06/28/17	Glass Jar, 4 oz.

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Ph (970) 259-0615 Fr (800) 362-1879

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laboratory@envirotech-inc.com



Warren E & P	Project Name:	Cuba	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-C-0001	11-Jul-17 08:01
Dallas TX, 75240	Project Manager:	Chris Herold	

**Bottom Trench
P706041-01 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	131	40.0	mg/kg	2	1726013	06/29/17	07/06/17	EPA 8015D	
Diesel Range Organics (C10-C28)	61600	500	mg/kg	20	1726016	06/29/17	07/10/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		109 %		50-150	1726013	06/29/17	07/06/17	EPA 8015D	
Surrogate: n-Nonane		180 %		50-200	1726016	06/29/17	07/10/17	EPA 8015D	

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Cuba
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
11-Jul-17 08:01

**SE Corner East Side
P706041-02 (Solid)**

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	40.0	mg/kg	2	1726013	06/29/17	07/05/17	EPA 8015D	
Diesel Range Organics (C10-C28)	23900	500	mg/kg	20	1726016	06/29/17	07/10/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		105 %		50-150	1726013	06/29/17	07/05/17	EPA 8015D	
Surrogate: n-Nonane		111 %		50-200	1726016	06/29/17	07/10/17	EPA 8015D	

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Warren E & P Two Lincoln Center 5420 LBT Freeway, Ste. 600 Dallas TX, 75240	Project Name: Cuba Project Number: 17039-C-0001 Project Manager: Chris Herold	Reported: 11-Jul-17 08:01
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Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1726013 - Purge and Trap EPA 5030A										
Blank (1726013-BLK1)				Prepared: 28-Jun-17 Analyzed: 05-Jul-17						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.52		"	8.00		106	50-150			
LCS (1726013-BS1)				Prepared: 28-Jun-17 Analyzed: 05-Jul-17						
Gasoline Range Organics (C6-C10)	63.9	20.0	mg/kg	60.9		105	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.70		"	8.00		109	50-150			
Matrix Spike (1726013-MS1)				Source: P706039-01 Prepared: 28-Jun-17 Analyzed: 05-Jul-17						
Gasoline Range Organics (C6-C10)	64.6	20.0	mg/kg	60.9	ND	106	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.57		"	8.00		107	50-150			
Matrix Spike Dup (1726013-MSD1)				Source: P706039-01 Prepared: 28-Jun-17 Analyzed: 05-Jul-17						
Gasoline Range Organics (C6-C10)	65.1	20.0	mg/kg	60.9	ND	107	70-130	0.771	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.66		"	8.00		108	50-150			

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Envirotech, Inc. 2017
Envirotech-017-001



Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Cuba
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
11-Jul-17 08:01

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1726016 - DRO Extraction EPA 3570

Blank (1726016-BLK1)

Prepared: 29-Jun-17 Analyzed: 30-Jun-17

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Surrogate: n-Nonane	55.9		"	50.0		112	50-200			

LCS (1726016-BS1)

Prepared: 29-Jun-17 Analyzed: 30-Jun-17

Diesel Range Organics (C10-C28)	480	25.0	mg/kg	500		96.0	38-132			
Surrogate: n-Nonane	56.7		"	50.0		113	50-200			

Matrix Spike (1726016-MS1)

Source: P706039-01

Prepared: 29-Jun-17 Analyzed: 30-Jun-17

Diesel Range Organics (C10-C28)	570	25.0	mg/kg	500	ND	114	38-132			
Surrogate: n-Nonane	62.7		"	50.0		125	50-200			

Matrix Spike Dup (1726016-MSD1)

Source: P706039-01

Prepared: 29-Jun-17 Analyzed: 30-Jun-17

Diesel Range Organics (C10-C28)	561	25.0	mg/kg	500	ND	112	38-132	1.72	20	
Surrogate: n-Nonane	61.3		"	50.0		123	50-200			

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Warren E & P

Two Lincoln Center 5420 LBT Freeway, Ste. 600

Dallas TX, 75240

Project Name:

Cuba

Project Number:

17039-C-0001

Project Manager:

Chris Herold

Reported:

11-Jul-17 08:01

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

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Analytical Report

Report Summary

Client: Warren E & P

Chain Of Custody Number:

Samples Received: 8/29/2017 4:30:00PM

Job Number: 17039-C-0001

Work Order: P706043

Project Name/Location: Eagle Mesa Unit -3-H

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', followed by a small 'gh' monogram.

Date: 7/13/17

Walter Hinchman, Laboratory Director

A handwritten signature in black ink, appearing to read 'Tim Cain'.

Date: 7/13/17

Tim Cain, Quality Assurance Officer

Supplement to analytical report generated on: 7/13/17 3:29 pm

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
13-Jul-17 16:06

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
EMU #5-1	P706043-01A	Soil	06/29/17	06/29/17	Glass Jar, 4 oz.
South Side Floor	P706043-02A	Soil	06/29/17	06/29/17	Glass Jar, 4 oz.
OL #1	P706043-03A	Soil	06/29/17	06/29/17	Glass Jar, 4 oz.
OL #2	P706043-04A	Soil	06/29/17	06/29/17	Glass Jar, 4 oz.
OL #3	P706043-05A	Soil	06/29/17	06/29/17	Glass Jar, 4 oz.
OL #4	P706043-06A	Soil	06/29/17	06/29/17	Glass Jar, 4 oz.
North Wall	P706043-07A	Soil	06/29/17	06/29/17	Glass Jar, 4 oz.
Pit- West Side	P706043-08A	Soil	06/29/17	06/29/17	Glass Jar, 4 oz.

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Warren E & P	Project Name:	Eagle Mesa Units 3-H	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-C-0001	13-Jul-17 16:06
Dallas TX, 75240	Project Manager:	Chris Herold	

**EMU #5-1
P706043-01 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8015D	
Diesel Range Organics (C10-C28)	5060	250	mg/kg	10	1727004	07/10/17	07/10/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		106 %		50-150	1727003	07/05/17	07/06/17	EPA 8015D	
Surrogate: n-Nonane		137 %		50-200	1727004	07/10/17	07/10/17	EPA 8015D	

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Ph (970) 259-0615 Fr (800) 362-1879

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
13-Jul-17 16:06

**South Side Floor
P706043-02 (Solid)**

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	22.0	20.0	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8015D	
Diesel Range Organics (C10-C28)	16900	2500	mg/kg	100	1727004	07/10/17	07/12/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		104 %		50-150	1727003	07/05/17	07/06/17	EPA 8015D	
Surrogate: n-Nonane		84.3 %		50-200	1727004	07/10/17	07/12/17	EPA 8015D	

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
13-Jul-17 16:06

OL #1
P706043-03 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8015D	
Diesel Range Organics (C10-C28)	1250	250	mg/kg	10	1727004	07/10/17	07/11/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		103 %		50-150	1727003	07/05/17	07/06/17	EPA 8015D	
Surrogate: n-Nonane		126 %		50-200	1727004	07/10/17	07/11/17	EPA 8015D	

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Warren E & P

Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H

Project Number: 17039-C-0001

Project Manager: Chris Herold

Reported:

13-Jul-17 16:06

OL #2

P706043-04 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8015D	
Diesel Range Organics (C10-C28)	531	250	mg/kg	10	1727004	07/10/17	07/11/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		107 %		50-150	1727003	07/05/17	07/06/17	EPA 8015D	
Surrogate: n-Nonane		129 %		50-200	1727004	07/10/17	07/11/17	EPA 8015D	

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Warren E & P

Two Lincoln Center 5420 LBT Freeway, Ste. 600

Dallas TX, 75240

Project Name:

Eagle Mesa Unit -3-H

Project Number:

17039-C-0001

Project Manager:

Chris Herold

Reported:

13-Jul-17 16:06

OL #3

P706043-05 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8015D	
Diesel Range Organics (C10-C28)	2180	125	mg/kg	5	1727004	07/10/17	07/11/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		101 %		50-150	1727003	07/05/17	07/06/17	EPA 8015D	
Surrogate: n-Nonane		113 %		50-200	1727004	07/10/17	07/11/17	EPA 8015D	

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Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
13-Jul-17 16:06

OL #4
P706043-06 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8015D	
Diesel Range Organics (C10-C28)	1660	250	mg/kg	10	1727004	07/10/17	07/11/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		106 %		50-150	1727003	07/05/17	07/06/17	EPA 8015D	
Surrogate: n-Nonane		125 %		50-200	1727004	07/10/17	07/11/17	EPA 8015D	

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Laboratory: warren@envirotech-inc.com



Warren E & P Two Lincoln Center 5420 LBT Freeway, Ste. 600 Dallas TX, 75240	Project Name: Eagle Mesa Unit -3-H Project Number: 17039-C-0001 Project Manager: Chris Herold	Reported: 13-Jul-17 16:06
---	---	------------------------------

**North Wall
P706043-07 (Solid)**

Reporting								
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Nonhalogenated Organics by 8015								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8015D
Diesel Range Organics (C10-C28)	20000	250	mg/kg	10	1727004	07/10/17	07/11/17	EPA 8015D
Surrogate: 1-Chloro-4-fluorobenzene-FID		103 %		50-150	1727003	07/05/17	07/06/17	EPA 8015D
Surrogate: n-Nonane		136 %		50-200	1727004	07/10/17	07/11/17	EPA 8015D

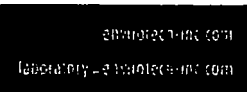
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Warren E & P	Project Name:	Eagle Mesa Unit -3-H	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-C-0001	13-Jul-17 16:06
Dallas TX, 75240	Project Manager:	Chris Herold	

**Pit- West Side
P706043-08 (Solid)**

Reporting								
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8015D
Diesel Range Organics (C10-C28)	2420	250	mg/kg	10	1727004	07/10/17	07/11/17	EPA 8015D
Surrogate: 1-Chloro-4-fluorobenzene-F1D		105 %		50-150	1727003	07/05/17	07/06/17	EPA 8015D
Surrogate: n-Nonane		127 %		50-200	1727004	07/10/17	07/11/17	EPA 8015D

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Warren E & P	Project Name:	Eagle Mesa Unit -3-H	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-C-0001	13-Jul-17 16:06
Dallas TX, 75240	Project Manager:	Chris Herold	

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1727003 - Purge and Trap EPA 5030A										
Blank (1727003-BLK1)				Prepared: 05-Jul-17 Analyzed: 06-Jul-17						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.13		"	8.00		102	50-150			
LCS (1727003-BS1)				Prepared: 05-Jul-17 Analyzed: 06-Jul-17						
Gasoline Range Organics (C6-C10)	63.2	20.0	mg/kg	60.9		104	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.28		"	8.00		104	50-150			
Matrix Spike (1727003-MS1)				Source: P706043-01 Prepared: 05-Jul-17 Analyzed: 06-Jul-17						
Gasoline Range Organics (C6-C10)	62.2	20.0	mg/kg	60.9	ND	102	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.43		"	8.00		105	50-150			
Matrix Spike Dup (1727003-MSD1)				Source: P706043-01 Prepared: 05-Jul-17 Analyzed: 06-Jul-17						
Gasoline Range Organics (C6-C10)	62.1	20.0	mg/kg	60.9	ND	102	70-130	0.161	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.37		"	8.00		105	50-150			

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Envirotech Inc. (001)

Labatory Version: 01-01-2017



Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
13-Jul-17 16:06

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1727004 - DRO Extraction EPA 3570										
Blank (1727004-BLK1)				Prepared: 10-Jul-17 Analyzed: 11-Jul-17						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Surrogate: n-Nonane	54.2		"	50.0		108	50-200			
LCS (1727004-BS1)				Prepared & Analyzed: 10-Jul-17						
Diesel Range Organics (C10-C28)	489	25.0	mg/kg	500		97.9	38-132			
Surrogate: n-Nonane	54.9		"	50.0		110	50-200			
Matrix Spike (1727004-MS1)				Source: P706043-01		Prepared & Analyzed: 10-Jul-17				
Diesel Range Organics (C10-C28)	5650	250	mg/kg	500	5060	118	38-132			
Surrogate: n-Nonane	60.6		"	50.0		121	50-200			
Matrix Spike Dup (1727004-MSD1)				Source: P706043-01		Prepared & Analyzed: 10-Jul-17				
Diesel Range Organics (C10-C28)	5690	250	mg/kg	500	5060	125	38-132	0.635	20	
Surrogate: n-Nonane	61.3		"	50.0		123	50-200			

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Warren E & P

Two Lincoln Center 5420 LBT Freeway, Ste. 600

Dallas TX, 75240

Project Name:

Eagle Mesa Unit -3-H

Project Number:

17039-C-0001

Project Manager:

Chris Herold

Reported:

13-Jul-17 16:06

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

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1-800-421-5070 (Toll Free)



Analytical Report

Report Summary

Client: Warren E & P

Chain Of Custody Number:

Samples Received: 6/30/2017 12:50:00PM

Job Number: 17039-C-0001

Work Order: P707001

Project Name/Location: Eagle Mesa Unit -3-H

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', written over a horizontal line.

Walter Hinchman, Laboratory Director

Date: 7/20/17

A handwritten signature in black ink, appearing to read 'Tim Cain', written over a horizontal line.

Tim Cain, Quality Assurance Officer

Date: 7/20/17

Supplement to analytical report generated on: 7/20/17 2:31 pm

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



Warren E & P

Two Lincoln Center 5420 LBT Freeway, Ste. 600

Dallas TX, 75240

Project Name:

Eagle Mesa Unit -3-H

Project Number:

17039-C-0001

Project Manager:

Chris Herold

Reported:

20-Jul-17 15:02

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Composite 1	P707001-01A	Soil	06/30/17	06/30/17	Glass Jar, 4 oz.
	P707001-01B	Soil	06/30/17	06/30/17	Glass Jar, 4 oz.
West Wall	P707001-02A	Soil	06/30/17	06/30/17	Glass Jar, 4 oz.
South Wall	P707001-03A	Soil	06/30/17	06/30/17	Glass Jar, 4 oz.

