

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. NMSF - 080032
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.
Contact: MARY CORLEY E-Mail: corleym@bp.com		8. Lease Name and Well No. FLORANCE 23B
3a. Address P.O. BOX 3092 HOUSTON, TX 77253	3b. Phone No. (include area code) Ph: 281.366.4491 Fx: 281.366.0700	9. API Well No. 3004532143
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SWSE Lot O 700FSL 1780FEL 36.42300 N Lat, 107.43800 W Lon At proposed prod. zone		10. Field and Pool, or Exploratory BLANCO MESAVERDE
14. Distance in miles and direction from nearest town or post office* 21 MILES FROM BLOOMFIELD, NEW MEXICO		11. Sec., T., R., M., or Blk. and Survey or Area 0 Sec 24 T29N R9W Mer NMP SME: BLM
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 700	16. No. of Acres in Lease 293.90	12. County or Parish SAN JUAN
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 317' - FLORANCE 71 - PC WELL	19. Proposed Depth 5688 MD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6450 GL	22. Approximate date work will start 02/28/2004	17. Spacing Unit dedicated to this well 293.90 E/R
		20. BLM/BIA Bond No. on file WY2924
		23. Estimated duration 5 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.<br>2. A Drilling Plan.<br>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).<br>5. Operator certification<br>6. Such other site specific information and/or plans as may be required by the authorized officer. |
|--|--|

25. Signature (Electronic Submission)	Name (Printed/Typed) MARY CORLEY	Date 01/23/2004
Title AUTHORIZED REPRESENTATIVE		
Approved by (Signature)	Name (Printed/Typed)	Date
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 #27147 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

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

<small>1</small> APT Number 30-045-32143		<small>2</small> Pool Code 22319	<small>3</small> Pool Name Blanco Mesaverde	
<small>4</small> Property Code 000518	<small>5</small> Property Name Florance		<small>6</small> Well Number # 23B	
<small>7</small> OGRID No. 000778	<small>8</small> Operator Name BP AMERICA PRODUCTION COMPANY		<small>9</small> Elevation 6450	

## <sup>10</sup> Surface Location

UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O (Lot 15)	24	29 N	9 W		700	SOUTH	1780	EAST	SAN JUAN

<sup>11</sup> Bottom Hole Location If Different From Surface

7	U/L or lot no.	Section	Township	Range	Lot Ida	Feet from the	North/South line	Feet from the	East/West line	County	
12	Dedicated Acres 293.9	13	Joint or Infill	14	Consolidation Code	15					Order No.

~~NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED~~  
E/Z OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16	Lot 4	Lot 3	Lot 2	FLORENCE 23 30.045.08095 990' FNL 790' FEL X
5207(R)	Lot 5	Lot 6	Lot 7	Lot 8
	Lot 12	Lot 11	Lot 10	FLORENCE 23A 30.045.22349 1450' FSL 1085' FEL X
	Lot 13	Lot 14	Lot 15	Lot 16
			700' 	1780' 7016 Certificate Number

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

**Prospect Name:** Florance

**Lease:** Florance

**County:** San Juan

**State:** New Mexico

**Date:** January 8, 2004

**Well No:** 23 B

**Surface Location:** 24-29N-9W; 700 FSL, 1780 FEL

**Field:** Blanco Mesaverde

**OBJECTIVE:** Drill 470' below the top of the Point Lookout Sandstone, set 2 7/8" Production long string, Stimulate CH, MF and PL intervals

METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS	DEPTH OF DRILLING	Estimated GL: 6450		Estimated KB: 6464	
Rotary	0 - TD	MARKER		SUBSEA	
<div>LOG PROGRAM</div> <div>TYPE</div> <div>OPEN HOLE</div> <div>None</div> <div>CASED HOLE</div> <div>GR-CCL</div> <div>TD to 5 1/2" shoe</div>		Ojo Alamo		4493	1971
		Kirtland		4412	2052
		Fruitland		3986	2478
		Fruitland Coal	*	3757	2707
		Pictured Cliffs	*	3462	3002
		Lewis	*	3274	3190
		Cliff House	#	1972	4492
		Menefee	#	1720	4744
		Point Lookout	#	1246	5218
		Mancos		813	5651
REMARKS:		TOTAL DEPTH		776	5688
- Please report any flares (magnitude & duration).		# Probable completion interval		* Possible Pay	
		DRILL CUTTING SAMPLES		DRILLING TIME	
		FREQUENCY	DEPTH	FREQUENCY	DEPT
None		None	Production hole	Geolograph	0-TD
REMARKS:					

