Form 3160-3

FORM APPROVED OMB No. 1004-0136

UNITED ST		5. Lease Serial No. SF - 078502				
DEPARTMENT OF T BUREAU OF LAND N						
APPLICATION FOR PERMIT	TO DRILL OR REENTER	6. If Indian, Allottee or Tribe	Name			
1a. Type of Work: ☑ DRILL ☐ REENTER		7. If Unit or CA Agreement, N	Name and No.			
1b. Type of Well: ☐ Oil Well     ☐ Oth	ner Single Zone Multiple Zone	8. Lease Name and Well No. VANDEWART B 2M				
2. Name of Operator Contact:	MARY CORLEY E-Mail: corleyml@bp.com	9. API Well No. 30-045-31.	197			
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 Explora BASIN DAKOTA/BLAI	NCO MESAVER			
4. Location of Well (Report location clearly and in accorded	ance with any State requirements.*)	11. Sec., T., R., M., or Blk. ar	nd Survey or Area			
At surface SENE Lot H 1990FNL 128	0FEL 36.42800 N Lat, 107.37400 W Lon	∯ Sec 24 T29N R8W Me	er NMP			
At proposed prod. zone SWNE Lot G 1990FNL 198	30FEL 36.42800 N Lat, 107.37400 W Lon		- 1			
14. Distance in miles and direction from nearest town or post 24 MILES FROM BLOOMFIELD, NEW MEXICO	office*	12. County or Parish SAN JUAN	13. State			
15. Distance from proposed location to nearest property or	16. No. of Acres in Lease	17. Spacing Unit dedicated to	this well			
lease line, ft. (Also to nearest drig. unit line, if any) 1280	320.00	320.00 / 2				
18. Distance from proposed location to nearest well, drilling,	19. Proposed Depth	20. BLM/BIA Bond No. on f	ile			
completed, applied for, on this lease, ft. 1200	8120 MD 8050 TVD	WY2924				
21. Elevations (Show whether DF, KB, RT, GL, etc. 6923 GL	22. Approximate date work will start 10/18/2002	23. Estimated duration 7 DAYS  PRINTING OPERATIONS AU	THARIZED ARE			
This action is subject to technical and procedural review pursuant to 43 CFR 3165 3 and appeal pursuant to 43 CFR 3165.4		SUBJECT TO COMPLIANCE "GENERAL REQUIREMENTS	WITH ATTACHED			
The following, completed in accordance with the requirements of	of Onshore Oil and Gas Order No. 1, shall be attached to	this form:				
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> </ol>	Item 20 above).	ions unless covered by an existing	g bond on file (see			
A Surface Use Plan (if the location is on National Forest Sys SUPO shall be filed with the appropriate Forest Service Of Suppose the Suppose Supp		nformation and/or plans as may b	e required by the			
25. Signature (Electronic Submission)	Name (Printed/Typed) MARY CORLEY		Date 09/06/2002			
Title AUTHORIZED REPRESENTATIVE						
Approved by (Signature)	Name (Printed/Typed)		SEP 20			
Title	Office					
Application approval does not warrant or certify the applicant hoperations thereon.  Conditions of approval, if any, are attached.						
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212 States any false, fictitious or fraudulent statements or representations.	make it a crime for any person knowingly and willfully ations as to any matter within its jurisdiction.	to make to any department or ag	gency of the United			

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Additional Operator Remarks (see next page)

Electronic Submission #14066 verified by the BLM Well Information System For BP AMERICA PRODUCTION COMPANY, sent to the Farmington Committed to AFMSS for processing by Lucy Bee on 09/09/2002 ()

\*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\* ORIGINAL \*\*
HCLD CTOX FOR DIMECTIONA ( SOLVEY)

