

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

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

BEIERLE 26-15HZ

Plan A

Plan: Permit Rev-2

Surface Location Lat/Long: 40.028279/-104.741082

Survey Program: MWD+IFR

Standard Planning Report

04 March, 2020

Project: WELD-NAD83-UTMFT13N
Site: 1N-66W-26 BEIERLE 2-26HZ PAD
Well: BEIERLE 26-15HZ
Wellbore: Plan A
Design: Permit Rev-2

US ROCKIES WATTENBERG PLANNING

CASING DETAILS

TVD	MD	Name	Size
1500.00	1520.67	9 5/8" Csg	9-5/8
7694.00	8736.10	Top of Production	5-1/2

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	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	
3	2078.67	26.68	177.50	2015.08	-406.31	17.74	1.50	177.50	-406.53	
4	7273.13	26.68	177.50	6656.48	-2736.44	119.48	0.00	0.00	-2737.94	
5	8736.10	90.37	359.13	7694.00	-2091.67	124.60	8.00	-178.17	-2093.32	
6	16501.56	90.37	359.13	7644.00	5672.74	6.53	0.00	0.00	5671.99	BEIERLE 26-15HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
BEIERLE 26-15HZ_SHL	0.00	0.00	0.00	40.028279	-104.741082
BEIERLE 26-15HZ_BHL	7644.00	5672.74	6.53	40.043857	-104.741059

