

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 - 078134 078039
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: corleyml@bp.com		8. Lease Name and Well No. BARNES B 21S
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. 3004532473
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NWSE Lot J 1530FSL 1840FEL 36.58900 N Lat, 107.56300 W Lon At proposed prod. zone		10. Field and Pool, or Exploratory BASIN FRUITLAND COAL
14. Distance in miles and direction from nearest town or post office* 14.5 MILES FROM AZTEC, NEW MEXICO		11. Sec., T., R., M., or Bk. and Survey or Area J Sec 13 T32N R11W Mer NMP SME: BLM
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1105	16. No. of Acres in Lease 320.00	12. County or Parish SAN JUAN ✓
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 1500	19. Proposed Depth 2920 MD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6192 GL	22. Approximate date work will start 09/07/2004	17. Spacing Unit dedicated to this well 320.00 5/2
		20. BLM/BIA Bond No. on file WY2924
		23. Estimated duration 4 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 (Electronic Submission)	Name (Printed/Typed) MARY CORLEY	Date 07/22/2004
Title AUTHORIZED REPRESENTATIVE		
Approved by (Signature) <i>Wayne Townsend</i>	Name (Printed/Typed) Wayne Townsend	Date 10/26/07
Title Acting AFM	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 #33405 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 **

NMOC

District I
1625 N. French Dr., Hobbs, NM 88240

District II

811 South First, Artesia, NM 88210

District III

1000 Rio Brazos Rd., Aztec, NM 87410

District IV

2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

OIL CONSERVATION DIVISION

2040 South Pacheco

Santa Fe, NM 87505

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

32473

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-11612	² Pool Code 71629	³ Pool Name Basin Fruitland Coal
⁴ Property Code 000294	⁵ Property Name Barnes B	⁶ Well Number 21S
⁷ OGRID No. 000778	⁸ Operator Name Amoco Production Company	⁹ Elevation 6192'

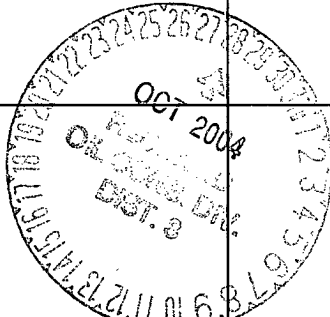
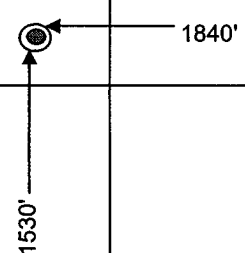
¹⁰ Surface Location

UL or lot no. Unit J	Section 13	Township 32N	Range 11W	Lot Idn	Feet from 1530	North/South South	Feet from 1840	East/West East	County San Juan
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¹¹ Bottom Hole Location If Different From Surface

