

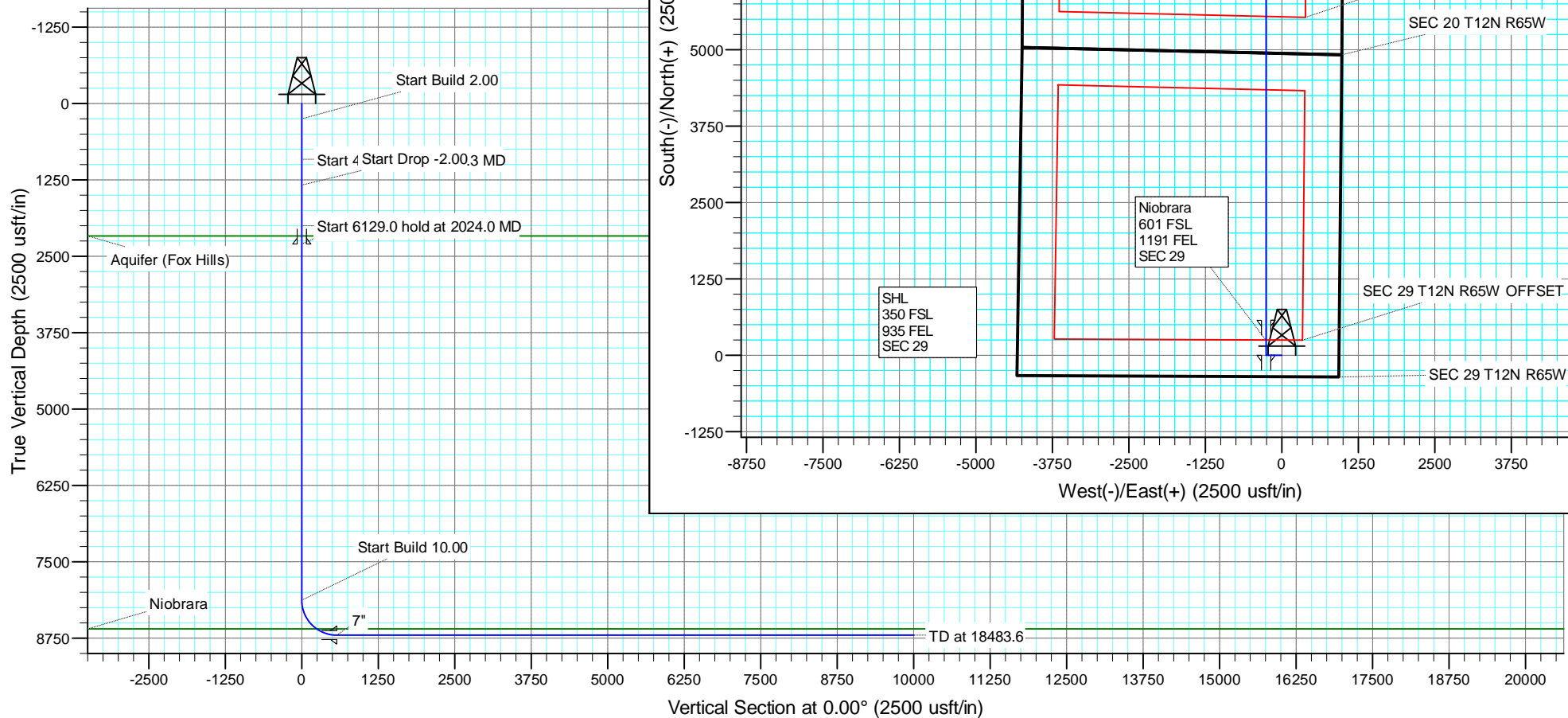
+N/-S 0.0 +E/-W 0.0 Northing 1597922.14 Easting 3226548.35 Latitude 40.971779 Longitude -104.679640

#### 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
919.3	13.39	270.00	913.2	0.0	-77.8	2.00	270.00	0.0
1354.7	13.39	270.00	1336.8	0.0	-178.6	0.00	0.00	0.0
2024.0	0.00	0.00	2000.0	0.0	-256.4	2.00	180.00	0.0
8153.0	0.00	0.00	8129.0	0.0	-256.4	0.00	0.00	0.0
9053.0	90.00	360.00	8702.0	573.0	-256.4	10.00	360.00	573.0
18483.6	90.00	360.00	8702.0	10003.6	-256.4	0.00	0.00	10003.6

