

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM 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. NMSF079004
1b. Type of Well: <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other: CBM <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator CONOCOPHILLIPS COMPANY		7. If Unit or CA Agreement, Name and No.
Contact: PATSY CLUGSTON E-Mail: pclugs@ppco.com		8. Lease Name and Well No. SAN JUAN 32-8 UNIT 222A
3a. Address 5525 HWY. FARMINGTON, NM 87401	3b. Phone No. (include area code) Ph: 505.599.3454 Fx: 505-599-3442	9. API Well No. 3004532166
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NWSE 1815FSL 1570FEL 36.90933 N Lat, 107.67624 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* 33.5 MILES NE OF AZTEC, NM		11. Sec., T., R., M., or Blk. and Survey or Area J Sec 9 T31N R8W Mer NMP
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of Acres in Lease APR 2004	12. County or Parish SAN JUAN
18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 3659 MD 3659 TVD	13. State NM
21. Elevations (Show whether DF, KB, RT, GL, etc.) 6676 GL	22. Approximate date work will start 04/01/2004	17. Spacing Unit dedicated to this well 320.00 E/2
		20. BLM/BIA Bond No. on file ES0085
		23. Estimated duration 30 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.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification  |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature (Electronic Submission)	Name (Printed/Typed) PATSY CLUGSTON	Date 02/05/2004
Title AUTHORIZED REPRESENTATIVE		
Approved by (Signature) /s/ David J. Mankiewicz	Name (Printed/Typed)	Date APR - 6 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 #27618 verified by the BLM Well Information System  
For CONOCOPHILLIPS COMPANY, sent to the FarmingtonThis action is subject to technical and  
procedural review pursuant to 43 CFR 3165.3  
and appeal pursuant to 43 CFR 3165.4DRILLING 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 DD, Artesia, NM 88211-0719

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

*API Number <b>30-015-37166</b>		*Pool Code <b>71629</b>	*Pool Name <b>BASIN FRUITLAND COAL</b>
*Property Code <b>31330</b>	*Property Name <b>SAN JUAN 32-8 UNIT</b>		*Well Number <b>222A</b>
*GRID No. <b>217817</b>	*Operator Name <b>CONOCOPHILLIPS COMPANY</b>		*Elevation <b>6676'</b>

#### 10 Surface Location

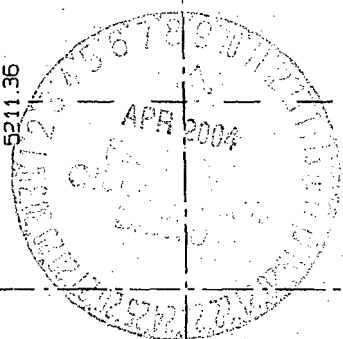
UL or lot no.	Section	Township	Range	Lot 10	Feet from the	North/South line	Feet from the	East/West line	County
<b>J</b>	<b>9</b>	<b>31N</b>	<b>8W</b>		<b>1815</b>	<b>SOUTH</b>	<b>1570</b>	<b>EAST</b>	<b>SAN JUAN</b>

#### 11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot 10	Feet from the	North/South line	Feet from the	East/West line	County

*Dedicated Acres <b>320.0 Acres - (E/2)</b>	*Joint or Intell.	*Consolidation Code	*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

	5154.60'	LEASE SF-079004	9	5222.58'
	5317.62'			
LAT: 36°54.5600' N LONG: 107°40.5742' W DATUM: NAD27				
1570'				
1815'				

#### 17 OPERATOR CERTIFICATION

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

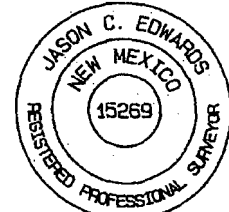
*Vicki Westby*  
Signature  
Vicki R. Westby  
Printed Name  
Sr. Analyst  
Title  
February 5, 2004  
Date

#### 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.

Survey Date: DECEMBER 12, 2003

Signature and Seal of Professional Surveyor



*JASON C. EDWARDS*  
Certificate Number 15269

**Additional Operator Remarks:**

- See attached for the Surface Use Plan, Drilling Plan, maps, plats & topos, cut & fill diagram and cathodic protection details.

