

RECEIVED

Form 3160-3
(April 2004)

AUG 08 2008

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
Bureau of Land Management
Farmington Field Office

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NO-G-9502-1283
1b. Type of Well. <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name NAVAJO ALLOTMENT
2. Name of Operator Pro NM Energy, Inc.		7. If Unit or CA Agreement, Name and No. N/A
3a. Address 460 St. Michael's Drive Santa Fe, NM 87505	3b. Phone No. (include area code) (505) 988-4171	8. Lease Name and Well No. Bisti Otero 30 1-E
4. Location of Well (Report location clearly and in accordance with any State requirements *) At surface 1890' FSL & 1900' FEL At proposed prod. zone Same		9. API Well No. 30-045- 34767
14. Distance in miles and direction from nearest town or post office* 13 air miles NW of Nageezi, NM		10. Field and Pool, or Exploratory Bisti Lower-Gallup & Basin Dakota
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drg. unit line, if any) 740'	16. No. of acres in lease 160	11. Sec., T. R. M. or Blk. and Survey or Area J 30-25N-10W NMPM
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. N/A	19. Proposed Depth 6,500'	12. County or Parish San Juan
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6,650' GL	22. Approximate date work will start* 07/01/2008	13. State NM
24. Attachments		17. Spacing Unit dedicated to this well 80.00 N2SE4 (Gallup) & S2 (Dakota) 318.92
20. BLM/BIA Bond No. on file B4502		23. Estimated duration 4 weeks

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office)
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature 	Name (Printed/Typed) BRIAN WOOD	Date 05/06/2008
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Title CONSULTANT PHONE: (505) 466-8120 FAX: (505) 466-9682

Approved by (Signature) 	Name (Printed/Typed) AFM	Date 10/28/08
Title AFM	Office FFO	

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

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.

A COMPLETE C-144 MUST BE SUBMITTED TO AND APPROVED BY THE NMOC FOR A PIT, CLOSED LOOP SYSTEM, BELOW GRADE TANK, OR PROPOSED ALTERNATIVE METHOD, PURSUANT TO NMOC PART 19 15 17, PRIOR TO THE USE OR CONSTRUCTION OF THE ABOVE APPLICATIONS.

NOV 07 2008

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BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT RELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

The action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

<p>18</p>		<p>17</p> <p>OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Brian Wood</i></p> <p>5-6-08</p> <p>Signature _____ Date _____</p> <p>BRIAN WOOD</p> <p>Printed Name _____</p>
	<p>30</p>	
<p>LAT: 36°22'12.07622" N. (NAD 83) LONG: 107°56'06.85667" W. (NAD 83) LAT: 36°22'12.03933" N. (NAD 27) LONG: 107°56'04.62506" W. (NAD 27)</p>	<p>FD. 2 1/2" BC. 1932 U.S.G.L.O.</p> <p>1900'</p> <p>1890'</p> <p>N 00-01-48 E 2626.86' (M)</p>	<p>18</p> <p>SURVEYOR CERTIFICATION</p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>NOVEMBER 12 1900 A. RUSH</p> <p>Date of Survey _____</p> <p>Signature and Seal of Professional Surveyor: <i>A. Rush</i></p> <p>8894</p> <p>11-07</p> <p>PROFESSIONAL LAND SURVEYOR</p> <p>8894</p>
<p>FD. 2 1/2" BC. 1932 U.S.G.L.O.</p>	<p>N 89-53-51 W 2645.70 (M)</p>	<p>FD. 2 1/2" BC. 1932 U.S.G.L.O.</p> <p>Certificate Number _____</p>

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
1301 W. Grand Ave., Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
1220 South St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-34767	² Pool Code 71599	³ Pool Name BASIN DAKOTA
⁴ Property Code 37459	⁵ Property Name BISTI OTERO 30	⁶ Well Number 1-E
⁷ GRID No. 018118	⁸ Operator Name PRO NM ENERGY INC.	⁹ Elevation 6650

