OCD-ARTESIA

JUN - 2 2009

ATS-09-308
EA-09-573
LM

Form 3160-3
(April 2004)

Split Estate

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.
89156, 29273 , NMLC 070678A,

6. If Indian, Allotee or Tribe Name

7 If Unit or CA Agreement, Name and No.

1a. Type of work: ☑ DRILL ☐ REENTER

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
Condor 8 Fed Com 8 H

2. Name of Operator
Devon Energy Production Company, LP

9. API Well No.
30-015-37108

3a Address **20 North Broadway**
Oklahoma City, Oklahoma City 73102-8260

3b. Phone No. *(include area code)*
405-552-8198

10. Field and Pool, or Exploratory
Red Lake; Glorieta-Yeso, NE

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

At surface **425' FSL & 1830' FWL, Unit N**

At proposed prod. zone **400' FSL & 330' FEL, Unit P**

ROSWELL CONTROLLED WATER BASIN

11. Sec., T. R. M. or Blk and Survey or Area
Sec 8, T18S R27E, Unit N

14 Distance in miles and direction from nearest town or post office*
Approximately 7 miles southeast of Artesia, NM

12. County or Parish
Eddy County

13. State
NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No. of acres in lease	17 Spacing Unit dedicated to this well
425' SL; 330' BHL	**40 acres in each lease**	**120 acres**
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19 Proposed Depth	20. BLM/BIA Bond No. on file
3410' SL; 2400' BHL	**5873' MD 3000' TVD**	**CO-1104**
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22 Approximate date work will start*	23. Estimated duration
3432' GL	**05/01/2009**	**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)*	Date
	Norvella Adams	**02/18/2009**

Title
Sr. Staff Eng. Tech

Approved by *(Signature)*	Name *(Printed/Typed)*	Date
/s/ Don Peterson		MAY 27 2009
Title	Office	
FIELD MANAGER	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

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

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

DISTRICT II
811 South First, Artesia, NM 88210

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

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, New Mexico 87505

Form C-102
Revised March 17, 1999

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-37108	51120	Redlake; Glorieta-Yeso, ~~NE~~

Property Code	Property Name	Well Number
36757	CONDOR 8 FED. COM.	8H

OGRID No.	Operator Name	Elevation
6137	DEVON ENERGY PRODUCTION COMPANY, LP	3432'

Surface Location

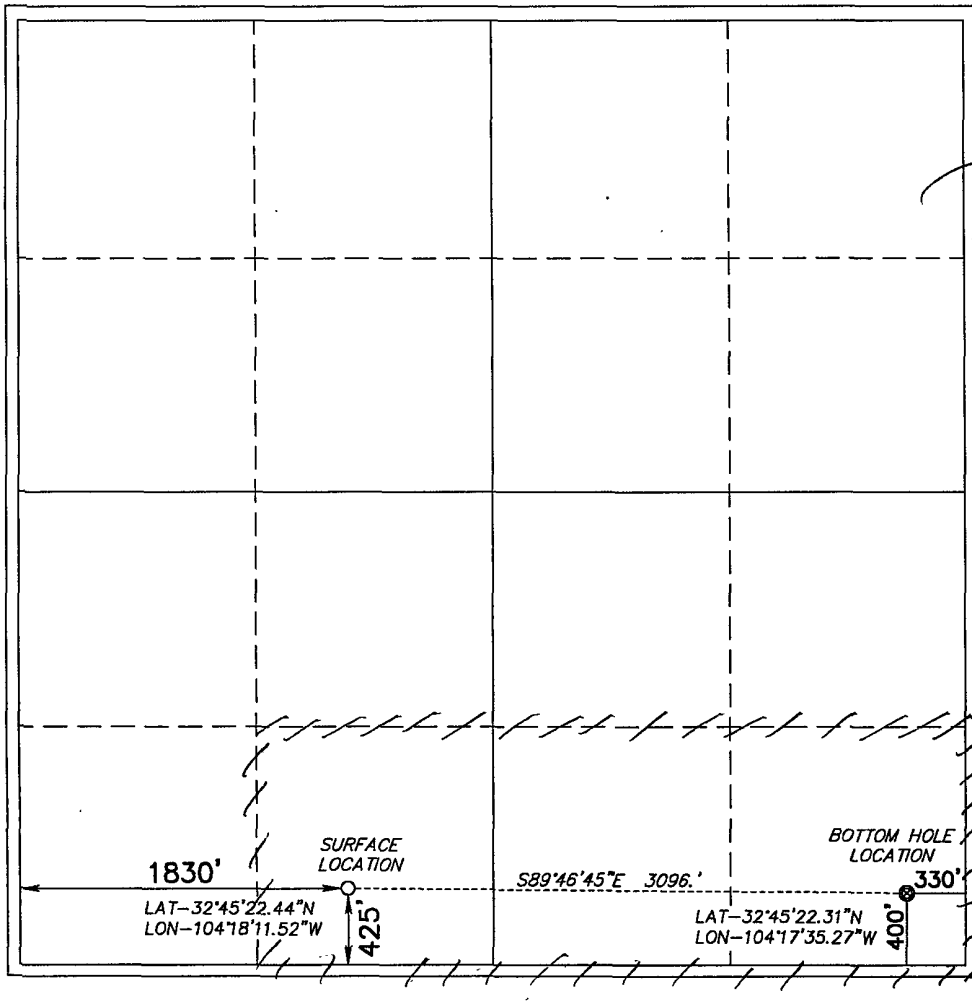
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
N	8	18 S	27 E		425	SOUTH	1830	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	8	18 S	27 E		400	SOUTH	330	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
120			

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



OPERATOR CERTIFICATION

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

Signature

Norvella Adams
Printed Name

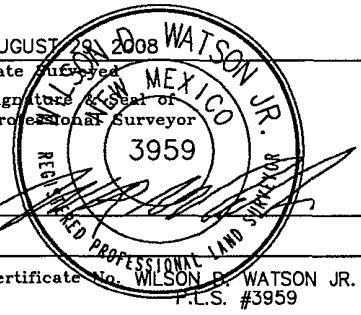
Sr. Staff Engineering Technician
Title

February 18, 2009
Date

SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison, and that the same is true and correct to the best of my belief.

AUGUST 29, 2008
Date Surveyed
Signature & Seal of Professional Surveyor



Certificate No. WILSON R. WATSON JR. P.L.S. #3959

WATSON PROFESSIONAL GROUP, INC.

