

**RECEIVED****OCD-HOBBS**

ATS-08-994

Form 3160-3  
(April 2004)

OCT 08 2008

**HOBBS** UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT**APPLICATION FOR PERMIT TO DRILL OR REENTER**FORM APPROVED  
OMB No. 1004-0137  
Expires March 31, 2007

5. Lease Serial No

LC 063645

6. If Indian, Allottee or Tribe Name

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

8. Lease Name and Well No.  
Great Bear Park 24 Fed 1

37436

9. API Well No.

30-025-39206

10. Field and Pool, or Exploratory  
EK Bone Spring

21650

11. Sec., T. R. M. or Blk. and Survey or Area

Sec 24 T18S R33E

12. County or Parish  
Lea13. State  
NM1a. Type of work. ☒ DRILL ☐ REENTER1b. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone

2. Name of Operator

Devon Energy Production Company, LP

3a. Address 20 North Broadway  
Oklahoma City, Oklahoma 73103-82603b. Phone No. (include area code)  
(405) 552-8198

4. Location of Well (Report location clearly and in accordance with any State requirements.)\*

At surface 1680 FNL &amp; 1980 FEL

Capitan Controlled Water Basin

At proposed prod. zone 1680 FNL &amp; 1980 FEL

14. Distance in miles and direction from nearest town or post office\*  
Approximately 12 miles southeast of Maljamar, NM15. Distance from proposed\*  
location to nearest  
property or lease line, ft.  
(Also to nearest drig. unit line, if any) 660' and 360'16. No. of acres in lease  
1074.6917. Spacing Unit dedicated to this well  
4018. Distance from proposed\*  
to nearest well, drilling, completed,  
applied for, on this lease, ft. 360'19. Proposed Depth  
10,100'20. BLM/BIA Bond No. on file  
CO-110421. Elevations (Show whether DF, KDB, RT, GL, etc.)  
3921' GL22. Approximate date work will start\*  
09/30/200823. Estimated duration  
30 days

## 24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, shall be attached to this form:

1. Well plat certified by a registered surveyor.

2. A Drilling Plan

3. A Surface Use Plan (if the location is on National Forest System Lands, the  
SUPO shall be filed with the appropriate Forest Service Office)4. Bond to cover the operations unless covered by an existing bond on file (see  
Item 20 above).

5. Operator certification

6. Such other site specific information and/or plans as may be required by the  
authorized officer.

25. Signature

Name (Printed/Typed)

Norvella Adams

Date

08/12/2008

Title

Senior Staff Engineering Technician

Approved by (Signature) /s/ Don Peterson

Name (Printed/Typed)

/s/ Don Peterson

Date

OCT - 3 2008

Title

FIELD MANAGER

Office

CARLSBAD FIELD OFFICE

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to  
conduct operations thereon.

Conditions of approval, if any, are attached.

**APPROVAL FOR TWO YEARS**Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United  
States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

**SEE ATTACHED FOR  
CONDITIONS OF APPROVAL**

KZ

**APPROVAL SUBJECT TO  
GENERAL REQUIREMENTS  
AND SPECIAL STIPULATIONS  
ATTACHED**

OCT 08 2008

Form 3160-5  
(August 1999)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
SUNDRY NOTICES AND REPORTS ON WELLS

OCD-HOBBS

FORM APPROVED  
OMB NO. 1004-0135  
EXPIRES: NOVEMBER 30, 2000

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

SUBMIT IN TRIPLICATE

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other \_\_\_\_\_

2. Name of Operator  
DEVON ENERGY PRODUCTION COMPANY, LP

3. Address and Telephone No.  
20 North Broadway, Ste 1500, Oklahoma City, OK 73102 405-552-8198

4. Location of Well (Report location clearly and in accordance with Federal requirements)\*  
1680' FNL & 1980' FEL Sec 24 T18S R33E, Unit G

5. Lease Serial No	LC-063645
6. If Indian, Allottee or Tribe Name	
7. Unit or CA Agreement Name and No.	
8. Well Name and No	Great Bear Park 24 Fed 1
9. API Well No.	
10. Field and Pool, or Exploratory	Bone Spring
12. County or Parish	Lea
13. State	NM

CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input type="checkbox"/> Other _____
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

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

Devon Energy Production Co., LP respectfully requests approval to move the proposed access and have it come in from the west to avoid archaeological sites. Revised plats are attached.

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

Signed 

Name Norvella Adams  
Title Sr. Staff Eng. Tech

Date 16-Sep-08

(This space for Federal or State Office use)

/s/ Don Peterson

Title FIELD MANAGER

Date OCT - 3 2008

Approved by \_\_\_\_\_  
Conditions of approval, if any: \_\_\_\_\_

Title 16 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations to any matter within its jurisdiction.

\*See Instruction on Reverse Side

# RECEIVED

DISTRICT I OCT 08 2008  
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II  
1301 W. Grand Avenue, Roswell, NM 88203

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

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

**WELL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

Form C-102  
Revised October 12, 2005

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

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-025-</b>	Pool Code <b>21650</b>	Pool Name <b>E-K;</b> Bone Spring
Property Code	Property Name <b>GREAT BEAR PARK "24" FED</b>	Well Number <b>1</b>
GRID No. 6137	Operator Name <b>DEVON ENERGY PRODUCTION COMPANY LP</b>	Elevation <b>3921'</b>

### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	24	18 S	33 E		1680	NORTH	1980	EAST	LEA

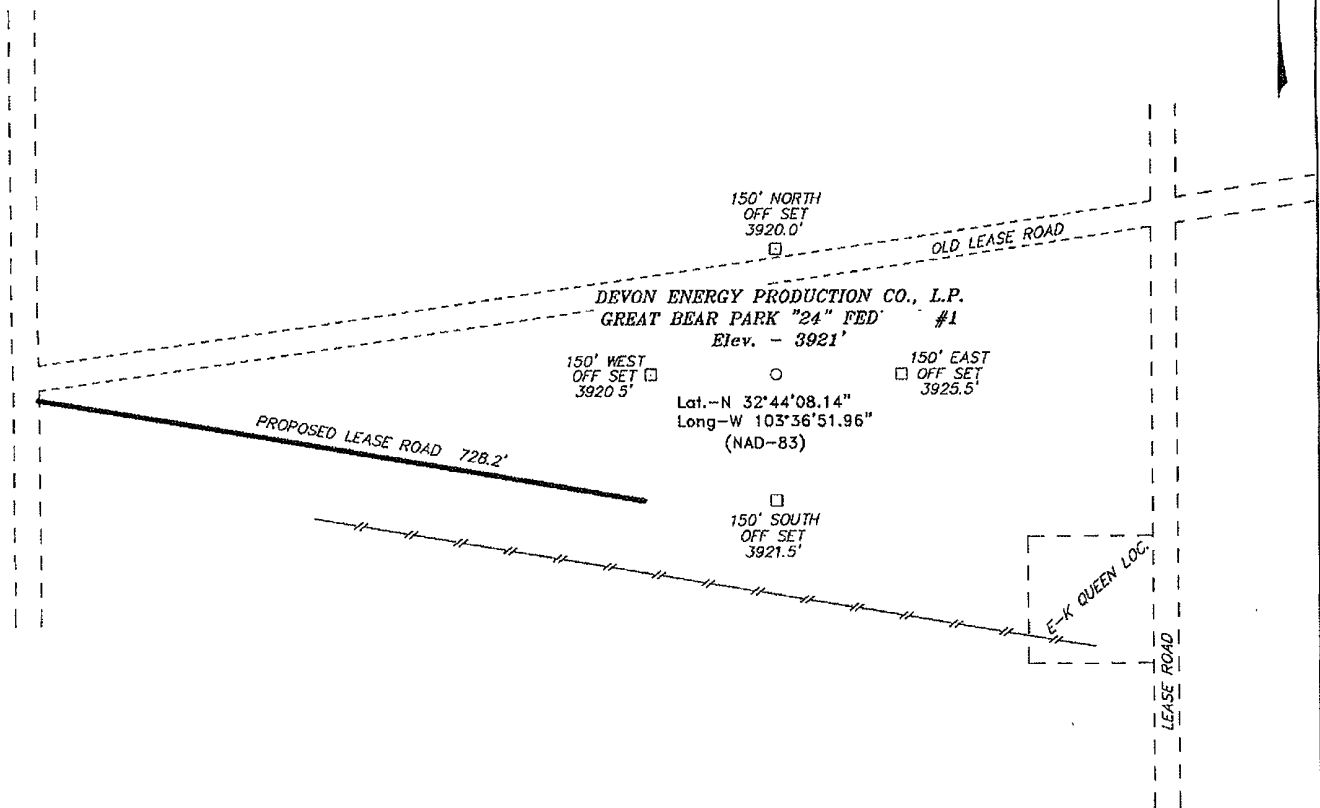
### Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	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

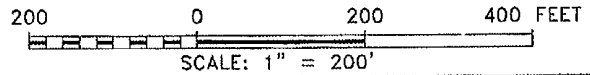
<p><b>SURFACE LOCATION</b> Lat - N32°44'08.14" Long - W103°36'51.96" SPC- N.: 632091.070 E.: 762393.105 (NAD-83)</p>			<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Norvella Adams</i> 9/16/08 Signature Date</p> <p>Norvella Adams Printed Name</p>
			<p><b>SURVEYOR CERTIFICATION</b></p> <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>FEBRUARY 27 2008 Date Surveyed</p> <p><i>Gary L. Jones</i> Signature of Professional Surveyor</p> <p> Professional Surveyor</p> <p>Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS</p>

SECTION 24, TOWNSHIP 18 SOUTH, RANGE 33 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF STATE HWY 529 AND  
QUINCHERO RD, GO SOUTH APPROX. 1.0 MILES TO  
LEASE ROAD, ON LEASE ROAD GO WEST 0.2 MILES  
TO LEASE ROAD, ON LEASE ROAD GO SOUTH 340'  
TO PROPOSED LEASE ROAD.



