

EC

UNITED STATES **OCD-ARTESIA**  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No. 1004-0136  
Expires November 30, 2000

## APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM64584
1b. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator DEVON ENERGY PRODUCTION CO L P		7. If Unit or CA Agreement, Name and No.
Contact: LINDA GUTHRIE E-Mail: linda.guthrie@devn.com		8. Lease Name and Well No. INDIAN DRAW 12 FEDERAL 2
3a. Address 20 NORTH BROADWAY SUITE 1500 OKLAHOMA CITY, OK 73102	3b. Phone No. (include area code) Ph: 405.228.8209 Fx: 405.552.1319	9. API Well No. 30-015-33564
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface NENE 660FNL 1070FEL At proposed prod. zone		10. Field and Pool, or Exploratory MORROW
14. Distance in miles and direction from nearest town or post office* APPROX 5 MILES ESE OF CARLSBAD, NM		11. Sec., T., R., M., or Blk. and Survey or Area Sec 12 T22S R27E Mer NMP SME: BLM
15. Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)		12. County or Parish EDDY
16. No. of Acres in Lease 360.00		13. State NM
17. Spacing Unit dedicated to this well 320.00		18. Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.
19. Proposed Depth 12300 MD 12300 TVD		20. BLM/BIA Bond No. on file
21. Elevations (Show whether DF, KB, RT, GL, etc.) 3128 GL		22. Approximate date work will start 07/10/2004
23. Estimated duration 45 DAYS		

## 24. Attachments

## CARLSBAD CONTROLLED WATER BASIN

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 (Electronic Submission)	Name (Printed/Typed) LINDA GUTHRIE	Date 06/08/2004
Title REGULATORY SPECIALIST		
Approved by (Signature) /s/ Joe G. Lara	Name (Printed/Typed) /s/ Joe G. Lara	Date 16 AUG 2004
Title FIELD MANAGER		
Office CARLSBAD FIELD OFFICE		

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.

APPROVAL FOR 1 YEAR

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 #31639 verified by the BLM Well Information System  
For DEVON ENERGY PRODUCTION CO L P, sent to the Carlsbad  
Committed to AFMSS for processing by LINDA ASKWIG on 06/08/2004 (04LA0483AE)

APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

Witness Surface Casing.

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, 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-144  
March 12, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.  
For downstream facilities, submit to Santa Fe office

**Pit or Below-Grade Tank Registration or Closure**

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Devon Energy Production Company, LP Telephone: (405) 228-8209 e-mail address: linda.guthrie@dvn.com  
Address: 20 N Broadway, Suite 1500 Oklahoma City, OK 73102-8260  
Facility or well name: Indian Draw 12 Fed 2 API #: U/L or Qtr/Qtr A Sec 12 T22S R 27E  
County: Eddy Latitude \_\_\_\_\_ Longitude \_\_\_\_\_ NAD: 1927 ☐ 1983 ☐ Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

Pit	Below-grade tank						
Type: Drilling <input checked="" type="checkbox"/> Production <input type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input checked="" type="checkbox"/> Unlined <input type="checkbox"/> Liner type: Synthetic <input checked="" type="checkbox"/> Thickness <u>12</u> mil Clay <input type="checkbox"/> Volume _____ bbl	Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> If not, explain why not. _____						
Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	<table border="1"><tr><td>Less than 50 feet</td><td>(20 points)</td></tr><tr><td>50 feet or more, but less than 100 feet</td><td>(10 points)</td></tr><tr><td>100 feet or more</td><td>(0 points)</td></tr></table>	Less than 50 feet	(20 points)	50 feet or more, but less than 100 feet	(10 points)	100 feet or more	(0 points)
Less than 50 feet	(20 points)						
50 feet or more, but less than 100 feet	(10 points)						
100 feet or more	(0 points)						
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	<table border="1"><tr><td>Yes</td><td>(20 points)</td></tr><tr><td>No</td><td>(0 points)</td></tr></table>	Yes	(20 points)	No	(0 points)		
Yes	(20 points)						
No	(0 points)						
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	<table border="1"><tr><td>Less than 200 feet</td><td>(20 points)</td></tr><tr><td>200 feet or more, but less than 1000 feet</td><td>(10 points)</td></tr><tr><td>1000 feet or more</td><td>(0 points)</td></tr></table>	Less than 200 feet	(20 points)	200 feet or more, but less than 1000 feet	(10 points)	1000 feet or more	(0 points)
Less than 200 feet	(20 points)						
200 feet or more, but less than 1000 feet	(10 points)						
1000 feet or more	(0 points)						
Ranking Score (Total Points) <u>20</u>							

RECEIVED

JUN 14 2004

SEP 14 2004

If this is a pit closure: (1) attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location:

onsite ☐ offsite ☐ If offsite, name of facility \_\_\_\_\_ (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface \_\_\_\_\_ ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described 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 ☐.