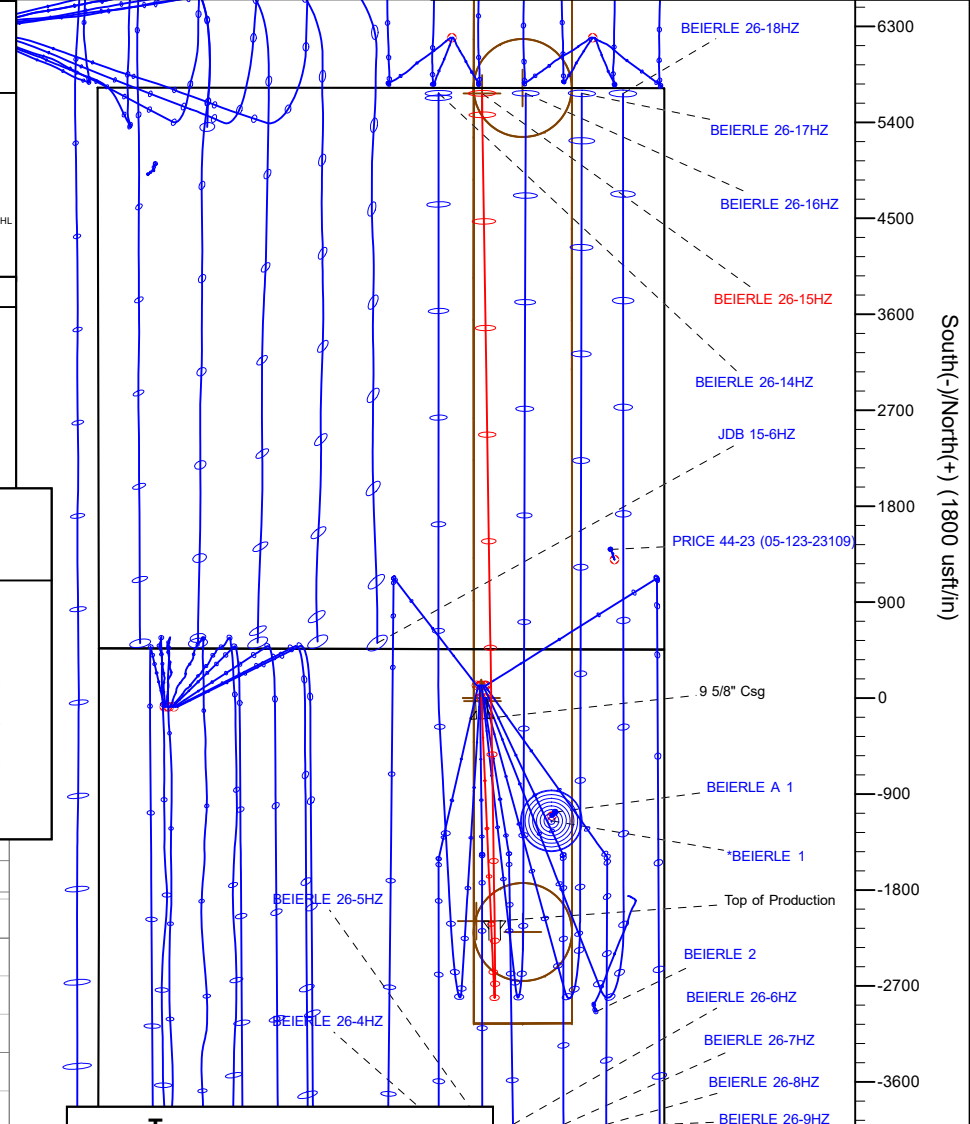
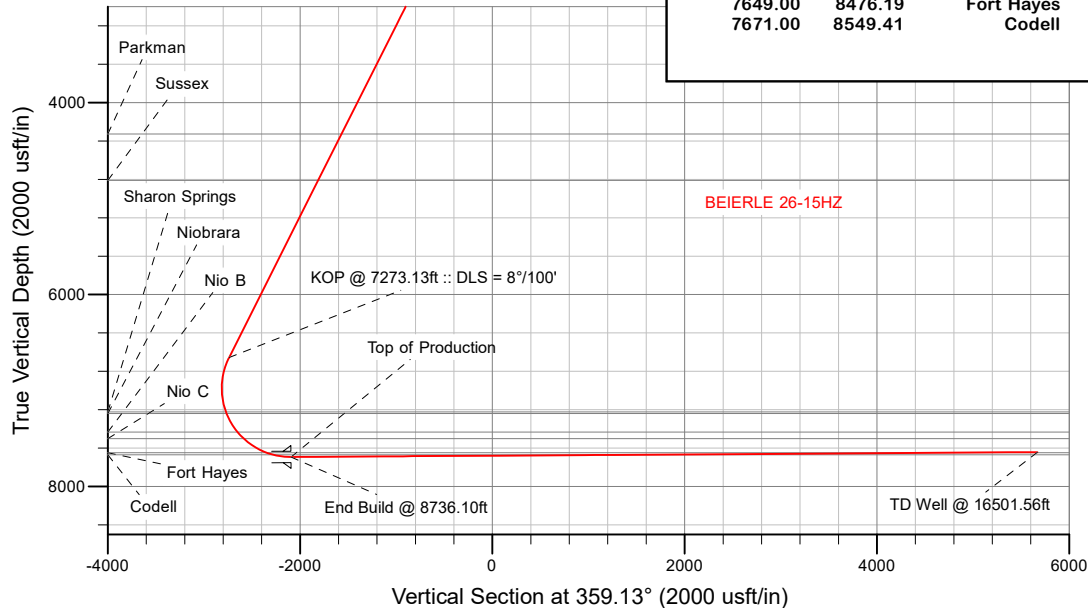
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1775.00	1814.36	Fox Hills
4327.00	4666.07	Parkman
4811.00	5207.74	Sussex
7225.00	7858.80	Sharon Springs
7240.00	7874.85	Niobrara
7435.00	8102.30	Nio B
7503.00	8195.99	Nio C
7649.00	8476.19	Fort Hayes
7671.00	8549.41	Codell

SHL
460' FNL
1714' FEL

HEEL
2550' FNL
1591' FEL

BHL
50' FNL
1707' FEL



Azimuths to True North
Magnetic North: 7.88°

Magnetic Field
Strength: 51891.3snT
Dip Angle: 66.49°
Date: 2/29/2020
Model: IGRF2015

WELL DETAILS: BEIERLE 26-15HZ

GL = 5118'

RKB = 17' @ 5135.00usft (Drilling Rig)

Plan: Permit Rev-2 (BEIERLE 26-15HZ/Plan A)

Date: 3/5/2020

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BEIERLE 26-15HZ
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 26-15HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