**NMOCD** 

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

<sup>3</sup> Pool Name

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 Pool Code

API Number

30-0	45-	3(19	7 715	99 : 7:	2319	BASIN DAKOT	A & BLAN	CO M	esai	IERDE
Property	,				* Well Number # 2M					
00/204	I		-	<del></del> -	Elevation					
000 778	3	<u>B</u>	P AM			6923				
UL or Lot No.	Section	Township	Range	Lox Ida	Feet from th	e North/Souts line	Feet from the	Hast/West	line	County
Н	24	29 N	8 W		1990		1280	EA	ST	SAN JUAN
L/L or lot no.	Section	Township	" Bott	om Hole	Location to the first the	If Different From North-South Non	om Surface	East/Wes	i lios	County
		,					, Dennis si			
Deducated Acres	s <sup>13</sup> Join	or ladii 14	Consolidatio	n Code: 3	Order No.					
320 NO ALLOV	VABLE V	WILL BE A	ASSIGNE	HT OT CE	IS COMPLI	TION UNTIL ALL	. Interests f	IAVE BEI	en co	NSOLIDATED
		OR A	non-st	ANDARD	UNIT HA	BEEN APPROVE				
16							<b>18</b>			TIFICATION  tion contained herein is
				N .						my knowledge and belief
				- W- /					_	,
				N		<b>66</b>	1 4	1/		
							Name of the last o	acylor	leg	
							Test Carl	Mary 1	eby	EY
							. Se	Regu	chos	yllnalyst
						<b>9</b> 1280	8.4	3.200	224	
			*	<b>}</b>			There	VOVA	Con	TIFICATION
<u> </u>				24-	: : : : : : : : : : : : : : : : : : :		1 beneby	certify that th		cation above on this plat
<del>7</del>							ar under	my supervisio	a and U	tool surveys made by me al the pame is true and
							8	the best of Augus		Secretary and the secretary an
							Dute of	Success c and Sonitor	Professio	mal Survivor
							<b>(1)</b>	GARY		E CONTRACTOR OF THE PARTY OF TH
			<del></del>		<del></del>			1	然	
	ļ						Sall Interest	(70	26	<b>(1)</b>
										- SIMPERIOR
					ine protesting of the second		8 70	CT SIN		
			<b>3</b> 6	1211	-	**	CASE .	News .	<b>"</b>	
			<del>ندپ سند</del> پريد و		(R)	- R.W Parcold				

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

Prospect Name: Vandewart B

Lease: VANDEWART

Well No: 2M

Surface Location: 24-29N-8W, 1990 FNL,1280 FEL

County: San Juan

Field: Blanco Mesaverde/Basin Dakota

State: New Mexico

Bottom Location: 24-29N-8W, 1990FNL x 1980FEL

Date: August 20, 2002

		<del></del>					
OBJECTIVE: Drill 50' below the base of the Lower Cubero, set 41/2" production casing, Stimulate CH, MF, PL and DK intervals							
METHO	APPROXIMATE DEPTHS OF GEOLOGICAL MARKER						
TYPE OF TOOLS	DEPTH OF DRILLING	Estimated GL	: 6921		Estimated	KB: 6	5935
Rotary	0 - TD	MARKER			TVD	MEA	S. DEPTH
	PROGRAM	Ojo Alamo			2568		2609
		Kirkland			2760		2805
TYPE	DEPTH INVERAL	Fruitland Coal	*		3391		3449
OPEN HOLE		Pictured Cliffs	*		3621		3684
<del></del>		Lewis Shale	#		3741		3807
		Cliff House	#		5235		5305
		Menefee Shale	#		5405		5475
CASED HOLE		Point Lookout	#		5784		5854
GR-CCL-TDT	TDT – TD to 7" shoe	Mancos			6196		6266
CBL	Identify 4 1/2" cement top	Greenhorn			7762		7832
		Bentonite Marker			7824		7894
REMARKS:		Two Wells	#		7854		7924
- Please report any flares (ma	gnitude & duration).	Upper Cubero	#		7978		8048
, , ,	•	Lower Cubero	*		8000		8070
		TOTAL DEPTH			8050		8120
	# Probable compl	# Probable completion interval * Possible Pay					
SPE	CIAL TESTS	DRILL CUTTIN	G SAMP	LES	DRIL	LING T	TIME
TYPE		FREQUENCY	DEPTH		FREQUEN	ICY	DEPTH
None		None	Production	hole	Geolograph		0-TD
REMARKS:							
<del></del>							
MUD DDOCDAM.							

