

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

FORM APPROVED
OMB NO. 1004-0137
Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. JICARILLA APACHE 67	
1b. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name JICARILLA APACHE	
2. Name of Operator Energen Resources Corporation		7. Unit or CA Agreement Name and No. Farmington Field Office, Multiple Zone	
3a. Address 2010 Afton Place Farmington, New Mexico 87401		8. Lease Name and Well No. Jicarilla 67 #21	
3b. Phone No. (include area code) (505)325-6800		9. API Well No. 30-039-31022	
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface (E) Sec.19-T25N-R05W ; 2.575'FNL, 701'FWL ; Lot #2 At proposed prod. zone		10. Field and Pool, or Exploratory Basin Dakota	
14. Distance in miles and direction from nearest town or post office* 20 miles northwest of Lindrith		11. Sec., T., R., M., or Blk. and Survey or Area Sec.19-T25N-R05W	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 701'		12. County or Parish Rio Arriba	
16. No. of Acres in lease 2,558.28		13. State NM	
17. Spacing Unit dedicated to this well 319.24 W/2		18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1086'	
19. Proposed Depth 7,150' MD		20. BLM/BIA Bond No. on file	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,623' GL		22. Approximate date work will start* 04/01/2011	
23. Estimated duration 15 days		24. Attachments RCVD APR 13'11	

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must be attached to this form:

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM |

OIL CONS. DIV.

DIST. 3

25. Signature 	Name (Printed/Typed) Andrew Soto	Date 2/4/2010
Title Drilling Engineer		
Approved by (Signature) 	Name (Printed/Typed) AFM	Date 4/5/11
Title Office FFO		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

APR 20 2011

NMOC

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

This action is subject to technical and procedural review pursuant to 43 CFR 3165.9 and appeal pursuant to 43 CFR 3165.4

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised July 10, 2010

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION FEB 08 2011

1220 South St. Francis Dr.
Santa Fe, NM 87505

Farmington Field Office ☐ AMENDED REPORT
Bureau of Land Management

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-31022		*Pool Code 71599	*Pool Name BASIN DAKOTA
*Property Code 21935	*Property Name JICARILLA 67		*Well Number 21
*OGRD No. 162928	*Operator Name ENERGEN RESOURCES CORPORATION		*Elevation 6623'

¹⁰ Surface Location

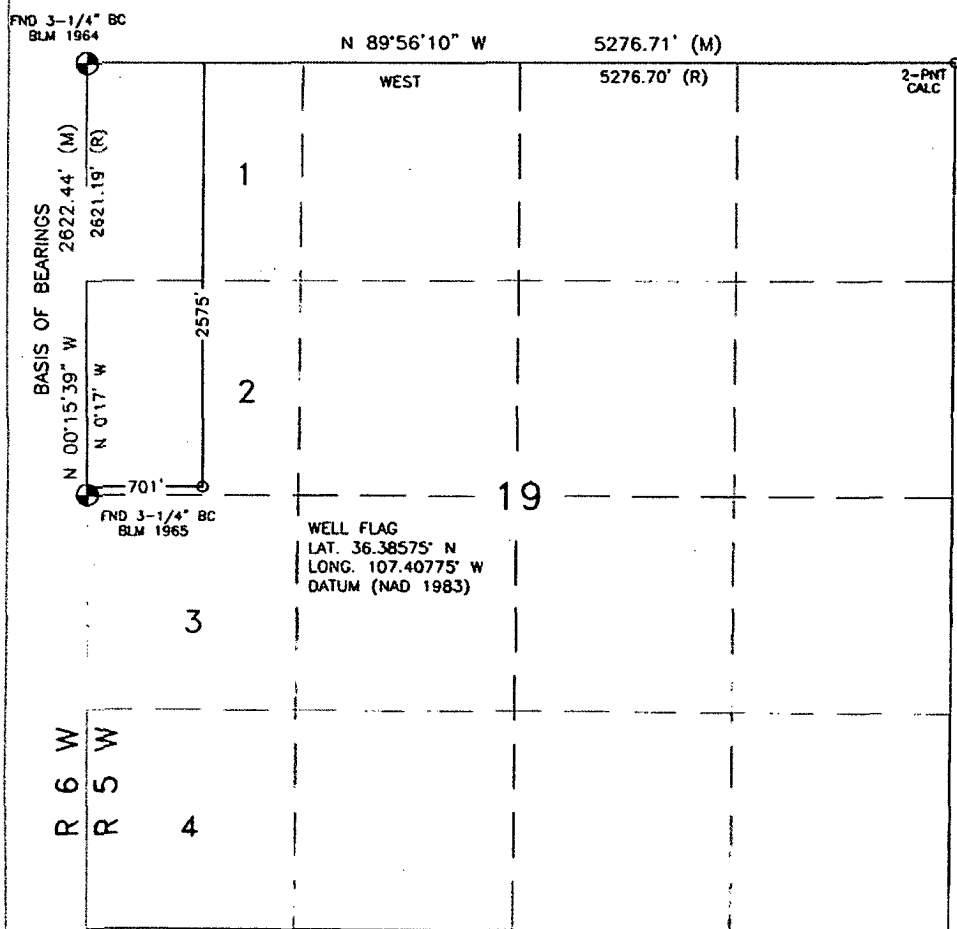
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	19	25N	5W	2	2575'	NORTH	701'	WEST	RIO ARRIBA

