



Well Name: RESOLUTION 12-65-25-25-5CH  
Surface Location: RESOLUTION 12-65-25-25-4CH PAD  
North American Datum 1983  
US State Plane 1983 Colorado Northern Zone  
Ground Elevation: 5851.00  
WELL @ 5877.00usft (Original Well Elev)  
Easting 3246746.95 Latitude 40.972452 Longitude -104.606487

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Azimuths to True North

Magnetic North: 8.99°

Magnetic Field

Strength: 53609.8snT

Dip Angle: 67.60°

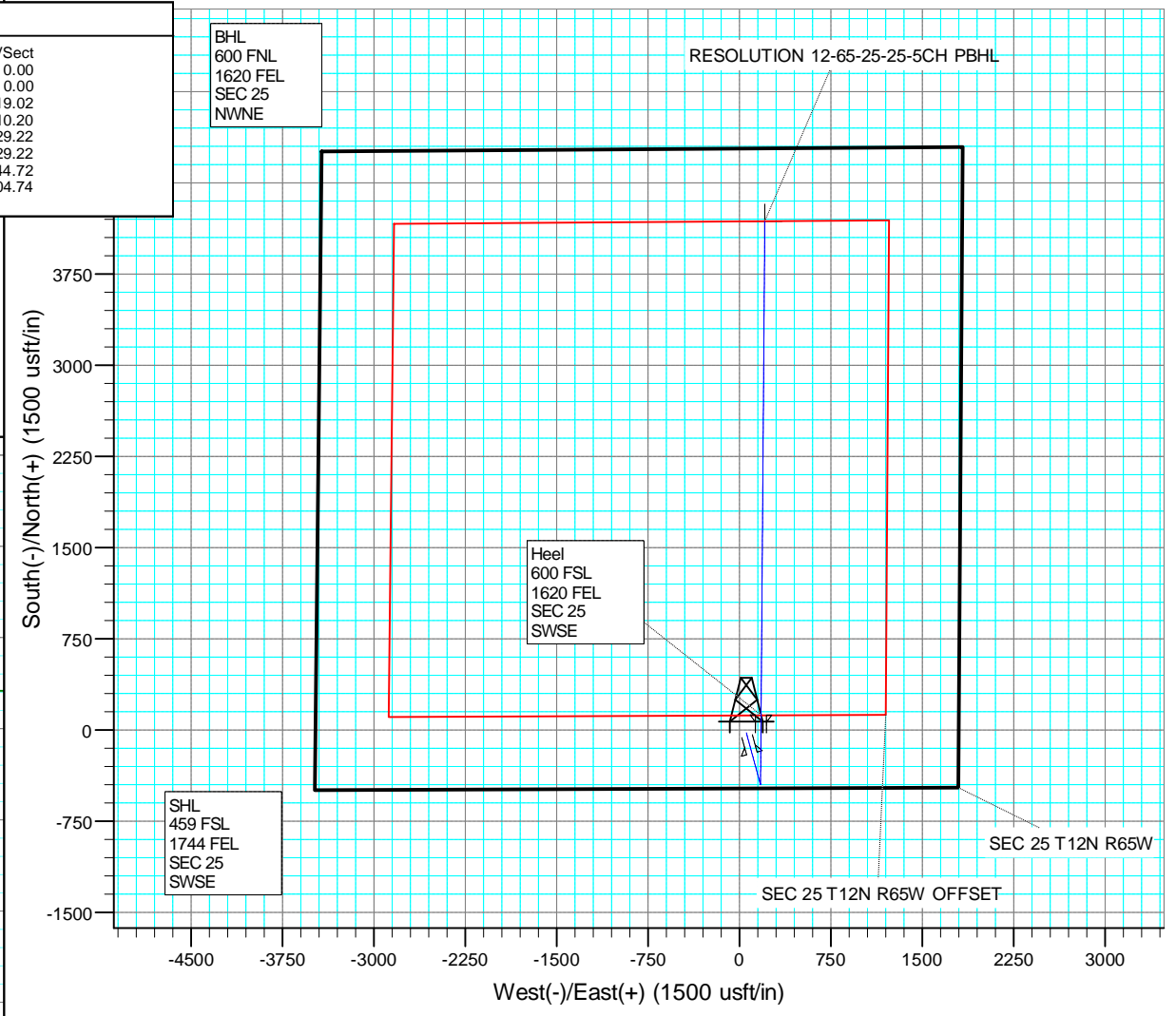
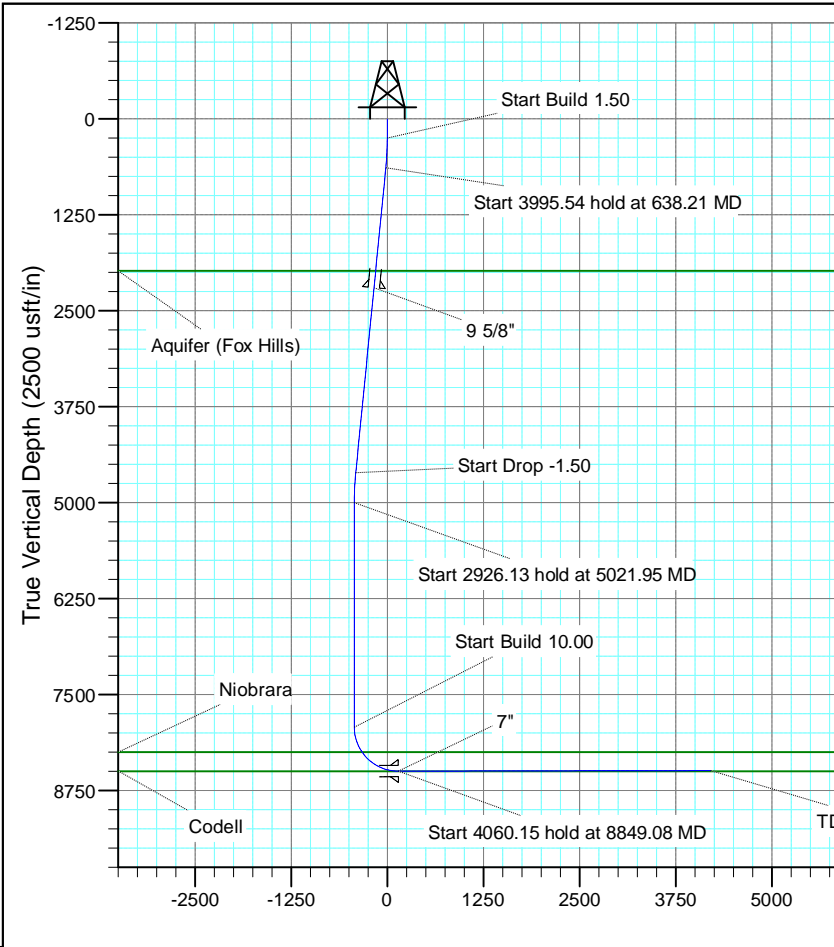
Date: 12/31/2009

