

US ROCKIES WATTENBERG PLANNING

**WELD-NAD83-UTMFT13N
5N-68W-13 Folley 16-13HZ Pad
Folley South #1**

Plan A

Plan: Permit Rev-3

Standard Planning Report

29 June, 2016



Azimuths to True North
Magnetic North: 8.30°

Magnetic Field
Strength: 52590.7snT
Dip Angle: 66.85°
Date: 5/16/2016
Model: IGRF2010

SITE: 5N-68W-13 Folley 16-13HZ Pad

Well: Folley South #1
Wellbore: Plan A
Design: Permit Rev-3

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
499.00	499.00	Fox Hills
3846.00	3826.55	Sussex
6676.00	6791.15	Sharon Springs
6723.00	6857.06	Niobrara
6838.00	7081.90	Nio B

WELL DETAILS: Folley South #1

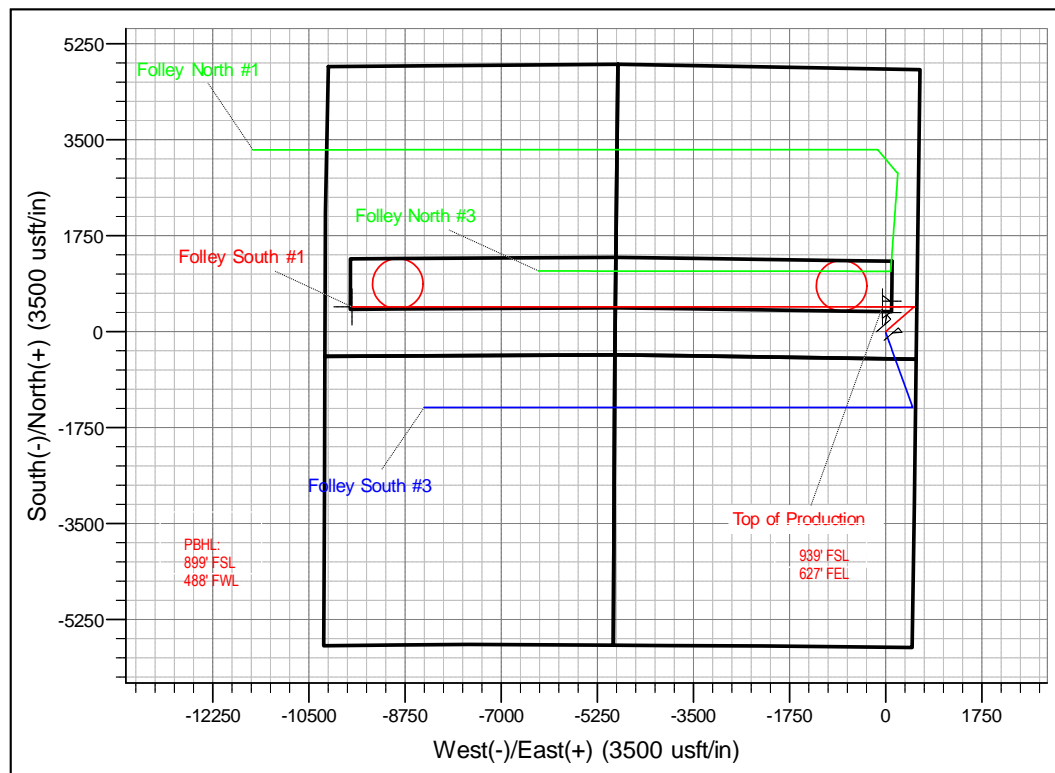
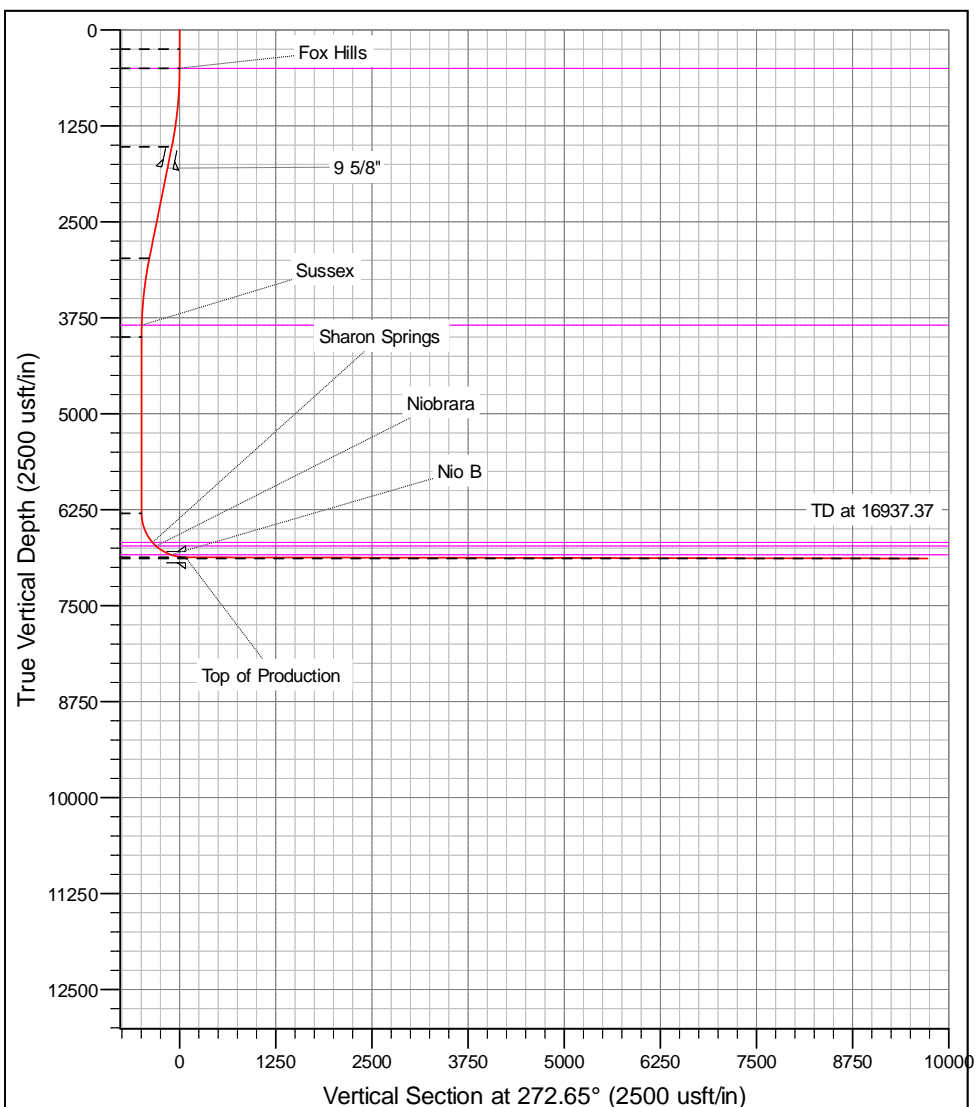
+N/-S	+E/-W	GL: 4887.00	RKB @ 4904.00usft (D Rig)	Longitude	Slot
0.00	0.00	Northing 14670156.60	Easting 1655220.52	Latitude 40.393842	

