Form 3160-3
(August 1999)

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

# APPLICATION FOR PERMIT TO DRILL OR REENTER

| | |
|---|---|
| 1a. Type of Work: ☒ DRILL ☐ REENTER | 5. Lease Serial No. SF-078739 |
| | 6. If Indian, Allottee or Tribe Name |
| | 7. If Unit or CA Agreement, Name and No. |
| 1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone | 8. Lease Name and Well No. SAN JUAN 30-5 UNIT 234A |
| 2. Name of Operator CONOCOPHILLIPS COMPANY Contact: VICKI WESTBY E-Mail: Vicki.R.Westby@conocophillips.com | 9. API Well No. 30039 27806 |
| 3a. Address 4001 PENBROOK, SUITE 346 ODESSA, TX 79762 / 3b. Phone No. (include area code) Ph: 915.368.1352 | 10. Field and Pool, or Exploratory BASIN FRUITLAND COAL |
| 4. Location of Well *(Report location clearly and in accordance with any State requirements.*)* At surface NWNW 753FNL 1104FWL At proposed prod. zone | 11. Sec., T., R., M., or Blk. and Survey or Area Sec 22 T30N R5W Mer NMP D |
| 14. Distance in miles and direction from nearest town or post office* | 12. County or Parish RIO ARRIBA / 13. State NM |
| 15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) / 16. No. of Acres in Lease | 17. Spacing Unit dedicated to this well 320 W/2 |
| 18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. / 19. Proposed Depth 3413 MD | 20. BLM/BIA Bond No. on file |
| 21. Elevations (Show whether DF, KB, RT, GL, etc. 6500 GL / 22. Approximate date work will start | 23. Estimated duration |

JUL 2004
OIL CONS. DIV.
DIST. 3

## 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the authorized officer.

| | | |
|---|---|---|
| 25. Signature (Electronic Submission) | Name (Printed/Typed) VICKI WESTBY | Date 06/18/2004 |
| Title AGENT | | |
| Approved by (Signature) /s/ Manuel | Name (Printed/Typed) | Date 7-28-04 |
| Title AFM | Office FFO | |

Application approval does not warrant or certify the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**Additional Operator Remarks (see next page)**

**Electronic Submission #32139 verified by the BLM Well Information System**
**For CONOCOPHILLIPS COMPANY, sent to the Farmington**

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

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

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

NMOCD

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

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

Form C-102
Revised June 10, 2003
Submit to Appropriate District Office
State Lease – 4 Copies
Fee Lease – 3 Copies

☐ AMENDED REPORT

# WELL LOCATION AND ACREAGE DEDICATION PLAT

| ¹API Number | ²Pool Code | ³Pool Name |
|---|---|---|
| 30-039-27806 | 71629 | BASIN FRUITLAND COAL (GAS) |

| ⁴Property Code | ⁵Property Name | ⁶Well Number |
|---|---|---|
| 31327 | SAN JUAN 30-5 UNIT | 234A |

| ⁷OGRID No. | ⁸Operator Name | ⁹Elevation |
|---|---|---|
| 217817 | CONOCOPHILLIPS COMPANY | 6500 |

## ¹⁰Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| D | 22 | 30N | 5W | | 753 | NORTH | 1104 | WEST | RIO ARRIBA |