APD/ROW

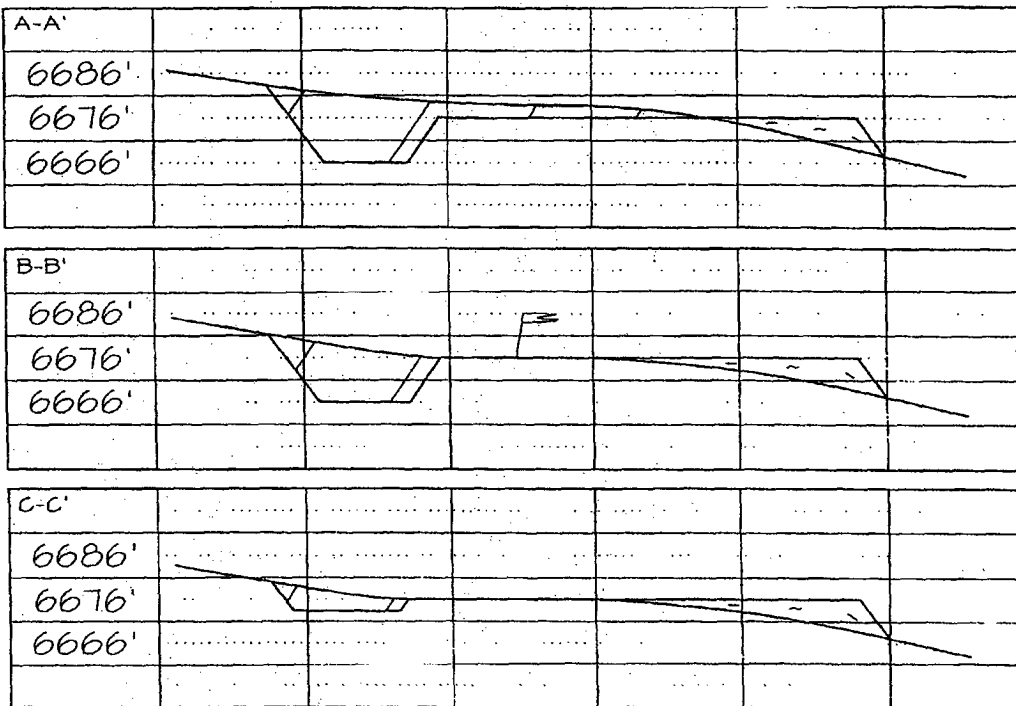
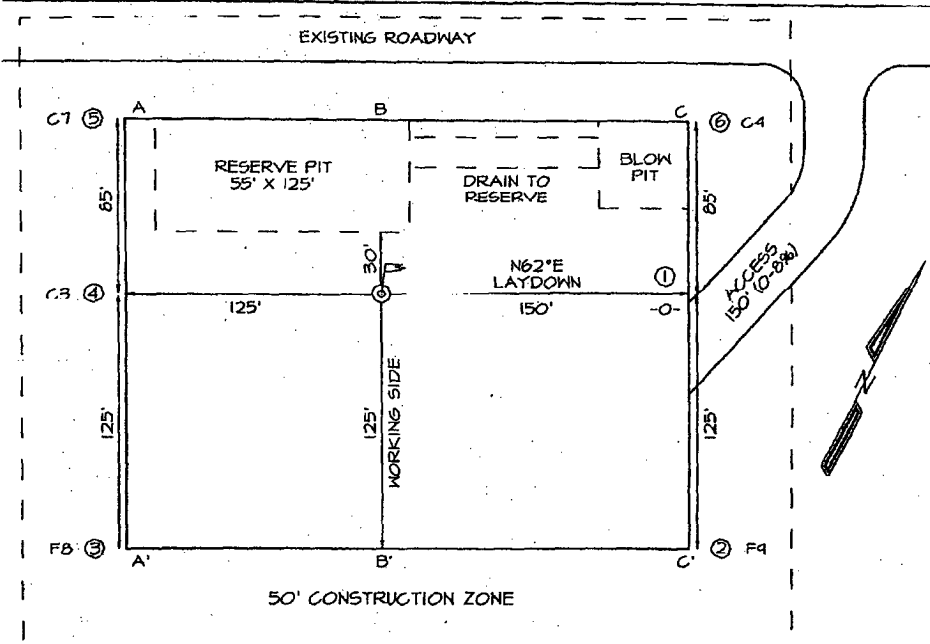
This well falls within the High Productivity Area, but since it is located entirely within the SJ 32-8 Unit FC PA and ConocoPhillips is the operator, no notification was needed.

