

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 078096
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: CHERRY HLAVA E-Mail: hlavacl@bp.com		8. Lease Name and Well No. MUDGE B 10 M
3a. Address P.O. BOX 3092 HOUSTON, TX 77253-3092	3b. Phone No. (include area code) Ph: 281.366.4081	9. API Well No. 30-045-32367
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NESE 1630FSL 830FEL 36.54600 N Lat, 107.59400 W Lon At proposed prod. zone		10. Field and Pool, or Exploratory BASIN DK & BLANCO MV
14. Distance in miles and direction from nearest town or post office* 7.2 MILES NORTH FROM AZTEC		11. Sec., T., R., M., or Blk. and Survey or Area I Sec 9 T31N R11W Mer NMP
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 830'	16. No. of Acres in Lease	12. County or Parish SAN JUAN
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 1200'	19. Proposed Depth 7353 MD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6026 GL	22. Approximate date work will start 07/25/2004	17. Spacing Unit dedicated to this well 320 E/P
		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:

- Well plat certified by a registered surveyor.
- A Drilling Plan.
- A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
- Operator certification
- 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 05/21/2004
Title REGULATORY ANALYST		
Approved by (Signature) <i>[Signature]</i>	Name (Printed/Typed) FFO	Date 8-12-04
Title AFM		

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 #30956 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 approval 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 30-045-32367	² Pool Code 71599; 72359	³ Pool Name Basin Dakota & Blanco Mesaverde
⁴ Property Code 000906	⁵ Property Name Mudge B	⁶ Well Number # 10M
⁷ OGRID No. 000778	⁸ Operator Name BP AMERICA PRODUCTION COMPANY	⁹ Elevation 6026

¹⁰ Surface Location

UL or Lot No. I	Section 9	Township 31 N	Range 11 W	Lot Idn	Feet from the 1630	North/South line SOUTH	Feet from the 830	East/West line EAST	County SAN JUAN
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¹¹ Bottom Hole Location If Different From Surface

¹² UL or lot no.	¹³ Section	¹⁴ Township	¹⁵ Range	¹⁶ Lot Idn	¹⁷ Feet from the	¹⁸ North/South line	¹⁹ Feet from the	²⁰ East/West line	²¹ County
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²² Dedicated Acres 319.80320	²³ Joint or Infill	²⁴ Consolidation Code	²⁵ 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

16	5188(R)	5262(R)	5235(R)		830'	1630'	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 5-13-04 Date
							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. March 30, 2004 Date of Survey GARY D. VANN Signature and Seal of Professional 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

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.

7. Lease Name or Unit Agreement Name

Mudge B

(APD filed with BLM 5/20/04 SF 078194)

8. Well Number

10 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 **I** : **1630** feet from the **SOUTH** line and **830** feet from the **EAST** line

Section **9** Township **31N** Range **11W** NMPM **SAN JUAN** County

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

6026'

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

Pit Location: UL **I** Sect **9** Twp **31N** Rng **11W** 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 **I** Sect **9** Twp **31N** Rng **11W** ;

1720 feet from the **SOUTH** line and **960** feet from the **EAST** 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: **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 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 Cherry Hlava TITLE Regulatory Analyst DATE 5/20/04