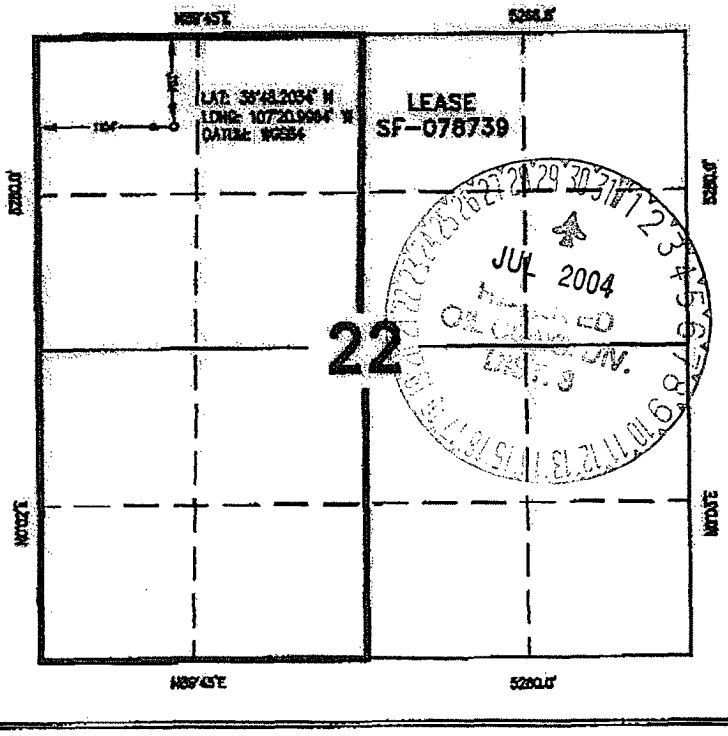
## ¹¹Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| ¹²Dedicated Acres | ¹³Joint or Infill | ¹⁴Consolidation Code | ¹⁵Order No. |
|---|---|---|---|
| 320.0 | | | |

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




## ¹⁷OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: Vicki Westby

Printed Name: Vicki Westby

Title and E-mail Address: Sr. Analyst

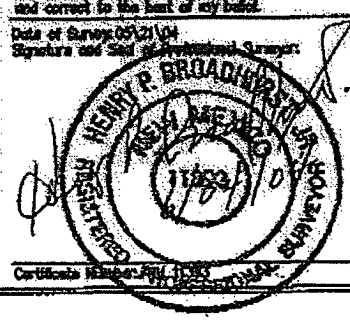
Date: June 17, 2004

## ¹⁸SURVEYOR 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: 05/21/04

Signature and Seal of Professional Surveyor:




Certificate Number: 11393

## Additional Operator Remarks:

ConocoPhillips Company proposes to drill a vertical wellbore to the Basin Fruitland Coal formation. This well will be drilled and equipped in accordance with the attachments submitted herewith. This is a LPA well and does not require notification. This application is for APD/ROW.

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
March 4, 2004

WELL API NO.

5. Indicate Type of Lease STATE ☐ FEE ☐

6. State Oil & Gas Lease No.

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.)

7. Lease Name or Unit Agreement Name
San Juan 30-5 Unit

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

8. Well Number
234A

2. Name of Operator
ConocoPhillips Company

9. OGRID Number
217817

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

10. Pool name or Wildcat
Basin Fruitland Coal

4. Well Location

Unit Letter D : 753 feet from the North line and 1104 feet from the West line

Section 22 Township 30N Range 5W NMPM Rio Arriba County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
6500' GL

**Pit or Below-grade Tank Application (For pit or below-grade tank closures, a form C-144 must be attached)**

**Pit Location: UL D Sect 22 Twp 30N Rng 5W Pit type Drill Pit Depth to Groundwater >100' Distance from nearest fresh water well >1 000'**

**Distance from nearest surface water >200<1000' Below-grade Tank Location UL_____ Sect_____ Twp_____ Rng_____ ; _____ feet from the _____ line and _____ feet from the _____ line**

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

| NOTICE OF INTENTION TO: | | | | SUBSEQUENT REPORT OF: | | | |
|---|---|---|---|---|---|---|---|
| PERFORM REMEDIAL WORK | ☐ | PLUG AND ABANDON | ☐ | REMEDIAL WORK | ☐ | ALTERING CASING | ☐ |
| TEMPORARILY ABANDON | ☐ | CHANGE PLANS | ☐ | COMMENCE DRILLING OPNS. | ☐ | PLUG AND ABANDONMENT | ☐ |
| PULL OR ALTER CASING | ☐ | MULTIPLE COMPLETION | ☐ | CASING TEST AND CEMENT JOB | ☐ | | |
| OTHER: Drill Pit Notification | | | √ | 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.

ConocoPhillips Company's Generic Pit Plan is on file at NMOCD in Aztec, NM. See the attached diagram that details the location of the pit in reference to the proposed wellhead. The drill pit will be lined. The drill pit will be closed after the well has been completed. The solids left after the water has been disposed of will be sampled and NMOCD approval will be obtained prior to closure of this pit.