DEVON ENERGY PRODUCTION COMPANY, LP

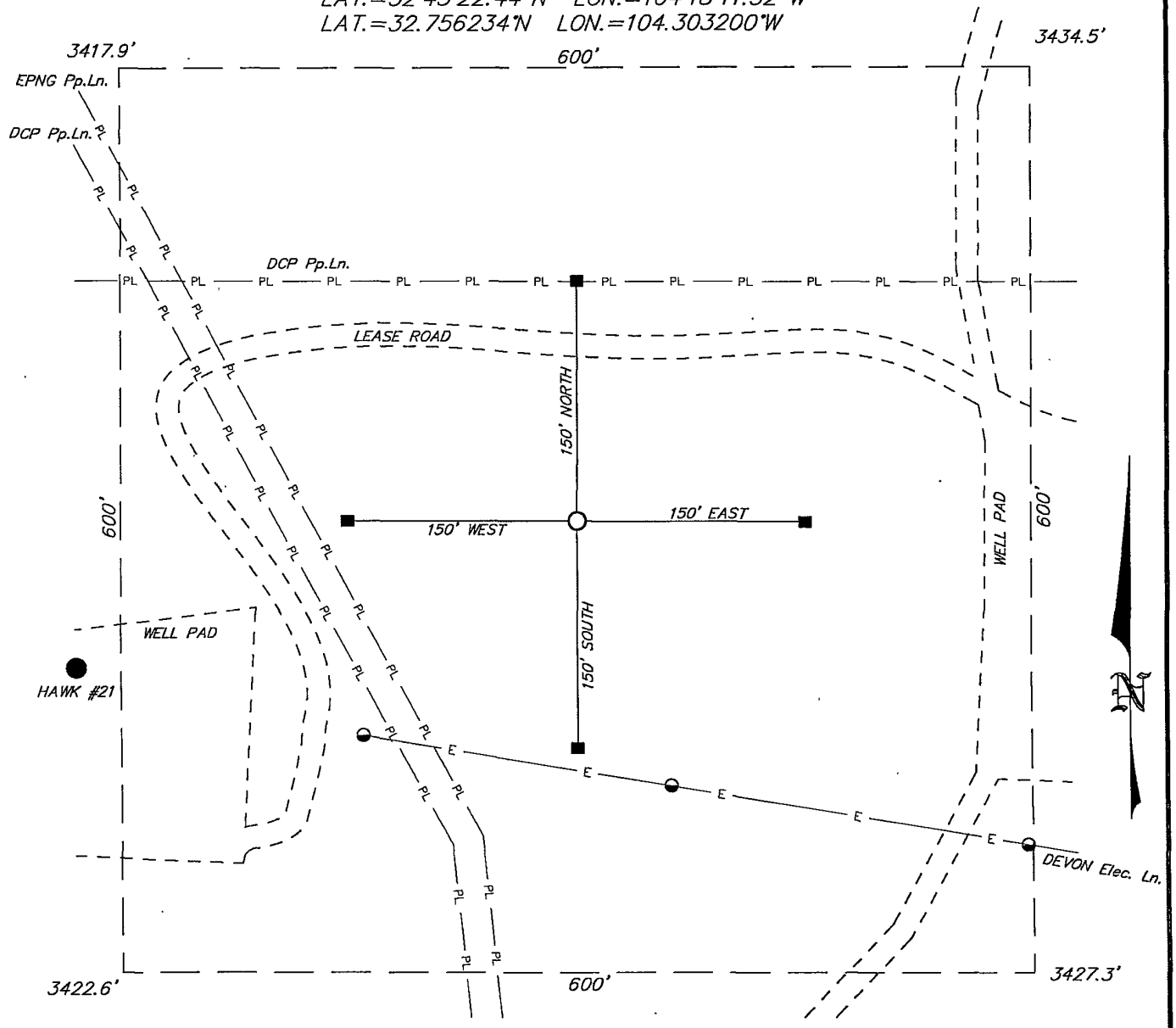
CONDOR 8 FED. COM. #8H

425' FSL & 1830' FWL, ELEV. 3432'

NAD 83 GEODETIC COORDS.

LAT.=32°45'22.44"N LON.=104°18'11.52"W

LAT.=32.756234°N LON.=104.303200°W



Watson Professional Group Inc.

4500 W. ILLINOIS
SUITE 201 (79703)
P.O. DRAWER 11186 (79702)
MIDLAND, TEXAS
PHN (432) 520-9200
FAX (432) 520-9212
gshoults@wam-elsp.com

CONSULTING ENGINEERS, LAND SURVEYORS & PLANNERS

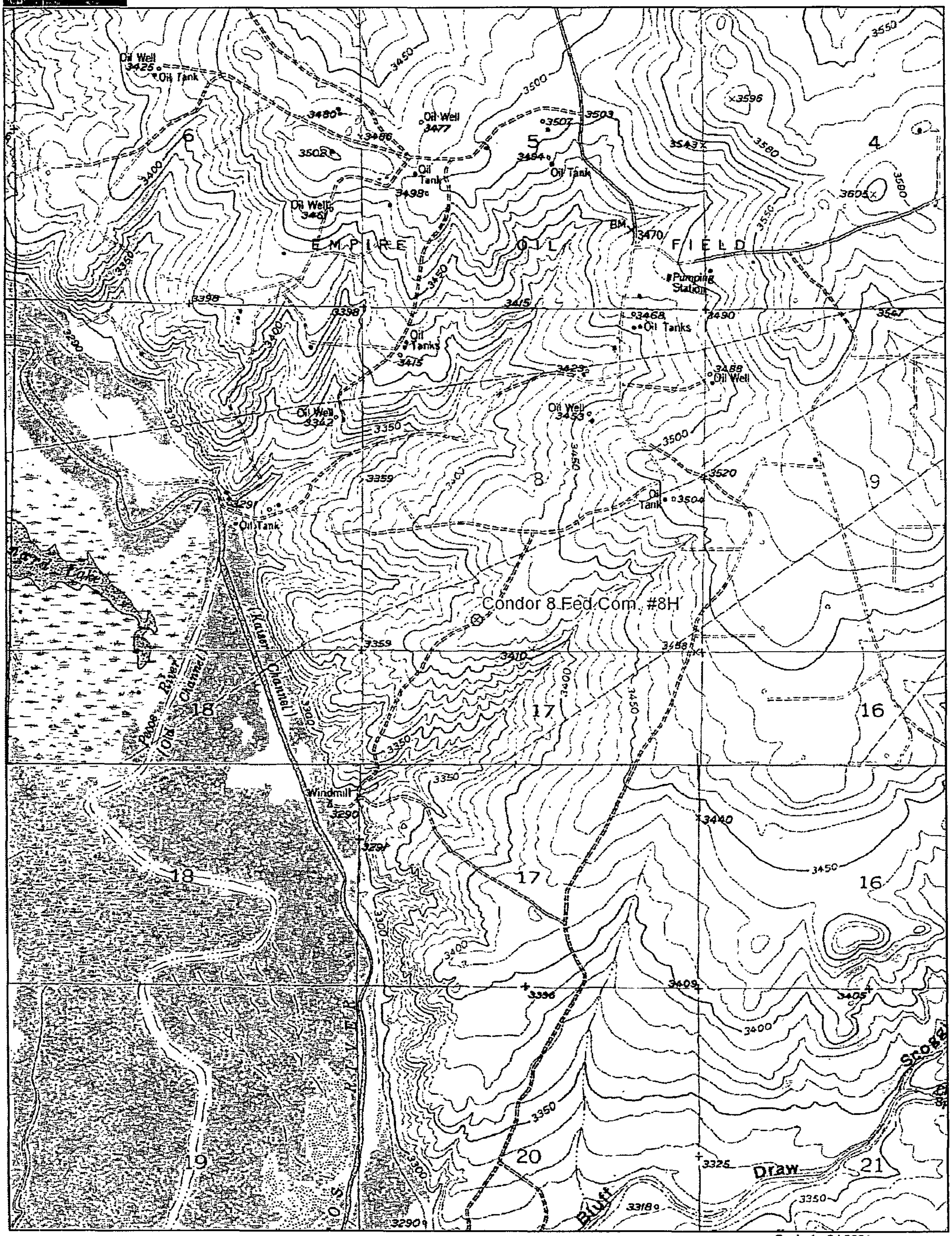
100 0 100 200 FEET

DEVON ENERGY PRODUCTION COMPANY, LP
CONDOR 8 FED. COM. #8H
SEC. 8, T. 18 S., R. 27 E., N.M.P.M.,
EDDY COUNTY, NEW MEXICO.

SURVEY DATE: 08-28-2008

JOB NO.: W-8299-08 FIELD BOOK 588/46 gs DRAFT GWS

XMap® 5.2 GIS Editor



Data use subject to license.