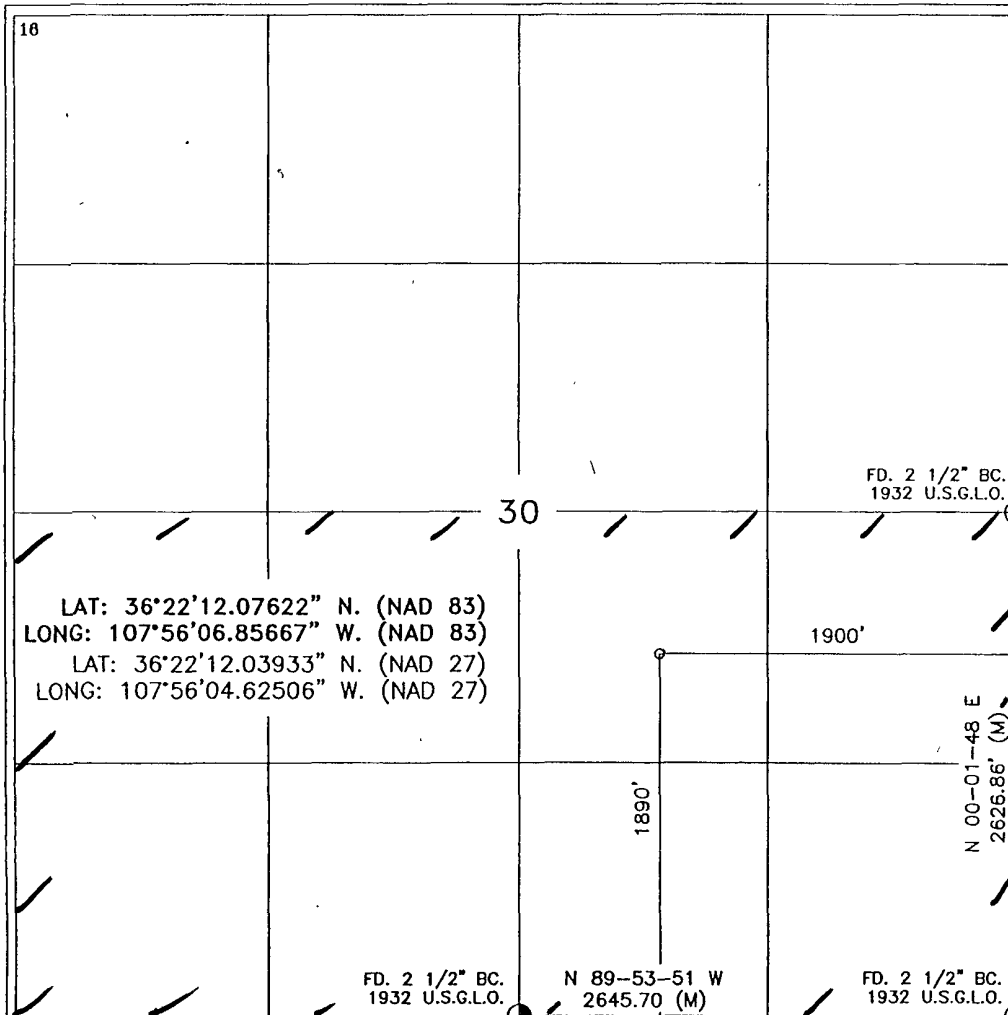
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	30	25-N	10-W		1890	SOUTH	1900	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
¹² Dedicated Acres 318.92 5/2			¹³ Joint or Infill		¹⁴ Consolidation Code C		¹⁵ Order No.		

