

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

2007 FEB -5 PM 3:45

| | | |
|---|---|-----------------|
| 1a. Type of Work DRILL | 5. Lease Number NMSF-078417 Unit Reporting Number 210 FARMINGTON NM | |
| 1b. Type of Well GAS | 6. If Indian, All. or Tribe | |
| 2. Operator ConocoPhillips | 7. Unit Agreement Name San Juan 28-7 Unit | |
| 3. Address & Phone No. of Operator PO Box 4289, Farmington, NM 87499 (505) 326-9700 | 8. Farm or Lease Name | |
| 4. Location of Well Surface - Unit J (NWSE) 2630' FSL & 1520' FEL, BH - Unit H (SENE) 2200' FNL & 300' FEL Latitude 36° 39.6700' N Lat - 107° 36.6257' W Latitude 36° 39.7409' W; Longitude 107° 36.3767' W | 9. Well Number #248M 10. Field, Pool, Wildcat Basin Dakota / Blanco MV 11. Sec., Twn, Rge, Mer. (NMPM) Sec. 18, T28N, R07W API # 30-039-30193 | |
| 14. Distance in Miles from Nearest Town | 12. County Rio Arriba | 13. State NM |
| 15. Distance from Proposed Location to Nearest Property or Lease Line 1520' | | |
| 16. Acres in Lease | 17. Acres Assigned to Well 320 1/2 - MV & DK | |
| 18. Distance from Proposed Location to Nearest Well, Drlg, Compl, or Applied for on this Lease | | |
| 19. Proposed Depth 8020' | 20. Rotary or Cable Tools Rotary | |
| 21. Elevations (DF, FT, GR, Etc.) 6901' GL | 22. Approx. Date Work will Start | |
| 23. Proposed Casing and Cementing Program See Operations Plan attached | HOLD C104 FOR <u>directional</u> SURVEY RCVD FEB 21 '07 OIL CONS. DIV. DIST. 3 2-5-07 Date | |
| 24. Authorized by: <u>Patsy Clugston</u> Regulatory Specialist | | |

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.

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

NMOCD

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

2-23-07

DISTRICT I
1625 M. French Dr., Hobbs, N.M. 88240

DISTRICT II
1301 West Grand Avenue, Artesia, N.M. 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 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

Form C-102
Revised October 12, 2005

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

2007 FEB -5 PM 3:45

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

210 FARMINGTON NM

| | | |
|---|---|---|
| ¹ API Number 30-039- 30193 | ² Pool Code 72319/71599 | ³ Pool Name Blanco Mesaverde / Basin Dakota |
| ⁴ Property Code 31739 | ⁵ Property Name SAN JUAN 28-7 unit | ⁶ Well Number 248M |
| ⁷ GRID No. 217817 | ⁸ Operator Name CONOCOPHILLIPS COMPANY | ⁹ Elevation 6901' |

¹⁰ Surface Location

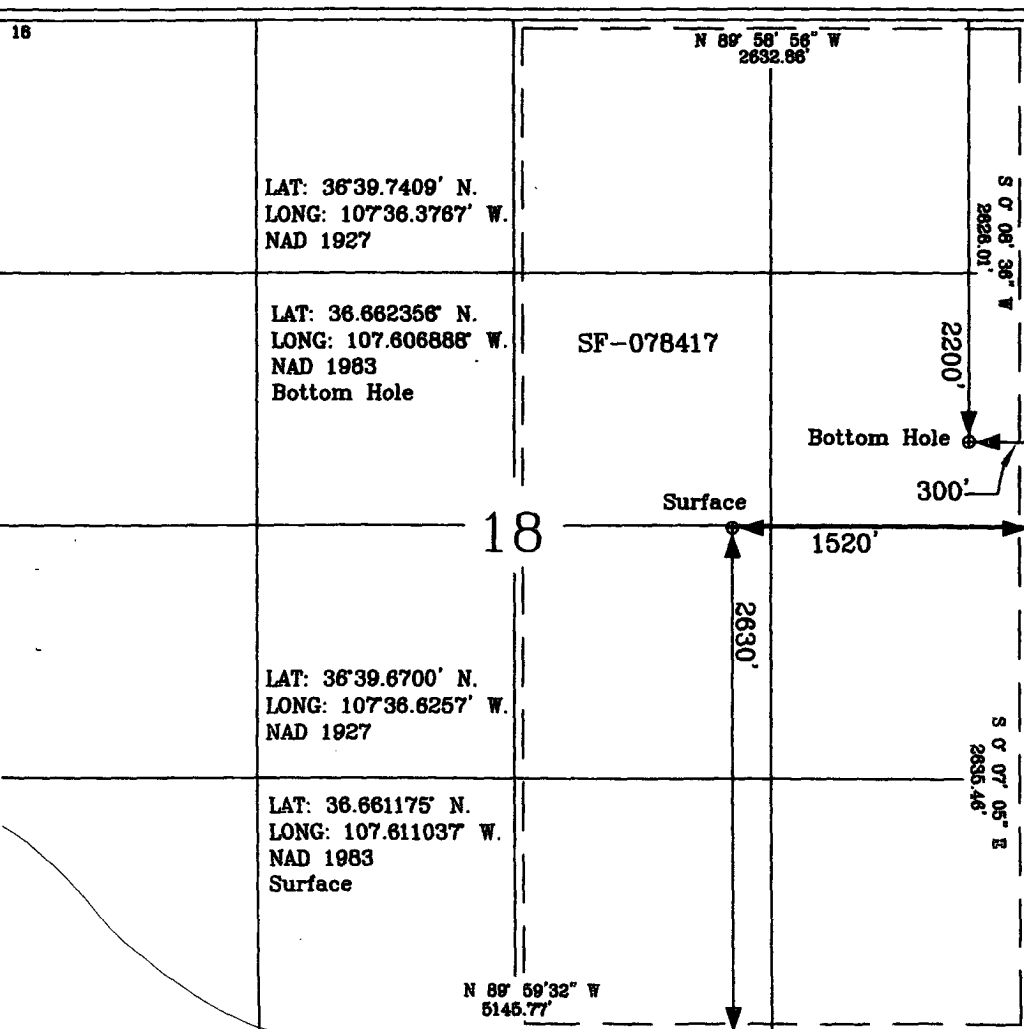
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| J | 18 | 28-N | 7-W | | 2630' | SOUTH | 1520' | EAST | 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 |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|------------|
| H | 18 | 28-N | 7-W | | 2200' | NORTH | 300' | EAST | RIO ARRIBA |

