

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_Barclay 2-28HZ pad

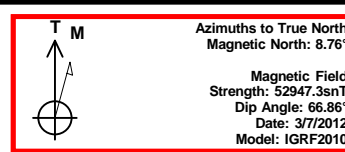
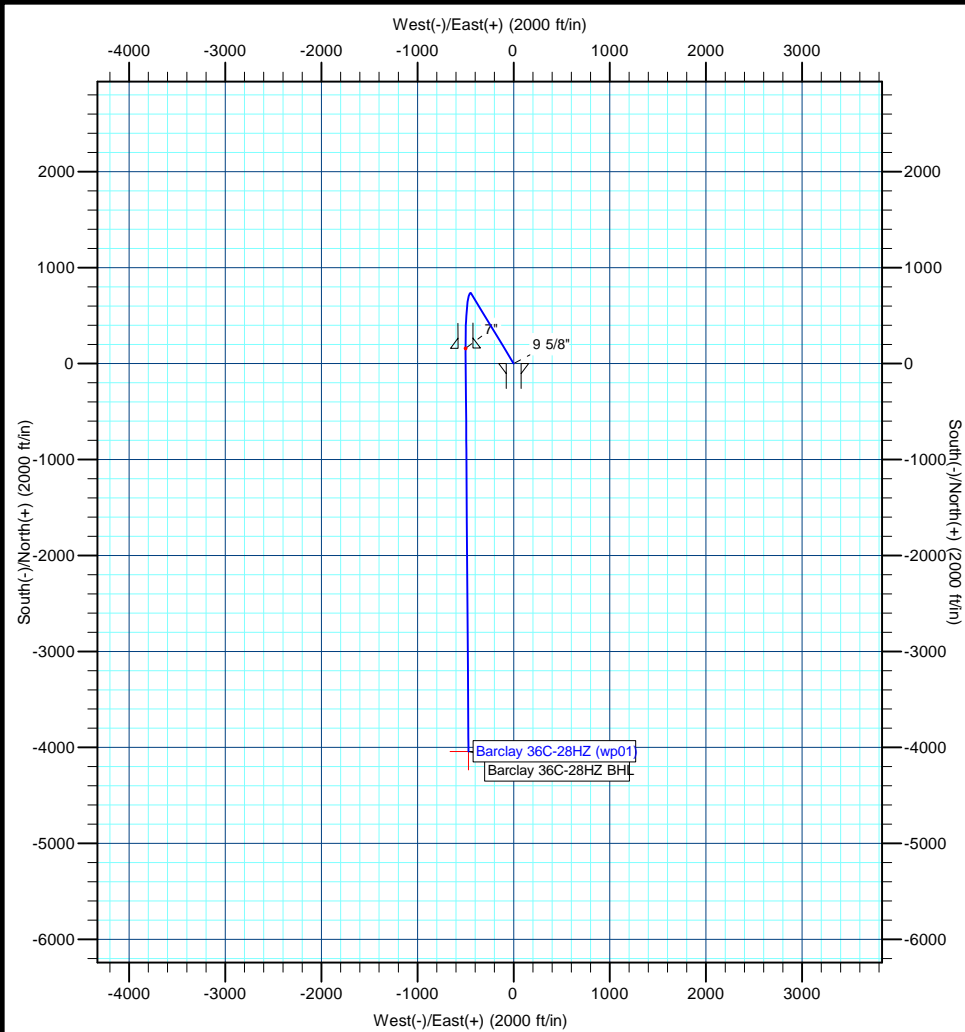
Barclay 36C-28HZ

Barclay 36C-28HZ

Plan: Barclay 36C-28HZ (wp01)

Standard Planning Report

07 March, 2012



Project: COLORADO NORTHERN ZONE - 83
Site: WELD_Barclay 2-28HZ pad
Well: Barclay 36C-28HZ
Wellbore: Barclay 36C-28HZ
Section:
SHL:
Design: Barclay 36C-28HZ (wp01)
Latitude: 40.201080
Longitude: -104.779618
GL: 4966.01
KB: GL + RKB @ 4983.00ft

