

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_BARCLAY 13-27 PAD

BARCLAY 29N-27HZ

BARCLAY 29N-27HZ

Plan: BARCLAY 29N-27HZ (wp01)

Standard Planning Report

26 July, 2011



Weatherford®



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Azimuths to True North

Magnetic North: 8.83°

Magnetic Field

Strength: 53008.0nT

Dip Angle: 66.88°

Date: 7/25/2011

Model: IGRF2010

Project: COLORADO NORTHERN ZONE - 83

Site: WELD BARCLAY 13-27 PAD

Well: BARCLAY 29N-27HZ

Wellbore: BARCLAY 29N-27HZ

Section: SHL:

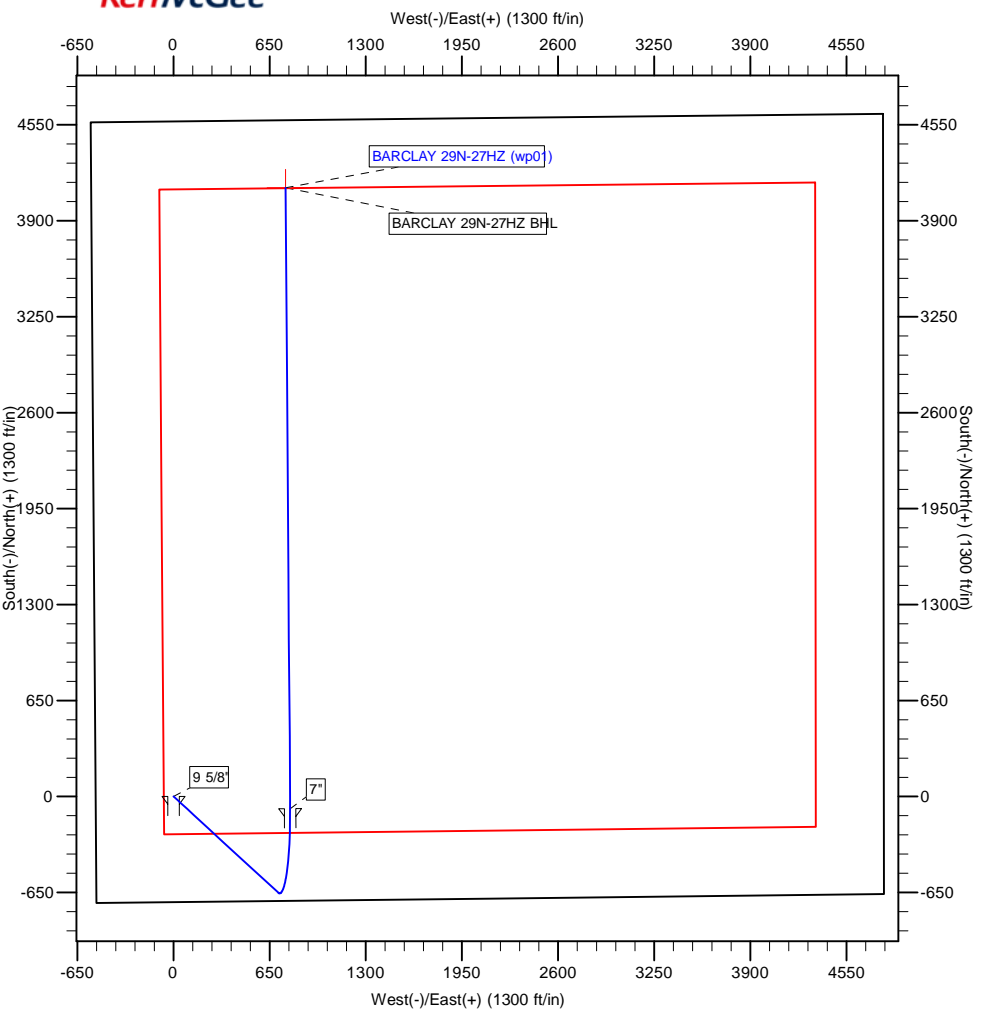
Design: BARCLAY 29N-27HZ (wp01)

