

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

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-079000-A
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 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. SAN JUAN 31-6 UNIT
3a. Address 4001 Penbrook, Odessa, TX 79762		8. Lease Name and Well No. 232A
3b. Phone No. (include area code) 432-368-1352		9. API Well No. 30-039-29518
4. Location of Well (Report location clearly and in accordance with any State requirements, *) At surface 825 FSL - 938 FEL At proposed prod. zone		10. Field and Pool, or Exploratory BASIN FRUITLAND COAL
11. Sec., T. R. M. or Blk. and Survey or Area P SECTION 1, T30N, R7W		12. County or Parish Rio Arriba
13. State NM		
14. Distance in miles and direction from nearest town or post office*	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 319.7
17. Spacing Unit dedicated to this well E/2 - 319.7 ACRES	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth 3338
20. BLM/BIA Bond No. on file	21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6330 GL	22. Approximate date work will start*
23. Estimated duration	24. Attachments	

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, must 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 must 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 BLM~

25. Signature Vicki Westby (sig)	Name (Printed/Typed) Vicki Westby	Date 3/31/05
Title Staff Agent		

Approved by (Signature) [Signature]	Name (Printed/Typed) AFM	Date 5-8-05
Title AFM	Office FFO	

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 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.

\*(Instructions on page 2)

See operator comments on next page.

NMOCD

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

Form C-102  
Revised June 10, 2003  
Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies  
☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-039-29518		<sup>2</sup> Pool Code 71629	<sup>3</sup> Pool Name BASIN FRUITLAND COAL (GAS)
<sup>4</sup> Property Code 31328	<sup>5</sup> Property Name SAN JUAN 31-6 UNIT		<sup>6</sup> Well Number 232A
<sup>7</sup> GRID No. 217817	<sup>8</sup> Operator Name CONOCOPHILLIPS COMPANY		<sup>9</sup> Elevation 6330

## <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
P	1	30N	07W		825'	SOUTH	938'	EAST	RIO ARRIBA

## <sup>11</sup>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

<sup>12</sup> Dedicated Acres E/2 319.7	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> 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

<sup>16</sup>

N90°00'E 5280.00'

5280.00'

N89°52'W 5287.92'

LAT: 36.83660° N  
LONG: 107.51589° W  
DATUM: NAD27

LEASE  
SF-079000-A  
319.7 acres

825' 938'

RECEIVED 06 APR 1 2005

MAY 2005 OIL CONSERVATION DIVISION

<sup>17</sup>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 Westby  
Printed Name  
Staff Agent  
Title and E-mail Address  
March 23, 2005  
Date

<sup>18</sup>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.

Date of Survey: 03/04/05  
Signature and Seal of Professional Surveyor:  
  
Certificate Number: NM 11393

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  
May 27, 2004

<b>SUNDRY NOTICES AND REPORTS ON WELLS</b> (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.)		WELL API NO.
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator ConocoPhillips Company		6. State Oil & Gas Lease No.
3. Address of Operator 4001 Penbrook, Odessa, TX 79762		7. Lease Name or Unit Agreement Name SAN JUAN 31-6 UNIT
4. Well Location Unit Letter <u>P</u> <u>825</u> feet from the <u>South</u> line and <u>938</u> feet from the <u>East</u> line Section <u>1</u> Township <u>30N</u> Range <u>7W</u> NMPM <u>Rio Arriba</u> County		8. Well Number 232A
I 1. Elevation (Show whether DR, RKB, RT, GR, etc.) 6330 GL		9. OGRID Number 217817
Pit or Below-grade Tank Application <input checked="" type="checkbox"/> Closure <input type="checkbox"/>		10. Pool name or Wildcat Basin Fruitland Coal
Pit type <u>DRILL</u> Depth to Groundwater <u>150'</u> Distance from nearest fresh water well <u>&gt;1 Mile</u> Distance from nearest surface water <u>270'</u> Liner Thickness: <u>    </u> mil Below-Grade Tank: Volume <u>    </u> bbls; Construction Material <u>    </u>		

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 COMPL ☐

**SUBSEQUENT REPORT OF:**  
REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

OTHER: ☐

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 11.03. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

The pit will be constructed and closed in accordance with Rule 50 and as per the Nov. 1, 2004 Guidelines. See the attached diagram that details the location of the pit in reference to the proposed wellhead. The drill pit will be lined. The drill pit will be closed after the well has been completed.

