

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

Form C-144
July 21, 2008

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.

3908

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.

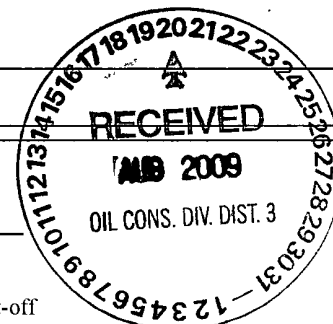
1
Operator: Energen Resources Corporation OGRID #: 162928
Address: 2010 Afton Place, Farmington, NM 87401
Facility or well name: Jicarilla 152W #4N
API Number: 30-039-30123 OCD Permit Number: _____
U/L or Qtr/Qtr M Section 05 Township 26N Range 05W County Rio Arriba
Center of Proposed Design: Latitude 36.51242 Longitude 107.38791 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

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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. (<i>Applies to temporary, emergency, or cavitation pits and below-grade tanks</i>)
- 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 (<i>Applies to permanent pits</i>)
- 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: _____

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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)

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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

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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 indentify 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

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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

18

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: _____

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

OCD Representative Signature: *Joseph D. Kelly* Approval Date: 1/12/2012
 Title: Compliance Officer OCD Permit Number: _____

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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: 07/01/09

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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.

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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

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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 36.51242 Longitude 107.38791 NAD: ☐ 1927 ☒ 1983

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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: 8-18-09
 e-mail address: vdonaghe@energy.com Telephone: 505-324-4136



EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

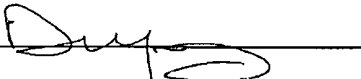
Client:	Energen	Project #:	03022-0001
Sample ID:	Jicarilla 152W #4N	Date Reported:	05-21-09
Laboratory Number:	50105	Date Sampled:	05-15-09
Chain of Custody No:	7078	Date Received:	05-15-09
Sample Matrix:	Sludge	Date Extracted:	05-19-09
Preservative:	Cool	Date Analyzed:	05-19-09
Condition:	Intact	Analysis Requested:	8015 TPH

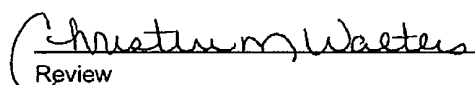
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	19.3	0.2
Diesel Range (C10 - C28)	16.9	0.1
Total Petroleum Hydrocarbons	36.2	0.2

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: **Reserve Pits**

Analyst 

Review 



EPA METHOD 8021
AROMATIC VOLATILE ORGANICS

Client:	Energen	Project #:	03022-0001
Sample ID:	Jicarilla 152W #4N	Date Reported:	05-21-09
Laboratory Number:	50105	Date Sampled:	05-15-09
Chain of Custody:	7078	Date Received:	05-15-09
Sample Matrix:	Sludge	Date Analyzed:	05-19-09
Preservative:	Cool	Date Extracted:	05-19-09
Condition:	Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	27.5	0.9
Toluene	282	1.0
Ethylbenzene	77.5	1.0
p,m-Xylene	751	1.2
o-Xylene	230	0.9
Total BTEX	1,370	

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: Reserve Pits

Analyst

Review



EPA METHOD 418.1
TOTAL PETROLEUM
HYDROCARBONS

Client:	Energen	Project #:	03022-0001
Sample ID:	Jicarilla 152W #4N	Date Reported:	05-21-09
Laboratory Number:	50105	Date Sampled:	05-15-09
Chain of Custody No:	7078	Date Received:	05-15-09
Sample Matrix:	Sludge	Date Extracted:	05-20-09
Preservative:	Cool	Date Analyzed:	05-20-09
Condition:	Intact	Analysis Needed:	TPH-418.1

Parameter	Concentration (mg/kg)	Det. Limit (mg/kg)
Total Petroleum Hydrocarbons	517	10.3

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: Reserve Pits.

Analyst

Review



Chloride

Client:	Energen	Project #:	03022-0001
Sample ID:	Jicarilla 152W #4N	Date Reported:	05-21-09
Lab ID#:	50105	Date Sampled:	05-15-09
Sample Matrix:	Sludge	Date Received:	05-15-09
Preservative:	Cool	Date Analyzed:	05-19-09
Condition:	Intact	Chain of Custody:	7078

Parameter	Concentration (mg/Kg)
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Total Chloride

25

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: Reserve Pits.

Analyst

Review



June 1, 2009

Certified Mail: 0000 5397 4257

Jicarilla Apache Tribe
Oil & Gas Administration
Attn: Bryce Hammond
P.O. Box 146
Dulce, NM 87528

Subject: Reserve Pit In-Place Closure
Jicarilla 152W #4N

Dear Sir or Madam:

Energien 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 M, Section 05, Township 26N, Range 05W in Rio Arriba County, New Mexico.