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



17

OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Brian Wood 5-6-08
Signature Date
BRIAN WOOD
Printed Name

18

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

NOVEMBER 12 2008
Date of Survey
Signature and Seal of Professional Surveyor
8894
11-07
8894
Certificate Number

Pro NM Energy Inc.
Bisti Otero 30 1-E
1890' FSL & 1900' FEL
Sec. 30, T. 25 N., R. 10 W.
San Juan County, New Mexico

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Drilling Program

1. ESTIMATED FORMATION TOPS

<u>Formation</u>	<u>GL Depth</u>	<u>KB Depth</u>	<u>Elevation</u>
Nacimiento	0'	15'	+6,650'
Pictured Cliffs Sandstone	1,480'	1,495'	+5,155'
Mesa Verde Sandstone	2,278'	2,293'	+4,357'
Gallup Sandstone	4,962'	4,977'	+1,673'
Dakota Sandstone	6,073'	6,088'	+562'
Total Depth (TD)	6,500'	6,515'	+150'

2. NOTABLE ZONES

<u>Gas & Oil Zones</u>	<u>Water Zones</u>	<u>Coal Zones</u>
Fruitland	Nacimiento	Fruitland
Pictured Cliffs	Fruitland	
Gallup		
Dakota		

Water zones will be protected with casing, cement, and weighted mud. Fresh water found while drilling will be recorded.

3. PRESSURE CONTROL

BOP systems will follow Onshore Order No. 2. The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. A typical model is shown on the Page 3.

Once out from under the surface casing, a minimum 3,000 psi BOP and choke

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manifold system will be used. BOP controls will be installed before drilling the surface casing plug and used until the well is completed or abandoned.

Pressure tests to $\approx 2,500$ psi will be conducted with a BOP tester. All BOP mechanical and pressure tests will be recorded on the driller's log. BOPs will be inspected and operated at least daily to assure good mechanical working order. The inspection will be recorded on the daily drilling report.

4. CASING & CEMENT

<u>Hole Size</u>	<u>O. D.</u>	<u>Pounds/Foot</u>	<u>Grade</u>	<u>Age</u>	<u>Connections</u>	<u>Depth Set</u>
12-1/4"	8-5/8"	24	J-55	New	S T & C	320'
7-7/8"	5-1/2"	17	J-55	New	S T & C	6,500'

Surface casing will be cemented to the surface with ≈ 275 sacks (≈ 324.5 cubic feet) of Class B cement containing 2% CaCl_2 and 1/4 pound per sack cello flakes. Yield = 1.18 cubic feet per sack. Weight = 15.6 pounds per gallon. Excess >100%. A centralizer will be placed on the bottom joint. *See attached COA*

Production casing will be cemented to the surface in two stages with >100% excess. DV tool will be set at least 50' into the Mancos shale. Will install centralizer above and below DV tool and ≈ 6 centralizers each across Gallup and across Dakota.

First stage: ≈ 670 sacks ($\approx 1,380$ cubic feet) of Class B cement containing 2% sodium metasilicate followed by ≈ 100 sacks (≈ 118 cubic feet) of Class B cement containing 2% CaCl_2 . Second stage: ≈ 360 sacks (≈ 742 cubic feet) of Class B cement containing 2% sodium metasilicate followed by ≈ 100 sacks (≈ 118 cubic feet) Class B cement containing 2% CaCl_2 . The total cement volume for the long string will be $\approx 2,358$ cubic feet.

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5. MUD PROGRAM

<u>Depth</u>	<u>Type</u>	<u>ppg</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0 - 320'	Spud mud and Gel Lime	8.8	50	N/A
300' - 4000'	Spud mud and Gel Lime	8.8	50	N/A
4000' - TD	LSND	9.2	45	10 cc

6. CORES, TESTS, & LOGS

No cores or drill stem tests are planned. The following logs will be run from TD to the base of the surface casing:

