

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	5. Lease Number NMSF-078039 Unit Reporting Number	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator ConocoPhillips	7. Unit Agreement Name	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name Barnes Gas Com B 9. Well Number #1A	
4. Location of Well Unit D (NWNW), 670' FNL & 804' FWL Latitude 36° 58.32.90256'N Longitude 107° 58.53.996'W	10. Field, Pool, Wildcat Basin Fruitland Coal 11. Sec., Twn, Rge, Mer. (NMPM) D Sec. 22, T32N, R11W, NMPM API # 30-045-33916	
14. Distance in Miles from Nearest Town	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 670'	17. Acres Assigned to Well FC - 320 W/2	
16. Acres in Lease	18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease	
19. Proposed Depth 3244'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6513' GL	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: <u>Patsy Chubb</u> Sr. Regulatory Analyst	<u>8/24/06</u> Date	

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

NOTE: This format is issued in lieu of U.S. BLM Form 3160-3

Title 18 U.S.C. Section 1001, makes 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 presentations as to any matter within its jurisdiction.

This action is subject to technical and  
planning review pursuant to 43 CFR 3167.2  
and approved by the BLM Director.

NMOC

DRILLING OPERATIONS AUTHORIZED ARE  
SUBJECT TO COMPLIANCE WITH ATTACHED  
"LOCAL REQUIREMENTS".

## 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

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

Fee Lease - 3 Copies  
State Lease - 7 Copies  
Submit to Appropriate District Office  
Revised June 10, 2003  
Form C-102

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-045-33916</b>		<sup>2</sup> Pool Code <b>71629</b>		<sup>3</sup> Pool Name <i>Basin</i> FRUITLAND COAL	
<sup>4</sup> Property Code <b>31853</b>		<sup>5</sup> Property Name BARNES GAS COM B			<sup>6</sup> Well Number 1A
<sup>7</sup> OGRID No. <b>217817</b>		<sup>8</sup> Operator Name CONOCOPHILLIPS COMPANY			<sup>9</sup> Elevation 6513.0'

<sup>10</sup> SURFACE LOCATION

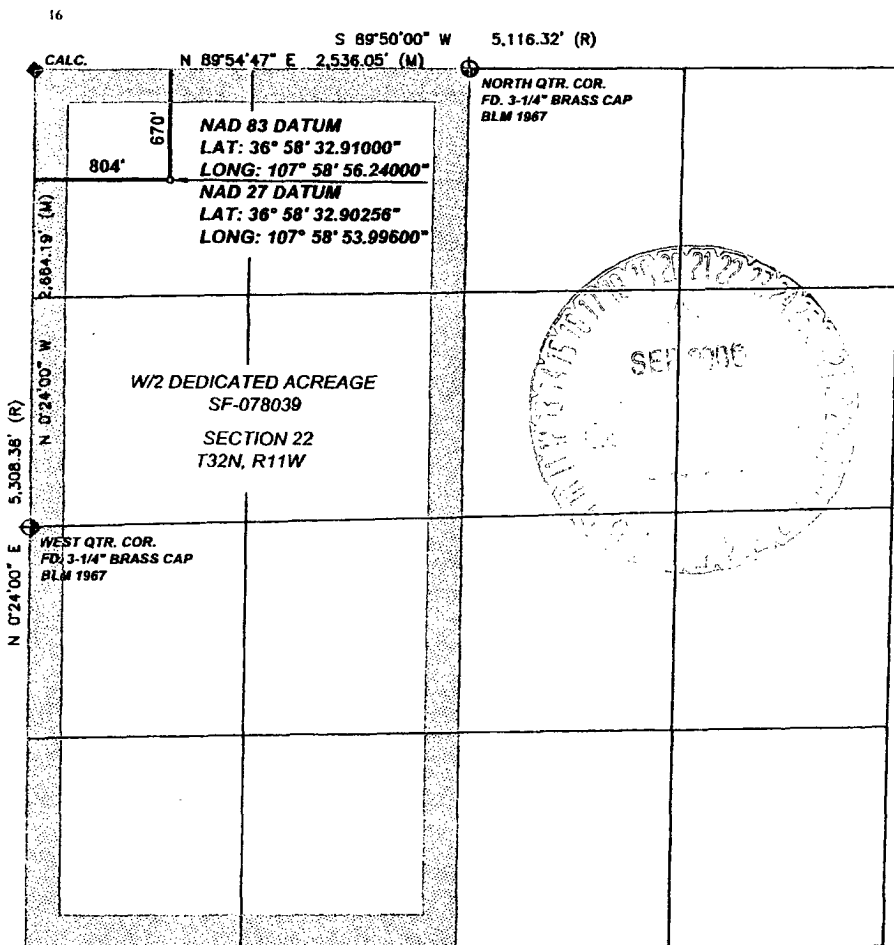
UL or lot no. D	Section 22	Township 32-N	Range 11-W	Lot Idn	Feet from the 670	North/South line NORTH	Feet from the 804	East/West line WEST	County SAN JUAN
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<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
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<sup>12</sup> Dedicated Acres 320 <i>w/2</i>	<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>17</sup> OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

