

Form 3160-5  
(September 2001)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0135  
Expires: January 31, 2004

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE- Other instructions on reverse side

1. Type of Well  
☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator  
Lance Oil & Gas Company, Inc.

3a. Address  
P. O. Box 70, Kirtland, NM 87417

3b. Phone No. (include area code)  
505-598-5601

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
674' FSL & 1,883' FWL  
Section 24, T29N - R14W, NMPM

5. Lease Serial No.  
14 - 20 - 603 - 2198 - A

6. If Indian, Allottee or Tribe Name  
NAVAJO

7. If Unit or CA/Agreement, Name and/or No.  
N/A

8. Well Name and No.  
NV Navajo 24 #3

9. API Well No.  
30 - 045 - 31423

10. Field and Pool, or Exploratory Area  
W. Kutz PC / Basin Fruitland Coal

11. County or Parish, State  
San Juan County, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other Downhole
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Commingling
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	Application

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Lance requests approval to allocate production from the NV Navajo 24 #3 well to Basin Fruitland Coal and West Kutz Pictured Cliffs Ext sandstone reservoirs in proportion to the recoverable reserves in-place calculated for each reservoir in accordance with legally-accepted reservoir engineering practices. The methodology was thoroughly reviewed with the BLM and NMOCD on Thursday afternoon, July 13, 2006. An attachment is enclosed entitled "Supplement to Downhole Commingling Application - Fruitland Coal & Pictured Cliffs Sandstone Allocation Methodology". The well is completed in the Basin Fruitland Coal and West Kutz Pictured Cliffs Ext. However, the well is currently producing from only the Basin Fruitland Coal with a bridge plug set over the West Kutz Pictured Cliffs Ext. The well is perforated as follows:

Basin Fruitland coal: 957' - 60' KB, 995' - 97' KB, 1,007' - 08' KB, 1,048' - 53' KB & 1,063 - 65' KB  
West Kutz Pictured Cliffs Ext: 1,074' - 1,081' KB

The working, royalty and overriding royalty interests differ between the commingled zones. All interest owners were notified by certified mail (return receipt) on September 28, 2006. No objections were received regarding the impending commingling application. The produced fluids from all commingled zones are compatible with each other and commingling will not decrease the value of production. Lance is requesting approval to allocate production based upon a split of Basin Fruitland Coal - 76.7% and West Kutz Pictured Cliffs Ext - 23.3%.

Your timely approval would be appreciated as Lance has a rig in the area to commence pulling the bridge plug as soon as possible.

14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

Thomas M. Erwin, P.E.

Title Production Superintendent

Signature

*Thomas M. Erwin*

Date

04/03/2007

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

*Joe Hewitt*

Title GEO

Date 4-13-07

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 which would entitle the applicant to conduct operations thereon.

Office FDB

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.

(Instructions on page 2)

NMOCD

## **LANCE OIL & GAS COMPANY, INC.**

**NV NAVAJO 24 #3  
SESW Section 24, T29N - R14W  
San Juan County, New Mexico**

### **Supplement to Downhole Commingling Application Fruitland Coal - Pictured Cliffs Sandstone Allocation Methodology**

The NV Navajo 24 #3 is capable of producing from both the Basin Fruitland Coal and the West Kutz Pictured Cliffs Ext intervals. Currently, open perforations exist in both intervals; however, a plug is in-place over the Pictured Cliffs perforations keeping production from this interval behind pipe until downhole commingling is approved. Pursuant to Order R-11363, Lance Oil and Gas seeks approval to downhole commingle the "Pre-approved pools and areas": Basin Fruitland Coal (71629) and West Kutz Pictured Cliffs (79680) in this well.