MUD PROGRAM:					
Approx. Interval	Type Mud	Weight, #/gal	Vis, sec/qt	W/L cc's/30 min	Other Specification
0 - 120	Spud	8.6-9.2			
120 - 2657 (1)	Water/LSND	8.6-9.2		<6	
2657 - 5688	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	Landing Pt, Cmt, I
Surface/Conductor	120	8 5/8"	X-42 ST&C	20#	12.25"	1
Intermediate 1	2657	5 1/2"	J-55 ST&C	15.5#	7.875"	1,2
Production	5688	2 7/8"	J-55	6.5#	4.75"	3,4

REMARKS:

- (1) Circulate Cement to Surface
- (2) Set casing 50' above Fruitland Coal
- (3) Bring cement 100' above 5 1/2" shoe
- (4) 100' Overlap

**CORING PROGRAM:**

None

**COMPLETION PROGRAM:**

Rigless, 2-3 Stage Limited Entry Hydraulic Frac

**GENERAL REMARKS:**

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB NO. 1004-0135  
Expires: November 30, 2000**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.****SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMSF080032
2. Name of Operator BP AMERICA PRODUCTION CO		6. If Indian, Allottee or Tribe Name
3a. Address P. O. BOX 3092 HOUSTON, TX 77253		7. If Unit or CA/Agreement, Name and/or No.
3b. Phone No. (include area code) Ph: 281.366.4491 Fx: 281.366.0700		8. Well Name and No. FLORANCE 23B
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 24 T29N R9W SWSE Lot O 700FSL 1780FEL 36.42300 N Lat, 107.43800 W Lon		9. API Well No.
		10. Field and Pool, or Exploratory BLANCO MESAVERDE
		11. County or Parish, and State SAN JUAN COUNTY, NM

**12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA**

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Original APD submitted on 01/23/2004, EC Submission 27147. Permit Pending.

BP America submits for your approval amendements to our surface cementing program for the subject well. Please reference attached cementing report for detailed information.

However, should conditions change, BP request as an alternate to conventional drilling program to drill the subject well with air/air mist in lieu of drilling mud and preset the surface casing using approximately 90 CU/FT TYPE I-II, 20% FLYASH, 14.5 PPG, 7.41 GAL/SK, 1.61 CF/SK YIELD, 80-DEG  
BEST READY MIX CMT

14. I hereby certify that the foregoing is true and correct. <b>Electronic Submission #28006 verified by the BLM Well Information System For BP AMERICA PRODUCTION CO, sent to the Farmington Committed to AFMSS for processing by ADRIENNE GARCIA on 02/18/2004 (04AXG0639SE)</b>	
Name (Printed/Typed) MARY CORLEY	Title AUTHORIZED REPRESENTATIVE
Signature (Electronic Submission)	Date 02/17/2004

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By <b>/s/ David J. Markiewicz</b>	Title	APR - 8 2004 Date
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office	

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**\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\***

NMOC

## BP America Production Company BOP Pressure Testing Requirements

Well Name: Florance  
County: San Juan

23 B  
State: New Mexico

Formation	Estimated TVD/MD	Anticipated Bottom Hole Pressure	Maximum Anticipated Surface Pressure **
Ojo Alamo	1971		
Fruitland Coal	2707		
PC	3002		
Lewis Shale	3190		
Cliff House	4492	500	0
Menefee Shale	4744		
Point Lookout	5218	600	0
Mancos	5651		

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

Requested BOP Pressure Test Exception: 750 psi

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

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**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 double ram type arrangement. Regional drilling rigs 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 Mesaverde. No abnormal temperature, pressure, or H<sub>2</sub>S anticipated.

**Equipment Specification**

**Interval**

**BOP Equipment**

Below conductor casing to total depth

9", 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 750 psi (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include kelly cock with a handle available, floor safety valves and choke manifold which will also be tested to equivalent pressure.

