

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 SF-079004 Unit Reporting Number NMNM-784241 MK	
1b. Type of Well GAS	6. If Indian, All. or Tribe	
2. Operator ConocoPhillips	7. Unit Agreement Name San Juan 32-8 Unit	
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700	8. Farm or Lease Name San Juan 32-8 Unit 9. Well Number #42A	
4. Location of Well Unit P (SESE), 426' FSL & 672' FEL, Latitude 36° 54.1974468'N Longitude 107° 39.2004448'W	10. Field, Pool, Wildcat Blanco Mesaverde 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 10, T31N, R8W API # 30-045-34146	
14. Distance in Miles from Nearest Town 34 Miles from Bloomfield	12. County San Juan	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 426'		
16. Acres in Lease	17. Acres Assigned to Well MV - 320 acres E/2	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease		
19. Proposed Depth 6160'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6614' GL	22. Approx. Date Work will Start	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: <u>Kandis Rolando</u> Regulatory Assistant	Date <u>1/10/06</u>	

PERMIT NO. _____ APPROVAL DATE _____
APPROVED BY [Signature] TITLE PEM DATE 3/22/07

Archaeological Report attached

Threatened and Endangered Species Report attached PA

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.

NOTIFY AZTEC OCD 24 hrs
IN TIME TO WITNESS Esg & cement

3/28/07

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

RECEIVED
8 JUL
210 PM

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045- 34146	² Pool Code 72319	³ Pool Name MESAVERDE
⁴ Property Code 31330	⁵ Property Name SAN JUAN 32-8	⁶ Well Number 42A
⁷ OGRID No. 217817	⁸ Operator Name CONOCOPHILLIPS COMPANY	⁹ Elevation 6,614.0'

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
P	10	31-N	8-W		426	SOUTH	672	EAST	SAN JUAN

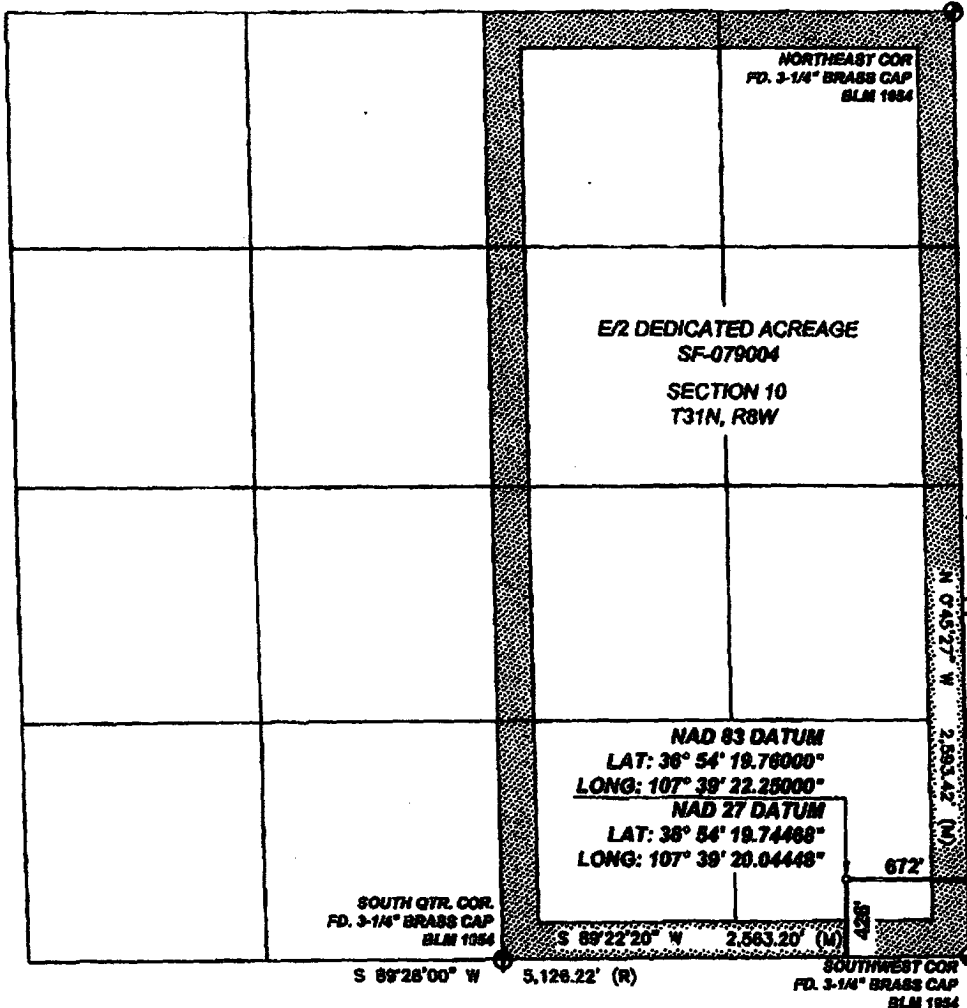
¹¹ Bottom Hole Location If Different From Surface