The Basin Fruitland Coal is perforated from 957' – 60' KB, 995' – 97' KB, 1,007' – 08' KB, 1,048' – 53' KB and 1,063' – 65' KB. The West Kutz Pictured Cliffs is perforated from 1,074' to 1,081' KB. Lance Oil & Gas Company, Inc. (Lance) requests downhole commingling of production from the two zones with an allocation of future production to each zone that is not evenly split. Further, Lance intends to allocate production to the Basin Fruitland Coal and the Pictured Cliffs sandstone reservoir in proportion to the recoverable reserves in-place calculated for each reservoir, rather than by a production-based method.

In requesting this approach, Lance is acknowledging the fact that coal reservoirs and sandstone reservoirs are very different in their gas storage capacity and productive performance. The reserves extracted from each reservoir horizon, therefore, will be substantially disproportionate over the expected life of the well. Lance recommends this reserve-based allocation method because production-based methods suffer from the fact that once the juxtaposed coal and sand reservoirs are frac'd, they communicate with each other and the production attributable to each is very difficult to determine accurately. In addition, because sandstone and coal reservoirs perform so differently, the proportion of production attributable to each change very significantly over the life of the well as drawdown occurs. This adds yet another level of uncertainty and complexity to production-based allocation methods.

Calculations of reserves, on the other hand, can be done with accuracy in either reservoir type, and in accord with legally-accepted standard reservoir engineering practices. Lance advocates using this approach to allocating the total recoverable resource because it is a more fair way of assessing the resource volume that will be eventually produced from either zone. The reserves method acknowledges that all of the recoverable reserves in each zone will be extracted over the life of the well, and assures that respective parties will be properly credited for those reserves. The approach also avoids problematic issues with determining relative rates of production from each reservoir – particularly after frac'ing – and the change in those rates that occurs over time. Instead it leaves in-place a fixed proportion of production from each reservoir until all reserves are recovered. This further simplifies accounting for companies and interest owners by keeping the allocation constant over time until the end of the well's productive life.

On July 13<sup>th</sup>, 2006, Lance Oil & Gas Company, Inc. presented the results of a reservoir study to the BLM and NMOCD that demonstrated how reserves for each reservoir can be determined with accuracy using this method for our wells and how an allocation by this method would work. The reserve calculation is accomplished using industry-accepted and legally-accepted engineering and geological methods for calculating gas-in-place for CBM reservoirs and for gas sand reservoirs.

For CBM reservoirs the volume of recoverable reserves is given by

$$RGIP = Rf * [1359.7 * A * h * RhoB * Gc]$$

Where:

- A* = The drainage area of the well, which is taken as the spacing unit for the reservoir and is in this area being developed at 160 Acres.
- h* = Thickness of the coal using a density cutoff of 2.0 g/cc.
- RhoB* = Average bulk density of the coal seam.
- Gc* = In-situ average gas content of the coal seam(s).

For Gas Sand reservoirs, this is given by:

$$RGIP = Rf * [(43,560 * A * h * (1 - Sw) * PHLe) / Bg]$$

Where:

- Rf* = Recovery Factor, determined by the ratio of final gas formation volume factor to initial gas formation volume factor in the reservoir.
- A* = The drainage area of the well, which is taken as the spacing unit for the reservoir and is in this area being developed at 160 Acres.
- h* = Thickness of the reservoir interval over which there is sufficient gas saturation (1-Sw) for significant productivity.
- Sw* = The average total water saturation in the reservoir over the interval having sufficient gas saturation for significant productivity.
- PHLe* = Average "effective" porosity in the reservoir over the interval having sufficient gas saturation for significant productivity.

By using this method, the proposed allocation we propose for the NV Navajo 24 #3 is:

<b>Fruitland Coal</b>	<b>-</b>	<b>76.70%</b>
<b>Pictured Cliffs</b>	<b>-</b>	<b>23.30%</b>

If you have any questions about the proposal, please contact Mr. Bill Lyons with Lance Oil and Gas Company, Inc, San Juan Basin Business Unit, 1099 18<sup>th</sup> Street, Suite 1200, Denver, CO 80202