**CONOCOPHILLIPS COMPANY SAN JUAN 32-8 UNIT #222A**  
**1815' FSL & 1570' FBL, SECTION 9, T31N, R8W, NMPM**  
**SAN JUAN COUNTY, NEW MEXICO ELEVATION: 6676'**

**LATITUDE: 36.90933° N**  
**LONGITUDE: 107.67624° W**  
 DATUM: NAD83

PLAT NOTE:

\*SURFACE OWNER\*  
 Bureau of Land  
 Management



FILENAME: 3164JT

SHEET 2 OF 6

NCE SURVEYS, INC.

DRAWN BY: EDO

CHECKED BY: JCE

CONOCOPHILLIPS COMPANY

WELL NAME: San Juan32-8 Unit #222A - HPA well

DRILLING PROGNOSIS

1. Location of Proposed Well: Unit J, 1815' FSL & 1570' FEL  
Section 9, T31N, R8W

2. Unprepared Ground Elevation: @ 6676'

3. The geological name of the surface formation is San Jose.

4. Type of drilling tools will be rotary.

5. Proposed drilling depth is 3659'.

6. The estimated tops of important geologic markers are as follows:

<u>Nacimiento - 714'</u>	<u>Base of Main Coal - 3582'</u>
<u>Ojo Alamo - 2324'</u>	<u>PC Interval - 3582'</u>
<u>Kirtland - 2404'</u>	<u>Intermediate casing - 3322'</u>
<u>Fruitland - 3132'</u>	<u>Total Depth - 3659'</u>

TD includes 77' of sump/rathole & COPC will comply with the BLM/OCD's Conditions of Approval for the proposed sump/rathole in this non-producing Pictured Cliffs Formation.

7. The estimated depths at which anticipated water, oil, gas or other mineral bearing formations are expected to be encountered are as follows:

Water:	<u>Ojo Alamo - 2324' - 2404'</u>
Oil:	<u>none</u>
Gas:	<u>Fruitland Coal - 3132' - 3582'</u>
Gas & Water:	<u>Fruitland Coal - 3132' - 3582'</u>

8. The proposed casing program is as follows:

Surface String: 9-5/8", 32.3#, H-40 @ 200' \*

Intermediate String: 7", 20#, J/K-55 @ 3322'

Production Liner: 5-1/2", 15.5# J/K-55 @ 3302' - 3659' (see details below)

\* The surface casing will be set at a minimum of 200', but could be set deeper if required to maintain hole stability.

9. Cement Program:

*Circulate Cement*  
Surface String: 150.2 sx Class G cement with 2% bwoc CaCl<sub>2</sub> (S001), 0.25#/sx  
Cello-Flake (D029) 1.16 cuft/sx yield = 174.27 cf

9. Cement program: (continued from Page 1)

Intermediate String:

*Circulate Cement*

Lead Cement: 420 sx Class G w/3% D079 (Extender) 0.25#/sx D029 (Cellephone flakes, + 0.2% D046 Flocele (All purpose antifoam agent) mixed at 11.7 ppg and yield of 2.61 cuft/sx = 1095 cf.

Tail: 96 sx - 50/50/G/POZ cement w/2% D020 (Bentonite Extender), 2% S001 (CaCl<sub>2</sub>), 5#/sx D024 (Gilsonite), 1/4#/sx D029 (Celephane flakes) & 2% D046 (all purpose antifoam agent) @ a weight of 13.5 ppg and yield of 1.27 cuft/sx = 122.29 cf.

Note: ConocoPhillips Company continually works to improve the cement slurries on our wells. Our Cementing Service Companies are currently trying to improve what we are using now and before we would use a new cement program it would have to have stronger properties than we are currently using.

Centralizer Program:

Surface: Total four (4) - 10' above shoe and top of 2<sup>nd</sup>, 3<sup>rd</sup>, & 4<sup>th</sup> jts.

Intermediate: Total seven (7) - 10' above shoe and top of 1<sup>st</sup>, 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup>, 8<sup>th</sup>, & 1<sup>st</sup> jt. into shoe.

Turbulators: Total three (3) - one at 1<sup>st</sup> jt below Ojo Alamo and next 2 jts up.

Liner:

- A 5 1/2" 15.5# liner will be run in the open hole without being cemented.

