

# **US ROCKIES WATTENBERG PLANNING**

**WELD-NAD83-UTMFT13N**

**1N-66W-26 BEIERLE 2-26HZ PAD**

**BEIERLE 26-2HZ**

**Plan A**

**Plan: Permit Rev-2**

SHL Lat/Long: 40.028609/-104.741295

Survey Program: MWD+IFR

## **Standard Planning Report**

**12 August, 2018**

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

# US ROCKIES WATTENBERG PLANNING

CASING DETAILS		
TVD	MD	Size
1500.00	1521.68	9-5/8
7664.00	8203.73	5-1/2

WELL DETAILS: BEIERLE 26-2HZ  
GL = 5118'  
RKB = 17' @ 5135.00usft (Drilling Rig)

## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect	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	1312.00	15.93	347.90	1298.37	143.43	-30.75	1.50	347.90	-143.44	
4	4112.00	15.93	347.90	3990.84	894.85	-191.84	0.00	0.00	-894.95	
5	4908.50	0.00	0.00	4777.12	1002.42	-214.90	2.00	180.00	-1002.53	
6	7079.18	0.00	0.00	6947.80	1002.42	-214.90	0.00	0.00	-1002.53	
7	8203.73	89.96	179.97	7664.00	286.67	-214.53	8.00	179.97	-286.79	
8	12969.16	89.96	179.97	7667.00	-4478.75	-212.05	0.00	0.00	4478.64	BEIERLE 26-2HZ_BHL

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
BEIERLE 26-2HZ_SHL	0.00	0.00	0.00	40.028609	-104.741295
BEIERLE 26-2HZ_BHL	7667.00	-4478.75	-212.05	40.016310	-104.742052

