Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

## SUNDRY NOTICES AND REPORTS ON WELLS

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

***SUBMIT IN TRIPLICATE - Other instructions on reverse side.***

5. Lease Serial No.
NMSF079511A

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
NMNM73379

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

8. Well Name and No.
LINDSEY A LS 1B

2. Name of Operator
BP AMERICA PRODUCTION CO
Contact: MARY CORLEY
E-Mail: corleyml@bp.com

9. API Well No.
30-045-31899-00-X1

3a. Address
P. O. BOX 3092
HOUSTON, TX 77253

3b. Phone No. (include area code)
Ph: 281.366.4491
Fx: 281.366.0700

10. Field and Pool, or Exploratory
BLANCO MESAVERDE

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 19 T30N R8W NWNE 730FNL 1535FEL

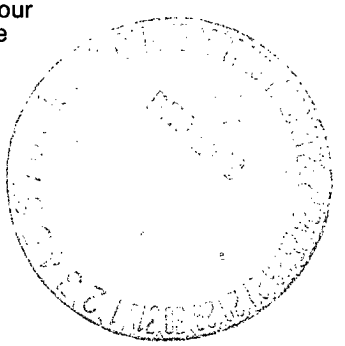
11. County or Parish, and State
SAN JUAN COUNTY, NM

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

| TYPE OF SUBMISSION | TYPE OF ACTION | | | |
|---|---|---|---|---|
| ☒ Notice of Intent | ☐ Acidize | ☐ Deepen | ☐ Production (Start/Resume) | ☐ Water Shut-Off |
| ☐ Subsequent Report | ☐ Alter Casing | ☐ Fracture Treat | ☐ Reclamation | ☐ Well Integrity |
| ☐ Final Abandonment Notice | ☐ Casing Repair | ☐ New Construction | ☐ Recomplete | ☒ Other Change to Original APD |
| | ☐ Change Plans | ☐ Plug and Abandon | ☐ Temporarily Abandon | |
| | ☐ Convert to Injection | ☐ Plug Back | ☐ Water Disposal | |

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 recomplete 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 recompletion 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.)

Original APD submitted on 09/18/2003 and approved on 10/20/2003. BP America submits for your approval amendements to the casing size and cementing program for the subject well as per the attached documents.



14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #25179 verified by the BLM Well Information System**
**For BP AMERICA PRODUCTION CO, sent to the Farmington**
**Committed to AFMSS for processing by ADRIENNE GARCIA on 12/09/2003 (04AXG1889SE)**

Name *(Printed/Typed)* MARY CORLEY — Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission) — Date 11/17/2003

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By _____ Title Petr. Eng. Date 12/12/03

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

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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

NMOCD

**BP AMERICA PRODUCTION COMPANY**
**DRILLING AND COMPLETION PROGRAM**

**Prospect Name:** **Lindsey A LS** | **Well No:** **1 B**
**Lease:** Lindsey A LS | **Surface Location:** 19-30N-8W, 730 FNL, 1535 FEL
**County:** San Juan
**State:** New Mexico | **Field:** Blanco Mesaverde
**Date:** August 12, 2003

**OBJECTIVE:** Drill 420' below the top of the Point Lookout Sandstone, set 41/2" production liner, Stimulate CH, MF and PL intervals

**METHOD OF DRILLING**

| TYPE OF TOOLS | DEPTH OF DRILLING |
|---|---|
| Rotary | 0 - TD |

**LOG PROGRAM**

| TYPE | DEPTH INVERAL |
|---|---|
| OPEN HOLE | |
| None | |
| CASED HOLE | |
| GR-CCL-TDT | TD to 7" shoe |

REMARKS:
- Please report any flares (magnitude & duration).

**APPROXIMATE DEPTHS OF GEOLOGICAL MARKER**

Estimated GL: 5830' Estimated KB: 5844'

| MARKER | | SUBSEA | TVD |
|---|---|---|---|
| Ojo Alamo | | 4471 | 1373 |
| Kirtland | | 4271 | 1573 |
| Fruitland | | 3800 | 2045 |
| Fruitland Coal | * | 3550 | 2295 |
| Pictured Cliffs | * | 3245 | 2599 |
| Lewis | * | 2992 | 2852 |
| Cliff House | # | 1750 | 4095 |
| Menefee | # | 1430 | 4414 |
| Point Lookout | # | 1064 | 4780 |
| Mancos | | 678 | 5166 |
| TOTAL DEPTH | | 644 | 5200 |