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
*Dedicated Acres W/2 - 319.24 ACRES			*Joint or Infill		*Consolidation Code		*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

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17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature **2-2-11**
Signature **Date**

Andrew Soto
Printed Name

E-mail Address

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.

SEPTEMBER 28, 2010

Date of Survey

Signature and Seal of Professional Surveyor:

Signature
DAVID R. RUSSELL
REGISTERED PROFESSIONAL LAND SURVEYOR
NEW MEXICO
1324
DAVID RUSSELL
Certificate Number **10201**

2/2/2011

OPERATIONS PLAN

WELL NAME.....Jicarilla 67 #21
JOB TYPE.....Vertical Basin Dakota
DEPT.....Drilling and Completions
PREPARED BY.....Andrew Soto

GENERAL INFORMATION

Surface Location	2,575' FNL & 701' FWL
S-T-R	(E) Sec. 19, T25N, R05W
County, State	Rio Arriba, New Mexico
Elevations	6,623' GL
Total Depth	7,150'
Formation Objective	Basin Dakota

FORMATION TOPS

San Jose	Surface
Nacimiento	1,095'
Ojo Alamo Ss	2,055'
Kirtland Sh	2,185'
Fruitland Fm	2,245'
Pictured Cliffs SS	2,625'
Lewis Shale	2,710'
Cliff House SS	4,185'
Menefee Fm	4,225'
Point Lookout SS	4,835'
Mancos Sh	5,155'
Greenhorn Ls	6,765'
Graneros Sh	6,815'
Dakota Two Wells SS	6,865'
Dakota Pagaute SS	6,910'
Dakota Cubero SS	6,950'
Dakota Oak Canyon SS	7,015'
Dakota Encinal Canyon SS	7,055'
Total Depth	7,150'

DRILLING

Surface: A 12 1/4" wellbore will be drilled with a fresh water mud system (spud mud).

Production: An 8 3/4" wellbore will be drilled to 2,800' and then will TD with a 7 7/8" wellbore.

The wellbore will be drilled with a LSND mud system. Weighting materials will be drill cuttings and if needed barite. Mud density is expected to range from 8.4 ppg to 9.0 ppg. Anticipated BHP can be as high as 2,000 psi. Should problems arise, the 8 3/4" hole will be cased and the appropriate sundries will be filed.

Blowout Control Specifications:

A 3,000 psi minimum double ram or annulus BOP stack will be used following nipple up of casing head. A 2" nominal, 2,000 psi minimum choke manifold will also be used. An upper Kelly Cock valve handle and drill string valve should be available to fit each drill string and be available on the rig floor during drilling operations. **Pressure test BOP to 250 psi for 15 min and 2,000 psi for 15 min.**

2/2/2011

Logging Program:

Open hole logs: Schlumberger's Platform Express from TD to the 8 3/4" hole.

Mudlogs: From the top of Mancos to TD.

Surveys: Surface hole and every 500' from surface to TD.

CASING, TUBING & CASING EQUIPMENT

String	Start Depth	End Depth	Wellbore	Size	Wt	Grade
Surface	0	250	12 1/4"	9 5/8"	32.3 lb/ft	H-40 ST&C
Production	0	7150	8 3/4" & 7 7/8"	4 1/2"	11.6 lb/ft	J-55 LT&C
Tubing	0	7150	none	2 3/8"	4.7 lb/ft	J-55

Surface Casing: Texas Pattern Guide Shoe on bottom of first joint and an insert float valve on top of first joint. Casing centralization will be done with a minimum of 3 standard bow spring centralizers to achieve optimal standoff.