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 Vicki Westby

TITLE Staff Agent

DATE 3/30/2005

Type or print name

E-mail address:

Telephone No.

**For State Use Only**

APPROVED BY: [Signature]

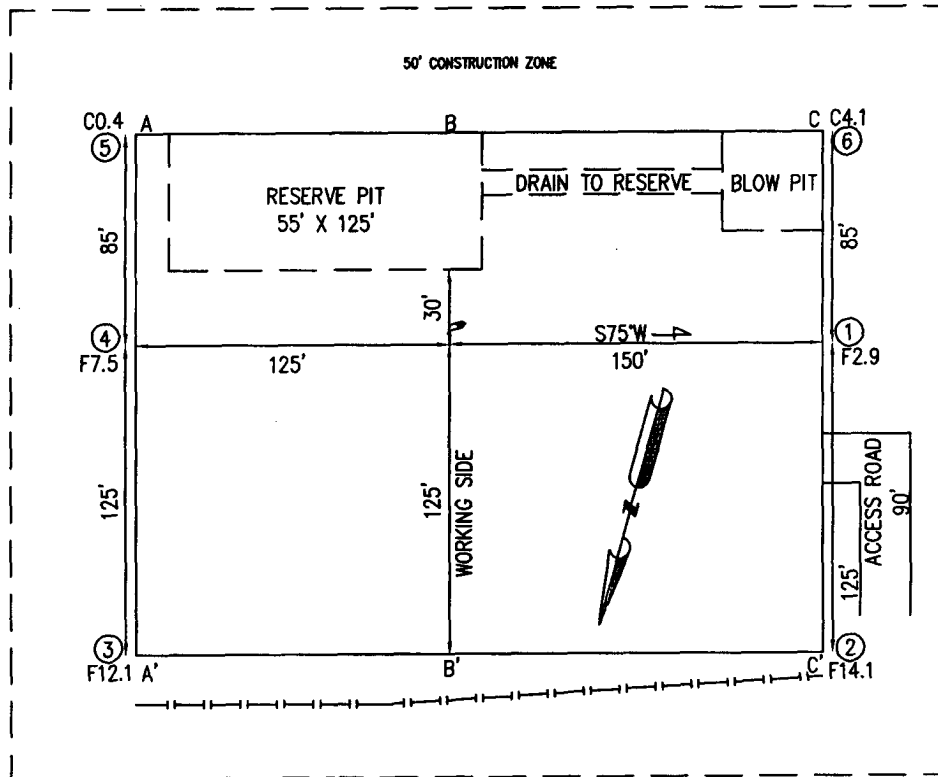
TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 655

