

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_Raymond 27-29HZ Pad

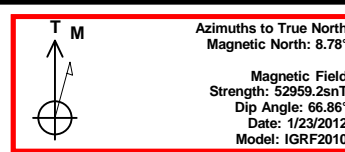
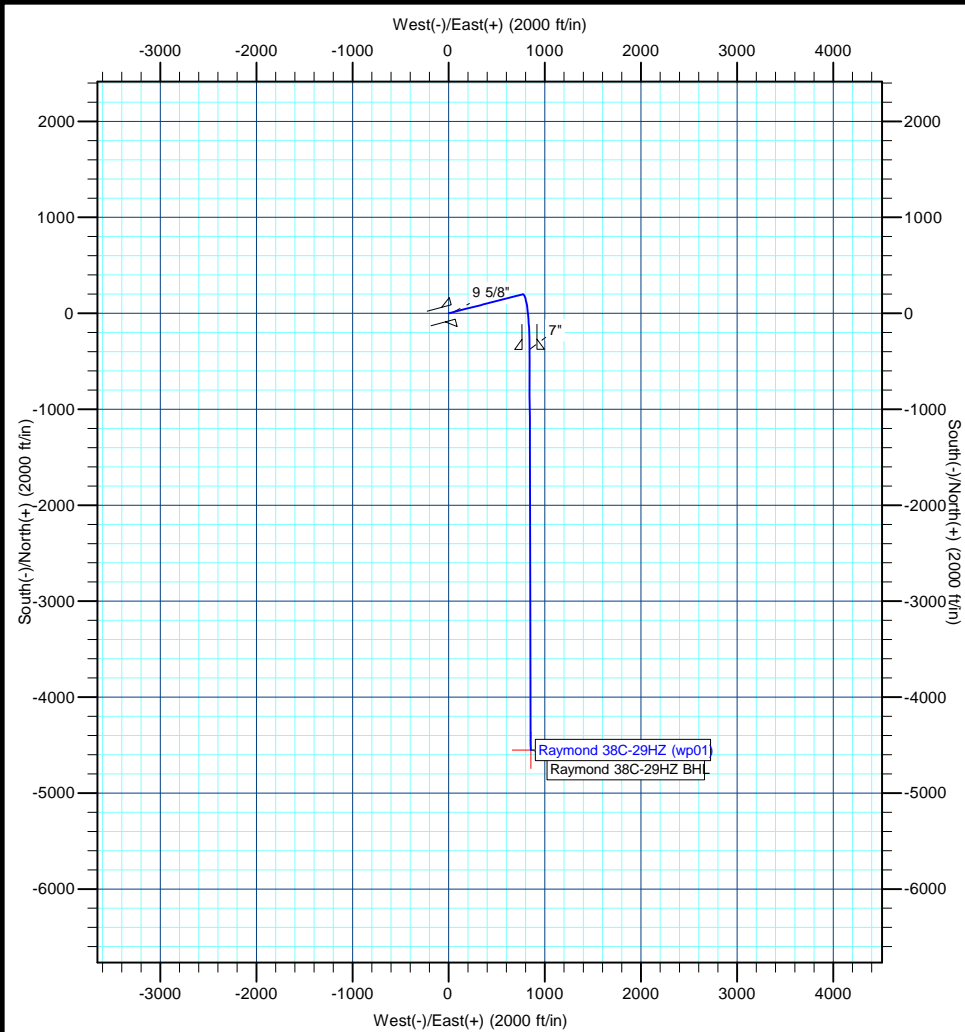
Raymond 38C-29HZ

Raymond 38C-29HZ

Plan: Raymond 38C-29HZ (wp01)

Standard Planning Report

14 March, 2012



Project: COLORADO NORTHERN ZONE - 83
Site: WELD Raymond 27-29HZ Pad
Well: Raymond 38C-29HZ
Wellbore: Raymond 38C-29HZ
Section:
SHL:
Design: Raymond 38C-29HZ (wp01)
Latitude: 40.202409
Longitude: -104.796123
GL: 4925.00
KB: gl + rkb @ 4942.00ft