*Patsy Clugston*  
Signature

Patsy Clugston  
Printed Name

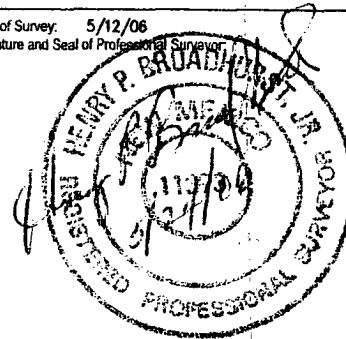
Sr. Regulatory Specialist  
Title and E-mail Address

8-24-06  
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: 5/12/06  
Signature and Seal of Professional Surveyor



Certificate Number: NM 11393

## State of New Mexico

Energy, Minerals and Natural Resources

Form C-103

May 27, 2004

## OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

WELL API NO.

30-045-

5. Indicate Type of Lease

STATE ☐FEE ☐

6. State Oil &amp; Gas Lease No.

Federal Lease # SF-078039

7. Lease Name or Unit Agreement Name

Barnes Gas Com B

8. Well Number

#1A

9. OGRID Number

217817

10. Pool name or Wildcat

Fruitland Coal

## 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

3401 E. 30TH STREET, FARMINGTON, NM 87402

4. Well Location

Unit Letter D : 670' feet from the North line and 804' feet from the West line  
Section 22 Township 32N Rng 11W NMPM County San Juan

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

6513' GL

Pit or Below-grade Tank Application

or Closure ☐

Pit type

New Drill

Depth to Groundwater

&gt;100'

Distance from nearest fresh water well

&gt;1000'

Distance from nearest surface water

&gt;1000'

Pit Liner Thickness:

12

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 ☐TEMPORARILY ABANDON ☐PULL OR ALTER CASING ☐PLUG AND ABANDON ☐CHANGE PLANS ☐MULTIPLE COMPL ☐

## SUBSEQUENT REPORT OF:

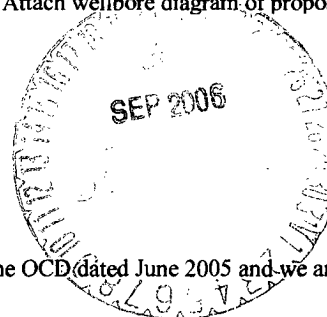
REMEDIAL WORK ☐COMMENCE DRILLING OPNS. ☐CASING/CEMENT JOB ☐ALTERING CASING ☐P AND A ☐

OTHER:

New Drill ☒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 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

We are constructing Drilling and workover pits as per our General plan on file with the OCD dated June 2005 and we are closing all pits as per the November 1, 2004 Guidelines.