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2169.0	2193.0	Aquifer (Fox Hills)
8598.0	8702.3	Niobrara



BHL  
 221 FNL  
 1270 FEL  
 SEC 20

RESOLUTION 12-65-29-20-6NH PBHL

SEC 20 T12N R65W OFFSET

SEC 20 T12N R65W

Niobrara  
 601 FSL  
 1191 FEL  
 SEC 29

SEC 29 T12N R65W OFFSET

SEC 29 T12N R65W

SHL  
 350 FSL  
 935 FEL  
 SEC 29

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**RESOLUTION FED 12-65-29-20-7NH PAD**

**RESOLUTION FED 12-65-29-20-6NH**

**Wellbore #1**

**Plan: PLAN #1**

## **Standard Planning Report**

**08 February, 2015**

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Site RESOLUTION FED 12-65-29-20-7NH PAD
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5994.0usft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5994.0usft (Original Well Elev)
<b>Site:</b>	RESOLUTION FED 12-65-29-20-7NH PAD	<b>North Reference:</b>	True
<b>Well:</b>	RESOLUTION FED 12-65-29-20-6NH	<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		

Site		RESOLUTION FED 12-65-29-20-7NH PAD			
Site Position:		Northing:	1,597,922.14 usft	Latitude:	40.971779
From:	Lat/Long	Easting:	3,226,548.35 usft	Longitude:	-104.679640
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence:	0.53 °

Well	RESOLUTION FED 12-65-29-20-6NH					
Well Position	+N/-S	0.0 usft	Northing:	1,597,922.14 usft	Latitude:	40.971779
	+E/-W	0.0 usft	Easting:	3,226,548.35 usft	Longitude:	-104.679640
Position Uncertainty		0.0 usft	Wellhead Elevation:	0.0 usft	Ground Level:	5,968.0 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	9.03	67.58	53,601

<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	
919.3	13.39	270.00	913.2	0.0	-77.8	2.00	2.00	0.00	270.00	
1,354.7	13.39	270.00	1,336.8	0.0	-178.6	0.00	0.00	0.00	0.00	
2,024.0	0.00	0.00	2,000.0	0.0	-256.4	2.00	-2.00	0.00	180.00	
8,153.0	0.00	0.00	8,129.0	0.0	-256.4	0.00	0.00	0.00	0.00	
9,053.0	90.00	360.00	8,702.0	573.0	-256.4	10.00	10.00	0.00	360.00	
18,483.6	90.00	360.00	8,702.0	10,003.6	-256.4	0.00	0.00	0.00	0.00	RESOLUTION 12-65-

