Form 3160-3
(August 1999)

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
SF 080917

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

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

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☒ Multiple Zone

8. Lease Name and Well No.
ATLANTIC 1M

2. Name of Operator
BP AMERICA PRODUCTION COMPANY
Contact: CHERRY HLAVA
E-Mail: hlavacl@bp.com

9. API Well No.
30-045-32362

3a. Address
P.O. BOX 3092
HOUSTON, TX 77253-3092

3b. Phone No. (include area code)
Ph: 281.366.4081

10. Field and Pool, or Exploratory
BASIN DK & BLANCO MV

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface SENW 1770FNL 1780FWL 36.51400 N Lat, 107.52400 W Lon

At proposed prod. zone NENW 900FNL 2200FWL 36.51400 N Lat, 107.52400 W Lon

11. Sec., T., R., M., or Blk. and Survey or Area
Sec 34 T31N R10W Mer NMP

14. Distance in miles and direction from nearest town or post office*
10 MILES EAST FROM AZTEC

12. County or Parish
SAN JUAN

13. State
NM

15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)
1770'

16. No. of Acres in Lease
2538.13

17. Spacing Unit dedicated to this well
318.27 N/2

18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.
300'

19. Proposed Depth
7787 MD
7646 TVD

20. BLM/BIA Bond No. on file
WY2924

21. Elevations (Show whether DF, KB, RT, GL, etc.
6251 GL

22. Approximate date work will start
07/25/2004

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	Name (Printed/Typed)	Date
(Electronic Submission)	CHERRY HLAVA	05/21/2004

Title
REGULATORY ANALYST

Approved by (Signature)	Name (Printed/Typed)	Date
Original Signed: Stephen Mason		AUG 05 2004
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 #30974 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 3165.3 and appeal pursuant to 43 CFR 3165.4

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

HOLD C104 FOR directional survey

**** 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	2 Pool Code	3 Pool Name
30-045-32362	71599 / 72359	Basin Dakota / Blanco Mesaverde

4 Property Code	5 Property Name	6 Well Number
000~~282~~ 276	Atlantic	# 1M

7 OGRID No.	8 Operator Name	9 Elevation
000778	BP AMERICA PRODUCTION COMPANY	6251

10 Surface Location

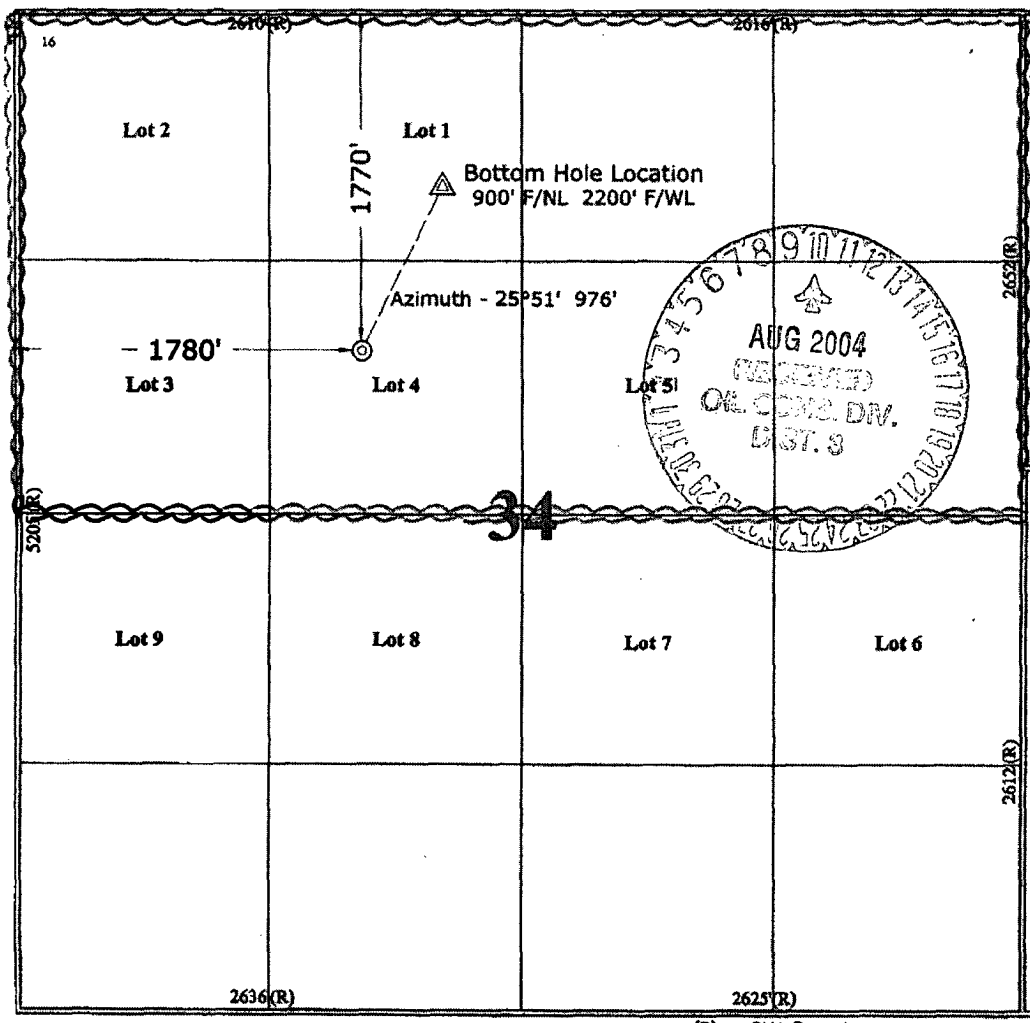
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F (Lot 4)	34	31 N	10 W		1770	NORTH	1780	WEST	SAN JUAN