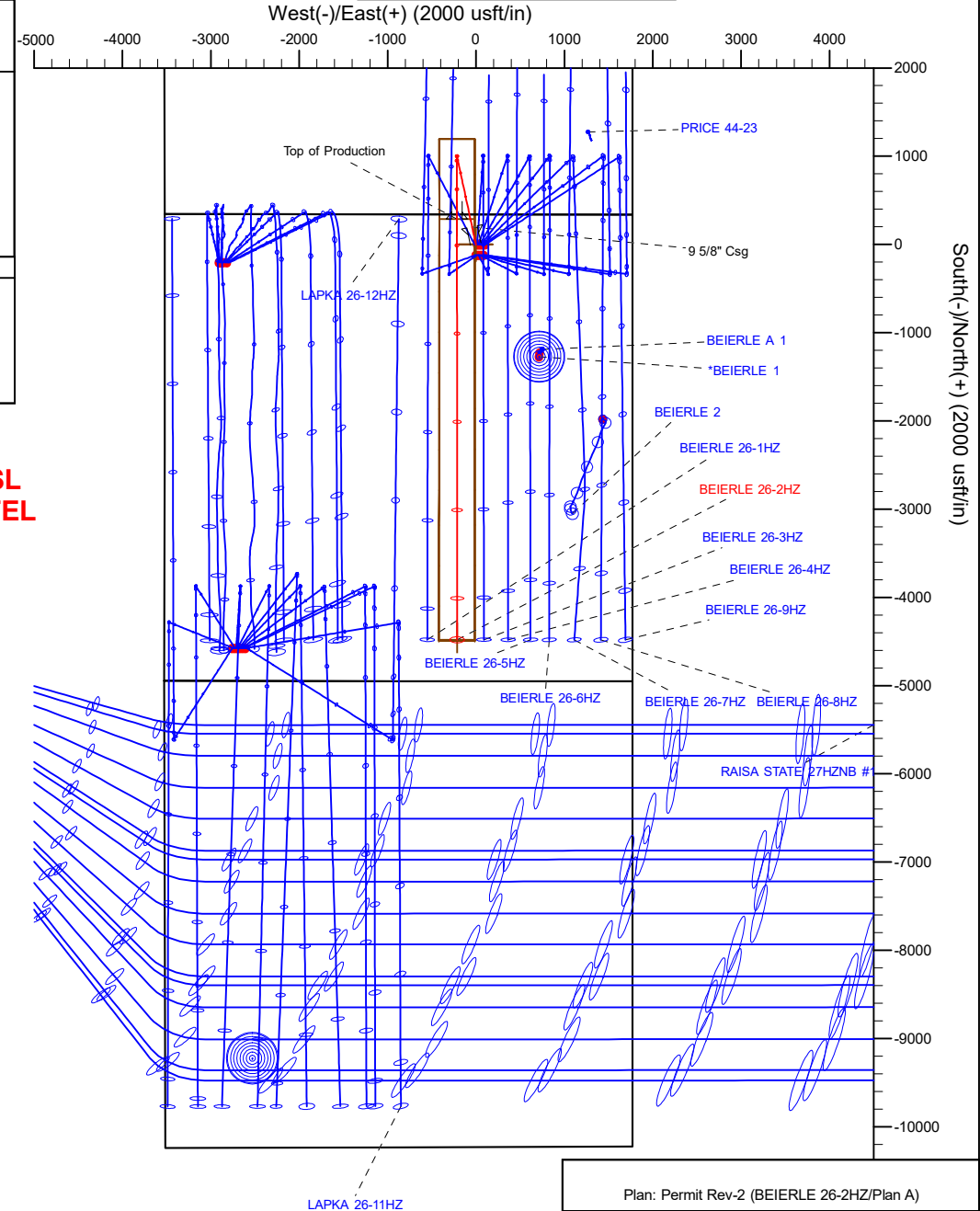
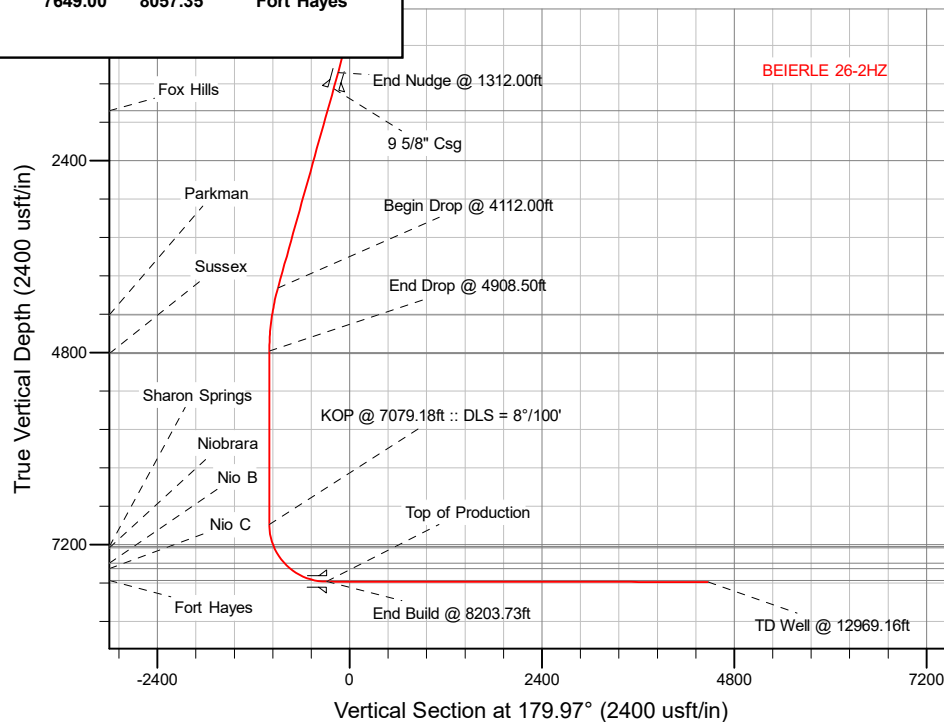
## FORMATION TOP DETAILS

