

OCD-ARTESIA

ATS-11-690

Form 3160-3
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

FORM APPROVED
OMB No. 1004-0137
Expires March 31, 2007

1a Type of work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER			5 Lease Serial No NM-0557370	
1b Type of Well <input checked="" type="checkbox"/> Oil Well <input 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	
2 Name of Operator Lime Rock Resources A, L.P. 277558			7 If Unit or CA Agreement, Name and No	
3a Address 1111 Bagby St., Suite 4600 Houston, TX 77002		3b Phone No. (include area code) 713-345-2136		8 Lease Name and Well No Eagle 26 P Federal, Well No. 4 (308936)
4 Location of Well (Report location clearly and in accordance with any State requirements *) At surface 330' FSL & 530' FEL At proposed prod. zone same			9 API Well No 30-016-38360	
14 Distance in miles and direction from nearest town or post office* 10 miles southeast of Artesia, NM			10 Field and Pool, or Exploratory Red Lake; Glorietta-Yeso NE (96836)	
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drg. unit line, if any) 330'		16 No. of acres in lease 720		11 Sec., T, R, M. or Bk. and Survey or Area Sec. 26-T17S-27E
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft		19 Proposed Depth 4,500' ✓		12 County or Parish Eddy
21 Elevations (Show whether DF, KDB, RT, GL, etc.) 3565' GL ✓		22 Approximate date work will start* 07/06/2011		13 State NM
17 Spacing Unit dedicated to this well 40				
20 BLM/BIA Bond No. on file NMB-000499				
23 Estimated duration 3 weeks				

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, shall 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 shall 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 authorized officer |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

25 Signature <i>George R. Smith</i>	Name (Printed Typed) George R. Smith	Date 05/13/2011
Title POA agent		

Approved by (Signature) /s/ Don Peterson	Name (Printed Typed)	Date AUG 17 2011
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 USC Section 1001 and Title 43 USC 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

*(Instructions on page 2)

Roswell Controlled Water Basin



Approval Subject to General Requirements
& Special Stipulations Attached

K2 08/26/11

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

**APPLICATION FOR DRILLING
LIME ROCK RESOURCES A, L.P.**

Eagle 26 P Federal, Well No. 4
330' FSL & 530' FEL, Sec. 26-T17S-R27E T
Eddy County, New Mexico
Lease No.: NMNM-0557370
(Development Well)

In conjunction with Form 3160-3, Application for Permit to Drill subject well, Lime Rock Resources A, L.P. submits the following items of pertinent information in accordance with BLM requirements:

1. The geologic surface formation is recent Permian with quaternary alluvium and other surficial deposits.

2. The estimated tops of geologic markers are as follows:

Yates	118'	San Andres	1,632'
Seven Rivers	748'	Glorieta	3,015'
Queen	918'	Yeso	3,103'
Grayburg	1,361'	TD	4,500'

3. The estimated depths at which water, oil or gas formations are anticipated to be encountered:

Water: Surface water possible in the Triassic between 80' - 230'.

Oil: Possible in the San Andres, Glorieta below 1,632'

Gas: Possible in the San Andres, Glorieta below 1,632'

4. Proposed New Casing Program:

HOLE SIZE	CASING SIZE	WEIGHT	GRADE	JOINT	SETTING DEPTH FACTOR	COLLAPSE DESIGN FACTOR	BURST DESIGN FACTOR	TENSION DESIGN FACTOR
12 1/4"	8 5/8"	24.0#	J-55	ST&C	350 375	1.2	1.18	2.0
7 7/8"	5 1/2"	17.0#	J-55	LT&C	4,500'	1.2	1.18	2.0

5. Proposed Control Equipment: A 5M Shaffer Type LWS Double Gate 11" BOP will be installed on the 8 5/8" casing. Casing and BOP will be tested as a 2M system as per Onshore Oil & Gas Order #2 before drilling out with the 7 7/8". The Pipe Rams will be operated and checked daily, plus each time drill pipe is out of hole. This will be documented on driller's log. See Exhibit "E".