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
C (Lot 1)	34	31 N	10 W		900	NORTH	2200	WEST	SAN JUAN

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
318.27			

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



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Cherry Hlava
Signature
Cherry Hlava
Printed Name
Regulatory Analyst
Title
5-20-04
Date

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.

October 14, 2003
Date of Survey

Signature and Seal of Professional Surveyor

GARY D. VANN
NEW MEXICO
7016
REGISTERED PROFESSIONAL LAND SURVEYOR

7016
Certificate Number

(R) – BLM Record

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

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

Form C-103
March 4, 2004

WELL API NO.
NEW WELL

5. Indicate Type of Lease
STATE ☐ FEE ☐

6. State Oil & Gas Lease No.

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.)

7. Lease Name or Unit Agreement Name
Atlantic
(APD filed with BLM SF 080917)

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

8. Well Number
1 M

2. Name of Operator
BP AMERICA PRODUCTION CO

9. OGRID Number

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

10. Pool name or Wildcat
Basin Dakota & Blanco Mesaverde

4. Well Location

Unit Letter **F** : **1770** feet from the **North** line and **1780** feet from the **West** line

Section **34** **Township 31N** **Range 10W** NMPM **SAN JUAN** County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
6251'

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

Pit Location: UL F Sect 34 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 F Sect 34 Twp 31N Rng 10W ;

1730 feet from the North line and 1795 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:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	PLUG AND ABANDONMENT	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPLETION	☐	CASING TEST AND CEMENT JOB	☐		
OTHER: **PIT PERMIT**			☐	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 NMOCD. 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 5/20/04

