

# **US ROCKIES WATTENBERG PLANNING**

**WELD-NAD83-UTMFT13N**

**1N-65W-09 Robin 2 Pad**

**ROBIN 9-16HZ**

**Plan A**

**Plan: Permit Rev-1**

## **Standard Planning Report**

**22 March, 2017**

Project: WELD-NAD83-UTMFT13N  
Site: 1N-65W-09 Robin 2 Pad  
Well: ROBIN 9-16HZ  
Wellbore: Plan A  
Design: Permit Rev-1

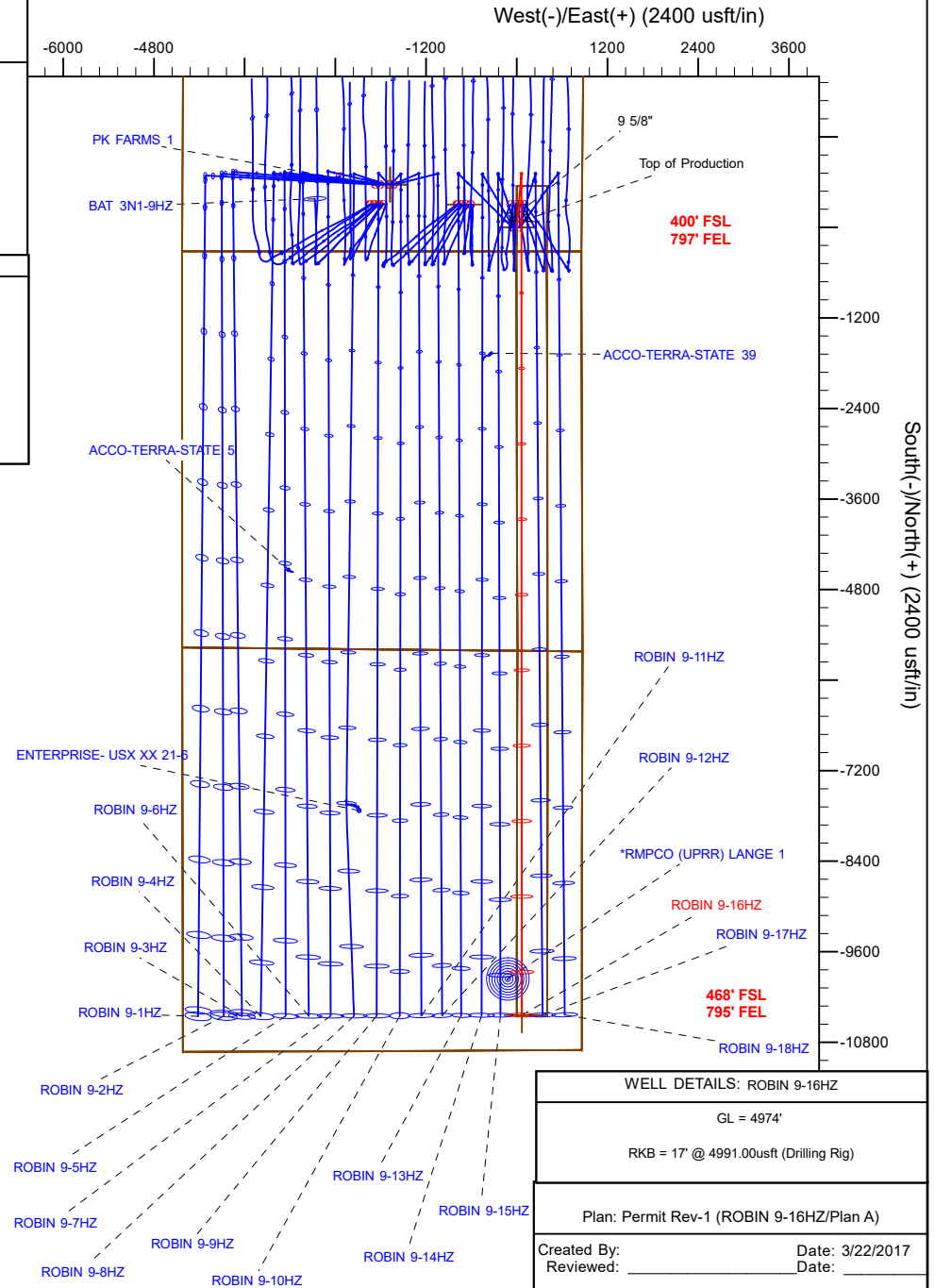
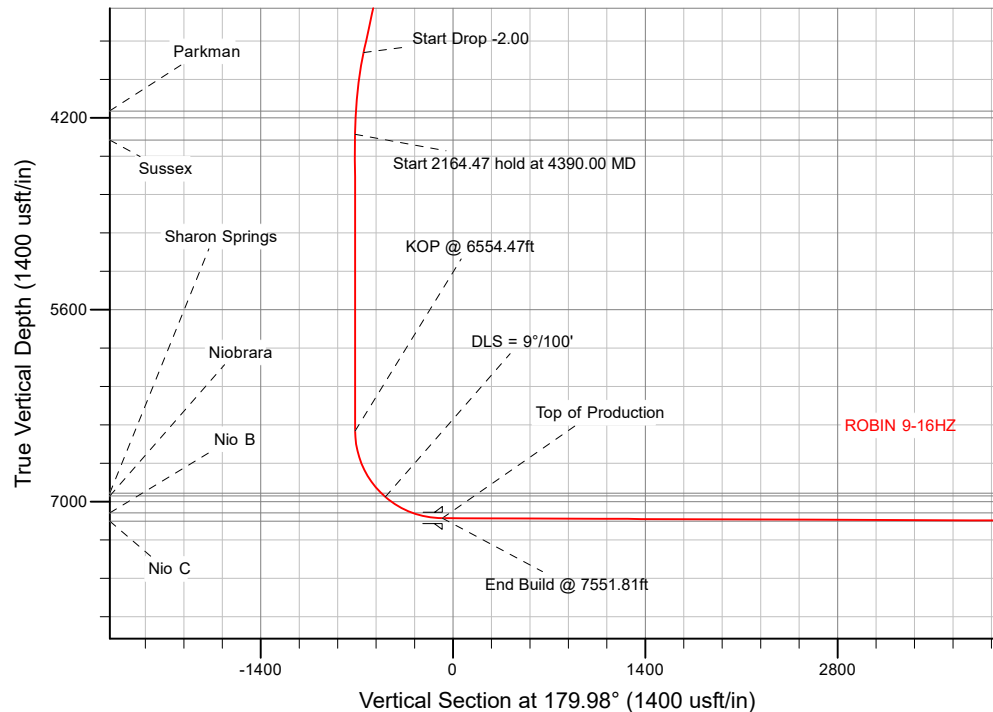
# US ROCKIES WATTENBERG PLANNING