Date: 06/08/04

Printed Name/Title: Linda Guthrie Regulatory Specialist Signature: Linda Guthrie

Our certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Date: 6/10/04

Printed Name/Title: Mike Bratcher Compliance Officer Signature: Mike Bratcher

Permit stipulations attached



# NEW MEXICO ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT

**BILL RICHARDSON**  
Governor

**Joanna Prukop**  
Cabinet Secretary  
Acting Director  
Oil Conservation Division

16 June 2004

Devon Energy Production Co.  
20 N Broadway, Suite 1500  
Oklahoma City OK 73102-8260

RE:

Permit Stipulations - Indian Draw 12 Fed #2 Unit A SEC-12 T-22S R-27E

The Oil Conservation Division of Artesia is in receipt of your application to construct a pit for the purpose of drilling. The request is hereby accepted and approved with the following provisions:

1. Construction and closing of pit(s) must meet the criteria of Rule 19.15.2.50 and the Pit Guidelines.
2. The pit is not located in any watercourse, lakebed, sinkhole, playa lake, or wetland.
3. Notice is to be given to the OCD prior to construction of the pit(s).
4. Liner must be a minimum of 12 mil. woven.
5. Due to depth to groundwater, the pit's contents and the liner shall be removed and disposed of in a manner approved by the Division.
6. Upon cessation of drilling the freestanding fluid will be removed and disposed of in an OCD approved facility.
7. Due to liner choice, the pit's contents and the liner shall be removed and disposed of in a manner approved by the Division.
8. The integrity of the bottom liner may not be breached at any time for any reason.
9. The pit will not be used for any additional storage of fluids.
10. The Division may attach additional conditions to any permit upon a finding that such conditions are necessary to prevent the contamination of fresh water, or to protect public health or the environment. (19.15.2.50.C.3.G.1.)
11. Re-seeding mixture will must be approved or authorized by surface owner.

If I can be of any further assistance, please feel free to call Van Barton (505) 748-1283 ext. 109.

Sincerely,

Mike Bratcher

**Additional Operator Remarks:**

Devon Energy Production Co., LP proposed to drill to approximately 12,300' to test the Morrow for commercial quantities of gas. If deemed non-commercial the wellbore will be plugged and abandoned as per Federal regulations. Programs to adhere to onshore oil and gas regulations are outlined in the attached exhibits and documents.

No new access road is anticipated.

DISTRICT I  
1825 N. French Dr., Hobbs, NM 88240

DISTRICT II  
811 South First, Artesia, NM 88210

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

DISTRICT IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised March 17, 1999

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

## OIL CONSERVATION DIVISION

2040 South Pacheco  
Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		Morrow; Gas
Property Code 28724	Property Name INDIAN DRAW "12" FEDERAL	Well Number 2
GRID No. 6137	Operator Name DEVON ENERGY PRODUCTION COMPANY LP	Elevation 3128'

#### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	12	22 S	27 E		660	NORTH	1070	EAST	EDDY

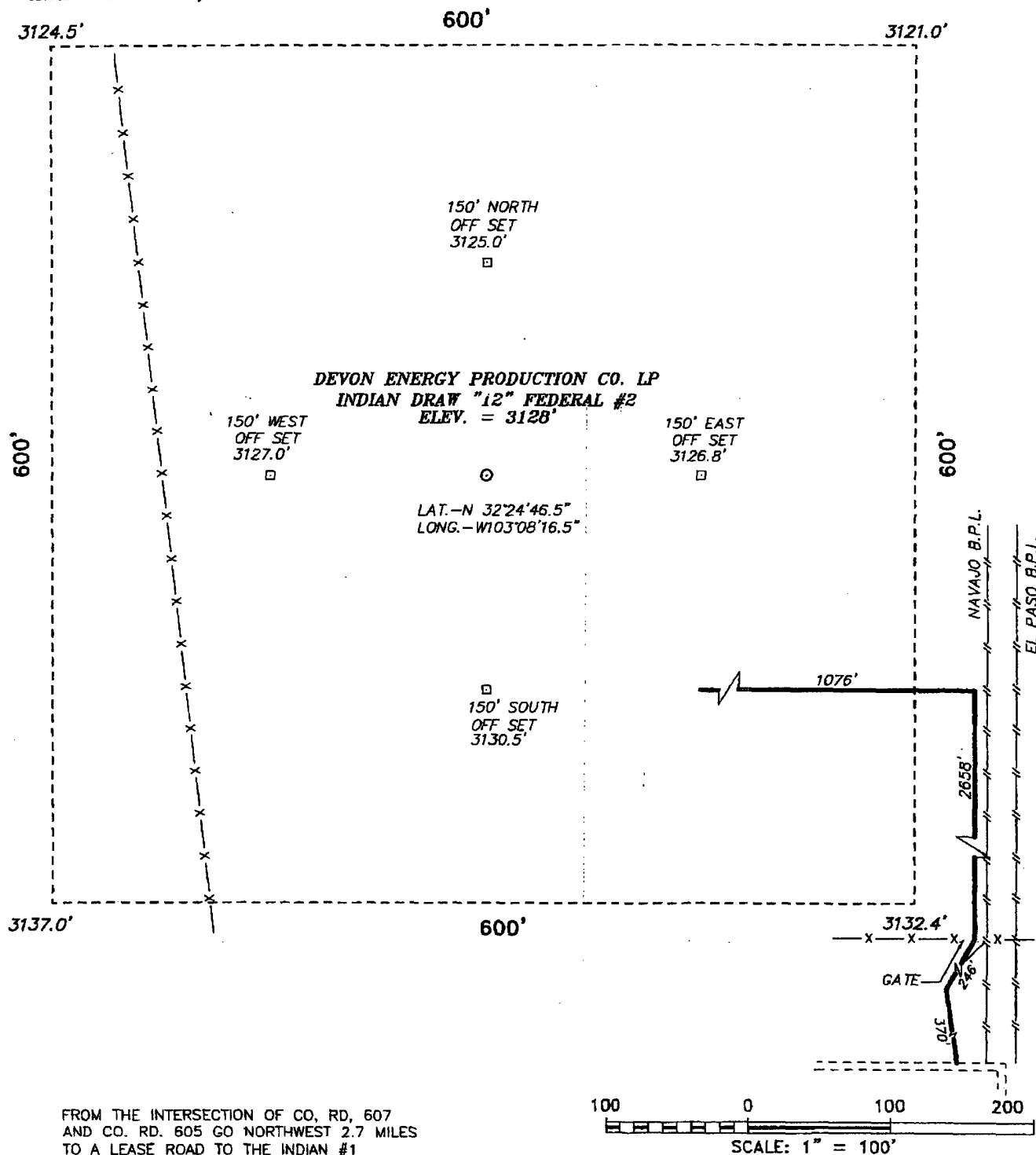
#### Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.						