DATE MAY 20 2005

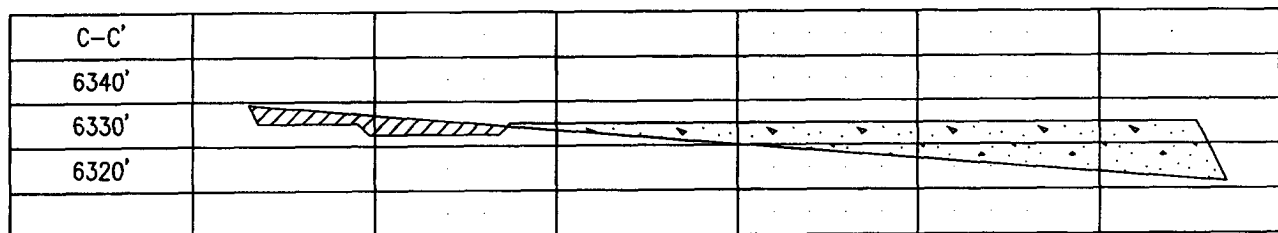
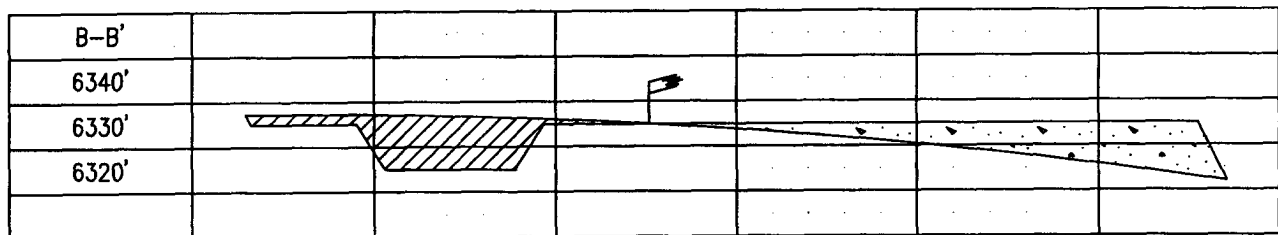
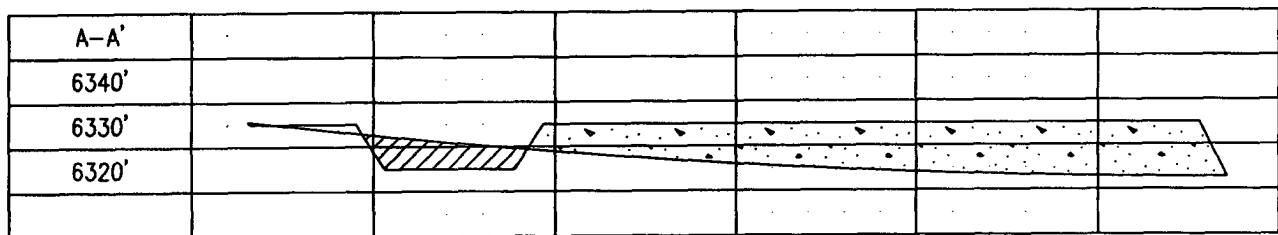
Conditions of Approval (if any):

CONOCOPHILLIPS COMPANY SAN JUAN 31-6 UNIT #232A  
 825' FSL & 938' FEL, SECTION 1, T30N, R07W, NMPM  
 RIO ARriba COUNTY, NEW MEXICO ELEVATION: 6330'

LATITUDE: 36.83660° N  
 LONGITUDE: 107.51589° W  
 DATUM: NAD27



PLAT NOTE:  
 \*SURFACE OWNER\*  
 BLM



# PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 31-6 232A

Lease:		AFE #:		AFE \$:	
Field Name: hPHILLIPS 31-6		Rig:	State: NM	County: RIO ARRIBA	API #:
Geoscientist: Cloud, Tom A		Phone: +1 832 486-2377	Prod. Engineer: Bergman, Pat W.		Phone: (832) 486-2358
Res. Engineer: Stasney, Janet F.		Phone: +832 486-2359	Proj. Field Lead:		Phone:

## Primary Objective (Zones):

Zone	Zone Name
JCV	BASIN FRUITLAND COAL (GAS)

## Location: Surface

## Straight Hole

Latitude: 36.84	Longitude: -107.52	X:	Y:	Section: 1	Range: 7W
Footage X: 938 FEL	Footage Y: 825 FSL	Elevation: 6330	(FT)	Township: 30N	
Tolerance:					

Location Type:	Start Date (Est.):	Completion Date:	Date In Operation:
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Formation Data: Assume KB = 6343 Units = FT

Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
SAN JOSE	13	6330	<input type="checkbox"/>			
Surface Casing	213	6130	<input type="checkbox"/>			12-1/4 hole. 9 5/8" 32.3 ppf, H-40, STC casing. Circulate cement to surface.
NCMT	1083	5260	<input type="checkbox"/>			
OJAM	2283	4060	<input type="checkbox"/>			Possible water flows.
KRLD	2393	3950	<input type="checkbox"/>			
FRLD	2833	3510	<input type="checkbox"/>			Possible gas.
Intermediate Casing	2923	3420	<input type="checkbox"/>			8 3/4" Hole. 7", 20 ppf, J-55, STC Casing. Circulate cement to surface.
TOP COAL	2953	3390	<input type="checkbox"/>			
BASE MAIN COAL	3148	3195	<input type="checkbox"/>	100		
PC TONGUE	3158	3185	<input type="checkbox"/>			
BASE LOWEST COAL	3258	3085	<input type="checkbox"/>			
PCCF	3263	3080	<input type="checkbox"/>			
Total Depth	3338	3005	<input type="checkbox"/>			6-1/4" hole possibly underreamed to 9.5". Optional Liner: 5.5", 15.5#, J-55 LTC - left uncemented.