Model: IGRF200510

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
-20.78	56.34	1598362.57	3246746.95	40.972452	-104.606487

SECTION DETAILS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	-20.78	56.34	0.00	0.00	0.00
250.00	0.00	0.00	250.00	-20.78	56.34	0.00	0.00	0.00
638.21	5.82	164.79	637.54	-39.80	61.51	1.50	164.79	-19.02
4633.75	5.82	164.79	4612.46	-430.98	167.83	0.00	0.00	-410.20
5021.95	0.00	0.00	5000.00	-450.00	173.00	1.50	180.00	-429.22
7948.08	0.00	0.00	7926.13	-450.00	173.00	0.00	0.00	-429.22
8849.08	90.10	0.43	8499.09	123.94	177.32	10.00	0.43	144.72
12909.23	90.10	0.43	8492.00	4183.97	207.91	0.00	0.00	4204.74

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1982.00	1989.64	Aquifer (Fox Hills)
8252.00	8294.71	Niobrara
8497.00	8799.16	Codell



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**RESOLUTION 12-65-25-25-4CH PAD**

**RESOLUTION 12-65-25-25-5CH**

**Wellbore #1**

**Plan: PLAN #1**

## **Standard Planning Report**

**31 December, 2015**

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Site RESOLUTION 12-65-25-25-4CH PAD
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5877.00usft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5877.00usft (Original Well Elev)
<b>Site:</b>	RESOLUTION 12-65-25-25-4CH PAD	<b>North Reference:</b>	True
<b>Well:</b>	RESOLUTION 12-65-25-25-5CH	<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 12-65-25-25-4CH PAD			
<b>Site Position:</b>		<b>Northing:</b>	1,598,382.77 usft	<b>Latitude:</b> 40.972509
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,246,690.41 usft	<b>Longitude:</b> -104.606691
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> 0.58 °

<b>Well</b>	RESOLUTION 12-65-25-25-5CH			
<b>Well Position</b>	<b>+N/-S</b>	-20.78 usft	<b>Northing:</b>	1,598,362.56 usft
	<b>+E/-W</b>	56.34 usft	<b>Easting:</b>	3,246,746.95 usft
<b>Position Uncertainty</b>	0.00 usft	<b>Wellhead Elevation:</b>	0.00 usft	<b>Ground Level:</b> 5,851.00 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	8.99	67.60	53,610

<b>Design</b>	PLAN #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	-20.78	56.34	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
0.00	0.00	0.00	0.00	-20.78	56.34	0.00	0.00	0.00	0.00	
250.00	0.00	0.00	250.00	-20.78	56.34	0.00	0.00	0.00	0.00	
638.21	5.82	164.79	637.54	-39.80	61.51	1.50	1.50	0.00	164.79	
4,633.75	5.82	164.79	4,612.46	-430.98	167.83	0.00	0.00	0.00	0.00	
5,021.95	0.00	0.00	5,000.00	-450.00	173.00	1.50	-1.50	0.00	180.00	
7,948.08	0.00	0.00	7,926.13	-450.00	173.00	0.00	0.00	0.00	0.00	
8,849.08	90.10	0.43	8,499.09	123.94	177.32	10.00	10.00	0.00	0.43	
12,909.23	90.10	0.43	8,492.00	4,183.97	207.91	0.00	0.00	0.00	0.00	RESOLUTION 12-65-

