

DIST. 3

Form 3160-3  
(February 2005)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

5. Lease Serial No.  
1-149-IND-7971

6. If Indian, Allottee or Tribe Name

Navajo Tribal Trust

Alotted

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.  
Mudge Federal #2

9. API Well No.  
30-045-33290

10. Field and Pool, or Exploratory  
Basin Fruitland Coal

11. Sec., T. R. M. or Blk. and Survey or Area  
Sec. 31, T26N, R11W NMPM

12. County or Parish  
San Juan

13. State  
NM

1a. Type of work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator  
ConocoPhillips Company

3a. Address  
4001 Penbrook, Odessa, TX 79762

3b. Phone No. (include area code)  
432-368-1230

4. Location of Well (Report location clearly and in accordance with any State requirements, \*)  
At surface NENE 1145 FNL - 690 FEL  
At proposed prod. zone

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  
2039.23 acres

17. Spacing Unit dedicated to this well  
N/2 319.66

18. Distance from proposed location\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft.

19. Proposed Depth  
1396'

20. BLM/BIA Bond No. on file

21. Elevations (Show whether DF, KDB, RT, GL, etc.)  
6203' 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  
Peggy James  
Title Sr. Associate

Name (Printed/Typed)  
Peggy James

Date  
8/12/2005

Approved by (Signature)  
AFM  
Title

Name (Printed/Typed)

Date  
5/22/07

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)

NOTIFY AZTEC OCD 24 HRS.  
PRIOR TO CASING & CEMENT

ConocoPhillips Company proposes to drill a vertical wellbore to the Basin Fruitland Coal formation. This well will be drilled and equipped in accordance with the attachments submitted herewith. This application is for APD/ROW.

ConocoPhillips will use mudloggers to prevent us from accessing the Pictured Cliffs formation.

This well does not require HPA notification

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 06-08-07  
BT

RCVD MAY23'07

OIL CONS. DIV.

DIST. 3

District I  
PO Box 1980, Hobbs, NM 88241-1980

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised February 21, 1994

District II  
PO Drawer DD, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION

Submit to Appropriate District Office  
State Lease - 4 Copies  
Fee Lease - 3 Copies

District III  
1000 Rio Brazos Rd., Aztec, NM 87410

PO Box 20888  
Santa Fe, NM 87504-2088

RECEIVED

☐ AMENDED REPORT

District IV  
PO Box 2088, Santa Fe, NM 87504-2088

070 FARMINGTON NM

## WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number <b>30-045-33290</b>		*Pool Code <b>71629</b>	*Pool Name <b>BASIN FRUITLAND COAL</b>
*Property Code <b>31589</b>	*Property Name <b>MUDGE FEDERAL</b>		*Well Number <b>2</b>
*OGRID No. <b>217817</b>	*Operator Name <b>CONOCOPHILLIPS COMPANY</b>		*Elevation <b>6203'</b>

## 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
A	31	26N	11W		1145	NORTH	690	EAST	SAN JUAN

## 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 <b>319.64 Acres - N/2</b>					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

<p>16</p> <p>1294.92'</p> <p>1303.50'</p> <p>2607.00'</p> <p>1145'</p> <p>690'</p> <p>2633.40'</p> <p>2641.32'</p> <p>2620.20'</p> <p>1310.10'</p> <p>1315.38'</p> <p>5280.00'</p> <p>LOT 1</p> <p>LOT 2</p> <p>LOT 3</p> <p>LOT 4</p> <p>LEASE: NM-11773</p> <p>LEASE: 1-149-IND-7971</p> <p>31</p> <p>LAT: 36°26.9203' N LONG: 108°02.2875' W DATUM: NAD27</p>		<p>17 OPERATOR CERTIFICATION</p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief</p> <p><i>Vicki Westby (pj)</i></p> <p>Signature Vicki R. Westby</p> <p>Printed Name Staff Agent</p> <p>Title 8/12/2008</p> <p>Date</p> <p>18 SURVEYOR CERTIFICATION</p> <p>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.</p> <p>Survey Date: JANUARY 19, 2005</p> <p>Signature and Seal of Professional Surveyor</p> <p><b>JASON C. EDWARDS</b> NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR 15269</p> <p><b>JASON C. EDWARDS</b> Certificate Number 15269</p>
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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

WELL API NO.

