

30-015-38442

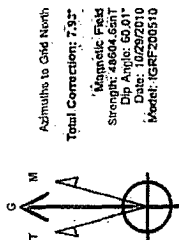


WELL DETAILS: Seldom Seen 15 Fed #3



+N/-S +E/-W Northing Easting Latitude Longitude
 0.0 0.0 411753.02 559908.69 32° 7' 55.105 N 104° 16' 24.016 W
 SHL: 1850' FNL / 370' FEL
 BHL: 1780' FNL / 660' FML

Project: Eddy County (NM83E)
 Site: Sec. 15 - T25S - R26E
 Well: Seldom Seen 15 Fed #3
 Wellbore: Seldom Seen #1
 Design: Plan #1



DESIGN TARGET DETAILS

Name TVD +N/-S +E/-W Northing Easting Latitude Longitude
 Seldom Seen #3 PBHL 72.5 -4281.1411825 5555627.60 32° 7' 55.843 N 104° 17' 13.805 W
 - plan misses target center by 4.8usft at 13841.8usft MD (9612.8 TVD, 72.5 N, -4281.1 E)

PLAN DETAILS

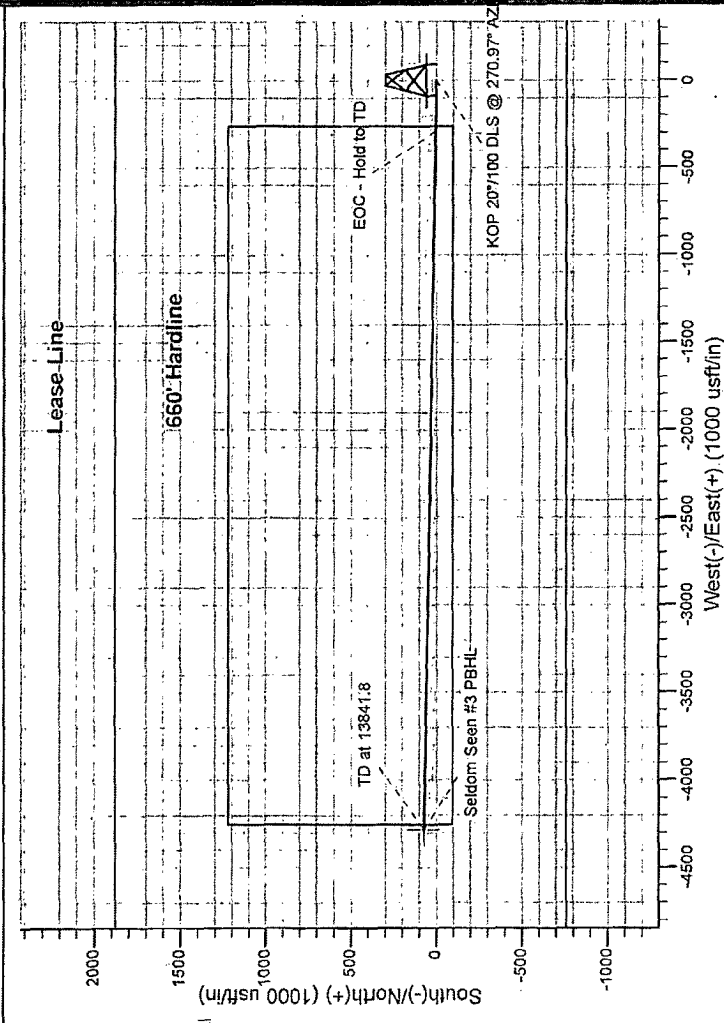
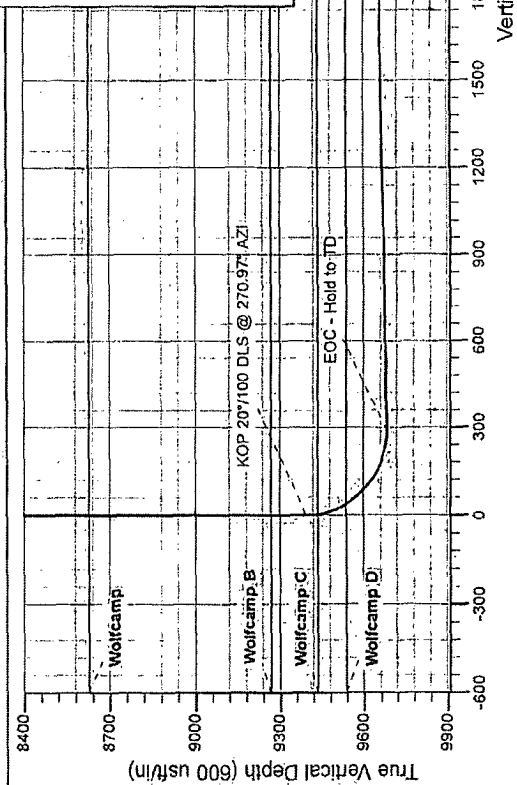
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSeal	Target
1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	396.0	0.0	0.0	936.0	0.0	0.0	0.0	0.0	0.0	0.0
3	3851.0	0.0	0.0	270.97	9682.4	4.9	-291.4	20.00270.97	291.5	0.0
4	14841.8	91.00270.97	9612.8	72.5	-4281.1	0.00	0.004281.7			Seldom Seen #3 PBHL

