

# **US ROCKIES WATTENBERG PLANNING**

**WELD-NAD83-UTMFT13N  
3N-67W-33 BABCOCK 6-4HZ Pad  
BABCOCK 35C-33HZ**

**Plan A**

**Plan: Permit Rev-2**

## **Standard Planning Report**

**15 April, 2016**



Azimuths to True North  
Magnetic North: 8.27°

Magnetic Field  
Strength: 52490.2snT  
Dip Angle: 66.68°  
Date: 4/4/2016  
Model: IGRF2010

SITE: 3N-67W-33 BABCOCK 6-4HZ Pad

Well: BABCOCK 35C-33HZ  
Wellbore: Plan A  
Design: Permit Rev-2

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
975.00	976.23	Fox Hills
4576.00	4722.84	Sussex
7057.00	7215.97	Sharon Springs
7143.00	7316.51	Niobrara
7186.00	7371.16	Nio B
7236.00	7440.30	Nio C
7377.00	7718.60	Fort Hayes
7398.00	7803.22	Codell

#### WELL DETAILS: BABCOCK 35C-33HZ

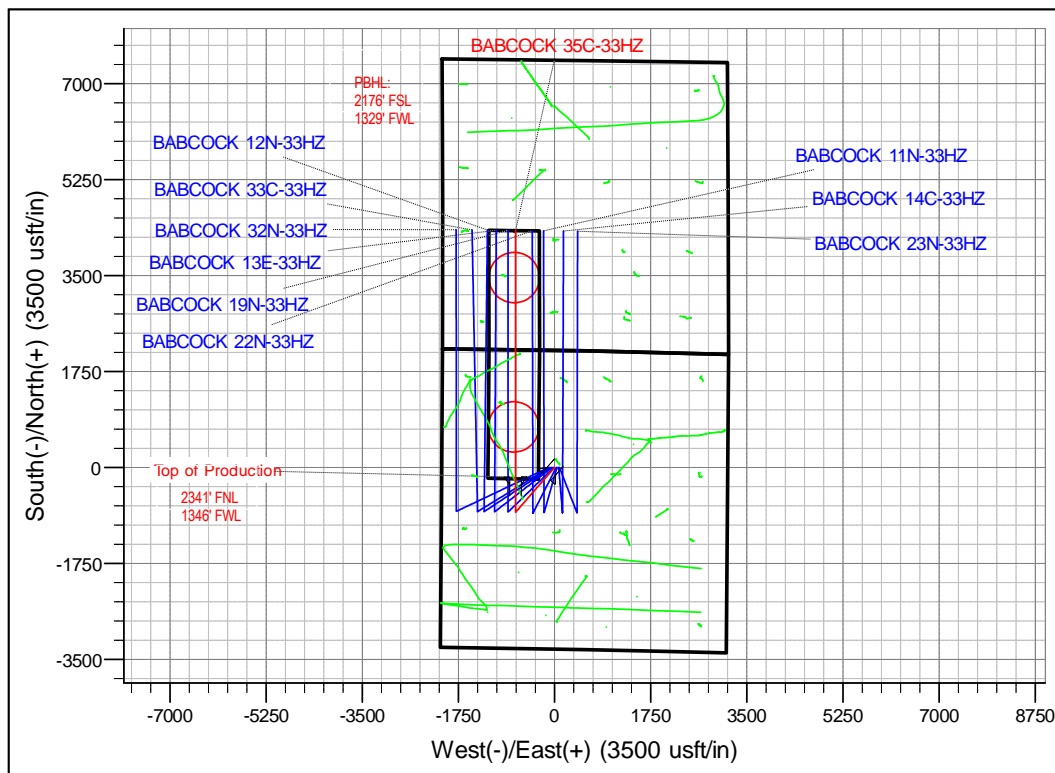
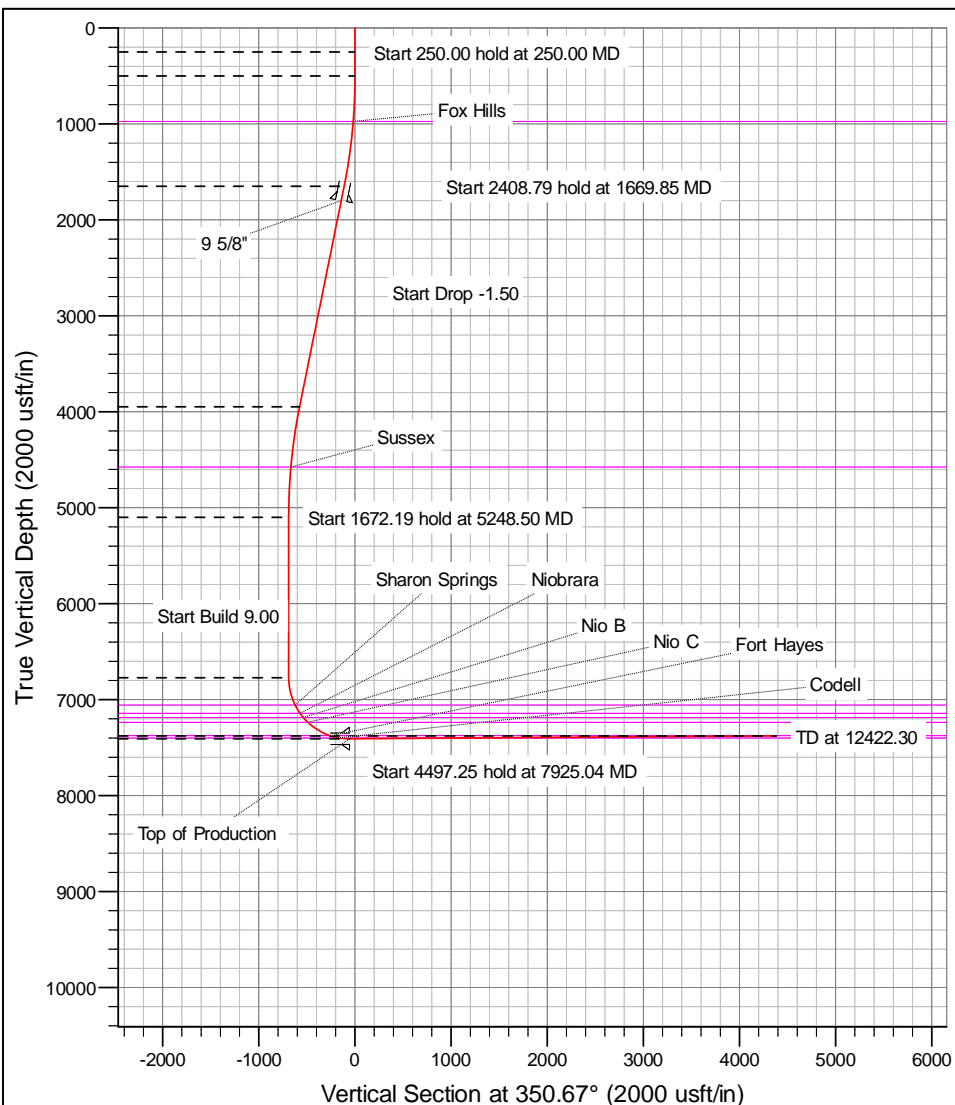
+N/-S	+E/-W	GL: 4887.00 Northing	RKB @ 4904.00usft (Original Well Elev) Easting	Latitude	Longitude	Slot
0.00	0.00	14588357.05	1669176.08	40.169182	-104.897052	

#### 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
1669.85	17.55	221.03	1651.65	-134.08	-116.69	1.50	-113.39
4078.64	17.55	221.03	3948.35	-681.92	-593.47	0.00	-576.67
5248.50	0.00	0.00	5100.00	-816.00	-710.16	1.50	-690.06
6920.68	0.00	0.00	6772.19	-816.00	-710.16	0.00	-690.06
7925.04	90.39	360.00	7408.79	-175.02	-710.16	9.00	-57.56
12422.30	90.39	360.00	7378.00	4322.13	-710.16	0.00	4380.08

#### DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BABCOCK 35C-33HZ_PBHL	7378.00	4322.13	-710.16	14592678.35	1668460.91	40.181051	-104.899595	Point
BABCOCK 35C-33HZ_PHL	7408.79	-175.03	-710.16	14588181.20	1668466.12	40.168701	-104.899594	Point