WELL DETAILS: Raymond 38C-29HZ

+N/-S	+E/-W	Northing	Ground Level: Easting	4925.00 Latitude	Longitude	Slot
0.00	0.00	1317360.30	3196606.33	40.202409	-104.796123	

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
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00
450.00	5.00	75.00	449.68	2.82	10.53	2.00	75.00	-0.83
900.00	5.00	75.00	897.97	12.97	48.41	0.00	0.00	-3.83
1009.49	7.19	75.59	1006.84	15.91	59.66	2.00	1.93	-4.65
6864.25	7.19	75.59	6815.57	198.25	769.29	0.00	0.00	-53.17
7782.66	90.06	180.00	7402.00	-375.00	841.00	10.00	104.29	523.48
7799.10	90.07	179.84	7401.98	-391.43	841.02	1.00	-86.01	539.64
1959.37	90.07	179.84	7397.00	-4551.68	852.93	0.00	0.00	4630.91

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

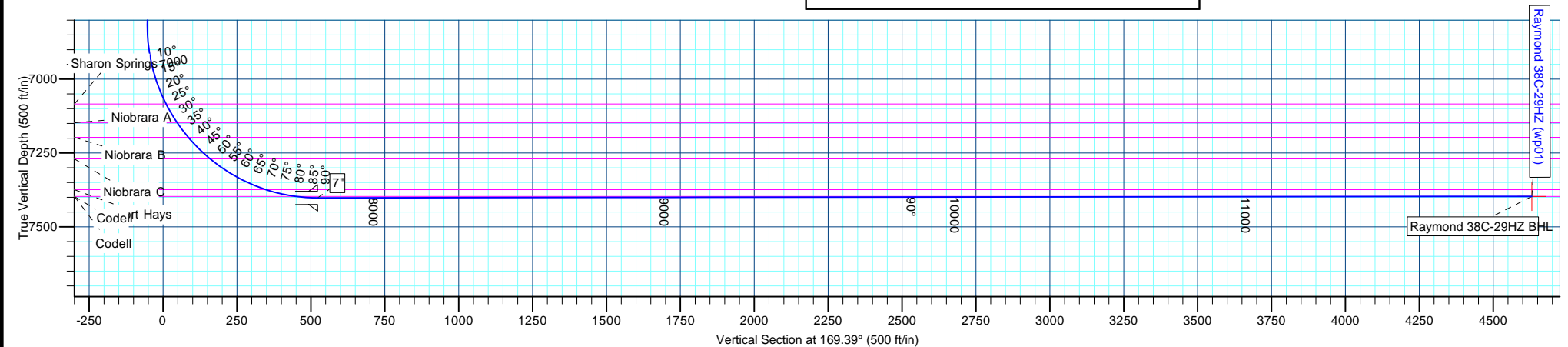
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Raymond 38C-29HZ BHL	7397.00	-4551.68	852.93	40.189914	-104.793070	Point

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
3160.00	3179.72	Parkman
4353.00	4382.17	Sussex
7084.00	7143.67	Sharon Springs
7148.00	7218.09	Niobrara A
7197.00	7279.67	Niobrara B
7270.00	7383.75	Niobrara C
7374.00	7601.55	Fort Hays
7397.00	7706.05	Codell

CASING DETAILS

TVD	MD	Name	Size
900.00	902.04	9 5/8"	9-5/8
7402.00	7782.66	7"	7



Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Raymond 38C-29HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	gl + rkb @ 4942.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	gl + rkb @ 4942.00ft
Site:	WELD_Raymond 27-29HZ Pad	North Reference:	True
Well:	Raymond 38C-29HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Raymond 38C-29HZ		
Design:	Raymond 38C-29HZ (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_Raymond 27-29HZ Pad			
Site Position:		Northing:	1,317,360.20 usft	Latitude:	40.202408
From:	Lat/Long	Easting:	3,196,636.22 usft	Longitude:	-104.796016
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.45 °

Well		Raymond 38C-29HZ				
Well Position	+N/-S	0.34 ft	Northing:	1,317,360.30 usft	Latitude:	40.202409
	+E/-W	-29.89 ft	Easting:	3,196,606.33 usft	Longitude:	-104.796123
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,925.00 ft