30-045-33290

5. Indicate Type of Lease

STATE ☐ FEE ☐

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

MUDGE FEDERAL

8. Well Number 2

9. OGRID Number 217817

10. Pool name or Wildcat

SUNDRY NOTICES AND REPORTS ON WELLS

(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.)

1. Type of Well: Oil Well ☐ Gas Well ☒ Other

2. Name of Operator  
ConocoPhillips Company

3. Address of Operator  
4001 Penbrook, Odessa, TX 79762

4. Well Location

Unit Letter A 1145 feet from the NORTH line and 690 feet from the EAST line  
Section 31 Township 26N Range 11W NMPM SAN JUAN County

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
6203 GL

Pit or Below-grade Tank Application ☒ Closure ☐

Pit type DRILL Depth to Groundwater 50-100' Distance from nearest fresh water well >1000' Distance from nearest surface water >1000'

Liner Thickness: mil Below-Grade Tank: Volume bbls; Construction Material

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 ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐  
COMMENCE DRILLING OPNS. ☐ P AND A ☐  
CASING/CEMENT JOB ☐

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 103. 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 COPC June 2005 General Pit Plan on file with the NMOCD. 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 Peggy James Peggy James

TITLE Sr. Associate

DATE 8/12/2005

Type or print name

E-mail address:

Telephone No.

For State Use Only

APPROVED BY:

TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 4

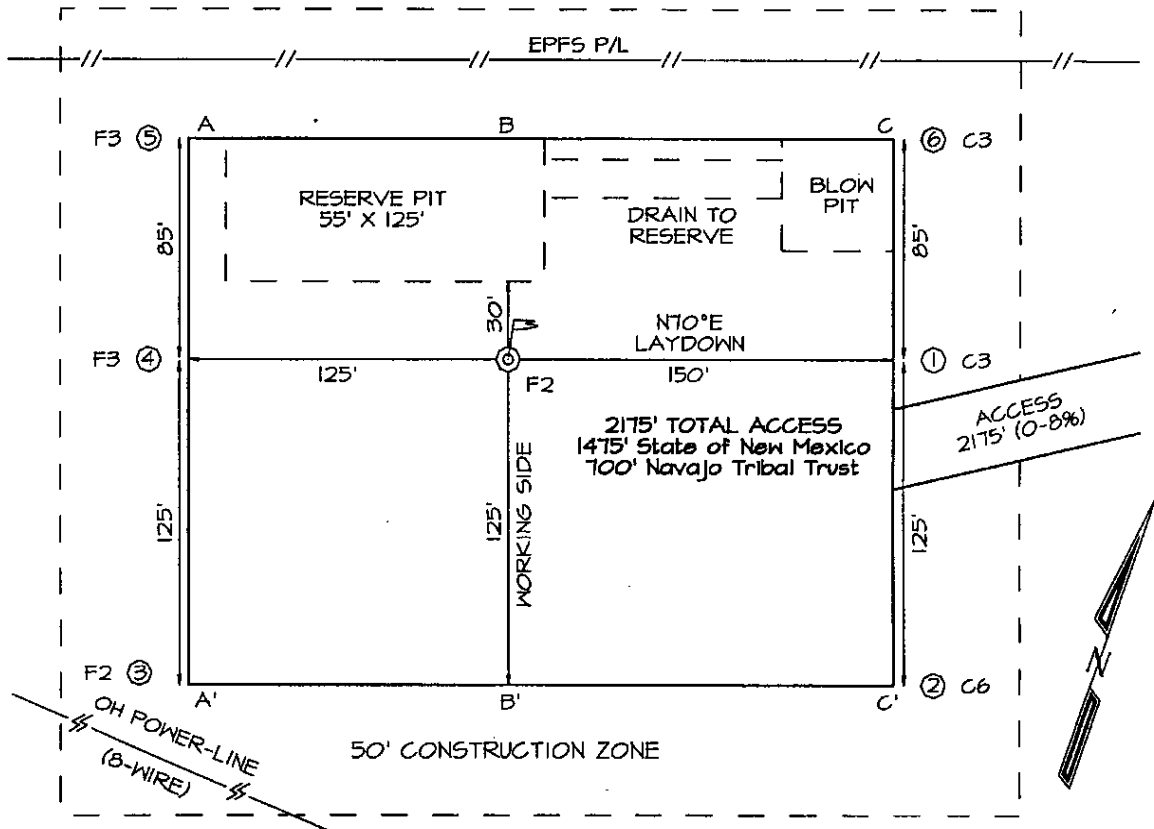
DATE JUN 08 2007

Conditions of Approval (if any):