	Interval		Type Mud	Weight, #/ga   Vis.	sec/at   W/L cc's	s/30 min	Other Specification
Approx	- 200	<u></u> -	Spud	8.6-9.2			
0		(4)	- F		<b>-6</b>		
200	- 3909	(1)	Water/LSND	8.6-9.2	<6		m .
3909	- 8120		Gas/Air/N2/Mist	Volume sufficient	t to maintain a stabl	e and clea	in 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	Casing Size	Grade	Weight	Hole Size	Landing Pt, Cmt, Etc.			
	Depth								
Surface/Conductor	200	9 5/8"	H-40 ST&C	32#	12.25"	1			
Intermediate 1	3909	7"	J/K-55 ST&C	20#	8.75"	1,2			
Production	8120	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

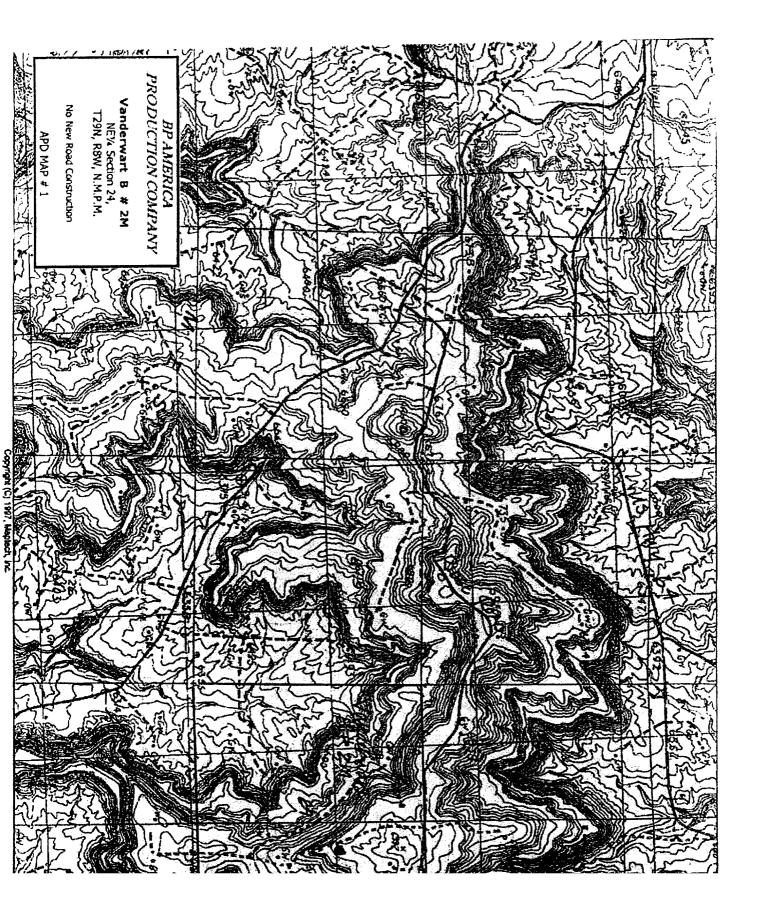
#### **COMPLETION PROGRAM:**

Rigless, 4-6 Stage Limited Entry Hydraulic Frac

#### **GENERAL REMARKS:**

Notify BLM/NMOCD 24 hours prior to Spud, BOP testing, and Casing and Cementing.

Logging program reviewed by: N/A Form 46 Reviewed by: APPROVED: DATE: PREPARED BY: 20 August 2002 **HGJ/MNP** Version 1.0 Form 46 12-00 MNP



