14-764

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Form 3160-3
(March 2012)

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM-40456

6. If Indian, Allotee or Tribe Name:

1a. Type of work: ☒ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.:

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.: Ringtail Federal #1 (313576)

2. Name of Operator: Mack Energy Corporation (13837)

9. API Well No.: 30-025-42032

3a. Address: PO Box 960 Artesia, NM 88211-0960

3b. Phone No. *(include area code)*: (575)748-1288

10. Field and Pool, or Exploratory: Young;Bone Spring,North (65350)

4. Location of Well *(Report location clearly and in accordance with any State requirements. *)*

At surface: 2310 FNL & 1650 FWL

At proposed prod. zone: 2310 FNL & 1650 FWL

11. See., T. R. M. or Blk, and Survey or Area: Sec. 1 T18S R32E

14. Distance in miles and direction from nearest town or post office*: 5 miles southeast of Maljamar, NM

12. County or Parish: Lea

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
330'	560.08	40
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19. Proposed Depth**	**20. BLM/BIA Bond No. on file**
N/A	9700'	NMB000286
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	**22. Approximate date work will start***	**23. Estimated duration**
3909' GL	6/15/2014	15 days

24. Attachments

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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above),
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature: Jerry W. Sherrell — Name *(Printed/Typed)*: Jerry W. Sherrell — Date: 5-2-2014

Title: Production Clerk

Approved by (Signature): Steve Caffey — Name *(Printed/Typed)*: — Date: AUG - 1 2014

Title: FIELD MANAGER — Office: CARLSBAD FIELD OFFICE

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. APPROVAL FOR TWO YEARS

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)

E-PERMITTING - - New Well Rec
Comp____ P&A____ TA____
CSNG____ Loc CHG____
ReComp____ Add New Pool____
Cancl Well____ Create Pool____

Capitan Controlled Water Basin

K 08/08/14

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

AUG 08 2014

Attached to Form 3160-3
Mack Energy Corporation
Ringtail Federal #1
2310 FNL & 1650 FWL, SE/NW, Sec. 1 T18S R32E
Lea County, NM

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DRILLING PROGRAM

1. **Geologic Name of Surface Formation**

   Quaternary

2. **Estimated Tops of Important Geologic Markers:**

Rustler	1320'	Grayburg	4500'
TOS	1420'	San Andres	5015'
BOS	2675'	Delaware Sand	5070'
Yates	2750'	Bone Spring	6140'
Seven Rivers	3225'	Wolfcamp	9725'
Queen	3990'		

geo

3. **Estimated Depths of Anticipated Fresh Water, Oil and Gas:**

Water Sand	150'	Fresh Water
Yates	2750'	Oil/Gas
San Andres	5015'	Oil/Gas
Bone Spring	6140'	Oil/Gas
Wolfcamp	9725'	Oil/Gas

1400

No other formations are expected to give up oil, gas or fresh water in measurable quantities. Setting 13 3/8" casing to ~~1340~~ 1400' and circulating cement back to surface will protect the surface fresh water sand. Salt section and zones will be protected by the 8 5/8" casing at 2800'and circulating cement back to surface. Any shallower zones above TD, which contain commercial quantities of oil and/or gas, will have cement circulated across them by cementing 5 ½" production casing, sufficient cement will be pumped to circulate back to surface.

4. **Casing Program:**

Hole Size	Interval	OD Casing	Wt, Grade, Jt, cond, collapse/burst/tension
17 1/2"	0-~~1340~~ 1400'	13 3/8"	48#,J-55, ST&C, New, 1.141/4.318/4.74 hybrid
12 ¼"	0-2800'	8 5/8"	32#, J-55, ST&C, New, 1.703/8.346/7.86
7 7/8"	0-9700'	5 ½"	17#,L-80,LT&C, New, 1.247/2.452/2.58

Sef Cst

5. **Cement Program:**

13 3/8" Surf Casing: Lead 810sx, Class C+4% PF20+2% PF1+.125#/sx PF29+.2% PF46, 9.13 gal/sx, yield 1.98, Tail 200sx Class C+1% PF1, 6.32 gal/sx, yield 1.33, excess 100%.
8 5/8" Int Casing: Lead 1030sx, Class C+4% PF20+2% PF1+.125#/sk PF29+2% PF46, 9.13 gal/sx, yield 1.98, excess 100%, Tail 200sx Class C+1% PF13, 6.32 gal/sx, yield 1.34
5 ½" Production Casing: Lead 525sx 35/65POZ/H+5% PF44+6% PF20+.25#/sx PF46+3#/sx PF42+.6% PF13+.125#/sx PF29, 11.00 gal/sx, yield 2.05, excess 35%, Tail 875sx PVL +1.3% PF44+5% PF174+.5% PF606+1% PF153+.6% PF13, 7.37 gal/sx, yield 1.47.

6. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP Exhibit #10) will consist of a double ram-type (5000 psi WP) minimum preventer, with annular. This unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top of 4 1/2" drill pipe rams on bottom. The 13 5/8" BOP will be nipped up on the 13 3/8" surface casing and tested by a 3rd party to 5000 psi. The 13 5/8" BOP will then be nipped up on the 8 5/8" casing using a double stud adapter and used continuously until TD is reached. All BOP's and accessory equipment will be tested to 5000 psi before drilling out of intermediate casing. Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment (Exhibit #11) will include a Kelly cock and floor safety valve and choke lines and choke manifold (Exhibit #12) with a minimum 5000 psi WP rating.

7. Types and Characteristics of the Proposed Mud System:

The well will be drilled to TD with fresh water and a combination of brine and cut brine mud system. The applicable depths and properties of this system are as follows:

DEPTH 1400	TYPE	WEIGHT	VISCOSITY	WATERLOSS
0-~~1340~~'	Fresh Water	8.3-9.0	28	N.C.
~~1340~~-2800	Brine	10.0-10.2	30	N.C.
2800'-TD'	Cut Brine	9.1-9.7	29	N.C.

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the well site at all times. Pason Equipment: Flow system and pit leveler.

8. Auxiliary Well Control and Monitoring Equipment:

A. Kelly cock will be kept in the drill string at all times.
B. A full opening drill pipe-stabbing valve with proper drill pipe connections will be on the rig floor at all times.
C. If gas is encountered. Well will be shut-in and a Mud Gas Seperator will be installed. required

See COA

9. Logging, Testing and Coring Program:

H2S in Queen

A. The electric logging program will consist of GR-Dual Laterolog, Spectral Density, Dual Spaced Neutron, CSNG Log from T.D. to 8 5/8 casing shoe.
B. Drill Stem test is not anticipated.
C. No conventional coring is anticipated.
D. Further testing procedures will be determined at TD.

10. Abnormal Conditions, Pressures, Temperatures and Potential Hazards:

No abnormal pressures or temperatures are anticipated. The estimated bottom hole at TD is 120 degrees and estimated maximum bottom hole pressure is 4,200 psig, Based on offset well data. Low levels of Hydrogen sulfide have been monitors in producing wells in the area,

so H2S may be present while drilling of the well; a plan is attached to the Drilling program. No major loss of circulation zones has been reported in offsetting wells.

11. Anticipated Starting Date and Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is June 15 2014. Once commenced, the drilling operation should be finished in approximately 15 days. If the well is productive, an additional 30 days will be required for completion and testing before a decision is made to install permanent facilities.

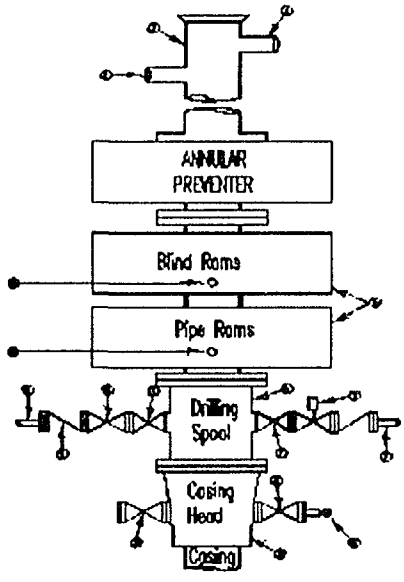
Attachment to Exhibit #10
NOTES REGARDING THE BLOWOUT PREVENTERS
Ringtail Federal #1
Lea County, New Mexico

1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.
2. Wear ring to be properly installed in head.
3. Blow out preventer and all fittings must be in good condition, 5000 psi WP minimum.
4. All fittings to be flanged.
5. Safety valve must be available on rig floor at all times with proper connections, valve to be full 5000 psi WP minimum.
6. All choke and fill lines to be securely anchored especially ends of choke lines.
7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
8. Kelly cock on Kelly.
9. Extension wrenches and hands wheels to be properly installed.
10. Blow out preventer control to be located as close to driller's position as feasible.
11. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation all API specifications.

