Form 3160-3
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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2003 SEP 24 PM 2:56
070 FARMINGTON, NM

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

# APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMSF080379A

1a. Type of Work [X] DRILL [ ] REENTER

6. If Indian, Allotee or Tribe Name

1b. Type of Well [ ] Oil Well [X] Gas Well [ ] Other [X] Single Zone [ ] Multiple Zone

7. Unit or CA Agreement Name and No.

2. Name of Operator
ConocoPhillips Company

8. Lease Name and Well No.
San Juan 29-6 Unit #245A

3a. Address
5525 Highway 64, NBU 3004, Farmington, NM 87401

3b. Phone No. (include area code)
505-599-3454

9. API Well No.
30039 27508

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

At surface Unit D (NWNW), 740' FNL & 995' FWL

At proposed prod. zone Same as above

10. Field and Pool, or Exploratory
Basin Fruitland Coal

11. Sec., T., R., M., or Blk. and Survey or Area
Section 8, T29N, R6W

14. Distance in miles and direction from nearest town or post office*
46 miles east of Bloomfield, NM

12. County or Parish
Rio Arriba,

13. State
NM

| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) | 16. No. of Acres in lease. | 17. Spacing Unit dedicated to this well |
|---|---|---|
| 740' | | 320 N/2 |

| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. | 19. Proposed Depth | 20. BLM/BIA Bond No. on file |
|---|---|---|
| | 3774' | ES0085 |

| 21. Elevations (Show whether DF, KDB, RT, GL, etc. | 22. Approximate date work will start* | 23. Estimated duration |
|---|---|---|
| 6811' GL | 11/1/03 | 30 Days |

DEC 2003
OIL CONS. DIV.
DIST. 3

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 |
|---|---|---|
| Patsy Clugston | Patsy Clugston | 9/24/03 |

Title
SHEAR Administrative Assistant

| Approved by (Signautre) | Name (*Printed/Typed*) | Date |
|---|---|---|
| | /s/ David J. Mankiewicz | DEC 19 2003 |
| Title | Office | |

Application approval 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.
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 knowlingly 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.

*(Instructions on Reverse)*

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

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

| [1] API Number | [2] Pool Code | [3] Pool Name |
|---|---|---|
| 30039-27508 | 71629 | BASIN FRUITLAND COAL |

| [4] Property Code | [5] Property Name | [6] Well Number |
|---|---|---|
| 31326 | SAN JUAN 29-6 UNIT | 245A |

| [7] OGRID No. | [8] Operator Name | [9] Elevation |
|---|---|---|
| 217817 | CONOCOPHILLIPS COMPANY | 6811' |

## [10] Surface Location

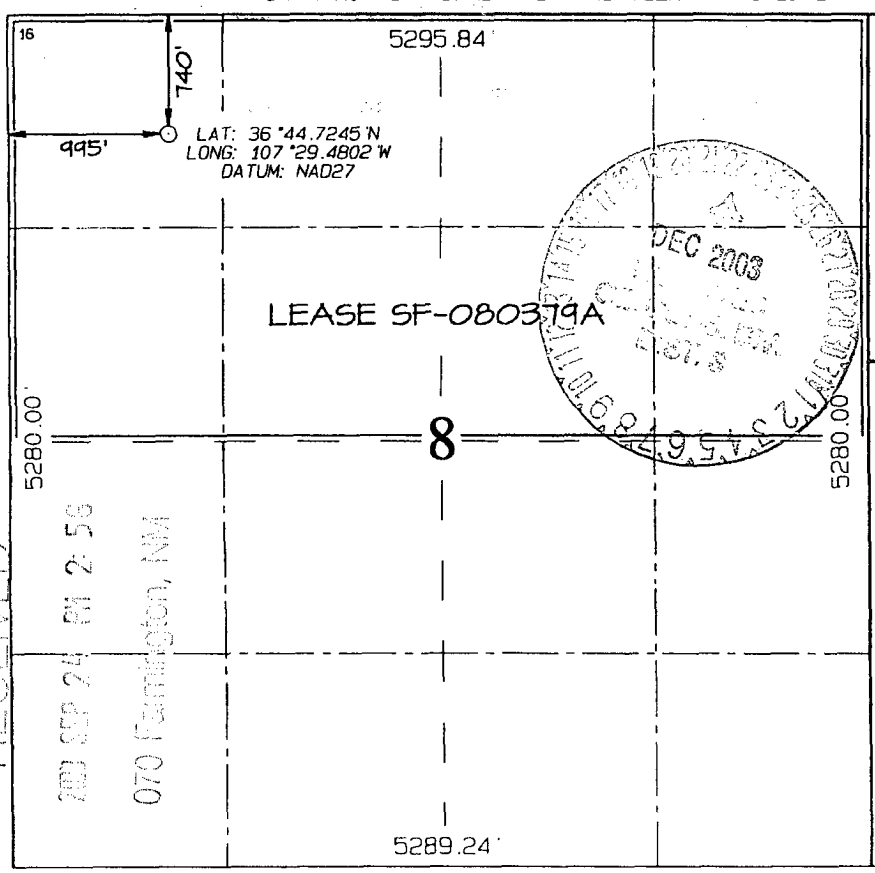
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| D | 8 | 29N | 6W | | 740 | NORTH | 995 | WEST | RIO ARRIBA |