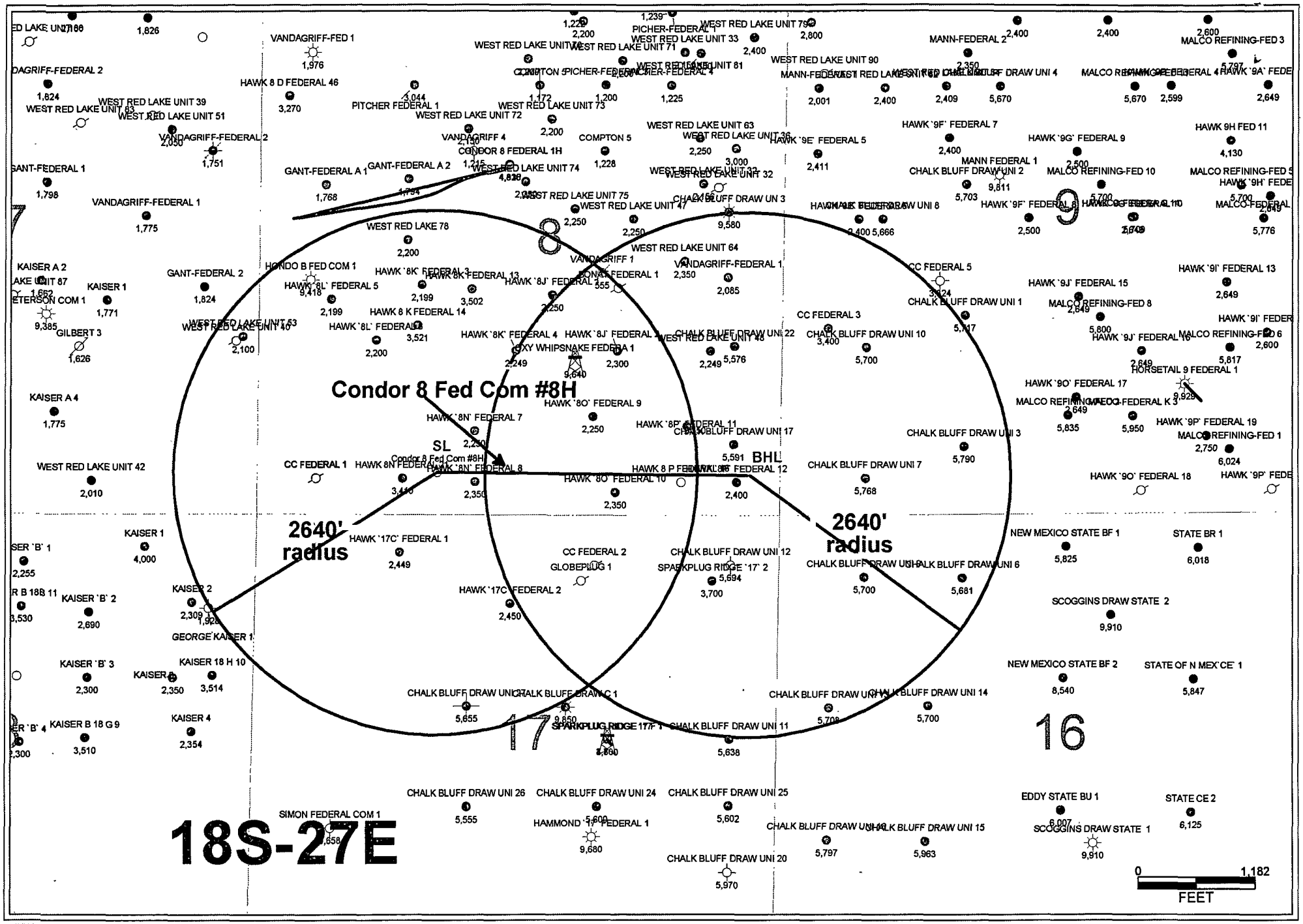
www.delorme.com

TN
MN (8.3°E)

Scale 1 : 24,000

0 600 1200 1800 2400 3000 ft
0 200 400 600 800 1000 m

1" = 2,000.0 ft Data Zoom 13-0



PETRA 10/1/2008 6 07.32 PM

DRILLING PROGRAM

Devon Energy Production Company, LP
Condor 8 Fed Com 8H
Surface Location: 425' FSL & 1830' FWL, Unit N, Sec 8 T18S R27E, Eddy, NM
Bottom Hole Location: 400' FSL & 330' FEL, Unit P, Sec 8 T18S R27E, Eddy, NM

1. Geologic Name of Surface Formation

a. Permian

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

a.	Queen	641'	
b.	Grayburg	1071'	Oil & Gas
c.	San Andres	1281'	Oil & Gas
d.	Glorieta	2716'	Oil & Gas
e.	Yeso	2836'	Oil & Gas
f.	Total Depth	5873'	

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 7" casing at 3425' and circulating cement back to surface. The Yeso intervals will be isolated by setting 4 ½" casing to total depth which will overlap 100' into the 7" casing but will not be cemented. An open hole isolation tool (Peak) will be used with the 4 ½" liner.

3. Casing Program:

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade
30"	0'-40'	20"	0'-40' see COA	N/A	N/A	Conductor
12 1/4"	40- 660'	9 5/8"	0'-~~660~~'	36#	ST&C	H-40
8 3/4"	660-2000'	7"	0-2000'	26#	LT&C	L-80
8 3/4"	2000-3425'	7"	2000-3425'	26#	BT&C	L-80
6 1/8"	~~3425'~~ 3325' – TD	4 1/2"	~~3425'~~ 3325' - TD	11.6#	BT&C	L-80

Design Parameter Factors:

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
9 5/8"	4.69	2.50	2.57
7"	4.19	1.50	2.20
4 1/2"	4.09	1.63	1.98

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

a. 9 5/8" Surface Lead with 225 sx Premium Plus C cement + 2% $CaCl_2$ + ¼ lbs/sx Celloflake; Yields 1.35 cf/sx.

see COA

b. 7" Intermediate — Lead with 200 sx (35:65) Poz Premium Plus C + 5% NaCl + ¼ lbs/sx Cello Flake + 6% Bentonite; Yields 1.94 cf/sx. Tail with 360 sx (60:40) Poz Premium C + 5% NaCl + 0.75% BA-10 + ¼ lbs/sx Cello Flake + 0.4% Sodium Metasilicate + 4% MPA-1; Yields 1.38 cf/sx. TOC = 0.

c. 4 1/2" Production — No cement. An open hole isolation tool (Peak) will be used.

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach the surface. All casing is new and API approved.

5. **Pressure Control Equipment:**
The blowout preventor equipment (BOP) shown in Exhibit #1 will consist of a (3 K system) double ram type (3000 psi WP) preventor and a bag-type (Hydril) preventor (3000 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 hydril will be installed on the 9 5/8" surface casing and used until reaching TD. **Before drilling out of the 9 5/8" casing shoe, the BOPs and associated equipment will be tested to ~~1200 psi~~. Prior to drilling out the 7" casing shoe, the BOPs and Hydril will be tested per the BLM Drilling Operations Onshore Order #2.** see COA

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 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. **Proposed Mud Circulation System**

Depth	Mud Wt.	Visc	Fluid Loss	Type System
0' – ~~660~~' see COA	8.4 – 9.4	32-34	NC	Fresh Water
~~660~~' – 3425'	10.0	28	NC	Brine
3425' - 5873'	8.4-10.0	28	NC	Brine

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 7" casing shoe until the 4 1/2" casing is set. Breathing equipment will be on location upon drilling the 7" 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~~ 4 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 800 psi and Estimated BHT 90°.

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.

devon

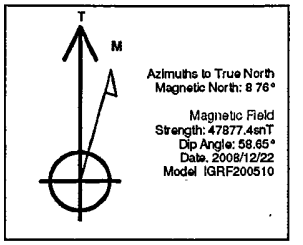
Devon Energy

Project: Eddy County (NM27E)
Site: Sec. 8-T18S-R27E
Well: Condor 8 Fed Com #8H
Wellbore: Wellbore #1
Design: Plan #1
Plan Version

REFERENCE INFORMATION

Co-ordinate (N/E) Reference:	Well Condor 8 Fed Com #8H, True North
Vertical (TVD) Reference:	WELL @ 0.00ft (Original Well Elev)
Section (VS) Reference:	Slot - (0.00N, 0.00E)
Measured Depth Reference:	WELL @ 0.00ft (Original Well Elev)
Calculation Method:	Minimum Curvature

QUANTUM DRILLING MOTORS & DIRECTIONAL SERVICES



PLAN DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	2427.00	0.00	0.00	2427.00	0.00	0.00	0.00	0.00	0.00	
3	3326.97	90.00	90.46	2999.92	-4.59	572.89	10.00	90.46	572.90	
4	5874.17	90.00	90.46	3000.00	-25.00	3120.00	0.00	0.00	3120.10	Condor 8 Fed Com 8H PBHL