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## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well BABCOCK 35C-33HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB @ 4904.00usft (Original Well Elev)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB @ 4904.00usft (Original Well Elev)
<b>Site:</b>	3N-67W-33 BABCOCK 6-4HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	BABCOCK 35C-33HZ	<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)		

Site		3N-67W-33 BABCOCK 6-4HZ Pad				
Site Position:		Northing:	14,588,357.65 usft	Latitude:	40.169184	
From:	Lat/Long	Easting:	1,669,071.31 usft	Longitude:	-104.897427	
Position Uncertainty:		0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.07 °

Well	BABCOCK 35C-33HZ					
Well Position	+N-S	-0.73 usft	Northing:	14,588,357.04 usft	Latitude:	40.169182
	+E-W	104.76 usft	Easting:	1,669,176.07 usft	Longitude:	-104.897052
Position Uncertainty		3.28 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,887.00 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	4/4/2016	8.27	66.68	52,490

<b>Design</b>	Permit Rev-2			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<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	350.67

<b>Plan Sections</b>										
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	
1,669.85	17.55	221.03	1,651.65	-134.08	-116.69	1.50	1.50	0.00	221.03	
4,078.64	17.55	221.03	3,948.35	-681.92	-593.47	0.00	0.00	0.00	0.00	
5,248.50	0.00	0.00	5,100.00	-816.00	-710.16	1.50	-1.50	0.00	180.00	
6,920.69	0.00	0.00	6,772.19	-816.00	-710.16	0.00	0.00	0.00	0.00	
7,925.04	90.39	360.00	7,408.79	-175.02	-710.16	9.00	9.00	0.00	360.00	
12,422.30	90.39	360.00	7,378.00	4,322.13	-710.16	0.00	0.00	0.00	0.00	BABCOCK 35C-33H

