

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. Type of Work DRILL	2000 DEC 5 PM 4 00 RECEIVED 070 FARMINGTON NM	5. Lease Number SF-078960 078426 Unit Reporting Number NM NM-78416A
1b. Type of Well GAS		6. If Indian, All. or Tribe
2. Operator ConocoPhillips		7. Unit Agreement Name San Juan 29-6 Unit
3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700		8. Farm or Lease Name
		9. Well Number #4B
4. Location of Well Surf Unit D (NWNW), 1220' FNL & 880' FWL, Bott Unit D (NWNW), 500' FNL & 400' FWL Latitude 36° .72959' N 36° .73158' N Longitude 107° .49234' W 107° .49398' W	10. Field, Pool, Wildcat Blanco Mesa Verde 11. Sec., Twn, Rge, Mer. (NMPM) D Sec. 17 T29N, R06W, NMPM API # 30-039-30127	
14. Distance in Miles from Nearest Town 25 miles Blanco	12. County Rio Arriba	13. State NM
15. Distance from Proposed Location to Nearest Property or Lease Line 1160'		
16. Acres in Lease	17. Acres Assigned to Well 320 acres W/2	
18. Distance from Proposed Location to Nearest Well, Drig, Compl, or Applied for on this Lease		
19. Proposed Depth 5792'	20. Rotary or Cable Tools Rotary	
21. Elevations (DF, FT, GR, Etc.) 6223' GL 6416	22. Approx. Date Work will Start 12/4/06	
23. Proposed Casing and Cementing Program See Operations Plan attached		
24. Authorized by: Tracey N. Monroe Regulatory Technician		Date

PERMIT NO.

APPROVAL DATE

APPROVED BY

TITLE

DATE

Archaeological Report submitted separately
Environmental Assessment is attached.

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 is not an HPA well

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

NOTIFY AZTEC OGD

IN TIME TO WITNESS

HOLD C104 FOR

NMOCD

8 2/2/07

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
REGULATORY ELEMENTS.

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

State of New Mexico
Energy, Minerals & Natural Resources Department

Revised February 21, 1994

District II
PO Drawer 00, Artesia, NM 88211-0719

OIL CONSERVATION DIVISION

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

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

PO Box 2088
Santa Fe, NM 87504-2088

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

2005 DEC 5 PM 4 00 AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-30127	*Pool Code 72319	*Pool Name BLANCO MESAVERDE	
*Property Code 31326	*Property Name SAN JUAN 29-6 UNIT		*Well Number 4B
*GRID No. 217817	*Operator Name CONOCOPHILLIPS COMPANY		*Elevation 6416'

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	17	29N	6W		1220	NORTH	880	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
D	17	29N	6W		500	NORTH	400	WEST	RIO ARriba

12 Dedicated Acres 320.0 Acres - (W/2)	13 Joint or Infill	14 Consolidation Code	15 Order No.
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BOTTOM-HOLE
LAT: 36.73158°N
LONG: 107.49398°W
DATUM: NAD1983

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>500'</p> <p>400'</p> <p>880'</p> <p>5289.24'</p> <p>LEASE SF-078960</p> <p>5281.32'</p> <p>17</p> <p>5280.00'</p> <p>LEASE SF-078426</p> <p>SURFACE LOCATION LAT: 36.72959°N LONG: 107.49234°W DATUM: NAD1983</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>Virgil E. Chavez</i></p> <p>Signature Virgil E. Chavez</p> <p>Printed Name Projects & Operations Lead</p> <p>Title <i>September 5, 2006</i></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>Date of Survey: JULY 13, 2006</p> <p>Signature and Seal of Professional Surveyor</p> <p> JASON C. EDWARDS Certificate Number 15269</p>

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

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.)		WELL API NO. 30-039- 30127
1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other <input type="checkbox"/>		5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator ConocoPhillips		6. State Oil & Gas Lease No. SF-078960
3. Address of Operator 3401 E. 30TH STREET, FARMINGTON, NM 87402		7. Lease Name or Unit Agreement Name San Juan 29-6 Unit
4. Well Location Unit Letter <u>D</u> : <u>1220</u> feet from the <u>North</u> line and <u>880</u> feet from the <u>East</u> line Section <u>17</u> Township <u>29N</u> Range <u>6W</u> NMPM County <u>Rio Arriba</u>		8. Well Number 4B
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6416' GL		9. OGRID Number 72319
Pit or Below-grade Tank Application <input checked="" type="checkbox"/> or Closure <input type="checkbox"/>		10. Pool name or Wildcat Blanco Mesa Verde
Pit type <u>New Drill</u> Depth to Groundwater <u>>100'</u> Distance from nearest fresh water well <u><1000'</u> Distance from nearest surface water <u>>200'</u>		
Pit Liner Thickness: <u>12</u> mil Below-Grade Tank: <u>bbls</u> ; 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: New Drill Pit ☒ 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, Lined:

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 lined 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 lined 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 Tracey N. Monroe TITLE Regulatory Technician DATE 12/4/2006

Type or print name Tracey N. Monroe E-mail address Tracey.N.Monroe@conocophillips.com Telephone No. 505-326-9752

For State Use Only

DEPUTY OIL & GAS INSPECTOR, DIST. 8

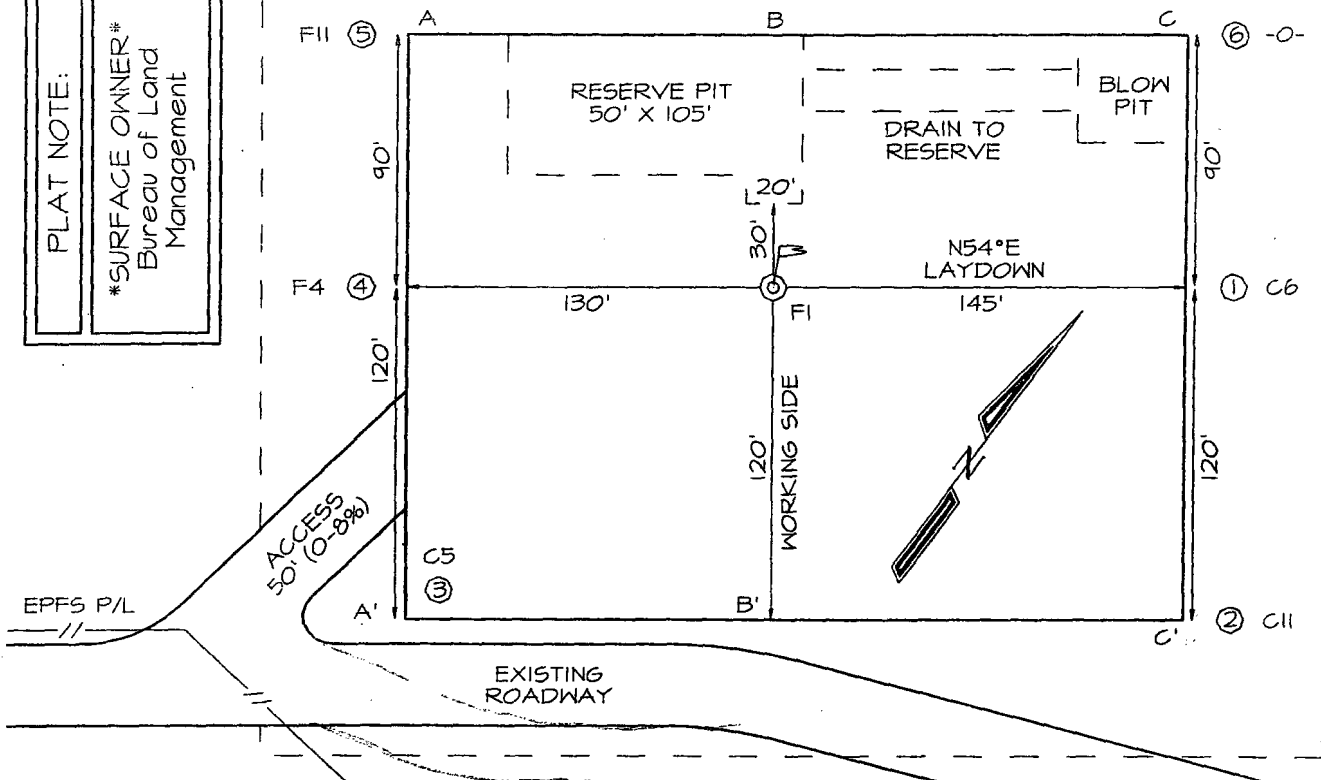
APPROVED BY [Signature] TITLE DATE FEB 02 2007

Conditions of Approval (if any):