# Probable completion interval * Possible Pay

**SPECIAL TESTS**

| TYPE |
|---|
| None |

REMARKS:

**DRILL CUTTING SAMPLES**

| FREQUENCY | DEPTH |
|---|---|
| None | Production hole |

**DRILLING TIME**

| FREQUENCY | DEPTH |
|---|---|
| Geolograph | 0-TD |

**MUD PROGRAM:**

| Approx. Interval | | | Type Mud | Weight, #/gal | Vis, sec/qt | W/L cc's/30 min | Other Specification |
|---|---|---|---|---|---|---|---|
| 0 | - 120 | | Spud | 8.6-9.2 | | | |
| 120 | - 2245 | (1) | Water/LSND | 8.6-9.2 | | <6 | |
| 2245 | - 5200 | | Gas/Air/N2/Mist | Volume sufficient to maintain a stable and clean wellbore | | | |

REMARKS:
(1) The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate frequency.

**CASING PROGRAM:** (Normally, tubular goods allocation letter specifies casing sizes to be used. Hole sizes will be governed by Contract)

| Casing String | Estimated Depth | Casing Size | Grade | Weight | Hole Size | Landing Pt, Cmt, Etc. |
|---|---|---|---|---|---|---|
| Surface/Conductor | 120 | 8 5/8" | X-42, ST&C | 20# | 12.25" | 1 |
| Intermediate 1 | 2245 | 5 1/2" | J -55 ST&C | 15.5# | 7.875" | 1,2 |
| Production | 5200 | 2 7/8" | J-55 | 6.5# | 4.75" | 3,4 |

REMARKS:
(1) Circulate Cement to Surface
(2) Set casing 50' above Fruitland Coal
(3) Bring cement 100' above 7" shoe
(4) 100' Overlap

**CORING PROGRAM:**
None

**COMPLETION PROGRAM:**
Rigless, 2-3 Stage Limited Entry Hydraulic Frac

**GENERAL REMARKS:**
Notify BLM/NMOCD 24 hours prior to Spud, BOP testing, and Casing and Cementing.

Form 46 Reviewed by: Logging program reviewed by: N/A

| PREPARED BY: | APPROVED: | DATE: | |
|---|---|---|---|
| DB/MNP/JMP | | October 29, 2003<br>Version 2.0 | |

Form 46 12-00 MNP

# BP America Production Company
# BOP Pressure Testing Requirements

**Well Name:** **Lindsey A LS** **1 B**
**County:** **San Juan** **State:** **New Mexico**

| Formation | Estimated TVD/MD | Anticipated Bottom Hole Pressure | Maximum Anticipated Surface Pressure ** |
|---|---|---|---|
| **Ojo Alamo** | 1373 | | |
| **Fruitland Coal** | 2295 | | |
| **PC** | 2599 | | |
| **Lewis Shale** | 2852 | | |
| **Cliff House** | 4095 | 500 | 0 |
| **Menefee Shale** | 4414 | | |
| **Point Lookout** | 4780 | 600 | 0 |
| **Mancos** | 5166 | | |
| **Dakota** | - | 2600 | 1374 |

** Note: Determined using the following formula: ABHP – (.22*TVD) = ASP

Requested BOP Pressure Test Exception: 750 psi

# Cementing Program

| | | | |
|---|---|---|---|
| Well Name: | Lindsey A LS 1B | Field: | Blanco Mesaverde |
| Location: | 19-30N-08W, 730 FNL, 1535 FEL | API No. | |
| County: | San Juan | Well Flac | |
| State: | New Mexico | Formation: | MesaVerde |
| | | KB Elev (est) | 5844 |
| | | GL Elev. (est) | 5830 |

**Casing Program:**

| Casing String | Est. Depth (ft.) | Hole Size (in.) | Casing Size (in.) | Thread | TOC (ft.) | Stage Tool Or TOL (ft.) |
|---|---|---|---|---|---|---|
| Surface | 120 | 12 1/4 | 8 5/8 | ST&C | Surface | NA |
| Intermediate | 2245 | 7 7/8 | 5 1/2 | ST&C | Surface | NA |
| Production - | 5200 | 4 3/4 | 2 7/8 | | 2145 | NA |