LATITUDE: 36.44867° N  
LONGITUDE: 107.03813° W  
DATUM: NAD1927

PLAYAT NOTE:

\*SURFACE OWNER\*  
Navajo Tribal Trust



A-A'						
6215'						
6205'						
6195'						

B-B'						
6215'						
6205'						
6195'						

6215'						
6205'						
6195'						

# PROJECT PROPOSAL - New Drill / Sidetrack

MUDGE FED 2

Lease:		AFE #:		AFE \$:	
Field Name: WEST		Rig:	State: NM	County: SAN JUAN	API #:
Geoscientist: Glaser, Terry J		Phone: (832)486-2332	Prod. Engineer: Skinner, Steve E		Phone: 832 486-2651
Res. Engineer: Hensley, Dan E		Phone: 832-486-2385	Proj. Field Lead:		Phone:
<b>Primary Objective (Zones):</b>					
<b>Zone</b>	<b>Zone Name</b>				
R20001	FRUITLAND COAL(R20001)				
<b>Location: Surface</b>					
Latitude: 36.45		Longitude: -108.04	X:	Y:	Section: 31
Footage X: 690 FEL		Footage Y: 1145 FNL	Elevation: 6203 (FT)	Township: 26N	
Tolerance:					
Location Type: Year Round		Start Date (Est.):	Completion Date:	Date In Operation:	
Formation Data: Assume KB = 6216 Units = FT					
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT
OJAM	191	6025	<input type="checkbox"/>		Possible water flows.
KRLD	281	5935	<input type="checkbox"/>		
Surface Casing	500	5716	<input type="checkbox"/>		12-1/4 hole. 9 5/8" 32.3 ppf, H-40, STC casing. Circulate cement to surface.
FRLD	1156	5060	<input type="checkbox"/>		Possible gas.
PCCF	1236	4980	<input type="checkbox"/>		Possible gas.
Total Depth	1396	4820	<input type="checkbox"/>		7 7/8" hole. 5 1/2", 17 ppf, J-55, LTC Casing. Circulate cement to surface.
<b>Reference Wells:</b>					
Reference Type	Well Name	Comments			
<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 checked="" type="checkbox"/> TDT					
Additional Information:					
Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks

Comments: Zones - Drilling Mud Program:  
Surface: spud mud  
Intermediate: fresh water mud with bentonite and polymer as needed

Centralizer Program:  
Surface: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 3rd, & 4th joints  
Intermediate: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 4th, 6th, 8th, & 10th joints  
Turbolizers placed one per joint from the top of the Ojo Alamo to the top of the Kirtland Shale

**Mudge Federal #2**  
**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	500'	
Cement Yield	1.21	cuft/sk
Cement Density	15.6	lb/gal
Excess Cement	125	%
Cement Required	298	sx