Completion - depending on well conditions the:

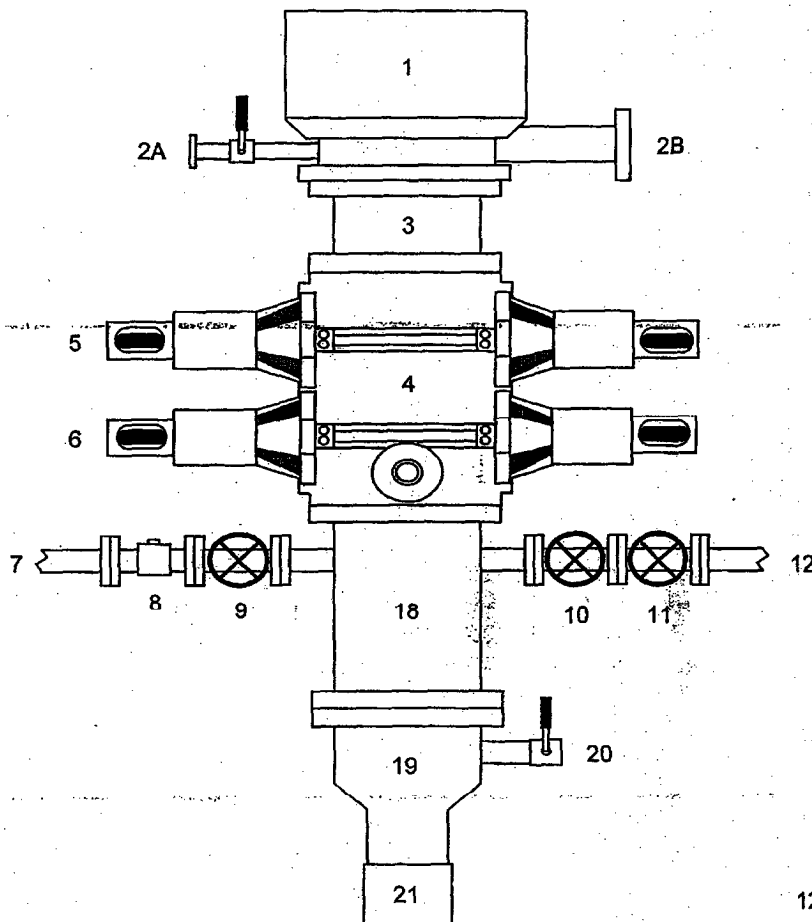
- Well will either be cavitared and a 5-1/2" liner will be run without being cemented, or
- Well will be underreamed, tubing will be set and cavitared at a later date.

10. The minimum specifications for pressure control equipment which are to be used, a schematic diagram thereof showing sizes, pressure ratings (or) API series and the testing procedure and testing frequency are enclosed within the APD packet.
11. Drilling Mud Prognosis: Surface - spud mud on surface casing.  
Intermediate - fresh water w/polymer sweeps. Bentonite as required for viscosity.  
Below Intermediate - air drilled.

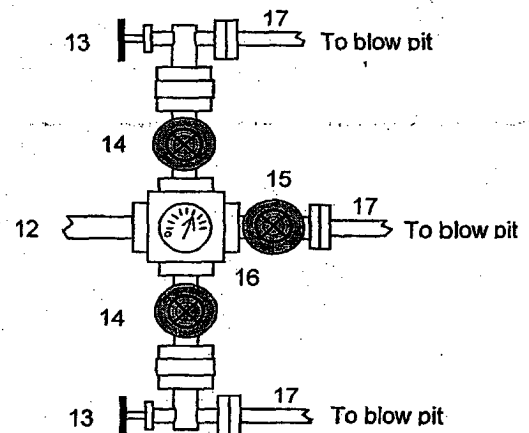
12. The testing, logging, and coring programs are as follows:  
D.S.T.s or cores:  
Logs: Mud logs only
13. Anticipated no abnormal pressures or temperatures to be encountered or any other potential hazards such as Hydrogen Sulfide Gas. Low risk H<sub>2</sub>S equipment will be used.  
  
Estimated Bottomhole pressures: Fruitland Coal - +/- 210 psi
14. The anticipated starting date is sometime around March 15, 2004 with duration of drilling operations for approximately 30 days thereafter.
15. Since this well falls within the High Productivity Area and according to NMOCD Order R-8768-F, the "Affected Parties" will be notified by Certified Mail, but the #222A is located entirely within the San Juan 32-8 Unit Fruitland Coal Participating Area boundary and is surrounded by the participating area operator - ConocoPhillips Company, therefore no notification is necessary

# BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to Intermediate Casing Point & Setting 7" Intermediate Casing



1. Rotating Head
- 2A. Fill-up Line & valve
- 2B. Flowline
3. Spacer Spool
4. Double Ram BOP (11", 3000 psi)
5. Pipe Rams
6. Blind Rams
7. Kill Line
8. Kill Line Check Valve
9. Kill Line Valve
10. Inner Choke Line Valve (3")
11. Outer Choke Line Valve (3")
12. Choke Line (3")
13. Variable Choke
14. Choke Line Valve (2")
15. Panic Line Valve (3")
16. Choke Manifold Pressure Gauge
17. Choke Line (2")
18. Mud Cross Spacer Spool
19. Casing Head "A" Section
20. Casing Head "A" Section 2" Valve
21. 9 5/8" Casing Collar



This BOP arrangement is for the drilling operations from the time the 9-5/8" surface casing is set through the setting of the 7" intermediate casing. The Casing Head "A" Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. The Pipe Rams, Blind Rams, Choke Manifold, and 9-5/8" surface casing will be tested to a low pressure test of 200 psi to 300 psi and to a high pressure test of **1000 psi** (this value is 44% of the minimum internal yield pressure of the 9-5/8" casing). We will drill the 8-3/4" hole to intermediate casing point and run and cement the 7" intermediate casing. Then we will nipple down the BOP, install a trash cap, & move out the drilling rig. We will install the casing spool on the 7" stub after the drilling rig is moved off location. At a later date we will move in the cavitation rig for the cavitation program.

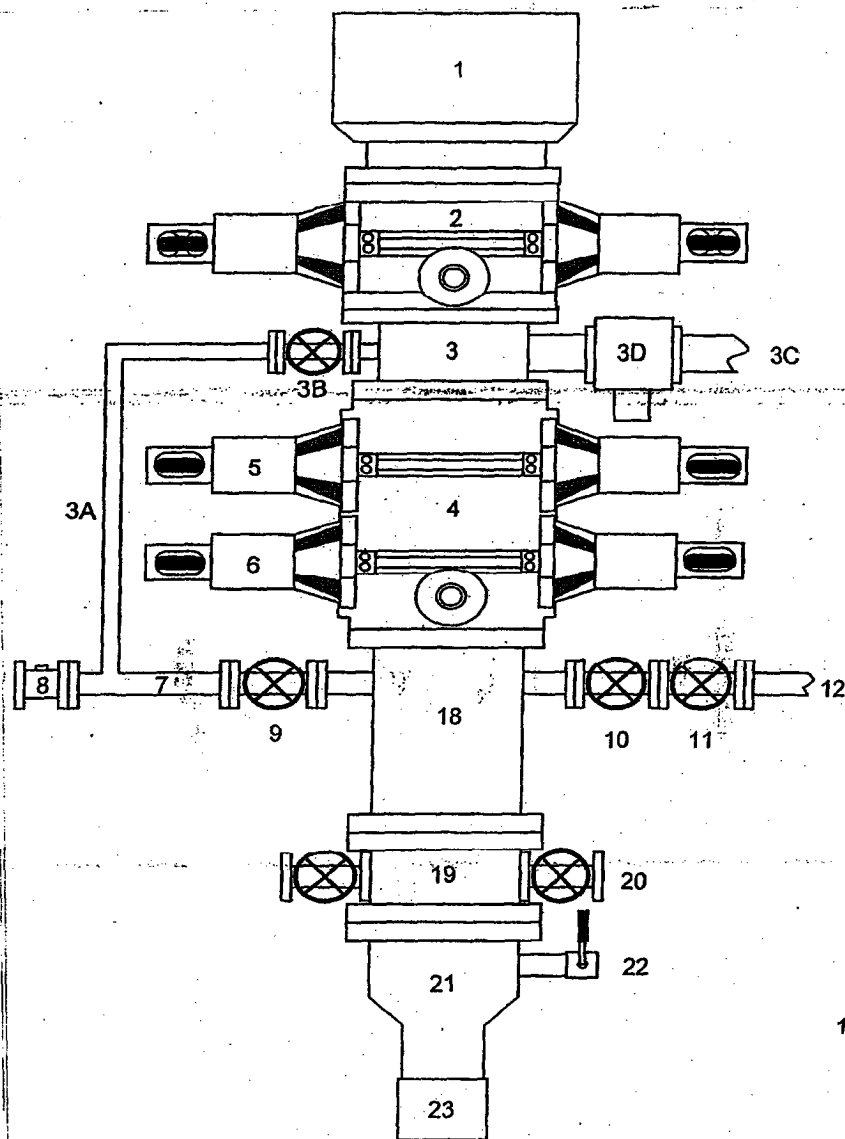
In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

