Received by OCD: 10/19/2023 2:33:05 PM 1625 N. French Dr., Hobbs, NM 88240 District II

811 S. First St., Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Road, Aztec, NM 87410 <u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM 87505 State of New Mexico Energy Minerals and Natural Resources Department

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 For **Page 4** lof 50 Revised August 24, 2018 Submit to appropriate OCD District office

Incident ID	NBP0802950165
District RP	
Facility ID	
Application ID	

# **Release Notification**

# **Responsible Party**

	Responsible Party GREAT WESTERN DRILLING COMPANY		OGRID 2	.6070
Contact Name DENNIS L. HENDRIX		Contact Tel	(432)002-3241	
Contact email dhendrix@gwdc.com		Incident # (a	assigned by OCD) 0802950165	
	00	IIDLAND, TX 79702	1	
	10 BOX 1009 M			
		Location of	Release So	urce
26.948022			Longitude -	107.9415894
atitude 36.848922		(NAD 83 in decima	al degrees to 5 decima	al places)
Site Name PUBCO	CTATE #1D		Site Type	BATTERY
Date Release Discov			API# (if appl	licable) 30-045-29500
	03/12/2007			
Unit Letter Secti	on Township	Range	Count	ty
0 36	31N	11W S	SAN JUAN	
		Nothira and V	volume of F	Kelease
	laterial(s) Released (Select	Nature and V		justification for the volumes provided below)
Crude Oil	Volume Releas	all that apply and attach calesed (bbls)		justification for the volumes provided below)  Volume Recovered (bbls)
	Volume Releas	all that apply and attach calc sed (bbls) sed (bbls)	culations or specific	Volume Recovered (bbls)  Volume Recovered (bbls)
Crude Oil	Volume Releas  Volume Releas  Is the concentr	all that apply and attach calc sed (bbls) sed (bbls) ration of total dissolved	d solids (TDS)	Volume Recovered (bbls)   Volume Recovered (bbls)   Volume Recovered (bbls)   Yes
Crude Oil	Volume Releas  Volume Releas  Is the concentr	all that apply and attach calcsed (bbls) sed (bbls) ration of total dissolved water >10,000 mg/l?	d solids (TDS)	Volume Recovered (bbls)  Volume Recovered (bbls)
Crude Oil Produced Water	Volume Releas  Volume Releas  Is the concentre in the produced	all that apply and attach calcsed (bbls) sed (bbls) ration of total dissolved water >10,000 mg/l? sed (bbls) 25	d solids (TDS)	Volume Recovered (bbls)   Volume Recovered (bbls)   Volume Recovered (bbls)   Yes
☐ Crude Oil ☐ Produced Water ☐ Condensate	Volume Releas  Volume Releas  Is the concentr in the produced  Volume Releas  Volume Releas	all that apply and attach calcsed (bbls) sed (bbls) ration of total dissolved water >10,000 mg/l? sed (bbls) 25	d solids (TDS)	Volume Recovered (bbls)  Volume Recovered (bbls)  Volume Recovered (bbls)  Yes No  Volume Recovered (bbls)
☐ Crude Oil ☐ Produced Water ☐ Condensate ☐ Natural Gas	Volume Releas  Volume Releas  Is the concentr in the produced  Volume Releas  Volume Releas	all that apply and attach calcsed (bbls) sed (bbls) ration of total dissolved water >10,000 mg/l? sed (bbls) sed (bbls) 25 sed (Mcf)	d solids (TDS)	Volume Recovered (bbls)  Volume Recovered (bbls)  Volume Recovered (bbls)  Yes No  Volume Recovered (bbls)  Volume Recovered (bbls)  Volume Recovered (bbls)  Volume Recovered (Mcf)
☐ Crude Oil ☐ Produced Water ☐ Condensate ☐ Natural Gas ☐ Other (describe)	Volume Releas  Volume Releas  Is the concentr in the produced  Volume Releas  Volume Releas	all that apply and attach calcised (bbls) sed (bbls) ration of total dissolved water >10,000 mg/l? sed (bbls) 25 sed (Mcf) ht Released (provide u	d solids (TDS)	volume Recovered (bbls)  Volume Recovered (bbls)  Volume Recovered (bbls)  Yes No  Volume Recovered (bbls)  Volume Recovered (bbls)  Volume Recovered (bbls)  Volume Recovered (bbls)

Page 2 Och: 10/19/2023 2:33:05 PM of New Mexico
Oil Conservation Division

Incident ID	NBP0802950165
District RP	
Facility ID	
Application ID	

		Application 1D
XX7 - 41.1	I verine e	
Was this a major release as defined by	If YES, for what reason(s) does the	he responsible party consider this a major release?
19.15.29.7(A) NMAC?		
□ · · · · · · · · · · · · · · · · · · ·		
Yes X No		
If YES, was immediate n	otice given to the OCD? By whom'	? To whom? When and by what means (phone, email, etc)?
	Init	tial Dagnanga
	Tille	tial Response
The responsible	party must undertake the following actions in	mmediately unless they could create a safety hazard that would result in injury
The source of the rele	ease has been stonned	
_	is been secured to protect human hea	alth and the environment
		erms or dikes, absorbent pads, or other containment devices.
	ecoverable materials have been remo	
if all the actions described	d above have <u>not</u> been undertaken, e	explain why:
Per 19 15 29 8 B (4) NM	AC the responsible party may come	mence remediation immediately after discovery of a release. If remediation
has begun, please attach	a narrative of actions to date. If re-	emedial efforts have been successfully completed or if the release occurred
within a lined containmer	it area (see 19.15.29.11(A)(5)(a) NN	MAC), please attach all information needed for closure evaluation.
I hereby certify that the infor	rmation given above is true and complet	te to the best of my knowledge and understand that pursuant to OCD rules and
regulations all operators are	required to report and/or file certain rele	ease notifications and perform corrective actions for releases which may endanger
railed to adequately investig	ate and remediate contamination that po	by the OCD does not relieve the operator of liability should their operations have use a threat to groundwater, surface water, human health or the environment. In
addition, OCD acceptance of	Fa C-141 report does not relieve the ope	erator of responsibility for compliance with any other federal, state, or local laws
and/or regulations.		
Printed Name: DENNIS	L. HENDRIX	Title: VP / MANAGER OF OPERATIONS
S:	1272/6	
Signature:	mo f. Huss	Date: 10/19/23
email: dhendrix@gwdc.c	om	Telephone: (432)682-5241
OCD Only		
Received by: Shelly We	lls	Date: 10/19/2023
Celeased to Imaging: 11/3		10/13/2023

