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.
NMSF077123

6. If Indian, Allottee or Tribe Name

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

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

8. Well Name and No.
WARREN LS 2B

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

9. API Well No.
30-045-31969-00-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 12 T28N R9W SESE Lot P Tract P 1105FSL 1095FEL
36.40300 N Lat, 107.44100 W Lon

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 A PD
	☐ 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 10/15/2003, APPROVED on 11/20/2003.

BP America submits for your approval amendements to the casing size and cementing program for the subject well as per the attached documents.

As an alternate to the drilling of the surface hole with drilling mud as stated on the attached Form 46, BP request permission to either drill with drilling mud or with air/air mist. Additionally, BP request as a possible alternate to the cementing of the surface casing to be either the cementing program stated on the attachment or with approximately 90 CU/FT TYPE I-II, 20% FLYASH, 14.5 PPG, 7.41 GAL/SK, 1.61 CF/SK YIELD, [redacted] READY MIX CMT.

primary circulating media will be dependent on rig contractor.

FEB 2004

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #27635 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 02/09/2004 (04AXG0398SE)

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

Signature (Electronic Submission) — Date 02/06/2004

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By [signature] — Title Petr. Eng — Date 2/10/04

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

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: Warren LS
Lease: Warren
County: San Juan
State: New Mexico
Date: December 2, 2003

Well No: 2 B
Surface Location: 12-28N-9W; 1140 FNL, 1095 FEL
Field: Blanco Mesaverde

OBJECTIVE: Drill 400' below the top of the Point Lookout Sandstone, set 2 7/8" production Longstring, 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 5 1/2" shoe

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

APPROXIMATE DEPTHS OF GEOLOGICAL MARKER

Estimated GL: 5745 Estimated KB: 5759

MARKER		SUBSEA	TVD
Ojo Alamo		4580	1180
Kirtland		4531	1229
Fruitland		4101	1658
Fruitland Coal	*	3858	1901
Pictured Cliffs	*	3638	2121
Lewis	*	3436	2323
Cliff House	#	2113	3646
Menefee	#	1882	3878
Point Lookout	#	1374	4385
Mancos		1005	4755
TOTAL DEPTH		974	4785

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	- 1851	(1)	Water/LSND	8.6-9.2		<6	
1851	- 4785		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	1851	5 ½"	J-55 ST&C	15.5#	7.875"	1,2
Production	4785	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:	APPROVED:	DATE:	
HGJ/MNP/JMP		December 2, 2003 Version 2.0	

Form 46 12-00 MNP

BP America Production Company
BOP Pressure Testing Requirements

Well Name: **Warren LS** **2 B**
County: **San Juan** **State:** **New Mexico**

Formation	Estimated TVD/MD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1180		
Fruitland Coal	1901		
PC	2121		
Lewis Shale	2323		
Cliff House	3646	500	0
Menefee Shale	3878		
Point Lookout	4385	600	0
Mancos	4755		

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

Requested BOP Pressure Test Exception: 750 psi

Cementing Program

Well Name:	Warren LS 2B	Field:	Blanco Mesaverde
Location:	12-28N-09W, 1140 FNL, 1095 FEL	API No.	
County:	San Juan	Well Flac	
State:	New Mexico	Formation:	MesaVerde
		KB Elev (est)	5759
		GL Elev. (est)	5745

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	1851	7 7/8	5 1/2	ST&C	Surface	NA
Production -	4785	4 3/4	2 7/8		1751	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	
				470
	Lead	180 sx	Class "G" Cement	~~451~~ 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	
				353
	Slurry	140	LiteCrete D961 / D124 / D154	~~333~~ cuft
			+ 0.03 gps D47 antifoam	
			+ 0.5% D112 fluid loss	
	TOC@Liner Top		+ 0.11% D65 TIC	
				0.078 cuft/ft OH

Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)	40 % excess
				0.0886 cuft/ft csg ann
Slurry	9.5	2.52	6.38	