

July 21, 2008

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

For temporary pits, closed-loop systems, and below-grade tanks, submit to the appropriate NMOCD District Office.
For permanent pits and exceptions submit to the Santa Fe Environmental Bureau office and provide a copy to the appropriate NMOCD District Office.

3443 Pit, Closed-Loop System, Below-Grade Tank, or
Proposed Alternative Method Permit or Closure Plan Application

- Type of action: ☐ Permit of a pit, closed-loop system, below-grade tank, or proposed alternative method
☒ Closure of a pit, closed-loop system, below-grade tank, or proposed alternative method
☐ Modification to an existing permit
☐ Closure plan only submitted for an existing permitted or non-permitted pit, closed-loop system, below-grade tank, or proposed alternative method

Instructions. Please submit one application (Form C-144) per individual pit, closed-loop system, below-grade tank or alternative request

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances

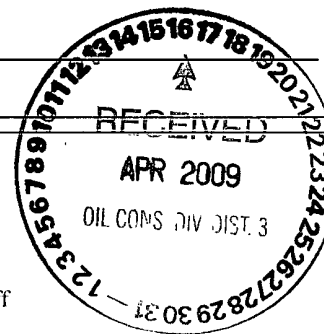
1 Operator: Energen Resources Corporation OGRID #: 162928
Address: 2010 Afton Place, Farmington, NM 87401
Facility or well name: San Juan 32-5 Unit #112
API Number: 30-039-26720 OCD Permit Number: _____
U/L or Qtr/Qtr P Section 19 Township 32N Range 05W County: Rio Arriba
Center of Proposed Design: Latitude 36.95918 Longitude -107.39948 NAD: ☐ 1927 ☒ 1983
Surface Owner: ☒ Federal ☐ State ☐ Private ☐ Tribal Trust or Indian Allotment

2 ☐ Pit: Subsection F or G of 19.15.17.11 NMAC
Temporary: ☒ Drilling ☐ Workover
☐ Permanent ☐ Emergency ☐ Cavitation ☐ P&A
☒ Lined ☐ Unlined Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
☐ String-Reinforced
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____ Volume: _____ bbl Dimensions: L _____ x W _____ x D _____

3 ☐ Closed-loop System: Subsection H of 19.15.17.11 NMAC
Type of Operation: ☐ P&A ☐ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent)
☐ Drying Pad ☐ Above Ground Steel Tanks ☐ Haul-off Bins ☐ Other _____
☐ Lined ☐ Unlined Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____
Liner Seams: ☐ Welded ☐ Factory ☐ Other _____

4 ☐ Below-grade tank: Subsection I of 19.15.17.11 NMAC
Volume: _____ bbl Type of fluid: _____
Tank Construction material: _____
☐ Secondary containment with leak detection ☐ Visible sidewalls, liner, 6-inch lift and automatic overflow shut-off
☐ Visible sidewalls and liner ☐ Visible sidewalls only ☐ Other _____
Liner type: Thickness _____ mil ☐ LLDPE ☐ HDPE ☐ PVC ☐ Other _____

5 ☐ Alternative Method:
Submittal of an exception request is required. Exceptions must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.



6

Fencing: Subsection D of 19.15.17.11 NMAC (Applies to permanent pits, temporary pits, and below-grade tanks)

- ☐ Chain link, six feet in height, two strands of barbed wire at top (*Required if located within 1000 feet of a permanent residence, school, hospital, institution or church*)
- ☐ Four foot height, four strands of barbed wire evenly spaced between one and four feet
- ☐ Alternate. Please specify _____

7

Netting: Subsection E of 19.15.17.11 NMAC (Applies to permanent pits and permanent open top tanks)

- ☐ Screen ☐ Netting ☐ Other
- ☐ Monthly inspections (If netting or screening is not physically feasible)

8

Signs: Subsection C of 19.15.17.11 NMAC

- ☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
- ☐ Signed in compliance with 19.15.3.103 NMAC

9

Administrative Approvals and Exceptions:

Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17 NMAC for guidance.

- ☐ Administrative approval(s): Requests must be submitted to the appropriate division district or the Santa Fe Environmental Bureau office for consideration of approval.
- ☐ Exception(s): Requests must be submitted to the Santa Fe Environmental Bureau office for consideration of approval.

