Form 3160-5
(August 1999)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

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

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.
SHL & BHL: NM-NM81219

6. If Indian, Allottee or Tribe Name
N/A

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

1. Type of Well
☐ Oil Well ☐ Gas Well ☒ Other - proposed gas well

8. Well Name and No.
Old Ranch Canyon "7" Federal #4

2. Name of Operator
Devon Energy Production Company, Wally Frank Senior Operations Engr.

9. API Well No.
30-015-31151

3a. Address
20 N. Broadway, Suite 1500, OKC, OK 73102

3b. Phone No. *(include area code)*
(405)552-4595

10. Field and Pool, or Exploratory Area
Indian Basin (Morrow)

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
SHL: 1599' FNL & 1248' FWL, Unit E, Section 7-T22S-R24E, Eddy Cnty, NM
BHL: 1842' FSL & 1407' FWL, Unit L, Section 7-T22S-R24E, Eddy Cnty, NM

11. County or Parish, State
Eddy County
New Mexico

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 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 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.)

Devon Energy respectfully requests permission to plug back the existing wellbore to approximately 5,300' by setting a CIBP at ±8,050', circulating the wellbore with 9.0 ppg plug mud, capping the CIBP @ ±8,050' with at least 35' of cement, setting another CIBP at ±5,400', cutting off the casing at ±5,300', and pumping a 100' in/out cement plug from ±5,400' to ±5,200'. We will then use this in/out cement plug as a kick off point to directionally drill the new wellbore to the bottom hole location indicated above attempting to find commercially productive Morrow pay. Attached please find the following.

1. Drilling Program
2. Surface Use and Operating Plan
3. Current well bore schematic
4. 7" casing and 5 1/2" liner data sheets
5. BOP data sheet
6. Drilling rig layout
7. H2S Plan
8. Bond letter
9. Cultural Resources examination report

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS ATTACHED

RECEIVED
OCD - ARTESIA

14. I hereby certify that the foregoing is true and correct
Name *(Printed/Typed)*
Candace R. Graham 405/235-3611 X4520

Title
Engineering Tech.

Signature Candace R. Graham

Date
03/21/2003

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by
(ORIG. SGD.) ALEXIS C. SWOBODA

Title
PETROLEUM ENGINEER

Date
MAR 31 2003

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

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)

ATTACHMENT 1
DRILLING PROGRAM

Devon Energy Production Company, L.P.
Old Ranch Canyon "7" Federal #4
SHL= 1599' FNL & 1248' FWL, Unit E
BHL= 1842' FSL & 1407' FWL, Unit L
Section 7-T22S-R24E, Eddy County, New Mexico

Estimated Tops of Important Geologic Markers

San Andres	820'
Glorieta	2,230'
Bone Spring	3,394'
2nd Bone Spring	4,234'
3rd Bone Spring	6,415'
Wolfcamp	6,838'
Cisco-Canyon	7,575'
Strawn	8,520'
Atoka	8,914'
Morrow	9,294'
Barnett shale	9,925'
ETD	10,000'

Casing Program

Hole Size	Interval	Casing OD	Weight	Grade	Type
12 1/4"	0' –1622'	9 5/8" existing	36#	K-55	8rd LT&C
8 3/4"	0' –±8600'	7" proposed	23#	J55/L80/HCL80	8rd LT&C
6 1/8"	8300' ~~0~~ -±10,000'	5 1/2" proposed LINER	17#	L-80	8rd LT&C

Cementing Program

9 5/8" Surface Casing (existing):	Cemented to surface – 10 sx Thix + 450 sx HCL + 765 sx Class C
7" Production Casing (proposed):	Cement to 6000' (or 500' above the Wolfcamp) – 400 sx 15/61/11 Pozmix/ Class C.
5 1/2" Production Liner (proposed):	Cement to 8300' ~~8500~~' – 257 sx Class. acc

Types and Characteristics of the Proposed Mud System

The hole will be drilled to total depth with fresh water/Dris-Pac mud systems at the following depths.