**DEVON ENERGY PROD. CO., L.P.**

REF: GREAT BEAR PARK "24" FED #1 / WELL PAD TOPO

THE GREAT BEAR PARK "24" FED. #1 LOCATED 1680' FROM

THE NORTH LINE AND 1980' FROM THE EAST LINE OF

SECTION 24, TOWNSHIP 18 SOUTH, RANGE 33 EAST,

N.M.P.M., LEA COUNTY, NEW MEXICO.

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

W.O. Number: 20472

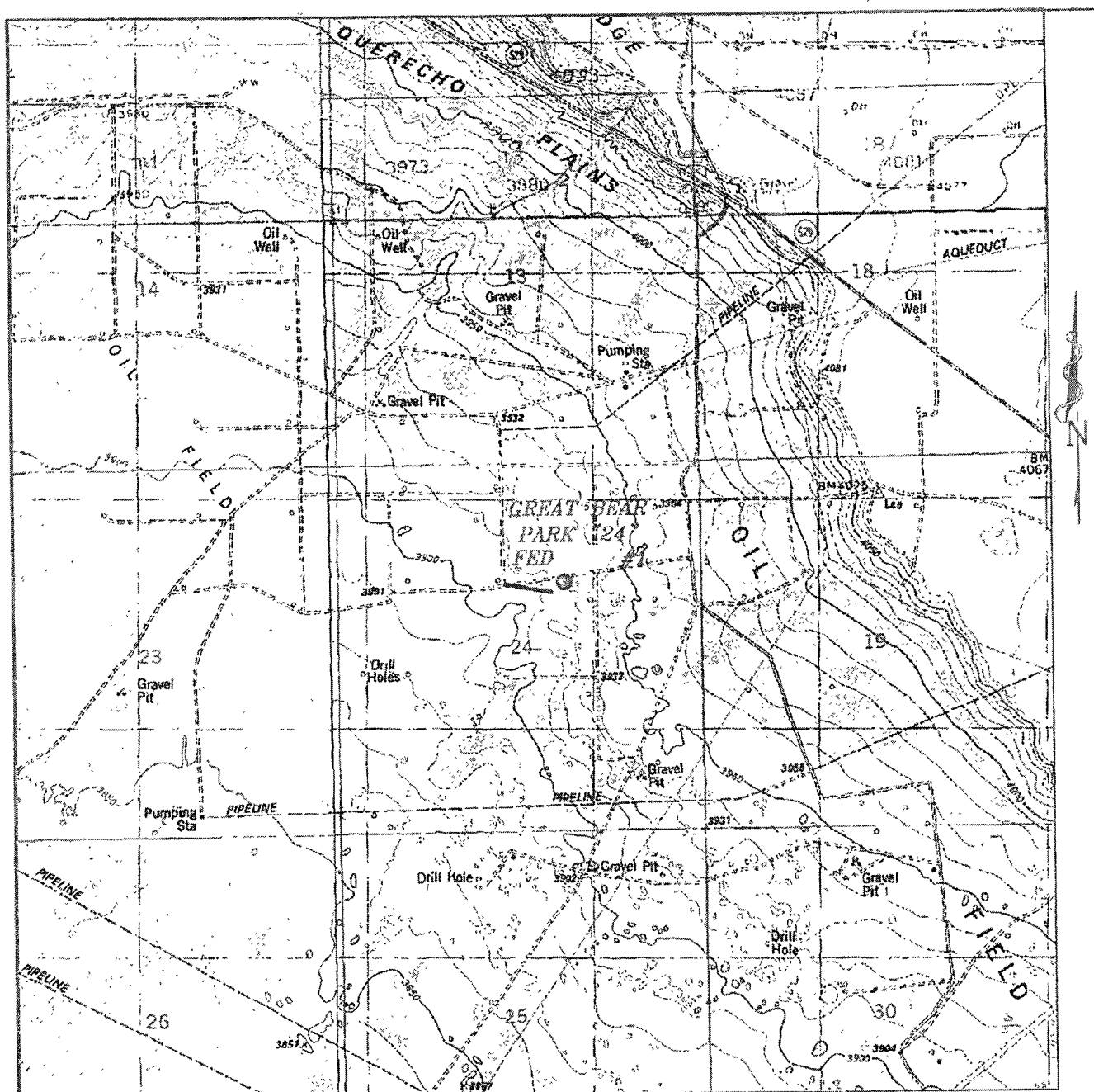
Drawn By: J. M. SMALL

Date: 09-10-2008

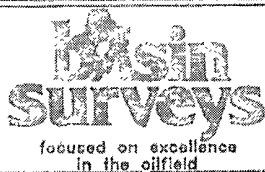
Disk: 20472W JMS

Survey Date: VARIES

Sheet 1 of 1 Sheets



GREAT BEAR PARK "24" FED #1  
 Located at 1680' FNL AND 1980' FEL  
 Section 24, Township 18 South, Range 33 East,  
 N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (575) 393-7316 - Office  
 (575) 392-2206 - Fax  
 basinsurveys.com

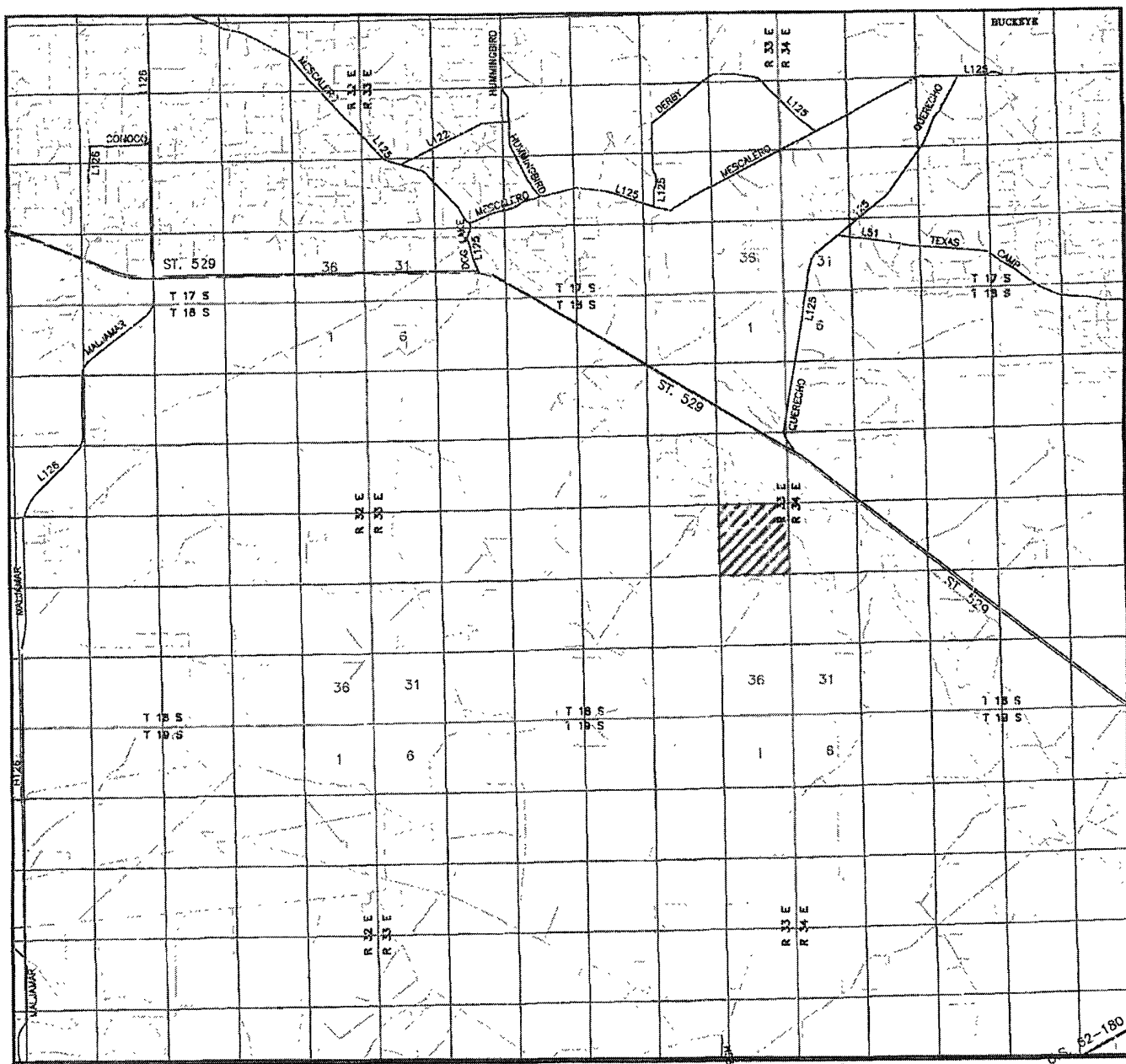
W.O. Number: JMS 20472

Survey Date: VARIES

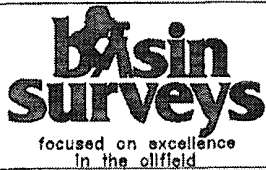
Scale: 1" = 2000'

Date: 09-10-2008

DEVON ENERGY  
 PROD. CO., L.P.



GREAT BEAR PARK "24" FED #1  
 Located at 1680' FNL AND 1980' FEL  
 Section 24, Township 18 South, Range 33 East,  
 N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786  
 1120 N. West County Rd.  
 Hobbs, New Mexico 88241  
 (575) 393-7316 - Office  
 (575) 392-2206 - Fax  
 basinsurveys.com

W.O. Number: JMS 20472

Survey Date: VARIES

Scale: 1" = 2 MILES

Date: 09-10-2008

DEVON ENERGY  
 PROD. CO., L.P.

OCT 08 2008

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT  
SUNDRY NOTICES AND REPORTS ON WELLS

OCD-HOBBS

FORM APPROVED  
OMB NO. 1004-0135  
EXPIRES: NOVEMBER 30, 2000

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

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other \_\_\_\_\_

2. Name of Operator

DEVON ENERGY PRODUCTION COMPANY, LP

3. Address and Telephone No.

20 North Broadway, Ste 1500, Oklahoma City, OK 73102

405-552-8198

4. Location of Well (Report location clearly and in accordance with Federal requirements)\*

1680' FNL &amp; 1980' FEL Sec 24 T18S R33E, Unit G

5. Lease Serial No.

LC-063645

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No

8. Well Name and No.

Great Bear Park 24 Fed 1

9. API Well No.

10. Field and Pool, or Exploratory

Bone Spring

12. County or Parish 13. State

Lea

NM

## CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

## TYPE OF SUBMISSION

## TYPE OF ACTION

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

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

Devon Energy Production Company, LP respectfully requests approval to change our original plans to use an earthen pit to a closed loop system.