Latitude: 40.190763

Longitude: -104.770979

GL: 4964.00

KB: 17' RKB + 4964' GL @ 4981.00ft



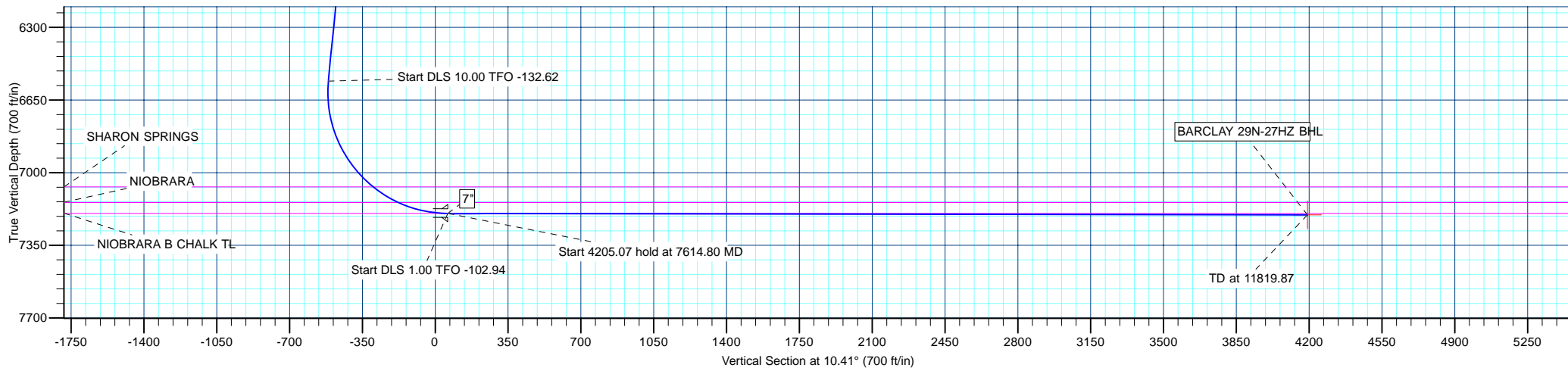
WELL DETAILS: BARCLAY 29N-27HZ						
+N/-S	+E/-W	Northing	Ground Level: Easting	4964.00 Latitude	40.190763 Longitude	Slot
0.00	0.00	1313174.77	3203664.25		-104.770979	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
BARCLAY 29N-27HZ BHL	7203.00	4122.61	757.53	40.202080	-104.768267	Point

SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	
1514.52	10.29	132.67	1511.76	-31.23	33.88	2.00	132.67	-24.60	
6643.98	10.29	132.67	6558.71	-652.34	707.57	0.00	0.00	-513.73	
7613.14	89.91	359.60	7196.00	-84.00	788.00	10.00	-132.62	59.79	
7614.80	89.90	359.58	7196.00	-82.35	787.99	1.00	-102.94	61.42	
11819.87	89.90	359.58	7203.00	4122.61	757.53	0.00	0.00	4191.63	BARCLAY 29N-27HZ BHL

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3240.00	3271.02	PARKMAN
4418.00	4468.27	SUSSEX
5060.00	5120.77	SHANNON
7068.00	7221.79	SHARON SPRINGS
7143.00	7364.58	NIOBRARA
7196.00	7613.14	NIOBRARA B CHALK TL

CASING DETAILS			
TVD	MD	Name	Size
850.00	850.00	9 5/8"	9-5/8
7196.00	7613.14	7"	7



Database:	edm5000p	Local Co-ordinate Reference:	Well BARCLAY 29N-27HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	17' RKB + 4964' GL @ 4981.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	17' RKB + 4964' GL @ 4981.00ft
Site:	WELD_BARCLAY 13-27 PAD	North Reference:	True
Well:	BARCLAY 29N-27HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	BARCLAY 29N-27HZ		
Design:	BARCLAY 29N-27HZ (wp01)		

Project	COLORADO NORTHERN ZONE - 83		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Northern Zone		

Site						WELD_BARCLAY 13-27 PAD											
Site Position:			Northing:			1,313,174.88 ft			Latitude:			40.190764					
From:			Lat/Long			Easting:			3,203,632.41 ft			Longitude:			-104.771093		
Position Uncertainty:			0.00 ft			Slot Radius:			0 "			Grid Convergence:			0.47 °		

Well	BARCLAY 29N-27HZ					
Well Position	+N-S	-0.37 ft	Northing:	1,313,174.77 ft	Latitude:	40.190763
	+E-W	31.85 ft	Easting:	3,203,664.26 ft	Longitude:	-104.770979
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,964.00 ft

Wellbore	BARCLAY 29N-27HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	7/25/2011	8.83	66.88	53,008