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

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

Well		BEIERLE 26-15HZ				
Well Position	+N/-S	-120.17 usft	Northing:	14,537,136.36 usft	Latitude:	40.028279
	+E/-W	74.74 usft	Easting:	1,712,897.02 usft	Longitude:	-104.741082
Position Uncertainty		3.28 usft	Wellhead Elevation:		Ground Level:	5,118.00 usft

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2/29/2020	7.88	66.49	51,891.33765799

Design	Permit Rev-2			
Audit Notes:				
Version:		Phase:	PLAN	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.13

Plan Survey Tool Program	Date	3/4/2020		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	1,500.00	Permit Rev-2 (Plan A)	APC_ISCWSA REV 2 MWD+II Fixed:v2:crustal field declination
2	1,500.00	16,501.56	Permit Rev-2 (Plan A)	APC_ISCWSA REV 2 MWD+II Fixed:v2:crustal field declination

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	
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,078.67	26.68	177.50	2,015.08	-406.31	17.74	1.50	1.50	0.00	177.50	
7,273.13	26.68	177.50	6,656.48	-2,736.44	119.48	0.00	0.00	0.00	0.00	
8,736.10	90.37	359.13	7,694.00	-2,091.67	124.60	8.00	4.35	-12.19	-178.17	
16,501.56	90.37	359.13	7,644.00	5,672.74	6.53	0.00	0.00	0.00	0.00	BEIERLE 26-15HZ_B