## 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	1050.00	12.00	5.00	1044.16	83.15	7.27	1.50	5.00	-83.15	
4	3790.00	12.00	5.00	3724.29	650.66	56.93	0.00	0.00	-650.64	
5	4390.00	0.00	0.00	4319.91	713.03	62.38	2.00	180.00	-713.01	
6	6554.47	0.00	0.00	6484.38	713.03	62.38	0.00	0.00	-713.01	
7	7551.81	89.76	179.98	7121.00	79.07	62.65	9.00	179.98	-79.05	
8	18069.74	89.76	179.98	7165.00	-10438.77	67.13	0.00	0.00	10438.79	ROBIN 9-16HZ_BHL

## WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
ROBIN 9-16HZ_SHL	0.00	0.00	0.00	40.059612	-104.662669	Point
ROBIN 9-16HZ_BHL	7165.00	-10438.77	67.13	40.030945	-104.662430	Point



## WELL DETAILS: ROBIN 9-16HZ

GL = 4974'

RKB = 17' @ 4991.00usft (Drilling Rig)

Plan: Permit Rev-1 (ROBIN 9-16HZ/Plan A)

Created By: \_\_\_\_\_ Date: 3/22/2017  
Reviewed: \_\_\_\_\_ Date: \_\_\_\_\_

# Corporate Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well ROBIN 9-16HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4991.00usft (Drilling Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4991.00usft (Drilling Rig)
<b>Site:</b>	1N-65W-09 Robin 2 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ROBIN 9-16HZ	<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-65W-09 Robin 2 Pad			
<b>Site Position:</b>		<b>Northing:</b>	14,548,619.34 usft	<b>Latitude:</b> 40.059612
<b>From:</b>	Lat/Long	<b>Easting:</b>	1,734,744.32 usft	<b>Longitude:</b> -104.662884
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> 0.22 °

<b>Well</b>	ROBIN 9-16HZ			
<b>Well Position</b>	<b>+N/-S</b>	-0.13 usft	<b>Northing:</b>	14,548,619.44 usft
	<b>+E/-W</b>	59.99 usft	<b>Easting:</b>	1,734,804.31 usft
<b>Position Uncertainty</b>	3.28 usft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b> 4,974.00 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>
	IGRF2010	3/12/2017	8.01	66.59	52,357.81531067