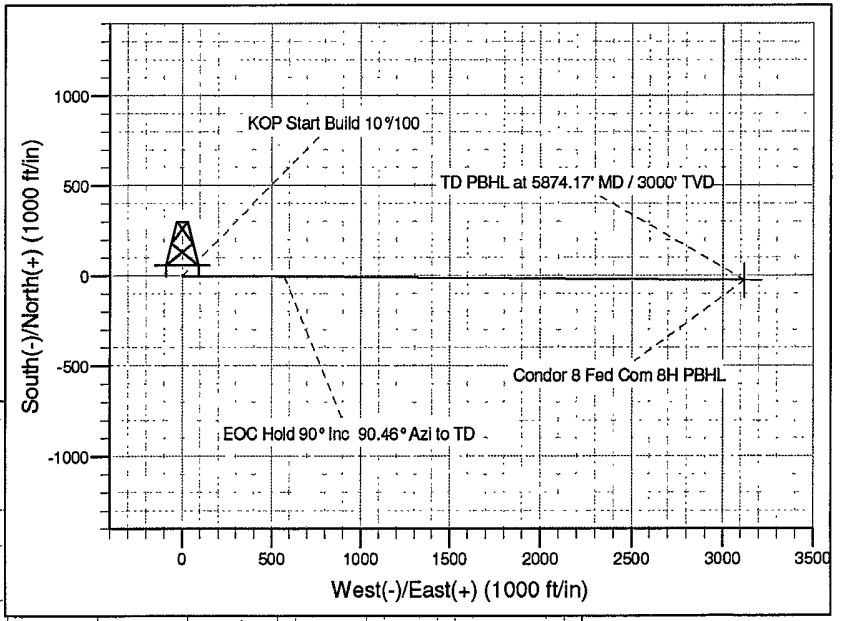
WELLBORE TARGET DETAILS

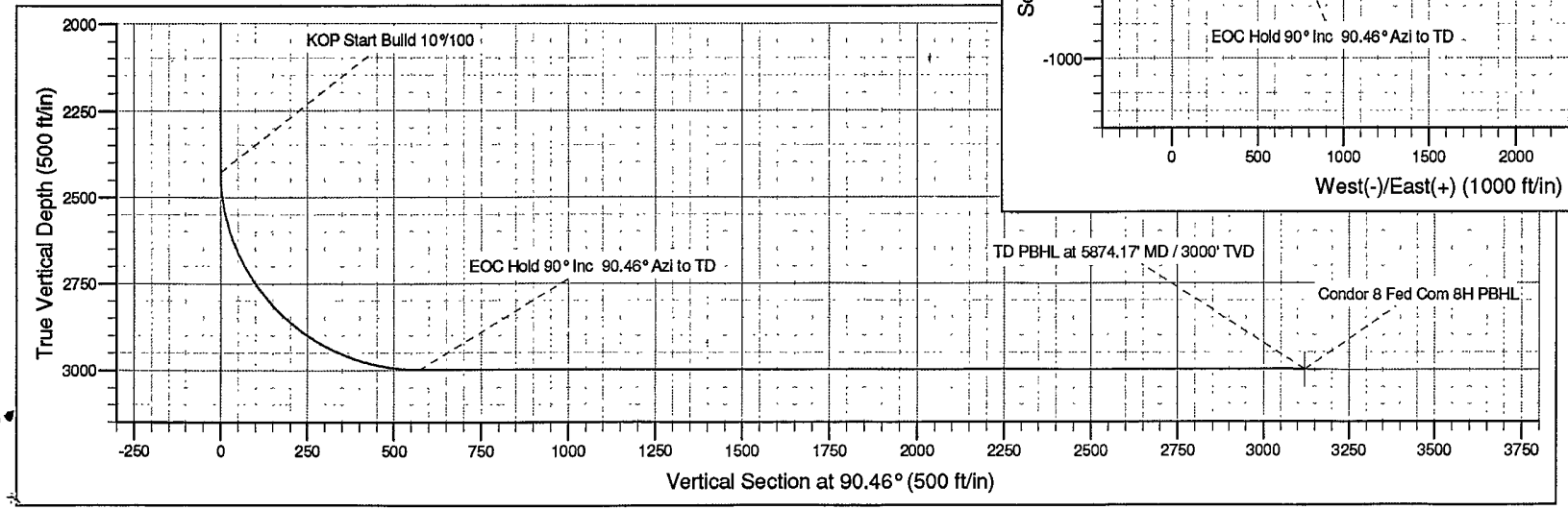
Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Condor 8 Fed Com 8H PBHL	3000.00	-25.00	3120.00	-69.745	3119.321	Point

WELL DETAILS: Condor 8 Fed Com #8H

Ground Level: 0.00

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	0.000	0.000	30° 59' 24.512 N	105° 55' 44.137 W	





Devon Energy

Eddy County (NM27E)
Sec. 8-T18S-R27E
Condor 8 Fed Com #8H
Wellbore #1

Plan: Plan #1

Standard Planning Report

23 December, 2008

devon

Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well Condor 8 Fed Com #8H
Company:	Devon Energy	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	Eddy County (NM27E)	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Sec. 8-T18S-R27E	North Reference:	True
Well:	Condor 8 Fed Com #8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Project Eddy County (NM27E)

Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site Sec. 8-T18S-R27E

Site Position:		Northing:	ft	Latitude:	
From:	None	Easting:	ft	Longitude:	
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.00 °

Well Condor 8 Fed Com #8H

Well Position	+N/-S	0.00 ft	Northing:	0.000 ft	Latitude:	30° 59' 24.512 N
	+E/-W	0.00 ft	Easting:	0.000 ft	Longitude:	105° 55' 44.137 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	0.00 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	2008/12/22	8.77	58.65	47,877

Design Plan #1

Audit Notes:

Version:		Phase:	PROTOTYPE	Tie On Depth:	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	90.46

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,427.00	0.00	0.00	2,427.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,326.97	90.00	90.46	2,999.92	-4.59	572.89	10.00	10.00	0.00	90.46	
5,874.17	90.00	90.46	3,000.00	-25.00	3,120.00	0.00	0.00	0.00	0.00	Condor 8 Fed Com

Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well Condor 8 Fed Com #8H
Company:	Devon Energy	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	Eddy County (NM27E)	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Sec. 8-T18S-R27E	North Reference:	True
Well:	Condor 8 Fed Com #8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,427.00	0.00	0.00	2,427.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP Start Build 10°/100									
2,450.00	2.30	90.46	2,449.99	0.00	0.46	0.46	10.00	10.00	0.00
2,500.00	7.30	90.46	2,499.80	-0.04	4.64	4.64	10.00	10.00	0.00
2,550.00	12.30	90.46	2,549.06	-0.11	13.15	13.15	10.00	10.00	0.00
2,600.00	17.30	90.46	2,597.38	-0.21	25.92	25.92	10.00	10.00	0.00
2,650.00	22.30	90.46	2,644.41	-0.34	42.85	42.85	10.00	10.00	0.00
2,700.00	27.30	90.46	2,689.79	-0.51	63.82	63.82	10.00	10.00	0.00
2,750.00	32.30	90.46	2,733.16	-0.71	88.66	88.66	10.00	10.00	0.00
2,800.00	37.30	90.46	2,774.21	-0.94	117.18	117.19	10.00	10.00	0.00
2,850.00	42.30	90.46	2,812.61	-1.20	149.18	149.18	10.00	10.00	0.00
2,900.00	47.30	90.46	2,848.07	-1.48	184.40	184.40	10.00	10.00	0.00
2,950.00	52.30	90.46	2,880.34	-1.78	222.57	222.58	10.00	10.00	0.00
3,000.00	57.30	90.46	2,909.15	-2.11	263.42	263.43	10.00	10.00	0.00
3,050.00	62.30	90.46	2,934.29	-2.46	306.62	306.63	10.00	10.00	0.00
3,100.00	67.30	90.46	2,955.57	-2.82	351.84	351.85	10.00	10.00	0.00
3,150.00	72.30	90.46	2,972.83	-3.20	398.75	398.76	10.00	10.00	0.00
3,200.00	77.30	90.46	2,985.93	-3.58	446.99	447.00	10.00	10.00	0.00
3,250.00	82.30	90.46	2,994.79	-3.98	496.18	496.19	10.00	10.00	0.00
3,300.00	87.30	90.46	2,999.31	-4.37	545.95	545.97	10.00	10.00	0.00
3,326.97	90.00	90.46	2,999.92	-4.59	572.89	572.90	10.00	10.00	0.00
EOC Hold 90° Inc 90.46° Azi to TD									
3,400.00	90.00	90.46	2,999.92	-5.18	645.91	645.93	0.00	0.00	0.00
3,500.00	90.00	90.46	2,999.93	-5.98	745.91	745.93	0.00	0.00	0.00
3,600.00	90.00	90.46	2,999.93	-6.78	845.91	845.93	0.00	0.00	0.00
3,700.00	90.00	90.46	2,999.93	-7.58	945.90	945.93	0.00	0.00	0.00
3,800.00	90.00	90.46	2,999.94	-8.38	1,045.90	1,045.93	0.00	0.00	0.00
3,900.00	90.00	90.46	2,999.94	-9.18	1,145.90	1,145.93	0.00	0.00	0.00