WELL DETAILS: Barclay 36C-28HZ

+N/-S	+E/-W	Northing	Ground Level: Easting	4966.01 Latitude	40.201080 Longitude	Slot
0.00	0.00	1316913.22	3201220.33	40.201080	-104.779618	

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	V Sect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00
2534.61	10.69	328.82	2531.52	42.55	-25.75	2.00	328.82	-39.30
6849.79	10.69	328.82	6771.78	727.50	-440.27	0.00	0.00	-671.83
7842.96	90.14	179.57	7433.00	160.00	-500.00	10.00	-148.79	-101.23
7844.68	90.14	179.59	7433.00	158.27	-499.99	1.00	108.22	-99.51
12045.15	90.14	179.59	7423.00	-4042.07	-469.63	0.00	0.00	4069.26

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

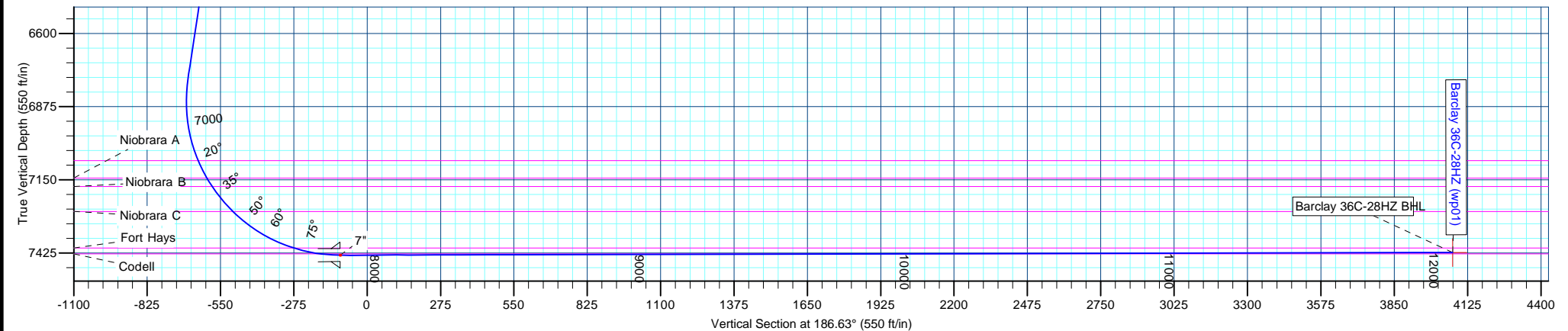
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Barclay 36C-28HZ BHL	7423.00	-4042.07	-469.63	40.189984	-104.781299	Point

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4010.00	4039.22	Parkman
4419.00	4455.45	Sussex
7078.00	7163.33	Sharon Springs
7143.00	7235.92	Niobrara A
7175.00	7273.56	Niobrara B
7269.00	7395.86	Niobrara C
7406.00	7664.52	Fort Hays
7428.00	7765.59	Codell

CASING DETAILS

TVD	MD	Name	Size
700.00	700.00	9 5/8"	9-5/8
7433.00	7842.96	7"	7



Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Barclay 36C-28HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4983.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4983.00ft
Site:	WELD_Barclay 2-28HZ pad	North Reference:	True
Well:	Barclay 36C-28HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Barclay 36C-28HZ		
Design:	Barclay 36C-28HZ (wp01)		

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

Site	WELD_Barclay 2-28HZ pad			
Site Position:		Northing:	1,316,883.37 usft	Latitude: 40.200998
From:	Lat/Long	Easting:	3,201,220.85 usft	Longitude: -104.779617
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence: 0.47 °

Well	Barclay 36C-28HZ			
Well Position	+N/-S	29.86 ft	Northing:	1,316,913.22 usft
	+E/-W	-0.28 ft	Easting:	3,201,220.33 usft
Position Uncertainty		0.00 ft	Wellhead Elevation:	Latitude: 40.201080
				Longitude: -104.779618
				Ground Level: 4,966.01 ft