Wellbore	Raymond 38C-29HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/23/2012	8.78	66.86	52,959

Design	Raymond 38C-29HZ (wp01)			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	169.39

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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
450.00	5.00	75.00	449.68	2.82	10.53	2.00	2.00	0.00	75.00	
900.00	5.00	75.00	897.97	12.97	48.41	0.00	0.00	0.00	0.00	
1,009.49	7.19	75.59	1,006.84	15.91	59.66	2.00	2.00	0.54	1.93	
6,864.25	7.19	75.59	6,815.57	198.25	769.29	0.00	0.00	0.00	0.00	
7,782.66	90.06	180.00	7,402.00	-375.00	841.00	10.00	9.02	11.37	104.29	
7,799.10	90.07	179.84	7,401.98	-391.43	841.02	1.00	0.07	-1.00	-86.01	
11,959.37	90.07	179.84	7,397.00	-4,551.68	852.93	0.00	0.00	0.00	0.00	Raymond 38C-29HZ I

Anadarko Petroleum Corp

Planning Report

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Company:	US ROCKIES REGION PLANNING	TVD Reference:	gl + rkb @ 4942.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	gl + rkb @ 4942.00ft
Site:	WELD_Raymond 27-29HZ Pad	North Reference:	True
Well:	Raymond 38C-29HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Raymond 38C-29HZ		
Design:	Raymond 38C-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
Start Build 2.00									
300.00	2.00	75.00	299.98	0.45	1.69	-0.13	2.00	2.00	0.00
400.00	4.00	75.00	399.84	1.81	6.74	-0.53	2.00	2.00	0.00
450.00	5.00	75.00	449.68	2.82	10.53	-0.83	2.00	2.00	0.00
Start 450.00 hold at 450.00 MD									
500.00	5.00	75.00	499.49	3.95	14.74	-1.17	0.00	0.00	0.00
600.00	5.00	75.00	599.11	6.21	23.16	-1.83	0.00	0.00	0.00
700.00	5.00	75.00	698.73	8.46	31.58	-2.50	0.00	0.00	0.00
800.00	5.00	75.00	798.35	10.72	40.00	-3.17	0.00	0.00	0.00
900.00	5.00	75.00	897.97	12.97	48.41	-3.83	0.00	0.00	0.00
Start DLS 2.00 TFO 1.93									
902.04	5.04	75.02	900.00	13.02	48.59	-3.85	2.00	2.00	0.77
9 5/8"									
1,000.00	7.00	75.55	997.42	15.62	58.52	-4.57	2.00	2.00	0.55
1,009.49	7.19	75.59	1,006.84	15.91	59.66	-4.65	2.00	2.00	0.39
Start 5854.75 hold at 1009.49 MD									
1,100.00	7.19	75.59	1,096.63	18.73	70.63	-5.40	0.00	0.00	0.00
