

Form 3160-3  
(April 2004)UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

2006 DEC 28 PM

2:39

FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. SF 079010
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Devon Energy Production Company, L.P.		7. If Unit or CA Agreement, Name and No. Northeast Blanco Unit
3a. Address PO Box 6459 Farmington, NM 87419	3b. Phone No. (include area code) 405-552-7917	8. Lease Name and Well No. NEBU 344M
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface 1,775' FSL & 1,485' FEL, Unit J, At proposed prod. zone 2,300' FSL & 1,900' FWL, Unit K		9. API Well No. 30-039-30149
14. Distance in miles and direction from nearest town or post office* Approximately 59.25 miles		10. Field and Pool, or Exploratory Basin Dakota / Blanco Mesaverde
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 1,485'	16. No. of acres in lease 320 Acres	11. Sec., T. R. M. or Blk. and Survey or Area J 25-31N-7W
17. Spacing Unit dedicated to this well 2560 Acres 1/2 320	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	12. County or Parish Rio Arriba
19. Proposed Depth 8,569'	20. BLM/BIA Bond No. on file	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) GR 6,281'	22. Approximate date work will start* 04/01/2007	23. Estimated duration Unknown

## 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.  | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).    |
| 2. A Drilling Plan.   | 5. Operator certification  |
| 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). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature 	Name (Printed/Typed) Melisa Castro	Date 12-17-06
Title Senior Staff Operations Technician		

Approved by (Signature) Original Signed: Stephen Mason	Name (Printed/Typed)	Date FEB 28 2007
Title Original Signed: Stephen Mason	Office	

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 page 2)

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

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

NMOCDD

24 hrs agreement  
2598 agreement  
directional survey  
+ BH survey

3/2/07

District I  
PO Box 1980, Hobbs NM 88241-1980  
District II  
PO Drawer KK, Artesia, NM 87211-0719  
District III  
1000 Rio Brazos Rd., Aztec, NM 87410  
District IV  
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION  
PO Box 2088  
Santa Fe, NM 87504-2088

Form C-102  
Revised February 21, 1994

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

RCVD MAR 2007  
AMENDED REPORT

OIL CONS. DIV.  
DIST. 3

WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number <b>30-039-30149</b>	<sup>2</sup> Pool Code <b>71599/72319</b>	<sup>3</sup> Pool Name <b>Basin Dakota / Blanco Mesavende</b>
<sup>4</sup> Property Code <b>19641</b>	<sup>5</sup> Property Name <b>NEBU</b>	<sup>6</sup> Well Number <b># 344M</b>
<sup>7</sup> OGRID No. <b>6137</b>	<sup>8</sup> Operator Name <b>Devon Energy Production Company, L.P.</b>	<sup>9</sup> Elevation <b>6281</b>