<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	179.98

<b>Plan Survey Tool Program</b>	<b>Date</b>	3/14/2017		
<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+I Fixed:v2:crustal field declinatio
2	1,500.00	18,069.74	Permit Rev-1 (Plan A)	APC_ISCWSA REV 2 MWD+I Fixed:v2:crustal field declinatio

# Corporate Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well ROBIN 9-16HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4991.00usft (Drilling Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4991.00usft (Drilling Rig)
<b>Site:</b>	1N-65W-09 Robin 2 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ROBIN 9-16HZ	<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	
1,050.00	12.00	5.00	1,044.16	83.15	7.27	1.50	1.50	0.00	5.00	
3,790.00	12.00	5.00	3,724.29	650.66	56.93	0.00	0.00	0.00	0.00	
4,390.00	0.00	0.00	4,319.91	713.03	62.38	2.00	-2.00	0.00	180.00	
6,554.47	0.00	0.00	6,484.38	713.03	62.38	0.00	0.00	0.00	0.00	
7,551.81	89.76	179.98	7,121.00	79.07	62.65	9.00	9.00	18.05	179.98	
18,069.74	89.76	179.98	7,165.00	-10,438.77	67.13	0.00	0.00	0.00	0.00	ROBIN 9-16HZ_BHL

# Corporate Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well ROBIN 9-16HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4991.00usft (Drilling Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4991.00usft (Drilling Rig)
<b>Site:</b>	1N-65W-09 Robin 2 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ROBIN 9-16HZ	<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
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
Start Build 1.50									
300.00	0.75	5.00	300.00	0.33	0.03	-0.33	1.50	1.50	0.00
400.00	2.25	5.00	399.96	2.93	0.26	-2.93	1.50	1.50	0.00
500.00	3.75	5.00	499.82	8.15	0.71	-8.15	1.50	1.50	0.00
600.00	5.25	5.00	599.51	15.96	1.40	-15.96	1.50	1.50	0.00
700.00	6.75	5.00	698.96	26.38	2.31	-26.37	1.50	1.50	0.00
800.00	8.25	5.00	798.10	39.38	3.45	-39.38	1.50	1.50	0.00
828.21	8.67	5.00	826.00	43.51	3.81	-43.51	1.50	1.50	0.00
Fox Hills									
900.00	9.75	5.00	896.87	54.96	4.81	-54.96	1.50	1.50	0.00
1,000.00	11.25	5.00	995.19	73.12	6.40	-73.11	1.50	1.50	0.00
1,050.00	12.00	5.00	1,044.16	83.15	7.27	-83.15	1.50	1.50	0.00
Start 2740.00 hold at 1050.00 MD									
1,100.00	12.00	5.00	1,093.07	93.51	8.18	-93.51	0.00	0.00	0.00
1,200.00	12.00	5.00	1,190.89	114.22	9.99	-114.22	0.00	0.00	0.00
1,300.00	12.00	5.00	1,288.70	134.93	11.81	-134.93	0.00	0.00	0.00
1,400.00	12.00	5.00	1,386.52	155.64	13.62	-155.64	0.00	0.00	0.00
1,500.00	12.00	5.00	1,484.33	176.36	15.43	-176.35	0.00	0.00	0.00
1,516.02	12.00	5.00	1,500.00	179.67	15.72	-179.67	0.00	0.00	0.00
9 5/8"									
1,600.00	12.00	5.00	1,582.15	197.07	17.24	-197.06	0.00	0.00	0.00
1,700.00	12.00	5.00	1,679.96	217.78	19.05	-217.77	0.00	0.00	0.00
1,800.00	12.00	5.00	1,777.77	238.49	20.87	-238.49	0.00	0.00	0.00
1,900.00	12.00	5.00	1,875.59	259.20	22.68	-259.20	0.00	0.00	0.00
2,000.00	12.00	5.00	1,973.40	279.92	24.49	-279.91	0.00	0.00	0.00
2,100.00	12.00	5.00	2,071.22	300.63	26.30	-300.62	0.00	0.00	0.00
2,200.00	12.00	5.00	2,169.03	321.34	28.11	-321.33	0.00	0.00	0.00
2,300.00	12.00	5.00	2,266.85	342.05	29.93	-342.04	0.00	0.00	0.00
2,400.00	12.00	5.00	2,364.66	362.77	31.74	-362.75	0.00	0.00	0.00
2,500.00	12.00	5.00	2,462.48	383.48	33.55	-383.47	0.00	0.00	0.00
2,600.00	12.00	5.00	2,560.29	404.19	35.36	-404.18	0.00	0.00	0.00
2,700.00	12.00	5.00	2,658.11	424.90	37.17	-424.89	0.00	0.00	0.00
2,800.00	12.00	5.00	2,755.92	445.61	38.99	-445.60	0.00	0.00	0.00
2,900.00	12.00	5.00	2,853.74	466.33	40.80	-466.31	0.00	0.00	0.00
3,000.00	12.00	5.00	2,951.55	487.04	42.61	-487.02	0.00	0.00	0.00
3,100.00	12.00	5.00	3,049.37	507.75	44.42	-507.73	0.00	0.00	0.00
3,200.00	12.00	5.00	3,147.18	528.46	46.23	-528.45	0.00	0.00	0.00
3,300.00	12.00	5.00	3,245.00	549.17	48.05	-549.16	0.00	0.00	0.00
3,400.00	12.00	5.00	3,342.81	569.89	49.86	-569.87	0.00	0.00	0.00
3,500.00	12.00	5.00	3,440.63	590.60	51.67	-590.58	0.00	0.00	0.00
3,600.00	12.00	5.00	3,538.44	611.31	53.48	-611.29	0.00	0.00	0.00
3,700.00	12.00	5.00	3,636.26	632.02	55.29	-632.00	0.00	0.00	0.00
3,790.00	12.00	5.00	3,724.29	650.66	56.93	-650.64	0.00	0.00	0.00
Start Drop -2.00									
3,800.00	11.80	5.00	3,734.07	652.72	57.11	-652.70	2.00	-2.00	0.00
3,900.00	9.80	5.00	3,832.30	671.38	58.74	-671.36	2.00	-2.00	0.00
4,000.00	7.80	5.00	3,931.12	686.62	60.07	-686.60	2.00	-2.00	0.00
4,100.00	5.80	5.00	4,030.41	698.42	61.10	-698.40	2.00	-2.00	0.00
4,200.00	3.80	5.00	4,130.05	706.75	61.83	-706.73	2.00	-2.00	0.00
4,220.99	3.38	5.00	4,151.00	708.06	61.95	-708.04	2.00	-2.00	0.00