**Casing Properties:** (No Safety Factor Included)

| Casing String | Size (in.) | Weight (lb/ft) | Grade | Burst (psi.) | Collapse (psi.) | Joint St. (1000 lbs.) | Capacity (bbl/ft.) | Drift (in.) |
|---|---|---|---|---|---|---|---|---|
| Surface | 8 5/8 | 24 | X42 | 2950 | 1370 | 244 | 0.06368 | 7.972 |
| Intermediate | 5 1/2 | 15.5 | J55 | 4810 | 4040 | 202 | 0.0238 | 5.067 |
| Production - | 2 7/8 | 6.5 | J-55 | 7264 | 7676 | 72 | 0.00579 | 2.375 |

Mud Program

| Apx. Interval (ft.) | Mud Type | Mud Weight | Recommended Mud Properties Prio Cementing: |
|---|---|---|---|
| 0 - SCP | Water/Spud | 8.6-9.2 | Fluid Loss <6 |
| SCP - ICP | Water/LSND | 8.6-9.2 | |
| ICP - TD | Gas/Air Mist | NA | |

Cementing Program:

| | Surface | Intermediate | Production |
|---|---|---|---|
| Excess %, Lead | 100 | 100 | 40 |
| Excess %, Tail | NA | 0 | 40 |
| BHST (est deg. F) | 72 | 110 | 159 |
| Time Between Stages, (hr) | NA | NA | NA |
| Special Instructions | 1,6 | 1,6 | 2,6 |

1. Do not wash pumps and lines.
2. Wash pumps and lines.
3. Reverse out
4. Run Blend Test on Cement
5. Record Rate, Pressure, and Density on 3.5" disk
6. Confirm densitometer with pressurized mud scales
7. 1" cement to surface if cement is not circulated.
8. If cement is not circulated to surface, run temp. survey 10-12 hr. after landing plug.

**Surface:**

| | | | |
|---|---|---|---|
| Preflush | 20 bbl. | FreshWater | |
| Slurry 1 | 90 sx Class G Cement | | 104 ~~95~~ cuft |
| TOC@Surface | + 3% CaCl2 (accelerator) | | |
| | 0.25 #/sk Cellophane Flake (lost circulation additive) | | 0.3961 cuft/ft OH |
| | 0.1% D46 antifoam | | 100 % excess |

| Slurry Properties: | Density (lb/gal) | Yield (ft3/sk) | Water (gal/sk) |
|---|---|---|---|
| Slurry 1 | 15.8 | 1.16 | 4.95 |

**Intermediate:**

# Cementing Program

| | | | | |
|---|---|---|---|---|
| | Fresh Water | 20 bbl | fresh water | |
| | Lead | 230 sx | Class "G" Cement | 600 ~~587~~ cuft |
| | Slurry 1 | | + 3% D79 extender | |
| | TOC@Surface | | +1/4 #/sk. Cellophane Flake | |
| | | | + 0.1% D46 antifoam' | |
| | | 70 sx | 50/50 Class "G"/Poz | |
| | Tail | | + 2% gel (extender) | 87 cuft |
| | Slurry 2 | | 0.1% D46 antifoam | |
| | 500 ft fill | | +1/4 #/sk. Cellophane Flake | 0.1733 cuft/ft OH |
| | | | + 2% S1 Calcium Chloride | 0.2009 cuft/ft csg ann |
| | | | | 80 % excess |

| Slurry Properties: | Density (lb/gal) | Yield (ft3/sk) | Water (gal/sk) |
|---|---|---|---|
| Slurry 1 | 11.7 | 2.61 | 17.77 |
| Slurry 2 | 13.5 | 1.27 | 5.72 |

**Production:**

| | | | | |
|---|---|---|---|---|
| | Fresh Water | 10 bbl | CW100 | |
| | Slurry | 140 | LiteCrete D961 / D124 / D154 | 353 ~~335~~ cuft |
| | | | + 0.03 gps D47 antifoam | |
| | | | + 0.5% D112 fluid loss | |
| | TOC@Liner Top | | + 0.11% D65 TIC | |
| | | | | 0.078 cuft/ft OH |
| | | | | 40 % excess |
| | | | | 0.0886 cuft/ft csg ann |

| Slurry Properties: | Density (lb/gal) | Yield (ft3/sk) | Water (gal/sk) |
|---|---|---|---|
| Slurry | 9.5 | 2.52 | 6.38 |