Wellbore	Barclay 36C-28HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	3/7/2012	8.76	66.86	52,947

Design	Barclay 36C-28HZ (wp01)			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	186.63

Plan Sections										
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	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,534.61	10.69	328.82	2,531.52	42.55	-25.75	2.00	2.00	0.00	328.82	
6,849.79	10.69	328.82	6,771.78	727.50	-440.27	0.00	0.00	0.00	0.00	
7,842.96	90.14	179.57	7,433.00	160.00	-500.00	10.00	8.00	-15.03	-148.79	
7,844.68	90.14	179.59	7,433.00	158.27	-499.99	1.00	-0.31	0.95	108.22	
12,045.15	90.14	179.59	7,423.00	-4,042.07	-469.63	0.00	0.00	0.00	0.00	Barclay 36C-28HZ Bt

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Barclay 36C-28HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4983.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4983.00ft
Site:	WELD_Barclay 2-28HZ pad	North Reference:	True
Well:	Barclay 36C-28HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Barclay 36C-28HZ		
Design:	Barclay 36C-28HZ (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
9 5/8"									
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
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	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	2.00	328.82	2,099.98	1.49	-0.90	-1.38	2.00	2.00	0.00
2,200.00	4.00	328.82	2,199.84	5.97	-3.61	-5.51	2.00	2.00	0.00
2,300.00	6.00	328.82	2,299.45	13.43	-8.13	-12.40	2.00	2.00	0.00
2,400.00	8.00	328.82	2,398.70	23.85	-14.43	-22.03	2.00	2.00	0.00
2,500.00	10.00	328.82	2,497.47	37.23	-22.53	-34.39	2.00	2.00	0.00
2,534.61	10.69	328.82	2,531.52	42.55	-25.75	-39.30	2.00	2.00	0.00
2,600.00	10.69	328.82	2,595.77	52.93	-32.03	-48.88	0.00	0.00	0.00
2,700.00	10.69	328.82	2,694.03	68.81	-41.64	-63.54	0.00	0.00	0.00
2,800.00	10.69	328.82	2,792.29	84.68	-51.25	-78.20	0.00	0.00	0.00
2,900.00	10.69	328.82	2,890.56	100.55	-60.85	-92.86	0.00	0.00	0.00
3,000.00	10.69	328.82	2,988.82	116.42	-70.46	-107.52	0.00	0.00	0.00
3,100.00	10.69	328.82	3,087.09	132.30	-80.06	-122.17	0.00	0.00	0.00
3,200.00	10.69	328.82	3,185.35	148.17	-89.67	-136.83	0.00	0.00	0.00
3,300.00	10.69	328.82	3,283.61	164.04	-99.27	-151.49	0.00	0.00	0.00
3,400.00	10.69	328.82	3,381.88	179.92	-108.88	-166.15	0.00	0.00	0.00
3,500.00	10.69	328.82	3,480.14	195.79	-118.49	-180.81	0.00	0.00	0.00
3,600.00	10.69	328.82	3,578.41	211.66	-128.09	-195.47	0.00	0.00	0.00
3,700.00	10.69	328.82	3,676.67	227.54	-137.70	-210.12	0.00	0.00	0.00
3,800.00	10.69	328.82	3,774.93	243.41	-147.30	-224.78	0.00	0.00	0.00
3,900.00	10.69	328.82	3,873.20	259.28	-156.91	-239.44	0.00	0.00	0.00
4,000.00	10.69	328.82	3,971.46	275.15	-166.52	-254.10	0.00	0.00	0.00
4,039.22	10.69	328.82	4,010.00	281.38	-170.28	-259.85	0.00	0.00	0.00
Parkman									
4,100.00	10.69	328.82	4,069.72	291.03	-176.12	-268.76	0.00	0.00	0.00
