

# **US ROCKIES WATTENBERG PLANNING**

**WELD-NAD83-UTMFT13N  
1N-66W-26 BEIERLE 2-26HZ PAD  
BEIERLE 26-13HZ**

**Plan A**

**Plan: Permit Rev-1**

SHL Lat/Long: 40.028280/-104.741135  
Survey Program: MWD+IFR

## **Standard Planning Report**

**05 May, 2018**

Project: WELD-NAD83-UTMFT13N  
 Site: 1N-66W-26 BEIERLE 2-26HZ PAD  
 Well: BEIERLE 26-13HZ  
 Wellbore: Plan A  
 Design: Permit Rev-1

# US ROCKIES WATTENBERG PLANNING

CASING DETAILS		
TVD	MD	Size
1500.00	1509.09	9-5/8
7646.00	8087.97	5-1/2

WELL DETAILS: BEIERLE 26-13HZ  
 GL = 5118'  
 RKB = 17' @ 5135.00usft (Drilling Rig)

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N-/S	+E-/W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	
3	794.67	8.17	116.80	792.82	-17.48	34.60	1.50	116.80	-17.38	
4	3594.66	8.17	116.80	3564.40	-196.89	389.77	0.00	0.00	-195.73	
5	4003.16	0.00	0.00	3971.52	-210.00	415.72	2.00	180.00	-208.76	
6	6961.45	0.00	0.00	6929.81	-210.00	415.72	0.00	0.00	-208.76	
7	8087.97	90.12	0.17	7646.00	507.72	417.87	8.00	0.17	508.95	
8	13272.37	90.12	0.17	7635.00	5692.09	433.36	0.00	0.00	5693.35	BEIERLE 26-13HZ_BHL