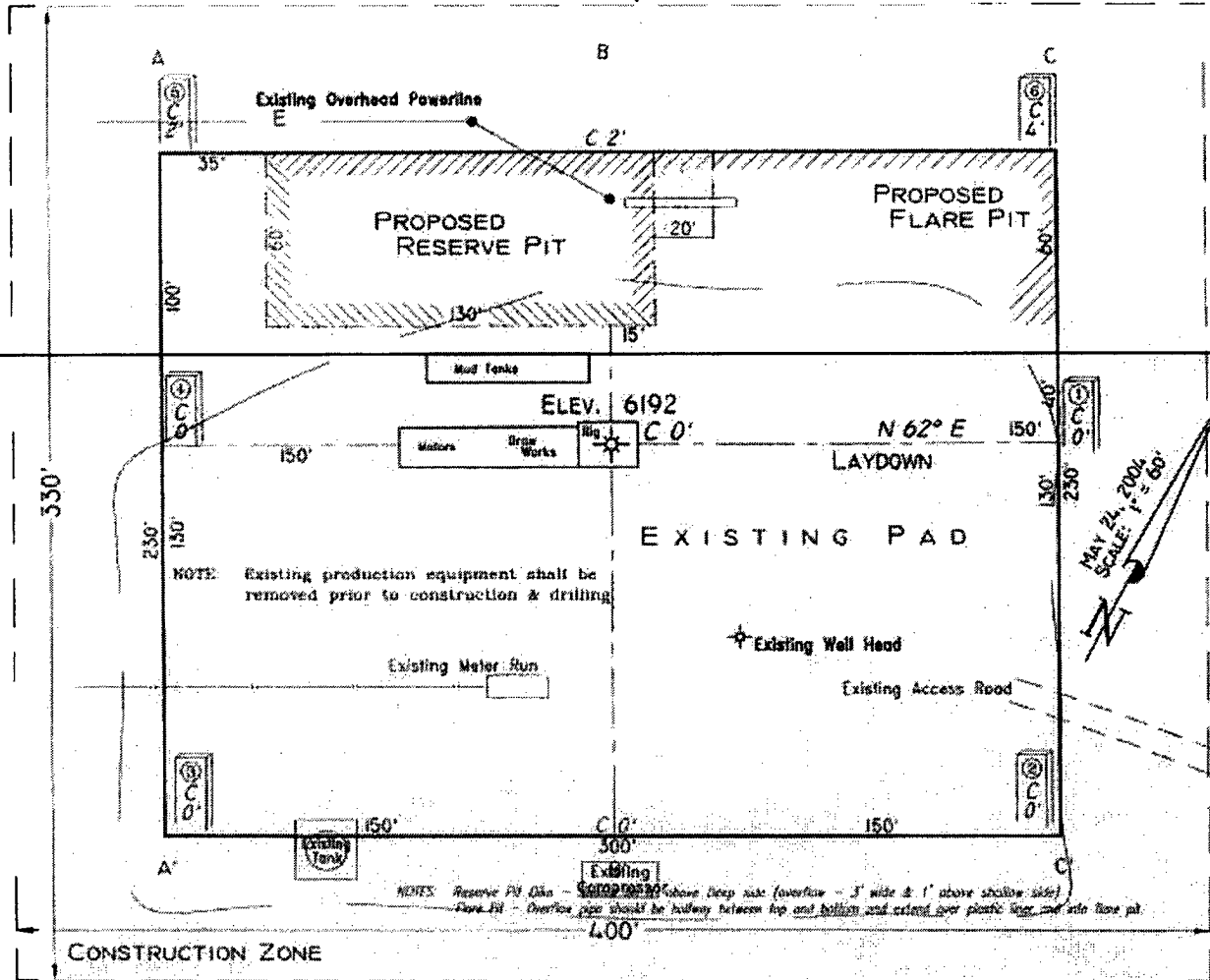
UL or lot no.	Section	Township	Range	Lot Idn	Feet from	North/South	Feet	East/West	County
¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.						

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

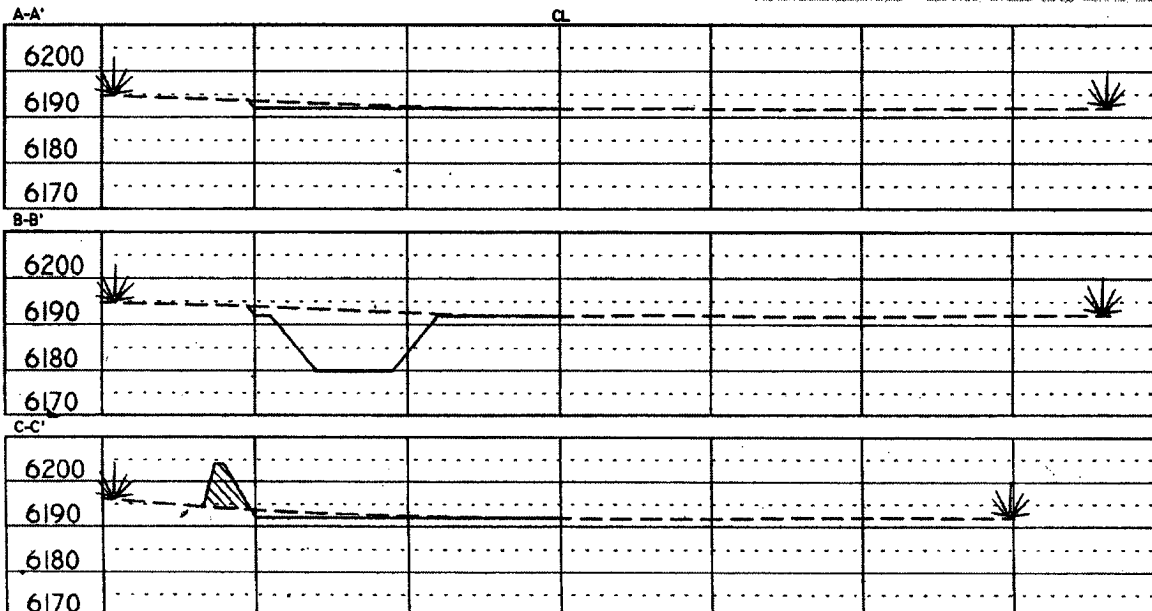
				¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.</i> Mary Corley Signature Mary Corley Printed Name Sr. Regulatory Analyst Title 07/22/2004 Date	
				¹⁸ SURVEYOR CERTIFICATION <i>I hereby certify that the 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.</i> Mary 24, 2004 Date of Survey Signature and Seal of Professional Surveyor: Gary D Vann 7016 Certificate Number	
					
