# Form 3160-5

# **UNITED STATES** DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

OCH file 41

FORM APPROVED OM B No 1004-0137 Expires: March 31, 2007

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5. Lease Serial No.

SUNDRY NOT	FICES AND REF	PORTS C	N WEL	LS	NM1096	42
Do not use this for abandoned well. U	rm for proposals t	o drill or	to re-en	nter an	6. If Indian,	Allottee or Tribe Name
SUBMIT IN TRIPLIC	ATE- Other insti	ructions o	n revers	se side.	7. If Unit or	CA/Agreement, Name and/or No.
1. Type of Well  ☐ ☐ Gas	Well Other	S	EP 29	2008	8. Well Nan	
2. Name of Operator St. Mary Land & E	xploration Company	Of	CD-AR	RTESIA	Connie  9. API We	19 Fed Com E, #001
3a. Address		3b. Phone N			30-015-	
3300 N. A. St., Bldg 7, Ste. 200, Midla		432-688-	1789			Pool, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M.	f., or Survey Description)					ow Flats; Wolfcamp or Parish, State
At Surface: 2000' FNL & 100' FWL At Proposed Prod. Zone 2000' FNL		19-	165	-29E		o. , N.M.
12. CHECK APPROP	RIATE BOX(ES) TO	INDICATE	NATURE	OF NOTICE,	REPORT, OR	OTHER DATA
TYPE OF SUBMISSION			TYPF	E OF ACTION		
✓ Notice of Intent ☐ Subsequent Report ☐	Acidize Alter Casing Casing Repair	Deepen Fracture T New Cons		Production (S Reclamation Recomplete	start/Resume)	Water Shut-Off Well Integrity Other Change proposed csg
	Change Plans	Plug and A		Temporarily A	Abandon	plans for New Drill
Final Abandonment Notice	Convert to Injection	Plug Back		Water Disposa	d	& to Closed Loop Sy
13. Describe Proposed or Completed Open If the proposal is to deepen directionally Attach the Bond under which the work following completion of the involved of testing has been completed. Final Abar determined that the site is ready for final A C-144 CLEZ form for a Closed The Surface and Intermediate ca:	y or recomplete horizontally will be performed or provide perations. If the operation and adonment Notices shall be a dispection.)	y, give subsurfa de the Bond No results in a muli filed only after ubmitted on	ace locations of on file with tiple complete all requirements 9/3/08. Als	and measured and the BLM/BIA. Requition or recompletion ents, including reclaration, we are proposition.	rue vertical depths ired subsequent re i in a new interval mation, have been ng a change in o	s of all pertinent markers and zones, ports shall be filed within 30 days a Form 3160-4 shall be filed once completed, and the operator has original casing plans.
8 3/4" hole w/ 7" 26# N-80 LTC NI 50 Poz Cmt mixed at 11.9 ppg & 2.3. Collapse – 1.7. Tensile – 3.2.	EW csg set @ 7150 ft. E 2.45 cu ft / sx. Tail w/ 2	Burst – 7240 p	osi. Collap:	se - 5410 psi. Te	nsile – 519,000#	. Cement - Lead w/ 325 sx 50
Production will change from 5 ½' 6 1/8" hole w/ 4 ½" 11.6# L-80 LT liner will not be cemented to facil from the 7" casing shoe to TD. E encountered during drilling. Safe	C liner from 6800 ft to itate an open hole comp stimated placement is 8 ety Factors - Burst – 3.0	oletion. ECP' 500 ft & 9750 J. Collapse –	's will be ru I ft. The ex 2.1. Tensil	in on the outside eact placement and e – 5.0.	of the casing. T	hey will be run every 1000 ft
Original APD approved 6/27/08.	SEE AT CONDI	TACH TIONS	OF A	OR PPROVA	L AC	CEPTED FOR RECORD
14. I hereby certify that the foregoing is Name (Printed/Typed)	true and correct		<del></del>			SEP 2 9 2008
Donna Huddleston			Title Pro	duction Tech	Gerr	y Guye, Deputy Field Inspector
Signature Donne	Hudales	5m	Date		NMO 09/03/2008	OD-District II ARTESIA
THI	IS SPACE FOR F	EDERAL	OR ST	ATE OFFICE	USE	APPROVED
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Title

Office

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

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 States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

which would entitle the applicant to conduct operations thereon.