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

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

| [12] Dedicated Acres | [13] Joint or Infill | [14] Consolidation Code | [15] Order No. |
|---|---|---|---|
| 320.0 Acres - N/2 | | | |

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

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## [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

September 22, 2003
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: AUGUST 26, 2003

Signature and Seal of Professional Surveyor

JASON C. EDWARDS
NEW MEXICO
15269
REGISTERED PROFESSIONAL SURVEYOR

JASON C. EDWARDS
Certificate Number 15269

**CONOCOPHILLIPS COMPANY**

**WELL NAME: San Juan 29-6 Unit #245A – HPA well**

**DRILLING PROGNOSIS**

1. Location of Proposed Well: Unit D (NWNW), 740' FNL & 995' FWL
   Section 8, T29N, R6W

2. Unprepared Ground Elevation: @ 6811'.

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

4. Type of drilling tools will be rotary.

5. Proposed drilling depth is 3774'.

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

| | |
|---|---|
| Naciamento - 1474' | Base of Main Coal – 3704' |
| Ojo Alamo - 2859' | PC Interval - 3704' |
| Kirtland - 2959' | Intermediate casing – 3454' |
| Fruitland - 3404' | Total Depth - 3774' |

TD includes 70' 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: | Ojo Alamo - 2859' – 2959' |
| Oil: | none |
| Gas: | Fruitland Coal - 3404' - 3704' |
| Gas & Water: | Fruitland Coal - 3404' - 3704' |

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 @ 3454'
Production Liner: 5-1/2", 15.5# J/K-55 @ 3434' - 3774' (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:
**Surface String:** 150.2 sx Class G cement with 2% bwoc CaCl2 (S001), 0.25#/sx Cello-Flake (D029) 1.16 cuft/sx yield = 174.27 cf

9. Cement program: (continued from Page 1)

**Intermediate String:**

**Lead Cement:** 438.7 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 = 1145.04 cf.

**Tail:** 96 sx – 50/50/G/POZ cement w/2% D020 (Bentonite Extender), 2% S001 (CaCl2), 5#/sxD024 (Gilsonite), ¼#/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 2nd, 3rd, & 4th jts.

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

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

Liner :

- A 5 ½" 15.5# liner will be run in the open hole without being cemented.

**Completion - depending on well conditions the:**

- Well will either be cavitated and a 5-1/2" liner will be run without being cemented, or
- Well will be underreamed, tubing will be set and cavitated 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 $H_2S$ equipment will be used.