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

TITLE

Sr. Regulatory Specialist

DATE

8/20/06

Type or print name

Patsy Clugston

E-mail address:

plclugston@br-inc.com

Telephone No.

505-326-9518

For State Use Only

APPROVED BY

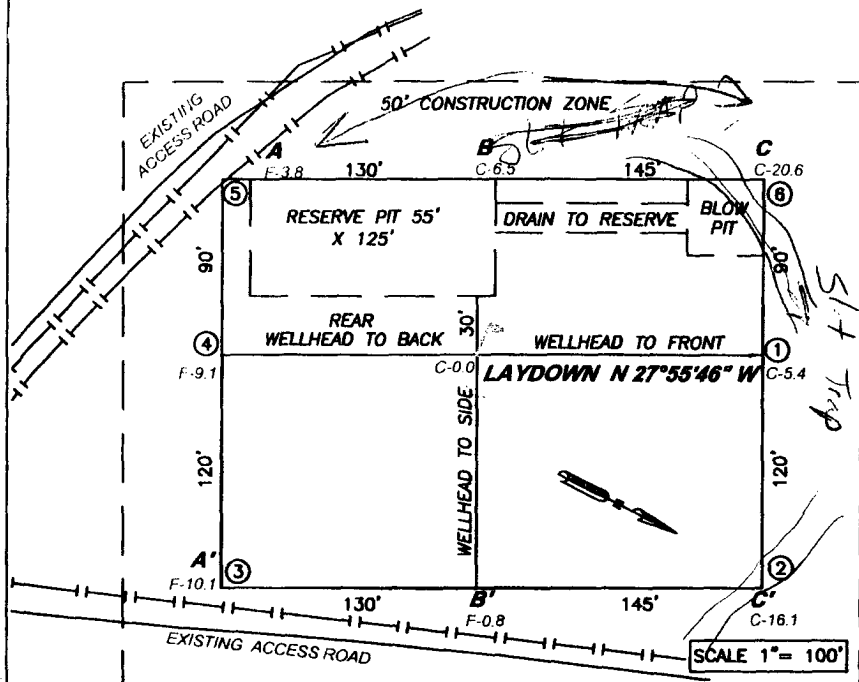
TITLE

DEPUTY OIL &amp; GAS INSPECTOR, DIST. 4

DATE

SEP 20 2006

Conditions of Approval (if any):

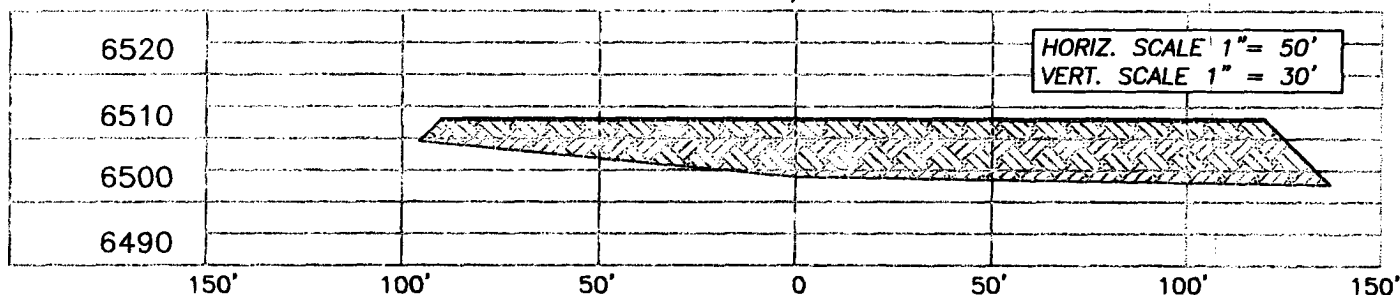


# CONOCOPHILLIPS COMPANY

BARNES GAS COM B 1A  
670' FNL, 804' FWL  
SECTION 22, T32N, R11W,  
SAN JUAN COUNTY, NEW MEXICO  
ELEV.: 6,513.0' NADV88

