

OPERATOR: Cimarex Energy Co.
WELL/LEASE: Redcloud 13 Fee #2
COUNTY: Lea County, NM
SEC 6 T15S R33E

N-13-15s-37e
380/s & 1710/w
30-025-38136

STATE OF NEW MEXICO
DEVIATION REPORT

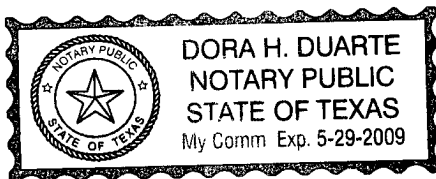
<u>Depth</u>	<u>Deviation</u>	<u>Depth</u>	<u>Deviation</u>
267	2	5,124	1 1/2
581	3/4	5,474	1 1/2
826	1 1/2	5,916	3/4
1,224	1/2	6,361	1 1/2
1,724	0	6,861	1 3/4
2,156	1 1/4	7,248	2 1/2
2,568	0	7,561	2
2,631	1	8,061	2
3,042	1	8,447	2
3,486	1	8,823	2
3,961	1 1/4	8,967	0
4,404	3/4	9,323	2
4,642	1/2		
4,923	2		

Patriot Drilling, LLC


M. Leroy Peterson, Executive Vice-President

The foregoing instrument was acknowledged before me on this 21st day of August, 2007 by M. Leroy Peterson, Executive Vice-President of Patriot Drilling, LLC.

My Commission Expires: 5/29/2009




Dora H. Duarte
Notary Public for Midland Co., Texas

Results of Directional Survey

API number:	30-025-38136		
OGRID:		Operator:	CIMAREX ENERGY CO OF COLORADO
		Property:	REDCLOUD 13 FEE # 1

surface	ULSTR:	N	13	T	15S	R	37E
			380	FSL	1710	FWL	

BH Loc	ULSTR:	K	13	T	15S	R	37E
			2269	FSL	1749	FWL	

	MD	N/S	E/W	VD
	9379	130.84	-113.87	9340.34
TOP PERFS/OH	9380	131.61	-113.93	9340.97
	9389	138.56	-114.46	9346.67
	11084	1804.09	35.87	9418.28
BOT PERFS/OH	11168.88	1888.92	38.53	9416.65
	11121	1841.07	37.03	9417.57

NEXT TO LAST	11084	1804.09	35.87	9418.28
LAST READING	11121	1841.07	37.03	9417.57
TD	11168.88	1888.92	38.53	9416.65

Surface Location	380	FS	1710	FW
Projected BHL	2269	FS	1749	FW
Location of				
Top Perfs/OH	512	FS	1596	FW
Bottom Perfs/OH	2269	FS	1749	FW

SUMMARY of Subsurface Locations

Surface Location	N-13-15S-37E	380	FS	1710	FW	Vert. Depth
Top Perfs/OH	N-13-15S-37E	512	FS	1596	FW	9340.97
Bottom Perfs/OH	K-13-15S-37E	2269	FS	1749	FW	9416.65
Projected TD	K-13-15S-37E	2269	FS	1749	FW	9416.65



Cimarex Energy Co., Inc.

Lea County (NAD 83)

Redcloud '13' Fee #2H

Redcloud 13 Fee #2H

Lateral #1

SUR: N-13-15s-37e, 380/S & 1710/W
BHL : K-13-15s-37e, 2269/S & 1749/W
API # 30-025-38136

Survey: MWD Survey #1

Standard Survey Report

23 October, 2007





Black Viper Energy

Survey Report



Company:	Cimarex Energy Co., Inc.	Local Co-ordinate Reference:	Well Redcloud 13 Fee #2H
Project:	Lea County (NAD 83)	TVD Reference:	WELL @ 3771.00ft (Original Well Elev)
Site:	Redcloud 13 Fee #2H	MD Reference:	WELL @ 3771.00ft (Original Well Elev)
Well:	Redcloud 13 Fee #2H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 2003.14.1.0 Server.DB

Project:	Lea County (NAD 83)	System Datum:	Mean Sea Level
Map System:	US State Plane 1983		
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:	Redcloud 13 Fee #2H				
Site Position:		Northing:	733,657.44 ft	Latitude:	33° 0' 40.578 N
From:	Map	Easting:	902,087.03 ft	Longitude:	103° 9' 23.474 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.64 °

Well	Redcloud 13 Fee #2H					
Well Position	+N/-S	0.00 ft	Northing:	733,657.44 ft	Latitude:	33° 0' 40.578 N
	+E/-W	0.00 ft	Easting:	902,087.03 ft	Longitude:	103° 9' 23.474 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	0.00 ft

Wellbore:	Lateral #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	7/2/2007	7.91	61.10	49,556

Design:	Lateral #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	9,100.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	0.00	

Survey Program	Date	10/23/2007			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	9,100.00	Gyro Survey (OH)	NS-GYRO-MS	North sensing gyrocompassing m/s	
9,100.00	11,121.00	MWD Survey #1 (Lateral #1)	MWD	MWD - Standard	