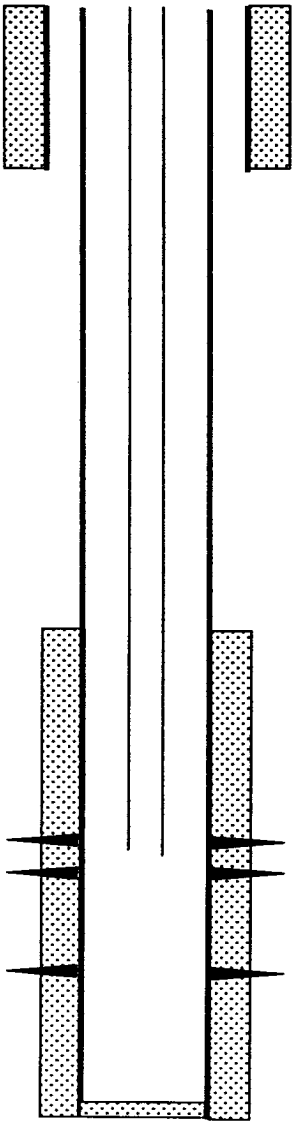
Depth	Type	Weight (ppg)	Viscosity (1/sec)	Water Loss (cc)
±5000-7300'	Fresh water mud system, add paper to control seepage, Hi Vis sweeps	8.5 - 8.7	29 – 40	No control
7300' – TD	Fresh water/Dris-Pac mud system, soda ash to control seepage, Hi Vis sweeps to clean hole	8.5 – 9.6	28 - 40	10 or less

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

DEVON ENERGY CORPORATION
WELLBORE SCHEMATIC

WELL NAME: Old Ranch Canyon 7 Fed # 4		FIELD: Indian Basin (Upper Penn)	
LOCATION: Section 7, T22S, R24E		COUNTY: Eddy	STATE: NM
ELEVATION: GL=3996' - KB=4015'		SPUD DATE: 5/1/00	COMP DATE: 7/29/00
API #: 30-015-31151	PREPARED BY: W.M. Frank		DATE: 2/11/02

	DEPTH	SIZE	WEIGHT	GRADE	THREAD	HOLE SIZE
CASING:	0' - 1622'	9 5/8"	36#	K-55	LT&C	12 1/4"
CASING:	0' - 8648'	7"	26#	K-55	LT&C	8 3/4"
CASING:	0' - 8468'	2 7/8"	6.5#	L-80	EUE 8rd	
TUBING:						
TUBING:						



CURRENT

Directional well - BHL 1842' S30°W of location
Maximum angle is 33° Maximum DLS is 3.07°/100'

9 5/8" csg cmt'd w/1225 sxs cmt. Top job cmt to 30'.

Tubing String Detail:
270 jts, 2 7/8", 6.5#, L-80, 8rd
SN

TOC @ 5300'

200 bands lost on POOH on 7/27/2000

Upper Penn perfs: 8074-77', 8092-96', 8098-8100', 8105-08', 8115-29', 8150-52', 8156-62', 8184-86', 8201-03', 8207-18', 8221-29', 8235-54', 8262-76', 8290-8304' (2 spf - 208 holes) on 7/19/2000

Upper Penn perfs: 8320-30', 8356-68' (2 spf - 44 holes) on 8/26/2000

PBTD @ 8580'
7" @ 8648' csg cmt'd w/500 sxs cmt
TD @ 8650'

Well name:	**Old Ranch Canyon 7-4Y**
Operator:	**Devon Energy Production Company L.P.**
String type:	Production
Location:	Section 7, T22S, R24E

Design parameters:

Collapse
Mud weight: 8.600 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 3,842 psi
Internal gradient: 0.000 psi/ft
Calculated BHP 3,842 psi
Annular backup: 8.60 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: 7,736 ft

Estimated cost: 64,716 ($)

Environment:
H2S considered? Yes
Surface temperature: 75 °F
Bottom hole temperature: 144 °F
Temperature gradient: 0.80 °F/100ft
Minimum section length: 1,000 ft

Directional Info - Build & Drop
Kick-off point 1500 ft
Departure at shoe: 1554 ft
Maximum dogleg: 1.5 °/100ft
Inclination at shoe: 0 °

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 ($)
3	1500	7	23.00	L-80	LT&C	1500	1500	6.25	13454
2	4500	7	23.00	J-55	LT&C	5780	6000	6.25	23611
1	2848	7	23.00	HCL-80	LT&C	8600	8848	6.25	27650

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
3	670	3353	5.00	3842	6340	1.65	197.8	435	2.20 J
2	2582	3071	1.19	3172	4360	1.37	163.3	313	1.92 J
1	3842	5650	1.47	1260	6340	5.03	64.9	485	7.48 J

Prepared by: W.M. Frank
Devon Energy
Phone: (405) 552-4595
FAX: (405) 552-4621
Date: March 8,2003
Oklahoma City, Oklahoma

Remarks:
Collapse is based on a vertical depth of 8600 ft, a mud weight of 8.6 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.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

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

Well name:	**Old Ranch Canyon 7-4Y**
Operator:	**Devon Energy Production Company L.P.**
String type:	Liner: Production
Location:	Section 7, T22S, R24E

Design parameters:

Collapse
Mud weight: 9.600 ppg
Design is based on evacuated pipe.