10

Siting Criteria (regarding permitting): 19.15.17.10 NMAC

Instructions: *The applicant must demonstrate compliance for each siting criteria below in the application. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Applicant must attach justification for request. Please refer to 19.15.17.10 NMAC for guidance. Siting criteria does not apply to drying pads or above-grade tanks associated with a closed-loop system.*

- | | |
|--|---|
| Ground water is less than 50 feet below the bottom of the temporary pit, permanent pit, or below-grade tank.
- NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark).
- Topographic map; Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.
(Applies to temporary, emergency, or cavitation pits and below-grade tanks)
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image | <input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> NA |
| Within 1000 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application.
(Applies to permanent pits)
- Visual inspection (certification) of the proposed site; Aerial photo; Satellite image | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application.
- NM Office of the State Engineer - iWATERS database search; Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended.
- Written confirmation or verification from the municipality; Written approval obtained from the municipality | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within 500 feet of a wetland.
- US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within the area overlying a subsurface mine.
- Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within an unstable area.
- Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map | <input type="checkbox"/> Yes <input type="checkbox"/> No |
| Within a 100-year floodplain.
- FEMA map | <input type="checkbox"/> Yes <input type="checkbox"/> No |

11

Temporary Pits, Emergency Pits, and Below-grade Tanks Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report (Below-grade Tanks) - based upon the requirements of Paragraph (4) of Subsection B of 19.15.17.9 NMAC
☐ Hydrogeologic Data (Temporary and Emergency Pits) - based upon the requirements of Paragraph (2) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____ or Permit Number: _____

12

Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Geologic and Hydrogeologic Data (only for on-site closure) - based upon the requirements of Paragraph (3) of Subsection B of 19.15.17.9
☐ Siting Criteria Compliance Demonstrations (only for on-site closure) - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Design Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ Closure Plan (Please complete Boxes 14 through 18, if applicable) - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

☐ Previously Approved Design (attach copy of design) API Number: _____

☐ Previously Approved Operating and Maintenance Plan API Number: _____ (Applies only to closed-loop system that use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

13

Permanent Pits Permit Application Checklist: Subsection B of 19.15.17.9 NMAC

Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Hydrogeologic Report - based upon the requirements of Paragraph (1) of Subsection B of 19.15.17.9 NMAC
☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Climatological Factors Assessment
☐ Certified Engineering Design Plans - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Dike Protection and Structural Integrity Design - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Leak Detection Design - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Liner Specifications and Compatibility Assessment - based upon
☐ Quality Control/Quality Assurance Construction and Installation Plan the appropriate requirements of 19.15.17.11 NMAC
☐ Operating and Maintenance Plan - based upon the appropriate requirements of 19.15.17.12 NMAC
☐ Freeboard and Overtopping Prevention Plan - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Nuisance or Hazardous Odors, including H₂S, Prevention Plan
☐ Emergency Response Plan
☐ Oil Field Waste Stream Characterization
☐ Monitoring and Inspection Plan
☐ Erosion Control Plan
☐ Closure Plan - based upon the appropriate requirements of Subsection C of 19.15.17.9 NMAC and 19.15.17.13 NMAC

14

Proposed Closure: 19.15.17.13 NMAC

Instructions: Please complete the applicable boxes, Boxes 14 through 18, in regards to the proposed closure plan.

Type: ☐ Drilling ☐ Workover ☐ Emergency ☐ Cavitation ☐ P&A ☐ Permanent Pit ☐ Below-grade Tank ☐ Closed-loop System
Alternative

Proposed Closure Method: ☐ Waste Excavation and Removal
☐ Waste Removal (Closed-loop systems only)
☐ On-site Closure Method (Only for temporary pits and closed-loop systems)
☐ In-place Burial ☐ On-site Trench Burial
☐ Alternative Closure Method (Exceptions must be submitted to the Santa Fe Environmental Bureau for consideration)

15

Waste Excavation and Removal Closure Plan Checklist: (19.15.17.13 NMAC) **Instructions:** Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.

- ☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings)
☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19.15.17.13.D NMAC)

Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations?

☐ Yes (If yes, please provide the information below) ☐ No

Required for impacted areas which will not be used for future service and operations:

- ☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

Siting Criteria (regarding on-site closure methods only: 19.15.17.10 NMAC

Instructions: Each siting criteria requires a demonstration of compliance in the closure plan. Recommendations of acceptable source material are provided below. Requests regarding changes to certain siting criteria may require administrative approval from the appropriate district office or may be considered an exception which must be submitted to the Santa Fe Environmental Bureau office for consideration of approval. Justifications and/or demonstrations of equivalency are required. Please refer to 19.15.17.10 NMAC for guidance.

Ground water is less than 50 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Ground water is between 50 and 100 feet below the bottom of the buried waste - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Ground water is more than 100 feet below the bottom of the buried waste. - NM Office of the State Engineer - iWATERS database search; USGS; Data obtained from nearby wells	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> NA
Within 300 feet of a continuously flowing watercourse, or 200 feet of any other significant watercourse or lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark). - Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 300 feet from a permanent residence, school, hospital, institution, or church in existence at the time of initial application. - Visual inspection (certification) of the proposed site; Aerial photo; Satellite image	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 500 horizontal feet of a private, domestic fresh water well or spring that less than five households use for domestic or stock watering purposes, or within 1000 horizontal feet of any other fresh water well or spring, in existence at the time of initial application. - NM Office of the State Engineer - iWATERS database; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within incorporated municipal boundaries or within a defined municipal fresh water well field covered under a municipal ordinance adopted pursuant to NMSA 1978, Section 3-27-3, as amended. - Written confirmation or verification from the municipality; Written approval obtained from the municipality	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within 500 feet of a wetland. - US Fish and Wildlife Wetland Identification map; Topographic map; Visual inspection (certification) of the proposed site	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within the area overlying a subsurface mine. - Written confirmation or verification or map from the NM EMNRD-Mining and Mineral Division	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within an unstable area. - Engineering measures incorporated into the design; NM Bureau of Geology & Mineral Resources; USGS; NM Geological Society; Topographic map	<input type="checkbox"/> Yes <input type="checkbox"/> No
Within a 100-year floodplain. - FEMA map	<input type="checkbox"/> Yes <input type="checkbox"/> No