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## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well BABCOCK 35C-33HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB @ 4904.00usft (Original Well Elev)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB @ 4904.00usft (Original Well Elev)
<b>Site:</b>	3N-67W-33 BABCOCK 6-4HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	BABCOCK 35C-33HZ	<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
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
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	1.50	221.03	599.99	-0.99	-0.86	-0.83	1.50	1.50	0.00
700.00	3.00	221.03	699.91	-3.95	-3.44	-3.34	1.50	1.50	0.00
800.00	4.50	221.03	799.69	-8.88	-7.73	-7.51	1.50	1.50	0.00
900.00	6.00	221.03	899.27	-15.78	-13.74	-13.35	1.50	1.50	0.00
976.23	7.14	221.03	975.00	-22.37	-19.46	-18.91	1.50	1.50	0.00
<b>Fox Hills</b>									
1,000.00	7.50	221.03	998.57	-24.65	-21.45	-20.85	1.50	1.50	0.00
1,100.00	9.00	221.03	1,097.54	-35.47	-30.87	-30.00	1.50	1.50	0.00
1,200.00	10.50	221.03	1,196.09	-48.25	-41.99	-40.80	1.50	1.50	0.00
1,300.00	12.00	221.03	1,294.16	-62.96	-54.80	-53.25	1.50	1.50	0.00
1,400.00	13.50	221.03	1,391.70	-79.61	-69.29	-67.32	1.50	1.50	0.00
1,500.00	15.00	221.03	1,488.62	-98.18	-85.44	-83.03	1.50	1.50	0.00
1,600.00	16.50	221.03	1,584.86	-118.65	-103.26	-100.34	1.50	1.50	0.00
1,669.85	17.55	221.03	1,651.65	-134.08	-116.69	-113.39	1.50	1.50	0.00
1,700.00	17.55	221.03	1,680.39	-140.94	-122.66	-119.19	0.00	0.00	0.00
1,800.00	17.55	221.03	1,775.74	-163.68	-142.45	-138.42	0.00	0.00	0.00
1,825.44	17.55	221.03	1,800.00	-169.47	-147.49	-143.31	0.00	0.00	0.00
<b>9 5/8"</b>									
1,900.00	17.55	221.03	1,871.09	-186.42	-162.24	-157.65	0.00	0.00	0.00
2,000.00	17.55	221.03	1,966.43	-209.17	-182.04	-176.89	0.00	0.00	0.00
2,100.00	17.55	221.03	2,061.78	-231.91	-201.83	-196.12	0.00	0.00	0.00
2,200.00	17.55	221.03	2,157.13	-254.65	-221.62	-215.35	0.00	0.00	0.00
2,300.00	17.55	221.03	2,252.47	-277.40	-241.42	-234.58	0.00	0.00	0.00
2,400.00	17.55	221.03	2,347.82	-300.14	-261.21	-253.82	0.00	0.00	0.00
2,500.00	17.55	221.03	2,443.17	-322.88	-281.00	-273.05	0.00	0.00	0.00
2,600.00	17.55	221.03	2,538.51	-345.63	-300.80	-292.28	0.00	0.00	0.00
2,700.00	17.55	221.03	2,633.86	-368.37	-320.59	-311.52	0.00	0.00	0.00
2,800.00	17.55	221.03	2,729.21	-391.11	-340.38	-330.75	0.00	0.00	0.00
2,900.00	17.55	221.03	2,824.55	-413.86	-360.18	-349.98	0.00	0.00	0.00
3,000.00	17.55	221.03	2,919.90	-436.60	-379.97	-369.22	0.00	0.00	0.00
3,100.00	17.55	221.03	3,015.25	-459.34	-399.76	-388.45	0.00	0.00	0.00
3,200.00	17.55	221.03	3,110.59	-482.09	-419.56	-407.68	0.00	0.00	0.00
3,300.00	17.55	221.03	3,205.94	-504.83	-439.35	-426.92	0.00	0.00	0.00
3,400.00	17.55	221.03	3,301.29	-527.57	-459.14	-446.15	0.00	0.00	0.00
3,500.00	17.55	221.03	3,396.63	-550.32	-478.94	-465.38	0.00	0.00	0.00
3,600.00	17.55	221.03	3,491.98	-573.06	-498.73	-484.62	0.00	0.00	0.00
3,700.00	17.55	221.03	3,587.33	-595.80	-518.52	-503.85	0.00	0.00	0.00
3,800.00	17.55	221.03	3,682.67	-618.55	-538.32	-523.08	0.00	0.00	0.00
3,900.00	17.55	221.03	3,778.02	-641.29	-558.11	-542.32	0.00	0.00	0.00
4,000.00	17.55	221.03	3,873.37	-664.03	-577.90	-561.55	0.00	0.00	0.00
4,078.64	17.55	221.03	3,948.35	-681.92	-593.47	-576.67	0.00	0.00	0.00
4,100.00	17.23	221.03	3,968.73	-686.73	-597.66	-580.75	1.50	-1.50	0.00
4,200.00	15.73	221.03	4,064.62	-708.13	-616.28	-598.84	1.50	-1.50	0.00
4,300.00	14.23	221.03	4,161.22	-727.62	-633.25	-615.32	1.50	-1.50	0.00
4,400.00	12.73	221.03	4,258.46	-745.20	-648.55	-630.19	1.50	-1.50	0.00
4,500.00	11.23	221.03	4,356.28	-760.86	-662.17	-643.43	1.50	-1.50	0.00
4,600.00	9.73	221.03	4,454.61	-774.57	-674.11	-655.03	1.50	-1.50	0.00

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## Planning Report

**Database:** PLANNING  
**Company:** US ROCKIES WATTENBERG PLANNING  
**Project:** WELD-NAD83-UTMFT13N  
**Site:** 3N-67W-33 BABCOCK 6-4HZ Pad  
**Well:** BABCOCK 35C-33HZ  
**Wellbore:** Plan A  
**Design:** Permit Rev-2

**Local Co-ordinate Reference:** Well BABCOCK 35C-33HZ  
**TVD Reference:** RKB @ 4904.00usft (Original Well Elev)  
**MD Reference:** RKB @ 4904.00usft (Original Well Elev)  
**North Reference:** True  
**Survey Calculation Method:** Minimum Curvature