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

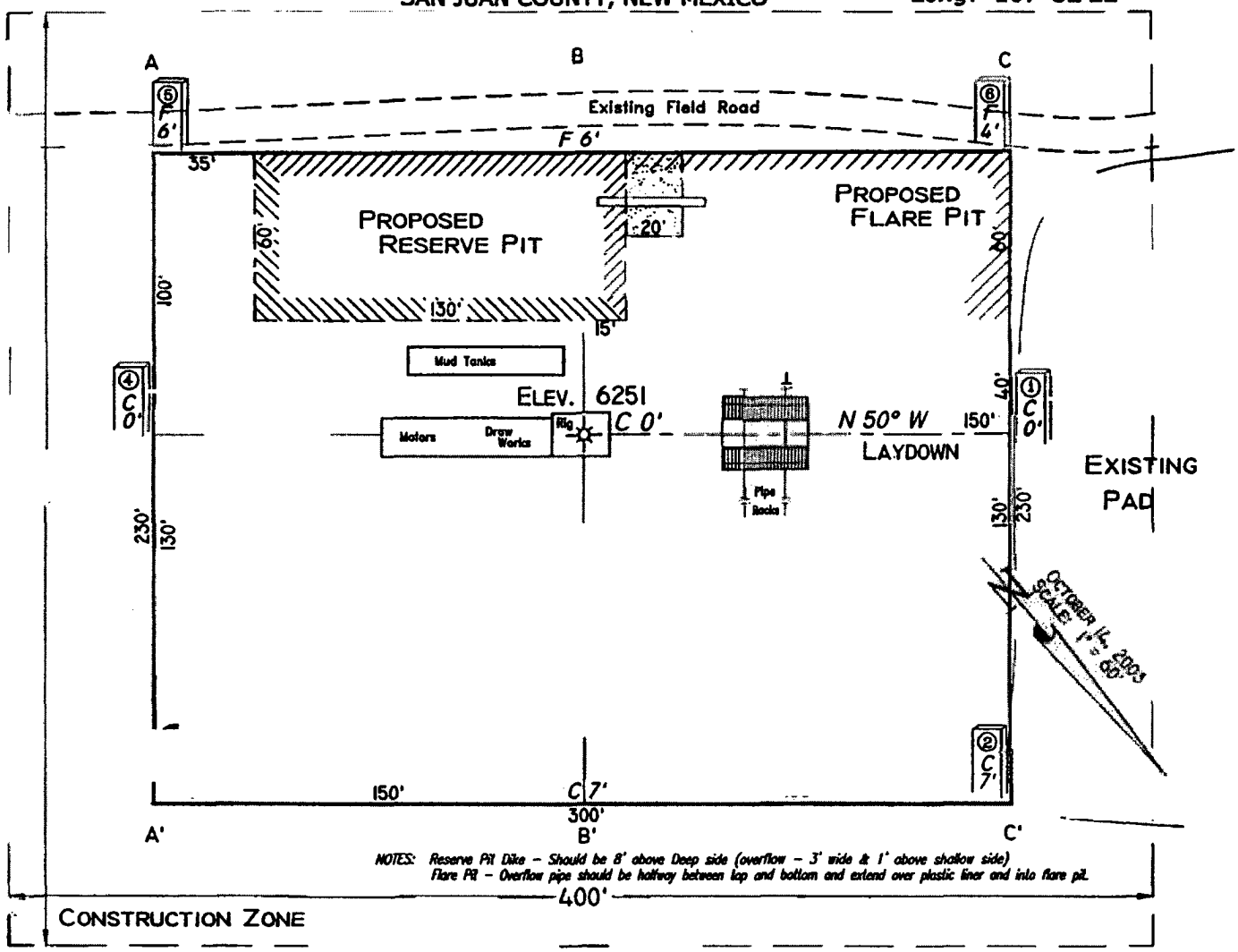
(This space for State use)

APPPROVED BY _____ TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE AUG 10 2004

Conditions of approval, if any:

PAD LAYOUT PLAN & PROFILE
BP AMERICA PRODUCTION COMPANY
Atlantic # 1M
1770' F/NL 1780' F/WL
SEC. 34, T31N, R10W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO

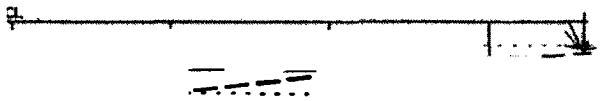
Lat: 36°51'27"
Long: 107°52'22"