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect
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
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00
1537.23	15.56	48.85	1524.53	92.09	105.40	1.50	-101.02
3043.36	15.56	48.85	2975.47	357.91	409.60	0.00	-392.61
4080.59	0.00	0.00	4000.00	450.00	515.00	1.50	-493.63
6379.30	0.00	0.00	6298.71	450.00	515.00	0.00	-493.63
7278.45	89.92	270.00	6871.67	450.00	-57.11	10.00	77.87
16937.37	89.92	270.00	6886.00	450.00	-9716.01	0.00	9726.43

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
FOLEY SOUTH #1_PHL	6871.67	450.00	-57.11	14670606.57	1655163.14	40.395078	-104.947037
FOLEY SOUTH #1_PBHL	6886.00	450.00	-9716.01	14670600.76	1645504.24	40.395072	-104.981728



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Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well Folley South #1
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 4904.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 4904.00usft (D Rig)
Site:	5N-68W-13 Folley 16-13HZ Pad	North Reference:	True
Well:	Folley South #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-3		

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						5N-68W-13 Folley 16-13HZ Pad											
Site Position:						Northing:			14,670,156.60 usft			Latitude:			40.393842		
From:			Lat/Long			Easting:			1,655,220.52 usft			Longitude:			-104.946832		
Position Uncertainty:			0.00 usft			Slot Radius:			13-3/16 "			Grid Convergence:			0.03		

Well	Folley South #1					
Well Position	+N/-S	0.00 usft	Northing:	14,670,156.60 usft	Latitude:	40.393842
	+E/-W	0.00 usft	Easting:	1,655,220.52 usft	Longitude:	-104.946832
Position Uncertainty		3.28 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,887.00 usft

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	5/16/2016	8.30	66.85	52,591

Design	Permit Rev-3				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.00	0.00	0.00	272.65	

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	
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,537.23	15.56	48.85	1,524.53	92.09	105.40	1.50	1.50	0.00	48.85	
3,043.36	15.56	48.85	2,975.47	357.91	409.60	0.00	0.00	0.00	0.00	
4,080.59	0.00	0.00	4,000.00	450.00	515.00	1.50	-1.50	0.00	180.00	
6,379.30	0.00	0.00	6,298.71	450.00	515.00	0.00	0.00	0.00	0.00	
7,278.45	89.92	270.00	6,871.67	450.00	-57.11	10.00	10.00	0.00	270.00	
16,937.37	89.92	270.00	6,886.00	450.00	-9,716.01	0.00	0.00	0.00	0.00	FOLLEY SOUTH #1

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Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well Folley South #1
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 4904.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 4904.00usft (D Rig)
Site:	5N-68W-13 Folley 16-13HZ Pad	North Reference:	True
Well:	Folley South #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-3		