Received by OCD: 10/19/2023 2:33:05 PM Form C-141 State of New Mexico Page 3 Oil Conservation Division

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# **Site Assessment/Characterization**

This information must be provided to the appropriate district office no later than 90 days after the release discovery date.

What is the shallowest depth to groundwater beneath the area affected by the release?	(ft bgs)	
Did this release impact groundwater or surface water?	☐ Yes ☐ No	
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	Yes No	
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☐ Yes ☐ No	
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☐ No	
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☐ No	
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	Yes No	
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	Yes No	
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☐ No	
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☐ No	
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☐ No	
Are the lateral extents of the release within a 100-year floodplain?	Yes No	
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	☐ Yes ☐ No	
Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.		
Characterization Report Checklist: Each of the following items must be included in the report.		
Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.  Field data  Data table of soil contaminant concentration data  Depth to water determination  Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release  Boring or excavation logs  Photographs including date and GIS information  Topographic/Aerial maps  Laboratory data including chain of custody		

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Received by OCD: 10/19/2023	2:33:05 PM
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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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: DENNIS L. HENDRIX

Title: VP / MANAGER OF OPERATIONS

Signature: VP / MANAGER OF OPERATIONS

Date: 10/19/23

Telephone: (432)682-5241

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and

Received by OCD: 10/19/2023 2:33:05 PM Form C-141 Sta

State of New Mexico

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Oil Conservation Division

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# **Remediation Plan**

Remediation Plan Checklist: Each of the following items must b	a included in the plan
Detailed description of proposed remediation technique  Scaled sitemap with GPS coordinates showing delineation point  Estimated volume of material to be remediated  Closure criteria is to Table 1 specifications subject to 19.15.29.3  Proposed schedule for remediation (note if remediation plan times)	ts 12(C)(4) NMAC
Deferral Requests Only: Each of the following items must be con	nfirmed as part of any request for deferral of remediation.
	roduction equipment where remediation could cause a major facility
Extents of contamination must be fully delineated.	
Contamination does not cause an imminent risk to human health	n, the environment, or groundwater.
I hereby certify that the information given above is true and comple rules and regulations all operators are required to report and/or file of which may endanger public health or the environment. The accepta liability should their operations have failed to adequately investigate surface water, human health or the environment. In addition, OCD responsibility for compliance with any other federal, state, or local limits of the environment.	e and remediate contamination that pose a threat to groundwater, acceptance of a C-141 report does not relieve the operator of
Printed Name: DENNIS L. HENDRIX	Title: VP / MANAGER OF OPERATIONS
Signature: Alens J. Henry	Date: 10/19/23
email: dhendrix@gwdc.com	Telephone: (432)682-5241
OCD Only	
Received by:	Date:
☐ Approved ☐ Approved with Attached Conditions of	Approval Denied Deferral Approved
Signature:	Date:
eleased to Imaging: 11/3/2023 2:10:16 PM	

Received by OCD: 10/19/2	2023 2:33:05 State of New Mexico	
Page 6	Oil Conservation Division	

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Incident ID	1 480 0 0)
District RP	
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# Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

Closure Report Attachment Checklist: Each of the following is	tems must be included in the closure report.
★ A scaled site and sampling diagram as described in 19.15.29.1	11 NMAC
X Photographs of the remediated site prior to backfill or photos must be notified 2 days prior to liner inspection)	of the liner integrity if applicable (Note: appropriate OCD District office
☐ ☐ Laboratory analyses of final sampling (Note: appropriate ODG	C District office must be notified 2 days prior to final sampling)
□ Description of remediation activities	
and regulations all operators are required to report and/or file certain may endanger public health or the environment. The acceptance of	ations. The responsible party acknowledges they must substantially onditions that existed prior to the release or their final land use in
OCD Only	
Received by: Shelly Wells	Date: 10/19/2023
Closure approval by the OCD does not relieve the responsible party remediate contamination that poses a threat to groundwater, surface party of compliance with any other federal, state, or local laws and	of liability should their operations have failed to adequately investigate and water, human health, or the environment nor does not relieve the responsible for regulations.
Closure Approved by: Ashley Maxwell	Date: 11/03/2023
Closure Approved by: Ashley Maxwell  Printed Name:Ashley Maxwell	Title: Environmental Specialist

November 15, 2007

Project No. 99010-003

Mr. Cullen Keller 7415 E. Main Street Farmington, New Mexico 87402

(505) 327-0495 Fax (505) 327-0494 Office (505) 320-2365 Cell

RE: BIO PILE SAMPLING LOCATED AT THE PUBCO STATE COM #1B, SAN JUAN COUNTY, NEW MEXICO.

Dear Mr. Keller,

Enclosed are the analytical results for the samples collected from the location designated above.

Four (4) composite samples were field tested per the United States Environmental Protection Agency's (USEPA) Method 418.1 for Total Petroleum Hydrocarbons (TPH) and for Organic Vapors (OV) with a Photo Ionization Detector (PID).

