

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. SF - 080424
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well Gas <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 Attn: Mary Corley		7. If Unit or CA Agreement, Name and No
3a. Address P.O. Box 3092 Houston, Texas 77253	3b. Phone No. (include area code) 281-366-4491	8. Lease Name and Well No. Van Hook LS 1M
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 1820' FSL & 2490' FWL At proposed prod. Zone		9. API Well No. 3004531895
10. Field and Pool, or Exploratory Basin Dakota & Blanco Mesaverde		11. Sec., T., R., M., or Blk, and survey or Area K Sec. 27, T32N, R11W
14. Distance in miles and direction from nearest town or post office* 17.5 miles from Aztec, NM		12. County or Parish San Juan
15. Distance from proposed* Location to nearest Property or lease line, ft. (Also to nearest drig. Ujnit line, if any) 820'		13. State New Mexico
16. No. of Acres in lease 320		17. Spacing Unit dedicated to this well 320 8/2
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2600'		20. BLM/BIA Bond No. on file WY2924
21. Elevations (show whether DF, KDB., RT, GL, etc.) 6367' GL		22. Approximate date work will start* November 15, 2003
		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 <i>Mary Corley</i>	Name (Printed/typed) Mary Corley	Date 09/15/2003
Title Senior Regulatory Analyst		
Approved by Signature <i>David J. Markiewicz</i>	Name (Printed/Typed)	Date NOV 13 2003
Title		
Office		

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.

*(Instructions on reverse)

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

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 30-045-31895		2 Pool Code 71599-72319		3 Pool Name Basin DAKOTA & BLANCO MesAVERDE	
4 Property Code 001199		5 Property Name Van Hook LS			6 Well Number # 1M
7 OGRID No. 000118		8 Operator Name BP AMERICA PRODUCTION COMPANY			9 Elevation 6367

10 Surface Location

UL or Lot No. K	Section 27	Township 32 N	Range 11 W	Lot Idn	Feet from the 1820	North/South line SOUTH	Feet from the 2490	East/West line WEST	County SAN JUAN
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11 Bottom Hole Location If Different From Surface

7 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 320		13 Joint or Infill		14 Consolidation Code		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

16 RECEIVED 2003 SEP 17 AM 9:17 070 Farmington, NM		5072(R)		17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief. Signature: Mary Corley Printed Name: Mary Corley Title: Sr Regulatory Analyst Date: 08.15.2003	
27		2490'		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. August 26, 2003 Date of Survey Signature and Seal of Professional Surveyor GARY D. VANN NEW MEXICO REGISTERED PROFESSIONAL LAND SURVEYOR 7016 Certificate Number	
1820'		5036(R)			

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

Prospect Name: Van Hook LS
Lease: Van Hook LS
County: San Juan
State: New Mexico
Date: September 2, 2003

Well No: 1M
Surface Location: 27-32N-11W, 1820 FSL, 2490 FWL
Field: Blanco Mesaverde/Basin Dakota

OBJECTIVE: Drill 210' below the top of the Upper Two Wells (DKOT), 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: 6367		Estimated KB: 6381	
Rotary	0 - TD	MARKER		SUBSEA	TVD.
LOG PROGRAM		Ojo Alamo		4230'	2152'
		Kirkland		4140'	2241'
		Fruitland		3919'	2462'
		Fruitland Coal	*	3700'	2681'
		Pictured Cliffs	*	3271'	3110'
		Lewis Shale	#	3096'	3285'
		Cliff House	#	1760'	4621'
		Menefee Shale	#	1362'	5019'
		Point Lookout	#	1008'	5373'
		Mancos		666'	5715'
		Greenhorn		-1044'	7425'
		Bentonite Marker		-1094'	7475'
		Two Wells	#	-1161'	7542'
		Paguate	#	-1236'	7617'
		Cubero Upper	#	-1267'	7648'
		Cubero Lower	#	-1304'	7685'
		TOTAL DEPTH		-1371'	7752'
		# Probable completion interval		* Possible Pay	
SPECIAL TESTS		DRILL CUTTING SAMPLES		DRILLING TIME	
TYPE		FREQUENCY	DEPTH	FREQUENCY	DEPTH
None		10'	3385'-TD	Geolograph	0-TD
REMARKS:					

MUD PROGRAM:

Approx. Interval	Type Mud	Weight, #/ga	Vis, sec/qt	W/L cc's/30 min	Other Specification
0 - 250	Spud	8.6-9.2			
250 - 3800 (1)	Water/LSND	8.6-9.2		<6	
3800 - 7752	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	250	9 5/8"	H-40 ST&C	32#	13.5"	1
Intermediate	3800	7"	J/K-55 ST&C	20#	8.75"	1,2
Production	7752	4 1/2"	J-55	11.6#	6.25"	3

REMARKS:

- (1) Circulate Cement to Surface
- (2) Set casing 515' 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/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:

September 2, 2003
Version 4.0

HGJ/MNP/JMP

Form 46 12-00 MNP

BP America Production Company

BOP Pressure Testing Requirements

Well Name: Van Hook LS
County: San Juan

1M
State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	2152		
Fruitland Coal	2681		
PC	3110		
Lewis Shale	3285		
Cliff House	4621	500	0
Menefee Shale	5019		
Point Lookout	5373	600	0
Mancos	5715		
Dakota	7542	2600	1002

** 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.

Cementing Program

Well Name: Van Hook LS 1M
 Location: 127-32N-11W, 1820 FsL, 2490 FWL
 County: San Juan
 State: New Mexico

Field: Blanco Mesaverde / Basin Dakota
 API No.
 Well Flac
 Formation: Blanco Mesaverde/Basin Dakota
 KB Elev (est) 6381
 GL Elev. (est) 6367

Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Thread	TOC (ft.)	Stage Tool Or TOL (ft.)	Cmt Cir. Out (bbl.)
Surface	120	13.5	9.625	ST&C	Surface	NA	
Intermediate	3800	8.75	7	LT&C	Surface	NA	
Production -	7752	6.25	4.5	ST&C	3700	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		9.625	32 H-40	3370		1400	254	0.0787
Intermediate		7	20 K-55	3740		2270	234	0.0405
Production -		4.5	11.6 J-55	5350		4960	154	0.0155

Mud Program

Apx. Interval (ft.)	Mud Type	Mud Weight	Recommended Mud Properties Prio Cementing:	
			PV	<20
			YP	<10
			Fluid Los:	<15
0 - SCP	Water/Spud	8.6-9.2		
SCP - ICP	Water/LSND	8.6-9.2		
ICP - ICP2	Gas/Air Mist	NA		
ICP2 - TD	LSND	8.6 - 9.2		

Cementing Program:

	Surface	Intermediate	Production
Excess %, Lead	100	75	40
Excess %, Tail	NA	0	40
BHST (est deg. F)	75	120	183
Special Instructions	1,6,7	1,6,8	2,4,6

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.

Notes:

*Do not wash up on top of plug. Wash lines before displacing production cement job to minimize drillout.

Surface:

Preflush	20 bbl.	FreshWater	
Slurry 1	110 sx Class G Cement		117 cuft
TOC@Surface	+ 3% CaCl2 (accelerator)		
	+ 0.25 #/sk Cellophane Flake (lost circulation additive)		0.4887 cuft/ft OH

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

Casing Equipment:

- 9-5/8", 8R, ST&C
- 1 Guide Shoe
- 1 Top Wooden Plug
- 1 Autofill insert float valve
- Centralizers, 1 per joint except top joint
- 1 Stop Ring
- 1 Thread Lock Compound