TVDPATH	MDPATH	Formation
1775.00	1807.66	Fox Hills
4327.00	4456.51	Parkman
4811.00	4942.38	Sussex
7225.00	7363.81	Sharon Springs
7240.00	7380.16	Niobrara
7435.00	7614.98	Nio B
7503.00	7714.47	Nio C
7649.00	8057.35	Fort Hayes

SHL  
340' FNL  
1774' FEL

HEEL  
52' FNL  
1989' FEL

TOE  
470' FSL  
1986' FEL



Plan: Permit Rev-2 (BEIERLE 26-2HZ/Plan A)

Date: 8/12/2018

# Corporate Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well BEIERLE 26-2HZ
<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 26-2HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-2		

<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 °

Well		BEIERLE 26-2HZ				
Well Position	+N/-S	0.00 usft	Northing:	14,537,256.36 usft	Latitude:	40.028609
	+E/-W	15.12 usft	Easting:	1,712,837.04 usft	Longitude:	-104.741295
Position Uncertainty		3.28 usft	Wellhead Elevation:		Ground Level:	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	3/24/2018	8.09	66.54	52,111.54086580

<b>Design</b>	Permit Rev-2			
<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	179.97

<b>Plan Survey Tool Program</b>	<b>Date</b>	8/12/2018		
<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-2 (Plan A)	APC_ISCWSA REV 2 MWD+II Fixed:v2:crustal field declinatio
2	1,500.00	12,969.16	Permit Rev-2 (Plan A)	APC_ISCWSA REV 2 MWD+II Fixed:v2:crustal field declinatio

Corporate  
Planning Report

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

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	
1,312.00	15.93	347.90	1,298.37	143.43	-30.75	1.50	1.50	0.00	347.90	
4,112.00	15.93	347.90	3,990.84	894.85	-191.84	0.00	0.00	0.00	0.00	
4,908.50	0.00	0.00	4,777.12	1,002.42	-214.90	2.00	-2.00	0.00	180.00	
7,079.18	0.00	0.00	6,947.80	1,002.42	-214.90	0.00	0.00	0.00	0.00	
8,203.73	89.96	179.97	7,664.00	286.67	-214.53	8.00	8.00	16.00	179.97	
12,969.16	89.96	179.97	7,667.00	-4,478.75	-212.05	0.00	0.00	0.00	0.00	BEIERLE 26-2HZ_BH

# Corporate Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well BEIERLE 26-2HZ
<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 26-2HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-2		

