Form 3160-3
(September 2001)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0136
Expires January 31, 2004

# APPLICATION FOR PERMIT TO DRILL OR REENTER

SEP 2006 2006 FEB 10 RECEIVED 070 FARMINGTON NM

5. Lease Serial No.
Jicarilla Apache Contract #93

6. If Indian, Allottee or Tribe Name
Jicarilla Apache Nation

7. If Unit or CA Agreement, Name and No.

1a. Type of Work: ☒ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☒ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
Jicarilla 93 #15

2. Name of Operator
Williams Production Company, LLC

9. API Well No.
30-039-29810

3a. Address
P.O. Box 640 Aztec, NM 87410

3b. Phone No. *(include area code)*
(505) 634-4208

10. Field and Pool, or Exploratory
Blanco MV

4. Location of Well *(Report location clearly and in accordance with any State requirements. *)*
At surface 1055' FSL & 280' FEL
At proposed prod. zone same

11. Sec., T., R., M., or Blk. and Survey or Area
Section 33, T27N R3W NMPM

14. Distance in miles and direction from nearest town or post office*
16 miles NE of Lindrith,NM

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 |
|---|---|---|
| 280' | 320 | 320.0 (E/2) |
| **18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.** | **19. Proposed Depth** | **20. BLM/BIA Bond No. on file** |
| 1250' | 6423' | B001576 |
| **21. Elevations (Show whether DF, KDB, RT, GL, etc.)** | **22. Approximate date work will start*** | **23. Estimated duration** |
| 7124' GR | June 1, 2005 | 1 month |

## 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 | Name *(Printed/Typed)* | Date |
|---|---|---|
| Larry Higgins | Larry Higgins | 2-10-06 |
| Title: Drilling COM | | |
| Approved by *(Signature)* | Name *(Printed/Typed)* | Date 9/19/06 |
| Title AFM | Office FFO | |

Application approval does not warrant or certify that 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.

**(Instructions on reverse)*

Williams Production Company, LLC, proposes to drill a vertical well to develop the Blanco Mesa Verde formation at the above described location in accordance with the attached drilling and surface use plans.

The surface is located on Jicarilla Apache Nation Lands.

This location has been archaeologically surveyed by Velarde Energy.

A 3035.6 foot pipeline tie would be required for this location and it is also located on Jicarilla Apache Nation lands.

A new access road 1100 feet in length will be needed to access this well.

NSL

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

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

NMOCD

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

2006 FEB 10 PM 3 56
RECEIVED
070 FARMINGTON NM

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

| ¹ API Number | ² Pool Code | ³ Pool Name |
|---|---|---|
| 30-039-29810 | 72319 | BLANCO MESAVERDE |

| ⁴ Property Code | ⁵ Property Name | ⁶ Well Number |
|---|---|---|
| 17029 | JICARILLA 93 | 15 |

| ⁷ OGRID No. | ⁸ Operator Name | ⁹ Elevation |
|---|---|---|
| 120782 | WILLIAMS PRODUCTION COMPANY | 7124 |