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**FEDERAL CEMENTING REQUIREMENTS**

1. All permeable zones containing fresh water and other usable water containing 10,000 PPM or less total dissolved solids will be isolated and protected from contamination by cement circulated in place for the protection of permeable zones per the NTL-FRA 90-1 Section III A.
2. The hole size will be no smaller than 1 1/2" larger diameter than the casing O.D. across all water zones.
3. An adequate spacer will be pumped ahead of the cement slurry to help prevent mud contamination of the cement.
4. An adequate number of casing centralizers will be run through usable water zones to ensure that the casing is centralized through these zones. The adequate number of centralizers to use will be determined by API SPEC 10D.
5. Centralizers will be used just below and into the base of the lowest usable water zone.
6. A chronological log will be kept recording the pump and slurry information and will be sent to the BLM with the subsequent sundry.

# Cementing Program

Well Name: Florance 23B  
 Location: 24-29N-09W, 700 FSL, 1780 FEL  
 County: San Juan  
 State: New Mexico

Field: Blanco Mesaverde  
 API No.  
 Well Flac  
 Formation: MesaVerde  
 KB Elev (est) 6464  
 GL Elev. (est) 6450

## Casing Program:

Casing String	Est. Depth (ft.)	Hole Size (in.)	Casing Size (in.)	Thread	TOC (ft.)	Stage Tool Or TOL (ft.)
Surface	120	12 1/4	8 5/8	ST&C	Surface	NA
Intermediate	2657	7 7/8	5 1/2	ST&C	Surface	NA
Production -	5688	4 3/4	2 7/8		2557	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	8 5/8	24	X42	2950	1370	244	0.06368	7.972
Intermediate	5 1/2	15.5	J55	4810	4040	202	0.0238	5.067
Production -	2 7/8	6.5	J-55	7264	7676	72	0.00579	2.375

## Mud Program

Apx. Interval (ft.)	Mud Type	Mud Weight	Recommended Mud Properties Prio Cementing:
0 - SCP	Water/Spud	8.6-9.2	Fluid Loss <6
SCP - ICP	Water/LSND	8.6-9.2	
ICP - TD	Gas/Air Mist	NA	

## 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
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.

## Surface:

Preflush	20 bbl.	FreshWater	
Slurry 1	80 sx Class C Cement		95 cuft
TOC@Surface	+ 2% CaCl (accelerator)		
	0.25 #/sk Cellophane Flake (lost circulation additive)		0.3961 cuft/ft OH
	0.1% D46 antifoam		100 % excess
Slurry Properties:	Density (lb/gal)	Yield (ft <sup>3</sup> /sk)	Water (gal/sk)
Slurry 1	15.2	1.27	5.8

## Intermediate:

# Cementing Program

Fresh Water 20 bbl fresh water

Lead	280 sx Class "G" Cement	730 cuft
Slurry 1	+ 3% D79 extender	
TOC@Surface	+1/4 #/sk. Cellophane Flake	
	+ 0.1% D46 antifoam'	
Tail	70 sx 50/50 Class "G"/Poz	87 cuft
Slurry 2	+ 2% gel (extender)	
	0.1% D46 antifoam	
500 ft fill	+1/4 #/sk. Cellophane Flake	0.1733 cuft/ft OH
	+ 2% S1 Calcium Chloride	0.2009 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

## Production:

Fresh Water 10 bbl CW100

Slurry	140 LiteCrete D961 / D124 / D154	343 cuft
	+ 0.03 gps D47 antifoam	
	+ 0.5% D112 fluid loss	
TOC@Liner Top	+ 0.11% D65 TIC	