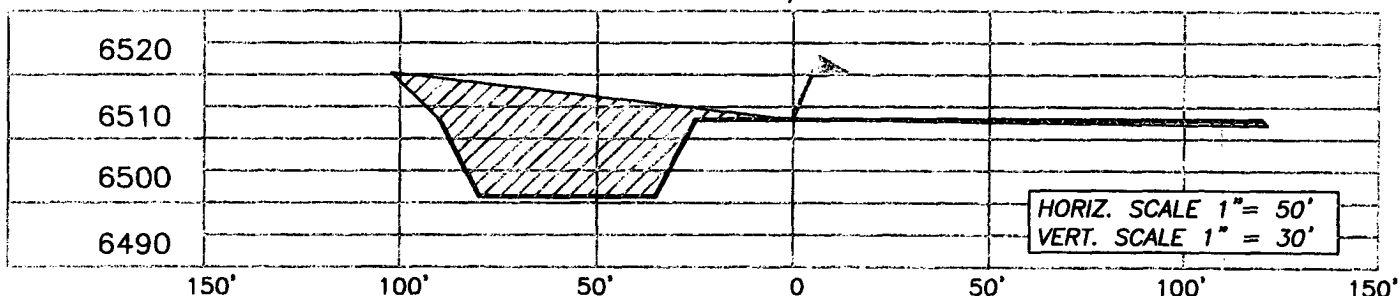
A - A'

C/L



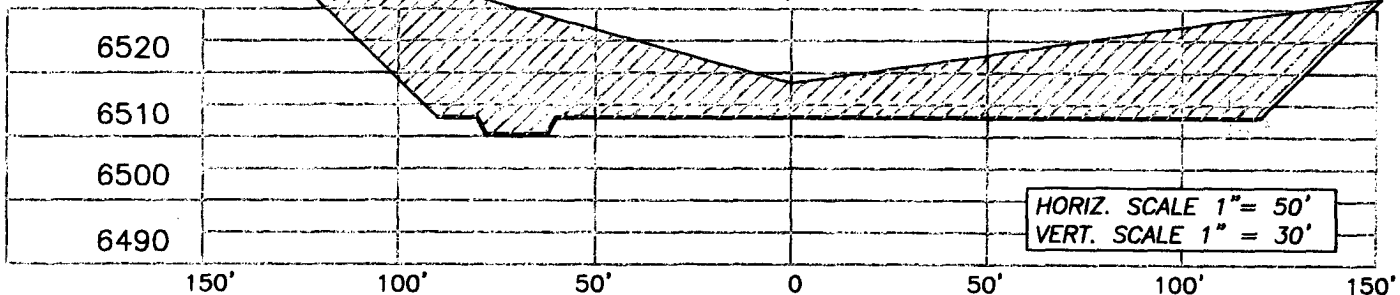
B - B'

C/L



C - C'

C/L



NOTE: CCI IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES.

CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD PRIOR TO CONSTRUCTION.

REVISIONS			
NO.	DESCRIPTION	REVISED BY	DATE

CCI

1300 W. BROADWAY  
BLOOMFIELD, NM, 87413  
PHONE: (505) 832-7777

CHENAULT CONSULTING INC.

### PROJECT PROPOSAL - New Drill / Sidetrack

BARNES GAS COM B 1A

Lease:		AFE #: WAN.CBM.6125		AFE \$:	
Field Name: NEW MEXICO-NORTH		Rig: Patterson Rig 747		State: NM County: SAN JUAN	
Geoscientist: Brain, Ted H.		Phone: 832-486-2592		Prod. Engineer: Piotrowicz, Greg M. Phone: +1 832-486-3486	
Res. Engineer:		Phone: 832 486-2651		Proj. Field Lead: Fransen, Eric E. Phone:	
<b>Primary Objective (Zones):</b>					
<b>Zone</b>	<b>Zone Name</b>				
R20001	FRUITLAND COAL(R20001)				

