

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**
*Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.*5. Lease Serial No.
NMNM129262

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

HOBBS OCD If Unit or CA/Agreement, Name and/or No.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator

ENERGEN RESOURCES CORPORATION

Contact: TOM CARRENS

Email: THOMAS.CARRENS@ENERGEN.COM

8. Well Name and No.

COX 35 FEDERAL 1H

9. API Well No.

30-025-41520

3a. Address

3300 NORTH A STREET BLDG 4 SUITE 100
MIDLAND, TX 79705

3b. Phone No. (include area code)

Ph: 432-688-3334

10. Field and Pool, or Exploratory

TRISTE DRAW; BONE SPRING

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 35 T23S R32E Mer NMP SESE 200FSL 400FEL

11. County or Parish, and State

LEA COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Energen Resources would like to change the production casing from 5.50", 20#, P-110, TCPC to 5.50", 20#, RYS-110, CDCHTQ. Attached are revised drill plans and casing manufacture spec sheets.

Original COFF still stand

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #231722 verified by the BLM Well Information System
For ENERGEN RESOURCES CORPORATION, sent to the Hobbs
Committed to AFMSS for processing by JOHNNY DICKERSON on 01/16/2014 ()

Name (Printed/Typed) TOM CARRENS

Title SUPV DRILLING

Signature (Electronic Submission)

Date 01/10/2014

APPROVED

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

Title

Conditions of approval, if any, are attached. Approval of this notice 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.

Office

JAN 24 2014
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

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.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

FEB 03 2014

Drilling Plan
Energen Resources Corporation
Revised 1/9/2014

Cox 35 Federal #001H

Surface Location: 200' FSL & 400' FEL

Section 35-23S-32E, 32° 15' 16.060"/-130° 38' 17.374"

Bottom Hole Location: 330' FNL & 400' FEL

Section 35-23S-32E, 32° 16' 03.092"/-130° 38' 17.403"

Lea Co., NM

1. The elevation of the unprepared ground is 3649.5 feet above sea level.
2. The geological name of the surface formation is Quaternary Eolian and Piedmont deposits
3. A rotary rig will be utilized to drill the well to a Proposed Total Depth of 10,991' TVD/14,835' MD.
4. Estimated top of important geological markers:

<u>FORMATION</u>	<u>DEPTH (TVD)(ft)</u>	<u>SUBSEA(ft)</u>
Rustler	1,162	2,509
Top of Evaporite	1,302	2,369
Base of Evaporite	4,732	-1,061
Bell Canyon	5,023	-1,352
Cherry Canyon	5,869	-2,198
Brushy Canyon	7,219	-3,548
Bone Springs	8,802	-5,131
Avalon	8,931	-5,260
1st Bone Spring Carbonate	9,849	-6,178
1st Bone Spring Sand	9,982	-6,311
2nd Bone Spring Carbonate	10,316	-6,645
2nd Bone Spring Sand	10,631	-6,960
3rd Bone Spring Carbonate	11,091	-7,420

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>
Rustler	1,162	Water
Top of Evaporite	1,302	NA
Base of Evaporite	4,732	NA
Bell Canyon	5,023	Oil/Gas
Cherry Canyon	5,869	Oil/Gas
Brushy Canyon	7,219	Oil/Gas
Bone Springs	8,802	NA
Avalon	8,931	Oil/Gas
1st Bone Spring Carbonate	9,849	NA
1st Bone Spring Sand	9,982	Oil/Gas
2nd Bone Spring Carbonate	10,316	NA
2nd Bone Spring Sand	10,631	Oil/Gas
3rd Bone Spring Carbonate	11,091	NA

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

See original COAS

Casing	Size	Depth		Grade	Weight	Connection	PSI		x1000 lbs
		MD	TVD				Collapse	Burst	
Surface	13-3/8"	0-1,200'	0-1,200'	J-55	54.50	BTC	1,130	2,730	909
Intermediate	9-5/8"	0-4,850'	0-4,850'	J-55	40.00	BTC	2,570	3,950	714
Production (Atch C-2)	5-1/2"	0-14,835'	0-10,991'	RYS-110	20.00	CDC HTQ	11,100	12,640	641

7. Cementing Program:

- 17-1/2" hole x 13-3/8" casing at 1,200' will have cement circulated to surface with 540 sx of Econocem – HLC with 1 lbm/sk Kol-Seal at 12.8 ppg (1.81 cf/sk) followed by 250 sx HalCem – C with 1 lbm/sk Kol-Seal at 14.8 ppg (1.33 cf/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 3RD JOINT TO SURFACE.
- 12-1/4" hole x 9-5/8" casing at 4,850'. A fluid caliper will be run to determine the exact cement volume required. Cement will be circulated to surface with 890 sx of Econo-Cem – C with 2lbm/sk Kol- Seal, 0.25 lbm/sk D-AIR 5000 at 11.9 ppg (2.45 cf/sk) followed by 220 sx of HalCem-C with 1 lbm/sk Kol-Seal at 14.8 ppg (1.33 cf/sk). ONE CENTRALIZER PER JOINT FOR THE FIRST 3 JOINTS, THEN EVERY 3RD JOINT TO SURFACE.

- 8-3/4" hole x 5-1/2" casing at 14,835'. A fluid caliper will be run to determine the exact cement volume required to have TOC at 4,680'. 3100 sx of VersaCem-H with 0.4% Halad(R)-344, 0.3% Super CBL, 0.4% HR-800 at 14.4 ppg (1.25 cf/sk). DV tool will be utilized at 10,000' if losses are encountered. CENTRALIZERS TO BE USED AT DISCRETION IN LATERAL TO ACHIEVE 70% STAND OFF. CENTRALIZERS TO BE USED TO TIE BACK DEPTH OF 4,680' TO ACHIEVE 70% STAND OFF.