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
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
499.00	0.00	0.00	499.00	0.00	0.00	0.00	0.00	0.00	0.00
Fox Hills									
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	1.50	48.85	599.99	0.86	0.99	-0.94	1.50	1.50	0.00
700.00	3.00	48.85	699.91	3.44	3.94	-3.78	1.50	1.50	0.00
800.00	4.50	48.85	799.69	7.75	8.87	-8.50	1.50	1.50	0.00
900.00	6.00	48.85	899.27	13.77	15.76	-15.10	1.50	1.50	0.00
1,000.00	7.50	48.85	998.57	21.50	24.61	-23.59	1.50	1.50	0.00
1,100.00	9.00	48.85	1,097.54	30.94	35.41	-33.94	1.50	1.50	0.00
1,200.00	10.50	48.85	1,196.09	42.09	48.16	-46.17	1.50	1.50	0.00
1,300.00	12.00	48.85	1,294.16	54.92	62.86	-60.25	1.50	1.50	0.00
1,400.00	13.50	48.85	1,391.70	69.44	79.47	-76.18	1.50	1.50	0.00
1,500.00	15.00	48.85	1,488.62	85.64	98.01	-93.94	1.50	1.50	0.00
1,537.23	15.56	48.85	1,524.53	92.09	105.40	-101.02	1.50	1.50	0.00
1,600.00	15.56	48.85	1,585.00	103.17	118.08	-113.18	0.00	0.00	0.00
1,700.00	15.56	48.85	1,681.34	120.82	138.27	-132.54	0.00	0.00	0.00
1,800.00	15.56	48.85	1,777.67	138.47	158.47	-151.90	0.00	0.00	0.00
1,823.18	15.56	48.85	1,800.00	142.56	163.15	-156.38	0.00	0.00	0.00
9 5/8"									
1,900.00	15.56	48.85	1,874.01	156.12	178.67	-171.25	0.00	0.00	0.00
2,000.00	15.56	48.85	1,970.34	173.77	198.87	-190.61	0.00	0.00	0.00
2,100.00	15.56	48.85	2,066.68	191.42	219.06	-209.97	0.00	0.00	0.00
2,200.00	15.56	48.85	2,163.01	209.06	239.26	-229.33	0.00	0.00	0.00
2,300.00	15.56	48.85	2,259.35	226.71	259.46	-248.69	0.00	0.00	0.00
2,400.00	15.56	48.85	2,355.69	244.36	279.66	-268.05	0.00	0.00	0.00
2,500.00	15.56	48.85	2,452.02	262.01	299.86	-287.41	0.00	0.00	0.00
2,600.00	15.56	48.85	2,548.36	279.66	320.05	-306.77	0.00	0.00	0.00
2,700.00	15.56	48.85	2,644.69	297.31	340.25	-326.13	0.00	0.00	0.00
2,800.00	15.56	48.85	2,741.03	314.96	360.45	-345.49	0.00	0.00	0.00
2,900.00	15.56	48.85	2,837.36	332.60	380.65	-364.85	0.00	0.00	0.00
3,000.00	15.56	48.85	2,933.70	350.25	400.84	-384.21	0.00	0.00	0.00
3,043.36	15.56	48.85	2,975.47	357.91	409.60	-392.61	0.00	0.00	0.00
3,100.00	14.71	48.85	3,030.15	367.63	420.74	-403.28	1.50	-1.50	0.00
3,200.00	13.21	48.85	3,127.19	383.51	438.90	-420.69	1.50	-1.50	0.00
3,300.00	11.71	48.85	3,224.83	397.70	455.15	-436.26	1.50	-1.50	0.00
3,400.00	10.21	48.85	3,323.01	410.21	469.46	-449.98	1.50	-1.50	0.00
3,500.00	8.71	48.85	3,421.64	421.02	481.84	-461.84	1.50	-1.50	0.00
3,600.00	7.21	48.85	3,520.68	430.13	492.26	-471.84	1.50	-1.50	0.00
3,700.00	5.71	48.85	3,620.04	437.53	500.73	-479.95	1.50	-1.50	0.00
3,800.00	4.21	48.85	3,719.66	443.22	507.24	-486.19	1.50	-1.50	0.00
3,900.00	2.71	48.85	3,819.48	447.19	511.79	-490.55	1.50	-1.50	0.00
3,926.55	2.31	48.85	3,846.00	447.96	512.66	-491.39	1.50	-1.50	0.00
Sussex									
4,000.00	1.21	48.85	3,919.42	449.44	514.36	-493.02	1.50	-1.50	0.00
4,080.59	0.00	0.00	4,000.00	450.00	515.00	-493.63	1.50	-1.50	0.00
4,100.00	0.00	0.00	4,019.41	450.00	515.00	-493.63	0.00	0.00	0.00
4,200.00	0.00	0.00	4,119.41	450.00	515.00	-493.63	0.00	0.00	0.00

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Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well Folley South #1
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 4904.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 4904.00usft (D Rig)
Site:	5N-68W-13 Folley 16-13HZ Pad	North Reference:	True
Well:	Folley South #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-3		