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BEIERLE 26-15HZ
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 26-15HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	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
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 300.00ft									
400.00	1.50	177.50	399.99	-1.31	0.06	-1.31	1.50	1.50	0.00
500.00	3.00	177.50	499.91	-5.23	0.23	-5.23	1.50	1.50	0.00
600.00	4.50	177.50	599.69	-11.76	0.51	-11.77	1.50	1.50	0.00
700.00	6.00	177.50	699.27	-20.90	0.91	-20.92	1.50	1.50	0.00
800.00	7.50	177.50	798.57	-32.65	1.43	-32.67	1.50	1.50	0.00
900.00	9.00	177.50	897.54	-46.98	2.05	-47.01	1.50	1.50	0.00
1,000.00	10.50	177.50	996.09	-63.90	2.79	-63.94	1.50	1.50	0.00
1,100.00	12.00	177.50	1,094.16	-83.39	3.64	-83.44	1.50	1.50	0.00
1,200.00	13.50	177.50	1,191.70	-105.44	4.60	-105.50	1.50	1.50	0.00
1,300.00	15.00	177.50	1,288.62	-130.03	5.68	-130.10	1.50	1.50	0.00
1,400.00	16.50	177.50	1,384.86	-157.15	6.86	-157.23	1.50	1.50	0.00
1,500.00	18.00	177.50	1,480.36	-186.77	8.15	-186.87	1.50	1.50	0.00
1,520.67	18.31	177.50	1,500.00	-193.21	8.44	-193.31	1.50	1.50	0.00
9 5/8" Csg									
1,600.00	19.50	177.50	1,575.05	-218.88	9.56	-219.00	1.50	1.50	0.00
1,700.00	21.00	177.50	1,668.86	-253.46	11.07	-253.60	1.50	1.50	0.00
1,800.00	22.50	177.50	1,761.74	-290.48	12.68	-290.64	1.50	1.50	0.00
1,814.36	22.72	177.50	1,775.00	-296.00	12.92	-296.16	1.50	1.50	0.00
Fox Hills									
1,900.00	24.00	177.50	1,853.62	-329.92	14.40	-330.10	1.50	1.50	0.00
2,000.00	25.50	177.50	1,944.43	-371.74	16.23	-371.95	1.50	1.50	0.00
2,078.67	26.68	177.50	2,015.08	-406.31	17.74	-406.53	1.50	1.50	0.00
Hold Tangent @ 2078.67ft									
2,100.00	26.68	177.50	2,034.14	-415.88	18.16	-416.10	0.00	0.00	0.00
2,200.00	26.68	177.50	2,123.50	-460.73	20.12	-460.99	0.00	0.00	0.00
2,300.00	26.68	177.50	2,212.85	-505.59	22.07	-505.87	0.00	0.00	0.00
2,400.00	26.68	177.50	2,302.20	-550.45	24.03	-550.75	0.00	0.00	0.00
2,500.00	26.68	177.50	2,391.55	-595.31	25.99	-595.63	0.00	0.00	0.00
2,600.00	26.68	177.50	2,480.91	-640.16	27.95	-640.52	0.00	0.00	0.00
2,700.00	26.68	177.50	2,570.26	-685.02	29.91	-685.40	0.00	0.00	0.00
2,800.00	26.68	177.50	2,659.61	-729.88	31.87	-730.28	0.00	0.00	0.00
2,900.00	26.68	177.50	2,748.97	-774.74	33.83	-775.16	0.00	0.00	0.00
3,000.00	26.68	177.50	2,838.32	-819.60	35.78	-820.05	0.00	0.00	0.00
3,100.00	26.68	177.50	2,927.67	-864.45	37.74	-864.93	0.00	0.00	0.00
3,200.00	26.68	177.50	3,017.02	-909.31	39.70	-909.81	0.00	0.00	0.00
3,300.00	26.68	177.50	3,106.38	-954.17	41.66	-954.69	0.00	0.00	0.00
3,400.00	26.68	177.50	3,195.73	-999.03	43.62	-999.58	0.00	0.00	0.00
3,500.00	26.68	177.50	3,285.08	-1,043.89	45.58	-1,044.46	0.00	0.00	0.00
3,600.00	26.68	177.50	3,374.44	-1,088.74	47.54	-1,089.34	0.00	0.00	0.00
3,700.00	26.68	177.50	3,463.79	-1,133.60	49.49	-1,134.22	0.00	0.00	0.00
3,800.00	26.68	177.50	3,553.14	-1,178.46	51.45	-1,179.11	0.00	0.00	0.00
3,900.00	26.68	177.50	3,642.49	-1,223.32	53.41	-1,223.99	0.00	0.00	0.00
4,000.00	26.68	177.50	3,731.85	-1,268.18	55.37	-1,268.87	0.00	0.00	0.00
4,100.00	26.68	177.50	3,821.20	-1,313.03	57.33	-1,313.75	0.00	0.00	0.00
4,200.00	26.68	177.50	3,910.55	-1,357.89	59.29	-1,358.64	0.00	0.00	0.00
4,300.00	26.68	177.50	3,999.90	-1,402.75	61.25	-1,403.52	0.00	0.00	0.00
4,400.00	26.68	177.50	4,089.26	-1,447.61	63.20	-1,448.40	0.00	0.00	0.00
4,500.00	26.68	177.50	4,178.61	-1,492.47	65.16	-1,493.28	0.00	0.00	0.00