Mack Energy Corporation
Minimum Blowout Preventer Requirements
5000 psi Working Pressure
13 5/8 inch- 5 MWP
11 Inch - 5 MWP
EXHIBIT #10

Stack Requirements

NO.	Items	Min. I.D.	Min. Nominal
1	Flowline		2"
2	Fill up line		2"
3	Drilling nipple		
4	Annular preventer		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" min. kill line and 3" min choke line outlets		2" Choke
6b	2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above)		
7	Valve Gate Plug	3 1/8	
8	Gate valve-power operated	3 1/8	
9	Line to choke manifold		3"
10	Valve Gate Plug	2 1/16	
11	Check valve	2 1/16	
12	Casing head		
13	Valve Gate Plug	1 13/16	
14	Pressure gauge with needle valve		
15	Kill line to rig mud pump manifold		2"



OPTIONAL

16	Flanged Valve	1 13/16	

CONTRACTOR'S OPTION TO FURNISH:

1. All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 2000 psi minimum.
2. Automatic accumulator (80 gallons, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, to be located near drillers' position.
4. Kelly equipped with Kelly cock.
5. Inside blowout preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
6. Kelly saver-sub equipped with rubber casing protector at all times.
7. Plug type blowout preventer tester.
8. Extra set pipe rams to fit drill pipe in use on location at all times.
9. Type RX ring gaskets in place of Type R.
10.

ME

MEC TO FURNISH:

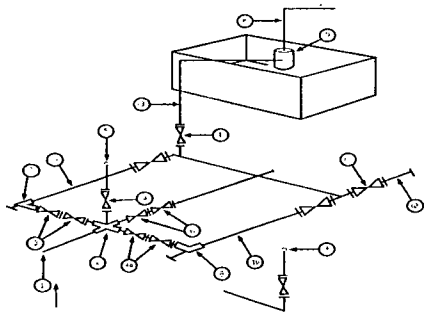
1. Bradenhead or casing head and side valves.
2. Wear bushing, If required.

GENERAL NOTES:

1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through choke valves must be full opening and suitable for high pressure mud service.
3. Controls to be of standard design and each marked, showing opening and closing position
4. Chokes will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for adjustable choke, or bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
5. All valves to be equipped with hand-wheels or handles ready for immediate use.
6. Choke lines must be suitably anchored.
7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (2000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency.
11. Does not use kill line for routine fill up operations.

Mack Energy Corporation

Exhibit #11
MIMIMUM CHOKE MANIFOLD
3,000, 5,000, and 10,000 PSI Working Pressure
5M will be used
3 MWP - 5 MWP - 10 MWP