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

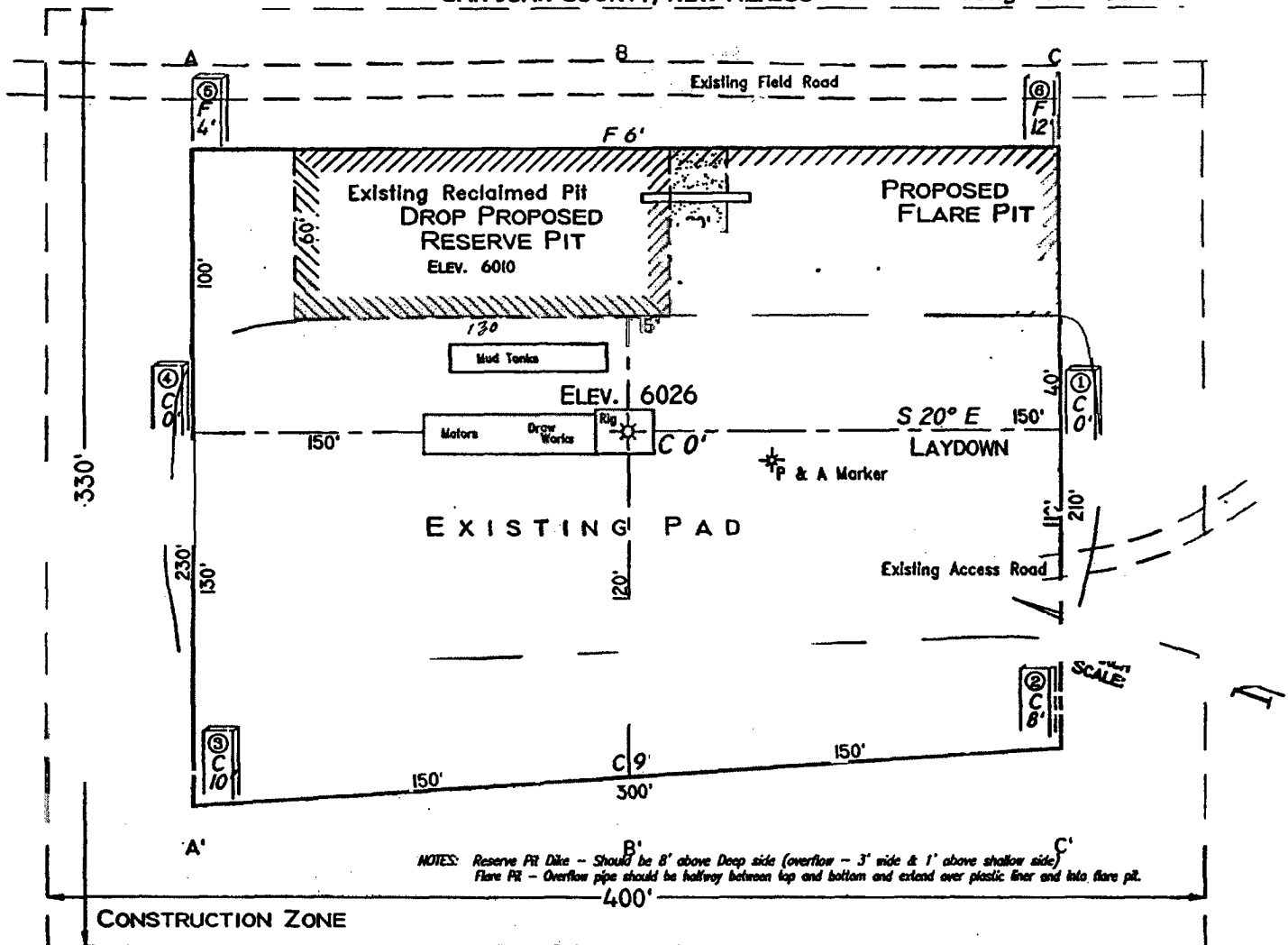
(This space for State use)

APPROVED BY [Signature] TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 03 DATE AUG 19 2004

Conditions of approval, if any:

PAD LAYOUT PLAN & PROFILE
BP AMERICA PRODUCTION COMPANY
Mudge B #10M
1630' F/SL 830' F/EL
SEC. 9, T31N, R11W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO

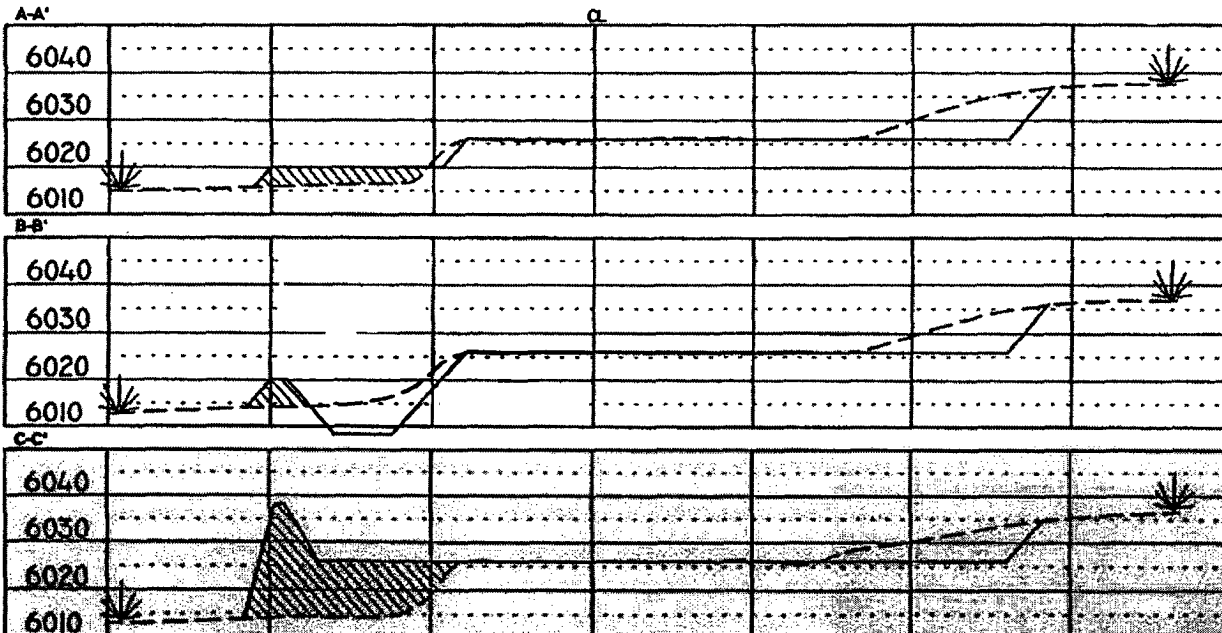
Lat: 36°54'36"
Long: 107°59'22"