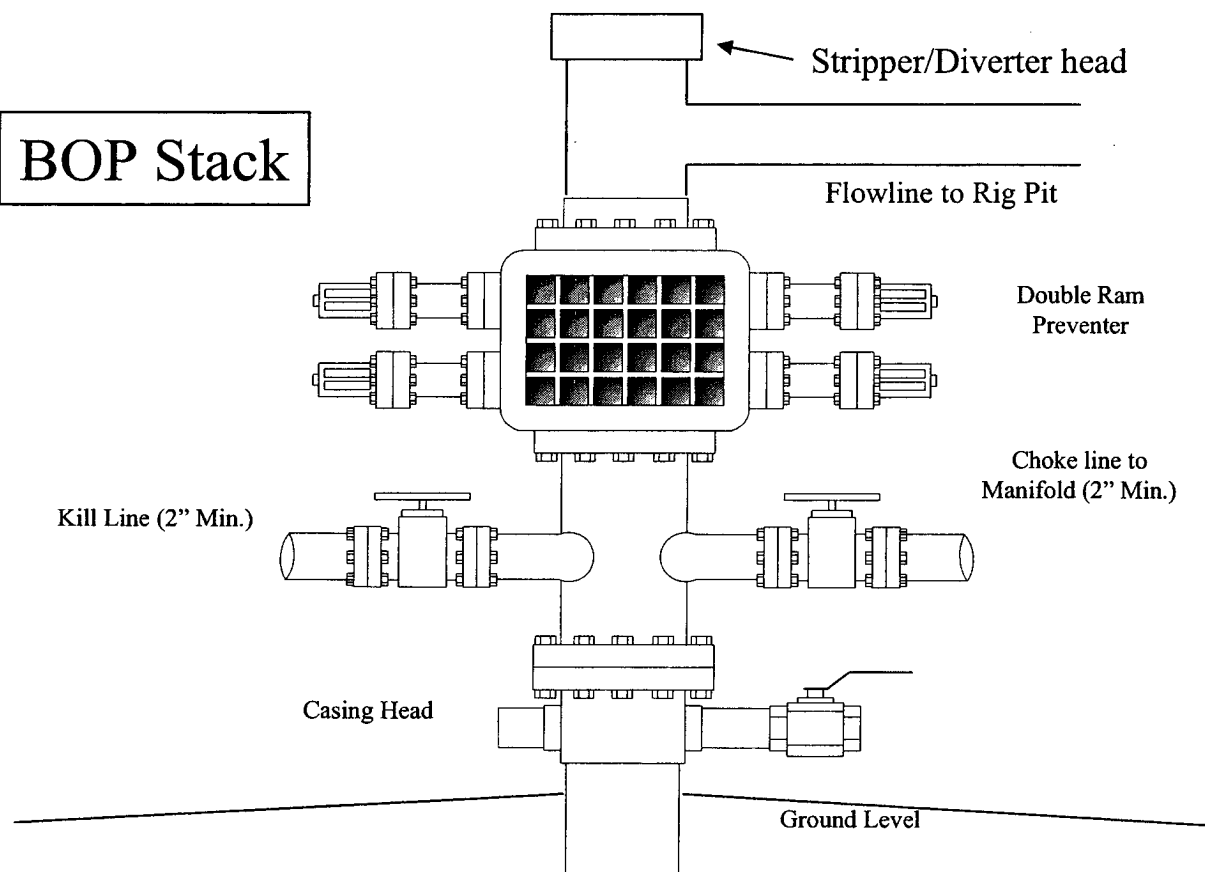
Slurry Properties:	Density (lb/gal)	Yield (ft3/sk)	Water (gal/sk)	
Slurry	9.5	2.52	6.38	0.078 cuft/ft OH
				40 % excess
				0.0886 cuft/ft csg ann