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
20-Jul-17 15:02

Composite 1
P707001-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B	
o-Xylene	0.20	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B	
Total Xylenes	0.20	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B	
Total BTEX	0.20	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		115 %		50-150	1727003	07/05/17	07/06/17	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8015D	
Diesel Range Organics (C10-C28)	47000	2500	mg/kg	100	1727004	07/10/17	07/12/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		105 %		50-150	1727003	07/05/17	07/06/17	EPA 8015D	
Surrogate: n-Nonane		63.6 %		50-200	1727004	07/10/17	07/12/17	EPA 8015D	

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
20-Jul-17 15:02

West Wall
P707001-02 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		97.5 %		50-150	1727003	07/05/17	07/06/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8015D	
Diesel Range Organics (C10-C28)	657	25.0	mg/kg	1	1727004	07/11/17	07/11/17	EPA 8015D	
Oil Range Organics (C28-C40+)	75.8	50.0	mg/kg	1	1727004	07/11/17	07/11/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		105 %		50-150	1727003	07/05/17	07/06/17	EPA 8015D	
Surrogate: n-Nonane		130 %		50-200	1727004	07/11/17	07/11/17	EPA 8015D	

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Warren E & P Two Lincoln Center 5420 LBT Freeway, Ste. 600 Dallas TX, 75240	Project Name: Eagle Mesa Unit -3-H Project Number: 17039-C-0001 Project Manager: Chris Herold	Reported: 20-Jul-17 15:02
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**South Wall
P707001-03 (Solid)**

Reporting								
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method

Volatile Organics by EPA 8021

Benzene	ND	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B
Toluene	ND	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B
Ethylbenzene	ND	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B
p,m-Xylene	ND	0.20	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B
o-Xylene	ND	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B
Total Xylenes	ND	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B
Total BTEX	ND	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B
Surrogate: 4-Bromochlorobenzene-PID		107 %		50-150	1727003	07/05/17	07/06/17	EPA 8021B

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8015D
Diesel Range Organics (C10-C28)	19400	250	mg/kg	10	1727004	07/11/17	07/11/17	EPA 8015D
Oil Range Organics (C28-C40+)	3240	500	mg/kg	10	1727004	07/11/17	07/11/17	EPA 8015D
Surrogate: 1-Chloro-4-fluorobenzene-FID		102 %		50-150	1727003	07/05/17	07/06/17	EPA 8015D
Surrogate: n-Nonane		131 %		50-200	1727004	07/11/17	07/11/17	EPA 8015D

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
20-Jul-17 15:02

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1727003 - Purge and Trap EPA 5030A

Blank (1727003-BLK1)

Prepared: 05-Jul-17 Analyzed: 06-Jul-17

Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							

Surrogate: 4-Bromochlorobenzene-PID 7.91 " 8.00 98.9 50-150

LCS (1727003-BS1)

Prepared: 05-Jul-17 Analyzed: 06-Jul-17

Benzene	5.15	0.10	mg/kg	5.00		103	70-130			
Toluene	5.03	0.10	"	5.00		101	70-130			
Ethylbenzene	4.99	0.10	"	5.00		99.8	70-130			
p,m-Xylene	9.91	0.20	"	10.0		99.2	70-130			
o-Xylene	4.88	0.10	"	5.00		97.6	70-130			
Total Xylenes	14.8	0.10	"	15.0		98.6	70-130			

Surrogate: 4-Bromochlorobenzene-PID 7.97 " 8.00 99.6 50-150

Matrix Spike (1727003-MS1)

Source: P706043-01

Prepared: 05-Jul-17 Analyzed: 06-Jul-17

Benzene	4.97	0.10	mg/kg	5.00	ND	99.4	54.3-133			
Toluene	4.86	0.10	"	5.00	ND	97.1	61.4-130			
Ethylbenzene	4.82	0.10	"	5.00	ND	96.4	61.4-133			
p,m-Xylene	9.57	0.20	"	10.0	ND	95.7	63.3-131			
o-Xylene	4.69	0.10	"	5.00	ND	93.9	63.3-131			
Total Xylenes	14.3	0.10	"	15.0	ND	95.1	63.3-131			

Surrogate: 4-Bromochlorobenzene-PID 7.82 " 8.00 97.7 50-150

Matrix Spike Dup (1727003-MSD1)

Source: P706043-01

Prepared: 05-Jul-17 Analyzed: 06-Jul-17

Benzene	5.01	0.10	mg/kg	5.00	ND	100	54.3-133	0.892	20	
Toluene	4.89	0.10	"	5.00	ND	97.8	61.4-130	0.670	20	
Ethylbenzene	4.84	0.10	"	5.00	ND	96.9	61.4-133	0.587	20	
p,m-Xylene	9.62	0.20	"	10.0	ND	96.2	63.3-131	0.523	20	
o-Xylene	4.72	0.10	"	5.00	ND	94.4	63.3-131	0.553	20	
Total Xylenes	14.3	0.10	"	15.0	ND	95.6	63.3-131	0.533	20	

Surrogate: 4-Bromochlorobenzene-PID 7.77 " 8.00 97.2 50-150

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Warren E & P	Project Name:	Eagle Mesa Unit -3-H	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-C-0001	20-Jul-17 15:02
Dallas TX, 75240	Project Manager:	Chris Herold	

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1727003 - Purge and Trap EPA 5030A										
Blank (1727003-BLK1)										
				Prepared: 05-Jul-17 Analyzed: 06-Jul-17						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.13		"	8.00		102	50-150			
LCS (1727003-BS1)										
				Prepared: 05-Jul-17 Analyzed: 06-Jul-17						
Gasoline Range Organics (C6-C10)	63.2	20.0	mg/kg	60.9		104	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.28		"	8.00		104	50-150			
Matrix Spike (1727003-MS1)										
				Source: P706043-01 Prepared: 05-Jul-17 Analyzed: 06-Jul-17						
Gasoline Range Organics (C6-C10)	62.2	20.0	mg/kg	60.9	ND	102	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.43		"	8.00		105	50-150			
Matrix Spike Dup (1727003-MSD1)										
				Source: P706043-01 Prepared: 05-Jul-17 Analyzed: 06-Jul-17						
Gasoline Range Organics (C6-C10)	62.1	20.0	mg/kg	60.9	ND	102	70-130	0.161	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.37		"	8.00		105	50-150			

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Warren E & P	Project Name:	Eagle Mesa Unit -3-H	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-C-0001	20-Jul-17 15:02
Dallas TX, 75240	Project Manager:	Chris Herold	

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1727004 - DRO Extraction EPA 3570										
Blank (1727004-BLK1)				Prepared: 10-Jul-17 Analyzed: 11-Jul-17						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	54.2		"	50.0		108	50-200			
LCS (1727004-BS1)				Prepared & Analyzed: 10-Jul-17						
Diesel Range Organics (C10-C28)	489	25.0	mg/kg	500		97.9	38-132			
Surrogate: n-Nonane	54.9		"	50.0		110	50-200			
Matrix Spike (1727004-MS1)				Source: P706043-01		Prepared & Analyzed: 10-Jul-17				
Diesel Range Organics (C10-C28)	5650	250	mg/kg	500	5060	118	38-132			
Surrogate: n-Nonane	60.6		"	50.0		121	50-200			
Matrix Spike Dup (1727004-MSD1)				Source: P706043-01		Prepared & Analyzed: 10-Jul-17				
Diesel Range Organics (C10-C28)	5690	250	mg/kg	500	5060	125	38-132	0.635	20	
Surrogate: n-Nonane	61.3		"	50.0		123	50-200			

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
20-Jul-17 15:02

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

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Page 1 of 1



Analytical Report

Report Summary

Client: Warren E & P

Chain Of Custody Number:

Samples Received: 6/30/2017 12:50:00PM

Job Number: 17039-C-0001

Work Order: P707001

Project Name/Location: Eagle Mesa Unit -3-H

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', followed by a small, stylized mark.

Date: 7/13/17

Walter Hinchman, Laboratory Director

A handwritten signature in black ink, appearing to read 'Tim Cain', with a horizontal line drawn through it.

Date: 7/13/17

Tim Cain, Quality Assurance Officer

Supplement to analytical report generated on: 7/13/17 3:29 pm

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
13-Jul-17 16:05

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Composite 1	P707001-01A	Soil	06/30/17	06/30/17	Glass Jar, 4 oz.
	P707001-01B	Soil	06/30/17	06/30/17	Glass Jar, 4 oz.
West Wall	P707001-02A	Soil	06/30/17	06/30/17	Glass Jar, 4 oz.
South Wall	P707001-03A	Soil	06/30/17	06/30/17	Glass Jar, 4 oz.

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Warren E & P	Project Name:	Eagle Mesa Unit -3-H	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-C-0001	13-Jul-17 16:05
Dallas TX, 75240	Project Manager:	Chris Herold	

Composite 1
P707001-01 (Solid)

Reporting								
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method

Volatile Organics by EPA 8021

Benzene	ND	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B
Toluene	ND	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B
Ethylbenzene	ND	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B
p,m-Xylene	ND	0.20	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B
o-Xylene	0.20	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B
Total Xylenes	0.20	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B
Total BTEX	0.20	0.10	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8021B
Surrogate: 4-Bromochlorobenzene-FID		115 %		50-150	1727003	07/05/17	07/06/17	EPA 8021B

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8015D
Diesel Range Organics (C10-C28)	47000	2500	mg/kg	100	1727004	07/10/17	07/12/17	EPA 8015D
Surrogate: 1-Chloro-4-fluorobenzene-FID		105 %		50-150	1727003	07/05/17	07/06/17	EPA 8015D
Surrogate: n-Nonane		63.6 %		50-200	1727004	07/10/17	07/12/17	EPA 8015D

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Warren E & P	Project Name:	Eagle Mesa Unit -3-H	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-C-0001	13-Jul-17 16:05
Dallas TX, 75240	Project Manager:	Chris Herold	

West Wall
P707001-02 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8015D	
Diesel Range Organics (C10-C28)	657	25.0	mg/kg	1	1727004	07/10/17	07/11/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		105 %		50-150	1727003	07/05/17	07/06/17	EPA 8015D	
Surrogate: n-Nonane		130 %		50-200	1727004	07/10/17	07/11/17	EPA 8015D	

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Warren E & P

Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H

Project Number: 17039-C-0001

Project Manager: Chris Herold

Reported:

13-Jul-17 16:05

South Wall
P707001-03 (Solid)

Reporting								
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Nonhalogenated Organics by 8015								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1727003	07/05/17	07/06/17	EPA 8015D
Diesel Range Organics (C10-C28)	19400	250	mg/kg	10	1727004	07/10/17	07/11/17	EPA 8015D
Surrogate: 1-Chloro-4-fluorobenzene-FID		102 %		50-150	1727003	07/05/17	07/06/17	EPA 8015D
Surrogate: n-Nonane		131 %		50-200	1727004	07/10/17	07/11/17	EPA 8015D

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
13-Jul-17 16:05

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

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

Batch 1727003 - Purge and Trap EPA 5030A

Blank (1727003-BLK1)

Prepared: 05-Jul-17 Analyzed: 06-Jul-17

Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	7.91		"	8.00		98.9	50-150			

LCS (1727003-BS1)

Prepared: 05-Jul-17 Analyzed: 06-Jul-17

Benzene	5.15	0.10	mg/kg	5.00		103	70-130			
Toluene	5.03	0.10	"	5.00		101	70-130			
Ethylbenzene	4.99	0.10	"	5.00		99.8	70-130			
p,m-Xylene	9.91	0.20	"	10.0		99.2	70-130			
o-Xylene	4.88	0.10	"	5.00		97.6	70-130			
Total Xylenes	14.8	0.10	"	15.0		98.6	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.97		"	8.00		99.6	50-150			

Matrix Spike (1727003-MS1)

Source: P706043-01

Prepared: 05-Jul-17 Analyzed: 06-Jul-17

Benzene	4.97	0.10	mg/kg	5.00	ND	99.4	54.3-133			
Toluene	4.86	0.10	"	5.00	ND	97.1	61.4-130			
Ethylbenzene	4.82	0.10	"	5.00	ND	96.4	61.4-133			
p,m-Xylene	9.57	0.20	"	10.0	ND	95.7	63.3-131			
o-Xylene	4.69	0.10	"	5.00	ND	93.9	63.3-131			
Total Xylenes	14.3	0.10	"	15.0	ND	95.1	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	7.82		"	8.00		97.7	50-150			

Matrix Spike Dup (1727003-MSD1)

Source: P706043-01

Prepared: 05-Jul-17 Analyzed: 06-Jul-17

Benzene	5.01	0.10	mg/kg	5.00	ND	100	54.3-133	0.892	20	
Toluene	4.89	0.10	"	5.00	ND	97.8	61.4-130	0.670	20	
Ethylbenzene	4.84	0.10	"	5.00	ND	96.9	61.4-133	0.587	20	
p,m-Xylene	9.62	0.20	"	10.0	ND	96.2	63.3-131	0.523	20	
o-Xylene	4.72	0.10	"	5.00	ND	94.4	63.3-131	0.553	20	
Total Xylenes	14.3	0.10	"	15.0	ND	95.6	63.3-131	0.533	20	
Surrogate: 4-Bromochlorobenzene-PID	7.77		"	8.00		97.2	50-150			

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Warren E & P	Project Name:	Eagle Mesa Unit -3-H	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-C-0001	13-Jul-17 16:05
Dallas TX, 75240	Project Manager:	Chris Herold	

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1727003 - Purge and Trap EPA 5030A										
Blank (1727003-BLK1)				Prepared: 05-Jul-17 Analyzed: 06-Jul-17						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.13		"	8.00		102	50-150			
LCS (1727003-BS1)				Prepared: 05-Jul-17 Analyzed: 06-Jul-17						
Gasoline Range Organics (C6-C10)	63.2	20.0	mg/kg	60.9		104	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.28		"	8.00		104	50-150			
Matrix Spike (1727003-MS1)				Source: P706043-01 Prepared: 05-Jul-17 Analyzed: 06-Jul-17						
Gasoline Range Organics (C6-C10)	62.2	20.0	mg/kg	60.9	ND	102	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.43		"	8.00		105	50-150			
Matrix Spike Dup (1727003-MSD1)				Source: P706043-01 Prepared: 05-Jul-17 Analyzed: 06-Jul-17						
Gasoline Range Organics (C6-C10)	62.1	20.0	mg/kg	60.9	ND	102	70-130	0.161	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	8.37		"	8.00		105	50-150			

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
13-Jul-17 16:05

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1727004 - DRO Extraction EPA 3570

Blank (1727004-BLK1)

Prepared: 10-Jul-17 Analyzed: 11-Jul-17

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Surrogate: n-Nonane	54.2		"	50.0		108	50-200			

LCS (1727004-BL1)

Prepared & Analyzed: 10-Jul-17

Diesel Range Organics (C10-C28)	489	25.0	mg/kg	500		97.9	38-132			
Surrogate: n-Nonane	54.9		"	50.0		110	50-200			