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)
9,100.00	1.75	281.33	9,098.21	20.39	-98.91	20.39	0.00	0.00	0.00
9,183.00	8.60	0.50	9,180.87	26.85	-100.10	26.85	10.18	8.25	95.39
First MWD Survey									
9,193.00	11.90	358.90	9,190.71	28.63	-100.11	28.63	33.12	33.00	-16.00
9,203.00	15.20	2.60	9,200.43	30.97	-100.07	30.97	34.10	33.00	37.00
9,208.00	16.40	3.60	9,205.24	32.33	-100.00	32.33	24.61	24.00	20.00
9,221.00	20.60	4.70	9,217.57	36.44	-99.69	36.44	32.42	32.31	8.46
9,231.00	23.20	3.70	9,226.85	40.16	-99.42	40.16	26.27	26.00	-10.00
9,242.00	25.80	0.90	9,236.86	44.72	-99.25	44.72	25.88	23.64	-25.45
9,252.00	27.70	358.20	9,245.79	49.22	-99.28	49.22	22.55	19.00	-27.00
9,262.00	29.50	355.70	9,254.57	54.00	-99.54	54.00	21.61	18.00	-25.00
9,273.00	32.10	353.40	9,264.01	59.60	-100.08	59.60	25.94	23.64	-20.91



Black Viper Energy Survey Report



Company:	Cimarex Energy Co., Inc.	Local Co-ordinate Reference:	Well Redcloud.13 Fee #2H
Project:	Lea County (NAD 83)	TVD Reference:	WELL @ 3771.00ft (Original Well Elev)
Site:	Redcloud.13 Fee #2H	MD Reference:	WELL @ 3771.00ft (Original Well Elev)
Well:	Redcloud.13 Fee #2H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 2003.14 1-0 Server DB

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)
9,283.00	34.20	350.80	9,272.39	65.02	-100.84	65.02	25.36	21.00	-26.00
9,293.00	36.50	349.40	9,280.54	70.72	-101.83	70.72	24.38	23.00	-14.00
9,305.00	39.10	348.00	9,290.02	77.93	-103.28	77.93	22.81	21.67	-11.67
9,315.00	41.30	346.80	9,297.66	84.23	-104.69	84.23	23.32	22.00	-12.00
9,325.00	44.30	346.00	9,305.00	90.83	-106.28	90.83	30.49	30.00	-8.00
9,337.00	46.60	346.30	9,313.42	99.13	-108.33	99.13	19.25	19.17	2.50
9,347.00	48.90	348.00	9,320.14	106.35	-109.98	106.35	26.22	23.00	17.00
9,357.00	51.10	349.50	9,326.57	113.86	-111.47	113.86	24.82	22.00	15.00
9,369.00	51.50	352.20	9,334.07	123.10	-112.96	123.10	17.87	3.33	22.50
9,379.00	50.80	354.30	9,340.34	130.84	-113.87	130.84	17.79	-7.00	21.00
9,389.00	50.70	357.00	9,346.67	138.56	-114.46	138.56	20.93	-1.00	27.00
9,400.00	51.10	359.80	9,353.61	147.09	-114.70	147.09	20.08	3.64	25.45
9,410.00	52.90	1.50	9,359.77	154.97	-114.61	154.97	22.44	18.00	17.00
9,420.00	54.90	2.50	9,365.66	163.04	-114.32	163.04	21.57	20.00	10.00
9,431.00	57.30	3.20	9,371.79	172.16	-113.87	172.16	22.45	21.82	6.36
9,441.00	59.50	3.70	9,377.03	180.66	-113.36	180.66	22.41	22.00	5.00
9,451.00	62.00	4.10	9,381.92	189.37	-112.76	189.37	25.24	25.00	4.00
9,451.17	62.00	4.10	9,382.00	189.52	-112.75	189.52	0.00	0.00	0.00
Formation 2									
9,463.00	64.80	4.50	9,387.29	200.06	-111.96	200.06	23.87	23.68	3.38
9,473.00	67.10	6.20	9,391.37	209.15	-111.11	209.15	27.75	23.00	17.00
9,483.00	69.60	6.90	9,395.06	218.39	-110.04	218.39	25.83	25.00	7.00
9,494.00	71.70	8.00	9,398.70	228.68	-108.70	228.68	21.29	19.09	10.00
9,504.00	71.20	7.80	9,401.88	238.07	-107.40	238.07	5.35	-5.00	-2.00
9,514.00	69.60	6.90	9,405.24	247.41	-106.19	247.41	18.11	-16.00	-9.00
9,526.00	69.00	4.70	9,409.48	258.58	-105.05	258.58	17.86	-5.00	-18.33
9,536.00	70.20	2.70	9,412.96	267.93	-104.45	267.93	22.26	12.00	-20.00
9,546.00	71.80	0.90	9,416.22	277.38	-104.15	277.38	23.36	16.00	-18.00
9,558.00	74.20	0.30	9,419.73	288.85	-104.03	288.85	20.56	20.00	-5.00
9,568.00	76.60	0.40	9,422.25	298.53	-103.98	298.53	24.02	24.00	1.00
9,578.00	78.70	1.10	9,424.39	308.30	-103.85	308.30	22.09	21.00	7.00
9,589.00	80.70	2.20	9,426.35	319.12	-103.54	319.12	20.67	18.18	10.00
9,604.00	83.00	4.60	9,428.48	333.94	-102.65	333.94	22.04	15.33	16.00
9,620.00	86.40	6.20	9,429.96	349.79	-101.15	349.79	23.47	21.25	10.00
9,651.00	89.60	9.00	9,431.04	380.50	-97.06	380.50	13.71	10.32	9.03
9,683.00	89.30	8.80	9,431.35	412.11	-92.11	412.11	1.13	-0.94	-0.63
9,715.00	89.00	9.60	9,431.82	443.69	-86.99	443.69	2.67	-0.94	2.50
9,746.00	88.90	9.90	9,432.39	474.24	-81.74	474.24	1.02	-0.32	0.97
9,777.00	89.00	10.60	9,432.96	504.74	-76.23	504.74	2.28	0.32	2.26
9,808.00	90.10	12.50	9,433.20	535.11	-70.02	535.11	7.08	3.55	6.13
9,841.00	89.90	12.80	9,433.20	567.31	-62.79	567.31	1.09	-0.61	0.91
9,873.00	87.70	11.80	9,433.87	598.56	-55.98	598.56	7.55	-6.88	-3.13
9,936.00	88.40	10.70	9,436.02	660.32	-43.70	660.32	2.07	1.11	-1.75
9,967.00	88.70	10.00	9,436.80	690.80	-38.13	690.80	2.46	0.87	-2.26
9,998.00	91.00	8.70	9,436.88	721.39	-33.09	721.39	8.52	7.42	-4.19
10,030.00	90.80	9.10	9,436.38	753.00	-28.14	753.00	1.40	-0.63	1.25
10,060.00	91.30	9.00	9,435.83	782.62	-23.42	782.62	1.70	1.67	-0.33
10,092.00	92.30	7.20	9,434.82	814.28	-18.92	814.28	6.43	3.13	-5.63
10,123.00	92.00	6.90	9,433.66	845.03	-15.12	845.03	1.37	-0.97	-0.97
10,154.00	91.60	7.40	9,432.69	875.77	-11.26	875.77	2.06	-1.29	1.61
10,185.00	91.70	6.70	9,431.79	906.52	-7.46	906.52	2.28	0.32	-2.26
10,217.00	92.00	5.00	9,430.76	938.34	-4.20	938.34	5.39	0.94	-5.31
10,248.00	92.20	5.20	9,429.63	969.20	-1.44	969.20	0.91	0.65	0.65
10,279.00	92.40	5.40	9,428.38	1,000.04	1.42	1,000.04	0.91	0.65	0.65
10,310.00	92.40	4.70	9,427.08	1,030.89	4.15	1,030.89	2.26	0.00	-2.26