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
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
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 250.00ft									
300.00	0.75	347.90	300.00	0.32	-0.07	-0.32	1.50	1.50	0.00
400.00	2.25	347.90	399.96	2.88	-0.62	-2.88	1.50	1.50	0.00
500.00	3.75	347.90	499.82	8.00	-1.71	-8.00	1.50	1.50	0.00
600.00	5.25	347.90	599.51	15.67	-3.36	-15.67	1.50	1.50	0.00
700.00	6.75	347.90	698.96	25.89	-5.55	-25.89	1.50	1.50	0.00
800.00	8.25	347.90	798.10	38.65	-8.29	-38.65	1.50	1.50	0.00
900.00	9.75	347.90	896.87	53.95	-11.57	-53.95	1.50	1.50	0.00
1,000.00	11.25	347.90	995.19	71.76	-15.38	-71.77	1.50	1.50	0.00
1,100.00	12.75	347.90	1,093.00	92.09	-19.74	-92.10	1.50	1.50	0.00
1,200.00	14.25	347.90	1,190.24	114.92	-24.64	-114.93	1.50	1.50	0.00
1,300.00	15.75	347.90	1,286.83	140.22	-30.06	-140.24	1.50	1.50	0.00
1,312.00	15.93	347.90	1,298.37	143.43	-30.75	-143.44	1.50	1.50	0.00
End Nudge @ 1312.00ft									
1,400.00	15.93	347.90	1,382.99	167.04	-35.81	-167.06	0.00	0.00	0.00
1,500.00	15.93	347.90	1,479.15	193.88	-41.56	-193.90	0.00	0.00	0.00
1,521.68	15.93	347.90	1,500.00	199.70	-42.81	-199.72	0.00	0.00	0.00
9 5/8" Csg									
1,600.00	15.93	347.90	1,575.31	220.72	-47.32	-220.74	0.00	0.00	0.00
1,700.00	15.93	347.90	1,671.47	247.55	-53.07	-247.58	0.00	0.00	0.00
1,800.00	15.93	347.90	1,767.63	274.39	-58.82	-274.42	0.00	0.00	0.00
1,807.66	15.93	347.90	1,775.00	276.45	-59.26	-276.48	0.00	0.00	0.00
Fox Hills									
1,900.00	15.93	347.90	1,863.79	301.23	-64.58	-301.26	0.00	0.00	0.00
2,000.00	15.93	347.90	1,959.95	328.06	-70.33	-328.10	0.00	0.00	0.00
2,100.00	15.93	347.90	2,056.11	354.90	-76.08	-354.94	0.00	0.00	0.00
2,200.00	15.93	347.90	2,152.27	381.74	-81.84	-381.78	0.00	0.00	0.00
2,300.00	15.93	347.90	2,248.43	408.57	-87.59	-408.62	0.00	0.00	0.00
2,400.00	15.93	347.90	2,344.59	435.41	-93.34	-435.46	0.00	0.00	0.00
2,500.00	15.93	347.90	2,440.75	462.24	-99.10	-462.30	0.00	0.00	0.00
2,600.00	15.93	347.90	2,536.91	489.08	-104.85	-489.14	0.00	0.00	0.00
2,700.00	15.93	347.90	2,633.07	515.92	-110.60	-515.98	0.00	0.00	0.00
2,800.00	15.93	347.90	2,729.23	542.75	-116.36	-542.82	0.00	0.00	0.00
2,900.00	15.93	347.90	2,825.39	569.59	-122.11	-569.65	0.00	0.00	0.00
3,000.00	15.93	347.90	2,921.55	596.43	-127.86	-596.49	0.00	0.00	0.00
3,100.00	15.93	347.90	3,017.71	623.26	-133.62	-623.33	0.00	0.00	0.00
3,200.00	15.93	347.90	3,113.87	650.10	-139.37	-650.17	0.00	0.00	0.00
3,300.00	15.93	347.90	3,210.03	676.94	-145.12	-677.01	0.00	0.00	0.00
3,400.00	15.93	347.90	3,306.19	703.77	-150.88	-703.85	0.00	0.00	0.00
3,500.00	15.93	347.90	3,402.35	730.61	-156.63	-730.69	0.00	0.00	0.00
3,600.00	15.93	347.90	3,498.51	757.45	-162.38	-757.53	0.00	0.00	0.00
3,700.00	15.93	347.90	3,594.67	784.28	-168.14	-784.37	0.00	0.00	0.00
3,800.00	15.93	347.90	3,690.83	811.12	-173.89	-811.21	0.00	0.00	0.00
3,900.00	15.93	347.90	3,786.99	837.96	-179.64	-838.05	0.00	0.00	0.00
4,000.00	15.93	347.90	3,883.15	864.79	-185.40	-864.89	0.00	0.00	0.00
4,100.00	15.93	347.90	3,979.31	891.63	-191.15	-891.73	0.00	0.00	0.00
4,112.00	15.93	347.90	3,990.84	894.85	-191.84	-894.95	0.00	0.00	0.00
Begin Drop @ 4112.00ft									
4,200.00	14.17	347.90	4,075.82	917.19	-196.63	-917.29	2.00	-2.00	0.00
4,300.00	12.17	347.90	4,173.19	939.47	-201.40	-939.57	2.00	-2.00	0.00

# Corporate Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well BEIERLE 26-2HZ
<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 26-2HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-2		