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

Signed

Name  
Title

Norvella Adams

Sr. Staff Eng. Tech

Date

29-Sep-08

(This space for Federal or State Office use)

/s/ Don Peterson

Title

FIELD MANAGER

Date

OCT - 3 2008

Approved by

Conditions of approval, if any.

DISTRICT I  
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II  
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III  
1000 Rio Brazos Rd., Hobbs, NM 88240

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals and Natural Resources Department

Form C-102  
Revised October 12, 2005

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

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name Bone Spring
Property Code	Property Name GREAT BEAR PARK "24" FED	Well Number 1
GRID No. 6137	Operator Name DEVON ENERGY PRODUCTION COMPANY LP	Elevation 3921'

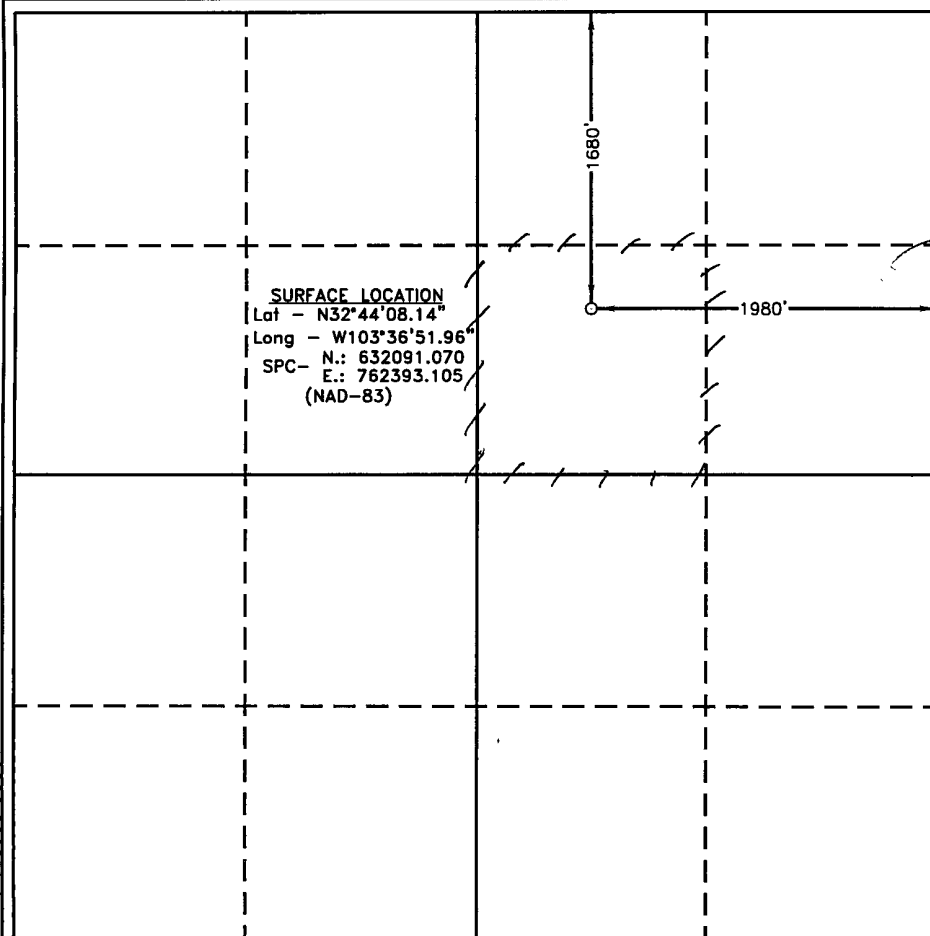
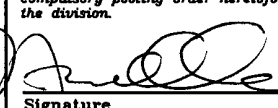

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	24	18 S	33 E		1680	NORTH	1980	EAST	LEA

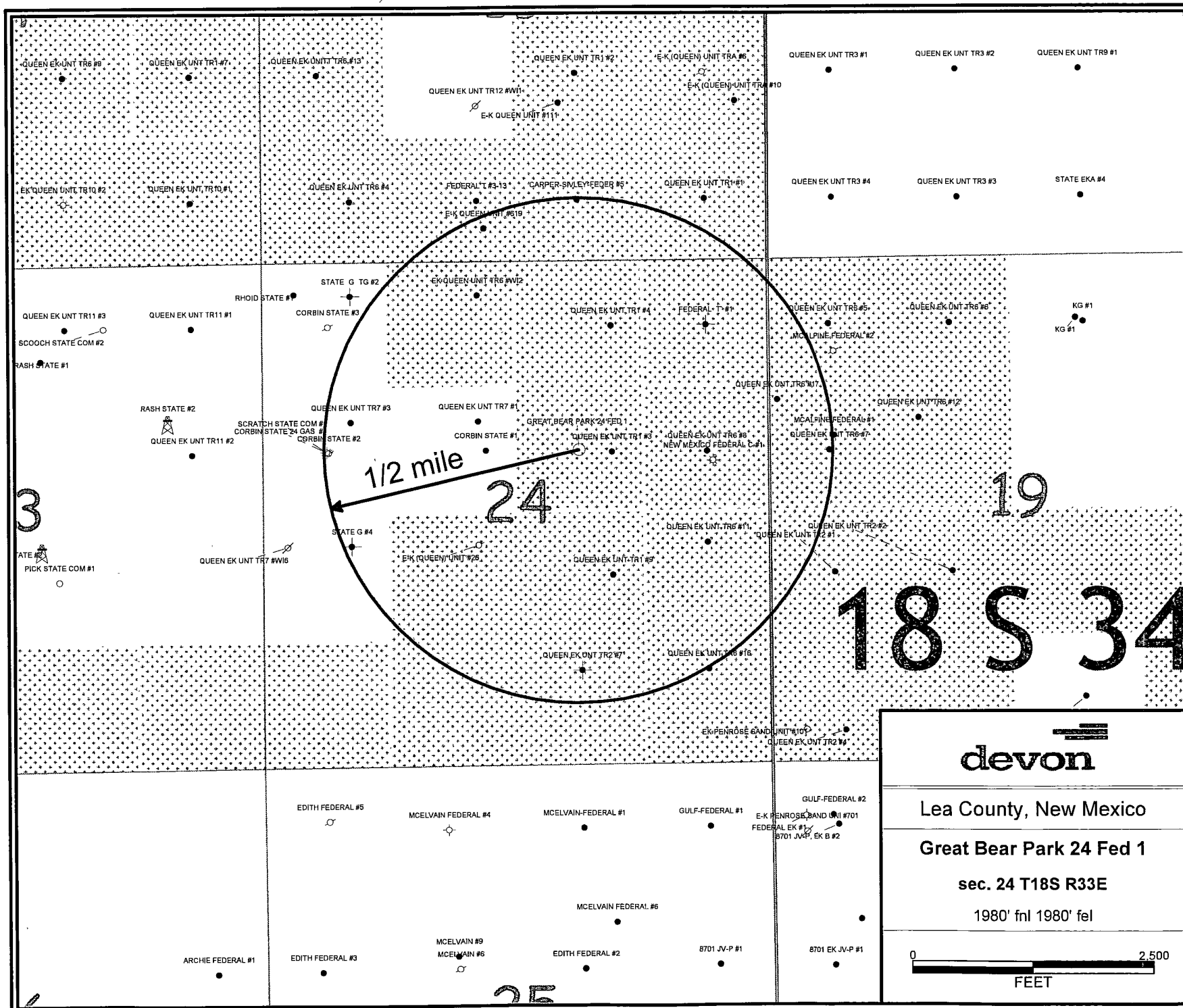
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres 40	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

	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p> 8/12/08 Signature Date</p> <p>Norvella Adams Printed Name</p>
	<p><b>SURVEYOR CERTIFICATION</b></p> <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>FEBRUARY 27, 2008 Date Surveyed</p> <p> Signature Professional Surveyor</p> <p>7977 Certificate No.</p>
	<p>7977 Certificate No.</p>
	<p>7977 Certificate No.</p>

BASIN SURVEYS



devon

Lea County, New Mexico

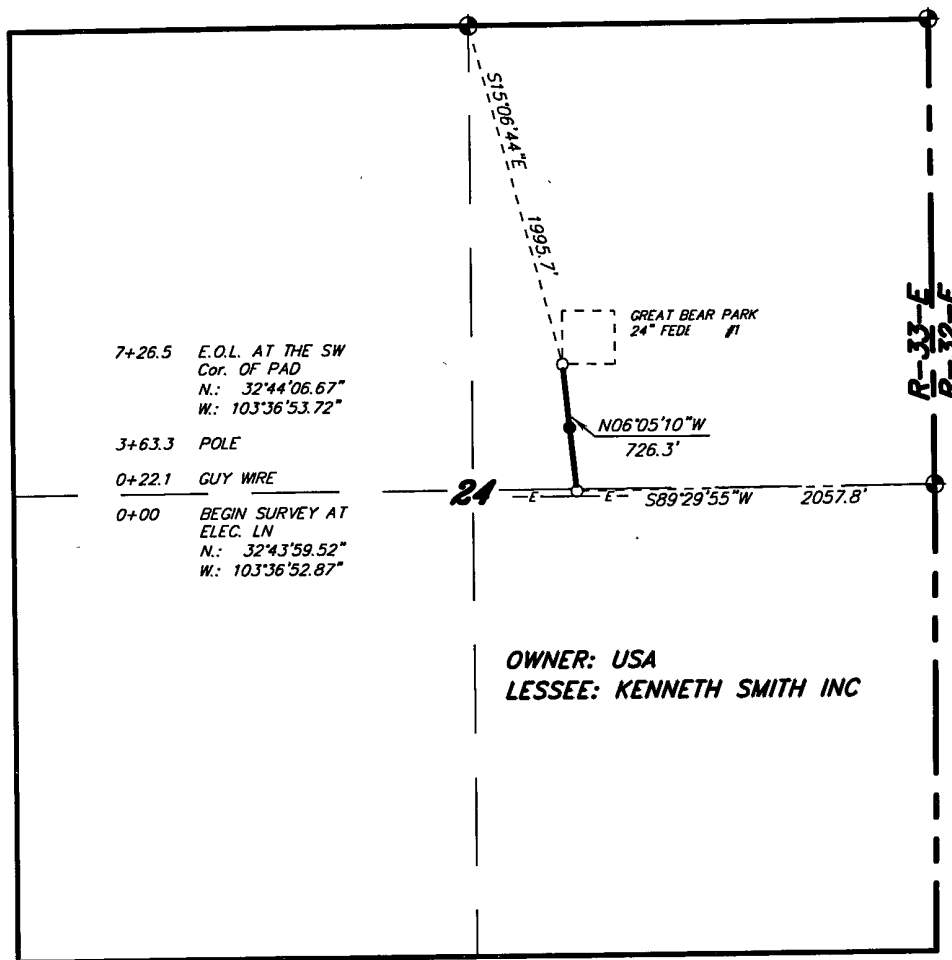
Great Bear Park 24 Fed 1

sec. 24 T18S R33E

1980' fnl 1980' fel

0 2,500  
FEET

SECTION 24, TOWNSHIP 18 SOUTH, RANGE 33 EAST, N.M.P.M.,  
LEA COUNTY, NEW MEXICO.