Database:	EDM 2003.16 Single User Db	Local Co-ordinate Reference:	Well Condor 8 Fed Com #8H
Company:	Devon Energy	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Project:	Eddy County (NM27E)	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Sec. 8-T18S-R27E	North Reference:	True
Well:	Condor 8 Fed Com #8H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,000.00	90.00	90.46	2,999.94	-9.98	1,245.89	1,245.93	0.00	0.00	0.00
4,100.00	90.00	90.46	2,999.95	-10.78	1,345.89	1,345.93	0.00	0.00	0.00
4,200.00	90.00	90.46	2,999.95	-11.59	1,445.89	1,445.93	0.00	0.00	0.00
4,300.00	90.00	90.46	2,999.95	-12.39	1,545.88	1,545.93	0.00	0.00	0.00
4,400.00	90.00	90.46	2,999.95	-13.19	1,645.88	1,645.93	0.00	0.00	0.00
4,500.00	90.00	90.46	2,999.96	-13.99	1,745.88	1,745.93	0.00	0.00	0.00
4,600.00	90.00	90.46	2,999.96	-14.79	1,845.87	1,845.93	0.00	0.00	0.00
4,700.00	90.00	90.46	2,999.96	-15.59	1,945.87	1,945.93	0.00	0.00	0.00
4,800.00	90.00	90.46	2,999.97	-16.39	2,045.87	2,045.93	0.00	0.00	0.00
4,900.00	90.00	90.46	2,999.97	-17.19	2,145.86	2,145.93	0.00	0.00	0.00
5,000.00	90.00	90.46	2,999.97	-18.00	2,245.86	2,245.93	0.00	0.00	0.00
5,100.00	90.00	90.46	2,999.98	-18.80	2,345.86	2,345.93	0.00	0.00	0.00
5,200.00	90.00	90.46	2,999.98	-19.60	2,445.86	2,445.93	0.00	0.00	0.00
5,300.00	90.00	90.46	2,999.98	-20.40	2,545.85	2,545.93	0.00	0.00	0.00
5,400.00	90.00	90.46	2,999.99	-21.20	2,645.85	2,645.93	0.00	0.00	0.00
5,500.00	90.00	90.46	2,999.99	-22.00	2,745.85	2,745.93	0.00	0.00	0.00
5,600.00	90.00	90.46	2,999.99	-22.80	2,845.84	2,845.93	0.00	0.00	0.00
5,700.00	90.00	90.46	2,999.99	-23.60	2,945.84	2,945.93	0.00	0.00	0.00
5,800.00	90.00	90.46	3,000.00	-24.41	3,045.84	3,045.93	0.00	0.00	0.00
5,874.17	90.00	90.46	3,000.00	-25.00	3,120.00	3,120.10	0.00	0.00	0.00

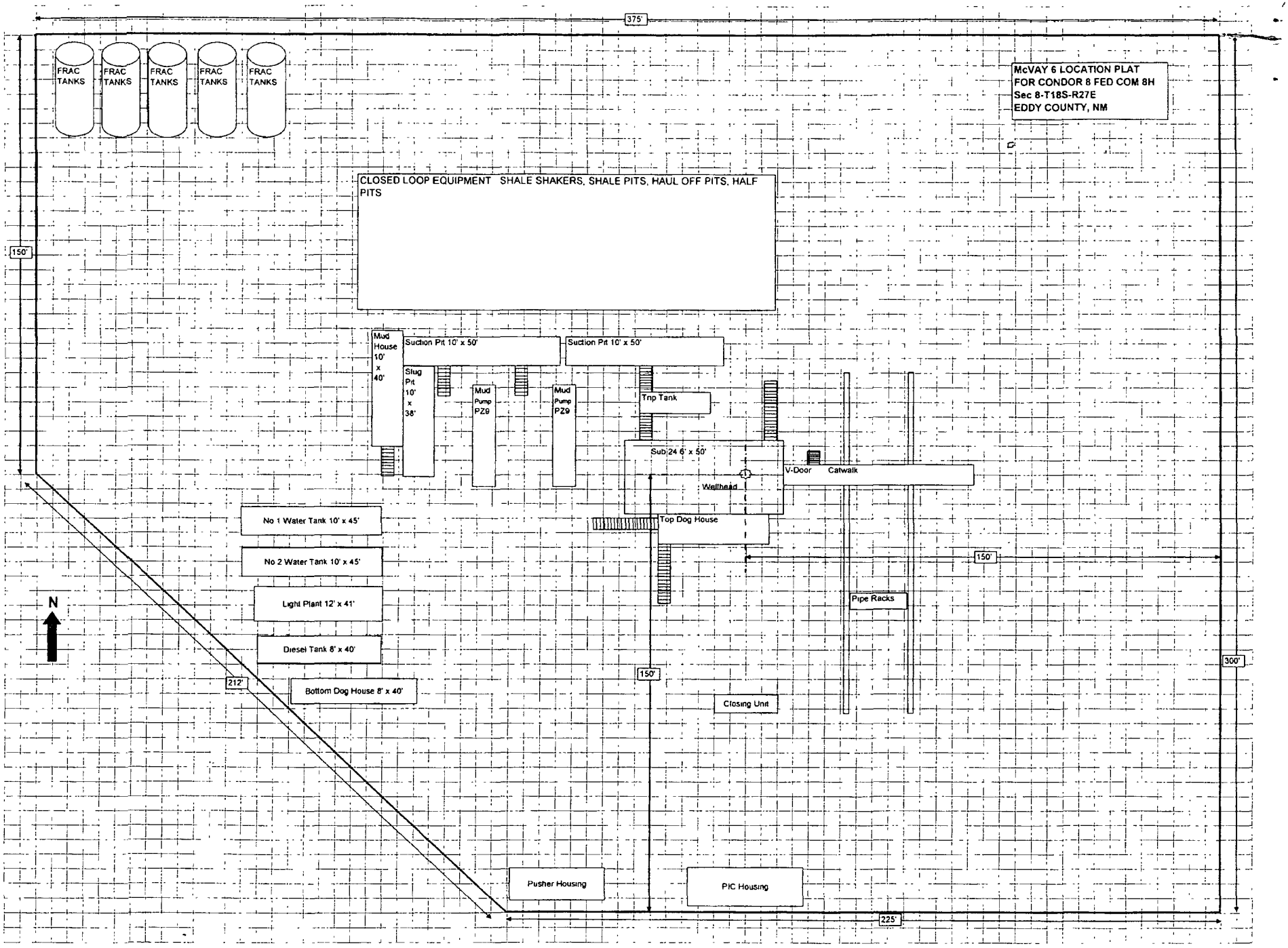
TD PBHL at 5874.17' MD / 3000' TVD - Condor 8 Fed Com 8H PBHL