Matrix Spike (1727004-MS1)

Source: P706043-01

Prepared & Analyzed: 10-Jul-17

Diesel Range Organics (C10-C28)	5650	250	mg/kg	500	5060	118	38-132			
Surrogate: n-Nonane	60.6		"	50.0		121	50-200			

Matrix Spike Dup (1727004-MSD1)

Source: P706043-01

Prepared & Analyzed: 10-Jul-17

Diesel Range Organics (C10-C28)	5690	250	mg/kg	500	5060	125	38-132	0.635	20	
Surrogate: n-Nonane	61.3		"	50.0		123	50-200			

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ENVIROTECH, INC. 2017
QUALITY MANAGEMENT SYSTEM



Warren E & P

Two Lincoln Center 5420 LBT Freeway, Ste. 600

Dallas TX, 75240

Project Name:

Eagle Mesa Unit -3-H

Project Number:

17039-C-0001

Project Manager:

Chris Herold

Reported:

13-Jul-17 16:05

Notes and Definitions

DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

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Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other _____		Container Type: g - glass, p - poly/plastic, ag - amber glass
***Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.		
☐ Sample(s) dropped off after hours to a secure drop off area.	Chain of Custody	Notes/Billing info:



Analytical Report

Report Summary

Client: Warren E & P

Chain Of Custody Number:

Samples Received: 8/7/2017 2:56:00PM

Job Number: 17039-C-0001

Work Order: P708020

Project Name/Location: Eagle Mesa Unit -3-H

Report Reviewed By:

Date: 8/8/17

Walter Hinchman, Laboratory Director

Date: 8/8/17

Tim Cain, Quality Assurance Officer

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
08-Aug-17 14:37

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
S Wall	P708020-01A	Soil	08/07/17	08/07/17	Glass Jar, 4 oz.
	P708020-01B	Soil	08/07/17	08/07/17	Glass Jar, 4 oz.
SW Wall	P708020-02A	Soil	08/07/17	08/07/17	Glass Jar, 4 oz.
	P708020-02B	Soil	08/07/17	08/07/17	Glass Jar, 4 oz.
West Wall	P708020-03A	Soil	08/07/17	08/07/17	Glass Jar, 4 oz.
	P708020-03B	Soil	08/07/17	08/07/17	Glass Jar, 4 oz.
NW Wall	P708020-04A	Soil	08/07/17	08/07/17	Glass Jar, 4 oz.
	P708020-04B	Soil	08/07/17	08/07/17	Glass Jar, 4 oz.
North Wall	P708020-05A	Soil	08/07/17	08/07/17	Glass Jar, 4 oz.
	P708020-05B	Soil	08/07/17	08/07/17	Glass Jar, 4 oz.
SE Corner	P708020-06A	Soil	08/07/17	08/07/17	Glass Jar, 4 oz.
	P708020-06B	Soil	08/07/17	08/07/17	Glass Jar, 4 oz.

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Warren E & P
 Two Lincoln Center 5420 LBT Freeway, Ste. 600
 Dallas TX, 75240

 Project Name: Eagle Mesa Unit -3-H
 Project Number: 17039-C-0001
 Project Manager: Chris Herold

 Reported:
 08-Aug-17 14:37

S Wall
P708020-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		96.1 %		50-150	1732006	08/07/17	08/07/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8015D	
Diesel Range Organics (C10-C28)	192	25.0	mg/kg	1	1732005	08/07/17	08/07/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1732005	08/07/17	08/07/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		92.9 %		50-150	1732006	08/07/17	08/07/17	EPA 8015D	
Surrogate: n-Nonane		102 %		50-200	1732005	08/07/17	08/07/17	EPA 8015D	

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mca Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
08-Aug-17 14:37

SW Wall
P708020-02 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		95.4 %		50-150	1732006	08/07/17	08/07/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8015D	
Diesel Range Organics (C10-C28)	350	25.0	mg/kg	1	1732005	08/07/17	08/07/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1732005	08/07/17	08/07/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		91.6 %		50-150	1732006	08/07/17	08/07/17	EPA 8015D	
Surrogate: n-Nonane		106 %		50-200	1732005	08/07/17	08/07/17	EPA 8015D	

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
08-Aug-17 14:37

West Wall
P708020-03 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		96.3 %		50-150	1732006	08/07/17	08/07/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8015D	
Diesel Range Organics (C10-C28)	923	25.0	mg/kg	1	1732005	08/07/17	08/07/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1732005	08/07/17	08/07/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		92.2 %		50-150	1732006	08/07/17	08/07/17	EPA 8015D	
Surrogate: n-Nonane		107 %		50-200	1732005	08/07/17	08/07/17	EPA 8015D	

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Warren E & P	Project Name: Eagle Mesa Unit -3-H	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number: 17039-C-0001	08-Aug-17 14:37
Dallas TX, 75240	Project Manager: Chris Herold	

**NW Wall
P708020-04 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		95.0 %		50-150	1732006	08/07/17	08/07/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8015D	
Diesel Range Organics (C10-C28)	200	25.0	mg/kg	1	1732005	08/07/17	08/07/17	EPA 8015D	
Oil Range Organics (C28-C40+)	98.7	50.0	mg/kg	1	1732005	08/07/17	08/07/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		93.5 %		50-150	1732006	08/07/17	08/07/17	EPA 8015D	
Surrogate: n-Nonane		104 %		50-200	1732005	08/07/17	08/07/17	EPA 8015D	

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
08-Aug-17 14:37

North Wall
P708020-05 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Volatile Organics by EPA 8021

Benzene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		96.0 %		50-150	1732006	08/07/17	08/07/17	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8015D	
Diesel Range Organics (C10-C28)	13100	250	mg/kg	10	1732005	08/07/17	08/08/17	EPA 8015D	
Oil Range Organics (C28-C40+)	645	500	mg/kg	10	1732005	08/07/17	08/08/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		92.5 %		50-150	1732006	08/07/17	08/07/17	EPA 8015D	
Surrogate: n-Nonane		114 %		50-200	1732005	08/07/17	08/08/17	EPA 8015D	

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Warren E & P Two Lincoln Center 5420 LBT Freeway, Ste. 600 Dallas TX, 75240	Project Name: Eagle Mesa Unit -3-H Project Number: 17039-C-0001 Project Manager: Chris Herold	Reported: 08-Aug-17 14:37
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**SE Corner
P708020-06 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		102 %		50-150	1732006	08/07/17	08/07/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732006	08/07/17	08/07/17	EPA 8015D	
Diesel Range Organics (C10-C28)	485	25.0	mg/kg	1	1732005	08/07/17	08/07/17	EPA 8015D	
Oil Range Organics (C28-C40+)	70.3	50.0	mg/kg	1	1732005	08/07/17	08/07/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		95.3 %		50-150	1732006	08/07/17	08/07/17	EPA 8015D	
Surrogate: n-Nonane		107 %		50-200	1732005	08/07/17	08/07/17	EPA 8015D	

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Warren F & P	Project Name: Eagle Mesa Unit -3-H	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number: 17039-C-0001	08-Aug-17 14:37
Dallas TX, 75240	Project Manager: Chris Herold	

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1732006 - Purge and Trap EPA 5030A

Blank (1732006-BLK1)

Prepared & Analyzed: 07-Aug-17

Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	7.69		"	8.00		96.1	50-150			

LCS (1732006-BS1)

Prepared & Analyzed: 07-Aug-17

Benzene	4.93	0.10	mg/kg	5.00		98.6	70-130			
Toluene	4.86	0.10	"	5.00		97.2	70-130			
Ethylbenzene	4.85	0.10	"	5.00		97.0	70-130			
p,m-Xylene	9.64	0.20	"	10.0		96.5	70-130			
o-Xylene	4.74	0.10	"	5.00		94.9	70-130			
Total Xylenes	14.4	0.10	"	15.0		95.9	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.79		"	8.00		97.4	50-150			

Matrix Spike (1732006-MS1)

Source: P708020-01

Prepared & Analyzed: 07-Aug-17

Benzene	4.86	0.10	mg/kg	5.00	ND	97.3	54.3-133			
Toluene	4.78	0.10	"	5.00	ND	95.7	61.4-130			
Ethylbenzene	4.76	0.10	"	5.00	ND	95.3	61.4-133			
p,m-Xylene	9.47	0.20	"	10.0	ND	94.7	63.3-131			
o-Xylene	4.65	0.10	"	5.00	ND	93.0	63.3-131			
Total Xylenes	14.1	0.10	"	15.0	ND	94.1	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	7.70		"	8.00		96.3	50-150			

Matrix Spike Dup (1732006-MSD1)

Source: P708020-01

Prepared & Analyzed: 07-Aug-17

Benzene	4.90	0.10	mg/kg	5.00	ND	98.0	54.3-133	0.764	20	
Toluene	4.82	0.10	"	5.00	ND	96.5	61.4-130	0.842	20	
Ethylbenzene	4.81	0.10	"	5.00	ND	96.2	61.4-133	0.955	20	
p,m-Xylene	9.56	0.20	"	10.0	ND	95.6	63.3-131	0.971	20	
o-Xylene	4.70	0.10	"	5.00	ND	93.9	63.3-131	0.984	20	
Total Xylenes	14.3	0.10	"	15.0	ND	95.1	63.3-131	0.975	20	
Surrogate: 4-Bromochlorobenzene-PID	7.71		"	8.00		96.3	50-150			

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Warren E & P	Project Name:	Eagle Mesa Unit -3-H	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-C-0001	08-Aug-17 14:37
Dallas TX, 75240	Project Manager:	Chris Herold	

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1732005 - DRO Extn/H2SO4 Cleanup EPA 3570/3665A										
Blank (1732005-BLK1)				Prepared & Analyzed: 07-Aug-17						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	43.3		"	50.0		86.6	50-200			
LCS (1732005-BS1)				Prepared & Analyzed: 07-Aug-17						
Diesel Range Organics (C10-C28)	453	25.0	mg/kg	500		90.6	38-132			
Surrogate: n-Nonane	46.2		"	50.0		92.5	50-200			
Matrix Spike (1732005-MS1)				Source: P708020-01	Prepared & Analyzed: 07-Aug-17					
Diesel Range Organics (C10-C28)	755	25.0	mg/kg	500	192	113	38-132			
Surrogate: n-Nonane	50.0		"	50.0		100	50-200			
Matrix Spike Dup (1732005-MSD1)				Source: P708020-01	Prepared & Analyzed: 07-Aug-17					
Diesel Range Organics (C10-C28)	734	25.0	mg/kg	500	192	108	38-132	2.81	20	
Surrogate: n-Nonane	51.6		"	50.0		103	50-200			

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
08-Aug-17 14:37

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1732006 - Purge and Trap EPA 5030A										
Blank (1732006-BLK1)				Prepared & Analyzed: 07-Aug-17						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.25		"	8.00		90.6	50-150			
LCS (1732006-BS1)				Prepared & Analyzed: 07-Aug-17						
Gasoline Range Organics (C6-C10)	54.0	20.0	mg/kg	60.9		88.7	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.45		"	8.00		93.1	50-150			
Matrix Spike (1732006-MS1)				Source: P708020-01		Prepared & Analyzed: 07-Aug-17				
Gasoline Range Organics (C6-C10)	54.2	20.0	mg/kg	60.9	ND	89.0	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.59		"	8.00		94.9	50-150			
Matrix Spike Dup (1732006-MSD1)				Source: P708020-01		Prepared & Analyzed: 07-Aug-17				
Gasoline Range Organics (C6-C10)	54.3	20.0	mg/kg	60.9	ND	89.2	70-130	0.277	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.54		"	8.00		94.3	50-150			

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Warren E & P

Two Lincoln Center 5420 LBT Freeway, Ste. 600

Dallas TX, 75240

Project Name:

Eagle Mesa Unit -3-H

Project Number:

17039-C-0001

Project Manager:

Chris Herold

Reported:

08-Aug-17 14:37

Notes and Definitions

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

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Project Information

Chain of Custody

Page 1 of 1

Client: WARREN REP
 Project: EMU H# 3
 Project Manager: Chris Harold
 Address:
 City, State, Zip: Rawlins WY
 Phone: 307-710-0820
 Email: cherold@warrenresources.com

Report Attention
 Report due by: 12:00 5/8/17
 Attention: Chris Harold
 Address:
 City, State, Zip:
 Phone: 307-710-0820
 Email: cherold@warrenresources.com

Lab Use Only
 Lab WO# P709020 Job Number 17039-C-0001
 TAT 1D 3D ☒ ☐
 EPA Program RCRA CWA SDWA

Analysis and Method
 DRO/ORO by 8015 GRO/DRO by 8015 BTX by 8021 VOC by 8260 Chloride by 300.0 TPH by 418.1
 State NM CO UT AZ

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTX by 8021	VOC by 8260	Chloride by 300.0	TPH by 418.1	Remarks
12:08	8/7/17	soil	2	S W Wall	1	X	X	X				
12:16	8-7-17	S	2	SW Wall W	2							
12:27	8-7-17	S	2	West wall	3							
12:37	8/7/17	S	2	NW Wall	4							
12:45	8/7/17	S	2	North Wall	5	X	X	X				
12:51	8-7-17	S	2	SE corner	6	X	X	X				

Additional Instructions:

vis ice in cooler

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: [Signature]

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 5 °C on subsequent days.

Relinquished by: (Signature)

Date

Time

Received by: (Signature)

Date

Time

Lab Use Only

Received on ice: Y/N

Relinquished by: (Signature)

Date

Time

Received by: (Signature)

Date

Time

T1 T2 T3
 AVG Temp °C 16.0

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



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Page 13 of 13



Analytical Report

Report Summary

Client: Warren E & P

Chain Of Custody Number:

Samples Received: 8/8/2017 3:40:00PM

Job Number: 17039-C-0001

Work Order: P708021

Project Name/Location: Eagle Mesa Unit -3-H

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', followed by a small, stylized mark.

Date: 8/9/17

Walter Hinchman, Laboratory Director

A handwritten signature in black ink, appearing to read 'Tim Cain', followed by a small, stylized mark.

Date: 8/9/17

Tim Cain, Quality Assurance Officer

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
09-Aug-17 14:08

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
N Bottom	P708021-01A	Soil	08/08/17	08/08/17	Glass Jar, 4 oz.
	P708021-01B	Soil	08/08/17	08/08/17	Glass Jar, 4 oz.
N Wall	P708021-02A	Soil	08/08/17	08/08/17	Glass Jar, 4 oz.
	P708021-02B	Soil	08/08/17	08/08/17	Glass Jar, 4 oz.