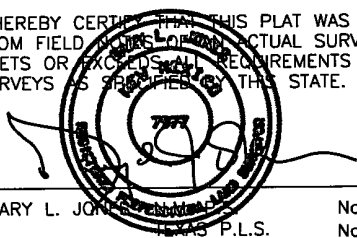
OWNER: USA  
LESSEE: KENNETH SMITH INC

LEGAL DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE, LOCATED IN SECTION 24, TOWNSHIP 18 SOUTH, RANGE 33 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND RIGHT OF THE ABOVE PLATTED CENTERLINE SURVEY.

SECTION 24 = 726.5 FEET = 44.03 RODS = 0.14 MILES = 0.50 ACRES

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM FIELD NOTES OF AN ACTUAL SURVEY AND MEETS OR EXCEEDS ALL REQUIREMENTS FOR LAND SURVEYS AS SPECIFIED BY THIS STATE.



GARY L. JONES No. 7977  
LEAS P.L.S. No. 5074

1000 0 1000 2000 FEET

**DEVON ENERGY PROD. CO., L.P.**

REF: PROPOSED ELECTRIC LINE TO THE GREAT BEAR PARK "24" FED #1

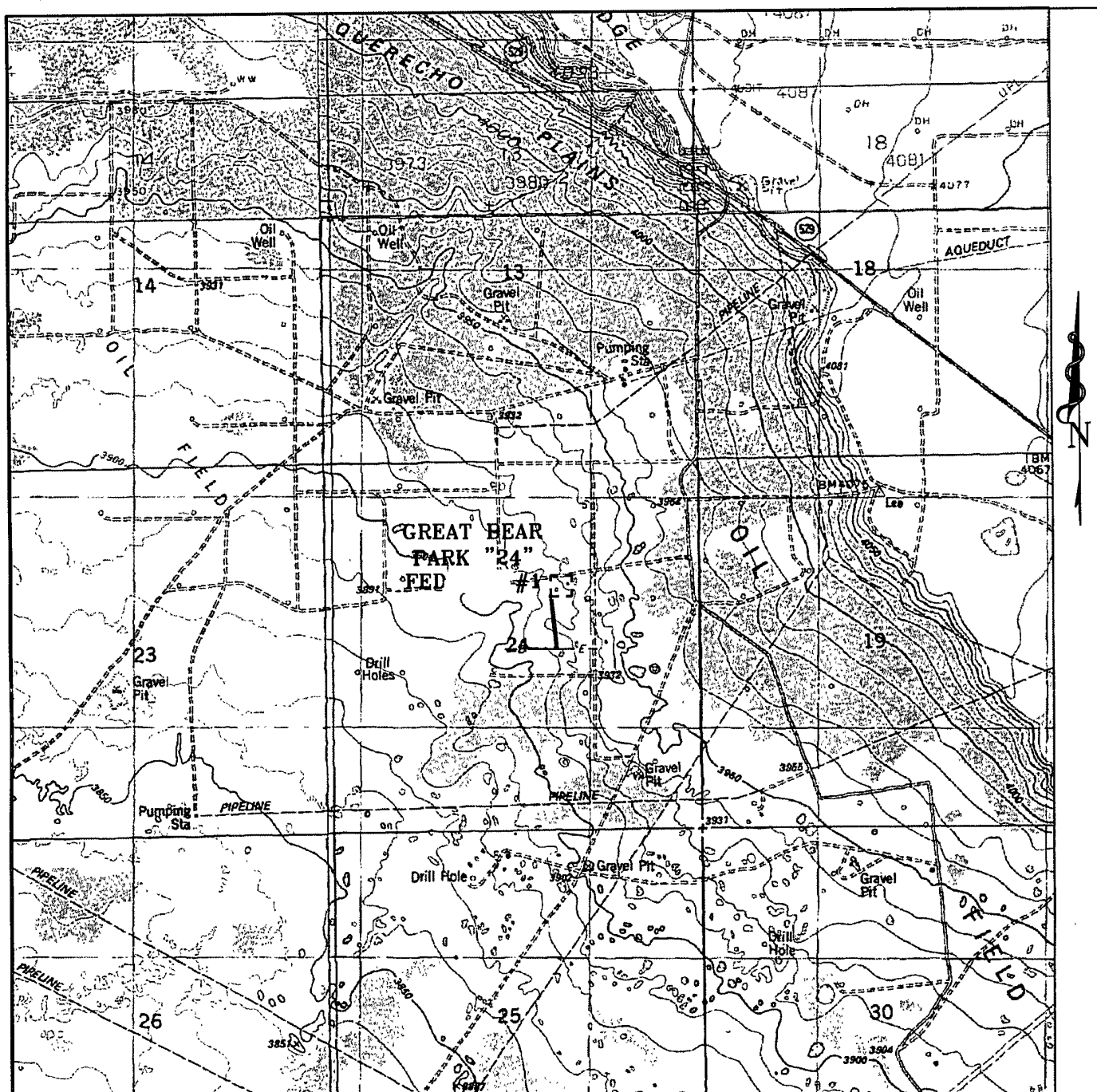
AN ELECTRIC LINE CROSSING USA LAND IN  
SECTION 24, TOWNSHIP 18 SOUTH, RANGE 33 EAST,  
N.M.P.M., LEA COUNTY, NEW MEXICO.

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

W.O. Number: 19252 Drawn By: J. M. SMALL

Date: 02-28-2008 Disk: JMS 19252P

Survey Date: 02-27-2008 Sheet 1 of 1 Sheets



PROPOSED ELECTRIC LINE TO THE GREAT BEAR PARK "24" FED #1  
 Section 24, Township 18 South, Range 33 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  
 basinsurveys.com

W.O. Number: JMS 19252TT

Survey Date: 02-27-2008

Scale: 1" = 2000'

Date: 02-28-2008

DEVON ENERGY  
 PROD. CO., L.P.

## DRILLING PROGRAM

Devon Energy Production Company, LP

### **Great Bear Park 24 Fed 1**

Surface Location: 1680' FNL & 1980' FEL, Unit G, Sec 24 T18S R33E, Lea, NM

Bottom Hole Location: 1680' FNL & 1980' FEL, Unit G, Sec 24 T18S R33E, Lea, NM

#### **1. Geologic Name of Surface Formation**

- a. Quaternary Alluvium

#### **2. Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:**

a. Quaternary	19'	Fresh Water
b. Rustler	1639'	Fresh Water
c. Salado Salt	1895'	
d. Tansil Dol.	3011'	Oil
e. Yates Ss	3123'	Oil
f. Seven Rivers	3623'	Oil
g. Queen Ss	4353'	Oil
h. Grayburg	4414'	Oil
i. San Andres	5113'	Oil
j. Cherry Canyon Ss	5207'	Oil
k. Brushy Canyon Ss	6427'	Oil
l. 1 <sup>st</sup> Bone Spring Ls	7311'	Oil
m. 1 <sup>st</sup> Bone Spring Ss	8670'	Oil
n. 2 <sup>nd</sup> Bone Spring Ls	8950'	Oil
o. 2 <sup>nd</sup> Bone Spring Ss	9260'	Oil
p. 3 <sup>rd</sup> Bone Spring Ls	9706'	Oil
q. 3 <sup>rd</sup> Bone Spring Ss	10,030	Oil

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 8 5/8" casing at 3050' and circulating cement back to surface. The Bone Spring intervals will be isolated by setting 5 1/2" casing to total depth and circulating cement back to surface.

#### **3. Casing Program:**

<u>Hole</u> <u>Size</u>	<u>Hole</u> <u>Interval</u>	<u>OD</u> <u>Csg</u>	<u>Casing</u> <u>Interval</u>	<u>Weight</u>	<u>Collar</u>	<u>Grade</u>
14 3/4"	60' - 1650'	11 3/4"	0' - 1650'	42#	ST&C	H-40
11"	1650' - 3050'	8 5/8"	0' - 3050'	32#	LT&C	K-55
7 7/8"	3050' - 10,100'	5 1/2"	0 - 10,100'	17#	LT&C	N-80

See  
COP

The 5 ½", 17#, LT&C, N-80 production casing was on one of our other location but was neither cemented nor produced through and should be considered "new" pipe.