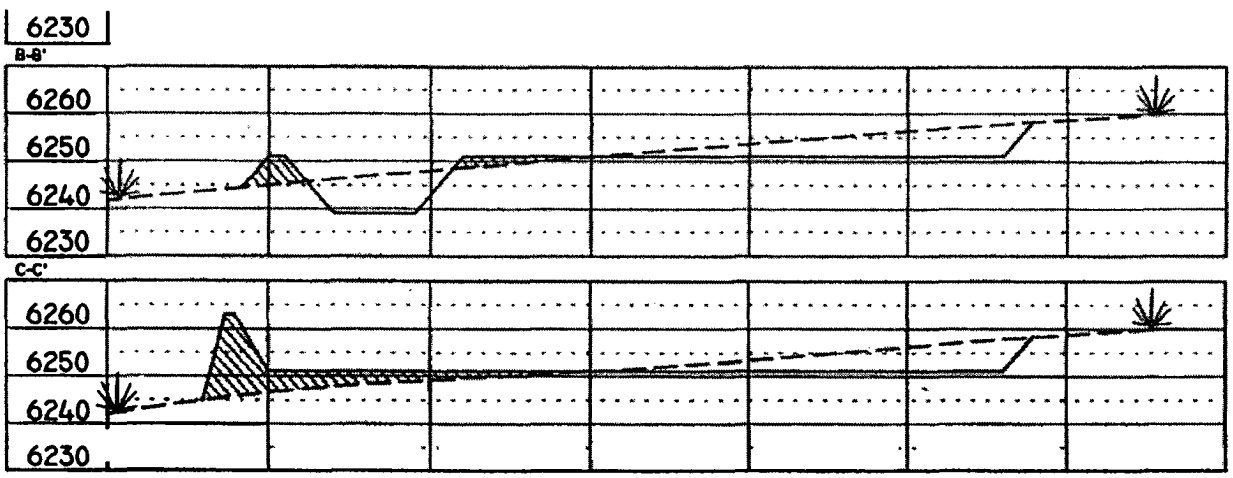


NOTES: Reserve Pit Dike – Should be 8' above Deep side (overflow – 3' wide & 1' above shallow side)
Flare Pit – Overflow pipe should be halfway between top and bottom and extend over plastic liner and into flare pit.

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

A-A'





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 sideslopes 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

Prospect Name: Atlantic
Lease: Atlantic
County: San Juan
State: New Mexico

Well No: 1 M
Surface Location: 34-31N-10W, 1770 FNL, 1780 FWL
Bottom Location: 34-31N-10W, 900 FNL, 2200 FWL
Field: Blanco Mesaverde/Basin Dakota

Date: May 13, 2004

OBJECTIVE: Drill 240' below the top of the Two Wells; set 41/2" production casing. Drill out 70' below the 4 ½" casing shoe, open-hole test the Burro Canyon (DK) interval. Stimulate CH, MF, PL and DK intervals

METHOD OF DRILLING

TYPE OF TOOLS	DEPTH OF DRILLING
Rotary	0 - TD

LOG PROGRAM

TYPE	DEPTH INTERVAL
OPEN HOLE	
See cased hole	
Cased Hole (include open hole)	
GR-CCL-TDT	TDT – TD to 7" shoe
CBL	Identify 4 ½" cement top

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

APPROXIMATE DEPTHS OF GEOLOGICAL MARKER

Estimated GL: 6251 Estimated KB: 6265

MARKER		MD	Subsea	TVD
Ojo Alamo		1706'	4604	1661'
Kirkland		1766'	4547	1718'
Fruitland		2502'	3847	2418'
Fruitland Coal	*	2782'	3581	2684'
Pictured Cliffs	*	3107'	3272	2993'
Lewis Shale	#	3350'	3041	3224'
Cliff House	#	4634'	1772	4493'
Menefee Shale	#	4959'	1447	4818'
Point Lookout	#	5365'	1041	5224'
Mancos		5732'	674	5591'
Greenhorn		7374'	-968	7233'
Bentonite Marker		7430'	-1024	7289'
Two Wells	#	7477'	-1071	7336'
Paguate	#	7588'	-1172	7437'
Cubero Upper	#	7613'	-1207	7472'
Cubero Lower	#	7651'	-1245	7510'
Encinal Canyon	#	7678'	-1272	7537'
Casing point	#	7717'	-1311	7576'
Burro Canyon		7722'	-1316	7581'
TOTAL DEPTH		7787'	-1381	7646'