## ¹⁰ Surface Location

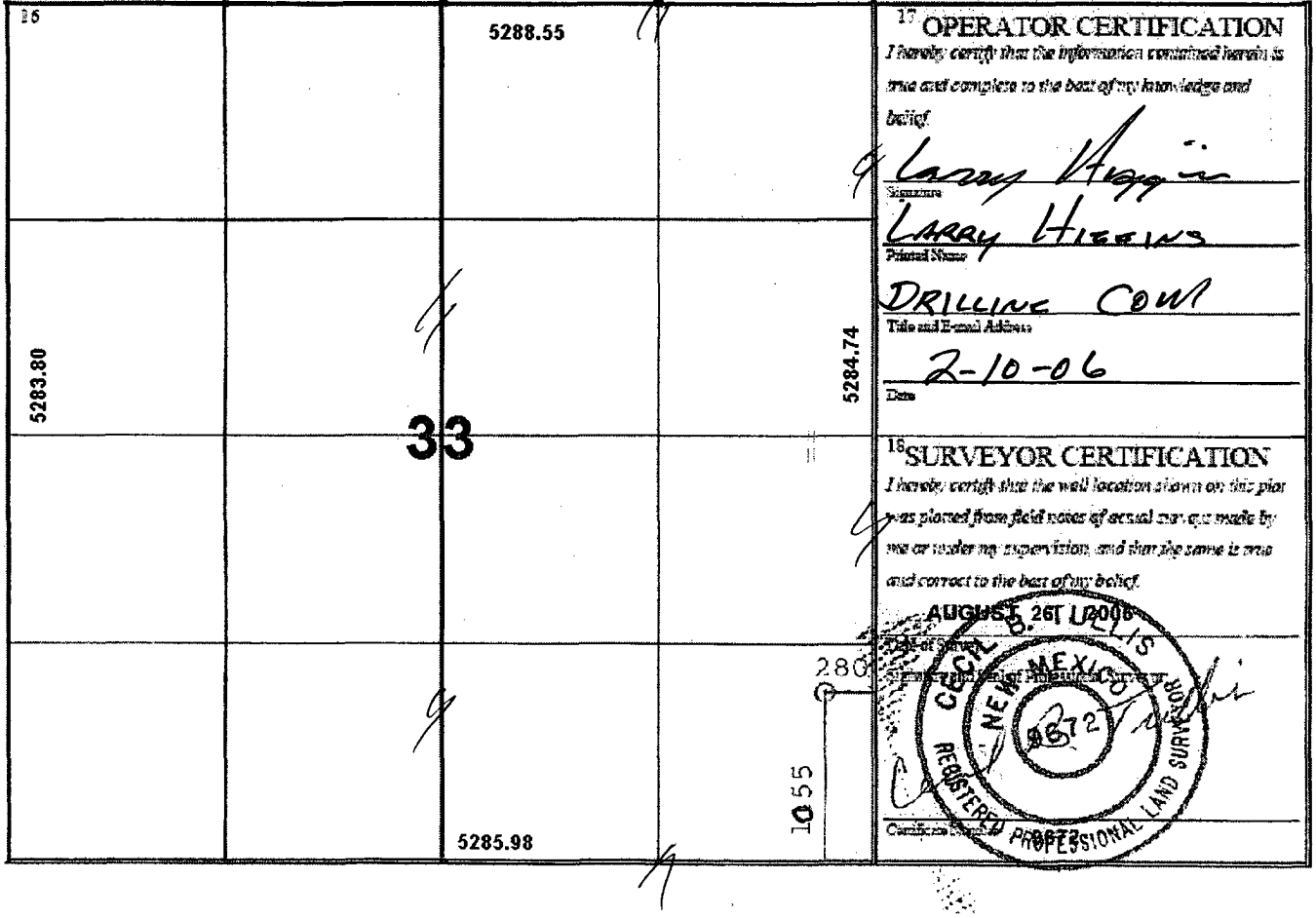
| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| P | 33 | 27N | 3W | | 1055 | SOUTH | 280 | EAST | RIO ARRIBA |

## 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 |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| ¹² Dedicated Acres | ¹³ Joint or Infill | ¹⁴ Consolidation Code | ¹⁵ Order No. |
|---|---|---|---|
| 320 Ac E/2 | | | |

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.*

Signature: Larry Higgins

Printed Name: LARRY HIGGINS

Title and E-mail Address: DRILLING COM

Date: 2-10-06

## 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.*

AUGUST 26, 2005

Date of Survey

Signature and Seal of Professional Surveyor

NEW MEXICO 9672 REGISTERED PROFESSIONAL LAND SURVEYOR

Certificate Number 9672

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

WELL API NO. 30-039-29810

5. Indicate Type of Lease
Federal (Indian)

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
Jicarilla 93

1. Type of Well: Gas Well X☐

8. Well Number #15

2. Name of Operator
Williams Production Company

9. OGRID Number 120782

3. Address of Operator
P.O. Box 640, Aztec, NM 87410

10. Pool name or Wildcat
Blanco MV

4. Well Location
Unit Letter J : 1190 feet from the North line and 660 feet from the West line
Section 33 Township 27N Range 3W NMPM County Rio Arriba