## Reference Wells:

Reference Type	Well Name	Comments
Intermediate	Phillips 31-6 #6M	
Intermediate	Phillips 31-6 #8M	

# PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 31-6 232A

<b>Logging Program:</b>					
Intermediate Logs: <input type="checkbox"/> Log only if show <input type="checkbox"/> GR/ILD <input type="checkbox"/> Triple Combo					
TD Logs: <input type="checkbox"/> Triple Combo <input type="checkbox"/> Dipmeter <input type="checkbox"/> RFT <input type="checkbox"/> Sonic <input type="checkbox"/> VSP <input type="checkbox"/> TDT					
TD includes 80 feet sump/rathole & COPC will comply with the BLM's Conditions of Approval for the proposed sump/rathole in this non-producing Pictured Cliffs formation					
Additional Information:					
<b>Log Type</b>	<b>Stage</b>	<b>From (Ft)</b>	<b>To (Ft)</b>	<b>Tool Type/Name</b>	<b>Remarks</b>

Comments: Location/Tops/Logging - No PCCF PA or gas pool. Mud Log from intermediate casing shoe to TD will be obtained.

Zones - Mud Log from intermediate casing shoe to TD will be obtained.

**Drilling Mud Program:**

Surface: spud mud

Intermediate: fresh water mud with bentonite and polymer as needed

Below Intermediate: air/mist drilling media with foamer, polymer, & corrosion inhibitor as needed

General/Work Description -

**San Juan 31-6 # 232A**  
**Halliburton Cementing Program**

**SURFACE CASING :**

Drill Bit Diameter	12.25 "	
Casing Outside Diameter	9.625 "	Casing Inside Diam. 9.001 "
Casing Weight	32.3	ppf
Casing Grade	H-40	
Shoe Depth	230 '	
Cement Yield	1.21	cuft/sk
Cement Density	15.6	lb/gal
Excess Cement	125	%
Cement Required	141	sx

SHOE 230 ', 9.625 ", 32.3 ppf, H-40 STC

**INTERMEDIATE CASING :**

Drill Bit Diameter	8.75 "	
Casing Outside Diameter	7 "	Casing Inside Diam. 6.456 "
Casing Weight	20	ppf
Casing Grade	J-55	
Shoe Depth	2923 '	
Lead Cement Yield	2.91	cuft/sk
Lead Cement Density	11.5	lb/gal
Lead Cement Excess	160	%
Tail Cement Length	315 '	
Tail Cement Yield	1.33	cuft/sk
Tail Cement Density	13.5	lb/gal
Tail Cement Excess	160	%
Lead Cement Required	333	sx
Tail Cement Required	100	sx

LINER TOP 2903 '

SHOE 2923 ', 7 ", 20 ppf, J-55

LINER BOTTOM 3338' (Uncemented)

**SAN JUAN 31-6 #232A**
**HALLIBURTON OPTION**

9-5/8 Surface Casing		
Cement Recipe	Standard Cement	
	+ 3% Calcium Chloride	
	+ 0.25 lb/sx Flocele	
Cement Volume	141	sx
Cement Yield	1.21	cuft/sx
Slurry Volume	170.7	cuft
	30.4	bbls
Cement Density	15.6	ppg
Water Required	5.29	gal/sx

**7" Intermediate Casing**

Lead Slurry		
Cement Recipe	Standard Cement	
	+ 3% Econolite (Lost Circulation Additive)	
	+ 10 lb/sx Gilsonite (Lost Circ. Additive)	
	+ 0.25 lb/sx Flocele (Lost Circ. Additive)	
Cement Required	333	sx
Cement Yield	2.91	cuft/sx
Slurry Volume	967.7	cuft
	172.4	bbls
Cement Density	11.5	ppg
Water Required	16.88	gal/sx