1,200.00	7.19	75.59	1,195.85	21.85	82.75	-6.23	0.00	0.00	0.00
1,300.00	7.19	75.59	1,295.06	24.96	94.87	-7.06	0.00	0.00	0.00
1,400.00	7.19	75.59	1,394.28	28.07	106.99	-7.89	0.00	0.00	0.00
1,500.00	7.19	75.59	1,493.49	31.19	119.11	-8.72	0.00	0.00	0.00
1,600.00	7.19	75.59	1,592.70	34.30	131.23	-9.55	0.00	0.00	0.00
1,700.00	7.19	75.59	1,691.92	37.42	143.35	-10.37	0.00	0.00	0.00
1,800.00	7.19	75.59	1,791.13	40.53	155.47	-11.20	0.00	0.00	0.00
1,900.00	7.19	75.59	1,890.34	43.65	167.59	-12.03	0.00	0.00	0.00
2,000.00	7.19	75.59	1,989.56	46.76	179.71	-12.86	0.00	0.00	0.00
2,100.00	7.19	75.59	2,088.77	49.88	191.83	-13.69	0.00	0.00	0.00
2,200.00	7.19	75.59	2,187.99	52.99	203.96	-14.52	0.00	0.00	0.00
2,300.00	7.19	75.59	2,287.20	56.10	216.08	-15.35	0.00	0.00	0.00
2,400.00	7.19	75.59	2,386.41	59.22	228.20	-16.18	0.00	0.00	0.00
2,500.00	7.19	75.59	2,485.63	62.33	240.32	-17.00	0.00	0.00	0.00
2,600.00	7.19	75.59	2,584.84	65.45	252.44	-17.83	0.00	0.00	0.00
2,700.00	7.19	75.59	2,684.06	68.56	264.56	-18.66	0.00	0.00	0.00
2,800.00	7.19	75.59	2,783.27	71.68	276.68	-19.49	0.00	0.00	0.00
2,900.00	7.19	75.59	2,882.48	74.79	288.80	-20.32	0.00	0.00	0.00
3,000.00	7.19	75.59	2,981.70	77.90	300.92	-21.15	0.00	0.00	0.00
3,100.00	7.19	75.59	3,080.91	81.02	313.04	-21.98	0.00	0.00	0.00
3,179.72	7.19	75.59	3,160.00	83.50	322.70	-22.64	0.00	0.00	0.00
Parkman									
3,200.00	7.19	75.59	3,180.12	84.13	325.16	-22.81	0.00	0.00	0.00
3,300.00	7.19	75.59	3,279.34	87.25	337.28	-23.63	0.00	0.00	0.00
3,400.00	7.19	75.59	3,378.55	90.36	349.40	-24.46	0.00	0.00	0.00
3,500.00	7.19	75.59	3,477.77	93.48	361.52	-25.29	0.00	0.00	0.00
3,600.00	7.19	75.59	3,576.98	96.59	373.64	-26.12	0.00	0.00	0.00
3,700.00	7.19	75.59	3,676.19	99.71	385.76	-26.95	0.00	0.00	0.00
3,800.00	7.19	75.59	3,775.41	102.82	397.88	-27.78	0.00	0.00	0.00
3,900.00	7.19	75.59	3,874.62	105.93	410.00	-28.61	0.00	0.00	0.00
4,000.00	7.19	75.59	3,973.84	109.05	422.12	-29.44	0.00	0.00	0.00
4,100.00	7.19	75.59	4,073.05	112.16	434.24	-30.26	0.00	0.00	0.00
4,200.00	7.19	75.59	4,172.26	115.28	446.37	-31.09	0.00	0.00	0.00