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)
4,300.00	0.00	0.00	4,219.41	450.00	515.00	-493.63	0.00	0.00	0.00
4,400.00	0.00	0.00	4,319.41	450.00	515.00	-493.63	0.00	0.00	0.00
4,500.00	0.00	0.00	4,419.41	450.00	515.00	-493.63	0.00	0.00	0.00
4,600.00	0.00	0.00	4,519.41	450.00	515.00	-493.63	0.00	0.00	0.00
4,700.00	0.00	0.00	4,619.41	450.00	515.00	-493.63	0.00	0.00	0.00
4,800.00	0.00	0.00	4,719.41	450.00	515.00	-493.63	0.00	0.00	0.00
4,900.00	0.00	0.00	4,819.41	450.00	515.00	-493.63	0.00	0.00	0.00
5,000.00	0.00	0.00	4,919.41	450.00	515.00	-493.63	0.00	0.00	0.00
5,100.00	0.00	0.00	5,019.41	450.00	515.00	-493.63	0.00	0.00	0.00
5,200.00	0.00	0.00	5,119.41	450.00	515.00	-493.63	0.00	0.00	0.00
5,300.00	0.00	0.00	5,219.41	450.00	515.00	-493.63	0.00	0.00	0.00
5,400.00	0.00	0.00	5,319.41	450.00	515.00	-493.63	0.00	0.00	0.00
5,500.00	0.00	0.00	5,419.41	450.00	515.00	-493.63	0.00	0.00	0.00
5,600.00	0.00	0.00	5,519.41	450.00	515.00	-493.63	0.00	0.00	0.00
5,700.00	0.00	0.00	5,619.41	450.00	515.00	-493.63	0.00	0.00	0.00
5,800.00	0.00	0.00	5,719.41	450.00	515.00	-493.63	0.00	0.00	0.00
5,900.00	0.00	0.00	5,819.41	450.00	515.00	-493.63	0.00	0.00	0.00
6,000.00	0.00	0.00	5,919.41	450.00	515.00	-493.63	0.00	0.00	0.00
6,100.00	0.00	0.00	6,019.41	450.00	515.00	-493.63	0.00	0.00	0.00
6,200.00	0.00	0.00	6,119.41	450.00	515.00	-493.63	0.00	0.00	0.00
6,300.00	0.00	0.00	6,219.41	450.00	515.00	-493.63	0.00	0.00	0.00
6,379.30	0.00	0.00	6,298.71	450.00	515.00	-493.63	0.00	0.00	0.00
6,400.00	2.07	270.00	6,319.41	450.00	514.63	-493.26	10.00	10.00	0.00
6,500.00	12.07	270.00	6,418.52	450.00	502.33	-480.98	10.00	10.00	0.00
6,600.00	22.07	270.00	6,513.99	450.00	473.02	-451.69	10.00	10.00	0.00
6,700.00	32.07	270.00	6,602.93	450.00	427.57	-406.29	10.00	10.00	0.00
6,791.15	41.18	270.00	6,676.00	450.00	373.24	-352.03	10.00	10.00	0.00
Sharon Springs									
6,800.00	42.07	270.00	6,682.62	450.00	367.37	-346.15	10.00	10.00	0.00
6,857.06	47.78	270.00	6,723.00	450.00	327.09	-305.92	10.00	10.00	0.00
Niobrara									
6,900.00	52.07	270.00	6,750.64	450.00	294.24	-273.11	10.00	10.00	0.00
7,000.00	62.07	270.00	6,804.93	450.00	210.41	-189.37	10.00	10.00	0.00
7,081.90	70.26	270.00	6,838.00	450.00	135.56	-114.60	10.00	10.00	0.00
Nio B									
7,100.00	72.07	270.00	6,843.84	450.00	118.43	-97.49	10.00	10.00	0.00
7,200.00	82.07	270.00	6,866.19	450.00	21.09	-0.25	10.00	10.00	0.00
7,278.45	89.91	270.00	6,871.67	450.00	-57.11	77.86	10.00	10.00	0.00
Top of Production - FOLLEY SOUTH #1_PHL									
7,300.00	89.92	270.00	6,871.70	450.00	-78.66	99.39	0.00	0.00	0.00
7,400.00	89.92	270.00	6,871.85	450.00	-178.66	199.28	0.00	0.00	0.00
7,500.00	89.92	270.00	6,872.00	450.00	-278.66	299.18	0.00	0.00	0.00
7,600.00	89.92	270.00	6,872.15	450.00	-378.66	399.07	0.00	0.00	0.00
7,700.00	89.92	270.00	6,872.30	450.00	-478.66	498.96	0.00	0.00	0.00
7,800.00	89.92	270.00	6,872.44	450.00	-578.65	598.85	0.00	0.00	0.00
7,900.00	89.92	270.00	6,872.59	450.00	-678.65	698.75	0.00	0.00	0.00
8,000.00	89.92	270.00	6,872.74	450.00	-778.65	798.64	0.00	0.00	0.00
8,100.00	89.92	270.00	6,872.89	450.00	-878.65	898.53	0.00	0.00	0.00
8,200.00	89.92	270.00	6,873.04	450.00	-978.65	998.43	0.00	0.00	0.00
8,300.00	89.92	270.00	6,873.19	450.00	-1,078.65	1,098.32	0.00	0.00	0.00
8,400.00	89.92	270.00	6,873.33	450.00	-1,178.65	1,198.21	0.00	0.00	0.00
8,500.00	89.92	270.00	6,873.48	450.00	-1,278.65	1,298.10	0.00	0.00	0.00
8,600.00	89.92	270.00	6,873.63	450.00	-1,378.65	1,398.00	0.00	0.00	0.00
8,700.00	89.92	270.00	6,873.78	450.00	-1,478.65	1,497.89	0.00	0.00	0.00

