

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. NM - 0606
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.
3a. Address P.O. BOX 3092 HOUSTON, TX 77253-3092		8. Lease Name and Well No. ATLANTIC A LS 5M
3b. Phone No. (include area code) Ph: 281.366.4081 Fx: 281.366.0700		9. API Well No. 3004532507
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface SESW 1170FSL 1650FWL 36.85083 N Lat, 107.85083 W Lon At proposed prod. zone		10. Field and Pool, or Exploratory BASIN DAKOTA & BLANCO MV
14. Distance in miles and direction from nearest town or post office* 9 MILES EAST FROM AZTEC, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec 26 T31N R10W Mer NMP
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1170'		12. County or Parish SAN JUAN
16. No. of Acres in Lease 1732.68		13. State NM
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 1800'		17. Spacing Unit dedicated to this well 317.27 S/P
19. Proposed Depth 7686 MD		20. BLM/BIA Bond No. on file WY2924
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6335 GL		23. Estimated duration 7 DAYS
22. Approximate date work will start 09/15/2004		

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) CHERRY HLAVA	Date 08/05/2004
Title REGULATORY ANALYST		
Approved by (Signature)	Name (Printed/Typed)	Date
ACTING AFM	PFO	11/2/04

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 #34125 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 42 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

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

\*\* 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

1 API Number 30045-32507		2 Pool Code 71599; 72319		3 Pool Name Basin Dakota; Blanco Mesavende	
4 Property Code 001767 281		5 Property Name Atlantic A LS			6 Well Number # 5M
7 OGRID No. 000778		8 Operator Name BP AMERICA PRODUCTION COMPANY			9 Elevation 6335

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
N (Lot 6)	26	31 N	10 W		1170	South	1650	WEST	SAN JUAN

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 317.27	13 Joint or Infill	14 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

5252(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 Cherry Hlava Printed Name Cherry Hlava Title Regulatory Analyst Date 8-5-04	
Lot 2		Lot 1			
Lot 3		Lot 4			
Lot 5		Lot 6		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. Date of Survey June 2, 2004 Signature and Seal of Professional Surveyor GARY D. VANM NEW MEXICO REGISTERED PROFESSIONAL LAND SURVEYOR 7016 Certificate Number	

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  
March 4, 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 A LS (APD filed with BLM NM 0606)
8. Well Number 5 M
9. OGRID Number
10. Pool name or Wildcat Basin Dakota & 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 ☒ Gas Well ☐ Other

2. Name of Operator  
BP AMERICA PRODUCTION CO

3. Address of Operator  
P.O. BOX 3092 HOUSTON, TX 77079-2064

4. Well Location

Unit Letter N : 1170 feet from the South line and 1650 feet from the West line

Section 26 Township 31N Range 10W NMPM SAN JUAN County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
6335'

Pit or Below-grade Tank Application (For pit or below-grade tank closures, a form C-144 must be attached)

Pit Location: UL N Sect 26 Twp 31N Rng 10W Pit type Drilling Depth to Groundwater >100' Distance from nearest fresh water well >1000'

Distance from nearest surface water >1000' Below-grade Tank Location UL N Sect 26 Twp 31N Rng 10W ;

1270 feet from the South line and 1665 feet from the West line PLEASE SEE ATTACHED PAD LAYOUT

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐ CHANGE PLANS ☐

PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

OTHER: Lined Drilling Pit Permit ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

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.

Please reference BP America's San Juan Basin Drilling/Workover Pit Construction Plan on file with the NMOC. 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 NMOC guidelines ☐, a general permit ☐ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE \_\_\_\_\_ TITLE Regulatory Analyst DATE 8/05/04

