Form 3160-3
(August, 1999)

N.M. Oil Cons. DIV-Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210

# UNITED STATES
# DEPARTMENT OF THE INTERIOR
## BUREAU OF LAND MANAGEMENT

Form approved
OMB No. 1004-0136
Expires November 30, 2000

## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a TYPE OF WORK: ☒ DRILL ☐ REENTER

b. TYPE OF WELL: ☐ OIL WELL ☒ GAS WELL ☒ Other ___ ☐ SINGLE ZONE ☐ MULTIPLE ZONE

2. NAME OF OPERATOR
**DEVON ENERGY PRODUCTION COMPANY, L.P.**

3a. ADDRESS AND TELEPHONE NO.
**20 NORTH BROADWAY, SUITE 1500, OKC, OK 73102**

3b. TELEPHONE (Include area code).
**(405) 228-7512**

4. LOCATION OF WELL *(Report location clearly and in accordance with any State requirements)**
At surface ~~3300' FSL & 660' FWL~~
3000'N & 610'W per SN dated 11/19/03
At top proposed prod. zone ~~3300' FSL & 660' FWL~~

RECEIVED
JAN 28 2004
OCD-ARTESIA

5. LEASE DESIGNATION AND SERIAL NO.
**NMNM-0501759**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME, WELL NO.
**Kurland 6 Federal #2**

9. API WELL NO.
30-015-33238

10. FIELD AND POOL, OR WILDCAT
**Burton Flat East (Gas); Morrow**

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA
**Sec 6 T21S R27E**

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
5 miles north of Carlsbad

12. COUNTY OR PARISH
Eddy

13. STATE
NM

| 15. DISTANCE FROM PROPOSED LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line if any) | 16. NO. OF ACRES IN LEASE | 17. Spacing Unit dedicated to this well |
|---|---|---|
| 660' | 696.64 | 308 |
| **18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.** | **19. PROPOSED DEPTH** | **20. BLM/BIA Bond No. on file** |
| | 11,400' | CO1104 |
| **21. ELEVATIONS (Show whether DF, RT, GR, etc.)** | **22. APPROX. DATE WORK WILL START*** | **23. Estimated duration** |
| 3170' GR | October 2003 | 45 days |

### 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.

**CARLSBAD CONTROLLED WATER BASIN**

Drilling Program
Surface Use and Operating Plan
Exhibit #1 = Blowout Prevention Equipment
Exhibit #2 = Location and Elevation Plat
Exhibit #3 = Road Map and Topo Map
Exhibit #4 = Production Facilities Plat
Exhibit #5 = Rotary Rig Layout
Exhibit #6 = Casing Design
$H_2S$ Operating Plan
Archeological clearance report

The undersigned accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or: portions thereof, as described above

Bond Coverage: Nationwide
BLM Bond #: CO-1104

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

| 25. Signature | Name (Printed/Typed) | Date |
|---|---|---|
| Karen Cottom | KAREN COTTOM | 9/24/03 |

Title: OPERATIONS TECHNICIAN

| Approved by (signature) | Name (Printed/Typed) | Date |
|---|---|---|
| /s/ Joe G. Lara | /s/ Joe G. Lara | 27 JAN 2004 |
| **Title** ACTING FIELD MANAGER | **Office** CARLSBAD FIELD 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.

APPROVAL FOR 1 YEAR

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 representations as to any matter within its jurisdiction

*(Instructions on reverse)

NSL - 4974

OCD-ARTESIA

Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0135
Expires: November 30, 2000

**SUNDRY NOTICES AND REPORTS ON WELLS**

***Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.***

***SUBMIT IN TRIPLICATE - Other instructions on reverse side.***

5. Lease Serial No.
NMNM0501759

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☐ Oil Well ☒ Gas Well ☒ Other: INJECTION

8. Well Name and No.
KURLAND 6 FEDERAL 2

2. Name of Operator
DEVON ENERGY PRODUCTION CO L P
Contact: KAREN COTTOM
E-Mail: karen.cottom@dvn.com

9. API Well No.

3a. Address
20 NORTH BROADWAY SUITE 1500
OKLAHOMA CITY, OK 73102

3b. Phone No. (include area code)
Ph: 405.228.7512
Fx: 405.552.4621

10. Field and Pool, or Exploratory
BURTON FLAT

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 6 T21S R27E NWSW 3300FSL 660FWL

11. County or Parish, and State
EDDY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

| TYPE OF SUBMISSION | TYPE OF ACTION | | | |
|---|---|---|---|---|
| ☒ Notice of Intent | ☐ Acidize | ☐ Deepen | ☐ Production (Start/Resume) | ☐ Water Shut-Off |
| ☐ Subsequent Report | ☐ Alter Casing | ☐ Fracture Treat | ☐ Reclamation | ☐ Well Integrity |
| ☐ Final Abandonment Notice | ☐ Casing Repair | ☐ New Construction | ☐ Recomplete | ☒ Other Change to Original A PD |
| | ☐ Change Plans | ☐ Plug and Abandon | ☐ Temporarily Abandon | |
| | ☐ Convert to Injection | ☐ Plug Back | ☐ Water Disposal | |

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

The BOR requested that Devon Energy Production Company LP move the referenced well's location due to the Avalon Resevoir.

Current Location
3300 FSL & 660 FWL
New Location
3000 FNL & 610 FWL

See attached plat

14. I hereby certify that the foregoing is true and correct.

**Electronic Submission #24930 verified by the BLM Well Information System**
**For DEVON ENERGY PRODUCTION CO L P, sent to the Carlsbad**
**Committed to AFMSS for processing by ARMANDO LOPEZ on 11/10/2003 (04AL0107SE)**

Name *(Printed/Typed)* KAREN COTTOM — Title ENGINEERING TECHNICIAN

Signature (Electronic Submission) — Date 11/10/2003

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved By /s/ Joe G. Lara — Title ACTING FIELD MANAGER — Date JAN 2004

Conditions of approval, if any, are attached. Approval of this notice 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.

Office CARLSBAD FIELD OFFICE

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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, NM 88211-0719

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

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

# OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

## WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

| API Number | Pool Code | Pool Name |
|---|---|---|
| | 73320 | BURTON FLAT; MORROW EAST (GAS) |

| Property Code | Property Name | Well Number |
|---|---|---|
| | KURLAND "6" FEDERAL | 2 |

| OGRID No. | Operator Name | Elevation |
|---|---|---|
| 6137 | DEVON ENERGY PRODUCTION CO., L.P. | 3188' |

### Surface Location

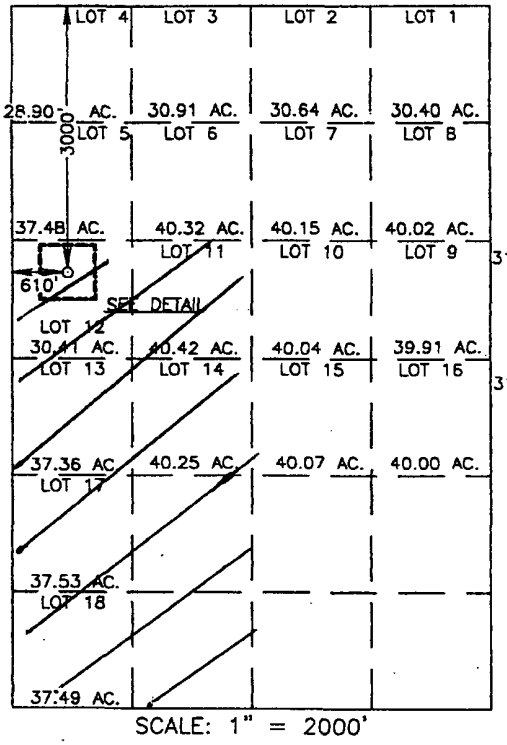
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| 12 | 6 | 21-S | 27-E | | 3000 | NORTH | 610 | WEST | EDDY |

### Bottom Hole Location If Different From Surface

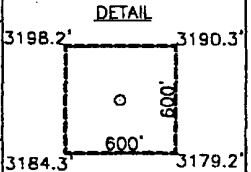
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| Dedicated Acres | Joint or Infill | Consolidation Code | Order No. |
|---|---|---|---|
| 308 | | | |

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




SCALE: 1" = 2000'




GEODETIC COORDINATES
NAD 27 NME
Y = 550798.5 N
X = 530342.8 E

LAT. 32°30'51.18"N
LONG. 104°14'05.63"W

### OPERATOR CERTIFICATION

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

Signature

Karen Cottoom
Printed Name

Operations Technician
Title

November 7, 2003
Date

### 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 supervison, and that the same is true and correct to the best of my belief.*