Probable completion interval * Possible Pay

SPECIAL TESTS

TYPE
None

REMARKS:

DRILL CUTTING SAMPLES

FREQUENCY	DEPTH
10'	3455' -TD

DRILLING TIME

FREQUENCY	DEPTH
Geolograph	0-TD

MUD PROGRAM:

Approx. Interval			Type Mud	Weight, #/ga	Vis, sec/qt	W/L cc's/30 min	Other Specification
0	- 120 200		Spud	8.6-9.2			
120	- 3455'	(1)	Water/LSND	8.6-9.2		<6	
3455	- 7717'		Gas/Air/N2/Mist	Volume sufficient to maintain a stable and clean wellbore			
7717	- 7787'	(2)	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.
(2) Drill lower Dakota section with Gas/Air/N2/Mist; open hole completion below 41/2" casing shoe

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	200 ~~120~~'	9 5/8"	H-40 ST&C	32#	13.5"	1
Intermediate 1	3455'	7"	J/K-55 ST&C	20#	8.75"	1,2
Production	7717'	4 1/2"	J-55	11.6#	6.25"	3
Open Hole	7717-7787'	--	--	--	--	4

REMARKS:
(1) Circulate Cement to Surface
(2) Set casing 100' into Lewis Shale
(3) Bring cement 100' above 7" shoe
(4) Drill lower Dakota section with Gas/Air/N2/Mist; open hole completion below 41/2" casing shoe

CORING PROGRAM:
None

COMPLETION PROGRAM:
Flow test open hole/Burro Canyon interval to gauge productivity. Rigless, 3-4 Stage Limited Entry Hydraulic Frac

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

BP America Production Company
BOP Pressure Testing Requirements

Well Name: Atlantic 1 M
County: San Juan **State:** New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1661		
Fruitland Coal	2684		
PC	2993		
Lewis Shale	3224		
Cliff House	4493	500	0
Menefee Shale	4818		
Point Lookout	5224	600	0
Mancos	5591		
Dakota	7336	2600	1449

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

Requested BOP Pressure Test Exception: 1500 psi

SAN JUAN BASIN
Dakota/MV Formation
Pressure Control Equipment

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 H2S anticipated.