| | | | |
|--|-------------------------------|----------------------------------|-------------------------|
| ¹² Dedicated Acres 320 acres 12 | 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



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 released 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 a working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature

Patsy Clugston/ Sr. Regulatory Specialist

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

Signature

GLEN W. RUSSELL
15703
LICENSED PROFESSIONAL SURVEYOR

Office

May 27, 2004

District I

Energy, Minerals and Natural Resources

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

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

WELL API NO.

30-039- **30193**

5. Indicate Type of Lease

STATE ☐FEE ☐

6. State Oil & Gas Lease No.

Federal Lease SF-078417

7. Lease Name or Unit Agreement Name

San Juan 28-7 Unit

8. Well Number

#248M

9. OGRID Number

217817

10. Pool name or Wildcat

Blanco Mesaverde / Basin Dakota

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 J: 2630'

feet from the

South

line and

1520'

feet from the

East

line

Section 18Township 28MRng 7WNMPM

County

Rio Arriba

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

6901' GL

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

>2000'

Pit Liner Thickness:

12

mil

Below-Grade Tank:

Volume

4400

bbls;

Construction Material

Synthetic

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 ☐

OTHER:

New Drill ☒**SUBSEQUENT REPORT OF:**REMEDIAL WORK ☐COMMENCE DRILLING OPNS. ☐CASING/CEMENT JOB ☐ALTERING CASING ☐P AND A ☐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 NMOCD 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 NMOCD guidelines ☐, a general permit ☒ or an (attached) alternative OCD-approved plan ☐.

SIGNATURE

Patsy Clugston

TITLE

Regulatory Specialist

DATE

11/10/2006

Type or print name

Patsy Clugston

E-mail address: clugspl@conocophillips.co

Telephone No. 505-326-9518

For State Use Only

APPROVED BY

[Signature]