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 320 E/2	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

16

¹⁷ 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.

Rhonda Rogers
Signature

Rhonda Rogers

Printed Name

Regulatory Assistant

Title and E-mail Address

7/27/06

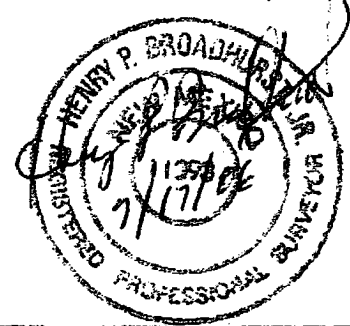
Date

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.

Date of Survey: 6/27/06

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- 34146

5. Indicate Type of Lease

STATE ☐FEE ☐

6. State Oil & Gas Lease No.

SF-079004

7. Lease Name or Unit Agreement Name

San Juan 32-8 Unit

8. Well Number

#42A

9. OGRID Number

217817

10. Pool name or Wildcat

Blanco Mesaverde

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 P : 426' feet from the South line and 672' feet from the East line
Section 10 Township 31N Rng 8W NMPM County San Juan

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

6614'

Pit or Below-grade Tank Application

☐ or Closure ☐

Pit type

New Drill

Depth to Groundwater

>100'

Distance from nearest fresh water well

>1000'

Distance from nearest surface water

<200'

Pit Liner Thickness:

N/A

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:

New Drill

☒

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

New Drill, Unlined:

ConocoPhillips proposes to construct a new drilling pit, an associated vent/flare pit and a pre-set mud pit (if required). Based on ConocoPhillips' interpretation of the Ecosphere's risk ranking criteria, the new drilling pit and pre-set mud pit will be unlined pits as detailed in ConocoPhillips' General Plan dated June 2005 on file at the NMOCDD office. A portion of the vent/flare pit will be designed to manage fluids and that portion will be unlined as per the risk ranking criteria. ConocoPhillips anticipates closing these pits according to 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 NMOCDD guidelines ☐, a general permit ☒ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE

TITLE

Regulatory Technician

DATE

1/10/2007

Type or print name

Kandis Roland

E-mail address:

kburns@br-inc.com

Telephone No.