<sup>10</sup> Surface Location

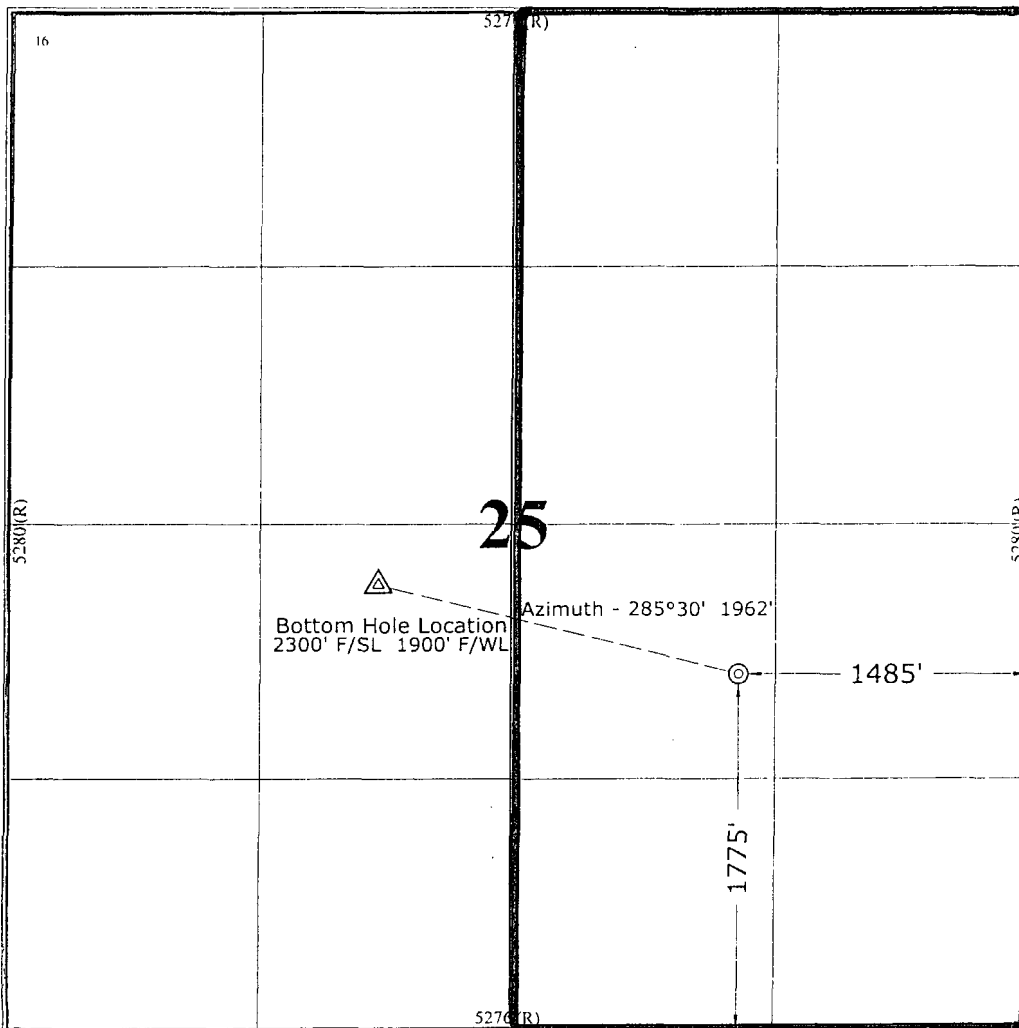
UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
<b>J</b>	<b>25</b>	<b>31 N</b>	<b>7 W</b>		<b>1775</b>	<b>SOUTH</b>	<b>1485</b>	<b>EAST</b>	<b>Rio Arriba</b>

<sup>11</sup> 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
<b>J</b>	<b>25</b>	<b>31 N</b>	<b>7 W</b>		<b>2300</b>	<b>SOUTH</b>	<b>1900</b>	<b>WEST</b>	<b>Rio Arriba</b>

<sup>12</sup> Dedicated Acres <b>40/2-320</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
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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



<sup>17</sup> OPERATOR CERTIFICATION

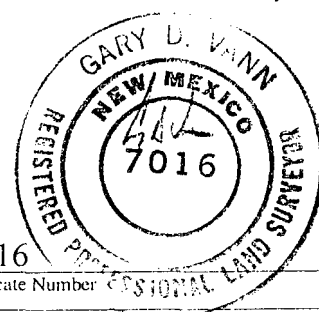
I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

*[Signature]*  
Signature  
**Melisa S. Castro**  
Printed Name  
**SR. Staff Operations Tech**  
Title  
**December 17, 2006**  
Date

<sup>18</sup> 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.

**July 18, 2006**  
Date of Survey  
Signature and Seal of Professional Surveyor



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

Form C-103  
March 4, 2004

OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

WELL API NO.

30-039-30149

5. Indicate Type of Lease

STATE ☐ FEE ☐

6. State Oil & Gas Lease No.  
SF 079010

7. Lease Name or Unit Agreement Name

NORTHEAST BLANCO UNIT

8. Well Number

344M

9. OGRID Number

6137

10. Pool name or Wildcat

Basin Dakota / 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

Devon Energy Production Company, L.P.