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)
4,400.00	10.17	347.90	4,271.29	958.41	-205.46	-958.52	2.00	-2.00	0.00
4,456.51	9.04	347.90	4,327.00	967.63	-207.44	-967.74	2.00	-2.00	0.00
<b>Parkman</b>									
4,500.00	8.17	347.90	4,370.00	973.99	-208.81	-974.10	2.00	-2.00	0.00
4,600.00	6.17	347.90	4,469.22	986.19	-211.42	-986.30	2.00	-2.00	0.00
4,700.00	4.17	347.90	4,568.81	995.00	-213.31	-995.12	2.00	-2.00	0.00
4,800.00	2.17	347.90	4,668.65	1,000.41	-214.47	-1,000.52	2.00	-2.00	0.00
4,900.00	0.17	347.90	4,768.62	1,002.41	-214.90	-1,002.52	2.00	-2.00	0.00
4,908.50	0.00	0.00	4,777.12	1,002.42	-214.90	-1,002.53	2.00	-2.00	0.00
<b>End Drop @ 4908.50ft</b>									
4,942.38	0.00	0.00	4,811.00	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
<b>Sussex</b>									
5,000.00	0.00	0.00	4,868.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
5,100.00	0.00	0.00	4,968.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
5,200.00	0.00	0.00	5,068.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
5,300.00	0.00	0.00	5,168.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
5,400.00	0.00	0.00	5,268.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
5,500.00	0.00	0.00	5,368.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
5,600.00	0.00	0.00	5,468.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
5,700.00	0.00	0.00	5,568.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
5,800.00	0.00	0.00	5,668.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
5,900.00	0.00	0.00	5,768.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
6,000.00	0.00	0.00	5,868.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
6,100.00	0.00	0.00	5,968.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
6,200.00	0.00	0.00	6,068.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
6,300.00	0.00	0.00	6,168.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
6,400.00	0.00	0.00	6,268.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
6,500.00	0.00	0.00	6,368.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
6,600.00	0.00	0.00	6,468.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
6,700.00	0.00	0.00	6,568.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
6,800.00	0.00	0.00	6,668.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
6,900.00	0.00	0.00	6,768.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
7,000.00	0.00	0.00	6,868.62	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
7,079.18	0.00	0.00	6,947.80	1,002.42	-214.90	-1,002.53	0.00	0.00	0.00
<b>KOP @ 7079.18ft :: DLS = 8°/100'</b>									
7,100.00	1.67	179.97	6,968.62	1,002.12	-214.90	-1,002.23	8.00	8.00	0.00
7,200.00	9.67	179.97	7,068.05	992.25	-214.89	-992.37	8.00	8.00	0.00
7,300.00	17.67	179.97	7,165.14	968.65	-214.88	-968.76	8.00	8.00	0.00
7,363.81	22.77	179.97	7,225.00	946.60	-214.87	-946.71	8.00	8.00	0.00
<b>Sharon Springs</b>									
7,380.16	24.08	179.97	7,240.00	940.10	-214.87	-940.21	8.00	8.00	0.00
<b>Niobrara</b>									
7,400.00	25.67	179.97	7,258.00	931.76	-214.86	-931.87	8.00	8.00	0.00
7,500.00	33.67	179.97	7,344.82	882.30	-214.84	-882.42	8.00	8.00	0.00
7,600.00	41.67	179.97	7,423.92	821.25	-214.81	-821.36	8.00	8.00	0.00
7,614.98	42.86	179.97	7,435.00	811.18	-214.80	-811.29	8.00	8.00	0.00
<b>Nio B</b>									
7,700.00	49.67	179.97	7,493.74	749.78	-214.77	-749.89	8.00	8.00	0.00
7,714.47	50.82	179.97	7,503.00	738.65	-214.76	-738.77	8.00	8.00	0.00
<b>Nio C</b>									
7,800.00	57.67	179.97	7,552.95	669.29	-214.73	-669.40	8.00	8.00	0.00
7,900.00	65.67	179.97	7,600.37	581.34	-214.68	-581.45	8.00	8.00	0.00
8,000.00	73.67	179.97	7,635.09	487.65	-214.63	-487.76	8.00	8.00	0.00