<b>Location:</b> Surface		<b>Datum Code:</b> NAD 27			<b>Straight Hole</b>	
Latitude: 36.975800	Longitude: -107.981700	X:	Y:	Section: 22	Range: 11W	
Footage X: 804 FWL	Footage Y: 670 FNL	Elevation: 6513	(FT)	Township: 32N		
Tolerance:						
Location Type: Year Round		Start Date (Est.):		Completion Date:		Date In Operation:
Formation Data: Assume KB = 6529 Units = FT						
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
Surface Casing	216	6313	<input type="checkbox"/>			12-1/4 hole. 9 5/8" 32.3 ppf, H-40, STC casing. Circulate cement to surface.
OJAM	1199	5330	<input type="checkbox"/>			Possible water flows.
KRLD	1319	5210	<input type="checkbox"/>			
FRLD	2739	3790	<input type="checkbox"/>			Possible gas.
Total Depth	3244	3285	<input type="checkbox"/>			7 7/8" Hole. 5 1/2", 17 ppf, N-80, LTC Casing. Circulate cement to surface.

<b>Reference Wells:</b>		
Reference Type	Well Name	Comments

#### Logging Program:

Intermediate Logs: ☐ Log only if show ☐ GR/ILD ☐ Triple Combo

TD Logs: ☐ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☒ TDT

Additional Information:

Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks
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Comments:

HOLE: 12.25 "  
CSG OD: 9.625 "  
CSG ID: 9.001 "  
WGT: 32.3 ppf  
GRADE: H-40  
EXCESS: 125 %  
DEPTH: 233'

### SURFACE:

Option 1  
148 sx  
30.8 bbls  
172.9 cuft  
1.17 ft<sup>3</sup>/sx  
15.8 ppg  
4.973 gal/sx  
Class G Cement  
+ 3% S001 Calcium Chloride  
+ 0.25 lb/sx D029 Cellophane Flakes

Option 2  
143 sx  
30.8 bbls  
172.9 cuft  
1.21 ft<sup>3</sup>/sx  
15.6 ppg  
5.29 gal/sx  
Standard Cement  
+ 3% Calcium Chloride  
+ 0.25 lb/sx Flocele

Option 3  
65 sx  
18.6 bbls  
104.3 cuft  
1.61 ft<sup>3</sup>/sx  
14.5 ppg  
7.41 gal/sx  
Type I-II Ready Mix  
+ 20% Fly Ash

Comp. Strength  
8 hrs 475 psi  
24 hrs 1375 psi

### PRODUCTION LEAD:

Option 1  
400 sx  
193.7 bbls  
1087.8 cuft  
2.72 ft<sup>3</sup>/sx  
11.7 ppg  
15.74 gal/sx  
Class G Cement  
+ 3% D079 Extender  
+ 0.20% D046 Antifoam  
+ 10 lb/sx Phenoseal

Option 2  
418 sx  
193.7 bbls  
1087.8 cuft  
2.60 ft<sup>3</sup>/sx  
11.5 ppg  
14.62 gal/sx  
Type III Ashgrove Cement  
+ 30 lb/sx San Juan Poz  
+ 3% Bentonite  
+ 5.0 lb/sx Phenoseal

Option 3  
414 sx  
193.7 bbls  
1087.8 cuft  
2.63 ft<sup>3</sup>/sx  
11.7 ppg  
15.92 gal/sx  
Class G Cement  
+ 3% D079 Extender  
+ 0.20% D046 Antifoam  
+ 1.0 lb/bbl CemNet

HOLE: 7.875 "  
CSG OD: 5.5 "  
CSG ID: 4.892 "  
WGT: 17 ppf  
GRADE: N-80  
EXCESS: 150 %

TAIL: 643'  
DEPTH: 3244'