3. Address of Operator

PO Box 6459, Navajo Dam, NM 87419

4. Well Location

Unit Letter J : 1,775 feet from the South line and 1,485 feet from the East line

Section 25 Township 31N Range 7W NMPM County - Rio Arriba

11. Elevation (Show whether DR, RKB, RT, GR, etc.)  
GR 6,281'

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

Pit Location: UL J Sect 25 Twp 31N Rng 7W Pit type Drilling Depth to Groundwater >100' Distance from nearest fresh water well >1000'

Distance from nearest surface water >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:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐ CHANGE PLANS ☐

PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

OTHER: CONSTRUCT DRILLING PIT ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐

CASING TEST AND 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.

14.

Devon Energy will be constructing a lined drilling pit. The closure of said pit will be in accordance with the NMOCD regulations with the cutting of the liner applying to the BLM rules.

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 Melisa Castro TITLE Sr. Staff Operations Technician

DATE 12-17-06

Type or print name Melisa Castro E-mail address: Melisa.castro@dvn.com Telephone No. 405-552-7917

(This space for State use)

APPROVED BY

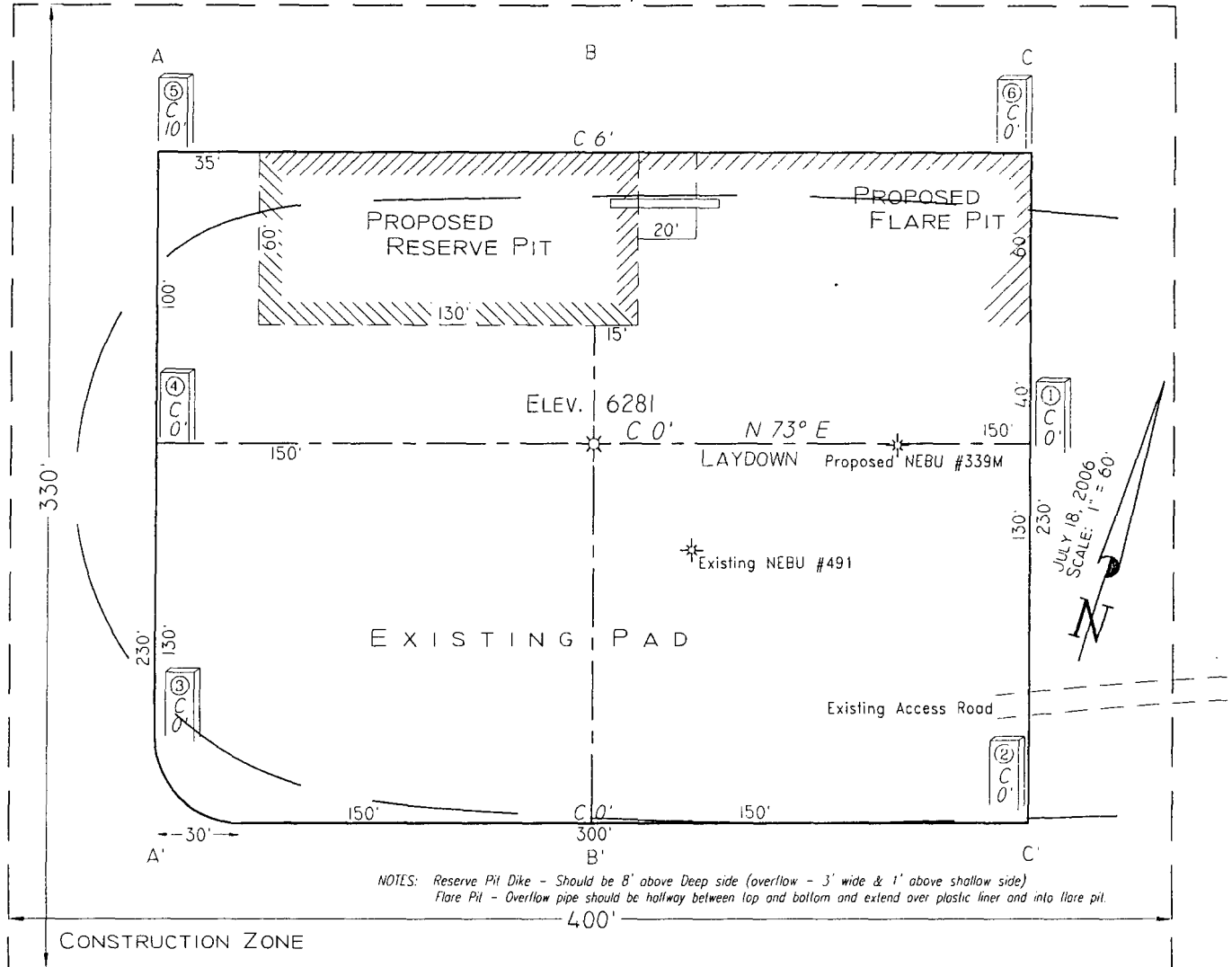
Conditions of approval if any:

TITLE DEPUTY OIL & GAS INSPECTOR, DIST. 2

DATE MAR 02 2007

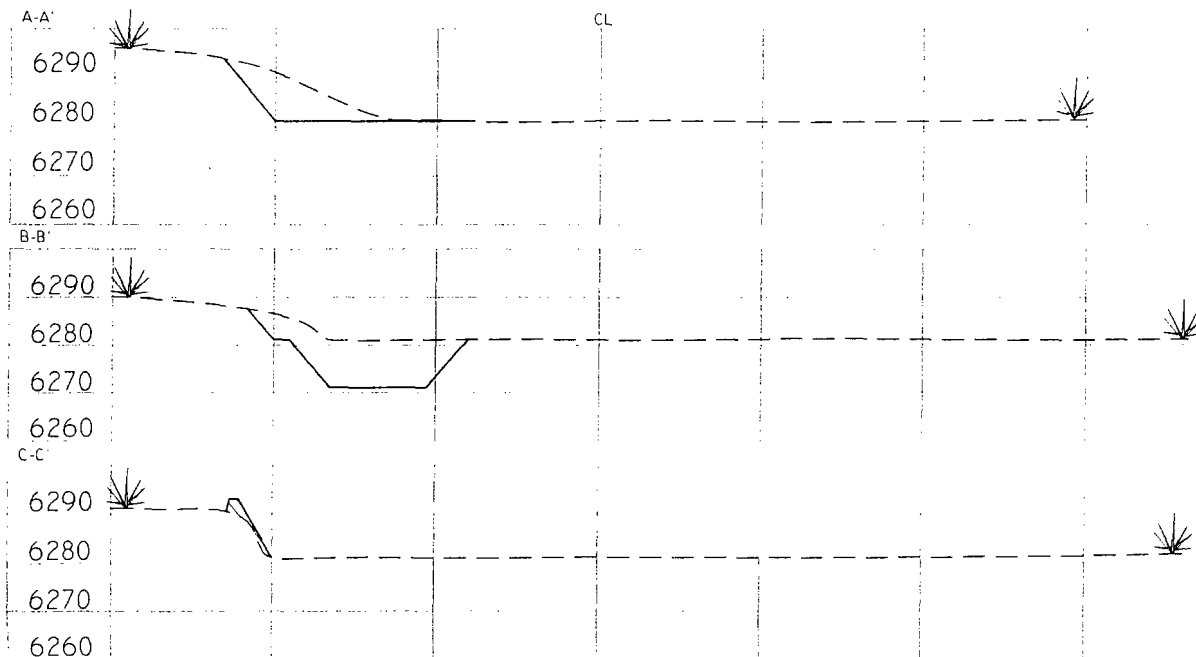
PAD LAYOUT PLAN & PROFILE  
 DEVON ENERGY PRODUCTION COMPANY, L.P.  
 Nebu # 344M  
 1775' F/SL 1485' F/EL  
 SEC. 25, T31N, R7W, N.M.P.M.  
 RIO ARriba COUNTY, NEW MEXICO

Lat: 36.86814°  
 Long: 107.51838° (83)



Area of Construction Zone - 330'x400' or 3.03 acres, more or less.