OCTOBER 10, 2003
Date Surveyed

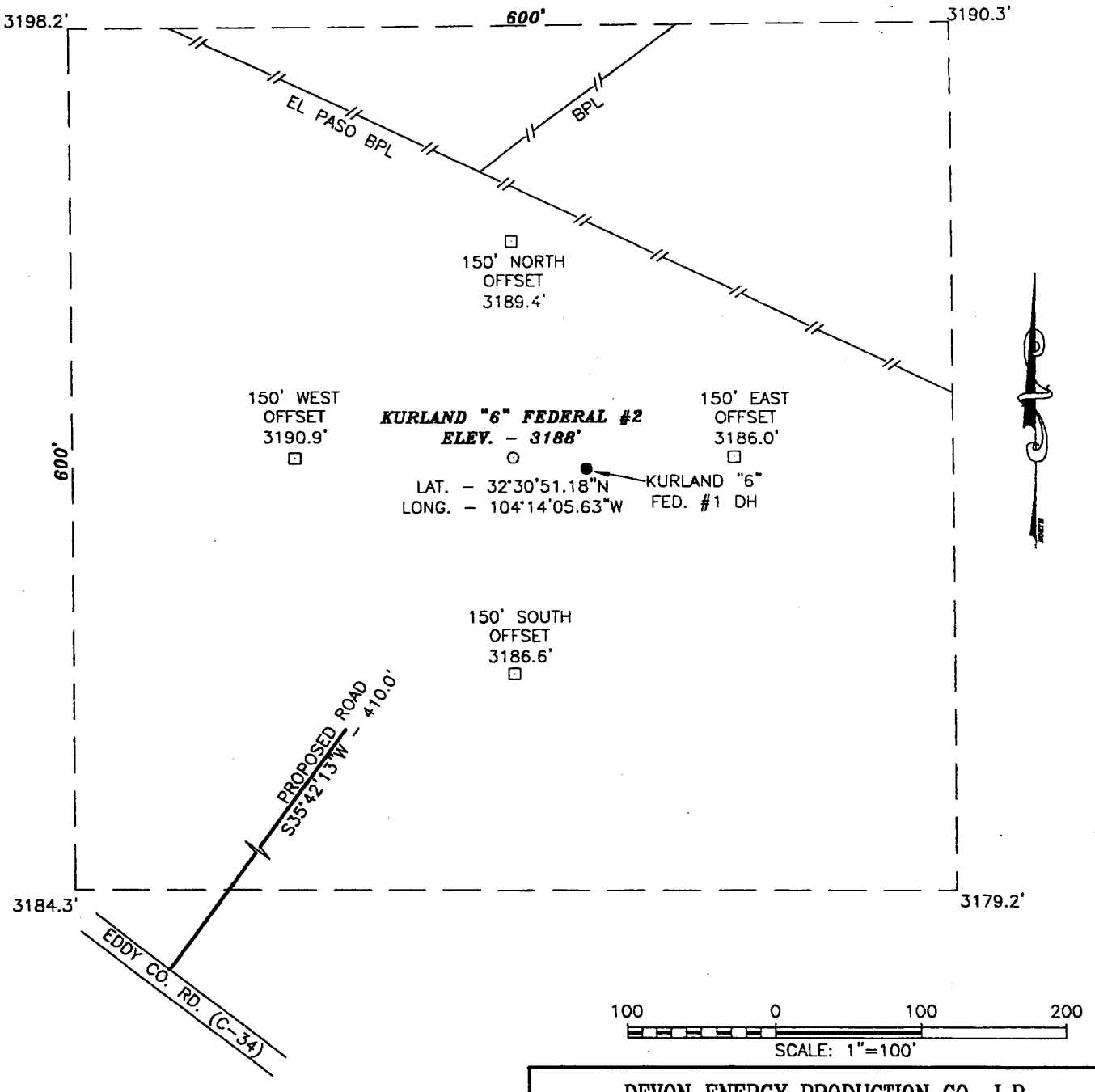
Signature & Seal of Professional Surveyor

10/15/03

03.11.1117

Certificate No. GARY EIDSON 12641

# SECTION 6, TOWNSHIP 21 SOUTH, RANGE 27 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.




## DEVON ENERGY PRODUCTION CO., L.P.

*THE KURLAND "6" FEDERAL #2 LOCATED 3000 FROM THE NORTH LINE AND 610 FROM THE WEST LINE SECTION 6, TOWNSHIP 21 SOUTH, RANGE 27 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.*

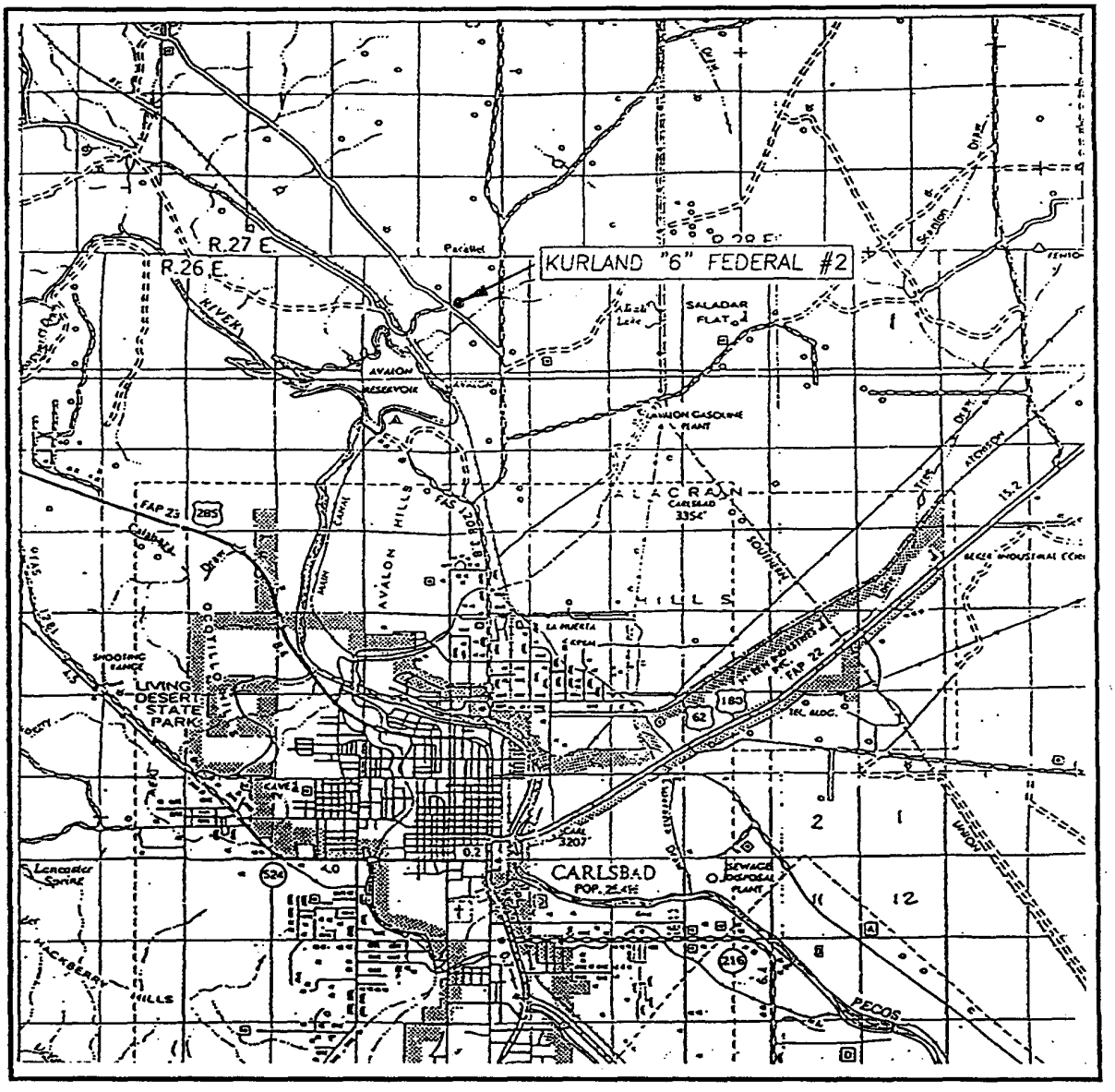
DIRECTIONS TO LOCATION:

FROM THE INTERSECTION OF ILLINOIS CAMP ROAD (CO. RD. #209) AND LAKE ROAD (CO. RD. #34) GO NORTHWEST ON LAKE ROAD APPROX. 0.9 MILES TO A STAKED ROAD. THE PROPOSED WELL IS 410 FT. NORTHEAST.

| | | | |
|---|---|---|---|
| Survey Date: 10/10/03 | | Sheet 1 of 1 Sheets | |
| W.O. Number: 03.11.1117 | | Drawn By: L.A. | |
| Date: 10/13/03 | DISK:CD#2 | 03111117 | |


