

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NM OIL & GAS COMMISSION
Form approved.
Budget Bureau No. 1004-0136
Expires: December 31, 1991

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒

DEEPEN ☐

b. TYPE OF WELL

OIL WELL ☒

GAS WELL ☐

OTHER

SINGLE ZONE ☐

MULTIPLE ZONES ☒

2. NAME OF OPERATOR

Devon Energy Corporation (Nevada)

3. ADDRESS AND TELEPHONE NO.

(405) 552-4511

20 North Broadway Suite 1500 Oklahoma City, OK 73102

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements*)

At surface 1980' FSL & 510' FWL

At proposed prod. same

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*

35 miles west-northwest of Jal, NM

15. DISTANCE FROM PROPOSED*

LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT.
(Also to nearest drg. unit line, if any)

510'

16. NO. OF ACRES IN LEASE

720

17. NO. OF ACRES ASSIGNED TO THIS WELL

40

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING, COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.

150'

19. PROPOSED DEPTH

8350'

20. ROTARY OR CABLE TOOLS

rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

3384'

22. APPROX. DATE WORK WILL START*

January 15, 1994

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17 1/2"	13 3/8"	48#, H-40 ST&C	850'-CIRCULATE	450 sx LITE + 200 sx Class C
11"	8 5/8"	32#, J-55 ST&C	4400'-CIRCULATE	1600 sx LITE + 200 sx Class C
7 7/8"	5 1/2"	15.5 & 17#, J-55	8350'	1st Stage-500 sx Silica Lite 2nd Stage-200 sx LITE + 425 sx Class C + 4% gel

DV Tool @ +5500'

Devon Energy proposes to drill to approximately 8350' to test the Delaware for commercial quantities of oil. If the Delaware is 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 following exhibits and attachments.

Drilling Program

Surface Use and Operating Plan

Exhibit #1/#1-A = Blowout Prevention Equipment

Exhibit #2 = Location and Elevation Plat

Exhibit #3 = Planned Access Roads

Exhibit #4 = Wells Within One Mile Radius

Exhibit #5 = Production Facilities Plat

Exhibit #6 = Rotary Rig Layout

Exhibit #7 = Casing Program
Evidence of Bond Coverage

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout prevention program, if any.

24.

SIGNED

Charles W. Horsman

TITLE

Charles W. Horsman
District Engineer

DATE

12/9/93

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

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:

APPROVED BY

Frank

TITLE

(acting)
ASSOCIATE

DATE

MAR 03 1994

*See Instructions On Reverse Side

DRILLING PROGRAM

Attached to Form 3160-3
Devon Energy Corporation
Todd "27L" Federal #12-A
1980' FSL & 510' FWL
Section 27-T23S-R31E
Eddy County, New Mexico

1. Geologic Name of Surface Formation:

Permian

2. Estimated Tops of Important Geologic Markers:

Rustler	865'
Top of Salt	1190'
Base of Salt	3955'
Bell Canyon	4520'
Cherry Canyon	5680'
Brushy Canyon	7000'
Bone Spring Lime	8265'
Total Depth	8350'

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

Upper Permian Sands	Fresh Water	
Delaware	4520'	Oil
Delaware (Cherry Canyon)	5680'	Oil
Delaware (Brushy Canyon)	7000'	Oil

TODD "27L" FEDERAL #12-A
 DRILLING PROGRAM
 PAGE 2

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 850' and circulating cement back to surface. Potash and salt will be protected by setting 8-5/8" casing at 4400' 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 8-5/8" casing.

4. Casing Program:

<u>Hole Size</u>	<u>Interval</u>	<u>Csg OD</u>	<u>Weight, Grade, Type</u>
30"	0-40'	20"	Conductor, 0.30" wall
17-1/2"	0-850'	13-3/8"	48#, H-40 ST&C
11"	0-4400'	8-5/8"	32#, J-55, ST&C
7-7/8"	0-TD	5-1/2"	15.5 & 17#, J-55, LT&C, New, R-3

Casing Program:

20" Conductor Casing:	Cemented with ready-mix to surface.
13-3/8" Surface Casing: (17 1/2" open hole)	Cemented to surface using 450 sx Poz "C" (35:65) + 6% Gel + 1/4# sk cellophane flakes followed by 200 sx Class "C" + 2% CC.
8-5/8" Intermediate Casing: (11" open hole)	Cemented to surface with 1600 (±) sx Poz:Class "C" (35:65) + 6% Gel + 15% Salt + 1/4 lb/sk cellophane flakes followed by 200 sx Class "C" + 2% CC + 1/4 lb/sk cellophane flakes.
5-1/2" Production Casing: (7 7/8" open hole)	Cemented with 500 sx Silica Lite (Class "H") + 3% Salt + 0.6% fluid loss additive + 1/4 lb/sk cellophane flakes Stage Tool at ±5500'. Cemented with 200 sx Poz:"H" (35:65) + 6% Gel + 1/4 lb/sk cellophane flakes followed by 425 sx Class "C" + 4% gel

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach 450' (\pm) above the 8-5/8" casing seat at 4400'.

5. Minimum Specifications for Pressure Control:

The blowout preventor equipment (BOP) shown in Exhibit #1 will consist of a (3M system) double ram type (3000 psi WP) preventor and a bag-type (Hydril) preventor (3000 psi WP). Both units will be hydraulically operated and the ram type preventor will be equipped with blind rams on top and 4-1/2" drill pipe rams on bottom. Both BOP's will be installed on the 13-3/8" surface casing and utilized continuously until total depth is reached. All BOP's and associated equipment will be tested to 1200 psi before drilling out the 13-3/8" casing shoe (70% of 48# H-40 casing). Prior to drilling out the 8-5/8" casing shoe, the BOP's and Hydril will be function tested as per BLM Drilling Operations Order #2.

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 3000 psi WP rating.

6. Types and Characteristics of the Proposed Mud System:

The well will be drilled to total depth using brine, cut brine and polymer mud systems. Depths of systems are as follows:

<u>DEPTH</u>	<u>TYPE</u>	<u>WEIGHT</u> (ppg)	<u>VISCOSITY</u> (1/ sec)	<u>WATER LOSS</u> (cc/30 mins)
0' - 850'	Fresh Water	8.8	34-36	No control
850' - 4400'	Brine Water	10.0	28	No control
4400' - TD	Fresh Water	8.8	32-36	10-20
	Polymer			

The necessary mud products for weight addition and fluid loss control will be on location at all times.

7. 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 operation after drilling out the 13-3/8" casing shoe until the 8-5/8" casing is cemented. Breathing equipment will be on location upon drilling the 13-3/8" shoe until total depth is reached.

8. Logging, Testing and Coring 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.
- C. No coring program is planned.
- D. Additional testing will be initiated subsequent to setting the 5-1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

9. Abnormal Pressures, Temperatures and Potential Hazards:

No abnormal pressures or temperatures are foreseen. The anticipated bottom hole temperature at total depth is 125 degrees and maximum bottom hole pressure is 2900 psig. No hydrogen sulfide gas has been reported or is known to exist at these depths in this area. No major loss circulation intervals have been encountered in adjacent wells.

10. Anticipated Starting Date and Duration of Operations:

A Cultural Resources Examination will be completed by New Mexico Archaeological Services and a copy forwarded to the Carlsbad, New Mexico BLM office.