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED  
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<h4>OPERATOR CERTIFICATION</h4> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p><i>Linda Guthrie</i> Signature Linda Guthrie Printed Name Regulatory Specialist Title 06/07/04 Date</p> <h4>SURVEYOR CERTIFICATION</h4> <p>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.</p> <p>April 5, 2004 Date Surveyed GARY L. JONES Signature &amp; Seal of Professional Surveyor N.M. No. 4768 Certificate No. Gary L. Jones 7977 JLP BASIN SURVEYS</p>
--	---

SECTION 12, TOWNSHIP 22 SOUTH, RANGE 27 EAST, N.M.P.M.,  
EDDY COUNTY, NEW MEXICO.



FROM THE INTERSECTION OF CO. RD. 607  
AND CO. RD. 605 GO NORTHWEST 2.7 MILES  
TO A LEASE ROAD TO THE INDIAN #1  
WELL GO NORTH 1.2 MILES TO A BEND WEST  
THE ROAD TO WELL IS JUST PASS BEND TO  
THE NORTH.

**BASIN SURVEYS** P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 4168

Drawn By: JAMES PRESLEY

Date: 04/06/04

Disk: JLP #1 - DEV4168A

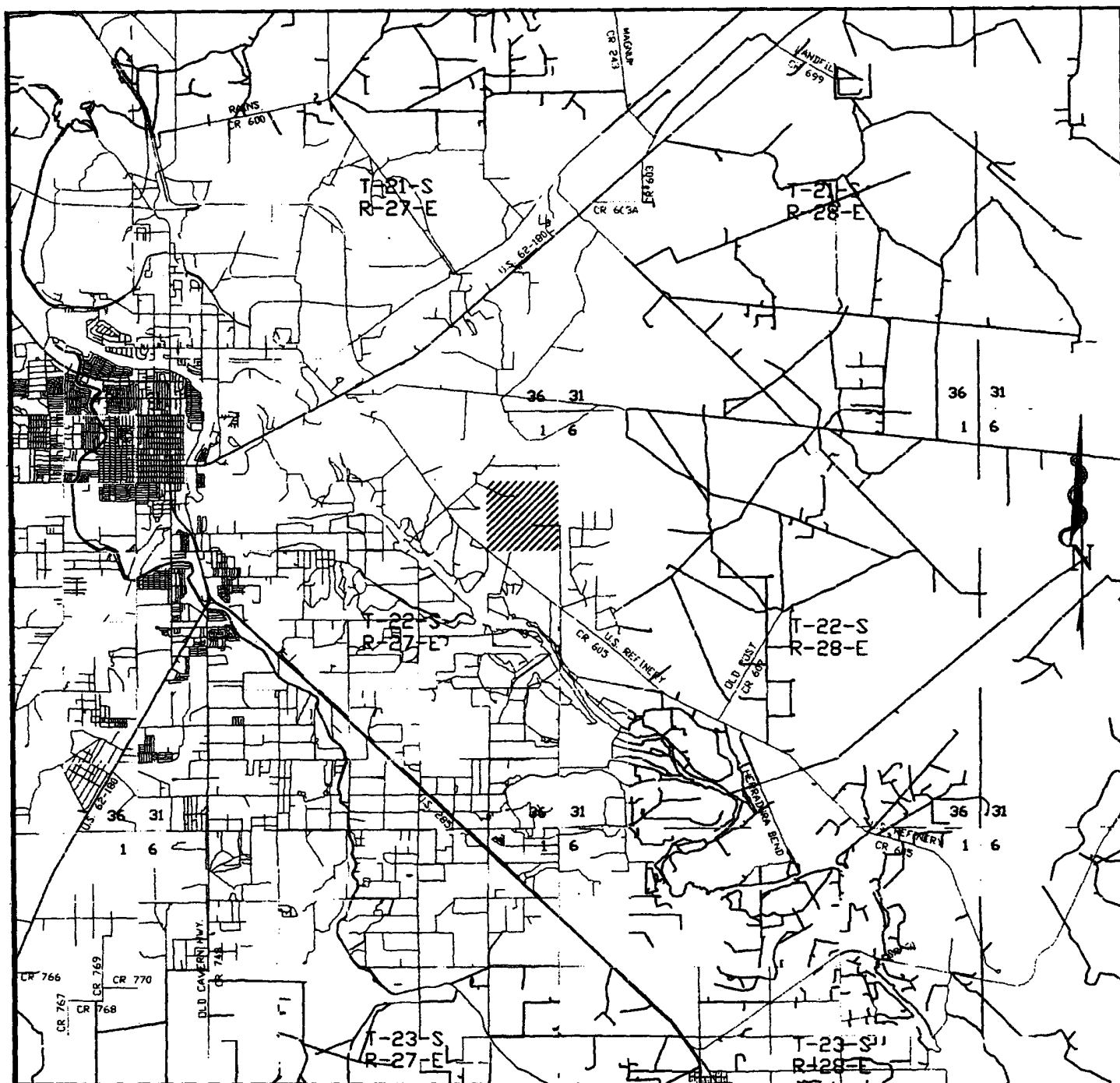