JOHN WEST SURVEYING COMPANY
412 N. DAL PASO - HOBBS, NEW MEXICO - 505-393-3117

# *VICINITY MAP*




SCALE: 1" = 2 MILES

SEC. 6 TWP. 21-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 3000' FSL & 610' FWL

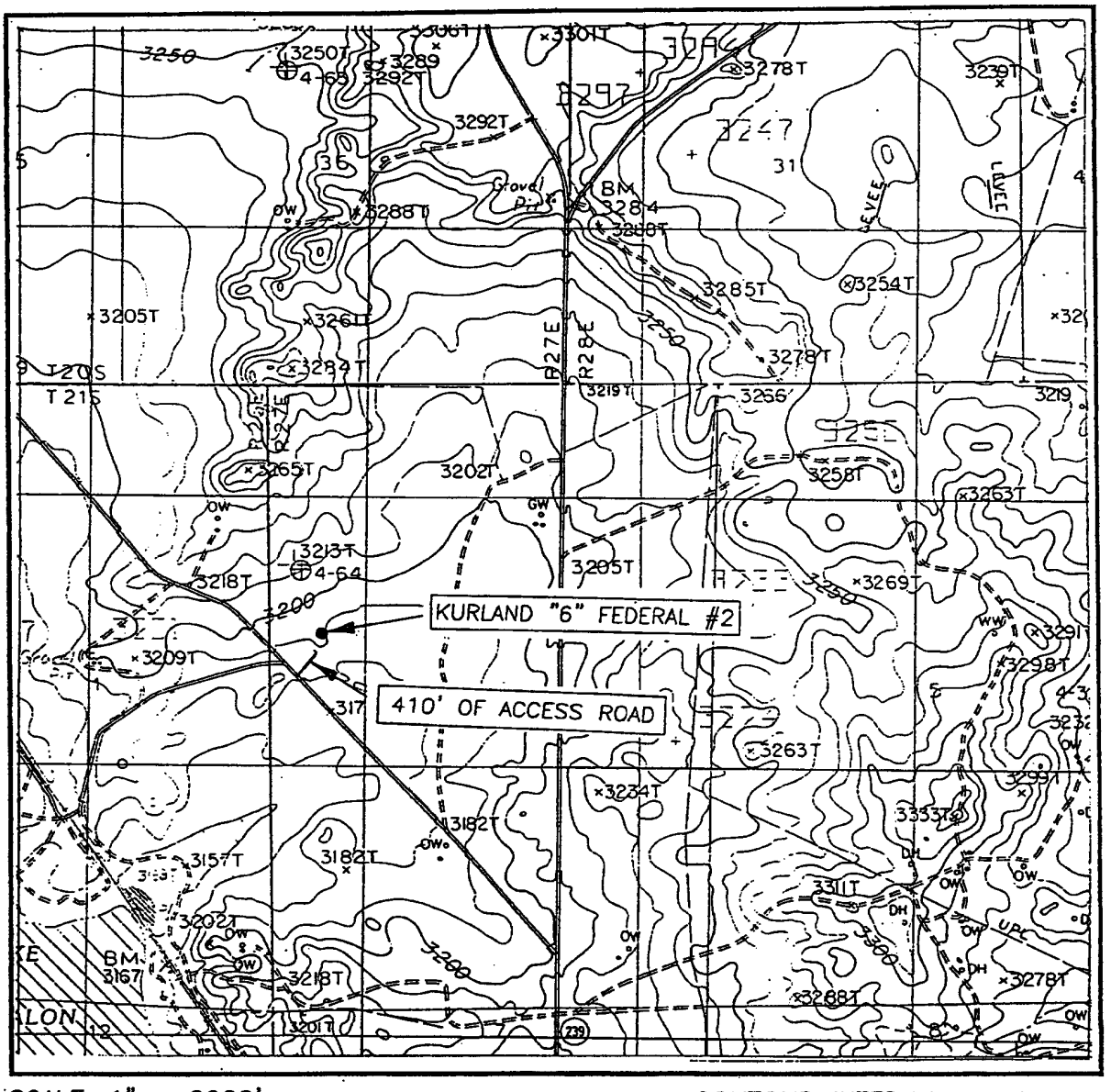
ELEVATION 3188'

OPERATOR DEVON ENERGY PRODUCTION CO., L.P.

LEASE KURLAND "6" FEDERAL

**JOHN WEST SURVEYING**
HOBBS, NEW MEXICO
(505) 393-3117

# LOCATION VERIFICATION MAP




SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'
ANGEL DRAW, N.M.

SEC. 6 TWP. 21-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 3000' FNL & 610' FWL

ELEVATION 3188'

OPERATOR DEVON ENERGY PRODUCTION CO., L.P.

LEASE KURLAND "6" FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
ANGEL DRAW, N.M.


JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

DISTRICT I
P.O. Box 1980, Hobbs, NM 88241-1980

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1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
P.O. BOX 2088, SANTA FE, N.M. 87504-2088

State of New Mexico
Energy, Minerals and Natural Resources Department

# OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

## WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

| API Number | Pool Code | Pool Name |
|---|---|---|
| | 73320 | BURTON FLAT: MORROW EAST (GAS) |

| Property Code | Property Name | Well Number |
|---|---|---|
| | KURLAND 6 FEDERAL | 2 |

| OGRID No. | Operator Name | Elevation |
|---|---|---|
| 6137 | DEVON ENERGY PRODUCTION COMPANY, L.P. | 3170' |

### Surface Location

| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| 13 | 6 | 21-S | 27-E | | 3300' | SOUTH | 660' | WEST | EDDY |

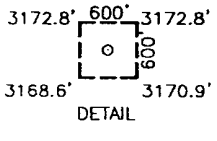
### Bottom Hole Location If Different From Surface

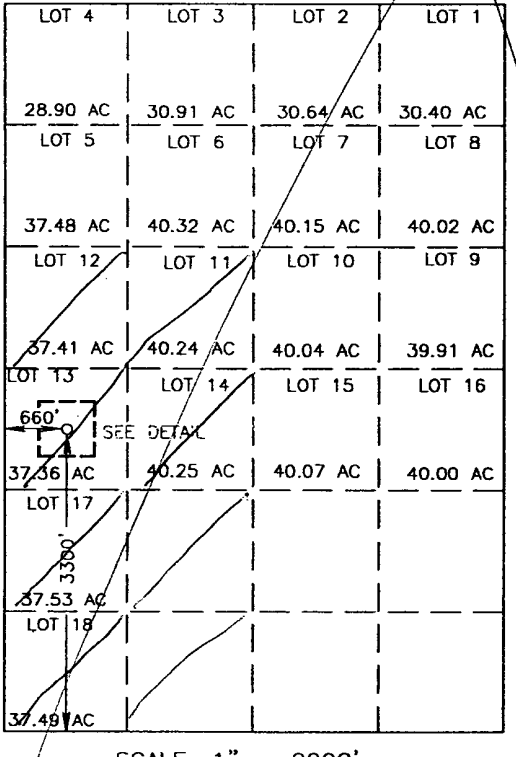
| UL or lot No. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| Dedicated Acres | Joint or Infill | Consolidation Code | Order No. |
|---|---|---|---|
| 308 | | | |

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

GEODETIC COORDINATES
NAD 27 NME
Y= 549454.7 N
X= 530393.2 E
LAT. 32°30'37.88"N
LONG. 104°14'05.06"W




SCALE: 1" = 2000'

### OPERATOR CERTIFICATION

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

Karen Cottom
Signature

Karen Cottom
Printed Name

Operations Technician
Title

September 24, 2003
Date

### 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 supervison, and that the same is true and correct to the best of my belief.*