ANNOTATIONS

TVD	MD	Inc	Azi	+N/-S	+E/-W	VSeal	Departure	Annotation
9396.0	9396.0	0.0	0.0	0.0	0.0	0.0	0.0	KOP 20°/100 DLS @ 270.97° AZI
9682.4	9851.0	91.00	270.97	4.9	-291.4	291.5	291.5	EOC - Hold to TD
9612.8	3840.0	91.00	270.97	72.5	-4279.3	4279.9	4279.9	TD at 13841.8

FORMATION TOP DETAILS

TVD	Path	MD	Inc	Formation	Dip	Angle	DipDir
8627.0	8627.0	0.0	0.0	Wolfcamp	0.00		
9269.0	9269.0	0.0	0.0	Wolfcamp B	0.00		
9436.0	9436.0	0.0	0.0	Wolfcamp C	0.00		
9538.0	9538.0	0.0	0.0	Wolfcamp D	0.00		





Cimarex Energy Co.

Eddy County (NM83E)

Sec 15 - T25S - R26E

Seldom Seen 15 Fed #3

Wellbore #1

Plan: Plan #1

Standard Planning Report

04 February, 2011

Great White Directional Services

Planning Report

Database:	EDM 5000:1 Single User Db	Local Co-ordinate Reference:	Well Seldom Seen-15.Fed #3
Company:	Cimarex Energy Co.	TVD Reference:	WEU @ 0.0usft (Original Well Elev)
Project:	Eddy County (NM83E)	MD Reference:	WEU @ 0.0usft (Original Well Elev)
Site:	Sec 15 - T25S - R28E	North Reference:	Grid
Well:	Seldom Seen-15.Fed #3	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Project:	Eddy County (NM83E)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site: Sec 15, T25S, R26E					
Site Position:		Northing:	408,993.20 usft	Latitude:	32° 7' 27.795 N
From:	Map	Easting:	559,652.50 usft	Longitude:	104° 16' 27.013 W
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.03

Well	Seldom Seen, 15 Feb #3				
Well Position	+N/-S	2,759.8 usft	Northing:	411,753.02 usft	Latitude: 32° 7' 55.105 N
	+E/-W	256.2 usft	Easting:	559,908.69 usft	Longitude: 104° 16' 24.016 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level: 0.0 usft

Wellbore						Wellbore #1
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)	
	IGRF200510	10/29/10	7.96	60.01	48,605	

Design: Plan #1				
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	270.97

Plan Sections:										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (%/100usft)	Build Rate (%/100usft)	Turn Rate (%/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
9,396.0	0.00	0.00	9,396.0	0.0	0.0	0.00	0.00	0.00	0.00	
9,851.0	91.00	270.97	9,682.4	4.9	-291.4	20.00	20.00	0.00	270.97	
13,841.8	91.00	270.97	9,612.8	72.5	-4,281.1	0.00	0.00	0.00	0.00	Seldom Seen #3 PBH



