

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
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 - 078046
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
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. HUGHES 6M
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. 3004532061
4. Location of Well (Report location clearly and in accordance with any State requirements.)* F At surface SENW Lot F 1675FNL 1705FWL 36.42000 N Lat, 107.42200 W Lon E At proposed prod. zone SWNW Lot E 2250FNL 1100FWL 36.42000 N Lat, 107.42200 W Lon		10. Field and Pool, or Exploratory BASIN DAKOTA/BLANCO MESAVER
14. Distance in miles and direction from nearest town or post office* 21 MILES FROM BLOOMFIELD, NEW MEXICO		11. Sec., T., R., M., or Blk. and Survey or Area F Sec 29 T29N 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) BHL: 1100 SHL: 935	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. 200	19. Proposed Depth 7605 MD 7498 TVD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6431 GL	22. Approximate date work will start 01/30/2004	17. Spacing Unit dedicated to this well 320.00 n/s
		20. BLM/BIA Bond No. on file WY2924
		23. Estimated duration 7 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 12/08/2003
Title AUTHORIZED REPRESENTATIVE		
Approved by (Signature)	Name (Printed/Typed) /s/ David J. Mankiewicz	Date
Title	Office	DEC 19 2003

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 #25840 verified by the BLM Well Information System
For BP AMERICA PRODUCTION COMPANY, sent to the Farmington

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

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

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

HOLD C104 FOR

directional survey

NMOCD

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 30-045-32061		2 Pool Code 71599 72359		3 Pool Name Basin Dakota ? Blanco Mesaverde	
4 Property Code 000698		5 Property Name Hughes			6 Well Number # 6M
7 OGRID No. 000118		8 Operator Name BP AMERICA PRODUCTION COMPANY			9 Elevation 6431

10 Surface Location

UL or Lot No.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
F	29	29 N	8 W		1675	NORTH	1705	WEST	SAN JUAN

11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County
E	29	29 N	8 W		2250	NORTH	1100	WEST	SAN JUAN

12 Dedicated Acres 3.20	13 Joint or Infill	14 Order No.
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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: MARY ORLEY</p> <p>Printed Name: Senior Regulatory Analyst</p> <p>Title: 11.19.2003</p> <p>Date: 11.19.2003</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: May 19, 2003</p> <p>Signature and Seal of Professional Surveyor: GARY D. VANDERKAM</p> <p>Certificate Number: 7016</p>		

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

Prospect Name: Hughes
Lease: Hughes
County: San Juan
State: New Mexico

Well No: 6M
Surface Location: 29-29N-8W, 1675 FNL, 1705 FWL
Bottom Location: 29-29N-8W, 2250 FNL, 1100 FWL
Field: Blanco Mesaverde/Basin Dakota

Date: October 27, 2003

OBJECTIVE: Drill 240' below the top of the Two Wells; set 4 1/2" production casing. Stimulate CH, MF, PL and DK intervals							
METHOD OF DRILLING				APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS		DEPTH OF DRILLING		Estimated GL: 6431		Estimated KB: 6445	
Rotary		0 - TD					
LOG PROGRAM							
TYPE		DEPTH INTERVAL		MARKER		TVD	
<u>OPEN HOLE</u>						MD	
None				Ojo Alamo		1942'	
				Kirkland		2119'	
				Fruitland		2535'	
				Fruitland Coal		2837'	
				Pictured Cliffs		3049'	
				Lewis Shale		3280'	
				Cliff House		4585'	
				Menefee Shale		4834'	
				Point Lookout		5297'	
<u>CASED HOLE</u>				Mancos		5720'	
GR-CCL-TDT		TDT - TD to 7" shoe		Greenhorn		7253'	
CBL		Identify 4 1/2" cement top		Bentonite Marker		7315'	
REMARKS: - Please report any flares (magnitude & duration).				Two Wells		7365'	
				Paguate		7457'	
				Cubero Upper		7486'	
				Cubero Lower		7517'	
				Encinal Canyon		7563'	
				TOTAL DEPTH		7498'	
						7605'	
				# Probable completion interval		* Possible Pay	
SPECIAL TESTS				DRILL CUTTING SAMPLES		DRILLING TIME	
TYPE				FREQUENCY		DEPTH	
None				10'		0-TD	
REMARKS:							
MUD PROGRAM:							
Approx. Interval		Type Mud	Weight, #/ga	Vis, sec/qt	W/L cc's/30 min	Other Specification	
0 - 120		Spud	8.6-9.2				
120 - 3384 (1)		Water/LSND	8.6-9.2		<6		
3384 - 7605		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	9 5/8"	H-40 ST&C	32#	13.5"	1	
Intermediate 1	3384	7"	J/K-55 ST&C	20#	8.75"	1,2	
Production	7605	4 1/2"	J-55	11.6#	6.25"	3	
REMARKS:							
(1) Circulate Cement to Surface							
(2) Set casing 100' into Lewis Shale							
(3) Bring cement 100' above 7" shoe							
CORING PROGRAM:							
None							
COMPLETION PROGRAM:							
Rigless, 3-4 Stage Limited Entry Hydraulic Frac							
GENERAL REMARKS:							
Notify BLM/NMOCDD 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:			
HGJ/MNP/JMP				November 3, 2003			
Form 46 12-00 MNP				Version 2.0			

BP America Production Company

BOP Pressure Testing Requirements

Well Name: Hughes
County: San Juan

6M
State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1942		
Fruitland Coal	2757		
PC	2961		
Lewis Shale	3184		
Cliff House	4478	500	0
Menefee Shale	4727		
Point Lookout	5190	600	0
Mancos	5613		
Dakota	7258	2600	1449

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

Requested BOP Pressure Test Exception: 1500 psi
SAN JUAN BASIN
Dakota Formation
Pressure Control Equipment

Background

The objective Dakota 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 rights 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 Basin Dakota. No abnormal temperature, pressure, or H2S anticipated.

Equipment Specification

Interval

BOP Equipment

Below conductor casing to total depth 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 2000 psi (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include kelly cock, upper kelly cock with a handle available, floor safety valves and choke manifold which will also be tested to equivalent pressure.

FEDERAL CEMENTING REQUIREMENTS

1. All permeable zones containing fresh water and other usable water containing 10,000 PPM or less total dissolved solids will be isolated and protected from contamination by cement circulated in place for the protection of permeable zones per the NTL-FRA 90-1 Section III A.
2. The hole size will be no smaller than 1 1/2" larger diameter than the casing O.D. across all water zones.
3. An adequate spacer will be pumped ahead of the cement slurry to help prevent mud contamination of the cement.
4. An adequate number of casing centralizers will be run through usable water zones to ensure that the casing is centralized through these zones. The adequate number of centralizers to use will be determined by API SPEC 10D.
5. Centralizers will impart a swirling action around the casing and will be used just below and into the base of the lowest usable water zone.
6. A chronological log will be kept recording the pump and slurry information and will be sent to the BLM with the subsequent sundry.

~~BP is currently using 3% CaCl₂ in our slurry and achieves 300 psi compressive strength after 1 hr 50 min and 500 psi after 3 hrs 8 min. We, therefore, request approval to initiate blowout preventer (BOP) nipple up operations after a 2 hour wait on cement time in lieu of the 6 hour time frame required by rule to achieve 300 psi compressive strength with Class B cement slurry at 80 deg F.~~

60°F profile must be followed