Road and location preparation will not be undertaken until approval has been received from the BLM. The anticipated spud date is approximately January 15, 1994. The drilling operation should require approximately 20 days. If the well is deemed productive, completion operations will require, at minimum, an additional 30 days of testing to ascertain whether permanent production facilities will be constructed.

SURFACE USE AND OPERATING PLAN

Attachment to Form 3160-3
Devon Energy Corporation
Todd "27L" Federal #12-A
1980' FSL & 510' FWL
Section 27-T23S-R31E
Eddy County, New Mexico

1. Existing Roads:

- A. The well site and elevation plat for the proposed Todd "27L" Federal #12-A are reflected on Exhibit #2. It was staked by John W. West Engineering Company, Hobbs, New Mexico.
- B. All roads into the location are depicted in Exhibit #3. The State Highway 128 will be used to access the location. No upgrades to roads other than the access from State Highway 128 will be necessary.
- C. Directions to location: Travel west-northwest from Jal, N.M. approximately 35 miles on State Highway #128 to County Road #798, just into Eddy County from Lea County. Continue ± 2.2 miles west-northwest on State Highway 128. Turn left (south-southwest) and go 400 feet. Turn right (west-northwest) and go 600' to location. Proposed well is 150' west of the existing dry hole well.

2. Proposed Access Road:

Exhibit #3 shows the 600' of access road to be constructed from Todd "27M" Federal #13 entry road to the Todd "27L" Federal #12-A location. It will be constructed as follows:

- A. The maximum width of the road will be fifteen (15) feet.
- B. It will be crowned and made of 6 inches of rolled and compacted caliche. Water will be deflected, as necessary, to avoid accumulation and prevent surface erosion.
- C. Surface material will be native caliche. This material will be obtained from a BLM approved pit nearest in proximity to the location.
- D. The average grade will be approximately 1%.

- E. Cattle guards, grates or fence cuts will be built, as necessary.
- F. Turnouts will be built, as necessary.

3. Location of Existing Wells:

Exhibit #4 shows all existing wells within a one-mile radius of the proposed Todd "27L" Federal #12-A. There are eleven producing Delaware oil wells, one producing Bone Spring oil well, three drilled and abandoned wells, one Atoka/Morrow gas well and two producing Morrow gas wells. A list of the wells is depicted on Exhibit #4 attachment.

4. Location of Existing and/or Proposed Facilities:

- A. Devon Energy Corporation operates a production facility on this lease in the southeast quarter of Section 27.
- B. In the event the well is found productive, the probable production equipment will be as follows:
 - a. The well will be connected to the existing facility outlined on Exhibit #5 by boring under the road or a tank battery will be built on the pad of another proposed well in this section. The new tank battery would be configured similar to the existing battery.
 - b. The tank battery, all connections and all lines will adhere to API standards.
 - c. The well will be operated by means of a gas driven prime mover. No power will be required.

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SURFACE USE AND OPERATING PLAN
PAGE 3

D. If the well is productive, rehabilitation plans are as follows:

- a. The reserve pit will be back-filled after the contents of the pit are dry (within 120 days after completion, weather permitting).
- b. Caliche from unused portions of the drill pad will be removed. The original topsoil from the well site will be returned to the location. The drill site will then be contoured to the original natural state.

5. Location and Type of Water Supply:

The Todd "27L" Federal #12-A will be drilled using a combination of brine and fresh water mud systems (outlined in the Drilling Program). The water will be obtained from commercial water stations in the area and hauled to location by transport truck using the existing and proposed roads shown in Exhibit #3. Additionally, produced salt water from lease gathering tanks may be used. No water well will be drilled on the location.

6. Source of Construction Materials:

All caliche utilized for the drilling pad and proposed access road will be obtained from a existing BLM approved pit. All roads will be constructed of 6" rolled and compacted caliche.

7. Methods of Handling Water Disposal:

- A. Drill cuttings will be disposed into the reserve pit.
- B. Drilling fluids will be contained in steel mud tanks. The reserve pit will contain excess drilling fluid or fluid from the well during drilling, cementing, and completion operations. The reserve pit will be an earthen pit roughly 125' x 125' x 6', or smaller, in size.

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SURFACE USE AND OPERATING PLAN
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- C. The reserve pit will be fenced on three sides throughout drilling operations and will be totally isolated upon removal of the rotary rig. The pit will be lined using a 5-7 mil plastic to minimize loss of drilling fluids and saturation of the ground with brine water used to drill from 850' to 4400'.
- D. Water produced from the well during completion operations will be disposed into a steel tank or reserve pit, if volumes prove excessive. After placing the well on production through the production facilities, all water will be collected in tanks and injected into the Todd "26G" Federal #2 or Todd "26F" Federal #3 disposal wells. Produced oil will be separated into steel stock tanks until sold.
- E. A portable chemical toilet will be available on the location for human waste during the drilling operations.
- F. Garbage, trash and waste paper produced during drilling operations will be collected in a contained trailer and disposed at an approved landfill. All waste material will be contained to prevent scattering by the wind. All water, fluids, salt or other chemicals will be disposed in the reserve pit. No toxic waste or hazardous chemicals will be generated by this operation.
- G. All waste material will be removed within 30 days after the well is either completed or abandoned. The reserve pit will be completely fenced until it has dried. At the point the reserve pit is found sufficiently dry, it will be backfilled and reclaimed as per BLM specifications. Only the portion of the drilling pad used by the production equipment (pumping unit) will remain in use. If the well is deemed non-commercial, only a dry hole marker will remain.

8. Ancillary Facilities:

No campsite or other facilities will be constructed as a result of this well.

9. Well Site Layout:

- A. The drill pad is shown on Exhibit #6. Approximate dimensions of the pad, pits and general location of the rig equipment are displayed. Top soil will be stored adjacent to the pad until reclamation efforts are undertaken. Only modest cuts will be necessary to build the pad which will be covered with 6" of compacted caliche.
- B. No permanent living facilities are planned, but temporary trailers for the tool pusher, drilling foreman and mud logger may be on location throughout drilling operations.
- C. The reserve pit will be lined using plastic sheeting of 5-7 mil thickness.

10. Plans for Restoration of Surface:

- A. After concluding the drilling and/or completion operations, if the well is found non-commercial, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the Bureau of Land Management (BLM). The reserve pit area will be broken out and leveled after drying to a condition where these efforts are feasible. The original top soil will again be returned to the pad and contoured, as close as possible, to the original topography.
- B. The pit lining will be buried or hauled away in order to return the location and road to their pristine nature. All pits will be filled and location leveled, weather permitting, within 120 days after abandonment.
- C. The location and road will be rehabilitated as recommended by the BLM.
- D. The reserve pit will be fenced on three sides throughout drilling operations. After the rotary rig is removed, the reserve pit will be fenced on the fourth side to preclude endangering wildlife. The fencing will be in place until the pit is reclaimed.

- E. If the well is deemed commercially productive, the reserve pit will be restored as described in 10 (A) within 120 days subsequent to the completion date. Caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography.

11. Surface Ownership:

The well site is on federal lands.

Road routes have been approved and the surface location will be restored as directed by the BLM.

12. Other Information:

- A. The area surrounding the well site is grassland. The top soil is very sandy in nature. The vegetation is moderately sparse with native prairie grass, sagebrush, yucca and miscellaneous weeds.
- B. There is no permanent or live water in the general proximity of the location.
- C. A Cultural Resources Examination has been completed by New Mexico Archaeological Services, Inc. and forwarded to the Carlsbad, New Mexico BLM office. The report references no cultural areas on either the access road or drilling pad.