# PECOS DISTRICT CONDITIONS OF APPROVAL

**OPERATOR'S NAME:** St. Mary Land & Exploration Company

LEASE NO.: | NM 109642

WELL NAME & NO.: | Connie 19 Fed Com E #001 SURFACE HOLE FOOTAGE: | 2000' FNL & 0100' FWL

BOTTOM HOLE FOOTAGE 2000' FNL & 0330' FEL

LOCATION: Section 19, T. 16 S., R 29 E., NMPM

COUNTY: | Eddy County, New Mexico

# I. DRILLING

# A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

# **Eddy County**

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

- 1. Hydrogen Sulfide has been reported as a hazard, but no measurements have been recorded. It is recommended that monitoring equipment be onsite for potential Hydrogen Sulfide. If Hydrogen Sulfide is encountered, please report measurements and formations to the BLM.
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

### B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement sturry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

# High cave/karst.

Possible lost circulation in the Grayburg and San Andres formations. High pressure expected in the Wolfcamp and Cisco formation. Cisco formation may be penetrated by the pilot hole.

- 1. The 13-3/8 inch surface casing shall be set at approximately 320 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. If the salt is penetrated, the casing is to be set 25 feet above the salt. Additional cement will be required for the surface casing due to high cave/karst area. Recommend that 100% excess be onsite prior to cementing.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
  - b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
  - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
  - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Pi	lot hole to be plugged back to kick-off point.
3.	The minimum required fill of cement behind the 7" inch second intermediate casir is:
	Cement should tie-back at least 200 feet into previous casing string. Operat shall provide method of verification.
Те ро	rmation below the 7" shoe to be tested according to Onshore Order 2.III.B.1.i. st to be done as a mud equivalency test using the mud weight necessary for the re pressure of the formation below the shoe and the mud weight for the bottom hole. Report results to BLM office.
4.	The minimum required fill of cement behind the 4-1/2 inch production casing is:
	No cement required as operator is using a packer liner.
	No cement required as operator is using a packer liner.  cker liner is to be tested per Onshore Oil and Gas Order 2.III.B.1.b. Call BLN r witness of seal test.
fo	cker liner is to be tested per Onshore Oil and Gas Order 2.III.B.1.b. Call BLM
fo	cker liner is to be tested per Onshore Oil and Gas Order 2.III.B.1.b. Call BLM r witness of seal test.  If hardband drill pipe is rotated inside casing, returns will be monitored for metal. metal is found in samples, drill pipe will be pulled and rubber protectors which ha larger diameter than the tool joints of the drill pipe will be installed prior to

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:

If 75% or greater lost circulation occurs while drilling the intermediate casing hole,

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the

cement slurry due to cave/karst concerns.

the cement on the second intermediate casing must come to surface.

Cement to surface. If cement does not circulate see B.1.a, c-d above. Wait on cement (WOC) time for a primary cement job is to include the lead

- 2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.
- 3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8" intermediate casing shoe shall be 5000 (5M) psi. BOP/BOPE rating based on operator expected BHP and BLM geologist estimated bottom hole pressure.
- 4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. The tests shall be done by an independent service company.
  - b. The results of the test shall be reported to the appropriate BLM office.
  - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
  - d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
  - e. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.
  - f. A variance to test the BOP/BOPE (entire system) to the reduced pressure of 2400 psi after setting the surface casing is approved. Full pressure test to be performed after setting intermediate casing.

#### D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

## E. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

WWI 091108.