Black Viper Energy
Survey Report



Company:	Cimarex Energy Co., Inc	Local Co-ordinate Reference:	Well: Redcloud 13 Fee #2H
Project:	Lea County (NAD 83)	TVD Reference:	WELL @ 3771.00ft (Original Well Elev)
Site:	Redcloud 13 Fee #2H	MD Reference:	WELL @ 3771.00ft (Original Well Elev)
Well:	Redcloud 13 Fee #2H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 2003.14.1.0 Server DB

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)	
10,341.00	92.00	3.20	9,425.89	1,061.79	6.28	1,061.79	5.00	-1.29	-4.84	
10,373.00	92.00	3.00	9,424.78	1,093.73	8.01	1,093.73	0.62	0.00	-0.63	
10,404.00	91.60	3.40	9,423.80	1,124.66	9.74	1,124.66	1.82	-1.29	1.29	
10,435.00	91.30	3.50	9,423.02	1,155.60	11.60	1,155.60	1.02	-0.97	0.32	
10,498.00	90.30	2.20	9,422.14	1,218.51	14.74	1,218.51	2.60	-1.59	-2.06	
10,529.00	90.20	2.00	9,422.00	1,249.49	15.87	1,249.49	0.72	-0.32	-0.65	
10,561.00	91.10	1.90	9,421.64	1,281.47	16.96	1,281.47	2.83	2.81	-0.31	
10,592.00	91.00	1.80	9,421.07	1,312.45	17.96	1,312.45	0.46	-0.32	-0.32	
10,623.00	90.90	1.70	9,420.56	1,343.43	18.91	1,343.43	0.46	-0.32	-0.32	
10,717.00	89.90	1.70	9,419.90	1,437.38	21.70	1,437.38	1.06	-1.06	0.00	
10,748.00	89.90	1.90	9,419.96	1,468.37	22.67	1,468.37	0.65	0.00	0.65	
10,779.00	90.20	2.10	9,419.93	1,499.35	23.75	1,499.35	1.16	0.97	0.65	
10,810.00	90.60	2.40	9,419.71	1,530.33	24.97	1,530.33	1.61	1.29	0.97	
10,842.00	90.40	2.40	9,419.43	1,562.30	26.31	1,562.30	0.63	-0.63	0.00	
10,873.00	90.20	2.30	9,419.27	1,593.27	27.58	1,593.27	0.72	-0.65	-0.32	
10,905.00	90.20	2.50	9,419.16	1,625.24	28.92	1,625.24	0.62	0.00	0.63	
10,936.00	89.90	2.20	9,419.13	1,656.21	30.19	1,656.21	1.37	-0.97	-0.97	
10,967.00	89.40	2.20	9,419.32	1,687.19	31.38	1,687.19	1.61	-1.61	0.00	
10,999.00	89.90	2.40	9,419.52	1,719.16	32.67	1,719.16	1.68	1.56	0.63	
11,030.00	90.80	2.40	9,419.33	1,750.14	33.96	1,750.14	2.90	2.90	0.00	
11,061.00	91.30	1.90	9,418.76	1,781.11	35.13	1,781.11	2.28	1.61	-1.61	
11,084.00	91.10	1.80	9,418.28	1,804.09	35.87	1,804.09	0.97	-0.87	-0.43	
Last MWD Survey										
11,121.00	91.10	1.80	9,417.57	1,841.07	37.03	1,841.07	0.00	0.00	0.00	
Proj. To Bit										
11,166.88	90.00	3.09	9,421.00	1,880.00	0.00	1,880.00	3.70	-2.40	2.82	
PBHL#1[R13Fee#2]										