Great White Directional Services

Planning Report

Database:	EDM5000.1 Single User Db	Local Co-ordinate Reference:	Well Seldom Seen 15 Fed #3
Company:	Cimarex Energy Co.	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Project:	Eddy County (NM83E)	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Sec.15 T25S R26E	North Reference:	Grid
Well:	Seldom Seen 15 Fed #3	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,396.0	0.00	0.00	9,396.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP 20°/100 DLS @ 270.97° AZI									
9,400.0	0.80	270.97	9,400.0	0.0	0.0	0.0	20.00	20.00	0.00
9,425.0	5.80	270.97	9,425.0	0.0	-1.5	1.5	20.00	20.00	0.00
9,436.1	8.03	270.97	9,436.0	0.0	-2.8	2.8	20.00	20.00	0.00
Wolfcamp C									
9,450.0	10.80	270.97	9,449.7	0.1	-5.1	5.1	20.00	20.00	0.00
9,475.0	15.80	270.97	9,474.0	0.2	-10.8	10.8	20.00	20.00	0.00
9,500.0	20.80	270.97	9,497.7	0.3	-18.7	18.7	20.00	20.00	0.00
9,525.0	25.80	270.97	9,520.7	0.5	-28.6	28.6	20.00	20.00	0.00
9,544.6	29.71	270.97	9,538.0	0.6	-37.7	37.7	20.00	20.00	0.00
Wolfcamp D									
9,550.0	30.80	270.97	9,542.7	0.7	-40.4	40.4	20.00	20.00	0.00
9,575.0	35.80	270.97	9,563.6	0.9	-54.1	54.1	20.00	20.00	0.00
9,600.0	40.80	270.97	9,583.2	1.2	-69.6	69.6	20.00	20.00	0.00
9,625.0	45.80	270.97	9,601.4	1.5	-86.7	86.8	20.00	20.00	0.00
9,650.0	50.80	270.97	9,618.0	1.8	-105.4	105.4	20.00	20.00	0.00
9,675.0	55.80	270.97	9,632.9	2.1	-125.4	125.5	20.00	20.00	0.00
9,700.0	60.80	270.97	9,646.1	2.5	-146.7	146.7	20.00	20.00	0.00
9,725.0	65.80	270.97	9,657.3	2.9	-169.0	169.0	20.00	20.00	0.00
9,750.0	70.80	270.97	9,666.5	3.3	-192.2	192.3	20.00	20.00	0.00
9,775.0	75.80	270.97	9,673.7	3.7	-216.2	216.2	20.00	20.00	0.00
9,800.0	80.80	270.97	9,678.8	4.1	-240.6	240.7	20.00	20.00	0.00
9,825.0	85.80	270.97	9,681.7	4.5	-265.5	265.5	20.00	20.00	0.00
9,851.0	91.00	270.97	9,682.4	4.9	-291.4	291.5	20.00	20.00	0.00
EOC Hold to TD									
9,900.0	91.00	270.97	9,681.6	5.8	-340.4	340.5	0.00	0.00	0.00
10,000.0	91.00	270.97	9,679.8	7.5	-440.4	440.5	0.00	0.00	0.00
10,100.0	91.00	270.97	9,678.1	9.1	-540.4	540.4	0.00	0.00	0.00
10,200.0	91.00	270.97	9,676.3	10.8	-640.3	640.4	0.00	0.00	0.00
10,300.0	91.00	270.97	9,674.6	12.5	-740.3	740.4	0.00	0.00	0.00
10,400.0	91.00	270.97	9,672.9	14.2	-840.3	840.4	0.00	0.00	0.00
10,500.0	91.00	270.97	9,671.1	15.9	-940.2	940.4	0.00	0.00	0.00
10,600.0	91.00	270.97	9,669.4	17.6	-1,040.2	1,040.4	0.00	0.00	0.00
10,700.0	91.00	270.97	9,667.6	19.3	-1,140.2	1,140.3	0.00	0.00	0.00
10,800.0	91.00	270.97	9,665.9	21.0	-1,240.2	1,240.3	0.00	0.00	0.00
10,900.0	91.00	270.97	9,664.1	22.7	-1,340.1	1,340.3	0.00	0.00	0.00
11,000.0	91.00	270.97	9,662.4	24.4	-1,440.1	1,440.3	0.00	0.00	0.00
11,100.0	91.00	270.97	9,660.6	26.1	-1,540.1	1,540.3	0.00	0.00	0.00
11,200.0	91.00	270.97	9,658.9	27.8	-1,640.0	1,640.3	0.00	0.00	0.00
11,300.0	91.00	270.97	9,657.1	29.5	-1,740.0	1,740.3	0.00	0.00	0.00
11,400.0	91.00	270.97	9,655.4	31.2	-1,840.0	1,840.2	0.00	0.00	0.00
11,500.0	91.00	270.97	9,653.7	32.8	-1,939.9	1,940.2	0.00	0.00	0.00
11,600.0	91.00	270.97	9,651.9	34.5	-2,039.9	2,040.2	0.00	0.00	0.00
11,700.0	91.00	270.97	9,650.2	36.2	-2,139.9	2,140.2	0.00	0.00	0.00
11,800.0	91.00	270.97	9,648.4	37.9	-2,239.9	2,240.2	0.00	0.00	0.00
11,900.0	91.00	270.97	9,646.7	39.6	-2,339.8	2,340.2	0.00	0.00	0.00
12,000.0	91.00	270.97	9,644.9	41.3	-2,439.8	2,440.2	0.00	0.00	0.00
12,100.0	91.00	270.97	9,643.2	43.0	-2,539.8	2,540.1	0.00	0.00	0.00
12,200.0	91.00	270.97	9,641.4	44.7	-2,639.7	2,640.1	0.00	0.00	0.00
12,300.0	91.00	270.97	9,639.7	46.4	-2,739.7	2,740.1	0.00	0.00	0.00
12,400.0	91.00	270.97	9,637.9	48.1	-2,839.7	2,840.1	0.00	0.00	0.00
12,500.0	91.00	270.97	9,636.2	49.8	-2,939.7	2,940.1	0.00	0.00	0.00