TITLE

DEPUTY OIL & GAS INSPECTOR, DIST. 4

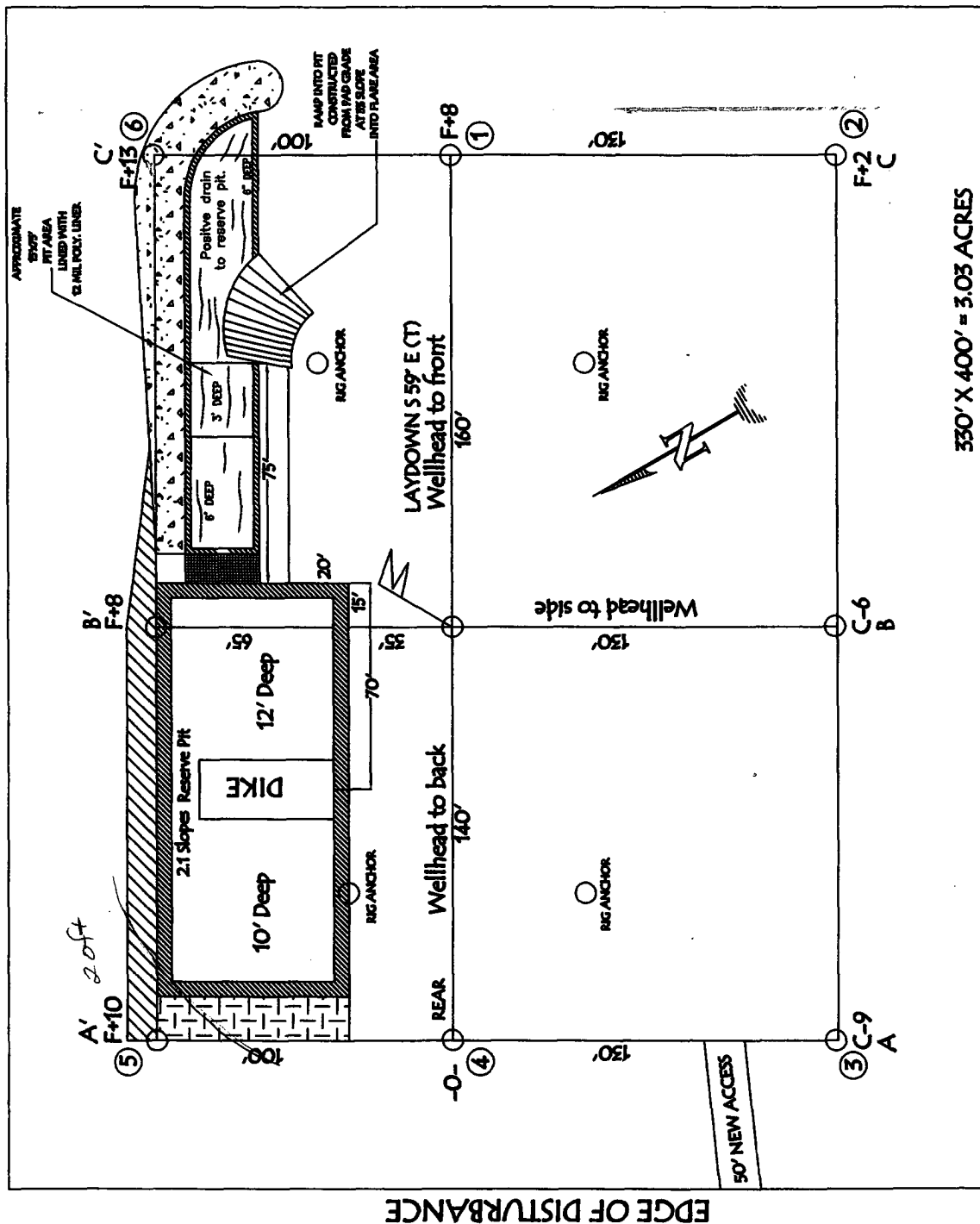
DATE

FEB 23 2007

Conditions of Approval (if any):

CONOCOPHILLIPS COMPANY

SAN JUAN 28-7 UNIT 248M, 2630' FSL & 1520' FEL
SECTION 18, T-28-N, R-7-W, NMPM, RIO ARriba COUNTY, NM
GROUND ELEVATION: 6901', DATE: JUNE 27, 2006



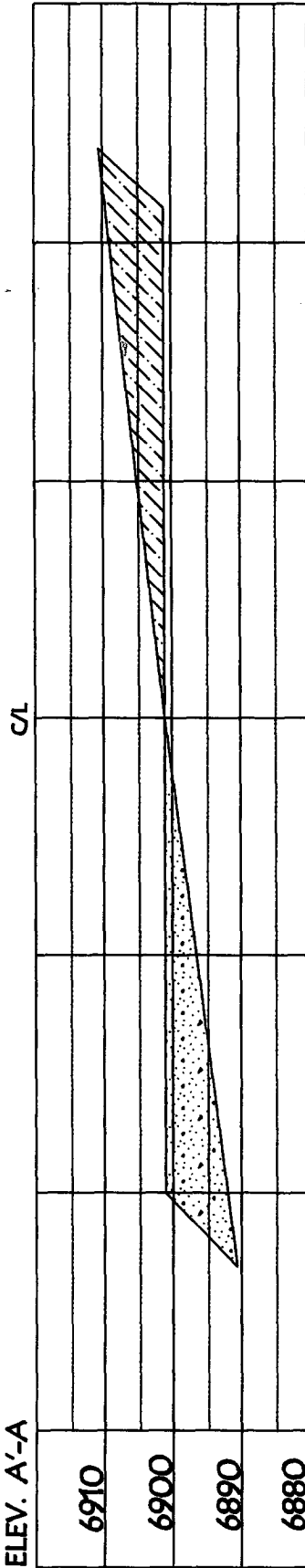
NOTE: VECTOR SURVEYS LLC IS NOT LIABLE FOR UNDERGROUND UTILITIES OR PIPELINES. CONTRACTOR SHOULD CALL ONE-CALL FOR LOCATION OF ANY MARKED OR UNMARKED BURIED PIPELINES OR CABLES ON WELL PAD AND OR ACCESS ROAD AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