The TPH results were below the NMOCD standard of 1000 ppm and the OV were also below the required 100 ppm closure standard.

Due to results below the regulatory limit for this site, Envirotech considers these bio piles as closed and has begun the process of backfilling the excavation on site with this material.

Should you have any question or require additional information, please do not hesitate to contact us at (505) 632-0615.

Respectfully Submitted,

ENVIROTECH, INC.

Nicole Hayworth

**Environmental Scientist** 

nhayworth@envirotech-inc.com

	ENVIROTECH Inc.	
	5796 US HWY. 64, FARMINGTON, NM 87401	PIT No:
FIELD REPORT:	REMEDIATION FACILITY	JOB No: 99016-003
FACILITY LOCATION: PLUTCO SOUTE SOURCE LOCATION: SOUTH	CLOSURE VERIFICATION	PAGE No: of  DATE STARTED: 2-Nov-0-1  DATE FINISHED:
SOURCE LOCATION: SOURCE LOCATION: FACILITY CLASSIFICATION:		ENVIRONMENTAL SPECIALIST: J. THEMPSON
SOIL REMEDIATION: QUANTIT DIMENSION:	S: 15'x 27' x 7' ANU 55' x 27' x 8' S:	DF COMP. SAMPLES: 4
DEPTH TO GROUNDWATER: NEAREST WATER SOURCE/TYPE: NEAREST SURFACE WATER: MAX TPH PER NMOCD: No. OF 5-POINT COMPOSITE SAMPLES: YARDAGE# 0-200=1 201-400=2 401-1000=3 >1000=5  FACILITY DIAGRAM	GRID SCALE:	
+ + +	OVM RESUL'	TS
+ + + 600	+ + + + 62 + 2 42	5 .5 .0
95°, 35' +	LAB RESULT	
* + +	2 3 1	SURFACE 768 FLOV DIR. 964
+ + + +		ESTIMATED GROUNDWAFER FLOW DIR



Client:

Great Western Drilling

Project #:

99010-003

Sample No.:

1

Date Reported:

11/5/2007

Sample ID:

Composite #1, Southwest

Date Sampled: 11/2

11/2/2007

Sample Matrix:

Soil

Date Analyzed:

11/2/2007

Preservative:

Cool

Analysis Needed:

TPH-418.1

Condition:

Cool and Intact

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

820

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Pubco State Com #1B

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Analyst

Review

Juli Thompson

Printer

Nicole Hayworth

Printed

5796 U.S. Highway 64 · Farmington, NM 87401 · Tel 505 · 632 · 0615 · Fax 505 · 632 · 1865



Client:

**Great Western Drilling** 

Composite #2, Southeast

Sample Matrix:

Soil

Preservative: Condition:

Sample No.:

Sample ID:

Cool

Cool and Intact

Project #:

99010-003

Date Reported:

11/5/2007

Date Sampled: Date Analyzed: 11/2/2007 11/2/2007

Analysis Needed: TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

768

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Pubco State Com #1B

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Juli Thompson

Printed

Nicole Hayworth



Client:

Sample No.:

Sample ID:

Sample Matrix:

Preservative:

Condition:

Great Western Drilling

Composite #3, Northeast

Soil

Cool

Cool and Intact

Project #:

99010-003

Date Reported:

11/5/2007

Date Sampled: Date Analyzed: 11/2/2007 11/2/2007

Analysis Needed:

TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

564

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Pubco State Com #1B

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Juli Thompson

Printed

Nicole Hayworth



Client:

Sample No.:

Sample ID:

Sample Matrix: Preservative:

Condition:

Great Western Drilling

Composite #4, Northwest

Soil Cool

Cool and Intact

Project #:

99010-003

Date Reported:

11/5/2007

Date Sampled: Date Analyzed:

11/2/2007 11/2/2007

Analysis Needed:

TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(ma/ka)

**Total Petroleum Hydrocarbons** 

964

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Pubco State Com #1B

Instrument calibrated to 200 ppm standard. Zeroed before each sample

Juli Thompson

Printed

Nicole Hayworth



# CONTINUOUS CALIBRATION EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Cal. Date:

2-Nov-07

Parameter	Standard Concentration mg/L	Concentration Reading mg/L	
ТРН	100		
	200	197	
	500		
	1000		

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Analyst

5.16v-07

Juli Thompson

Printed

Mical Hayron

F015107

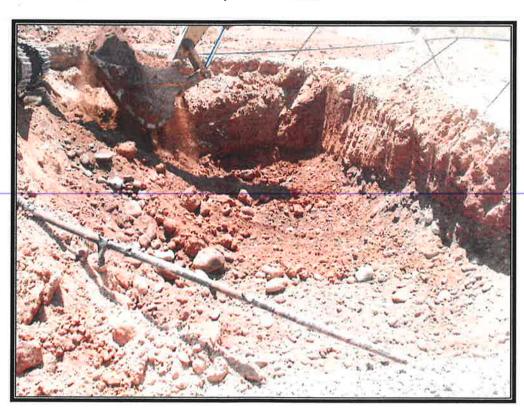
Nicole Hayworth

ENVIROTECH INC.