Fruitland Coal Barnes B 21 API 30-045-27443					

PAD LAYOUT PLAN & PROFILE
BP AMERICA PRODUCTION COMPANY
Barnes B #21S
1530' F/SL 1840' F/EL
SEC. 13, T32N, R11W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO

Lat: 36°58'55"
Long: 107°56'20"



Area of Construction Zone = 330'x400' or 1.32 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

14-Jul-2004

Lease: Barnes
County: San Juan, New Mexico
Minerals: State
Rig: Aztec 507

Well Name & No. Barnes B 21S
Location: Section 13 Unit J, T32N, R11W; 1530 FSL, 1840 FEL
BHLOC: Vertical
Surface: Lat: 36.58.9 deg; Long: -107.56.3

Field: Basin Fruitland Coal

OBJECTIVE: Drill to a TD of 2920' MD - topset FT with 7" casing and air drill the Fruitland Coal interval, underream and set 5.5" liner..

METHOD OF DRILLING		APPROXIMATE DEPTHS OF GEOLOGICAL MARKER			
TYPE OF TOOLS	DEPTH OF DRILLING	Actual GL: 6262'		Estimated KB: 6,276.0'	
Rotary	0 - 2920' MD, 2933' KB	Marker		SUBSEA	TVD
LOG PROGRAM Type Depth Interval Mud log & gas chromatograph 2630' - 2920' MD (2643' - 2933' KB)		Ojo Alamo	4,331'	1,874'	1,874'
		Kirtland	4,174'	2,031'	2,031'
		Fruitland	3,645'	2,560'	2,560'
		Fruitland Coal	3,544'	2,661'	2,661'
		Pictured Cliffs	3,283'	2,922'	2,922'

REMARKS:

At TD and prior to completion of the Fruitland coal interval, the operator will F email a copy of the mud log and gas chromatograph analysis covering the low basal Fruitland coal seam to the FFO-PMT geologist (Chip Harraden @ 505-599- 8997 or chip_harraden@nm.blm.gov) and to the BP geologist at hilkew fax (281) 366-7099.

TOTAL DEPTH: 3,285' 2,920' 2,920'

Probable completion interval * Possible Pay

SPECIAL TESTS

TYPE	DRILL CUTTING SAMPLES	DRILLING TIME
	FREQUENCY DEPTH	FREQUENCY DEPTH
None	none none	Geolograph 0 - 2920

REMARKS:

MUD PROGRAM:

Interval	Type <input type="checkbox"/> Mud	#/gal	Vis, <input type="checkbox"/> sec/qt	/30 min	Other Specification
120'	Spud	8.8 - 9.0	Sufficient to clean hole.		
2,661'	Water/LSND	8.4 - 9.0	<9		
2,920'	Air	1	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	120	12-1/2"	9-5/8"	H-40, 8 RND	32.3#	1	cmt to surface
Intermediate 1	2661	8-3/4"	7"	J-55, 8 RND	20#	1	cmt to surface
Production	2630' - 2920	11"	5-1/2"	J-55, 8 RND	15.5#	2	150' inside Intermediate - TOC survey required