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Warren E & P	Project Name:	Eagle Mesa Unit -3-H	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-C-0001	09-Aug-17 14:08
Dallas TX, 75240	Project Manager:	Chris Herold	

N Bottom
P708021-01 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1732011	08/08/17	08/08/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732011	08/08/17	08/08/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732011	08/08/17	08/08/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732011	08/08/17	08/08/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732011	08/08/17	08/08/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732011	08/08/17	08/08/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732011	08/08/17	08/08/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		98.0 %		50-150	1732011	08/08/17	08/08/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732011	08/08/17	08/08/17	EPA 8015D	
Diesel Range Organics (C10-C28)	1950	25.0	mg/kg	1	1732012	08/08/17	08/09/17	EPA 8015D	
Oil Range Organics (C28-C40+)	142	50.0	mg/kg	1	1732012	08/08/17	08/09/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		93.9 %		50-150	1732011	08/08/17	08/08/17	EPA 8015D	
Surrogate: n-Nonane		102 %		50-200	1732012	08/08/17	08/09/17	EPA 8015D	

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
09-Aug-17 14:08

N Wall
P708021-02 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1732011	08/08/17	08/08/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732011	08/08/17	08/08/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732011	08/08/17	08/08/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732011	08/08/17	08/08/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732011	08/08/17	08/08/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732011	08/08/17	08/08/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732011	08/08/17	08/08/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		96.3 %		50-150	1732011	08/08/17	08/08/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732011	08/08/17	08/08/17	EPA 8015D	
Diesel Range Organics (C10-C28)	245	25.0	mg/kg	1	1732012	08/08/17	08/08/17	EPA 8015D	
Oil Range Organics (C28-C40+)	63.4	50.0	mg/kg	1	1732012	08/08/17	08/08/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FTD		95.4 %		50-150	1732011	08/08/17	08/08/17	EPA 8015D	
Surrogate: n-Nonane		95.5 %		50-200	1732012	08/08/17	08/08/17	EPA 8015D	

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Warren E & P Two Lincoln Center 5420 LBT Freeway, Ste. 600 Dallas TX, 75240	Project Name: Eagle Mesa Unit -3-H Project Number: 17039-C-0001 Project Manager: Chris Herold	Reported: 09-Aug-17 14:08
---	---	------------------------------

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1732011 - Purge and Trap EPA 5030A

Blank (1732011-BLK1)

Prepared & Analyzed: 08-Aug-17

Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							

Surrogate: 4-Bromochlorobenzene-PID 7.63 " 8.00 95.4 50-150

LCS (1732011-BS1)

Prepared & Analyzed: 08-Aug-17

Benzene	4.85	0.10	mg/kg	5.00		97.0	70-130			
Toluene	4.78	0.10	"	5.00		95.7	70-130			
Ethylbenzene	4.76	0.10	"	5.00		95.3	70-130			
p,m-Xylene	9.48	0.20	"	10.0		94.8	70-130			
o-Xylene	4.65	0.10	"	5.00		93.1	70-130			
Total Xylenes	14.1	0.10	"	15.0		94.2	70-130			

Surrogate: 4-Bromochlorobenzene-PID 7.70 " 8.00 96.2 50-150

Matrix Spike (1732011-MS1)

Source: P708021-01

Prepared & Analyzed: 08-Aug-17

Benzene	4.88	0.10	mg/kg	5.00	ND	97.7	54.3-133			
Toluene	4.81	0.10	"	5.00	ND	96.3	61.4-130			
Ethylbenzene	4.80	0.10	"	5.00	ND	96.0	61.4-133			
p,m-Xylene	9.53	0.20	"	10.0	ND	95.4	63.3-131			
o-Xylene	4.68	0.10	"	5.00	ND	93.5	63.3-131			
Total Xylenes	14.2	0.10	"	15.0	ND	94.8	63.3-131			

Surrogate: 4-Bromochlorobenzene-PID 8.07 " 8.00 101 50-150

Matrix Spike Dup (1732011-MSD1)

Source: P708021-01

Prepared & Analyzed: 08-Aug-17

Benzene	4.86	0.10	mg/kg	5.00	ND	97.2	54.3-133	0.530	20	
Toluene	4.79	0.10	"	5.00	ND	95.8	61.4-130	0.576	20	
Ethylbenzene	4.77	0.10	"	5.00	ND	95.5	61.4-133	0.526	20	
p,m-Xylene	9.48	0.20	"	10.0	ND	94.8	63.3-131	0.573	20	
o-Xylene	4.65	0.10	"	5.00	ND	92.9	63.3-131	0.642	20	
Total Xylenes	14.1	0.10	"	15.0	ND	94.2	63.3-131	0.596	20	

Surrogate: 4-Bromochlorobenzene-PID 8.04 " 8.00 100 50-150

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Page 5 of 9



Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
09-Aug-17 14:08

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1732011 - Purge and Trap EPA 5030A										
Blank (1732011-BLK1)				Prepared & Analyzed: 08-Aug-17						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.43		"	8.00		92.9	50-150			
LCS (1732011-BS1)				Prepared & Analyzed: 08-Aug-17						
Gasoline Range Organics (C6-C10)	54.1	20.0	mg/kg	60.9		88.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.61		"	8.00		95.1	50-150			
Matrix Spike (1732011-MS1)				Source: P708021-01 Prepared & Analyzed: 08-Aug-17						
Gasoline Range Organics (C6-C10)	53.8	20.0	mg/kg	60.9	ND	88.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.43		"	8.00		92.8	50-150			
Matrix Spike Dup (1732011-MSD1)				Source: P708021-01 Prepared & Analyzed: 08-Aug-17						
Gasoline Range Organics (C6-C10)	55.2	20.0	mg/kg	60.9	ND	90.6	70-130	2.57	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.61		"	8.00		95.1	50-150			

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Harold

Reported:
09-Aug-17 14:08

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

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

Batch 1732012 - DRO Extn/H2SO4 Cleanup EPA 3570/3665A

Blank (1732012-BLK1)

Prepared & Analyzed: 08-Aug-17

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	18.7		"	20.0		93.5	50-200			

LCS (1732012-BS1)

Prepared & Analyzed: 08-Aug-17

Diesel Range Organics (C10-C28)	471	25.0	mg/kg	500		94.1	38-132			
Surrogate: n-Nonane	17.4		"	20.0		87.0	50-200			

Matrix Spike (1732012-MS1)

Source: P708021-01

Prepared & Analyzed: 08-Aug-17

Diesel Range Organics (C10-C28)	2280	25.0	mg/kg	500	1950	66.0	38-132			
Surrogate: n-Nonane	19.5		"	20.0		97.5	50-200			

Matrix Spike Dup (1732012-MSD1)

Source: P708021-01

Prepared & Analyzed: 08-Aug-17

Diesel Range Organics (C10-C28)	2050	25.0	mg/kg	500	1950	18.4	38-132	11.0	20	SPK1
Surrogate: n-Nonane	19.3		"	20.0		96.6	50-200			

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
09-Aug-17 14:08

Notes and Definitions

SPK1 The spike recovery is outside of quality control limits.
DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

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Analytical Report

Report Summary

Client: Warren E & P

Chain Of Custody Number:

Samples Received: 8/9/2017 3:22:00PM

Job Number: 17039-C-0001

Work Order: P708031

Project Name/Location: Eagle Mesa Unit -3-H

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', followed by the initials 'YH'.

Date: 8/11/17

Walter Hinchman, Laboratory Director

A handwritten signature in black ink, appearing to read 'Tim Cain'.

Date: 8/11/17

Tim Cain, Quality Assurance Officer

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Warren E & P

Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name:

Eagle Mesa Unit -3-H

Project Number:

17039-C-0001

Project Manager:

Chris Herold

Reported:

11-Aug-17 11:05

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Base 1	P708031-01A	Soil	08/09/17	08/09/17	Glass Jar, 4 oz.
	P708031-01B	Soil	08/09/17	08/09/17	Glass Jar, 4 oz.
Base 2	P708031-02A	Soil	08/09/17	08/09/17	Glass Jar, 4 oz.
	P708031-02B	Soil	08/09/17	08/09/17	Glass Jar, 4 oz.
Base 3	P708031-03A	Soil	08/09/17	08/09/17	Glass Jar, 4 oz.
	P708031-03B	Soil	08/09/17	08/09/17	Glass Jar, 4 oz.
Base 4	P708031-04A	Soil	08/09/17	08/09/17	Glass Jar, 4 oz.
	P708031-04B	Soil	08/09/17	08/09/17	Glass Jar, 4 oz.
Base 5	P708031-05A	Soil	08/09/17	08/09/17	Glass Jar, 4 oz.
	P708031-05B	Soil	08/09/17	08/09/17	Glass Jar, 4 oz.

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
11-Aug-17 11:05

Base 1
P708031-01 (Solid)

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
---------	--------	-------	-------	----------	-------	----------	----------	--------	-------

Volatile Organics by EPA 8021

Benzene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		103 %		50-150	1732011	08/09/17	08/09/17	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8015D	
Diesel Range Organics (C10-C28)	1340	25.0	mg/kg	1	1732012	08/09/17	08/09/17	EPA 8015D	
Oil Range Organics (C28-C40+)	63.6	50.0	mg/kg	1	1732012	08/09/17	08/09/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		92.2 %		50-150	1732011	08/09/17	08/09/17	EPA 8015D	
Surrogate: n-Nonane		106 %		50-200	1732012	08/09/17	08/09/17	EPA 8015D	

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Warren E & P Two Lincoln Center 5420 LBT Freeway, Ste. 600 Dallas TX, 75240	Project Name: Eagle Mesa Unit -3-H Project Number: 17039-C-0001 Project Manager: Chris Herold	Reported: 11-Aug-17 11:05
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**Base 2
P708031-02 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		102 %		50-150	1732011	08/09/17	08/09/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8015D	
Diesel Range Organics (C10-C28)	2450	25.0	mg/kg	1	1732012	08/09/17	08/09/17	EPA 8015D	
Oil Range Organics (C28-C40+)	54.5	50.0	mg/kg	1	1732012	08/09/17	08/09/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		91.2 %		50-150	1732011	08/09/17	08/09/17	EPA 8015D	
Surrogate: n-Nonane		108 %		50-200	1732012	08/09/17	08/09/17	EPA 8015D	

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
11-Aug-17 11:05

Base 3
P708031-03 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	

Surrogate: 4-Bromochlorobenzene-PID 106 % 50-150 1732011 08/09/17 08/09/17 EPA 8021B

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8015D	
Diesel Range Organics (C10-C28)	926	25.0	mg/kg	1	1732012	08/09/17	08/09/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1732012	08/09/17	08/09/17	EPA 8015D	

Surrogate: 1-Chloro-4-fluorobenzene-FID 91.2 % 50-150 1732011 08/09/17 08/09/17 EPA 8015D

Surrogate: n-Nonane 105 % 50-200 1732012 08/09/17 08/09/17 EPA 8015D

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Warren E & P Two Lincoln Center 5420 LBT Freeway, Ste. 600 Dallas TX, 75240	Project Name: Eagle Mesa Unit -3-H Project Number: 17039-C-0001 Project Manager: Chris Herold	Reported: 11-Aug-17 11:05
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Base 4
P708031-04 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		96.2 %		50-150	1732011	08/09/17	08/09/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8015D	
Diesel Range Organics (C10-C28)	338	25.0	mg/kg	1	1732012	08/09/17	08/09/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1732012	08/09/17	08/09/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		91.1 %		50-150	1732011	08/09/17	08/09/17	EPA 8015D	
Surrogate: n-Nonane		97.6 %		50-200	1732012	08/09/17	08/09/17	EPA 8015D	

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
11-Aug-17 11:05

Base 5
P708031-05 (Solid)

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		98.7 %		50-150	1732011	08/09/17	08/09/17	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732011	08/09/17	08/09/17	EPA 8015D	
Diesel Range Organics (C10-C28)	633	25.0	mg/kg	1	1732012	08/09/17	08/09/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1732012	08/09/17	08/09/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		91.6 %		50-150	1732011	08/09/17	08/09/17	EPA 8015D	
Surrogate: n-Nonane		97.4 %		50-200	1732012	08/09/17	08/09/17	EPA 8015D	

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Warren E & P Two Lincoln Center 5420 LBT Freeway, Ste. 600 Dallas TX, 75240	Project Name: Eagle Mesa Unit -3-H Project Number: 17039-C-0001 Project Manager: Chris Herold	Reported: 11-Aug-17 11:05
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Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1732011 - Purge and Trap EPA 5030A

Blank (1732011-BLK1)

Prepared & Analyzed: 08-Aug-17

Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	7.63		"	8.00		95.4	50-150			

LCS (1732011-BS1)

Prepared & Analyzed: 08-Aug-17

Benzene	4.85	0.10	mg/kg	5.00		97.0	70-130			
Toluene	4.78	0.10	"	5.00		95.7	70-130			
Ethylbenzene	4.76	0.10	"	5.00		95.3	70-130			
p,m-Xylene	9.48	0.20	"	10.0		94.8	70-130			
o-Xylene	4.65	0.10	"	5.00		93.1	70-130			
Total Xylenes	14.1	0.10	"	15.0		94.2	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.70		"	8.00		96.2	50-150			

Matrix Spike (1732011-MS1)

Source: P708021-01

Prepared & Analyzed: 08-Aug-17

Benzene	4.88	0.10	mg/kg	5.00	ND	97.7	54.3-133			
Toluene	4.81	0.10	"	5.00	ND	96.3	61.4-130			
Ethylbenzene	4.80	0.10	"	5.00	ND	96.0	61.4-133			
p,m-Xylene	9.53	0.20	"	10.0	ND	95.4	63.3-131			
o-Xylene	4.68	0.10	"	5.00	ND	93.5	63.3-131			
Total Xylenes	14.2	0.10	"	15.0	ND	94.8	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	8.07		"	8.00		101	50-150			

Matrix Spike Dup (1732011-MSD1)