September 9, 2003
Date Surveyed AWB

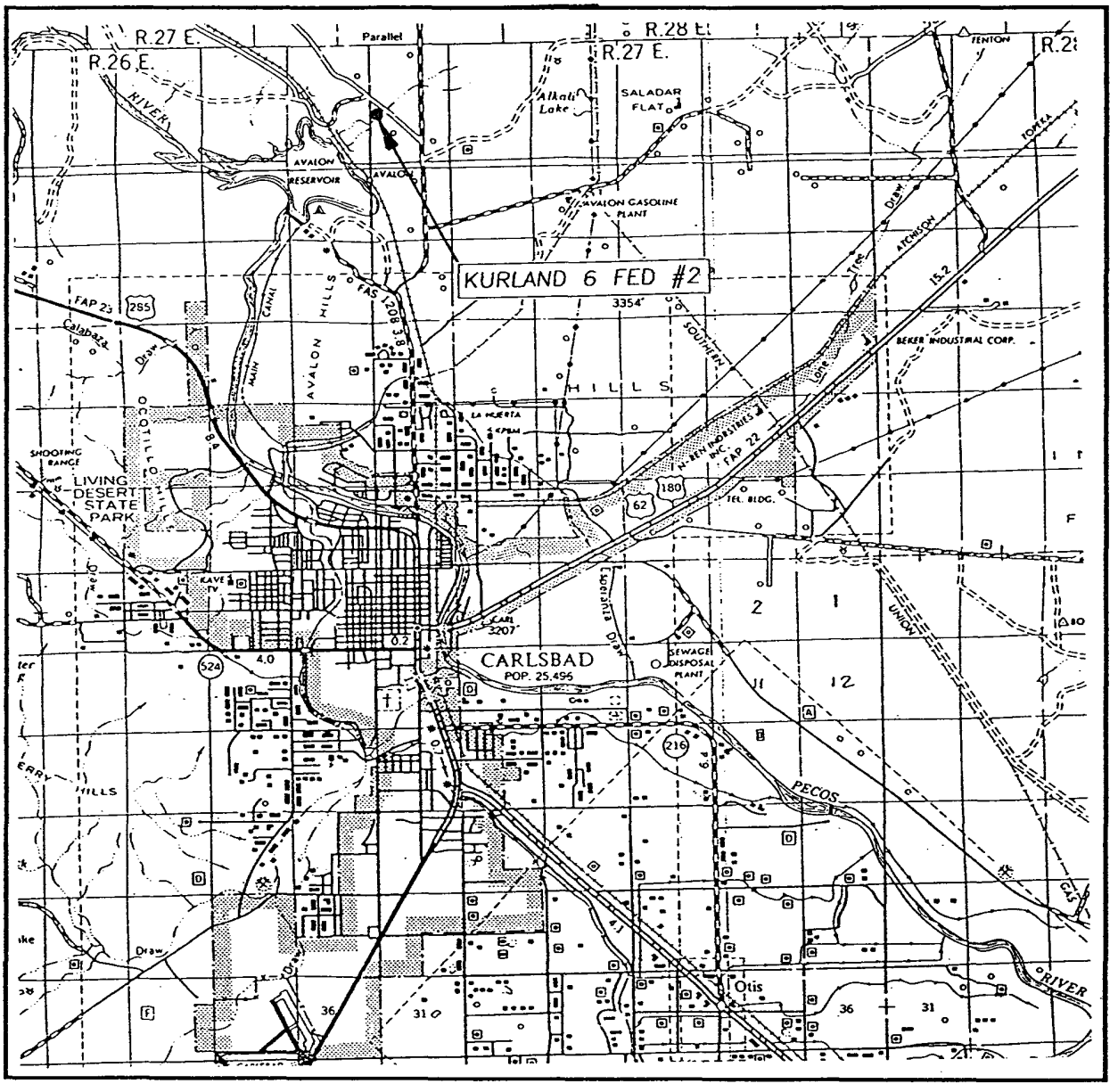
Signature & Seal of Professional Surveyor

GARY G. EIDSON
NEW MEXICO
12641
REGISTERED PROFESSIONAL SURVEYOR

Gary Eidson 9/25/03
03.11.0946

Certificate No. GARY EIDSON 12641

# VICINITY MAP




SCALE: 1" = 2 MILES

SEC. 6 TWP. 21-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 3300 FSL & 660' FWL

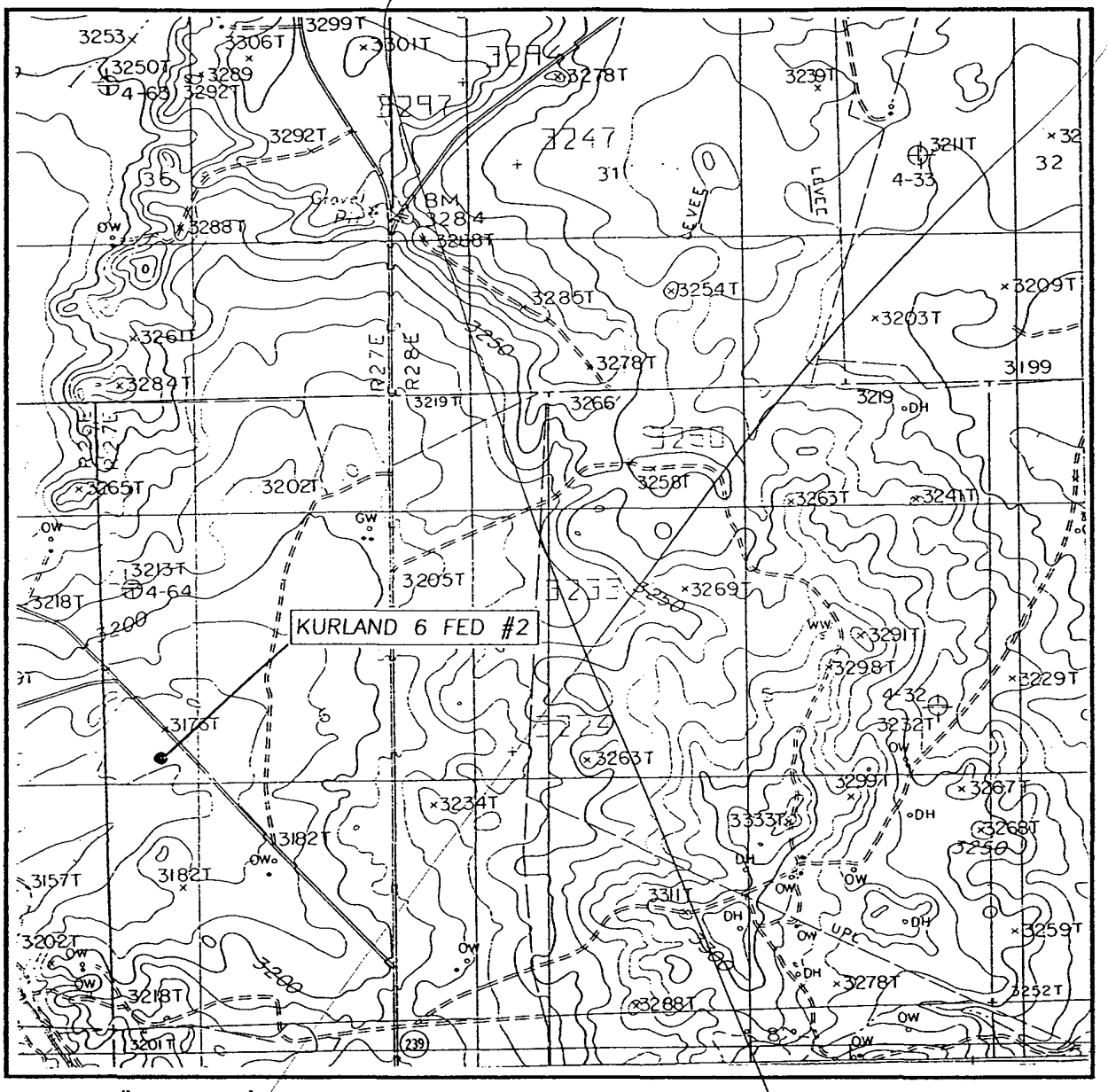
ELEVATION 3170'

OPERATOR DEVON ENERGY PROD, CO. L.P.

LEASE KURLAND 6 FEDERAL

JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

# LOCATION VERIFICATION MAP




SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'
ANGEL DRAW, N.M. SUP 5'

SEC. 6 TWP. 21-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 3300 FSL & 660' FWL

ELEVATION 3170'

OPERATOR DEVON ENERGY PROD, CO. L.P.

LEASE KURLAND 6 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
ANGEL DRAW, N.M.


JOHN WEST SURVEYING
HOBBS, NEW MEXICO
(505) 393-3117

# DRILLING PROGRAM

Devon Energy Production Company, LP
**Kurland 6 Federal #2**
Surface Location: 3300' FSL & 660' FWL, Unit 13, Sec 6 T21S R27E, Eddy, NM
Bottom hole Location: 3300' FSL & 660' FWL, Unit 13, Sec 6 T21S R27E, Eddy, NM

**1. Geologic Name of Surface Formation**

a. Alluvium

**2. Estimated tops of geological markers:**

| | |
|---|---|
| a. Yates | 550' |
| b. Capitan Reef | 680' |
| c. Lamar | 2500' |
| d. Delaware Sand | 2515' |
| e. Bone Spring | 5685' |
| f. Wolfcamp | 8840' |
| g. Cisco Series | 9090' |
| h. Canyon | 9780' |
| i. Strawn | 9990' |
| j. Atoka | 10,200' |
| k. Morrow Clastics | 10,840' |
| l. Lower Morrow | 11,110' |
| m. Barnet Shale | 11,270' |
| n. Total Depth | 11,400' |

3. **Estimated Depths of Anticipated Fresh Water, Oil or Gas**

| | |
|---|---|
| a. **Morrow** | **Gas** |
| b. **Strawn** | **Gas** |

4. No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 13 3/8" casing at 500' and circulating cement back to surface. Potash and salt will be protected by setting 9 5/8" casing @2500' and circulating cement to surface. The Delaware intervals will be isolated by setting 5 ½" casing to total depth and circulating cement above the base of the 9 5/8" casing.