# SPILL CLEANUP PUBCO STATE COM # 1B SAN JUAN COUNTY, NEW MEXICO

FOR:

MR. CULLEN KELLER
GREAT WESTERN DRILLING
7415 EAST MAIN STREET
FARMINGTON, NEW MEXICO 87401



PROJECT No. 99010-003 AUGUST 2007

ENVIRO

5796 U.S. HIGHWAY 64 • FARMINGTON, NM 87401 • (505) 632-0615



August 22, 2007

Project No. 99010-003

Mr. Cullen Keller Great Western Drilling 7415 East Main Street Farmington, New Mexico 87401

Phone (505) 320-2365

RE: SPILL CLEANUP REPORT AT THE PUBCO STATE COM #1B WELL SITE, SEC 36, TWP 31N, RNG 11W, SAN JUAN COUNTY, NEW MEXICO

Dear Mr. Keller:

Enclosed, please find one (1) original and two (2) copies of the report titled, *Spill Clean-up Report*, giving an overview of spill cleanup activities at the Pubco State Com #1B Well Site, located in San Juan County, New Mexico.

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

Respectfully Submitted,

ENVIROTECH, INC.

E. Nicole Hayworth

**Environmental Scientist** 

nhayworth@envirotech-inc.com

Enclosure:

Report

Cc:

Client File No. 99010

Hay was

# GREAT WESTERN DRILLING SPILL CLEANUP REPORT PUBCO STATE COM # 1B

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Appendix:	Appendix A, Analytical Results	۵
	Appendix B, Site Photography	

Great Western Drilling Pubco State Com #1B August 20, 2007 Project No. 99010-003 Page 1

#### INTRODUCTION

Envirotech, Inc. of Farmington, New Mexico, was contracted by Great Western Drilling to provide monitoring and guidance in the environmental excavation of a condensate spill at the Pubco State Com #1B, Sec 36, Twp 31N, Rng 11W, San Juan County, New Mexico; see *Figure 1, Vicinity Map*. The released condensate appeared to have been contained in the bermed area around the Aboveground Storage Tank (AST).

#### **ACTIVITIES PERFORMED**

An initial site assessment was performed on June 1, 2007. Upon arriving onsite Envirotech discovered two (2) test holes to varying depths, and three (3) disconnected aboveground storage tanks (AST). It was determined that the source of the release was the ASTs and that the majority of the contamination was contained by the berm surrounding the tanks. A representative from Great Western Drilling was onsite and informed Envirotech that samples were collected from the bottom of the test holes, however the results of these samples were not provide to Envirotech.

Between the initial site assessment and the beginning of excavation arrangements were being made to get the correct permits to allow onsite remediation of the contaminated materials. Final permits were obtained by Great Western Drilling from NMOCD.

Excavation began on July 18, 2007. Envirotech was met onsite by two (2) Great Western Drilling representatives. In order to ensure that only contaminated soil above the regulatory standard of 1000 ppm Total Petroleum Hydrocarbon (TPH) was excavated samples were taken frequently. Samples were analyzed in the field using USEPA Method 418.1 for TPH and a Photo Ionization Detector (PID) for organic vapors (OV). At the end of the day the excavation reached 12 feet deep and the sample collected from the bottom and the west wall tested below the regulatory limits; see Appendix A, Analytical Results and Table 1, Field Analysis Results. Excavated soil was stockpiled onsite and prepared for an onsite landfarm; see Appendix B, Site Photography.

Excavation continued on July 27, 2007 on the three (3) remaining sidewalls. Samples were again collected and analyzed in the field for TPH and OV. Removed contaminated soil remained onsite to be remediated onsite by biopile. Final dimensions of the excavation were approximately 49' x 32' x 12'deep; see *Figure 2*, *Site Map*.

Samples that were analyzed and found to be below the regulatory limits for TPH but did not pass the limits for OV were transported under chain of custody to Envirotech's Laboratory and analyzed using USEPA Method 8021 Aromatic Volatile Organics. Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) are a few of the parameters analyzed for using USEPA Method 8021. The regulatory limit for Benzene is 5000 ppb and the limit for BTEX is 50000 ppb. Both samples analyzed for BTEX were below these limits.

Great Western Drilling Pubco State Com #1B August 20, 2007 Project No. 99010-003 Page 2

**Table 1: Field Analysis Results** 

Sample Location	Date of Sample	TPH (ppm)	OV (ppm)
Bottom @ 6' BGS	07/18/07	3760	119
Bottom @ 8' BGS	07/18/07	6496	245
Black	07/18/07	13056	267
Stockpile	07/18/07	9088	265
Bottom @ 10' BGS	07/18/07	3160	485
Bottom @ 12' BGS	07/18/07	872	519*
South Wall	07/18/07	5328	277
North Wall	07/18/07	12720	227
West Wall	07/18/07	252	89
East Wall	07/18/07	18000	235
East Wall Comp	07/27/07	1660	184
North Wall	07/27/07	812	274*
South Wall	07/27/07	288	94
East Wall Comp #2	07/27/07	44	2.1
NMOCD Regulatory Limits		1000	100

Items in bold above regulatory limit

No backfill was brought in from offsite per Great Western Drillings request. Envirotech understands that the remediated soil from the biopile will be used as backfill once analysis shows that the contamination in the soil is below the regulatory standards. The excavation was left open and fenced per Great Western Drillings request.

#### SUMMARY AND CONCLUSIONS

Contaminated soil was excavated to approximately 49' x 32' x 12'deep. All contaminated soil remained onsite for remediation by biopile per Great Western Drilling's request. Per the permit allowing onsite remediation the soil needs to be turned and sampled on a monthly basis until analysis show that all the contaminated soil has been remediated.

#### **STATEMENT OF LIMITATIONS**

Envirotech has completed the monitoring of environmental excavation at the Pubco State Com #1B, Sec 36, Twp 31N, Rng 11W, San Juan County, New Mexico. The work and services provided by Envirotech were in accordance with the New Mexico Oil Conversation Division standards. All observations and conclusions provided here are based on the information and current site conditions found at the site throughout the incident.