**Design Parameter Factors:**

<u>Casing Size</u>	<u>Collapse Design</u>	<u>Burst Design</u>	<u>Tension Design</u>
	<u>Factor</u>	<u>Factor</u>	<u>Factor</u>
11 ¾"	2.09	2.98	6.53
8 5/8"	1.6	2.4	4.98
5 ½"	1.33	2.06	2.04

**4. Cement Program: (Note yields; and dv tool depths if multiple stages)**

- a. 11 ¾" Surface Lead with 570 sx (35:65) Poz Premium Plus C + 2% CaCl<sub>2</sub> + ¼ lbs/sx Celloflake, and 6% Bentonite; 12.8 ppg, 1.97 cf/sx, 9.76 gps. Tail with 250 sx Premium Plus C + 2% CaCl<sub>2</sub> + ¼ lbs/sx Celloflake; 14.8 ppg, 1.35 cf/sx, 6.35 gps. TOC = 0.
- b. 8 5/8" Intermediate Lead with 480 sx (35:65) Poz Premium Plus C + 2% CaCl<sub>2</sub> + ¼ lbs/sx Cello Flake + 6% Bentonite; 12.5 ppg, 1.97 cf/sx, 10.75 gps. Tail with 300 sx Premium Plus C + ¼ lbs/sx Cello Flake; 14.8 ppg, 1.35 cf/sx, 6.35 gps. TOC = 0.
- c. 5 1/2" Production Stage 1: 465 sx (15:61:11) Poz Premium Plus C + 1% KCl + 0.75% EC-1 + 0.4% CD-32 + 3 #/sx LCM-1 + 0.6% FL-25; 13.30 ppg, 1.56 cf/sx, 7.55 gps.. Stage 2: Lead with 730 sx (35:65) Poz Premium Plus C + ¼ #/sx Cello Flake + 6% Bentonite; 12.50 ppg, 1.94 cf/sx, 10.65 pgs. Tail with 150 sx (60:40) Poz Premium Plus C + 2% NaCl + 0.1% Sodium Metasilicate + 4% MPA-5; 13.8 ppg, 1.35 cf/sx, 6.29 gps. TOC = 2,550. DV tool set at 6,950'.

The above cement volumes could be revised pending the caliper measurement from the open hole logs. All casing is new and API approved.

**5. Pressure Control Equipment:**

The blowout preventor equipment (BOP) shown in Exhibit #1 will consist of a (5 K system) double ram type (5000 psi WP) preventor and a bag-type (Hydril) preventor (5000 psi WP) and rotating head. Both units will be hydraulically operated and the ram type preventor will be equipped with blind rams on top and 4 ½" drill pipe rams on bottom. **The 5K annular BOP will be nipped up on the 11" casing and tested to 1000 psi high and 250 low with the rig pumps. The 5K BOP consisting of 5K annular, blind rams, and pipe rams will be nipped up on the 8 5/8" and tested as per Onshore 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 driller's log. A 2" kill line and 4" 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.

**6. Proposed Mud Circulation System**

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
60' – 1650'	9.4	30	NC	Fresh Water
1650' – 3050'	10.0	30	NC	Brine
3050' – 10,100'	9	29	NC	Fresh Water

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 8 5/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 8 5/8" shoe until total depth is reached.

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

- a. Drill stem tests will be based on geological sample shows.
- b. If a drill stem test is anticipated; a procedure, equipment to be used and safety measures will be provided via sundry notice to the BLM.
- c. The open hole electrical logging program will be:
  - i. Total Depth to Intermediate Casing      Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
  - ii. Total Depth to Surface      Compensated Neutron with Gamma Ray
  - iii. No coring program is planned
  - iv. 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.

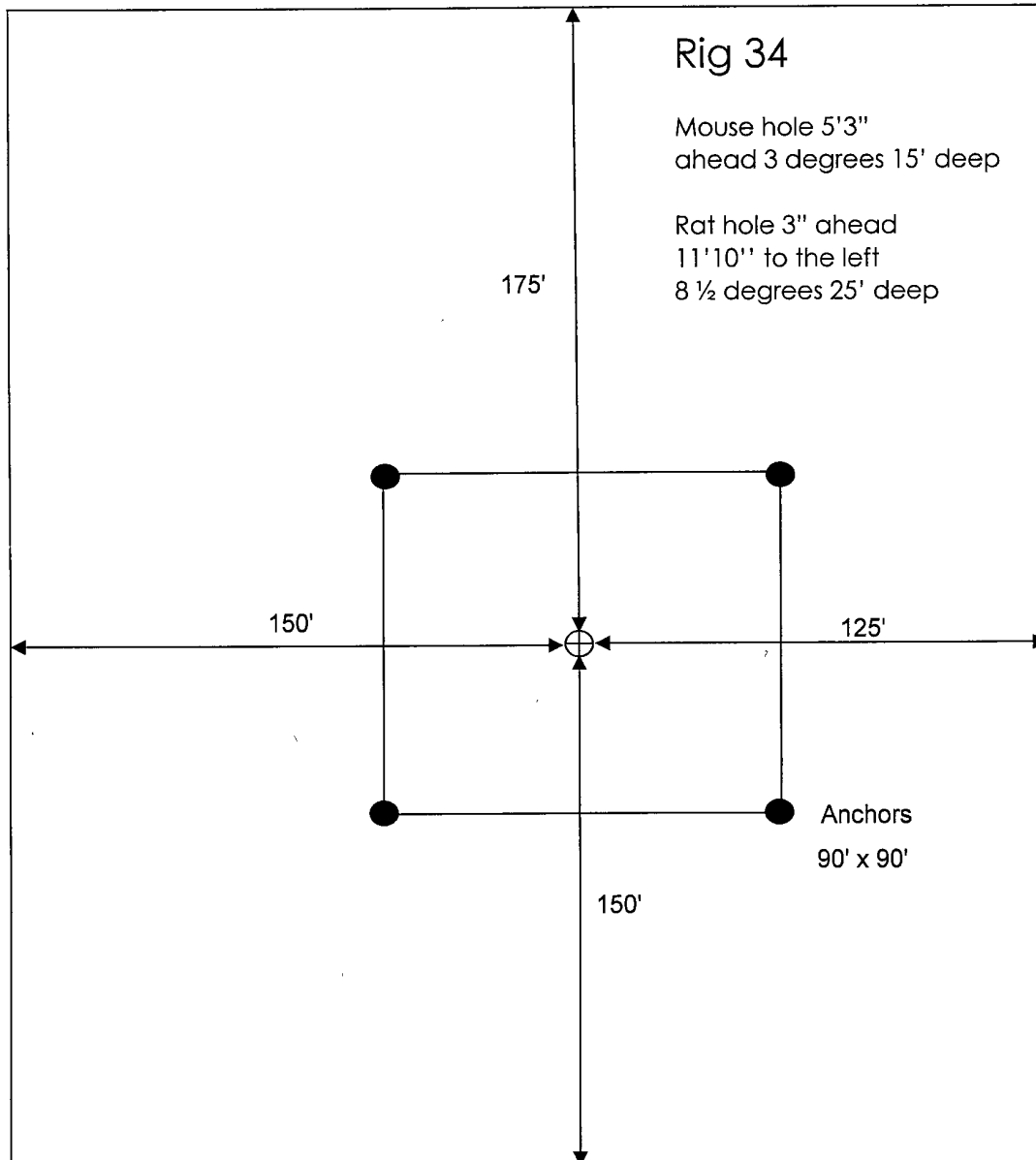
**9. Potential Hazards:**

- a. No abnormal pressures or temperatures are expected. A H2S contingency plan will be provided. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 4500 psi and Estimated BHT 165°.

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

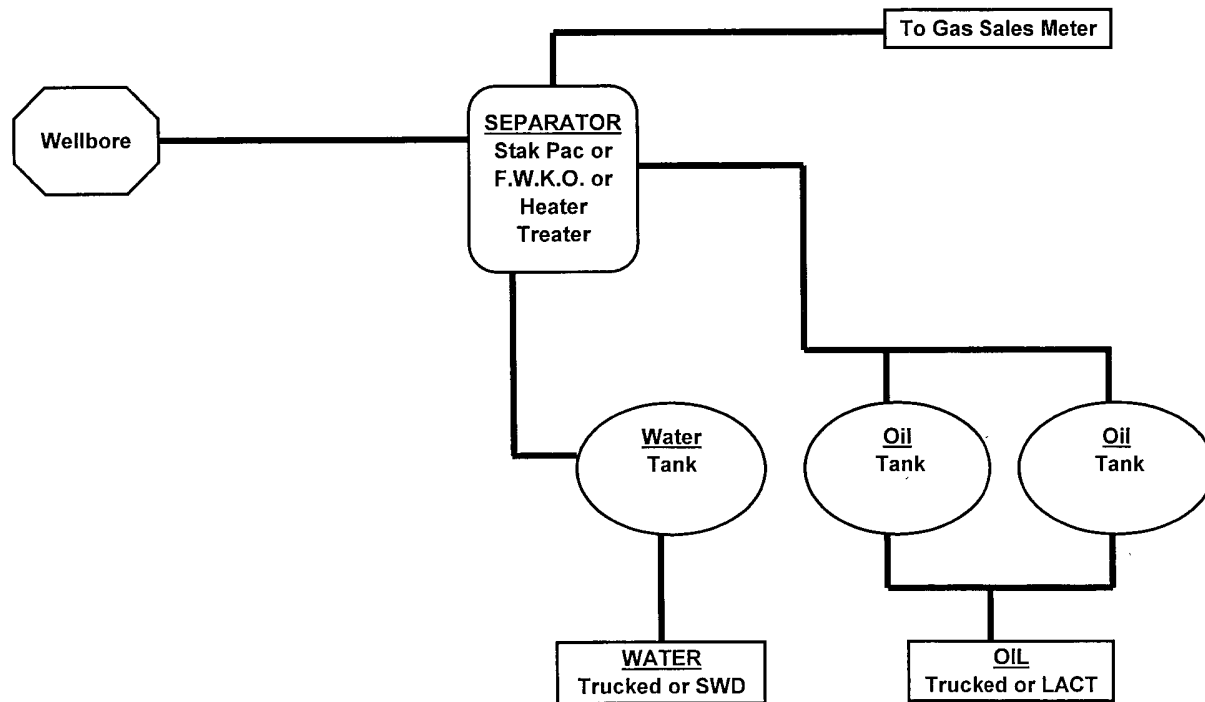
- a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 30 days. If production casing is run then an additional 30 days will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