Design	BARCLAY 29N-27HZ (wp01)			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	10.41

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	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,514.52	10.29	132.67	1,511.76	-31.23	33.88	2.00	2.00	0.00	132.67	
6,643.98	10.29	132.67	6,558.71	-652.34	707.57	0.00	0.00	0.00	0.00	
7,613.14	89.91	359.60	7,196.00	-84.00	788.00	10.00	8.22	-13.73	-132.62	
7,614.80	89.90	359.58	7,196.00	-82.35	787.99	1.00	-0.22	-0.97	-102.94	
11,819.87	89.90	359.58	7,203.00	4,122.61	757.53	0.00	0.00	0.00	0.00	BARCLAY 29N-27H

Database:	edm5000p	Local Co-ordinate Reference:	Well BARCLAY 29N-27HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	17' RKB + 4964' GL @ 4981.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	17' RKB + 4964' GL @ 4981.00ft
Site:	WELD_BARCLAY 13-27 PAD	North Reference:	True
Well:	BARCLAY 29N-27HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	BARCLAY 29N-27HZ		
Design:	BARCLAY 29N-27HZ (wp01)		

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
850.00	0.00	0.00	850.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
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
Start Build 2.00									
1,100.00	2.00	132.67	1,099.98	-1.18	1.28	-0.93	2.00	2.00	0.00
1,200.00	4.00	132.67	1,199.84	-4.73	5.13	-3.73	2.00	2.00	0.00
1,300.00	6.00	132.67	1,299.45	-10.64	11.54	-8.38	2.00	2.00	0.00
1,400.00	8.00	132.67	1,398.70	-18.90	20.50	-14.88	2.00	2.00	0.00
1,500.00	10.00	132.67	1,497.47	-29.50	32.00	-23.23	2.00	2.00	0.00
1,514.52	10.29	132.67	1,511.76	-31.23	33.88	-24.60	2.00	2.00	0.00
Start 5129.45 hold at 1514.52 MD									
1,600.00	10.29	132.67	1,595.86	-41.59	45.11	-32.75	0.00	0.00	0.00
1,700.00	10.29	132.67	1,694.25	-53.69	58.24	-42.28	0.00	0.00	0.00
1,800.00	10.29	132.67	1,792.65	-65.80	71.37	-51.82	0.00	0.00	0.00
1,900.00	10.29	132.67	1,891.04	-77.91	84.51	-61.36	0.00	0.00	0.00
2,000.00	10.29	132.67	1,989.43	-90.02	97.64	-70.89	0.00	0.00	0.00
2,100.00	10.29	132.67	2,087.82	-102.13	110.77	-80.43	0.00	0.00	0.00
2,200.00	10.29	132.67	2,186.21	-114.24	123.91	-89.96	0.00	0.00	0.00
2,300.00	10.29	132.67	2,284.60	-126.35	137.04	-99.50	0.00	0.00	0.00
2,400.00	10.29	132.67	2,383.00	-138.45	150.18	-109.03	0.00	0.00	0.00
2,500.00	10.29	132.67	2,481.39	-150.56	163.31	-118.57	0.00	0.00	0.00
2,600.00	10.29	132.67	2,579.78	-162.67	176.44	-128.11	0.00	0.00	0.00
2,700.00	10.29	132.67	2,678.17	-174.78	189.58	-137.64	0.00	0.00	0.00
2,800.00	10.29	132.67	2,776.56	-186.89	202.71	-147.18	0.00	0.00	0.00
2,900.00	10.29	132.67	2,874.95	-199.00	215.85	-156.71	0.00	0.00	0.00
3,000.00	10.29	132.67	2,973.34	-211.11	228.98	-166.25	0.00	0.00	0.00
3,100.00	10.29	132.67	3,071.74	-223.22	242.11	-175.78	0.00	0.00	0.00
3,200.00	10.29	132.67	3,170.13	-235.32	255.25	-185.32	0.00	0.00	0.00
3,271.02	10.29	132.67	3,240.00	-243.92	264.57	-192.09	0.00	0.00	0.00
PARKMAN									
3,300.00	10.29	132.67	3,268.52	-247.43	268.38	-194.86	0.00	0.00	0.00
3,400.00	10.29	132.67	3,366.91	-259.54	281.51	-204.39	0.00	0.00	0.00
3,500.00	10.29	132.67	3,465.30	-271.65	294.65	-213.93	0.00	0.00	0.00
3,600.00	10.29	132.67	3,563.69	-283.76	307.78	-223.46	0.00	0.00	0.00
3,700.00	10.29	132.67	3,662.08	-295.87	320.92	-233.00	0.00	0.00	0.00
3,800.00	10.29	132.67	3,760.48	-307.98	334.05	-242.53	0.00	0.00	0.00
3,900.00	10.29	132.67	3,858.87	-320.08	347.18	-252.07	0.00	0.00	0.00
4,000.00	10.29	132.67	3,957.26	-332.19	360.32	-261.61	0.00	0.00	0.00
4,100.00	10.29	132.67	4,055.65	-344.30	373.45	-271.14	0.00	0.00	0.00
4,200.00	10.29	132.67	4,154.04	-356.41	386.58	-280.68	0.00	0.00	0.00
4,300.00	10.29	132.67	4,252.43	-368.52	399.72	-290.21	0.00	0.00	0.00
4,400.00	10.29	132.67	4,350.82	-380.63	412.85	-299.75	0.00	0.00	0.00
4,468.27	10.29	132.67	4,418.00	-388.89	421.82	-306.26	0.00	0.00	0.00
SUSSEX									

