

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. SF - 080917
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input 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.
3a. Address HOUSTON, TX 77253-3092		8. Lease Name and Well No. ATLANTIC B LS 4 B
3b. Phone No. (include area code) Ph: 281.366.4081		9. API Well No. 30-045-32841
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SESE Lot 20 970FSL 690FEL 36.83611 N Lat, 107.89972 W Lon At proposed prod. zone SESE Lot 20 970FSL 690FEL 36.83611 N Lat, 107.89972 W Lon		10. Field and Pool, or Exploratory BLANCO MESAVERDE
14. Distance in miles and direction from nearest town or post office* 6.3 MILES EAST FROM AZTECK, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec 5 T30N R10W Mer NMP
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 690	16. No. of Acres in Lease 322.12	12. County or Parish SAN JUAN ✓
17. Spacing Unit dedicated to this well 322.12 S/H	18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.	13. State NM
19. Proposed Depth 5616 MD 5616 TVD	20. BLM/BIA Bond No. on file WY2924	
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6268 GL	22. Approximate date work will start 03/01/2005	23. Estimated duration 7

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) CHERRY HLAVA Ph: 281.366.4081	Date 01/18/2005
Title AGENT		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed)	Date 2-24-05
Title AEM	Office FFO	

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 #52974 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 **

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

* API Number 30045-32841		* Pool Code 72319	* Pool Name Blanco Mesaverde
* Property Code 000282	* Property Name Atlantic B LS		* Well Number 4B
* OGRID No. 000778	* Operator Name BP AMERICA PRODUCTION COMPANY		* Elevation 6268

¹⁰ Surface Location

UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Lot 20 (P)	5	30 N	10 W		970	SOUTH	690	EAST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

* Dedicated Acres 322.12	* Joint or Infill	* Consolidation Code	* 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><i>Cherry Hlava</i> Signature Cherry Hlava Printed Name Regulatory Analyst Title 1-14-05 Date</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>November 8, 2004 Date of Survey Signature and Seal of Professional Surveyor 7016 Certificate Number</p>					

Submit 3 Copies To Appropriate District Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
May 27, 2004

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. NEW WELL	
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>	
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name Atlantic B LS (APD filed with BLM SF 080917)	
8. Well Number 4 B	
9. OGRID Number 000778	
10. Pool name or Wildcat Blanco Mesaverde	
SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)	
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other	
2. Name of Operator BP AMERICA PRODUCTION COMPANY	
3. Address of Operator P.O. BOX 3092 HOUSTON, TX 77079-2064	
4. Well Location Unit Letter <u>P</u> : <u>970</u> feet from the <u>South</u> line and <u>690</u> feet from the <u>East</u> line Section <u>5</u> Township <u>30N</u> Range <u>10W</u> NMPM SAN JUAN County	
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6268'	
Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/>	
Pit type <u>DRILLING</u> Depth to Groundwater <u>>100'</u> Distance from nearest fresh water well <u>>1000'</u> Distance from nearest surface water <u>>1000'</u>	
Pit Liner Thickness: <u>12</u> mil Below-Grade Tank: Volume <u>95</u> bbls; Construction Material <u>IMPERVIOUS</u>	

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
OTHER: <u>LINED DRILLING PIT</u> <input checked="" type="checkbox"/>		OTHER: <input type="checkbox"/>	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Construct a lined drilling pit per BP America – San Juan Basin Drilling/ Workover Pit Construction Plan issued date of 04/15/2004. Pit will be closed according to closure plan on file.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that any pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