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## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Site RESOLUTION FED 12-65-29-20-7NH PAD
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5994.0usft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5994.0usft (Original Well Elev)
<b>Site:</b>	RESOLUTION FED 12-65-29-20-7NH PAD	<b>North Reference:</b>	True
<b>Well:</b>	RESOLUTION FED 12-65-29-20-6NH	<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
600.0	7.00	270.00	599.1	0.0	-21.4	0.0	2.00	2.00	0.00
700.0	9.00	270.00	698.2	0.0	-35.3	0.0	2.00	2.00	0.00
800.0	11.00	270.00	796.6	0.0	-52.6	0.0	2.00	2.00	0.00
900.0	13.00	270.00	894.4	0.0	-73.4	0.0	2.00	2.00	0.00
919.3	13.39	270.00	913.2	0.0	-77.8	0.0	2.00	2.00	0.00
Start 435.4 hold at 919.3 MD									
1,000.0	13.39	270.00	991.7	0.0	-96.5	0.0	0.00	0.00	0.00
1,100.0	13.39	270.00	1,089.0	0.0	-119.7	0.0	0.00	0.00	0.00
1,200.0	13.39	270.00	1,186.3	0.0	-142.8	0.0	0.00	0.00	0.00
1,300.0	13.39	270.00	1,283.6	0.0	-166.0	0.0	0.00	0.00	0.00
1,354.7	13.39	270.00	1,336.8	0.0	-178.6	0.0	0.00	0.00	0.00
Start Drop -2.00									
1,400.0	12.48	270.00	1,381.0	0.0	-188.8	0.0	2.00	-2.00	0.00
1,500.0	10.48	270.00	1,478.9	0.0	-208.7	0.0	2.00	-2.00	0.00
1,600.0	8.48	270.00	1,577.6	0.0	-225.1	0.0	2.00	-2.00	0.00
1,700.0	6.48	270.00	1,676.7	0.0	-238.1	0.0	2.00	-2.00	0.00
1,800.0	4.48	270.00	1,776.3	0.0	-247.7	0.0	2.00	-2.00	0.00
1,900.0	2.48	270.00	1,876.1	0.0	-253.8	0.0	2.00	-2.00	0.00
2,000.0	0.48	270.00	1,976.0	0.0	-256.3	0.0	2.00	-2.00	0.00
2,024.0	0.00	0.00	2,000.0	0.0	-256.4	0.0	2.00	-2.00	0.00
Start 6129.0 hold at 2024.0 MD									
2,100.0	0.00	0.00	2,076.0	0.0	-256.4	0.0	0.00	0.00	0.00
2,193.0	0.00	0.00	2,169.0	0.0	-256.4	0.0	0.00	0.00	0.00
Aquifer (Fox Hills)									
2,200.0	0.00	0.00	2,176.0	0.0	-256.4	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,276.0	0.0	-256.4	0.0	0.00	0.00	0.00
2,324.0	0.00	0.00	2,300.0	0.0	-256.4	0.0	0.00	0.00	0.00
9 5/8"									
2,400.0	0.00	0.00	2,376.0	0.0	-256.4	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,476.0	0.0	-256.4	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,576.0	0.0	-256.4	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,676.0	0.0	-256.4	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,776.0	0.0	-256.4	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,876.0	0.0	-256.4	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	2,976.0	0.0	-256.4	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,076.0	0.0	-256.4	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,176.0	0.0	-256.4	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,276.0	0.0	-256.4	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,376.0	0.0	-256.4	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,476.0	0.0	-256.4	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,576.0	0.0	-256.4	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,676.0	0.0	-256.4	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,776.0	0.0	-256.4	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,876.0	0.0	-256.4	0.0	0.00	0.00	0.00