505-326-9518

For State Use Only

APPROVED BY

TITLE

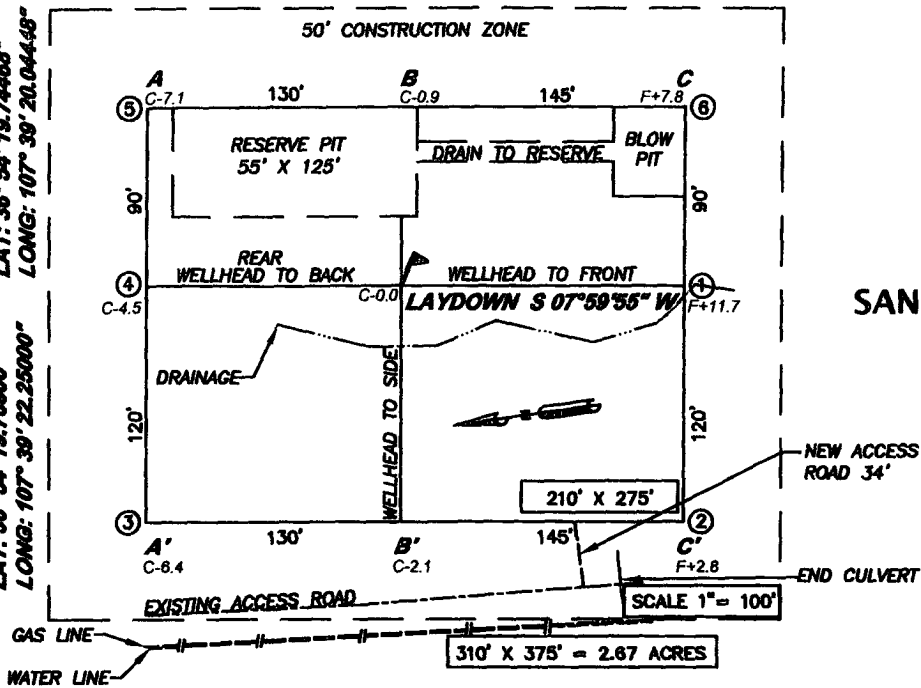
PROPERTY OIL & GAS INSPECTOR, DIST. 6

DATE

MAR 28 2007

Conditions of Approval (if any):

NAD 27 DATUM
LAT: 36° 54' 19.7468"
LONG: 107° 39' 20.0448"
NAD 83 DATUM
LAT: 36° 54' 19.7600"
LONG: 107° 39' 22.2500"

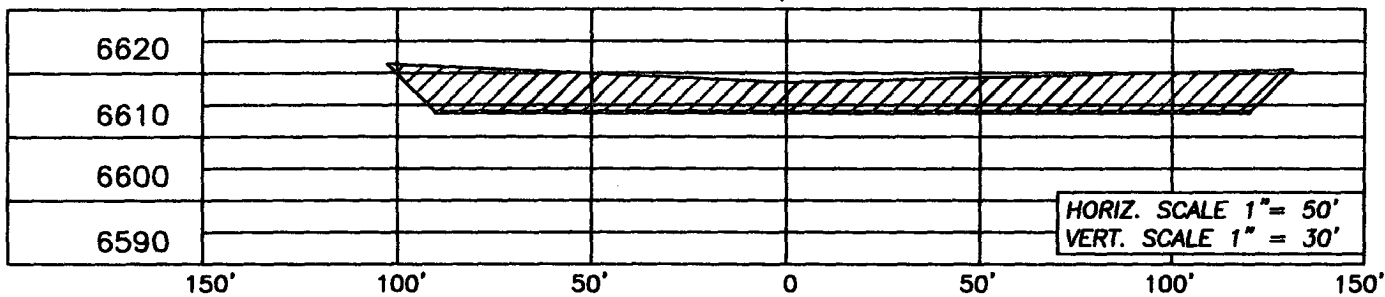


CONOCOPHILLIPS COMPANY

SAN JUAN 32-8 42A
426' FSL, 672' FEL
SECTION 10, T31N, R8W,
SAN JUAN COUNTY, NEW MEXICO
ELEV.: 6,614.0' NADV88

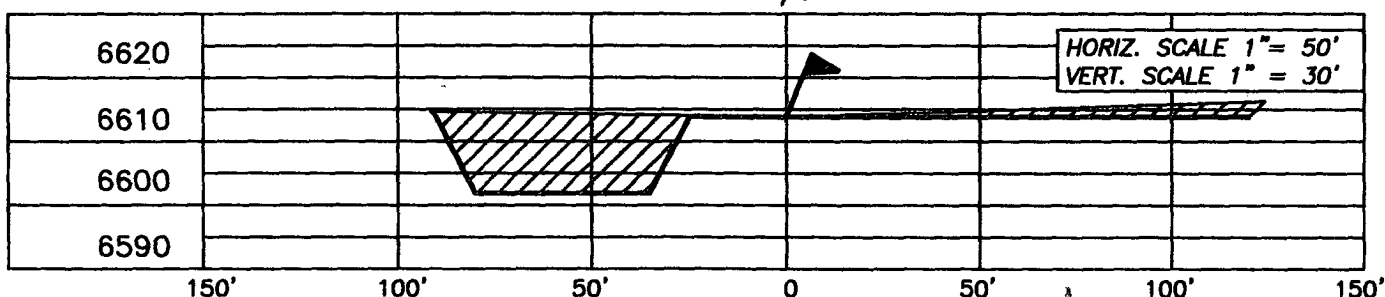
A - A'