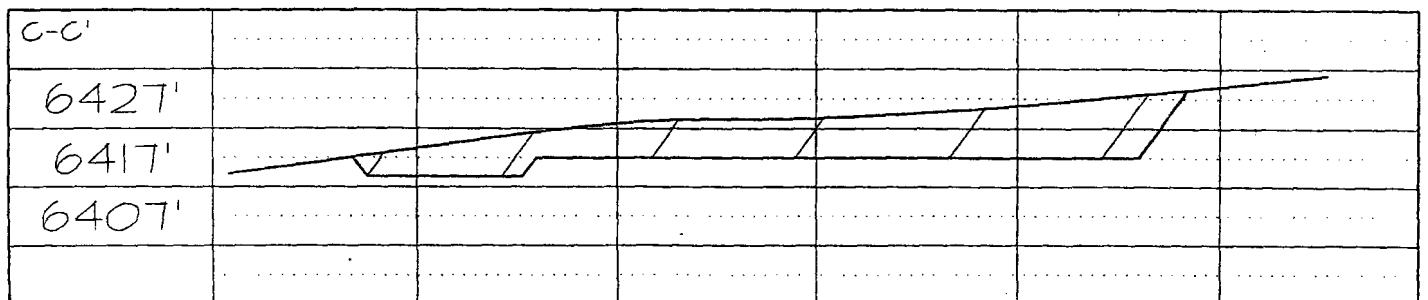
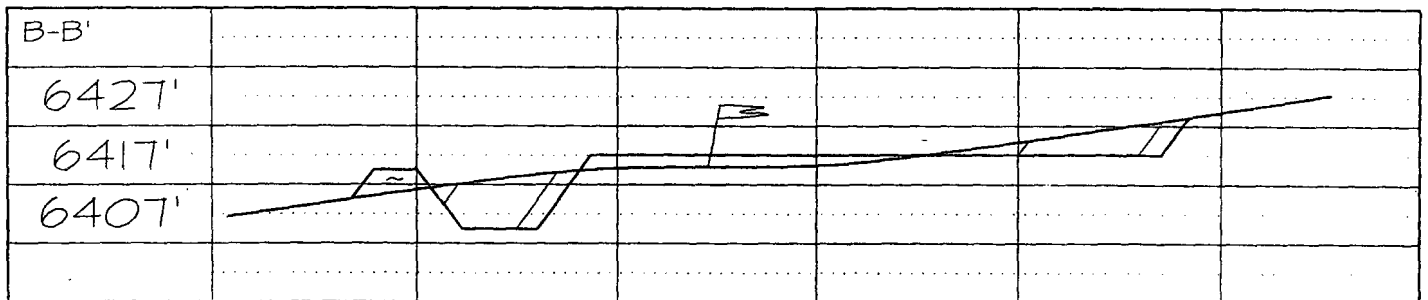
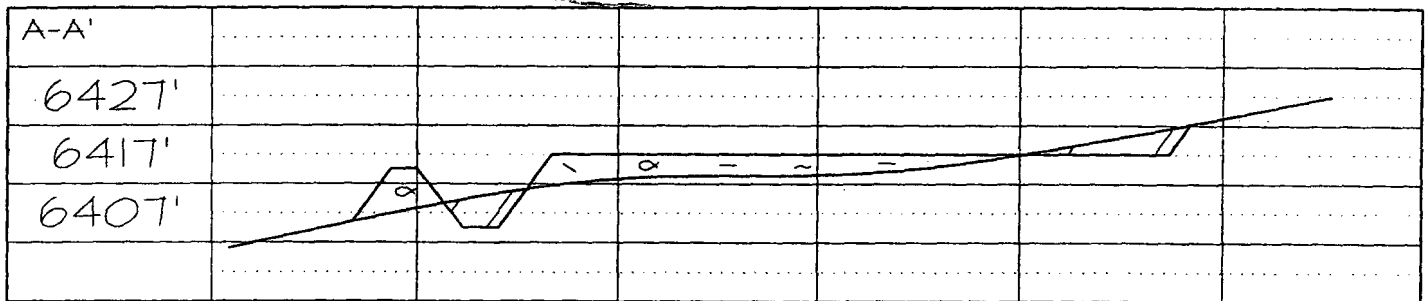
CONOCOPHILLIPS COMPANY SAN JUAN 29-6 UNIT #4B
1220' FNL & 880' FWL, SECTION 17, T29N, R6W, NMPM
RIO ARriba COUNTY, NEW MEXICO ELEVATION: 6416'