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## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Site RESOLUTION FED 12-65-29-20-7NH PAD
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5994.0usft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5994.0usft (Original Well Elev)
<b>Site:</b>	RESOLUTION FED 12-65-29-20-7NH PAD	<b>North Reference:</b>	True
<b>Well:</b>	RESOLUTION FED 12-65-29-20-6NH	<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)	
4,000.0	0.00	0.00	3,976.0	0.0	-256.4	0.0	0.00	0.00	0.00	
4,100.0	0.00	0.00	4,076.0	0.0	-256.4	0.0	0.00	0.00	0.00	
4,200.0	0.00	0.00	4,176.0	0.0	-256.4	0.0	0.00	0.00	0.00	
4,300.0	0.00	0.00	4,276.0	0.0	-256.4	0.0	0.00	0.00	0.00	
4,400.0	0.00	0.00	4,376.0	0.0	-256.4	0.0	0.00	0.00	0.00	
4,500.0	0.00	0.00	4,476.0	0.0	-256.4	0.0	0.00	0.00	0.00	
4,600.0	0.00	0.00	4,576.0	0.0	-256.4	0.0	0.00	0.00	0.00	
4,700.0	0.00	0.00	4,676.0	0.0	-256.4	0.0	0.00	0.00	0.00	
4,800.0	0.00	0.00	4,776.0	0.0	-256.4	0.0	0.00	0.00	0.00	
4,900.0	0.00	0.00	4,876.0	0.0	-256.4	0.0	0.00	0.00	0.00	
5,000.0	0.00	0.00	4,976.0	0.0	-256.4	0.0	0.00	0.00	0.00	
5,100.0	0.00	0.00	5,076.0	0.0	-256.4	0.0	0.00	0.00	0.00	
5,200.0	0.00	0.00	5,176.0	0.0	-256.4	0.0	0.00	0.00	0.00	
5,300.0	0.00	0.00	5,276.0	0.0	-256.4	0.0	0.00	0.00	0.00	
5,400.0	0.00	0.00	5,376.0	0.0	-256.4	0.0	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,476.0	0.0	-256.4	0.0	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,576.0	0.0	-256.4	0.0	0.00	0.00	0.00	
5,700.0	0.00	0.00	5,676.0	0.0	-256.4	0.0	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,776.0	0.0	-256.4	0.0	0.00	0.00	0.00	
5,900.0	0.00	0.00	5,876.0	0.0	-256.4	0.0	0.00	0.00	0.00	
6,000.0	0.00	0.00	5,976.0	0.0	-256.4	0.0	0.00	0.00	0.00	
6,100.0	0.00	0.00	6,076.0	0.0	-256.4	0.0	0.00	0.00	0.00	
6,200.0	0.00	0.00	6,176.0	0.0	-256.4	0.0	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,276.0	0.0	-256.4	0.0	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,376.0	0.0	-256.4	0.0	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,476.0	0.0	-256.4	0.0	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,576.0	0.0	-256.4	0.0	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,676.0	0.0	-256.4	0.0	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,776.0	0.0	-256.4	0.0	0.00	0.00	0.00	
6,900.0	0.00	0.00	6,876.0	0.0	-256.4	0.0	0.00	0.00	0.00	
7,000.0	0.00	0.00	6,976.0	0.0	-256.4	0.0	0.00	0.00	0.00	
7,100.0	0.00	0.00	7,076.0	0.0	-256.4	0.0	0.00	0.00	0.00	
7,200.0	0.00	0.00	7,176.0	0.0	-256.4	0.0	0.00	0.00	0.00	
7,300.0	0.00	0.00	7,276.0	0.0	-256.4	0.0	0.00	0.00	0.00	
7,400.0	0.00	0.00	7,376.0	0.0	-256.4	0.0	0.00	0.00	0.00	
7,500.0	0.00	0.00	7,476.0	0.0	-256.4	0.0	0.00	0.00	0.00	
7,600.0	0.00	0.00	7,576.0	0.0	-256.4	0.0	0.00	0.00	0.00	
7,700.0	0.00	0.00	7,676.0	0.0	-256.4	0.0	0.00	0.00	0.00	
7,800.0	0.00	0.00	7,776.0	0.0	-256.4	0.0	0.00	0.00	0.00	
7,900.0	0.00	0.00	7,876.0	0.0	-256.4	0.0	0.00	0.00	0.00	
8,000.0	0.00	0.00	7,976.0	0.0	-256.4	0.0	0.00	0.00	0.00	
8,100.0	0.00	0.00	8,076.0	0.0	-256.4	0.0	0.00	0.00	0.00	
8,153.0	0.00	0.00	8,129.0	0.0	-256.4	0.0	0.00	0.00	0.00	
Start Build 10.00										
8,200.0	4.70	360.00	8,176.0	1.9	-256.4	1.9	10.00	10.00	0.00	
8,300.0	14.70	360.00	8,274.4	18.8	-256.4	18.8	10.00	10.00	0.00	
8,400.0	24.70	360.00	8,368.4	52.4	-256.4	52.4	10.00	10.00	0.00	
8,500.0	34.70	360.00	8,455.2	101.9	-256.4	101.9	10.00	10.00	0.00	
8,600.0	44.70	360.00	8,532.0	165.7	-256.4	165.7	10.00	10.00	0.00	
8,700.0	54.70	360.00	8,596.6	241.9	-256.4	241.9	10.00	10.00	0.00	
8,702.3	54.93	360.00	8,598.0	243.8	-256.4	243.8	10.00	10.00	0.00	
Niobrara										
8,800.0	64.70	360.00	8,647.0	328.1	-256.4	328.1	10.00	10.00	0.00	