Source: P708021-01

Prepared & Analyzed: 08-Aug-17

Benzene	4.86	0.10	mg/kg	5.00	ND	97.2	54.3-133	0.530	20	
Toluene	4.79	0.10	"	5.00	ND	95.8	61.4-130	0.576	20	
Ethylbenzene	4.77	0.10	"	5.00	ND	95.5	61.4-133	0.526	20	
p,m-Xylene	9.48	0.20	"	10.0	ND	94.8	63.3-131	0.573	20	
o-Xylene	4.65	0.10	"	5.00	ND	92.9	63.3-131	0.642	20	
Total Xylenes	14.1	0.10	"	15.0	ND	94.2	63.3-131	0.596	20	
Surrogate: 4-Bromochlorobenzene-PID	8.04		"	8.00		100	50-150			

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
11-Aug-17 11:05

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1732011 - Purge and Trap EPA 5030A

Blank (1732011-BLK1)

Prepared & Analyzed: 08-Aug-17

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.43		"	8.00		92.9	50-150			

LCS (1732011-BS1)

Prepared & Analyzed: 08-Aug-17

Gasoline Range Organics (C6-C10)	54.1	20.0	mg/kg	60.9		88.8	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.61		"	8.00		95.1	50-150			

Matrix Spike (1732011-MS1)

Source: P708021-01

Prepared & Analyzed: 08-Aug-17

Gasoline Range Organics (C6-C10)	53.8	20.0	mg/kg	60.9	ND	88.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.43		"	8.00		92.8	50-150			

Matrix Spike Dup (1732011-MSD1)

Source: P708021-01

Prepared & Analyzed: 08-Aug-17

Gasoline Range Organics (C6-C10)	55.2	20.0	mg/kg	60.9	ND	90.6	70-130	2.57	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.61		"	8.00		95.1	50-150			

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Warren E & P Two Lincoln Center 5420 LBT Freeway, Ste. 600 Dallas TX, 75240	Project Name: Eagle Mesa Unit -3-H Project Number: 17039-C-0001 Project Manager: Chris Herold	Reported: 11-Aug-17 11:05
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Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1732012 - DRO Extraction EPA 3570										
Blank (1732012-BLK1)				Prepared & Analyzed: 08-Aug-17						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	18.7		"	20.0		93.5	50-200			
LCS (1732012-BS1)				Prepared & Analyzed: 08-Aug-17						
Diesel Range Organics (C10-C28)	471	25.0	mg/kg	500		94.1	38-132			
Surrogate: n-Nonane	17.4		"	20.0		87.0	50-200			
Matrix Spike (1732012-MS1)				Source: P708021-01		Prepared & Analyzed: 08-Aug-17				
Diesel Range Organics (C10-C28)	2280	25.0	mg/kg	500	1950	66.0	38-132			
Surrogate: n-Nonane	19.5		"	20.0		97.5	50-200			
Matrix Spike Dup (1732012-MSD1)				Source: P708021-01		Prepared & Analyzed: 08-Aug-17				
Diesel Range Organics (C10-C28)	2050	25.0	mg/kg	500	1950	18.4	38-132	11.0	20	SPK1
Surrogate: n-Nonane	19.3		"	20.0		96.6	50-200			

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-C-0001
Project Manager: Chris Herold

Reported:
11-Aug-17 11:05

Notes and Definitions

SPK1 The spike recovery is outside of quality control limits.
DET Analyte DETECTED
ND Analyte NOT DETECTED at or above the reporting limit
NR Not Reported
dry Sample results reported on a dry weight basis
RPD Relative Percent Difference

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[illegible]



Analytical Report

Report Summary

Client: Warren E & P

Chain Of Custody Number:

Samples Received: 8/10/2017 8:00:00AM

Job Number: 17039-0001

Work Order: P708032

Project Name/Location: Eagle Mesa Unit -3-H

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', followed by a small flourish.

Date: 8/11/17

Walter Hinchman, Laboratory Director

A handwritten signature in black ink, appearing to read 'Tim Cain', with a horizontal line drawn through it.

Date: 8/11/17

Tim Cain, Quality Assurance Officer

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-0001
Project Manager: Chris Herold

Reported:
11-Aug-17 13:02

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Excavation 2-North Wall	P708032-01A	Soil	08/09/17	08/10/17	Glass Jar, 2 oz.
	P708032-01B	Soil	08/09/17	08/10/17	Glass Jar, 2 oz.
Excavation 2-East Wall	P708032-02A	Soil	08/09/17	08/10/17	Glass Jar, 2 oz.
	P708032-02B	Soil	08/09/17	08/10/17	Glass Jar, 2 oz.
Excavation 2-South Wall	P708032-03A	Soil	08/09/17	08/10/17	Glass Jar, 2 oz.
	P708032-03B	Soil	08/09/17	08/10/17	Glass Jar, 2 oz.
Excavation 2-West Wall	P708032-04A	Soil	08/09/17	08/10/17	Glass Jar, 2 oz.
	P708032-04B	Soil	08/09/17	08/10/17	Glass Jar, 2 oz.
Excavation 2-North Bottom	P708032-05A	Soil	08/09/17	08/10/17	Glass Jar, 2 oz.
	P708032-05B	Soil	08/09/17	08/10/17	Glass Jar, 2 oz.
Excavation 2-South Bottom	P708032-06A	Soil	08/09/17	08/10/17	Glass Jar, 2 oz.
	P708032-06B	Soil	08/09/17	08/10/17	Glass Jar, 2 oz.

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Warren E & P	Project Name: Eagle Mesa Unit -3-H	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number: 17039-0001	11-Aug-17 13:02
Dallas TX, 75240	Project Manager: Chris Herold	

**Excavation 2-North Wall
P708032-01 (Solid)**

Reporting								
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Volatile Organics by EPA 8021								
Benzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B
Toluene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B
Ethylbenzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B
p,m-Xylene	ND	0.20	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B
o-Xylene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B
Total Xylenes	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B
Total BTEX	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B
Surrogate: 4-Bromochlorobenzene-PID		100 %		50-150	1732016	08/10/17	08/10/17	EPA 8021B
Nonhalogenated Organics by 8015								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8015D
Diesel Range Organics (C10-C28)	1680	25.0	mg/kg	1	1732015	08/10/17	08/10/17	EPA 8015D
Oil Range Organics (C28-C40+)	55.2	50.0	mg/kg	1	1732015	08/10/17	08/10/17	EPA 8015D
Surrogate: 1-Chloro-4-fluorobenzene-FID		92.6 %		50-150	1732016	08/10/17	08/10/17	EPA 8015D
Surrogate: n-Nonane		119 %		50-200	1732015	08/10/17	08/10/17	EPA 8015D

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-0001
Project Manager: Chris Herold

Reported:
11-Aug-17 13:02

**Excavation 2-East Wall
P708032-02 (Solid)**

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
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Volatile Organics by EPA 8021

Benzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		109 %		50-150	1732016	08/10/17	08/10/17	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8015D	
Diesel Range Organics (C10-C28)	6110	250	mg/kg	10	1732015	08/10/17	08/11/17	EPA 8015D	D1
Oil Range Organics (C28-C40+)	ND	500	mg/kg	10	1732015	08/10/17	08/11/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		95.7 %		50-150	1732016	08/10/17	08/10/17	EPA 8015D	
Surrogate: n-Nonane		101 %		50-200	1732015	08/10/17	08/11/17	EPA 8015D	

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Warren E & P	Project Name:	Eagle Mesa Unit -3-H	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-0001	11-Aug-17 13:02
Dallas TX, 75240	Project Manager:	Chris Herold	

**Excavation 2-South Wall
P708032-03 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<u>Volatile Organics by EPA 8021</u>									
Benzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		107 %		50-150	1732016	08/10/17	08/10/17	EPA 8021B	
<u>Nonhalogenated Organics by 8015</u>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8015D	
Diesel Range Organics (C10-C28)	4400	25.0	mg/kg	1	1732015	08/10/17	08/10/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1732015	08/10/17	08/10/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		94.5 %		50-150	1732016	08/10/17	08/10/17	EPA 8015D	
Surrogate: n-Nonane		122 %		50-200	1732015	08/10/17	08/10/17	EPA 8015D	

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-0001
Project Manager: Chris Herold

Reported:
11-Aug-17 13:02

**Excavation 2-West Wall
P708032-04 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		113 %		50-150	1732016	08/10/17	08/10/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8015D	
Diesel Range Organics (C10-C28)	5800	250	mg/kg	10	1732015	08/10/17	08/11/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	500	mg/kg	10	1732015	08/10/17	08/11/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		94.0 %		50-150	1732016	08/10/17	08/10/17	EPA 8015D	
Surrogate: n-Nonane		99.0 %		50-200	1732015	08/10/17	08/11/17	EPA 8015D	

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Warren E & P	Project Name:	Eagle Mesa Unit -3-H	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-0001	11-Aug-17 13:02
Dallas TX, 75240	Project Manager:	Chris Herold	

**Excavation 2-North Bottom
P708032-05 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		104 %		50-150	1732016	08/10/17	08/10/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8015D	
Diesel Range Organics (C10-C28)	439	25.0	mg/kg	1	1732015	08/10/17	08/10/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1732015	08/10/17	08/10/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		98.1 %		50-150	1732016	08/10/17	08/10/17	EPA 8015D	
Surrogate: 11-Nonane		101 %		50-200	1732015	08/10/17	08/10/17	EPA 8015D	

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Warren E & P	Project Name:	Eagle Mesa Unit -3-H	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-0001	11-Aug-17 13:02
Dallas TX, 75240	Project Manager:	Chris Herold	

**Excavation 2-South Bottom
P708032-06 (Solid)**

Reporting								
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Volatle Organics by EPA 8021								
Benzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B
Toluene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B
Ethylbenzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B
p,m-Xylene	ND	0.20	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B
o-Xylene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B
Total Xylenes	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B
Total BTEX	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B
Surrogate: 4-Bromochlorobenzene-PID		100 %		50-150	1732016	08/10/17	08/10/17	EPA 8021B
Nonhalogenated Organics by 8015								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8015D
Diesel Range Organics (C10-C28)	1570	25.0	mg/kg	1	1732015	08/10/17	08/10/17	EPA 8015D
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1732015	08/10/17	08/10/17	EPA 8015D
Surrogate: 1-Chloro-4-fluorobenzene-FID		96.9 %		50-150	1732016	08/10/17	08/10/17	EPA 8015D
Surrogate: n-Nonane		113 %		50-200	1732015	08/10/17	08/10/17	EPA 8015D

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Warren E & P	Project Name: Eagle Mesa Unit -3-H	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number: 17039-0001	11-Aug-17 13:02
Dallas TX, 75240	Project Manager: Chris Herold	

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

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

Batch 1732016 - Purge and Trap EPA 5030A

Blank (1732016-BLK1)

Prepared & Analyzed: 10-Aug-17

Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	7.80		"	8.00		97.5	50-150			

LCS (1732016-BS1)

Prepared & Analyzed: 10-Aug-17

Benzene	4.96	0.10	mg/kg	5.00		99.2	70-130			
Toluene	4.89	0.10	"	5.00		97.8	70-130			
Ethylbenzene	4.88	0.10	"	5.00		97.6	70-130			
p,m-Xylene	9.69	0.20	"	10.0		96.9	70-130			
o-Xylene	4.77	0.10	"	5.00		95.5	70-130			
Total Xylenes	14.5	0.10	"	15.0		96.4	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.89		"	8.00		98.6	50-150			

Matrix Spike (1732016-MS1)

Source: P708032-01

Prepared & Analyzed: 10-Aug-17

Benzene	4.87	0.10	mg/kg	5.00	ND	97.4	54.3-133			
Toluene	4.79	0.10	"	5.00	ND	95.8	61.4-130			
Ethylbenzene	4.77	0.10	"	5.00	ND	95.5	61.4-133			
p,m-Xylene	9.46	0.20	"	10.0	ND	94.7	63.3-131			
o-Xylene	4.65	0.10	"	5.00	ND	93.1	63.3-131			
Total Xylenes	14.1	0.10	"	15.0	ND	94.1	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	8.01		"	8.00		100	50-150			

Matrix Spike Dup (1732016-MSD1)

Source: P708032-01

Prepared & Analyzed: 10-Aug-17

Benzene	4.82	0.10	mg/kg	5.00	ND	96.5	54.3-133	0.928	20	
Toluene	4.75	0.10	"	5.00	ND	95.0	61.4-130	0.843	20	
Ethylbenzene	4.74	0.10	"	5.00	ND	94.8	61.4-133	0.721	20	
p,m-Xylene	9.39	0.20	"	10.0	ND	93.9	63.3-131	0.768	20	
o-Xylene	4.62	0.10	"	5.00	ND	92.5	63.3-131	0.582	20	
Total Xylenes	14.0	0.10	"	15.0	ND	93.5	63.3-131	0.707	20	
Surrogate: 4-Bromochlorobenzene-PID	8.04		"	8.00		100	50-150			

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Warren E & P	Project Name:	Eagle Mca Unit -3-H	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-0001	11-Aug-17 13:02
Dallas TX, 75240	Project Manager:	Chris Herold	

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1732015 - DRO Extraction EPA 3570										
Blank (1732015-BLK1)				Prepared & Analyzed: 10-Aug-17						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C29-C40+)	ND	50.0	"							
Surrogate: n-Nonane	19.2		"	20.0		96.2	50-200			
LCS (1732015-BS1)				Prepared & Analyzed: 10-Aug-17						
Diesel Range Organics (C10-C28)	479	25.0	mg/kg	500		95.8	38-132			
Surrogate: n-Nonane	21.9		"	20.0		110	50-200			
Matrix Spike (1732015-MS1)				Source: P708032-01	Prepared & Analyzed: 10-Aug-17					
Diesel Range Organics (C10-C28)	4120	25.0	mg/kg	500	1680	489	38-132			SPK2
Surrogate: n-Nonane	26.8		"	20.0		134	50-200			
Matrix Spike Dup (1732015-MSD1)				Source: P708032-01	Prepared & Analyzed: 10-Aug-17					
Diesel Range Organics (C10-C28)	2140	25.0	mg/kg	500	1680	91.9	38-132	63.4	20	D1
Surrogate: n-Nonane	28.4		"	20.0		142	50-200			

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-0001
Project Manager: Chris Herold

Reported:
11-Aug-17 13:02

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1732016 - Purge and Trap EPA 5030A										
Blank (1732016-BLK1)										
Prepared & Analyzed: 10-Aug-17										
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.89		"	8.00		98.7	50-150			
LCS (1732016-BS1)										
Prepared & Analyzed: 10-Aug-17										
Gasoline Range Organics (C6-C10)	57.6	20.0	mg/kg	60.9		94.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.52		"	8.00		94.0	50-150			
Matrix Spike (1732016-MS1)										
Source: P708032-01 Prepared & Analyzed: 10-Aug-17										
Gasoline Range Organics (C6-C10)	56.8	20.0	mg/kg	60.9	ND	93.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.82		"	8.00		97.8	50-150			
Matrix Spike Dup (1732016-MSD1)										
Source: P708032-01 Prepared & Analyzed: 10-Aug-17										
Gasoline Range Organics (C6-C10)	56.2	20.0	mg/kg	60.9	ND	92.3	70-130	1.06	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.75		"	8.00		96.8	50-150			

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mca Unit -3-H
Project Number: 17039-0001
Project Manager: Chris Herold

Reported:
11-Aug-17 13:02

Notes and Definitions

SPK2 The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to native analyte concentration at 4 times or greater than the spike concentration.