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Planning Report

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Company:	US ROCKIES REGION PLANNING	TVD Reference:	gl + rkb @ 4942.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	gl + rkb @ 4942.00ft
Site:	WELD_Raymond 27-29HZ Pad	North Reference:	True
Well:	Raymond 38C-29HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Raymond 38C-29HZ		
Design:	Raymond 38C-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)
4,300.00	7.19	75.59	4,271.48	118.39	458.49	-31.92	0.00	0.00	0.00
4,382.17	7.19	75.59	4,353.00	120.95	468.45	-32.60	0.00	0.00	0.00
Sussex									
4,400.00	7.19	75.59	4,370.69	121.51	470.61	-32.75	0.00	0.00	0.00
4,500.00	7.19	75.59	4,469.91	124.62	482.73	-33.58	0.00	0.00	0.00
4,600.00	7.19	75.59	4,569.12	127.74	494.85	-34.41	0.00	0.00	0.00
4,700.00	7.19	75.59	4,668.33	130.85	506.97	-35.24	0.00	0.00	0.00
4,800.00	7.19	75.59	4,767.55	133.96	519.09	-36.07	0.00	0.00	0.00
4,900.00	7.19	75.59	4,866.76	137.08	531.21	-36.89	0.00	0.00	0.00
5,000.00	7.19	75.59	4,965.97	140.19	543.33	-37.72	0.00	0.00	0.00
5,100.00	7.19	75.59	5,065.19	143.31	555.45	-38.55	0.00	0.00	0.00
5,200.00	7.19	75.59	5,164.40	146.42	567.57	-39.38	0.00	0.00	0.00
5,300.00	7.19	75.59	5,263.62	149.54	579.69	-40.21	0.00	0.00	0.00
5,400.00	7.19	75.59	5,362.83	152.65	591.81	-41.04	0.00	0.00	0.00
5,500.00	7.19	75.59	5,462.04	155.76	603.93	-41.87	0.00	0.00	0.00
5,600.00	7.19	75.59	5,561.26	158.88	616.05	-42.70	0.00	0.00	0.00
5,700.00	7.19	75.59	5,660.47	161.99	628.17	-43.52	0.00	0.00	0.00
5,800.00	7.19	75.59	5,759.69	165.11	640.29	-44.35	0.00	0.00	0.00
5,900.00	7.19	75.59	5,858.90	168.22	652.41	-45.18	0.00	0.00	0.00
6,000.00	7.19	75.59	5,958.11	171.34	664.53	-46.01	0.00	0.00	0.00
6,100.00	7.19	75.59	6,057.33	174.45	676.66	-46.84	0.00	0.00	0.00
6,200.00	7.19	75.59	6,156.54	177.57	688.78	-47.67	0.00	0.00	0.00
6,300.00	7.19	75.59	6,255.76	180.68	700.90	-48.50	0.00	0.00	0.00
6,400.00	7.19	75.59	6,354.97	183.79	713.02	-49.33	0.00	0.00	0.00
6,500.00	7.19	75.59	6,454.18	186.91	725.14	-50.15	0.00	0.00	0.00
6,600.00	7.19	75.59	6,553.40	190.02	737.26	-50.98	0.00	0.00	0.00
6,700.00	7.19	75.59	6,652.61	193.14	749.38	-51.81	0.00	0.00	0.00
6,800.00	7.19	75.59	6,751.82	196.25	761.50	-52.64	0.00	0.00	0.00
6,864.25	7.19	75.59	6,815.57	198.25	769.29	-53.17	0.00	0.00	0.00
Start DLS 10.00 TFO 104.29									
6,900.00	7.19	104.46	6,851.05	198.25	773.62	-52.37	10.00	0.01	80.74
7,000.00	13.67	149.84	6,949.49	186.44	785.65	-38.55	10.00	6.48	45.38
7,100.00	22.83	163.12	7,044.40	157.59	797.25	-8.06	10.00	9.16	13.28
7,143.67	27.01	166.12	7,084.00	139.85	802.09	10.27	10.00	9.57	6.88
Sharon Springs									
7,200.00	32.47	168.92	7,132.89	112.57	808.06	38.18	10.00	9.69	4.97
7,218.09	34.23	169.65	7,148.00	102.81	809.91	48.12	10.00	9.75	4.02
Niobrara A									
7,279.67	40.26	171.70	7,197.00	66.04	815.90	85.36	10.00	9.80	3.33
Niobrara B									
7,300.00	42.26	172.27	7,212.28	52.76	817.77	98.76	10.00	9.83	2.79
7,383.75	50.52	174.22	7,270.00	-7.40	824.83	159.20	10.00	9.86	2.33
Niobrara C									
7,400.00	52.12	174.54	7,280.16	-20.03	826.07	171.84	10.00	9.88	1.99
7,500.00	62.02	176.27	7,334.45	-103.59	832.71	255.19	10.00	9.89	1.73
7,600.00	71.93	177.71	7,373.52	-195.38	837.50	346.29	10.00	9.91	1.44
7,601.55	72.08	177.73	7,374.00	-196.86	837.56	347.75	10.00	9.92	1.34
Fort Hays									
7,700.00	81.85	178.99	7,396.17	-292.61	840.28	442.37	10.00	9.92	1.28
7,706.05	82.45	179.07	7,397.00	-298.61	840.38	448.28	10.00	9.92	1.24
Codell									
7,782.66	90.06	180.00	7,402.00	-374.99	841.00	523.47	10.00	9.93	1.22
Start DLS 1.00 TFO -86.01 - 7"									

