

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

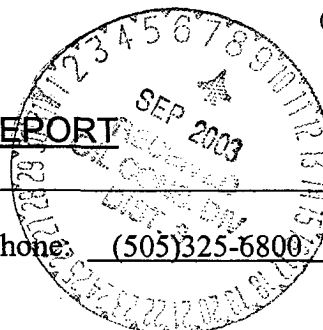
State of New Mexico  
Energy Minerals and Natural Resources

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

OK  
Submit 1 copy to  
appropriate  
District Office  
and 1 copy to  
the Santa Fe Office

(Revised 3/9/94)

**PIT REMEDIATION AND CLOSURE REPORT**



30-045-25577

Operator: Energen Resources Telephone: (505)325-6800

Address: 2198 Bloomfield Hwy. Farmington, NM 87401

Facility Or: Trading Post #1

Well Name

Location: Unit or Qtr/Qtr Sec B Sec 34 T 27N R 12W County San Juan

Pit Type: Separator            Dehydrator            Other North Unknown

Land Type: BLM X, State           , Fee            Other           

Pit Location: Pit dimensions: length 15', width 15', depth 3'  
(Attach diagram)

Reference: wellhead X, other           

Footage from reference: 138'

Direction from reference: 45 Degrees X East North X  
of  
           West South           

Depth To Ground Water (Vertical distance from contaminants to seasonal high water elevation of ground water.)	Less than 50 feet	(20 points)
	50 feet to 99 feet	(10 points)
	Greater than 100 feet	( 0 points) <u>0</u>

Wellhead Protection Area: (Less than 200 feet from a private domestic water source, or; less than 1000 feet from all other water sources.)	Yes	(20 points)
	No	( 0 points) <u>0</u>

Distance To Surface Water: (Horizontal distance to perennial lakes, ponds, rivers, streams, creeks, irrigation canals and ditches.)	Less than 200 feet	(20 points)
	200 feet to 1000 feet	(10 points)
	Greater than 1000 feet	( 0 points) <u>0</u>

RANKING SCORE (TOTAL POINTS): 0 pts.

Date Remediation Started: 1/27/03 Date completed: 6/4/03

Remediation Method: Excavation X Approx. cubic yards 207  
(Check all appropriate sections.) Landfarmed X Insitu Bioremediation \_\_\_\_\_  
Other \_\_\_\_\_

Remediation Location: Onsite X Offsite \_\_\_\_\_  
(i.e. landfarmed onsite,  
name and location of  
offsite facility) \_\_\_\_\_

General Description of Remedial Action: \_\_\_\_\_

A soil sample was extracted at 14-ft below ground level (11-ft. below pit bottom). The sample was analyzed for GRO/DRO and Btex analysis. All analyses were within BLM and NMOCD requirements.

Impacted soils were landfarmed on site. Soils were tested for headspace analysis and GRO/DRO analysis.

Landfarm soil analysis were within BLM and NMOCD requirements (see attachments).

Ground Water Encountered: No X Yes \_\_\_\_\_ Depth \_\_\_\_\_

Final Pit: Sample location Center bottom @ 14-ft

Closure Sampling:  
(if multiple samples,  
attach sample results  
and diagram of sample  
locations and depths) \_\_\_\_\_  
Sample depth 14-feet

Sample Date 2/19/03 Sample time 11:30-11:40

Sample Results

Benzene(ppm) 0.355

Total BTEX(ppm) 5.01

Field headspace(ppm) \_\_\_\_\_

TPH 1760

Ground Water Sample: Yes \_\_\_\_\_ No X (If yes, attach sample results)