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)*
7124' GR

**Pit or Below-grade Tank Application X☐**

**Pit type Drilling Depth to Groundwater >100' Distance from nearest fresh water well >1000' Distance from nearest surface water >500'<1000'**

**Pit Liner Thickness: 12 mil Below-Grade Tank: Volume ____ bbls; Construction Material _____**

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

| NOTICE OF INTENTION TO: | | | | SUBSEQUENT REPORT OF: | | | |
|---|---|---|---|---|---|---|---|
| PERFORM REMEDIAL WORK | ☐ | PLUG AND ABANDON | ☐ | REMEDIAL WORK | ☐ | ALTERING CASING | ☐ |
| TEMPORARILY ABANDON | ☐ | CHANGE PLANS | ☐ | COMMENCE DRILLING OPNS. | ☐ | P AND A | ☐ |
| PULL OR ALTER CASING | ☐ | MULTIPLE COMPL | ☐ | CASING/CEMENT JOB | ☐ | | |
| OTHER: | ☐ | | | 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.

Drilling/Completion pit to be located approximately 50-75 feet from well head. Pit multi-use drilling and completion to avoid additional site disturbance and pit will be considered out of service once production tubing set. Reserve pit to be constructed in accordance with NMOCD Interim Pit and Below-Grade Tank 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 ☐.**

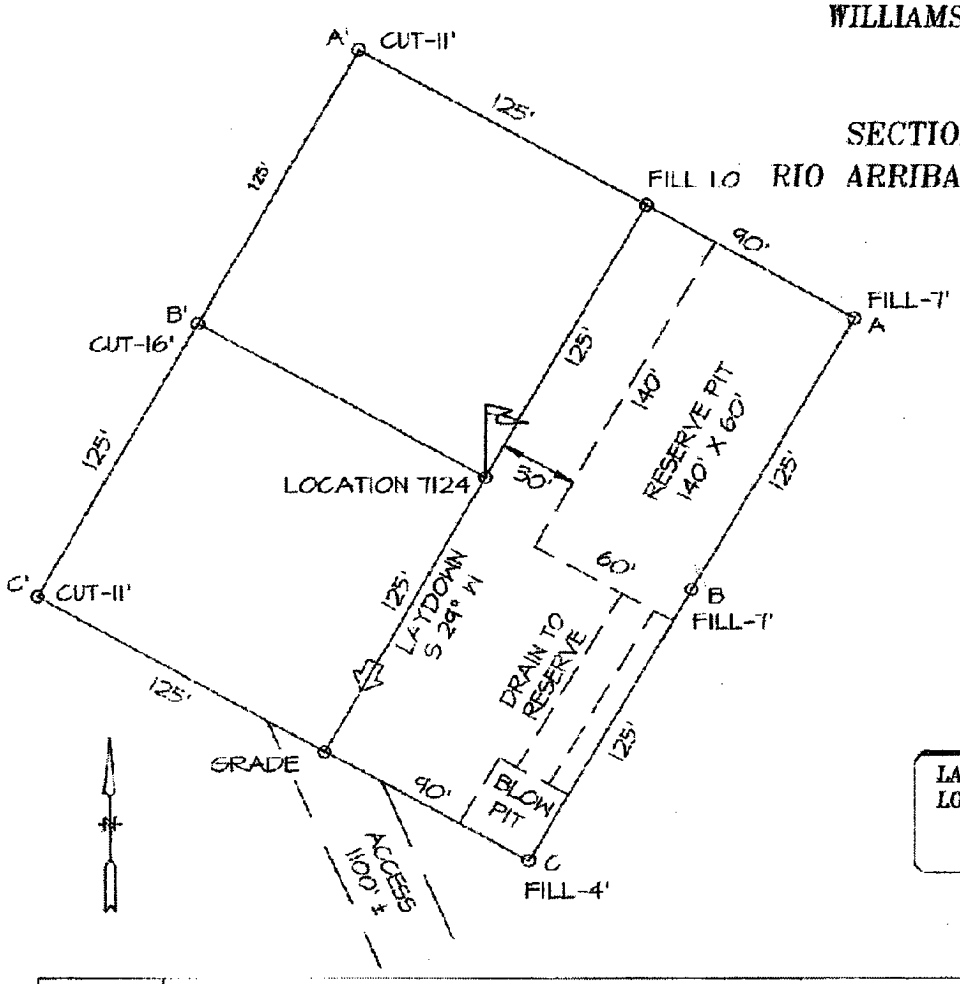
SIGNATURE Larry Higgins TITLE Drilling COM DATE 2-10-06

