

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_NORTON 5 PAD**

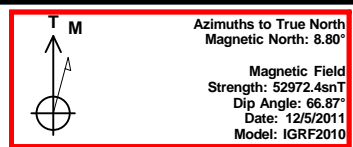
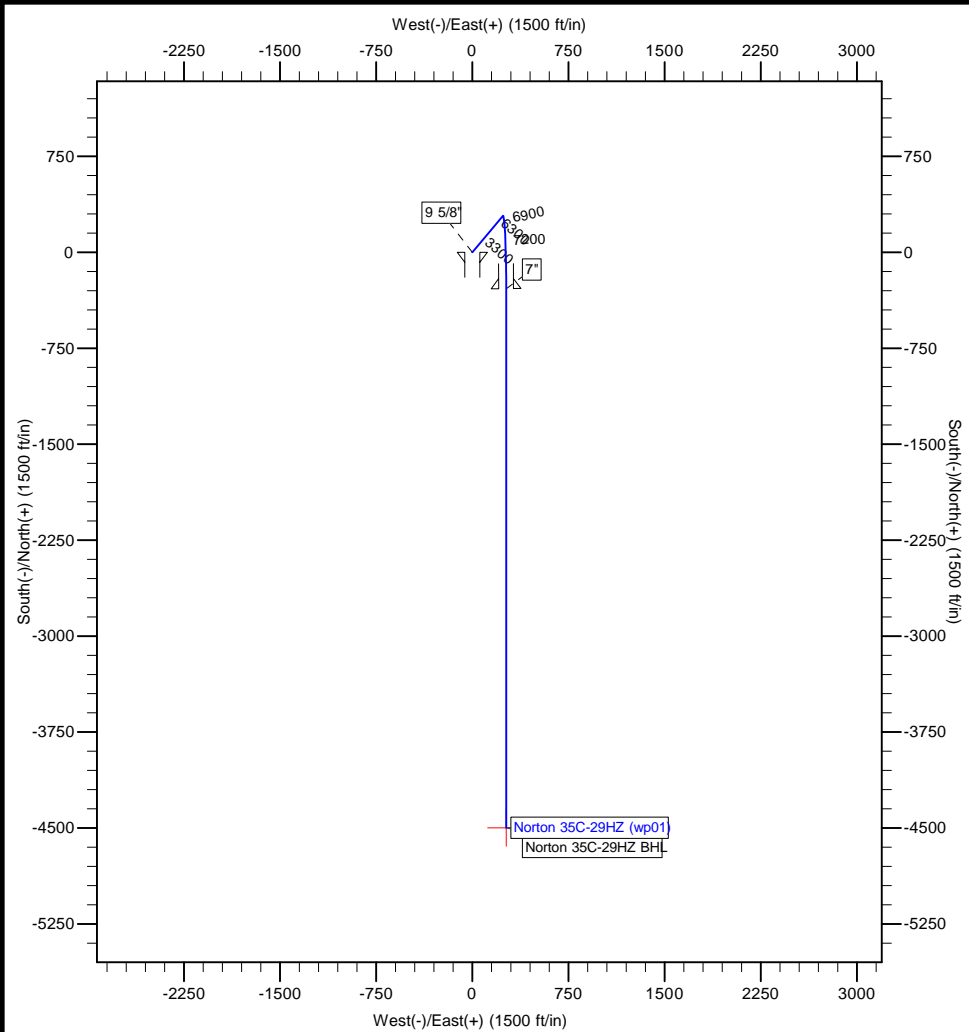
**Norton 35C-29HZ**

**Norton 35C-29HZ**

**Plan: Norton 35C-29HZ (wp01)**

## **Standard Planning Report**

**05 December, 2011**



Project: COLORADO NORTHERN ZONE - 83  
Site: WELD, NORTON 5 PAD  
Well: Norton 35C-29HZ  
Wellbore: Norton 35C-29HZ  
Section:  
SHL:  
Design: Norton 35C-29HZ (wp01)  
Latitude: 40.202090  
Longitude: -104.805957  
GL: 4897.00  
KB: gl + rkb @ 4914.00ft

#### WELL DETAILS: Norton 35C-29HZ

+N/-S	+E/-W	Northing	Ground Level: Easting	4897.00 Latitude 40.202090	Longitude	Slot
0.00	0.00	1317222.46	3193860.47		-104.805957	

#### SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00
1187.09	3.74	39.90	1186.96	4.69	3.92	2.00	39.90	-4.45
6771.93	3.74	39.90	6759.89	284.31	237.70	0.00	0.00	-269.91
7697.70	89.71	179.98	7361.00	-285.00	263.00	10.00	140.03	299.90
7699.92	89.69	179.99	7361.01	-287.22	263.00	1.00	153.04	302.12
11911.29	89.69	179.99	7384.00	-4498.53	263.73	0.00	0.00	4506.25

#### WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

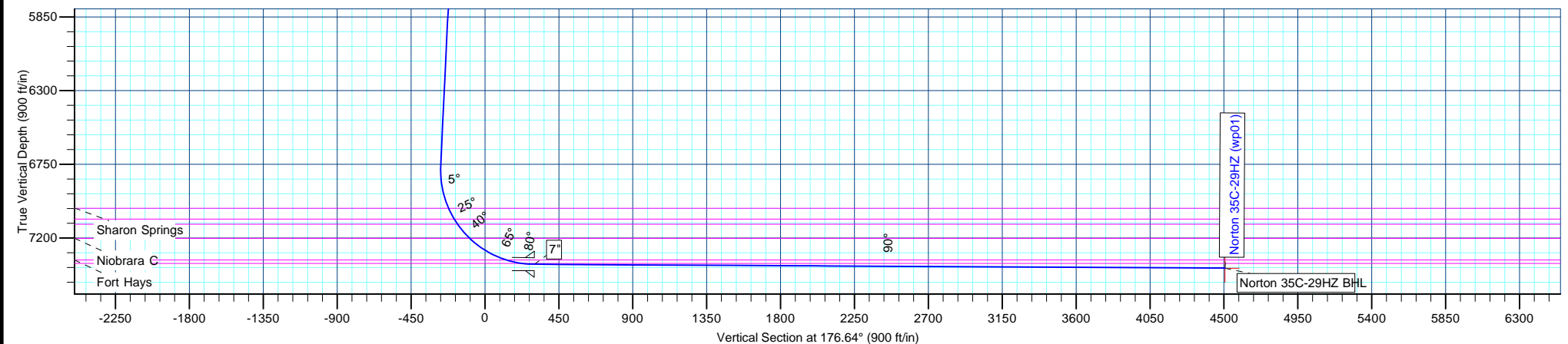
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Norton 35C-29HZ BHL	7384.00	-4498.53	263.73	40.189741	-104.805013	Point

#### FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3370.00	3374.80	Parkman
4308.00	4314.80	Sussex
7018.00	7036.92	Sharon Springs
7085.00	7112.51	Niobrara A
7116.00	7149.53	Niobrara B
7203.00	7264.47	Niobrara C
7334.00	7523.93	Fort Hays
7356.00	7624.79	Codell

#### CASING DETAILS

TVD	MD	Name	Size
900.00	900.00	9 5/8"	9-5/8
7361.00	7697.70	7"	7



# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well Norton 35C-29HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	gl + rkb @ 4914.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	gl + rkb @ 4914.00ft
<b>Site:</b>	WELD_NORTON 5 PAD	<b>North Reference:</b>	True
<b>Well:</b>	Norton 35C-29HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Norton 35C-29HZ		
<b>Design:</b>	Norton 35C-29HZ (wp01)		

<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>	WELD_NORTON 5 PAD			
<b>Site Position:</b>		<b>Northing:</b>	1,317,192.24 usft	<b>Latitude:</b> 40.202007
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,193,861.27 usft	<b>Longitude:</b> -104.805955
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> 0.45 °

<b>Well</b>	Norton 35C-29HZ			
<b>Well Position</b>	<b>+N/-S</b>	30.22 ft	<b>Northing:</b>	1,317,222.46 usft
	<b>+E/-W</b>	-0.56 ft	<b>Easting:</b>	3,193,860.47 usft
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	<b>Latitude:</b> 40.202090
				<b>Longitude:</b> -104.805957
				<b>Ground Level:</b> 4,897.00 ft

<b>Wellbore</b>	Norton 35C-29HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	12/5/2011	8.81	66.87	52,972

<b>Design</b>	Norton 35C-29HZ (wp01)			
<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) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	176.64