<sup>\*</sup> BTEX results in lab

Great Western Drilling Pubco State Com #1B August 20, 2007 Project No. 99010-003 Page 3

DSCIE

The undersigned has conducted this service at the above referenced site. This work has been conducted and reported in accordance with generally accepted professional practices in geology, engineering, environmental chemistry, and hydrogeology.

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

Respectfully Submitted, ENVIROTECH INC.

E. Nicole Hayworth Environmental Scientist

nhayworth@envirotech-inc.com

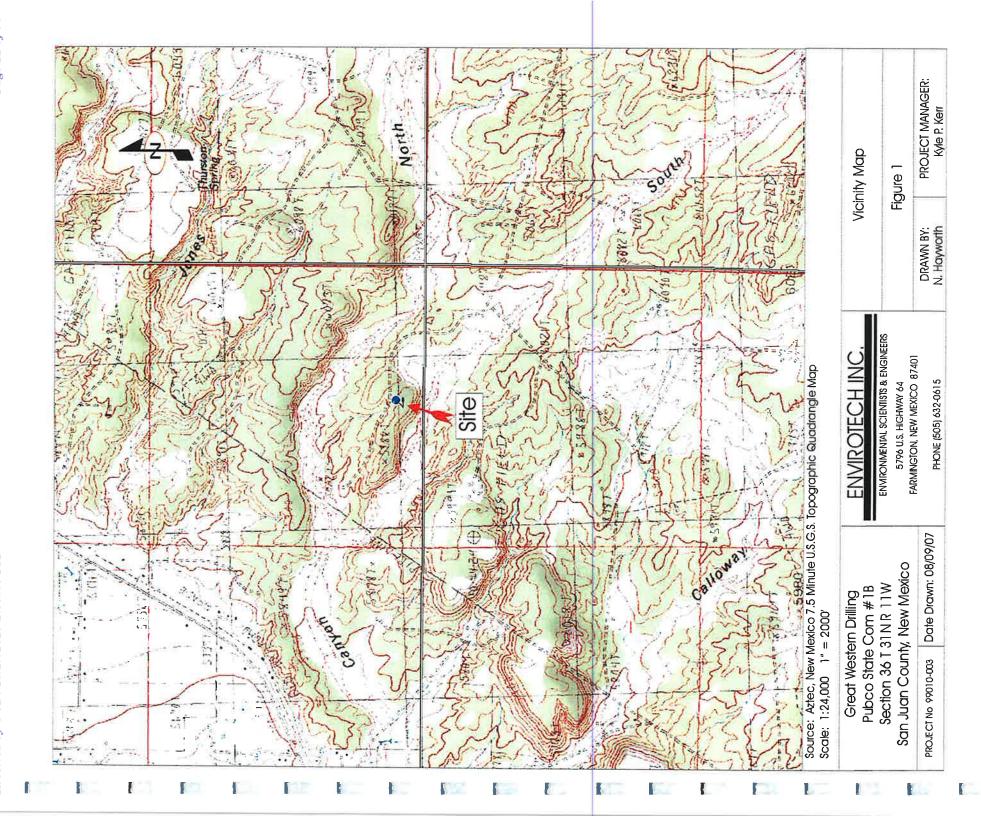
Reviewed by:

Kyle P. Kerr

Senior Environmental Scientist/Manager

**NMCES #299** 

kpkerr@envirtoech-inc.com

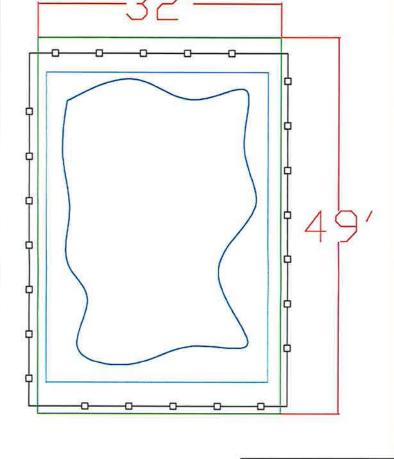




NO. DATE

BY





LOCATION	TPH (PPM)	□V (PPM)
BOTTOM	872	519
NDRTH WALL	812	274
SOUTH WALL	288	94
EAST WALL	44	2.1
WEST WALL	252	89
SAMPLE TH	AT WERE USED	FOR CLOSURE

#### SITE MAP **GREAT WESTERN DRILLING** PUBCO ST. COM #1B

P SEC36 T31N R11W SAN JUAN COUNTY, NEW MEXICO

SCALE: 1" = 12' REV FIGURE NO. PROJECT NO.99010-003 REVISIONS

LEGEND BERM WELLHEAD FENCE SEPARATOR **VISIBLE** DIMENSIONS CONTAMINATION EXCAVATION



DESCRIPTION

5796 U.S. HIGHWAY 64, FARMINGTON, NM 87410 505-632-0615



Client:

Sample No.:

Sample ID:

Sample Matrix: Preservative:

Condition:

Great Western Drilling

Bottom @ 6' BGS

Soil

Cool

Cool and Intact

Project #:

99010-003

Date Reported:

8/8/2007

Date Sampled: Date Analyzed: 7/18/2007 7/18/2007

Analysis Needed:

TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

3,760

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Pubco State Com #1B

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Nicole Hayworth

Printed

**Greg Crabtree** 



Client:

Great Western Drilling

Sample No.:

2

Sample ID:

Bottom @ 8' BGS

Sample Matrix:

Soil

Preservative:

Cool

Condition:

Cool and Intact

Project #:

99010-003

Date Reported:

8/8/2007

Date Sampled:

7/18/2007

Date Analyzed:

7/18/2007

Analysis Needed:

TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

6,496

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Pubco State Com #1B

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Analyst

Review

Nicole Hayworth

Printed

**Greg Crabtree** 



Client:

Great Western Drilling

Sample No.:

.3

Sample ID:

Black Colored Soil

Sample Matrix:

Soil

Preservative: Condition:

Cool

Cool and Intact

Project #:

99010-003

Date Reported:

8/8/2007

Date Sampled: Date Analyzed: 7/18/2007

Analysis Needed:

7/18/2007 TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

13,056

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Pubco State Com #1B

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Analyst

Review

Nicole Hayworth

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**Greg Crabtree** 



Client:

Great Western Drilling

Project #:

99010-003

Sample No.:

7

Date Reported:

8/8/2007

Sample ID:

Stockpile

Date Sampled:

7/18/2007

Sample Matrix:

Soil

Date Analyzed:

7/18/2007

Preservative:

Cool

Analysis Needed:

TPH-418.1

Condition:

Cool and Intact

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

9,088

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Pubco State Com #1B

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Analyst

Deview

Nicole Hayworth

Printed

**Greg Crabtree** 



Client:

Sample No.:

Sample ID:

Sample Matrix:

Preservative:

Condition:

Great Western Drilling

Bottom @ 10' BGS

Soil

Cool

Cool and Intact

Project #:

Date Reported:

8/8/2007

Date Sampled: Date Analyzed: 7/18/2007

99010-003

7/18/2007 Analysis Needed:

TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

3,160

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Pubco State Com #1B

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Nicole Hayworth

Printed

**Greg Crabtree** 



Client:

Sample No.: Sample ID:

Sample Matrix:

Preservative:

Condition:

Great Western Drilling

Bottom @ 12' BGS

Soil

Cool

Cool and Intact

Project #:

99010-003

Date Reported:

8/8/2007

Date Sampled:

7/18/2007

Date Analyzed: Analysis Needed: 7/18/2007

TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

872

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Pubco State Com #1B

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Nicole Hayworth

Printed

**Greg Crabtree** 



Client:

Sample No.:

Sample ID:

Sample Matrix:

Preservative:

Condition:

Great Western Drilling

South Wall

Soil

Cool

Cool and Intact

Project #:

Date Reported:

Date Sampled:

Date Analyzed:

Analysis Needed:

7/18/2007

TPH-418.1

99010-003

8/8/2007

7/18/2007

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

5,328

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Pubco State Com #1B

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Nicole Hayworth

Printed

**Greg Crabtree** 



Client:

Great Western Drilling

Sample No.:

o.:

Sample ID:

Sample Matrix: Preservative:

Condition:

8

North Wall

Soil

Cool

Cool and Intact

Project #:

99010-003

Date Reported:

8/8/2007

Date Sampled: Date Analyzed: 7/18/2007 7/18/2007

Analysis Needed: TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

12,720

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Pubco State Com #1B

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Analyst

Nicole Hayworth

Printed

Review

**Greg Crabtree** 



Client:

Great Western Drilling

Sample No.:

9

Sample ID:

West Wall

Sample Matrix:

Soil

Preservative:

Cool

Condition: Cool and Intact

Project #:

99010-003

Date Reported:

8/8/2007

Date Sampled:

7/18/2007

Date Analyzed:

7/18/2007

Analysis Needed:

TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

252

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Pubco State Com #1B

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Analyst

Review

Nicole Hayworth

Printed

**Greg Crabtree** 



Client:

Great Western Drilling

Sample No.:

10

Sample ID:

East Wall

Sample Matrix:

Soil

Preservative: Condition:

Cool

Cool and Intact

Project #:

99010-003

Date Reported:

8/8/2007

Date Sampled:

7/18/2007

Date Analyzed:

7/18/2007

Analysis Needed: TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

18,000

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Pubco State Com #1B

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Analyst

Review

Nicole Hayworth

Printed

**Greg Crabtree** 



# CONTINUOUS CALIBRATION EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Cal. Date:

18-Jul-07

Parameter	Standard Concentration mg/L	Concentration Reading mg/L	
TPH	100		
	200	199	
	500		
	1000		

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

Micole Hayres

Analyst

Nicole Hayworth

Printed

Review

Greg Crabtree

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8/13/07

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Client:

Great Western Drilling

Sample No.:

11

Sample ID:

East Wall Comp

Sample Matrix:

Soil

Preservative: Condition:

Cool

Cool and Intact

Project #:

99010-003

Date Reported:

8/8/2007

Date Sampled:

7/27/2007

Date Analyzed:

7/27/2007

Analysis Needed: TP

TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

1,660

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Pubco State Com #1B

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Analyst

**Greg Crabtree** 

Printed

Review

Nicole Hayworth



Client:

Great Western Drilling

Sample No.:

12

Sample ID:

North Wall Comp

Cool and Intact

Sample Matrix:

Soil

Preservative:

Cool

Condition:

Project #:

99010-003

Date Reported:

8/8/2007

Date Sampled:

7/27/2007

Date Analyzed:

7/27/2007

Analysis Needed:

TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

812

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Pubco State Com #1B

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Analyst

Review

**Greg Crabtree** 

Printed

Nicole Hayworth



#### EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Client:

Great Western Drilling

Sample No.:

13

Sample ID:

South Wall Comp

Cool and Intact

Sample Matrix:

Soil

Preservative:

Cool

Condition:

Project #:

99010-003

Date Reported:

8/8/2007

Date Sampled:

7/27/2007

Date Analyzed:

7/27/2007

Analysis Needed:

TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

288

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Pubco State Com #1B

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Analyst

Review

**Greg Crabtree** 

**Printed** 

Nicole Hayworth

Printed



#### **EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS**

Client:

Great Western Drilling

Sample No.:

Sample ID:

East Wall Comp #2

Sample Matrix:

Soil

Preservative:

Condition:

Cool

Cool and Intact

Project #:

99010-003

Date Reported:

8/8/2007

Date Sampled:

7/27/2007

Date Analyzed:

7/27/2007

Analysis Needed:

TPH-418.1

		Det.
	Concentration	Limit
Parameter	(mg/kg)	(mg/kg)

**Total Petroleum Hydrocarbons** 

44

5.0

ND = Parameter not detected at the stated detection limit.