On-Site Closure Plan Checklist: (19.15.17.13 NMAC) *Instructions: Each of the following items must be attached to the closure plan. Please indicate, by a check mark in the box, that the documents are attached.*

- ☐ Siting Criteria Compliance Demonstrations - based upon the appropriate requirements of 19.15.17.10 NMAC
☐ Proof of Surface Owner Notice - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☐ Construction/Design Plan of Burial Trench (if applicable) based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Construction/Design Plan of Temporary Pit (for in-place burial of a drying pad) - based upon the appropriate requirements of 19.15.17.11 NMAC
☐ Protocols and Procedures - based upon the appropriate requirements of 19.15.17.13 NMAC
☐ Confirmation Sampling Plan (if applicable) - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☐ Waste Material Sampling Plan - based upon the appropriate requirements of Subsection F of 19.15.17.13 NMAC
☐ Disposal Facility Name and Permit Number (for liquids, drilling fluids and drill cuttings or in case on-site closure standards cannot be achieved)
☐ Soil Cover Design - based upon the appropriate requirements of Subsection H of 19.15.17.13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19.15.17.13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19.15.17.13 NMAC

19.

Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief.

Name (Print): _____ Title: _____
 Signature: _____ Date: _____
 e-mail address: _____ Telephone: _____

20

OCD Approval: ☐ Permit Application (including closure plan) ☒ Closure Plan (only) ☐ OCD Conditions (see attachment)

OCD Representative Signature: *Jonathan D. Kelly* Approval Date: 1/18/2012
 Title: Compliance Officer OCD Permit Number: _____

21

Closure Report (required within 60 days of closure completion): Subsection K of 19.15.17.13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☒ Closure Completion Date: 10/17/09

22

Closure Method:

☐ Waste Excavation and Removal ☐ On-Site Closure Method ☐ Alternative Closure Method ☐ Waste Removal (Closed-loop systems only)
☐ If different from approved plan, please explain.

23

Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Disposal Facility Name: _____ Disposal Facility Permit Number: _____

Were the closed-loop system operations and associated activities performed on or in areas that will not be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☒ No

Required for impacted areas which will not be used for future service and operations:

☐ Site Reclamation (Photo Documentation)
☐ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique

24

Closure Report Attachment Checklist: *Instructions: Each of the following items must be attached to the closure report. Please indicate, by a check mark in the box, that the documents are attached.*

☒ Proof of Closure Notice (surface owner and division)
☐ Proof of Deed Notice (required for on-site closure)
☒ Plot Plan (for on-site closures and temporary pits)
☒ Confirmation Sampling Analytical Results (if applicable)
☒ Waste Material Sampling Analytical Results (required for on-site closure)
☐ Disposal Facility Name and Permit Number
☒ Soil Backfilling and Cover Installation
☐ Re-vegetation Application Rates and Seeding Technique
☐ Site Reclamation (Photo Documentation)

On-site Closure Location: Latitude 36.95918 Longitude -107.39948 NAD: ☐ 1927 ☒ 1983

25

Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print): Vicki Donaghey Title: Regulatory Analyst
 Signature: *Vicki Donaghey* Date: 03/27/09
 e-mail address: vdonaghe@energen.com Telephone: 505.324.4136

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Client: Energen Resources
Sample ID: Res Pit
Laboratory Number: 47430
Chain of Custody No: 5380
Sample Matrix: Soil
Preservative: Cool
Condition: Plastic Bag

Project #: 03022-0001
Date Reported: 10-01-08
Date Sampled: 09-19-08
Date Received: 09-22-08
Date Extracted: 09-29-08
Date Analyzed: 09-30-08
Analysis Requested: 8015 TPH

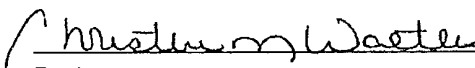
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

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: **SJ 32-5 #112.**

Analyst 

Review 

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	09-30-08 QA/QC	Date Reported:	10-01-08
Laboratory Number:	47428	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	09-30-08
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept Range
Gasoline Range C5 - C10	05-07-07	1.0015E+003	1.0019E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	9.8973E+002	9.9012E+002	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept Range
Gasoline Range C5 - C10	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	11.6	11.5	0.9%	0 - 30%

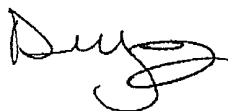
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	ND	250	243	97.2%	75 - 125%
Diesel Range C10 - C28	11.6	250	257	98.1%	75 - 125%

ND - Parameter not detected at the stated detection limit.