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Site RESOLUTION 12-65-25-25-4CH PAD
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5877.00usft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5877.00usft (Original Well Elev)
<b>Site:</b>	RESOLUTION 12-65-25-25-4CH PAD	<b>North Reference:</b>	True
<b>Well:</b>	RESOLUTION 12-65-25-25-5CH	<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)
0.00	0.00	0.00	0.00	-20.78	56.34	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	-20.78	56.34	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	-20.78	56.34	0.00	0.00	0.00	0.00
250.00	0.00	0.00	250.00	-20.78	56.34	0.00	0.00	0.00	0.00
<b>Start Build 1.50</b>									
300.00	0.75	164.79	300.00	-21.09	56.42	-0.32	1.50	1.50	0.00
400.00	2.25	164.79	399.96	-23.62	57.11	-2.84	1.50	1.50	0.00
500.00	3.75	164.79	499.82	-28.67	58.48	-7.89	1.50	1.50	0.00
600.00	5.25	164.79	599.51	-36.24	60.54	-15.46	1.50	1.50	0.00
638.21	5.82	164.79	637.54	-39.80	61.51	-19.02	1.50	1.50	0.00
<b>Start 3995.54 hold at 638.21 MD</b>									
700.00	5.82	164.79	699.01	-45.85	63.15	-25.07	0.00	0.00	0.00
800.00	5.82	164.79	798.50	-55.64	65.81	-34.86	0.00	0.00	0.00
900.00	5.82	164.79	897.98	-65.43	68.47	-44.65	0.00	0.00	0.00
1,000.00	5.82	164.79	997.46	-75.22	71.13	-54.44	0.00	0.00	0.00
1,100.00	5.82	164.79	1,096.95	-85.01	73.79	-64.23	0.00	0.00	0.00
1,200.00	5.82	164.79	1,196.43	-94.80	76.46	-74.02	0.00	0.00	0.00
1,300.00	5.82	164.79	1,295.91	-104.59	79.12	-83.81	0.00	0.00	0.00
1,400.00	5.82	164.79	1,395.40	-114.38	81.78	-93.60	0.00	0.00	0.00
1,500.00	5.82	164.79	1,494.88	-124.17	84.44	-103.39	0.00	0.00	0.00
1,600.00	5.82	164.79	1,594.37	-133.96	87.10	-113.18	0.00	0.00	0.00
1,700.00	5.82	164.79	1,693.85	-143.75	89.76	-122.97	0.00	0.00	0.00
1,800.00	5.82	164.79	1,793.33	-153.54	92.42	-132.77	0.00	0.00	0.00
1,900.00	5.82	164.79	1,892.82	-163.33	95.08	-142.56	0.00	0.00	0.00
1,989.64	5.82	164.79	1,982.00	-172.11	97.47	-151.33	0.00	0.00	0.00
<b>Aquifer (Fox Hills)</b>									
2,000.00	5.82	164.79	1,992.30	-173.12	97.74	-152.35	0.00	0.00	0.00
2,100.00	5.82	164.79	2,091.78	-182.91	100.41	-162.14	0.00	0.00	0.00
2,200.00	5.82	164.79	2,191.27	-192.70	103.07	-171.93	0.00	0.00	0.00
2,208.77	5.82	164.79	2,200.00	-193.56	103.30	-172.79	0.00	0.00	0.00
<b>9 5/8"</b>									
2,300.00	5.82	164.79	2,290.75	-202.49	105.73	-181.72	0.00	0.00	0.00
2,400.00	5.82	164.79	2,390.24	-212.28	108.39	-191.51	0.00	0.00	0.00
2,500.00	5.82	164.79	2,489.72	-222.07	111.05	-201.30	0.00	0.00	0.00
2,599.99	5.82	164.79	2,589.20	-231.87	113.71	-211.09	0.00	0.00	0.00
2,699.99	5.82	164.79	2,688.69	-241.66	116.37	-220.88	0.00	0.00	0.00
2,799.99	5.82	164.79	2,788.17	-251.45	119.03	-230.67	0.00	0.00	0.00
2,899.99	5.82	164.79	2,887.66	-261.24	121.69	-240.46	0.00	0.00	0.00
2,999.99	5.82	164.79	2,987.14	-271.03	124.35	-250.25	0.00	0.00	0.00
3,099.99	5.82	164.79	3,086.62	-280.82	127.02	-260.04	0.00	0.00	0.00
3,199.99	5.82	164.79	3,186.11	-290.61	129.68	-269.83	0.00	0.00	0.00
3,299.99	5.82	164.79	3,285.59	-300.40	132.34	-279.62	0.00	0.00	0.00
3,399.99	5.82	164.79	3,385.07	-310.19	135.00	-289.41	0.00	0.00	0.00
3,499.99	5.82	164.79	3,484.56	-319.98	137.66	-299.20	0.00	0.00	0.00
3,599.99	5.82	164.79	3,584.04	-329.77	140.32	-308.99	0.00	0.00	0.00
3,699.99	5.82	164.79	3,683.53	-339.56	142.98	-318.78	0.00	0.00	0.00
3,799.99	5.82	164.79	3,783.01	-349.35	145.64	-328.57	0.00	0.00	0.00
3,899.99	5.82	164.79	3,882.49	-359.14	148.30	-338.37	0.00	0.00	0.00
3,999.99	5.82	164.79	3,981.98	-368.93	150.97	-348.16	0.00	0.00	0.00
4,099.99	5.82	164.79	4,081.46	-378.72	153.63	-357.95	0.00	0.00	0.00
4,199.99	5.82	164.79	4,180.94	-388.51	156.29	-367.74	0.00	0.00	0.00
4,299.99	5.82	164.79	4,280.43	-398.30	158.95	-377.53	0.00	0.00	0.00
4,399.99	5.82	164.79	4,379.91	-408.09	161.61	-387.32	0.00	0.00	0.00
4,499.99	5.82	164.79	4,479.40	-417.88	164.27	-397.11	0.00	0.00	0.00