LATITUDE: 36° 39.6700' N LONGITUDE: 107° 36.6257' W NAD27

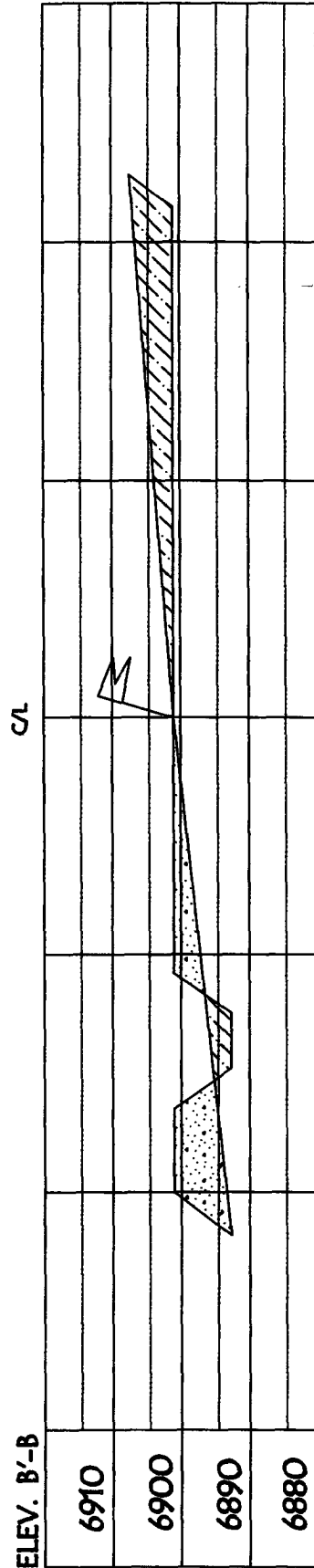
CONOCOPHILLIPS COMPANY

SAN JUAN 28-7 248M, 2630' FSL & 1520' FEL
SECTION 18, T-28- N, R-7-W, NMPM, RIO ARriba COUNTY, NM
GROUND ELEVATION: 6901', DATE: JUNE 27, 2006

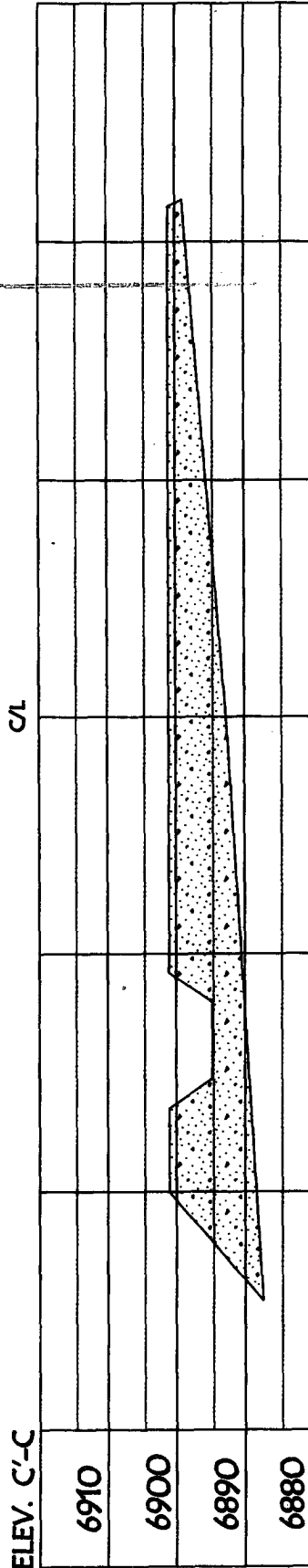
ELEV. A'-A



ELEV. B'-B



ELEV. C'-C



NOTE: VECTOR SURVEYS LLC 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 AT LEAST TWO (2) WORKING DAYS PRIOR TO CONSTRUCTION.

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

SAN JUAN 28-7 UNIT 248M

| | | | | | |
|--------------------------------|-------------------------|------------------------------------|------------------------|---------|--|
| Lease: | | AFE #: WAN.CNV.7176 | | AFE \$: | |
| Field Name: 28-7 | Rig: Aztec Rig 673 | State: NM | County: RIO ARRIBA | API #: | |
| Geoscientist: Glaser, Terry J | Phone: (281) 293 - 6538 | Prod. Engineer: Fontenot, Jessie C | Phone: +1 832-486-3483 | | |
| Res. Engineer: Johnson, Tom B. | Phone: (832)-486-2347 | Proj. Field Lead: Fransen, Eric E. | Phone: | | |