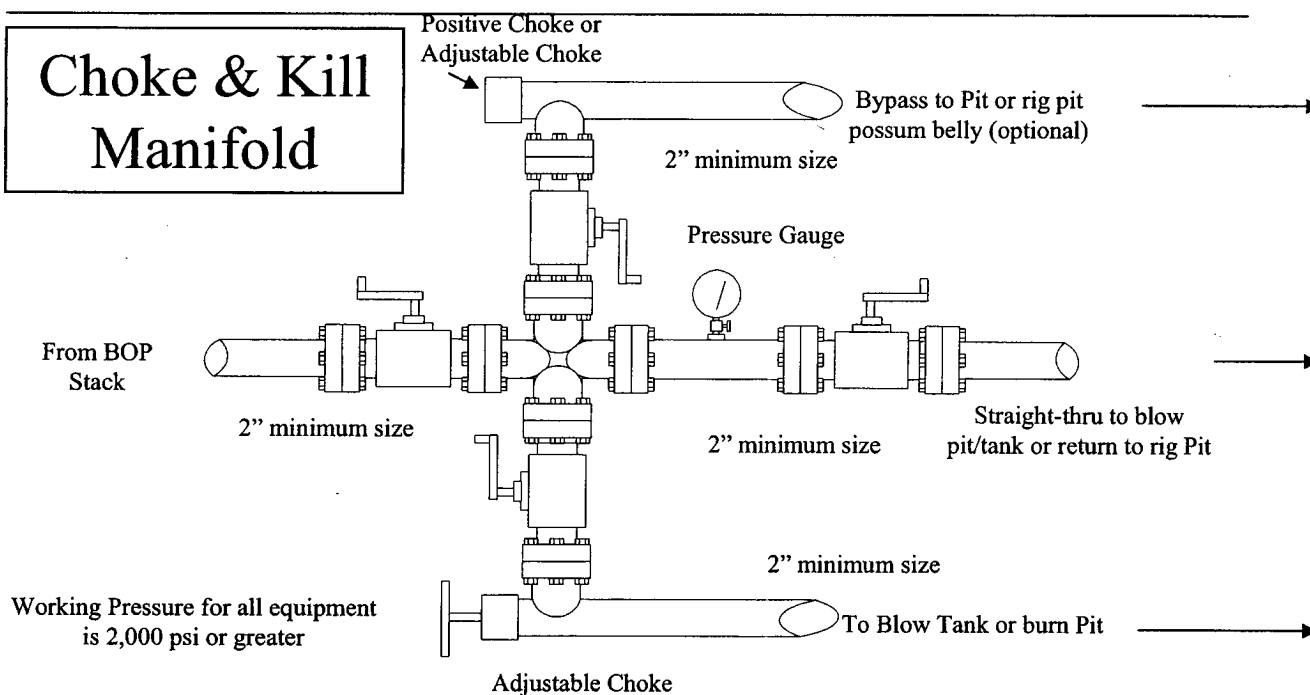
**BP American Production Company**  
Well Control Equipment Schematic