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Date 3/27/03

Signature Frank McDonald

Printed Name Frank McDonald  
and Title Senior Environmental Specialist

<b>Location:</b> <u>Trading Post # 1</u>		<b>Site Diagram:</b> 
<b>Unit Letter:</b> <u>B</u> <b>Sec.</b> <u>34</u> <b>Twn.</b> <u>27</u> <b>Rng</b> <u>12</u>		
<b>Pit Reference from Wellhead:</b> <u>138' north 45 degrees east</u>		
<b>Pit:</b> <u>North pit</u>		
<b>Initial size:</b> <u>15' x 15' x 3' deep</u>		
<b>Final Size:</b> <u>20' x 20' x 14' deep</u>		
<b>Total Cubic Yards:</b> <u>207</u>		
<b>Distances from (ft):</b>		
<b>Groundwater:</b> <u>&gt;100 ft</u>		
<b>Wellhead Protection Area:</b> <u>&gt;1000 ft</u>		
<b>Nearest Surface Water:</b> <u>&gt;1000 ft</u>		
<b>Distance to ephemeral stream:</b> <u>&gt;1000 ft</u>		
<b>Ranking Score (points):</b> <u>0</u>		
<b>Sample ID</b>	<b>Sample Depth (ft)</b>	<b>OVM Reading</b>
north pit	4-pt comp of walls @ 10-ft	214
north pit	ctr btm @ 14-ft	268
3		
4		
5		
6		
7		
8		
9		
10		
<b>Comments:</b> Napi irrigation ditch is approximately 1500' to the north in an upgrade Hydrocarbon staining and order were detected		

Not to Scale

N

S

E

W

3 ft.

3 ft.

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Energen Resources	Project #:	94034-010
Sample ID:	4-Sides Comp @ 10-ft	Date Reported:	02-21-03
Laboratory Number:	24894	Date Sampled:	02-19-03
Chain of Custody:	10648	Date Received:	02-20-03
Sample Matrix:	Soil	Date Analyzed:	02-21-03
Preservative:	Cool	Date Extracted:	02-21-03
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	1.8
Toluene	ND	1.7
Ethylbenzene	17.1	1.5
p,m-Xylene	135	2.2
o-Xylene	35.8	1.0
Total BTEX	188	


ND - Parameter not detected at the stated detection limit.

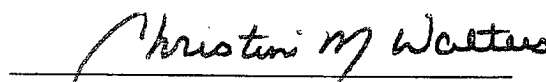
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99 %
	1,4-difluorobenzene	99 %
	Bromochlorobenzene	99 %

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: Trading Post #1.

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Energen Resources	Project #:	94034-010
Sample ID:	Center-Btm @ 14-ft.	Date Reported:	02-21-03
Laboratory Number:	24896	Date Sampled:	02-19-03
Chain of Custody:	10648	Date Received:	02-20-03
Sample Matrix:	Soil	Date Analyzed:	02-21-03
Preservative:	Cool	Date Extracted:	02-21-03
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	355	1.8
Toluene	827	1.7
Ethylbenzene	548	1.5
p,m-Xylene	2,050	2.2
o-Xylene	1,230	1.0
Total BTEX	5,010	

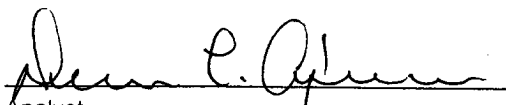
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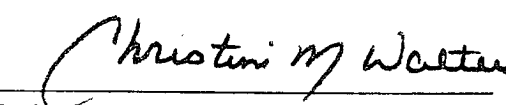
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99 %
	1,4-difluorobenzene	99 %
	Bromochlorobenzene	99 %

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: Trading Post #1.

  
Analyst

  
Review

EPA METHOD 8015 Modified  
Nonhalogenated Volatile Organics  
Total Petroleum Hydrocarbons

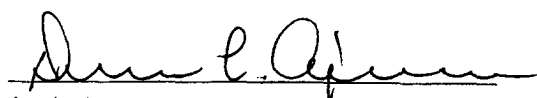
Client:	Energen Resources	Project #:	03022-001
Sample ID:	4-Sides Comp @ 10-ft	Date Reported:	02-21-03
Laboratory Number:	24893	Date Sampled:	02-19-03
Chain of Custody No:	10648	Date Received:	02-20-03
Sample Matrix:	Soil	Date Extracted:	02-21-03
Preservative:	Cool	Date Analyzed:	02-21-03
Condition:	Cool and Intact	Analysis Requested:	8015 TPH

