

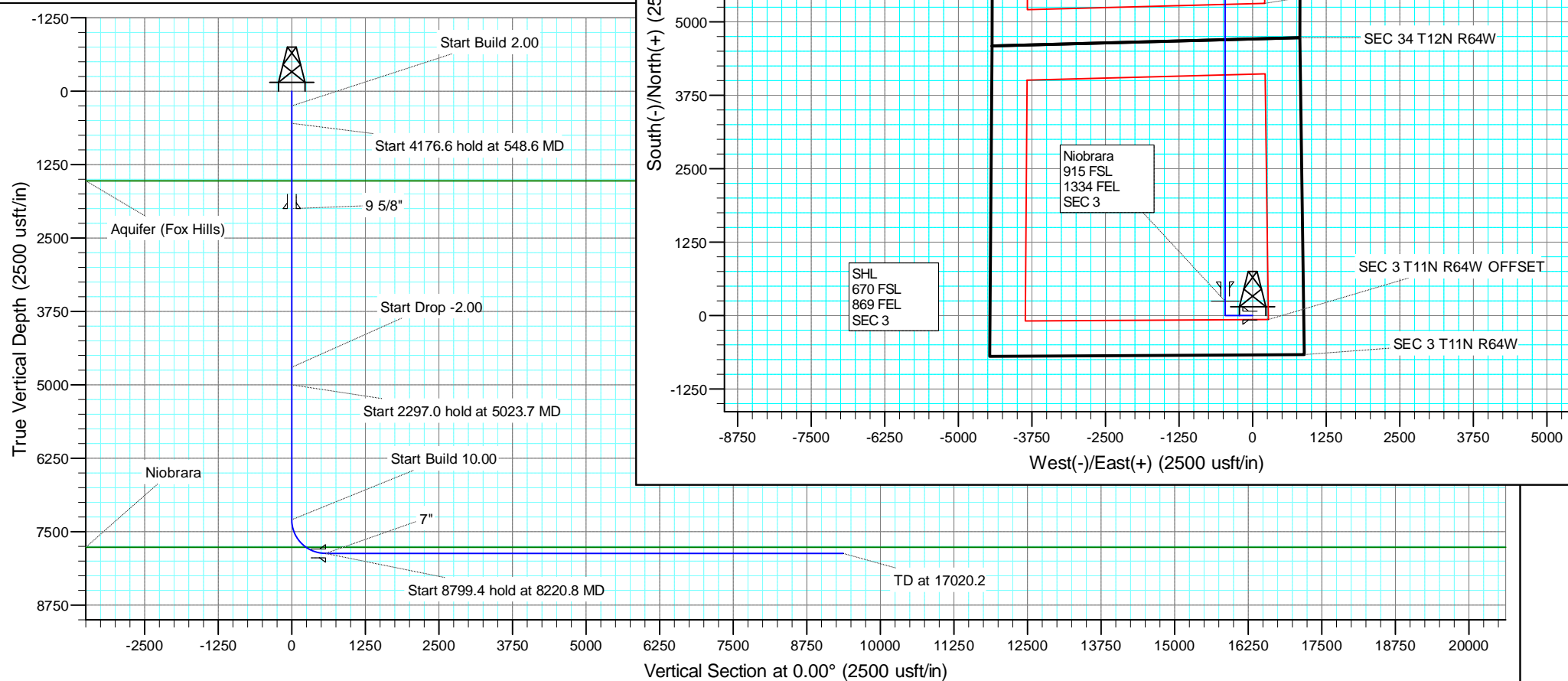
+N/-S    +E/-W    Northing    Easting    Latitude    Longitude  
 0.0    0.0    1588594.35    3268837.68    40.945006    -104.526887

#### SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.0
548.6	5.97	270.00	548.0	0.0	-15.5	2.00	270.00	0.0
4725.2	5.97	270.00	4702.0	0.0	-450.1	0.00	0.00	0.0
5023.7	0.00	0.00	5000.0	0.0	-465.6	2.00	180.00	0.0
7320.8	0.00	0.00	7297.0	0.0	-465.6	0.00	0.00	0.0
8220.8	90.00	360.00	7870.0	573.0	-465.6	10.00	360.00	573.0
17020.2	90.00	360.00	7870.0	9372.4	-465.6	0.00	0.00	9372.4