**5. Casing Program:**

| Hole Size | Interval | OD Csg | Weight | Collar | Grade |
|---|---|---|---|---|---|
| 17 ½" | 0' –500' | 13 3/8" | 48# | ST&C | H40 |
| 12 ¼" | 0' – 2,500' | 9 5/8" | 36# | LT&C | J55 |
| 8 ¾" | 0' – 11,400' | 5 ½" | 17# | LT&C | HCP-110 |

**6. Cement & Setting Depth:**

| | | | |
|---|---|---|---|
| a. | 13 3/8" | Surface | Set 500' of 13 3/8", 48#, H-40 ST&C casing. Cement with 210 sx of Class C 35:65 Poz + 2% CaCl + ¼# Celoflakes/sx + 3#/sx of Kolseal, + 6% Bentonite, tail in with 250 sx of Class C cement + 2% Cacl, + ¼# Celoflakes/sx. Circulate cement to surface. |
| | WITNESS | | |
| b. | 9 5/8" | Intermediate | Set 2,500' of 9 5/8", 36#, J55, LT&C casing. Cement 1st Lead w/200 sx 35:65 Poz Class C + 5% bwow Sodium Chloride +0.25lbs/sx Cello Flake + 10 lbs/sx LCM-1 + 6% bwoc Bentonite + 90.9% Fresh Water. Cement 2nd Lead w/377 sx 35:65 Poz Class C + 5% bwow Sodium Chloride + 0.25lbs/sx Cello Flake + 6% bwoc Bentonite + 100.7% Fresh Water. Cement Tail Slurry w/250 sx Class C cement + 2% bwoc Calcium Chloride + 56.4% Fresh Water circulating back to surface. |
| c. | 5 ½" | Production | Set 11,400' of 5 ½", 17#, HCP-110, LT&C casing. Cement with 703 sx 15:61:11 Poz Class C CSE + 2% bwow Potassium Chloride + 1% bowc EC-1 + 0.25 lbs/sx Cello Flake + 0.3% bwoc CD-32 + 5 lbs/sx LCM-1 + 0.6^ bwoc FL-25 + 0.6^ bwoc FL-52 + 0.2% bwoc Sodium Metasilicate + 70.5% fresh water bring cement 200' into intermediate casing. |

**7. Pressure Control Equipment:**

a. The blowout preventer equipment (BOP) shown in Exhibit #1 will consist of a (5M system) double ram type (5000 psi WP) preventer and a bag-type (Hydril) preventer (3000 psi WP). Both units will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and drill pipe rams on bottom. Both BOP's will be installed on the 9 5/8" surface casing and utilized continuously until total depth is reached. As per BLM Drilling Order #2, prior to drilling out the casing shoe, the BOP's and Hydril will be function tested.

b. Pipe rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drillers log. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines an choke manifold having 5000 psi WP rating.

**8. Proposed Mud Circulation System**

| Depth | Mud Wt. | Visc | Fluid Loss | Type System |
|---|---|---|---|---|
| 0' – 500' | 9.0 | 29-34 | NC | Fresh Water |
| 500' – 2500' | 9.8-10.0 | 29-38 | NC | Brine Water |
| 2500' – 11,400' | 9.4-10.0 | 32-40 | 10 cc or less | Cut Brine Water |

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, & casing the viscosity and/or water loss may have to be adjusted to meet these needs.

**9. Auxiliary Well Control and Monitoring Equipment:**

a. A Kelly cock will be in the drill string at all times.

b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.

c. Hydrogen sulfide detection equipment will be in operations after drilling out the 9 5/8" casing shoe until the 5 ½" casing is cemented. Breathing equipment will be on location upon drilling the 9 5/8" shoe until total depth is reached.

**10. Logging, Coring, and Testing Program:**

a. Drill stem tests will be based on geological sample shows.
b. The open hole electrical logging program will be:
   i. TD to Intermediate Casing Dual Laterolog-Micro Laterolog with SP and Gamma ray. Compensated Neutron-Z-Density Log with Gamma Ray and Caliper.
   ii. TD to Surface Compensated Neutron with Gamma Ray.
   iii. No coring program is planned
   iv. Additional testing will be initiated subsequent to setting the 5 ½" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

**11. Potential Hazards:**

a. No abnormal pressures or temperatures are expected. There is no known presence of H2S in this area. If H2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 2900 psi and Estimated BHT 140°.

**12. Anticipated Starting Date and Duration of Operations:**

a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 45 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

# HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:
   a. Characteristics of H2S
   b. Physical effects and hazards
   c. Proper use of safety equipment and life support systems.
   d. Principle and operation of H2S detectors, warning system and briefing areas
   e. Evacuation procedures, routes and first aid.
   f. Proper use of 30 minute pressure demand air pack.

2. H2S Detection and Alarm System
   a. H2S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.

3. Windsock and/or wind streamers
   a. Windsock at mud pit area should be high enough to be visible
   b. Windsock at briefing area should be high enough to be visible
   c. There should be a windsock at entrance to location

4. Condition Flags and Signs
   a. Warning Sign on access road to location
   b. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H2S present in dangerous concentration. Only emergency personnel admitted to location.

5. Well Control Equipment
   a. See Exhibit "E" & "E-1"

6. Communication
   a. While working under masks chalkboards will be used for communication.
   b. Hand signals will be used where chalk board is inappropriate
   c. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

7. Drill stem Testing
   a. Exhausts will be watered
   b. Flare line will be equipped with an electric igniter or a propane pilot light in case gas reaches the surface.
   c. If the location is near to a dwelling a closed DST will be performed.

8. Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.
9. If H2S is encountered, mud system will be altered if necessary to maintain control or formation. A mud gas separator will be brought into service along with H2S scavengers if necessary.

# SURFACE USE PLAN

Devon Energy Production Company, LP

**Kurland 6 Federal #2**

Surface Location: 3300' FSL & 660' FWL, Unit 13, Sec 6 T21S R27E, Eddy, NM

Bottom hole Location: 3300' FSL & 660' FWL, Unit 13, Sec 6 T21S R27E, Eddy, NM

1. **Existing Roads:**
   a. The well site and elevation plat for the proposed are reflected on Exhibit 2. The well was staked by John West Surveying.
   b. All roads into the location are depicted on Exhibit 3.
   c. Directions to Location: From the hospital in Carlsbad go 2.6 miles on 285N to WIPP relief rd. (CR 39). Turn Right and go 3.2 miles to CR 206. Go north for 4.5 miles to Lake rd. Turn left on Lake rd and go 5/10ths mile. Kurland 6 Federal 5 is on the south side of the blacktop.
2. **Access Road**
   a. Exhibit #3 shows the existing lease road. Access to this location will not require any construction.
   b. No cattle guards, grates or fence cuts will be required. No turnouts are planned.
3. **Location of Existing and/or Proposed Facilities**
   a. In the event the well is found productive, a tank battery would be constructed and the necessary production equipment will be installed at the well site.
   b. If necessary, the well will be operated by means of an electric prime mover. Electric power poles will be set along side of the access road.
   c. The tank battery, all connections and all lines will adhere to API standards.
   d. If the well is productive, rehabilitation plans are as follows:
      i. The reserve pit will be back-filled after the contents of the pit are dry (within 120 days after completion, weather permitting).
      ii. The original topsoil from the well site will be returned to the location. The drill site will then be contoured as close as possible to the original state.
4. **Methods of Handling Waste Material:**
   a. Drill cuttings will be disposed of in the reserve pits.
   b. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary landfill.
   c. Salts remaining after completion of well will be picked up by the supplier, including broken sacks.
   d. Wastewater from living quarters will be drained into hole with a minimum of 10'. These holes will be covered during drilling and will be back filled when the well is completed. A Porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete
   e. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for further drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approved disposal site. Later pits will be broken out to speed dry. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in a storage tank and sold.
5. **Well Site Layout**
   a. Exhibit D Shows the proposed well site layout.

b. This exhibit indicated proposed location of reserve and sump pits and living facilities.
c. Mud pits in the active circulating system will be steel pits & the reserve pits is proposed to be unlined unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.
d. If needed, the reserve pit is to be lined with polyethylene. The pit liner will be6 mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will b anchored down.
e. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

6. **Other Information:**
a. The wellsite and access route are located in a relatively flat area.
b. The surface and minerals are owned by the US Government and is administered by the Bureau of Land Management.
c. An archaeological survey will be conducted of the well pad location and the results will be filed with the Bureau of Land Management in Carlsbad Field office.