Mud Pit

NOT APPROVED For Reserve Pit

~~Reserve Pit~~

*** Location of separator optional**

Below Substructure

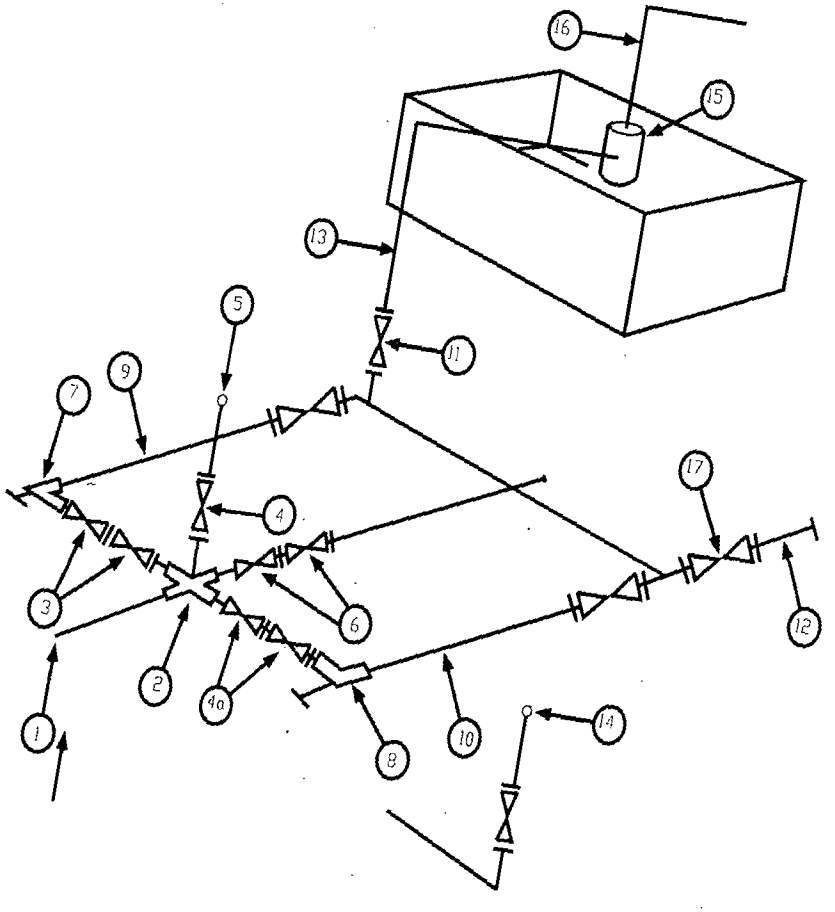
Mimimum requirements

No.		3,000 MWP I.D.	Nominal	Rating	5,000 MWP I.D.	Nominal	Rating	10,000 MWP I.D.	Nominal	Rating
1	Line from drilling Spool		3"	3,000		3"	5,000		3"	10,000
2	Cross 3" x 3" x 3" x 2"			3,000			5,000			
2	Cross 3" x 3" x 3" x 2"									10,000
3	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
4	Valve Gate Plug	1 13/16		3,000	1 13/16		5,000	1 13/16		10,000
4a	Valves (1)	2 1/16		3,000	2 1/16		5,000	2 1/16		10,000
5	Pressure Gauge			3,000			5,000			10,000
6	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
7	Adjustable Choke (3)	2"		3,000	2"		5,000	2"		10,000
8	Adjustable Choke	1"		3,000	1"		5,000	2"		10,000
9	Line		3"	3,000		3"	5,000		3"	10,000
10	Line		2"	3,000		2"	5,000		2"	10,000
11	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
12	Line		3"	1,000		3"	1,000		3"	2,000
13	Line		3"	1,000		3"	1,000		3"	2,000
14	Remote reading compound Standpipe pressure quage			3,000			5,000			10,000
15	Gas Separator		2' x5'			2' x5'			2' x5'	
16	Line		4"	1,000		4"	1,000		4"	2,000
17	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000

(1) Only one required in Class 3M
(2) Gate valves only shall be used for Class 10 M
(3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling.

EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTION

1. All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
2. All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
3. All lines shall be securely anchored.
4. Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
5. alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in conjunction with the standpipe pressure gauge.
6. Line from drilling spool to choke manifold should bee as straight as possible. Lines downstream from chokes shall make turns by large bends or 90 degree bends using bull plugged tees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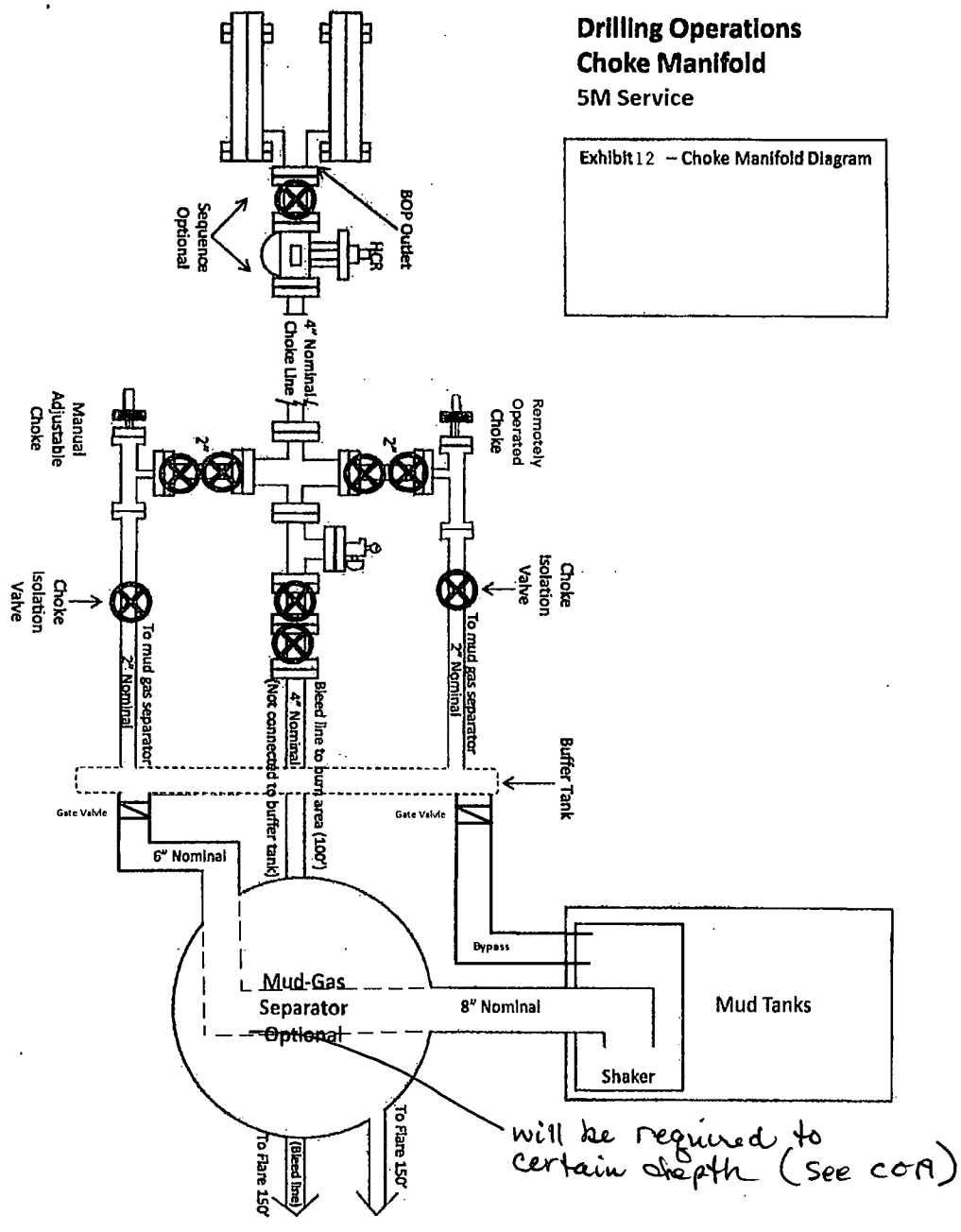
Mack Energy Corporation

MANIFOLD SCHEMATIC
Exhibit #12



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10. Surface Ownership:

The well site and lease is located on Fee surface. We have notified the surface owner of the impending operations. According to BLM the leasee is Ross Caviness, 3718 New Mexico 114 Causey, NM 88113 (575)441-1254. We have a SUA on the access road, the location is currently being negotiated.

11. Other Information:

A. The area around the well site is grassland and the topsoil is sandy. The vegetation is native scrub grass with sagebrush.

B. There is no permanent or live water in the immediate area.

C. Well is within the Permian MOA area. Form and fee will be forwarded to your office in the near future.

12. Lessee's and Operator's Representative:

The Mack Energy Corporation representative responsible for assuring compliance with the surface use plan is as follows:

Jerry W. Sherrell
Mack Energy Corporation
P.O. Box 960
Artesia, NM 88211-0960
Phone (575) 748-1288 (office)
jerrys@mec.com

APD CERTIFICATION

I hereby certify that I, or person under my direct supervision, have inspected the proposed drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and the work associated with the operations proposed herein will be performed in conformity with this APD package and terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Date: 7-29-2014 Signed: Jerry W. Sherrell

Jerry W. Sherrell