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 Vicki Westby TITLE Sr. Analyst DATE 6/17/04

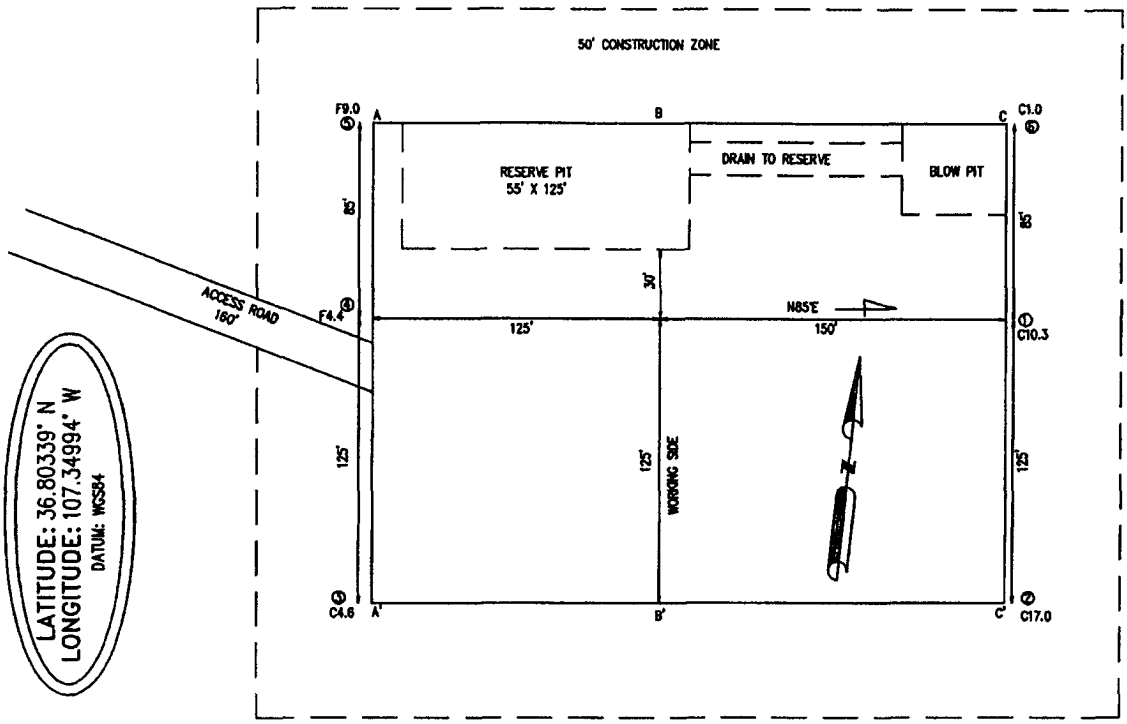
Type or print name Vicki Westby E-mail address: Vicki.R.Westby@conocophillips.com Telephone No. 432-368-1352

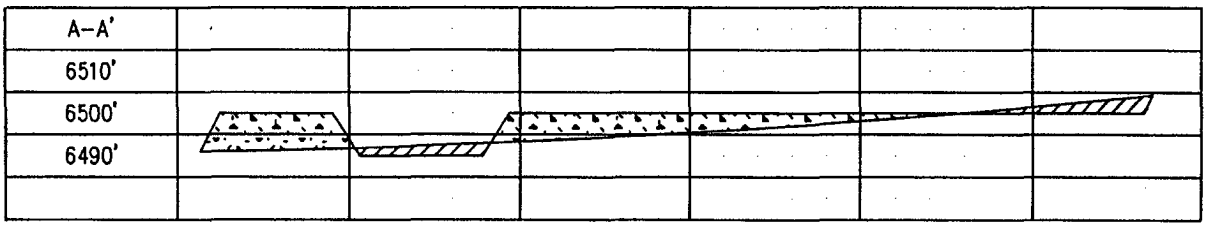
(This space for State use)