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## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Site RESOLUTION FED 12-65-29-20-7NH PAD
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5994.0usft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5994.0usft (Original Well Elev)
<b>Site:</b>	RESOLUTION FED 12-65-29-20-7NH PAD	<b>North Reference:</b>	True
<b>Well:</b>	RESOLUTION FED 12-65-29-20-6NH	<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	74.70	360.00	8,681.7	421.8	-256.4	421.8	10.00	10.00	0.00
9,000.0	84.70	360.00	8,699.5	520.0	-256.4	520.0	10.00	10.00	0.00
9,053.0	90.00	360.00	8,702.0	572.9	-256.4	572.9	10.00	10.00	0.00
Start 9430.6 hold at 9053.0 MD - 7"									
9,100.0	90.00	360.00	8,702.0	619.9	-256.4	619.9	0.00	0.00	0.00
9,200.0	90.00	360.00	8,702.0	719.9	-256.4	719.9	0.00	0.00	0.00
9,300.0	90.00	360.00	8,702.0	819.9	-256.4	819.9	0.00	0.00	0.00
9,400.0	90.00	360.00	8,702.0	919.9	-256.4	919.9	0.00	0.00	0.00
9,500.0	90.00	360.00	8,702.0	1,019.9	-256.4	1,019.9	0.00	0.00	0.00
9,600.0	90.00	360.00	8,702.0	1,119.9	-256.4	1,119.9	0.00	0.00	0.00
9,700.0	90.00	360.00	8,702.0	1,219.9	-256.4	1,219.9	0.00	0.00	0.00
9,800.0	90.00	360.00	8,702.0	1,319.9	-256.4	1,319.9	0.00	0.00	0.00
9,900.0	90.00	360.00	8,702.0	1,419.9	-256.4	1,419.9	0.00	0.00	0.00
10,000.0	90.00	360.00	8,702.0	1,519.9	-256.4	1,519.9	0.00	0.00	0.00
10,100.0	90.00	360.00	8,702.0	1,619.9	-256.4	1,619.9	0.00	0.00	0.00
10,200.0	90.00	360.00	8,702.0	1,719.9	-256.4	1,719.9	0.00	0.00	0.00
10,300.0	90.00	360.00	8,702.0	1,819.9	-256.4	1,819.9	0.00	0.00	0.00
10,400.0	90.00	360.00	8,702.0	1,919.9	-256.4	1,919.9	0.00	0.00	0.00
10,500.0	90.00	360.00	8,702.0	2,019.9	-256.4	2,019.9	0.00	0.00	0.00
10,600.0	90.00	360.00	8,702.0	2,119.9	-256.4	2,119.9	0.00	0.00	0.00
10,700.0	90.00	360.00	8,702.0	2,219.9	-256.4	2,219.9	0.00	0.00	0.00
10,800.0	90.00	360.00	8,702.0	2,319.9	-256.4	2,319.9	0.00	0.00	0.00
10,900.0	90.00	360.00	8,702.0	2,419.9	-256.4	2,419.9	0.00	0.00	0.00
11,000.0	90.00	360.00	8,702.0	2,519.9	-256.4	2,519.9	0.00	0.00	0.00
11,100.0	90.00	360.00	8,702.0	2,619.9	-256.4	2,619.9	0.00	0.00	0.00
11,200.0	90.00	360.00	8,702.0	2,719.9	-256.4	2,719.9	0.00	0.00	0.00
11,300.0	90.00	360.00	8,702.0	2,819.9	-256.4	2,819.9	0.00	0.00	0.00
11,400.0	90.00	360.00	8,702.0	2,919.9	-256.4	2,919.9	0.00	0.00	0.00
11,500.0	90.00	360.00	8,702.0	3,019.9	-256.4	3,019.9	0.00	0.00	0.00
11,600.0	90.00	360.00	8,702.0	3,119.9	-256.4	3,119.9	0.00	0.00	0.00
11,700.0	90.00	360.00	8,702.0	3,219.9	-256.4	3,219.9	0.00	0.00	0.00
11,800.0	90.00	360.00	8,702.0	3,319.9	-256.4	3,319.9	0.00	0.00	0.00
11,900.0	90.00	360.00	8,702.0	3,419.9	-256.4	3,419.9	0.00	0.00	0.00
12,000.0	90.00	360.00	8,702.0	3,519.9	-256.4	3,519.9	0.00	0.00	0.00
12,100.0	90.00	360.00	8,702.0	3,619.9	-256.4	3,619.9	0.00	0.00	0.00
12,200.0	90.00	360.00	8,702.0	3,719.9	-256.4	3,719.9	0.00	0.00	0.00
12,300.0	90.00	360.00	8,702.0	3,819.9	-256.4	3,819.9	0.00	0.00	0.00
12,400.0	90.00	360.00	8,702.0	3,919.9	-256.4	3,919.9	0.00	0.00	0.00
12,500.0	90.00	360.00	8,702.0	4,019.9	-256.4	4,019.9	0.00	0.00	0.00
12,600.0	90.00	360.00	8,702.0	4,119.9	-256.4	4,119.9	0.00	0.00	0.00
12,700.0	90.00	360.00	8,702.0	4,219.9	-256.4	4,219.9	0.00	0.00	0.00
12,800.0	90.00	360.00	8,702.0	4,319.9	-256.4	4,319.9	0.00	0.00	0.00
12,900.0	90.00	360.00	8,702.0	4,419.9	-256.4	4,419.9	0.00	0.00	0.00
13,000.0	90.00	360.00	8,702.0	4,519.9	-256.4	4,519.9	0.00	0.00	0.00
13,100.0	90.00	360.00	8,702.0	4,619.9	-256.4	4,619.9	0.00	0.00	0.00
13,200.0	90.00	360.00	8,702.0	4,719.9	-256.4	4,719.9	0.00	0.00	0.00
13,300.0	90.00	360.00	8,702.0	4,819.9	-256.4	4,819.9	0.00	0.00	0.00
13,400.0	90.00	360.00	8,702.0	4,919.9	-256.4	4,919.9	0.00	0.00	0.00
13,500.0	90.00	360.00	8,702.0	5,019.9	-256.4	5,019.9	0.00	0.00	0.00
13,600.0	90.00	360.00	8,702.0	5,119.9	-256.4	5,119.9	0.00	0.00	0.00
13,700.0	90.00	360.00	8,702.0	5,219.9	-256.4	5,219.9	0.00	0.00	0.00
13,800.0	90.00	360.00	8,702.0	5,319.9	-256.4	5,319.9	0.00	0.00	0.00
13,900.0	90.00	360.00	8,702.0	5,419.9	-256.4	5,419.9	0.00	0.00	0.00