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)
4,700.00	8.23	221.03	4,553.39	-786.34	-684.35	-664.98	1.50	-1.50	0.00
4,722.84	7.88	221.03	4,576.00	-788.76	-686.45	-667.03	1.50	-1.50	0.00
<b>Sussex</b>									
4,800.00	6.73	221.03	4,652.53	-796.16	-692.89	-673.28	1.50	-1.50	0.00
4,900.00	5.23	221.03	4,751.99	-804.02	-699.73	-679.93	1.50	-1.50	0.00
5,000.00	3.73	221.03	4,851.68	-809.90	-704.86	-684.91	1.50	-1.50	0.00
5,100.00	2.23	221.03	4,951.54	-813.82	-708.27	-688.22	1.50	-1.50	0.00
5,200.00	0.73	221.03	5,051.50	-815.77	-709.96	-689.87	1.50	-1.50	0.00
5,248.50	0.00	0.00	5,100.00	-816.00	-710.16	-690.06	1.50	-1.50	0.00
5,300.00	0.00	0.00	5,151.50	-816.00	-710.16	-690.06	0.00	0.00	0.00
5,400.00	0.00	0.00	5,251.50	-816.00	-710.16	-690.06	0.00	0.00	0.00
5,500.00	0.00	0.00	5,351.50	-816.00	-710.16	-690.06	0.00	0.00	0.00
5,600.00	0.00	0.00	5,451.50	-816.00	-710.16	-690.06	0.00	0.00	0.00
5,700.00	0.00	0.00	5,551.50	-816.00	-710.16	-690.06	0.00	0.00	0.00
5,800.00	0.00	0.00	5,651.50	-816.00	-710.16	-690.06	0.00	0.00	0.00
5,900.00	0.00	0.00	5,751.50	-816.00	-710.16	-690.06	0.00	0.00	0.00
6,000.00	0.00	0.00	5,851.50	-816.00	-710.16	-690.06	0.00	0.00	0.00
6,100.00	0.00	0.00	5,951.50	-816.00	-710.16	-690.06	0.00	0.00	0.00
6,200.00	0.00	0.00	6,051.50	-816.00	-710.16	-690.06	0.00	0.00	0.00
6,300.00	0.00	0.00	6,151.50	-816.00	-710.16	-690.06	0.00	0.00	0.00
6,400.00	0.00	0.00	6,251.50	-816.00	-710.16	-690.06	0.00	0.00	0.00
6,500.00	0.00	0.00	6,351.50	-816.00	-710.16	-690.06	0.00	0.00	0.00
6,600.00	0.00	0.00	6,451.50	-816.00	-710.16	-690.06	0.00	0.00	0.00
6,700.00	0.00	0.00	6,551.50	-816.00	-710.16	-690.06	0.00	0.00	0.00
6,800.00	0.00	0.00	6,651.50	-816.00	-710.16	-690.06	0.00	0.00	0.00
6,900.00	0.00	0.00	6,751.50	-816.00	-710.16	-690.06	0.00	0.00	0.00
6,920.69	0.00	0.00	6,772.19	-816.00	-710.16	-690.06	0.00	0.00	0.00
7,000.00	7.14	360.00	6,851.30	-811.07	-710.16	-685.19	9.00	9.00	0.00
7,100.00	16.14	360.00	6,949.14	-790.91	-710.16	-665.31	9.00	9.00	0.00
7,200.00	25.14	360.00	7,042.63	-755.70	-710.16	-630.56	9.00	9.00	0.00
7,215.97	26.58	360.00	7,057.00	-748.74	-710.16	-623.69	9.00	9.00	0.00
<b>Sharon Springs</b>									
7,300.00	34.14	360.00	7,129.45	-706.30	-710.16	-581.81	9.00	9.00	0.00
7,316.51	35.62	360.00	7,143.00	-696.86	-710.16	-572.50	9.00	9.00	0.00
<b>Niobrara</b>									
7,371.16	40.54	360.00	7,186.00	-663.16	-710.16	-539.25	9.00	9.00	0.00
<b>Nio B</b>									
7,400.00	43.14	360.00	7,207.48	-643.92	-710.16	-520.26	9.00	9.00	0.00
7,440.30	46.77	360.00	7,236.00	-615.46	-710.16	-492.17	9.00	9.00	0.00
<b>Nio C</b>									
7,500.00	52.14	360.00	7,274.80	-570.11	-710.16	-447.43	9.00	9.00	0.00
7,600.00	61.14	360.00	7,329.73	-486.67	-710.16	-365.09	9.00	9.00	0.00
7,700.00	70.14	360.00	7,370.94	-395.67	-710.16	-275.30	9.00	9.00	0.00
7,718.60	71.81	360.00	7,377.00	-378.09	-710.16	-257.95	9.00	9.00	0.00
<b>Fort Hayes</b>									
7,800.00	79.14	360.00	7,397.40	-299.34	-710.16	-180.24	9.00	9.00	0.00
7,803.22	79.43	360.00	7,398.00	-296.18	-710.16	-177.12	9.00	9.00	0.00
<b>Codell</b>									
7,900.00	88.14	360.00	7,408.47	-200.06	-710.16	-82.27	9.00	9.00	0.00
7,925.04	90.39	360.00	7,408.79	-175.03	-710.16	-57.57	9.00	9.00	0.00
<b>Top of Production - BABCOCK 35C-33HZ_PHL</b>									
8,000.00	90.39	360.00	7,408.28	-100.07	-710.16	16.40	0.00	0.00	0.00
8,100.00	90.39	360.00	7,407.59	-0.07	-710.16	115.07	0.00	0.00	0.00