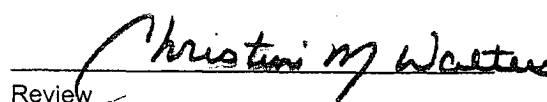
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	1.9	0.2
Diesel Range (C10 - C28)	2.4	0.1
Total Petroleum Hydrocarbons	4.3	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Trading Post #1.**

  
Analyst

  
Review

# ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Energen Resources  
Sample ID: Center-Btm @ 14-ft  
Laboratory Number: 24895  
Chain of Custody No: 10648  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Cool and Intact

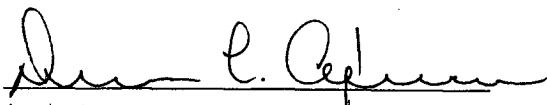
Project #: 03022-001  
Date Reported: 02-21-03  
Date Sampled: 02-19-03  
Date Received: 02-20-03  
Date Extracted: 02-21-03  
Date Analyzed: 02-21-03  
Analysis Requested: 8015 TPH

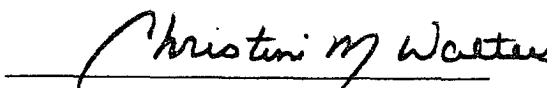
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	405	0.2
Diesel Range (C10 - C28)	1,350	0.1
Total Petroleum Hydrocarbons	1,760	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Trading Post #1.

  
Analyst

  
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<b>Location:</b> <u>Trading Post # 1</u>		<b>Site Diagram:</b>		
<b>Unit Letter:</b> <u>B</u>	<b>Sec.</b> <u>34</u> <b>Twn.</b> <u>27</u> <b>Rng</b> <u>12</u>	<p>Diagram labels: cathodic station, meter house, cement slabs, north pit, west pit, east pit, Landfarm, sep, tank, pit tank, S.G., well head.</p>		
<b>Pit Reference from Wellhead:</b> <u>138' north 45 degrees east</u>				
<b>Pit:</b> <u>North pit</u>				
<b>Initial size:</b> <u>15' x 15' x 3' deep</u>				
<b>Final Size:</b> <u>20' x 20' x 14' deep</u>				
<b>Total Cubic Yards:</b> <u>207</u>				
<b>Distances from (ft):</b>				
<b>Groundwater:</b> <u>&gt;100 ft</u>				
<b>Wellhead Protection Area:</b> <u>&gt;1000 ft</u>				
<b>Nearest Surface Water:</b> <u>&gt;1000 ft</u>				
<b>Distance to ephemeral stream:</b> <u>&gt;1000 ft</u>				
<b>Ranking Score (points):</b> <u>0</u>		<p>Not to Scale</p>		
<b>Sample ID</b>	<b>Sample Depth (ft)</b>			<b>OVM Reading</b>
landfarm	5-pt composite			56
2				
3				
4				
5				
6				
7				
8				
9				
10				
<b>Comments:</b> Napi irrigation ditch is approximately 1500' to the north in an upgrade Hydrocarbon staining and order were detected				



# ENVIROTECH LABS

Practical Solutions for a Better Tomorrow

## EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client: Energen Resources  
Sample ID: 1 L/Farm  
Laboratory Number: 25806  
Chain of Custody No: 10552  
Sample Matrix: Soil  
Preservative: Cool  
Condition: Cool and Intact


Project #: 03022-001  
Date Reported: 06-04-03  
Date Sampled: 06-04-03  
Date Received: 06-04-03  
Date Extracted: 06-04-03  
Date Analyzed: 06-04-03  
Analysis Requested: 8015 TPH

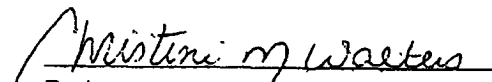
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	3.4	0.2
Diesel Range (C10 - C28)	397	0.1
Total Petroleum Hydrocarbons	400	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Trading Post #1.

  
Analyst

  
Review