D1 Duplicates or Matrix Spike Duplicates or Laboratory Control Sample Duplicates Relative Percent Difference is outside of control limits.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

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Client: WARREN E&P

Project: EMU H #3

Sampler: F. Aragon

Phone:

Email(s): CHRIS HAROLD, FELIPE

Project Manager: Felipe

RUSH?

☒ 1d
☐ 3d

Lab Use Only

Lab WO#

P708032

Job Number

17039-0001

Analysis and Method

Lab Only

Page 1 of 1

Sample ID	Sample Date	Sample Time	Matrix	Containers QTY - Vol/TYPE/Preservative	8015 Gro. Oro	8021 BTEX											Lab Number	Correct Cont/Prsv (s) Y/N
EXCAVATION 2 - North Wall	8/9/2017	16:40	S	2-42z/glass/cool	x	X											1	Y
Excavation 2- East Wall	8/9/2017	16:46	S	2-42z/glass/cool	x	X											2	
Excavation 2 South Wall	8/9/2017	16:50	S	2-42z/glass/cool	x	X											3	
Excavation 2 West Wall	8/9/2017	16:55	S	2-42z/glass/cool	x	X											4	
Excavation 2 - North Bottom	8/9/2017	16:58	S	2-42z/glass/cool	x	X											5	
Excavation 2 South Bottom	8/9/2017	17:01	S	2-42z/glass/cool	x	X											6	✓
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only												
<i>[Signature]</i>	8-10-17	8:00	<i>[Signature]</i>	08-10-17	8:00	**Received on Ice ☒ Y / N T1 <u>4.0</u> T2 _____ T3 _____ AVG Temp °C <u>4.0</u>												
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time													

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

**Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6°C on subsequent days.

☐ Sample(s) dropped off after hours to a secure drop off area.

Chain of Custody

Notes/Billing info: *Visible ice in cooler*

Page 13 of 13



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 ENVIROTECH ANALYTICAL
 LABORATORY



Analytical Report

Report Summary

Client: Warren E & P

Chain Of Custody Number:

Samples Received: 8/10/2017 3:06:00PM

Job Number: 17039-0001

Work Order: P708039

Project Name/Location: Eagle Mesa Unit -3-H

Report Reviewed By:

Date: 8/11/17

Walter Hinchman, Laboratory Director

Date: 8/11/17

Tim Cain, Quality Assurance Officer

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



Warren E & P

Two Lincoln Center 5420 LBT Freeway, Ste. 600

Dallas TX, 75240

Project Name:

Eagle Mesa Unit -3-H

Project Number:

17039-0001

Project Manager:

Chris Herold

Reported:

11-Aug-17 13:03

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
North Wall #2	P708039-01A	Solid	08/10/17	08/10/17	Glass Jar, 4 oz.
	P708039-01B	Solid	08/10/17	08/10/17	Glass Jar, 4 oz.
South East Corner #2	P708039-02A	Solid	08/10/17	08/10/17	Glass Jar, 4 oz.
	P708039-02B	Solid	08/10/17	08/10/17	Glass Jar, 4 oz.
North East Corner	P708039-03A	Solid	08/10/17	08/10/17	Glass Jar, 4 oz.
	P708039-03B	Solid	08/10/17	08/10/17	Glass Jar, 4 oz.

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Warren E & P Two Lincoln Center 5420 LBT Freeway, Ste. 600 Dallas TX, 75240	Project Name: Eagle Mesa Unit -3-H Project Number: 17039-0001 Project Manager: Chris Herold	Reported: 11-Aug-17 13:03
---	---	------------------------------

**North Wall #2
P708039-01 (Solid)**

Reporting

Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
<u>Volatle Organics by EPA 8021</u>									
Benzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		97.3 %		50-150	1732016	08/10/17	08/10/17	EPA 8021B	
<u>Nonhalogenated Organics by 8015</u>									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8015D	
Diesel Range Organics (C10-C28)	70.7	25.0	mg/kg	1	1732015	08/10/17	08/10/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	50.0	mg/kg	1	1732015	08/10/17	08/10/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		94.3 %		50-150	1732016	08/10/17	08/10/17	EPA 8015D	
Surrogate: n-Nonane		98.1 %		50-200	1732015	08/10/17	08/10/17	EPA 8015D	

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Warren/E & P Two Lincoln Center 5420 LBT Freeway, Ste. 600 Dallas TX, 75240	Project Name: Eagle Mesa Unit -3-H Project Number: 17039-0001 Project Manager: Chris Herold	Reported: 11-Aug-17 13:03
---	---	------------------------------

**South East Corner #2
P708039-02 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		96.4 %		50-150	1732016	08/10/17	08/10/17	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8015D	
Diesel Range Organics (C10-C28)	477	25.0	mg/kg	1	1732015	08/10/17	08/10/17	EPA 8015D	
Oil Range Organics (C28-C40+)	91.0	50.0	mg/kg	1	1732015	08/10/17	08/10/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		96.8 %		50-150	1732016	08/10/17	08/10/17	EPA 8015D	
Surrogate: n-Nonane		107 %		50-200	1732015	08/10/17	08/10/17	EPA 8015D	

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Warren E & P
 Two Lincoln Center 5420 LBT Freeway, Ste. 600
 Dallas TX, 75240

 Project Name: Eagle Mesa Unit -3-H
 Project Number: 17039-0001
 Project Manager: Chris Herold

 Reported:
 11-Aug-17 13:03

**North East Corner
 P708039-03 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes
Volatile Organics by EPA 8021									
Benzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		105 %		50-150	1732016	08/10/17	08/10/17	EPA 8021B	
Nonhalogenated Organics by 8015									
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8015D	
Diesel Range Organics (C10-C28)	3050	25.0	mg/kg	1	1732015	08/10/17	08/10/17	EPA 8015D	
Oil Range Organics (C28-C40+)	70.9	50.0	mg/kg	1	1732015	08/10/17	08/10/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		96.9 %		50-150	1732016	08/10/17	08/10/17	EPA 8015D	
Surrogate: n-Nonane		118 %		50-200	1732015	08/10/17	08/10/17	EPA 8015D	

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-0001
Project Manager: Chris Herold

Reported:
11-Aug-17 13:03

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1732016 - Purge and Trap EPA 5030A

Blank (1732016-BLK1)

Prepared & Analyzed: 10-Aug-17

Benzene	ND	0.10	mg/kg
Toluene	ND	0.10	"
Ethylbenzene	ND	0.10	"
p,m-Xylene	ND	0.20	"
o-Xylene	ND	0.10	"
Total Xylenes	ND	0.10	"
Total BTEX	ND	0.10	"

Surrogate: 4-Bromochlorobenzene-PID	7.80		"	8.00	97.5	50-150
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LCS (1732016-BS1)

Prepared & Analyzed: 10-Aug-17

Benzene	4.96	0.10	mg/kg	5.00	99.2	70-130
Toluene	4.89	0.10	"	5.00	97.8	70-130
Ethylbenzene	4.88	0.10	"	5.00	97.6	70-130
p,m-Xylene	9.69	0.20	"	10.0	96.9	70-130
o-Xylene	4.77	0.10	"	5.00	95.5	70-130
Total Xylenes	14.5	0.10	"	15.0	96.4	70-130

Surrogate: 4-Bromochlorobenzene-PID	7.89		"	8.00	98.6	50-150
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Matrix Spike (1732016-MS1)

Source: P708032-01

Prepared & Analyzed: 10-Aug-17

Benzene	4.87	0.10	mg/kg	5.00	ND	97.4	54.3-133
Toluene	4.79	0.10	"	5.00	ND	95.8	61.4-130
Ethylbenzene	4.77	0.10	"	5.00	ND	95.5	61.4-133
p,m-Xylene	9.46	0.20	"	10.0	ND	94.7	63.3-131
o-Xylene	4.65	0.10	"	5.00	ND	93.1	63.3-131
Total Xylenes	14.1	0.10	"	15.0	ND	94.1	63.3-131

Surrogate: 4-Bromochlorobenzene-PID	8.01		"	8.00	100	50-150
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Matrix Spike Dup (1732016-MSD1)

Source: P708032-01

Prepared & Analyzed: 10-Aug-17

Benzene	4.82	0.10	mg/kg	5.00	ND	96.5	54.3-133	0.928	20
Toluene	4.75	0.10	"	5.00	ND	95.0	61.4-130	0.843	20
Ethylbenzene	4.74	0.10	"	5.00	ND	94.8	61.4-133	0.721	20
p,m-Xylene	9.39	0.20	"	10.0	ND	93.9	63.3-131	0.768	20
o-Xylene	4.62	0.10	"	5.00	ND	92.5	63.3-131	0.582	20
Total Xylenes	14.0	0.10	"	15.0	ND	93.5	63.3-131	0.707	20

Surrogate: 4-Bromochlorobenzene-PID	8.04		"	8.00	100	50-150
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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: Eagle Mesa Unit -3-H
Project Number: 17039-0001
Project Manager: Chris Herold

Reported:
11-Aug-17 13:03

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1732015 - DRO Extraction EPA 3570										
Blank (1732015-BLK1)				Prepared & Analyzed: 10-Aug-17						
Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	19.2		"	20.0		96.2	50-200			
LCS (1732015-BS1)				Prepared & Analyzed: 10-Aug-17						
Diesel Range Organics (C10-C28)	479	25.0	mg/kg	500		95.8	38-132			
Surrogate: n-Nonane	21.9		"	20.0		110	50-200			
Matrix Spike (1732015-MS1)				Source: P708032-01	Prepared & Analyzed: 10-Aug-17					
Diesel Range Organics (C10-C28)	4120	25.0	mg/kg	500	1680	489	38-132			SPK2
Surrogate: n-Nonane	26.8		"	20.0		134	50-200			
Matrix Spike Dup (1732015-MSD1)				Source: P708032-01	Prepared & Analyzed: 10-Aug-17					
Diesel Range Organics (C10-C28)	2140	25.0	mg/kg	500	1680	91.9	38-132	63.4	20	D1
Surrogate: n-Nonane	28.4		"	20.0		142	50-200			

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Warren E & P	Project Name: Eagle Mesa Unit -3-H	Reported: 11-Aug-17 13:03
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number: 17039-0001	
Dallas TX, 75240	Project Manager: Chris Herold	

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1732016 - Purge and Trap EPA 5030A										
Blank (1732016-BLK1)				Prepared & Analyzed: 10-Aug-17						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.89		"	8.00		98.7	50-150			
LCS (1732016-BS1)				Prepared & Analyzed: 10-Aug-17						
Gasoline Range Organics (C6-C10)	57.6	20.0	mg/kg	60.9		94.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.52		"	8.00		94.0	50-150			
Matrix Spike (1732016-MS1)				Source: P708032-01		Prepared & Analyzed: 10-Aug-17				
Gasoline Range Organics (C6-C10)	56.8	20.0	mg/kg	60.9	ND	93.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.82		"	8.00		97.8	50-150			
Matrix Spike Dup (1732016-MSD1)				Source: P708032-01		Prepared & Analyzed: 10-Aug-17				
Gasoline Range Organics (C6-C10)	56.2	20.0	mg/kg	60.9	ND	92.3	70-130	1.06	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.75		"	8.00		96.8	50-150			

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Warren E & P

Two Lincoln Center 5420 LBT Freeway, Ste. 600

Dallas TX, 75240

Project Name:

Eagle Mesa Unit -3-H

Project Number:

17039-0001

Project Manager:

Chris Herold

Reported:

11-Aug-17 13:03

Notes and Definitions

- SPK2** The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to native analyte concentration at 4 times or greater than the spike concentration.
- D1** Duplicates or Matrix Spike Duplicates or Laboratory Control Sample Duplicates Relative Percent Difference is outside of control limits.
- DET** Analyte DETECTED
- ND** Analyte NOT DETECTED at or above the reporting limit
- NR** Not Reported
- dry** Sample results reported on a dry weight basis
- RPD** Relative Percent Difference

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Project Information

Chain of Custody

Page 1 of 1

Client: Water E3P
 Project: BMA H #3
 Project Manager: Chris Harold
 Address:
 City, State, Zip
 Phone:
 Email: Chris Harold / E. Arago

Report Attention
 Report due by: 8/11/17
 Attention: Chris Harold / E. Arago
 Address:
 City, State, Zip
 Phone:
 Email:

Lab Use Only
 Lab WO# P702239 Job Number 17089-0001
 TAT 1D 3D X
 Analysis and Method
 DRO/ORO by 8015 X GRO/DRO by 8015 X BTEX by 8021 X VOC by 8260 X Chloride by 300.0 X TPH by 418.1 X

EPA Program
 RCRA X CWA X SDWA X
 State
 NM X CO X UT X AZ X

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride by 300.0	TPH by 418.1	Remarks
1130	8-10-17	S	2-402	North Wall #2	1	X	X	X				
1133	8-10-17	S	2-402	South East Corner #2	2	X	X	X				
1210	8-10-17	S	2-402	North East Corner	3	X	X	X				

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Chris Harold

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature) <u>[Signature]</u>	Date <u>8/10/17</u>	Time <u>3:00</u>	Received by: (Signature) <u>[Signature]</u>	Date <u>8/10/17</u>	Time <u>15:06</u>	Lab Use Only
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Received on ice: <u>Y/N</u>
						T1 <u> </u> T2 <u> </u> T3 <u> </u>
						AVG Temp °C <u>4.0°C</u>

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report. visible ice - AC



Analytical Report

Report Summary

Client: Warren E & P

Chain Of Custody Number:

Samples Received: 8/15/2017 11:55:00AM

Job Number: 17039-0001

Work Order: P708046

Project Name/Location: EMU H #3

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', followed by a stylized flourish.

Date: 8/16/17

Walter Hinchman, Laboratory Director

A handwritten signature in black ink, appearing to read 'Tim Cain', followed by a stylized flourish.