Type or print name Larry Higgins E-mail address: larry.higgins@williams.com Telephone No. (505)-634-4208

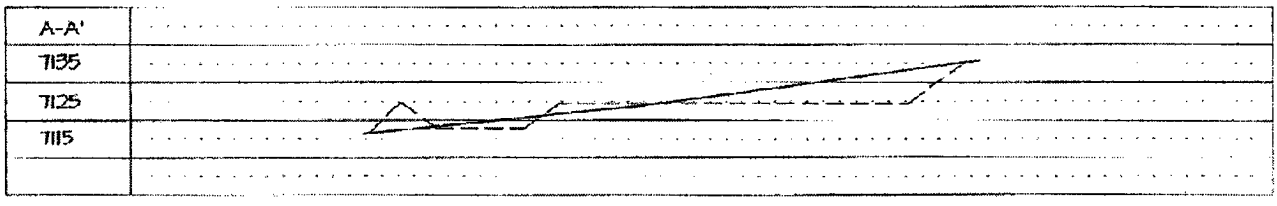
**For State Use Only**

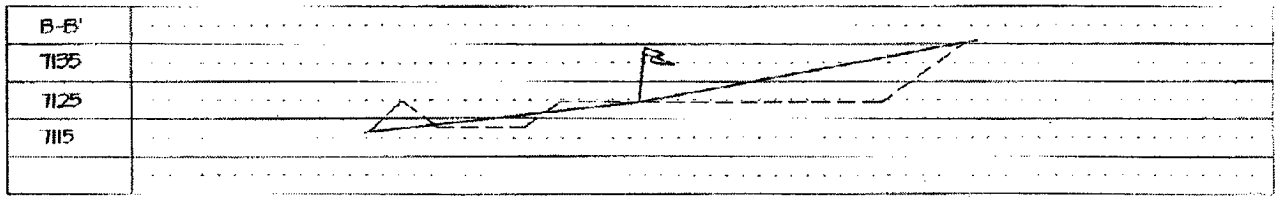
APPROVED BY: TITLE DEPUTY OIL & GAS INSPECTOR, DIST. #3 DATE SEP 18 2006

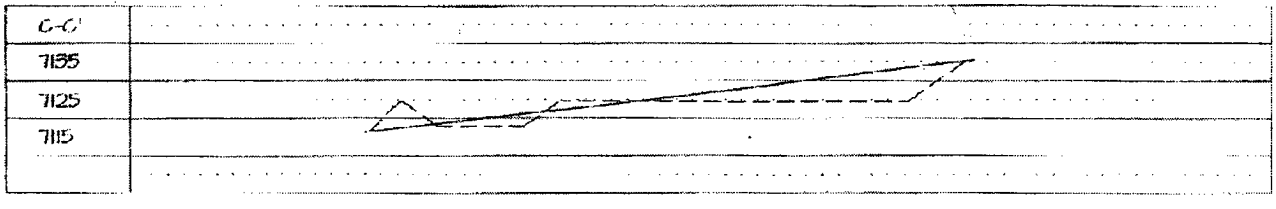
WILLIAMS PRODUCTION COMPANY
JICARILLA 93 #15
1055 FSL & 280 FEL
SECTION 33 T27N R3W NMPM
RIO ARRIBA COUNTY, NEW MEXICO
ELEVATION: 7124