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Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	17' RKB + 4964' GL @ 4981.00ft
Site:	WELD_BARCLAY 13-27 PAD	North Reference:	True
Well:	BARCLAY 29N-27HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	BARCLAY 29N-27HZ		
Design:	BARCLAY 29N-27HZ (wp01)		

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)
4,500.00	10.29	132.67	4,449.22	-392.74	425.99	-309.28	0.00	0.00	0.00
4,600.00	10.29	132.67	4,547.61	-404.85	439.12	-318.82	0.00	0.00	0.00
4,700.00	10.29	132.67	4,646.00	-416.95	452.25	-328.36	0.00	0.00	0.00
4,800.00	10.29	132.67	4,744.39	-429.06	465.39	-337.89	0.00	0.00	0.00
4,900.00	10.29	132.67	4,842.78	-441.17	478.52	-347.43	0.00	0.00	0.00
5,000.00	10.29	132.67	4,941.17	-453.28	491.65	-356.96	0.00	0.00	0.00
5,100.00	10.29	132.67	5,039.57	-465.39	504.79	-366.50	0.00	0.00	0.00
5,120.77	10.29	132.67	5,060.00	-467.90	507.52	-368.48	0.00	0.00	0.00
SHANNON									
5,200.00	10.29	132.67	5,137.96	-477.50	517.92	-376.03	0.00	0.00	0.00
5,300.00	10.29	132.67	5,236.35	-489.61	531.06	-385.57	0.00	0.00	0.00
5,400.00	10.29	132.67	5,334.74	-501.71	544.19	-395.11	0.00	0.00	0.00
5,500.00	10.29	132.67	5,433.13	-513.82	557.32	-404.64	0.00	0.00	0.00
5,600.00	10.29	132.67	5,531.52	-525.93	570.46	-414.18	0.00	0.00	0.00
5,700.00	10.29	132.67	5,629.91	-538.04	583.59	-423.71	0.00	0.00	0.00
5,800.00	10.29	132.67	5,728.31	-550.15	596.73	-433.25	0.00	0.00	0.00
5,900.00	10.29	132.67	5,826.70	-562.26	609.86	-442.78	0.00	0.00	0.00
6,000.00	10.29	132.67	5,925.09	-574.37	622.99	-452.32	0.00	0.00	0.00
6,100.00	10.29	132.67	6,023.48	-586.48	636.13	-461.86	0.00	0.00	0.00
6,200.00	10.29	132.67	6,121.87	-598.58	649.26	-471.39	0.00	0.00	0.00
6,300.00	10.29	132.67	6,220.26	-610.69	662.39	-480.93	0.00	0.00	0.00
6,400.00	10.29	132.67	6,318.65	-622.80	675.53	-490.46	0.00	0.00	0.00
6,500.00	10.29	132.67	6,417.05	-634.91	688.66	-500.00	0.00	0.00	0.00
6,600.00	10.29	132.67	6,515.44	-647.02	701.80	-509.53	0.00	0.00	0.00
6,643.98	10.29	132.67	6,558.71	-652.34	707.57	-513.73	0.00	0.00	0.00
Start DLS 10.00 TFO -132.62									
6,700.00	7.68	100.17	6,614.07	-656.40	714.94	-516.38	10.00	-4.66	-58.02
6,800.00	11.42	40.61	6,712.88	-650.05	728.00	-507.78	10.00	3.74	-59.56
6,900.00	20.02	20.93	6,809.12	-626.48	740.59	-482.32	10.00	8.60	-19.68
7,000.00	29.49	13.15	6,899.85	-586.42	752.33	-440.80	10.00	9.47	-7.78
7,100.00	39.21	8.94	6,982.32	-531.09	762.87	-384.47	10.00	9.72	-4.21
7,200.00	49.03	6.20	7,054.02	-462.15	771.89	-315.05	10.00	9.82	-2.74
7,221.79	51.18	5.71	7,068.00	-445.53	773.62	-298.38	10.00	9.85	-2.23
SHARON SPRINGS									
7,300.00	58.90	4.18	7,112.79	-381.72	779.10	-234.63	10.00	9.87	-1.96
7,364.58	65.28	3.09	7,143.00	-324.80	782.70	-178.00	10.00	9.89	-1.69
NIOBRARA									
7,400.00	68.79	2.54	7,156.82	-292.23	784.30	-145.67	10.00	9.90	-1.55
7,500.00	78.69	1.11	7,184.78	-196.40	787.32	-50.88	10.00	9.91	-1.43
7,600.00	88.61	359.77	7,195.83	-97.14	788.07	46.88	10.00	9.91	-1.33
7,613.14	89.91	359.60	7,196.00	-84.00	788.00	59.79	10.00	9.91	-1.31
Start DLS 1.00 TFO -102.94 - NIOBRARA B CHALK TL - 7"									
7,614.80	89.90	359.58	7,196.00	-82.35	787.99	61.42	1.00	-0.22	-0.97
Start 4205.07 hold at 7614.80 MD									
7,700.00	89.90	359.58	7,196.14	2.86	787.37	145.11	0.00	0.00	0.00
7,800.00	89.90	359.58	7,196.31	102.85	786.65	243.33	0.00	0.00	0.00
7,900.00	89.90	359.58	7,196.48	202.85	785.92	341.54	0.00	0.00	0.00
8,000.00	89.90	359.58	7,196.64	302.85	785.20	439.76	0.00	0.00	0.00
8,100.00	89.90	359.58	7,196.81	402.85	784.47	537.98	0.00	0.00	0.00
8,200.00	89.90	359.58	7,196.98	502.84	783.75	636.20	0.00	0.00	0.00
8,300.00	89.90	359.58	7,197.14	602.84	783.02	734.42	0.00	0.00	0.00
8,400.00	89.90	359.58	7,197.31	702.84	782.30	832.64	0.00	0.00	0.00
8,500.00	89.90	359.58	7,197.48	802.83	781.58	930.86	0.00	0.00	0.00