Equipment Specification

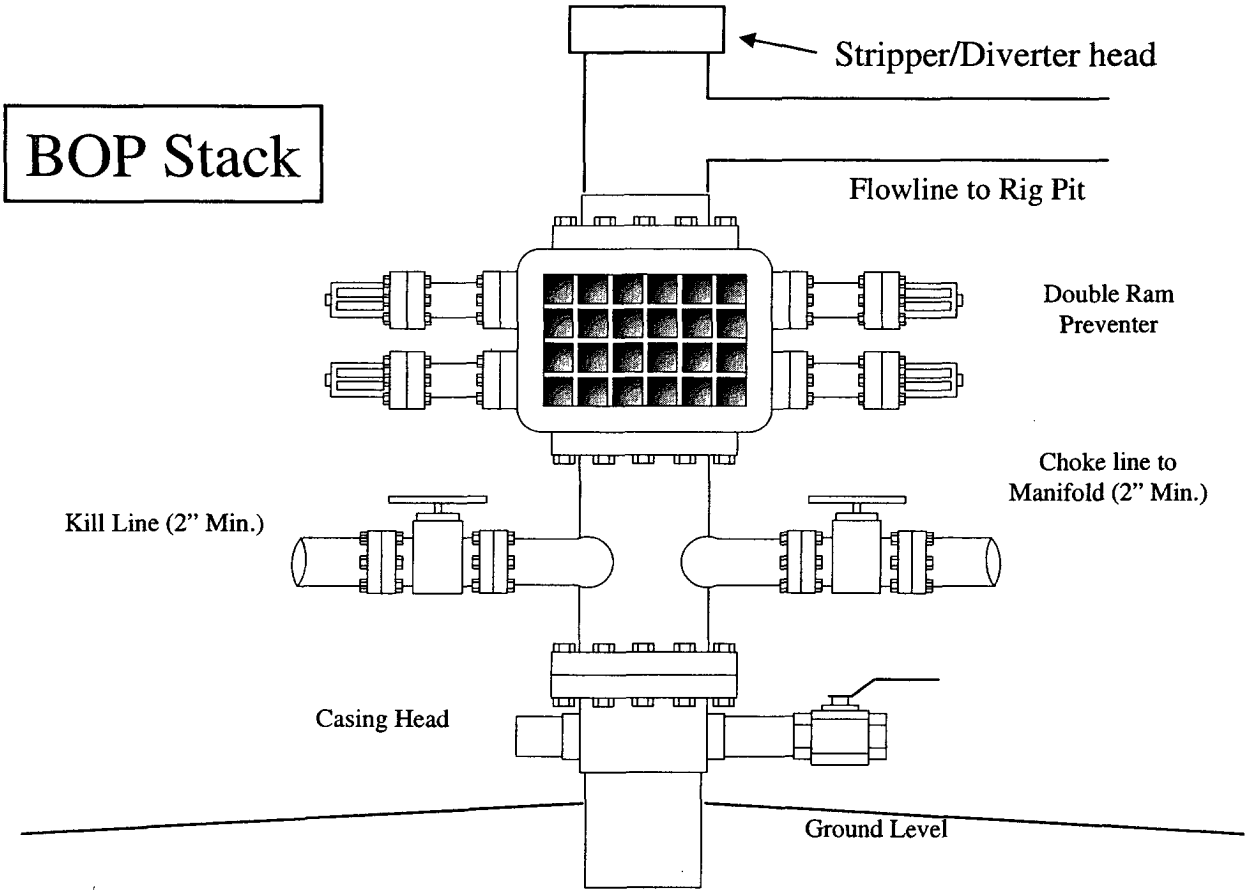
Interval	BOP Equipment
Below conductor casing to total depth	11" nominal or 7 1/16",3000 psi double ram preventer with rotating head.

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.