LATITUDE: 36°31'32" N
LONGITUDE: 107°08'31" W
WGS 84'
VERT. DATUM: NAD 1927




| FILENAME: PINELAKE | SHEET 2 OF 3 | High Country Surveys | DRAWN BY: CRT | CHECKED BY: CBT |
|---|---|---|---|---|

# WILLIAMS PRODUCTION COMPANY

## *Operations Plan*

***(Note: This procedure will be adjusted on site based upon actual conditions)***

| | | | |
|---|---|---|---|
| **DATE:** | 2/9/2006 | **FIELD:** | Blanco MV |
| **WELL NAME:** | Jicarilla 93 #15 | **SURFACE:** | BOIA |
| **BH LOCATION:** | SESE Sec 33-27N-3W<br>Rio Arriba, NM | **MINERALS:** | Jicarilla #93 |
| **ELEVATION:** | 7,124' GR | **LEASE #** | Jicarilla #93 |
| **MEASURED DEPTH:** | **6,423'** | | |

**I. GEOLOGY:** Surface formation - San Jose

A. **FORMATION TOPS:** ( KB)

| Name | MD | Name | MD |
|---|---|---|---|
| Ojo Alamo | 3,373 | Cliff House | 5,553 |
| Kirtland | 3,568 | Menefee | 5,663 |
| Fruitland | 3,613 | Point Lookout | 5,973 |
| Picture Cliffs | 3,808 | Mancos | 6,258 |
| Lewis | 4,018 | **TD** | **6,423** |
| Huerfanito Bentonite | 4,328 | | |

B. **MUD LOGGING PROGRAM:** Mudloggers on location from 3,000' – 4,100'.

C. **LOGGING PROGRAM:** High Resolution Induction log from surface shoe to TD. GR and Density/ Neutron log over zones of interest. Onsite geologist will pick Density/ Neutron log intervals on logging runs.

D. **NATURAL GAUGES:** Gauge any noticeable increases in gas flow. Record all gauges in Tour book and on morning reports.

**II. DRILLING**

A. **MUD PROGRAM:** Clear water with benex to 7" casing point. Convert to a LSND mud to log and run pipe. Treat for lost circulation as necessary. Obtain 100% returns prior to cementing. Notify Engineering of any mud losses. Use air w/Air Hammer from 7 in. csg.to TD.

B. **BOP TESTING:** While drill pipe is in use, the pipe rams and the blind rams will be function tested once each trip. The anticipated reservoir is expected to be less than 1300 psi, so the BOPE will be tested to **250 psi (Low) for 5 minutes** and **1500 psi (High) for 10 minutes**. Utilize a BOPE Testing Unit with a recording chart and appropriate test plug for testing. The drum brakes will be inspected and tested each tour. **All tests and inspections will be recorded in the tour book as to time and results.**

## III. MATERIALS

### A. CASING PROGRAM:

| CASING TYPE | HOLE SIZE | DEPTH (MD) | CASING SIZE | WT. & GRADE |
|---|---|---|---|---|
| Surface | 12-1/4" | +/- 300' | 9-5/8" | 36# K-55 |
| Intermediate | 8-3/4" | +/- 4,193' | 7" | 20# K-55 |
| Prod. Liner | 6-1/4" | +/- 4,093'-6,423' | 4-1/2" | 10.5# K-55 |

### B. FLOAT EQUIPMENT:

1. SURFACE CASING: 9-5/8" notched regular pattern guide shoe. Run (1) standard centralizer on each of the bottom (3) joints of Surface Casing.