4,200.00	10.69	328.82	4,167.99	306.90	-185.73	-283.42	0.00	0.00	0.00
4,300.00	10.69	328.82	4,266.25	322.77	-195.33	-298.07	0.00	0.00	0.00
4,400.00	10.69	328.82	4,364.52	338.65	-204.94	-312.73	0.00	0.00	0.00
4,455.45	10.69	328.82	4,419.00	347.45	-210.27	-320.86	0.00	0.00	0.00
Sussex									
4,500.00	10.69	328.82	4,462.78	354.52	-214.55	-327.39	0.00	0.00	0.00
4,600.00	10.69	328.82	4,561.04	370.39	-224.15	-342.05	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Barclay 36C-28HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4983.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4983.00ft
Site:	WELD_Barclay 2-28HZ pad	North Reference:	True
Well:	Barclay 36C-28HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Barclay 36C-28HZ		
Design:	Barclay 36C-28HZ (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	10.69	328.82	4,659.31	386.27	-233.76	-356.71	0.00	0.00	0.00
4,800.00	10.69	328.82	4,757.57	402.14	-243.36	-371.37	0.00	0.00	0.00
4,900.00	10.69	328.82	4,855.83	418.01	-252.97	-386.02	0.00	0.00	0.00
5,000.00	10.69	328.82	4,954.10	433.89	-262.58	-400.68	0.00	0.00	0.00
5,100.00	10.69	328.82	5,052.36	449.76	-272.18	-415.34	0.00	0.00	0.00
5,200.00	10.69	328.82	5,150.63	465.63	-281.79	-430.00	0.00	0.00	0.00
5,300.00	10.69	328.82	5,248.89	481.50	-291.39	-444.66	0.00	0.00	0.00
5,400.00	10.69	328.82	5,347.15	497.38	-301.00	-459.32	0.00	0.00	0.00
5,500.00	10.69	328.82	5,445.42	513.25	-310.61	-473.97	0.00	0.00	0.00
5,600.00	10.69	328.82	5,543.68	529.12	-320.21	-488.63	0.00	0.00	0.00
5,700.00	10.69	328.82	5,641.94	545.00	-329.82	-503.29	0.00	0.00	0.00
5,800.00	10.69	328.82	5,740.21	560.87	-339.42	-517.95	0.00	0.00	0.00
5,900.00	10.69	328.82	5,838.47	576.74	-349.03	-532.61	0.00	0.00	0.00
6,000.00	10.69	328.82	5,936.74	592.62	-358.64	-547.27	0.00	0.00	0.00
6,100.00	10.69	328.82	6,035.00	608.49	-368.24	-561.93	0.00	0.00	0.00
6,200.00	10.69	328.82	6,133.26	624.36	-377.85	-576.58	0.00	0.00	0.00
6,300.00	10.69	328.82	6,231.53	640.24	-387.45	-591.24	0.00	0.00	0.00
6,400.00	10.69	328.82	6,329.79	656.11	-397.06	-605.90	0.00	0.00	0.00
6,500.00	10.69	328.82	6,428.05	671.98	-406.67	-620.56	0.00	0.00	0.00
6,600.00	10.69	328.82	6,526.32	687.85	-416.27	-635.22	0.00	0.00	0.00
6,700.00	10.69	328.82	6,624.58	703.73	-425.88	-649.88	0.00	0.00	0.00
6,800.00	10.69	328.82	6,722.85	719.60	-435.48	-664.53	0.00	0.00	0.00
6,849.79	10.69	328.82	6,771.78	727.50	-440.27	-671.83	0.00	0.00	0.00
6,900.00	6.90	306.65	6,821.40	733.29	-445.10	-677.02	10.00	-7.55	-44.16
7,000.00	8.03	222.77	6,920.80	731.75	-454.69	-674.38	10.00	1.13	-83.87
7,100.00	16.76	198.29	7,018.43	712.88	-463.98	-654.57	10.00	8.72	-24.48
7,163.33	22.82	192.85	7,078.00	692.22	-469.59	-633.40	10.00	9.58	-8.59
Sharon Springs									
7,200.00	26.39	190.81	7,111.33	677.28	-472.70	-618.20	10.00	9.73	-5.57