## BASIC ENERGY SERVICES - RIGS 31, 32 & 34

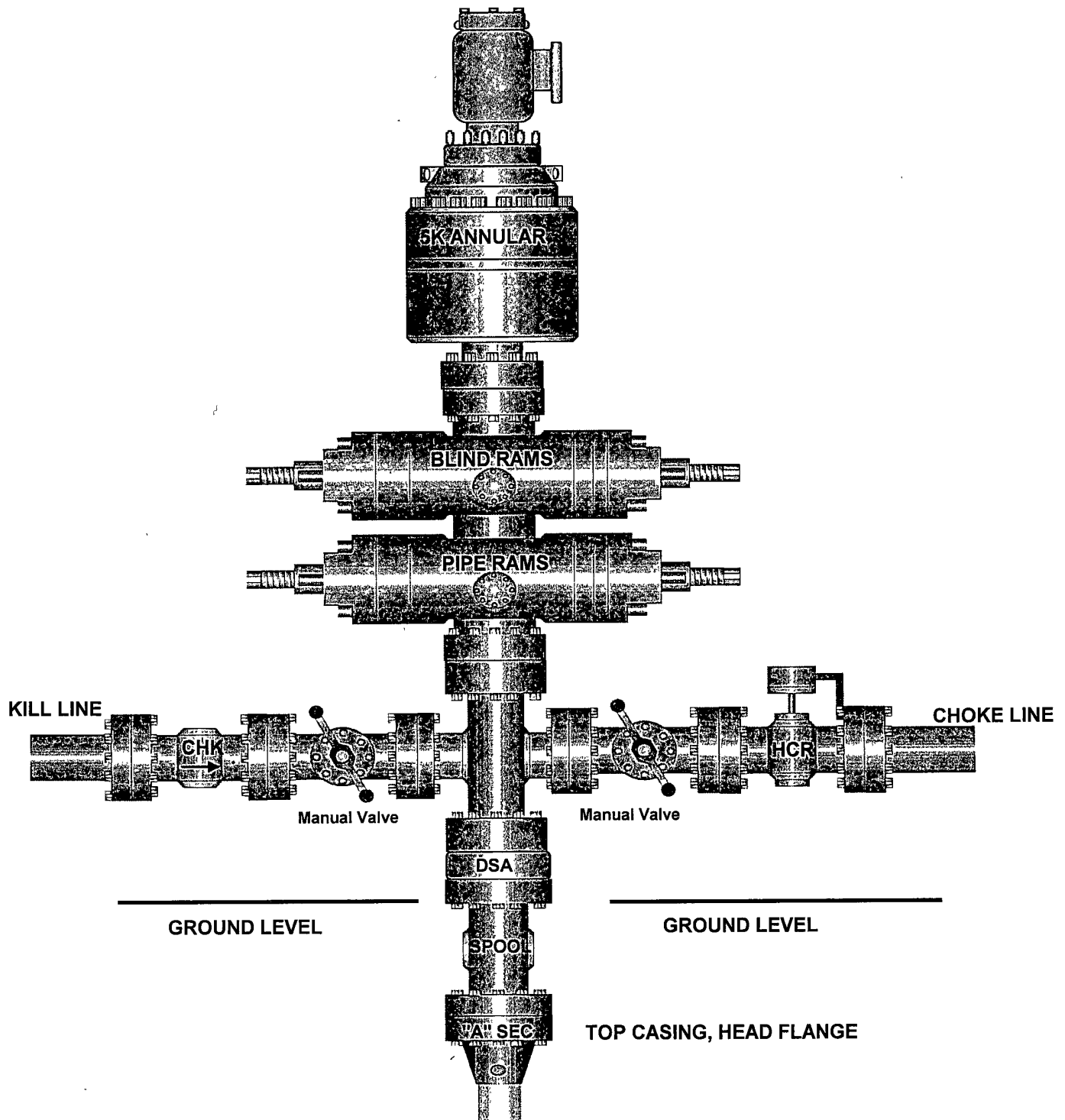


DEVON ENERGY PRODUCTION COMPANY LP

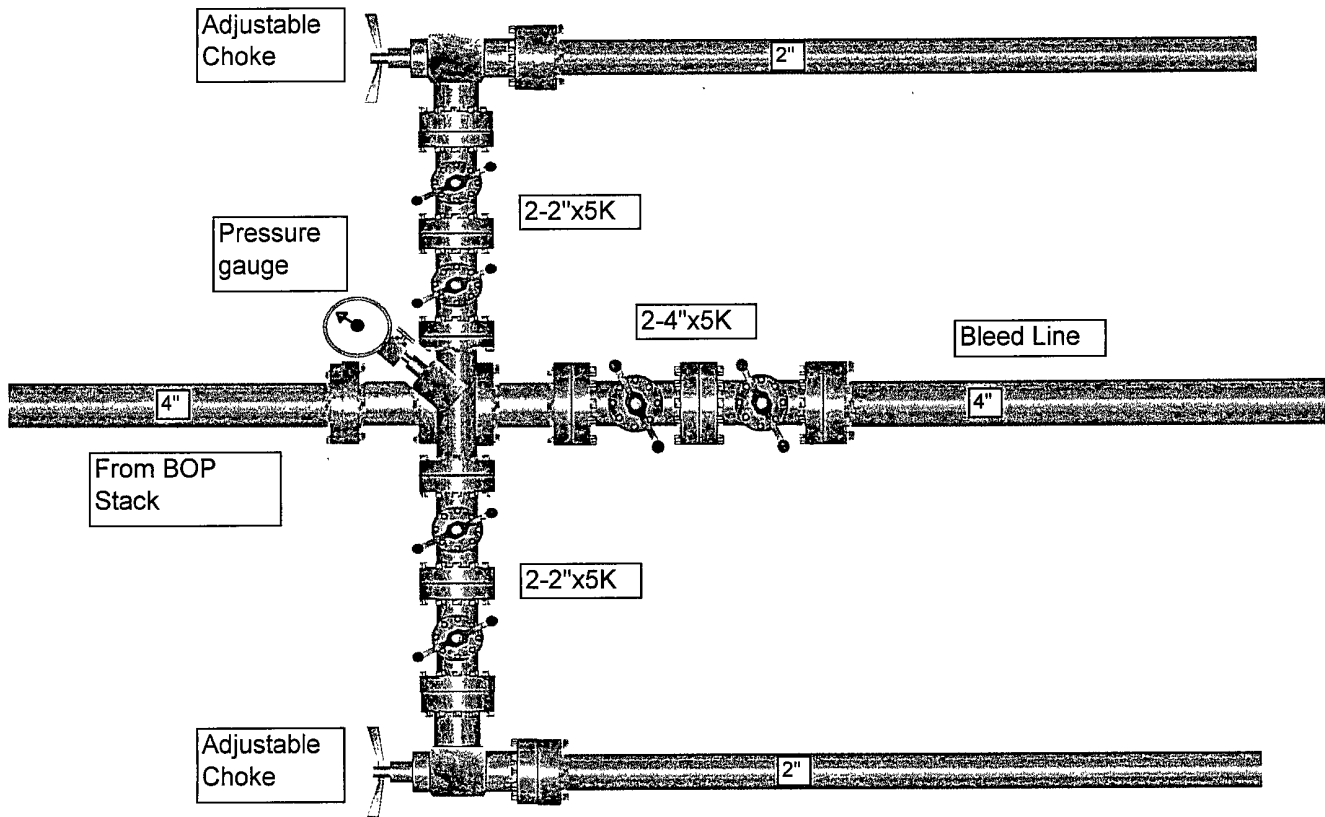
General Production Facilities Diagram



# 11" x 5,000 psi BOP Stack



## 5,000 PSI CHOKE MANIFOLD





Devon Energy Corporation  
20 North Broadway  
Oklahoma City, Oklahoma 73102-8260

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2008 AUG 28 AM 11:05

BUREAU OF LAND MGMT  
CAPSULE OFFICE

# Hydrogen Sulfide (H<sub>2</sub>S) Contingency Plan

For

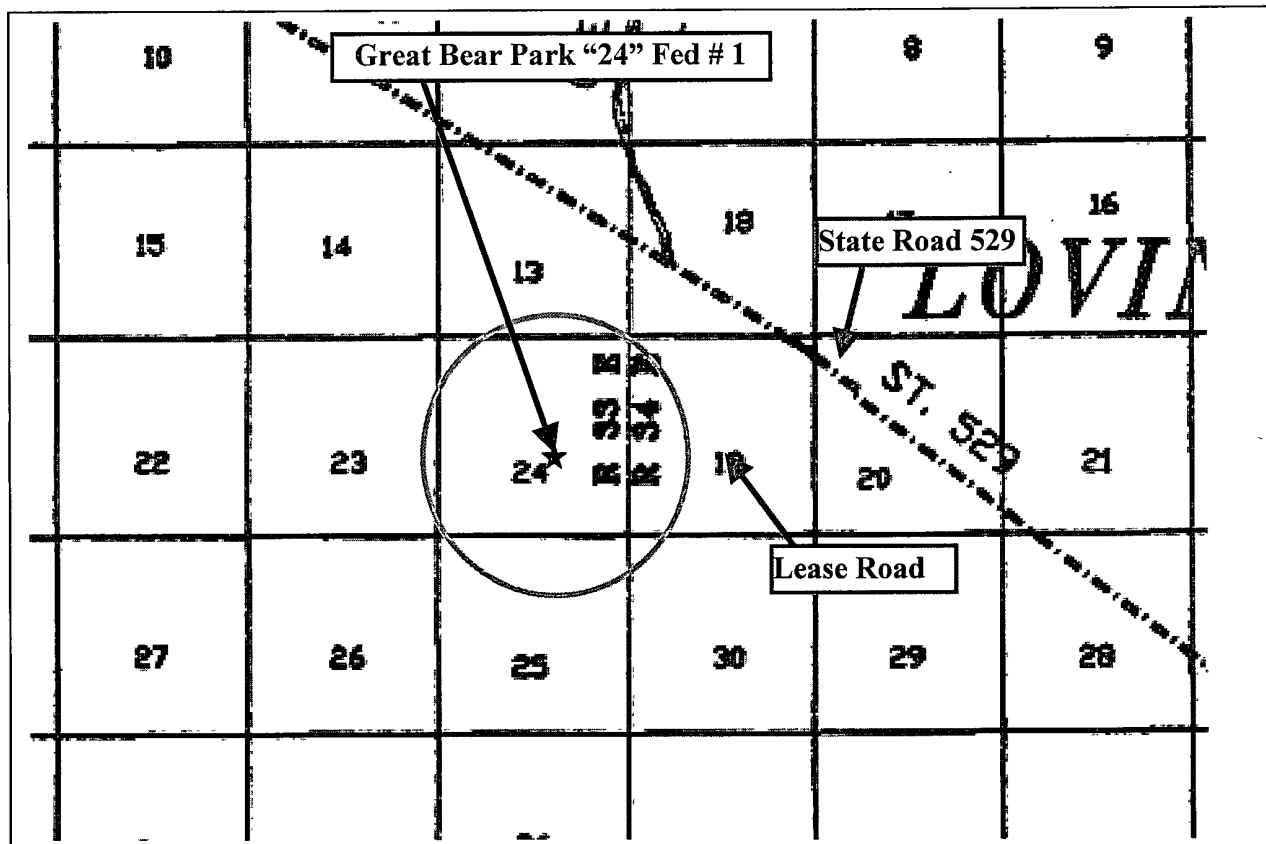
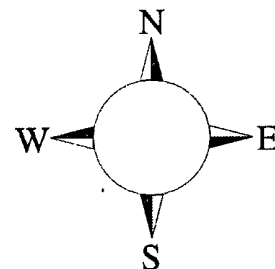
Great Bear Park "24" Fed # 1