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

Sincerely,

Vicki

Vicki I.
Regula
Energien

Cc:

SENDER: COMPLETE THIS SECTION		COMPLETE THIS SECTION ON DELIVERY	
<ul style="list-style-type: none">Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.Print your name and address on the reverse so that we can return the card to you.Attach this card to the back of the mailpiece, or on the front if space permits.		<p>A. Signature <input checked="" type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) Wendy O'Leary</p> <p>C. Date of Delivery 6/9/09</p>	
1. Article Addressed to: Jicarilla Apache Tribe Oil & Gas Administration Attn: Bryce Hammond P.O. Box 146 Dulce NM 87528		D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input checked="" type="checkbox"/> No	
2. Article Number (Transfer from service label) 7007 1490 0000 5397 4257		3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.	
		4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes	

7007 1490 0000 5397 4257

U.S. Postal Service
CERTIFIED MAILTM RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)
For delivery information visit our website at www.usps.com
OFFICIAL USE

Postage	\$ 4.44
Certified Fee	2.80
Return Receipt Fee (Endorsement Required)	2.30
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$ 5.54

Postmark
Here

Sent To: Jicarilla Apache Tribe Oil & Gas Admin.
Attn: Bryce Hammond
Street, Apt. No.,
or PO Box No. P.O. Box 146
City, State, ZIP+4 Dulce NM 87528
PS Form 3800, August 2006 See Reverse for Instructions

From: stacey armenta [mailto:jjjstaci@yahoo.com]

Sent: Monday, June 22, 2009 11:12 AM

To: Powell, Brandon, EMNRD

Subject: Jic Apache 152W#4N

A&Z Contracting will begin work on the Jicarilla Apache 152W#4N on 06/24/2009 New Mexico One Call ticket #2009260396 copy available if needed Please contact Diana @ A&Z Contracting 505-330-9929 or email jjjstaci@yahoo.com if questions THANKS Diana

This inbound email has been scanned by the MessageLabs Email Security System.

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7/16/2009

Well Name: Jicarilla 152W #4N

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

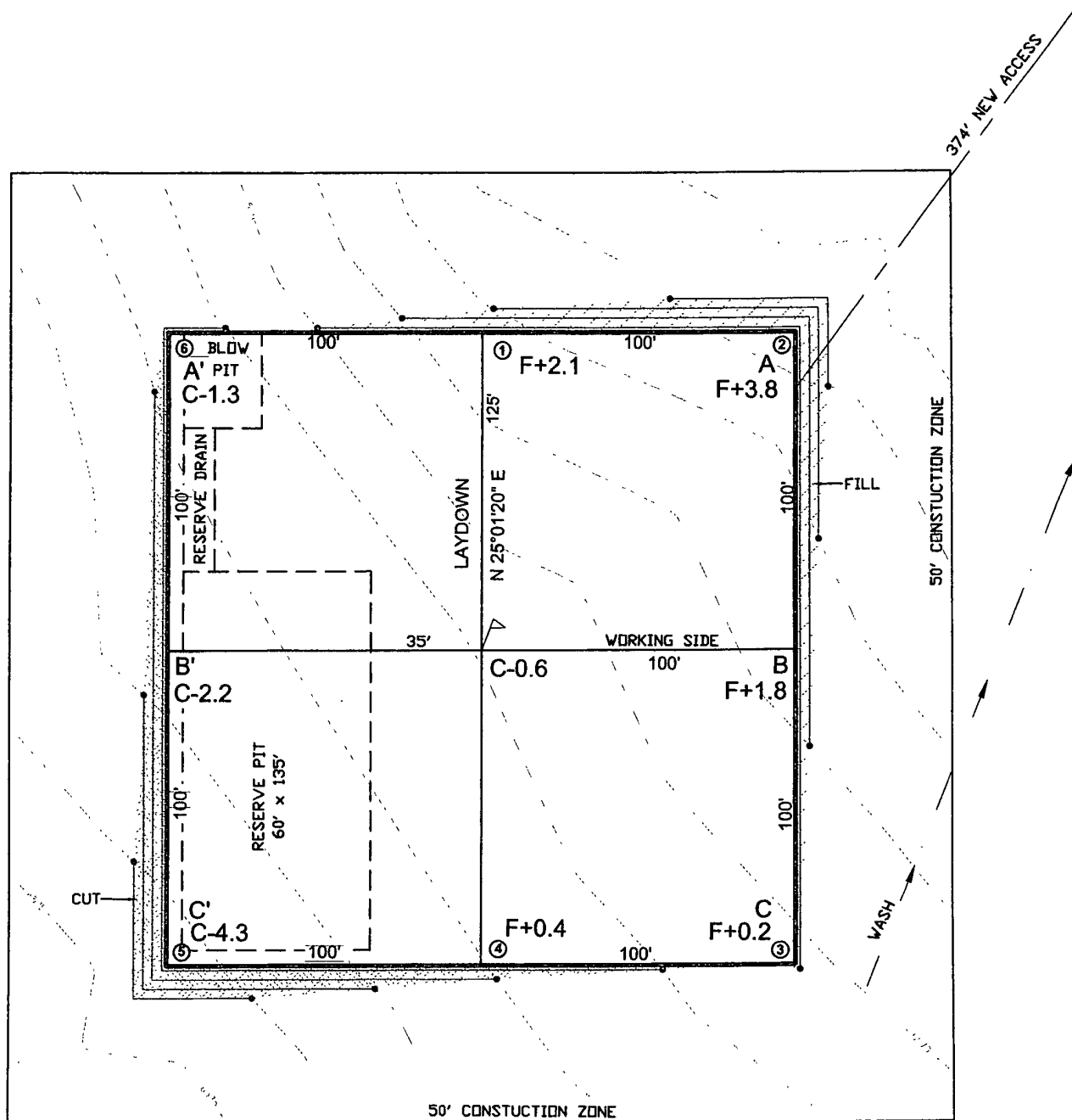
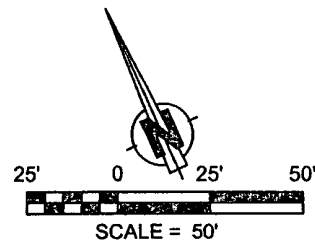
- 4) The analyses demonstrated that the stabilized contents were under the limits listed above. The contents were covered with compacted non-waste containing earthen material to three feet.
- 5) After the stabilized contents were covered, the stockpiled topsoil was replaced to a depth of one foot. Topsoil 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 was seeded or planted the first growing season after closing the pit. Seed was 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 top of this marker was flush with the ground with a threaded collar for future abandonment use to allow access of the pad and for safety concerns. On top of this marker, a steel