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Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well Folley South #1
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 4904.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 4904.00usft (D Rig)
Site:	5N-68W-13 Folley 16-13HZ Pad	North Reference:	True
Well:	Folley South #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-3		

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)
8,800.00	89.92	270.00	6,873.93	450.00	-1,578.65	1,597.78	0.00	0.00	0.00
8,900.00	89.92	270.00	6,874.08	450.00	-1,678.65	1,697.68	0.00	0.00	0.00
9,000.00	89.92	270.00	6,874.22	450.00	-1,778.65	1,797.57	0.00	0.00	0.00
9,100.00	89.92	270.00	6,874.37	450.00	-1,878.65	1,897.46	0.00	0.00	0.00
9,200.00	89.92	270.00	6,874.52	450.00	-1,978.65	1,997.35	0.00	0.00	0.00
9,300.00	89.92	270.00	6,874.67	450.00	-2,078.65	2,097.25	0.00	0.00	0.00
9,400.00	89.92	270.00	6,874.82	450.00	-2,178.65	2,197.14	0.00	0.00	0.00
9,500.00	89.92	270.00	6,874.97	450.00	-2,278.65	2,297.03	0.00	0.00	0.00
9,600.00	89.92	270.00	6,875.11	450.00	-2,378.65	2,396.93	0.00	0.00	0.00
9,700.00	89.92	270.00	6,875.26	450.00	-2,478.65	2,496.82	0.00	0.00	0.00
9,800.00	89.92	270.00	6,875.41	450.00	-2,578.65	2,596.71	0.00	0.00	0.00
9,900.00	89.92	270.00	6,875.56	450.00	-2,678.65	2,696.60	0.00	0.00	0.00
10,000.00	89.92	270.00	6,875.71	450.00	-2,778.65	2,796.50	0.00	0.00	0.00
10,100.00	89.92	270.00	6,875.86	450.00	-2,878.65	2,896.39	0.00	0.00	0.00
10,200.00	89.92	270.00	6,876.01	450.00	-2,978.65	2,996.28	0.00	0.00	0.00
10,300.00	89.92	270.00	6,876.15	450.00	-3,078.65	3,096.18	0.00	0.00	0.00
10,400.00	89.92	270.00	6,876.30	450.00	-3,178.65	3,196.07	0.00	0.00	0.00
10,500.00	89.92	270.00	6,876.45	450.00	-3,278.65	3,295.96	0.00	0.00	0.00
10,600.00	89.92	270.00	6,876.60	450.00	-3,378.65	3,395.85	0.00	0.00	0.00
10,700.00	89.92	270.00	6,876.75	450.00	-3,478.65	3,495.75	0.00	0.00	0.00
10,800.00	89.92	270.00	6,876.90	450.00	-3,578.65	3,595.64	0.00	0.00	0.00
10,900.00	89.92	270.00	6,877.04	450.00	-3,678.65	3,695.53	0.00	0.00	0.00
11,000.00	89.92	270.00	6,877.19	450.00	-3,778.65	3,795.42	0.00	0.00	0.00
11,100.00	89.92	270.00	6,877.34	450.00	-3,878.65	3,895.32	0.00	0.00	0.00
11,200.00	89.92	270.00	6,877.49	450.00	-3,978.65	3,995.21	0.00	0.00	0.00
11,300.00	89.92	270.00	6,877.64	450.00	-4,078.65	4,095.10	0.00	0.00	0.00
11,400.00	89.92	270.00	6,877.79	450.00	-4,178.65	4,195.00	0.00	0.00	0.00