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1528.0	1533.9	Aquifer (Fox Hills)
7767.0	7871.9	Niobrara



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**RESOLUTION 11-64-3-34CH PAD**

**RESOLUTION 11-64-3-34-6NH**

**Wellbore #1**

**Plan: PLAN #1**

## **Standard Planning Report**

**11 February, 2015**

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well RESOLUTION 11-64-3-34-6NH
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5466.0usft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5466.0usft (Original Well Elev)
<b>Site:</b>	RESOLUTION 11-64-3-34CH PAD	<b>North Reference:</b>	True
<b>Well:</b>	RESOLUTION 11-64-3-34-6NH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN #1		

<b>Project</b>	COLORADO NORTHERN ZONE - 83		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Northern Zone		

<b>Site</b>	RESOLUTION 11-64-3-34CH PAD			
<b>Site Position:</b>		<b>Northing:</b>	1,588,594.34 usft	<b>Latitude:</b> 40.945006
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,268,837.68 usft	<b>Longitude:</b> -104.526887
<b>Position Uncertainty:</b>	0.0 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b> 0.63 °

<b>Well</b>	RESOLUTION 11-64-3-34-6NH			
<b>Well Position</b>	<b>+N/-S</b>	0.0 usft	<b>Northing:</b>	1,588,594.34 usft
	<b>+E/-W</b>	0.0 usft	<b>Easting:</b>	3,268,837.68 usft
<b>Position Uncertainty</b>	0.0 usft	<b>Wellhead Elevation:</b>	0.0 usft	<b>Ground Level:</b> 5,440.0 usft

<b>Wellbore</b>	Wellbore #1				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF200510	12/31/2009	8.94	67.59	53,607

<b>Design</b>	PLAN #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.0
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.0	0.0	0.0	0.00

<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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
250.0	0.00	0.00	250.0	0.0	0.0	0.00	0.00	0.00	0.00	
548.6	5.97	270.00	548.0	0.0	-15.5	2.00	2.00	0.00	270.00	
4,725.2	5.97	270.00	4,702.0	0.0	-450.1	0.00	0.00	0.00	0.00	
5,023.7	0.00	0.00	5,000.0	0.0	-465.6	2.00	-2.00	0.00	180.00	
7,320.8	0.00	0.00	7,297.0	0.0	-465.6	0.00	0.00	0.00	0.00	
8,220.8	90.00	360.00	7,870.0	573.0	-465.6	10.00	10.00	0.00	360.00	
17,020.2	90.00	360.00	7,870.0	9,372.4	-465.6	0.00	0.00	0.00	0.00	RESOLUTION 11-64-