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## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Site RESOLUTION 12-65-25-25-4CH PAD
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5877.00usft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5877.00usft (Original Well Elev)
<b>Site:</b>	RESOLUTION 12-65-25-25-4CH PAD	<b>North Reference:</b>	True
<b>Well:</b>	RESOLUTION 12-65-25-25-5CH	<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)
4,599.99	5.82	164.79	4,578.88	-427.68	166.93	-406.90	0.00	0.00	0.00
4,633.75	5.82	164.79	4,612.46	-430.98	167.83	-410.20	0.00	0.00	0.00
Start Drop -1.50									
4,699.99	4.83	164.79	4,678.42	-436.91	169.44	-416.14	1.50	-1.50	0.00
4,799.99	3.33	164.79	4,778.16	-443.78	171.31	-423.00	1.50	-1.50	0.00
4,899.99	1.83	164.79	4,878.06	-448.12	172.49	-427.34	1.50	-1.50	0.00
4,999.99	0.33	164.79	4,978.04	-449.94	172.98	-429.16	1.50	-1.50	0.00
5,021.95	0.00	0.00	5,000.00	-450.00	173.00	-429.22	1.50	-1.50	0.00
Start 2926.13 hold at 5021.95 MD									
5,099.99	0.00	0.00	5,078.04	-450.00	173.00	-429.22	0.00	0.00	0.00
5,199.99	0.00	0.00	5,178.04	-450.00	173.00	-429.22	0.00	0.00	0.00
5,299.99	0.00	0.00	5,278.04	-450.00	173.00	-429.22	0.00	0.00	0.00
5,399.99	0.00	0.00	5,378.04	-450.00	173.00	-429.22	0.00	0.00	0.00
5,499.99	0.00	0.00	5,478.04	-450.00	173.00	-429.22	0.00	0.00	0.00
5,599.99	0.00	0.00	5,578.04	-450.00	173.00	-429.22	0.00	0.00	0.00
5,699.99	0.00	0.00	5,678.04	-450.00	173.00	-429.22	0.00	0.00	0.00
5,799.99	0.00	0.00	5,778.04	-450.00	173.00	-429.22	0.00	0.00	0.00
5,899.99	0.00	0.00	5,878.04	-450.00	173.00	-429.22	0.00	0.00	0.00
5,999.99	0.00	0.00	5,978.03	-450.00	173.00	-429.22	0.00	0.00	0.00
6,099.99	0.00	0.00	6,078.03	-450.00	173.00	-429.22	0.00	0.00	0.00
6,199.99	0.00	0.00	6,178.03	-450.00	173.00	-429.22	0.00	0.00	0.00
6,299.99	0.00	0.00	6,278.03	-450.00	173.00	-429.22	0.00	0.00	0.00
6,399.99	0.00	0.00	6,378.03	-450.00	173.00	-429.22	0.00	0.00	0.00
6,499.99	0.00	0.00	6,478.03	-450.00	173.00	-429.22	0.00	0.00	0.00
6,599.99	0.00	0.00	6,578.03	-450.00	173.00	-429.22	0.00	0.00	0.00
6,699.99	0.00	0.00	6,678.03	-450.00	173.00	-429.22	0.00	0.00	0.00
6,799.99	0.00	0.00	6,778.03	-450.00	173.00	-429.22	0.00	0.00	0.00
6,899.99	0.00	0.00	6,878.03	-450.00	173.00	-429.22	0.00	0.00	0.00
6,999.99	0.00	0.00	6,978.03	-450.00	173.00	-429.22	0.00	0.00	0.00
7,099.99	0.00	0.00	7,078.03	-450.00	173.00	-429.22	0.00	0.00	0.00
7,199.99	0.00	0.00	7,178.03	-450.00	173.00	-429.22	0.00	0.00	0.00
7,299.99	0.00	0.00	7,278.03	-450.00	173.00	-429.22	0.00	0.00	0.00
7,399.99	0.00	0.00	7,378.03	-450.00	173.00	-429.22	0.00	0.00	0.00
7,499.99	0.00	0.00	7,478.03	-450.00	173.00	-429.22	0.00	0.00	0.00
7,599.98	0.00	0.00	7,578.03	-450.00	173.00	-429.22	0.00	0.00	0.00
7,699.98	0.00	0.00	7,678.03	-450.00	173.00	-429.22	0.00	0.00	0.00
7,799.98	0.00	0.00	7,778.03	-450.00	173.00	-429.22	0.00	0.00	0.00
7,899.98	0.00	0.00	7,878.03	-450.00	173.00	-429.22	0.00	0.00	0.00
7,948.08	0.00	0.00	7,926.13	-450.00	173.00	-429.22	0.00	0.00	0.00
Start Build 10.00									
7,999.98	5.19	0.43	7,977.96	-447.65	173.02	-426.87	10.00	10.00	0.00
8,099.98	15.19	0.43	8,076.26	-429.98	173.15	-409.21	10.00	10.00	0.00
8,199.98	25.19	0.43	8,169.99	-395.51	173.41	-374.74	10.00	10.00	0.00
8,294.71	34.66	0.43	8,252.00	-348.31	173.77	-327.53	10.00	10.00	0.00
Niobrara									
8,299.98	35.19	0.43	8,256.32	-345.29	173.79	-324.52	10.00	10.00	0.00
8,399.98	45.19	0.43	8,332.61	-280.84	174.27	-260.07	10.00	10.00	0.00
8,499.98	55.19	0.43	8,396.56	-204.13	174.85	-183.35	10.00	10.00	0.00
8,599.98	65.19	0.43	8,446.21	-117.47	175.51	-96.69	10.00	10.00	0.00
8,699.98	75.19	0.43	8,480.05	-23.51	176.21	-2.73	10.00	10.00	0.00
8,799.16	85.11	0.43	8,497.00	74.08	176.95	94.86	10.00	10.00	0.00
Codell									
8,799.98	85.19	0.43	8,497.07	74.90	176.95	95.68	10.00	10.00	0.00