**7" Intermediate Casing**

Tail Slurry		
Cement Slurry	50 / 50 POZ:Standard Cement	
	+ 2% Bentonite (Light Weight Additive)	
	+ 5 lbm/sk Gilsonite (Lost Circ. Additive)	
	+ 0.25 lbm/sk Flocele (lost Circ. Additive)	
	+ 2% Calcium Chloride (Accelerator)	
Cement Required	100	sx
Cement Yield	1.33	cuft/sx
Slurry Volume	132.7	cuft
	23.6	bbls
Cement Density	13.5	ppg
Water Required	5.36	gal/sx

**SCHLUMBERGER OPTION**

9-5/8 Surface Casing		
Cement Recipe	Class G Cement	
	+ 3% S001 Calcium Chloride	
	+ 0.25 lb/sx D029 Cellophane Flakes	
Cement Volume	147	sx
Cement Yield	1.16	cuft/sx
Slurry Volume	170.7	cuft
	30.4	bbls
Cement Density	15.8	ppg
Water Required	4.983	gal/sx

**7" Intermediate Casing**

Lead Slurry		
Cement Recipe	Class G Cement	
	+ 3% D079 Extender	
	+ 0.25 lb/sx D029 Cellophane Flakes	
	+ 0.2% D046 Antifoam)	
Cement Required	373	sx
Cement Yield	2.61	cuft/sx
Slurry Volume	973.6	cuft
	173.4	bbls
Cement Density	11.7	ppg
Water Required	15.876	gal/sx

