

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 - 078385
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. THOMPSON LS 2M
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. 3004531384
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface NWSW Lot L 2115FSL 1185FWL 36.46000 N Lat, 107.40100 W Lon At proposed prod. zone		10. Field and Pool, or Exploratory BASIN DAKOTA/BLANCO MESAVERDE
14. Distance in miles and direction from nearest town or post office* 21 MILES TO BLOOMFIELD, NEW MEXICO		11. Sec., T., R., M., or Blk. and Survey or Area Sec 34 T30N R8W Mer NMP
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1185'	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. 700'	19. Proposed Depth 7346 MD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6301 GL	22. Approximate date work will start 04/01/2003	17. Spacing Unit dedicated to this well 320.00 W/2
		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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
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 02/07/2003
Title AUTHORIZED REPRESENTATIVE		
Approved by (Signature) DM	Name (Printed/Typed)	Date 3-14-03
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.

Additional Operator Remarks (see next page)

Electronic Submission #18373 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 3165.2 and appeal pursuant to 43 CFR 3165.4

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

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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  
Revised Plat to show location in correct UL  
2-03-03

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30-05-31384		2 Pool Code 71599-72319		3 Pool Name BASIN DAKOTA & BLANCO MESA VERDE		
4 Property Code 001166		5 Property Name THOMPSON LS			6 Well Number # 2M	
7 OGRID No. 000778		8 Operator Name BP AMERICA PRODUCTION COMPANY			9 Elevation 6301	

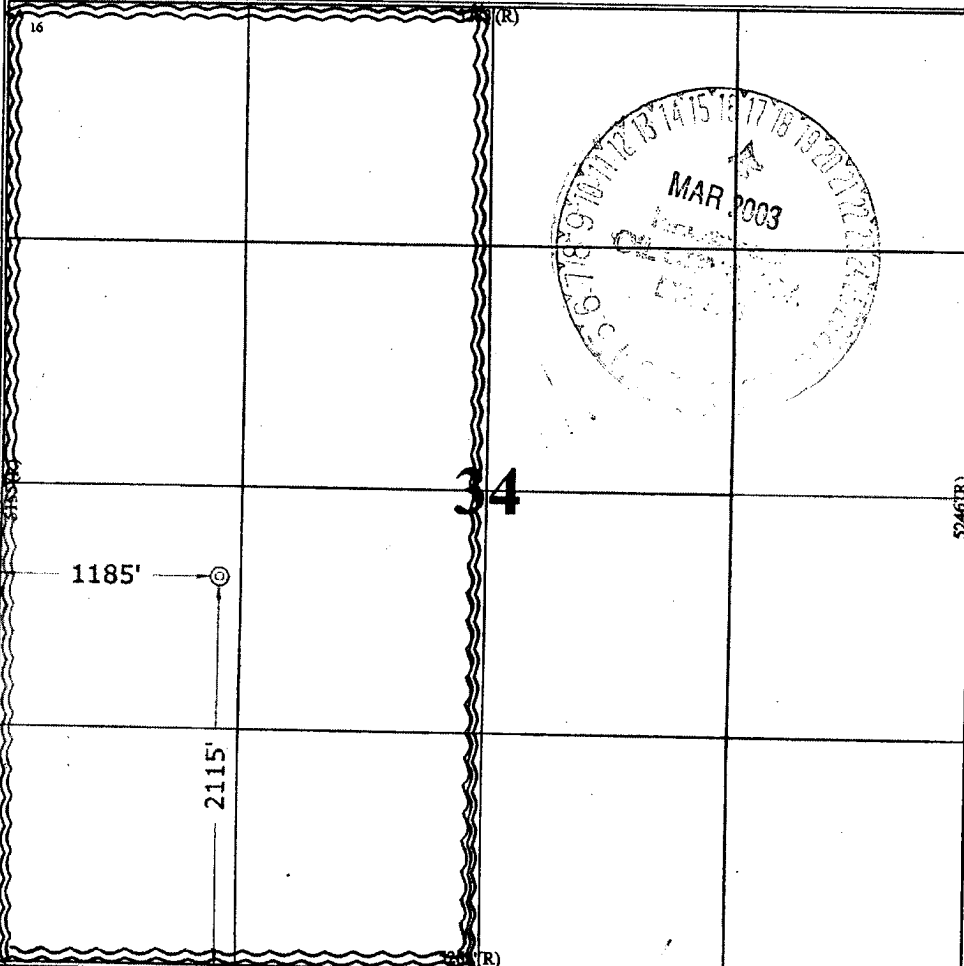

10 Surface Location

UL or Lot No. L	Section 34	Township 30 N	Range 8 W	Lot Idn	Feet from the 2115	North/South line SOUTH	Feet from the 1185	East/West line WEST	County SAN JUAN
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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
320									
13 Dedicated Acres		14 Joint or Infill		15 Consolidation Code		16 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></p> <p>Printed Name: <i>Mary Corley</i></p> <p>Title: <i>Sr. Regulatory Analyst</i></p> <p>Date: <i>02.06.2003</i></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>January 20, 2003</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <p></p> <p>7016</p> <p>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.  
NMSF078385