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Site RESOLUTION FED 12-65-29-20-7NH PAD
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5994.0usft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5994.0usft (Original Well Elev)
<b>Site:</b>	RESOLUTION FED 12-65-29-20-7NH PAD	<b>North Reference:</b>	True
<b>Well:</b>	RESOLUTION FED 12-65-29-20-6NH	<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)
14,000.0	90.00	360.00	8,702.0	5,519.9	-256.4	5,519.9	0.00	0.00	0.00
14,100.0	90.00	360.00	8,702.0	5,619.9	-256.4	5,619.9	0.00	0.00	0.00
14,200.0	90.00	360.00	8,702.0	5,719.9	-256.4	5,719.9	0.00	0.00	0.00
14,300.0	90.00	360.00	8,702.0	5,819.9	-256.4	5,819.9	0.00	0.00	0.00
14,400.0	90.00	360.00	8,702.0	5,919.9	-256.4	5,919.9	0.00	0.00	0.00
14,500.0	90.00	360.00	8,702.0	6,019.9	-256.4	6,019.9	0.00	0.00	0.00
14,600.0	90.00	360.00	8,702.0	6,119.9	-256.4	6,119.9	0.00	0.00	0.00
14,700.0	90.00	360.00	8,702.0	6,219.9	-256.4	6,219.9	0.00	0.00	0.00
14,800.0	90.00	360.00	8,702.0	6,319.9	-256.4	6,319.9	0.00	0.00	0.00
14,900.0	90.00	360.00	8,702.0	6,419.9	-256.4	6,419.9	0.00	0.00	0.00
15,000.0	90.00	360.00	8,702.0	6,519.9	-256.4	6,519.9	0.00	0.00	0.00
15,100.0	90.00	360.00	8,702.0	6,619.9	-256.4	6,619.9	0.00	0.00	0.00
15,200.0	90.00	360.00	8,702.0	6,719.9	-256.4	6,719.9	0.00	0.00	0.00
15,300.0	90.00	360.00	8,702.0	6,819.9	-256.4	6,819.9	0.00	0.00	0.00
15,400.0	90.00	360.00	8,702.0	6,919.9	-256.4	6,919.9	0.00	0.00	0.00
15,500.0	90.00	360.00	8,702.0	7,019.9	-256.4	7,019.9	0.00	0.00	0.00
15,600.0	90.00	360.00	8,702.0	7,119.9	-256.4	7,119.9	0.00	0.00	0.00
15,700.0	90.00	360.00	8,702.0	7,219.9	-256.4	7,219.9	0.00	0.00	0.00
15,800.0	90.00	360.00	8,702.0	7,319.9	-256.4	7,319.9	0.00	0.00	0.00
15,900.0	90.00	360.00	8,702.0	7,419.9	-256.4	7,419.9	0.00	0.00	0.00
16,000.0	90.00	360.00	8,702.0	7,519.9	-256.4	7,519.9	0.00	0.00	0.00
16,100.0	90.00	360.00	8,702.0	7,619.9	-256.4	7,619.9	0.00	0.00	0.00
16,200.0	90.00	360.00	8,702.0	7,719.9	-256.4	7,719.9	0.00	0.00	0.00
16,300.0	90.00	360.00	8,702.0	7,819.9	-256.4	7,819.9	0.00	0.00	0.00
16,400.0	90.00	360.00	8,702.0	7,919.9	-256.4	7,919.9	0.00	0.00	0.00
16,500.0	90.00	360.00	8,702.0	8,019.9	-256.4	8,019.9	0.00	0.00	0.00
16,600.0	90.00	360.00	8,702.0	8,119.9	-256.4	8,119.9	0.00	0.00	0.00
16,700.0	90.00	360.00	8,702.0	8,219.9	-256.4	8,219.9	0.00	0.00	0.00
16,800.0	90.00	360.00	8,702.0	8,319.9	-256.4	8,319.9	0.00	0.00	0.00
16,900.0	90.00	360.00	8,702.0	8,419.9	-256.4	8,419.9	0.00	0.00	0.00
17,000.0	90.00	360.00	8,702.0	8,519.9	-256.4	8,519.9	0.00	0.00	0.00
17,100.0	90.00	360.00	8,702.0	8,619.9	-256.4	8,619.9	0.00	0.00	0.00
17,200.0	90.00	360.00	8,702.0	8,719.9	-256.4	8,719.9	0.00	0.00	0.00
17,300.0	90.00	360.00	8,702.0	8,819.9	-256.4	8,819.9	0.00	0.00	0.00
17,400.0	90.00	360.00	8,702.0	8,919.9	-256.4	8,919.9	0.00	0.00	0.00
17,500.0	90.00	360.00	8,702.0	9,019.9	-256.4	9,019.9	0.00	0.00	0.00
17,600.0	90.00	360.00	8,702.0	9,119.9	-256.4	9,119.9	0.00	0.00	0.00
17,700.0	90.00	360.00	8,702.0	9,219.9	-256.4	9,219.9	0.00	0.00	0.00
17,800.0	90.00	360.00	8,702.0	9,319.9	-256.4	9,319.9	0.00	0.00	0.00
17,900.0	90.00	360.00	8,702.0	9,419.9	-256.4	9,419.9	0.00	0.00	0.00
18,000.0	90.00	360.00	8,702.0	9,519.9	-256.4	9,519.9	0.00	0.00	0.00
18,100.0	90.00	360.00	8,702.0	9,619.9	-256.4	9,619.9	0.00	0.00	0.00
18,200.0	90.00	360.00	8,702.0	9,719.9	-256.4	9,719.9	0.00	0.00	0.00
18,300.0	90.00	360.00	8,702.0	9,819.9	-256.4	9,819.9	0.00	0.00	0.00
18,400.0	90.00	360.00	8,702.0	9,919.9	-256.4	9,919.9	0.00	0.00	0.00
18,483.6	90.00	360.00	8,702.0	10,003.6	-256.4	10,003.6	0.00	0.00	0.00
TD at 18483.6									