Black Viper Energy
Survey Report



Company:	Cimarex Energy Co., Inc.	Local Co-ordinate Reference:	Well Redcloud 13 Fee #2H
Project:	Lea County (NAD 83)	TVD Reference:	WELL @ 3771.00ft (Original Well Elev)
Site:	Redcloud 13 Fee #2H	MD Reference:	WELL @ 3771.00ft (Original Well Elev)
Well:	Redcloud 13 Fee #2H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 2003 14.1:0 Server DB

Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
- Shape									
Top of Wolfcamp (Propo		0 00	9,382 00	189.52	-112 75	733,846 95	901,974 28	33° 0' 42 466 N	103° 9' 24 773 W
- survey hits target									
- Point									
PBHL#1[R13Fee#2]	0.00	0 89	9,421.00	1,880.00	0 00	735,537 44	902,087.03	33° 0' 59.177 N	103° 9' 23 227 W
- survey hits target									
- Point									

Formations					
Measured Depth	Vertical Depth	Name	Lithology	Dip	Dip Direction
(ft)	(ft)			(°)	(°)
9,451 17	9,382 00	Formation 2		0 00	

Survey Annotations					
Measured Depth	Vertical Depth	Local Coordinates			
(ft)	(ft)	+N/-S	+E/-W	Comment	
		(ft)	(ft)		
9,183.00	9,180 87	26.85	-100.10	First MWD Survey	
11,084 00	9,418 28	1,804 09	35 87	Last MWD Survey	
11,121.00	9,417 57	1,841 07	37 03	Proj. To Bit	

Checked By: _____ Approved By: _____ Date: _____



Project Lea County (NAD 83)
 Site Redcloud '13' Fee #2H
 Well Redcloud 13 Fee #2H
 Wellbore Lateral #1
 Plan Plan #1b (Redcloud 13 Fee #2H/Lateral #1)

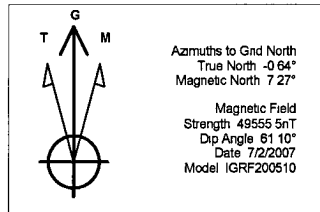


PROJECT DETAILS Lea County (NAD 83)

Geodetic System US State Plane 1983
 Datum North American Datum 1983
 Ellipsoid GRS 1980
 Zone New Mexico Eastern Zone
 System Datum: Mean Sea Level