C/L



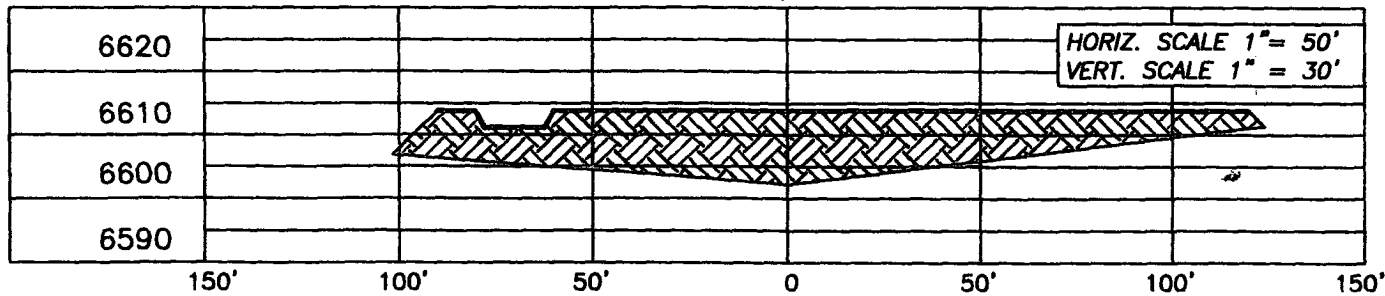
B - B'

C/L



C - C'

C/L



NOTE: CCI IS NOT LIABLE FOR UNDERGROUND UTILITIES AND 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
CHENAULT CONSULTING INC.

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

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 32-8 42A

Lease:		AFE #: WAN.CNV.7129		AFE \$:	
Field Name: 32-8		Rig: UNSCHEDULED 32-8		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:	
Primary Objective (Zones):					
Zone	Zone Name				
R20002	MESAVERDE(R20002)				

Location: Surface		Datum Code: NAD 27		Straight Hole	
Latitude: 36.905500	Longitude: -107.655600	X:	Y:	Section: 10	Range: 8W
Footage X: 672 FEL	Footage Y: 426 FSL	Elevation: 6614	(FT)	Township: 31N	
Tolerance:					
Location Type: Summer Only		Start Date (Est.):		Completion Date:	
Formation Data: Assume KB = 6630		Units = FT			
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT
Surface Casing	216 235	6414	<input type="checkbox"/>		
NCMT	970	5660	<input type="checkbox"/>		
OJAM	2310	4320	<input type="checkbox"/>		Possible water flows.
KRLD	2420	4210	<input type="checkbox"/>		
FRLD	3200	3430	<input type="checkbox"/>		Possible gas.
PCCF	3490	3140	<input type="checkbox"/>		
LEWS	3690	2940	<input type="checkbox"/>		
Intermediate Casing	3790	2840	<input type="checkbox"/>		8 3/4" Hole. 7", 20 ppf, J-55, STC Casing. Circulate cement to surface.
CHRA	4685	1945	<input type="checkbox"/>		
CLFH	5455	1175	<input type="checkbox"/>		Gas; possibly wet
MENF	5510	1120	<input type="checkbox"/>		Gas.
PTLK	5810	820	<input type="checkbox"/>		Gas.
TOTAL DEPTH MV	6160	470	<input type="checkbox"/>		6-1/4" Hole. 4-1/2", 10.5 ppf, J-55, STC casing. Circulate cement a minimum of 100' inside the previous casing string. No open hole logs. Cased hole TDT with GR to surface.
Total Depth	6160	470	<input type="checkbox"/>		

Reference Wells:		
Reference Type	Well Name	Comments
Intermediate	San Juan 32 8 5	10-31N-8W, SW
Intermediate	San Juan 32 8 16A	15-31N-8W, N/NE

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 32-8 42A

Logging Program:Intermediate Logs: ☐ Log only if show ☐ GR/ILD ☐ Triple ComboTD Logs: ☐ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☒ TDT**Additional Information:**

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

Comments:

HOLE: 12.25 "
CSG OD: 9.625 "
CSG ID: 9.001 "
WGT: 32.3 pcf
GRADE: H-40
EXCESS: 125 %

DEPTH: 239'