**DEVON ENERGY PRODUCTION CO. LP.**

REF: INDIAN DRAW 12 FEDERAL #2 / Well Pad Topo

INDIAN DRAW 12 FEDERAL #2 LOCATED 660' FROM THE  
NORTH LINE AND 1070' FROM THE EAST LINE OF  
SECTION 12, TOWNSHIP 22 SOUTH, RANGE 27 EAST,  
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Survey Date: 04/05/04

Sheet 1 of 1 Sheets



**INDIAN DRAW 12 FEDERAL #2**  
 Located at 660' FNL and 1070' FEL  
 Section 12, Township 22 South, Range 27 East,  
 N.M.P.M., Eddy County, New Mexico.

**basin**  
**surveys**  
 focused on excellence  
 in the oilfield

P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (505) 393-7316 - Office  
 (505) 392-3074 - Fax  
 basin-surveys.com

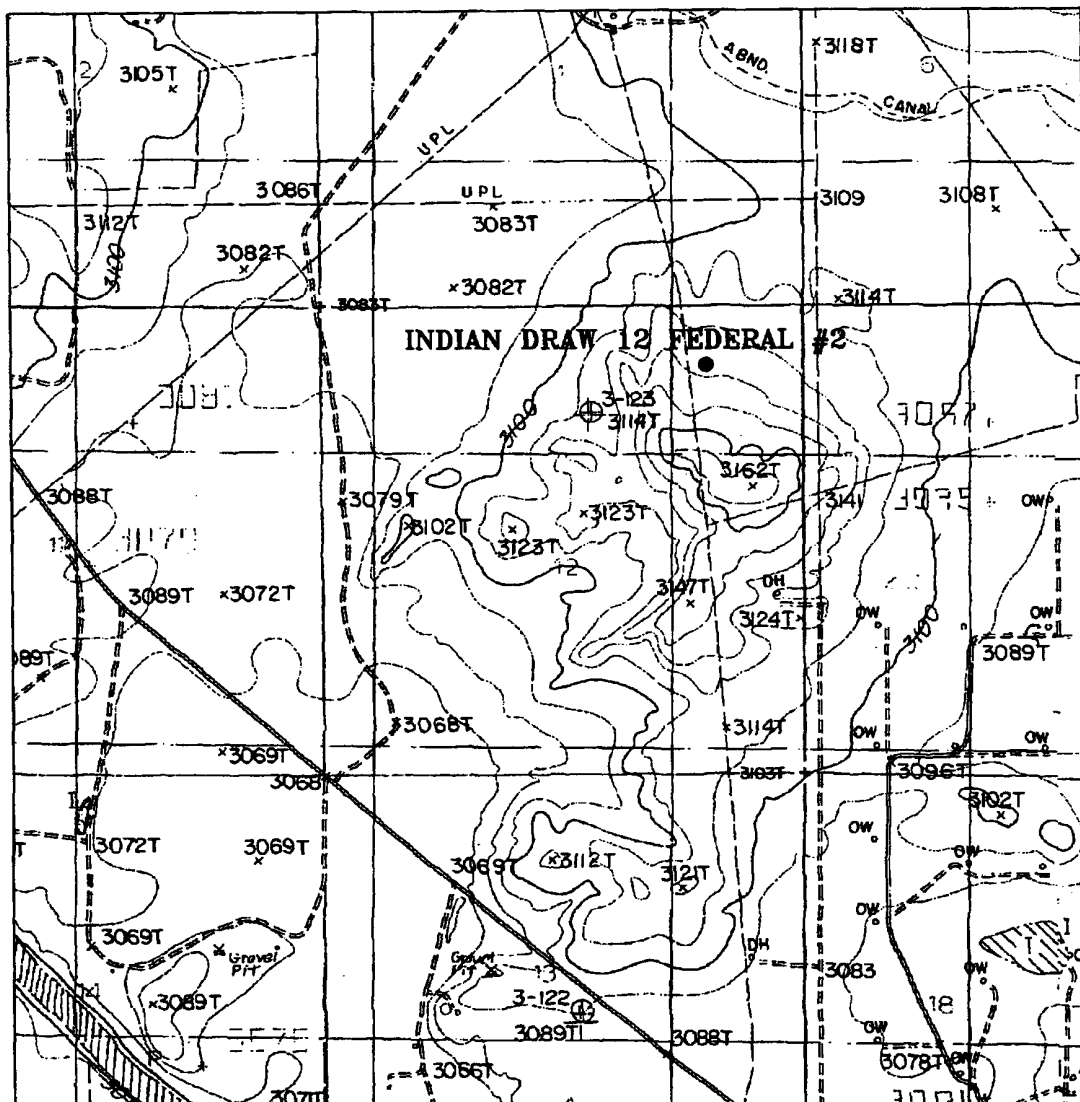
W.O. Number: 4168AA - JLP #1

Survey Date: 04/05/04

Scale: 1" = 2000'

Date: 04/06/04

**DEVON ENERGY**  
**PRUDUCTION**  
**COMPANY LP.**



## INDIAN DRAW 12 FEDERAL #2

Located at 660' FNL and 1070' FEL  
Section 12, Township 22 South, Range 27 East,  
N.M.P.M., Eddy County, New Mexico.