Great White Directional Services

Planning Report

Database:	EDM:5000.1 Single User Db	Local Co-ordinate Reference:	Well: Seldom Seen 15 Fed #3
Company:	Cimarex Energy Co.	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Project:	Eddy County (NM83E)	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	Sec 15 - T25S - R26E	North Reference:	Grid:
Well:	Seldom Seen 15 Fed #3	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (/100usft)	Bull's Rate (/100usft)	Turn Rate (/100usft)	
12,600.0	91.00	270.97	9,834.5	51.5	-3,039.6	3,040.1	0.00	0.00	0.00	
12,700.0	91.00	270.97	9,832.7	53.2	-3,139.6	3,140.0	0.00	0.00	0.00	
12,800.0	91.00	270.97	9,831.0	54.9	-3,239.6	3,240.0	0.00	0.00	0.00	
12,900.0	91.00	270.97	9,829.2	56.5	-3,339.5	3,340.0	0.00	0.00	0.00	
13,000.0	91.00	270.97	9,827.5	58.2	-3,439.5	3,440.0	0.00	0.00	0.00	
13,100.0	91.00	270.97	9,825.7	59.9	-3,539.5	3,540.0	0.00	0.00	0.00	
13,200.0	91.00	270.97	9,824.0	61.6	-3,639.4	3,640.0	0.00	0.00	0.00	
13,300.0	91.00	270.97	9,822.2	63.3	-3,739.4	3,740.0	0.00	0.00	0.00	
13,400.0	91.00	270.97	9,820.5	65.0	-3,839.4	3,839.9	0.00	0.00	0.00	