Well Name: Location: County: State:	Vandewart B 2f 24-29N-8W, 19 San Juan New Mexico		FEL		Field: API No. Well Flac Formation KB Elev (GL Elev. (	:: Dakota est)	Mesave MesaV 6937 6923		akota	
Casing Program		****					<u> </u>			
Casing String	Est. Depth	Hole Size	Casing Size	Thread	TOC	Stage 7		Cmt Cir. Out		
	(ft.)	(in.)	(in.)		(ft.)	Or TOL	. (ft.)	(bbl.)		
Surface	200	12.25	9.625	ST&C	Surface	NA				
Intermediate Production -	3909 8120	8.75 6.25	7 4.5	LT&C ?	Surface 3809	NA NA				
Casing Propertie			actor Included)	<u></u>						
Casing String	Size	Weight	Grade	Burst	Collapse	Joint St		Capacity	Drift	
gg	(in.)	(lb/ft)		(psi.)	(psi.)	(1000 lt		(bbl/ft.)	(in.)	
Surface	9.62	• •	. H-40	3370		1400	254		, ,	8.845
Intermediate		7 20	K-55	3740		2270	234	0.0405		6.456
Production -	4.	5 11.6	J-55	5350		4960	154	0.0155		3.875
Mud Program			<del></del>					<del></del>		
Apx. Interval	Mud Type	Mud Weight		Recommo	ended Mud	Properties Price	. Cemei	ntina:		
(ft.)	Maa Type	widd weight		PV	<20	T TOPETHES T TR	o conner	ming.		
(11.)				YP	<10					
0 - SCP	Water/Spud	8.6-9.2	!	Fluid Los	s<15					
SCP - ICP	Water/LSND	8.6-9.2	!							
ICP - ICP2	Gas/Air Mist	NA								
ICP2 - TD	LSND	8.6 - 9.2	<u> </u>							
Cementing Progra	am:									
			Surface		Interme			Production		
Excess %, Lead			100		100 0			40 40		
Excess %, Tail BHST (est deg. F	`		NA 75		120			183		
Special Instruction	-		1,6,7		1,6,8			2,4,6		
Opeolal Instruction	1. Do not wash	numps and line			1,0,0	•		2,1,0		
	2. Wash pumps									
	3. Reverse out									
	4. Run Blend Te	est on Cement								
	5. Record Rate,	Pressure, and	Density on 3.5"	disk						
	<ol><li>Confirm dens</li></ol>	-								
			ent is not circulat							
	8. If cement is n	ot circulated to	surface, run ten	np. survey 1	0-12 hr. af	ter landing plug	}.			
Notes:	<del></del>	<del></del>								
,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	*Do not wash up	on top of plug	j. Wash lines bef	ore displaci	ing product	ion cement job	to minn	nize drillout.		
Surface:										
	Preflush		20 bbl.	FreshWat	er					
	Slurry 1	110	sx Class G Cen	nont				125	cuft	
	TOC@Surface	110	+ 2% CaCl2 (ad					123	Cuit	
	100@Sunace		0.25 #/sk Cello	-	e (lost circu	lation additive)		0.3132	cuft/ft	ОН
			0.1% D46 antife		, (1001 On Ou	.2.30.1. 2001010)		0.0.02		
Clure Descritor			5,1,0 D-10 and							
SILITY Pronemes		Density		Yield		Water				
Slurry Properties:		Density (lb/gal)		Yield (ft3/sk)		Water (gal/sk)				
Siurry Properties:	Slurry 1	Density (lb/gal) 15.8		Yield (ft3/sk) 1.16		Water (gal/sk)	4.95			