**Operators Representative:**

The Devon Energy Production Company, L.P. representatives responsible for ensuring compliance of the surface use plan are listed below.

Tom Pepper
Operations Engineering Advisor

Devon Energy Production Company, L.P.
20 North Broadway, Suite 1500
Oklahoma City, OK 73102-8260

(405) 552-4513 (office)
(405) 203-2242 (Cellular)

Don Mayberry
Superintendent

Devon Energy Production Company, L.P.
Post Office Box 250
Artesia, NM 88211-0250

(505) 748-3371 (office)
(505) 746-4945 (home)

Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road; that I am familiar with the conditions that presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Devon Energy Production Company, L.P. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Signed: Karen Cottom Date: September 24, 2003

Karen Cottom
Operations Technician

Attachment to Exhibit #1
NOTES REGARDING BLOWOUT PREVENTERS
Devon Energy Production Company, LP
**Kurland 6 Federal #2**
Surface Location: 3300' FSL & 660' FWL, Unit 13, Sec 6 T21S R27E, Eddy, NM
Bottom hole Location: 3300' FSL & 660' FWL, Unit 13, Sec 6 T21S R27E, Eddy, NM

1. Drilling nipple will be constructed so it can be removed mechanically without the aid of a welder. The minimum internal diameter will equal BOP bore.

2. Wear ring will be properly installed in head.

3. Blowout preventer and all associated fittings will be in operable condition to withstand a minimum 3000 psi working pressure.

4. All fittings will be flanged.

5. A full bore safety valve tested to a minimum 3000 psi WP with proper thread connections will be available on the rotary rig floor at all times.

6. All choke lines will be anchored to prevent movement.

7. All BOP equipment will be equal to or larger in bore than the internal diameter of the last casing string.

8. Will maintain a kelly cock attached to the kelly.

9. Hand wheels and wrenches will be properly installed and tested for safe operation.

10. Hydraulic floor control for blowout preventer will be located as near in proximity to driller's controls as possible.

11. All BOP equipment will meet API standards and include a minimum 40 gallon accumulator having two independent means of power to initiate closing operation.

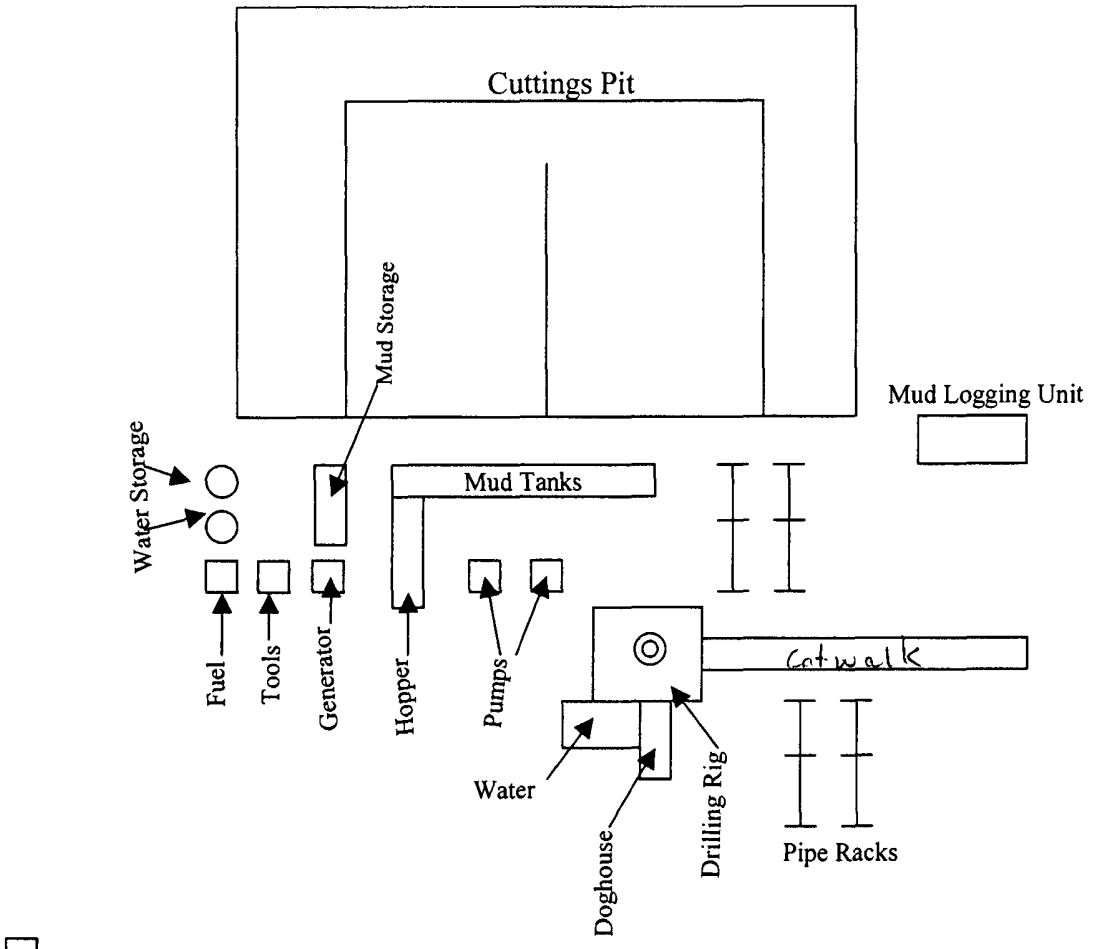
UNITED STATES DEPARTMENT OF THE INTERIOR
Bureau of Land Management
Roswell Field Office
2909 West Second Street
Roswell, New Mexico 88201-1287

Statement Accepting Responsibility for Operations

| | |
|---|---|
| Operator Name: | **Devon Energy Production Company, LP** |
| Street or Box: | **20 North Broadway, Suite 1500** |
| City, State: | **Oklahoma City, Oklahoma** |
| Zip Code: | **73102-8260** |

The undersigned accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land or portion thereof, as described below.

| | |
|---|---|
| Lease No.: | **NMNM-0501759** |
| Legal Description of Land: | **308.48 acres 6-T21S-R27E** |
| Formation(s): | **Morrow** |
| Bond Coverage: | **Nationwide** |
| BLM Bond File No.: | **CO-1104** |
| Authorized Signature: | Karen Cottom<br>**Karen Cottom** |
| Title: | **Operations Technician** |
| Date: | 9/24/03 |




| |
|---|
| Devon Energy Production Company, LP<br>Kurland 6-2 |
| **Drilling Pad**<br>**Exhibit #** |

| | |
|---|---|
| Well name: | **Kurland 6 Fed #2** |
| Operator: | **Devon Energy** |
| String type: | Surface |
| Location: | New Mexico |

**Design parameters:**

**Collapse**

Mud weight: 9.000 ppg

Design is based on evacuated pipe.

**Burst**

Max anticipated surface pressure: 440 psi

Internal gradient: 0.120 psi/ft

Calculated BHP 500 psi

No backup mud specified.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Tension:**

8 Round STC: 1.80 (J)

8 Round LTC: 1.80 (J)

Buttress: 1.60 (J)

Premium: 1.50 (J)

Body yield: 1.60 (B)

Tension is based on air weight.

Neutral point: 434 ft

**Environment:**

H2S considered? No

Surface temperature: 75 °F

Bottom hole temperature: 82 °F

Temperature gradient: 1.40 °F/100ft

Minimum section length: 500 ft

Non-directional string.

**Re subsequent strings:**

Next setting depth: 2,500 ft

Next mud weight: 10.000 ppg

Next setting BHP: 1,299 psi

Fracture mud wt: 19.250 ppg

Fracture depth: 500 ft

Injection pressure 500 psi

| Run Seq | Segment Length (ft) | Size (in) | Nominal Weight (lbs/ft) | Grade | End Finish | True Vert Depth (ft) | Measured Depth (ft) | Drift Diameter (in) | Est. Cost ($) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 500 | 13.375 | 48.00 | H-40 | ST&C | 500 | 500 | 12.59 | 6201 |

| Run Seq | Collapse Load (psi) | Collapse Strength (psi) | Collapse Design Factor | Burst Load (psi) | Burst Strength (psi) | Burst Design Factor | Tension Load (kips) | Tension Strength (kips) | Tension Design Factor |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 234 | 740 | 3.17 | 500 | 1730 | 3.46 | 24 | 322 | 13.42 J |

Devon Energy

Date: September 16,2003

Oklahoma City, Oklahoma

Remarks:

Collapse is based on a vertical depth of 500 ft, a mud weight of 9 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

| | |
|---|---|
| Well name: | **Kurland 6 Fed #2** |
| Operator: | **Devon Energy** |
| String type: | Intermediate |
| Location: | New Mexico |

**Design parameters:**

**Collapse**
Mud weight: 10.000 ppg
Design is based on evacuated pipe.

**Burst**
Max anticipated surface pressure: 2,200 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 2,500 psi

No backup mud specified.

