

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_DOVE 27-12HZ PAD

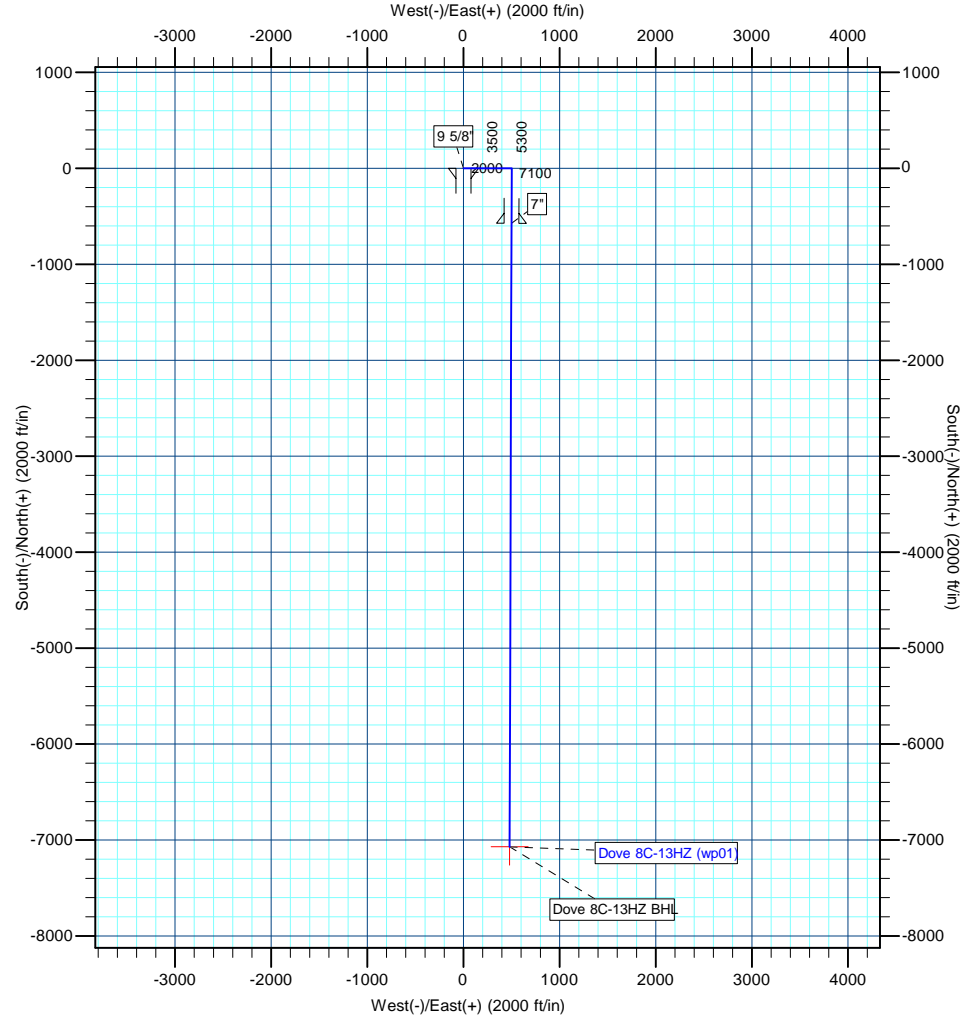
Dove 8C-13HZ

Dove 8C-13HZ

Plan: Dove 8C-13HZ (wp01)

Standard Planning Report

08 February, 2012



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Azimuths to True North

Magnetic North: 8.73°

Magnetic Field

Strength: 52939.6snT

Dip Angle: 66.84°

Date: 2/8/2012

Model: IGRF2010



Project: COLORADO NORTHERN ZONE - 83

Site: WELD_DOVE 27-12HZ PAD

Well: Dove 8C-13HZ

Wellbore: Dove 8C-13HZ

Section:

SHL:

Design: Dove 8C-13HZ (wp01)