12 inch square plate indicating onsite burial was intermittent welded to the top of the collar to allow easy removal at time of the well being abandoned. Once all wells on the pad are abandoned a four foot tall riser will be threaded into the top of the marker and circumferential welded around the base 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.

LATITUDE: 36.51235°N
LONGITUDE: 107.38770°W
DATUM: NAD 83

ENGINEERING RESOURCES CORPORATION

JICARILLA 152W #4N
1130' FSL & 1100' FWL
LOCATED IN THE SW/4 SW/4 OF
SECTION 5, T26N, R5W, N.M.P.M.,
RIO ARriba COUNTY, NEW MEXICO
GROUND ELEVATION: 6571', NAVD 88
FINISHED PAD ELEVATION: 6570.4', NAVD 88



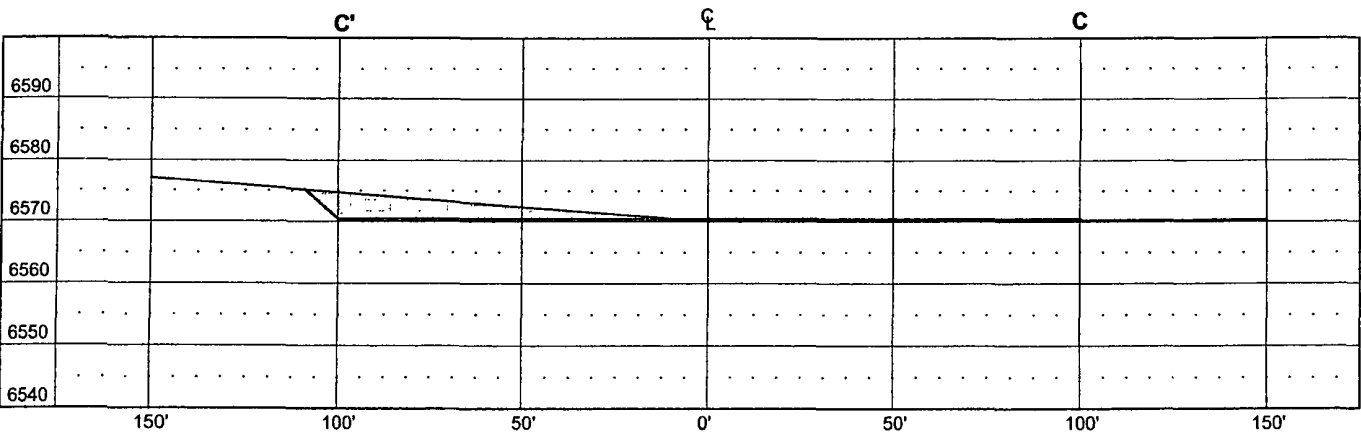
374 LF OF NEW ACCESS TO EXISTING
ERC - JICARILLA 152W #4 WELL PAD