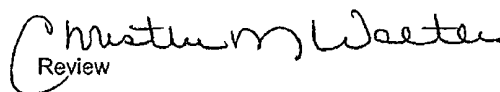
References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: QA/QC for Samples 47428 - 47430, 47435, 47451, and 47466 - 47468.

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Energen Resources	Project #:	03022-0001
Sample ID:	Res Pit	Date Reported:	10-01-08
Laboratory Number:	47430	Date Sampled:	09-19-08
Chain of Custody:	5380	Date Received:	09-22-08
Sample Matrix:	Soil	Date Analyzed:	09-30-08
Preservative:	Cool	Date Extracted:	09-29-08
Condition:	Plastic Bag	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	0.9
Toluene	4.3	1.0
Ethylbenzene	1.8	1.0
p,m-Xylene	4.3	1.2
o-Xylene	2.7	0.9
Total BTEX	13.1	

ND - Parameter not detected at the stated detection limit.

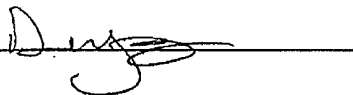
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	96.0 %
	1,4-difluorobenzene	96.0 %
	Bromochlorobenzene	96.0 %

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

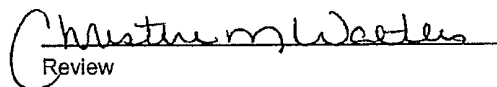
Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: SJ 32-5 #112

Analyst



Review



ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client: N/A
Sample ID: 09-30-BT QA/QC
Laboratory Number: 47428
Sample Matrix: Soil
Preservative: N/A
Condition: N/A

Project #: N/A
Date Reported: 10-01-08
Date Sampled: N/A
Date Received: N/A
Date Analyzed: 09-30-08
Analysis: BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF	C-Cal RF	%Diff	Blank Conc	Detect Limit
		Accept Range 0 - 15%			
Benzene	5.9406E+007	5.9525E+007	0.2%	ND	0.1
Toluene	4.5212E+007	4.5302E+007	0.2%	ND	0.1
Ethylbenzene	3.6000E+007	3.6073E+007	0.2%	ND	0.1
p,m-Xylene	7.6502E+007	7.6656E+007	0.2%	ND	0.1
o-Xylene	3.5528E+007	3.5599E+007	0.2%	ND	0.1

Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect Limit
Benzene	1.6	1.8	12.5%	0 - 30%	0.9
Toluene	11.6	11.5	0.9%	0 - 30%	1.0
Ethylbenzene	5.0	5.1	2.0%	0 - 30%	1.0
p,m-Xylene	19.5	19.8	1.5%	0 - 30%	1.2
o-Xylene	23.9	24.0	0.4%	0 - 30%	0.9

Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	1.6	50.0	52.6	102%	39 - 150
Toluene	11.6	50.0	55.6	90.3%	46 - 148
Ethylbenzene	5.0	50.0	52.0	94.5%	32 - 160
p,m-Xylene	19.5	100	117	97.5%	46 - 148
o-Xylene	23.9	50.0	71.9	97.3%	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 47428 - 47430, 47435, 47437, 47451 and 47466 - 47469.

Analyst

Review

Client:	Energen Resources	Project #:	03022-0001
Sample ID:	Res Pit	Date Reported:	10-02-08
Laboratory Number:	47430	Date Sampled:	09-19-08
Chain of Custody No:	5380	Date Received:	09-22-08
Sample Matrix:	Soil	Date Extracted:	09-30-08
Preservative:	Cool	Date Analyzed:	09-30-08
Condition:	Plastic Bag	Analysis Needed:	TPH-418.1

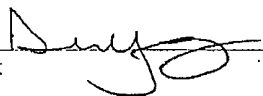
Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	578	5.0

ND = Parameter not detected at the stated detection limit.

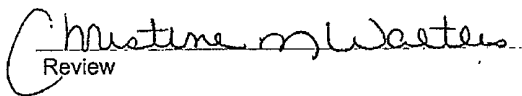
References: Method 418.1, Petroleum Hydrocarbons, Total Recoverable, Chemical Analysis of Water and Waste, USEPA Storet No. 4551, 1978.

Comments: S.J. 32-5 #112.