Latitude: 40.159163

Longitude: -104.720701

GL: 4970.00

KB: GL + RKB @ 4987.00ft

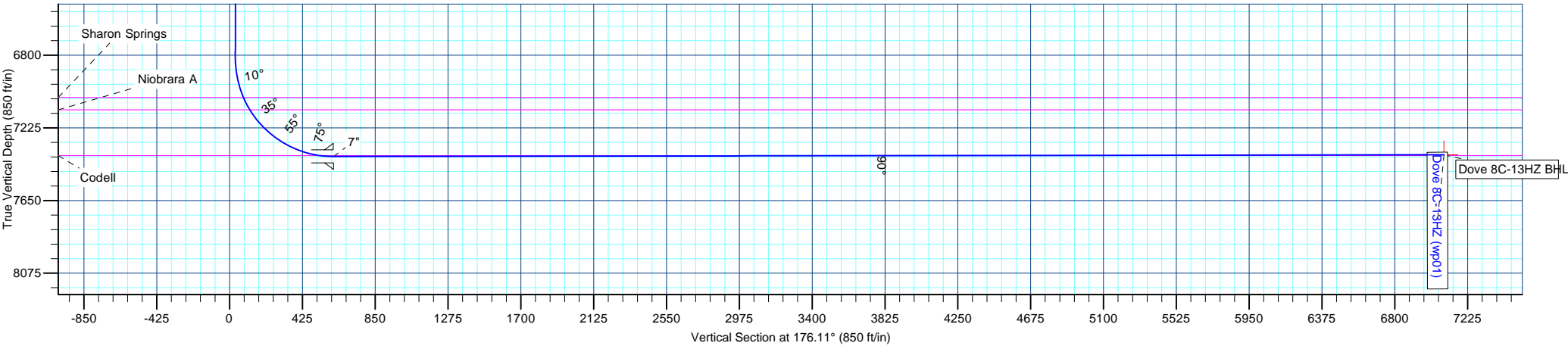
WELL DETAILS: Dove 8C-13HZ						
+N/-S	+E/-W	Northing	Ground Level: Easting	4970.00 Latitude	40.159163 Longitude	Slot
0.00	0.00	1301783.37	3217811.07			

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
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00
2500.00	10.00	90.00	2497.47	0.00	43.52	2.00	90.00	2.95
4885.00	10.00	90.00	4846.23	0.00	457.67	0.00	0.00	31.02
5385.00	0.00	0.00	5343.70	0.00	501.20	2.00	180.00	33.97
6860.34	0.00	0.00	6819.04	0.00	501.20	0.00	0.00	33.97
7761.22	90.09	180.17	7392.00	-573.84	499.50	10.00	180.17	606.37
74257.74	90.09	180.17	7382.00	-7070.32	480.32	0.00	0.00	7086.62

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Dove 8C-13HZ BHL	7382.00	-7070.32	480.32	40.139754	-104.718983	Point

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
706.00	706.00	Fox Hills
3345.00	3360.61	Parkman
4383.00	4414.62	Sussex
7047.00	7094.79	Sharon Springs
7119.00	7176.04	Niobrara A
7387.00	7684.62	Codell

CASING DETAILS			
TVD	MD	Name	Size
1000.00	1000.00	9 5/8"	9-5/8
7392.00	7761.22	7"	7



Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Dove 8C-13HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4987.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4987.00ft
Site:	WELD_DOVE 27-12HZ PAD	North Reference:	True
Well:	Dove 8C-13HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dove 8C-13HZ		
Design:	Dove 8C-13HZ (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_DOVE 27-12HZ PAD			
Site Position:		Northing:	1,301,783.37 usft	Latitude:	40.159163
From:	Lat/Long	Easting:	3,217,811.07 usft	Longitude:	-104.720701
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.50 °

Well	Dove 8C-13HZ					
Well Position	+N/-S	0.00 ft	Northing:	1,301,783.37 usft	Latitude:	40.159163
	+E/-W	0.00 ft	Easting:	3,217,811.07 usft	Longitude:	-104.720701
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,970.00 ft

Wellbore	Dove 8C-13HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/8/2012	8.73	66.84	52,940

Design	Dove 8C-13HZ (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	176.11

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	
2,500.00	10.00	90.00	2,497.47	0.00	43.52	2.00	2.00	0.00	90.00	
4,885.00	10.00	90.00	4,846.23	0.00	457.67	0.00	0.00	0.00	0.00	
5,385.00	0.00	0.00	5,343.70	0.00	501.20	2.00	-2.00	0.00	180.00	
6,860.34	0.00	0.00	6,819.04	0.00	501.20	0.00	0.00	0.00	0.00	
7,761.22	90.09	180.17	7,392.00	-573.84	499.50	10.00	10.00	0.00	180.17	
14,257.75	90.09	180.17	7,382.00	-7,070.32	480.32	0.00	0.00	0.00	0.00	Dove 8C-13HZ BHL

