

OCD-ARTESIA

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 NMLC-065478-B	
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 72002		8 Lease Name and Well No Falcon 3 D Federal, Well No. 30 (308974)	
3b Phone No (include area code) 713-292-9526		9 API Well No 30-015-39491	
4 Location of Well (Report location clearly and in accordance with any State requirements *) At surface 250' FNL & 1300' FWL At proposed prod zone same UNORTHODOX LOCATION		10 Field and Pool, or Exploratory Red Lake; Glorieta-Yeso NE	
11 Sec, T R M or Blk and Survey or Area Sec. 3-T18S-R27E		12 County or Parish Eddy	
13 State NM		14 Distance in miles and direction from nearest town or post office* 13 miles E. of Artesia, NM	
15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drg unit line, if any) 250'	16 No of acres in lease 642.88	17 Spacing Unit dedicated to this well 40	
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 330'	19 Proposed Depth 4,500'	20 BLM/BIA Bond No on file NMB-000499	
21 Elevations (Show whether DF, KDB, RT, GL, etc) 3573.5 GL	22 Approximate date work will start* 11/15/2011	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 | 4 Bond to cover the operations unless covered by an existing bond on file (see Item 20 above) |
| 2 A Drilling Plan | 5 Operator certification |
| 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) | 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 06/24/2011
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Title
POA agent for Lime Rock Resources A, L.P.

Approved by (Signature) /s/ Don Peterson	Name (Printed/Typed)	Date SEP 2 2011
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Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE
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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

OCD CONDITION OF APPROVAL of Drilling
Intent to drill ONLY --- CANNOT produce until the Non-Standard
Location has been approved by OCD Santa Fe officeKZ 09/26/11
Approval Subject to General Requirements
& Special Stipulations AttachedSEE ATTACHED FOR
CONDITIONS OF APPROVAL

APPLICATION FOR DRILLING
LIME ROCK RESOURCES A, L.P.
Falcon 3 D Federal, Well No. 30
250' FNL & 1300' FWL, Sec. 3-T18S-R27E
Eddy County, New Mexico
Lease No.: NMLC-065478-B
(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	52'	San Andres	1600'
Seven Rivers	282	Glorieta	3,022'
Queen	852'	Yeso	3,152'
Grayburg	1,374'	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 1,600'

Gas: Possible in the San Andres, Glorieta below 1,600'

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' 315'	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.