Targets

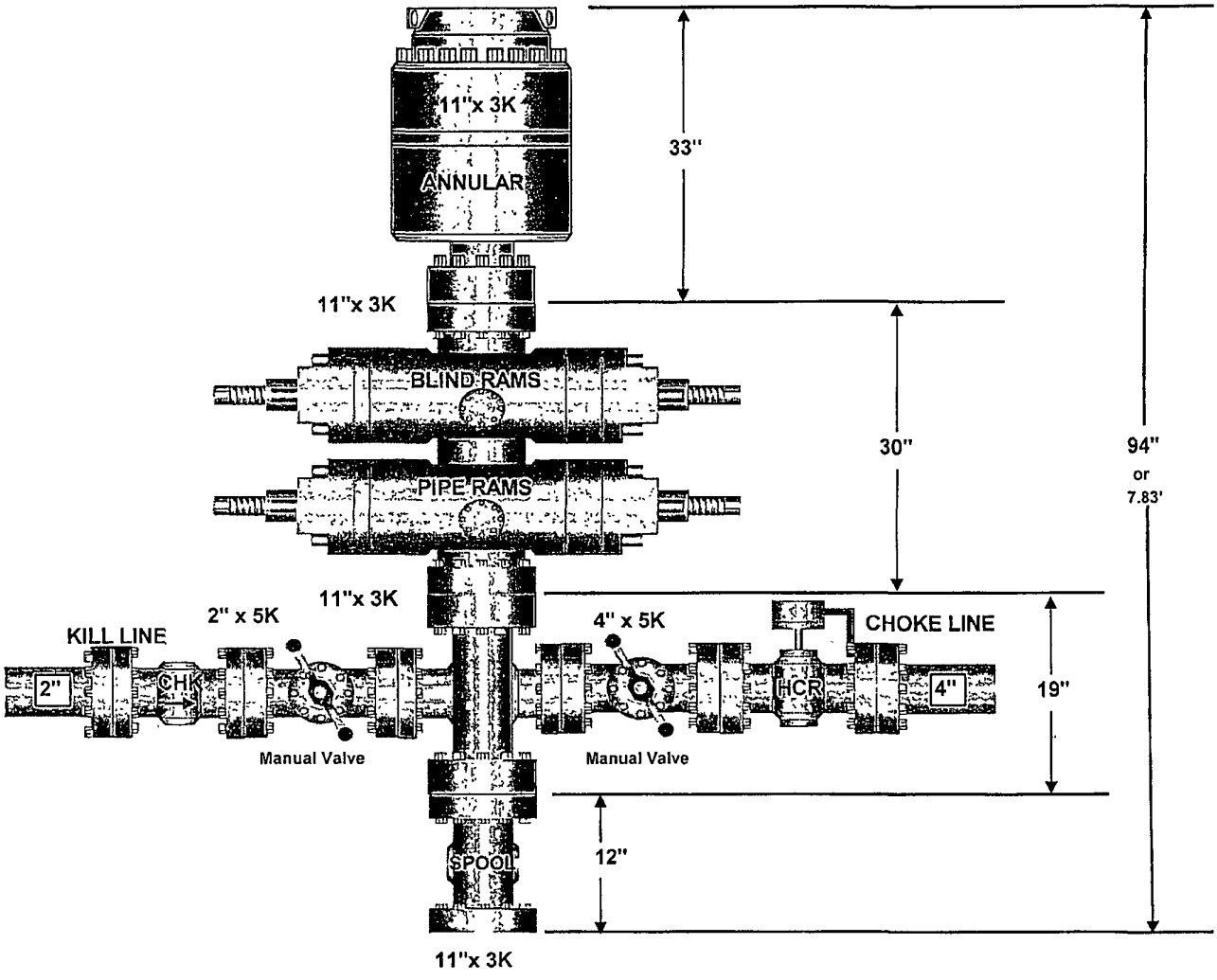
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
Condor 8 Fed Com 8I - plan hits target - Point	0.00	0.00	3,000.00	-25.00	3,120.00	-69.745	3,119.321	30° 59' 24.263 N	105° 55' 8.302 W

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
2,427.00	2,427.00	0.00	0.00	KOP Start Build 10°/100
3,326.97	2,999.92	-4.59	572.89	EOC Hold 90° Inc 90.46° Azi to TD
5,874.17	3,000.00	-25.00	3,120.00	TD PBHL at 5874.17' MD / 3000' TVD

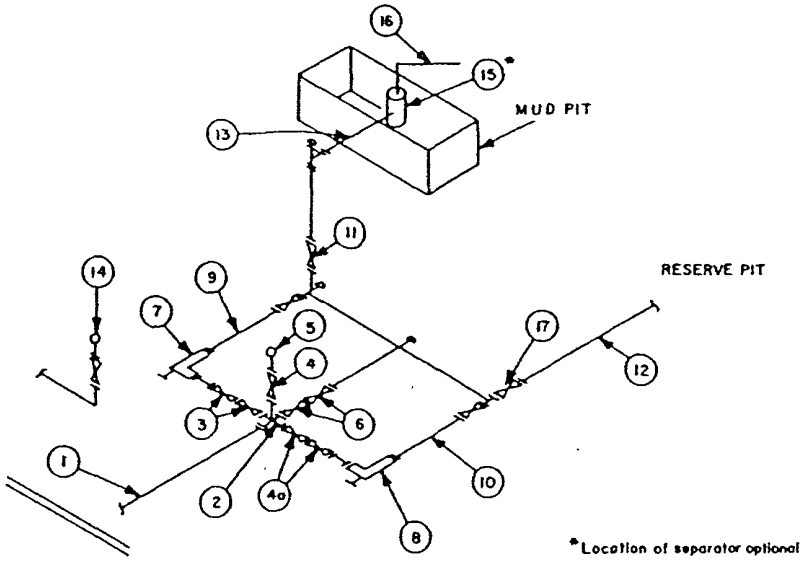

McVAY 6 LOCATION PLAT
FOR CONDOR 8 FED COM 8H
Sec 8-T18S-R27E
EDDY COUNTY, NM
375'
150'
FRAC TANKS
FRAC TANKS
FRAC TANKS
FRAC TANKS
FRAC TANKS
CLOSED LOOP EQUIPMENT SHALE SHAKERS, SHALE PITS, HAUL OFF PITS, HALF PITS
Mud House 10' x 40'
Suction Pit 10' x 50'
Suction Pit 10' x 50'
Slug Pit 10' x 38'
Mud Pump PZ9
Mud Pump PZ9
Tnp Tank
Sub 24 6' x 50'
V-Door
Catwalk
Wellhead
Top Dog House
No 1 Water Tank 10' x 45'
No 2 Water Tank 10' x 45'
Light Plant 12' x 41'
Diesel Tank 8' x 40'
Bottom Dog House 8' x 40'
212'
150'
150'
Pipe Racks
300'
Closing Unit
Pusher Housing
PIC Housing
225'
N

BOP STACK SPACING
SIZE: 11" X 3,000 PSI



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

3 MWP - 5 MWP - 10 MWP



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

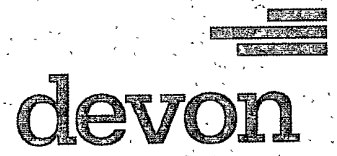
(1) Only one required in Class 3M.

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

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

EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTIONS

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



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

Hydrogen Sulfide (H_2S) Contingency Plan

For

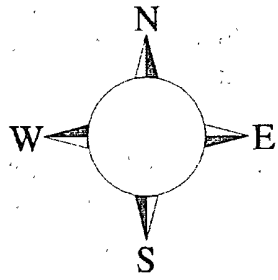
Condor "8" Fed Com Well # 8H

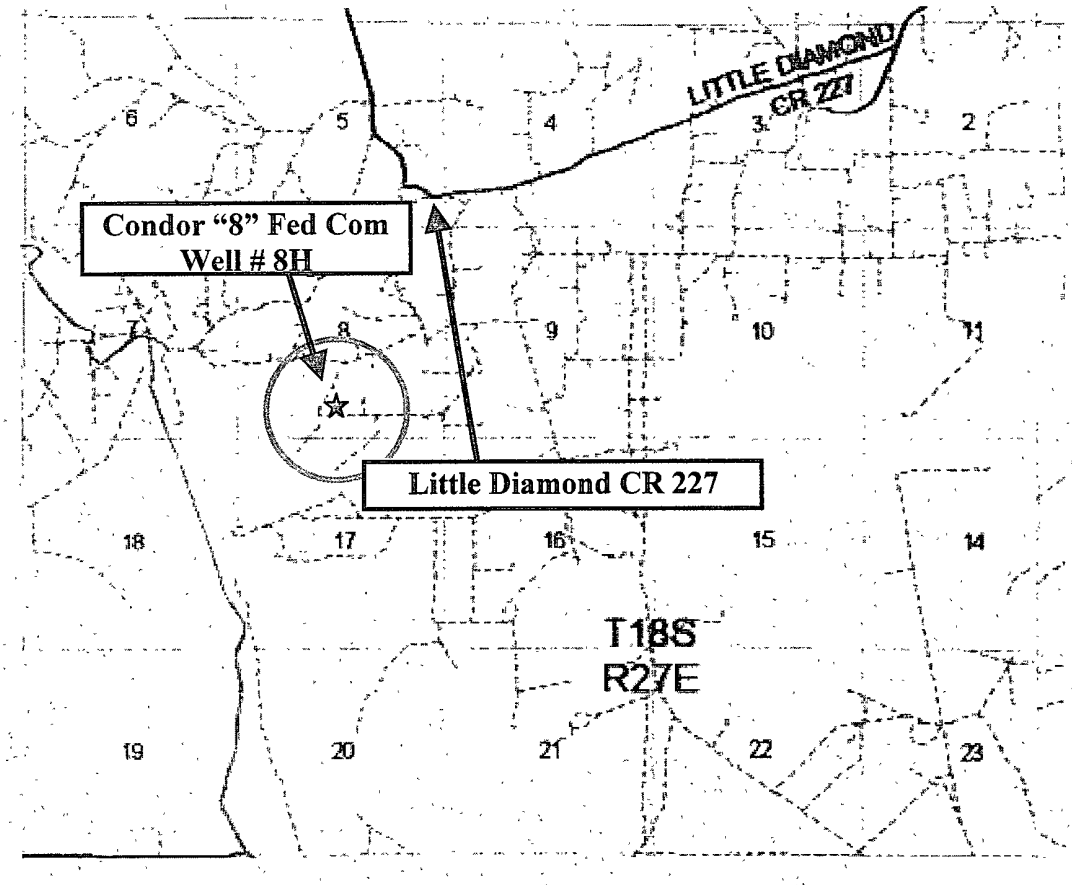
425' FSL & 1830' FWL,
Sec-8, T-18S R-27E