50' CONSTRUCTION ZONE

PLAT NOTE:
 SURFACE OWNER
 Bureau of Land
 Management



LATITUDE: 36.72959° N
LONGITUDE: 107.49234° W
 DATUM: NAD1983



PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 29-6 4B

Lease:		AFE #: WAN.CNV.6125		AFE \$:	
Field Name: 29-6		Rig: H&P 283 - DE Shon Robinson	State: NM	County: RIO ARRIBA	API #:
Geoscientist: Glaser, Terry J		Phone: (832)486-2332	Prod. Engineer:		Phone: 486-2334
Res. Engineer:		Phone: 832-486-2385	Proj. Field Lead: Fransen, Eric E.		Phone:

Primary Objective (Zones):

Zone	Zone Name
RON	BLANCO MESAVERDE (PRORATED GAS)

Location: Surface		Datum Code: NAD 27				Deviated	
Latitude: 36.729590	Longitude: -107.492340	X:	Y:	Section: 17	Range: 6W		
Footage X: 880 FWL	Footage Y: 1220 FNL	Elevation: 6416	(FT)	Township: 29N			
Tolerance:							

Location: Bottom Hole		Datum Code: NAD 27				Deviated	
Latitude: 36.731522	Longitude: -107.493398	X:	Y:	Section: 17	Range: 6W		
Footage X: 400 FWL	Footage Y: 500 FNL	Elevation:	(FT)	Township: 29N			
Tolerance:							

Location Type: Year Round	Start Date (Est.):	Completion Date:	Date In Operation:
Formation Data: Assume KB = 6432 Units = FT			

Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
SURFACE CSG	216	6216	<input type="checkbox"/>			12-1/4 hole. 9 5/8" 32.3 ppf, H-40, STC casing. Circulate cement to surface.
NCMT	1032	5400	<input type="checkbox"/>			
OJAM	2332	4100	<input type="checkbox"/>			Possible water flows.
KRLD	2542	3890	<input type="checkbox"/>			
FRLD	3047	3385	<input type="checkbox"/>			Possible gas.
PCCF	3312	3120	<input type="checkbox"/>			
LEWS	3512	2920	<input type="checkbox"/>			
Intermediate Casing	3612	2820	<input type="checkbox"/>			8 3/4" Hole. 7", 20 ppf, J-55, STC Casing. Circulate cement to surface.
CHRA	4282	2150	<input type="checkbox"/>			
CLFH	5052	1380	<input type="checkbox"/>	1300		Gas; possibly wet
MENF	5142	1290	<input type="checkbox"/>			Gas.
PTLK	5442	990	<input type="checkbox"/>			Gas.
MINCS	5692	740	<input type="checkbox"/>			
TOTAL DEPTH MV	5792	640	<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	5792	640	<input type="checkbox"/>			

Reference Wells:		
Reference Type	Well Name	Comments

Logging Program:			
Intermediate Logs:	<input type="checkbox"/> Log only if show	<input type="checkbox"/> GR/ILD	<input type="checkbox"/> Triple Combo

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 29-6 4B

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: Zones - Drill and equip the SAN JUAN 29-6 4B well as an 80-acre Mesaverde/Lewis infill well, to be located 10 FWL & 10 FNL of Section 17-T29N-R6W, Rio Arriba County, NM. Once established and adequately tested, production will be from Mesaverde/Lewis only.

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

General/Work Description - Drill and equip the SAN JUAN 29-6 4B well as an 80-acre Mesaverde/Lewis infill well, to be located 10 FWL & 10 FNL of Section 17-T29N-R6W, Rio Arriba County, NM. Once established and adequately tested, production will be from Mesaverde/Lewis only.

HOLE: 12.25 "
CSG OD: 9.625 "
CSG ID: 9.001 "
WGT: 32.3 ppf
GRADE: H-40
EXCESS: 125 %
DEPTH: 235'

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 Cellophane Flakes

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 Flocele

Comp. Strength
6 hrs 250 psi
8 hrs 500 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

HOLE: 8.75 "
CSG OD: 7 "
CSG ID: 6.456 "
WGT: 20 ppf
GRADE: J-55
EXCESS: 150 %
TAIL: 749'
DEPTH: 3745'

INTERMEDIATE LEAD:

Option 1
397 sx
192.2 bbls
1079.1 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

Option 2
415 sx
192.2 bbls
1079.1 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
9 hrs 300 psi
48 hrs 525 psi