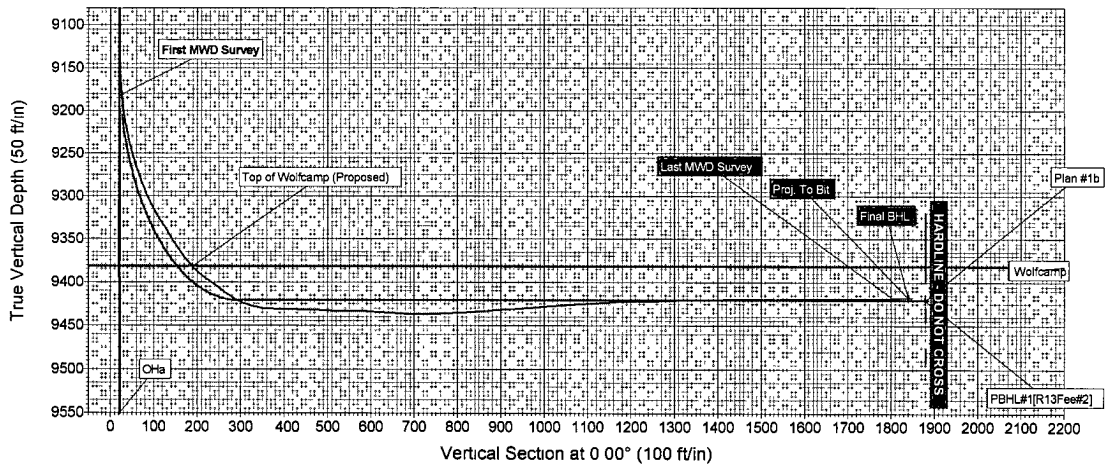
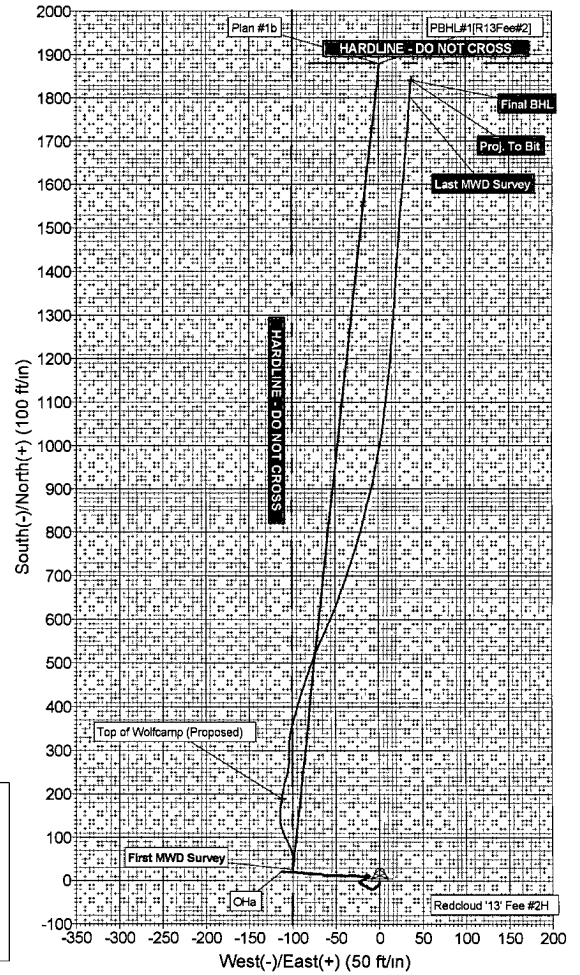
ANNOTATIONS

TVD	MD	Annotation
9098 21	9100 00	Tie In
9150 49	9152 30	Top of Window
9157 18	9159 00	Stm of Window
9162 21	9164 03	KOP - Build 20.85° / 100
9421 00	9579 67	EOC - Hold 90 0° Inc 3.09° Azi



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	9100 00	1.75	281.33	9098 21	20.39	-98.91	0.00	0.00	20.38	
2	9152 30	1.52	280.43	9150 49	20.67	-100.37	0.44	-174.11	20.66	
3	9159 00	3.34	3.09	9157 18	20.88	-100.45	52.06	108.24	20.87	
4	9164 03	3.34	3.09	9162 21	21.17	-100.43	0.00	0.00	21.16	
5	9579 67	90.00	3.09	9421 00	295.11	-85.63	20.85	0.00	295.10	
6	11166 88	90.00	3.09	9421 00	1880.00	0.00	0.00	0.00	1880.00	PBHL#1[R13Fee#2]



Plan Final Plot (Redcloud 13 Fee #2H/Lateral #1)
 Created By L.D. Burton Date October 23, 2007

Nitro 11 Federal #2 Lateral Plan #1

Cimarex Energy Co., Inc.
Redcloud 13 Fee #2H - Lateral #1

Lea County (NAD 83)
Redcloud '13' Fee #2H
Your Ref:

Measured Dogleg Depth (ft)	Incl.	Azim.	Depth (ft)	Vertical Northings (ft)	Vertical Eastings (ft)	Section Rate (°/100ft)
0.00		0.000	0.000	0.00	0.00	0.00
0.00	0.00					
100.00		0.490	176.035	100.00	-0.43	0.03
-0.43	0.49					
200.00		0.740	178.965	199.99	-1.50	0.07
-1.50	0.25					
300.00		0.780	182.885	299.98	-2.82	0.05
-2.82	0.07					
400.00		0.750	186.795	399.98	-4.15	-0.06
-4.15	0.06					
500.00		0.760	186.245	499.97	-5.46	-0.21
-5.46	0.01					
600.00		0.830	194.835	599.96	-6.82	-0.47
-6.82	0.14					
700.00		0.820	203.695	699.95	-8.18	-0.94
-8.18	0.13					
800.00		0.850	205.585	799.94	-9.50	-1.55
-9.50	0.04					
900.00		0.830	207.495	899.93	-10.81	-2.21
-10.81	0.03					
1000.00		0.830	211.175	999.91	-12.08	-2.92
-12.08	0.05					
1100.00		0.770	207.565	1099.91	-13.29	-3.60
-13.29	0.08					
1200.00		0.700	216.795	1199.90	-14.38	-4.28
-14.38	0.14					
1300.00		0.710	215.085	1299.89	-15.37	-5.00
-15.37	0.02					
1400.00		0.590	211.475	1399.88	-16.32	-5.63
-16.32	0.13					
1500.00		0.610	211.645	1499.88	-17.21	-6.17
-17.21	0.02					
1600.00		0.390	224.635	1599.87	-17.91	-6.69
-17.91	0.25					
1700.00		0.380	240.415	1699.87	-18.31	-7.22
-18.31	0.11					
1800.00		0.260	246.575	1799.87	-18.57	-7.72
-18.57	0.12					
1900.00		0.320	250.815	1899.87	-18.75	-8.19
-18.75	0.06					
2000.00		0.250	275.005	1999.87	-18.82	-8.67
-18.82	0.14					
2100.00		0.290	284.165	2099.87	-18.74	-9.13
-18.74	0.06					
2200.00		0.640	306.995	2199.86	-18.34	-9.82
-18.34	0.39					
2300.00		0.940	312.555	2299.85	-17.45	-10.87