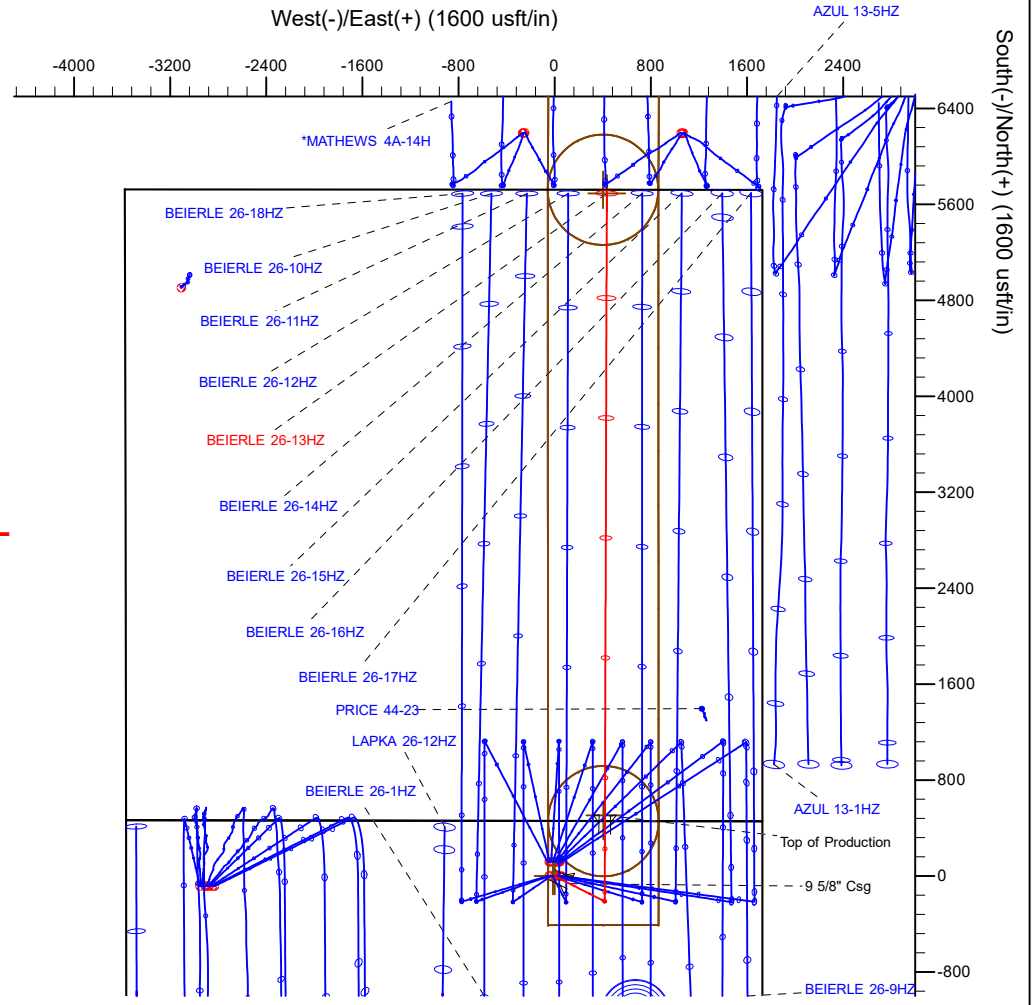
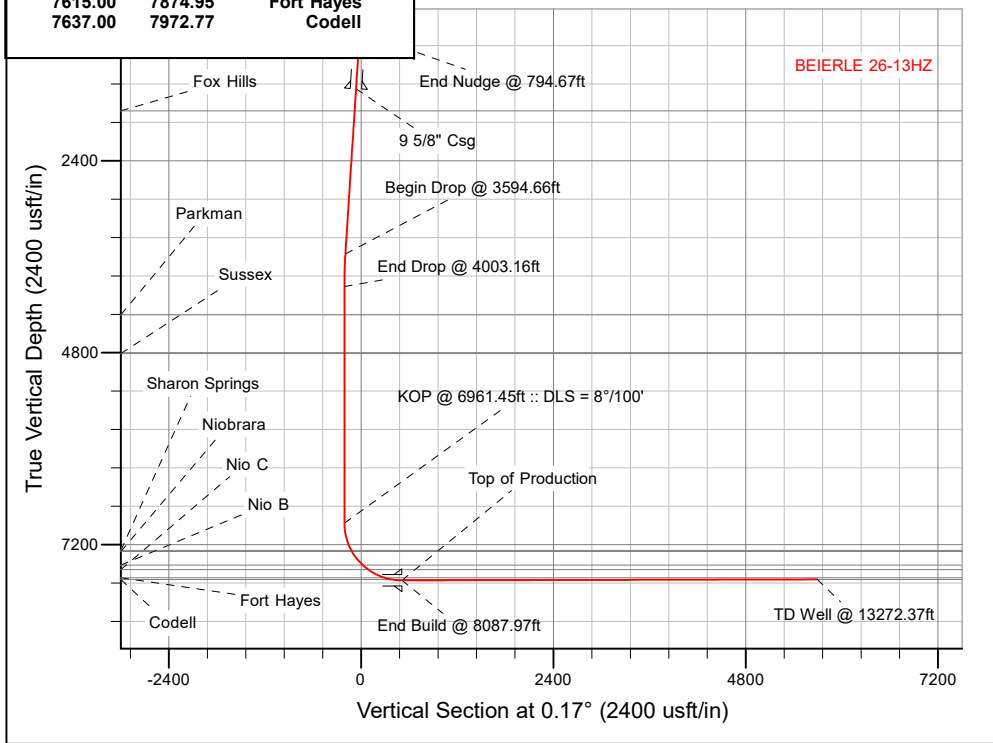
WELLBORE TARGET DETAILS (LAT/LONG)					
Name	TVD	+N-/S	+E-/W	Latitude	Longitude
BEIERLE 26-13HZ_SHL	0.00	0.00	0.00	40.028280	-104.741135
BEIERLE 26-13HZ_BHL	7635.00	5692.09	433.36	40.043911	-104.739587