## **Cementing Program**

Casing Equipment:
-------------------

9-5/8", 8R, ST&C 1 Guide Shoe

1 Top Wooden Plug1 Autofill insert float valve

Centralizers, 1 per joint except top joint

1 Stop Ring

1 Thread Lock Compound

	Fresh Water	20	bbl	fresh water		
	Lead		390	sx Class "G" Cement		1000 cuft
	Slurry 1			+ 3% D79 extender		
	TOC@Surface			+ 2% S1 Calcium Chlorid		
				+1/4 #/sk. Cellophane Fla	эке	
	<b>-</b>		60	+ 0.1% D46 antifoam' sx 50/50 Class "G"/Poz		75 cuft
	Tail		60			75 6610
	Slurry 2	0.4.511		+ 2% gel (extender) 0.1% D46 antifoam		0.1503 cuft/ft OH
	50	Oft fill		+1/4 #/sk. Cellophane Fla	ake	0.1746 cuft/ft csg and
				+ 2% CaCl2 (accelerator)		0.77 40 Califf 03g all
				+ 2 % Caciz (accelerator)	,	
Slurry Propertie	ie.	Density		Yield	Water	
Signly Propertie	·3.	(lb/gal)		(ft3/sk)	(gal/sk)	
Slurry 1		11.4		2.61	17.77	
Slurry 2		13.5		1.27	5.72	
Sidily 2		10.5				
Casing Equipme	ent:	7", 8R, ST&C				
		1 Float Shoe (au	tofill with mini	mal LCM in mud)		
		1 Float Collar (au	utofill with min	imal LCM in mud)		
		1 Stop Ring				
		14 Centralizers (	!	at fact inink than according	ird collar)	
			one in middle	of first joint, then every un		
		2 Fluidmaster va		•	,	
		1 Top Rubber Pl	ine centalizers ug	•	,	
			ine centalizers ug	•	,	
Production:		1 Top Rubber Pl 1 Thread Lock C	ne centalizers ug compound	@ base of Ojo		
Production:	Fresh Water	1 Top Rubber Pl 1 Thread Lock C	ine centalizers ug	•		
Production:	Fresh Water	1 Top Rubber Pl 1 Thread Lock C	ne centalizers ug compound	@ base of Ojo		
Production:	Fresh Water	1 Top Rubber Pl 1 Thread Lock C	ne centalizers ug compound bbl	@ base of Ojo		309 cuft
Production:		1 Top Rubber Pl 1 Thread Lock C	ne centalizers ug compound bbl	cw100	D154	309 cuft
Production:	Lead	1 Top Rubber Pi 1 Thread Lock C	ne centalizers ug compound bbl	cW100  LiteCrete D961 / D124 / E	D154	309 cuft
Production:	Lead Slurry 1	1 Top Rubber Pi 1 Thread Lock C	ne centalizers ug compound bbl	cW100  LiteCrete D961 / D124 / E + 0.03 gps D47 antifoam	D154	309 cuft
Production:	Lead Slurry 1 TOC, 100' abov	1 Top Rubber Pi 1 Thread Lock C	ne centalizers ug compound bbl	CW100  LiteCrete D961 / D124 / E + 0.03 gps D47 antifoam + 0.5% D112 fluid loss	D154	309 cuft 295 cuft
Production:	Lead Slurry 1 TOC, 100' abov	1 Top Rubber Pi 1 Thread Lock C	ne centalizers ug compound bbl	CW100  LiteCrete D961 / D124 / I + 0.03 gps D47 antifoam + 0.5% D112 fluid loss + 0.11% D65 TIC  sx 50/50 Class "G"/Poz	D154	
Production:	Lead Slurry 1 TOC, 100' abov Tail Slurry 2	1 Top Rubber Pi 1 Thread Lock C 10	ne centalizers ug compound bbl	CW100  LiteCrete D961 / D124 / E + 0.03 gps D47 antifoam + 0.5% D112 fluid loss + 0.11% D65 TIC  sx 50/50 Class "G"/Poz + 5% D20 gel (extender)	D154	295 cuft
Production:	Lead Slurry 1 TOC, 100' abov Tail Slurry 2	1 Top Rubber Pi 1 Thread Lock C	ne centalizers ug compound bbl	CW100  LiteCrete D961 / D124 / E + 0.03 gps D47 antifoam + 0.5% D112 fluid loss + 0.11% D65 TIC  sx 50/50 Class "G"/Poz + 5% D20 gel (extender) + 0.1% D46 antifoam	D154	295 cuft + 5 #/sk D24 gilsonite
Production:	Lead Slurry 1 TOC, 100' abov Tail Slurry 2	1 Top Rubber Pi 1 Thread Lock C 10	ne centalizers ug compound bbl	CW100  LiteCrete D961 / D124 / E + 0.03 gps D47 antifoam + 0.5% D112 fluid loss + 0.11% D65 TIC  sx 50/50 Class "G"/Poz + 5% D20 gel (extender)	D154	295 cuft + 5 #/sk D24 gilsonite + 0.15% D65 TIC

**BOP Test Pressure** 

## **BP America Production Company BOP Pressure Testing Requirements**

Well Name: Vandewart B 2M

State: New Mexico County: San Juan

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	2568		
Fruitland Coal	3391		
PC	3621		
Lewis Shale	3741		
Cliff House	5235	500	0
Menefee Shale	5405		
Point Lookout	5784	600	0
Mancos	6196		
Dakota	8070	2600	1283

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

Requested BOP Pressure Test Exception: 1500 psi

# **BP** American Production Company Well Control Equipment Schematic Stripper/Diverter head **BOP Stack** Flowline to Rig Pit Double Ram Preventer Choke line to Manifold (2" Min.) Kill Line (2" Min.) Casing Head Ground Level Positive Choke or Adjustable Choke Choke & Kill Bypass to Pit or rig pit possum belly (optional) Manifold 2" minimum size Pressure Gauge From BOP Stack Straight-thru to blow

2" minimum size

Adjustable Choke

2" minimum size

To Blow Tank or burn Pit

pit/tank or return to rig Pit

2" minimum size

Working Pressure for all equipment

is 2,000 psi or greater