CORING PROGRAM:

None

COMPLETION PROGRAM:

No frac, perforated liner completion. Run 2-3/8" reduced collar tubing to a depth of 2890' MD

GENERAL REMARKS:

Under-ream open-hole section from 6.25" to 11.0". Notify BLM/NMOCD 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**
Ojo Alamo	1875'		0
Kirtland	2031'		0
Fruitland Coal	2661'	200	0
PC	2922'	250	0

Requested BOP Pressure Test Exception = 850 psi

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

Form 46 Reviewed by:	Logging program reviewed by:	DATE:	APPROVED:	DATE:
Teruko thomas		14-Jul-04		
Form 46 7-84bw	For Drilling Dept.		For Production Dept.	

CASING AND CEMENTING PROGRAM

Casing Program:

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	1400	254	0.0787	8.845
Production -	7	20	K-55	3740	2270	234	0.0405	6.456

Mud Program

Apx. Interval (ft)	Mud Type	Mud Weight	Recommended Mud Properties Prio Cementing
0 - SCP	Water/Spud	8.6-9.2	PV <20
SCP - TP	Water/LSND	8.6-9.2	YP <10
SCP - TP	Gas/Air Mist	NA	Fluid Loss <6

Cementing Program:

	Surface	Production	
Excess %, Lead	100	40	1. Do not wash pumps and lines.
Excess %, Tail	NA	40	2. Wash pumps and lines.
BHST (est deg. F)	75	190	3. Reverse out
Special Instructions	1,6,7	2,4,6	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

Notes:

*Do not wash up on top of plug. Wash lines before displacing production cement job to minimize drillout.

Surface:

Preflush	20 bbl.	FreshWater
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Slurry 1	70 sx Class C Cement	83 cuft
TOC@Surface	+ 2% CaCl ₂ (accelerator)	0.347 cuft/ft OH

Slurry Properties:	Density (lb/gal)	Yield (ft ³ /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

Production

Fresh Water	10 bbl	CW100
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Lead	180 sx Class "G" Cement	450 cuft
Slurry 1	+ 3% D79 extender	
TOC@Surface	+ 2% S1 Calcium Chloride	
	+1/4 #/sk. Cellophane Flake	
	+ 0.1% D46 antifoam'	
Tail	90 sx 50/50 Class "G"/Poz	105 cuft
Slurry 2	+ 2% gel (extender)	
500 ft fill	0.1% D46 antifoam	0.1503 cuft/ft OH
	+1/4 #/sk. Cellophane Flak	0.1746 cuft/ft csg ann
	+ 2% CaCl ₂ (accelerator)	

Slurry Properties:	Density (lb/gal)	Yield (ft ³ /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 Top Rubber Plug
- 1 Thread Lock Compound

Additional Operator Remarks:

Notice of Staking Submitted 06/24/2004.

BP America Production Company respectfully request permission to drill the subject well to a total depth of approximately 2920', complete in the Basin Fruitland Coal Pool as per the attached procedure.

As an alternate to the drilling of the surface hole with drilling mud as stated on the attached Form 46, BP request permission to either drill with drilling mud or with air/air mist. Additionally, BP request as a possible alternate to the cementing of the surface casing to be either the cementing program stated on the attachment or with approximately 90 CU/FT TYPE I-II, 20% FLYASH, 14.5 PPG, 7.41 GAL/SK, 1.61 CF/SK YIELD, 80 DEG BHST READY MIX CMT.

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 well 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 to Williams Field Services

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
5. Centralizers will impart a swirling action around the casing and will be used just below and into the base of the lowest usable water
6. A chronological log will be kept recording the pump and slurry information and will be sent to the BLM with the subsequent sundry.

SAN JUAN BASIN Dakota Formation Pressure Control Equipment

The objective Fruitland Coal 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 Fruitland Coal. No abnormal temperature, pressure, or H2S anticipated.