SCALE: 1"=60'-HORIZ.  
 1"=40'-VERT.



NOTE: 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.

Cuts and fills shown are approximate - final finished elevation is to be adjusted so earthwork will balance. Corner stakes are approximate and do not include additional areas needed for sideslopes and drainages. Final Pad Dimensions are to be verified by Contractor.

VANN SURVEYS  
 P. O. Box 1306  
 Farmington, NM

## **NEBU 344M**

From the town of Aztec, NM, take State HWY 64 for 37.4 miles to State HWY 527. Turn left on State HWY 527 and travel 7.9 miles. Take a right onto Rosa Road and go 6.8 miles. Turn left and travel 3.2 miles to locked gate. Proceed through gate for 3.4 miles to location turn off. Turn left and travel 0.25 miles to location road. Turn right onto location road and travel 0.3 miles to well location.

**NEBU 344M**  
**Unit J 25-31N-7W**  
**San Juan Co., NM**

**DRILLING PLAN**

**1. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS & ANTICIPATED WATER, OIL, GAS OR MINERAL FORMATIONS:**

<b>Formation</b>	<b>TMD (ft)</b>	<b>TVD (ft)</b>	<b>Hydrocarbon/Water Bearing Zones</b>
San Jose	Surface	Surface	
Ojo Alamo	2530	2110	Aquifer
Kirtland	2842	2331	
Fruitland	3376	2752	Gas
Fruitland 1 <sup>st</sup> Coal	3548	2905	Gas
Pictured Cliffs Tongue	3764	3106	Gas
Pictured Cliffs Main	3874	3212	Gas
Lewis	3999	3333	Gas
<b>Intermediate TD</b>	4100	3433	
Huefanito Bentonite	4618	3950	Gas
Chacra / Otera	5008	4340	Gas
Cliff House	5613	4945	Gas
Menefee	5845	5177	Gas
Point Lookout	6120	5452	Gas
Mancos	6594	5926	Gas
Gallup	7497	6829	Gas
Greenhorn	8173	7505	
Graneros	8222	7554	Gas
Paguate	8341	7673	
Cubero	8351	7683	
Oak Canyon	8429	7761	
Encinal Canyon	8456	7788	

Lower Encinal Canyon	8470	7802	
Burro Canyon	8533	7865	
TD	8569	7901	

\*All shows of fresh water and minerals will be adequately protected and reported.

## **2. PRESSURE CONTROL EQUIPMENT:**

All well control equipment shall be in accordance with Onshore Order #2 for 2M systems.

The minimum specifications for pressure control equipment that will be provided are included on the attached schematic diagram, with a size of 2", and pressure ratings.

- 2000# BOP With Pipe Rams and 2000# BOP With Blind Rams

Auxiliary equipment to be used:

- Upper kelly cock with handle available.

The manifold includes appropriate valves and adjustable chokes. The kill line will have one check valve. Ram type preventers will be pressure tested to full working pressure (utilizing a test plug) or 70% of the internal yield pressure (without a test plug) at:

- Initial installation
- Whenever any seal subject to test pressure is broken
- Following related repairs
- At 30 day intervals

Pipe and blind rams shall be activated each trip.

A BOPE pit level drill will be conducted weekly for each drilling crew.  
All tests and drills will be recorded in the drilling log.

The accumulator will have sufficient capacity to close all rams and retain 200 psi above pre-charge pressure without the use of closing unit pumps.

Master controls will be at the accumulator. Anticipated bottom hole pressure is 3400 psi.