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1775.00	1786.91	Fox Hills
4327.00	4358.64	Parkman
4811.00	4842.64	Sussex
7271.00	7317.08	Sharon Springs
7286.00	7334.25	Niobrara
7456.00	7552.48	Nio B
7511.00	7639.49	Nio C
7615.00	7874.95	Fort Hayes
7637.00	7972.77	Codell

**SHL**  
**460' FNL**  
**1729' FEL**

**HEEL**  
**48' FSL**  
**1310' FEL**

**TOE**  
**50' FNL**  
**1306' FEL**



**T**  
**M**  
 Azimuths to True North  
 Magnetic North: 8.09°

Magnetic Field  
 Strength: 52111.7snT  
 Dip Angle: 66.54°  
 Date: 3/23/2018  
 Model: IGRF2015

Plan: Permit Rev-1 (BEIERLE 26-13HZ/Plan A)  
 Date: 5/5/2018

## Corporate Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well BEIERLE 26-13HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 5135.00usft (Drilling Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 5135.00usft (Drilling Rig)
<b>Site:</b>	1N-66W-26 BEIERLE 2-26HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	BEIERLE 26-13HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

<b>Project</b>	WELD-NAD83-UTMFT13N		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Zone 13N (108 W to 102 W)		

<b>Site</b>	1N-66W-26 BEIERLE 2-26HZ PAD				
<b>Site Position:</b>		<b>Northing:</b>	14,537,256.31 usft	<b>Latitude:</b>	40.028609
<b>From:</b>	Lat/Long	<b>Easting:</b>	1,712,821.93 usft	<b>Longitude:</b>	-104.741349
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.17 °

<b>Well</b>	BEIERLE 26-13HZ					
<b>Well Position</b>	<b>+N-S</b>	-119.80 usft	<b>Northing:</b>	14,537,136.68 usft	<b>Latitude:</b>	40.028280
	<b>+E-W</b>	59.91 usft	<b>Easting:</b>	1,712,882.18 usft	<b>Longitude:</b>	-104.741135
<b>Position Uncertainty</b>		3.28 usft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	5,118.00 usft

<b>Wellbore</b>	Plan A				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	3/23/2018	8.09	66.54	52,111.69868554

<b>Design</b>	Permit Rev-1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	0.17

<b>Plan Survey Tool Program</b>		<b>Date</b>	5/5/2018		
<b>Depth From (usft)</b>	<b>Depth To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Remarks</b>	
1	0.00	1,500.00	Permit Rev-1 (Plan A)	APC_ISCWSA REV 2 MWD+II Fixed:v2:crustal field declinatio	
2	1,500.00	13,272.37	Permit Rev-1 (Plan A)	APC_ISCWSA REV 2 MWD+II Fixed:v2:crustal field declinatio	

## Corporate Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well BEIERLE 26-13HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 5135.00usft (Drilling Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 5135.00usft (Drilling Rig)
<b>Site:</b>	1N-66W-26 BEIERLE 2-26HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	BEIERLE 26-13HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00	
794.67	8.17	116.80	792.82	-17.48	34.60	1.50	1.50	0.00	116.80	
3,594.66	8.17	116.80	3,564.40	-196.89	389.77	0.00	0.00	0.00	0.00	
4,003.16	0.00	0.00	3,971.52	-210.00	415.72	2.00	-2.00	0.00	180.00	
6,961.45	0.00	0.00	6,929.81	-210.00	415.72	0.00	0.00	0.00	0.00	
8,087.97	90.12	0.17	7,646.00	507.72	417.87	8.00	8.00	0.02	0.17	
13,272.37	90.12	0.17	7,635.00	5,692.09	433.36	0.00	0.00	0.00	0.00	BEIERLE 26-13HZ_B