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well RESOLUTION 11-64-3-34-6NH
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5466.0usft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5466.0usft (Original Well Elev)
<b>Site:</b>	RESOLUTION 11-64-3-34CH PAD	<b>North Reference:</b>	True
<b>Well:</b>	RESOLUTION 11-64-3-34-6NH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN #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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
250.0	0.00	0.00	250.0	0.0	0.0	0.0	0.00	0.00	0.00
Start Build 2.00									
300.0	1.00	270.00	300.0	0.0	-0.4	0.0	2.00	2.00	0.00
400.0	3.00	270.00	399.9	0.0	-3.9	0.0	2.00	2.00	0.00
500.0	5.00	270.00	499.7	0.0	-10.9	0.0	2.00	2.00	0.00
548.6	5.97	270.00	548.0	0.0	-15.5	0.0	2.00	2.00	0.00
Start 4176.6 hold at 548.6 MD									
600.0	5.97	270.00	599.2	0.0	-20.9	0.0	0.00	0.00	0.00
700.0	5.97	270.00	698.6	0.0	-31.3	0.0	0.00	0.00	0.00
800.0	5.97	270.00	798.1	0.0	-41.7	0.0	0.00	0.00	0.00
900.0	5.97	270.00	897.6	0.0	-52.1	0.0	0.00	0.00	0.00
1,000.0	5.97	270.00	997.0	0.0	-62.5	0.0	0.00	0.00	0.00
1,100.0	5.97	270.00	1,096.5	0.0	-72.9	0.0	0.00	0.00	0.00
1,200.0	5.97	270.00	1,195.9	0.0	-83.3	0.0	0.00	0.00	0.00
1,300.0	5.97	270.00	1,295.4	0.0	-93.7	0.0	0.00	0.00	0.00
1,400.0	5.97	270.00	1,394.8	0.0	-104.1	0.0	0.00	0.00	0.00
1,500.0	5.97	270.00	1,494.3	0.0	-114.5	0.0	0.00	0.00	0.00
1,533.9	5.97	270.00	1,528.0	0.0	-118.1	0.0	0.00	0.00	0.00
Aquifer (Fox Hills)									
1,600.0	5.97	270.00	1,593.8	0.0	-124.9	0.0	0.00	0.00	0.00
1,700.0	5.97	270.00	1,693.2	0.0	-135.3	0.0	0.00	0.00	0.00
1,800.0	5.97	270.00	1,792.7	0.0	-145.7	0.0	0.00	0.00	0.00
1,900.0	5.97	270.00	1,892.1	0.0	-156.1	0.0	0.00	0.00	0.00
2,000.0	5.97	270.00	1,991.6	0.0	-166.5	0.0	0.00	0.00	0.00
2,008.5	5.97	270.00	2,000.0	0.0	-167.4	0.0	0.00	0.00	0.00
9 5/8"									
2,100.0	5.97	270.00	2,091.0	0.0	-177.0	0.0	0.00	0.00	0.00
2,200.0	5.97	270.00	2,190.5	0.0	-187.4	0.0	0.00	0.00	0.00
2,300.0	5.97	270.00	2,290.0	0.0	-197.8	0.0	0.00	0.00	0.00
2,400.0	5.97	270.00	2,389.4	0.0	-208.2	0.0	0.00	0.00	0.00
2,500.0	5.97	270.00	2,488.9	0.0	-218.6	0.0	0.00	0.00	0.00
2,600.0	5.97	270.00	2,588.3	0.0	-229.0	0.0	0.00	0.00	0.00
2,700.0	5.97	270.00	2,687.8	0.0	-239.4	0.0	0.00	0.00	0.00
2,800.0	5.97	270.00	2,787.2	0.0	-249.8	0.0	0.00	0.00	0.00
2,900.0	5.97	270.00	2,886.7	0.0	-260.2	0.0	0.00	0.00	0.00
3,000.0	5.97	270.00	2,986.2	0.0	-270.6	0.0	0.00	0.00	0.00
3,100.0	5.97	270.00	3,085.6	0.0	-281.0	0.0	0.00	0.00	0.00
3,200.0	5.97	270.00	3,185.1	0.0	-291.4	0.0	0.00	0.00	0.00
3,300.0	5.97	270.00	3,284.5	0.0	-301.8	0.0	0.00	0.00	0.00
3,400.0	5.97	270.00	3,384.0	0.0	-312.2	0.0	0.00	0.00	0.00
3,500.0	5.97	270.00	3,483.4	0.0	-322.6	0.0	0.00	0.00	0.00
3,600.0	5.97	270.00	3,582.9	0.0	-333.0	0.0	0.00	0.00	0.00
3,700.0	5.97	270.00	3,682.4	0.0	-343.4	0.0	0.00	0.00	0.00
3,800.0	5.97	270.00	3,781.8	0.0	-353.8	0.0	0.00	0.00	0.00
3,900.0	5.97	270.00	3,881.3	0.0	-364.2	0.0	0.00	0.00	0.00
4,000.0	5.97	270.00	3,980.7	0.0	-374.6	0.0	0.00	0.00	0.00
4,100.0	5.97	270.00	4,080.2	0.0	-385.0	0.0	0.00	0.00	0.00
4,200.0	5.97	270.00	4,179.6	0.0	-395.4	0.0	0.00	0.00	0.00
4,300.0	5.97	270.00	4,279.1	0.0	-405.8	0.0	0.00	0.00	0.00
4,400.0	5.97	270.00	4,378.6	0.0	-416.2	0.0	0.00	0.00	0.00
4,500.0	5.97	270.00	4,478.0	0.0	-426.6	0.0	0.00	0.00	0.00