<b>Plan Sections</b>										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	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	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,187.09	3.74	39.90	1,186.96	4.69	3.92	2.00	2.00	0.00	39.90	
6,771.93	3.74	39.90	6,759.89	284.31	237.70	0.00	0.00	0.00	0.00	
7,697.70	89.71	179.98	7,361.00	-285.00	263.00	10.00	9.29	15.13	140.03	
7,699.92	89.69	179.99	7,361.01	-287.22	263.00	1.00	-0.89	0.45	153.04	
11,911.29	89.69	179.99	7,384.00	-4,498.53	263.73	0.00	0.00	0.00	0.00	Norton 35C-29HZ BH

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well Norton 35C-29HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	gl + rkb @ 4914.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	gl + rkb @ 4914.00ft
<b>Site:</b>	WELD_NORTON 5 PAD	<b>North Reference:</b>	True
<b>Well:</b>	Norton 35C-29HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Norton 35C-29HZ		
<b>Design:</b>	Norton 35C-29HZ (wp01)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	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
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	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	2.00	39.90	1,099.98	1.34	1.12	-1.27	2.00	2.00	0.00
1,187.09	3.74	39.90	1,186.96	4.69	3.92	-4.45	2.00	2.00	0.00
1,200.00	3.74	39.90	1,199.84	5.33	4.46	-5.06	0.00	0.00	0.00
1,300.00	3.74	39.90	1,299.63	10.34	8.64	-9.81	0.00	0.00	0.00
1,400.00	3.74	39.90	1,399.41	15.35	12.83	-14.57	0.00	0.00	0.00
1,500.00	3.74	39.90	1,499.20	20.35	17.02	-19.32	0.00	0.00	0.00
1,600.00	3.74	39.90	1,598.99	25.36	21.20	-24.07	0.00	0.00	0.00
1,700.00	3.74	39.90	1,698.77	30.37	25.39	-28.83	0.00	0.00	0.00
1,800.00	3.74	39.90	1,798.56	35.37	29.57	-33.58	0.00	0.00	0.00
1,900.00	3.74	39.90	1,898.35	40.38	33.76	-38.33	0.00	0.00	0.00
2,000.00	3.74	39.90	1,998.13	45.39	37.95	-43.09	0.00	0.00	0.00
2,100.00	3.74	39.90	2,097.92	50.39	42.13	-47.84	0.00	0.00	0.00
2,200.00	3.74	39.90	2,197.71	55.40	46.32	-52.59	0.00	0.00	0.00
2,300.00	3.74	39.90	2,297.49	60.41	50.50	-57.35	0.00	0.00	0.00
2,400.00	3.74	39.90	2,397.28	65.41	54.69	-62.10	0.00	0.00	0.00
2,500.00	3.74	39.90	2,497.07	70.42	58.88	-66.85	0.00	0.00	0.00
2,600.00	3.74	39.90	2,596.86	75.43	63.06	-71.61	0.00	0.00	0.00
2,700.00	3.74	39.90	2,696.64	80.43	67.25	-76.36	0.00	0.00	0.00
2,800.00	3.74	39.90	2,796.43	85.44	71.43	-81.11	0.00	0.00	0.00
2,900.00	3.74	39.90	2,896.22	90.45	75.62	-85.87	0.00	0.00	0.00
3,000.00	3.74	39.90	2,996.00	95.45	79.81	-90.62	0.00	0.00	0.00
3,100.00	3.74	39.90	3,095.79	100.46	83.99	-95.37	0.00	0.00	0.00
3,200.00	3.74	39.90	3,195.58	105.47	88.18	-100.13	0.00	0.00	0.00
3,300.00	3.74	39.90	3,295.36	110.47	92.37	-104.88	0.00	0.00	0.00
3,374.80	3.74	39.90	3,370.00	114.22	95.50	-108.43	0.00	0.00	0.00
Parkman									
3,400.00	3.74	39.90	3,395.15	115.48	96.55	-109.63	0.00	0.00	0.00
3,500.00	3.74	39.90	3,494.94	120.49	100.74	-114.38	0.00	0.00	0.00
3,600.00	3.74	39.90	3,594.72	125.49	104.92	-119.14	0.00	0.00	0.00
3,700.00	3.74	39.90	3,694.51	130.50	109.11	-123.89	0.00	0.00	0.00
3,800.00	3.74	39.90	3,794.30	135.51	113.30	-128.64	0.00	0.00	0.00
3,900.00	3.74	39.90	3,894.08	140.51	117.48	-133.40	0.00	0.00	0.00
4,000.00	3.74	39.90	3,993.87	145.52	121.67	-138.15	0.00	0.00	0.00
4,100.00	3.74	39.90	4,093.66	150.53	125.85	-142.90	0.00	0.00	0.00
4,200.00	3.74	39.90	4,193.44	155.53	130.04	-147.66	0.00	0.00	0.00
4,300.00	3.74	39.90	4,293.23	160.54	134.23	-152.41	0.00	0.00	0.00
4,314.80	3.74	39.90	4,308.00	161.28	134.85	-153.11	0.00	0.00	0.00
Sussex									
4,400.00	3.74	39.90	4,393.02	165.55	138.41	-157.16	0.00	0.00	0.00
4,500.00	3.74	39.90	4,492.80	170.55	142.60	-161.92	0.00	0.00	0.00
4,600.00	3.74	39.90	4,592.59	175.56	146.78	-166.67	0.00	0.00	0.00