Equipment Specification

Interval

Below conductor casing to total depth

BOP Equipment

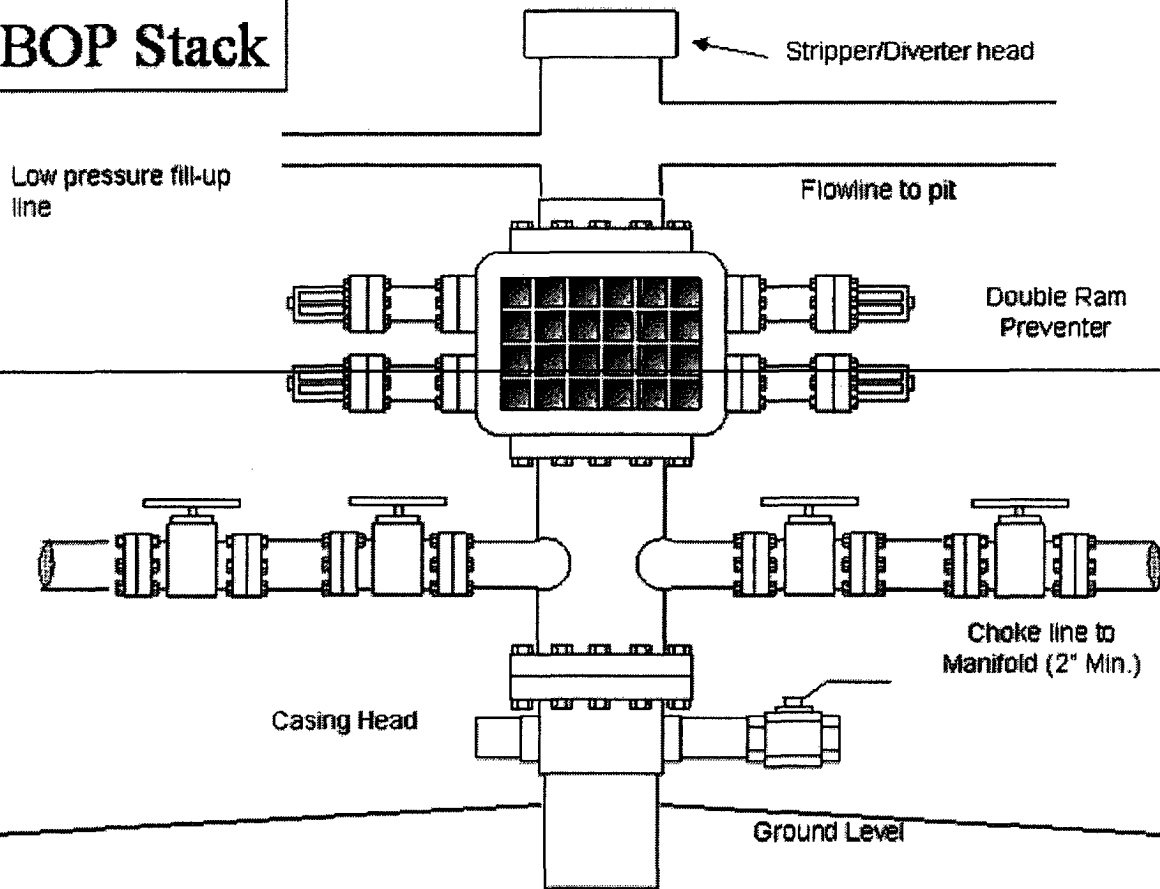
11" nominal or 7 1/16", 3000 psi double ram preventer with rotating head

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 with a handle available, floor safety valves and choke manifold which will also be tested to equivalent pressure.