1. Upper Kelly cock Valve with handle
2. Stab-in TIW valve for all drillstrings in use

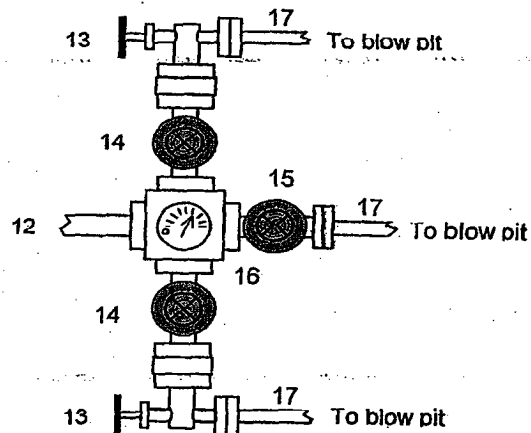


# BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Cavitation Program



1. Rotating Head
2. Single Ram BOP (7-1/16", 3M)
3. Mud Cross
- 3A. Equalizing Line (2")
- 3B. Wing Valve (2-1/16", 3M)
- 3C. Bleeie Line (2 ea, 5" OD)
- 3D. HCR Valve (1 ea per line, 4-1/16")
4. Double Ram BOP (7-1/16", 3M)
5. Pipe Rams
6. Blind Rams
7. Kill Line
8. Kill Line Check Valve
9. Kill Line Valve
10. Inner Choke Line Valve (3")
11. Outer Choke Line Valve (3")
12. Choke Line (3")
13. Variable Choke
14. Choke Line Valve (2")
15. Panic Line Valve (3")
16. Choke Manifold Pressure Gauge
17. Vent Line (2")
18. Spacer Spool
19. Tubing Head
20. Tubing Head Valves (2- 9/16")
21. Casing Head "A" Section
22. Casing Head "A" Section 2" Valve
23. 9-5/8" Casing Collar



This BOP arrangement and test program is for the cavitation program. The BOP will be installed on the tubing head. The 7" casing will be pressure tested against closed blind rams to 200 psi to 300 psi for 2-3 minutes and to 1800 psi for 30 minutes - this test pressure is 48% of the minimum internal yield strength of 3740 psi for the 7", 20#, J-55, STC casing. The pipe rams and choke manifold will be tested to 200 psi to 300 psi (low pressure test) for 2-3 minutes and to 1800 psi (high pressure test) for 10 minutes - This test will be done with a test plug or possibly without a test plug (ie against casing). If we conduct this test without a test plug we will ensure that we have sufficient drillstring weight in the hole to exceed the upward force generated by the test.

We use a power swivel and air/mist to drill the 6-1/4" hole in our cavitation program. We do not use a kelly. In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

1. String floats will be used inside the drillpipe
2. Stab-in TIW valve for all drillstrings in use
3. Each bleeie line is equipped with a hydraulically controlled valve (HCR valve).

### Blowout Preventer Equipment (BOPE)

ABHP = 210 PSI; TVD = 3,659 Feet; Mud Weight = 8.34

Operator's Gradient (ABHP / TVD) = 0.057 PSI/Ft. is / is not appropriate and  
does / does not coincide with the Anticipated Mud Weight for each drilled interval.  
The most credible ABHP is 0.057 PSI/Ft.

Mud Weight x 0.05195 = Gradient

$$\underline{8.34} \times 0.05195 = \underline{0.433}$$

ABHP - (0.22 x TVD) = ASP

$$\underline{210} - (0.22 \times \underline{3659}) = \underline{-595} \text{ psi}$$

Operator's proposed BOPE of 2 M exceeds / does not exceed the  
ASP and is therefore adequate / not adequate.

Note ASP - Anticipated Surface Pressure

ABHP - Anticipated Bottom Hole Pressure

(Decmin) = ASP / (GR - .22)

**San Juan 32-8 Unit #222A  
NMSF079004; Unit J, 1815' FSL & 1570' FEL  
Section 9, T31N, R8W; San Juan County, NM**

**Cathodic Protection**

ConocoPhillips proposes to drill a cathodic protection deep well groundbed for the subject well. Will drill a 6-7/8" hole to an anticipated minimum depth of 300' (maximum depth of 500'). Cement plugs will not be used unless more than one water zone is encountered. Prior drilling history for the area indicates only one zone to that depth. If more than one water zone is encountered, notification will be made and details of cement and casing will be provided.

All drilling activity will remain on existing well pad and a Farmington based company will be doing the drilling for ConocoPhillips.

See attached drawing on proposed placement of groundbed & underground AC & DC cables and rectifier.