SHOE      500 ', 9.625 ", 32.3 ppf, H-40    STC

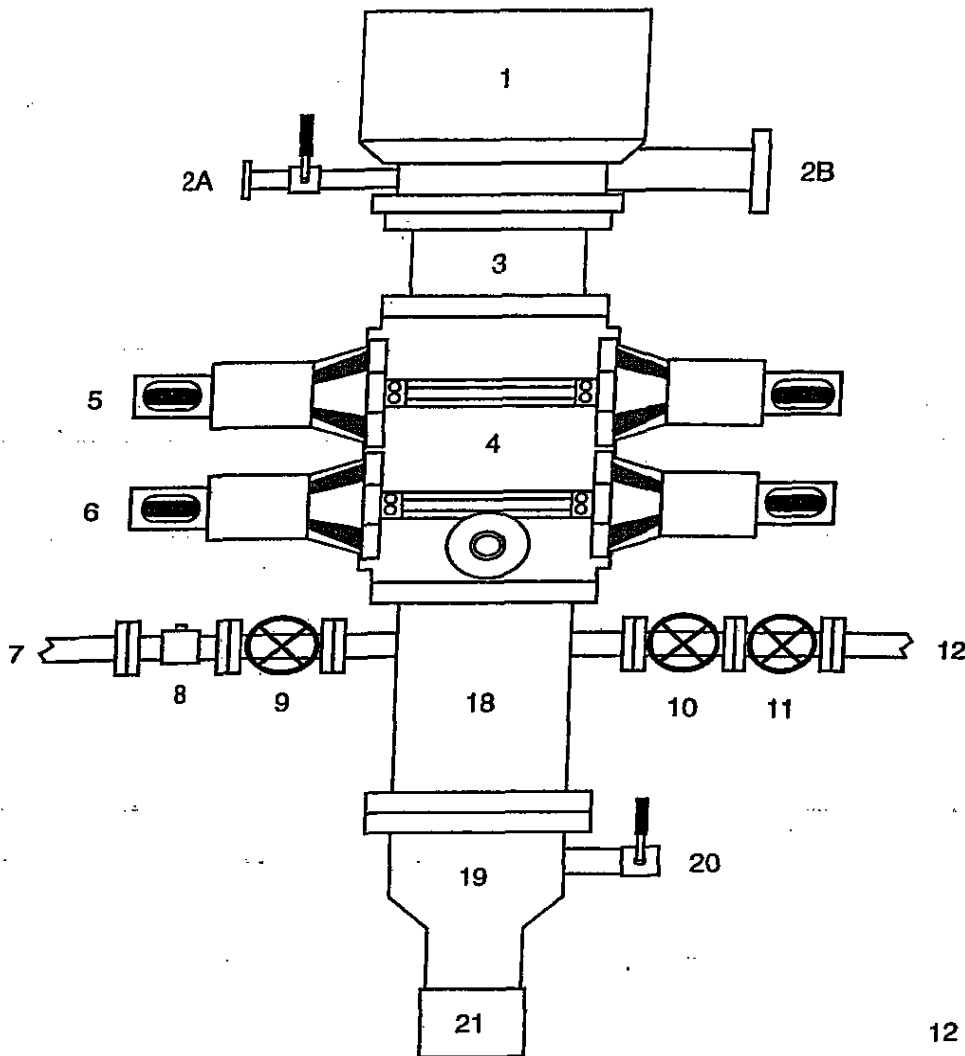
**INTERMEDIATE CASING :**

Drill Bit Diameter	7.875"	
Casing Outside Diameter	5.5"	Casing Inside Diam. 4.892"
Casing Weight	17	ppf
Casing Grade	J-55	
Shoe Depth	1396'	
Lead Cement Yield	2.91	cuft/sk
Lead Cement Density	11.5	lb/gal
Lead Cement Excess	160	%
Tail Cement Length	300'	
Tail Cement Yield	1.33	cuft/sk
Tail Cement Density	13.5	lb/gal
Tail Cement Excess	160	%
Lead Cement Required	139	sx
Tail Cement Required	102	sx

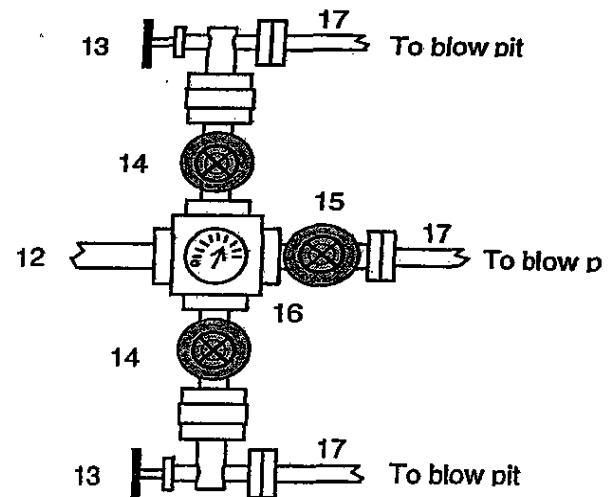
SHOE      1396 ', 5.5 ", 17 ppf, J-55 LTC