**Corporate**  
**Planning Report**

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well ROBIN 9-16HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4991.00usft (Drilling Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4991.00usft (Drilling Rig)
<b>Site:</b>	1N-65W-09 Robin 2 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ROBIN 9-16HZ	<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>Parkman</b>									
4,300.00	1.80	5.00	4,229.93	711.62	62.26	-711.60	2.00	-2.00	0.00
4,390.00	0.00	0.00	4,319.91	713.03	62.38	-713.01	2.00	-2.00	0.00
<b>Start 2164.47 hold at 4390.00 MD</b>									
4,400.00	0.00	0.00	4,329.91	713.03	62.38	-713.01	0.00	0.00	0.00
4,432.09	0.00	0.00	4,362.00	713.03	62.38	-713.01	0.00	0.00	0.00
<b>Sussex</b>									
4,500.00	0.00	0.00	4,429.91	713.03	62.38	-713.01	0.00	0.00	0.00
4,600.00	0.00	0.00	4,529.91	713.03	62.38	-713.01	0.00	0.00	0.00
4,700.00	0.00	0.00	4,629.91	713.03	62.38	-713.01	0.00	0.00	0.00
4,800.00	0.00	0.00	4,729.91	713.03	62.38	-713.01	0.00	0.00	0.00
4,900.00	0.00	0.00	4,829.91	713.03	62.38	-713.01	0.00	0.00	0.00
5,000.00	0.00	0.00	4,929.91	713.03	62.38	-713.01	0.00	0.00	0.00
5,100.00	0.00	0.00	5,029.91	713.03	62.38	-713.01	0.00	0.00	0.00
5,200.00	0.00	0.00	5,129.91	713.03	62.38	-713.01	0.00	0.00	0.00
5,300.00	0.00	0.00	5,229.91	713.03	62.38	-713.01	0.00	0.00	0.00
5,400.00	0.00	0.00	5,329.91	713.03	62.38	-713.01	0.00	0.00	0.00
5,500.00	0.00	0.00	5,429.91	713.03	62.38	-713.01	0.00	0.00	0.00
5,600.00	0.00	0.00	5,529.91	713.03	62.38	-713.01	0.00	0.00	0.00
5,700.00	0.00	0.00	5,629.91	713.03	62.38	-713.01	0.00	0.00	0.00
5,800.00	0.00	0.00	5,729.91	713.03	62.38	-713.01	0.00	0.00	0.00
5,900.00	0.00	0.00	5,829.91	713.03	62.38	-713.01	0.00	0.00	0.00
6,000.00	0.00	0.00	5,929.91	713.03	62.38	-713.01	0.00	0.00	0.00
6,100.00	0.00	0.00	6,029.91	713.03	62.38	-713.01	0.00	0.00	0.00
6,200.00	0.00	0.00	6,129.91	713.03	62.38	-713.01	0.00	0.00	0.00
6,300.00	0.00	0.00	6,229.91	713.03	62.38	-713.01	0.00	0.00	0.00
6,400.00	0.00	0.00	6,329.91	713.03	62.38	-713.01	0.00	0.00	0.00
6,500.00	0.00	0.00	6,429.91	713.03	62.38	-713.01	0.00	0.00	0.00
6,554.47	0.00	0.00	6,484.38	713.03	62.38	-713.01	0.00	0.00	0.00
<b>KOP @ 6554.47ft</b>									
6,600.00	4.10	179.98	6,529.87	711.40	62.38	-711.38	9.00	9.00	0.00
6,700.00	13.10	179.98	6,628.65	696.47	62.39	-696.44	9.00	9.00	0.00
6,800.00	22.10	179.98	6,723.87	666.26	62.40	-666.24	9.00	9.00	0.00
6,900.00	31.10	179.98	6,813.20	621.54	62.42	-621.52	9.00	9.00	0.00
7,000.00	40.10	179.98	6,894.42	563.39	62.45	-563.37	9.00	9.00	0.00
7,060.81	45.57	179.98	6,939.00	522.06	62.46	-522.04	9.00	9.00	0.00
<b>Sharon Springs</b>									
7,088.58	48.07	179.98	6,958.00	501.81	62.47	-501.79	9.00	9.00	0.00
<b>Niobrara</b>									
7,100.00	49.10	179.98	6,965.56	493.25	62.48	-493.23	9.00	9.00	0.00
<b>DLS = 9°/100'</b>									
7,200.00	58.10	179.98	7,024.84	412.84	62.51	-412.82	9.00	9.00	0.00
7,300.00	67.10	179.98	7,070.82	324.15	62.55	-324.13	9.00	9.00	0.00
7,330.48	69.84	179.98	7,082.00	295.81	62.56	-295.79	9.00	9.00	0.00
<b>Nio B</b>									
7,400.00	76.10	179.98	7,102.35	229.37	62.59	-229.34	9.00	9.00	0.00
7,500.00	85.10	179.98	7,118.67	130.81	62.63	-130.79	9.00	9.00	0.00
7,551.81	89.76	179.98	7,121.00	79.07	62.65	-79.05	9.00	9.00	0.00
<b>End Build @ 7551.81ft - Top of Production</b>									
7,600.00	89.76	179.98	7,121.20	30.88	62.67	-30.86	0.00	0.00	0.00
7,700.00	89.76	179.98	7,121.62	-69.12	62.71	69.14	0.00	0.00	0.00
7,800.00	89.76	179.98	7,122.03	-169.12	62.76	169.14	0.00	0.00	0.00
7,900.00	89.76	179.98	7,122.45	-269.12	62.80	269.14	0.00	0.00	0.00