Eddy County NM

Condor "8" Fed Com Well # 8H

This is an open drilling site. H_2S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H_2S, including warning signs, wind indicators and H_2S monitor.





Assumed 100 ppm ROE = 3000' (Radius of Exposure)
100 ppm H2S concentration shall trigger activation of this plan.

Escape

Crews shall escape upwind of discharging gas in the event of an emergency release. Escape can be facilitated North then East on lease road to CR 227. Crews should then move to block access to 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 within or near the ROE. **Immediate response** should include the evacuation of any person(s) potentially affected by toxic or flammable gasses. Evacuation of the downwind areas should occur first. Perimeter monitoring should then be established to ensure safe areas.

Emergency Procedures

In the case of a release of gas containing H_2S, 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_2S, measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H_2S 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_2). 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_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentr-ation
Hydrogen Sulfide	H_2S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	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

Artesia (505)	Cellular	Office	Home
Foreman – Robert Bell	748-7448	748-0178	746-2991
Asst. Foreman –Tommy Polly	748-5290	748-0165	748-2846
Don Mayberry	748-5235	748-0164	746-4945
Montral Walker	390-5182	748-0193	936-414-6246
Engineer – Marcos Ortiz	(405) 317-0666	(405) 552-8152	(405) 381-4350

Agency Call List

Eddy County (505)

Artesia

State Police	746-2703
City Police	746-2703
Sheriff's Office	746-9888
Ambulance	911
Fire Department	746-2701
LEPC (Local Emergency Planning Committee)	746-2122
NMOCD	748-1283

Carlsbad

State Police	885-3137
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

Give GPS position:

Flight For Life - Lubbock, TX	(806) 743-9911
Aerocare - Lubbock, TX	(806) 747-8923
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;

Compliance Services
PO Box 2734 Hobbs NM 88240 (505) 631-9561

SURFACE USE PLAN
Devon Energy Production Company, LP
Condor 8 Fed Com 8H
Surface Location: 425' FSL & 1830' FWL, Unit N, Sec 8 T18S R27E, Eddy, NM
Bottom Hole Location: 400' FSL & 330' FEL, Unit P, Sec 8 T18S R27E, Eddy, 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 Watson Professional Group, Inc..
   b. All roads into the location are depicted on Exhibit 3.
   c. Directions to Location: From the junction of Little Diamond and Chalk Bluff go south on Chalk Bluff for 0.8 miles to lease road then go southwesterly on lease road 0.7 miles to proposed location.

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, the Condor 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 Condor 8 Federal 8H to the Condor tank battery. All flow lines will adhere to API standards.
   d. If the well is productive, rehabilitation plans are as follows:
      i. A closed loop system will be utilized.
      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 a closed loop system.
   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 sent to a closed loop system. Water produced during completion will be put in a closed loop system. 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 a closed loop system and living facilities.
   c. A closed loop system will be used.

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 original top soil will again be returned to the pad and contoured, as close as possible, to the original topography. We will use a closed loop system.

b. The location and road will be rehabilitated as recommended by the BLM.
c. If the well is deemed commercially productive, 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 (Use the appropriate A-C option; delete other two)

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:

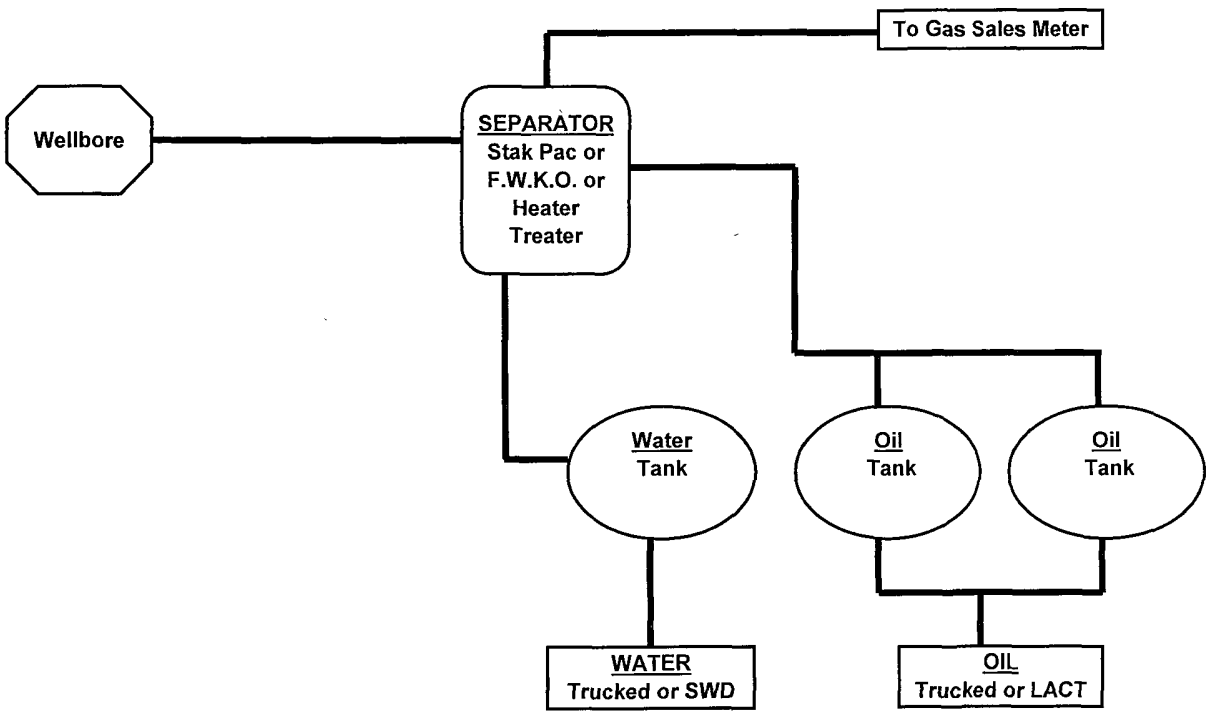
a. The area surrounding the well site is grassland. The topsoil is very sandy in nature. The vegetation is moderately sparse with native prairie grass, sagebrush, yucca and miscellaneous weeds. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.
b. There 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

DEVON ENERGY PRODUCTION COMPANY LP

General Production Facilities Diagram



Operators Representative:

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

Marcos Ortiz
Operations Engineer

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

(405) 552-8152 (office)
(405) 317-0666 (Cellular)

Don Mayberry
Superintendent

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

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

Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road 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 _18th___ day of __February__, 2009.
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.:	NM 29273
WELL NAME & NO.:	Condor 8 Fed Com # 8H
SURFACE HOLE FOOTAGE:	425' FSL & 1830' FWL
BOTTOM HOLE FOOTAGE	400' FSL & 330' FEL
LOCATION:	Section 8, T. 18 S., R 27 E., NMPM
COUNTY:	Eddy 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.

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)

Cave/Karst

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Construction:
In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:
No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:
The pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the pad. Due to this projects proximity to major drainages leading to the Pecos River, all sides of the pad will be bermed.