2. INTERMEDIATE CASING: 7" cement nose guide shoe with a self-fill insert float. Place float collar one joint above the shoe. Install (1) Turbulent centralizer on each of the bottom (3) joints and one standard centralizer every (3) joints to 2,500 ft. Run (1) Turbulent centralizer at 2,700 ft., 2,500 ft., 2,300ft., 2,000ft., 1,500 ft., and 1,000 ft. **(NTL-FRA 90-1).**

3. PRODUCTION CASING: 4-1/2" & 5-1/2" whirler type cement nose guide shoe with a latch collar on top of 20' bottom joint. Place marker joint above 5,400'. Place centralizers as needed across selected production intervals.

### C. CEMENTING:

***(Note: Volumes may be adjusted onsite due to actual conditions)***

1. SURFACE: Slurry: 150sx (205 cu.ft.) of "Type III" + 2% $CaCl_2$ + ¼ # of cello-flake/sk (Yield = 1.39 cu.ft./sk, Weight = 14.5 #/gal.). The 100% excess should circulate cement to the surface. WOC 12 hours. Test csg to 1500psi.

2. INTERMEDIATE: Lead - 540 sx (1,120) cu.ft.) of "Type III" 65/35 poz with 8% gel, 1% $CaCl_2$ and 1/4# cello-flake/sk (Yield = 2.09 cu.ft./sk, Weight = 12.1 #/gal.). Tail - 50 sx (70cu.ft.) of "Type III" with 1/4# cello-flake/sk, and 1% $CaCl_2$ (Yield = 1.4 cu.ft./sk, Weight = 14.5#/gal.). Use **100% excess in Lead Slurry** to circulate to surface. **No excess in Tail Slurry.** Total volume = 1,190 cu.ft. Bump Plug to 1,500 psi. Notify engineering if cement is not circulated to surface.

3. PRODUCTION LINER: 10 bbl Gelled Water space. Lead: 50sx (130$ft^3$) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE. ( Yield = 2.59 cu.ft./sk, Weight = 11.6 #/gal.). Tail: 100 sx (215 $ft^3$) of Premium Light HS + 1% FL-52 + .2% CD-32, 0.1% R-3, 3 #/sk CSE, ¼ #/sk cello flake and 4% Phenoseal. (Yield = 2.15 $ft^3$/sk, Weight = 12.3 #/gal.). Displace cement at a minimum of 8 BPM. The 20% excess in lead and tail should cover 100 ft into intermediate casing. Total volume 300 $ft^3$. WOC 12 hours

## IV COMPLETION

### A. CBL

1. Run Cement Bond Log across all intervals to be perforated and find Top of Cement behind all casing strings if cement is not circulated to surface.

### B. PRESSURE TEST

1. Pressure test 7" & 4-1/2" casing to 3300# for 15 minutes.

**C. STIMULATION**

1. Perforate the Point Lookout as determined from the open hole logs.
2. Stimulate with approximately 9,300# of 14/30 LiteProp™ sand in slick water.
3. Isolate Point Lookout with a CIBP.
4. Perforate the Menefee/Cliff House as determined from the open hole logs.
5. Stimulate with approximately 9,300# of 14/30 LiteProp™ sand in slick water.
6. Test each zone before removing bridge plugs.

**D. RUNNING TUBING**

1. *Mesa Verde:* Run 2-3/8", 4.7#, J-55, EUE tubing with a SN (1.91" ID) on top of bottom joint. Land tubing approximately 25' above the bottom Point Lookout perforation.