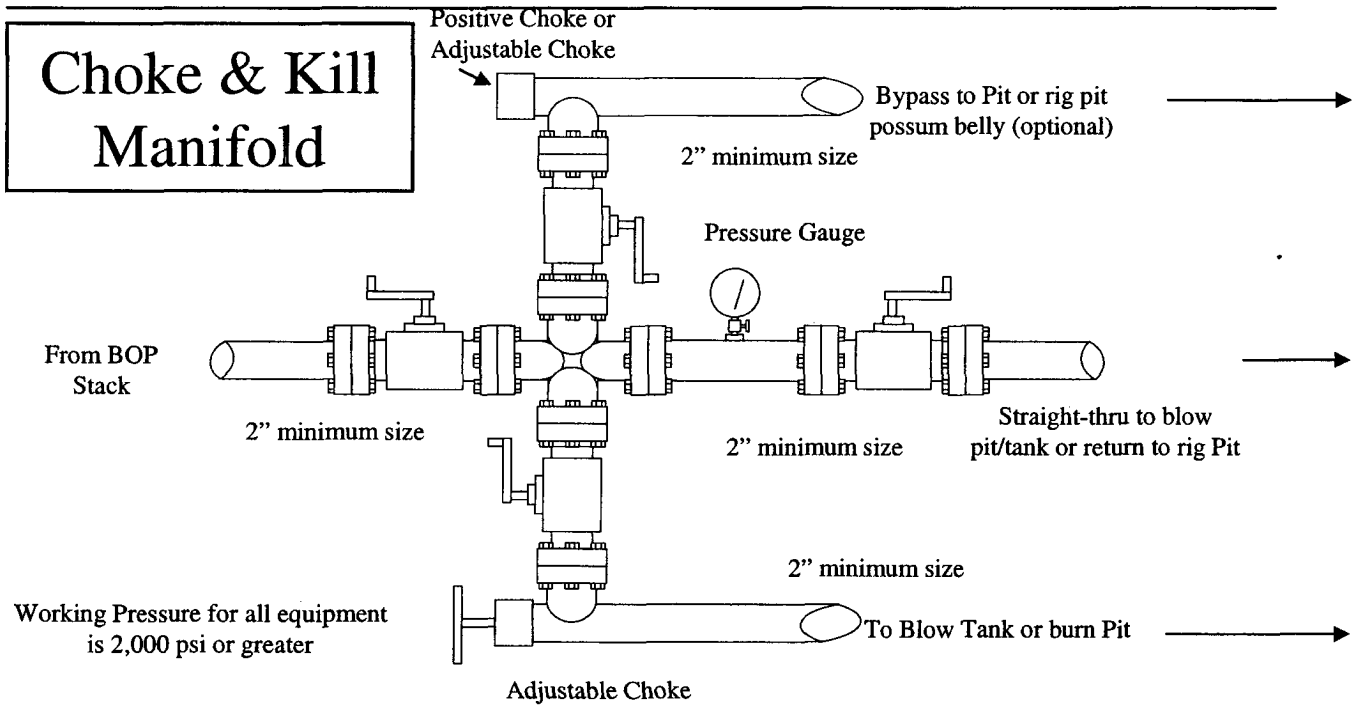
BP American Production Company

Well Control Equipment Schematic

BOP Stack



Choke & Kill Manifold



Cementing Program

Well Name:	Atlantic 1M	Field:	Blanco Mesaverde / Basin Dakota
Location:	34-31N-10W, 1770 FNL, 1780 FWL	API No.	
County:	San Juan	Well Flac	
State:	New Mexico	Formation:	Blanco Mesaverde/Basin Dakota
		KB Elev (est)	6265
		GL Elev. (est)	6251

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	~~120~~ 200	13.5	9.625	ST&C	Surface	NA	
Intermediate	3455	8.75	7	LT&C	Surface	NA	
Production -	7717	6.25	4.5	ST&C	3355	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~~ 2270	1400	254	0.0787	8.845
Intermediate	7	20	K-55	3740	2270	~~254~~ 234	0.0405	6.456
Production -	4.5	11.6	J-55	5350	4960	154	0.0155	3.875

Mud Program

Apx. Interval (ft.)	Mud Type	Mud Weight
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

Recommended Mud Properties Prio Cementing:

PV	<20
YP	<10
Fluid Loss	<15

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 minmize drillout.

Surface:

Preflush	20 bbl.	FreshWater	
Slurry 1 TOC@Surface	100 sx Class C Cement + 2% CaCl2 (accelerator)		117 cuft 0.4887 cuft/ft OH

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

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		300 sx	Class "G" Cement	767 cuft
Slurry 1			+ 3% D79 extender	
TOC@Surface			+1/4 #/sk. Cellophane Flake	
			+ 5 lb/sk Gilsonite	
Tail		60 sx	50/50 Class "G"/Poz	75 cuft
Slurry 2			+ 2% gel (extender)	
	500 ft fill		+1/4 #/sk. Cellophane Flake	0.1503 cuft/ft OH
			+ 2% CaCl2 (accelerator)	0.1746 cuft/ft csg ann
			+ 5 lb/sk Gilsonite	

Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)
Slurry 1	11.4	2.63	15.8
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
Centralizers one in middle of first joint, then every third collar
1 Top Rubber Plug
1 Thread Lock Compound

Production:

Fresh Water		10 bbl	CW100	
Lead		190	LiteCrete D961 / D124 / D154	464 cuft
Slurry 1			+ 0.03 gps D47 antifoam	
TOC, 400' above 7" shoe			+ 0.5% D112 fluid loss	
			+ 0.11% D65 TIC	
Tail		150 sx	50/50 Class "G"/Poz	213 cuft
Slurry 2			+ 5% D20 gel (extender)	
	1485 ft fill		+ 0.1% D46 antifoam	
			+ 1/4 #/sk. Cellophane Flake	
			+ 0.25% D167 Fluid Loss	
			+ 5 lb/sk Gilsonite	