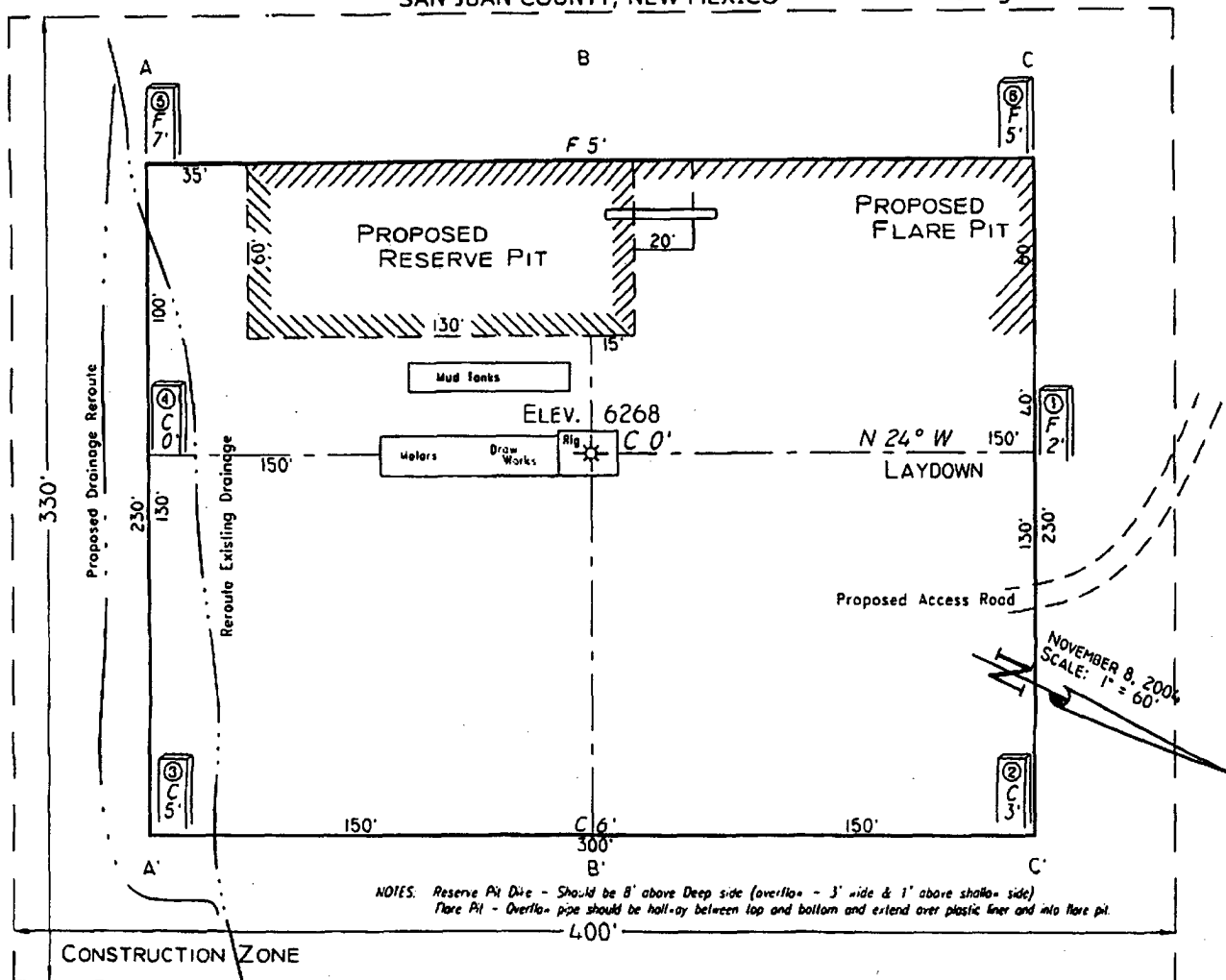
SIGNATURE _____ TITLE Regulatory Analyst DATE 01/12/2005

Type or print name Cherry Hlava E-mail address: hlavaci@bp.com Telephone No. 281-366-4081
For State Use Only

APPROVED BY: [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 33 DATE FEB 28 2005
Conditions of Approval (if any): _____