Analyst



Review



EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS
QUALITY ASSURANCE REPORT

Client:	QA/QC	Project #:	N/A
Sample ID:	QA/QC	Date Reported:	10-02-08
Laboratory Number:	09-30-TPH.QA/QC 47428	Date Sampled:	N/A
Sample Matrix:	Freon-113	Date Analyzed:	09-30-08
Preservative:	N/A	Date Extracted:	09-30-08
Condition:	N/A	Analysis Needed:	TPH

Calibration	I-Cal Date	C-Cal Date	I-Cal RF:	C-Cal RF:	% Difference	Accept. Range
	09-18-08	09-30-08	1,660	1,540	7.2%	+/- 10%

Blank Conc. (mg/Kg)	Concentration	Detection Limit
TPH	ND	13.3

Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
TPH	292	279	4.5%	+/- 30%

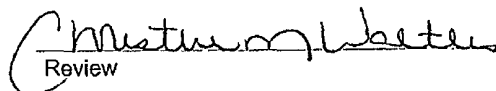
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
TPH	292.4	2,000	2,490	109%	80 - 120%

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: QA/QC for Samples 474728 - 47430, 47435 and 47466 - 47469.

Analyst 

Review 


Client:	Energen Resources	Project #:	03022-0001
Sample ID:	Res. Pit	Date Reported:	10-02-08
Lab ID#:	47430	Date Sampled:	09-19-08
Sample Matrix:	Soil	Date Received:	09-22-08
Preservative:	Cool	Date Analyzed:	09-30-08
Condition:	Intact	Chain of Custody:	5380

Parameter	Concentration (mg/Kg)
Total Chloride	660

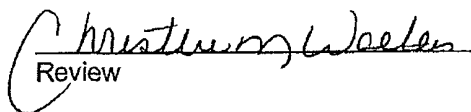
Reference: U.S.E.P.A., 4500B, "Methods for Chemical Analysis of Water and Wastes", 1983.
Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: S.J. 32-5 #112.

Analyst

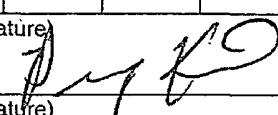
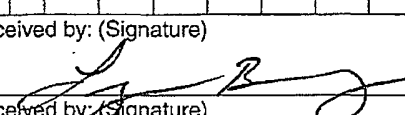


Review



CHAIN OF CUSTODY RECORD

5380

Client: Energizer Resources			Project Name / Location: S.J. 32.5 # 112			ANALYSIS / PARAMETERS														
Client Address: 1100 H St NW Ed Haskins			Sampler Name: Perry Kirk			TPH (Method 8015)	BTEX (Method 8021)	VOC (Method 8260)	RCRA 8 Metals	Cation / Anion	RCI	TCLP with H/P	PAH	TPH (418.1)	CHLORIDE				Sample Cool	Sample Intact
Client Phone No.: 325-6800			Client No.: 03022-0001																	
Sample No./ Identification	Sample Date	Sample Time	Lab No.	Sample Matrix	No./Volume of Containers	Preservative H ₂ O ₂ HCl														
Res. Pit	9/19/08	10:45 AM	47430	Soil Solid	1-Gal.															
				Sludge Aqueous																
				Soil Solid																
				Sludge Aqueous																
				Soil Solid																
				Sludge Aqueous																
				Soil Solid																
				Sludge Aqueous																
				Soil Solid																
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				Sludge Aqueous																
				Soil Solid																
				Sludge Aqueous																
Relinquished by: (Signature) 					Date	Time	Received by: (Signature) 					Date	Time							
					9/22/08	8:25 AM						9/22/08	8:25							
Relinquished by: (Signature)							Received by: (Signature)													
Relinquished by: (Signature)							Received by: (Signature)													

ENVIROTECH INC.
 5796 U.S. Highway 64 • Farmington, NM 87401 • Tel 505-632-0615



March 16, 2009

Certified Mail: 0000 5397 4196

Bureau of Land Management
Attn: Jim Lovato
1235 La Plata Highway
Farmington, NM 87401

**Subject: Reserve Pit In-Place Closure
San Juan 32-5 Unit #112**

Dear Sir or Madam:

Energen Resources plans to close a reserve pit located on the subject well location. You are on record as the surface owner where this well is located and the New Mexico Oil Conservation Division (NMOCD) rules require notification to the surface owner of our plans to close the reserve pit. NMOCD rules and guidelines will be followed. The well is located in Unit Letter P, Section 19, Township 32N, Range 05W in Rio Arriba County, New Mexico.

I apologize for the delay in submitting this letter. I mistakenly sent it to the Forest Service in November 2008.

If there are any questions or concerns, please contact me at 505.324.4136.