Anadarko Petroleum Corp

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Company:	US ROCKIES REGION PLANNING	TVD Reference:	gl + rkb @ 4942.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	gl + rkb @ 4942.00ft
Site:	WELD_Raymond 27-29HZ Pad	North Reference:	True
Well:	Raymond 38C-29HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Raymond 38C-29HZ		
Design:	Raymond 38C-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)
7,799.10	90.07	179.84	7,401.98	-391.43	841.02	539.64	1.00	0.07	-1.00
Start 4160.27 hold at 7799.10 MD									
7,800.00	90.07	179.84	7,401.98	-392.33	841.03	540.52	0.00	0.00	0.00
7,900.00	90.07	179.84	7,401.86	-492.33	841.31	638.86	0.00	0.00	0.00
8,000.00	90.07	179.84	7,401.74	-592.33	841.60	737.21	0.00	0.00	0.00
8,100.00	90.07	179.84	7,401.62	-692.33	841.88	835.55	0.00	0.00	0.00
8,200.00	90.07	179.84	7,401.50	-792.33	842.17	933.89	0.00	0.00	0.00
8,300.00	90.07	179.84	7,401.38	-892.33	842.46	1,032.23	0.00	0.00	0.00
8,400.00	90.07	179.84	7,401.26	-992.33	842.74	1,130.57	0.00	0.00	0.00
8,500.00	90.07	179.84	7,401.14	-1,092.33	843.03	1,228.91	0.00	0.00	0.00
8,600.00	90.07	179.84	7,401.02	-1,192.33	843.32	1,327.25	0.00	0.00	0.00
8,700.00	90.07	179.84	7,400.90	-1,292.33	843.60	1,425.60	0.00	0.00	0.00
8,800.00	90.07	179.84	7,400.78	-1,392.33	843.89	1,523.94	0.00	0.00	0.00
8,900.00	90.07	179.84	7,400.66	-1,492.33	844.17	1,622.28	0.00	0.00	0.00
9,000.00	90.07	179.84	7,400.54	-1,592.33	844.46	1,720.62	0.00	0.00	0.00
9,100.00	90.07	179.84	7,400.42	-1,692.33	844.75	1,818.96	0.00	0.00	0.00
9,200.00	90.07	179.84	7,400.30	-1,792.33	845.03	1,917.30	0.00	0.00	0.00
9,300.00	90.07	179.84	7,400.18	-1,892.33	845.32	2,015.64	0.00	0.00	0.00
9,400.00	90.07	179.84	7,400.07	-1,992.33	845.60	2,113.99	0.00	0.00	0.00
9,500.00	90.07	179.84	7,399.95	-2,092.33	845.89	2,212.33	0.00	0.00	0.00
9,600.00	90.07	179.84	7,399.83	-2,192.32	846.18	2,310.67	0.00	0.00	0.00
9,700.00	90.07	179.84	7,399.71	-2,292.32	846.46	2,409.01	0.00	0.00	0.00
9,800.00	90.07	179.84	7,399.59	-2,392.32	846.75	2,507.35	0.00	0.00	0.00
9,900.00	90.07	179.84	7,399.47	-2,492.32	847.04	2,605.69	0.00	0.00	0.00
10,000.00	90.07	179.84	7,399.35	-2,592.32	847.32	2,704.04	0.00	0.00	0.00
10,100.00	90.07	179.84	7,399.23	-2,692.32	847.61	2,802.38	0.00	0.00	0.00
10,200.00	90.07	179.84	7,399.11	-2,792.32	847.89	2,900.72	0.00	0.00	0.00
10,300.00	90.07	179.84	7,398.99	-2,892.32	848.18	2,999.06	0.00	0.00	0.00
10,400.00	90.07	179.84	7,398.87	-2,992.32	848.47	3,097.40	0.00	0.00	0.00
10,500.00	90.07	179.84	7,398.75	-3,092.32	848.75	3,195.74	0.00	0.00	0.00
10,600.00	90.07	179.84	7,398.63	-3,192.32	849.04	3,294.08	0.00	0.00	0.00
10,700.00	90.07	179.84	7,398.51	-3,292.32	849.32	3,392.43	0.00	0.00	0.00
10,800.00	90.07	179.84	7,398.39	-3,392.32	849.61	3,490.77	0.00	0.00	0.00
10,900.00	90.07	179.84	7,398.27	-3,492.32	849.90	3,589.11	0.00	0.00	0.00
11,000.00	90.07	179.84	7,398.15	-3,592.32	850.18	3,687.45	0.00	0.00	0.00
11,100.00	90.07	179.84	7,398.03	-3,692.32	850.47	3,785.79	0.00	0.00	0.00
11,200.00	90.07	179.84	7,397.91	-3,792.32	850.76	3,884.13	0.00	0.00	0.00
11,300.00	90.07	179.84	7,397.79	-3,892.32	851.04	3,982.47	0.00	0.00	0.00
11,400.00	90.07	179.84	7,397.67	-3,992.32	851.33	4,080.82	0.00	0.00	0.00
11,500.00	90.07	179.84	7,397.55	-4,092.32	851.61	4,179.16	0.00	0.00	0.00
11,600.00	90.07	179.84	7,397.43	-4,192.32	851.90	4,277.50	0.00	0.00	0.00
11,700.00	90.07	179.84	7,397.31	-4,292.31	852.19	4,375.84	0.00	0.00	0.00
11,800.00	90.07	179.84	7,397.19	-4,392.31	852.47	4,474.18	0.00	0.00	0.00
11,900.00	90.07	179.84	7,397.07	-4,492.31	852.76	4,572.52	0.00	0.00	0.00
11,959.37	90.07	179.84	7,397.00	-4,551.68	852.93	4,630.91	0.00	0.00	0.00
TD at 11959.37 - Raymond 38C-29HZ BHL									