Primary Objective (Zones):

| Zone | Zone Name |
|--------|-------------------|
| R20002 | MESAVERDE(R20002) |
| R20076 | DAKOTA(R20076) |

| | | | | | |
|---|------------------------|--------------------|------|----------------|-------------|
| Location: Surface | | Datum Code: NAD 27 | | Deviated | |
| Latitude: 36.661168 | Longitude: -107.610428 | X: | Y: | Section: 18 | Range: 007W |
| Footage X: 1520 FEL | Footage Y: 2630 FSL | Elevation: 6901 | (FT) | Township: 028N | |
| Tolerance: 36 39 40.2048, 107 36 37.5408 36 39.67008 107 36.62568 | | | | | |
| Location: Bottom Hole | | Datum Code: NAD 27 | | Deviated | |
| Latitude: 36.662349 | Longitude: -107.606279 | X: | Y: | Section: 18 | Range: 007W |
| Footage X: 300 FEL | Footage Y: 2200 FNL | Elevation: | (FT) | Township: 028N | |
| Tolerance: | | | | | |

| | | | |
|---|--------------------|------------------|--------------------|
| Location Type: Year Round | Start Date (Est.): | Completion Date: | Date In Operation: |
| Formation Data: Assume KB = 6917 Units = FT | | | |

| Formation Call & Casing Points | Depth (TVD in Ft) | SS (Ft) | Depletion (Yes/No) | BHP (PSIG) | BHT | Remarks |
|--------------------------------|-------------------|---------|--------------------------|------------|-----|--------------------------------|
| NCMT | 1317 | 5600 | <input type="checkbox"/> | | | |
| OJAM | 2592 | 4325 | <input type="checkbox"/> | | | Possible water flows. |
| KRLD | 2742 | 4175 | <input type="checkbox"/> | | | |
| FRLD | 3242 | 3675 | <input type="checkbox"/> | | | Possible gas. |
| PCCF | 3542 | 3375 | <input type="checkbox"/> | | | |
| LEWS | 3742 | 3175 | <input type="checkbox"/> | | | |
| CHRA | 4467 | 2450 | <input type="checkbox"/> | | | |
| CLFH | 5197 | 1720 | <input type="checkbox"/> | | | Gas; possibly wet |
| MENF | 5327 | 1590 | <input type="checkbox"/> | | | Gas. |
| PTLK | 5767 | 1150 | <input type="checkbox"/> | | | Gas. |
| GLLP | 7027 | -110 | <input type="checkbox"/> | | | Gas. Possibly wet. |
| GRHN | 7705 | -788 | <input type="checkbox"/> | | | Gas possible, highly fractured |
| GRRS | 7768 | -851 | <input type="checkbox"/> | | | |
| TWLS | 7807 | -890 | <input type="checkbox"/> | | | Gas |
| PAGU | 7906 | -989 | <input type="checkbox"/> | | | Gas. Highly Fractured. |
| CBBO | 7936 | -1019 | <input type="checkbox"/> | | | Gas |
| CBRL | 7969 | -1052 | <input type="checkbox"/> | | | |
| TD | 8020 | -1103 | <input type="checkbox"/> | | | |

| Reference Wells: | | |
|------------------|--------------|-------------------------|
| Reference Type | Well Name | Comments |
| Intermediate | SJ 28-7 199G | 18-28N-7W-SW, KB = 6899 |
| Intermediate | SJ 28-7 242F | 18-28N-7W-NW, KB = 6484 |

PROJECT PROPOSAL - New Drill / Sidetrack

SAN JUAN 28-7 UNIT 248M

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 |
|----------|-------|-----------|---------|----------------|---------|
|----------|-------|-----------|---------|----------------|---------|

Comments: Location/Tops/Logging - TD is 315' below GRHN MVNM028N007W18NE2 DK 28N07W18NE2

Zones - MVNM028N007W18NE2 DK 28N07W18NE2

San Juan 28-7 #248M OPERATIONS PLAN

Well Name: San Juan 28-7 #248M

Objective: Mesa Verde/Dakota

Location: Rio Arriba NM

Elevation: 6901'

Surface Coordinates/Footages

T - 28 N R - 7 W Sec.: 18
2630' FSL 1520' FEL
Latitude: 36° 39.6701' N
Longitude: 107° 36.6257' W

Bottom Hole Coordinates/Footages

T - 28 N R - 7 W Sec.: 18
2200' FNL 300' FEL
Latitude: 36° 39.7409' N
Longitude: 107° 36.3767' W

| <u>Formation</u> | <u>Top (TMD)</u> | <u>Top (TVD)</u> | <u>Contents</u> |
|-------------------------|-------------------------|-------------------------|------------------------|
| San Jose | 0 | 0 | |
| Nacimiento | 1367 | 1317 | |
| Ojo Alamo | 2758' | 2592' | aquifer |
| Kirtland | 2922' | 2742' | |
| Fruitland | 3468' | 3242' | gas |
| Pictured Cliffs | 3785' | 3542' | |
| Lewis | 3988' | 3742' | |
| Chacra | 4714' | 4467' | |
| Cliffhouse | 5444' | 5197' | gas |
| Menefee | 5574' | 5327' | gas |
| Point Lookout | 6014' | 5767' | gas |
| Gallup | 7274' | 7027' | gas |
| Greenhorn | 7952' | 7705' | gas |
| Graneros | 8015' | 7768' | |
| Two Wells | 8054' | 7807' | gas |
| Paguate | 8153' | 7906' | gas |
| Upper Cubero | 8183' | 7936' | gas |
| Lower Cubero | 8216' | 7969' | |
| Total Depth: | 8267' | 8020' | |