Date: 8/16/17

Tim Cain, Quality Assurance Officer

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Warren E & P

Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name:

EMU H #3

Project Number:

17039-0001

Project Manager:

Chris Herold

Reported:

16-Aug-17 13:50

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Excavation #2-West Section-West Wall(b)	P708046-01A	Soil	08/14/17	08/15/17	Glass Jar, 4 oz.
Excavation #2-West Section-South Wall	P708046-02A	Soil	08/14/17	08/15/17	Glass Jar, 4 oz.
Excavation #2-West Section-North Wall	P708046-03A	Soil	08/14/17	08/15/17	Glass Jar, 4 oz.
Excavation #2-West Section-Bottom	P708046-04A	Soil	08/14/17	08/15/17	Glass Jar, 4 oz.
Excavation #2-East Wall	P708046-05A	Soil	08/14/17	08/15/17	Glass Jar, 4 oz.

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Warren E & P	Project Name:	EMU H #3	Reported: 16-Aug-17 13:50
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-0001	
Dallas TX, 75240	Project Manager:	Chris Herold	

**Excavation #2-West Section-West Wall(b)
P708046-01 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		107 %		50-150	1733014	08/15/17	08/15/17	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8015D	
Diesel Range Organics (C10-C28)	4800	50.0	mg/kg	2	1733013	08/16/17	08/16/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	100	mg/kg	2	1733013	08/16/17	08/16/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		96.6 %		50-150	1733014	08/15/17	08/15/17	EPA 8015D	
Surrogate: n-Nonane		108 %		50-200	1733013	08/16/17	08/16/17	EPA 8015D	

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Warren E & P	Project Name:	EMU H #3	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-0001	16-Aug-17 13:50
Dallas TX, 75240	Project Manager:	Chris Herold	

**Excavation #2-West Section-South Wall
P708046-02 (Solid)**

Reporting								
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Volatile Organics by EPA 8021								
Benzene	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B
Toluene	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B
Ethylbenzene	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B
p,m-Xylene	ND	0.20	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B
o-Xylene	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B
Total Xylenes	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B
Total BTEX	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B
Surrogate: 4-Bromochlorobenzene-PID		102 %		50-150	1733014	08/15/17	08/15/17	EPA 8021B
Nonhalogenated Organics by 8015								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8015D
Diesel Range Organics (C10-C28)	1210	50.0	mg/kg	2	1733013	08/16/17	08/16/17	EPA 8015D
Oil Range Organics (C28-C40+)	ND	100	mg/kg	2	1733013	08/16/17	08/16/17	EPA 8015D
Surrogate: 1-Chloro-4-fluorobenzene-FID		93.8 %		50-150	1733014	08/15/17	08/15/17	EPA 8015D
Surrogate: n-Nonane		101 %		50-200	1733013	08/16/17	08/16/17	EPA 8015D

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Warren E & P Two Lincoln Center 5420 LBT Freeway, Ste. 600 Dallas TX, 75240	Project Name: EMU H #3 Project Number: 17039-0001 Project Manager: Chris Herold	Reported: 16-Aug-17 13:50
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**Excavation #2-West Section-North Wall
P708046-03 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		105 %		50-150	1733014	08/15/17	08/15/17	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8015D	
Diesel Range Organics (C10-C28)	4540	50.0	mg/kg	2	1733013	08/16/17	08/16/17	EPA 8015D	
Oil Range Organics (C28-C40+)	ND	100	mg/kg	2	1733013	08/16/17	08/16/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		96.2 %		50-150	1733014	08/15/17	08/15/17	EPA 8015D	
Surrogate: n-Nonane		107 %		50-200	1733013	08/16/17	08/16/17	EPA 8015D	

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Warren E & P	Project Name:	EMU H #3	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-0001	16-Aug-17 13:50
Dallas TX, 75240	Project Manager:	Chris Herold	

**Excavation #2-West Section-Bottom
P708046-04 (Solid)**

Reporting								
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method

Volatile Organics by EPA 8021

Benzene	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B
Toluene	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B
Ethylbenzene	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B
p,m-Xylene	ND	0.20	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B
o-Xylene	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B
Total Xylenes	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B
Total BTEX	ND	0.10	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8021B

Surrogate: 4-Bromochlorobenzene-PID 102 % 50-150 1733014 08/15/17 08/15/17 EPA 8021B

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1733014	08/15/17	08/15/17	EPA 8015D
Diesel Range Organics (C10-C28)	2370	50.0	mg/kg	2	1733013	08/16/17	08/16/17	EPA 8015D
Oil Range Organics (C28-C40+)	ND	100	mg/kg	2	1733013	08/16/17	08/16/17	EPA 8015D

Surrogate: 1-Chloro-4-fluorobenzene-FID 92.9 % 50-150 1733014 08/15/17 08/15/17 EPA 8015D

Surrogate: n-Nonane 105 % 50-200 1733013 08/16/17 08/16/17 EPA 8015D

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Warren E & P	Project Name:	EMU H #3	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-0001	16-Aug-17 13:50
Dallas TX, 75240	Project Manager:	Chris Herold	

**Excavation #2-East Wall
P708046-05 (Solid)**

Reporting								
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method
Volatile Organics by EPA 8021								
Benzene	ND	0.10	mg/kg	1	1733014	08/15/17	08/16/17	EPA 8021B
Toluene	ND	0.10	mg/kg	1	1733014	08/15/17	08/16/17	EPA 8021B
Ethylbenzene	ND	0.10	mg/kg	1	1733014	08/15/17	08/16/17	EPA 8021B
p,m-Xylene	ND	0.20	mg/kg	1	1733014	08/15/17	08/16/17	EPA 8021B
o-Xylene	ND	0.10	mg/kg	1	1733014	08/15/17	08/16/17	EPA 8021B
Total Xylenes	ND	0.10	mg/kg	1	1733014	08/15/17	08/16/17	EPA 8021B
Total BTEX	ND	0.10	mg/kg	1	1733014	08/15/17	08/16/17	EPA 8021B
Surrogate: 4-Bromochlorobenzene-PID		104 %		50-150	1733014	08/15/17	08/16/17	EPA 8021B
Nonhalogenated Organics by 8015								
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1733014	08/15/17	08/16/17	EPA 8015D
Diesel Range Organics (C10-C28)	4340	250	mg/kg	10	1733013	08/16/17	08/16/17	EPA 8015D
Oil Range Organics (C28-C40+)	ND	500	mg/kg	10	1733013	08/16/17	08/16/17	EPA 8015D
Surrogate: 1-Chloro-4-fluorobenzene-FID		99.6 %		50-150	1733014	08/15/17	08/16/17	EPA 8015D
Surrogate: n-Nonane		110 %		50-200	1733013	08/16/17	08/16/17	EPA 8015D

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Warren E & P Two Lincoln Center 5420 LBT Freeway, Ste. 600 Dallas TX, 75240	Project Name: EMU H #3 Project Number: 17039-0001 Project Manager: Chris Herold	Reported: 16-Aug-17 13:50
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Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1733014 - Purge and Trap EPA 5030A										
Blank (1733014-BLK1)				Prepared & Analyzed: 15-Aug-17						
Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	7.93		"	8.00		99.1	50-150			
LCS (1733014-BS1)				Prepared & Analyzed: 15-Aug-17						
Benzene	4.78	0.10	mg/kg	5.00		95.6	70-130			
Toluene	4.70	0.10	"	5.00		94.1	70-130			
Ethylbenzene	4.69	0.10	"	5.00		93.9	70-130			
p,m-Xylene	9.33	0.20	"	10.0		93.4	70-130			
o-Xylene	4.60	0.10	"	5.00		92.0	70-130			
Total Xylenes	13.9	0.10	"	15.0		92.9	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.84		"	8.00		98.0	50-150			
Matrix Spike (1733014-MS1)				Source: P708046-01 Prepared & Analyzed: 15-Aug-17						
Benzene	4.87	0.10	mg/kg	5.00	ND	97.4	54.3-133			
Toluene	4.81	0.10	"	5.00	ND	96.2	61.4-130			
Ethylbenzene	4.79	0.10	"	5.00	ND	95.8	61.4-133			
p,m-Xylene	9.48	0.20	"	10.0	ND	94.8	63.3-131			
o-Xylene	4.68	0.10	"	5.00	ND	93.6	63.3-131			
Total Xylenes	14.2	0.10	"	15.0	ND	94.4	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	8.75		"	8.00		109	50-150			
Matrix Spike Dup (1733014-MSD1)				Source: P708046-01 Prepared & Analyzed: 15-Aug-17						
Benzene	4.95	0.10	mg/kg	5.00	ND	98.9	54.3-133	1.59	20	
Toluene	4.88	0.10	"	5.00	ND	97.6	61.4-130	1.49	20	
Ethylbenzene	4.86	0.10	"	5.00	ND	97.2	61.4-133	1.42	20	
p,m-Xylene	9.62	0.20	"	10.0	ND	96.2	63.3-131	1.45	20	
o-Xylene	4.74	0.10	"	5.00	ND	94.9	63.3-131	1.38	20	
Total Xylenes	14.4	0.10	"	15.0	ND	95.8	63.3-131	1.43	20	
Surrogate: 4-Bromochlorobenzene-PID	8.66		"	8.00		108	50-150			

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Warren E & P	Project Name: EMU H #3	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number: 17039-0001	16-Aug-17 13:50
Dallas TX, 75240	Project Manager: Chris Herold	

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1733013 - DRO Extraction EPA 3570

Blank (1733013-BLK1)

Prepared & Analyzed: 16-Aug-17

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	50.5		"	50.0		101	50-200			

LCS (1733013-BS1)

Prepared & Analyzed: 16-Aug-17

Diesel Range Organics (C10-C28)	483	25.0	mg/kg	500		96.6	38-132			
Surrogate: n-Nonane	50.1		"	50.0		100	50-200			

Matrix Spike (1733013-MS1)

Source: P708046-01

Prepared & Analyzed: 16-Aug-17

Diesel Range Organics (C10-C28)	5260	50.0	mg/kg	500	4800	91.4	38-132			
Surrogate: n-Nonane	55.8		"	50.0		112	50-200			

Matrix Spike Dup (1733013-MSD1)

Source: P708046-01

Prepared & Analyzed: 16-Aug-17

Diesel Range Organics (C10-C28)	5530	50.0	mg/kg	500	4800	146	38-132	5.04	20	SPK2
Surrogate: n-Nonane	54.3		"	50.0		109	50-200			

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Warren E & P	Project Name: EMU H #3	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number: 17039-0001	16-Aug-17 13:50
Dallas TX, 75240	Project Manager: Chris Herold	

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1733014 - Purge and Trap EPA 5030A										
Blank (1733014-BLK1)				Prepared & Analyzed: 15-Aug-17						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.85		"	8.00		98.2	50-150			
LCS (1733014-BS1)				Prepared & Analyzed: 15-Aug-17						
Gasoline Range Organics (C6-C10)	56.3	20.0	mg/kg	60.9		92.4	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.83		"	8.00		97.9	50-150			
Matrix Spike (1733014-MS1)				Source: P708046-01		Prepared & Analyzed: 15-Aug-17				
Gasoline Range Organics (C6-C10)	60.6	20.0	mg/kg	60.9	ND	99.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.57		"	8.00		94.6	50-150			
Matrix Spike Dup (1733014-MSD1)				Source: P708046-01		Prepared & Analyzed: 15-Aug-17				
Gasoline Range Organics (C6-C10)	62.4	20.0	mg/kg	60.9	ND	103	70-130	2.93	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.68		"	8.00		96.0	50-150			

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Warren E & P	Project Name:	EMU H #3	Reported:
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number:	17039-0001	16-Aug-17 13:50
Dallas TX, 75240	Project Manager:	Chris Herold	

Notes and Definitions

SPK2	The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to native analyte concentration at 4 times or greater than the spike concentration.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

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Project Information

Chain of Custody

Page 1 of 1

Client: <u>William EPP</u>		Report Attention		Lab Use Only		TAT		EPA Program	
Project: <u>EM4 H #3</u>		Report due by: <u>8-16-17</u>		Lab WO# <u>P 708046</u>		Job Number <u>17039-0601</u>		ID 3D	
Project Manager: <u>F. Aragon</u>		Attention: <u>Chris Harold / Felipe</u>						RCRA CWA SDWA	
Address:		Address:		Analysis and Method				State	
City, State, Zip		City, State, Zip						NM CO UT AZ	
Phone:		Phone:							
Email:		Email: <u>Chris Harold / Felipe</u>							

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/DRO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Metals 6010	Chlorides 300.0	TPH 418.1	Remarks
1340	8-14-17	S	1-702	Excavation #2 - West Section - West Wall (B)	1	X	X	X					
1345				Excavation #2 - West Section - South Wall	2								
1350				Excavation #1 - West Section - North Wall	3								
1356				Excavation #2 West section - Bo Horn	4								
1418				Excavation #1 East Wall	5	X	X	X					

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Felipe Aragon

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only
<u>[Signature]</u>	8-15-17	11:50	<u>[Signature]</u>	8-15-17	11:53	Received on ice: <u>(Y) / N</u>
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1 T2 T3
						AVG Temp °C <u>4.0</u>

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report.



Analytical Report

Report Summary

Client: Warren E & P

Chain Of Custody Number:

Samples Received: 8/10/2017 3:06:00PM

Job Number: 17039-0001

Work Order: P708038

Project Name/Location: EMU #5

Report Reviewed By:

A handwritten signature in black ink, appearing to read 'Walter Hinchman', followed by a small checkmark-like flourish.

Date: 8/11/17

Walter Hinchman, Laboratory Director

A handwritten signature in black ink, appearing to read 'Tim Cain', with a stylized flourish.

Date: 8/11/17

Tim Cain, Quality Assurance Officer

The results in this report apply to the samples submitted to Envirotech's Analytical Laboratory and were analyzed in accordance with the chain of custody document supplied by you, the client, and as such are for your exclusive use only. The results in this report are based on the sample as received unless otherwise noted. Partial or incomplete reproduction of this report is prohibited, unless approved by Envirotech, Inc. If you have any questions regarding this analytical report, please don't hesitate to contact Envirotech's Laboratory Staff.