### PRODUCTION TAIL:

Option 1  
219 sx  
51.0 bbls  
286.6 cuft  
1.31 ft<sup>3</sup>/sx  
13.5 ppg  
5.317 gal/sx  
50/50 Poz: Class G Cement  
+ 0.25 lb/sx D029 Cellophane Flakes  
+ 3% S001 Calcium Chloride  
+ 2% D020 Bentonite  
+ 1.5 lb/sx D024 Gilsonite Extender  
+ 0.1% D046 Antifoam  
+ 6 lb/sx Phenoseal

Option 2  
215 sx  
51.0 bbls  
286.6 cuft  
1.33 ft<sup>3</sup>/sx  
13.5 ppg  
5.52 gal/sx  
50/50 Poz: Standard Cement  
+ 2% Bentonite  
+ 6.0 lb/sx Phenoseal

Option 3  
224 sx  
51.0 bbls  
286.6 cuft  
1.28 ft<sup>3</sup>/sx  
13.5 ppg  
5.255 gal/sx  
50/50 Poz: Class G Cement  
+ 2% D020 Bentonite  
+ 5.0 lb/sx D024 Gilsonite Extender  
+ 2% S001 Calcium Chloride  
+ 0.1% D046 Antifoam  
+ 0.15% D065 Dispersant  
+ 1.0 lb/bbl CemNet

Comp. Strength  
24 hrs 1850 psi  
48 hrs 3411 psi

**TOPSET FRUITLAND COAL Wells:** (topset casing above coal to prepare for cavitation/DO/UR)

**Drilling Mud Program:**

Surface: spud mud

Intermediate: fresh water mud with bentonite and polymer as needed

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

**Centralizer Program:**

Surface: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2<sup>nd</sup>, 3<sup>rd</sup>, & 4<sup>th</sup> joints

Intermediate: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup>, 8<sup>th</sup>, & 10<sup>th</sup> joints

Turbolizers placed one per joint from the top of the Ojo Alamo to the top of the Kirtland Shale

Below Intermediate: no centralizers used in air holes. In mud holes centralizers are spaced out appropriately

**CASE & FRAC FRUITLAND COAL Wells:** (casing set below coal to prepare for frac completion)

**Drilling Mud Program:**

Surface: spud mud

Production: 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 2<sup>nd</sup>, 3<sup>rd</sup>, & 4<sup>th</sup> joints

Production: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup>, 8<sup>th</sup>, & 10<sup>th</sup> joints

Turbolizers placed one per joint from the top of the Ojo Alamo to the top of the Kirtland Shale

**MESA VERDE Wells:**

**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

**Centralizer Program:**

Surface: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2<sup>nd</sup>, 3<sup>rd</sup>, & 4<sup>th</sup> joints

Intermediate: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup>, 8<sup>th</sup>, & 10<sup>th</sup> joints

Turbolizers placed one per joint from the top of the Ojo Alamo to the top of the Kirtland Shale

Below Intermediate: no centralizers used in air holes. In mud holes centralizers are spaced out appropriately

**DAKOTA Wells:**

**Drilling Mud Program:**

Surface: spud mud

Intermediate: fresh water mud with bentonite and polymer as needed

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

**Centralizer Program:**

Surface: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2<sup>nd</sup>, 3<sup>rd</sup>, & 4<sup>th</sup> joints