Nitro 11 Federal #2 Lateral Plan #1

-17.45	0.31					
2400.00		0.960	317.485	2399.84	-16.28	-12.04
-16.28	0.08					
2500.00		1.090	311.525	2499.82	-15.03	-13.32
-15.03	0.17					
2600.00		1.220	319.485	2599.80	-13.59	-14.73
-13.59	0.21					
2700.00		1.280	315.525	2699.78	-11.98	-16.20
-11.98	0.11					
2800.00		1.320	319.355	2799.75	-10.31	-17.73
-10.31	0.10					
2900.00		1.000	325.305	2899.73	-8.72	-18.98
-8.72	0.34					
3000.00		0.710	330.935	2999.72	-7.46	-19.78
-7.46	0.30					
3100.00		0.620	321.825	3099.72	-6.50	-20.41
-6.50	0.14					
3200.00		0.670	315.965	3199.71	-5.65	-21.15
-5.65	0.08					
3300.00		0.700	316.965	3299.70	-4.78	-21.98
-4.78	0.03					
3400.00		0.510	318.865	3399.70	-4.00	-22.69
-4.00	0.19					
3500.00		0.430	7.225	3499.69	-3.29	-22.93
-3.29	0.39					
3600.00		0.540	26.695	3599.69	-2.50	-22.67
-2.50	0.20					
3700.00		0.900	33.875	3699.68	-1.43	-22.02
-1.43	0.37					
3800.00		0.900	23.305	3799.67	-0.05	-21.27
-0.05	0.17					
3900.00		0.970	40.185	3899.66	1.31	-20.42
1.31	0.28					
4000.00		1.170	40.095	3999.64	2.74	-19.21
2.74	0.20					
4100.00		1.250	43.045	4099.62	4.32	-17.81
4.32	0.10					
4200.00		1.310	38.525	4199.59	6.01	-16.36
6.01	0.12					
4300.00		1.330	36.885	4299.56	7.83	-14.95
7.83	0.04					
4400.00		1.010	35.725	4399.54	9.48	-13.74
9.48	0.32					
4500.00		0.840	40.965	4499.53	10.75	-12.74
10.75	0.19					
4600.00		0.670	59.165	4599.52	11.60	-11.76
11.60	0.29					
4700.00		0.590	284.885	4699.52	12.03	-11.75
12.03	1.16					
4800.00		0.480	298.875	4799.52	12.37	-12.62
12.37	0.17					
4900.00		0.540	306.105	4899.51	12.85	-13.37
12.85	0.09					
5000.00		0.390	312.625	4999.51	13.35	-14.00
13.35	0.16					
5100.00		0.310	339.455	5099.51	13.84	-14.34
13.84	0.18					
5200.00		0.360	331.095	5199.50	14.37	-14.59
14.37	0.07					
5300.00		0.160	322.935	5299.50	14.75	-14.82
14.75	0.20					
5400.00		0.200	26.835	5399.50	15.02	-14.83
15.02	0.19					

			Nitro 11	Federal #2	Lateral Plan #1	
5500.00		0.160	304.695	5499.50	15.25	-14.87
15.25	0.24					
5600.00		0.050	201.765	5599.50	15.29	-15.00
15.29	0.18					
5700.00		0.080	172.265	5699.50	15.18	-15.00
15.18	0.04					
5800.00		0.160	234.885	5799.50	15.03	-15.11
15.03	0.14					
5900.00		0.210	181.065	5899.50	14.77	-15.23
14.77	0.17					
6000.00		0.410	187.525	5999.50	14.23	-15.28
14.23	0.20					
6100.00		0.630	197.065	6099.50	13.35	-15.48
13.35	0.24					
6200.00		0.930	211.785	6199.49	12.14	-16.07
12.14	0.36					
6300.00		1.200	259.965	6299.47	11.26	-17.53
11.26	0.90					
6400.00		1.220	268.405	6399.45	11.05	-19.63
11.05	0.18					
6500.00		1.080	278.695	6499.43	11.17	-21.62
11.17	0.25					
6600.00		1.190	279.985	6599.41	11.49	-23.58
11.49	0.11					
6700.00		1.290	291.665	6699.39	12.08	-25.65
12.08	0.27					
6800.00		1.320	274.545	6799.36	12.59	-27.84
12.59	0.39					
6900.00		1.490	265.645	6899.33	12.58	-30.29
12.58	0.28					
7000.00		1.590	267.375	6999.29	12.42	-32.97
12.42	0.11					
7100.00		1.770	268.965	7099.25	12.33	-35.90
12.33	0.19					
7200.00		1.740	269.175	7199.20	12.28	-38.96
12.28	0.03					
7300.00		1.770	271.985	7299.16	12.31	-42.02
12.31	0.09					
7400.00		1.630	270.625	7399.11	12.38	-44.99
12.38	0.15					
7500.00		1.550	270.855	7499.08	12.42	-47.76
12.42	0.08					
7600.00		1.660	273.815	7599.04	12.53	-50.56
12.53	0.14					
7700.00		1.490	275.505	7699.00	12.75	-53.30
12.75	0.18					
7800.00		1.430	274.285	7798.97	12.97	-55.84
12.97	0.07					
7900.00		1.530	282.495	7898.93	13.35	-58.38
13.35	0.23					
8000.00		1.520	279.205	7998.90	13.85	-61.00
13.85	0.09					
8100.00		1.640	278.315	8098.86	14.27	-63.72
14.27	0.12					
8200.00		1.700	278.865	8198.82	14.71	-66.60
14.71	0.06					
8300.00		1.970	287.605	8298.77	15.46	-69.71
15.46	0.39					
8400.00		2.200	282.125	8398.70	16.38	-73.22
16.38	0.30					
8500.00		2.400	277.155	8498.62	17.04	-77.18
17.04	0.28					
8600.00		2.480	277.595	8598.53	17.59	-81.40