**Anadarko**  
Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well RESOLUTION 11-64-3-34-6NH
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5466.0usft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5466.0usft (Original Well Elev)
<b>Site:</b>	RESOLUTION 11-64-3-34CH PAD	<b>North Reference:</b>	True
<b>Well:</b>	RESOLUTION 11-64-3-34-6NH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN #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)
4,600.0	5.97	270.00	4,577.5	0.0	-437.0	0.0	0.00	0.00	0.00
4,700.0	5.97	270.00	4,676.9	0.0	-447.5	0.0	0.00	0.00	0.00
4,725.2	5.97	270.00	4,702.0	0.0	-450.1	0.0	0.00	0.00	0.00
<b>Start Drop -2.00</b>									
4,800.0	4.47	270.00	4,776.5	0.0	-456.9	0.0	2.00	-2.00	0.00
4,900.0	2.47	270.00	4,876.3	0.0	-462.9	0.0	2.00	-2.00	0.00
5,000.0	0.47	270.00	4,976.3	0.0	-465.5	0.0	2.00	-2.00	0.00
5,023.7	0.00	0.00	5,000.0	0.0	-465.6	0.0	2.00	-2.00	0.00
<b>Start 2297.0 hold at 5023.7 MD</b>									
5,100.0	0.00	0.00	5,076.3	0.0	-465.6	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,176.3	0.0	-465.6	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,276.3	0.0	-465.6	0.0	0.00	0.00	0.00
5,400.0	0.00	0.00	5,376.3	0.0	-465.6	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,476.3	0.0	-465.6	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,576.3	0.0	-465.6	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,676.3	0.0	-465.6	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,776.3	0.0	-465.6	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,876.3	0.0	-465.6	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	5,976.3	0.0	-465.6	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,076.3	0.0	-465.6	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,176.3	0.0	-465.6	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,276.3	0.0	-465.6	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,376.3	0.0	-465.6	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,476.3	0.0	-465.6	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,576.3	0.0	-465.6	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,676.3	0.0	-465.6	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,776.3	0.0	-465.6	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,876.3	0.0	-465.6	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	6,976.3	0.0	-465.6	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,076.3	0.0	-465.6	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,176.3	0.0	-465.6	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,276.3	0.0	-465.6	0.0	0.00	0.00	0.00
7,320.8	0.00	0.00	7,297.0	0.0	-465.6	0.0	0.00	0.00	0.00
<b>Start Build 10.00</b>									
7,400.0	7.92	360.00	7,376.0	5.5	-465.6	5.5	10.00	10.00	0.00
7,500.0	17.92	360.00	7,473.3	27.8	-465.6	27.8	10.00	10.00	0.00
7,600.0	27.92	360.00	7,565.3	66.7	-465.6	66.7	10.00	10.00	0.00
7,700.0	37.92	360.00	7,649.2	121.0	-465.6	121.0	10.00	10.00	0.00
7,800.0	47.92	360.00	7,722.3	189.0	-465.6	189.0	10.00	10.00	0.00
7,871.9	55.11	360.00	7,767.0	245.2	-465.6	245.2	10.00	10.00	0.00
<b>Niobrara</b>									
7,900.0	57.92	360.00	7,782.5	268.7	-465.6	268.7	10.00	10.00	0.00
8,000.0	67.92	360.00	7,828.0	357.6	-465.6	357.6	10.00	10.00	0.00
8,100.0	77.92	360.00	7,857.3	453.1	-465.6	453.1	10.00	10.00	0.00
8,200.0	87.92	360.00	7,869.6	552.2	-465.6	552.2	10.00	10.00	0.00
8,220.8	90.00	360.00	7,870.0	573.0	-465.6	573.0	9.99	9.99	0.00
<b>Start 8799.4 hold at 8220.8 MD - 7"</b>									
8,300.0	90.00	360.00	7,870.0	652.2	-465.6	652.2	0.00	0.00	0.00
8,400.0	90.00	360.00	7,870.0	752.2	-465.6	752.2	0.00	0.00	0.00
8,500.0	90.00	360.00	7,870.0	852.2	-465.6	852.2	0.00	0.00	0.00
8,600.0	90.00	360.00	7,870.0	952.2	-465.6	952.2	0.00	0.00	0.00
8,700.0	90.00	360.00	7,870.0	1,052.2	-465.6	1,052.2	0.00	0.00	0.00
8,800.0	90.00	360.00	7,870.0	1,152.2	-465.6	1,152.2	0.00	0.00	0.00

