

Submit 3 Copies To Appropriate District  
Office  
District I  
1625 N. French Dr., Hobbs, NM 87240  
District II  
1301 W. Grand Ave., 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

Form C-103  
June 19, 2008

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO. 30-039-31309
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input checked="" type="checkbox"/>
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name: Many Canyons 24-03 8
8. Well Number #4H
9. OGRID Number 162928
10. Pool name or Wildcat West Lindrith Gallup-Dakota

SUNDRY NOTICES AND REPORTS ON WELLS  
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A  
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH  
PROPOSALS.)

1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other
2. Name of Operator Energen Resources Corporation
3. Address of Operator 2010 Afton Place, Farmington, NM 87401
4. Well Location Unit Letter <u>P</u> : <u>1230</u> feet from the <u>South</u> line and <u>716</u> feet from the <u>East</u> line Section <u>8</u> Township <u>24N</u> Range <u>03W</u> NMPM County <u>Rio Arriba</u>
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6878' GL

12. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐  
TEMPORARILY ABANDON ☐ CHANGE PLANS ☒  
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐  
DOWNHOLE COMMINGLE ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Energen Resources would like to request the following changes to the drilling plans. Revised drilling plans are attached.

- Set 9-5/8" casing from 2500' MD to 3250' MD and increase lead to 655 sks cement
- Liner top from 7100' MD to 7025' MD and increase base slurry from 545 sks to 570 sks
- TOC from 7100' MD to 7025' MD

OIL CONS. DIV DIST. 3

Spud Date:

Rig Release Date:

JUL 08 2015

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

SIGNATURE Anna Stotts TITLE Regulatory Analyst DATE 07/07/15  
astotts@energen.com  
Type or print name Anna Stotts E-mail address: astotts@energen.com PHONE 324-4154

For State Use Only

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR DATE JUL 10 2015  
Conditions of Approval (if any): AV DISTRICT #3

**Drilling Plan**  
**Energen Resources Corporation**

**Many Canyon 24-03 8 #4H**

Surface Location: 1230 FSL, 716 FEL

Legal Description: Sec 8, T24N, R3W (36.321030° N, 107.173370° W – NAD83)

Bottom Hole Location: 330 FSL, 330 FWL

Legal Description: Sec 8, T24N, R3W (36.318500° N, 107.187762° W – NAD83)

Rio Arriba County, NM

1. The elevation of the unprepared ground is 6,878 feet above sea level.
2. The geological name of the surface formation is the Nacimiento.
3. A rotary rig will be used to drill the well to a Proposed Total Depth of 6,440' TVD/11,833' MD.
4. Estimated top of important geological markers:

<u>Formation</u>	<u>Depth (TVD)(ft)</u>	<u>Depth (MD)(ft)</u>
Nacimiento	Surface	Surface
Ojo Alamo	2,572	2,572
Kirtland	2,762	2,762
Pictured Cliffs	3,445	3,445
Huerfanito Bentonite	3,852	3,857
Chacra	3,936	3,943
Cliff House	4,711	4,849
Menefee	4,733	4,875
Point Lookout	5,228	5,478
Mancos	5,582	5,908
Mancos/Niobrara "B"	6,400	6,957

5. Estimated depth at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered:

<u>Formation</u>	<u>Depth (TVD)(ft)</u>	<u>Water/HydroCarbon</u>
Pictured Cliffs	3,852	Gas
Cliffhouse	4,711	Gas
Point Lookout	5,228	Gas
Mancos	5,582	Oil/Gas

6. All proposed casing is new and the program is as follows:

Casing	Size	Depth		Grade	Weight	Connection	PSI x1000 lbs		
		MD	TVD				Burst	Collapse	Tension
Surface	13-3/8"	0-200'	0-200'	H-40	48.0	STC	1730	770	322
1 <sup>st</sup> Intermediate	9-5/8"	0-3,250'	0-3,250'	J-55	36.00	LTC	3520	2020	394
2 <sup>nd</sup> Intermediate	7"	0-7,225'	0-6,440'	L-80	26.00	DQX TMK IPSCO	7240	5410	830
Production	4-1/2"	7,025'-11,833'	6,440'-6,258'	P-110	11.60	DQX TMK IPSCO	10690	7560	367