Sincerely,

Vicki Donaghey
Regulatory Analyst
Energen Resources

Cc: Well File

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<input checked="" type="checkbox"/> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. <input checked="" type="checkbox"/> Print your name and address on the reverse so that we can return the card to you. <input checked="" type="checkbox"/> Attach this card to the back of the mailpiece, or on the front if space permits.		A. Signature X	
1. Article Addressed to: <i>Bureau of Land Management Attn: Jim Lovato 1235 La Plata Highway Farmington NM 87401</i>		B. Received by (Printed Name) C. Date	
		D. Is delivery address different from item 1? If YES, enter delivery address below:	
2. Article Number (Transfer from service label)		3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.	
		4. Restricted Delivery? (Extra Fee)	
		7007 1490 0000 5397 4196	

Vicki Donaghey

From: Ed Hasely
Sent: Wednesday, October 15, 2008 4:32 PM
To: Perry Kirk; Bill Vocke; Robert Schmidt; Doug Thomas; Jason Kincaid; Devin Mills
Cc: Kellie Skelton; Vicki Donaghey
Subject: FW: Reserve Pit Closure Plans

Brandon just called and gave us a verbal approval on the two C-144's for the San Juan 32-5 #112 and the Carracas 11A #3 reserve pit closures. Please refer to my earlier emails on the required closure process - the #112 does not require mixing or additional sampling, but the **11A #3 does require mixing and sampling prior to final closure.**

Let me know if you have questions.

Ed Hasely
Energen Resources Corporation

Well Name: San Juan 32.5 Unit #112

Reserve Pit - Final Closure Report:

The pit was closed with in-place burial. The surface owner was notified by certified mail. The OCD was notified at least 72 hours and not more than one week prior to the pit closing. The following process was used to close the pit:

- 1) All free standing fluids were removed and the liner was cut off at the mudline.
- 2) The contents were solidified to a bearing capacity sufficient to support the final cover. This was accomplished by mixing the contents with soil at a mixing ratio no greater than 3:1 soil to contents.
- 3) Sampling was done by collecting a five-point composite sample of the contents after stabilization. The sample was analyzed for the following components;

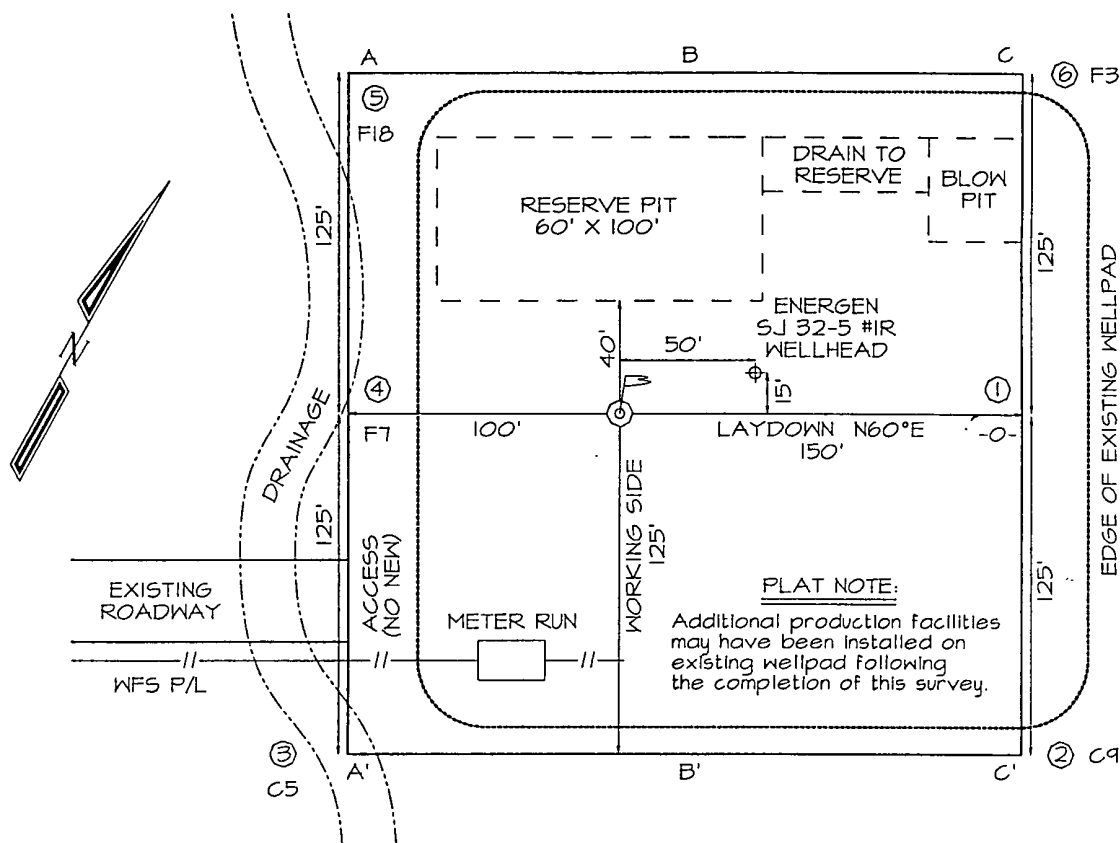
Components	Tests Method	Limit (mg/Kg)
Benzene	EPA SW-846 8021B or 8260B	0.2
BTEX	EPA SW-846 8021B or 8260B	50
TPH	EPA SW-846 418.1	2500
GRO/DRO	EPA SW-846 8015M	500
Chlorides	EPA 300.1	1000