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Site RESOLUTION FED 12-65-29-20-7NH PAD
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5994.0usft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5994.0usft (Original Well Elev)
<b>Site:</b>	RESOLUTION FED 12-65-29-20-7NH PAD	<b>North Reference:</b>	True
<b>Well:</b>	RESOLUTION FED 12-65-29-20-6NH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Wellbore #1		
<b>Design:</b>	PLAN #1		

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									
Interp @ 8598.0 (RESOI	0.00	0.00	8,598.0	243.8	-256.4	1,598,163.54	3,226,289.65	40.972448	-104.680569
- plan hits target center									
- Point									
RESOLUTION 12-65-29	0.00	0.00	8,702.0	10,003.6	-256.4	1,607,922.92	3,226,199.36	40.999234	-104.680569
- plan hits target center									
- Point									

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
2,324.0	2,300.0	9 5/8"	9.625	12.250	
9,053.0	8,702.0	7"	7.000	7.500	

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,193.0	2,169.0	Aquifer (Fox Hills)			
8,702.3	8,598.0	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	
919.3	913.2	0.0	-77.8	Start 435.4 hold at 919.3 MD	
1,354.7	1,336.8	0.0	-178.6	Start Drop -2.00	
2,024.0	2,000.0	0.0	-256.4	Start 6129.0 hold at 2024.0 MD	
8,153.0	8,129.0	0.0	-256.4	Start Build 10.00	
9,053.0	8,702.0	573.0	-256.4	Start 9430.6 hold at 9053.0 MD	
18,483.6	8,702.0	10,003.6	-256.4	TD at 18483.6	