6. Cement Program

CASING	SETTING DEPTH	QUANTITY OF CEMENT	TOC	YEILD
8 5/8"		Lead: 175 sx "C"+2%CaCl2+.125pps Poly-E Flake		1.35
	350	Tail: 200 sx "C" +2% CaCl2 150% excess	Surface	1.32
5 1/2"	4,500'	Lead: 450 sx 35-65 (Poz C)+ 6% Gel + 0.125 pps PE Flake +3pps NaCl+3 pps Gilsonite + 0.5% Halad 9		1.87
		Tail: 550 sx "C"+0.4% LAP-1+ 0.5% CFR-3, + 0.25 pps D-AIR +0.125 pps Poly E Flake 100% excess	Surface	1.325

7. Mud Program:

MUD PROGRAM		MUD WEIGHT	VIS.	W/L CONTROL
DEPTH	MUD			
0 - 350' 375'	Fresh water mud:	8.4 - 9.2 ppg	28 - 34	No W/L control
350' - 3000'	Brine water	9.8 - 10.2 ppg	28 - 29	No W/L control
3000' - 4500'	Brine, Salt Gel, Starch	9.8 - 10.2 ppg	30 - 32	W/L control 20-30 cc w/starch

8. Auxiliary Equipment: Blowout Preventer, gas detector, Kelly cock.

9. Testing, Logging, and Coring Program:

Drill Stem Tests: None planned unless warranted.

Logging: T.D -Surface Casing: GR-DLL, GR-CND

350' to surface: G/R/Neutron

Coring: None planned unless warranted..

10. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight. Estimated Surface Pressure = 1584 psi (evac. hole) and BHP of 2574 psi (evac) with temperature of 105°.

11. H₂S: None expected. The mud log unit will be cautioned to use a gas trap to detect H₂S and if any is detected the mud weight will be increased along with H₂S inhibitors sufficient to control the gas. H₂S monitoring equipment will be installed before drilling out from the 8 5/8" casing. The well will have a mud separator and flare line installed on the choke manifold and the H₂S gas contingency program will be in force. .See Exhibit "D".