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Dove 8C-13HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4987.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4987.00ft
Site:	WELD_DOVE 27-12HZ PAD	North Reference:	True
Well:	Dove 8C-13HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dove 8C-13HZ		
Design:	Dove 8C-13HZ (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
706.00	0.00	0.00	706.00	0.00	0.00	0.00	0.00	0.00	0.00
Fox Hills									
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
9 5/8"									
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
Start Build 2.00									
2,100.00	2.00	90.00	2,099.98	0.00	1.75	0.12	2.00	2.00	0.00
2,200.00	4.00	90.00	2,199.84	0.00	6.98	0.47	2.00	2.00	0.00
2,300.00	6.00	90.00	2,299.45	0.00	15.69	1.06	2.00	2.00	0.00
2,400.00	8.00	90.00	2,398.70	0.00	27.88	1.89	2.00	2.00	0.00
2,500.00	10.00	90.00	2,497.47	0.00	43.52	2.95	2.00	2.00	0.00
Start 2385.00 hold at 2500.00 MD									
2,600.00	10.00	90.00	2,595.95	0.00	60.89	4.13	0.00	0.00	0.00
2,700.00	10.00	90.00	2,694.43	0.00	78.25	5.30	0.00	0.00	0.00
2,800.00	10.00	90.00	2,792.91	0.00	95.62	6.48	0.00	0.00	0.00
2,900.00	10.00	90.00	2,891.39	0.00	112.98	7.66	0.00	0.00	0.00
3,000.00	10.00	90.00	2,989.87	0.00	130.35	8.83	0.00	0.00	0.00
3,100.00	10.00	90.00	3,088.35	0.00	147.71	10.01	0.00	0.00	0.00
3,200.00	10.00	90.00	3,186.83	0.00	165.08	11.19	0.00	0.00	0.00
3,300.00	10.00	90.00	3,285.31	0.00	182.44	12.36	0.00	0.00	0.00
3,360.61	10.00	90.00	3,345.00	0.00	192.97	13.08	0.00	0.00	0.00
Parkman									
3,400.00	10.00	90.00	3,383.79	0.00	199.81	13.54	0.00	0.00	0.00
3,500.00	10.00	90.00	3,482.27	0.00	217.17	14.72	0.00	0.00	0.00
3,600.00	10.00	90.00	3,580.75	0.00	234.54	15.89	0.00	0.00	0.00
3,700.00	10.00	90.00	3,679.23	0.00	251.90	17.07	0.00	0.00	0.00
3,800.00	10.00	90.00	3,777.72	0.00	269.27	18.25	0.00	0.00	0.00
3,900.00	10.00	90.00	3,876.20	0.00	286.63	19.43	0.00	0.00	0.00
4,000.00	10.00	90.00	3,974.68	0.00	303.99	20.60	0.00	0.00	0.00
4,100.00	10.00	90.00	4,073.16	0.00	321.36	21.78	0.00	0.00	0.00
4,200.00	10.00	90.00	4,171.64	0.00	338.72	22.96	0.00	0.00	0.00
4,300.00	10.00	90.00	4,270.12	0.00	356.09	24.13	0.00	0.00	0.00
4,400.00	10.00	90.00	4,368.60	0.00	373.45	25.31	0.00	0.00	0.00
4,414.62	10.00	90.00	4,383.00	0.00	375.99	25.48	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Dove 8C-13HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4987.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4987.00ft
Site:	WELD_DOVE 27-12HZ PAD	North Reference:	True
Well:	Dove 8C-13HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dove 8C-13HZ		
Design:	Dove 8C-13HZ (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)
Sussex									