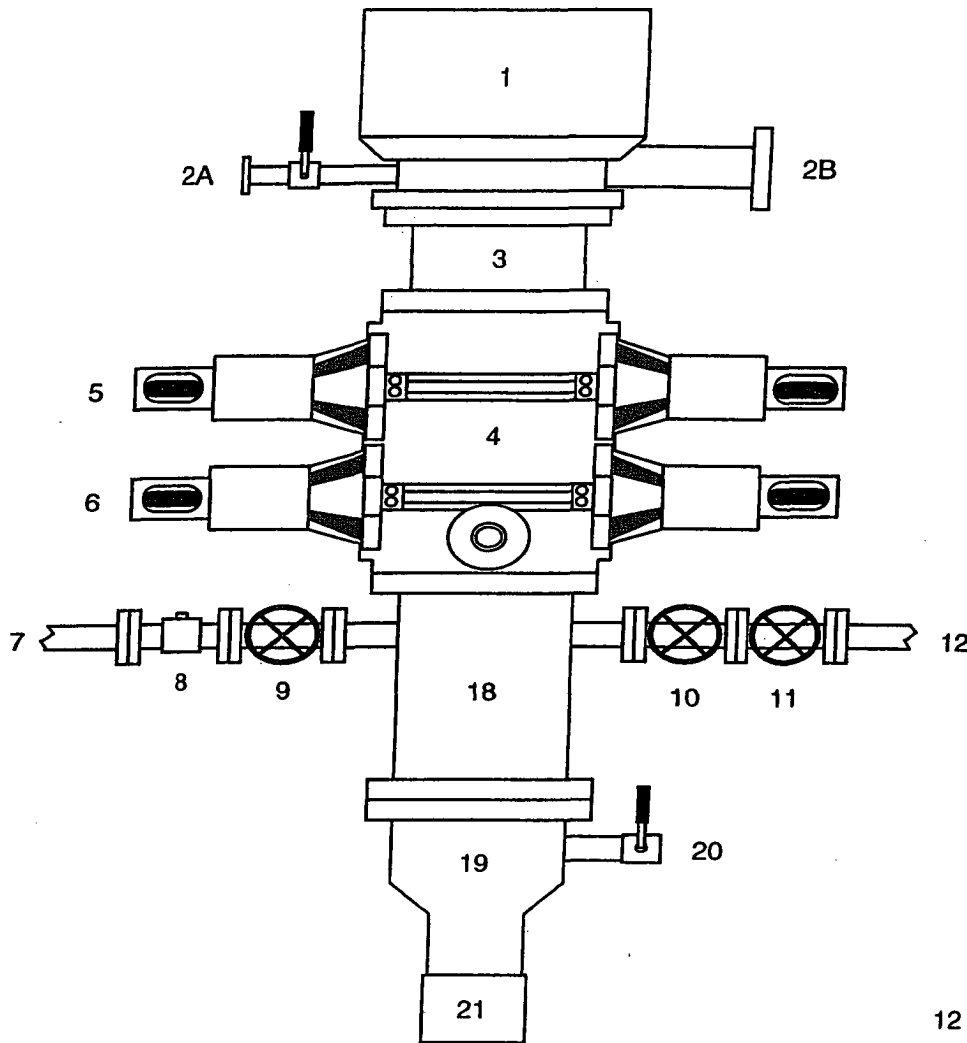
**7" Intermediate Casing**

Tail Slurry		
Cement Slurry	50 / 50 POZ : Class G Cement	
	+ 2% D020 Bentonite	
	+ 5 lb/sx D024 Gilsonite extender	
	+ 0.25 lb/sx D029 Cellophane Flakes	
	+ 2% S001 Calcium Chloride	
	+ 0.2% D046 Antifoam	
Cement Required	100	sx
Cement Yield	1.27	cuft/sx
Slurry Volume	126.9	cuft
	22.6	bbls
Cement Density	13.5	ppg
Water Required	5.182	gal/sx