## **3. CASING & CEMENTING PROGRAM:**

A. The proposed casing program will be as follows:

TMD	TVD	Hole Size	Size	Grade	Weight	Thread	Condition
0-285'	0-285'	12-1/4"	9-5/8"	H-40	32#	STC	New
0-4100	0-3433	8-3/4"	7"	K-55	23#	LTC	New
0- TD	0- TD	6-1/4"	4-1/2"	J-55	11.6 #	LTC	New

The 9-5/8" surface pipe will be tested to 750 psi. All casing strings below the surface shoe shall be pressure tested to 0.22 psi/ft. of casing string length or 1500 psi, whichever is greater, but not to exceed 70% minimum internal yield.

**Surface:** The bottom three joints of the surface casing will have a minimum of one centralizer per joint and one centralizer every joint thereafter (Total 5 centralizers estimated)

**Intermediate:** The bottom three joints of the 7" casing will have a minimum of one centralizer per joint and one centralizer every fifth joint thereafter to above Ojo Alamo with turbolizers below and throughout the Ojo Alamo. (Total 12 centralizers, 3 turbolizers estimated).

**Production:** The bottom three joints will have a minimum of one centralizer per joint and one centralizer every fifth joint to 3500' (estimated 25 centralizers used). Centralizers will be open bow spring or basket bow spring type.

B. The proposed cementing program will be as follows:

**Surface String:** Cement will be circulated to surface.

**Lead:** 200 sx Class "B" with 100% Standard Cement, 2.00% CaCl<sub>2</sub>, .25 #/sx Flocele. Density: 15.6 lb/gal; Yield: 1.18 cuft/sx; Water: 5.24 gal/sx

**\* Minor variations possible due to existing conditions**

**Intermediate String:** Cement will be circulated to surface.

**Lead:** 500 sx 50/50 Poz, Yd-1.45, Water Gal/sx 6.8, Mixed @ 13ppg Foamed W/ N2 Down To 9.0# Additives 2% Gel, 0.2% Versaset, 0.1% Diacel Lwl.

**Tail:** 75 sx 50/50 Poz, Yd-1.45, Water Gal/Sk 6.8, Additives 2% Gel, 0.2% Versaset, 0.1% Diacel Lwl.

**\* Minor variations possible due to existing conditions**

**If hole conditions dictate, an alternate, cement design will be used:**

**Lead:** 575 sx 50/50 Poz with 50% Class B Cement, 50% San Juan Poz, .4% Halad-344, .1% CFR-3, 3% Bentonite, 5#/sx Gilsonite, .25#/sx Flocele. Density: 13.0 lb/gal; Yield: 1.46 cuft/sx; Water: 6.42 gal/sx

**Tail:** 75 sx 50/50 Poz with 94#/sx Standard Cement, 0.3% Halad-344, .25 #/sx Flocele. Density: 15.6 lb/gal; Yield: 1.18 cuft/sx; Water: 5.23 gal/sx

**\* Minor variations possible due to existing conditions**

**Production String:** TOC designed to circulate 1000' into intermediate string, cement will tie into the intermediate casing as a minimum. Volumes may vary with actual well characteristics.

**Lead:** 250 sx 50/50 Poz with 2% Gel, 0.2% Halad, 0.1% CFR-3, 5 #/sx Gilsonite, 0.25 #/sx Flocele. Mixed at 13 ppg, 1.47 ft 3/sx foamed to 9 ppg, 2.18 ft 3/sx.

**Tail:** 450 sx 50/50 Poz with 50% Standard Cement, 50% San Juan Poz, 3% Bentonite, 1.40% Halad-9, .10% CFR-3, .10% HR-5, 5 #/sx Gilsonite, 0.25 #/sx Flocele. Density: 13.0 lb/gal; Yield:



1.47 cuft/sx; Water: 6.35 gal/sx \*

\* **Minor variations possible due to existing conditions**

Actual volumes will be calculated and adjusted with caliper log prior to cementing.