4,500.00	10.00	90.00	4,467.08	0.00	390.82	26.49	0.00	0.00	0.00
4,600.00	10.00	90.00	4,565.56	0.00	408.18	27.66	0.00	0.00	0.00
4,700.00	10.00	90.00	4,664.04	0.00	425.55	28.84	0.00	0.00	0.00
4,800.00	10.00	90.00	4,762.52	0.00	442.91	30.02	0.00	0.00	0.00
4,885.00	10.00	90.00	4,846.23	0.00	457.67	31.02	0.00	0.00	0.00
Start Drop -2.00									
4,900.00	9.70	90.00	4,861.01	0.00	460.24	31.19	2.00	-2.00	0.00
5,000.00	7.70	90.00	4,959.86	0.00	475.36	32.22	2.00	-2.00	0.00
5,100.00	5.70	90.00	5,059.17	0.00	487.03	33.01	2.00	-2.00	0.00
5,200.00	3.70	90.00	5,158.83	0.00	495.22	33.56	2.00	-2.00	0.00
5,300.00	1.70	90.00	5,258.71	0.00	499.94	33.88	2.00	-2.00	0.00
5,385.00	0.00	0.00	5,343.70	0.00	501.20	33.97	2.00	-2.00	-105.88
Start 1475.34 hold at 5385.00 MD									
5,400.00	0.00	0.00	5,358.70	0.00	501.20	33.97	0.00	0.00	0.00
5,500.00	0.00	0.00	5,458.70	0.00	501.20	33.97	0.00	0.00	0.00
5,600.00	0.00	0.00	5,558.70	0.00	501.20	33.97	0.00	0.00	0.00
5,700.00	0.00	0.00	5,658.70	0.00	501.20	33.97	0.00	0.00	0.00
5,800.00	0.00	0.00	5,758.70	0.00	501.20	33.97	0.00	0.00	0.00
5,900.00	0.00	0.00	5,858.70	0.00	501.20	33.97	0.00	0.00	0.00
6,000.00	0.00	0.00	5,958.70	0.00	501.20	33.97	0.00	0.00	0.00
6,100.00	0.00	0.00	6,058.70	0.00	501.20	33.97	0.00	0.00	0.00
6,200.00	0.00	0.00	6,158.70	0.00	501.20	33.97	0.00	0.00	0.00
6,300.00	0.00	0.00	6,258.70	0.00	501.20	33.97	0.00	0.00	0.00
6,400.00	0.00	0.00	6,358.70	0.00	501.20	33.97	0.00	0.00	0.00
6,500.00	0.00	0.00	6,458.70	0.00	501.20	33.97	0.00	0.00	0.00
6,600.00	0.00	0.00	6,558.70	0.00	501.20	33.97	0.00	0.00	0.00
6,700.00	0.00	0.00	6,658.70	0.00	501.20	33.97	0.00	0.00	0.00
6,800.00	0.00	0.00	6,758.70	0.00	501.20	33.97	0.00	0.00	0.00
6,860.34	0.00	0.00	6,819.04	0.00	501.20	33.97	0.00	0.00	0.00
Start Build 10.00									
6,900.00	3.97	180.17	6,858.67	-1.37	501.19	35.34	10.00	10.00	-453.43
7,000.00	13.97	180.17	6,957.32	-16.94	501.15	50.86	10.00	10.00	0.00
7,094.79	23.45	180.17	7,047.00	-47.30	501.06	81.15	10.00	10.00	0.00
Sharon Springs									
7,100.00	23.97	180.17	7,051.77	-49.40	501.05	83.24	10.00	10.00	0.00
7,176.04	31.57	180.17	7,119.00	-84.79	500.95	118.55	10.00	10.00	0.00
Niobrara A									
7,200.00	33.97	180.17	7,139.15	-97.76	500.91	131.49	10.00	10.00	0.00
7,300.00	43.97	180.17	7,216.80	-160.57	500.72	194.13	10.00	10.00	0.00
7,400.00	53.97	180.17	7,282.37	-235.91	500.50	269.28	10.00	10.00	0.00
7,500.00	63.97	180.17	7,333.86	-321.48	500.25	354.65	10.00	10.00	0.00
7,600.00	73.97	180.17	7,369.71	-414.70	499.97	447.63	10.00	10.00	0.00
7,684.62	82.43	180.17	7,387.00	-497.46	499.73	530.18	10.00	10.00	0.00
Codell									
7,700.00	83.97	180.17	7,388.82	-512.73	499.68	545.41	10.00	10.00	0.00
7,761.22	90.09	180.17	7,392.00	-573.83	499.50	606.37	10.00	10.00	0.00