References:

Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis

of Water and Waste, USEPA Storet No. 4551, 1978.

Comments:

Pubco State Com #1B

Instrument callibrated to 200 ppm standard. Zeroed before each sample

Analyst

**Greg Crabtree** 

Printed

Nicole Hayworth

Printed



# CONTINUOUS CALIBRATION EPA METHOD 418.1 TOTAL PETROLEUM HYDROCARBONS

Cal. Date:

27-Jul-07

Parameter	Standard Concentration mg/L	Concentration Reading mg/L	
ТРН	100		
	200	225	
	500		
	1000		

The accepted percent relative deviation (%RSD) of the calibration factor is less than 20% over the working range.

May Colf

Date

Anaiyst

**Greg Crabtree** 

Printed

1 /

Review

08/09/07

Date

Nicole Hayworth

Printed



### EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client: **Great West Drilling** Project #: 99010-003 Sample ID: 12' BGS Date Reported: 07-23-07 Laboratory Number: 42483 Date Sampled: 07-18-07 Chain of Custody: 3027 Date Received: 07-18-07 Sample Matrix: Soil Date Analyzed: 07-23-07 Preservative: Cool Date Extracted: 07-19-07 Condition: Cool & Intact Analysis Requested: BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)	
Benzene	ND	1.8	
Toluene	8.6	1.7	
Ethylbenzene	32.3	1.5	
p,m-Xylene	467	2.2	
o-Xylene	46.1	1.0	
Total BTEX	554		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
9	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorohenzene	97.0 %

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846,

USEPA, December 1996.

Comments:

Pubco State Com #1B

Analyst C. Comment

Review Dadles

## ENVIROTECH LABS

### EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	07-23-BTEX QA/QC	Date Reported:	07-23-07
Laboratory Number:	42455	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	07-23-07
Condition:	N/A	Analysis:	BTEX

Calibration and	I-Cal RF:	C-Cal RF:	%Diff,	Blank	Detect.
Detection Limits (ug/L)		Accept. Rang	ge 0 - 15%	Conc	Limit
Benzene	2.2742E+007	2.2787E+007	0.2%	ND	0.2
Toluene	2.0017E+007	2.0057E+007	0.2%	ND	0.2
Ethylbenzene	1.5207E+007	1.5237E+007	0.2%	ND	0.2
p,m-Xylene	3.2966E+007	3.3032E+007	0.2%	ND	0.2
o-Xylene	1.4011E+007	1.4039E+007	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff.	Accept Range	Detect. Limit
Benzene	ND	ND	0.0%	0 - 30%	1.8
Toluene	7.1	7.1	0.0%	0 - 30%	1.7
Ethylbenzene	ND	ND	0.0%	0 - 30%	1.5
p,m-Xylene	ND	ND	0.0%	0 - 30%	2.2
o-Xylene	ND	ND	0.0%	0 - 30%	1.0

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	50.0	49.9	99.8%	39 - 150
Toluene	7.1	50.0	57.1	100.0%	46 - 148
Ethylbenzene	ND	50.0	49.9	99.8%	32 - 160
p,m-Xylene	ND	100	100	99.9%	46 - 148
o-Xylene	ND	50.0	49.9	99.8%	46 - 148

ND - Parameter not detected at the stated detection limit.

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using

Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for Samples 42455, 42464 - 42467, 42483

Analyst

(Review Walles

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## CHAIN OF CUSTODY RECORD

Client:	D-	Pro	oject Name / Lo	cation:	** 15	,							ANA	LYSIS	/ PAR	AME	TERS				
GREAT WEST	URIU			ATE CO	)H +C	>					1						1	 			
Client Address:			mpler Name:					(2)	)21)	()											
		N	. HAYWO	RTH				80-	)8 p	82	<u>s</u>	_		<u>a</u>				.		-	
Client Phone No.:		Cli	ent No.:					por	tho	Pod	leta	nior		Ŧ		<del>-</del>				00	itact
			99	010-	003			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion		TCLP with H/P		TPH (418.1)				Sample Cool	Sample Intact
Sample No./	Sample	Sample	Lab No.	Sample	No./Volume	Prese	rvalive	ī	Ä	ပ္ထ	ÄÄ	tion		<u>ال</u>	Į	Ţ				ldm	mpl
Identification	Date	Time	Lab No.	Matrix	Containers	H4CI <sup>5</sup> Hr	vo <sub>3</sub> 37	무	I B	>	Ä	ပိ	P.C.	5	РАН	는				Sa	Sa
12" BGS	67/18/07		42483	SOIL	1		V		X											X	X
Relinquished by: (Sign					Date	Time	P	eceiv	ed by:	(Sign	ature)	$\sim$		1.					ate		ne
Relinquished by: (Sign	nature)			0	7/18/07	1725	S A	eceiv	ed by:	(Sign	ature)	O/	un	XX.	~			10/18	3/07	170	\$5
Relinquished by: (Sign	nature)						F	eceiv	ed by:	(Sign	ature)										
															-	-					

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## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Great Western Drilling	Project #:	99010-003
Sample ID:	North Wall	Date Reported:	07-30-07
Laboratory Number:	42579	Date Sampled:	07-27-07
Chain of Custody:	3088	Date Received:	07-27-07
Sample Matrix:	Soil	Date Analyzed:	07-30-07
Preservative:	Cool	Date Extracted:	07-27-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)	
Benzene	6.2	1.8	
Toluene	294	1.7	
Ethylbenzene	229	1.5	
p,m-Xylene	1,360	2.2	
o-Xylene	240	1.0	
Total BTEX	2 130		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	97.0 %
	1,4-difluorobenzene	97.0 %
	Bromochlorobenzene	97.0 %

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846,

USEPA, December 1996.