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well BABCOCK 35C-33HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB @ 4904.00usft (Original Well Elev)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB @ 4904.00usft (Original Well Elev)
<b>Site:</b>	3N-67W-33 BABCOCK 6-4HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	BABCOCK 35C-33HZ	<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)
8,200.00	90.39	360.00	7,406.91	99.93	-710.16	213.75	0.00	0.00	0.00
8,300.00	90.39	360.00	7,406.23	199.93	-710.16	312.42	0.00	0.00	0.00
8,400.00	90.39	360.00	7,405.54	299.92	-710.16	411.10	0.00	0.00	0.00
8,500.00	90.39	360.00	7,404.86	399.92	-710.16	509.77	0.00	0.00	0.00
8,600.00	90.39	360.00	7,404.17	499.92	-710.16	608.45	0.00	0.00	0.00
8,700.00	90.39	360.00	7,403.49	599.92	-710.16	707.12	0.00	0.00	0.00
8,800.00	90.39	360.00	7,402.80	699.91	-710.16	805.79	0.00	0.00	0.00
8,900.00	90.39	360.00	7,402.12	799.91	-710.16	904.47	0.00	0.00	0.00
9,000.00	90.39	360.00	7,401.43	899.91	-710.16	1,003.14	0.00	0.00	0.00
9,100.00	90.39	360.00	7,400.75	999.91	-710.16	1,101.82	0.00	0.00	0.00
9,200.00	90.39	360.00	7,400.06	1,099.91	-710.16	1,200.49	0.00	0.00	0.00
9,300.00	90.39	360.00	7,399.38	1,199.90	-710.16	1,299.17	0.00	0.00	0.00
9,400.00	90.39	360.00	7,398.69	1,299.90	-710.16	1,397.84	0.00	0.00	0.00
9,500.00	90.39	360.00	7,398.01	1,399.90	-710.16	1,496.52	0.00	0.00	0.00
9,600.00	90.39	360.00	7,397.32	1,499.90	-710.16	1,595.19	0.00	0.00	0.00
9,700.00	90.39	360.00	7,396.64	1,599.89	-710.16	1,693.87	0.00	0.00	0.00
9,800.00	90.39	360.00	7,395.95	1,699.89	-710.16	1,792.54	0.00	0.00	0.00
9,900.00	90.39	360.00	7,395.27	1,799.89	-710.16	1,891.21	0.00	0.00	0.00
10,000.00	90.39	360.00	7,394.59	1,899.89	-710.16	1,989.89	0.00	0.00	0.00
10,100.00	90.39	360.00	7,393.90	1,999.88	-710.16	2,088.56	0.00	0.00	0.00
10,200.00	90.39	360.00	7,393.22	2,099.88	-710.16	2,187.24	0.00	0.00	0.00
10,300.00	90.39	360.00	7,392.53	2,199.88	-710.16	2,285.91	0.00	0.00	0.00
10,400.00	90.39	360.00	7,391.85	2,299.88	-710.16	2,384.59	0.00	0.00	0.00
10,500.00	90.39	360.00	7,391.16	2,399.87	-710.16	2,483.26	0.00	0.00	0.00
10,600.00	90.39	360.00	7,390.48	2,499.87	-710.16	2,581.94	0.00	0.00	0.00
10,700.00	90.39	360.00	7,389.79	2,599.87	-710.16	2,680.61	0.00	0.00	0.00
10,800.00	90.39	360.00	7,389.11	2,699.87	-710.16	2,779.29	0.00	0.00	0.00
10,900.00	90.39	360.00	7,388.42	2,799.87	-710.16	2,877.96	0.00	0.00	0.00