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.

Area of Construction Zone - 330'x400' 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 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 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: Mudge B
Lease: Mudge
County: San Juan
State: New Mexico

Well No: 10 M
Surface Location: 9-31N-11W, 1630 FSL, 830 FEL
Bottom Location:
Field: Blanco Mesaverde/Basin Dakota

Date: May 7, 2004

OBJECTIVE: Drill 240' below the top of the Two Wells; set 41/2" production casing. Stimulate CH, MF, PL and DK intervals					
METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS Rotary	DEPTH OF DRILLING 0 - TD	Estimated GL: 6026		Estimated KB: 6040	
LOG PROGRAM					
<u>TYPE</u> <u>OPEN HOLE</u> None	<u>DEPTH INTERVAL</u>	MARKER		MD Subsea	MD/TVD
		Ojo Alamo		-----' 4426	1614'
		Kirkland		-----' 4351	1689'
		Fruitland		-----' 4001	2039'
		Fruitland Coal	*	-----' 3724	2316'
		Pictured Cliffs	*	-----' 3330	2710'
		Lewis Shale	#	-----' 3082	2958'
		Cliff House	#	-----' 1882	4158'
		Menefee Shale	#	-----' 1482	4558'
		Point Lookout	#	-----' 1144	4896'
		Mancos		-----' 799	5241'
		Greenhorn		-----' -964	7004'
		Bentonite Marker		-----' -1018	7058'
		Two Wells	#	-----' -1073	7113'
		Paguate	#	-----' -1160	7200'
		Cubero Upper	#	-----' -1191	7231'
		Cubero Lower	#	-----' -1214	7254'
		Encinal Canyon	#	-----' -1254	7294'
		TOTAL DEPTH		-----' -1313	7353'
		# Probable completion interval		* Possible Pay	
SPECIAL TESTS		DRILL CUTTING SAMPLES		DRILLING TIME	
TYPE None		FREQUENCY 10'	DEPTH 3058' -TD	FREQUENCY Geograph	DEPTH 0-TD
REMARKS:					
- Please report any flares (magnitude & duration).					
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 - 3058 (1)	Water/LSND	8.6-9.2		<6	
3058 - 7353	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.					
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
Surface/Conductor	200 120	9 5/8"	H-40 ST&C	32#	13.5"
Intermediate 1	3058	7"	J/K-55 ST&C	20#	8.75"
Production	7353	4 1/2"	J-55	11.6#	6.25"
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, 3-4 Stage Limited Entry Hydraulic Frac					
GENERAL REMARKS:					
Notify BLM/NMOCD 24 hours prior to Spud; BOP testing, and Casing and Cementing.					
Form 46 Reviewed by:		Logging program reviewed by: N/A			
PREPARED BY:	APPROVED:	DATE:			
HGJ/MNP/JMP		May 7, 2004			
		Version 2.0			
Form 46 12-00 MNP					

Additional Operator Remarks:

Notice of Staking was submitted as Mudge Gas Com B 10M on 4/20/2004.
This well is not a gas com. Please change name to Mudge B 10M.

BP America Production Company respectfully requests permission to drill the subject well to a total depth of approximately 7353'. Complete in the Basin Dakota Pool, isolate the Dakota; complete into the Blanco Mesaverde, establish a production rate; drill out the bridge plug and commingle production downhole.