TODD "27L" FEDERAL #12-A
SURFACE USE AND OPERATING PLAN
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Lessee's and Operator's Representative:

The Devon Energy Corporation representatives responsible for assuring compliance of the surface use plan are:

Chuck Horsman
District Engineer

Dan Talley
Production Foreman

Devon Energy Corporation
1500 Mid-America Tower
20 North Broadway
Oklahoma City, Oklahoma
73102

Devon Energy Corporation
422 West Main
Suite F
Artesia, New Mexico
88210

Phone:

(405) 552-4508 (Office)
(405) 348-5964 (Home)

(505) 748-3371 (Office)
(915) 746-3671 (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 Corporation (Nevada) and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Date: 12/08/93

Signed: 

Charles W. Horsman
District Engineer

MINIMUM BLOWOUT PREVENTER REQUIREMENTS

3,000 psi Working Pressure

3 MWP

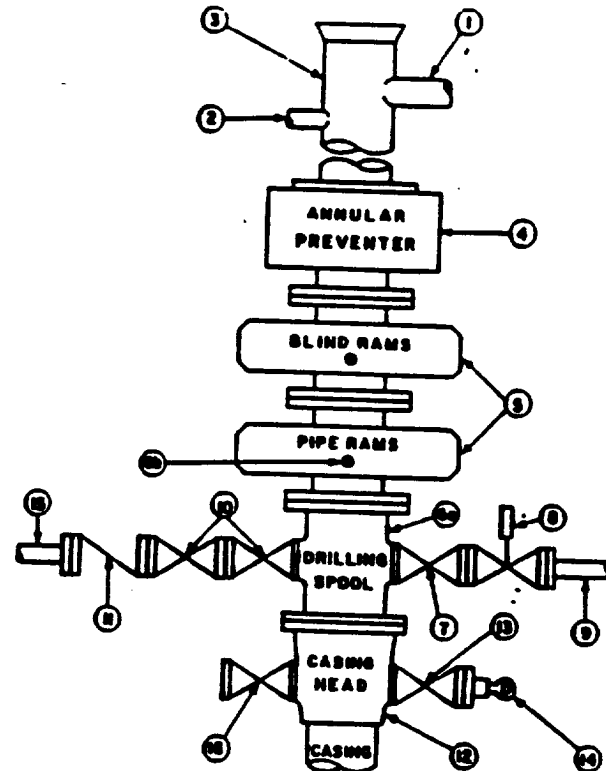
STACK REQUIREMENTS

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		
6b	2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above.)		
7	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/>	3-1/8"	
8	Gate valve—power operated	3-1/8"	
9	Line to choke manifold		3"
10	Valves Gate <input type="checkbox"/> Plug <input type="checkbox"/>	2-1/16"	
11	Check valve	2-1/16"	
12	Casing head		
13	Valve Gate <input type="checkbox"/> Plug <input type="checkbox"/>	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"	
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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 preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
6. Kelly sever-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.

Attachment to Exhibit #1

NOTES REGARDING BLOWOUT PREVENTORS

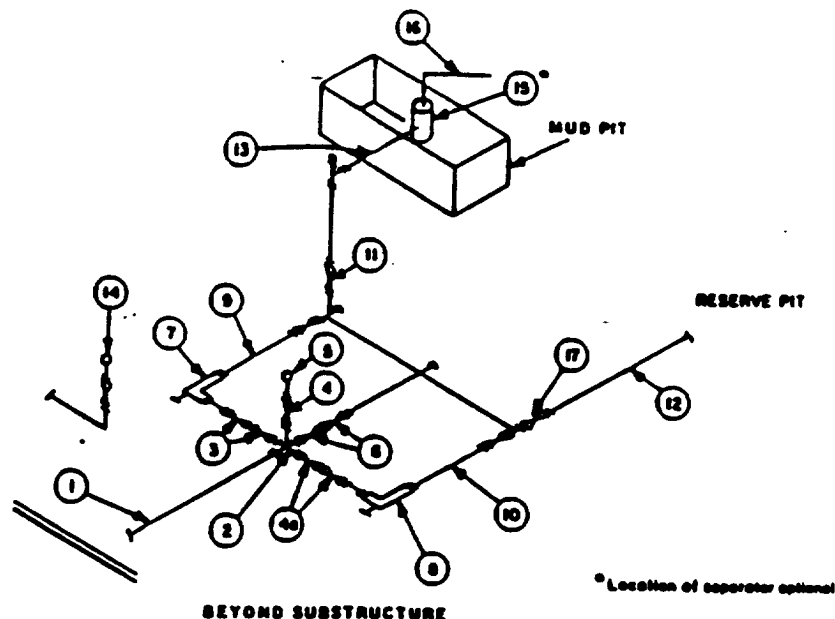
Todd "27L" Federal #12-A

Eddy County, New Mexico

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 preventor 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 preventor 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.

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
1	Line from drilling spool		3"	3,000		3"	5,000		3"
2	Cross 3"x3"x3"x2"			3,000			5,000		10,000
	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	Line		2"	3,000		2"	5,000		3"
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"
13	Lines		3"	1,000		3"	1,000		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		2,000
17	Valves Gate □ Plug □(2)	3-1/8"		3,000	3-1/8"		5,000	3-1/8"	10,000

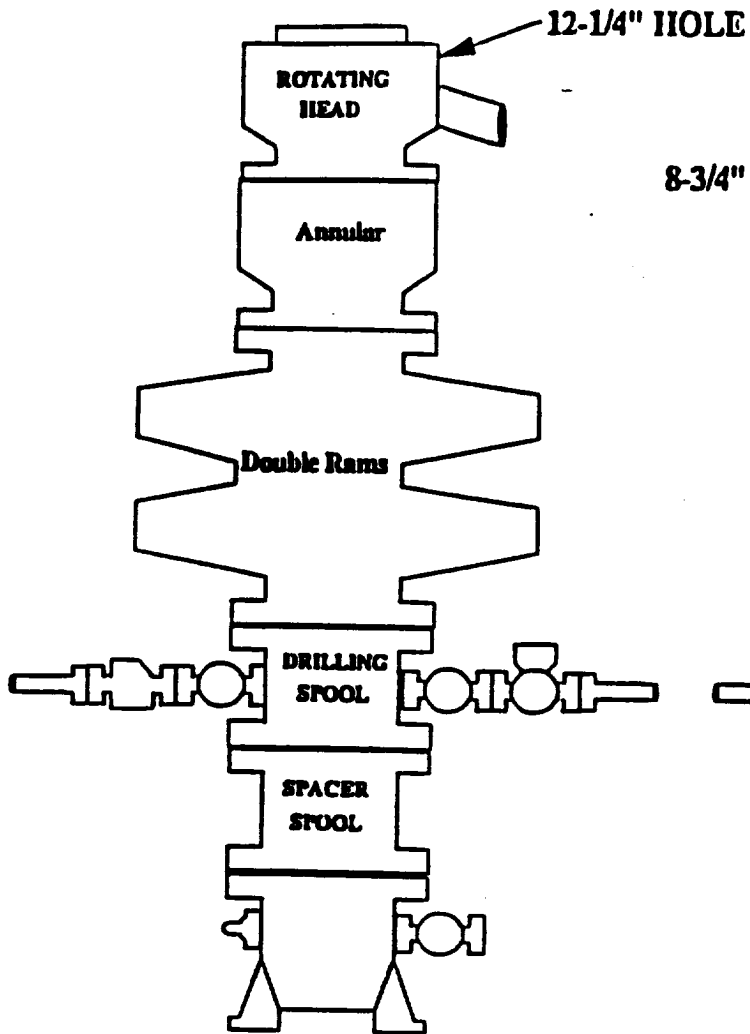
(1) Only one required in Class 3M.