**Minimum design factors:**

**Collapse:**
Design factor 1.125

**Burst:**
Design factor 1.00

**Tension:**
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 2,130 ft

**Environment:**
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 110 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 500 ft

Non-directional string.

**Re subsequent strings:**
Next setting depth: 11,400 ft
Next mud weight: 10.000 ppg
Next setting BHP: 5,922 psi
Fracture mud wt: 19.250 ppg
Fracture depth: 2,500 ft
Injection pressure 2,500 psi

| Run Seq | Segment Length (ft) | Size (in) | Nominal Weight (lbs/ft) | Grade | End Finish | True Vert Depth (ft) | Measured Depth (ft) | Drift Diameter (in) | Est. Cost ($) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 2500 | 9.625 | 36.00 | J-55 | LT&C | 2500 | 2500 | 8.796 | 20443 |

| Run Seq | Collapse Load (psi) | Collapse Strength (psi) | Collapse Design Factor | Burst Load (psi) | Burst Strength (psi) | Burst Design Factor | Tension Load (kips) | Tension Strength (kips) | Tension Design Factor |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 1299 | 2020 | 1.56 | 2500 | 3520 | 1.41 | 90 | 453 | 5.03 J |

Devon Energy

Date: September 16,2003
Oklahoma City, Oklahoma

Remarks:
Collapse is based on a vertical depth of 2500 ft, a mud weight of 10 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

*Engineering responsibility for use of this design will be that of the purchaser.*

| | |
|---|---|
| Well name: | **Kurland 6 Fed #2** |
| Operator: | **Devon Energy** |
| String type: | Production |
| Location: | New Mexico |

**Design parameters:**

**Collapse**
Mud weight: 10.000 ppg
Design is based on evacuated pipe.

**Burst**
Max anticipated surface pressure: 4,554 psi
Internal gradient: 0.120 psi/ft
Calculated BHP 5,922 psi

No backup mud specified.

**Minimum design factors:**

**Collapse:**
Design factor 1.125

**Burst:**
Design factor 1.00

**Tension:**
8 Round STC: 1.80 (J)
8 Round LTC: 1.80 (J)
Buttress: 1.60 (J)
Premium: 1.50 (J)
Body yield: 1.60 (B)

Tension is based on air weight.
Neutral point: 9,671 ft

**Environment:**
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 235 °F
Temperature gradient: 1.40 °F/100ft
Minimum section length: 500 ft

Non-directional string.

| Run Seq | Segment Length (ft) | Size (in) | Nominal Weight (lbs/ft) | Grade | End Finish | True Vert Depth (ft) | Measured Depth (ft) | Drift Diameter (in) | Est. Cost ($) |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 11400 | 5.5 | 17.00 | HCP-110 | LT&C | 11400 | 11400 | 4.767 | 75090 |

| Run Seq | Collapse Load (psi) | Collapse Strength (psi) | Collapse Design Factor | Burst Load (psi) | Burst Strength (psi) | Burst Design Factor | Tension Load (kips) | Tension Strength (kips) | Tension Design Factor |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5922 | 8580 | 1.45 | 5922 | 10640 | 1.80 | 193.8 | 445 | 2.30 J |

Devon Energy

Date: September 16,2003
Oklahoma City, Oklahoma

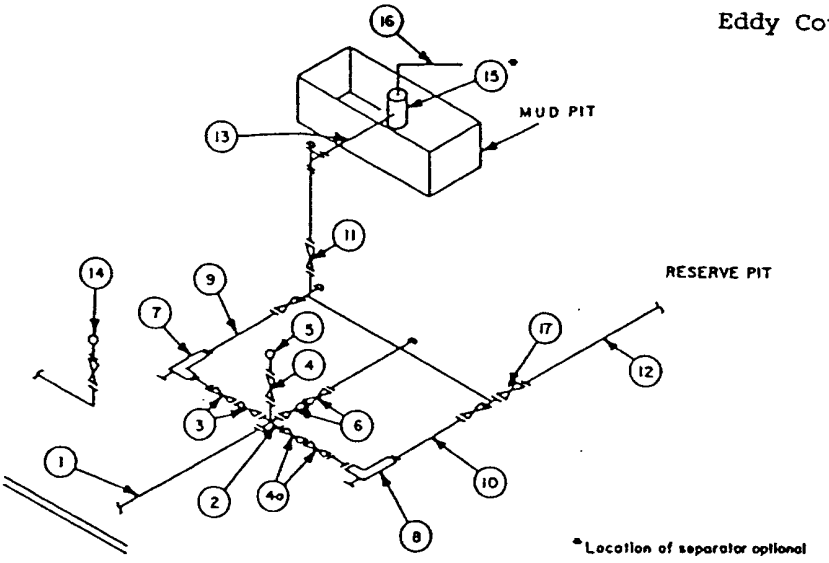
Remarks:
Collapse is based on a vertical depth of 11400 ft, a mud weight of 10 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

**MINIMUM CHOKE MANIFOLD**
**3,000, 5,000 and 10,000 PSI Working Pressure**

**3 MWP - 5 MWP - 10 MWP**

EXHIBIT 1-A
Eddy County, New Mexico




| MINIMUM REQUIREMENTS | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | 3,000 MWP | | | 5,000 MWP | | | 10,000 MWP | | |
| No. | | I.D. | NOMINAL | RATING | I.D. | NOMINAL | RATING | I.D. | NOMINAL | RATING |
| 1 | Line from drilling spool | | 3" | 3,000 | | 3" | 5,000 | | 3" | 10,000 |
| 2 | Cross 3"x3"x3"x2" | | | 3,000 | | | 5,000 | | | |
| | Cross 3"x3"x3"x3" | | | | | | | | | 10,000 |
| 3 | Valves(1) Gate ☐ Plug ☐(2) | 3-1/8" | | 3,000 | 3-1/8" | | 5,000 | 3-1/8" | | 10,000 |
| 4 | Valve Gate ☐ Plug ☐(2) | 1-13/16" | | 3,000 | 1-13/16" | | 5,000 | 1-13/16" | | 10,000 |
| 4a | Valves(1) | 2-1/16" | | 3,000 | 2-1/16" | | 5,000 | 3-1/8" | | 10,000 |
| 5 | Pressure Gauge | | | 3,000 | | | 5,000 | | | 10,000 |
| 6 | Valves Gate ☐ Plug ☐(2) | 3-1/8" | | 3,000 | 3-1/8" | | 5,000 | 3-1/8" | | 10,000 |
| 7 | Adjustable Choke(3) | 2" | | 3,000 | 2" | | 5,000 | 2" | | 10,000 |
| 8 | Adjustable Choke | 1" | | 3,000 | 1" | | 5,000 | 2" | | 10,000 |
| 9 | Line | | 3" | 3,000 | | 3" | 5,000 | | 3" | 10,000 |
| 10 | Line | | 2" | 3,000 | | 2" | 5,000 | | 3" | 10,000 |
| 11 | Valves Gate ☐ Plug ☐(2) | 3-1/8" | | 3,000 | 3-1/8" | | 5,000 | 3-1/8" | | 10,000 |
| 12 | Lines | | 3" | 1,000 | | 3" | 1,000 | | 3" | 2,000 |
| 13 | Lines | | 3" | 1,000 | | 3" | 1,000 | | 3" | 2,000 |
| 14 | Remote reading compound standpipe pressure gauge | | | 3,000 | | | 5,000 | | | 10,000 |
| 15 | Gas Separator | | 2'x5' | | | 2'x5' | | | 2'x5' | |
| 16 | Line | | 4" | 1,000 | | 4" | 1,000 | | 4" | 2,000 |
| 17 | Valves Gate ☐ Plug ☐(2) | 3-1/8" | | 3,000 | 3-1/8" | | 5,000 | 3-1/8" | | 10,000 |

*(1) Only one required in Class 3M.*

*(2) Gate valves only shall be used for Class 10M.*

*(3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling.*

EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS

1. All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
2. All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
3. All lines shall be securely anchored.
4. Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
5. Choke manifold pressure and standpipe pressure gauges shall be available at the choke manifold to assist in regulating chokes. As an alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in conjunction with the standpipe pressure gauge.
6. Line from drilling spool to choke manifold should be as straight as possible. Lines downstream from chokes shall make turns by large bends or 90° bends using bull plugged tees.
7. Discharge lines from chokes, choke bypass and from top of gas separator should vent as far as practical from the well.