Option 3
410 sx
192.2 bbls
1079.1 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

INTERMEDIATE TAIL:

Option 1
222 sx
51.9 bbls
291.2 cuft
1.31 ft³/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 Gilsontite Extender
+ 0.1% D046 Antifoamer
+ 6 lb/sx Phenoseal

Option 2
219 sx
51.9 bbls
291.2 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
3:53 500 psi
8:22 1000 psi
24 hrs 3170 psi
48 hrs 5399 psi

Option 3
227 sx
51.9 bbls
291.2 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

HOLE: 6.25 "
CSG OD: 4.5 "
CSG ID: 4.052 "
WGT: 10.5 ppf
GRADE: J-55
EXCESS: 50 %
DEPTH: 5925'

PRODUCTION:

Option 1
249 sx
63.9 bbls
359.0 cuft
1.44 ft³/sx
13.0 ppg
6.47 gal/sx
50/50 Poz: Class G Cement
+ 0.25 lb/sx D029 Cellophane 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

Option 2
248 sx
63.9 bbls
359.0 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% Halad-9 Fluid Loss Additive
+ 3.5 lb/sx Phenoseal

Comp. Strength
7 hrs 500 psi
24 hrs 2100 psi

Option 3
248 sx
63.9 bbls
359.0 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% Halad-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

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SURFACE:

HOLE: 12.25 "
CSG OD: 9.625 "
CSG ID: 9.001 "
WGT: 32.3 ppf
GRADE: H-40
EXCESS: 125 %
DEPTH: 235'

INTERMEDIATE LEAD:

Option 4

375 sx
192.2 bbls
1079.1 cuft
2.88 ft³/sx
11.5 ppg
16.85 gal/sx
Standard Cement
+ 3% Econolite (Extender)
+ 10 lb/sx Phenoseal

Option 5
514 sx
192.2 bbls
1079.1 cuft
2.10 ft³/sx
11.7 ppg
11.724 gal/sx
75% Type XI / 25% Class G Cement
+ 0.25 lb/sx D029 Cellophane Flakes
+ 3% D079 Extender
+ 0.20% D046 Antifoam

Comp. Strength
10:56 500 psi
42 hrs 1012 psi

INTERMEDIATE TAIL:

TAIL: 749'
DEPTH: 3745'

PRODUCTION:

HOLE: 6.25 "
CSG OD: 4.5 "
CSG ID: 4.052 "
WGT: 10.5 ppf
GRADE: J-55
EXCESS: 50 %
DEPTH: 5925'

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

San Juan 29-6 4B

Geologic Tops	MD	TVD
Surface Casing	235'	235'
Nacimiento	1048'	1032'
Ojo Alamo	2422'	2332'
Kirtland Sh	2644'	2542'
Fruitland	3175'	3047'
Pictured Cliffs	3445'	3312'
Lewis Shale	3645'	3512'
Int. Casing	3745'	3612'
Chacra	4415'	4282'
Cliffhouse	5185'	5052'
Menefee	5275'	5142'
Point LookOut	5575'	5442'
Mancos	5825'	5692'
TD	5925'	5792'

See Directional Plan



ConocoPhillips
Field: Rio Arriba County, NM
Site: San Juan 29-6 Unit 4B
Well: Well #4B
Wellpath: Original Hole
Plan: Plan #1



Azimuths to Grid North
True North: -0.20°
Magnetic North: 10.15°
Magnetic Field
Strength: 51309nT
Dip Angle: 63.62°
Date: 8/29/2006
Model: igrf2005

FIELD DETAILS

Rio Arriba County, NM
USA

Geodetic System: US State Plane Coordinate System 1983
Ellipsoid: GRS 1980
Zone: New Mexico, Western Zone
Magnetic Model: igrf2005