Logging Program: Cased Hole: CBL-GR
Open Hole: None

| <u>Mud Program:</u> | <u>Interval (TMD)</u> | <u>Type</u> | <u>Weight (ppg)</u> | <u>Vis. (s/qt)</u> | <u>Fluid Loss (cc/30min)</u> |
|----------------------------|------------------------------|-----------------------|----------------------------|---------------------------|-------------------------------------|
| | 0' - 200' | Spud | 8.4-9.0 | 40-50 | No control |
| | 200' - 4247' | Non-dispersed | 8.4-9.0 | 30-60 | Less than 8 |
| | 4247' - 8267' | Air/Air Mist/Nitrogen | n/a | n/a | n/a |

| <u>Casing program:</u> | <u>Interval (TMD)</u> | <u>Hole Size</u> | <u>Casing Size</u> | <u>Weight</u> | <u>Grade</u> |
|-------------------------------|------------------------------|-------------------------|---------------------------|----------------------|---------------------|
| | 0' - 200' | 12 1/4" | 9 5/8" | 32.3# | H-40 |
| | 200' - 4247' | 8 3/4" | 7" | 23.0# | L-80 |
| | 4247' - 8267' | 6 1/4" | 4 1/2" | 11.6# | L-80 |

4147

| <u>Tubing program:</u> | <u>Interval (TMD)</u> | <u>Hole Size</u> | <u>Casing Size</u> | <u>Weight</u> | <u>Grade</u> |
|-------------------------------|------------------------------|-------------------------|---------------------------|----------------------|---------------------|
| | 0' - 8267' | Cased | 2 3/8" | 4.7# | J-55 |

Wellhead Equipment

9 5/8" x 7" X 4 1/2" x 2 3/8" - 11" (2000 psi) wellhead assembly

Drilling: Saw tooth guide shoe on bottom. Bowspring centralizers will be run in accordance with Onshore Order #2.

Surface

Drill to surface casing point of 200' and set 9.625" casing.

Intermediate

Mud drill to kick off point of 250'. At this point the well will be directionally drilled by building 3 degrees per 100' with an azimuth of 70.41 degrees. The end of the build will be at a TVD of 1015', a TMD of 1037', a reach of 160', and an inclination of 23.62 degrees. This angle and azimuth will be held to a TVD of 3235', a TMD of 3460', and a reach of 1131'. At this point the well will be drilled with a drop of 3 degrees per 100'. The end of the drop will be at a TVD of 4000', a TMD of 4247', a reach of 1291', and an angle of 0.0 degrees. 7" casing will be set at this point.

Production

From the shoe of the intermediate string, the well will be drilled vertically with an air hammer to a TVD of 8020' (TMD of 8267'). 4.5" casing will be set at this point.

Cementing

9.625" surface casing conventionally drilled: **200%** excess cement to bring cement to surface.

Run 188 cu.ft. (147 sks) Type III cement with 3% CaCl₂ and 1/4 pps celloflake (1.28 sks/ cu.ft.). Wait on cement appropriate time until cement achieves 250 psi compressive strength at 60° F prior to nipple up of BOPE. Wait on cement for 8 hrs for conventionally set holes before pressure testing or drilling out from under surface.

7" intermediate casing: **50%** excess cement to bring cement to surface.

Lead with 834 cu.ft. (392 sks) Premium Lite w/ 3% CaCl₂, 0.25 pps Cello-Flake, 5 pps LCM-1, 0.4% FL-52 and 0.4% SMS (2.13 sks/ft³). Tail with 124 ft³ (90 sks) Type III cmt. w/ 1% CaCl₂, 0.25 pps Cello-Flake and 0.2% FL-52 (1.38 sks/ft³). If cement does not circulate to surface, a CBL or a temperature survey will be run to determine TOC.

4.5" production casing: **30%** excess cement to achieve 100' overlap with intermediate casing.

Run 548 cu.ft. (277 sks) Premium Lite HS FM + 0.25pps Cello-Flake, 0.3% CD-32, 6.25pps LCM-1, 1% FL-52 (1.98 sks/ft³.)

BOP and Tests

Surface to Total Depth – 11", 2000 psi double gate BOP stack (Reference Figure #1).

Surface to Total Depth – choke manifold (Reference Figure #2).

Prior to drilling out surface casing, test BOPE and casing to 600 psi for 30 minutes.

Pipe rams will be actuated at least once each day and blind rams will be actuated once each trip to test proper functioning. A Kelly cock valve and drill string safety valves to fit each drill string will be maintained and available on the rig floor.