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Site RESOLUTION 12-65-25-25-4CH PAD
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5877.00usft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5877.00usft (Original Well Elev)
<b>Site:</b>	RESOLUTION 12-65-25-25-4CH PAD	<b>North Reference:</b>	True
<b>Well:</b>	RESOLUTION 12-65-25-25-5CH	<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)
8,849.08	90.10	0.43	8,499.09	123.94	177.32	144.72	10.00	10.00	0.00
Start 4060.15 hold at 8849.08 MD - 7"									
8,899.98	90.10	0.43	8,499.00	174.84	177.71	195.62	0.00	0.00	0.00
8,999.98	90.10	0.43	8,498.82	274.84	178.46	295.61	0.00	0.00	0.00
9,099.98	90.10	0.43	8,498.65	374.83	179.21	395.61	0.00	0.00	0.00
9,199.98	90.10	0.43	8,498.47	474.83	179.97	495.61	0.00	0.00	0.00
9,299.98	90.10	0.43	8,498.30	574.83	180.72	595.60	0.00	0.00	0.00
9,399.98	90.10	0.43	8,498.12	674.82	181.47	695.60	0.00	0.00	0.00
9,499.98	90.10	0.43	8,497.95	774.82	182.23	795.60	0.00	0.00	0.00
9,599.98	90.10	0.43	8,497.78	874.82	182.98	895.59	0.00	0.00	0.00
9,699.98	90.10	0.43	8,497.60	974.81	183.73	995.59	0.00	0.00	0.00
9,799.98	90.10	0.43	8,497.43	1,074.81	184.49	1,095.59	0.00	0.00	0.00
9,899.98	90.10	0.43	8,497.25	1,174.81	185.24	1,195.58	0.00	0.00	0.00
9,999.98	90.10	0.43	8,497.08	1,274.80	185.99	1,295.58	0.00	0.00	0.00
10,099.98	90.10	0.43	8,496.90	1,374.80	186.75	1,395.58	0.00	0.00	0.00
10,199.98	90.10	0.43	8,496.73	1,474.80	187.50	1,495.57	0.00	0.00	0.00
10,299.98	90.10	0.43	8,496.55	1,574.79	188.25	1,595.57	0.00	0.00	0.00
10,399.98	90.10	0.43	8,496.38	1,674.79	189.01	1,695.57	0.00	0.00	0.00
10,499.98	90.10	0.43	8,496.21	1,774.79	189.76	1,795.56	0.00	0.00	0.00
10,599.98	90.10	0.43	8,496.03	1,874.79	190.51	1,895.56	0.00	0.00	0.00
10,699.98	90.10	0.43	8,495.86	1,974.78	191.27	1,995.56	0.00	0.00	0.00
10,799.98	90.10	0.43	8,495.68	2,074.78	192.02	2,095.56	0.00	0.00	0.00
10,899.98	90.10	0.43	8,495.51	2,174.78	192.77	2,195.55	0.00	0.00	0.00
10,999.98	90.10	0.43	8,495.33	2,274.77	193.53	2,295.55	0.00	0.00	0.00
11,099.98	90.10	0.43	8,495.16	2,374.77	194.28	2,395.55	0.00	0.00	0.00
11,199.98	90.10	0.43	8,494.98	2,474.77	195.03	2,495.54	0.00	0.00	0.00
11,299.98	90.10	0.43	8,494.81	2,574.76	195.79	2,595.54	0.00	0.00	0.00
11,399.98	90.10	0.43	8,494.63	2,674.76	196.54	2,695.54	0.00	0.00	0.00
11,499.98	90.10	0.43	8,494.46	2,774.76	197.29	2,795.53	0.00	0.00	0.00
11,599.98	90.10	0.43	8,494.29	2,874.75	198.05	2,895.53	0.00	0.00	0.00
11,699.98	90.10	0.43	8,494.11	2,974.75	198.80	2,995.53	0.00	0.00	0.00
11,799.98	90.10	0.43	8,493.94	3,074.75	199.55	3,095.52	0.00	0.00	0.00
11,899.98	90.10	0.43	8,493.76	3,174.74	200.31	3,195.52	0.00	0.00	0.00
11,999.98	90.10	0.43	8,493.59	3,274.74	201.06	3,295.52	0.00	0.00	0.00
12,099.98	90.10	0.43	8,493.41	3,374.74	201.81	3,395.51	0.00	0.00	0.00
12,199.98	90.10	0.43	8,493.24	3,474.73	202.57	3,495.51	0.00	0.00	0.00
12,299.98	90.10	0.43	8,493.06	3,574.73	203.32	3,595.51	0.00	0.00	0.00
12,399.98	90.10	0.43	8,492.89	3,674.73	204.08	3,695.50	0.00	0.00	0.00
12,499.98	90.10	0.43	8,492.71	3,774.72	204.83	3,795.50	0.00	0.00	0.00
12,599.98	90.10	0.43	8,492.54	3,874.72	205.58	3,895.50	0.00	0.00	0.00
12,699.97	90.10	0.43	8,492.37	3,974.72	206.34	3,995.49	0.00	0.00	0.00
12,799.97	90.10	0.43	8,492.19	4,074.72	207.09	4,095.49	0.00	0.00	0.00
12,899.97	90.10	0.43	8,492.02	4,174.71	207.84	4,195.49	0.00	0.00	0.00
12,909.23	90.10	0.43	8,492.00	4,183.97	207.91	4,204.74	0.00	0.00	0.00
TD at 12909.23									