## Corporate Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well BEIERLE 26-13HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 5135.00usft (Drilling Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 5135.00usft (Drilling Rig)
<b>Site:</b>	1N-66W-26 BEIERLE 2-26HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	BEIERLE 26-13HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-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)	
0.00	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	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Begin Nudge @ 250.00ft</b>										
300.00	0.75	116.80	300.00	-0.15	0.29	-0.15	1.50	1.50	0.00	0.00
400.00	2.25	116.80	399.96	-1.33	2.63	-1.32	1.50	1.50	0.00	0.00
500.00	3.75	116.80	499.82	-3.69	7.30	-3.67	1.50	1.50	0.00	0.00
600.00	5.25	116.80	599.51	-7.22	14.30	-7.18	1.50	1.50	0.00	0.00
700.00	6.75	116.80	698.96	-11.94	23.63	-11.87	1.50	1.50	0.00	0.00
794.67	8.17	116.80	792.82	-17.48	34.60	-17.38	1.50	1.50	0.00	0.00
<b>End Nudge @ 794.67ft</b>										
800.00	8.17	116.80	798.10	-17.82	35.28	-17.72	0.00	0.00	0.00	0.00
900.00	8.17	116.80	897.09	-24.23	47.96	-24.09	0.00	0.00	0.00	0.00
1,000.00	8.17	116.80	996.07	-30.64	60.65	-30.46	0.00	0.00	0.00	0.00
1,100.00	8.17	116.80	1,095.06	-37.04	73.33	-36.83	0.00	0.00	0.00	0.00
1,200.00	8.17	116.80	1,194.04	-43.45	86.02	-43.20	0.00	0.00	0.00	0.00
1,300.00	8.17	116.80	1,293.03	-49.86	98.70	-49.57	0.00	0.00	0.00	0.00
1,400.00	8.17	116.80	1,392.01	-56.27	111.39	-55.93	0.00	0.00	0.00	0.00
1,500.00	8.17	116.80	1,491.00	-62.67	124.07	-62.30	0.00	0.00	0.00	0.00
1,509.09	8.17	116.80	1,500.00	-63.26	125.23	-62.88	0.00	0.00	0.00	0.00
<b>9 5/8" Csg</b>										
1,600.00	8.17	116.80	1,589.98	-69.08	136.76	-68.67	0.00	0.00	0.00	0.00
1,700.00	8.17	116.80	1,688.97	-75.49	149.44	-75.04	0.00	0.00	0.00	0.00
1,786.91	8.17	116.80	1,775.00	-81.06	160.47	-80.58	0.00	0.00	0.00	0.00
<b>Fox Hills</b>										
1,800.00	8.17	116.80	1,787.95	-81.90	162.13	-81.41	0.00	0.00	0.00	0.00
1,900.00	8.17	116.80	1,886.94	-88.30	174.81	-87.78	0.00	0.00	0.00	0.00
2,000.00	8.17	116.80	1,985.92	-94.71	187.49	-94.15	0.00	0.00	0.00	0.00
2,100.00	8.17	116.80	2,084.91	-101.12	200.18	-100.52	0.00	0.00	0.00	0.00
2,200.00	8.17	116.80	2,183.89	-107.53	212.86	-106.89	0.00	0.00	0.00	0.00
2,300.00	8.17	116.80	2,282.88	-113.93	225.55	-113.26	0.00	0.00	0.00	0.00
2,400.00	8.17	116.80	2,381.86	-120.34	238.23	-119.63	0.00	0.00	0.00	0.00
2,500.00	8.17	116.80	2,480.85	-126.75	250.92	-126.00	0.00	0.00	0.00	0.00
2,600.00	8.17	116.80	2,579.83	-133.16	263.60	-132.37	0.00	0.00	0.00	0.00
2,700.00	8.17	116.80	2,678.82	-139.56	276.29	-138.74	0.00	0.00	0.00	0.00
2,800.00	8.17	116.80	2,777.80	-145.97	288.97	-145.11	0.00	0.00	0.00	0.00
2,900.00	8.17	116.80	2,876.79	-152.38	301.66	-151.48	0.00	0.00	0.00	0.00
3,000.00	8.17	116.80	2,975.77	-158.78	314.34	-157.85	0.00	0.00	0.00	0.00
3,100.00	8.17	116.80	3,074.76	-165.19	327.03	-164.22	0.00	0.00	0.00	0.00
3,200.00	8.17	116.80	3,173.74	-171.60	339.71	-170.59	0.00	0.00	0.00	0.00
3,300.00	8.17	116.80	3,272.73	-178.01	352.39	-176.96	0.00	0.00	0.00	0.00
3,400.00	8.17	116.80	3,371.71	-184.41	365.08	-183.33	0.00	0.00	0.00	0.00
3,500.00	8.17	116.80	3,470.70	-190.82	377.76	-189.70	0.00	0.00	0.00	0.00
3,594.66	8.17	116.80	3,564.40	-196.89	389.77	-195.73	0.00	0.00	0.00	0.00
<b>Begin Drop @ 3594.66ft</b>										
3,600.00	8.06	116.80	3,569.68	-197.23	390.44	-196.07	2.00	-2.00	0.00	0.00
3,700.00	6.06	116.80	3,668.92	-202.77	401.42	-201.58	2.00	-2.00	0.00	0.00
3,800.00	4.06	116.80	3,768.53	-206.75	409.30	-205.54	2.00	-2.00	0.00	0.00
3,900.00	2.06	116.80	3,868.38	-209.16	414.07	-207.93	2.00	-2.00	0.00	0.00
4,000.00	0.06	116.80	3,968.36	-210.00	415.72	-208.76	2.00	-2.00	0.00	0.00
4,003.16	0.00	0.00	3,971.52	-210.00	415.72	-208.76	2.00	-2.00	0.00	0.00
<b>End Drop @ 4003.16ft</b>										