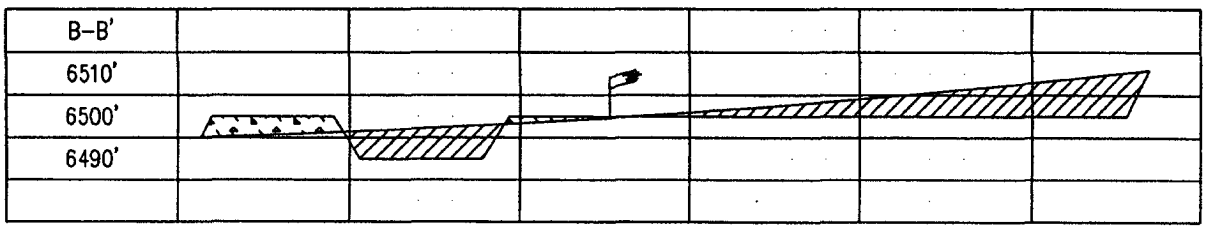
APPPROVED BY_____ TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE JUL 30 2004

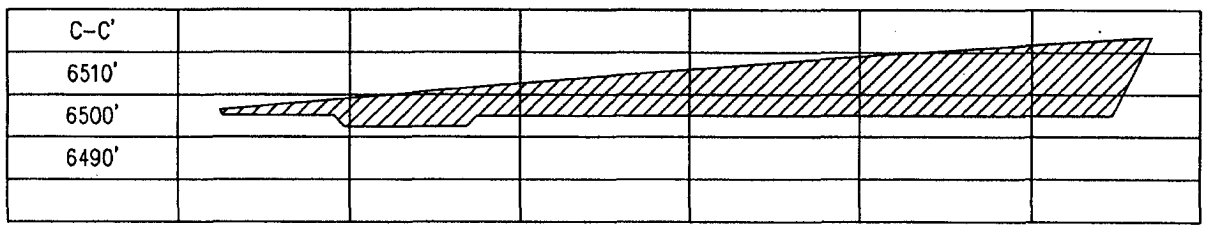
Conditions of approval, if any:

# CONOCOPHILLIPS COMPANY SAN JUAN 30-5 UNIT #234A
753' FNL & 1104' FWL, SECTION 22, T30N, R5W, NMPM
RIO ARRIBA COUNTY, NEW MEXICO, ELEVATION: 6500




| FILENAME: 30-5 234A.dwg | SHEET 2 OF 6 | CHENAULT CONSULTING INC. | DRAWN BY:J. MILLER | CHECKED BY:P.B. |
|---|---|---|---|---|

ConocoPhillips

San Juan Business Unit

# PROJECT PROPOSAL - New Drill / Sidetrack

## SAN JUAN 30-5 234A

| | | | | |
|---|---|---|---|---|
| Lease: | | AFE #: WAN.CBM.4191 | | AFE $: |
| Field Name: hPHILLIPS 30-5 | Rig: 486-0597 | State: NM | County: RIO ARRIBA | API #: |
| Geoscientist: Murphy, Jim O. | Phone: 832-486-2361 | Prod. Engineer: | | Phone: |
| Res. Engineer: Kolesar, James E. | Phone: (832) 486 - 2336 | Proj. Field Lead: | | Phone: |

**Primary Objective (Zones):**

| Zone | Zone Name |
|---|---|
| JCV | BASIN FRUITLAND COAL (GAS) |

**Location: Surface** — **Straight Hole**

| | | | | | |
|---|---|---|---|---|---|
| Latitude: 36.80 | Longitude: -107.35 | X: | Y: | Section: 22 | Range: 5W |
| Footage X: 1104 FWL | Footage Y: 753 FNL | Elevation: 6500 (FT) | Township: 30N | | |
| Tolerance: | | | | | |

| Location Type: | Start Date (Est.): | Completion Date: | Date In Operation: |
|---|---|---|---|