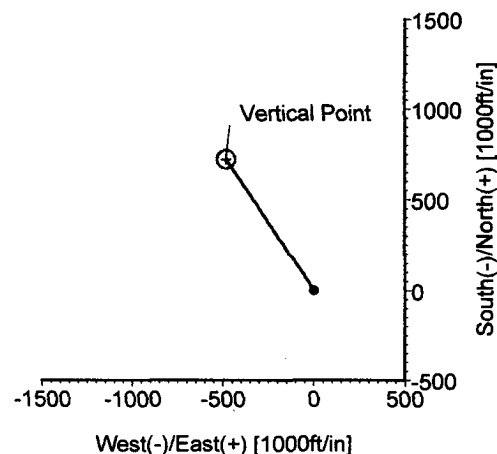
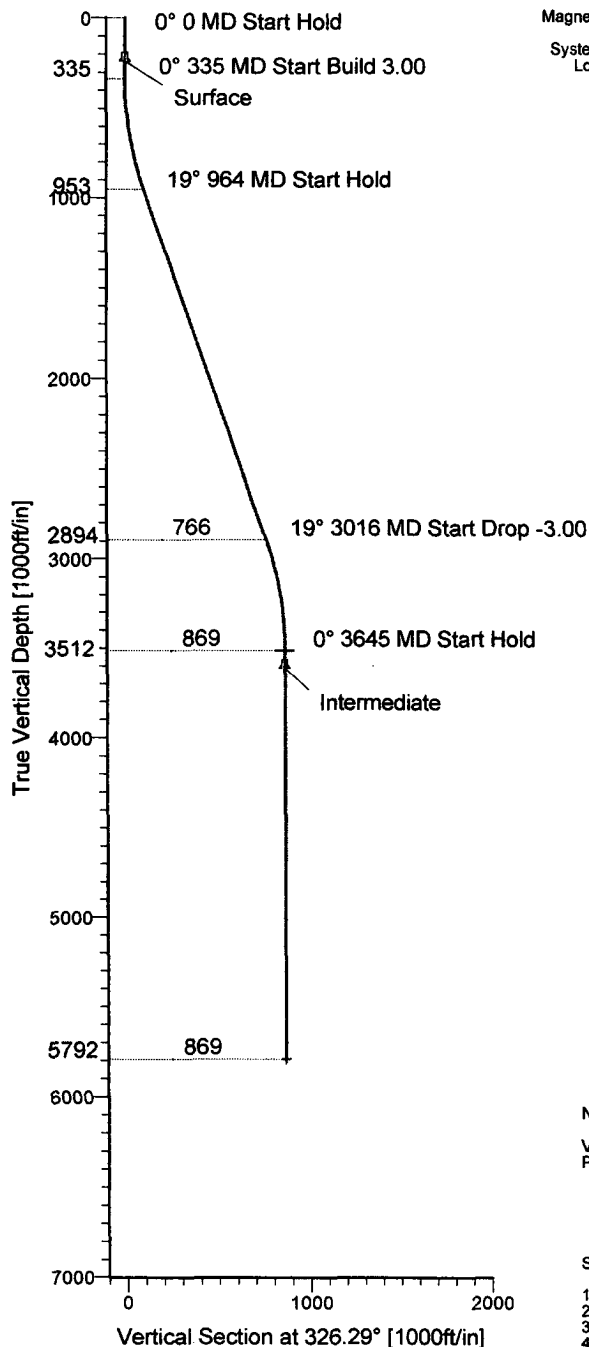
System Datum: Mean Sea Level
Local North: Grid North

SITE DETAILS

San Juan 29-6 Unit 4B
Section 17, T29N, R6W
Rio Arriba County, NM

Site Centre Latitude: 36°43'46.524N
Longitude: 107°29'32.435W

Ground Level: 6416.00
Positional Uncertainty: 0.00
Convergence: 0.20



WELLPATH DETAILS

Original Hole

Ref. Datum:	Rig:	SITE	0.00ft
V. Section Angle	Origin +N/-S	Origin +E/-W	Starting From TVD
326.29°	0.00	0.00	5792.00

CASING DETAILS

No.	TVD	MD	Name	Size
1	235.00	235.00	Surface	9.625
2	3612.00	3744.89	Intermediate	7.000

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Vertical Point	3512.00	722.80	-482.24	36°43'53.688N	107°29'38.328W	Circle (Radius: 50)
PBHL	5792.00	722.80	-482.24	36°43'53.688N	107°29'38.328W	Point