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BEIERLE 26-15HZ
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 26-15HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	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)
4,600.00	26.68	177.50	4,267.96	-1,537.32	67.12	-1,538.17	0.00	0.00	0.00
4,666.07	26.68	177.50	4,327.00	-1,566.96	68.42	-1,567.82	0.00	0.00	0.00
Parkman									
4,700.00	26.68	177.50	4,357.32	-1,582.18	69.08	-1,583.05	0.00	0.00	0.00
4,800.00	26.68	177.50	4,446.67	-1,627.04	71.04	-1,627.93	0.00	0.00	0.00
4,900.00	26.68	177.50	4,536.02	-1,671.90	73.00	-1,672.81	0.00	0.00	0.00
5,000.00	26.68	177.50	4,625.37	-1,716.76	74.96	-1,717.70	0.00	0.00	0.00
5,100.00	26.68	177.50	4,714.73	-1,761.61	76.91	-1,762.58	0.00	0.00	0.00
5,200.00	26.68	177.50	4,804.08	-1,806.47	78.87	-1,807.46	0.00	0.00	0.00
5,207.74	26.68	177.50	4,811.00	-1,809.95	79.02	-1,810.94	0.00	0.00	0.00
Sussex									
5,300.00	26.68	177.50	4,893.43	-1,851.33	80.83	-1,852.34	0.00	0.00	0.00
5,400.00	26.68	177.50	4,982.79	-1,896.19	82.79	-1,897.23	0.00	0.00	0.00
5,500.00	26.68	177.50	5,072.14	-1,941.05	84.75	-1,942.11	0.00	0.00	0.00
5,600.00	26.68	177.50	5,161.49	-1,985.90	86.71	-1,986.99	0.00	0.00	0.00
5,700.00	26.68	177.50	5,250.84	-2,030.76	88.66	-2,031.87	0.00	0.00	0.00
5,800.00	26.68	177.50	5,340.20	-2,075.62	90.62	-2,076.76	0.00	0.00	0.00
5,900.00	26.68	177.50	5,429.55	-2,120.48	92.58	-2,121.64	0.00	0.00	0.00
6,000.00	26.68	177.50	5,518.90	-2,165.34	94.54	-2,166.52	0.00	0.00	0.00
6,100.00	26.68	177.50	5,608.26	-2,210.19	96.50	-2,211.40	0.00	0.00	0.00
6,200.00	26.68	177.50	5,697.61	-2,255.05	98.46	-2,256.29	0.00	0.00	0.00
6,300.00	26.68	177.50	5,786.96	-2,299.91	100.42	-2,301.17	0.00	0.00	0.00
6,400.00	26.68	177.50	5,876.31	-2,344.77	102.37	-2,346.05	0.00	0.00	0.00
6,500.00	26.68	177.50	5,965.67	-2,389.63	104.33	-2,390.93	0.00	0.00	0.00
6,600.00	26.68	177.50	6,055.02	-2,434.48	106.29	-2,435.82	0.00	0.00	0.00
6,700.00	26.68	177.50	6,144.37	-2,479.34	108.25	-2,480.70	0.00	0.00	0.00
6,800.00	26.68	177.50	6,233.73	-2,524.20	110.21	-2,525.58	0.00	0.00	0.00
6,900.00	26.68	177.50	6,323.08	-2,569.06	112.17	-2,570.46	0.00	0.00	0.00
7,000.00	26.68	177.50	6,412.43	-2,613.92	114.13	-2,615.35	0.00	0.00	0.00
7,100.00	26.68	177.50	6,501.78	-2,658.77	116.08	-2,660.23	0.00	0.00	0.00
7,200.00	26.68	177.50	6,591.14	-2,703.63	118.04	-2,705.11	0.00	0.00	0.00
7,273.13	26.68	177.50	6,656.48	-2,736.44	119.48	-2,737.94	0.00	0.00	0.00
KOP @ 7273.13ft :: DLS = 8°/100'									
7,300.00	24.53	177.33	6,680.71	-2,748.04	120.00	-2,749.54	8.00	-8.00	-0.61
7,400.00	16.54	176.37	6,774.28	-2,783.04	121.87	-2,784.56	8.00	-7.99	-0.97
7,500.00	8.56	173.67	6,871.81	-2,804.67	123.59	-2,806.22	8.00	-7.98	-2.70
7,600.00	0.97	121.42	6,971.41	-2,812.52	125.14	-2,814.10	8.00	-7.59	-52.25
7,700.00	7.53	5.36	7,071.14	-2,806.43	126.48	-2,808.03	8.00	6.55	-116.06
7,800.00	15.50	2.10	7,169.04	-2,786.52	127.58	-2,788.14	8.00	7.98	-3.27
7,858.80	20.20	1.37	7,225.00	-2,768.51	128.11	-2,770.14	8.00	7.99	-1.24
Sharon Springs									
7,874.85	21.48	1.22	7,240.00	-2,762.80	128.24	-2,764.43	8.00	7.99	-0.91
Niobrara									
7,900.00	23.49	1.02	7,263.23	-2,753.18	128.42	-2,754.82	8.00	7.99	-0.78
8,000.00	31.49	0.47	7,351.87	-2,707.06	129.00	-2,708.71	8.00	8.00	-0.55
8,100.00	39.49	0.13	7,433.22	-2,649.05	129.29	-2,650.71	8.00	8.00	-0.34
8,102.30	39.67	0.12	7,435.00	-2,647.59	129.29	-2,649.24	8.00	8.00	-0.28
Nio B									
8,195.99	47.17	359.90	7,503.00	-2,583.24	129.29	-2,584.90	8.00	8.00	-0.24
Nio C									
8,200.00	47.49	359.89	7,505.72	-2,580.29	129.29	-2,581.96	8.00	8.00	-0.21
8,300.00	55.49	359.70	7,567.94	-2,502.11	129.00	-2,503.78	8.00	8.00	-0.19
8,400.00	63.48	359.54	7,618.67	-2,416.03	128.42	-2,417.70	8.00	8.00	-0.15