Formation Data: Assume KB = 6513 Units = FT

| Formation Call & Casing Points | Depth (TVD in Ft) | SS (Ft) | Depletion (Yes/No) | BHP (PSIG) | BHT | Remarks |
|---|---|---|---|---|---|---|
| SAN JOSE | 13 | 6500 | ☐ | | | |
| Surface Casing | 213 | 6300 | ☐ | | | 12-1/4 hole. 9 5/8" 32.3 ppf, H-40, STC casing. Circulate cement to surface. |
| NCMT | 1428 | 5085 | ☐ | | | |
| OJAM | 2528 | 3985 | ☐ | | | Possible water flows. |
| KRLD | 2728 | 3785 | ☐ | | | |
| FRLD | 3023 | 3490 | ☐ | | | Possible gas. |
| Intermediate Casing | 3093 | 3420 | ☐ | | | 8 3/4" Hole. 7", 20 ppf, J-55, STC Casing. Circulate cement to surface. |
| BASE MAIN COAL | 3223 | 3290 | ☐ | 170 | | |
| PC TONGUE | 3263 | 3250 | ☐ | | | |
| Total Depth | 3313 | 3200 | ☐ | | | 6-1/4" hole possibly underreamed to 9.5". Optional Liner: 5.5", 15.5#, J-55 LTC - left uncemented. |
| PCCF | 3413 | 3100 | ☐ | | | |

**Reference Wells:**

| 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:

Comments: General/Work Description - Fruitland Coal 160-acre infill well.

Mud Log from intermediate casing shoe to TD will be obtained.

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

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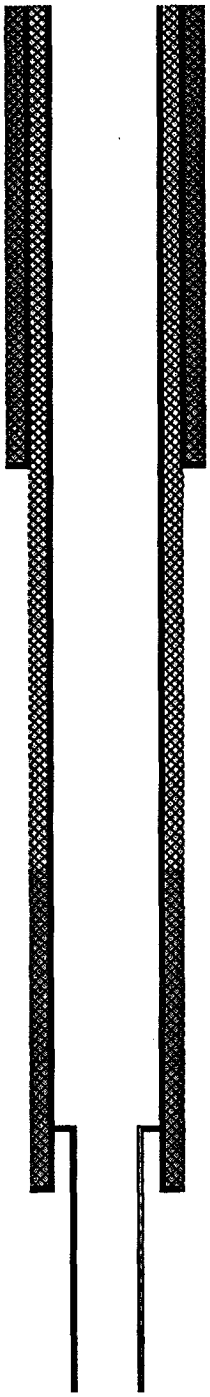
# San Juan 30-5 # 234A



## SURFACE CASING :

| | | | |
|---|---|---|---|
| Drill Bit Diameter | 12.25 | " | |
| Casing Outside Diameter | 9.625 | " | 9.001 |
| Casing Weight | 32.3 | ppf | |
| Casing Grade | H-40 | | |
| Shoe Depth | 230 | ' | 40 ' |
| Cement Yield | 1.21 | cuft/sk | |
| Excess Cement | 125 | % | |

| | | | |
|---|---|---|---|
| Casing Capacity | 0.0787 | bbl/ft | 0.4419 cuft/ft |
| Hole / Casing Annulus Capacity | 0.0558 | bbl/ft | 0.3132 cuft/ft |

**Cement Required** **148.6 sx**

**SHOE** **230 ', 9.625 ", 32.3 ppf, H-40**

## INTERMEDIATE CASING :

| | | | |
|---|---|---|---|
| Drill Bit Diameter | 8.75 | " | |
| Casing Outside Diameter | 7 | " | 6.456 |
| Casing Weight | 20 | ppf | |
| Casing Grade | J-55 | | |
| Shoe Depth | 3093 | ' | |
| Lead Cement Yield | 2.91 | cuft/sk | |
| Lead Cement Excess | 160 | % | |
| Tail Cement Length | 315 | ' | 42 ' |
| Tail Cement Yield | 1.33 | cuft/sk | |
| Tail Cement Excess | 160 | % | |

| | | | |
|---|---|---|---|
| Casing Capacity | 0.0405 | bbl/ft | 0.2273 cuft/ft |
| Casing / Casing Annulus Capacity | 0.0311 | bbl/ft | 0.1746 cuft/ft |
| Hole / Casing Annulus Capacity | 0.0268 | bbl/ft | 0.1503 cuft/ft |