## Corporate Planning Report

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<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 5135.00usft (Drilling Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 5135.00usft (Drilling Rig)
<b>Site:</b>	1N-66W-26 BEIERLE 2-26HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	BEIERLE 26-13HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-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)
4,100.00	0.00	0.00	4,068.36	-210.00	415.72	-208.76	0.00	0.00	0.00
4,200.00	0.00	0.00	4,168.36	-210.00	415.72	-208.76	0.00	0.00	0.00
4,300.00	0.00	0.00	4,268.36	-210.00	415.72	-208.76	0.00	0.00	0.00
4,358.64	0.00	0.00	4,327.00	-210.00	415.72	-208.76	0.00	0.00	0.00
<b>Parkman</b>									
4,400.00	0.00	0.00	4,368.36	-210.00	415.72	-208.76	0.00	0.00	0.00
4,500.00	0.00	0.00	4,468.36	-210.00	415.72	-208.76	0.00	0.00	0.00
4,600.00	0.00	0.00	4,568.36	-210.00	415.72	-208.76	0.00	0.00	0.00
4,700.00	0.00	0.00	4,668.36	-210.00	415.72	-208.76	0.00	0.00	0.00
4,800.00	0.00	0.00	4,768.36	-210.00	415.72	-208.76	0.00	0.00	0.00
4,842.64	0.00	0.00	4,811.00	-210.00	415.72	-208.76	0.00	0.00	0.00
<b>Sussex</b>									
4,900.00	0.00	0.00	4,868.36	-210.00	415.72	-208.76	0.00	0.00	0.00
5,000.00	0.00	0.00	4,968.36	-210.00	415.72	-208.76	0.00	0.00	0.00
5,100.00	0.00	0.00	5,068.36	-210.00	415.72	-208.76	0.00	0.00	0.00
5,200.00	0.00	0.00	5,168.36	-210.00	415.72	-208.76	0.00	0.00	0.00
5,300.00	0.00	0.00	5,268.36	-210.00	415.72	-208.76	0.00	0.00	0.00
5,400.00	0.00	0.00	5,368.36	-210.00	415.72	-208.76	0.00	0.00	0.00
5,500.00	0.00	0.00	5,468.36	-210.00	415.72	-208.76	0.00	0.00	0.00
5,600.00	0.00	0.00	5,568.36	-210.00	415.72	-208.76	0.00	0.00	0.00
5,700.00	0.00	0.00	5,668.36	-210.00	415.72	-208.76	0.00	0.00	0.00
5,800.00	0.00	0.00	5,768.36	-210.00	415.72	-208.76	0.00	0.00	0.00
5,900.00	0.00	0.00	5,868.36	-210.00	415.72	-208.76	0.00	0.00	0.00
6,000.00	0.00	0.00	5,968.36	-210.00	415.72	-208.76	0.00	0.00	0.00
6,100.00	0.00	0.00	6,068.36	-210.00	415.72	-208.76	0.00	0.00	0.00
6,200.00	0.00	0.00	6,168.36	-210.00	415.72	-208.76	0.00	0.00	0.00
6,300.00	0.00	0.00	6,268.36	-210.00	415.72	-208.76	0.00	0.00	0.00
6,400.00	0.00	0.00	6,368.36	-210.00	415.72	-208.76	0.00	0.00	0.00
6,500.00	0.00	0.00	6,468.36	-210.00	415.72	-208.76	0.00	0.00	0.00
6,600.00	0.00	0.00	6,568.36	-210.00	415.72	-208.76	0.00	0.00	0.00
6,700.00	0.00	0.00	6,668.36	-210.00	415.72	-208.76	0.00	0.00	0.00
6,800.00	0.00	0.00	6,768.36	-210.00	415.72	-208.76	0.00	0.00	0.00
6,900.00	0.00	0.00	6,868.36	-210.00	415.72	-208.76	0.00	0.00	0.00
6,961.45	0.00	0.00	6,929.81	-210.00	415.72	-208.76	0.00	0.00	0.00
<b>KOP @ 6961.45ft :: DLS = 8°/100'</b>									
7,000.00	3.08	0.17	6,968.34	-208.96	415.73	-207.73	8.00	8.00	0.00
7,100.00	11.08	0.17	7,067.49	-196.64	415.76	-195.40	8.00	8.00	0.00
7,200.00	19.08	0.17	7,163.97	-170.64	415.84	-169.40	8.00	8.00	0.00
7,300.00	27.08	0.17	7,255.89	-131.46	415.96	-130.22	8.00	8.00	0.00
7,317.08	28.45	0.17	7,271.00	-123.50	415.98	-122.27	8.00	8.00	0.00
<b>Sharon Springs</b>									
7,334.25	29.82	0.17	7,286.00	-115.14	416.01	-113.91	8.00	8.00	0.00
<b>Niobrara</b>									
7,400.00	35.08	0.17	7,341.46	-79.87	416.11	-78.64	8.00	8.00	0.00
7,500.00	43.08	0.17	7,419.02	-16.88	416.30	-15.64	8.00	8.00	0.00
7,552.48	47.28	0.17	7,456.00	20.34	416.41	21.58	8.00	8.00	0.00
<b>Nio B</b>									
7,600.00	51.08	0.17	7,487.06	56.30	416.52	57.53	8.00	8.00	0.00
7,639.49	54.24	0.17	7,511.00	87.69	416.61	88.92	8.00	8.00	0.00
<b>Nio C</b>									
7,700.00	59.08	0.17	7,544.25	138.23	416.76	139.47	8.00	8.00	0.00
7,800.00	67.08	0.17	7,589.48	227.32	417.03	228.56	8.00	8.00	0.00
7,874.95	73.08	0.17	7,615.00	297.76	417.24	299.00	8.00	8.00	0.00