12. Anticipated starting date: July 6, 2011.

Anticipated completion of drilling operations: Approx. 3 weeks

BOP DIAGRAM 3000# SYSTEM

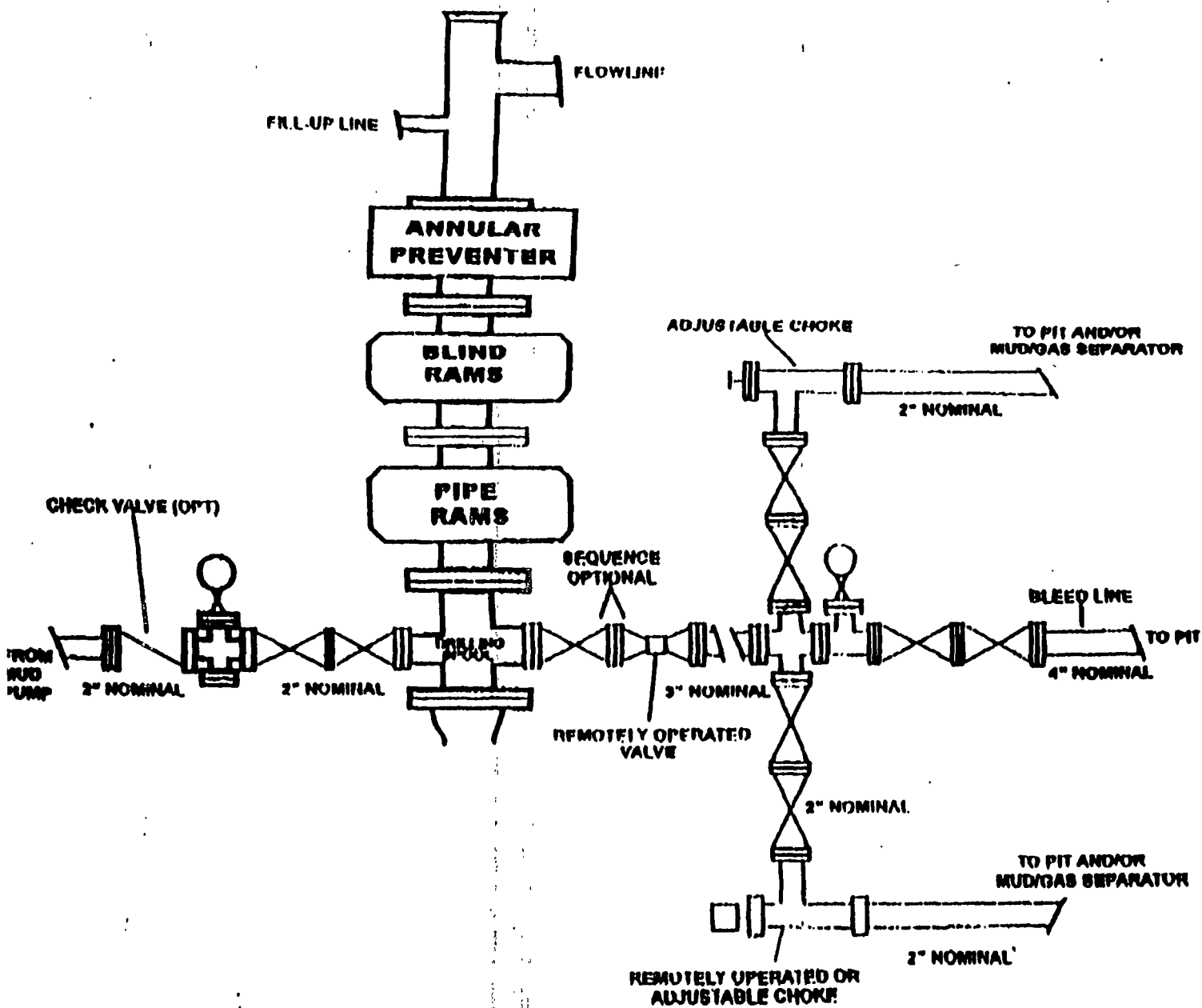


EXHIBIT "E"
LIME ROCK RESOURCES A, L.P.
Eagle 26 P Federal, Well No. 4
BOP Specifications

DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator LIME ROCK RESOURCES II A LP OGRID # 27755
 Well Name & # EAGLE 26 P FEDERAL 4 Surface Type (F) (S) (P)
 Location: UL P, Sect 26, Twnship 12 s, RNG 27, Sub-surface Type (F) (S) (P)

A. Date C101 rec'd ____/____/____ C101 reviewed ____/____/____

B. 1. Check mark, Information is OK on Forms:

OGRID X BONDING PE PROP CODE X WELL # X SIGNATURE X

2. Inactive Well list as of: 8/26/11 # wells 350, # Inactive wells 2

a. District Grant APD but see number of inactive wells:

No letter required X; Sent Letter to Operator ____, to Santa Fe ____

3. Additional Bonding as of: 8/26/11

a. District Denial because operator needs addition bonding:

No Letter required X; Sent Letter to Operator ____, To Santa Fe ____

b. District Denial because of Inactive well list and Financial Assurance:

No Letter required X; Sent Letter to Operator ____, To Santa Fe ____

C. C102 YES ____, NO ____, Signature ____

1. Pool RED LAKE, ELON-YEONE, Code 86836

a. Dedicated acreage 40, What Units P

b. SUR. Location Standard X; Non-Standard Location ____

c. Well shares acres: Yes X, No ____, # of wells ____ plus this well # ____

2. 2nd. Operator in same acreage, Yes ____, No X # 3 30-015-34082
 Agreement Letter ____, Disagreement letter ____

3. Intent to Directional Drill Yes ____, No X

a. Dedicated acreage ____, What Units ____

b. Bottomhole Location Standard ____, Non-Standard Bottomhole ____

4. Downhole Commingle: Yes ____, No X

a. Pool #2 ____, Code ____, Acres ____

Pool #3 ____, Code ____, Acres ____

Pool #4 ____, Code ____, Acres ____

5. POTASH Area Yes ____, No X

D. Blowout Preventer Yes X, No ____

E. H2S Yes X, No ____

F. C144 Pit Registration Yes ____, No ____, need

G. Does APD require Santa Fe Approval:

1. Non-Standard Location: Yes ____, No X, NSL # ____

2. Non-Standard Proration: Yes ____, No X, NSP # ____

3. Simultaneous Dedication: Yes ____, No X, SD # ____

Number of wells ____ Plus # ____

4. Injection order Yes ____, No X; PMX # ____ or WFX # ____

5. SWD order Yes ____, NO X; SWD # ____

6. DHC from SF ____; DHC-HOB ____; Holding ____

7. OCD Approval Date ____/____/____

API #30-0 14-39360

8. Reviewers ____