Burst
Max anticipated surface pressure: 4,987 psi
Internal gradient: 0.000 psi/ft
Calculated BHP 4,987 psi
Annular backup: 9.60 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: 9,752 ft

Environment:
H2S considered? No
Surface temperature: 75 °F
Bottom hole temperature: 155 °F
Temperature gradient: 0.80 °F/100ft
Minimum section length: 1,000 ft
Minimum Drift: 4.250 in

Liner top: 8,300 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	1700	5.5	17.00	L-80	LT&C	10000	10000	4.767	10771

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	4987	6290	1.26	848	7740	9.13	28.9	338	11.70 J

Prepared by: Walter M. Frank, Devon Energy
Phone: (405) 552-4595
FAX: (405) 552-4621
Date: March 8,2003
Oklahoma City, Oklahoma

Remarks:
For this liner string, the top is rounded to the nearest 100 ft.Collapse is based on a vertical depth of 10000 ft, a mud weight of 9.6 ppg The 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.

Attachment #5

BLOWOUT PREVENTORS

Devon Energy Production Company, L.P.

Old Ranch Canyon "7" Federal #4

SHL= 1599' FNL & 1248' FWL, Unit E

BHL= 1842' FSL & 1407' FWL, Unit L

Section 7-T22S-R24E, 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 BOP 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.

DEVON ENERGY CORPORATION

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

A. Hydrogen Sulfide Training

All rig crews and company personnel will receive training from a qualified instructor in the following areas prior to penetrating any hydrogen sulfide bearing formations during drilling operations:

1. The hazards and characteristics of hydrogen sulfide (H2S).

2. The proper use and maintenance of the H2S safety equipment and of personal protective equipment to be utilized at the location such as H2S detection monitors, alarms and warning systems, and breathing equipment. Briefing areas and evacuation procedures will also be discussed and established.

3. Proper rescue techniques and procedures will be discussed and established.

In addition to the above, supervisory personnel will be trained in the prevention of oil and gas well blowouts in accordance with Minerals Management Service Standards Subpart - 0 - 250 - 212.

Prior to penetrating any known H2S bearing formation, H2S training will be required at the rig sight for all rig crews and company personnel that have not previously received such training. This instruction will be provided by a qualified instructor with each individual being required to pass a 20 question test regarding H2S safety procedures. All contract personnel employed on an unscheduled basis will be required to have received appropriate H2S training.

This Hydrogen Sulfide Drilling And Operations Plan shall be available at the wellsite during drilling operations.

B. H2S Safety Equipment And Systems

All H2S safety equipment and systems will be installed, tested, and operational when drilling operations reach a depth approximately 500' above any known or probable H2S bearing formation. The safety systems to be utilized during drilling operations are as follows:

1. Well Control Equipment

(a) Double ram BOP with a properly sized closing unit and pipe rams to accommodate all pipe sizes in use.

(b) A choke manifold with a minimum of one remote choke.

2. H2S Detection And Monitoring Equipment

(a) Three (3) H2S detection monitors will be placed in service at the location. One monitor will be placed near the bell nipple on the rig floor; one will be placed at the rig substructure; and, one will be at the working mud pits or shale shaker. This monitoring system will have warning lights and audible alarms that will alert personnel when H2S levels reach 10 ppm.

(b) One (1) Sensidyne Pump with the appropriate detection tubes will also be available to perform spot checks for H2S concentrations in any remote or isolated areas.

3. Protective Equipment For Essential Personnel

Protective equipment will consist of the following:

(a) Four (4) - five minute escape packs located at strategic points around the rig.

(b) Two (2) - thirty minute rescue packs to be located at the designated briefing areas.

4. Visual Warning System

Visual warning system will consist of the following:

(a) Two wind direction indicators.

(b) One condition / warning sign which will be posted on the road providing direct access to the location. The sign will contain lettering of sufficient size to be readable at a reasonable distance from the immediate location. The sign will inform the public that a hydrogen sulfide gas environment could be encountered at the location.

5. Mud Program

   The mud program has been designed to minimize the volume of H2S circulated to surface. Proper mud weight and safe drilling practices (for example, keeping the hole filled during trips) will minimize hazards when drilling in H2S bearing formations.

6. Metallurgy

   All drill strings, casings, tubing, wellhead, blowout preventers, drilling spools, kill lines, choke manifold and lines and valves shall be suitable for H2S service.

7. Communication

   Cellular telephone communication will be available in company vehicles.

C. Diagram of Drilling Location

Attached is a diagram representing a typical location layout as well as the location of H2S monitors, briefing areas and wind direction indicators.