1680'FNL & 1980' FEL,  
Sec-24, T-18S R-33E

Lea County NM

## Great Bear Park "24" Fed # 1

This is an open drilling site. H<sub>2</sub>S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H<sub>2</sub>S, including warning signs, wind indicators and H<sub>2</sub>S monitor.



Assumed 100 ppm ROE = 3000' (Radius of Exposure)  
100 ppm H<sub>2</sub>S concentration shall trigger activation of this plan.

### Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated East lease road to State Road 529. Crews should then block entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE There are no homes or buildings in or near the ROE.

## Emergency Procedures

In the case of a release of gas containing H<sub>2</sub>S, the first responder(s) must isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

All responders must have training in the detection of H<sub>2</sub>S, measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H<sub>2</sub>S monitors and air packs in order to control the release. Use the "buddy system" to ensure no injuries during the response.

## Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

## Characteristics of H<sub>2</sub>S and SO<sub>2</sub>

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H <sub>2</sub> S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	2.21 Air = 1	2 ppm	N/A	1000 ppm

## Contacting Authorities

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

## Devon Energy Corp. Company Call List

<u>Artesia (505)</u>	<u>Cellular</u>	<u>Office</u>	<u>Home</u>
Foreman – Roger Hernandez ..	748-5238 .....	748-0169 .....	396-7169
Asst. Foreman – Ernie Duran.	513-1768 .....	748-0191 .....	746-4589
Don Mayberry.....	748-5235 .....	748-0164 .....	746-4945
Linda Berryman .....	513-0534 .....	748-0177 .....	395-3020
Bill Greenlees .....	(405) 203-7778 ...	(405) 552-8194 ...	(405) 324-9994

## Agency Call List

<u>Lea</u>	<b>Hobbs</b>	
<u>County</u>	State Police.....	392-5588
<u>(505)</u>	City Police.....	397-9265
	Sheriff's Office .....	393-2515
	Ambulance.....	911
	Fire Department .....	397-9308
	LEPC (Local Emergency Planning Committee) .....	393-2870
	NMOCD.....	393-6161
	US Bureau of Land Management.....	393-3612

<u>Eddy</u>	<b>Carlsbad</b>	
<u>County</u>	State Police .....	885-3137
<u>(505)</u>	City Police .....	885-2111
	Sheriff's Office.....	887-7551
	Ambulance.....	911
	Fire Department.....	885-2111
	LEPC (Local Emergency Planning Committee).....	887-3798
	US Bureau of Land Management.....	887-6544
	New Mexico Emergency Response Commission (Santa Fe) ...	(505)476-9600
	24 HR .....	(505) 827-9126
	National Emergency Response Center (Washington, DC)	(800) 424-8802

## Emergency Services

	Boots & Coots IWC .....	1-800-256-9688 or (281) 931-8884
	Cudd Pressure Control.....	(915) 699-0139 or (915) 563-3356
	Halliburton .....	(505) 746-2757
	B. J. Services.....	(505) 746-3569
<i>Give</i>	Flight For Life - Lubbock, TX .....	(806) 743-9911
<i>GPS</i>	Aerocare - Lubbock, TX .....	(806) 747-8923
<i>position:</i>	Med Flight Air Amb - Albuquerque, NM .....	(505) 842-4433
	Lifeguard Air Med Svc. Albuquerque, NM .....	(505) 272-3115

Prepared in conjunction with  
Wade Rohloff of;



## **SURFACE USE PLAN**

Devon Energy Production Company, LP

### **Great Bear Park 24 Fed 1**

Surface Location: 1680' FNL & 1980' FEL, Unit G, Sec 24 T18S R33E, Lea, NM

Bottom Hole Location: 1680' FNL & 1980' FEL, Unit G, Sec 24 T18S R33E, Lea, NM

#### **1. Existing Roads:**

- a. The well site and elevation plat for the proposed well are reflected on the well site layout; Form C-102. The well was staked by Basin Surveys.
- b. All roads into the location are depicted on Exhibit 3.
- c. Directions to Location: From the junction of State Hwy 529 and Quinchero Rd, go south approx. 1.0 miles to lease road, on lease road go west 0.2 miles to lease road, on lease road go south 340' to proposed lease road.

#### **2. New or Reconstructed Access Roads:**

- a. The well site layout, Form C-102 shows the existing trail road.
- b. The maximum width of the road will be 15'. It will be crowned and made of 6" 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. The average grade will be approximately 1%.
- d. No cattle guards, grates or fence cuts will be required. No turnouts are planned.

#### **3. Location of Existing Wells:**

One Mile Radius Plat shows all existing and proposed wells within a one-mile radius of the proposed location. See attached plat.

#### **4. Location of Existing and/or Proposed Production Facilities:**

- a. In the event the well is found productive, a tank battery would be utilized and the necessary production equipment will be installed at the well site. See Production Facilities Layout diagram.
- 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. We intend to lay flowlines from the Great Bear Park 24 Fed 1 to the tank battery. All flow lines will adhere to API standards.
- d. If the well is productive, rehabilitation plans are as follows:
  - i. The reserve pit will be back-filled after the contents of the pit are dry (within 120 days after completion, weather permitting).
  - ii. The original topsoil from the well site will be returned to the location. The drill site will then be contoured as close as possible to the original state.

**5. Location and Types of Water Supply:**

This location will be drilled using a combination of 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 the C-102. On occasion, water will be obtained from a pre-existing water well, running a pump directly to the drill rig. In these cases where a poly pipeline is used to transport water for drilling purposes, proper authorizations will be secured. If a poly pipeline is used, the size, distance, and map showing route will be provided to the BLM via sundry notice.

**6. Construction Materials:**

All caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM approved pit or from prevailing deposits found under the location. All roads will be constructed of 6" rolled and compacted caliche. Will use BLM recommended use of extra caliche from other locations close by for roads, if available.

**7. 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. The supplier, including broken sacks, will pick up salts remaining after completion of well.
- d. A Porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- e. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for further drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approved disposal site. Later pits will be broken out to speed dry. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in a storage tank and sold.
- f. Disposal of fluids to be transported by the following companies:
  - i. American Production Service Inc, Odessa TX
  - ii. Gandy Corporation, Lovington NM
  - iii. I & W Inc, Loco Hill NM
  - iv. Jims Water Service of Co Inc, Denver CO

**8. Ancillary Facilities:** No campsite or other facilities will be constructed as a result of this well.

**9. Well Site Layout**

- a. Exhibit D shows the proposed well site layout with dimensions of the pad 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 will be lined.
- d. If needed, the reserve pit is to be lined with polyethylene. The pit liner will be 6 mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will be anchored down.

- e. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased to preclude endangering wildlife.
- f. If a pit or closed loop system is utilized, Devon will comply with the NMOCD requirements 19.15.17 and submit a form C-144 CLEZ to the appropriate NMOCD District Office.

**10. Plans for Surface Reclamation:**

- 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 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. We will close the pits per OCD compliance regulations.
- 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 reclaimed as recommended by the BLM.
- d. If the well is a producer, the reserve pit fence will be torn down after the pit contents have dried. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.
- 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**

- a. The surface is owned by the US Government and is administered by the Bureau of Land Management. The surface is multiple use with the primary uses of the region for the grazing of livestock and the production of oil and gas.
- b. The proposed road routes 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 topsoil is very sandy in nature. The vegetation is moderately sparse with native prairie grass, sagebrush, yucca and miscellaneous weeds. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.
- b. There is no permanent or live water in the general proximity of the location.
- c. There are no dwellings within 2 miles of location.
- d. A Cultural Resources Examination will be completed by Southern New Mexico Archaeological Services, Inc. and forwarded to the BLM office in Carlsbad, New Mexico.

**13. Bond Coverage:**

Bond Coverage is Nationwide; Bond # is CO-1104

**Operators Representative:**

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

Bill Greenlees  
Operations Engineering Advisor

Don Mayberry  
Superintendent

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

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

(405) 552-8194 (office)  
(405) 203-7778 (Cellular)

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

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**Certification**

*new Page*

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or Devon Energy Production Company, L.P. am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

I hereby also certify that I, or Devon Energy Production Company, L.P. have made a good faith effort to provide the surface owner with a copy of the Surface Use Plan of Operations and any Conditions of Approval that are attached to the APD.

Executed this 12th day of August, 2008.