Tank Battery Liners and Berms:
Tank battery locations will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:
A method of detecting leaks is required. The method could incorporate gauges to measure loss, situating values and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:
Automatic shut off, check values, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:
Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Lost Circulation:

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:
Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:
Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

Condor 8 Fed. Com. 8H: Closed Loop System- V- Door West

Communitization Agreement

A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales. Operator to supply NMOCD order or description of pool which details the vertical and horizontal extent of pool to verify that requested communitization is within an approved and established pool.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5972 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

The operator shall stockpile the topsoil of the well pad. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

C. Closed Loop System

Condor 8 Fed. Com. 8H: Closed Loop System- V- Door East

Tanks are required for drilling operations: No Pits.

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 (575) 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.

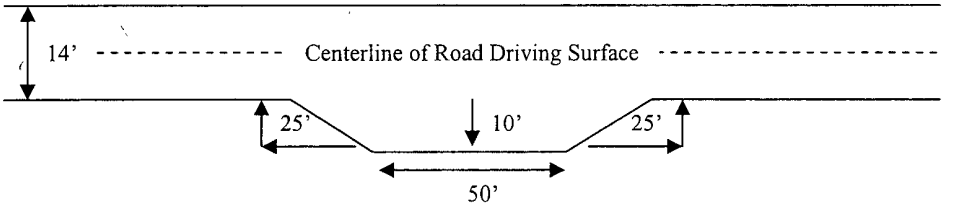
Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

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:

Standard Turnout – Plan View

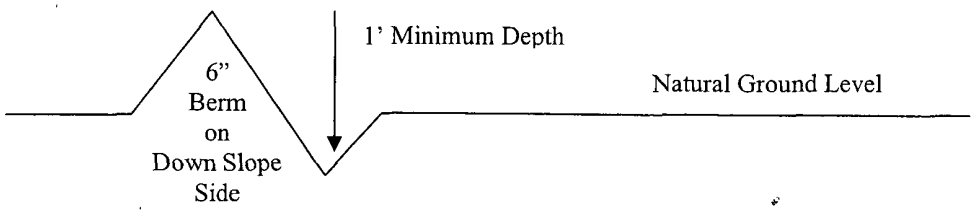


Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping 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.

Cross Section of a Typical 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 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ 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.

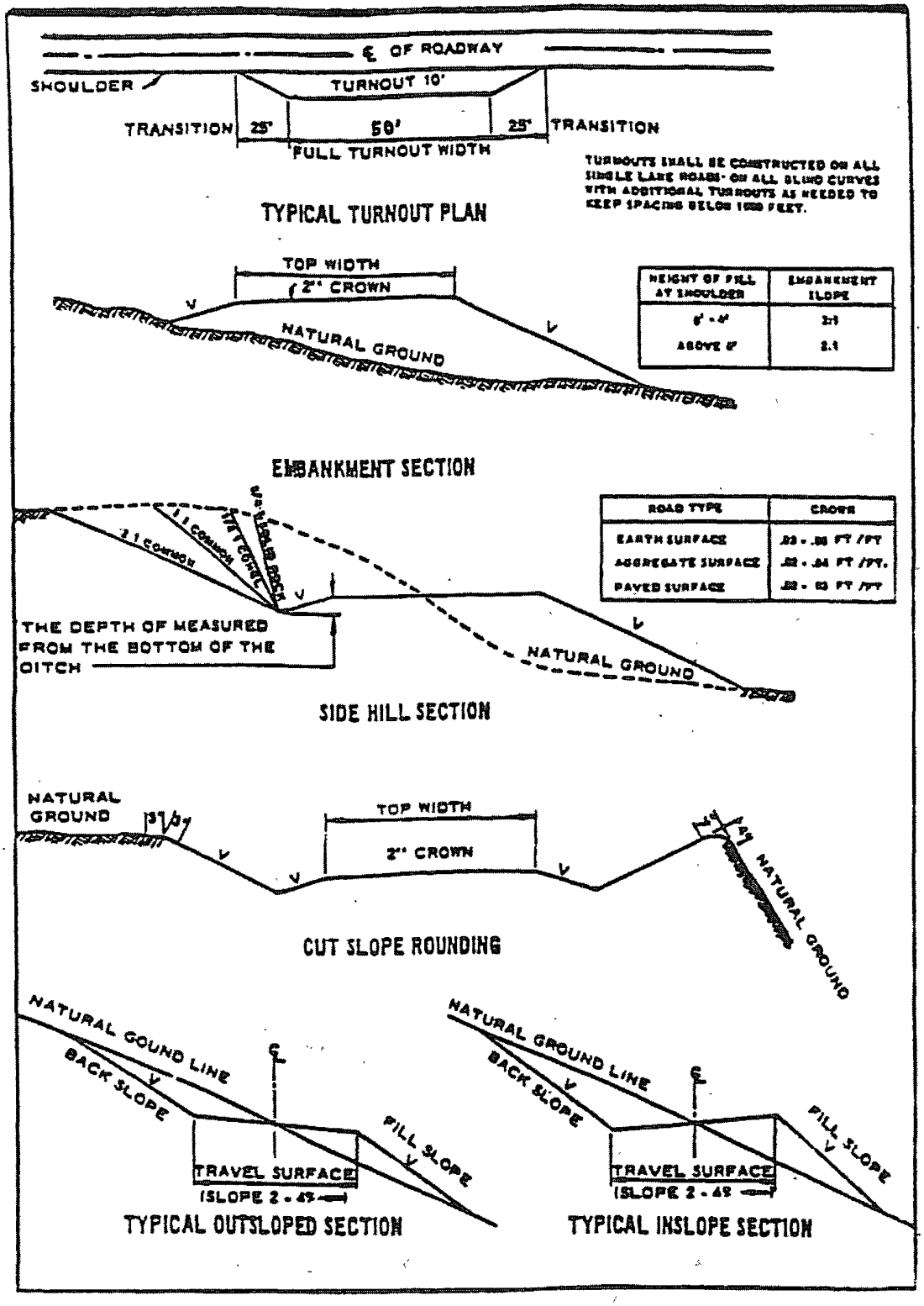
A gate shall be constructed and fastened securely to H-braces.

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

☒ **Eddy County**
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

1. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the **Grayburg** formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. 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 is 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.

HIGH CAVE/KARST – CONTINGENCY CASING WILL BE REQUIRED IF LOST CIRCULATION OCCURS WHILE DRILLING THE SURFACE HOLE. THE SURFACE HOLE WILL HAVE TO BE REAMED AND A LARGER CASING INSTALLED. IF LOST CIRCULATION OCCURS WHILE DRILLING THE 8-3/4" HOLE, THE CEMENT PROGRAM FOR THE 7" CASING WILL NEED TO BE MODIFIED AND THE BLM IS TO BE CONTACTED PRIOR TO RUNNING THE CASING. A MINIMUM OF TWO CASING STRINGS CEMENTED TO SURFACE IS REQUIRED IN HIGH CAVE/KARST AREAS. THE CEMENT MUST BE IN A SOLID SHEATH THEREFORE, ONE INCH OPERATIONS WILL NOT BE PERMITTED. A DV TOOL WILL BE REQUIRED.

Possible lost circulation in the Grayburg and San Andres formations.

1. The **9-5/8** inch surface casing shall be set at **approximately 1030 feet in the Grayburg formation** and cemented to the surface. **Additional cement will be required due to additional casing length.**

    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 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 **7** 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 due to cave/karst concerns.**

3. The minimum required fill of cement behind the **4-1/2** inch production casing/liner is:

    ☒ Not required as operator is using the Peak Systems Iso-Pack liner completion assembly.

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. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M) psi**.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **7 inch** intermediate casing shoe shall be **3000 (3M) psi**.

4. 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. **Effective November 1, 2008, no variances will be granted on reduced pressure tests on the surface casing and BOP/BOPE. Onshore Order 2 requirements will be in effect.**

D. DRILL STEM TEST

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

RGH 051709

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. PIPELINES

C. ELECTRIC LINES

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.

The 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.

BLM SERIAL NO.
COMPANY REFERENCE
WELL NO. & NAME

Seed Mixture 4, for Gypsum 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:

Species	lb/acre
Alkali Sacaton (Sporobolus airoides)	1.0
DWS Four-wing saltbush (Atriplex canescens)	5.0

DWS: DeWinged Seed

*Pounds of pure live seed:

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

(Insert Seed Mixture Here)

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.