#### 4. DRILLING FLUIDS PROGRAM:

TMD Interval	TVD Interval	Type	Weight (ppg)	Viscosity	pH	Water Loss	Remarks
0-285'	0-285'	Spud-foam	8.4-9.0	29-70	8.0	NC	FW gel, LSND or stiff foam
285'-4,100'	285'-3,433'	Air				NC	
4,100' - TD	3,433' - TD	Air/N2 or Mud	8.5-9.0*	30-50	8.0-10.0	8-810cc @ TD	Low solids-non-dispersed. * min Wt. to control formation pressure

NC = no control

Sufficient quantities of mud material will be maintained on site or be readily accessible for the purpose of assuring well control. SPR will be recorded on daily drilling report after mudding up. Visual mud monitoring will be conducted during operations.

#### 5. EVALUATION PROGRAM:

**Logs:** Density  
Neutron  
Induction

In the event open hole logs are not run in the well, a cased hole evaluation log will Be run.

**Survey:** Deviation surveys will be taken every 500' from 0-TD or first succeeding bit change. The hole will be air drilled from intermediate casing point to TD. The equipment used in this type of operation will not allow for single shot surveys without considerable operational delays. A survey will be taken at TD. Similar wells in this area have not shown significant deviation in this section of the hole.

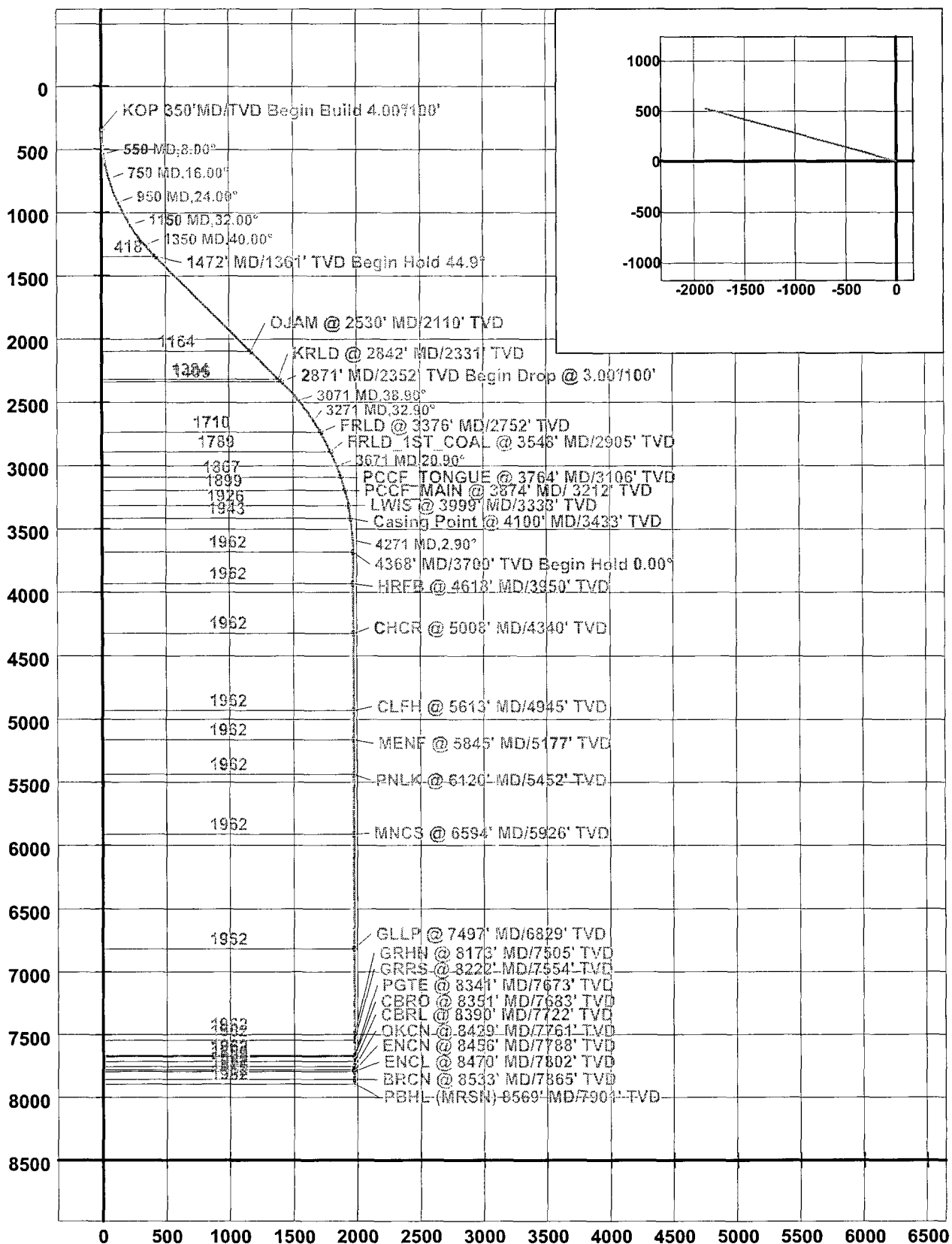
**Cores:** None anticipated.