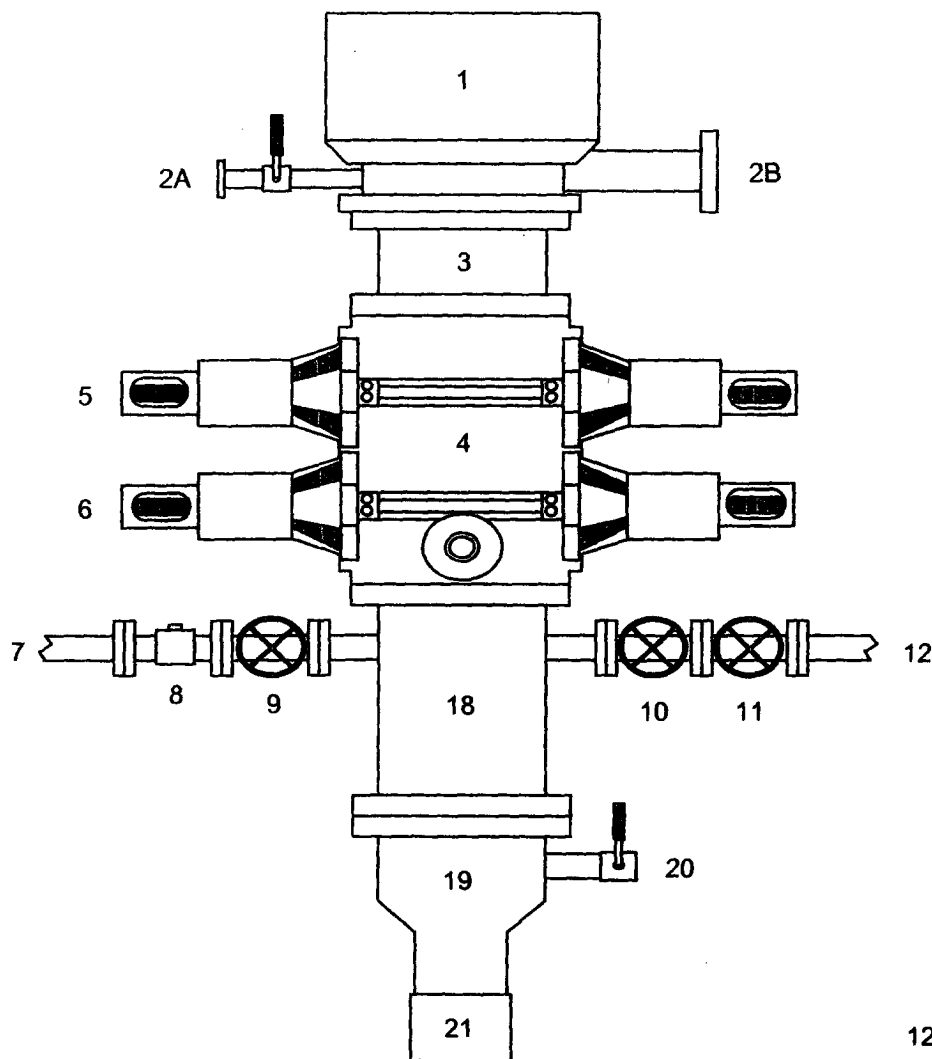
SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	326.29	0.00	0.00	0.00	0.00	0.00	0.00	
2	335.00	0.00	326.29	335.00	0.00	0.00	0.00	0.00	0.00	
3	963.98	18.87	326.29	952.67	85.38	-56.97	3.00	326.29	102.64	
4	3015.91	18.87	326.29	2894.33	637.42	-425.27	0.00	0.00	766.26	
5	3644.89	0.00	326.29	3512.00	722.80	-482.24	3.00	180.00	868.90	
6	5924.89	0.00	326.29	5792.00	722.80	-482.24	0.00	0.00	868.90	PBHL