# Corporate Planning Report

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<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4991.00usft (Drilling Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4991.00usft (Drilling Rig)
<b>Site:</b>	1N-65W-09 Robin 2 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ROBIN 9-16HZ	<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)
8,000.00	89.76	179.98	7,122.87	-369.12	62.84	369.14	0.00	0.00	0.00
8,100.00	89.76	179.98	7,123.29	-469.12	62.88	469.14	0.00	0.00	0.00
8,200.00	89.76	179.98	7,123.71	-569.12	62.93	569.14	0.00	0.00	0.00
8,300.00	89.76	179.98	7,124.13	-669.12	62.97	669.14	0.00	0.00	0.00
8,400.00	89.76	179.98	7,124.54	-769.12	63.01	769.14	0.00	0.00	0.00
8,500.00	89.76	179.98	7,124.96	-869.11	63.06	869.14	0.00	0.00	0.00
8,600.00	89.76	179.98	7,125.38	-969.11	63.10	969.14	0.00	0.00	0.00
8,700.00	89.76	179.98	7,125.80	-1,069.11	63.14	1,069.13	0.00	0.00	0.00
8,800.00	89.76	179.98	7,126.22	-1,169.11	63.18	1,169.13	0.00	0.00	0.00
8,900.00	89.76	179.98	7,126.64	-1,269.11	63.23	1,269.13	0.00	0.00	0.00
9,000.00	89.76	179.98	7,127.05	-1,369.11	63.27	1,369.13	0.00	0.00	0.00
9,100.00	89.76	179.98	7,127.47	-1,469.11	63.31	1,469.13	0.00	0.00	0.00
9,200.00	89.76	179.98	7,127.89	-1,569.11	63.35	1,569.13	0.00	0.00	0.00
9,300.00	89.76	179.98	7,128.31	-1,669.11	63.40	1,669.13	0.00	0.00	0.00
9,400.00	89.76	179.98	7,128.73	-1,769.11	63.44	1,769.13	0.00	0.00	0.00
9,500.00	89.76	179.98	7,129.15	-1,869.11	63.48	1,869.13	0.00	0.00	0.00
9,600.00	89.76	179.98	7,129.57	-1,969.10	63.52	1,969.13	0.00	0.00	0.00
9,700.00	89.76	179.98	7,129.98	-2,069.10	63.57	2,069.13	0.00	0.00	0.00
9,800.00	89.76	179.98	7,130.40	-2,169.10	63.61	2,169.13	0.00	0.00	0.00
9,900.00	89.76	179.98	7,130.82	-2,269.10	63.65	2,269.12	0.00	0.00	0.00
10,000.00	89.76	179.98	7,131.24	-2,369.10	63.69	2,369.12	0.00	0.00	0.00
10,100.00	89.76	179.98	7,131.66	-2,469.10	63.74	2,469.12	0.00	0.00	0.00
10,200.00	89.76	179.98	7,132.08	-2,569.10	63.78	2,569.12	0.00	0.00	0.00
10,300.00	89.76	179.98	7,132.49	-2,669.10	63.82	2,669.12	0.00	0.00	0.00
10,400.00	89.76	179.98	7,132.91	-2,769.10	63.86	2,769.12	0.00	0.00	0.00
10,500.00	89.76	179.98	7,133.33	-2,869.10	63.91	2,869.12	0.00	0.00	0.00
10,600.00	89.76	179.98	7,133.75	-2,969.10	63.95	2,969.12	0.00	0.00	0.00
10,700.00	89.76	179.98	7,134.17	-3,069.10	63.99	3,069.12	0.00	0.00	0.00
10,800.00	89.76	179.98	7,134.59	-3,169.09	64.03	3,169.12	0.00	0.00	0.00
10,900.00	89.76	179.98	7,135.00	-3,269.09	64.08	3,269.12	0.00	0.00	0.00
11,000.00	89.76	179.98	7,135.42	-3,369.09	64.12	3,369.11	0.00	0.00	0.00
11,100.00	89.76	179.98	7,135.84	-3,469.09	64.16	3,469.11	0.00	0.00	0.00
11,200.00	89.76	179.98	7,136.26	-3,569.09	64.20	3,569.11	0.00	0.00	0.00
11,300.00	89.76	179.98	7,136.68	-3,669.09	64.25	3,669.11	0.00	0.00	0.00
11,400.00	89.76	179.98	7,137.10	-3,769.09	64.29	3,769.11	0.00	0.00	0.00
11,500.00	89.76	179.98	7,137.51	-3,869.09	64.33	3,869.11	0.00	0.00	0.00
11,600.00	89.76	179.98	7,137.93	-3,969.09	64.37	3,969.11	0.00	0.00	0.00
11,700.00	89.76	179.98	7,138.35	-4,069.09	64.42	4,069.11	0.00	0.00	0.00
11,800.00	89.76	179.98	7,138.77	-4,169.09	64.46	4,169.11	0.00	0.00	0.00
11,900.00	89.76	179.98	7,139.19	-4,269.08	64.50	4,269.11	0.00	0.00	0.00
12,000.00	89.76	179.98	7,139.61	-4,369.08	64.55	4,369.11	0.00	0.00	0.00
12,100.00	89.76	179.98	7,140.02	-4,469.08	64.59	4,469.10	0.00	0.00	0.00
12,200.00	89.76	179.98	7,140.44	-4,569.08	64.63	4,569.10	0.00	0.00	0.00
12,300.00	89.76	179.98	7,140.86	-4,669.08	64.67	4,669.10	0.00	0.00	0.00
12,400.00	89.76	179.98	7,141.28	-4,769.08	64.72	4,769.10	0.00	0.00	0.00
12,500.00	89.76	179.98	7,141.70	-4,869.08	64.76	4,869.10	0.00	0.00	0.00
12,600.00	89.76	179.98	7,142.12	-4,969.08	64.80	4,969.10	0.00	0.00	0.00
12,700.00	89.76	179.98	7,142.53	-5,069.08	64.84	5,069.10	0.00	0.00	0.00
12,800.00	89.76	179.98	7,142.95	-5,169.08	64.89	5,169.10	0.00	0.00	0.00
12,811.26	89.76	179.98	7,143.00	-5,180.34	64.89	5,180.36	0.00	0.00	0.00
Nio C									
12,900.00	89.76	179.98	7,143.37	-5,269.08	64.93	5,269.10	0.00	0.00	0.00
13,000.00	89.76	179.98	7,143.79	-5,369.07	64.97	5,369.10	0.00	0.00	0.00