## Corporate Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well BEIERLE 26-13HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 5135.00usft (Drilling Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 5135.00usft (Drilling Rig)
<b>Site:</b>	1N-66W-26 BEIERLE 2-26HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	BEIERLE 26-13HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-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)
<b>Fort Hayes</b>									
7,900.00	75.08	0.17	7,621.87	321.85	417.31	323.08	8.00	8.00	0.00
7,972.77	80.91	0.17	7,637.00	393.00	417.53	394.23	8.00	8.00	0.00
<b>Codell</b>									
8,000.00	83.08	0.17	7,640.79	419.96	417.61	421.19	8.00	8.00	0.00
8,087.97	90.12	0.17	7,646.00	507.72	417.87	508.95	8.00	8.00	0.00
<b>End Build @ 8087.97ft - Top of Production</b>									
8,100.00	90.12	0.17	7,645.98	519.75	417.90	520.98	0.00	0.00	0.00
8,200.00	90.12	0.17	7,645.76	619.75	418.20	620.98	0.00	0.00	0.00
8,300.00	90.12	0.17	7,645.55	719.75	418.50	720.98	0.00	0.00	0.00
8,400.00	90.12	0.17	7,645.34	819.74	418.80	820.98	0.00	0.00	0.00
8,500.00	90.12	0.17	7,645.13	919.74	419.10	920.98	0.00	0.00	0.00
8,600.00	90.12	0.17	7,644.91	1,019.74	419.40	1,020.98	0.00	0.00	0.00
8,700.00	90.12	0.17	7,644.70	1,119.74	419.70	1,120.98	0.00	0.00	0.00
8,800.00	90.12	0.17	7,644.49	1,219.74	420.00	1,220.98	0.00	0.00	0.00
8,900.00	90.12	0.17	7,644.28	1,319.74	420.29	1,320.98	0.00	0.00	0.00
9,000.00	90.12	0.17	7,644.07	1,419.74	420.59	1,420.98	0.00	0.00	0.00
9,100.00	90.12	0.17	7,643.85	1,519.74	420.89	1,520.98	0.00	0.00	0.00
9,200.00	90.12	0.17	7,643.64	1,619.74	421.19	1,620.98	0.00	0.00	0.00
9,300.00	90.12	0.17	7,643.43	1,719.74	421.49	1,720.98	0.00	0.00	0.00
9,400.00	90.12	0.17	7,643.22	1,819.74	421.79	1,820.98	0.00	0.00	0.00
9,500.00	90.12	0.17	7,643.00	1,919.74	422.09	1,920.98	0.00	0.00	0.00
9,600.00	90.12	0.17	7,642.79	2,019.74	422.39	2,020.98	0.00	0.00	0.00
9,700.00	90.12	0.17	7,642.58	2,119.74	422.69	2,120.98	0.00	0.00	0.00