Application for Downhole Commingling authority (NMOCD order R-11363) will be submitted to all appropriate for approval after Permit to Drill has been approved.

SUPPLEMENTAL TO SURFACE USE PLAN

New Facilities:

A 4" diameter buried steel pipeline that is +/- 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 Field 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 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 we will follow the approved cement program.

BP America Production Company BOP Pressure Testing Requirements

Well Name: Mudge B
County: San Juan

10 M
State: New Mexico

Formation	TVD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1614		
Fruitland Coal	2316		
PC	2710		
Lewis Shale	2958		
Cliff House	4158	500	0
Menefee Shale	4558		
Point Lookout	4896	600	0
Mancos	5241		
Dakota	7113	2600	1449

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

Requested BOP Pressure Test Exception: 1500 psi

**SAN JUAN BASIN
Dakota 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

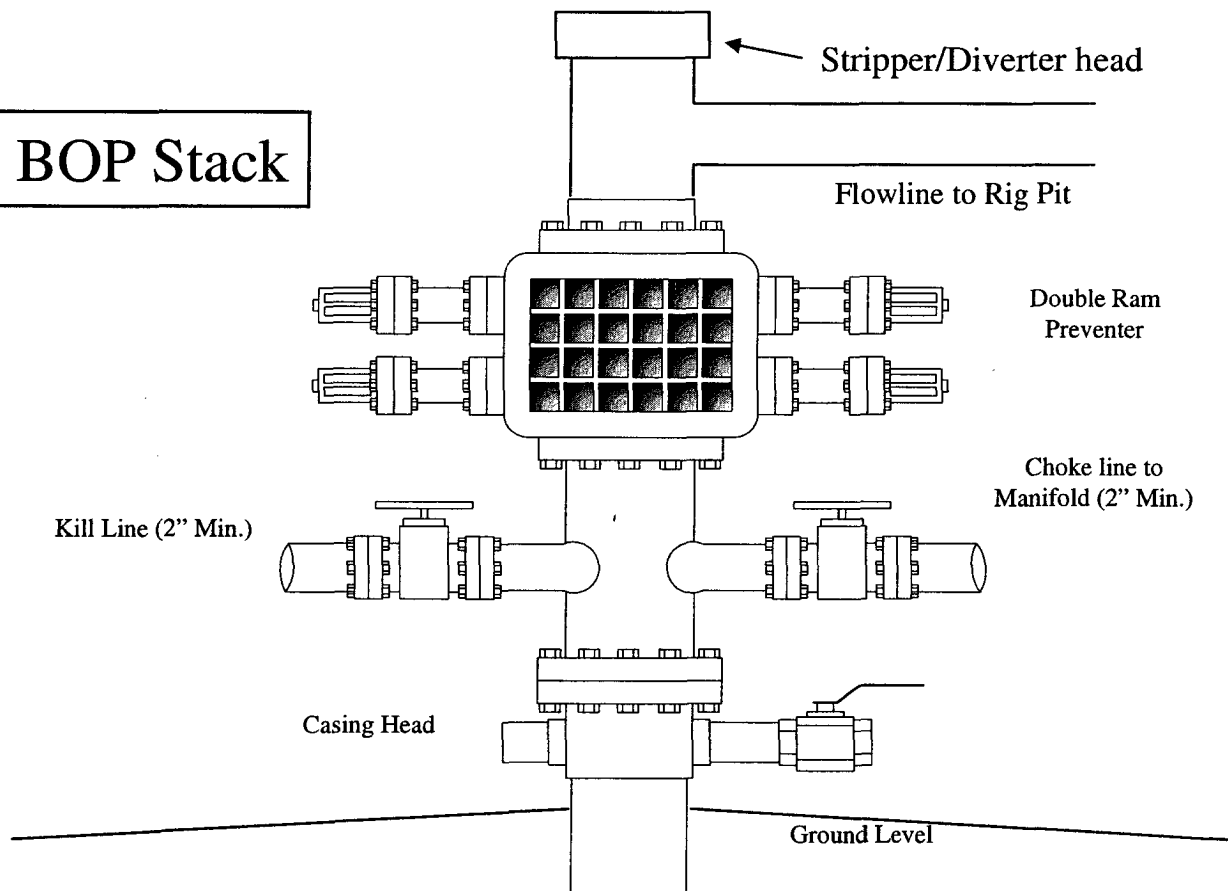
Below conductor casing to total depth 11" nominal or 7 1/16", 3000 psi
double ram preventer with rotating head.

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