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

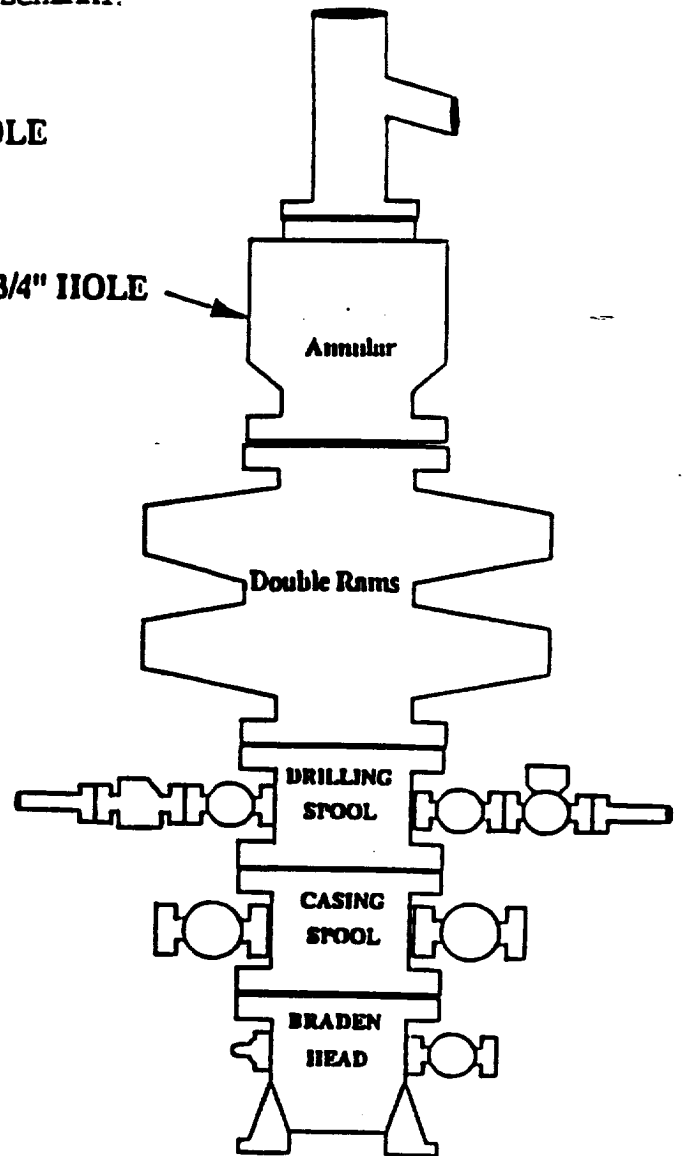
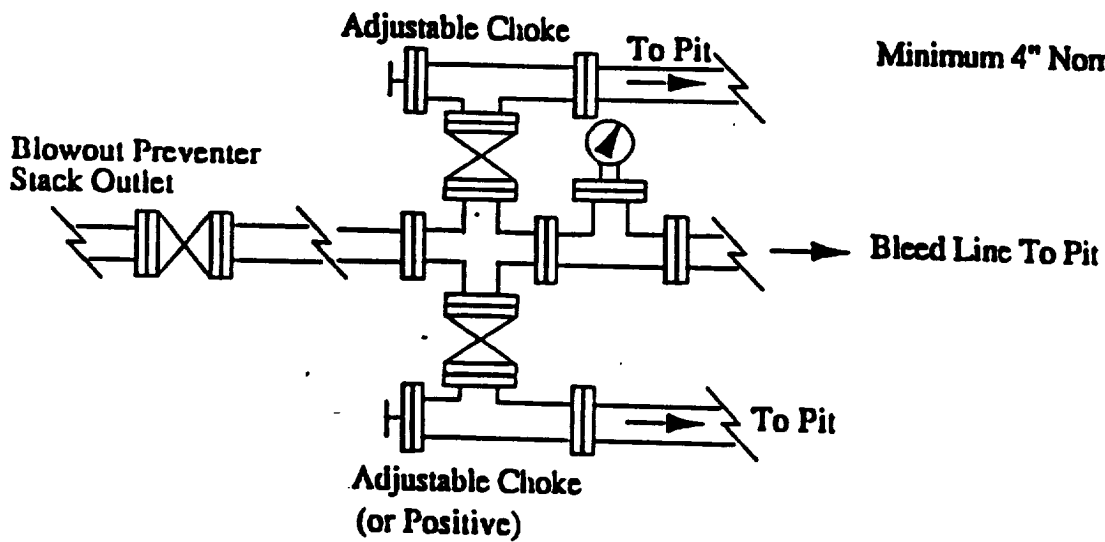
(3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling.

EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS

- All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
- All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
- All lines shall be securely anchored.
- Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
- 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.
- 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.
- Discharge lines from chokes, choke bypass and from top of gas separator should vent as far as practical from the well.