11,500.00	89.92	270.00	6,877.93	450.00	-4,278.65	4,294.89	0.00	0.00	0.00
11,600.00	89.92	270.00	6,878.08	450.00	-4,378.65	4,394.78	0.00	0.00	0.00
11,700.00	89.92	270.00	6,878.23	450.00	-4,478.65	4,494.67	0.00	0.00	0.00
11,800.00	89.92	270.00	6,878.38	450.00	-4,578.65	4,594.57	0.00	0.00	0.00
11,900.00	89.92	270.00	6,878.53	450.00	-4,678.65	4,694.46	0.00	0.00	0.00
12,000.00	89.92	270.00	6,878.68	450.00	-4,778.65	4,794.35	0.00	0.00	0.00
12,100.00	89.92	270.00	6,878.82	450.00	-4,878.65	4,894.25	0.00	0.00	0.00
12,200.00	89.92	270.00	6,878.97	450.00	-4,978.65	4,994.14	0.00	0.00	0.00
12,300.00	89.92	270.00	6,879.12	450.00	-5,078.65	5,094.03	0.00	0.00	0.00
12,400.00	89.92	270.00	6,879.27	450.00	-5,178.65	5,193.92	0.00	0.00	0.00
12,500.00	89.92	270.00	6,879.42	450.00	-5,278.65	5,293.82	0.00	0.00	0.00
12,600.00	89.92	270.00	6,879.57	450.00	-5,378.65	5,393.71	0.00	0.00	0.00
12,700.00	89.92	270.00	6,879.71	450.00	-5,478.65	5,493.60	0.00	0.00	0.00
12,800.00	89.92	270.00	6,879.86	450.00	-5,578.65	5,593.50	0.00	0.00	0.00
12,900.00	89.92	270.00	6,880.01	450.00	-5,678.65	5,693.39	0.00	0.00	0.00
13,000.00	89.92	270.00	6,880.16	450.00	-5,778.65	5,793.28	0.00	0.00	0.00
13,100.00	89.92	270.00	6,880.31	450.00	-5,878.65	5,893.17	0.00	0.00	0.00
13,200.00	89.92	270.00	6,880.46	450.00	-5,978.65	5,993.07	0.00	0.00	0.00
13,300.00	89.92	270.00	6,880.60	450.00	-6,078.65	6,092.96	0.00	0.00	0.00
13,400.00	89.92	270.00	6,880.75	450.00	-6,178.65	6,192.85	0.00	0.00	0.00
13,500.00	89.92	270.00	6,880.90	450.00	-6,278.65	6,292.75	0.00	0.00	0.00
13,600.00	89.92	270.00	6,881.05	450.00	-6,378.65	6,392.64	0.00	0.00	0.00
13,700.00	89.92	270.00	6,881.20	450.00	-6,478.65	6,492.53	0.00	0.00	0.00
13,800.00	89.92	270.00	6,881.35	450.00	-6,578.65	6,592.42	0.00	0.00	0.00
13,900.00	89.92	270.00	6,881.49	450.00	-6,678.65	6,692.32	0.00	0.00	0.00
14,000.00	89.92	270.00	6,881.64	450.00	-6,778.65	6,792.21	0.00	0.00	0.00
14,100.00	89.92	270.00	6,881.79	450.00	-6,878.65	6,892.10	0.00	0.00	0.00

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Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well Folley South #1
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 4904.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 4904.00usft (D Rig)
Site:	5N-68W-13 Folley 16-13HZ Pad	North Reference:	True
Well:	Folley South #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-3		