**BOP Stack**

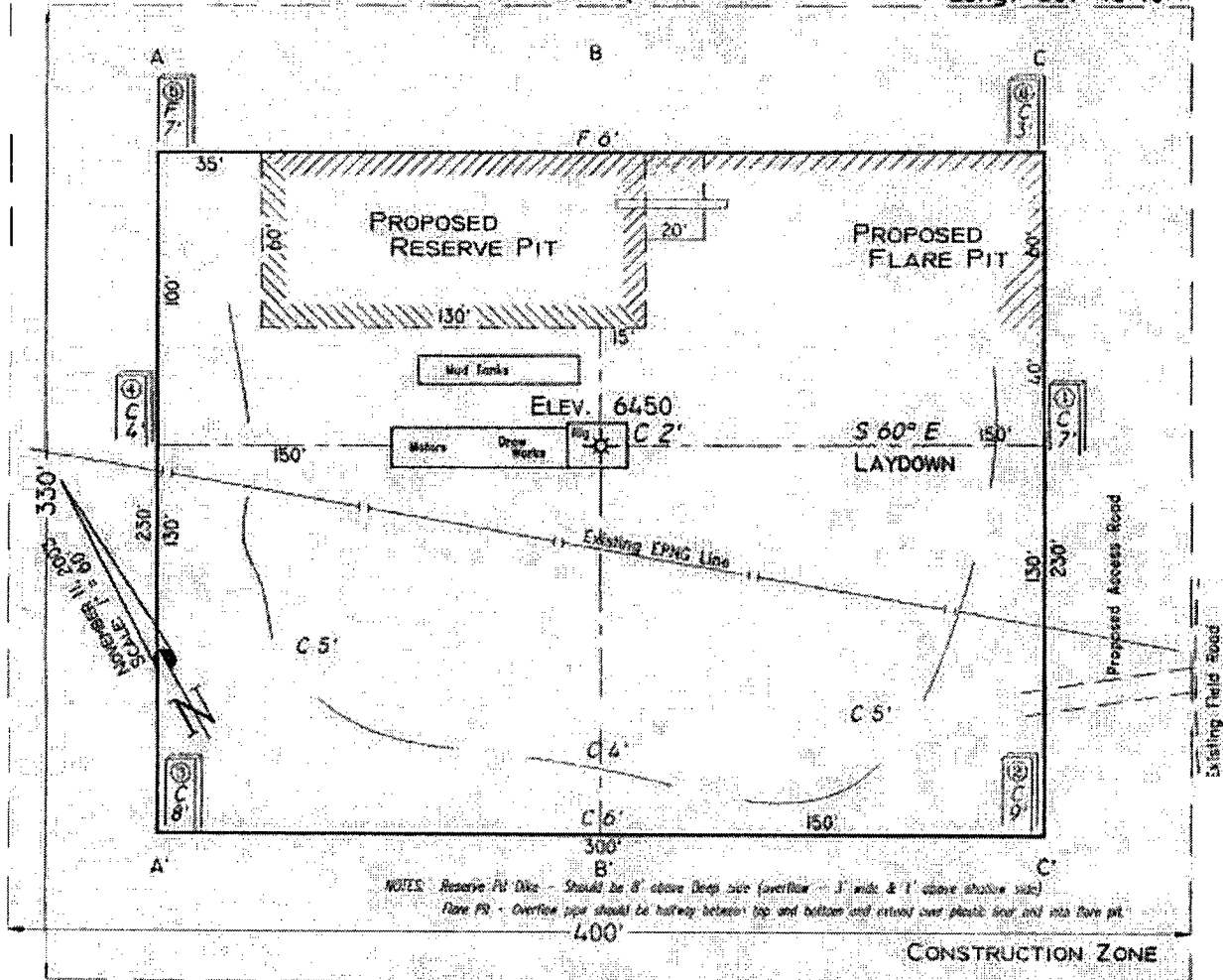


**Choke & Kill Manifold**



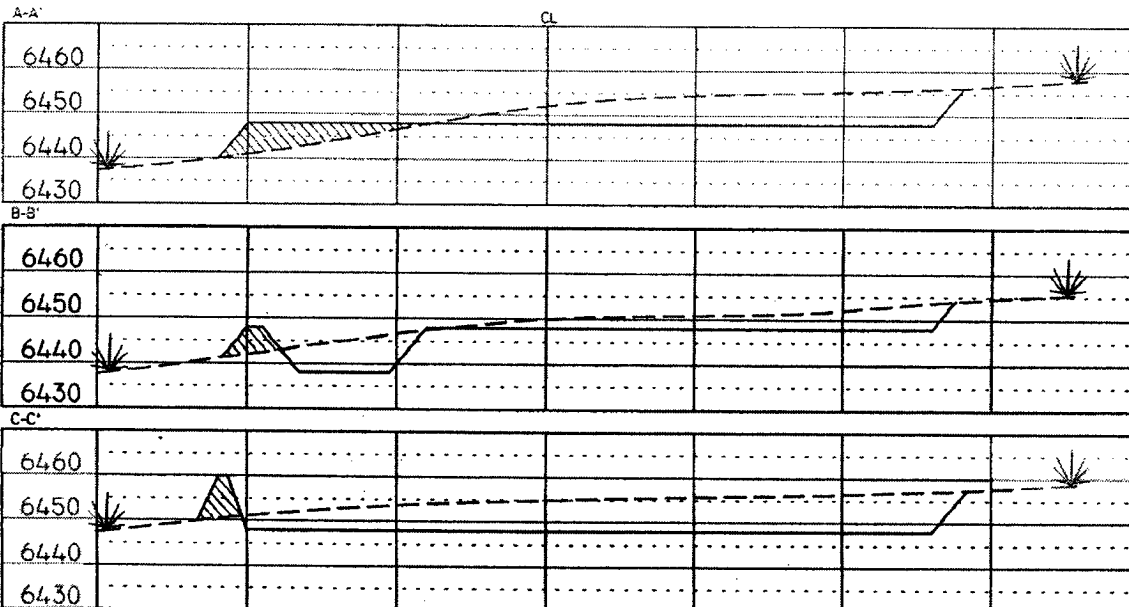
**PAD LAYOUT PLAN & PROFILE**  
**BP AMERICA PRODUCTION COMPANY**  
 Florance #23B  
 700' F/SL 1780' F/EL  
 SEC. 24, T29N, R9W, N.M.P.M.  
 SAN JUAN COUNTY, NEW MEXICO

Lat: 36°42'21"  
 Long: 107°43'46"



Area of Construction Zone - 330'x400' or 132,000 sq. ft. 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