PAD LAYOUT PLAN & PROFILE
BP AMERICA PRODUCTION COMPANY
 Atlantic B LS #4 **B**
 970' F/SL 690' F/EL
 SEC. 5, T30N, R10W, N.M.P.M.
 SAN JUAN COUNTY, NEW MEXICO

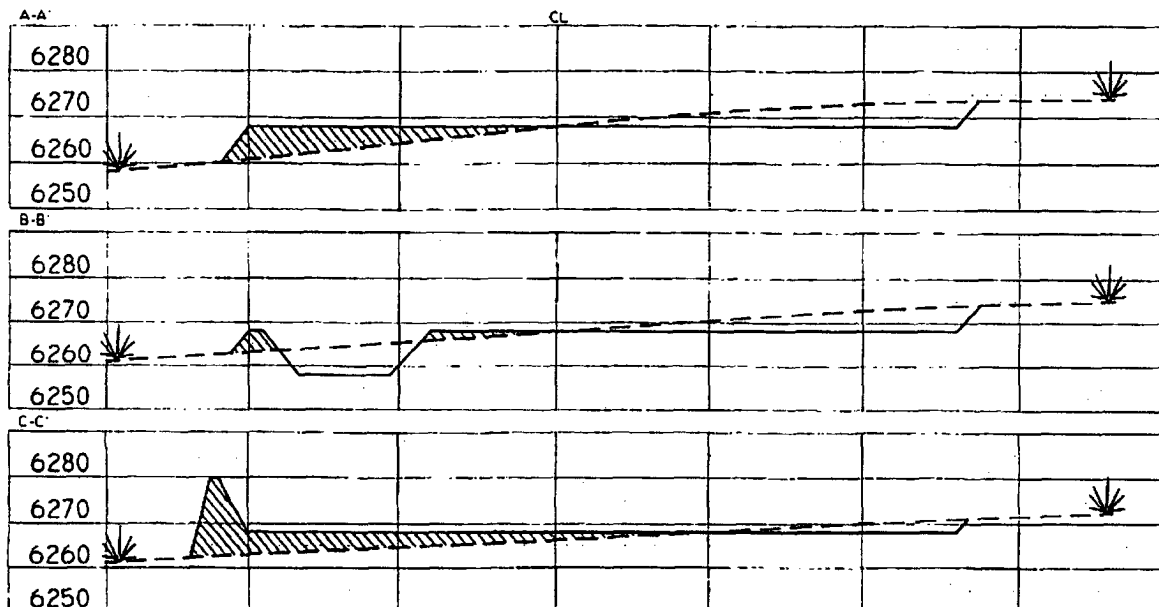
Lat: 36°50'10"
 Long: 107°53'59"



NOTES: Reserve Pit Dike - Should be 8' above Deep side (overflow - 3' wide & 1' above shallow side)
 Flare Pit - Overflow pipe should be half-way between top and bottom and extend over plastic liner and into flare pit.

Area of Construction Zone - 330'x100' or 3.03 acres, more or less

SCALE: 1"=60'-HORIZ.
 1"=40'-VERT.



NOTE: Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least 14 (2) working days prior to construction.

Cuts and fills shown are approximate - final finished elevation is to be adjusted so earthwork will balance. Corner stakes are approximate and do not include additional areas needed for sidelopes and drainages. Final Pad Dimensions are to be verified by Contractor.

VANN SURVEYS
 P. O. Box 1306
 Farmington, NM

BP AMERICA PRODUCTION COMPANY

DRILLING AND COMPLETION PROGRAM

11/22/2004

Lease:	Atlantic B LS	Well Name & No.	Atlantic B LS #4B	Field:	Blanco Mesaverde
County:	San Juan, New Mexico	Surface Location:	5-30N-10W : 970' FNL, 690' FWL		
Minerals:		Surface:	Lat: 36.8359411 Long: -107.8991620		
Rig :	Aztec 507	BH Location:	same		

OBJECTIVE: Drill 450' below the top of the Point Lookout, set 4-1/2" production casing. Stimulate MF, and PL intervals.

METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS	DEPTH OF DRILLING	Actual GL:	6268'	Estimated KB:	6,289.0'
Rotary	0 - TD	Marker		SUBSEA	TVD
LOG PROGRAM					APPROX. MD
Type	Depth Interval	Ojo Alamo	4,767'	1,522'	1,522'
Single Run		Kirtland	4,646'	1,643'	1,643'
		Fruitland	* 3,952'	2,337'	2,337'
		Fruitland Coal	* 3,640'	2,649'	2,649'
		Pictured Cliffs	* 3,361'	2,928'	2,928'
		Lewis	* 3,183'	3,106'	3,106'
Cased Hole	TD to 7" shoe.	Cliff House	# 1,892'	4,397'	4,397'
TDT- CBL		Menefee	# 1,553'	4,736'	4,736'
		Point Lookout	# 1,123'	5,166'	5,166'
	Identify 4 1/2" cement top	Mancos	757'	5,532'	5,532'

REMARKS:

- Please report any flares (magnitude & duration).

- Please report any flares (magnitude & duration).				

SPECIAL TESTS	DRILL CUTTING SAMPLES	DRILLING TIME
TYPE	FREQUENCY DEPTH	FREQUENCY DEPTH
	none 2,599' to TD	Geograph 0 - TD

REMARKS:

MUD PROGRAM:					Other Specification
Interval	Type <input type="checkbox"/> Mud	#/gal	Vis, <input type="checkbox"/> sec/qt	/30 min	
200'	Spud	8.8 - 9.0	Sufficient to clean hole.		
2,599'	Water/LSND	8.4 - 9.0		<9	Sweep hole while whilst water drilling, LCM onsite
5,616'	Air	1	1000 cfm for bit		Volume sufficient to maintain a stable and clean wellbore

CASING PROGRAM:							
Casing <input type="checkbox"/> String	Depth	Size	Casing Size	Grade, Thread	Weight	Landing Point	Cement
Surface/Conductor	200'	13 1/2"	9-5/8"	H-40 ST&C	32#		cmt to surface
Intermediate 1	2,599'	8-3/4"	7"	J/K-55 ST&C	20#	50' above FT coal	cmt to surface
Production	5,616'	6-1/4"	4-1/2"	J-55	11.6#	05 DKOT	150' inside Intermediate - TOC survey required

CORING PROGRAM:

None

COMPLETION PROGRAM:	
Rigless, 2-3 Stage Limited Entry Hydraulic Frac, FMC Unihead	

GENERAL REMARKS:

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

BOP Pressure Testing Requirements			
Formation	Depth	Anticipated bottom hole pressure	Max anticipated surface pressure**
Cliffhouse	4,397'	500	0
Point Lookout	5,166'	600	0
Dakota	-	2600	-
Requested BOP Pressure Test Exception = 1500 psi		** Note: Determined using the following formula: ABHP - (.22*TVD) = ASP	
Form 46 Reviewed by:		Logging program reviewed by:	
PREPARED BY:		APPROVED:	
HGJ	JMP	DATE: 22-Nov-04	
Form 46 7-84bw		For Drilling Dept.	
		For Production Dept.	

Additional Operator Remarks
Atlantic B LS 4B
APD

BP America Production Company respectfully requests permission to drill the subject well to a total depth of approximately 5616' and complete into the Blanco Mesaverde.

If terrain allows it is our intent to pre-set the 9 5/8" casing on the above mentioned well by drilling a surface hole with air/air mist in lieu of drilling mud and the surface casing be cemented with 94.5 cu/ft type I-II, 20% FLYASH, 14.5 PPG, 7.41 gal/sk, 1.61 cf/sk Yield, 80 DEG BHST ready mix cement. If the area will not allow for pre-set the approved cement program will be followed.

