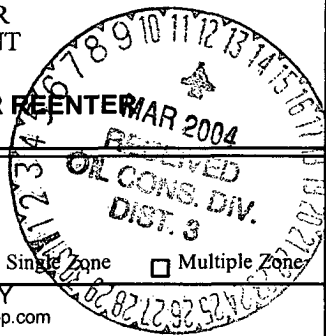


(August 1999)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OMB No. 1004-0136  
Expires November 30, 2000

APPLICATION FOR PERMIT TO DRILL OR REENTER



1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMSF - 078580-A
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator BP AMERICA PRODUCTION COMPANY		7. If Unit or CA Agreement, Name and No.
Contact: MARY CORLEY E-Mail: corleyml@bp.com		8. Lease Name and Well No. MOORE E 1B
3a. Address P.O. BOX 3092 HOUSTON, TX 77253	3b. Phone No. (include area code) Ph: 281.366.4491 Fx: 281.366.0700	9. API Well No. 3004532073
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NWSW Lot L 2454 FSL 1035FWL 36.49500 N Lat, 107.42300 W Lon At proposed prod. zone 2545		10. Field and Pool, or Exploratory BLANCO MESAVERDE
14. Distance in miles and direction from nearest town or post office* 20 MILES FROM AZTEC, NEW MEXICO		11. Sec., T., R., M., or Blk. and Survey or Area L Sec 8 T30N R8W Mer NMP SME: BLM
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1035	16. No. of Acres in Lease 320.00	12. County or Parish SAN JUAN
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 1400	19. Proposed Depth 5739 MD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6362 GL	22. Approximate date work will start 01/16/2004	17. Spacing Unit dedicated to this well 320.00 W2
		20. BLM/BIA Bond No. on file WY2924
		23. Estimated duration 5 DAYS

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 (Electronic Submission)	Name (Printed/Typed) MARY CORLEY	Date 12/17/2003
Title AUTHORIZED REPRESENTATIVE		
Approved by (Signature) WAYNE TOWNSEND	Name (Printed/Typed) WAYNE TOWNSEND	Date 3/10/04
Title Acting ARM	Office FFO	

Application approval does not warrant or certify 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.

Additional Operator Remarks (see next page)

Electronic Submission #26225 verified by the BLM Well Information System  
For BP AMERICA PRODUCTION COMPANY, sent to the Farmington

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

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

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\*

NMOC

District I  
PO Box 1980, Hobbs NM 88241-1980  
District II  
PO Drawer KK, Artesia, NM 87211-0719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 1994  
Instructions on back  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number <b>30-045-32073</b>		2 Pool Code <b>72319</b>		3 Pool Name <b>BLANCO MESAVERDE</b>	
4 Property Code <b>000879</b>		5 Property Name <b>Moore E</b>			6 Well Number <b># 1B</b>
7 OGRID No. <b>000178</b>		8 Operator Name <b>BP AMERICA PRODUCTION COMPANY</b>			9 Elevation <b>6362</b>

10 Surface Location

UL or Lot No. <b>L</b>	Section <b>8</b>	Township <b>30 N</b>	Range <b>8 W</b>	Lot Idn	Feet from the <b>2545</b>	North/South line <b>SOUTH</b>	Feet from the <b>1035</b>	East/West line <b>WEST</b>	County <b>SAN JUAN</b>
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11 Bottom Hole Location If Different From Surface

12 UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
13 Dedicated Acres <b>3.20</b>		14 Joint or Infill		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

		<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Signature: <i>Mary Corley</i> Printed Name: <b>Mary Corley</b> Title: <b>SR Regulatory Analyst</b> Date: <b>12-10-2003</b></p>	
<p>MAR 2004 RECEIVED OIL CONSERV. DIV. DIST. 3</p>		<p>18 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>Date of Survey: <b>October 15, 2003</b> Signature and Seal of Professional Surveyor: <i>GARY D. VANN</i> 7016 7016 Certificate Number</p>	

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM 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.**5. Lease Serial No.  
NMSF078580A

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.  
MOORE E 1B9. API Well No.  
30-045-32073-00-X110. Field and Pool, or Exploratory  
BLANCO MESAVERDE11. County or Parish, and State  
SAN JUAN COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

## 1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

## 2. Name of Operator

BP AMERICA PRODUCTION CO

Contact: MARY CORLEY

E-Mail: corleyml@bp.com

## 3a. Address

P. O. BOX 3092  
HOUSTON, TX 77253

## 3b. Phone No. (include area code)

Ph: 281.366.4491  
Fx: 281.366.0700

## 4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 8 T30N R8W NWSW Lot L 2545FSL 1035FWL  
36.49500 N Lat, 107.42300 W Lon

## 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
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

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 recompleate 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 recompleation 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 12/10/2003, EC Submission 26225. Permit Pending.

BP America submits for your approval amendements to our surface cementing program for the subject well. Please reference attached cementing report for detailed information.

However, should conditions change, BP request as an alternate to conventional drilling program to drill the subject well with air/air mist in lieu of drilling mud and preset the surface casing using approximately 90 CU/FT TYPE I-II, 20% FLYASH, 14.5 PPG, 7.41 GAL/SK, 1.61 CF/SK YIELD, 80 DEG BHST READY MIX CMT.