SURFACE:

Option 1
148 sx
30.8 bbls
172.9 cuft
1.17 ft³/sx
15.8 ppg
4.973 gal/sx
Class G Cement
+ 3% S001 Calcium Chloride
+ 0.25 lb/sx D029 Cellulophane Flakes

Comp. Strength
6 hrs 250 psi
8 hrs 500 psi
psi

Option 2
143 sx
30.8 bbls
172.9 cuft
1.21 ft³/sx
15.6 ppg
5.29 gal/sx
Standard Cement
+ 3% Calcium Chloride
+ 0.25 lb/sx Floccle

Comp. Strength
6 hrs 250 psi
8 hrs 500 psi
psi

Option 3
65 sx
18.6 bbls
104.3 cuft
1.61 ft³/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
psi

HOLE: 8.75 "
CSG OD: 6.456 "
CSG ID: 6.052 "
WGT: 20 pcf
GRADE: J-55
EXCESS: 150 %

TAI: 758'

DEPTH: 3780'

INTERMEDIATE LEAD:

Option 1
402 sx
194.6 bbls
1092.6 cuft
2.72 ft³/sx
11.7 ppg
15.74 gal/sx
Class G Cement
+ 3% D079 Extender
+ 0.20% D046 Antifoam
+ 10 lb/sx Phenoseal

Comp. Strength
9 hrs 300 psi
48 hrs 525 psi
psi

Option 2
420 sx
194.6 bbls
1092.6 cuft
2.60 ft³/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

Comp. Strength
1:47 hrs 50 psi
12 hrs 350 psi
24 hrs 450 psi
psi

Option 3
415 sx
194.6 bbls
1092.6 cuft
2.63 ft³/sx
11.7 ppg
15.92 gal/sx
Class G Cement
+ 3% D079 Extender
+ 0.20% D046 Antifoam
+ 1.0 lb/bbl CemNet

Comp. Strength
3 hrs 100 psi
24 hrs 443 psi
psi

INTERMEDIATE TAIL:

Option 1
225 sx
52.5 bbls
294.5 cuft
1.31 ft³/sx
13.5 ppg
5.317 gal/sx
50/50 Poz. Class G Cement
+ 0.25 lb/sx D029 Cellulophane Flakes
+ 3% S001 Calcium Chloride
+ 2% D020 Bentonite
+ 1.5 lb/sx D024 Gilsontite Extender
+ 0.1% D046 Antifoamer
+ 6 lb/sx Phenoseal

Comp. Strength
3.53 500 psi
8:22 1000 psi
24 hrs 3170 psi
48 hrs 5399 psi
psi

Option 2
221 sx
52.5 bbls
294.5 cuft
1.33 ft³/sx
13.5 ppg
5.52 gal/sx
50/50 Poz. Standard Cement
+ 2% Bentonite
+ 6.0 lb/sx Phenoseal

Comp. Strength
2:05 50 psi
4:06 500 psi
12 hrs 1250 psi
24hrs 1819 psi
psi

Option 3
230 sx
52.5 bbls
294.5 cuft
1.28 ft³/sx
13.5 ppg
5.255 gal/sx
50/50 Poz. Class G Cement
+ 2% D020 Bentonite
+ 5.0 lb/sx D024 Gilsontite Extender
+ 2% S001 Calcium Chloride
+ 0.1% D046 Antifoamer
+ 0.15% D065 Dispersant
+ 1.0 lb/bbl CemNet

Comp. Strength
24 hrs 1850 psi
48 hrs 3411 psi
psi

HOLE: 6.25 "
CSG OD: 4.5 "
CSG ID: 4.052 "
WGT: 10.5 pcf
GRADE: J-55
EXCESS: 50 %

DEPTH: 6160'

PRODUCTION:

Option 1
270 sx
69.2 bbls
388.3 cuft
1.44 ft³/sx
13.0 ppg
6.47 gal/sx
50/50 Poz. Class G Cement
+ 0.25 lb/sx D029 Cellulophane Flakes
+ 3% D020 Bentonite
+ 1.0 lb/sx D024 Gilsontite Extender
+ 0.25% D167 Fluid Loss
+ 0.25% D065 Dispersant
+ 0.1% D800 Retarder
+ 0.1% D046 Antifoamer
+ 3.5 lb/sx Phenoseal