# Anadarko Petroleum Corp

## Planning Report

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<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	gl + rkb @ 4914.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	gl + rkb @ 4914.00ft
<b>Site:</b>	WELD_NORTON 5 PAD	<b>North Reference:</b>	True
<b>Well:</b>	Norton 35C-29HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Norton 35C-29HZ		
<b>Design:</b>	Norton 35C-29HZ (wp01)		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,700.00	3.74	39.90	4,692.38	180.57	150.97	-171.42	0.00	0.00	0.00
4,800.00	3.74	39.90	4,792.17	185.58	155.16	-176.18	0.00	0.00	0.00
4,900.00	3.74	39.90	4,891.95	190.58	159.34	-180.93	0.00	0.00	0.00
5,000.00	3.74	39.90	4,991.74	195.59	163.53	-185.68	0.00	0.00	0.00
5,100.00	3.74	39.90	5,091.53	200.60	167.71	-190.44	0.00	0.00	0.00
5,200.00	3.74	39.90	5,191.31	205.60	171.90	-195.19	0.00	0.00	0.00
5,300.00	3.74	39.90	5,291.10	210.61	176.09	-199.94	0.00	0.00	0.00
5,400.00	3.74	39.90	5,390.89	215.62	180.27	-204.70	0.00	0.00	0.00
5,500.00	3.74	39.90	5,490.67	220.62	184.46	-209.45	0.00	0.00	0.00
5,600.00	3.74	39.90	5,590.46	225.63	188.64	-214.20	0.00	0.00	0.00
5,700.00	3.74	39.90	5,690.25	230.64	192.83	-218.96	0.00	0.00	0.00
5,800.00	3.74	39.90	5,790.03	235.64	197.02	-223.71	0.00	0.00	0.00
5,900.00	3.74	39.90	5,889.82	240.65	201.20	-228.46	0.00	0.00	0.00
6,000.00	3.74	39.90	5,989.61	245.66	205.39	-233.21	0.00	0.00	0.00
6,100.00	3.74	39.90	6,089.39	250.66	209.58	-237.97	0.00	0.00	0.00
6,200.00	3.74	39.90	6,189.18	255.67	213.76	-242.72	0.00	0.00	0.00
6,300.00	3.74	39.90	6,288.97	260.68	217.95	-247.47	0.00	0.00	0.00
6,400.00	3.74	39.90	6,388.75	265.68	222.13	-252.23	0.00	0.00	0.00
6,500.00	3.74	39.90	6,488.54	270.69	226.32	-256.98	0.00	0.00	0.00
6,600.00	3.74	39.90	6,588.33	275.70	230.51	-261.73	0.00	0.00	0.00
6,700.00	3.74	39.90	6,688.11	280.70	234.69	-266.49	0.00	0.00	0.00
6,771.93	3.74	39.90	6,759.89	284.31	237.70	-269.91	0.00	0.00	0.00
6,800.00	2.40	88.49	6,787.92	285.02	238.88	-270.55	10.00	-4.77	173.14
6,900.00	10.22	166.54	6,887.34	276.43	243.05	-261.73	10.00	7.82	78.04
7,000.00	20.08	173.40	6,983.75	250.69	247.10	-235.79	10.00	9.85	6.86
7,036.92	23.74	174.52	7,018.00	236.99	248.54	-222.04	10.00	9.94	3.03
<b>Sharon Springs</b>									
7,100.00	30.02	175.83	7,074.24	208.58	250.90	-193.54	10.00	9.96	2.08
7,112.51	31.27	176.03	7,085.00	202.22	251.35	-187.16	10.00	9.97	1.61
<b>Niobrara A</b>									
7,149.53	34.96	176.55	7,116.00	182.04	252.66	-166.94	10.00	9.97	1.41
<b>Niobrara B</b>									
7,200.00	40.00	177.13	7,156.04	151.38	254.34	-136.24	10.00	9.98	1.14
7,264.47	46.43	177.71	7,203.00	107.30	256.32	-92.12	10.00	9.98	0.90
<b>Niobrara C</b>									
7,300.00	49.98	177.97	7,226.67	80.84	257.31	-65.64	10.00	9.98	0.76
7,400.00	59.97	178.60	7,284.00	-0.91	259.73	16.11	10.00	9.99	0.63
7,500.00	69.96	179.12	7,326.27	-91.38	261.52	106.53	10.00	9.99	0.51
7,523.93	72.35	179.23	7,334.00	-114.02	261.84	129.15	10.00	9.99	0.47
<b>Fort Hays</b>									
7,600.00	79.95	179.57	7,352.20	-187.82	262.62	202.87	10.00	9.99	0.45
7,624.79	82.42	179.67	7,356.00	-212.31	262.78	227.33	10.00	9.99	0.43
<b>Codell</b>									
7,697.70	89.71	179.98	7,361.00	-285.00	263.00	299.91	10.00	9.99	0.42
<b>7"</b>									
7,699.92	89.69	179.99	7,361.01	-287.22	263.00	302.12	1.00	-0.89	0.45
7,700.00	89.69	179.99	7,361.01	-287.30	263.00	302.20	0.00	0.00	0.00
7,800.00	89.69	179.99	7,361.56	-387.30	263.02	402.03	0.00	0.00	0.00
7,900.00	89.69	179.99	7,362.10	-487.30	263.04	501.86	0.00	0.00	0.00
8,000.00	89.69	179.99	7,362.65	-587.30	263.05	601.69	0.00	0.00	0.00
8,100.00	89.69	179.99	7,363.20	-687.30	263.07	701.51	0.00	0.00	0.00
8,200.00	89.69	179.99	7,363.74	-787.29	263.09	801.34	0.00	0.00	0.00
8,300.00	89.69	179.99	7,364.29	-887.29	263.10	901.17	0.00	0.00	0.00