8-3/4" HOLE

**Choke Manifold Requirement (3000 psi WP)**

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised 1-1-89

OIL CONSERVATION DIVISION

P.O. Box 2088
Santa Fe, New Mexico 87504-2088

DISTRICT I

P.O. Box 1980, Hobbs, NM 88240

DISTRICT II

P.O. Drawer DD, Artesia, NM 88210

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

WELL LOCATION AND ACREAGE DEDICATION PLAT

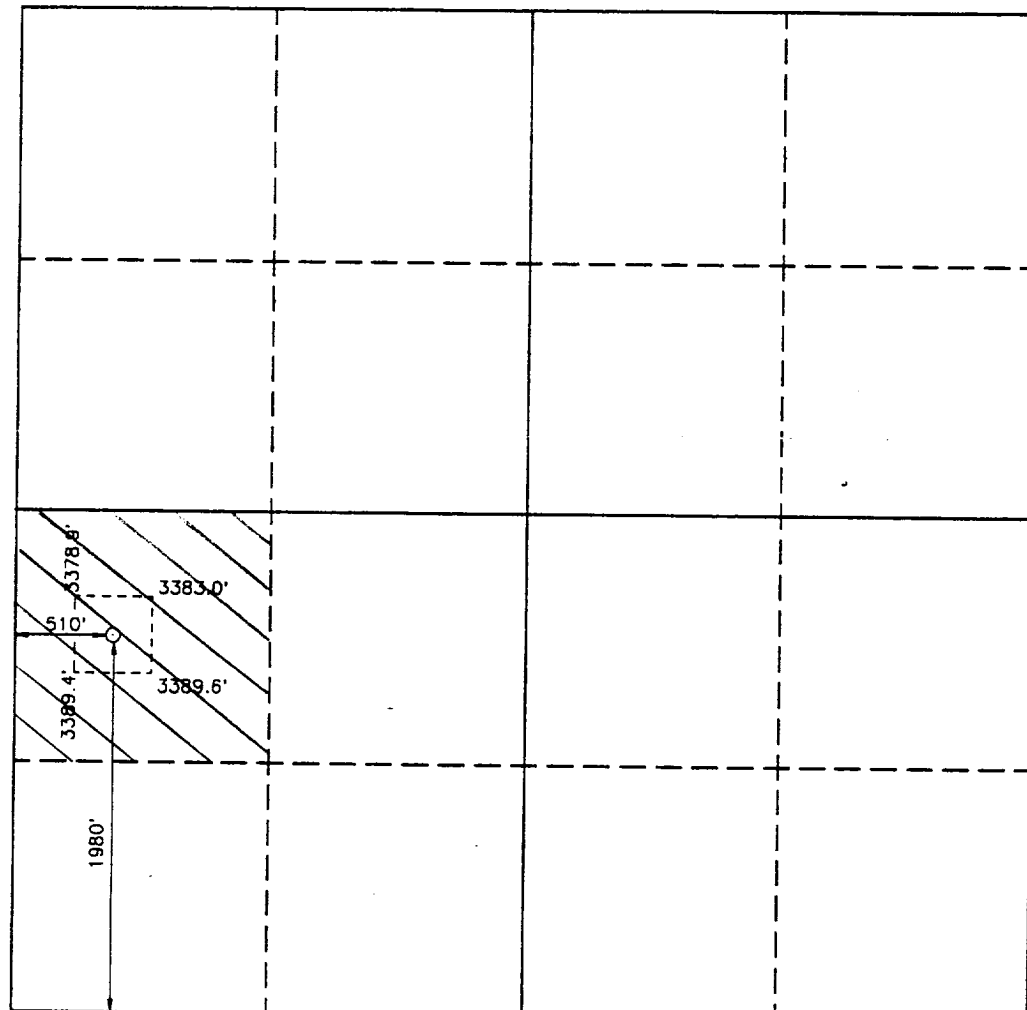
All Distances must be from the outer boundaries of the section

Operator DEVON ENERGY			Lease TODD 27-L FEDERAL		Well No. 12-A
Unit Letter L	Section 27	Township 23 SOUTH	Range 31 EAST	NMPM	County EDDY
Actual Footage Location of Well: 1980 feet from the SOUTH line and 510 feet from the WEST line					
Ground Level Elev. 3384.0'	Producing Formation Delaware	Pool Ingle Wells Delaware		Dedicated Acreage: 40 Acres	

- Outline the acreage dedicated to the subject well by colored pencil or hachure marks on the plat below.
- If more than one lease is dedicated to the well, outline each and identify the ownership thereof (both as to working interest and royalty).
- If more than one lease of different ownership is dedicated to the well, have the interest of all owners been consolidated by communitization, unitization, force-pooling, etc.?
☐ Yes ☐ No If answer is "yes" type of consolidation _____

If answer is "no" list of owners and tract descriptions which have actually been consolidated. (Use reverse side of this form necessary.)

No allowable will be assigned to the well unit all interests have been consolidated (by communitization, unitization, forced-pooling, otherwise) or until a non-standard unit, eliminating such interest, has been approved by the Division.



OPERATOR CERTIFICATION

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

Signature

Printed Name

Charles W. Horsman

Position

District Engineer

Company Devon Energy Corporation (Nevada)

Date

December 8, 1993

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 knowledge and belief.

Date Surveyed

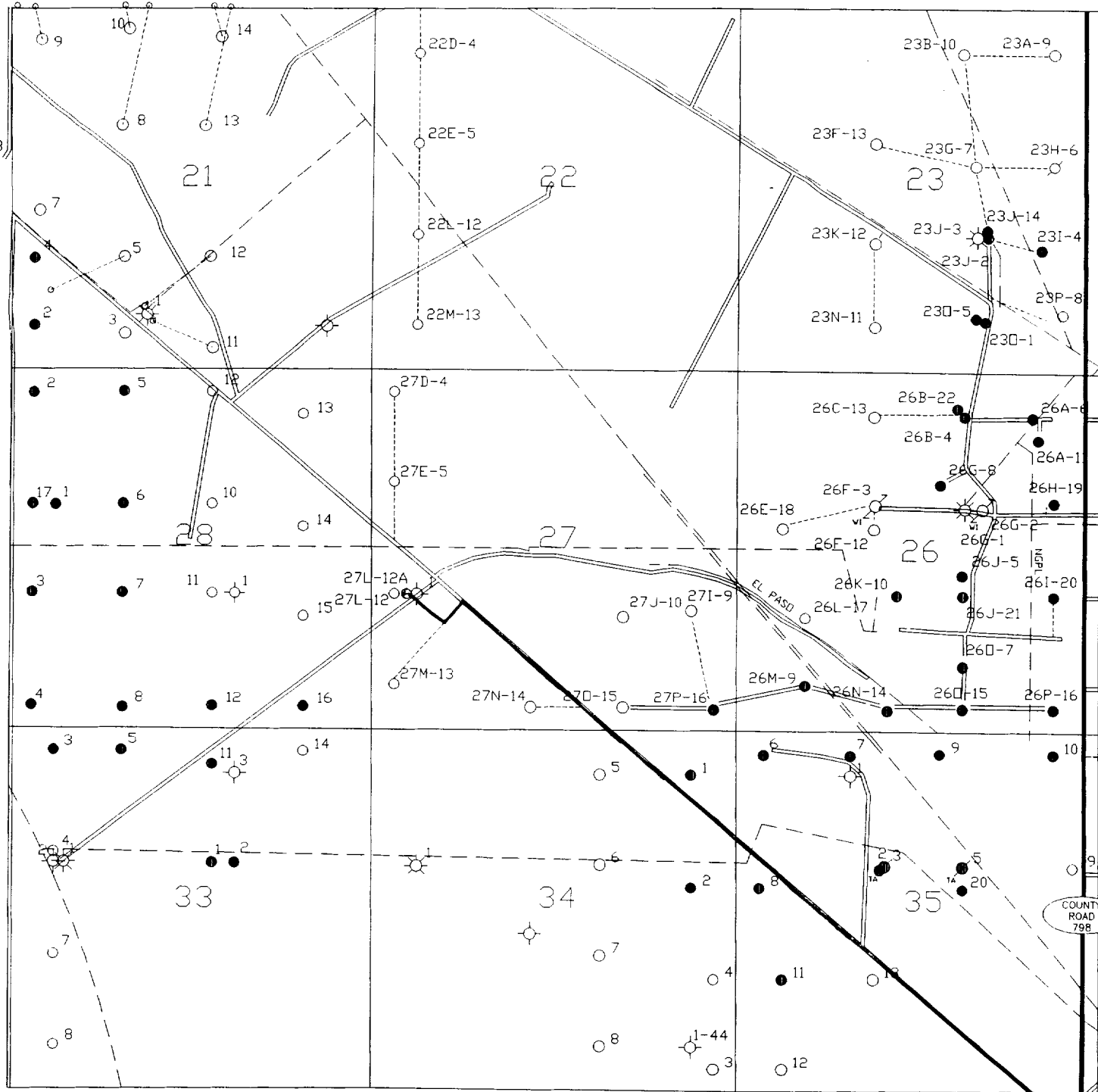
NOVEMBER 6, 1993

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
REGISTERED PROFESSIONAL SURVEYOR
Certification No. JOHN W. HORSBY 678
RONALD J. JONES 8280
GARY L. JONES 7977