8. Pressure Control Equipment

- 12-1/4" hole section: The blowout preventer equipment (BOP) will consist of a 5,000 psi system double ram type preventer, a bag type (Hydril) preventer and rotating head. Both units will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and corresponding pipe rams based on hole section being drilled. A 13-5/8" 5M x SOW will be installed on the 13-3/8" surface casing and utilized until the 9-5/8" casing is set. The BOP and associated equipment will be tested to rated pressure, before drilling out the 13-3/8" casing shoe the casing will be tested to 2,000 psi. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold having 5,000 psi WP rating.
- 8-3/4" hole section: The blowout preventer equipment (BOP) will consist of a 5,000 psi system double ram type preventer, a bag type (Hydril) preventer and rotating head. Both units will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and corresponding pipe rams based on hole section being drilled. A 13-3/8" 5M x 11" 10M wellhead will be installed. The BOP and associated equipment will be tested to rated pressure, before drilling out the 9-5/8" casing shoe the casing will be tested to 2,000 psi. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include an Upper and Lower Kelly cock, floor safety valve, choke lines and choke manifold having 5,000 psi WP rating. All equipment used will meet standards for a Hydrogen Sulfide environment.

See original COA 200' tie back required
See original COAS!

c. Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drilling logs.

9. Mud Program:

0' - 1,200'	Bentonite/Lime mud. Paper for losses and seepage. 8.5 to 9.0 ppg, 32 to 34 vis, PV 3 to 5, YP 5 to 7, WL NC
1,200' - 4,850'	Brine. As needed LCM for losses and seepage. 10.0 to 10.2 ppg, pH 10, 28 to 29 vis, PV 1, YP 1, WL NC
4,850' - 14,835'	Cut Brine. As needed LCM for losses and seepage. 9.0 to 9.5 ppg, pH 10, 28 to 36 vis, PV 4-6, YP 4-6, WL 12-15

****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 H₂S has on metallurgy of equipment used.**

Operating and Maintenance

Energen 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. All leaks should be kept to less than 5 barrels. Rig crews will monitor the tanks at all times. A trip/surge tank will be used to monitor returns for circulation losses/gains.

Equipment:

2-Mongoose Shale Shakers

2-3400 High Speed Centrifuges with stands and pumps

3-Roll off bins with Tracks

2-500 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:

- Testing Program: No drillstem tests are anticipated
- Electric Logging Program: TBD
- LWD Program: TBD
- Coring Program: None.

11. Bottom Hole Pressure expected to be 5,430 psi

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



U. S. Steel Tubular Products

5 1/2 20.00 lb (0.361) USS RYS110

USS-CDC HTQ™

	PIPE	CONNECTION	
MECHANICAL PROPERTIES			
Minimum Yield Strength	110,000		psi
Maximum Yield Strength	125,000		psi
Minimum Tensile Strength	120,000		psi
DIMENSIONS			
Outside Diameter	5.500	6.300	in.
Wall Thickness	0.361		in.
Inside Diameter	4.778	4.778	in.
Drift - API	4.653	4.653	in.
Nominal Linear Weight, T&C	20.00		lbs/ft
Plain End Weight	19.83		lbs/ft
SECTION AREA			
Cross Sectional Area Critical Area	5.828	5.828	sq. in.
Joint Efficiency		100.0	%
PERFORMANCE			
Minimum Collapse Pressure	11,100	11,100	psi
Minimum Internal Yield Pressure	12,640	12,640	psi
Minimum Pipe Body Yield Strength	641,000		lbs
Joint Strength		646,000	lbs
Compression Rating		388,000	lbs
Reference Length		21,533	ft
Maximum Uniaxial Bend Rating		55.5	deg/100 ft
MAKE-UP DATA			
Make-Up Loss		4.63	in.
Minimum Make-Up Torque		13,000	ft-lbs
Maximum Make-Up Torque		18,500	ft-lbs
Connection Yield Torque		22,900	ft-lbs
* Verification of connection shoulder required. Typical shoulder range		5,000 - 7,500	ft-lbs

Notes:

- 1) Other than proprietary collapse and connection values, performance properties have been calculated using standard equations defined by API 5C3 and do not incorporate any additional design or safety factors. Calculations assume nominal pipe OD, nominal wall thickness, and Specified Minimum Yield Strength (SMYS).
- 2) Uniaxial bending rating shown is structural only, and equal to compression efficiency.
- 3) Torques have been calculated assuming a thread compound friction factor of 1.0 and are recommended only. Field make-up torques may require adjustment based on actual field conditions (e.g. make-up speed, temperature, thread compound, etc.).
- 4) Reference length is calculated by joint strength divided by nominal T&C weight with 1.5 safety factor.

Legal Notice: USS-CDC HTQ™ (High Torque Casing Drilling Connection) is a trademark of U. S. Steel Corporation. This product is a modified API Buttress threaded and coupled connection designed for drilling with casing applications. All material contained in this publication is for general information only. This material should not therefore be used or relied upon for any specific application without independent competent professional examination and verification of accuracy, suitability, and applicability. Anyone making use of this material does so at their own risk and assumes any and all liability resulting from such use. U. S. Steel disclaims any and all expressed or implied warranties of fitness for any general or particular application.

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