9,800.00	90.12	0.17	7,642.37	2,219.74	422.98	2,220.98	0.00	0.00	0.00
9,900.00	90.12	0.17	7,642.16	2,319.73	423.28	2,320.98	0.00	0.00	0.00
10,000.00	90.12	0.17	7,641.94	2,419.73	423.58	2,420.98	0.00	0.00	0.00
10,100.00	90.12	0.17	7,641.73	2,519.73	423.88	2,520.98	0.00	0.00	0.00
10,200.00	90.12	0.17	7,641.52	2,619.73	424.18	2,620.98	0.00	0.00	0.00
10,300.00	90.12	0.17	7,641.31	2,719.73	424.48	2,720.98	0.00	0.00	0.00
10,400.00	90.12	0.17	7,641.10	2,819.73	424.78	2,820.98	0.00	0.00	0.00
10,500.00	90.12	0.17	7,640.88	2,919.73	425.08	2,920.98	0.00	0.00	0.00
10,600.00	90.12	0.17	7,640.67	3,019.73	425.37	3,020.98	0.00	0.00	0.00
10,700.00	90.12	0.17	7,640.46	3,119.73	425.67	3,120.98	0.00	0.00	0.00
10,800.00	90.12	0.17	7,640.25	3,219.73	425.97	3,220.98	0.00	0.00	0.00
10,900.00	90.12	0.17	7,640.03	3,319.73	426.27	3,320.98	0.00	0.00	0.00
11,000.00	90.12	0.17	7,639.82	3,419.73	426.57	3,420.98	0.00	0.00	0.00
11,100.00	90.12	0.17	7,639.61	3,519.73	426.87	3,520.98	0.00	0.00	0.00
11,200.00	90.12	0.17	7,639.40	3,619.73	427.17	3,620.98	0.00	0.00	0.00
11,300.00	90.12	0.17	7,639.19	3,719.73	427.47	3,720.98	0.00	0.00	0.00
11,400.00	90.12	0.17	7,638.97	3,819.72	427.77	3,820.98	0.00	0.00	0.00
11,500.00	90.12	0.17	7,638.76	3,919.72	428.06	3,920.98	0.00	0.00	0.00
11,600.00	90.12	0.17	7,638.55	4,019.72	428.36	4,020.98	0.00	0.00	0.00
11,700.00	90.12	0.17	7,638.34	4,119.72	428.66	4,120.98	0.00	0.00	0.00
11,800.00	90.12	0.17	7,638.12	4,219.72	428.96	4,220.98	0.00	0.00	0.00
11,900.00	90.12	0.17	7,637.91	4,319.72	429.26	4,320.98	0.00	0.00	0.00
12,000.00	90.12	0.17	7,637.70	4,419.72	429.56	4,420.98	0.00	0.00	0.00
12,100.00	90.12	0.17	7,637.49	4,519.72	429.86	4,520.98	0.00	0.00	0.00
12,200.00	90.12	0.17	7,637.28	4,619.72	430.16	4,620.98	0.00	0.00	0.00
12,300.00	90.12	0.17	7,637.06	4,719.72	430.45	4,720.98	0.00	0.00	0.00
12,400.00	90.12	0.17	7,636.85	4,819.72	430.75	4,820.97	0.00	0.00	0.00
12,500.00	90.12	0.17	7,636.64	4,919.72	431.05	4,920.97	0.00	0.00	0.00
12,600.00	90.12	0.17	7,636.43	5,019.72	431.35	5,020.97	0.00	0.00	0.00