93-11-2230

R 31 E

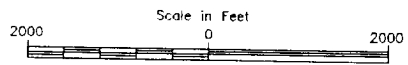


T
23
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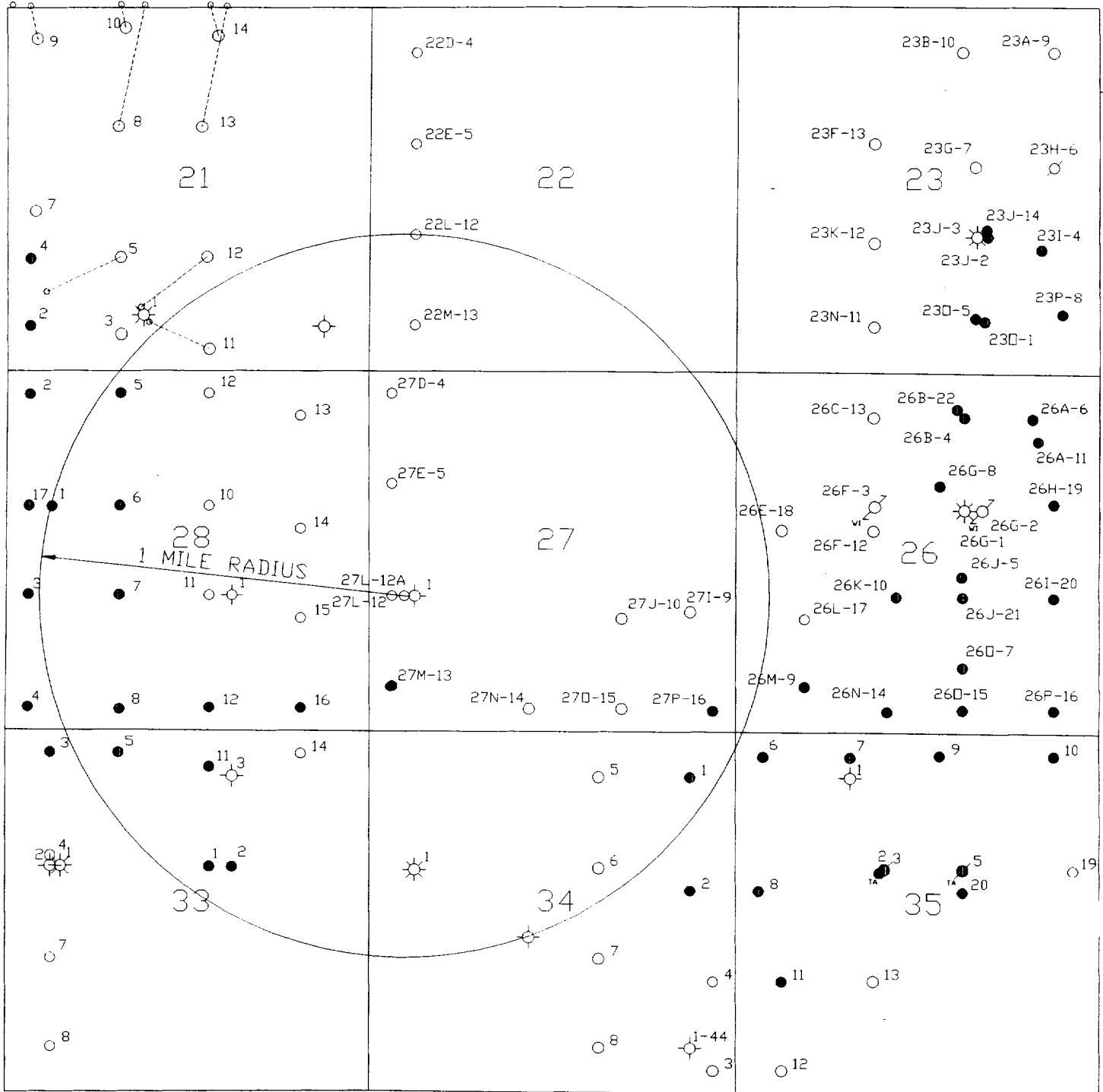
devon
ENERGY CORPORATION

SAND DUNES FIELD
EDDY COUNTY, NEW MEXICO

TODD-27L FED-12A
EXHIBIT 3



R 31 E



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devon
ENERGY CORPORATION

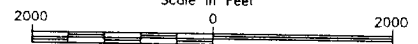
SAND DUNES FIELD

EDDY COUNTY, NEW MEXICO

WELLS WITHIN 1 MILE RADIUS
TODD-27L FED-12A

EXHIBIT 4

Scale in Feet



Attachment to Exhibit #4

STATUS OF WELLS WITHIN ONE MILE RADIUS

Todd "27L" Federal #12-A

Section 27-T23S-R31E

Eddy County, New Mexico

December 1993

Sec. 27-T23S-R31E

Devon Energy Corporation

Todd "27M" Federal #13

660' FSL & 330' FWL

Delaware Oil Well

Todd "27P" Federal #16

330' FSL & 330' FEL

Delaware Oil Well

Patoil Corporation

Wright #1

1980' FSL & 660' FWL

D & A

Sec. 28-T23S-R31E

CNG Producing

Sand Dunes "28" Fed. #1

1980' FSL & 1980' FEL

D & A

Pogo Producing Company

Pure Gold "D" Federal #1

1980' FNL & 660' FWL

Atoka/Mrw Gas Well

Pure Gold "D" Federal #5

330' FNL & 1650' FWL

Delaware Oil Well

Pure Gold "D" Federal #6

1980' FNL & 1650' FWL

Delaware Oil Well

Pure Gold "D" Federal #7

1980' FSL & 1650' FWL

Delaware Oil Well

Pure Gold "D" Federal #8

330' FSL & 1650' FWL

Delaware Oil Well

Pure Gold "D" Federal #12

330' FSL & 1980' FEL

Delaware Oil Well

Pure Gold "D" Federal #16

330' FSL & 660' FEL

Delaware Oil Well

Attachment to Exhibit #4 (continued)

Sec. 33-T23S-R31E

Santa Fe Energy

Triple S "33" Fed. #1	1980' FNL & 2310' FEL	Bone Springs Oil
Silver "33" Fed. #2	1980' FNL & 1980' FEL	Morrow Gas Well
Silver "33" Fed. #5	330' FNL & 1650' FEL	Delaware Oil Well
Silver "33" Fed. #11	660' FNL & 1980' FEL	Delaware Oil Well