Comp. Strength
7 hrs 500 psi
24 hrs 2100 psi
psi

Option 2
268 sx
69.2 bbls
388.3 cuft
1.45 ft³/sx
13.1 ppg
6.55 gal/sx
50/50 Poz. Standard Cement
+ 3% Bentonite
+ 0.2% CFR-3 Friction Reducer
+ 0.1% HR-5 Retarder
+ 0.8% Haled-9 Fluid Loss Additive
+ 3.5 lb/sx Phenoseal

Comp. Strength
9:32 50 psi
12 hrs 500 psi
13:29 1026 psi
24 hrs 2300 psi
psi

Signature

San Juan 32-8 #42A

SURFACE:

HOLE: 12.25 "
CSG OD: 9.625 "
CSG ID: 8.001 "
WGT: 32.3 ppf
GRADE: H-40
EXCESS: 125 %

DEPTH: 235'

INTERMEDIATE LEAD:

Option 4

379 sx
194.6 bbls
1092.6 cuft
2.88 ft³/sx
11.5 ppg
16.85 gal/sx
Standard Cement
+ 3% Econolite (Extender)
+ 10 lb/sx Phenoseal

Comp. Strength
1.47 50 psi
12 hrs 350 psi
24 hrs 450 psi

Option 5

520 sx
194.6 bbls
1092.6 cuft
2.10 ft³/sx
11.7 ppg
11.724 gal/sx
75% Type XI / 25% Class G Cement
+ 0.25 lb/sx D029 Cellulophane Flakes
+ 3% D079 Extender
+ 0.20% D046 Antifoam

Comp. Strength
10.56 500 psi
42 hrs 1012 psi

TAIL: 758'

DEPTH: 3790'

INTERMEDIATE TAIL:

HOLE: 6.25 "
CSG OD: 4.5 "
CSG ID: 4.052 "
WGT: 10.5 ppf
GRADE: J-55
EXCESS: 50 %

PRODUCTION:

DEPTH: 6160'

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 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

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 2nd, 3rd, & 4th joints

Production: 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

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 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

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 2nd, 3rd, & 4th joints

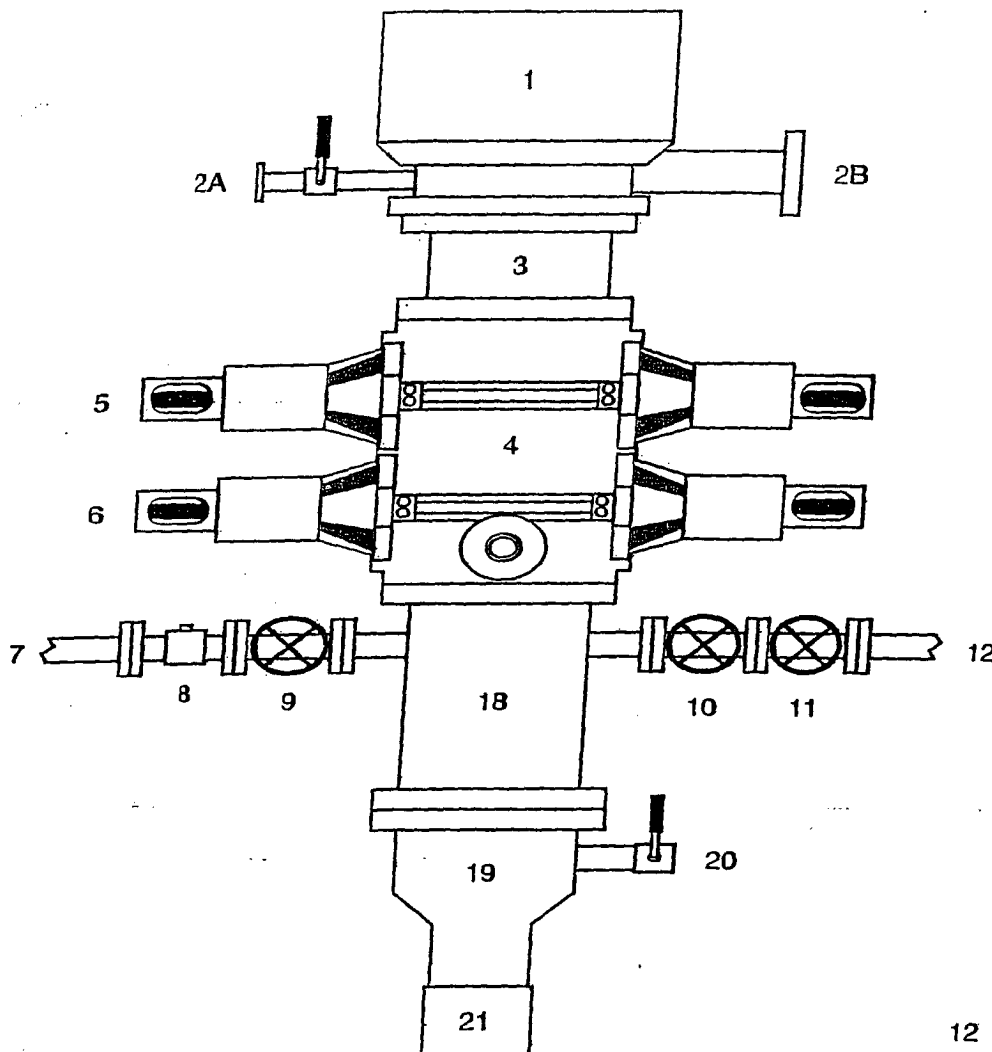
Intermediate: centralizers placed 10' above the shoe latched over a stop collar and at the top of the 2nd, 4th, 6th, 8th, & 10th joints