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Raymond 38C-29HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	gl + rkb @ 4942.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	gl + rkb @ 4942.00ft
Site:	WELD_Raymond 27-29HZ Pad	North Reference:	True
Well:	Raymond 38C-29HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Raymond 38C-29HZ		
Design:	Raymond 38C-29HZ (wp01)		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(ft)	(ft)	(ft)	(usft)	(usft)		
- Shape									
Raymond 38C-29HZ BH	0.00	0.00	7,397.00	-4,551.68	852.93	1,312,815.54	3,197,495.36	40.189914	-104.793070
- plan hits target center									
- Point									

Casing Points					
Measured Depth	Vertical Depth	Name		Casing Diameter	Hole Diameter
(ft)	(ft)			(")	(")
902.04	900.00	9 5/8"		9-5/8	12-1/4
7,782.66	7,402.00	7"		7	8-3/4

Formations						
Measured Depth	Vertical Depth	Name		Lithology	Dip	Dip Direction
(ft)	(ft)				(°)	(°)
3,179.72	3,160.00	Parkman				
4,382.17	4,353.00	Sussex				
7,143.67	7,084.00	Sharon Springs				
7,218.09	7,148.00	Niobrara A				
7,279.67	7,197.00	Niobrara B				
7,383.75	7,270.00	Niobrara C				
7,601.55	7,374.00	Fort Hays				
7,706.05	7,397.00	Codell				

Plan Annotations					
Measured Depth	Vertical Depth	Local Coordinates		Comment	
(ft)	(ft)	+N/-S	+E/-W		
(ft)	(ft)	(ft)	(ft)		
200.00	200.00	0.00	0.00	Start Build 2.00	
450.00	449.68	2.82	10.53	Start 450.00 hold at 450.00 MD	
900.00	897.97	12.97	48.41	Start DLS 2.00 TFO 1.93	
1,009.49	1,006.84	15.91	59.66	Start 5854.75 hold at 1009.49 MD	
6,864.25	6,815.57	198.25	769.29	Start DLS 10.00 TFO 104.29	
7,782.66	7,402.00	-375.00	841.00	Start DLS 1.00 TFO -86.01	
7,799.10	7,401.98	-391.43	841.02	Start 4160.27 hold at 7799.10 MD	
11,959.37	7,397.00	-4,551.68	852.93	TD at 11959.37	