## 7. Cementing Program:

- a. 17-1/2" hole x 13-3/8" casing at 200' will have cement circulated to surface with 240 sks (100% excess true hole) Class H Cement with 1.0 %  $\text{CaCl}_2$ , 1/2 #/sk Poly-E-Flake 15.8 ppg, 1.17 ft<sup>3</sup>/sk. Note: CEMENT MUST BE CIRCULATED TO SURFACE. STANDARD BOW SPRING CENTRALIZERS SHALL BE PLACED ON THE FIRST 3 (BOTTOM 3) JOINTS OF CASING (1 PER JOINT) AND 1 EVERY 3<sup>RD</sup> JOINT TO SURFACE. 20 BBLs OF WATER AHEAD OF CEMENT AS SPACER
- b. 12-1/4" hole x 9-5/8" casing at 3,250' will have cement circulated to surface with 655 sks (50% excess true hole) of VERSACEM™ SYSTEM with 3 % HR-5. 1/4 #/sk Poly-E-Flake, 5 #/sk Kol-Seal (Gilsonite) – 12.3 ppg, 1.97 ft<sup>3</sup>/sk followed 200 sks (50% excess true hole) Class H Cement with 1.0 %  $\text{CaCl}_2$ , 1/2 #/sk Poly-E-Flake 15.8 ppg, 1.17 ft<sup>3</sup>/sk. Note: CEMENT MUST BE CIRCULATED TO SURFACE. STANDARD BOW SPRING CENTRALIZERS SHALL BE PLACED ON THE FIRST 3 (BOTTOM 3) JOINTS OF CASING (1 PER JOINT) AND 1 EVERY 3<sup>RD</sup> JOINT TO SURFACE. 20 BBLs OF WATER FOLLOWED BY 20 BBLs OF MUDFLUSH AHEAD OF CEMENT AS SPACER Stage Tool to be placed at 2,650' if needed depending on wellbore conditions in the Pictured Cliffs Formation.
- c. 8-3/4" hole x 7" casing at 7,225'. Cement will be circulated to surface with 770 sks (50% excess true hole) of VERSACEM™ SYSTEM with 3 % HR-5. 1/4 #/sk Poly-E-Flake, 5 #/sk Kol-Seal (Gilsonite) – 12.3 ppg, 1.97 ft<sup>3</sup>/sk followed by 175 sks (100% excess true hole) VARICEM™ CEMENT with 0.20% Versaset, 0.30% HALAD-567 – 13.5 ppg, 1.28 ft<sup>3</sup>/sk. ONE CENTRALIZER PER JOINT FOR THE FIRST 3 JOINTS, THEN EVERY 3<sup>RD</sup> JOINT TO SURFACE. 10 BBLs OF WATER FOLLOWED BY 30 BBLs OF MUDFLUSH AHEAD OF CEMENT AS SPACER. Test Intermediate Casing to 1500 psi. Cement Additives Subject to Change Based on Wellbore Conditions and Cement Design Criteria
- d. 6-1/4" hole x 4-1/2" liner at 11,833'. A fluid caliper will be run to determine base slurry cement to have TOC at 7,025'. Base slurry to consist of 570 sks VARICEM™ CEMENT with 2.5 lb/sk Kol-Seal, 0.20 % Halad-9, 0.05 % SA-1015, 0.70 % Halad-567 – 13.3 ppg, 1.33 ft<sup>3</sup>/sk (50% excess). CENTRALIZERS TO BE USED AT DISCRETION IN LATERAL TO ACHIEVE 70% STAND OFF. PACKOFF SEAL ASSEMBLY TO BE USED FOR LINER TOP ISOLATION. Cement Additives Subject to Change Based on Wellbore Conditions and Cement Design Criteria. Liner to be Pressure Tested During Completion Operations.