7,235.92	29.91	189.25	7,143.00	660.59	-475.63	-601.29	10.00	9.79	-4.34
Niobrara A									
7,273.56	33.61	187.94	7,175.00	641.01	-478.58	-581.49	10.00	9.83	-3.48
Niobrara B									
7,300.00	36.21	187.16	7,196.68	626.01	-480.57	-566.36	10.00	9.86	-2.94
7,395.86	45.69	184.99	7,269.00	563.60	-487.10	-503.62	10.00	9.89	-2.26
Niobrara C									
7,400.00	46.10	184.92	7,271.88	560.64	-487.35	-500.65	10.00	9.91	-1.86
7,500.00	56.03	183.31	7,334.65	483.15	-492.85	-423.04	10.00	9.92	-1.60
7,600.00	65.97	182.05	7,383.07	395.89	-496.89	-335.90	10.00	9.94	-1.26
7,664.52	72.38	181.34	7,406.00	335.65	-498.67	-275.86	10.00	9.95	-1.10
Fort Hays									
7,700.00	75.91	180.97	7,415.69	301.53	-499.36	-241.88	10.00	9.95	-1.04
7,765.59	82.44	180.32	7,428.00	237.14	-500.08	-177.84	10.00	9.95	-1.00
Codell									
7,800.00	85.87	179.98	7,431.50	202.92	-500.17	-143.84	10.00	9.95	-0.97
7,842.96	90.14	179.57	7,433.00	160.00	-500.00	-101.22	10.00	9.95	-0.96
7"									
7,844.68	90.14	179.59	7,433.00	158.27	-499.99	-99.51	1.00	-0.31	0.95
7,900.00	90.14	179.59	7,432.86	102.96	-499.59	-44.61	0.00	0.00	0.00
8,000.00	90.14	179.59	7,432.63	2.96	-498.86	54.63	0.00	0.00	0.00
8,100.00	90.14	179.59	7,432.39	-97.04	-498.14	153.88	0.00	0.00	0.00
8,200.00	90.14	179.59	7,432.15	-197.03	-497.42	253.12	0.00	0.00	0.00
8,300.00	90.14	179.59	7,431.91	-297.03	-496.70	352.37	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Barclay 36C-28HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4983.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4983.00ft
Site:	WELD_Barclay 2-28HZ pad	North Reference:	True
Well:	Barclay 36C-28HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Barclay 36C-28HZ		
Design:	Barclay 36C-28HZ (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	90.14	179.59	7,431.67	-397.03	-495.97	451.62	0.00	0.00	0.00
8,500.00	90.14	179.59	7,431.44	-497.03	-495.25	550.86	0.00	0.00	0.00
8,600.00	90.14	179.59	7,431.20	-597.02	-494.53	650.11	0.00	0.00	0.00
8,700.00	90.14	179.59	7,430.96	-697.02	-493.81	749.35	0.00	0.00	0.00
8,800.00	90.14	179.59	7,430.72	-797.02	-493.08	848.60	0.00	0.00	0.00
8,900.00	90.14	179.59	7,430.48	-897.01	-492.36	947.84	0.00	0.00	0.00
9,000.00	90.14	179.59	7,430.25	-997.01	-491.64	1,047.09	0.00	0.00	0.00
9,100.00	90.14	179.59	7,430.01	-1,097.01	-490.91	1,146.33	0.00	0.00	0.00
9,200.00	90.14	179.59	7,429.77	-1,197.01	-490.19	1,245.58	0.00	0.00	0.00
9,300.00	90.14	179.59	7,429.53	-1,297.00	-489.47	1,344.83	0.00	0.00	0.00
9,400.00	90.14	179.59	7,429.29	-1,397.00	-488.75	1,444.07	0.00	0.00	0.00
9,500.00	90.14	179.59	7,429.06	-1,497.00	-488.02	1,543.32	0.00	0.00	0.00
9,600.00	90.14	179.59	7,428.82	-1,596.99	-487.30	1,642.56	0.00	0.00	0.00
9,700.00	90.14	179.59	7,428.58	-1,696.99	-486.58	1,741.81	0.00	0.00	0.00
9,800.00	90.14	179.59	7,428.34	-1,796.99	-485.85	1,841.05	0.00	0.00	0.00