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well RESOLUTION 11-64-3-34-6NH
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5466.0usft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5466.0usft (Original Well Elev)
<b>Site:</b>	RESOLUTION 11-64-3-34CH PAD	<b>North Reference:</b>	True
<b>Well:</b>	RESOLUTION 11-64-3-34-6NH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN #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)
8,900.0	90.00	360.00	7,870.0	1,252.2	-465.6	1,252.2	0.00	0.00	0.00
9,000.0	90.00	360.00	7,870.0	1,352.2	-465.6	1,352.2	0.00	0.00	0.00
9,100.0	90.00	360.00	7,870.0	1,452.2	-465.6	1,452.2	0.00	0.00	0.00
9,200.0	90.00	360.00	7,870.0	1,552.2	-465.6	1,552.2	0.00	0.00	0.00
9,300.0	90.00	360.00	7,870.0	1,652.2	-465.6	1,652.2	0.00	0.00	0.00
9,400.0	90.00	360.00	7,870.0	1,752.2	-465.6	1,752.2	0.00	0.00	0.00
9,500.0	90.00	360.00	7,870.0	1,852.2	-465.6	1,852.2	0.00	0.00	0.00
9,600.0	90.00	360.00	7,870.0	1,952.2	-465.6	1,952.2	0.00	0.00	0.00
9,700.0	90.00	360.00	7,870.0	2,052.2	-465.6	2,052.2	0.00	0.00	0.00
9,800.0	90.00	360.00	7,870.0	2,152.2	-465.6	2,152.2	0.00	0.00	0.00
9,900.0	90.00	360.00	7,870.0	2,252.2	-465.6	2,252.2	0.00	0.00	0.00
10,000.0	90.00	360.00	7,870.0	2,352.2	-465.6	2,352.2	0.00	0.00	0.00
10,100.0	90.00	360.00	7,870.0	2,452.2	-465.6	2,452.2	0.00	0.00	0.00
10,200.0	90.00	360.00	7,870.0	2,552.2	-465.6	2,552.2	0.00	0.00	0.00
10,300.0	90.00	360.00	7,870.0	2,652.2	-465.6	2,652.2	0.00	0.00	0.00
10,400.0	90.00	360.00	7,870.0	2,752.2	-465.6	2,752.2	0.00	0.00	0.00
10,500.0	90.00	360.00	7,870.0	2,852.2	-465.6	2,852.2	0.00	0.00	0.00
10,600.0	90.00	360.00	7,870.0	2,952.2	-465.6	2,952.2	0.00	0.00	0.00
10,700.0	90.00	360.00	7,870.0	3,052.2	-465.6	3,052.2	0.00	0.00	0.00
10,800.0	90.00	360.00	7,870.0	3,152.2	-465.6	3,152.2	0.00	0.00	0.00
10,900.0	90.00	360.00	7,870.0	3,252.2	-465.6	3,252.2	0.00	0.00	0.00
11,000.0	90.00	360.00	7,870.0	3,352.2	-465.6	3,352.2	0.00	0.00	0.00
11,100.0	90.00	360.00	7,870.0	3,452.2	-465.6	3,452.2	0.00	0.00	0.00
11,200.0	90.00	360.00	7,870.0	3,552.2	-465.6	3,552.2	0.00	0.00	0.00