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Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	17' RKB + 4964' GL @ 4981.00ft
Site:	WELD_BARCLAY 13-27 PAD	North Reference:	True
Well:	BARCLAY 29N-27HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	BARCLAY 29N-27HZ		
Design:	BARCLAY 29N-27HZ (wp01)		

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)
8,600.00	89.90	359.58	7,197.64	902.83	780.85	1,029.08	0.00	0.00	0.00
8,700.00	89.90	359.58	7,197.81	1,002.83	780.13	1,127.30	0.00	0.00	0.00
8,800.00	89.90	359.58	7,197.98	1,102.83	779.40	1,225.52	0.00	0.00	0.00
8,900.00	89.90	359.58	7,198.14	1,202.82	778.68	1,323.74	0.00	0.00	0.00
9,000.00	89.90	359.58	7,198.31	1,302.82	777.95	1,421.96	0.00	0.00	0.00
9,100.00	89.90	359.58	7,198.47	1,402.82	777.23	1,520.18	0.00	0.00	0.00
9,200.00	89.90	359.58	7,198.64	1,502.81	776.50	1,618.40	0.00	0.00	0.00
9,300.00	89.90	359.58	7,198.81	1,602.81	775.78	1,716.62	0.00	0.00	0.00
9,400.00	89.90	359.58	7,198.97	1,702.81	775.06	1,814.84	0.00	0.00	0.00
9,500.00	89.90	359.58	7,199.14	1,802.81	774.33	1,913.06	0.00	0.00	0.00
9,600.00	89.90	359.58	7,199.31	1,902.80	773.61	2,011.28	0.00	0.00	0.00
9,700.00	89.90	359.58	7,199.47	2,002.80	772.88	2,109.50	0.00	0.00	0.00
9,800.00	89.90	359.58	7,199.64	2,102.80	772.16	2,207.72	0.00	0.00	0.00
9,900.00	89.90	359.58	7,199.81	2,202.80	771.43	2,305.94	0.00	0.00	0.00
10,000.00	89.90	359.58	7,199.97	2,302.79	770.71	2,404.16	0.00	0.00	0.00
10,100.00	89.90	359.58	7,200.14	2,402.79	769.98	2,502.38	0.00	0.00	0.00
10,200.00	89.90	359.58	7,200.30	2,502.79	769.26	2,600.60	0.00	0.00	0.00
10,300.00	89.90	359.58	7,200.47	2,602.78	768.54	2,698.82	0.00	0.00	0.00
10,400.00	89.90	359.58	7,200.64	2,702.78	767.81	2,797.04	0.00	0.00	0.00
10,500.00	89.90	359.58	7,200.80	2,802.78	767.09	2,895.26	0.00	0.00	0.00
10,600.00	89.90	359.58	7,200.97	2,902.78	766.36	2,993.48	0.00	0.00	0.00
10,700.00	89.90	359.58	7,201.14	3,002.77	765.64	3,091.70	0.00	0.00	0.00
10,800.00	89.90	359.58	7,201.30	3,102.77	764.91	3,189.92	0.00	0.00	0.00
10,900.00	89.90	359.58	7,201.47	3,202.77	764.19	3,288.14	0.00	0.00	0.00