- 4) The analyses demonstrated that the stabilized contents were under the limits listed above. The contents were covered with compacted non-waste containing earthen material to three feet.
- 5) After the stabilized contents were covered, the stockpiled topsoil was replaced to a depth of one foot. Topsoil cover was graded to prevent ponding of water and erosion of the cover material. This was accomplished within six months of rig release.
- 6) The disturbed area not needed for operations will be seeded or planted the first growing season after closing the pit. Seed will be drilled on the contour whenever practical or by other division-approved methods. The goal is to obtain vegetative cover that equals 70% of the native cover (un-impacted by overgrazing, fire or other intrusion damaging to native vegetation) consisting of at least three native plant species, including at least one grass but not including noxious weeds. Cover will be maintained through two successive growing seasons. During the two growing seasons that prove viability there shall be no artificial irrigation of the vegetation. Seeding or planting will continue until the required cover is reached. If conditions are not favorable to establishment of vegetation due to periods of drought or similar problems then the Aztec office of the OCD will be notified. The Aztec office of the OCD will also be notified when the disturbed ground successfully achieves re-vegetation.
- 7) A steel marker no less than four inches in diameter was cemented in a hole three feet deep in the center of the onsite burial. The marker includes a four foot tall riser with; operator name, lease name, well name and number, unit

number, section, township and range, and a designation that it is an onsite burial location.

ENERGEN RESOURCES N JUAN 32-5 UNIT #112
 410' FSL & 1320' FEL, SECTION 19, T32N, R5W, NMPM,
 RIO ARriba COUNTY, NEW MEXICO
 GROUND ELEVATION: 6405'

LATITUDE: 36°57'35"
 LONGITUDE: 107°23'58"



A-A'						
6415'						
6405'						
6395'						
B-B'						
6415'						
6405'						
6395'						
C-C'						
6415'						
6405'						
6395'						