11,300.0	90.00	360.00	7,870.0	3,652.2	-465.6	3,652.2	0.00	0.00	0.00
11,400.0	90.00	360.00	7,870.0	3,752.2	-465.6	3,752.2	0.00	0.00	0.00
11,500.0	90.00	360.00	7,870.0	3,852.2	-465.6	3,852.2	0.00	0.00	0.00
11,600.0	90.00	360.00	7,870.0	3,952.2	-465.6	3,952.2	0.00	0.00	0.00
11,700.0	90.00	360.00	7,870.0	4,052.2	-465.6	4,052.2	0.00	0.00	0.00
11,800.0	90.00	360.00	7,870.0	4,152.2	-465.6	4,152.2	0.00	0.00	0.00
11,900.0	90.00	360.00	7,870.0	4,252.2	-465.6	4,252.2	0.00	0.00	0.00
12,000.0	90.00	360.00	7,870.0	4,352.2	-465.6	4,352.2	0.00	0.00	0.00
12,100.0	90.00	360.00	7,870.0	4,452.2	-465.6	4,452.2	0.00	0.00	0.00
12,200.0	90.00	360.00	7,870.0	4,552.2	-465.6	4,552.2	0.00	0.00	0.00
12,300.0	90.00	360.00	7,870.0	4,652.2	-465.6	4,652.2	0.00	0.00	0.00
12,400.0	90.00	360.00	7,870.0	4,752.2	-465.6	4,752.2	0.00	0.00	0.00
12,500.0	90.00	360.00	7,870.0	4,852.2	-465.6	4,852.2	0.00	0.00	0.00
12,600.0	90.00	360.00	7,870.0	4,952.2	-465.6	4,952.2	0.00	0.00	0.00
12,700.0	90.00	360.00	7,870.0	5,052.2	-465.6	5,052.2	0.00	0.00	0.00
12,800.0	90.00	360.00	7,870.0	5,152.2	-465.6	5,152.2	0.00	0.00	0.00
12,900.0	90.00	360.00	7,870.0	5,252.2	-465.6	5,252.2	0.00	0.00	0.00
13,000.0	90.00	360.00	7,870.0	5,352.2	-465.6	5,352.2	0.00	0.00	0.00
13,100.0	90.00	360.00	7,870.0	5,452.2	-465.6	5,452.2	0.00	0.00	0.00
13,200.0	90.00	360.00	7,870.0	5,552.2	-465.6	5,552.2	0.00	0.00	0.00
13,300.0	90.00	360.00	7,870.0	5,652.2	-465.6	5,652.2	0.00	0.00	0.00
13,400.0	90.00	360.00	7,870.0	5,752.2	-465.6	5,752.2	0.00	0.00	0.00
13,500.0	90.00	360.00	7,870.0	5,852.2	-465.6	5,852.2	0.00	0.00	0.00
13,600.0	90.00	360.00	7,870.0	5,952.2	-465.6	5,952.2	0.00	0.00	0.00
13,700.0	90.00	360.00	7,870.0	6,052.2	-465.6	6,052.2	0.00	0.00	0.00
13,800.0	90.00	360.00	7,870.0	6,152.2	-465.6	6,152.2	0.00	0.00	0.00
13,900.0	90.00	360.00	7,870.0	6,252.2	-465.6	6,252.2	0.00	0.00	0.00
14,000.0	90.00	360.00	7,870.0	6,352.2	-465.6	6,352.2	0.00	0.00	0.00
14,100.0	90.00	360.00	7,870.0	6,452.2	-465.6	6,452.2	0.00	0.00	0.00
14,200.0	90.00	360.00	7,870.0	6,552.2	-465.6	6,552.2	0.00	0.00	0.00