Nitro 11 Federal #2 Lateral Plan #1

17.59	0.08					
8700.00		2.210	276.975	8698.44	18.11	-85.46
18.11	0.27					
8800.00		2.020	278.415	8798.38	18.60	-89.11
18.60	0.20					
8900.00		2.080	280.715	8898.31	19.20	-92.64
19.20	0.10					
9000.00		1.740	280.415	8998.26	19.81	-95.92
19.81	0.34					
9100.00		1.750	281.325	9098.21	20.39	-98.91
20.39	0.03					
9183.00		8.600	0.500	9180.87	26.85	-100.10
26.85	10.18					
9193.00		11.900	358.900	9190.71	28.63	-100.11
28.63	33.12					
9203.00		15.200	2.600	9200.43	30.97	-100.07
30.97	34.10					
9208.00		16.400	3.600	9205.24	32.33	-100.00
32.33	24.61					
9221.00		20.600	4.700	9217.57	36.44	-99.69
36.44	32.42					
9231.00		23.200	3.700	9226.85	40.16	-99.42
40.16	26.27					
9242.00		25.800	0.900	9236.86	44.72	-99.25
44.72	25.88					
9252.00		27.700	358.200	9245.79	49.22	-99.28
49.22	22.55					
9262.00		29.500	355.700	9254.57	54.00	-99.54
54.00	21.61					
9273.00		32.100	353.400	9264.01	59.60	-100.08
59.60	25.94					
9283.00		34.200	350.800	9272.39	65.02	-100.84
65.02	25.36					
9293.00		36.500	349.400	9280.54	70.72	-101.83
70.72	24.38					
9305.00		39.100	348.000	9290.02	77.93	-103.28
77.93	22.81					
9315.00		41.300	346.800	9297.66	84.23	-104.69
84.23	23.32					
9325.00		44.300	346.000	9305.00	90.83	-106.28
90.83	30.49					
9337.00		46.600	346.300	9313.42	99.13	-108.33
99.13	19.25					
9347.00		48.900	348.000	9320.14	106.35	-109.98
106.35	26.22					
9357.00		51.100	349.500	9326.57	113.86	-111.47
113.86	24.82					
9369.00		51.500	352.200	9334.07	123.10	-112.96
123.10	17.87					
9379.00		50.800	354.300	9340.34	130.84	-113.87
130.84	17.79					
9389.00		50.700	357.000	9346.67	138.56	-114.46
138.56	20.93					
9400.00		51.100	359.800	9353.61	147.09	-114.70
147.09	20.08					
9410.00		52.900	1.500	9359.77	154.97	-114.61
154.97	22.44					
9420.00		54.900	2.500	9365.66	163.04	-114.32
163.04	21.57					
9431.00		57.300	3.200	9371.79	172.16	-113.87
172.16	22.45					
9441.00		59.500	3.700	9377.03	180.66	-113.36
180.66	22.41					