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BEIERLE 26-15HZ
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 26-15HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	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)
8,476.19	69.58	359.44	7,649.00	-2,346.18	127.80	-2,347.85	8.00	8.00	-0.14
Fort Hayes									
8,500.00	71.48	359.41	7,656.94	-2,323.73	127.58	-2,325.40	8.00	8.00	-0.13
8,549.41	75.44	359.35	7,671.00	-2,276.38	127.06	-2,278.05	8.00	8.00	-0.12
Codell									
8,600.00	79.48	359.29	7,681.98	-2,227.01	126.47	-2,228.67	8.00	8.00	-0.12
8,700.00	87.48	359.17	7,693.33	-2,127.75	125.13	-2,129.40	8.00	8.00	-0.12
8,736.10	90.37	359.13	7,694.00	-2,091.66	124.60	-2,093.31	8.00	8.00	-0.11
End Build @ 8736.10ft - Top of Production									
8,800.00	90.37	359.13	7,693.59	-2,027.77	123.63	-2,029.41	0.00	0.00	0.00
8,900.00	90.37	359.13	7,692.95	-1,927.78	122.11	-1,929.42	0.00	0.00	0.00
9,000.00	90.37	359.13	7,692.30	-1,827.80	120.59	-1,829.42	0.00	0.00	0.00
9,100.00	90.37	359.13	7,691.66	-1,727.81	119.07	-1,729.42	0.00	0.00	0.00
9,200.00	90.37	359.13	7,691.02	-1,627.82	117.55	-1,629.42	0.00	0.00	0.00
9,300.00	90.37	359.13	7,690.37	-1,527.84	116.03	-1,529.42	0.00	0.00	0.00
9,400.00	90.37	359.13	7,689.73	-1,427.85	114.51	-1,429.43	0.00	0.00	0.00
9,500.00	90.37	359.13	7,689.08	-1,327.87	112.98	-1,329.43	0.00	0.00	0.00
9,600.00	90.37	359.13	7,688.44	-1,227.88	111.46	-1,229.43	0.00	0.00	0.00
9,700.00	90.37	359.13	7,687.80	-1,127.89	109.94	-1,129.43	0.00	0.00	0.00
9,800.00	90.37	359.13	7,687.15	-1,027.91	108.42	-1,029.43	0.00	0.00	0.00
9,900.00	90.37	359.13	7,686.51	-927.92	106.90	-929.44	0.00	0.00	0.00
10,000.00	90.37	359.13	7,685.86	-827.93	105.38	-829.44	0.00	0.00	0.00
10,100.00	90.37	359.13	7,685.22	-727.95	103.86	-729.44	0.00	0.00	0.00
10,200.00	90.37	359.13	7,684.58	-627.96	102.34	-629.44	0.00	0.00	0.00
10,300.00	90.37	359.13	7,683.93	-527.97	100.82	-529.44	0.00	0.00	0.00
10,400.00	90.37	359.13	7,683.29	-427.99	99.30	-429.45	0.00	0.00	0.00
10,500.00	90.37	359.13	7,682.65	-328.00	97.78	-329.45	0.00	0.00	0.00
10,600.00	90.37	359.13	7,682.00	-228.02	96.26	-229.45	0.00	0.00	0.00
10,700.00	90.37	359.13	7,681.36	-128.03	94.74	-129.45	0.00	0.00	0.00
10,800.00	90.37	359.13	7,680.71	-28.04	93.22	-29.45	0.00	0.00	0.00
10,900.00	90.37	359.13	7,680.07	71.94	91.70	70.54	0.00	0.00	0.00
11,000.00	90.37	359.13	7,679.43	171.93	90.18	170.54	0.00	0.00	0.00
11,100.00	90.37	359.13	7,678.78	271.92	88.66	270.54	0.00	0.00	0.00
11,200.00	90.37	359.13	7,678.14	371.90	87.14	370.54	0.00	0.00	0.00
11,300.00	90.37	359.13	7,677.49	471.89	85.62	470.54	0.00	0.00	0.00
11,400.00	90.37	359.13	7,676.85	571.88	84.10	570.53	0.00	0.00	0.00
11,500.00	90.37	359.13	7,676.21	671.86	82.58	670.53	0.00	0.00	0.00
11,600.00	90.37	359.13	7,675.56	771.85	81.06	770.53	0.00	0.00	0.00
11,700.00	90.37	359.13	7,674.92	871.83	79.53	870.53	0.00	0.00	0.00
11,800.00	90.37	359.13	7,674.27	971.82	78.01	970.52	0.00	0.00	0.00
11,900.00	90.37	359.13	7,673.63	1,071.81	76.49	1,070.52	0.00	0.00	0.00
12,000.00	90.37	359.13	7,672.99	1,171.79	74.97	1,170.52	0.00	0.00	0.00
12,100.00	90.37	359.13	7,672.34	1,271.78	73.45	1,270.52	0.00	0.00	0.00
12,200.00	90.37	359.13	7,671.70	1,371.77	71.93	1,370.52	0.00	0.00	0.00
12,300.00	90.37	359.13	7,671.05	1,471.75	70.41	1,470.51	0.00	0.00	0.00
12,400.00	90.37	359.13	7,670.41	1,571.74	68.89	1,570.51	0.00	0.00	0.00
12,500.00	90.37	359.13	7,669.77	1,671.73	67.37	1,670.51	0.00	0.00	0.00
12,600.00	90.37	359.13	7,669.12	1,771.71	65.85	1,770.51	0.00	0.00	0.00
12,700.00	90.37	359.13	7,668.48	1,871.70	64.33	1,870.51	0.00	0.00	0.00
12,800.00	90.37	359.13	7,667.84	1,971.69	62.81	1,970.50	0.00	0.00	0.00
12,900.00	90.37	359.13	7,667.19	2,071.67	61.29	2,070.50	0.00	0.00	0.00
13,000.00	90.37	359.13	7,666.55	2,171.66	59.77	2,170.50	0.00	0.00	0.00
13,100.00	90.37	359.13	7,665.90	2,271.64	58.25	2,270.50	0.00	0.00	0.00