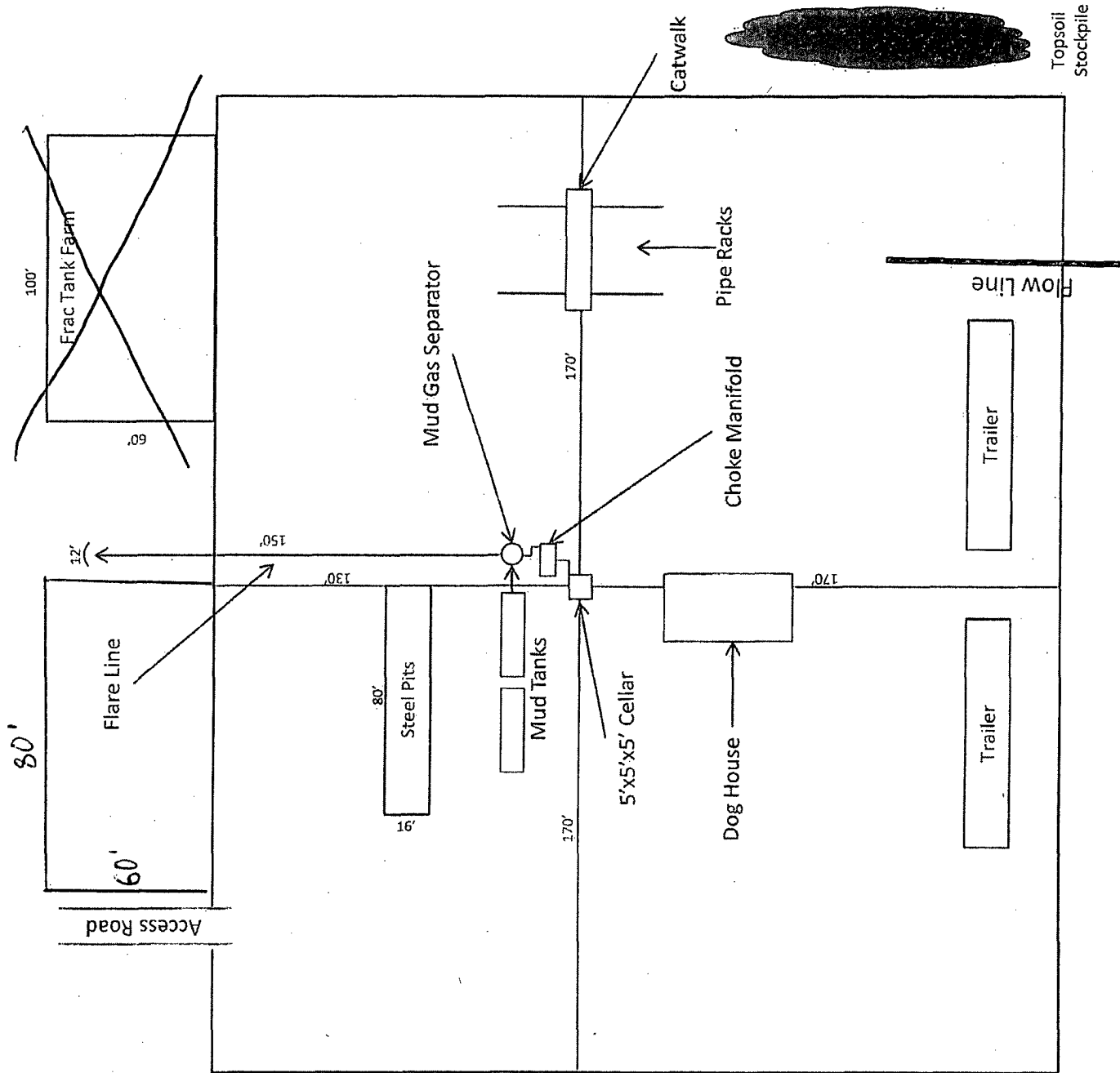
Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
Hit/Miss target										
Shape										
Seldom Seen #3 PBHL	0.00	0.01	9,608.0	72.5	-4,281.1	411,825.50	555,627.60	32° 7' 55.843 N	104° 17' 13.805 W	
- plan misses target center by 441.9usft at 13400.0usft MD (9620.5 TVD, 65.0 N, -3839.4 E)										
- Point										

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
8,627.0	8,627.0	Wolfcamp		0.00		
9,269.0	9,269.0	Wolfcamp B		0.00		
9,436.1	9,436.0	Wolfcamp C		0.00		
9,544.6	9,538.0	Wolfcamp D		0.00		

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment	
9,396.0	9,396.0	0.0	0.0	KOP 20°/100 DLS @ 270.97° AZI	
9,851.0	9,682.4	4.9	-291.4	EOC - Hold to TD	
13,841.8	9,612.8	72.5	-4,281.1	TD at 13841.8	

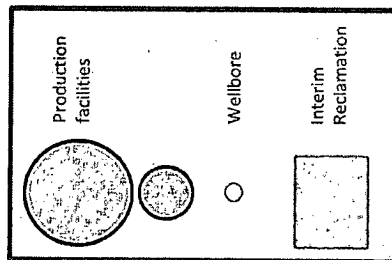
Cactus 122

Exhibit D — Rig Diagram
 Seldom Seen 15 Federal 3
 Cimarex Energy Co. of Colorado
 15-25S-26E
 SHL 1850 FNL & 370 FEL
 BHL 1780 FNL & 660 FWL
 Eddy County, NM



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Exhibit D-1
 Production Facilities Layout Diagram
 Seldom Seen "15" Federal 3
 Cimarex Energy Co. of Colorado
 15-25S-26E
 SHL 1880 FNL & 400 FEL
 BHL 1780 FNL & 660 FWL
 Eddy County, NM



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