Sec. 33-T23S-R31E

Patoil Corporation

Wright #3	660' FNL & 1980' FEL	D & A
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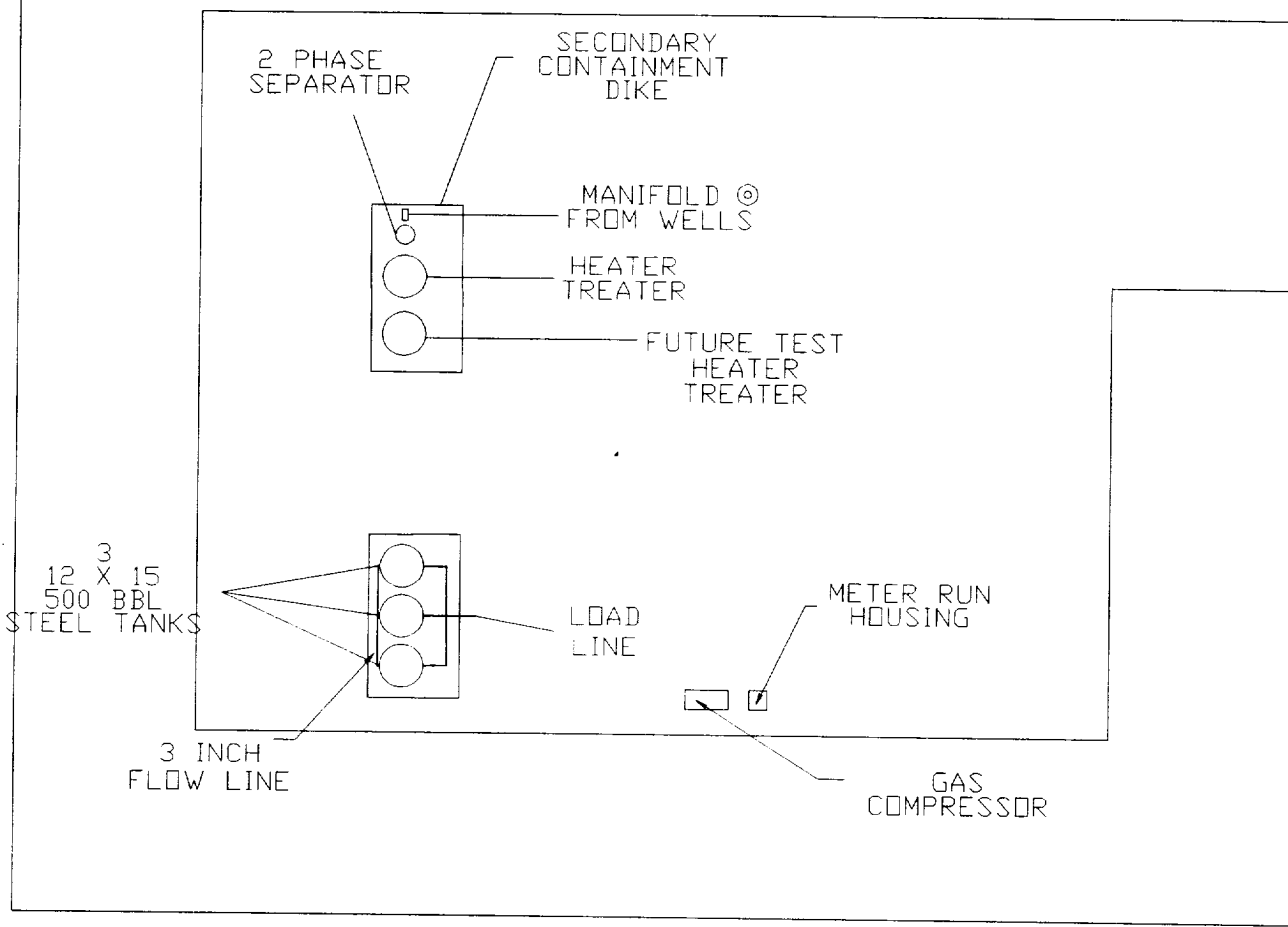
Sec. 34-T23S-R31E

Santa Fe Energy


S. Silver '34" Fed. #1	1980' FNL & 660' FWL	Morrow Gas Well
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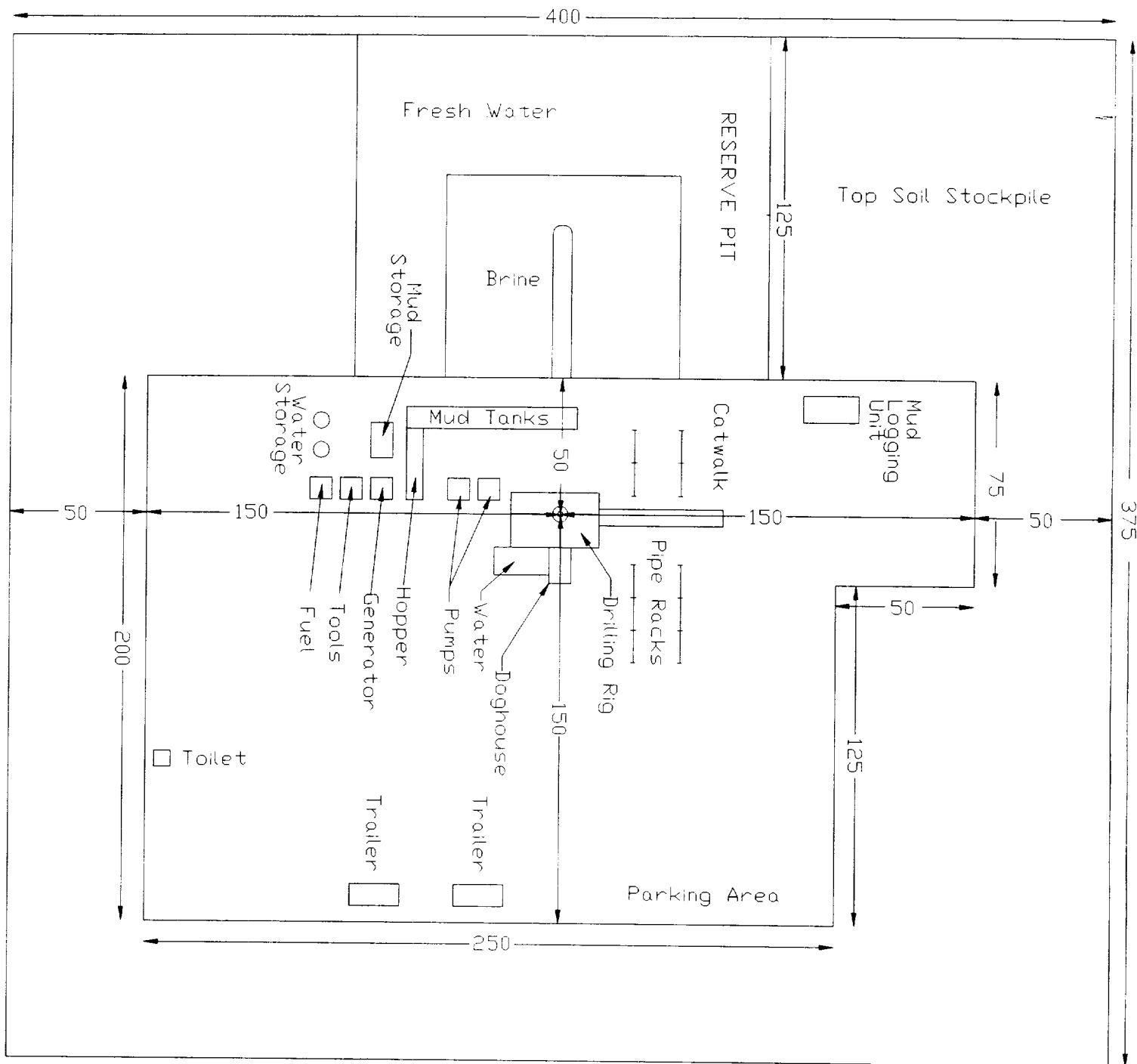
Pogo Producing

Sand Dunes "34" Fed. #1	660' FNL & 660' FEL	Delaware Oil Well
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File: 27L-12A

	
SAND DUNES FIELD EDDY COUNTY, NEW MEXICO	
PRODUCTION FACILITIES LAYOUT AT DRILLING PAD FOR TODD-27L FED-12A	
EXHIBIT 5	
Scale in Feet 25 0 25 50 75 100	
12/93	



ELEV



File: 27L-12A

SAND DUNES FIELD

EDDY COUNTY, NEW MEXICO

DRILLING RIG LAYOUT AND ELEVATIONS

T0DD-27L FED-12A

EXHIBIT 6

Scale in Feet

25 0 25 50 75 100

12/93

DEVON ENERGY

Operator: DEVON ENERGY CORP	Well Name: TODD FEDERAL AREA
Project ID:	Location: T23S-R31E

Design Parameters:

Mud weight (9.00 ppg) : 0.468 psi/ft
 Shut in surface pressure : 765 psi
 Internal gradient (burst) : 0.100 psi/ft
 Annular gradient (burst) : 0.000 psi/ft
 Tensile load is determined using air weight
 Service rating is "Sweet"

Design Factors:

Collapse : 1.125
 Burst : 1.00
 8 Round : 1.80 (J)
 Buttress : 1.60 (J)
 Body Yield : 1.50 (B)
 Overpull : 0 lbs.

Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost		
1	850	13-3/8	48.00	H-40	ST&C	850	12.559		
	Load (psi)	Collapse Strgth (psi)	S.F.	Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Tension Load (kips)	Strgth (kips)	S.F.
1	397	740	1.864	850	1730	2.04	40.80	322	7.89 J

Prepared by : CHUCK HORSMAN, Oklahoma City, OK

Date : 06-04-1993

Remarks :

Minimum segment length for the 850 foot well is 800 feet.

Surface string:

Next string will set at 4,400 ft. with 10.00 ppg mud (pore pressure of 2,286 psi.) The frac gradient of 1.000 at the casing seat results in an injection pressure of 850 psi. Effective BHP (for burst) is 850 psi.

NOTE: The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser. Costs for this design are based on a 1990 pricing model. (Version 1.0G)

DEVON ENERGY

Operator: DEVON ENERGY CORP	Well Name: TODD FEDERAL AREA
Project ID:	Location: T23S-R31E

Design Parameters:

Mud weight (9.80 ppg) : 0.509 psi/ft
 Shut in surface pressure : 3487 psi
 Internal gradient (burst) : 0.100 psi/ft
 Annular gradient (burst) : 0.000 psi/ft
 Tensile load is determined using air weight
 Service rating is "Sweet"

Design Factors:

Collapse : 1.125
 Burst : 1.00
 8 Round : 1.80 (J)
 Buttress : 9.89 (J)
 Body Yield : 1.50 (B)
 Overpull : 0 lbs.

Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost		
1	4,400	8-5/8"	32.00	J-55	ST&C	4,400	7.875		
	Load (psi)	Collapse Strgth (psi)	S.F.	Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Load (kips)	Tension Strgth (kips)	S.F.
1	2240	2530	1.129	3527	3930	1.11	140.80	372	2.64 J

Prepared by : CHUCK HORSMAN, Oklahoma City, OK

Date : 06-04-1993

Remarks :

Minimum segment length for the 4,400 foot well is 800 feet.

Surface/Intermediate string:

Next string will set at 8,400 ft. with 9.00 ppg mud (pore pressure of 3,927 psi.) The frac gradient of 1.000 at the casing seat results in an injection pressure of 4,400 psi. Effective BHP (for burst) is 3,527 psi.

NOTE: The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser. Costs for this design are based on a 1990 pricing model. (Version 1.0G)

DEVON ENERGY

Operator: DEVON ENERGY CORP	Well Name: TODD FEDERAL AREA
Project ID:	Location: T23S-R31E

Design Parameters:

Mud weight (9.00 ppg) : 0.468 psi/ft
 Shut in surface pressure : 3087 psi
 Internal gradient (burst) : 0.100 psi/ft
 Annular gradient (burst) : 0.000 psi/ft
 Tensile load is determined using air weight
 Service rating is "Sweet"

Design Factors:

Collapse : 1.125
 Burst : 1.00
 8 Round : 1.80 (J)
 Buttress : 9.90 (J)
 Body Yield : 1.50 (B)
 Overpull : 0 lbs.

	Length (feet)	Size (in.)	Weight (lb/ft)	Grade	Joint	Depth (feet)	Drift (in.)	Cost
1	800	5-1/2"	17.00	J-55	LT&C	800	4.767	
2	6,700	5-1/2"	15.50	J-55	LT&C	7,500	4.825	
3	900	5-1/2"	17.00	J-55	LT&C	8,400	4.767	

	Load (psi)	Collapse Strgth (psi)	S.F.	Burst Load (psi)	Min Int Strgth (psi)	Yield S.F.	Load (kips)	Tension Strgth (kips)	S.F.
1	374	3896	9.999	3167	5320	1.68	132.75	247	1.86 J
2	3506	3968	1.132	3837	4810	1.25	119.15	217	1.82 J
3	3927	4910	1.250	3927	5320	1.35	15.30	247	16.14 J

Prepared by : CHUCK HORSMAN, Oklahoma City, OK

Date : 06-04-1993

Remarks :

Minimum segment length for the 8,400 foot well is 800 feet.

The mud gradient and bottom hole pressures (for burst) are 0.468 psi/ft and 3,927 psi, respectively.

NOTE: The design factors used in this casing string design are as shown above. As a general guideline, Lone Star Steel recommends using minimum design factors of 1.125 - Collapse (with evacuated casing), 1.0 - Burst, 1.8 - 8 Round Tension, 1.6 - Buttress Tension, and 1.5 - Body Yield. Collapse strength under axial tension was calculated based on the Westcott, Dunlop and Kemler curve. Engineering responsibility for use of this design will be that of the purchaser. Costs for this design are based on a 1990 pricing model. (Version 1.0G)

DEVON
ENERGY
CORPORATION

1500 Mid-America Tower
20 North Broadway
Oklahoma City, Oklahoma 73102-8260

405/235-3611
TWX 910-831-3277

May 5, 1989

State of New Mexico
Oil & Gas Conservation Commission
State Capitol Building
Santa Fe, NM 87504

Re: Blanket Plugging Bond
State of New Mexico
No. 56-0130-11003-87

Gentlemen:

Devon Energy Corporation formerly Devon Corporation has changed its name to Devon Energy Corporation (Nevada). In this regard, enclosed is a Rider for the referenced bond to include both company names. Please amend your records.

Very truly yours,



Charlene Newkirk
Lease Records Supervisor

encls

cc: Carolyn Wilson
McEldowney McWilliams

R I D E R

To be attached to and become a part of Bond No. 56-0130-11003-87-1
issued by the United States Fidelity and Guaranty Company, on
behalf of Devon Energy Corporation
as Principal, and in favor of State of New Mexico
as Obligee, in the penalty of Fifty thousand and no/100 - - - - -
Dollars (\$ 50,000.00) for Blanket plugging bond

It is hereby understood and agreed that effective on the
February 10, 1989 the Principal in this
bond shall be Devon Energy Corporation (Nevada)

However, the liability of the Surety in the aggregate to the
Obligee for any and all defaults of the Principal, whether occurring
before or after or partly before and partly after this rider
become effective, shall in no event exceed the penalty stated
in the bond.

Signed, Sealed, and Dated this 3rd day of March 1989.

ATTEST:

Quinn Armstrong
Asst. Secretary

Devon Energy Corporation (Nevada)

By:

Marvin C. Lunde, Jr.
MARVIN C. LUNDE, JR.
Vice President

UNITED STATES FIDELITY AND GUARANTY COMPANY

By:

Marcia C. Brejda

Attorney-in-fact