1 FOOT CONTOUR INTERVAL SHOWN
SCALE: 1" = 50'
JOB No.: ERG140
DATE: 11/22/06; REV1



Russell Surveying
1409 W. Aztec Blvd. #5
Aztec, New Mexico 87410
(505) 334-8637

JICARILLA 152W #4N
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GROUND ELEVATION: 6571', NAVD 88
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1409 W. Aztec Blvd. #5
Aztec, New Mexico 87410
(505) 334-8637



Pit Inspection Log Sheet

(daily while rig is on-site, then weekly as long as liquids remain in the pit)

Well Name: Jic 52048

API: 30-039-30123

Name (Print): B. Ivey

Signature: B.R. Ivey

Date: 5/11/19

Note Any Deficiencies:

Name (Print): B. Ivey

Signature: B.R. Ivey

Date: 5/12/19

Note Any Deficiencies:

Name (Print): B. Ivey

Signature: B.R. Ivey

Date: 5/13/19

Note Any Deficiencies:

Name (Print): B. Ivey

Signature: B.R. Ivey

Date: 5/14/19

Note Any Deficiencies:

Name (Print): B. Ivey

Signature: B.R. Ivey

Date: 5/18/19

Note Any Deficiencies:

Name (Print): B. Ivey

Signature: B.R. Ivey

Date: 5/18/19

Note Any Deficiencies:

Name (Print): B. Ivey

Signature: B.R. Ivey

Date: 5/19/19

Note Any Deficiencies:

Name (Print): B. Ivey

Signature: B.R. Ivey

Date: 5/20/19

Note Any Deficiencies:

Name (Print): B. Ivey

Signature: B.R. Ivey

Date: 5/21/19

Note Any Deficiencies:

Name (Print): B. Ivey

Signature: B.R. Ivey

Date: 5/22/19

Note Any Deficiencies:

Name (Print): B. Ivey

Signature: B.R. Ivey

Date: 5/26/19

Note Any Deficiencies:

Name (Print): B. Ivey

Signature: B.R. Ivey

Date: 5/27/19

Note Any Deficiencies:

Name (Print): B. Ivey

Signature: B.R. Ivey

Date: 5/28/19

Note Any Deficiencies:

Name (Print): B. Ivey

Signature: B.R. Ivey

Date: 5/29/19

Note Any Deficiencies:

Name (Print): B. Ivey

Signature: B.R. Ivey

Date: 5-30-19

Note Any Deficiencies:

Name (Print): B. Ivey

Signature: B.R. Ivey

Date: 6/1/19

Note Any Deficiencies:

Jic 152 W 4N

BTuy

6/2/9

B.R. Juy

6/3/9

BTuy

B.R. Juy

6/4/9

BTuy

B.R. Juy

Jic 152 W 4N

6/5/9

BTuy

B.R. Juy

Jic 152 W 4N

6/8/9

BTuy

B.R. Juy

Jic 152 W 4N

6/9/9

BTuy

B.R. Juy

Jic 152 W 4N

6/10/9

BTuy

B.R. Juy

Jic 152 W 4N

6/11/9

BTuy

B.R. Juy

Jic 152 W 4N

6/12/9

BTuy

B.R. Juy

Pit Inspection Log Sheet

Energen Resources Corporation

Well Name: Jicarilla 152W #4N API #:

[illegible]

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.

30-039-30123

2. Type Of Lease

☐ STATE ☐ FEE ☒ FED/INDIAN

3. State Oil & Gas Lease No.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

4 Reason for filing

☐ COMPLETION REPORT (Fill in boxes #1 through #31 for State and Fee wells only)

☒ 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

Jicarilla 152W

6. Well Number

4N

9 Type of Completion

☐ NEW WELL ☐ WORKOVER ☐ DEEPENING ☐ PLUGBACK ☐ DIFFERENT RESERVOIR ☒ 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

Mesaverde/Dakota

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 06/11/09 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

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN

25. TUBING RECORD

SIZE	DEPTH SET	PACKER SET

26. Perforation record (interval, size, and number)

27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC.