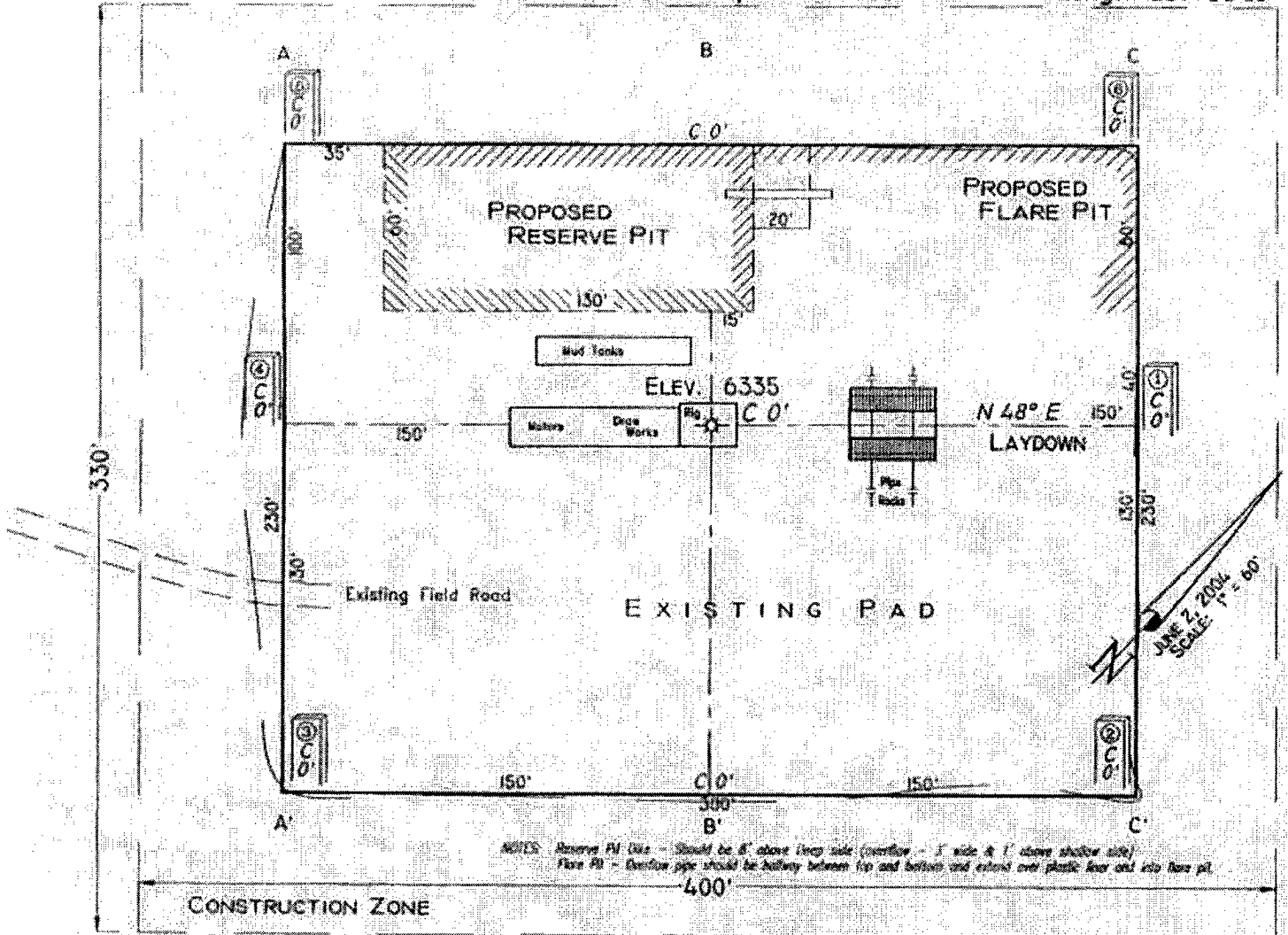
Type or print name Cherry Hlava E-mail address: hlavacl@bp.com Telephone No. 281-366-4081

(This space for State use)

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE NOV - 4 2004  
Conditions of approval, if any:

**PAD LAYOUT PLAN & PROFILE**  
**BP AMERICA PRODUCTION COMPANY**  
 Atlantic A LS # 5M  
 1170' F/SL 1650' F/WL  
 SEC. 26, T31N, R10W, N.M.P.M.  
 SAN JUAN COUNTY, NEW MEXICO