**basin**

focused on excellence  
in the oilfield

P.O. Box 1786  
1120 N. West County Rd.  
Hobbs, New Mexico 88241  
(505) 393-7316 - Office  
(505) 392-3074 - Fax  
basinsurveys.com

W.O. Number: 4168AA - JLP #1

Survey Date: 04/05/04

Scale: 1" = 2000'

Date: 04/06/04

**DEVON ENERGY  
PRUDUCTION  
COMPANY LP.**



## DRILLING PROGRAM

Devon Energy Production Company, LP

### **Indian Draw 12 Federal #2**

Surface Location: 660 FNL & 1070 FEL, Unit Letter A, Sec 12 T22S R27E, Eddy, NM

Bottom hole Location: 660 FNL & 1070 FEL, Unit Letter A, Sec 12 T22S R27E, Eddy, NM

**1. Geologic Name of Surface Formation**

a. Ochoan

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

a. Delaware Sand	2235'
b. Bone Spring	5670'
c. Wolfcamp	9210'
d. Strawn	10,585'
e. Atoka	11,040'
f. Morrow Clastics	11,675'
g. Lower Morrow	12,111'
h. Mississippian	12,200'
i. Total Depth	12,300'

**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 450' and circulating cement back to surface. Potash and salt will be protected by setting 9 5/8" casing @2700' and circulating cement to surface. The Delaware intervals will be isolated by setting 5 1/2" casing to total depth and circulating cement above the base of the 9 5/8" casing.

**5. Casing Program:**

<u>Hole Size</u>	<u>Interval</u>	<u>OD Csg</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>	
17 1/2"	0' - 450'	13 3/8"	48#	ST&C	H40	WITNESS
12 1/4"	0' - 2,700'	9 5/8"	36#	LT&C	J55	
8 3/4"	0' - 12,300'	5 1/2"	17#	LT&C	HCP-110	

**6. Cement & Setting Depth:**

- |            |              |  |
|------------|--------------|--|
| a. 13 3/8" | Surface      | Set 450' of 13 3/8", 48#, H-40 ST&C casing. Cement with 252 sx of Class C 35:65 Poz, tail in with 200 sx of Class C cement. Circulate cement to surface. |
| b. 9 5/8"  | Intermediate | Set 2,700' of 9 5/8", 36#, J55, LT&C casing. Cement 1 <sup>st</sup> Lead w/200 sx 35:65 Poz Class C. Cement 2 <sup>nd</sup> Lead w/430 sx 35:65 Poz      |

- Class C. Cement Tail Slurry w/250 sx Class C. Circulate cement to surface.
- c. 5 1/2" Production Set 12,300' of 5 1/2", 17#, HCP-110, LT&C casing. Cement with 1558 sx Super C Modified. Circulate cement to 5,137'.

**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. **The BOP will be pressure tested with the rig pump to 1200 psi prior to drilling out the 9 5/8" casing shoe.** 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 and choke manifold having 5000 psi WP rating.

**8. Proposed Mud Circulation System**

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' - 450'	8.5 - 9.0	32-40	NC	Fresh Water
450' - 2700'	9.7-10.0	28-32	NC	Brine Water
2700' - 11,100'	8.5-10.0	28-30	NC	Cut Brine Water
10,100-12,300	9.8-12.0	36-50	5-6 cc	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 1/2" 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:
- TD to Intermediate Casing Dual Laterolog-Micro Laterolog with SP and Gamma ray. Compensated Neutron-Z-Density Log with Gamma Ray and Caliper.
  - TD to Surface Compensated Neutron with Gamma Ray.
  - 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/or drill stem tests.

**11. Potential Hazards:**

- a. No abnormal pressures or temperatures are expected. The H2S Contingency Plan will be provided under separate cover and will be at the drilling site. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 3500 psi and Estimated BHT 170°.

**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 H<sub>2</sub>S safety instructor to the following:
  - a. Characteristics of H<sub>2</sub>S
  - b. Physical effects and hazards
  - c. Proper use of safety equipment and life support systems.
  - d. Principle and operation of H<sub>2</sub>S detectors, warning system and briefing areas
  - e. Evacuation procedures, routes and first aid.
  - f. Proper use of 30 minute pressure demand air pack.
2. H<sub>2</sub>S Detection and Alarm System
  - a. H<sub>2</sub>S 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, H<sub>2</sub>S 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 H<sub>2</sub>S has on tubular goods and other mechanical equipment.
9. If H<sub>2</sub>S 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 H<sub>2</sub>S scavengers if necessary.

## **SURFACE USE PLAN**

Devon Energy Production Company, LP

### **Indian Draw 12 Federal #2**

Surface Location: 660 FNL & 1070 FEL, Unit Letter A, Sec 12 T22S R27E, Eddy, NM

Bottom hole Location: 660 FNL & 1070 FEL, Unit Letter A, Sec 12 T22S 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 Basin Surveys.
- b. All roads into the location are depicted on Exhibit 3.
- c. Directions to Location: From the intersection of County Rd. 607 and County RD 605, go northwest 2.7 miles to a lease road to the Indian #1 well. Go North 1.2 miles to a bend west. The road to well is just past a bend to the north.