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well RESOLUTION 11-64-3-34-6NH
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5466.0usft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5466.0usft (Original Well Elev)
<b>Site:</b>	RESOLUTION 11-64-3-34CH PAD	<b>North Reference:</b>	True
<b>Well:</b>	RESOLUTION 11-64-3-34-6NH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN #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)	
14,300.0	90.00	360.00	7,870.0	6,652.2	-465.6	6,652.2	0.00	0.00	0.00	
14,400.0	90.00	360.00	7,870.0	6,752.2	-465.6	6,752.2	0.00	0.00	0.00	
14,500.0	90.00	360.00	7,870.0	6,852.2	-465.6	6,852.2	0.00	0.00	0.00	
14,600.0	90.00	360.00	7,870.0	6,952.2	-465.6	6,952.2	0.00	0.00	0.00	
14,700.0	90.00	360.00	7,870.0	7,052.2	-465.6	7,052.2	0.00	0.00	0.00	
14,800.0	90.00	360.00	7,870.0	7,152.2	-465.6	7,152.2	0.00	0.00	0.00	
14,900.0	90.00	360.00	7,870.0	7,252.2	-465.6	7,252.2	0.00	0.00	0.00	
15,000.0	90.00	360.00	7,870.0	7,352.2	-465.6	7,352.2	0.00	0.00	0.00	
15,100.0	90.00	360.00	7,870.0	7,452.2	-465.6	7,452.2	0.00	0.00	0.00	
15,200.0	90.00	360.00	7,870.0	7,552.2	-465.6	7,552.2	0.00	0.00	0.00	
15,300.0	90.00	360.00	7,870.0	7,652.2	-465.6	7,652.2	0.00	0.00	0.00	
15,400.0	90.00	360.00	7,870.0	7,752.2	-465.6	7,752.2	0.00	0.00	0.00	
15,500.0	90.00	360.00	7,870.0	7,852.2	-465.6	7,852.2	0.00	0.00	0.00	
15,600.0	90.00	360.00	7,870.0	7,952.2	-465.6	7,952.2	0.00	0.00	0.00	
15,700.0	90.00	360.00	7,870.0	8,052.2	-465.6	8,052.2	0.00	0.00	0.00	
15,800.0	90.00	360.00	7,870.0	8,152.2	-465.6	8,152.2	0.00	0.00	0.00	
15,900.0	90.00	360.00	7,870.0	8,252.2	-465.6	8,252.2	0.00	0.00	0.00	
16,000.0	90.00	360.00	7,870.0	8,352.2	-465.6	8,352.2	0.00	0.00	0.00	
16,100.0	90.00	360.00	7,870.0	8,452.2	-465.6	8,452.2	0.00	0.00	0.00	
16,200.0	90.00	360.00	7,870.0	8,552.2	-465.6	8,552.2	0.00	0.00	0.00	
16,300.0	90.00	360.00	7,870.0	8,652.2	-465.6	8,652.2	0.00	0.00	0.00	
16,400.0	90.00	360.00	7,870.0	8,752.2	-465.6	8,752.2	0.00	0.00	0.00	
16,500.0	90.00	360.00	7,870.0	8,852.2	-465.6	8,852.2	0.00	0.00	0.00	
16,600.0	90.00	360.00	7,870.0	8,952.2	-465.6	8,952.2	0.00	0.00	0.00	
16,700.0	90.00	360.00	7,870.0	9,052.2	-465.6	9,052.2	0.00	0.00	0.00	
16,800.0	90.00	360.00	7,870.0	9,152.2	-465.6	9,152.2	0.00	0.00	0.00	
16,900.0	90.00	360.00	7,870.0	9,252.2	-465.6	9,252.2	0.00	0.00	0.00	
17,000.0	90.00	360.00	7,870.0	9,352.2	-465.6	9,352.2	0.00	0.00	0.00	
17,020.2	90.00	360.00	7,870.0	9,372.4	-465.6	9,372.4	0.00	0.00	0.00	
TD at 17020.2										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude		Longitude
Interp @ 7767.0 (RESOI - hit/miss target - Shape - Point	0.00	0.00	7,767.0	245.2	-465.6	1,588,834.42	3,268,369.40	40.945679		-104.528573
RESOLUTION 11-64-3-34 - plan hits target center - Point	0.00	0.00	7,870.0	9,372.4	-465.6	1,597,961.07	3,268,269.24	40.970729		-104.528573

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (in)	Hole Diameter (in)
2,008.5	2,000.0	9 5/8"		9.625	12.250
8,220.8	7,870.0	7"		7.000	7.500

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well RESOLUTION 11-64-3-34-6NH
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5466.0usft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5466.0usft (Original Well Elev)
<b>Site:</b>	RESOLUTION 11-64-3-34CH PAD	<b>North Reference:</b>	True
<b>Well:</b>	RESOLUTION 11-64-3-34-6NH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN #1		

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,533.9	1,528.0	Aquifer (Fox Hills)			
7,871.9	7,767.0	Niobrara			

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
250.0	250.0	0.0	0.0	Start Build 2.00	
548.6	548.0	0.0	-15.5	Start 4176.6 hold at 548.6 MD	
4,725.2	4,702.0	0.0	-450.1	Start Drop -2.00	
5,023.7	5,000.0	0.0	-465.6	Start 2297.0 hold at 5023.7 MD	
7,320.8	7,297.0	0.0	-465.6	Start Build 10.00	
8,220.8	7,870.0	573.0	-465.6	Start 8799.4 hold at 8220.8 MD	
17,020.2	7,870.0	9,372.4	-465.6	TD at 17020.2	