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

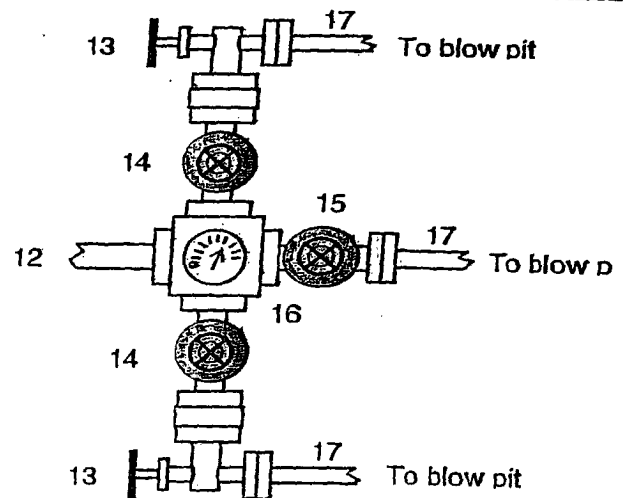
Below Intermediate: no centralizers used in air holes. In mud holes centralizers are spaced out appropriately

BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to Intermediate Casing Point & Setting 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

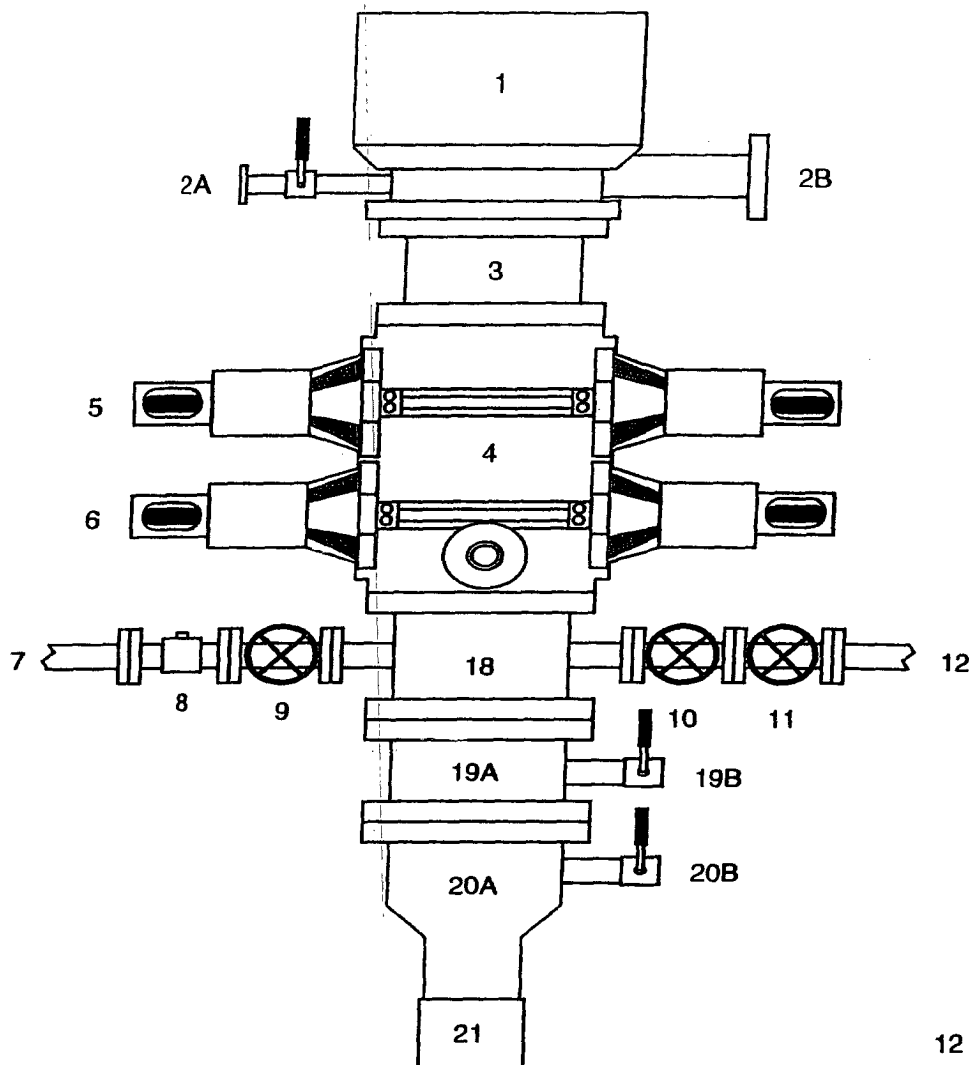


2-1/4" hole will be drilled to approximately 220' and the 9-5/8" surface casing will be run and cemented. The Casing Head Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. A plug will be set in the wellhead and the pipe rams and choke manifold will be tested to 200 psi to 300 psi (low pressure) 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.

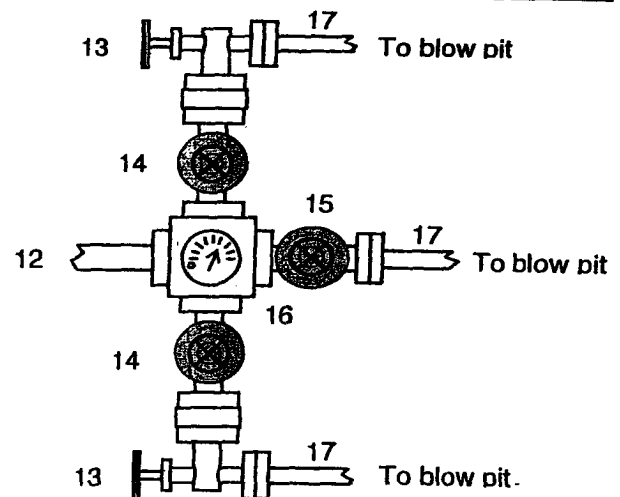
In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to TD and Setting 4.5 inch Casing



1. Rotating Head
- 2A. Fill-up Line & valve
- 2B. Bore Line (for Air Drilling)
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
- 19A. Csg Spool "B" Section (11", 3M)
- 19B. "B" Section Csg Valve (2", 3M)
- 20A. Csg Head "A" Section (11", 3M)
- 20B. "A" Section Csg Valve (2", 3M)
21. 9 5/8" Casing Collar



After the 7" intermediate casing has been run and cemented, the Casing Spool ("B" Section) will be installed on the wellhead ("A" Section) and the BOP will be installed on the Casing Spool. A test plug will be set in the wellhead and the pipe rams, blind rams, and choke manifold will be tested to 200 psi to 300 psi (low pressure test) for 10 minutes and to 3000 psi (high pressure test) for 10 minutes. Then the test plug will be removed and 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. Then we will air drill the 6-1/4" hole to TD and run and cement the 4-1/2" casing.

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