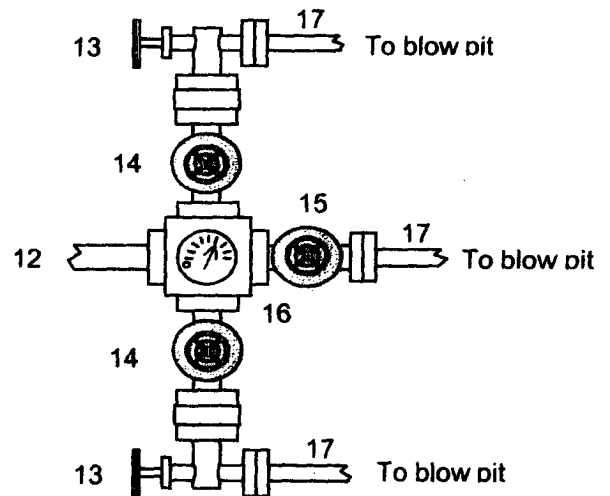


BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

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



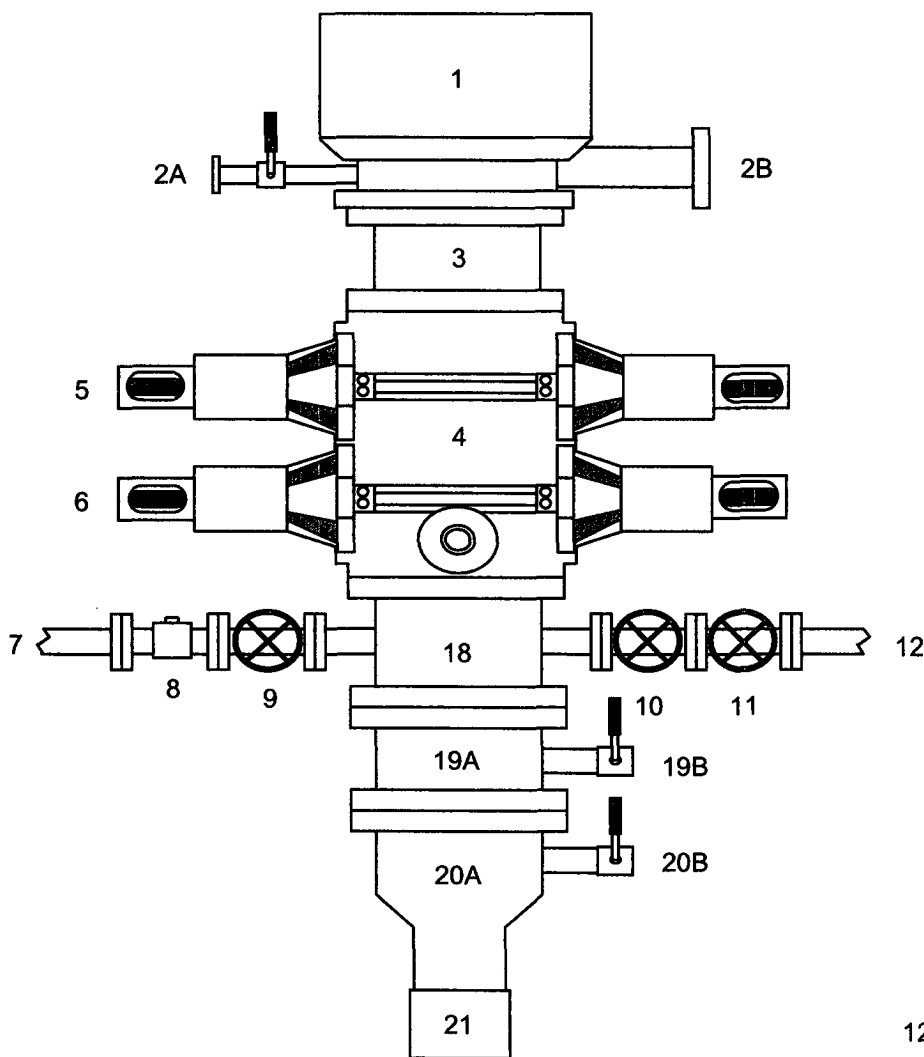
A 12-1/4" hole will be drilled to approximately 220' and the 9-5/8" surface casing will be run and cemented. The Casing Head "A" Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. A test plug will be set in the wellhead and the pipe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

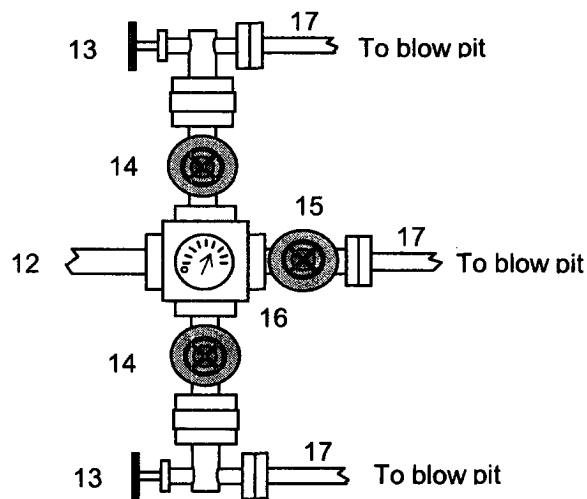
1. Upper Kelly cock Valve with handle
2. Stab-in TIW valve for all drillstrings in use

BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to TD and Setting 4.5 inch Casing



1. Rotating Head
- 2A. Fill-up Line & valve
- 2B. Blooie 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