# 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



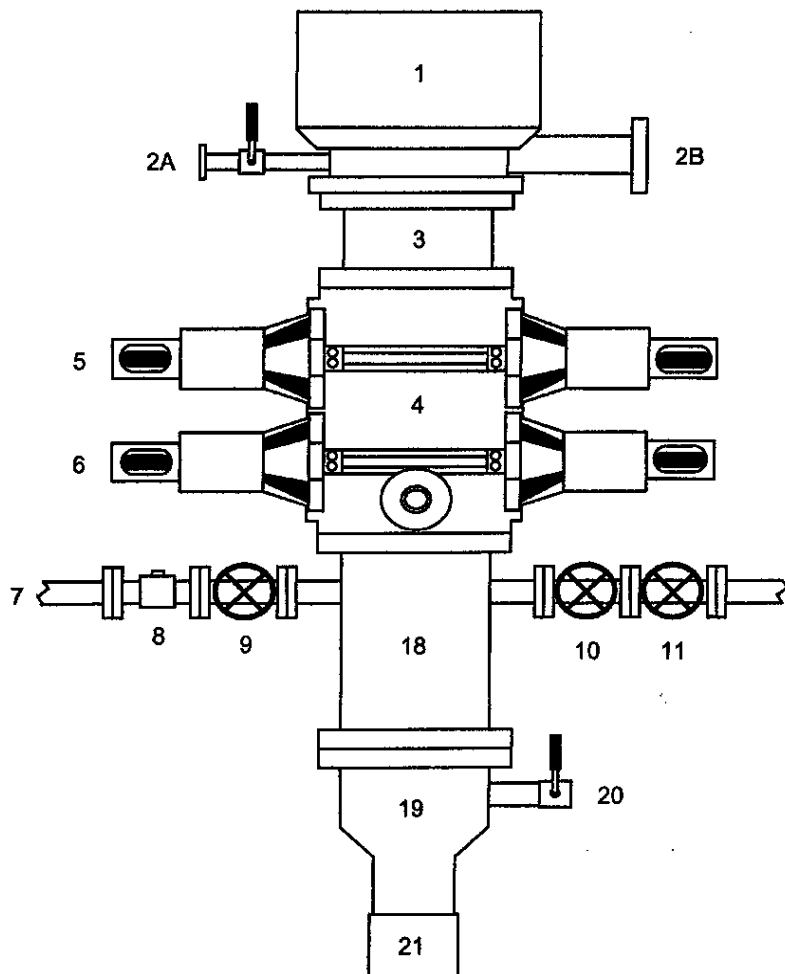
A 12-1/4" hole will be drilled to approximately 220' and the 9-5/8" surface casing will be run and cemented. The Casing Head "A" Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. A test plug will be set in the wellhead and the pipe 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:

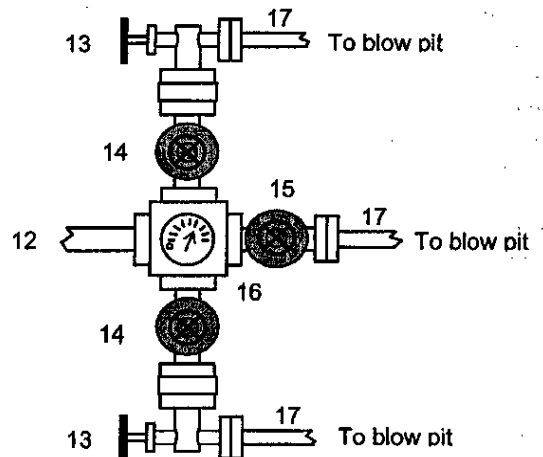
1. Inner Kelly cock Valve with handle

# Mudge Federal #2

## BLOWOUT PREVENTER ARRANGEMENT & PROGRAM



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 a 7-7/8" hole will be drilled to production casing point and 5 1/2" 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

Revision Date: April 28, 2005



**Property :** MUDGE FEDERAL **Well #:** 2

**Surface Location:**

**Unit:** A **Section:** 31 **Township:** 26N **Range:** 11W

**County:** SAN JUAN **State:** New Mexico

**Footage:** 1145 **from the** NORTH **line,** 690 **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.