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

Electronic Submission #28004 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 02/18/2004 (04AXG0638SE)

Name (Printed/Typed) MARY CORLEY

Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission)

Date 02/17/2004

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By WAYNE TOWNSEND

Title Acting AFM

Date 3/10/04

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 FFO

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 \*\***

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

**Prospect Name:** Moore E  
**Lease:** Moore  
**County:** San Juan  
**State:** New Mexico  
**Date:** December 11, 2003

**Well No:** 1 B  
**Surface Location:** 8-30N-8W; 2545 FSL, 1035 FWL

**Field:** Blanco Mesaverde

**OBJECTIVE:** Drill 400' below the top of the Point Lookout Sandstone, set 2 7/8" production long string, Stimulate CH, MF and PL intervals

METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS	DEPTH OF DRILLING	Estimated GL: 6354		Estimated KB: 6368	
Rotary	0 - TD				
LOG PROGRAM		MARKER		SUBSEA	
TYPE	DEPTH INVERAL			TVD	
OPEN HOLE		Ojo Alamo		4413	
None		Kirtland		4317	
		Fruitland		3813	
		Fruitland Coal		3523	
		Pictured Cliffs		3221	
		Lewis		2952	
		Cliff House		1704	
		Menefee		1373	
		Point Lookout		1029	
		Mancos		639	

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	-	2795	Water/LSND	8.6-9.2		<6	
2795	-	5739	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-40 ST&C	24.20#	12.25"	1
Intermediate 1	2795	5 1/2"	J-55 ST&C	15.5#	7.875"	1,2
Production	5739	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 5 1/2" 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: HGJ/MNP/JMP	APPROVED:	DATE: December 11, 2003 Version 2.0
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Form 46 12-00 MNP

# BP America Production Company

## BOP Pressure Testing Requirements

Well Name: Moore C  
County: San Juan

1 B  
State: New Mexico

Formation	Estimated TVD/MD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1955		
Fruitland Coal	2845		
PC	3147		
Lewis Shale	3416		
Cliff House	4664	500	0
Menefee Shale	4995		
Point Lookout	5339	600	0
Mancos	5729		

\*\* Note: Determined using the following formula:  $ABHP - (.22 \times TVD) = ASP$

Requested BOP Pressure Test Exception: 750 psi

**SAN JUAN BASIN**  
**Mesaverde Formation**  
**Pressure Control Equipment**

### Background

The objective Mesaverde formation maximum surface pressure is anticipated to be less than 1000 psi, based on shut-in surface pressures from adjacent wells. Pressure control equipment working pressure minimum requirements are therefore 2000 psi. Equipment to be used will conform to API RP-53 (Figure 2.C.2) for a 2000 psi system per Federal Onshore Order No. 2. Due to available conventional equipment within the area, 3000 psi rated pressure control equipment will typically be utilized in a double ram type arrangement. Regional drilling rigs to be utilized have substructure height limitations which exclude the use of annular preventers; therefore a rotating head will be installed above these rams. This pressure control equipment will be utilized for conventional drilling below conductor to total depth in the Mesaverde. No abnormal temperature, pressure, or H2S anticipated.

### Equipment Specification

#### Interval

#### BOP Equipment

Below conductor casing to total depth

9", 11" nominal or 7 1/16", 3000 psi  
double ram preventer with rotating head.

All ram type preventers and related control equipment will be hydraulically tested to 250 psi (low pressure) and 750 psi (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include kelly cock with a handle available, floor safety valves and choke manifold which will also be tested to equivalent pressure.

# Cementing Program

Well Name: Moore E 1B  
 Location: 08-30N-08W, 2545 FSL, 1035 FWL  
 County: San Juan  
 State: New Mexico

Field: Blanco Mesaverde  
 API No.  
 Well Flac  
 Formation: MesaVerde  
 KB Elev (est) 6368  
 GL Elev. (est) 6354

## 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	2795	7 7/8	5 1/2	ST&C	Surface	NA
Production -	5739	4 3/4	2 7/8		2695	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	80 sx Class C Cement		
TOC@Surface	+ 2% CaCl (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 (ft <sup>3</sup> /sk)	Water (gal/sk)
Slurry 1	15.2	1.27	5.8

102  
~~85~~ cuft

## Intermediate:

# Cementing Program

Fresh Water 20 bbl fresh water

Lead  
Slurry 1  
TOC@Surface

300 sx Class "G" Cement  
+ 3% D79 extender  
+ 1/4 #/sk. Cellophane Flake  
+ 0.1% D46 antifoam  
70 sx 50/50 Class "G"/Poz  
+ 2% gel (extender)  
0.1% D46 antifoam  
+ 1/4 #/sk. Cellophane Flake  
+ 2% S1 Calcium Chloride

783  
~~778~~ cuft

Tail  
Slurry 2

500 ft fill

87 cuft

0.1733 cuft/ft OH  
0.2009 cuft/ft csg ann  
80 % excess

Slurry Properties:	Density (lb/gal)	Yield (ft <sup>3</sup> /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  
+ 0.03 gps D47 antifoam  
+ 0.5% D112 fluid loss  
+ 0.11% D65 TIC

353  
~~346~~ cuft

TOC 200 ft in 5 1/2"

Slurry Properties:	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water (gal/sk)
Slurry	9.5	2.52	6.38

0.078 cuft/ft OH  
40 % excess  
0.0886 cuft/ft csg ann