MINIMUM BLOWOUT PREVENTER REQUIREI S

3,000 psi Working Pressure

3 MWP

EXHIBIT # 1

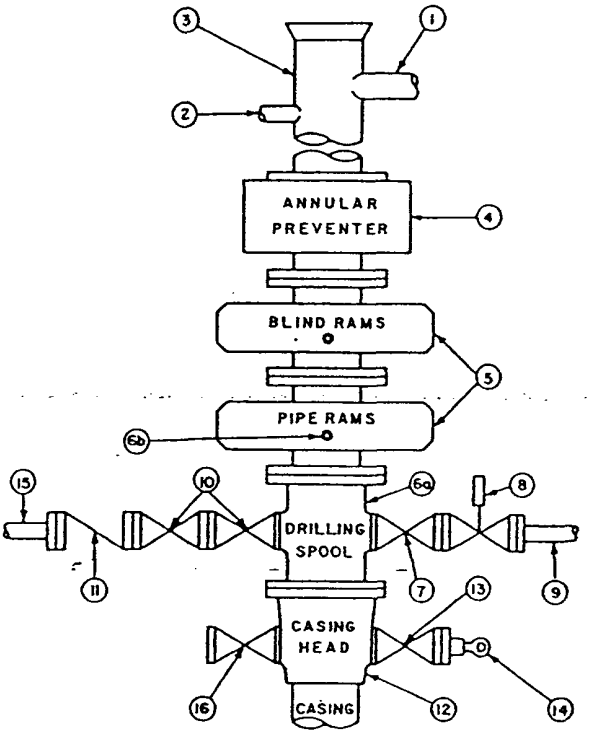
Eddy County, New Mexico

## STACK REQUIREMENTS

| No. | Item | Min. I.D. | Min. Nominal |
|---|---|---|---|
| 1 | Flowline | | |
| 2 | Fill up line | | 2" |
| 3 | Drilling nipple | | |
| 4 | Annular preventer | | |
| 5 | Two single or one dual hydraulically operated rams | | |
| 6a | Drilling spool with 2" min. kill line and 3" min choke line outlets | | |
| | —or— | | |
| 6b | 2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above.) | | |
| 7 | Valve Gate ☐ Plug ☐ | 3-1/8" | |
| 8 | Gate valve—power operated | 3-1/8" | |
| 9 | Line to choke manifold | | 3" |
| 10 | Valves Gate ☐ Plug ☐ | 2-1/16" | |
| 11 | Check valve | 2-1/16" | |
| 12 | Casing head | | |
| 13 | Valve Gate ☐ Plug ☐ | 1-13/16" | |
| 14 | Pressure gauge with needle valve | | |
| 15 | Kill line to rig mud pump manifold | | 2" |

| OPTIONAL | | | |
|---|---|---|---|
| 16 | Flanged valve | 1-13/16" | |

CONFIGURATION A




CONTRACTOR'S OPTION TO FURNISH:

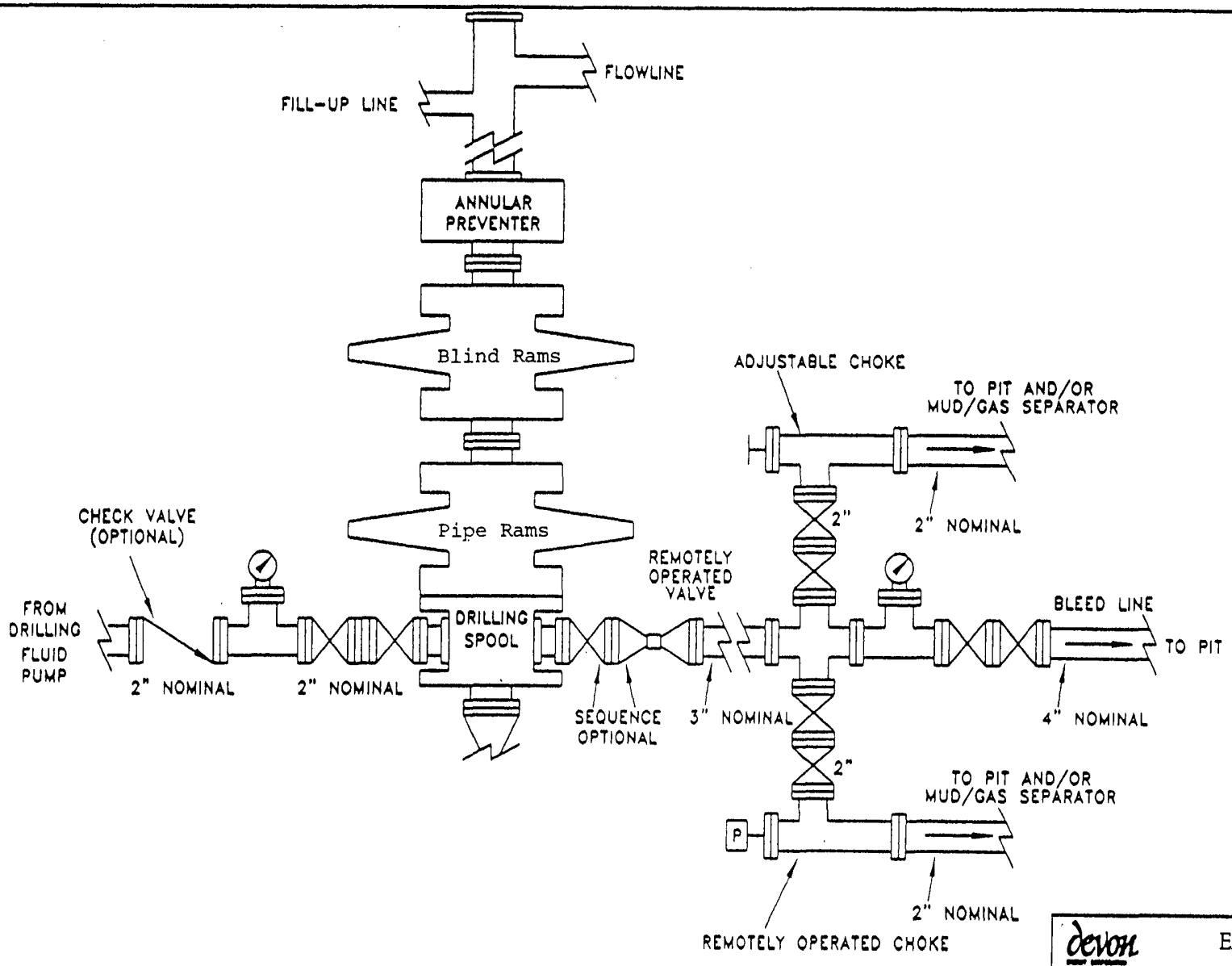
1. All equipment and connections above bradenhead or casinghead. Working pressure of preventers to be 3,000 psi, minimum.
2. Automatic accumulator (80 gallon, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, to be located near drillers position.
4. Kelly equipped with Kelly cock.
5. Inside blowout prevventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
6. Kelly saver-sub equipped with rubber casing protector at all times.
7. Plug type blowout preventer tester.
8. Extra set pipe rams to fit drill pipe in use on location at all times.
9. Type RX ring gaskets in place of Type R.

MEC TO FURNISH:

1. Bradenhead or casinghead and side valves.
2. Wear bushing, if required.

GENERAL NOTES:

1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through choke. Valves must be full opening and suitable for high pressure mud service.
3. Controls to be of standard design and each marked, showing opening and closing position.
4. Chokes will be positioned so as not to hamper or delay changing of choke beans. Replaceable parts for adjustable choke, other bean sizes, retainers, and choke wrenches to be conveniently located for immediate use.
5. All valves to be equipped with handwheels or handles ready for immediate use.
6. Choke lines must be suitably anchored.
7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (3000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency.
11. Do not use kill line for routine fill-up operations.




devon

EXHIBIT 1

AREA NAME
COUNTY, STATE

SCHEMATIC

# PROPOSED 5-M BOPE AND CHOKE ARRANGEMENT

s:\...\nm\plats
5mbope.dwg

SC

10/00

## Cottom, Karen

**From:** Hatchett, Donna
**Sent:** Tuesday, September 16, 2003 4:47 PM
**To:** Cottom, Karen
**Subject:** RE: Information Needed

The Kurland #2 is on Federal Lease NM-0501759. This lease covers Lots 11, 12, 13, 14, 17, 18 & E/2 SW/4 of Section 6 which equals 308.48 acres. The lease also covers Lots 1, 2, 3, 4, SW/4 NE/4, SE/4 NW/4, E/2 SW/4, and W/2 SE/4 of Section 7 which equals 388.16. The total lease covers 696.64 acres. The spacing unit is the south 2/3 of the W/2 being 308.48 acres. Ken says the well is 5 miles north of Carlsbad.