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## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well Norton 35C-29HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	gl + rkb @ 4914.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	gl + rkb @ 4914.00ft
<b>Site:</b>	WELD_NORTON 5 PAD	<b>North Reference:</b>	True
<b>Well:</b>	Norton 35C-29HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Norton 35C-29HZ		
<b>Design:</b>	Norton 35C-29HZ (wp01)		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
8,400.00	89.69	179.99	7,364.83	-987.29	263.12	1,001.00	0.00	0.00	0.00	
8,500.00	89.69	179.99	7,365.38	-1,087.29	263.14	1,100.83	0.00	0.00	0.00	
8,600.00	89.69	179.99	7,365.93	-1,187.29	263.16	1,200.65	0.00	0.00	0.00	
8,700.00	89.69	179.99	7,366.47	-1,287.29	263.17	1,300.48	0.00	0.00	0.00	
8,800.00	89.69	179.99	7,367.02	-1,387.29	263.19	1,400.31	0.00	0.00	0.00	
8,900.00	89.69	179.99	7,367.56	-1,487.28	263.21	1,500.14	0.00	0.00	0.00	
9,000.00	89.69	179.99	7,368.11	-1,587.28	263.23	1,599.97	0.00	0.00	0.00	
9,100.00	89.69	179.99	7,368.65	-1,687.28	263.24	1,699.80	0.00	0.00	0.00	
9,200.00	89.69	179.99	7,369.20	-1,787.28	263.26	1,799.62	0.00	0.00	0.00	
9,300.00	89.69	179.99	7,369.75	-1,887.28	263.28	1,899.45	0.00	0.00	0.00	
9,400.00	89.69	179.99	7,370.29	-1,987.28	263.29	1,999.28	0.00	0.00	0.00	
9,500.00	89.69	179.99	7,370.84	-2,087.28	263.31	2,099.11	0.00	0.00	0.00	
9,600.00	89.69	179.99	7,371.38	-2,187.27	263.33	2,198.94	0.00	0.00	0.00	
9,700.00	89.69	179.99	7,371.93	-2,287.27	263.35	2,298.76	0.00	0.00	0.00	
9,800.00	89.69	179.99	7,372.48	-2,387.27	263.36	2,398.59	0.00	0.00	0.00	
9,900.00	89.69	179.99	7,373.02	-2,487.27	263.38	2,498.42	0.00	0.00	0.00	
10,000.00	89.69	179.99	7,373.57	-2,587.27	263.40	2,598.25	0.00	0.00	0.00	
10,100.00	89.69	179.99	7,374.11	-2,687.27	263.42	2,698.08	0.00	0.00	0.00	
10,200.00	89.69	179.99	7,374.66	-2,787.26	263.43	2,797.90	0.00	0.00	0.00	
10,300.00	89.69	179.99	7,375.20	-2,887.26	263.45	2,897.73	0.00	0.00	0.00	
10,400.00	89.69	179.99	7,375.75	-2,987.26	263.47	2,997.56	0.00	0.00	0.00	
10,500.00	89.69	179.99	7,376.30	-3,087.26	263.49	3,097.39	0.00	0.00	0.00	