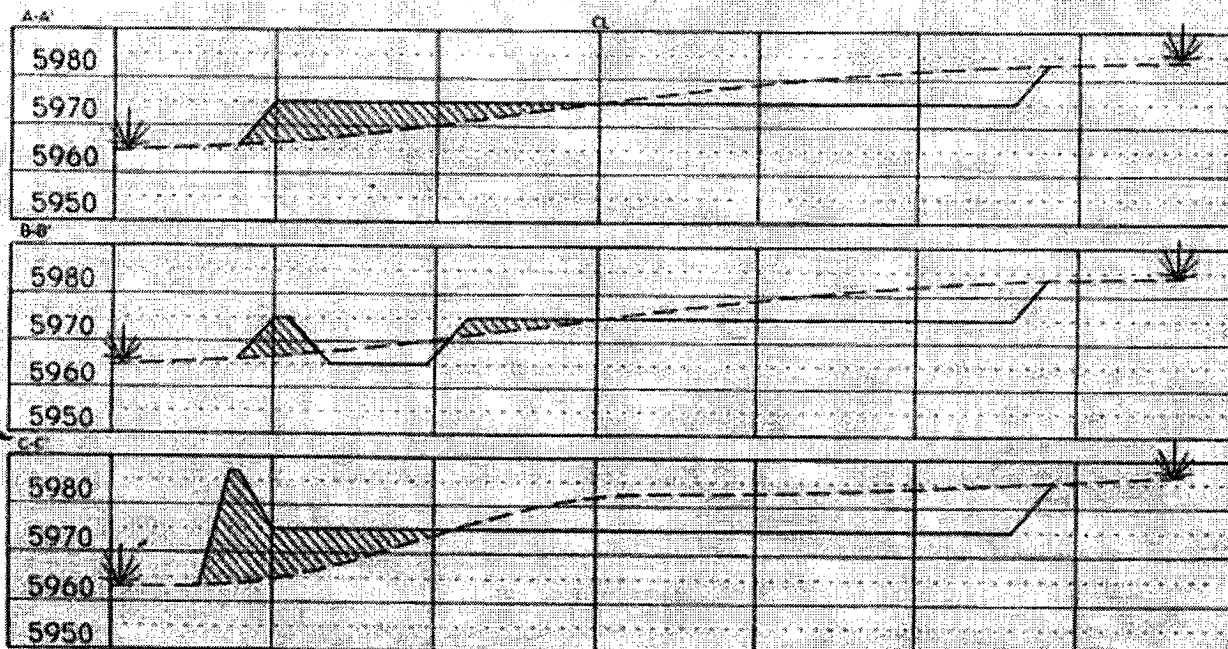
Lat: 36°51'56"  
 Long: 107°51'19"



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

Area of Construction Zone - 330'x400' or 1.63 acres, more or less.

SCALE: 1"=60'-HORIZ.  
 1"=60'-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 two (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 side slopes 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

7/21/2004

<b>Lease:</b>	Atlantic A LS	<b>Well Name &amp; No.</b>	Atlantic A LS #5M	<b>Field:</b>	Blanco Mesaverde/Basin Dakota
<b>County:</b>	San Juan, New Mexico	<b>Surface Location:</b>	26-31N-10W:1170' FSL, 1650' FWL		
<b>Minerals:</b>	State	<b>Surface:</b>	Lat: 36.8654809 deg; Long: -107.8548763 deg		
<b>Rig :</b>	Aztec 184	<b>BH Location:</b>	Vertical Hole		
<b>OBJECTIVE:</b>	Drill 250' below the top of the Two Wells Mbr, set 4-1/2" production casing, Stimulate DK, MF, and PL intervals.				

METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER						
TYPE OF TOOLS	DEPTH OF DRILLING	Actual GL:	6,335.0'	Estimated KB: 6,349.0'				
Rotary	0 - TD	Marker		SUBSEA	TVD	APPROX. MD		
LOG PROGRAM		Ojo Alamo		4,612'	1,737'	1,737'		
Type	Depth Interval	Kirtland		4,557'	1,792'	1,792'		
Single Run		Fruitland	*	3,790'	2,559'	2,559'		
		Fruitland Coal	*	3,489'	2,860'	2,860'		
		Pictured Cliffs	*	3,244'	3,105'	3,105'		
		Lewis	*	3,047'	3,302'	3,302'		
Cased Hole		Cliff House	#	1,759'	4,590'	4,590'		
TDT- CBL	TD to 7" shoe	Menefee	#	1,416'	4,933'	4,933'		
	Identify 4 ½" cement top	Point Lookout	#	1,058'	5,291'	5,291'		
REMARKS:		Mancos		651'	5,698'	5,698'		
- Please report any flares (magnitude & duration).		Greenhorn		-981'	7,330'	7,330'		
		Graneros (bent,mkr)		-1,043'	7,383'	7,383'		
		Two Wells	#	-1,087'	7,436'	7,436'		
		Paguate	#	-1,181'	7,530'	7,530'		
		Cubero	#	-1,217'	7,566'	7,566'		
		L. Cubero	#	-1,236'	7,585'	7,585'		
		Encinal Cyn	#	-1,276'	7,625'	7,625'		
		TOTAL DEPTH:		-1,337'	7,686'	7,686'		
		# Probable completion interval					* Possible Pay	