Production Liner: Self fill float shoe with self fill float collar on bottom and top of first joint respectively. There will be 2 DV tools in the production casing. Place the first one 450' below the top of the Point Lookout, +/- 5,285', and the other 200' below the top of the Lewis, +/- 2,910'. Casing centralization will be done with double bow spring centralizers to optimize standoff.

WELLHEAD

11" 3000 x 9 5/8" weld/slip on casing head. 9 5/8" x 4 1/2" x 2 3/8" 5000 psi flanged wellhead .

CEMENTING

Surface Casing: 133 sks Type V with 2.0 % CaCl₂ and 1/4 #/sk Flocele (15.6 ppg, 1.18 ft³/sk 157 ft³ of slurry, 100% excess to circulate to surface). WOC 12 hours. Pressure test surface casing to 750 psi for 30 min.

Production Liner: Circulate hole at least 1 1/2 hole volumes of mud and reduce funnel viscosity to aid in hole cleanout. Stage 1 will begin at 7,150' to +/- 5,285'. Stage 2 will be from +/- 5,285' to +/- 2,910'. Stage 3 will be from +/- 2,910' to surface.

First Stage: May consist with a lead of 282 sks 65/35 Halliburton Light Premium with 10#/sk Gilsonite, 1/2 #/sk Flocele and 2% CaCl₂ (12.3 ppg, 1.8 ft³/sk) and a tail of 100 sks 50/50 Poz Premium with 5#/sk Gilsonite, 1/4 #/sk Flocele and 1.2% Halad-9 (13.5 ppg, 1.31 ft³/sk) (638 ft³, 50% excess to circulate off of stage tool). The top of tail is designed to 6,575' FS. Circulate 2 - 2.5 hours between stages at time plug down on first stage.

Second Stage: May consist of 450 sks 65/35 Halliburton Light Premium with 10#/sk Gilsonite, 1/2 #/sk Flocele and 2% CaCl₂ (12.3 ppg, 1.8 ft³/sk, 810 ft³ of slurry with 50% excess to circulate off of stage tool). Circulate 2 - 2.5 hours between stages at time plug down on second stage.

Third Stage: May consist of 983 sks 65/35 Halliburton Light Premium with 10#/sk Gilsonite, 1/2 #/sk Flocele and 2% CaCl₂ (12.3 ppg, 1.8 ft³/sk, 1,770 ft³ of slurry with 100% excess to circulate to surface).

2/2/2011

Set slips with full string weight.

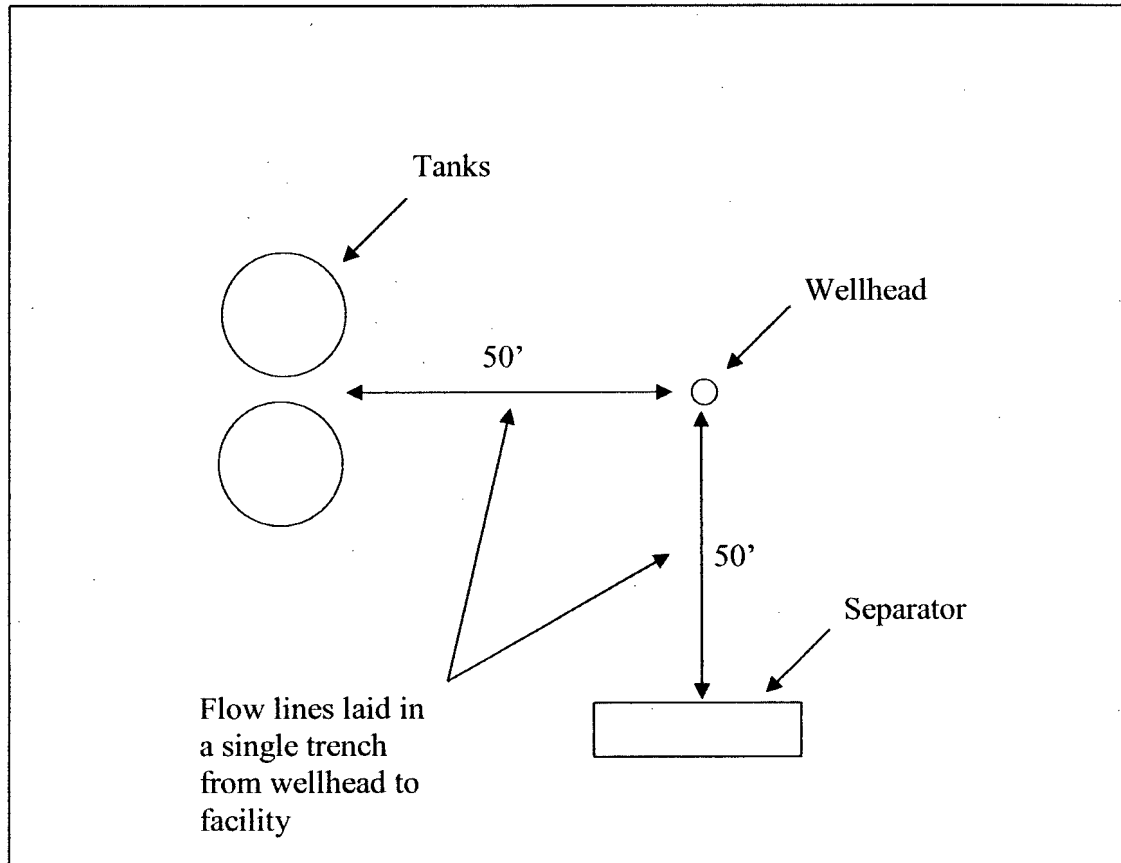
If cement does not circulate, a cement bond log will be ran to determine TOC.