11,000.00	90.39	360.00	7,387.74	2,899.86	-710.16	2,976.64	0.00	0.00	0.00
11,100.00	90.39	360.00	7,387.05	2,999.86	-710.16	3,075.31	0.00	0.00	0.00
11,200.00	90.39	360.00	7,386.37	3,099.86	-710.16	3,173.98	0.00	0.00	0.00
11,300.00	90.39	360.00	7,385.68	3,199.86	-710.16	3,272.66	0.00	0.00	0.00
11,400.00	90.39	360.00	7,385.00	3,299.85	-710.16	3,371.33	0.00	0.00	0.00
11,500.00	90.39	360.00	7,384.32	3,399.85	-710.16	3,470.01	0.00	0.00	0.00
11,600.00	90.39	360.00	7,383.63	3,499.85	-710.16	3,568.68	0.00	0.00	0.00
11,700.00	90.39	360.00	7,382.95	3,599.85	-710.16	3,667.36	0.00	0.00	0.00
11,800.00	90.39	360.00	7,382.26	3,699.84	-710.16	3,766.03	0.00	0.00	0.00
11,900.00	90.39	360.00	7,381.58	3,799.84	-710.16	3,864.71	0.00	0.00	0.00
12,000.00	90.39	360.00	7,380.89	3,899.84	-710.16	3,963.38	0.00	0.00	0.00
12,100.00	90.39	360.00	7,380.21	3,999.84	-710.16	4,062.06	0.00	0.00	0.00
12,200.00	90.39	360.00	7,379.52	4,099.83	-710.16	4,160.73	0.00	0.00	0.00
12,300.00	90.39	360.00	7,378.84	4,199.83	-710.16	4,259.40	0.00	0.00	0.00
12,400.00	90.39	360.00	7,378.15	4,299.83	-710.16	4,358.08	0.00	0.00	0.00
12,422.30	90.39	360.00	7,378.00	4,322.13	-710.16	4,380.08	0.00	0.00	0.00
BABCOCK 35C-33HZ_PBHL									

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well BABCOCK 35C-33HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB @ 4904.00usft (Original Well Elev)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB @ 4904.00usft (Original Well Elev)
<b>Site:</b>	3N-67W-33 BABCOCK 6-4HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	BABCOCK 35C-33HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-2		

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BABCOCK 35C-33HZ - hit/miss target - Shape	0.00	0.00	7,378.00	4,322.13	-710.16	14,592,678.34	1,668,460.90	40.181051	-104.899595
BABCOCK 35C-33HZ - plan hits target center - Point									
BABCOCK 35C-33HZ - plan hits target center - Point	0.00	0.00	7,408.79	-175.03	-710.16	14,588,181.19	1,668,466.12	40.168701	-104.899594

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,825.44	1,800.00	9 5/8"	9-5/8	13-1/2	
7,925.04	7,408.79	Top of Production	5-1/2	7-7/8	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
976.23	975.00	Fox Hills				
4,722.84	4,576.00	Sussex				
7,215.97	7,057.00	Sharon Springs				
7,316.51	7,143.00	Niobrara				
7,371.16	7,186.00	Nio B				
7,440.30	7,236.00	Nio C				
7,718.60	7,377.00	Fort Hayes				
7,803.22	7,398.00	Codell				