**Lead Cement Required** **356.0 sx**
**Tail Cement Required** **99.7 sx**

**LINER TOP** **3073 '**

**SHOE** **3093 ', 7 ", 20 ppf, J-55**

**LINER BOTTOM** 3313 ' (Uncemented)

| San Juan 30-5 # 234A | | |
|---|---|---|
| 9-5/8" Surface Casing | | |
| Cement Slurry | Class G | |
| | + 3% Calcium Chloride | |
| | + 0.25 lb/sx D029 Cellophane Flakes | |
| | | |
| Cement Volume | 149 | sx |
| Cement Yield | 1.21 | cuft/sx |
| Cement Volume | 179.75 | cuft |
| Cement Density | 15.6 | ppg |
| Water Required | 5.29 | gal/sx |
| | | |

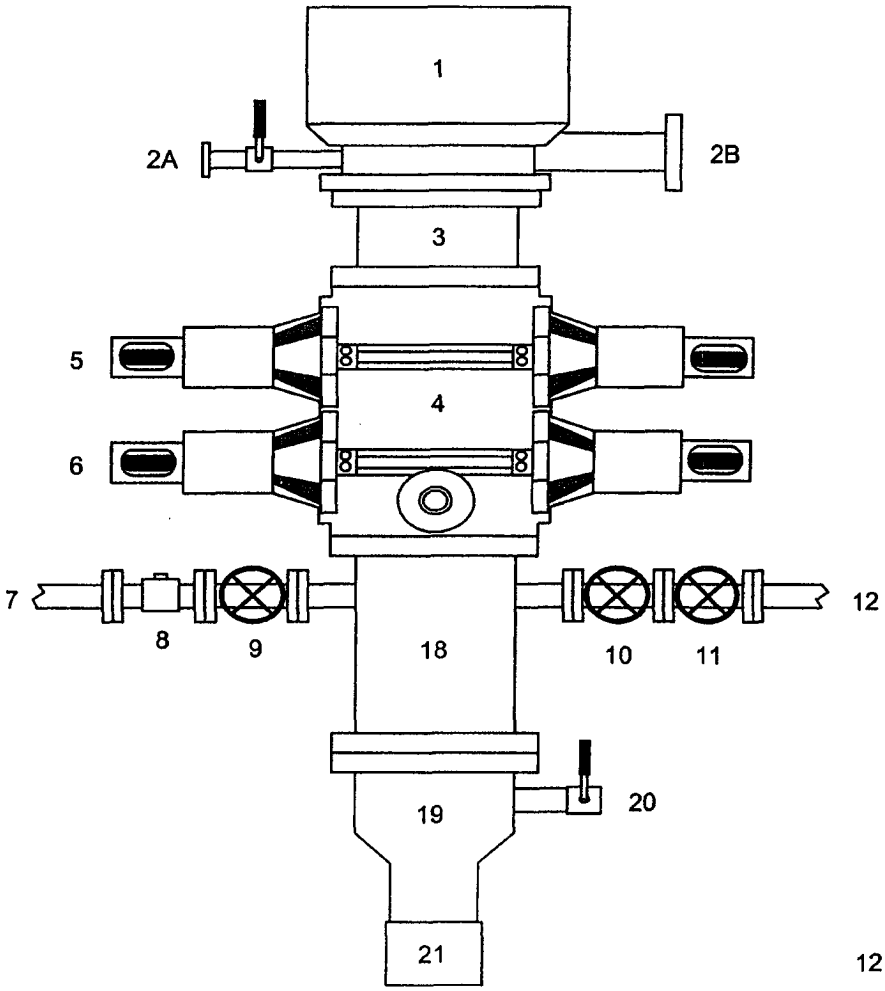
| San Juan 30-5 # 234A | | |
|---|---|---|

| 7" Intermediate Casing | | |
|---|---|---|
| Lead Slurry | | |
| Cement Slurry | Class G | |
| | + 3% Econolite | |
| | + 10 lb/sx Gilsonite | |
| | + 0.5% Flocele | |
| | | |
| Cement Volume | 356 | sx |
| Cement Yield | 2.91 | cuft/sx |
| Cement Volume | 1035.99 | cuft |
| Cement Density | 11.4 | ppg |
| Water Required | 16.88 | gal/sx |
| | | |