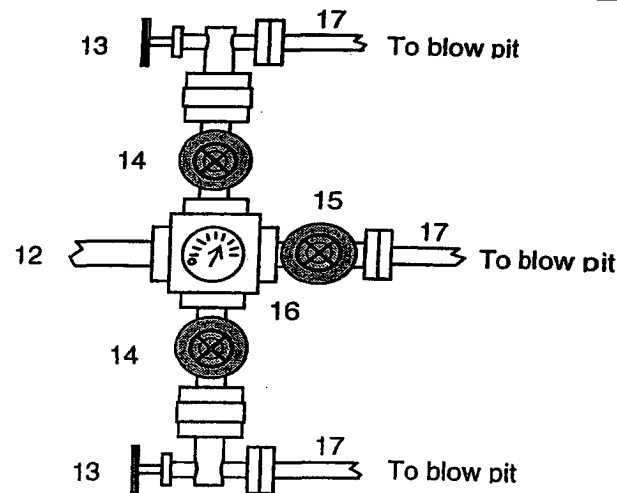


# BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

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



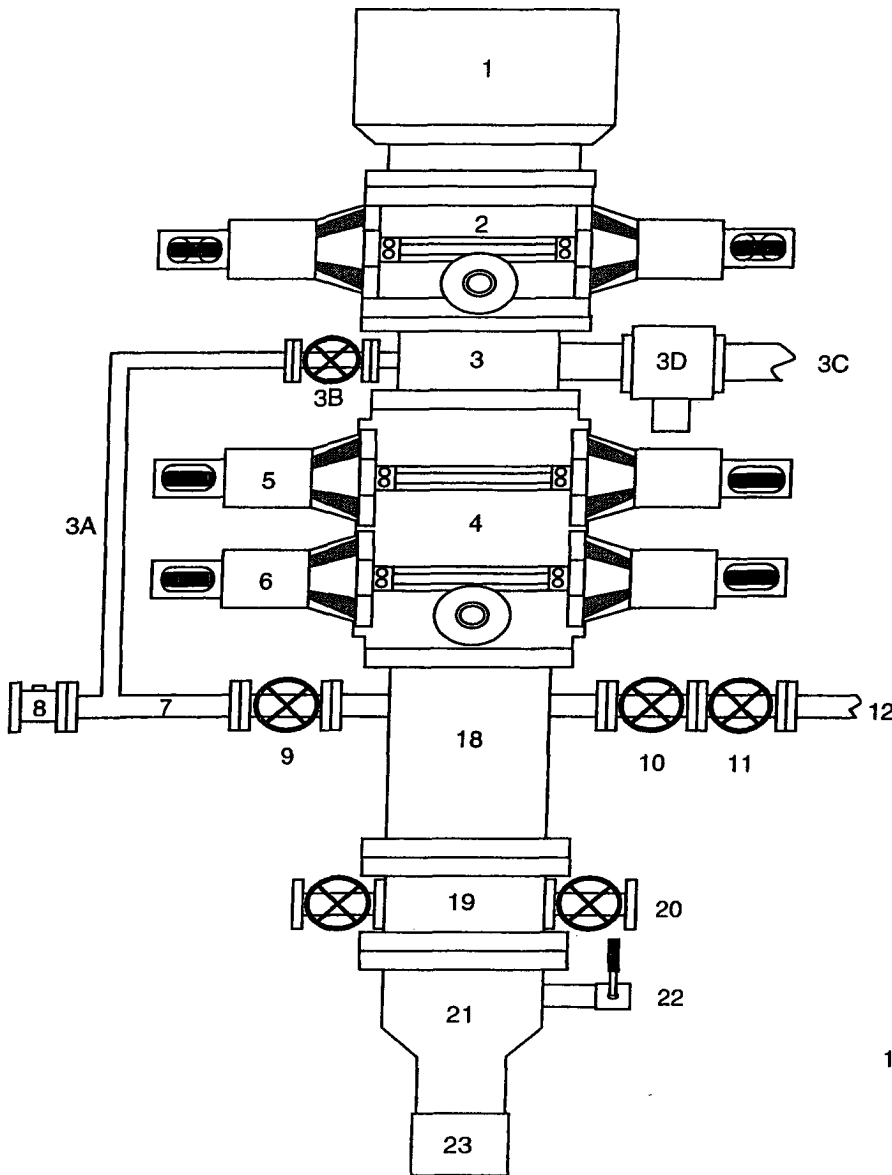
A 12-1/4" hole will be drilled to approximately 220' and the 9-5/8" surface casing will be run and cemented. The Casing Head "A" Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. A test plug will be set in the wellhead and the pipe rams and choke manifold will be tested to 200 psi to 300 psi (low pressure test) for 10 minutes and to 1000 psi (high pressure test) for 10 minutes. Then the test plug will be removed, and the 9-5/8" casing will be pressure tested against closed blind rams to 200 psi to 300 psi for 10 minutes and to 1000 psi for 30 minutes (this value is one 44% of the minimum internal yield pressure of the 9-5/8" casing). (Note: per regulatory requirements we will wait on cement at least 8 hrs after placement before testing the 9-5/8" surface casing). Then an 8-3/4" hole will be drilled to intermediate casing point and 7" intermediate casing will be run and cemented.

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

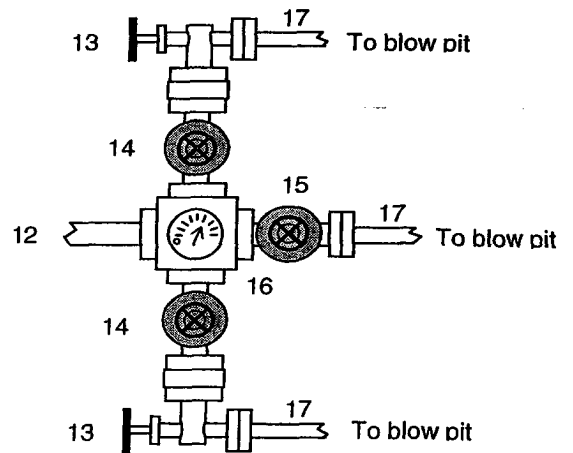
1. Upper Kelly cock Valve with handle
2. Stab-in TIW valve for all drillstrings in use

# BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

## For Cavitation Program



1. Stripping Head
2. Single Ram BOP (7-1/16", 3M)
3. Mud Cross
- 3A. Equalizing Line (2")
- 3B. Wing Valve (2-1/16", 3M)
- 3C. Bloopie 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 10 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 10 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 bloopie line is equipped with a hydraulically controlled valve (HCR valve).

**Property :** SAN JUAN 31-6 UNIT **Well #:** 232A

**Surface Location:**

**Unit:** P **Section:** 1 **Township:** 30N **Range:** 7W

**County:** Rio Arriba **State:** New Mexico

**Footage:** 825 **from the** South **line,** 938 **from the** East **line.**

**CATHODIC PROTECTION**

ConocoPhillips (COP) proposes to drill a cathodic protection deep well groundbed for the subject well. COP will drill a hole vertically at the surface large enough to accommodate 20 feet of 8 inch diameter PVC pipe for surface casing to assist in further drilling and loading. Casing may be cemented in place for stability if needed. COP 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 the existing well pad and a Farmington based company will be doing the drilling for ConocoPhillips.