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)
14,200.00	89.92	270.00	6,881.94	450.00	-6,978.65	6,991.99	0.00	0.00	0.00
14,300.00	89.92	270.00	6,882.09	450.00	-7,078.65	7,091.89	0.00	0.00	0.00
14,400.00	89.92	270.00	6,882.24	450.00	-7,178.65	7,191.78	0.00	0.00	0.00
14,500.00	89.92	270.00	6,882.38	450.00	-7,278.65	7,291.67	0.00	0.00	0.00
14,600.00	89.92	270.00	6,882.53	450.00	-7,378.65	7,391.57	0.00	0.00	0.00
14,700.00	89.92	270.00	6,882.68	450.00	-7,478.65	7,491.46	0.00	0.00	0.00
14,800.00	89.92	270.00	6,882.83	450.00	-7,578.65	7,591.35	0.00	0.00	0.00
14,900.00	89.92	270.00	6,882.98	450.00	-7,678.65	7,691.24	0.00	0.00	0.00
15,000.00	89.92	270.00	6,883.13	450.00	-7,778.65	7,791.14	0.00	0.00	0.00
15,100.00	89.92	270.00	6,883.27	450.00	-7,878.65	7,891.03	0.00	0.00	0.00
15,200.00	89.92	270.00	6,883.42	450.00	-7,978.65	7,990.92	0.00	0.00	0.00
15,300.00	89.92	270.00	6,883.57	450.00	-8,078.65	8,090.82	0.00	0.00	0.00
15,400.00	89.92	270.00	6,883.72	450.00	-8,178.65	8,190.71	0.00	0.00	0.00
15,500.00	89.92	270.00	6,883.87	450.00	-8,278.65	8,290.60	0.00	0.00	0.00
15,600.00	89.92	270.00	6,884.02	450.00	-8,378.65	8,390.49	0.00	0.00	0.00
15,700.00	89.92	270.00	6,884.16	450.00	-8,478.65	8,490.39	0.00	0.00	0.00
15,800.00	89.92	270.00	6,884.31	450.00	-8,578.65	8,590.28	0.00	0.00	0.00
15,900.00	89.92	270.00	6,884.46	450.00	-8,678.65	8,690.17	0.00	0.00	0.00
16,000.00	89.92	270.00	6,884.61	450.00	-8,778.65	8,790.07	0.00	0.00	0.00
16,100.00	89.92	270.00	6,884.76	450.00	-8,878.65	8,889.96	0.00	0.00	0.00
16,200.00	89.92	270.00	6,884.91	450.00	-8,978.65	8,989.85	0.00	0.00	0.00
16,300.00	89.92	270.00	6,885.05	450.00	-9,078.65	9,089.74	0.00	0.00	0.00
16,400.00	89.92	270.00	6,885.20	450.00	-9,178.65	9,189.64	0.00	0.00	0.00
16,500.00	89.92	270.00	6,885.35	450.00	-9,278.65	9,289.53	0.00	0.00	0.00
16,600.00	89.92	270.00	6,885.50	450.00	-9,378.65	9,389.42	0.00	0.00	0.00
16,700.00	89.92	270.00	6,885.65	450.00	-9,478.65	9,489.31	0.00	0.00	0.00
16,800.00	89.92	270.00	6,885.80	450.00	-9,578.65	9,589.21	0.00	0.00	0.00
16,900.00	89.92	270.00	6,885.94	450.00	-9,678.65	9,689.10	0.00	0.00	0.00
16,937.37	89.92	270.00	6,886.00	450.00	-9,716.01	9,726.43	0.00	0.00	0.00
FOLLEY SOUTH #1_PBHL									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
FOLLEY SOUTH #1_	0.00	0.00	6,871.67	450.00	-57.11	14,670,606.57	1,655,163.14	40.395078	-104.947037
- plan hits target center									
- Point									
FOLLEY SOUTH #1_	0.00	0.00	6,886.00	450.00	-9,716.01	14,670,600.76	1,645,504.24	40.395073	-104.981728
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,823.18	1,800.00	9 5/8"	9-5/8	13-1/2	
7,278.45	6,871.67	Top of Production	5-1/2	8-1/2	

Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well Folley South #1
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 4904.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 4904.00usft (D Rig)
Site:	5N-68W-13 Folley 16-13HZ Pad	North Reference:	True
Well:	Folley South #1	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-3		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
499.00	499.00	Fox Hills				
3,926.55	3,846.00	Sussex				
6,791.15	6,676.00	Sharon Springs				
6,857.06	6,723.00	Niobrara				
7,081.90	6,838.00	Nio B				