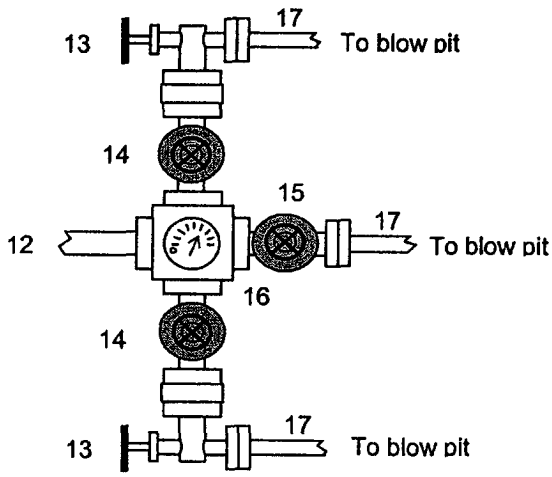
| 7" Intermediate Casing | | |
|---|---|---|
| Tail Slurry | | |
| Cement Slurry | 40% POZ / 60% Class G cement | |
| | + 2% Bentonite | |
| | + 2% Calcium Chloride | |
| | + 5 lb/sx Gilsonite | |
| | + 0.25 lb/sx Flocele | |
| | | |
| Cement Volume | 100 | sx |
| Cement Yield | 1.33 | cuft/sx |
| Cement Volume | 132.67 | cuft |
| Cement Density | 13.5 | ppg |
| Water Required | 5.36 | gal/sx |
| | | |