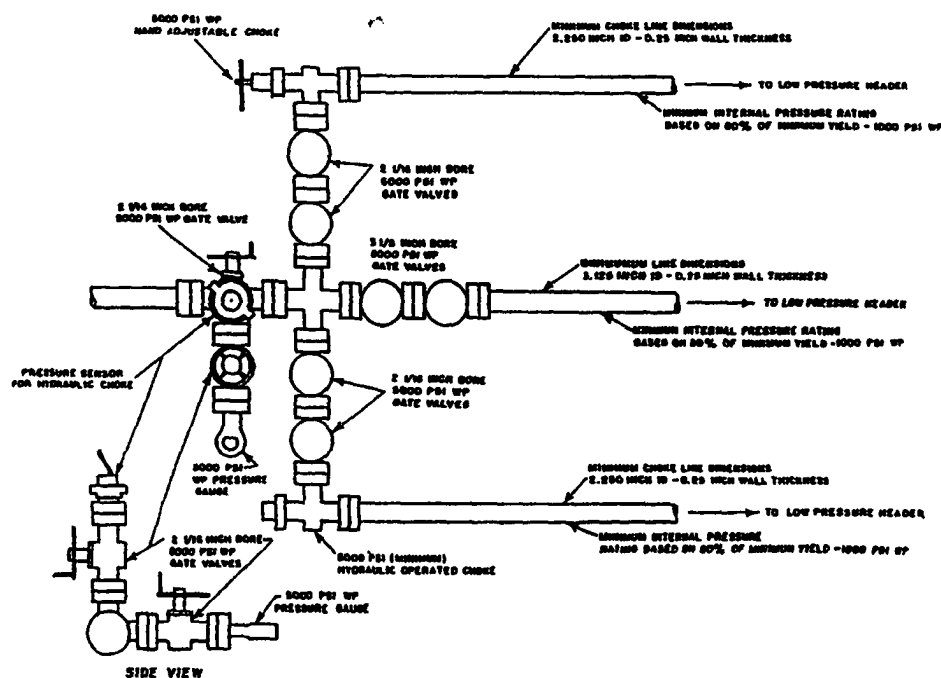
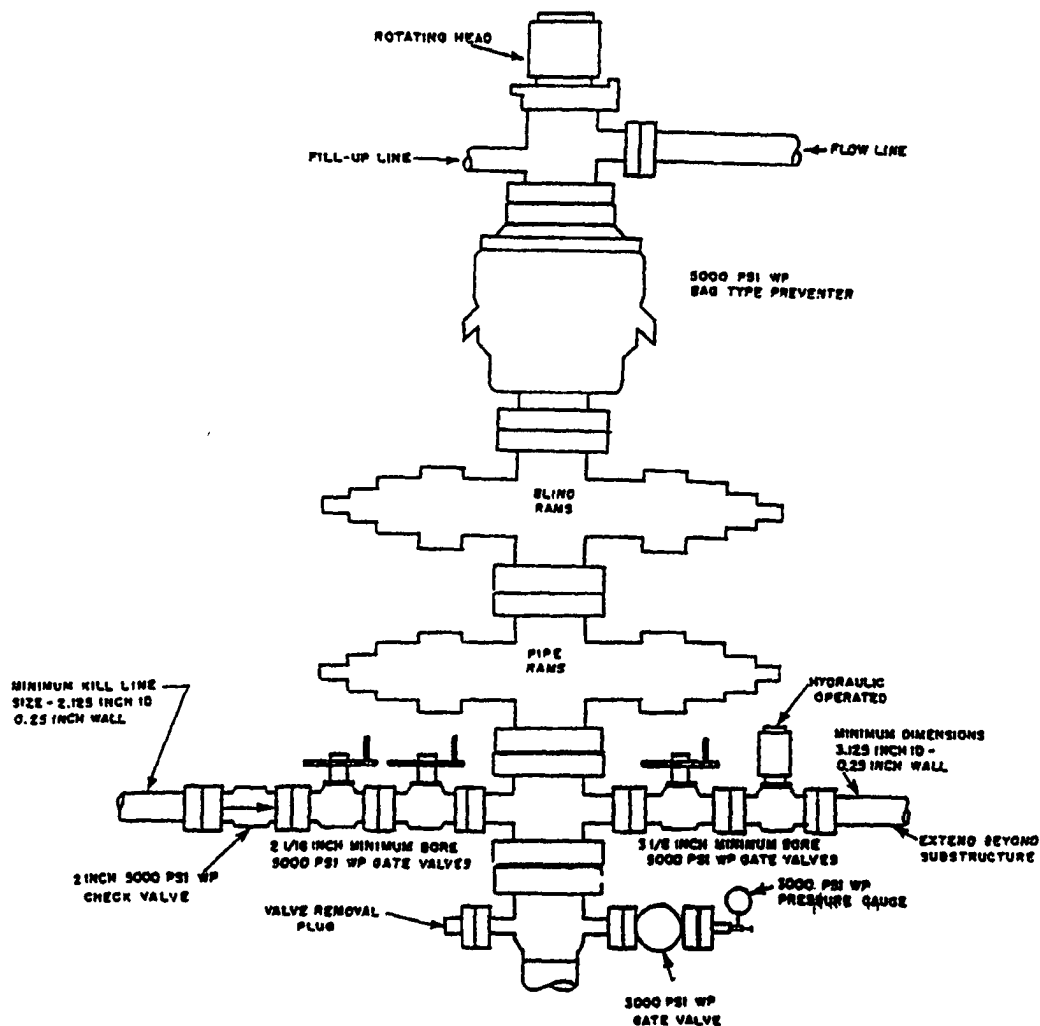
10. No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered the proposed mud program will be modified to increase the mud weight. Estimated Surface Pressure = 1584 psi (evac. hole) and BHP of 2574 psi (evac) with temperature of 105°.

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: October 15, 2011.

Anticipated completion of drilling operations: Approx. 3 weeks

EXHIBIT C-1



11" 5000 PSI WORKING PRESSURE CHOKE MANIFOLD

EXHIBIT C-2

EXHIBIT "E"
LIME ROCK RESOURCES A, L.P.
Falcon 3 D Federal, Well No. 30
BOP Specifications

DISTRICT I --- CHECKLIST FOR INTENTS TO DRILL

Operator LINE ROCK RESOURCES A LP OGRID # 277558
 Well Name & # FALCON 3 D FEDERAL 30 Surface Type (F) (S) (P)
 Location: UL D4, Sect 3, Township 18 s, RNG 27 e, 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 FED, PROP CODE , WELL # , SIGNATURE

2 Inactive Well list as of 9/26/11 # wells 668 # Inactive wells 6

a District Grant APD but see number of inactive wells 341

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

3 Additional Bonding as of 9/26/11

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; GUONIA-YEHO Code 96836

a. Dedicated acreage 40, What Units D

b. SUR. Location Standard , Non-Standard Location

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

2. 2nd. Operator in same acreage, Yes , No X

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 , No

F. C144 Pit Registration Yes , No

G. Does APD require Santa Fe Approval.

1. Non-Standard Location Yes , No , NSL #

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

3. Simultaneous Dedication: Yes , No , SD #

Number of wells Plus #

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

5. SWD order Yes , NO ; SWD #

6. DHC from SF ; DHC-HOB ; Holding

7. OCD Approval Date / /

API #30-0 15- 39451

8. Reviewers