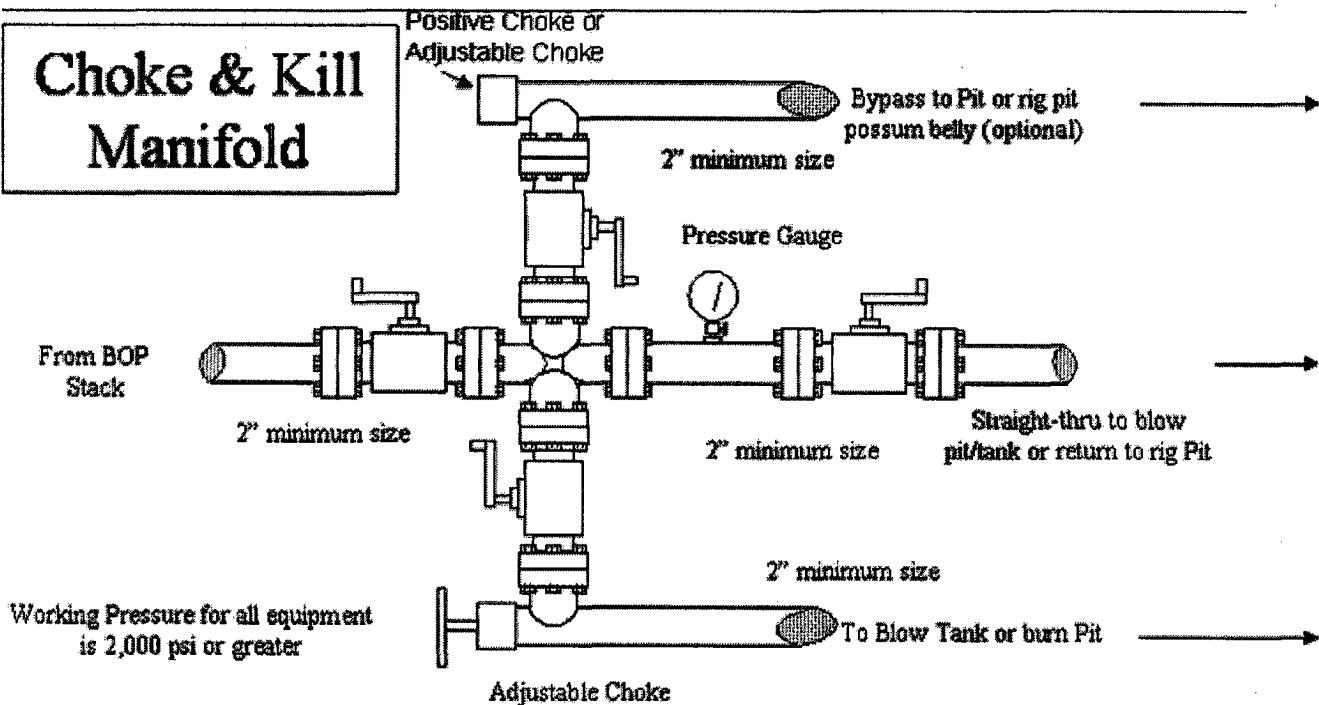
BP America Production Company
Well Control Equipment Schematic

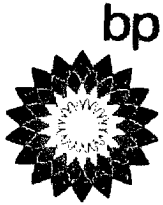


BOP Stack



Choke & Kill Manifold





July 27, 2004

ConocoPhillips
600 North Dairy Ashford WL-3
Houston, TX 77079-1175

Attn: Jane Strickland

Re: New Fruitland Coal Infill; High Productivity Area
Barnes B 21S, 1530' FSL & 1840' FEL Sec. 13 T32N R11W
Kernaghan B 8S, 1470' FNL & 1160' FWL Sec. 33 T31N R08W
San Juan County, New Mexico

This letter serves to advise you, as an Offset Operator to the above referenced wells, that BP America Production Company is applying for Application for Permit to Drill. By Case No.12888 Order No. R-8768-F July 17, 2003 we are required to notify all affected persons prior to commencement of any Optional Infill Well in the High Productivity Area. Please see attached APDs and C-102s showing standard locations.

Should you have any objection to these applications, you must notify the New Mexico Oil Conservation Division, Energy and Minerals Dept, 1220 South St. Frances Dr., Santa Fe, New Mexico 87505, in writing within 20 days of receipt of this letter.

Yours truly,

Mary Corley
Senior Regulatory Analyst

cc: New Mexico Oil Conservation Div.
Energy & Minerals Dept.
1220 South St. Francis Drive
Santa Fe, NM 87505

San Juan Business Unit

Mary Corley
WL1-19.171
281-366-4491 (direct)
281-366-0700 (FAX)

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Houston, Texas 77079