**DST's:** None anticipated.

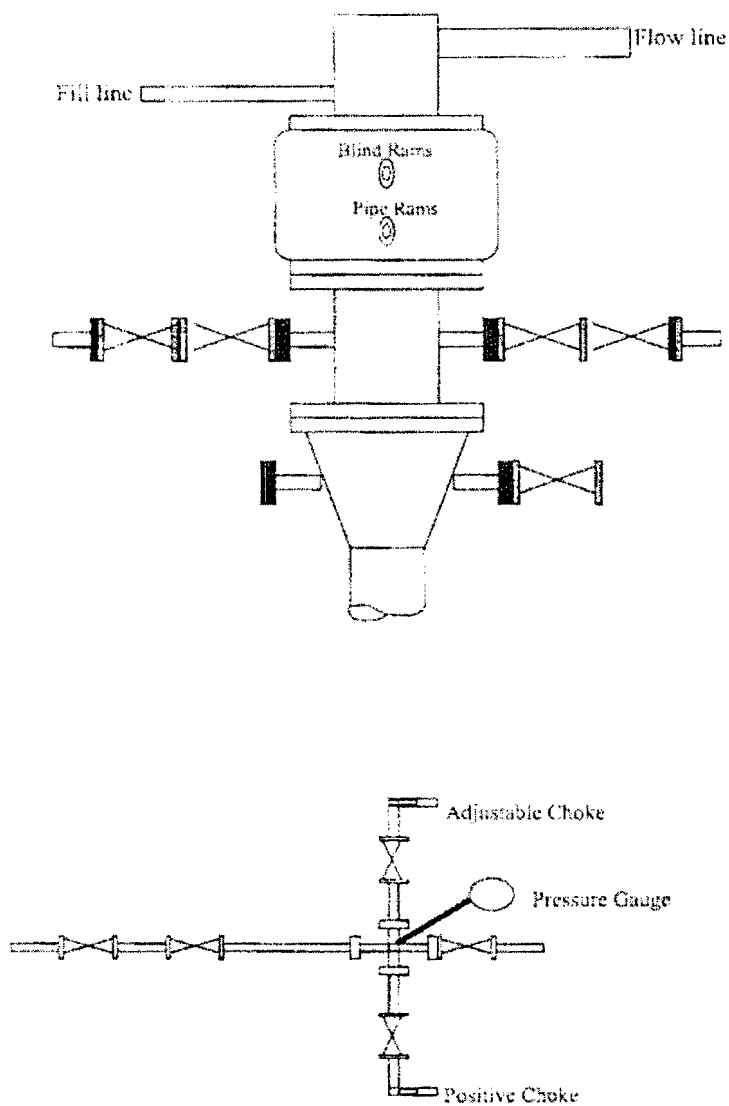
#### 6. ABNORMAL CONDITIONS:

The Fruitland Coal will be encountered in the 8-3/4" hole. Estimated formation pressure is 300 psi. No other abnormal pressures and/or temperatures are expected. No hydrogen sulfide should be present.

# INWELL INC.



## Well Control Equipment 2,000 psi Configuration



All well control equipment designed to meet or exceed the Onshore Oil and Gas Order No. 2, BLM 43 CTR 3160 requirements for 2M systems.