BOPE tests will be performed using an appropriately sized test plug and test pump and will be recorded using calibrated test gauges and a properly calibrated strip or chart recorder. The test will be recorded in the driller's log and will include a low pressure test requirement of 250 psig held for five minutes and a high pressure test requirement held for ten minutes as described in Onshore Order No. 2 or otherwise noted in the APD. A successful BOPE test using a test plug is considered when no pressure drop occurs over the duration of the test. Test gauges and recorders must be of the proper range and resolution commensurate with the authorized test pressure. Where the intermediate casing strings are used, only one BOPE test will be necessary contingent upon the test being conducted to the highest approved test pressure to which BOPE will be exposed. Casing pressure tests must be held for 30 minutes with no more than 10 percent pressure drop during the duration of the test.

Additional Information:

- No gas dedication.
- New casing will be utilized.
- Pipe movement (reciprocation) will be done if hole conditions permit.
- No abnormal pressure zones are expected.
- BHP is expected to be 2000 psi.

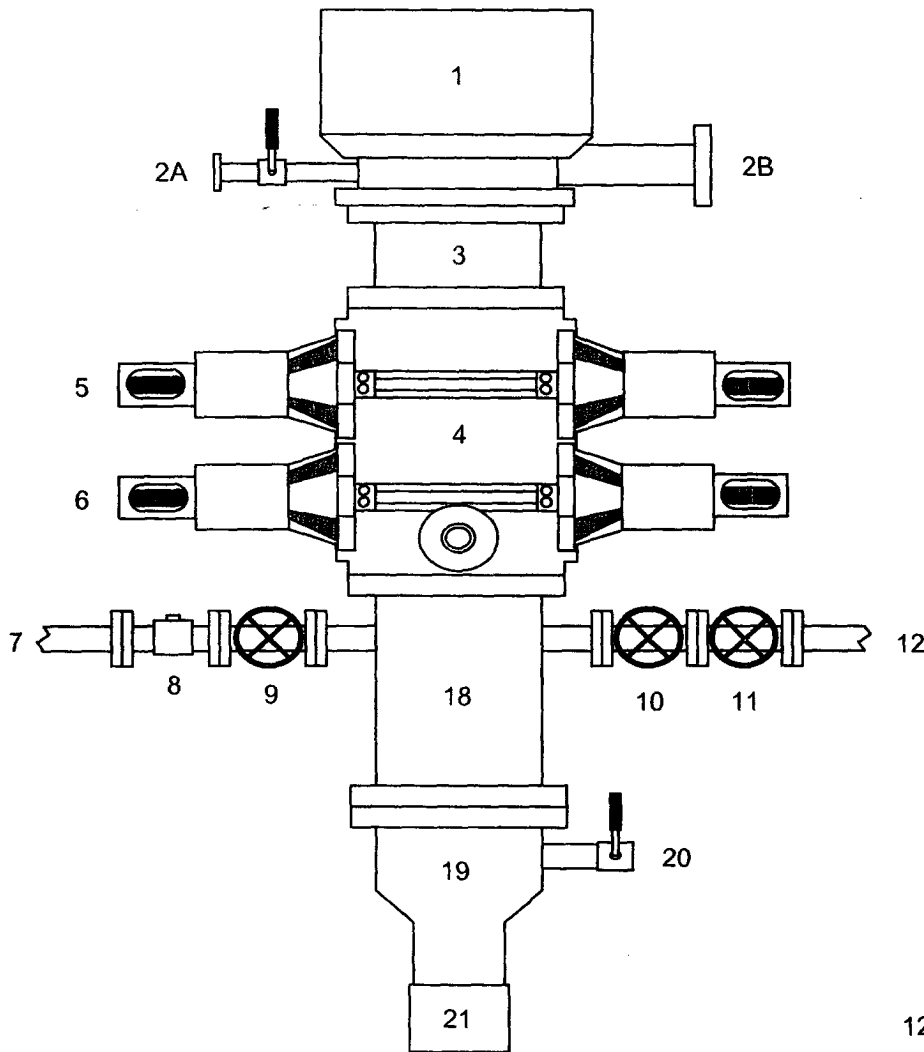

Drilling Engineer


Date

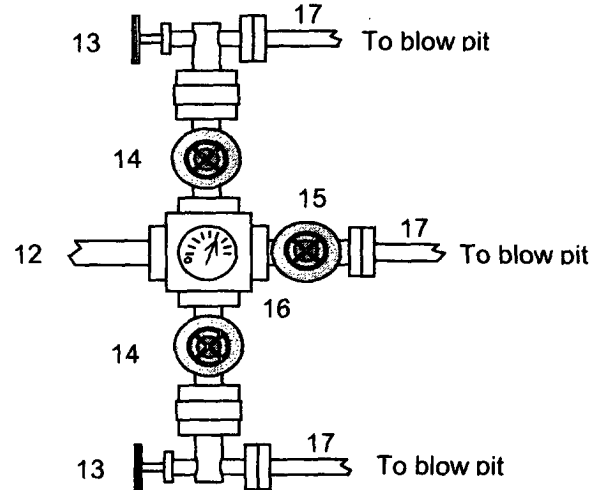
1/29/07

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



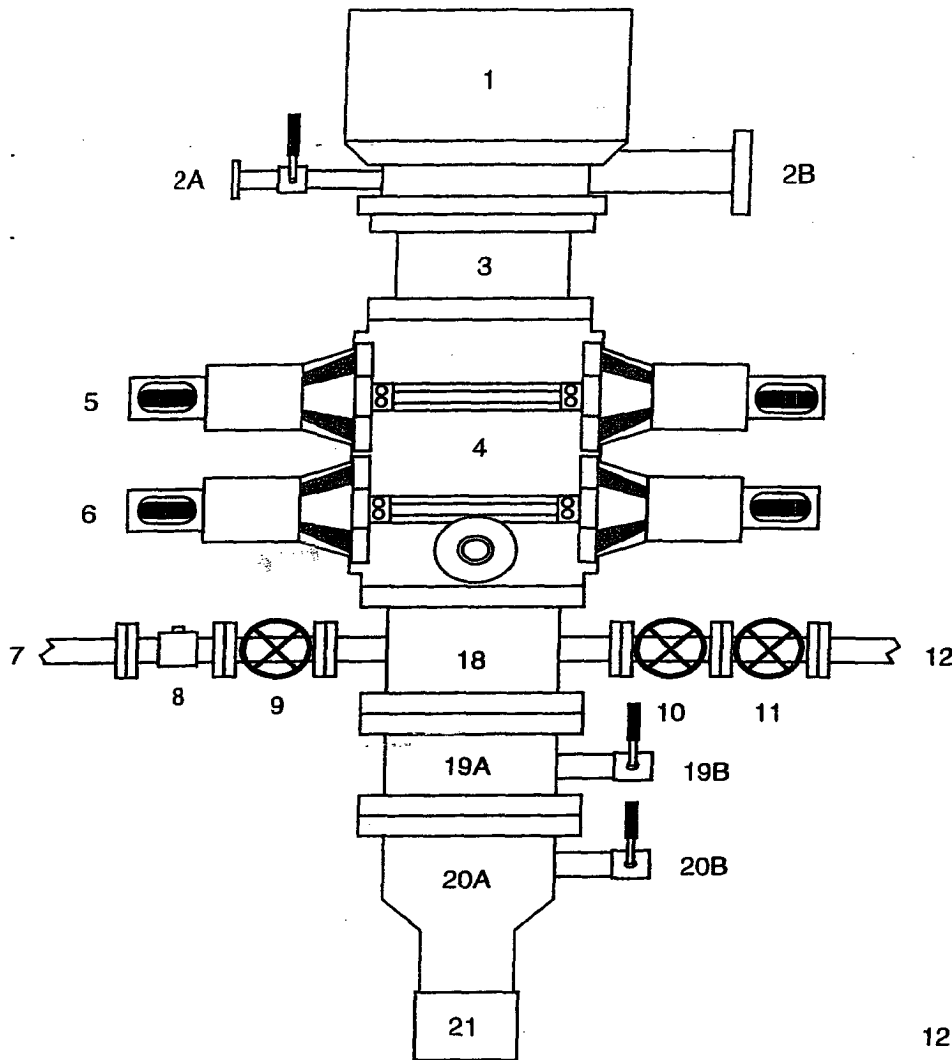
A 12-1/4" hole will be drilled to approximately 220' and the 9-5/8" surface casing will be run and cemented. The Casing Head "A" Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. A test plug will be set in the wellhead and the pipe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

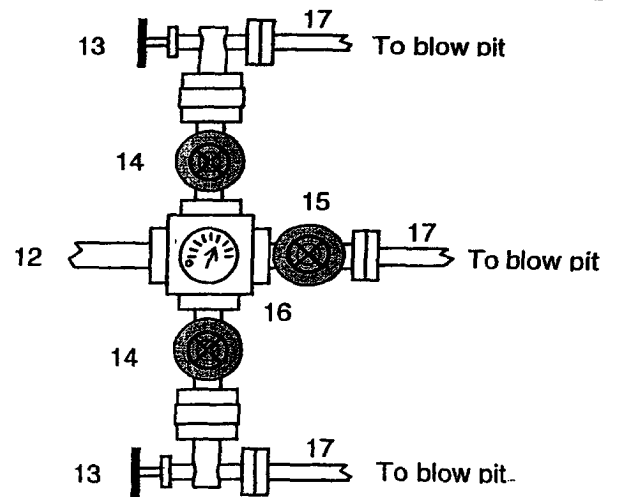
1. Upper Kelly cock Valve with handle
2. Stab-in TIW valve for all drillstrings in use

BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Drilling to TD and Setting 4.5 inch Casing



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