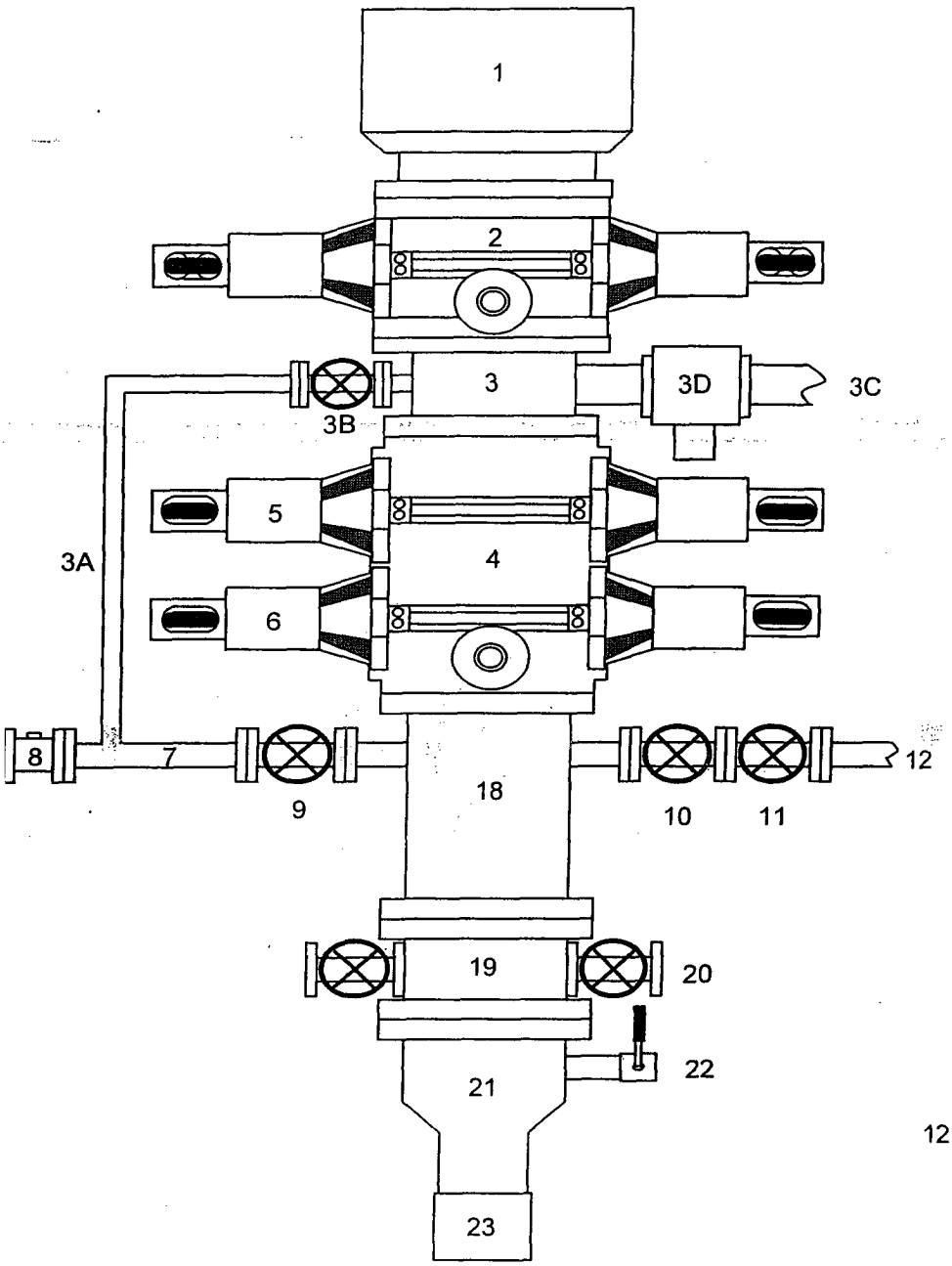
Estimated Bottomhole pressures: Fruitland Coal - +/- 140 psi

14. The anticipated starting date is sometime around November 1, 2003 with duration of drilling operations for approximately 30 days thereafter.

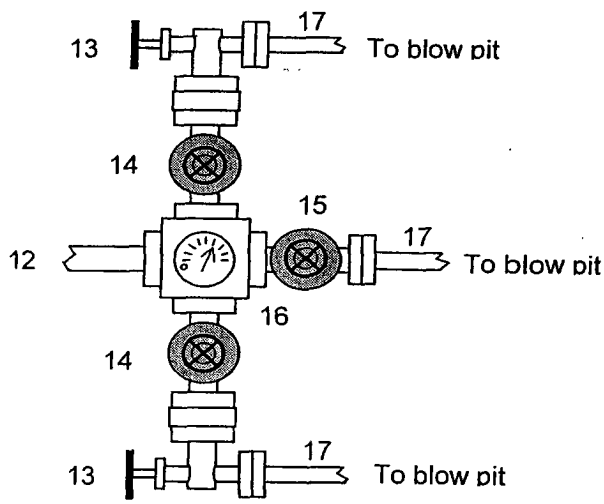
15. Since this well falls within the High Productivity Area and according to NMOCD Order R-8768-F, the "Affected Parties" will be notified by Certified Mail. The #245A is located entirely within the San Juan 29-6 Unit Fruitland Coal Participating Area boundary and is surrounded by the participating area operator, ConocoPhillips Company.