Printed Name: Norvella Adams

Signed Name: 

Position Title: Sr. Staff Engineering Technician

Address: 20 North Broadway, OKC OK 73102

Telephone: (405) 552-8198

Field Representative (if not above signatory):

Address (if different from above):

Telephone (if different from above):

E-mail (optional): norvella.adams@dvn.com

# PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Devon Energy Production Company, LP
LEASE NO.:	LC063645
WELL NAME & NO.:	Great Bear Park 24 Fed #1
SURFACE HOLE FOOTAGE:	1680' FNL & 1980' FEL
BOTTOM HOLE FOOTAGE	
LOCATION:	Section 24, T. 18 S., R 33 E., NMPM
COUNTY:	Lea County, New Mexico

## TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
  - Lesser prairie chicken
- ☒ **Construction**
  - Notification
  - Topsoil
  - Reserve Pit – Closed-loop mud system
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
- ☐ **Production (Post Drilling)**
  - Electric Lines
- ☐ **Reserve Pit Closure/Interim Reclamation**
- ☐ **Final Abandonment/Reclamation**

## **I. GENERAL PROVISIONS**

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

## **II. PERMIT EXPIRATION**

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

## **III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES**

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

## **IV. NOXIOUS WEEDS**

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

## **V. SPECIAL REQUIREMENT(S)**

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken: Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1 through June 15 annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

## **VI. CONSTRUCTION**

### **A. NOTIFICATION**

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Hobbs Field Station at (505) 393-3612 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

### **B. TOPSOIL**

There is no measurable soil on this well pad to stockpile. No topsoil stockpile is required.

### **C. RESERVE PITS**

The operator has applied for a closed-loop system. The operator shall properly dispose of drilling contents at an authorized disposal site.

### **D. FEDERAL MINERAL MATERIALS PIT**

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the Carlsbad Field Office at (505) 234-5972.

### **E. WELL PAD SURFACING**

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

## **F. ON LEASE ACCESS ROADS**

### **Road Width**

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

### **Surfacing**

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

### **Crowning**

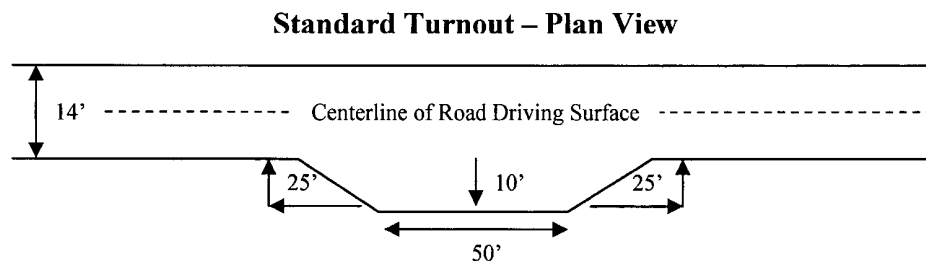
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

### **Ditching**

Ditching shall be required on both sides of the road.

### **Turnouts**

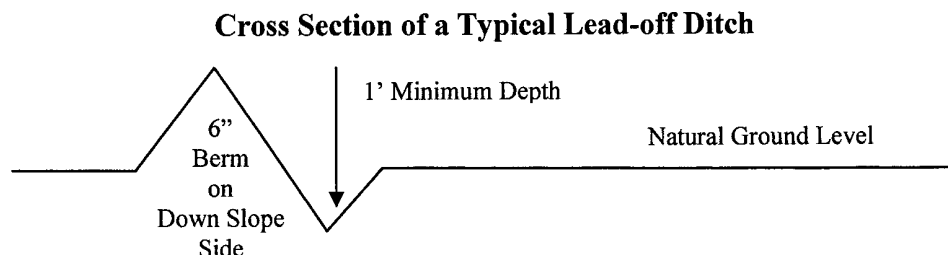
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:



### **Drainage**

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

#### **Formula for Spacing Interval of Lead-off Ditches**

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

#### **Culvert Installations**

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

#### **Cattleguards**

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

#### **Fence Requirement**

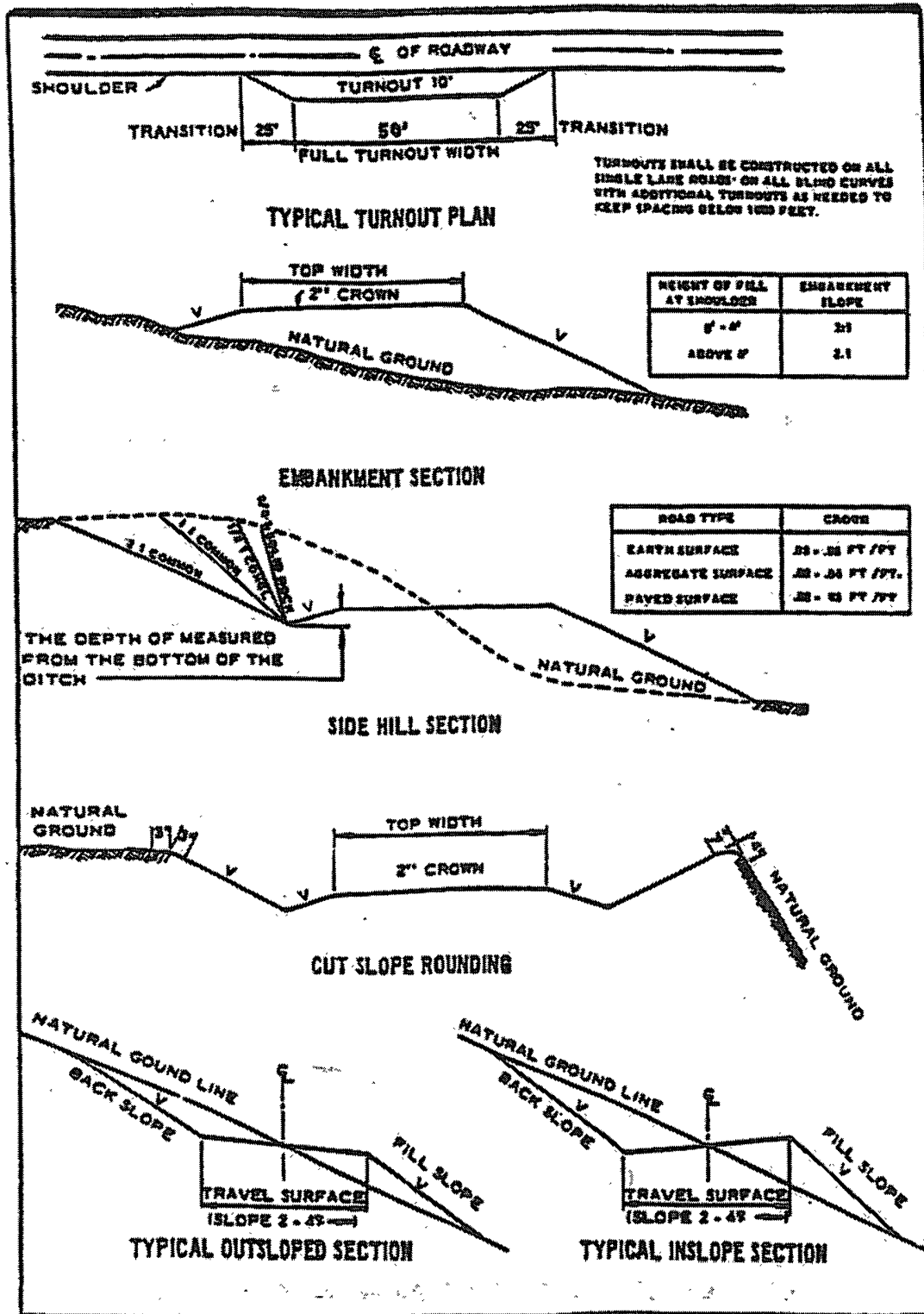
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

**Public Access**

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



## VII. DRILLING

### A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

☒ **Lea County**

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240,  
(575) 393-3612

1. A Hydrogen Sulfide (H<sub>2</sub>S) Drilling Plan should be activated 500 feet prior to drilling into the **Queen** formation. **If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

### B. CASING

**Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.**

**Centralizers required on surface casing per Onshore Order 2.III.B.1.f.**

**Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.**

**No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.**

**Possible lost circulation in the Grayburg and San Andres formations.**

**Possible water and brine flows in the Salado and Artesia Groups.**

**If the Wolfcamp is penetrated, it will be over pressured.**

1. The 11-3/4 inch surface casing shall be set **at approximately 1700 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **Fresh water mud to be used to setting depth.**

- a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
- b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **8-5/8** inch intermediate casing is:

- ☒ Cement to surface. If cement does not circulate see B.1.a, c-d above.  
**Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**

**Formation below the 8-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.**

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:

- a. First stage to DV tool, cement shall:  
☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office, before proceeding with second stage cement job.

b. Second stage above DV tool, cement shall:

☒ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

### **C. PRESSURE CONTROL**

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. The tests shall be done by an independent service company.
  - b. The results of the test shall be reported to the appropriate BLM office.
  - c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
  - d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
  - e. A variance to test the surface casing and BOP/BOPE (**entire system**) to the reduced pressure of **1000** psi with the rig pumps is approved.

### **D. DRILL STEM TEST**

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

**NOTE – area code for Eddy and Lea counties is 575 with effective date 10/05/2008 according to Windstream. H2S plan still has 505 numbers.**

**WWI 092708**

## **VIII. PRODUCTION (POST DRILLING)**

### **A. WELL STRUCTURES & FACILITIES**

#### **Placement of Production Facilities**

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

#### **Containment Structures**

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

#### **Painting Requirement**

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color  
Shale Green, Munsell Soil Color Chart # 5Y 4/2

### **B. ELECTRIC LINES**

#### **STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES**

**A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.**

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the

release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Powerlines shall be constructed in accordance to standards outlined in "Suggested Practices for Raptor Protection on Powerlines, " Raptor Research Foundation, Inc., 1981. The holder shall assume the burden and expense of proving that pole designs not shown in the above publication are "raptor safe." Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed

is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:

- For reclamation remove poles, lines, transformer, etc. and dispose of properly.
- Fill in any holes from the poles removed.
- See attached reclamation plans.

## **IX. INTERIM RECLAMATION & RESERVE PIT CLOSURE**

### **A. INTERIM RECLAMATION**

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

### Seed Mixture for LPC Sand/Shinnery Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

<u>Species</u>	<u>lb/acre</u>
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

\*\*Four-winged Saltbush 5lbs/A

\* This can be used around well pads and other areas where caliche cannot be removed.

\*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

## **X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS**

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.