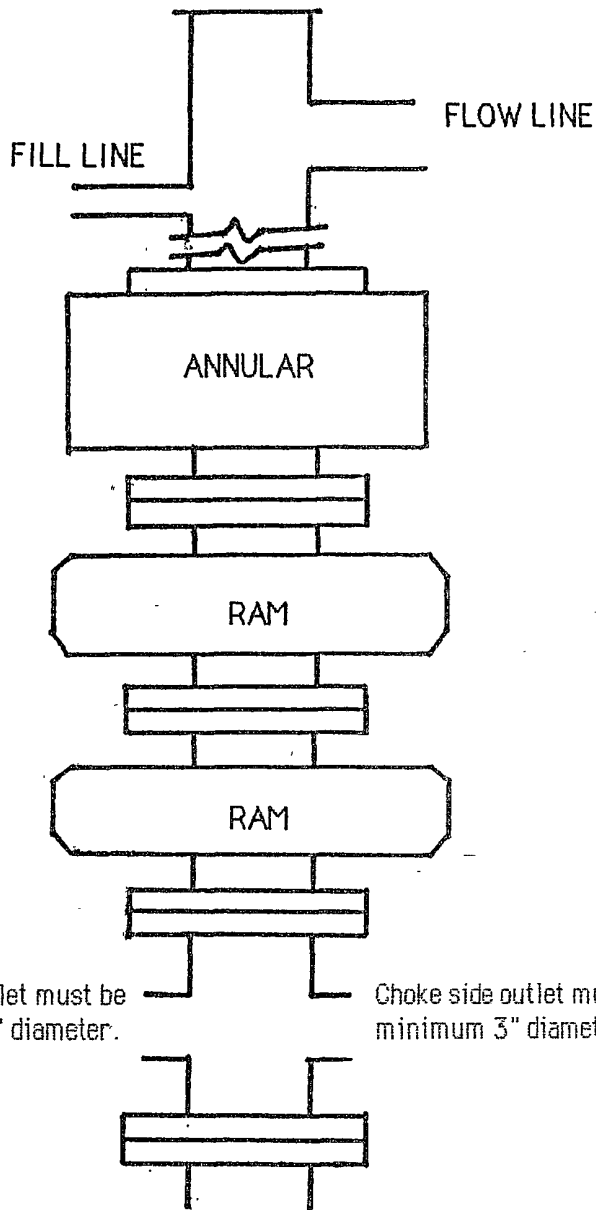
 dual induction, formation density
 compensated neutron, SP, gamma ray

7. DOWN HOLE CONDITIONS

No abnormal pressures, temperatures, nor hydrogen sulfide are expected. Maximum expected bottom hole pressure will be \approx 2,200 psi.

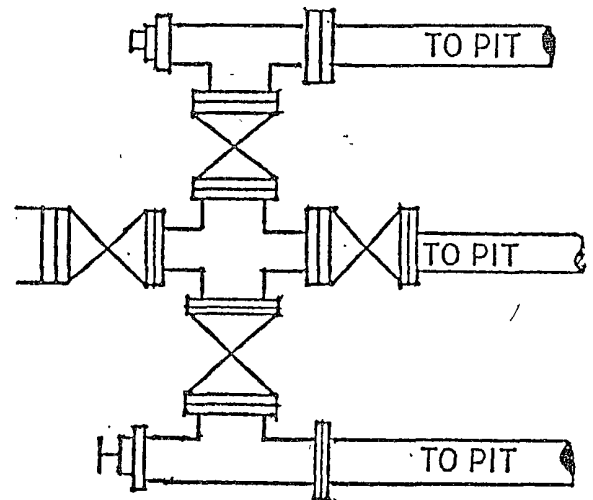
8. OTHER INFORMATION

The anticipated spud date is upon approval. It is expected it will take about \approx 1 month to drill and complete the well.



TYPICAL BOP STACK
& CHOKE MANIFOLD

There will be at least 2 chokes and 2 choke line valves (3" minimum). The choke line will be 3" in diameter. There will be a pressure gauge on the choke manifold.



Kill line will be minimum 2" diameter and have 2 valves, one of which shall be a minimum 2" check valve.

Upper kelly cock will have handle available.
Safety valve and subs will fit all drill string connections in use.
All BOPE connections subjected to well pressure will be flanged, welded, or clamped.