Warren E & P

Two Lincoln Center 5420 LBT Freeway, Ste. 600

Dallas TX, 75240

Project Name:

EMU #5

Project Number:

17039-0001

Project Manager:

Felipe Aragon

Reported:

11-Aug-17 13:02

Analytical Report for Samples

Client Sample ID	Lab Sample ID	Matrix	Sampled	Received	Container
Pothole Comp #2	P708038-01A	Solid	08/10/17	08/10/17	Glass Jar, 4 oz.
	P708038-01B	Solid	08/10/17	08/10/17	Glass Jar, 4 oz.

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Warren E & P Two Lincoln Center 5420 LBT Freeway, Ste. 600 Dallas TX, 75240	Project Name: EMU #5 Project Number: 17039-0001 Project Manager: Felipe Aragon	Reported: 11-Aug-17 13:02
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**Pothole Comp #2
P708038-01 (Solid)**

Reporting									
Analyte	Result	Limit	Units	Dilution	Batch	Prepared	Analyzed	Method	Notes

Volatile Organics by EPA 8021

Benzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Toluene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Ethylbenzene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
p,m-Xylene	ND	0.20	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
o-Xylene	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Total Xylenes	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Total BTEX	ND	0.10	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8021B	
Surrogate: 4-Bromochlorobenzene-PID		96.5 %		50-150	1732016	08/10/17	08/10/17	EPA 8021B	

Nonhalogenated Organics by 8015

Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg	1	1732016	08/10/17	08/10/17	EPA 8015D	
Diesel Range Organics (C10-C28)	93.3	25.0	mg/kg	1	1732015	08/10/17	08/10/17	EPA 8015D	
Oil Range Organics (C28-C40+)	123	50.0	mg/kg	1	1732015	08/10/17	08/10/17	EPA 8015D	
Surrogate: 1-Chloro-4-fluorobenzene-FID		97.9 %		50-150	1732016	08/10/17	08/10/17	EPA 8015D	
Surrogate: n-Nonane		99.2 %		50-200	1732015	08/10/17	08/10/17	EPA 8015D	

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Warren E & P
Two Lincoln Center 5420 LBT Freeway, Ste. 600
Dallas TX, 75240

Project Name: EMU #5
Project Number: 17039-0001
Project Manager: Felipe Aragon

Reported:
11-Aug-17 13:02

Volatile Organics by EPA 8021 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1732016 - Purge and Trap EPA 5030A

Blank (1732016-BLK1)

Prepared & Analyzed: 10-Aug-17

Benzene	ND	0.10	mg/kg							
Toluene	ND	0.10	"							
Ethylbenzene	ND	0.10	"							
p,m-Xylene	ND	0.20	"							
o-Xylene	ND	0.10	"							
Total Xylenes	ND	0.10	"							
Total BTEX	ND	0.10	"							
Surrogate: 4-Bromochlorobenzene-PID	7.80		"	8.00		97.5	50-150			

LCS (1732016-BS1)

Prepared & Analyzed: 10-Aug-17

Benzene	4.96	0.10	mg/kg	5.00		99.2	70-130			
Toluene	4.89	0.10	"	5.00		97.8	70-130			
Ethylbenzene	4.88	0.10	"	5.00		97.6	70-130			
p,m-Xylene	9.69	0.20	"	10.0		96.9	70-130			
o-Xylene	4.77	0.10	"	5.00		95.5	70-130			
Total Xylenes	14.5	0.10	"	15.0		96.4	70-130			
Surrogate: 4-Bromochlorobenzene-PID	7.89		"	8.00		98.6	50-150			

Matrix Spike (1732016-MS1)

Source: P708032-01

Prepared & Analyzed: 10-Aug-17

Benzene	4.87	0.10	mg/kg	5.00	ND	97.4	54.3-133			
Toluene	4.79	0.10	"	5.00	ND	95.8	61.4-130			
Ethylbenzene	4.77	0.10	"	5.00	ND	95.5	61.4-133			
p,m-Xylene	9.46	0.20	"	10.0	ND	94.7	63.3-131			
o-Xylene	4.65	0.10	"	5.00	ND	93.1	63.3-131			
Total Xylenes	14.1	0.10	"	15.0	ND	94.1	63.3-131			
Surrogate: 4-Bromochlorobenzene-PID	8.01		"	8.00		100	50-150			

Matrix Spike Dup (1732016-MSD1)

Source: P708032-01

Prepared & Analyzed: 10-Aug-17

Benzene	4.82	0.10	mg/kg	5.00	ND	96.5	54.3-133	0.928	20	
Toluene	4.75	0.10	"	5.00	ND	95.0	61.4-130	0.843	20	
Ethylbenzene	4.74	0.10	"	5.00	ND	94.8	61.4-133	0.721	20	
p,m-Xylene	9.39	0.20	"	10.0	ND	93.9	63.3-131	0.768	20	
o-Xylene	4.62	0.10	"	5.00	ND	92.5	63.3-131	0.582	20	
Total Xylenes	14.0	0.10	"	15.0	ND	93.5	63.3-131	0.707	20	
Surrogate: 4-Bromochlorobenzene-PID	8.04		"	8.00		100	50-150			

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Warren E & P	Project Name: EMU #5	
Two Lincoln Center 5420 LBT Freeway, Ste. 600	Project Number: 17039-0001	Reported:
Dallas TX, 75240	Project Manager: Felipe Aragon	11-Aug-17 13:02

Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1732015 - DRO Extraction EPA 3570

Blank (1732015-BLK1)

Prepared & Analyzed: 10-Aug-17

Diesel Range Organics (C10-C28)	ND	25.0	mg/kg							
Oil Range Organics (C28-C40+)	ND	50.0	"							
Surrogate: n-Nonane	19.2		"	20.0		96.2	50-200			

LCS (1732015-BS1)

Prepared & Analyzed: 10-Aug-17

Diesel Range Organics (C10-C28)	479	25.0	mg/kg	500		95.8	38-132			
Surrogate: n-Nonane	21.9		"	20.0		110	50-200			

Matrix Spike (1732015-MS1)

Source: P708032-01

Prepared & Analyzed: 10-Aug-17

Diesel Range Organics (C10-C28)	4120	25.0	mg/kg	500	1680	489	38-132			SPK2
Surrogate: n-Nonane	26.8		"	20.0		134	50-200			

Matrix Spike Dup (1732015-MSD1)

Source: P708032-01

Prepared & Analyzed: 10-Aug-17

Diesel Range Organics (C10-C28)	2140	25.0	mg/kg	500	1680	91.9	38-132	63.4	20	D1
Surrogate: n-Nonane	28.4		"	20.0		142	50-200			

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Warren E & P Two Lincoln Center 5420 LBT Freeway, Ste. 600 Dallas TX, 75240	Project Name: EMU #5 Project Number: 17039-0001 Project Manager: Felipe Aragon	Reported: 11-Aug-17 13:02
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Nonhalogenated Organics by 8015 - Quality Control

Envirotech Analytical Laboratory

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1732016 - Purge and Trap EPA 5030A										
Blank (1732016-BLK1)				Prepared & Analyzed: 10-Aug-17						
Gasoline Range Organics (C6-C10)	ND	20.0	mg/kg							
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.89		"	8.00		98.7	50-150			
LCS (1732016-BS1)				Prepared & Analyzed: 10-Aug-17						
Gasoline Range Organics (C6-C10)	57.6	20.0	mg/kg	60.9		94.6	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.52		"	8.00		94.0	50-150			
Matrix Spike (1732016-MS1)				Source: P708032-01		Prepared & Analyzed: 10-Aug-17				
Gasoline Range Organics (C6-C10)	56.8	20.0	mg/kg	60.9	ND	93.3	70-130			
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.82		"	8.00		97.8	50-150			
Matrix Spike Dup (1732016-MSD1)				Source: P708032-01		Prepared & Analyzed: 10-Aug-17				
Gasoline Range Organics (C6-C10)	56.2	20.0	mg/kg	60.9	ND	92.3	70-130	1.06	20	
Surrogate: 1-Chloro-4-fluorobenzene-FID	7.75		"	8.00		96.8	50-150			

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Warren E & P

Two Lincoln Center 5420 LBT Freeway, Ste. 600

Dallas TX, 75240

Project Name:

EMU #5

Project Number:

17039-0001

Project Manager:

Felipe Aragon

Reported:

11-Aug-17 13:02

Notes and Definitions

SPK2 The spike recovery was outside of QC acceptance limits for the MS and/or MSD due to native analyte concentration at 4 times or greater than the spike concentration.

D1 Duplicates or Matrix Spike Duplicates or Laboratory Control Sample Duplicates Relative Percent Difference is outside of control limits.

DET Analyte DETECTED

ND Analyte NOT DETECTED at or above the reporting limit

NR Not Reported

dry Sample results reported on a dry weight basis

RPD Relative Percent Difference

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Project Information

Chain of Custody

Page 1 of 1

Client: <u>Warren E&P</u>		Report Attention		Lab Use Only		TAT		EPA Program				
Project: <u>Emu #5</u>		Report due by:		Lab WO# <u>P708038</u>		Job Number <u>17039-0001</u>		1D	3D	RCRA	CWA	SDWA
Project Manager: <u>F. Aragon</u>		Attention:										
Address:		Address:								State		
City, State, Zip		City, State, Zip								NM CO UT AZ		
Phone:		Phone:										
Email: <u>Chris Harold / F. Aragon</u>		Email:										

Time Sampled	Date Sampled	Matrix	No Containers	Sample ID	Lab Number	DRO/ORO by 8015	GRO/DRO by 8015	BTEX by 8021	VOC by 8260	Chloride by 300.0	TPH by 418.1							Remarks
12:20	8/10/17	S	2 to 2	Pathol Camp #2	1	X	X	X										

Additional Instructions:

I, (field sampler), attest to the validity and authenticity of this sample. I am aware that tampering with or intentionally mislabelling the sample location, date or time of collection is considered fraud and may be grounds for legal action. Sampled by: Chris Harold

Samples requiring thermal preservation must be received on ice the day they are sampled or received packed in ice at an avg temp above 0 but less than 6 °C on subsequent days.

Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	Lab Use Only	
<u>Chris Harold</u>	8/10/17	3:00	<u>Alanna Chee</u>	8/10/17	15:06	Received on ice: <u>Y/N</u>	
Relinquished by: (Signature)	Date	Time	Received by: (Signature)	Date	Time	T1 T2 T3	
						AVG Temp °C <u>4.0°C</u>	

Sample Matrix: S - Soil, Sd - Solid, Sg - Sludge, A - Aqueous, O - Other

Container Type: g - glass, p - poly/plastic, ag - amber glass, v - VOA

Note: Samples are discarded 30 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at the client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for on the report. ice in cooler

Page 8 of 8

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Walter P. Herold	Contact	Chris Herold
Address	5420 W. Freeway, Suite 600 Dallas TX 75234	Telephone No.	214-343-7542
Facility Name	Walter P. Herold	Facility Type	well

Surface Owner	Navajo Nation	Mineral Owner	Indian Lease NMS 24002120	API No.	10-044-02335 FNU 8105
---------------	---------------	---------------	---------------------------	---------	-----------------------

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	14	18N	24W	195	FT.	100	FEI	Sandoval

Latitude 35.3742942 Longitude -107.2206163 NAD83

NATURE OF RELEASE

Type of Release	Production Well	Volume of Release	unknown	Volume Recovered	none
Source of Release	well	Date and Hour of Occurrence	none	Date and Hour of Discovery	10-2-17
Was Immediate Notice Given?	☐ Yes ☐ No ☐ Not Required	If YES, To Whom?	Walter P. Herold - Walter P. Herold 10-2-17		
By Whom?	Walter P. Herold - FNU	Date and Hour	10-2-17 10:00 AM		
Was a Watercourse Reached?	☐ Yes ☐ No	If YES, Volume Impacting the Watercourse.			

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* Oil was spilled on the pad near the wellhead. Cleaned up contaminated soil.

Describe Area Affected and Cleanup Action Taken.* An area 4 x 5 x 3 ft. was excavated. Contaminated soil was sent to the Envirotech landfill. Soil tests determined where the threshold limit of 5000 ppm was reached, the soil tests that were run were PCB, BTEX, and BTEX. by Envirotech - see attachments for test results. The site will be remediated as weather permits.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	Chris Herold	OIL CONSERVATION DIVISION	
Printed Name:	Chris Herold	Approved by Environmental Specialist:	
Title:	Environmental Tech	Approval Date:	Expiration Date:
E-mail Address:	cherold-walter@so.rrcc.com	Conditions of Approval:	Attached ☐
Date:	10-2-17	Phone:	202-710-0800

* Attach Additional Sheets If Necessary

District I
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District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised April 3, 2017

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☐ Initial Report ☒ Final Report

Name of Company	Warren E & P	Contact	Chris Herold
Address	5420 LBJ Freeway, Suite 600 Dallas TX 75240	Telephone No.	307-710-0820
Facility Name	Eagle Mesa Unit #5	Facility Type	well pad
Surface Owner	Navajo Nation	Mineral Owner	Indian Lease NOOC 14202717
		API No.	30-043-20935 EMU #005

[24202]

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
H	14	19N	04W	1955	FNL	100	FEL	Sandoval

Latitude 35.8792992 Longitude -107.2200165 NAD83

NATURE OF RELEASE

Type of Release	Production Oil	Volume of Release	unknown	Volume Recovered	none
Source of Release	well	Date and Hour of Occurrence	unknown	Date and Hour of Discovery	3-7-17
Was Immediate Notice Given?	☒ Yes ☐ No ☐ Not Required				
By Whom?	Lucas Vargo - BLM	If YES, To Whom?	Kandi Ossa -Warren E & P on 3-7-17		
Was a Watercourse Reached?	☐ Yes ☒ No				
Date and Hour met on site 5/5/17 11:00am					
If YES, Volume Impacting the Watercourse.					

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.* Oil was spilled on the pad near the wellhead. Cleaned up contaminated soil

Describe Area Affected and Cleanup Action Taken.*

An area 4 x 5 x 3 ft. was excavated. Contaminated soil was sent to the Envirotech Landfill. Soil tests determined where the threshold limit of 5000 ppm was reached. The soil tests that were run were DRO/GRO/ORO, Benzene, and BTEX. by Envirotech - see attachments for test results. The site will be reseeded as weather permits.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

OIL CONSERVATION DIVISION

Signature:			
Printed Name:	Chris Herold	Approved by Environmental Specialist:	
Title:	Environmental Tech	Approval Date:	Expiration Date:
E-mail Address:	cherold@warrenresources.com	Conditions of Approval:	Attached ☐
Date:	10-2-17	Phone:	307-710-0820

* Attach Additional Sheets If Necessary