SPECIAL TESTS	DRILL CUTTING SAMPLES		DRILLING TIME	
TYPE	FREQUENCY	DEPTH	FREQUENCY	DEPTH
None	30"/10' intervals	3402 - TD	Geologist	0 - TD
REMARKS:				

MUD PROGRAM:					
Interval	Type <input type="checkbox"/> Mud	#/gal	Vis, <input type="checkbox"/> sec/qt	/30 min	Other Specification
200'	Spud	8.8 - 9.0	Sufficient to clean hole.		
3,402'	Water/LSND	8.4 - 9.0		<9	Sweep hole whilst water drilling, LCM onsite
7,686'	Air	1	1000 cfm for hammer		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	3,402'	8-3/4"	7"	J/K-55 ST&C	20#	100' below LWIS	cmt to surface
Production	7,686'	6-1/4"	4-1/2"	J-55	11.6#	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	4,590'	500	0
Point Lookout	5,291'	600	0
Dakota	7,436'	2600	964

Requested BOP Pressure Test Exception = 1500 psi	** Note: Determined using the following formula: ABHP - (.22*TVD) = ASP
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Form 46 Reviewed by:	Logging program reviewed by:	DATE:	APPROVED:	DATE:
HGJ	JMP	21-Jul-04		
Form 46 7-84bw	For Drilling Dept.		For Production Dept.	

**Additional Operator Remarks:**

Notice of Staking was submitted on 07/20/2004. The N.o.S. may have been submitted with a location of 1650' FSL & 1150' FEL.

This is corrected to: 1170' FSL & 1650' FWL.

This well is staked on an existing pad that was never drilled.

BP America Production Company respectfully requests permission to drill the subject well to a total depth of approximately 7686 feet and complete into the Basin Dakota Pool, produce the well to establish a production rate, perform a deliverability test, isolate the Dakota then complete into the Blanco Mesaverde Pool and commingle production downhole.

**SUPPLEMENTAL TO SURFACE USE PLAN**

**New Facilities:**

A 4" diameter buried steel pipeline that is + or - 200 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 Services.

If conditions allow, 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.

APD/ROW

# Cementing Program

Well Name: Atlantic A LS 5M  
 Location: 26-31N-10W:1170' FSL, 1650' FWL  
 County: San Juan  
 State: New Mexico

Field: Blanco Mesaverde / Basin Dakota  
 Well Flac:  
 Formation: Dakota Mesa Verde  
 KB Elev (est) 6349  
 GL Elev. (est) 6335

Casing Program:	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Thread	TOC (ft.)	Stage Tool Cmt Cir. Out Or TOL (ft.) (bbl.)
Surface	200	13.5	9.625	ST&C	Surface	NA
Intermediate	3402	8.75	7	ST&C	Surface	NA
Production -	7686	8.25	4.5	ST&C	3302	NA

Casing Properties:	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	254	0.0405	6.331
Production -	4.5	11.6	J-55	5350	4960	154	0.0155	3.875

Mud Program	Mud Type	Mud Weight	Recommended Mud Properties Prio Cementing:
Apx. Interval (ft.)			PV <20 YP <10 Fluid Los. <15
0 - SCP	Water/Spud	8.6-9.2	
SCP - ICP	Water/LSD	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	128	190
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.	Fresh Water
Slurry 1	160 sx Class C Cement		203.2 cuft
TOC@Surface	+ 2% CaCl2 (accelerator)		0.4887 cuft/ft OH

Slurry Properties:	Density (lb/gal)	Yield (ft <sup>3</sup> /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  
 Centralizers, 1 per joint except top joint  
 1 Stop Ring  
 1 Thread Lock Compound

Intermediate:	Fresh Water	20 bbl	fresh water
Lead	290 sx Class "G" Cement		756.9 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		76.2 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 (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water (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	160 LiteCrete D961 / D124 / D154		403.2 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		218.0 cuft
Slurry 2	+ 5% D20 gel (extender)		+ 5 #/sk D24 gilsonite
1488 ft fill	+ 0.1% D46 antifoam		+ 0.15% D65 TIC
	+ 1/4 #/sk. Cellophane Flake		+ 0.1% D800 retarder
	+ 0.25% D167 Fluid Loss		
Slurry Properties:	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water (gal/sk)
			0.1026 cuft/ft OH
			0.1169 cuft/ft csg ann