SUPPLEMENTAL TO SURFACE USE PLAN

New Facilities:

A 4.5" diameter buried steel pipeline that is +/- 300 feet in length will be constructed. The pipe wall thickness is .156 and the pipe wall strength is 42,000#. It will be adjacent to the access road and tie the well into an existing gas meter operated by BP America Production Company. The pipeline will not be used to transport gas to drill the well. After the well is spud the pipeline will be authorized by a right-of-way issued by El Paso Field Services.

APD/ROW

Cementing Program

Well Name: Atlantic B LS #4B
 Location: 5-30N-10W : 970' FNL, 690' FWL
 County: San Juan
 State: New Mexico

Well Flac
 Formation: Mesa Verde
 KB Elev (est) 6289
 GL Elev. (est) 6275

Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Thread	TOC (ft.)	Stage Tool Or TOL (ft.)
Surface	200	13.5	9.625	ST&C	Surface	NA
Intermediate	2599	8.75	7	LT&C	Surface	NA
Production -	5616	6.25	4.5		2499	2561

Casing Properties:

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	2270	1400	254	0.0787	8.845
Intermediate	7		20 K-55	3740	2270	234	0.0405	6.456
Production -	4.5		10.5 J-55	4790	4010	132	0.0159	3.927

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	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

Surface:

Preflush	20 bbl.	Fresh Water	
Slurry 1	154 sx Class C Cement		195 cuft
TOC@Surface	+ 2% CaCl2 (accelerator)		
			0.4887 cuft/ft OH
			100 % excess

Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)
Slurry 1	15.2	1.27	5.8

Casing Equipment:
 9-5/8", 8R, ST&C
 1 Guide Shoe
 1 Top Wooden Plug
 1 Autofill insert float valve

Cementing Program

Centralizers, as needed
1 Stop Ring
1 Thread Lock Compound

Intermediate:

Fresh Water	20 bbl	fresh water	
Lead		232 sx Class "G" Cement	606 cuft
Slurry 1		+ 3% D79 extender	
TOC@Surface		+1/4 #/sk. Cellophane Flake	
		+ 0.1% D46 antifoam'	
Tail		59 sx 50/50 Class "G"/Poz	75 cuft
Slurry 2		+ 2% gel (extender)	
		0.1% D46 antifoam	
500 ft fill		+1/4 #/sk. Cellophane Flake	0.1503 cuft/ft OH
		+ 2% S1 Calcium Chloride	0.1746 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

Casing Equipment: 7", 8R, ST&C

1 Float Shoe
1 Float Collar
1 Stop Ring
Centralizers, as needed
1 Top Rubber Plug
1 Thread Lock Compound

Production:

Fresh Water	10 bbl	CW100	
Slurry		182 LiteCrete D961 / D124 / D154	458 cuft
		+ 0.03 gps D47 antifoam	
		+ 0.5% D112 fluid loss	
TOC@Liner Top		+ 0.11% D65 TIC	

Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)	
Slurry	9.5	2.52	6.38	0.1026 cuft/ft OH
				40 % excess
				0.1169 cuft/ft csg ann

Casing Equipment: 4-1/2", 8R, ST&C

1 Float Shoe
1 Float Collar
1 Stop Ring
Centralizers, as needed
1 Top Rubber Plug

**SAN JUAN BASIN
Blanco Mesaverde
Pressure Control Equipment**

Background

The objective Mesaverde 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 single 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 Blanco Mesaverde. No abnormal temperature, pressure, or H₂S anticipated.

Equipment Specification

Interval

BOP Equipment

Below conductor casing to total depth

11" nominal or 7 1/16", 2000 psi Single ram preventer with
3000 psi annular preventer and rotating head.

All ram type and annular preventers as well as related control equipment will be hydraulically tested to 250 psi (low pressure) and 1500 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.

BP American Production Company

Well Control Equipment Schematic