# Corporate Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well BEIERLE 26-2HZ
<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 26-2HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-2		

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)	
8,057.35	78.25	179.97	7,649.00	432.03	-214.60	-432.14	8.00	8.00	0.00	
Fort Hayes										
8,100.00	81.67	179.97	7,656.44	390.04	-214.58	-390.15	8.00	8.00	0.00	
8,200.00	89.67	179.97	7,663.99	290.40	-214.53	-290.51	8.00	8.00	0.00	
8,203.73	89.96	179.97	7,664.00	286.67	-214.53	-286.78	8.00	8.00	0.00	
End Build @ 8203.73ft - Top of Production										
8,300.00	89.96	179.97	7,664.06	190.40	-214.48	-190.51	0.00	0.00	0.00	
8,400.00	89.96	179.97	7,664.12	90.40	-214.43	-90.51	0.00	0.00	0.00	
8,500.00	89.96	179.97	7,664.19	-9.60	-214.37	9.49	0.00	0.00	0.00	
8,600.00	89.96	179.97	7,664.25	-109.60	-214.32	109.49	0.00	0.00	0.00	
8,700.00	89.96	179.97	7,664.31	-209.60	-214.27	209.49	0.00	0.00	0.00	
8,800.00	89.96	179.97	7,664.37	-309.60	-214.22	309.49	0.00	0.00	0.00	
8,900.00	89.96	179.97	7,664.44	-409.60	-214.17	409.49	0.00	0.00	0.00	
9,000.00	89.96	179.97	7,664.50	-509.60	-214.11	509.49	0.00	0.00	0.00	
9,100.00	89.96	179.97	7,664.56	-609.60	-214.06	609.49	0.00	0.00	0.00	
9,200.00	89.96	179.97	7,664.63	-709.60	-214.01	709.49	0.00	0.00	0.00	
9,300.00	89.96	179.97	7,664.69	-809.60	-213.96	809.49	0.00	0.00	0.00	
9,400.00	89.96	179.97	7,664.75	-909.60	-213.91	909.49	0.00	0.00	0.00	
9,500.00	89.96	179.97	7,664.82	-1,009.60	-213.86	1,009.49	0.00	0.00	0.00	
9,600.00	89.96	179.97	7,664.88	-1,109.60	-213.80	1,109.49	0.00	0.00	0.00	
9,700.00	89.96	179.97	7,664.94	-1,209.60	-213.75	1,209.49	0.00	0.00	0.00	
9,800.00	89.96	179.97	7,665.00	-1,309.60	-213.70	1,309.49	0.00	0.00	0.00	
9,900.00	89.96	179.97	7,665.07	-1,409.60	-213.65	1,409.49	0.00	0.00	0.00	
10,000.00	89.96	179.97	7,665.13	-1,509.60	-213.60	1,509.49	0.00	0.00	0.00	
10,100.00	89.96	179.97	7,665.19	-1,609.60	-213.54	1,609.49	0.00	0.00	0.00	
10,200.00	89.96	179.97	7,665.26	-1,709.60	-213.49	1,709.49	0.00	0.00	0.00	
10,300.00	89.96	179.97	7,665.32	-1,809.60	-213.44	1,809.49	0.00	0.00	0.00	
10,400.00	89.96	179.97	7,665.38	-1,909.60	-213.39	1,909.49	0.00	0.00	0.00	
10,500.00	89.96	179.97	7,665.45	-2,009.60	-213.34	2,009.49	0.00	0.00	0.00	
10,600.00	89.96	179.97	7,665.51	-2,109.60	-213.28	2,109.48	0.00	0.00	0.00	
10,700.00	89.96	179.97	7,665.57	-2,209.60	-213.23	2,209.48	0.00	0.00	0.00	
10,800.00	89.96	179.97	7,665.63	-2,309.60	-213.18	2,309.48	0.00	0.00	0.00	
10,900.00	89.96	179.97	7,665.70	-2,409.60	-213.13	2,409.48	0.00	0.00	0.00	
11,000.00	89.96	179.97	7,665.76	-2,509.60	-213.08	2,509.48	0.00	0.00	0.00	
11,100.00	89.96	179.97	7,665.82	-2,609.60	-213.02	2,609.48	0.00	0.00	0.00	
11,200.00	89.96	179.97	7,665.89	-2,709.60	-212.97	2,709.48	0.00	0.00	0.00	
11,300.00	89.96	179.97	7,665.95	-2,809.60	-212.92	2,809.48	0.00	0.00	0.00	
11,400.00	89.96	179.97	7,666.01	-2,909.60	-212.87	2,909.48	0.00	0.00	0.00	
11,500.00	89.96	179.97	7,666.08	-3,009.60	-212.82	3,009.48	0.00	0.00	0.00	
11,600.00	89.96	179.97	7,666.14	-3,109.60	-212.76	3,109.48	0.00	0.00	0.00	
11,700.00	89.96	179.97	7,666.20	-3,209.60	-212.71	3,209.48	0.00	0.00	0.00	
11,800.00	89.96	179.97	7,666.26	-3,309.60	-212.66	3,309.48	0.00	0.00	0.00	
11,900.00	89.96	179.97	7,666.33	-3,409.60	-212.61	3,409.48	0.00	0.00	0.00	
12,000.00	89.96	179.97	7,666.39	-3,509.60	-212.56	3,509.48	0.00	0.00	0.00	
12,100.00	89.96	179.97	7,666.45	-3,609.60	-212.50	3,609.48	0.00	0.00	0.00	
12,200.00	89.96	179.97	7,666.52	-3,709.60	-212.45	3,709.48	0.00	0.00	0.00	
12,300.00	89.96	179.97	7,666.58	-3,809.60	-212.40	3,809.48	0.00	0.00	0.00	
12,400.00	89.96	179.97	7,666.64	-3,909.60	-212.35	3,909.48	0.00	0.00	0.00	
12,500.00	89.96	179.97	7,666.70	-4,009.60	-212.30	4,009.48	0.00	0.00	0.00	
12,600.00	89.96	179.97	7,666.77	-4,109.60	-212.25	4,109.48	0.00	0.00	0.00	
12,700.00	89.96	179.97	7,666.83	-4,209.60	-212.19	4,209.48	0.00	0.00	0.00	
12,800.00	89.96	179.97	7,666.89	-4,309.60	-212.14	4,309.48	0.00	0.00	0.00	
12,900.00	89.96	179.97	7,666.96	-4,409.60	-212.09	4,409.48	0.00	0.00	0.00	