6. If Indian, Allottee or Tribe Name

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

**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**8. Well Name and No.  
THOMPSON LS 2M1. Type of Well  
☐ Oil Well ☒ Gas Well ☐ Other2. Name of Operator  
BP AMERICA PRODUCTION COContact: MARY CORLEY  
E-Mail: corleymf@bp.com9. API Well No.  
30-045-31384-00-X13a. Address  
P. O. BOX 3092  
HOUSTON, TX 772533b. Phone No. (include area code)  
Ph: 281.366.4491  
Ex: 281.366.070010. Field and Pool, or Exploratory  
BASIN DAKOTA  
BLANCO MESAVERDE4. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
Sec 34 T30N R8W NWSW Lot L 2115FSL 1185FWL  
36.46000 N Lat, 107.40100 W Lon11. 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			
<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 recompleat 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 recompleat 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.)

Notice of staking submitted on 01/22/2003.

APD filed on 02/07/2003.

Please note the attached document indicates the corrections made to the geological markers - including the ground and KB levels and formation tops. Additionally, please find amended cementing report and casing setting depths.

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

Electronic Submission #19364 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 03/13/2003 (03AXG0827SE)

Name (Printed/Typed) MARY CORLEY

Title AUTHORIZED REPRESENTATIVE

Signature (Electronic Submission)

Date 03/10/2003

## THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By /s/ David J. Markiewicz

Title

MAR 14 2003

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.

\*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\* REVISED \*\*

NMCCD

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

**Prospect Name:** Thompson LS  
**Lease:** Thompson LS  
**County:** San Juan  
**State:** New Mexico  
**Date:** February 3, 2003

**Well No:** 2M  
**Surface Location:** 34-30N 8W, 2115 FSL x 1185 FWL  
**Field:** Blanco Mesaverde/Basin Dakota

<b>OBJECTIVE:</b> Drill 70' below the top of the Lower Cubero, set 41/2" production casing, Stimulate CH, MF, PL and DK intervals							
<b>METHOD OF DRILLING</b>				<b>APPROXIMATE DEPTHS OF GEOLOGICAL MARKER</b>			
TYPE OF TOOLS		DEPTH OF DRILLING		Estimated GL: 6301		Estimated KB: 6315	
Rotary		0 - TD					
<b>LOG PROGRAM</b>							
<b>TYPE</b>		<b>DEPTH INVERAL</b>					
<u>OPEN HOLE</u>							
none							
<u>CASED HOLE</u>							
GR-CCL-TDT		TDT - TD to 7" shoe					
CBL		Identify 4 1/2" cement top					
<b>REMARKS:</b> - Please report any flares (magnitude & duration).				<b>MARKER</b>		<b>SUBSEA</b>	<b>TVD.</b>
				Ojo Alamo		4390	1925
				Kirkland		4236	2079
				Fruitland		3763	2552
				Fruitland Coal		*	2775
				Pictured Cliffs		*	3058
				Lewis Shale		#	3558
				Cliff House		#	4554
				Menefee Shale		#	4875
				Point Lookout		#	5229
				Mancos			5627
				Greenhorn			7229
				Bentonite Marker			7279
				Two Wells		#	7335
				#		-1108	7423
				*		-1131	7446
				*		-1160	7475
				<b>TOTAL DEPTH</b>		-1230	7545
				# Probable completion interval			* Possible Pay
<b>SPECIAL TESTS</b>				<b>DRILL CUTTING SAMPLES</b>		<b>DRILLING TIME</b>	
TYPE				FREQUENCY		FREQUENCY	
None				DEPTH		DEPTH	
				none		Geolograph	
				Production hole		0-TD	
<b>REMARKS:</b>							
<b>MUD PROGRAM:</b>							
<b>Approx. Interval</b>		<b>Type Mud</b>	<b>Weight, #/ga</b>	<b>Vis, sec/qt</b>	<b>W/L cc's/30 min</b>	<b>Other Specification</b>	
0 - 200		Spud	8.6-9.2				
200 - 3658 (1)		Water/LSND	8.6-9.2		<6		
3658 - 7545		Gas/Air/N2/Mist	Volume sufficient to maintain a stable and clean wellbore				
<b>REMARKS:</b>							
(1) The hole will require sweeps to keep unloaded while fresh water drilling. Let hole conditions dictate frequency.							
<b>CASING PROGRAM:</b> (Normally, tubular goods allocation letter specifies casing sizes to be used. Hole sizes will be governed by Contract)							
<b>Casing String</b>	<b>Estimated Depth</b>	<b>Casing Size</b>	<b>Grade</b>	<b>Weight</b>	<b>Hole Size</b>	<b>Landing Pt, Cmt, Etc.</b>	
Surface/Conductor	200	9 5/8"	H-40 ST&C	32#	13.5"	1	
Intermediate 1	3658	7"	J/K-55 ST&C	20#	8.75"	1,2	
Production	7545	4 1/2"	J-55	11.6#	6.25"	3	
<b>REMARKS:</b>							
(1) Circulate Cement to Surface							
(2) Set casing 100' into Lewis Shale							
(3) Bring cement 100' above 7" shoe							
<b>CORING PROGRAM:</b>							
None							
<b>COMPLETION PROGRAM:</b>							
Rigless, 3-4 Stage Limited Entry Hydraulic Frac							
<b>GENERAL REMARKS:</b>							
Notify BLM/NMOCD 24 hours prior to Spud, BOP testing, and Casing and Cementing.							
Form 46 Reviewed by:				Logging program reviewed by: N/A			
<b>PREPARED BY:</b>		<b>APPROVED:</b>		<b>DATE:</b>			
HGJ/MNP/JMP				March 10, 2003			
Form 46 12-00 MNP				Version 2.0			