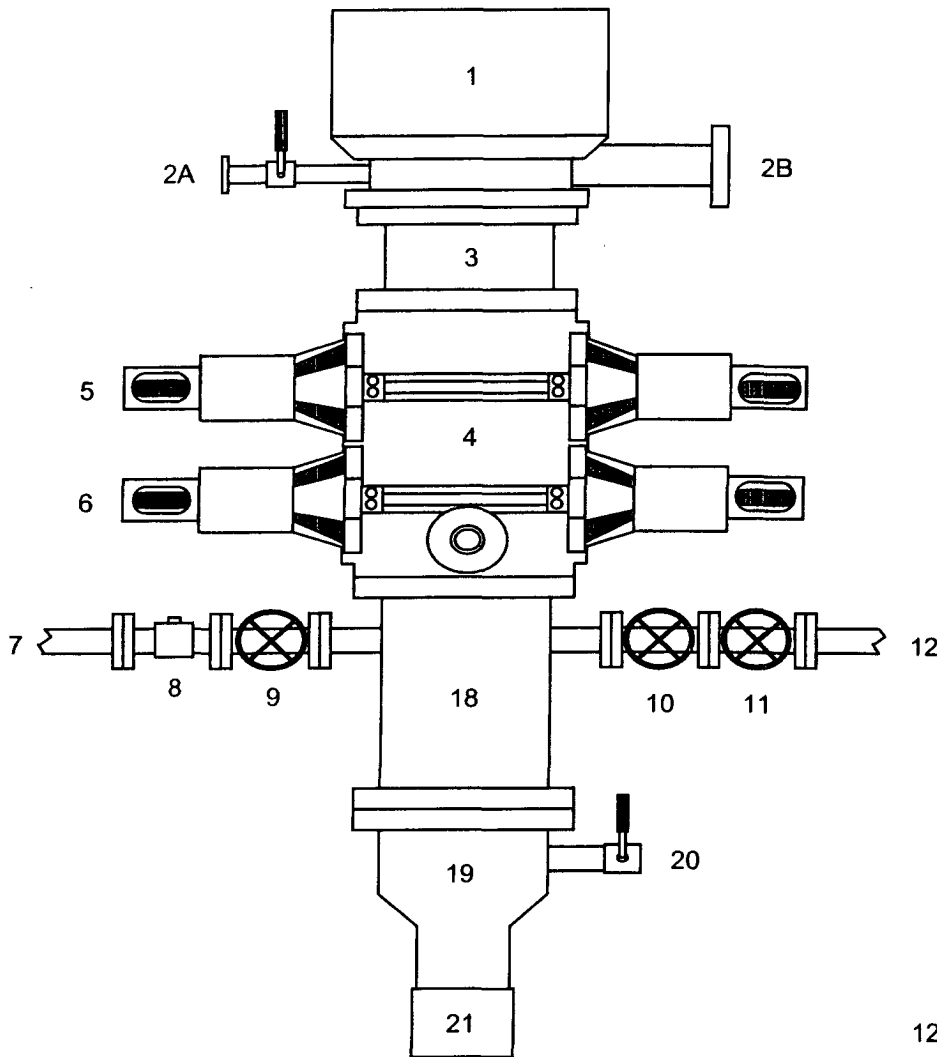
Intermediate: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2<sup>nd</sup>, 4<sup>th</sup>, 6<sup>th</sup>, 8<sup>th</sup>, & 10<sup>th</sup> joints

Turbolizers placed one per joint from the top of the Ojo Alamo to the top of the Kirtland Shale

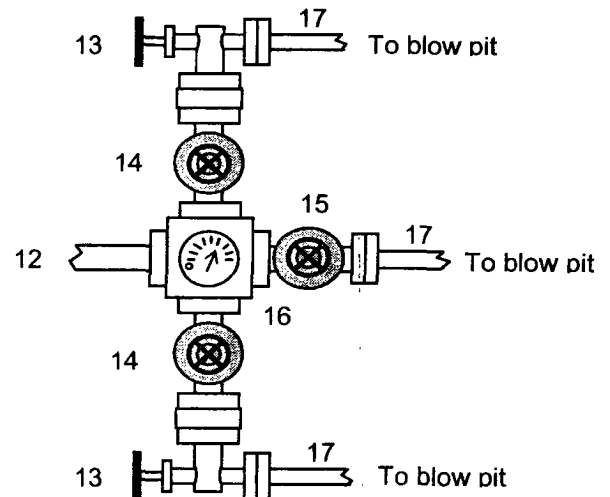
Below Intermediate: no centralizers used in air holes. In mud holes centralizers are spaced out appropriately

# BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to Intermediate Casing Point & Setting 5 1/2" 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 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