10,600.00	89.69	179.99	7,376.84	-3,187.26	263.50	3,197.22	0.00	0.00	0.00	
10,700.00	89.69	179.99	7,377.39	-3,287.26	263.52	3,297.05	0.00	0.00	0.00	
10,800.00	89.69	179.99	7,377.93	-3,387.26	263.54	3,396.87	0.00	0.00	0.00	
10,900.00	89.69	179.99	7,378.48	-3,487.25	263.55	3,496.70	0.00	0.00	0.00	
11,000.00	89.69	179.99	7,379.03	-3,587.25	263.57	3,596.53	0.00	0.00	0.00	
11,100.00	89.69	179.99	7,379.57	-3,687.25	263.59	3,696.36	0.00	0.00	0.00	
11,200.00	89.69	179.99	7,380.12	-3,787.25	263.61	3,796.19	0.00	0.00	0.00	
11,300.00	89.69	179.99	7,380.66	-3,887.25	263.62	3,896.01	0.00	0.00	0.00	
11,400.00	89.69	179.99	7,381.21	-3,987.25	263.64	3,995.84	0.00	0.00	0.00	
11,500.00	89.69	179.99	7,381.76	-4,087.25	263.66	4,095.67	0.00	0.00	0.00	
11,600.00	89.69	179.99	7,382.30	-4,187.24	263.68	4,195.50	0.00	0.00	0.00	
11,700.00	89.69	179.99	7,382.85	-4,287.24	263.69	4,295.33	0.00	0.00	0.00	
11,800.00	89.69	179.99	7,383.39	-4,387.24	263.71	4,395.15	0.00	0.00	0.00	
11,900.00	89.69	179.99	7,383.94	-4,487.24	263.73	4,494.98	0.00	0.00	0.00	
11,911.29	89.69	179.99	7,384.00	-4,498.53	263.73	4,506.25	0.00	0.00	0.00	
Norton 35C-29HZ BHL										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Norton 35C-29HZ BHL	0.00	0.00	7,384.00	-4,498.53	263.73	1,312,726.15	3,194,159.40	40.189741	-104.805013
- plan hits target center									
- Point									

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well Norton 35C-29HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	gl + rkb @ 4914.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	gl + rkb @ 4914.00ft
<b>Site:</b>	WELD_NORTON 5 PAD	<b>North Reference:</b>	True
<b>Well:</b>	Norton 35C-29HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Norton 35C-29HZ		
<b>Design:</b>	Norton 35C-29HZ (wp01)		

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
900.00	900.00	9 5/8"	9-5/8	12-1/4	
7,697.70	7,361.00	7"	7	8-3/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,374.80	3,370.00	Parkman				
4,314.80	4,308.00	Sussex				
7,036.92	7,018.00	Sharon Springs				
7,112.51	7,085.00	Niobrara A				
7,149.53	7,116.00	Niobrara B				
7,264.47	7,203.00	Niobrara C				
7,523.93	7,334.00	Fort Hays				
7,624.79	7,356.00	Codell				