OTHER INFORMATION

- 1) This well will be a cased hole completion and the Dakota fracture stimulated.
- 2) If lost circulation is encountered, sufficient LCM will be added to the mud system to maintain well control. The production string may need to be cemented in multiple stages with a slurry design deviated from that listed above.
- 3) If high reservoir pressures or water flows are encountered slurry design may need to be deviated from those listed above to satisfy wellbore and formation conditions.
- 4) No abnormal temperatures or pressures are anticipated.
- 5) This gas is dedicated.

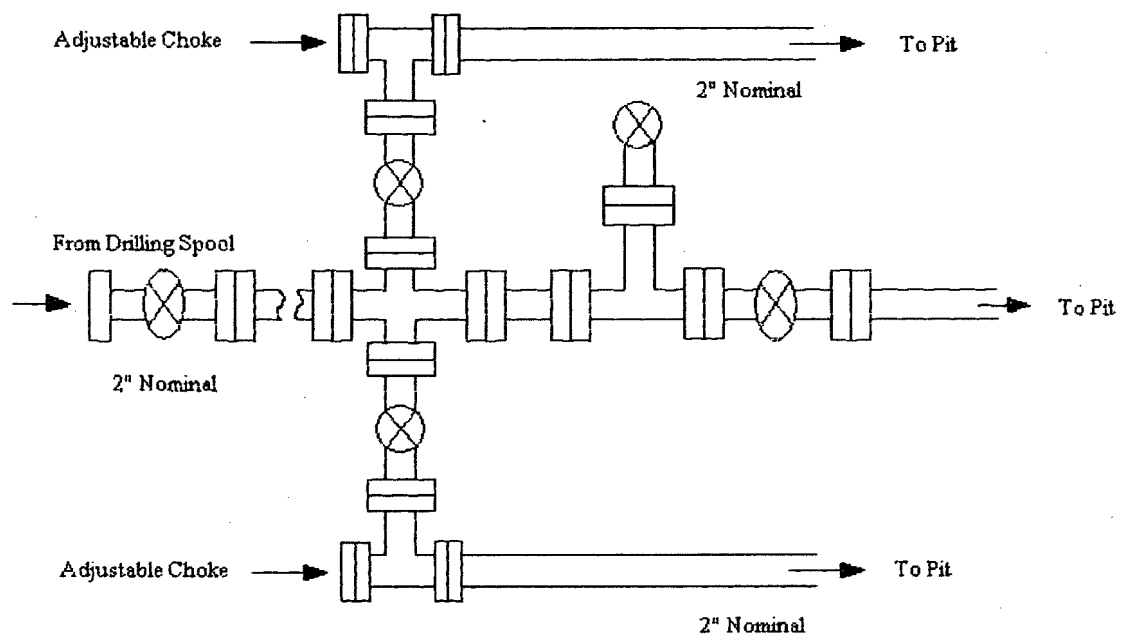
EXHIBIT C

Typical Energen well pad layout with production facilities



- 50 feet is a minimum offset to ensure facilities are on the outside of the drill rig anchors for work-over activity.

Energen Resources Corporation
Typical 2000 psi Choke Manifold Configuration



Choke manifold installed from surface to TD

Energen Resources Corporation

Typical BOP Configuration for Gas Drilling