# Corporate Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well BEIERLE 26-2HZ
<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 26-2HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-2		

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)
12,969.16	89.96	179.97	7,667.00	-4,478.75	-212.05	4,478.64	0.00	0.00	0.00
TD Well @ 12969.16ft									

Casing Points				
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,521.68	1,500.00	9 5/8" Csg	9-5/8	13-1/2
8,203.73	7,664.00	Top of Production	5-1/2	7-7/8

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,807.66	1,775.00	Fox Hills			
4,456.51	4,327.00	Parkman			
4,942.38	4,811.00	Sussex			
7,363.81	7,225.00	Sharon Springs			
7,380.16	7,240.00	Niobrara			
7,614.98	7,435.00	Nio B			
7,714.47	7,503.00	Nio C			
8,057.35	7,649.00	Fort Hayes			

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
1,312.00	1,298.37	143.43	-30.75	End Nudge @ 1312.00ft
4,112.00	3,990.84	894.85	-191.84	Begin Drop @ 4112.00ft
4,908.50	4,777.12	1,002.42	-214.90	End Drop @ 4908.50ft
7,079.18	6,947.80	1,002.42	-214.90	KOP @ 7079.18ft :: DLS = 8°/100'
8,203.73	7,664.00	286.67	-214.53	End Build @ 8203.73ft
12,969.16	7,667.00	-4,478.75	-212.05	TD Well @ 12969.16ft