## Corporate Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well BEIERLE 26-13HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 5135.00usft (Drilling Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 5135.00usft (Drilling Rig)
<b>Site:</b>	1N-66W-26 BEIERLE 2-26HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	BEIERLE 26-13HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-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)
12,700.00	90.12	0.17	7,636.21	5,119.72	431.65	5,120.97	0.00	0.00	0.00
12,800.00	90.12	0.17	7,636.00	5,219.72	431.95	5,220.97	0.00	0.00	0.00
12,900.00	90.12	0.17	7,635.79	5,319.71	432.25	5,320.97	0.00	0.00	0.00
13,000.00	90.12	0.17	7,635.58	5,419.71	432.55	5,420.97	0.00	0.00	0.00
13,100.00	90.12	0.17	7,635.37	5,519.71	432.85	5,520.97	0.00	0.00	0.00
13,200.00	90.12	0.17	7,635.15	5,619.71	433.14	5,620.97	0.00	0.00	0.00
13,272.37	90.12	0.17	7,635.00	5,692.09	433.36	5,693.35	0.00	0.00	0.00
<b>TD Well @ 13272.37ft</b>									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,509.09	1,500.00	9 5/8" Csg	9-5/8	13-1/2	
8,087.97	7,646.00	Top of Production	5-1/2	7-7/8	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,786.91	1,775.00	Fox Hills				
4,358.64	4,327.00	Parkman				
4,842.64	4,811.00	Sussex				
7,317.08	7,271.00	Sharon Springs				
7,334.25	7,286.00	Niobrara				
7,552.48	7,456.00	Nio B				
7,639.49	7,511.00	Nio C				
7,874.95	7,615.00	Fort Hayes				
7,972.77	7,637.00	Codell				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
250.00	250.00	0.00	0.00	Begin Nudge @ 250.00ft	
794.67	792.82	-17.48	34.60	End Nudge @ 794.67ft	
3,594.66	3,564.40	-196.89	389.77	Begin Drop @ 3594.66ft	
4,003.16	3,971.52	-210.00	415.72	End Drop @ 4003.16ft	
6,961.45	6,929.81	-210.00	415.72	KOP @ 6961.45ft :: DLS = 8°/100'	
8,087.97	7,646.00	507.72	417.87	End Build @ 8087.97ft	
13,272.37	7,635.00	5,692.09	433.36	TD Well @ 13272.37ft	