# 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



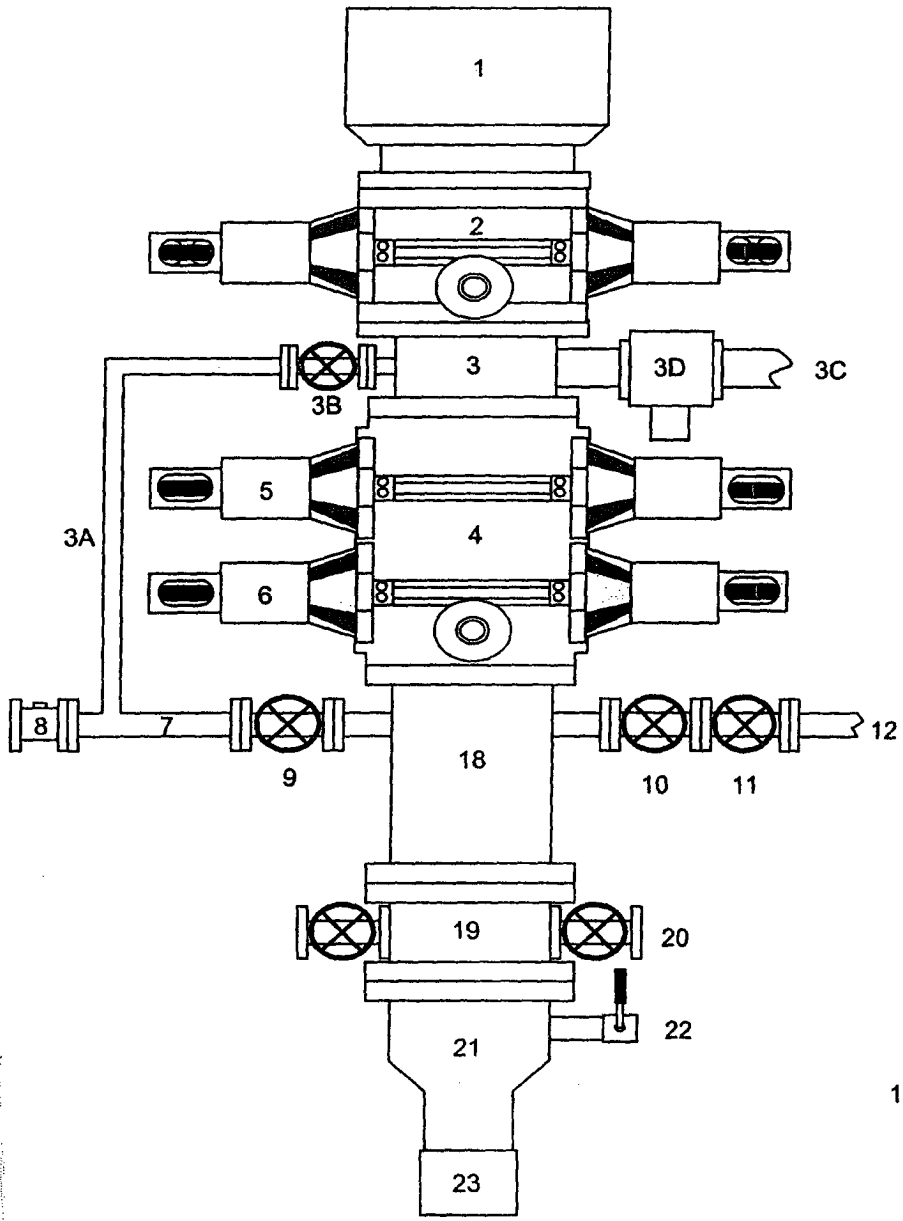

A 12-1/4" hole will be drilled to approximately 220' and the 9-5/8" surface casing will be run and cemented. The Casing Head "A" Section will be screwed onto the 9-5/8" surface casing stub. The BOP will be installed on the Casing Head "A" Section. A test plug will be set in the wellhead and the pipe rams and choke manifold will be tested to 200 psi to 300 psi (low pressure test) for 2-3 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 2-3 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:

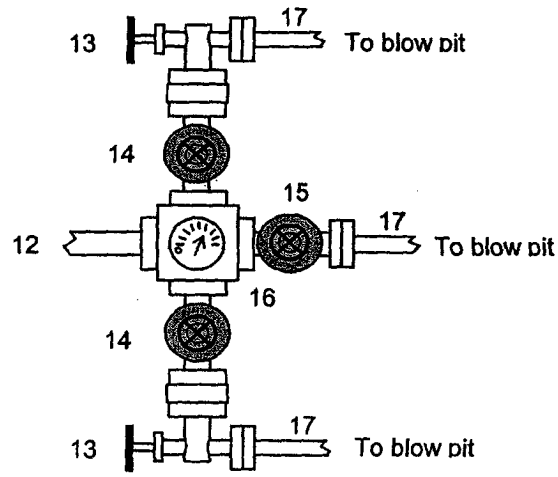
1. Upper Kelly cock Valve with handle
2. Stab-in TIW valve for all drillstrings in use

# BLOWOUT PREVENTER ARRANGEMENT & PROGRAM

For Cavitation Program




1. Rotating Head
2. Single Ram BOP (7-1/16", 3M)
3. Mud Cross
3A. Equalizing Line (2")
3B. Wing Valve ( 2-1/16", 3M)
3C. Blooie Line ( 2 ea, 5" OD)
3D. HCR Valve (1 ea per line, 4-1/16")
4. Double Ram BOP (7-1/16", 3M)
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. Vent Line (2")
18. Spacer Spool
19. Tubing Head
20. Tubing Head Valves ( 2- 9/16")
21. Casing Head "A" Section
22. Casing Head "A" Section 2" Valve
23. 9-5/8" Casing Collar




This BOP arrangement and test program is for the cavitation program. The BOP will be installed on the tubing head. The 7" casing will be pressure tested against closed blind rams to 200 psi to 300 psi for 2-3 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. The pipe rams and choke manifold will be tested to 200 psi to 300 psi (low pressure test) for 2-3 minutes and to 1800 psi (high pressure test) for 10 minutes - This test will be done with a test plug or possibly without a test plug (ie against casing). If we conduct this test without a test plug we will ensure that we have sufficient drillstring weight in the hole to exceed the upward force generated by the test.

We use a power swivel and air/mist to drill the 6-1/4" hole in our cavitation program. We do not use a kelly. In addition to the equipment in the above diagram the following equipment will comprise the BOP system:

1. String floats will be used inside the drillpipe
2. Stab-in TIW valve for all drillstrings in use
3. Each blooie line is equipped with a hydraulically controlled valve (HCR valve).