## 8. Pressure Control Equipment

- a. BOPE to be installed prior to Surface Casing drillout.
- b. Pressure control equipment will be used to meet 2,000 (2M) psi specifications.
- c. BOPE working pressure of 3,000 psi.
- d. Function test and visual inspection to be done at each casing size change prior to drill out.
- e. BOP annular to be tested to 85% of working pressure.
- f. All BOP and related equipment will be tested in accordance with the requirements outlined in Onshore Order No. 2 and Notice to Operators dated May 27, 2005.
- g. BOP remote controls to be located on rig floor and readily accessible, master control on ground at accumulator will be able to function all preventors.
- h. Kill line will be 2 in min and have two kill line valves, one being a check valve.
- i. Choke line will be 2 in min and have two choke line valves, choke manifold with have two adjustable chokes, one manual and one remote. All choke lines will be as straight as possible. Any turns will be properly targeted using block and/or running tees. Choke line and manifold to be pressure tested to 1,500 psi.
- j. Float sub and TIW valve will be on the rig floor at all times.
- k. If high pressure co-flex hoses are used, they will be run as straight as possible and anchored to prevent whip.

- l. The main discharge line (panic line) will be at least 100' from the choke manifold and discharged into an appropriately sized discharge facility.

9. Mud Program:

0' - 2500'	Fresh water/Spud Mud. Paper for losses and seepage. 8.5 to 9.0 ppg, 32 to 75 vis, PV 3 to 5, YP 5 to 7, WL NC
2500' – 7,225'	Fresh water/LSND. As needed LCM for losses and seepage. 8.5 to 9.5 ppg, pH 10, 28 to 60 vis, PV 1, YP 1, WL 8-15
7,225' – 11,833'	WBM with shale and clay stabilizers. As needed LCM for losses and seepage. 8.3 to 9.3 ppg, 15 to 35 vis, PV 4-6, YP 4-6, WL < 20

**\*\*During drilling operations, all necessary products will be sufficiently stored on location for abnormal situations. The characteristics, use, testing of drilling mud and the implementation of related drilling procedures shall be designed to prevent the loss of well control. Sufficient quantities of mud materials shall be maintained or readily accessible for the purpose of assuring well control.**

**\*\*A pH of 10 or above in the fresh water base mud system shall be maintained to control the effects corrosion has on metallurgy of equipment used.**

Operating and Maintenance

Energex Resources Corporation will be using all above ground steel pits for fluid and cuttings while drilling. If any tank develops a leak we will have immediate visual discovery, we would then transfer the fluid to another tank then remove any contaminated soil and dispose of it in the cuttings bins for transportation. Any leaks, spills or other undesirable events will be reported in accordance with BLM NTL 3A. Rig crews will monitor the tanks at all times. A trip/surge tank will be used to monitor returns for any “kicks” of formation fluids.

Equipment:

2-Mongoose Shale Shakers

2-3400 High Speed Centrifuges with stands and pumps

2-Roll off bins with Tracks

2-200 bbl Open top Frac tanks

1-Mud/Gas Separator and Degasser

1-Trip/Surge Tank

Electronic or Visual monitoring system to indicate lost returns

10. Testing, Logging and Coring Program:

- a. Testing Program: No drillstem tests are anticipated
- b. Electric Logging Program: Triple Combo, FMI, Sonic Scanner
- c. LWD Program: TBD
- d. Coring Program: Sidewall Cores through Mancos Formation
- e. CBL's and/or Temperature Surveys Will Be Performed as Needed or Required.

11. Bottom Hole Pressure expected to be 2,500 +/- psi

12. Bottom Hole Temperature expected to be 160 deg F.