**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 closed pursuant to OCD rules and guidelines.
  - 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. The reserve pit will be constructed pursuant to OCD rules and guidelines and lined with a 12 mil synthetic liner. Additionally, upon completion of the well and sufficient time for the reserve pit to dry, the pits will be closed pursuant to OCD rules and guidelines. 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 pit is proposed to be lined with a 12 mil synthetic woven liner.
- d. 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.

Wyatt Abbitt  
Operations Engineering Advisor

Don Mayberry  
Superintendent

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

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

(405) 552-8137 (office)  
(405) 245-3471 (Cellular)

(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: \_\_\_\_\_

  
Linda Guthrie  
Regulatory Specialist

Date: June 07, 2004

Attachment to Exhibit #1  
NOTES REGARDING BLOWOUT PREVENTERS  
Devon Energy Production Company, LP  
**Indian Draw 12 Federal #2**

Surface Location: 660 FNL & 1070 FEL, Unit Letter A, Sec 12 T22S R27E, Eddy, NM  
Bottom hole Location: 660 FNL & 1070 FEL, Unit Letter A, Sec 12 T22S R78E, 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.: **NMM-64584**

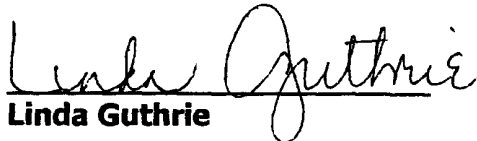
Legal Description of Land: **320 acres 12-22S-27E**

Formation(s): **Morrow**

Bond Coverage: **Nationwide**

BLM Bond File No.: **CO-1104**

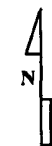
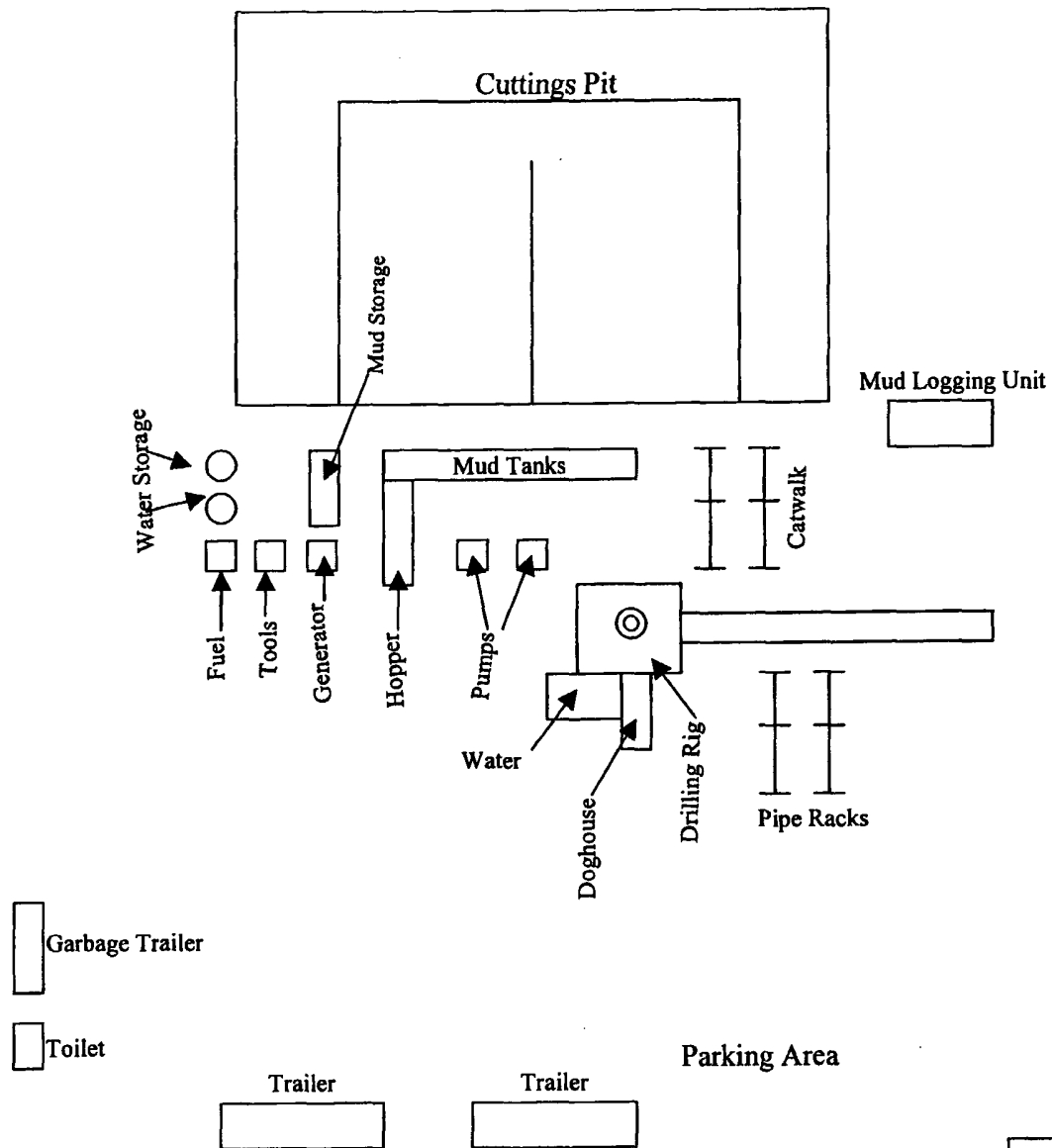
Authorized Signature:

  
**Linda Guthrie**

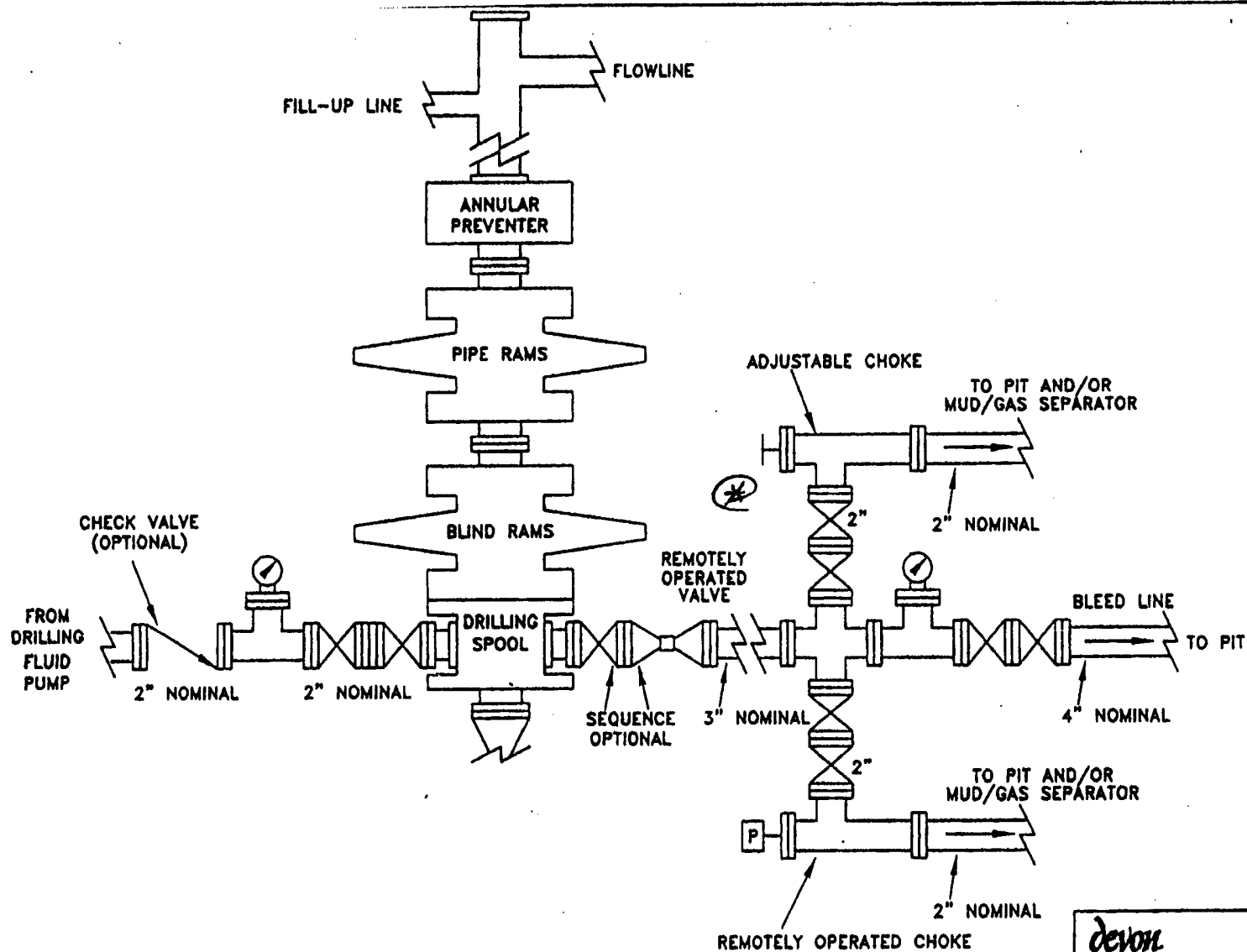
Title: **Regulatory Specialist**

Date: **06/07/04**





Devon Energy Production Company, LP
Drilling Pad Exhibit #



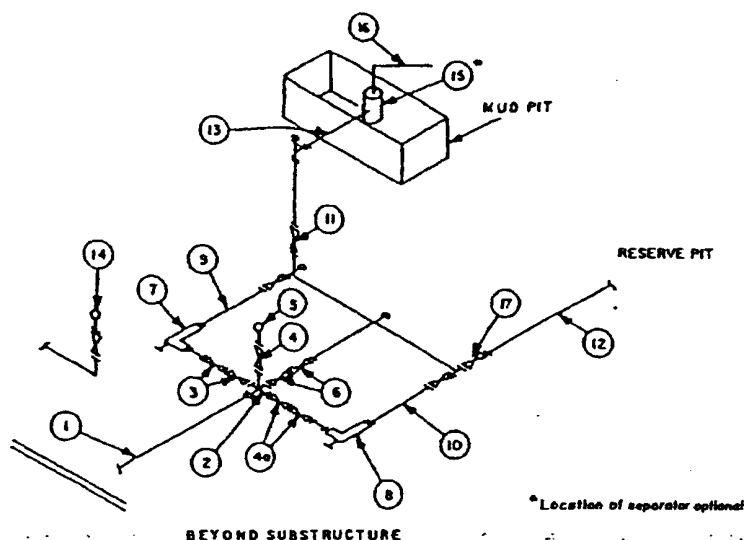
③ 3" CHOKE LINE prior  
to adjustable choke - OK.