Comments:

Pubco State Com #1B

Analyst C. Ogener

Christin m Walter



## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:         N/A           Sample ID:         07-30-BTEX QA/QC           Laboratory Number:         42538           Sample Matrix:         Soil           Preservative:         N/A           Condition:         N/A	Project #: Date Reported: Date Sampled: Date Received: Date Analyzed: Analysis:	N/A 07-30-07 N/A N/A 07-30-07 BTEX
---	---	---

Calibration and Detection Limits (ug/L)	I-Cal RF:	C-Cal RF: Accept, Rang	%Diff. ge 0 - 15%	Blank Conc	Detect. Limit
Велгеле	1.3339E+007	1.3366E+007	0.2%	ND	0.2
Toluene	1.3279E+007	1.3306E+007	0.2%	ND	0.2
Ethylbenzene	1.0617E+007	1.0638E+007	0.2%	ND	0.2
p,m-Xylene	2.5045E+007	2.5095E+007	0.2%	ND	0.2
o-Xylene	1.0256E+007	1.0276E+007	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample Du	uplicate	%Diff.	Accept Range	Detect Limit
Benzene	ND	ND	0.0%	0 - 30%	1.8
Toluene	7.3	7.3	0.0%	0 - 30%	1.7
Ethylbenzene	ND	ND	0.0%	0 - 30%	1.5
p,m-Xylene	2.9	2.9	0.0%	0 - 30%	2.2
o-Xylene	ND	ND	0.0%	0 - 30%	1.0

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	ND	50.0	49.9	99.8%	39 - 150
Toluene	7.3	50.0	57.2	99.8%	46 - 148
Ethylbenzene	ND	50.0	49.9	99.8%	32 - 160
p,m-Xylene	2.9	100	102	99.5%	46 - 148
o-Xylene	ND	50.0	49.9	99.8%	46 - 148

ND - Parameter not detected at the stated detection limit.

References:

Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA,

December 1996.

Method 8021B, Aromatic and Halogenated Volatlles by Gas Chromatography Using

Photolonization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments:

QA/QC for Samples 42538 - 42540, 42549 - 42550, 42576, 42578 - 42579

Analyst

Review

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Received by OCD: 10/19/2023 2:33:05 PM

## CHAIN OF CUSTODY RECORD

Client: Project Name / Location: Fusco Stak Con #18												ANA	LYSIS	/ PAF	RAME	ΓERS					
Client Address: 74.5 East W		S	Sampler Name: G. Crabtee					8015)	1 8021)	8260)	S										
Client Phone No.: 505 - 320 - 236	·5		Olient No.: 99016-003				TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion		TCLP with H/P		118.1)				e Cool	Sample Intact	
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volum of Container	-		TPH (I	ВТЕХ	VOC (	RCRA	Cation	BC!	TCLP	РАН	TPH (418.1)				Sample Cool	Sample
North Wall	רסו דבור	12-20	42579	Soil	1-402				<b>/</b>											V	V
						$\mathbb{H}$		ļ													_
											·										
						+								-							
																_			 -	-	-
Relinquished by: (Sign	alure)	A	:	7/	Pate 27/07	Tim 1436	e   1	Receive	ed by:	(Signa	ature)	Va	n l	L					Date 27/07	Tir 148	
Relinquished by (Sign	ature)							Receive	ed by:	(Signa	ature)	- 60									
Relinquished by: (Sign	ature)						1	Receive	ed by:	(Signa	ature)										
																		-			

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Received by OCD: 10/19/2023 2:33:05 PM	Page 4	6 of 50
П		
	8	
	endix B	
1	Site Photography	
П		
Released to Imaging: 11/3/2023 2:10:16 PM		

#### Great Western Drilling Spill Cleanup Project No. 99010-003



Photo 1: Test Hole #1



Photo 2: Test Hole # 2

#### Great Western Drilling Spill Cleanup Project No. 99010-003

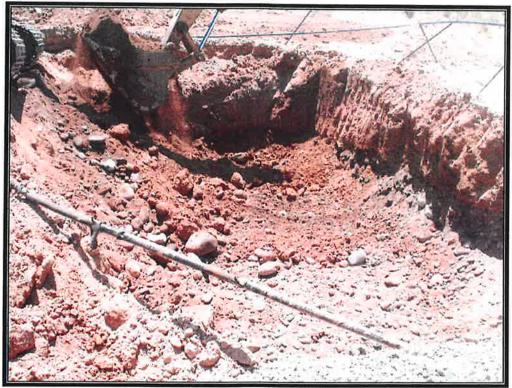


Photo 3: During Excavation with Contaminated Stockpile in Background



Photo 4: Visible Line of Contamination along the Walls

#### Great Western Drilling Spill Cleanup Project No. 99010-003



Photo 5: Biopile



Photo 6: Excavation

District I
1625 N. French Dr., Hobbs, NM 88240
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District III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

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**State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division** 1220 S. St Francis Dr. **Santa Fe, NM 87505** 

CONDITIONS

Action 274001

#### **CONDITIONS**

Operator:	OGRID:
GREAT WESTERN DRILLING CO	9338
P.O. Box 1659	Action Number:
Midland, TX 79701	274001
	Action Type:
	[C-141] Release Corrective Action (C-141)

#### CONDITIONS

Created By	Condition	Condition Date
amaxwell	None	11/3/2023