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Site RESOLUTION 12-65-25-25-4CH PAD
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	WELL @ 5877.00usft (Original Well Elev)
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	WELL @ 5877.00usft (Original Well Elev)
<b>Site:</b>	RESOLUTION 12-65-25-25-4CH PAD	<b>North Reference:</b>	True
<b>Well:</b>	RESOLUTION 12-65-25-25-5CH	<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	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
RESOLUTION 12-65-25	0.00	0.00	8,492.00	4,183.97	207.91	1,602,568.62	3,246,856.16	40.983992	-104.605938
- plan hits target center									
- Point									

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(usft)	(usft)			(")	(")
2,208.77	2,200.00	9 5/8"		9-5/8	12-1/4
8,849.08	8,499.09	7"		7	7-1/2

Formations						
Measured Depth	Vertical Depth	Name		Lithology	Dip	Dip Direction
(usft)	(usft)				(°)	(°)
1,989.64	1,982.00	Aquifer (Fox Hills)				
8,294.71	8,252.00	Niobrara				
8,799.16	8,497.00	Codell				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(usft)	(usft)	+N/-S	+E/-W		
(usft)	(usft)	(usft)	(usft)		
250.00	250.00	-20.78	56.34	Start Build 1.50	
638.21	637.54	-39.80	61.51	Start 3995.54 hold at 638.21 MD	
4,633.75	4,612.46	-430.98	167.83	Start Drop -1.50	
5,021.95	5,000.00	-450.00	173.00	Start 2926.13 hold at 5021.95 MD	
7,948.08	7,926.13	-450.00	173.00	Start Build 10.00	
8,849.08	8,499.09	123.94	177.32	Start 4060.15 hold at 8849.08 MD	
12,909.23	8,492.00	4,183.97	207.91	TD at 12909.23	