11,000.00	89.90	359.58	7,201.64	3,302.77	763.46	3,386.36	0.00	0.00	0.00
11,100.00	89.90	359.58	7,201.80	3,402.76	762.74	3,484.58	0.00	0.00	0.00
11,200.00	89.90	359.58	7,201.97	3,502.76	762.02	3,582.80	0.00	0.00	0.00
11,300.00	89.90	359.58	7,202.14	3,602.76	761.29	3,681.02	0.00	0.00	0.00
11,400.00	89.90	359.58	7,202.30	3,702.75	760.57	3,779.24	0.00	0.00	0.00
11,500.00	89.90	359.58	7,202.47	3,802.75	759.84	3,877.46	0.00	0.00	0.00
11,600.00	89.90	359.58	7,202.63	3,902.75	759.12	3,975.68	0.00	0.00	0.00
11,700.00	89.90	359.58	7,202.80	4,002.75	758.39	4,073.90	0.00	0.00	0.00
11,800.00	89.90	359.58	7,202.97	4,102.74	757.67	4,172.12	0.00	0.00	0.00
11,819.87	89.90	359.58	7,203.00	4,122.61	757.53	4,191.63	0.00	0.00	0.00
TD at 11819.87 - BARCLAY 29N-27HZ BHL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
BARCLAY 29N-27HZ	0.00	0.00	7,203.00	4,122.61	757.53	1,317,303.46	3,204,387.86	40.202080	-104.768267
- hit/miss target									
- Shape									
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
850.00	850.00	9 5/8"	9-5/8	12-1/4	
7,613.14	7,196.00	7"	7	8-3/4	

Database:	edm5000p	Local Co-ordinate Reference:	Well BARCLAY 29N-27HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	17' RKB + 4964' GL @ 4981.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	17' RKB + 4964' GL @ 4981.00ft
Site:	WELD_BARCLAY 13-27 PAD	North Reference:	True
Well:	BARCLAY 29N-27HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	BARCLAY 29N-27HZ		
Design:	BARCLAY 29N-27HZ (wp01)		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,271.02	3,240.00	PARKMAN		0.00		
4,468.27	4,418.00	SUSSEX		0.00		
5,120.77	5,060.00	SHANNON		0.00		
7,221.79	7,068.00	SHARON SPRINGS		0.00		
7,364.58	7,143.00	NIOBRARA		0.00		
7,613.14	7,196.00	NIOBRARA B CHALK TL		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,000.00	1,000.00	0.00	0.00	Start Build 2.00	
1,514.52	1,511.76	-31.23	33.88	Start 5129.45 hold at 1514.52 MD	
6,643.98	6,558.71	-652.34	707.57	Start DLS 10.00 TFO -132.62	
7,613.14	7,196.00	-84.00	788.00	Start DLS 1.00 TFO -102.94	
7,614.80	7,196.00	-82.35	787.99	Start 4205.07 hold at 7614.80 MD	
11,819.87	7,203.00	4,122.61	757.53	TD at 11819.87	