9,900.00	90.14	179.59	7,428.10	-1,896.99	-485.13	1,940.30	0.00	0.00	0.00
10,000.00	90.14	179.59	7,427.87	-1,996.98	-484.41	2,039.54	0.00	0.00	0.00
10,100.00	90.14	179.59	7,427.63	-2,096.98	-483.69	2,138.79	0.00	0.00	0.00
10,200.00	90.14	179.59	7,427.39	-2,196.98	-482.96	2,238.03	0.00	0.00	0.00
10,300.00	90.14	179.59	7,427.15	-2,296.97	-482.24	2,337.28	0.00	0.00	0.00
10,400.00	90.14	179.59	7,426.92	-2,396.97	-481.52	2,436.53	0.00	0.00	0.00
10,500.00	90.14	179.59	7,426.68	-2,496.97	-480.80	2,535.77	0.00	0.00	0.00
10,600.00	90.14	179.59	7,426.44	-2,596.97	-480.07	2,635.02	0.00	0.00	0.00
10,700.00	90.14	179.59	7,426.20	-2,696.96	-479.35	2,734.26	0.00	0.00	0.00
10,800.00	90.14	179.59	7,425.96	-2,796.96	-478.63	2,833.51	0.00	0.00	0.00
10,900.00	90.14	179.59	7,425.73	-2,896.96	-477.90	2,932.75	0.00	0.00	0.00
11,000.00	90.14	179.59	7,425.49	-2,996.95	-477.18	3,032.00	0.00	0.00	0.00
11,100.00	90.14	179.59	7,425.25	-3,096.95	-476.46	3,131.24	0.00	0.00	0.00
11,200.00	90.14	179.59	7,425.01	-3,196.95	-475.74	3,230.49	0.00	0.00	0.00
11,300.00	90.14	179.59	7,424.77	-3,296.94	-475.01	3,329.74	0.00	0.00	0.00
11,400.00	90.14	179.59	7,424.54	-3,396.94	-474.29	3,428.98	0.00	0.00	0.00
11,500.00	90.14	179.59	7,424.30	-3,496.94	-473.57	3,528.23	0.00	0.00	0.00
11,600.00	90.14	179.59	7,424.06	-3,596.94	-472.84	3,627.47	0.00	0.00	0.00
11,700.00	90.14	179.59	7,423.82	-3,696.93	-472.12	3,726.72	0.00	0.00	0.00
11,800.00	90.14	179.59	7,423.58	-3,796.93	-471.40	3,825.96	0.00	0.00	0.00
11,900.00	90.14	179.59	7,423.35	-3,896.93	-470.68	3,925.21	0.00	0.00	0.00
12,000.00	90.14	179.59	7,423.11	-3,996.92	-469.95	4,024.45	0.00	0.00	0.00
12,045.15	90.14	179.59	7,423.00	-4,042.07	-469.63	4,069.26	0.00	0.00	0.00
Barclay 36C-28HZ 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									
Barclay 36C-28HZ BHL	0.00	0.00	7,423.00	-4,042.07	-469.63	1,312,867.47	3,200,783.55	40.189984	-104.781299
- plan hits target center									
- Point									

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Barclay 36C-28HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4983.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4983.00ft
Site:	WELD_Barclay 2-28HZ pad	North Reference:	True
Well:	Barclay 36C-28HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Barclay 36C-28HZ		
Design:	Barclay 36C-28HZ (wp01)		

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name		Casing Diameter (")	Hole Diameter (")	
700.00	700.00	9 5/8"		9-5/8	12-1/4	
7,842.96	7,433.00	7"		7	8-3/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,039.22	4,010.00	Parkman				
4,455.45	4,419.00	Sussex				
7,163.33	7,078.00	Sharon Springs				
7,235.92	7,143.00	Niobrara A				
7,273.56	7,175.00	Niobrara B				
7,395.86	7,269.00	Niobrara C				
7,664.52	7,406.00	Fort Hays				
7,765.59	7,428.00	Codell		0.00		