Pit Inspection Log Sheet

Energen Resources Corporation

Well Name: SJ 32-5 #112

API #: 3003926720

Name (Print): Perry Kirk Signature: [Signature] Date: 7-14-08

Name (Print): Perry, Kirk Signature: [Signature] Date: 7-21-08

Name (Print): Derry Kirk Signature: [Signature] Date: 7-28-08

Name (Print): Jerry Kirk Signature: [Signature] Date: 8-4-08

Name (Print): Derry Kirk Signature: [Signature] Date: 8-11-08

Name (Print): Derry Kirk Signature: [Signature] Date: 8-18-08

Name (Print): Derry Kirk Signature: [Signature] Date: 8-25-08

Name (Print): Jerry Kirk Signature: [Signature] Date: 9-2-08

Name (Print): Perry Kirk Signature: [Signature] Date: 4-8-08

Name (Print): Derry Kirk Signature: [Signature] Date: 9-15-08

Name (Print): Derry Kirk Signature: [Signature] Date: 9-22-08

Name (Print): Derry Kirk Signature: [Signature] Date: 4-29-08

Name (Print): Jerry Kirk Signature: [Signature] Date: 10-6-08

Name (Print): Terry Kirk Signature: Terry Kirk Date: 10-17-0

Name (Print): _____ Signature: _____ Date: _____

Name (Print): _____ Signature: _____ Date: _____

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closed pit

Submit to Appropriate District Office Five Copies District I 1625 N French Dr., Hobbs, NM 88240 District II 1301 W Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Rd., 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-105 July 17, 2008														
		1. WELL API NO. 30-039-26720		2. Type Of Lease <input type="checkbox"/> STATE <input type="checkbox"/> FEE <input type="checkbox"/> FED/INDIAN		3. State Oil & Gas Lease No.														
WELL COMPLETION OR RECOMPLETION REPORT AND LOG																				
4. Reason for filing: <input type="checkbox"/> COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only) <input checked="" type="checkbox"/> C-144 CLOSURE ATTACHMENT (Fill in boxes #1 through #9, #15 Date Rig Released and #32 and/or #33; attach this and the plat to the C-144 closure report in accordance with 19.15.17.13 K NMAC)				5. Lease Name or Unit Agreement Name San Juan 32-5 Unit 6. Well Number #112																
9. Type of Completion <input type="checkbox"/> NEW WELL <input type="checkbox"/> WORKOVER <input type="checkbox"/> DEEPENING <input type="checkbox"/> PLUGBACK <input type="checkbox"/> DIFFERENT RESERVOIR <input checked="" type="checkbox"/> OTHER pit closure																				
8. Name of Operator Energen Resources Corporation				9 OGRID Number 162928																
10. Address of Operator 2010 Afton Place, Farmington, NM 87401				11. Pool name or Wildcat Basin Fruitland Coal																
12 Location	Unit Letter	Section	Township	Range	Lot	Feet from the	N/S Line	Feet from the	E/W Line	County										
Surface:																				
BH.																				
13. Date Spudded	14. Date T D Reached	15 Date Rig Released 06/14/08		16 Date Completed (Ready to Produce)		17 Elevations (DF & RKB, RT, GR, etc.)														
18. Total Measured Depth of Well		19. Plug Back Measured Depth		20. Was Directional Survey Made		21. Type Electric and Other Logs Run														
22 Producing Interval(s), of this completion - Top, Bottom, Name																				
23. CASING RECORD (Report all strings set in well)																				
CASING SIZE		WEIGHT LB./FT		DEPTH SET		HOLE SIZE		CEMENTING RECORD		AMOUNT PULLED										
24. LINER RECORD						25. TUBING RECORD														
SIZE	TOP	BOTTOM	SACKS CEMENT		SCREEN	SIZE	DEPTH SET	PACKER SET												
26. Perforation record (interval, size, and number)						27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>DEPTH INTERVAL</th> <th>AMOUNT AND KIND MATERIAL USED</th> </tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table>					DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED								
DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED																			
28. PRODUCTION																				
Date First Production		Production Method (Flowing, gas lift, pumping - Size and type pump)					Well Status (Prod. or Shut-in)													
Date of Test	Hours Tested	Choke Size	Prod'n For Test Period	Oil - Bbl	Gas - MCF	Water - Bbl	Gas - Oil Ratio													
Flow Tubing Press.	Casing Pressure	Calculated 24-Hour Rate	Oil - Bbl.	Gas - MCF	Water - Bbl.	Oil Gravity - API -(Corr.)														
29. Disposition of Gas (Sold, used for fuel, vented, etc.)						30. Test Witnessed By														
31 List Attachments																				
32. If a temporary pit was used at the well, attach a plat with the location of the temporary pit.																				
33. If an on-site burial was used at the well, report the exact location of the on-site burial:																				
Latitude				36.95918		Longitude		107.39948		NAD: 1927 1983										
I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief Signature <i>Vicki Donaghey</i> Printed Name Vicki Donaghey Title Regulatory Analyst Date 12/17/08 E-mail address vdonaghe@energen.com																				

RCVD JAN 18 '12
OIL CONS. DIV.

DIST. 3

COVER PAGE

ATTEN: JONATHON

ENERGEN RESOURCES
2010 AFTON PLACE
FARMINGTON NM 87401

OGRID # 162928

WELL NAME San Juan 32.5 Unit 112

API 30-039-26720

PERMIT 3443

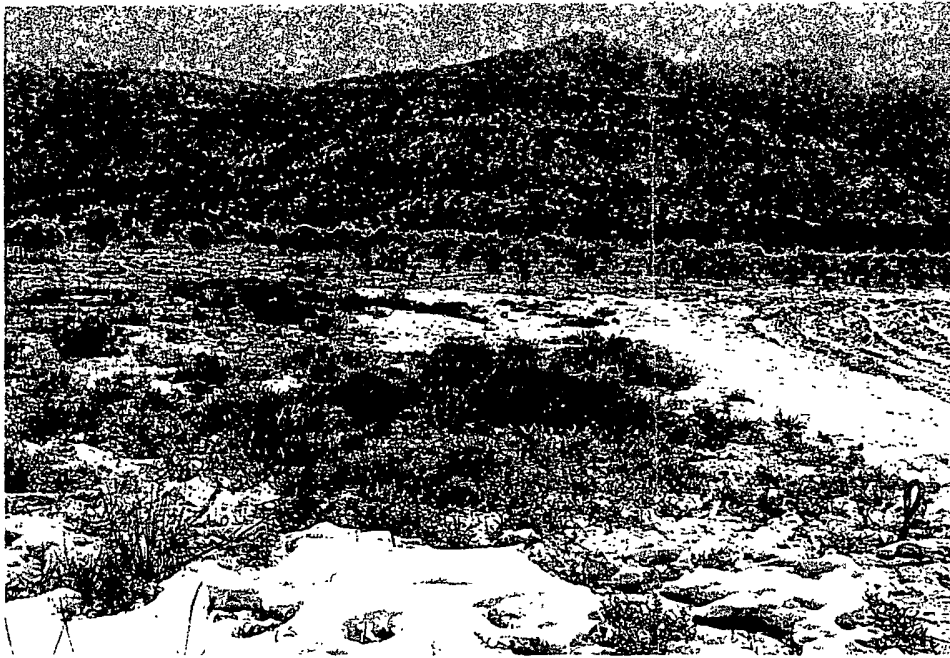
MISSING CIO2/PHOTO'S

Signature and Seal of Professional Surveyor

NEALE C. EDWARDS
NEW MEXICO
6857
REGISTERED PROFESSIONAL SURVEYOR

Neale C. Edwards

Certificate Number **6857**



Lat. 36.95977 Long. 107.39948