# 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. Blooie 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



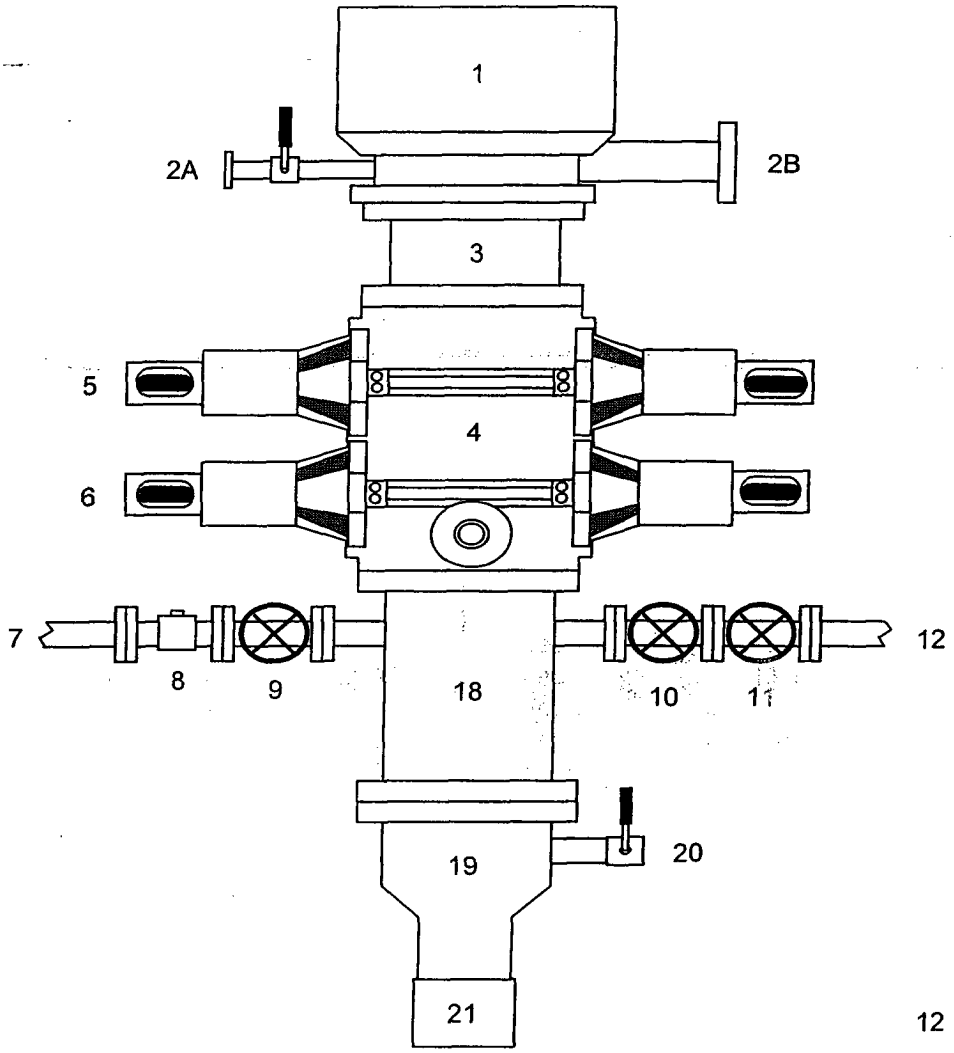

This BOP arrangement and test program is for the cavitation program. The BOP will be installed on the tubing head. The 7" casing will be pressure tested against closed blind rams to 200 psi to 300 psi for 2-3 minutes and to 1800 psi for 30 minutes - this test pressure is 48% of the minimum internal yield 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:

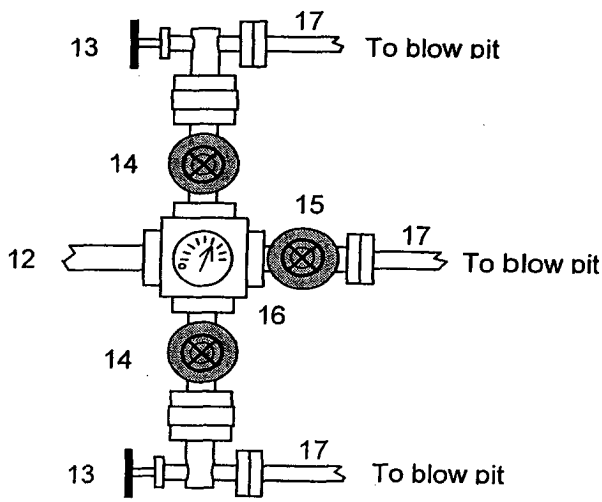
1. String floats will be used inside the drillpipe
2. Stab-in TIW valve for all drillstrings in use
3. Each blooie line is equipped with a hydraulically controlled valve (HCR valve).

# 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

**San Juan 29-6 Unit #245A**
**NMSF080379A – Unit D, 740' FNL, & 995' FWL**
**Section 8, T29N, R6W; Rio Arriba 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.