e:\nm\plots	
5mbope.dwg	

devon	
AREA NAME	
COUNTY, STATE	
SCHEMATIC	
PROPOSED 5-M BOPE AND CHOKE ARRANGEMENT	
SC	10/00

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

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



MINIMUM REQUIREMENTS										
No.		3,000 MWP			5,000 MWP			10,000 MWP		
		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 or 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.

Well name:

## Indian Draw 12 Federal No.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  
Annular backup: 8.34 ppg

### 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: **450 ft**  
Minimum Drift: 2.250 in  
Cement top: Surface

Non-directional string.

### Re subsequent strings:

Next setting depth: 2,700 ft  
Next mud weight: 10.200 ppg  
Next setting BHP: 1,431 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	450'	13.375	48.00	H-40	ST&C	450'	450'	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	440	1762	4.01	24	322	13.42 J

Prepared Don Culpepper  
by: Devon Energy

Phone: 405.552.7944

Date: April 29, 2004  
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.

In addition, burst strength is biaxially adjusted for tension.

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

Well name:	<b>Indian Draw 12 Federal No.2</b>
Operator:	<b>Devon Energy</b>
String type:	<b>Intermediate</b>
Location:	<b>New Mexico</b>

**Design parameters:**

**Collapse**

Mud weight: 10.100 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 75 °F  
Bottom hole temperature: 113 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 500 ft  
Minimum Drift: 8.750 in  
Cement top: Surface

**Burst**

Max anticipated surface pressure: 2,376 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 2,700 psi  
Annular backup: 8.34 ppg

**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: 2,296 ft

Non-directional string.

**Re subsequent strings:**

Next setting depth: 12,200 ft  
Next mud weight: 10.800 ppg  
Next setting BHP: 6,845 psi  
Fracture mud wt: 19.250 ppg  
Fracture depth: 2,700 ft  
Injection pressure 2,700 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	2700	9.625	36.00	J-55	ST&C	2700	2700	8.796	23469
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	1417	2020	1.43	2376	3750	1.58	97.2	394	4.05 J

Prepared Don Culpepper  
by: Devon Energy

Phone: 405.552.7944

Date: April 29,2004  
Oklahoma City, Oklahoma

**Remarks:**

Collapse is based on a vertical depth of 2700 ft, a mud weight of 10.1 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.

In addition, burst strength is biaxially adjusted for tension.

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

Well name:	<b>Indian Draw 12 Federal No.2</b>
Operator:	<b>Devon Energy</b>
String type:	<b>Production</b>
Location:	<b>New Mexico</b>

**Design parameters:**

**Collapse**

Mud weight: 10.800 ppg  
Design is based on evacuated pipe.

**Minimum design factors:**

**Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**

H2S considered? No  
Surface temperature: 75 °F  
Bottom hole temperature: 246 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 500 ft

Cement top: 5,137 ft

**Burst**

Max anticipated surface pressure: 5,381 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 6,845 psi  
Annular backup: 8.34 ppg

**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)

Non-directional string.

Tension is based on air weight.  
Neutral point: 10,202 ft

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	12300	5.5	17.00	HCP-110	LT&C	12300	12300	4.767	80359
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	6845	8580	1.25	5381	11920	2.22	207.4	445	2.15 J

Prepared Don Culpepper  
by: Devon Energy

Phone: 405.552.7944

Date: April 29,2004  
Oklahoma City, Oklahoma

**Remarks:**

Collapse is based on a vertical depth of 12200 ft, a mud weight of 10.8 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.

In addition, burst strength is biaxially adjusted for tension.

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

Well name:

**Indian Draw 12 Federal No.2**Operator: **Devon Energy**String type: **Production: Frac**Location: **New Mexico****Design parameters:****Collapse**Mud weight: 9.800 ppg  
Design is based on evacuated pipe.**Minimum design factors:****Collapse:**

Design factor 1.125

**Burst:**

Design factor 1.00

**Environment:**H2S considered? No  
Surface temperature: 75 °F  
Bottom hole temperature: 246 °F  
Temperature gradient: 1.40 °F/100ft  
Minimum section length: 500 ft

Cement top: 5,137 ft

**Burst**Max anticipated surface  
pressure: 9,057 psi  
Internal gradient: 0.120 psi/ft  
Calculated BHP 10,521 psi  
Annular backup: 8.34 ppg**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)

Non-directional string.

Tension is based on air weight.

Neutral point: 10,387 ft

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	12300'	5.5	17.00	HCP-110	LT&C	12300'	12300'	4.767	80359
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	6211	8580	1.38	9057	11935	1.32	207.4	445	2.15 J

Prepared Don Culpepper  
by: Devon Energy

Phone: 405.552.7944

Date: April 29, 2004  
Oklahoma City, Oklahoma**Remarks:**

Collapse is based on a vertical depth of 12200 ft, a mud weight of 9.8 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop &amp; Kemler method of biaxial correction for tension.

In addition, burst strength is biaxially adjusted for tension.

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