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 36.51242 Longitude 107.38791 NAD: 1927 X 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 Vicki Donaghey Printed Name Vicki Donaghey Title Regulatory Analyst Date 07/16/09
E-mail address vdonaghe@energen.com

RCVD JAN 12 '12

OIL CONS. DIV.

DIST. 3

COVER PAGE

ENERGEN RESOURCES
2010 AFTON PLACE
FARMINGTON NM 87401

OGRID # 162928

WELL NAME Jicarilla 152W 4N

API 30-039-30123

PERMIT 3908

Missing CID2 + PHOTOS

First, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name MESA VERDE/DAKOTA
4 Property Code	5 Property Name JICARILLA 152W	6 Well Number 4N
7 GRID No.	8 Operator Name ENERGEN RESOURCES CORPORATION	9 Elevation 6571'

10 Surface Location

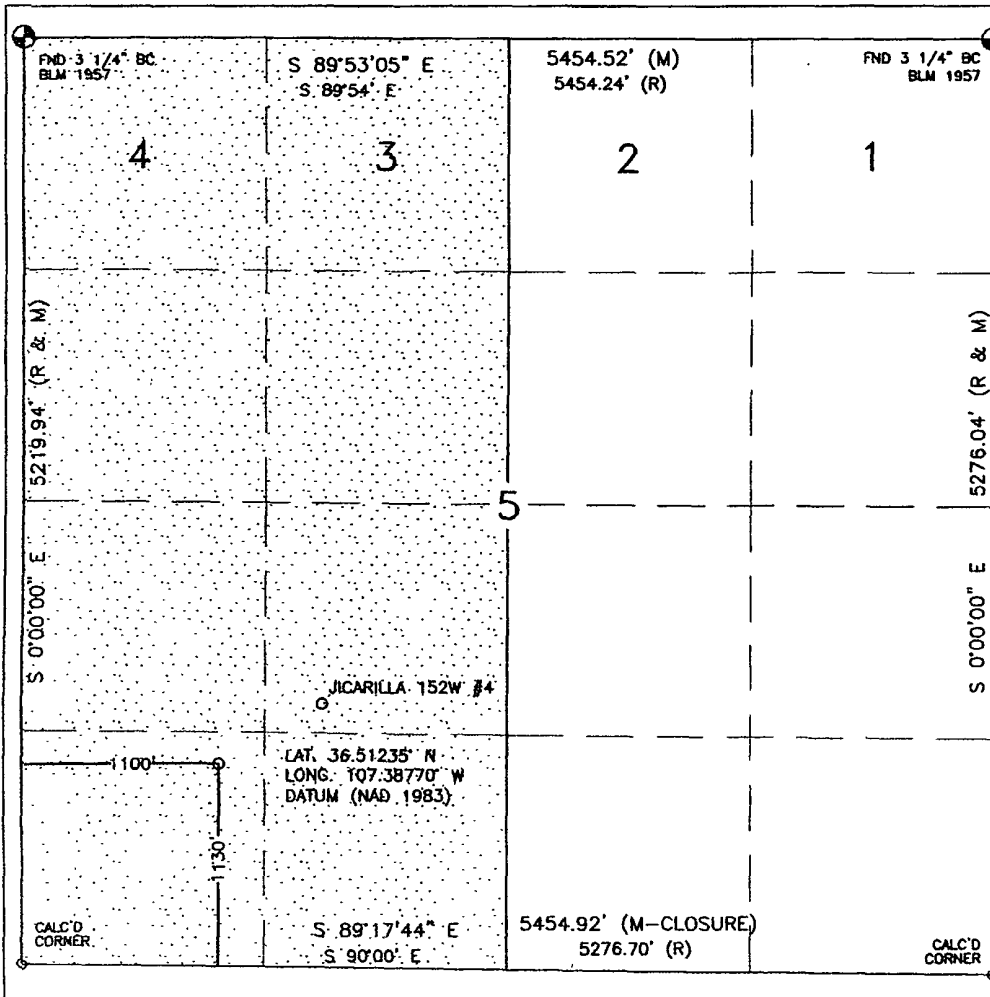
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	5	26N	5W		1130'	SOUTH	1100'	WEST	RIO ARriba

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
12 Dedicated Acres 319.61 329.45 Acres - (W/2)			13 Joint or Infill		14 Consolidation Code		15 Order No.		

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16



17 OPERATOR CERTIFICATION

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

Nathan Smith
Signature

Nathan Smith
Printed Name

Drilling Engineer
Title

11/28/06
Date

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

NOVEMBER 18, 2006

Date of Survey

Signature and Seal of Professional Surveyor:

David A. Russell



DAVID RUSSELL

Certificate Number

10201