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BEIERLE 26-15HZ
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 26-15HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	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)
13,200.00	90.37	359.13	7,665.26	2,371.63	56.73	2,370.50	0.00	0.00	0.00
13,300.00	90.37	359.13	7,664.62	2,471.62	55.21	2,470.49	0.00	0.00	0.00
13,400.00	90.37	359.13	7,663.97	2,571.60	53.69	2,570.49	0.00	0.00	0.00
13,500.00	90.37	359.13	7,663.33	2,671.59	52.17	2,670.49	0.00	0.00	0.00
13,600.00	90.37	359.13	7,662.68	2,771.58	50.65	2,770.49	0.00	0.00	0.00
13,700.00	90.37	359.13	7,662.04	2,871.56	49.13	2,870.49	0.00	0.00	0.00
13,800.00	90.37	359.13	7,661.40	2,971.55	47.61	2,970.48	0.00	0.00	0.00
13,900.00	90.37	359.13	7,660.75	3,071.54	46.09	3,070.48	0.00	0.00	0.00
14,000.00	90.37	359.13	7,660.11	3,171.52	44.56	3,170.48	0.00	0.00	0.00
14,100.00	90.37	359.13	7,659.46	3,271.51	43.04	3,270.48	0.00	0.00	0.00
14,200.00	90.37	359.13	7,658.82	3,371.49	41.52	3,370.48	0.00	0.00	0.00
14,300.00	90.37	359.13	7,658.18	3,471.48	40.00	3,470.47	0.00	0.00	0.00
14,400.00	90.37	359.13	7,657.53	3,571.47	38.48	3,570.47	0.00	0.00	0.00
14,500.00	90.37	359.13	7,656.89	3,671.45	36.96	3,670.47	0.00	0.00	0.00
14,600.00	90.37	359.13	7,656.24	3,771.44	35.44	3,770.47	0.00	0.00	0.00
14,700.00	90.37	359.13	7,655.60	3,871.43	33.92	3,870.46	0.00	0.00	0.00
14,800.00	90.37	359.13	7,654.96	3,971.41	32.40	3,970.46	0.00	0.00	0.00
14,900.00	90.37	359.13	7,654.31	4,071.40	30.88	4,070.46	0.00	0.00	0.00
15,000.00	90.37	359.13	7,653.67	4,171.39	29.36	4,170.46	0.00	0.00	0.00
15,100.00	90.37	359.13	7,653.03	4,271.37	27.84	4,270.46	0.00	0.00	0.00
15,200.00	90.37	359.13	7,652.38	4,371.36	26.32	4,370.45	0.00	0.00	0.00
15,300.00	90.37	359.13	7,651.74	4,471.34	24.80	4,470.45	0.00	0.00	0.00
15,400.00	90.37	359.13	7,651.09	4,571.33	23.28	4,570.45	0.00	0.00	0.00
15,500.00	90.37	359.13	7,650.45	4,671.32	21.76	4,670.45	0.00	0.00	0.00
15,600.00	90.37	359.13	7,649.81	4,771.30	20.24	4,770.45	0.00	0.00	0.00
15,700.00	90.37	359.13	7,649.16	4,871.29	18.72	4,870.44	0.00	0.00	0.00
15,800.00	90.37	359.13	7,648.52	4,971.28	17.20	4,970.44	0.00	0.00	0.00
15,900.00	90.37	359.13	7,647.87	5,071.26	15.68	5,070.44	0.00	0.00	0.00
16,000.00	90.37	359.13	7,647.23	5,171.25	14.16	5,170.44	0.00	0.00	0.00
16,100.00	90.37	359.13	7,646.59	5,271.24	12.64	5,270.44	0.00	0.00	0.00
16,200.00	90.37	359.13	7,645.94	5,371.22	11.12	5,370.43	0.00	0.00	0.00
16,300.00	90.37	359.13	7,645.30	5,471.21	9.59	5,470.43	0.00	0.00	0.00
16,400.00	90.37	359.13	7,644.65	5,571.19	8.07	5,570.43	0.00	0.00	0.00
16,500.00	90.37	359.13	7,644.01	5,671.18	6.55	5,670.43	0.00	0.00	0.00
16,501.56	90.37	359.13	7,644.00	5,672.74	6.53	5,671.99	0.00	0.00	0.00
TD Well @ 16501.56ft									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,520.67	1,500.00	9 5/8" Csg	9-5/8	13-1/2	
8,736.10	7,694.00	Top of Production	5-1/2	7-7/8	

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BEIERLE 26-15HZ
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 26-15HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,814.36	1,775.00	Fox Hills				
4,666.07	4,327.00	Parkman				
5,207.74	4,811.00	Sussex				
7,858.80	7,225.00	Sharon Springs				
7,874.85	7,240.00	Niobrara				
8,102.30	7,435.00	Nio B				
8,195.99	7,503.00	Nio C				
8,476.19	7,649.00	Fort Hayes				
8,549.41	7,671.00	Codell				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
300.00	300.00	0.00	0.00	Begin Nudge @ 300.00ft	
2,078.67	2,015.08	-406.31	17.74	Hold Tangent @ 2078.67ft	
7,273.13	6,656.48	-2,736.44	119.48	KOP @ 7273.13ft :: DLS = 8"/100'	
8,736.10	7,694.00	-2,091.67	124.60	End Build @ 8736.10ft	
16,501.56	7,644.00	5,672.74	6.53	TD Well @ 16501.56ft	