# Cementing Program

Well Name: Thompson LS 2M	Field: Blanco Mesaverde / Basin Dakota
Location: 34-30N-8W, 2115 FSL, 1185 FWL	API No.
County: San Juan	Well Flac
State: New Mexico	Formation: Dakota MesaVerde
	KB Elev (est) 6315
	GL Elev. (est) 6301

## 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	200	13.5	9.625	ST&C	Surface	NA	
Intermediate	3658	8.75	7	LT&C	Surface	NA	
Production -	7545	6.25	4.5	LT&C	3558	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 Loss: <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	170 sx Class G Cement	195 cuft
TOC@Surface	+ 2% CaCl2 (accelerator)	
	0.25 #/sk Cellophane Flake (lost circulation additive)	0.4887 cuft/ft OH
	0.1% D46 antifoam	
Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)
	Water (gal/sk)	
Slurry 1	15.8	1.16
		4.95

# Cementing Program

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

## Intermediate:

Fresh Water	20 bbl	fresh water	
Lead		320 sx Class "G" Cement	813 cuft
Slurry 1		+ 3% D79 extender	
TOC@Surface		+ 2% S1 Calcium Chloride	
		+1/4 #/sk. Cellophane Flake	
		+ 0.1% D46 antifoam'	
Tail		60 sx 50/50 Class "G"/Poz	75 cuft
Slurry 2		+ 2% gel (extender)	
500 ft fill		0.1% D46 antifoam	0.1503 cuft/ft OH
		+1/4 #/sk. Cellophane Flake	0.1746 cuft/ft csg ann
		+ 2% CaCl2 (accelerator)	
Slurry Properties:	Density	Yield	Water
	(lb/gal)	(ft3/sk)	(gal/sk)
Slurry 1	11.4	2.61	17.77
Slurry 2	13.5	1.27	5.72

Casing Equipment: 7", 8R, ST&C  
 1 Float Shoe (autofill with minimal LCM in mud)  
 1 Float Collar (autofill with minimal LCM in mud)  
 1 Stop Ring  
 14 Centralizers (one in middle of first joint, then every third collar)  
 2 Fluidmaster vane centralizers @ base of Ojo  
 1 Top Rubber Plug  
 1 Thread Lock Compound

## Production:

Fresh Water	10 bbl	CW100	
Lead		150 LiteCrete D961 / D124 / D154	355 cuft
Slurry 1		+ 0.03 gps D47 antifoam	
TOC, 100' above 7" shoe		+ 0.5% D112 fluid loss	
		+ 0.11% D65 TIC	
Tail		150 sx 50/50 Class "G"/Poz	204 cuft
Slurry 2		+ 5% D20 gel (extender)	+ 5 #/sk D24 gilsonite
1418 ft fill		+ 0.1% D46 antifoam	+ 0.15% D65 TIC
		+ 1/4 #/sk. Cellophane Flake	+ 0.1% D800 retarder
		+ 0.25% D167 Fluid Loss	
			0.1026 cuft/ft OH

## Cementing Program

Slurry Properties:	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water (gal/sk)	
Slurry 1	9.5	2.52	6.38	0.1169 cuft/ft csg ann
Slurry 2	13	1.44	6.5	Top of Mancos 5627

Casing Equipment:

- 4-1/2", 8R, ST&C
- 1 Float Shoe (autofill with minimal LCM in mud)
- 1 Float Collar (autofill with minimal LCM in mud)
- 1 Stop Ring
- Centralizers, every 4th joint in mud drilled holes, none in air drilled holes.
- 1 Top Rubber Plug
- 1 Thread Lock Compound