# Corporate Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well ROBIN 9-16HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4991.00usft (Drilling Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4991.00usft (Drilling Rig)
<b>Site:</b>	1N-65W-09 Robin 2 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ROBIN 9-16HZ	<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)
13,100.00	89.76	179.98	7,144.21	-5,469.07	65.01	5,469.10	0.00	0.00	0.00
13,200.00	89.76	179.98	7,144.63	-5,569.07	65.06	5,569.10	0.00	0.00	0.00
13,300.00	89.76	179.98	7,145.04	-5,669.07	65.10	5,669.09	0.00	0.00	0.00
13,400.00	89.76	179.98	7,145.46	-5,769.07	65.14	5,769.09	0.00	0.00	0.00
13,500.00	89.76	179.98	7,145.88	-5,869.07	65.18	5,869.09	0.00	0.00	0.00
13,600.00	89.76	179.98	7,146.30	-5,969.07	65.23	5,969.09	0.00	0.00	0.00
13,700.00	89.76	179.98	7,146.72	-6,069.07	65.27	6,069.09	0.00	0.00	0.00
13,800.00	89.76	179.98	7,147.14	-6,169.07	65.31	6,169.09	0.00	0.00	0.00
13,900.00	89.76	179.98	7,147.56	-6,269.07	65.35	6,269.09	0.00	0.00	0.00
14,000.00	89.76	179.98	7,147.97	-6,369.07	65.40	6,369.09	0.00	0.00	0.00
14,100.00	89.76	179.98	7,148.39	-6,469.07	65.44	6,469.09	0.00	0.00	0.00
14,200.00	89.76	179.98	7,148.81	-6,569.06	65.48	6,569.09	0.00	0.00	0.00
14,300.00	89.76	179.98	7,149.23	-6,669.06	65.52	6,669.09	0.00	0.00	0.00
14,400.00	89.76	179.98	7,149.65	-6,769.06	65.57	6,769.08	0.00	0.00	0.00
14,500.00	89.76	179.98	7,150.07	-6,869.06	65.61	6,869.08	0.00	0.00	0.00
14,600.00	89.76	179.98	7,150.48	-6,969.06	65.65	6,969.08	0.00	0.00	0.00
14,700.00	89.76	179.98	7,150.90	-7,069.06	65.69	7,069.08	0.00	0.00	0.00
14,800.00	89.76	179.98	7,151.32	-7,169.06	65.74	7,169.08	0.00	0.00	0.00
14,900.00	89.76	179.98	7,151.74	-7,269.06	65.78	7,269.08	0.00	0.00	0.00
15,000.00	89.76	179.98	7,152.16	-7,369.06	65.82	7,369.08	0.00	0.00	0.00
15,100.00	89.76	179.98	7,152.58	-7,469.06	65.86	7,469.08	0.00	0.00	0.00
15,200.00	89.76	179.98	7,152.99	-7,569.06	65.91	7,569.08	0.00	0.00	0.00
15,300.00	89.76	179.98	7,153.41	-7,669.05	65.95	7,669.08	0.00	0.00	0.00
15,400.00	89.76	179.98	7,153.83	-7,769.05	65.99	7,769.08	0.00	0.00	0.00
15,500.00	89.76	179.98	7,154.25	-7,869.05	66.03	7,869.08	0.00	0.00	0.00
15,600.00	89.76	179.98	7,154.67	-7,969.05	66.08	7,969.07	0.00	0.00	0.00
15,700.00	89.76	179.98	7,155.09	-8,069.05	66.12	8,069.07	0.00	0.00	0.00
15,800.00	89.76	179.98	7,155.50	-8,169.05	66.16	8,169.07	0.00	0.00	0.00
15,900.00	89.76	179.98	7,155.92	-8,269.05	66.21	8,269.07	0.00	0.00	0.00
16,000.00	89.76	179.98	7,156.34	-8,369.05	66.25	8,369.07	0.00	0.00	0.00
16,100.00	89.76	179.98	7,156.76	-8,469.05	66.29	8,469.07	0.00	0.00	0.00
16,200.00	89.76	179.98	7,157.18	-8,569.05	66.33	8,569.07	0.00	0.00	0.00
16,300.00	89.76	179.98	7,157.60	-8,669.05	66.38	8,669.07	0.00	0.00	0.00
16,400.00	89.76	179.98	7,158.01	-8,769.04	66.42	8,769.07	0.00	0.00	0.00
16,500.00	89.76	179.98	7,158.43	-8,869.04	66.46	8,869.07	0.00	0.00	0.00
16,600.00	89.76	179.98	7,158.85	-8,969.04	66.50	8,969.07	0.00	0.00	0.00
16,700.00	89.76	179.98	7,159.27	-9,069.04	66.55	9,069.06	0.00	0.00	0.00
16,800.00	89.76	179.98	7,159.69	-9,169.04	66.59	9,169.06	0.00	0.00	0.00
16,900.00	89.76	179.98	7,160.11	-9,269.04	66.63	9,269.06	0.00	0.00	0.00
17,000.00	89.76	179.98	7,160.52	-9,369.04	66.67	9,369.06	0.00	0.00	0.00
17,100.00	89.76	179.98	7,160.94	-9,469.04	66.72	9,469.06	0.00	0.00	0.00
17,200.00	89.76	179.98	7,161.36	-9,569.04	66.76	9,569.06	0.00	0.00	0.00
17,300.00	89.76	179.98	7,161.78	-9,669.04	66.80	9,669.06	0.00	0.00	0.00
17,400.00	89.76	179.98	7,162.20	-9,769.04	66.84	9,769.06	0.00	0.00	0.00
17,500.00	89.76	179.98	7,162.62	-9,869.04	66.89	9,869.06	0.00	0.00	0.00
17,600.00	89.76	179.98	7,163.03	-9,969.03	66.93	9,969.06	0.00	0.00	0.00
17,700.00	89.76	179.98	7,163.45	-10,069.03	66.97	10,069.06	0.00	0.00	0.00
17,800.00	89.76	179.98	7,163.87	-10,169.03	67.01	10,169.06	0.00	0.00	0.00
17,900.00	89.76	179.98	7,164.29	-10,269.03	67.06	10,269.05	0.00	0.00	0.00
18,000.00	89.76	179.98	7,164.71	-10,369.03	67.10	10,369.05	0.00	0.00	0.00
18,069.74	89.76	179.98	7,165.00	-10,438.77	67.13	10,438.79	0.00	0.00	0.00
TD Well @ 18069.74ft									