		Nitro 11	Federal #2	Lateral Plan #1	
9451.00		62.000	4.100	9381.92	189.37
189.37	25.24				-112.76
9463.00		64.800	4.500	9387.29	200.06
200.06	23.52				-111.96
9473.00		67.100	6.200	9391.37	209.15
209.15	27.75				-111.11
9483.00		69.600	6.900	9395.06	218.39
218.39	25.83				-110.04
9494.00		71.700	8.000	9398.70	228.68
228.68	21.29				-108.70
9504.00		71.200	7.800	9401.88	238.07
238.07	5.35				-107.40
9514.00		69.600	6.900	9405.24	247.41
247.41	18.11				-106.19
9526.00		69.000	4.700	9409.48	258.58
258.58	17.86				-105.05
9536.00		70.200	2.700	9412.96	267.93
267.93	22.26				-104.45
9546.00		71.800	0.900	9416.22	277.38
277.38	23.36				-104.15
9558.00		74.200	0.300	9419.73	288.85
288.85	20.56				-104.03
9568.00		76.600	0.400	9422.25	298.53
298.53	24.02				-103.98
9578.00		78.700	1.100	9424.39	308.30
308.30	22.09				-103.85
9589.00		80.700	2.200	9426.35	319.12
319.12	20.67				-103.54
9604.00		83.000	4.600	9428.48	333.94
333.94	22.04				-102.65
9620.00		86.400	6.200	9429.96	349.79
349.79	23.47				-101.15
9651.00		89.600	9.000	9431.04	380.50
380.50	13.71				-97.06
9683.00		89.300	8.800	9431.35	412.11
412.11	1.13				-92.11
9715.00		89.000	9.600	9431.82	443.69
443.69	2.67				-86.99
9746.00		88.900	9.900	9432.39	474.24
474.24	1.02				-81.74
9777.00		89.000	10.600	9432.96	504.74
504.74	2.28				-76.23
9808.00		90.100	12.500	9433.20	535.11
535.11	7.08				-70.02
9841.00		89.900	12.800	9433.20	567.31
567.31	1.09				-62.79
9873.00		87.700	11.800	9433.87	598.56
598.56	7.55				-55.98
9936.00		88.400	10.700	9436.02	660.32
660.32	2.07				-43.70
9967.00		88.700	10.000	9436.80	690.80
690.80	2.46				-38.13
9998.00		91.000	8.700	9436.88	721.39
721.39	8.52				-33.09
10030.00		90.800	9.100	9436.38	753.00
753.00	1.40				-28.14
10060.00		91.300	9.000	9435.83	782.62
782.62	1.70				-23.42
10092.00		92.300	7.200	9434.82	814.28
814.28	6.43				-18.92
10123.00		92.000	6.900	9433.66	845.03
845.03	1.37				-15.12
10154.00		91.600	7.400	9432.69	875.77
					-11.26

Nitro 11 Federal #2 Lateral Plan #1

875.77	2.06					
10185.00		91.700	6.700	9431.79	906.52	-7.46
906.52	2.28					
10217.00		92.000	5.000	9430.76	938.34	-4.20
938.34	5.39					
10248.00		92.200	5.200	9429.63	969.20	-1.44
969.20	0.91					
10279.00		92.400	5.400	9428.38	1000.04	1.42
1000.04	0.91					
10310.00		92.400	4.700	9427.08	1030.89	4.15
1030.89	2.26					
10341.00		92.000	3.200	9425.89	1061.79	6.28
1061.79	5.00					
10373.00		92.000	3.000	9424.78	1093.73	8.01
1093.73	0.62					
10404.00		91.600	3.400	9423.80	1124.66	9.74
1124.66	1.82					
10435.00		91.300	3.500	9423.02	1155.60	11.60
1155.60	1.02					
10498.00		90.300	2.200	9422.14	1218.51	14.74
1218.51	2.60					
10529.00		90.200	2.000	9422.00	1249.49	15.87
1249.49	0.72					
10561.00		91.100	1.900	9421.64	1281.47	16.96
1281.47	2.83					
10592.00		91.000	1.800	9421.07	1312.45	17.96
1312.45	0.46					
10623.00		90.900	1.700	9420.56	1343.43	18.91
1343.43	0.46					
10717.00		89.900	1.700	9419.90	1437.38	21.70
1437.38	1.06					
10748.00		89.900	1.900	9419.96	1468.37	22.67
1468.37	0.65					
10779.00		90.200	2.100	9419.93	1499.35	23.75
1499.35	1.16					
10810.00		90.600	2.400	9419.71	1530.33	24.97
1530.33	1.61					
10842.00		90.400	2.400	9419.43	1562.30	26.31
1562.30	0.63					
10873.00		90.200	2.300	9419.27	1593.27	27.58
1593.27	0.72					
10905.00		90.200	2.500	9419.16	1625.24	28.92
1625.24	0.62					
10936.00		89.900	2.200	9419.13	1656.21	30.19
1656.21	1.37					
10967.00		89.400	2.200	9419.32	1687.19	31.38
1687.19	1.61					
10999.00		89.900	2.400	9419.52	1719.16	32.67
1719.16	1.68					
11030.00		90.800	2.400	9419.33	1750.14	33.96
1750.14	2.90					
11061.00		91.300	1.900	9418.76	1781.11	35.13
1781.11	2.28					
11084.00		91.100	1.800	9418.28	1804.09	35.87
1804.09	0.97					
11121.00		91.100	1.800	9417.57	1841.07	37.03
1841.07	0.00					

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to WELL. Northings and Eastings are relative to well.

Nitro 11 Federal #2 Lateral Plan #1

The Dogleg Severity is in Degrees per 100 feet.

Vertical Section is from Slot and calculated along an Azimuth of 0.000° (Grid).

Coordinate System is North American Datum 1983 US State Plane 1983, New Mexico Eastern Zone.

Central meridian is -104.333°.

Grid Convergence at Surface is 0.641°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 11121.00ft., the Bottom Hole Displacement is 1841.44ft., in the Direction of 0.000° (Grid).