Cementing Program

Slurry 1	9.5	2.52	6.38	
Slurry 2	13	1.44	6.5	Top of Mancos 5698
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 1 Top Rubber Plug 1 Thread Lock Compound			

**SAN JUAN BASIN  
Dakota Formation  
Pressure Control Equipment**

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**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 H<sub>2</sub>S 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.
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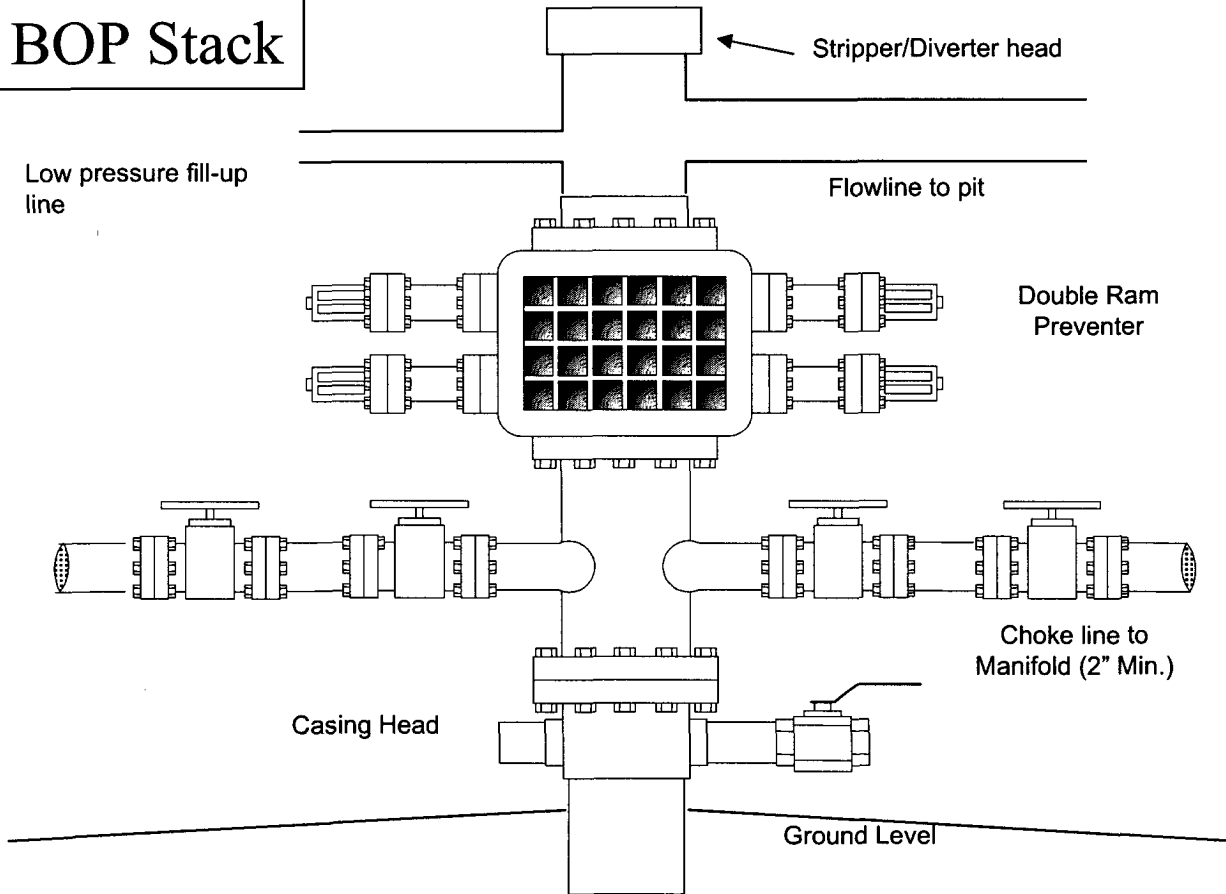
All ram type preventers and related control equipment will be hydraulically tested to 250 psi (low pressure) and 2000 psi (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include kelly cock, upper kelly cock with a handle available, floor safety valves and choke manifold which will also be tested to equivalent pressure.

# BP America Production Company

## Well Control Equipment Schematic



### BOP Stack



### Choke & Kill Manifold