# Corporate Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well ROBIN 9-16HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4991.00usft (Drilling Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4991.00usft (Drilling Rig)
<b>Site:</b>	1N-65W-09 Robin 2 Pad	<b>North Reference:</b>	True
<b>Well:</b>	ROBIN 9-16HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,516.02	1,500.00	9 5/8"	9-5/8	13-1/2	
7,551.81	7,121.00	Top of Production	5-1/2	7-7/8	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
828.21	826.00	Fox Hills				
4,220.99	4,151.00	Parkman				
4,432.09	4,362.00	Sussex				
7,060.81	6,939.00	Sharon Springs				
7,088.58	6,958.00	Niobrara				
7,330.48	7,082.00	Nio B				
12,811.26	7,143.00	Nio C				

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	Start Build 1.50	
1,050.00	1,044.16	83.15	7.27	Start 2740.00 hold at 1050.00 MD	
3,790.00	3,724.29	650.66	56.93	Start Drop -2.00	
4,390.00	4,319.91	713.03	62.38	Start 2164.47 hold at 4390.00 MD	
6,554.47	6,484.38	713.03	62.38	KOP @ 6554.47ft	
7,100.00	6,965.56	493.25	62.48	DLS = 9°/100'	
7,551.81	7,121.00	79.07	62.65	End Build @ 7551.81ft	
18,069.74	7,165.00	-10,438.77	67.13	TD Well @ 18069.74ft	