Gary Sizemore
for Sr. Drilling Engineer

Jicarilla 93 #15 Ops Plan.doc

# Well Control Equipment Schematic for 2M Service

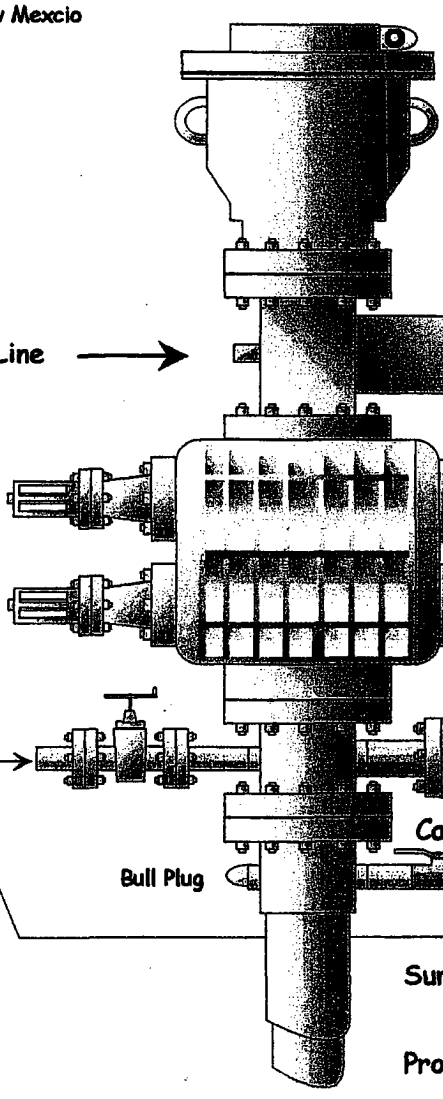
Attachment to Drilling Technical Program

## Exhibit #1
## Typical BOP setup

Location: San Juan Basin, New Mexcio

Date: August 20, 2001
By: John Thompson (Walsh E&P)

**BOP Stack**



Rotating Head (optional)

Fill Line →

→ Mud Flow to Pit

Double Ram Preventer

Drilling Spool

Kill line (2" Min) →

→ Choke line to Manifold (2" Min)

Ground Level

Casing Head

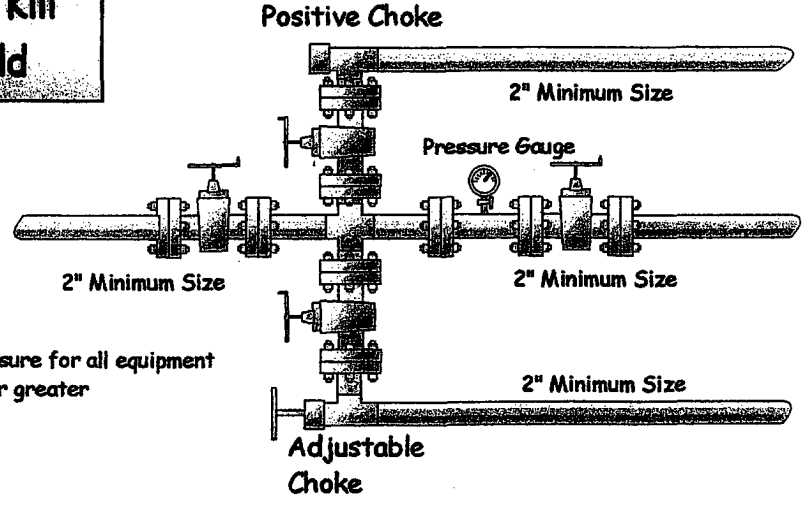
Bull Plug

Ball Valve 2000 psi WP

Surface Casing

Production Casing

**Choke & Kill Manifold**



Positive Choke

2" Minimum Size

Bypass to Steel Pit (Optional) →

Pressure Gauge

From BOP Stack

Straight-thru to Tank or Pit →

2" Minimum Size

2" Minimum Size

Working Pressure for all equipment is 2,000 psi or greater

2" Minimum Size

To Tank or Pit →

Adjustable Choke