Start 6496.52 hold at 7761.22 MD - 7"									
7,800.00	90.09	180.17	7,391.94	-612.61	499.39	645.05	0.00	0.00	0.00
7,900.00	90.09	180.17	7,391.78	-712.61	499.09	744.80	0.00	0.00	0.00
8,000.00	90.09	180.17	7,391.63	-812.61	498.80	844.55	0.00	0.00	0.00
8,100.00	90.09	180.17	7,391.47	-912.61	498.50	944.30	0.00	0.00	0.00
8,200.00	90.09	180.17	7,391.32	-1,012.61	498.21	1,044.05	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Dove 8C-13HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4987.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4987.00ft
Site:	WELD_DOVE 27-12HZ PAD	North Reference:	True
Well:	Dove 8C-13HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dove 8C-13HZ		
Design:	Dove 8C-13HZ (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)	
8,300.00	90.09	180.17	7,391.17	-1,112.61	497.91	1,143.80	0.00	0.00	0.00	
8,400.00	90.09	180.17	7,391.01	-1,212.61	497.62	1,243.55	0.00	0.00	0.00	
8,500.00	90.09	180.17	7,390.86	-1,312.61	497.32	1,343.30	0.00	0.00	0.00	
8,600.00	90.09	180.17	7,390.71	-1,412.61	497.02	1,443.05	0.00	0.00	0.00	
8,700.00	90.09	180.17	7,390.55	-1,512.61	496.73	1,542.80	0.00	0.00	0.00	
8,800.00	90.09	180.17	7,390.40	-1,612.61	496.43	1,642.55	0.00	0.00	0.00	
8,900.00	90.09	180.17	7,390.24	-1,712.61	496.14	1,742.29	0.00	0.00	0.00	
9,000.00	90.09	180.17	7,390.09	-1,812.61	495.84	1,842.04	0.00	0.00	0.00	
9,100.00	90.09	180.17	7,389.94	-1,912.61	495.55	1,941.79	0.00	0.00	0.00	
9,200.00	90.09	180.17	7,389.78	-2,012.61	495.25	2,041.54	0.00	0.00	0.00	
9,300.00	90.09	180.17	7,389.63	-2,112.61	494.96	2,141.29	0.00	0.00	0.00	
9,400.00	90.09	180.17	7,389.47	-2,212.61	494.66	2,241.04	0.00	0.00	0.00	
9,500.00	90.09	180.17	7,389.32	-2,312.61	494.37	2,340.79	0.00	0.00	0.00	
9,600.00	90.09	180.17	7,389.17	-2,412.60	494.07	2,440.54	0.00	0.00	0.00	
9,700.00	90.09	180.17	7,389.01	-2,512.60	493.78	2,540.29	0.00	0.00	0.00	
9,800.00	90.09	180.17	7,388.86	-2,612.60	493.48	2,640.04	0.00	0.00	0.00	
9,900.00	90.09	180.17	7,388.70	-2,712.60	493.19	2,739.79	0.00	0.00	0.00	
10,000.00	90.09	180.17	7,388.55	-2,812.60	492.89	2,839.54	0.00	0.00	0.00	
10,100.00	90.09	180.17	7,388.40	-2,912.60	492.60	2,939.29	0.00	0.00	0.00	
10,200.00	90.09	180.17	7,388.24	-3,012.60	492.30	3,039.04	0.00	0.00	0.00	
10,300.00	90.09	180.17	7,388.09	-3,112.60	492.01	3,138.79	0.00	0.00	0.00	
10,400.00	90.09	180.17	7,387.94	-3,212.60	491.71	3,238.54	0.00	0.00	0.00	
10,500.00	90.09	180.17	7,387.78	-3,312.60	491.41	3,338.29	0.00	0.00	0.00	
10,600.00	90.09	180.17	7,387.63	-3,412.60	491.12	3,438.04	0.00	0.00	0.00	
10,700.00	90.09	180.17	7,387.47	-3,512.60	490.82	3,537.79	0.00	0.00	0.00	
10,800.00	90.09	180.17	7,387.32	-3,612.60	490.53	3,637.54	0.00	0.00	0.00	
10,900.00	90.09	180.17	7,387.17	-3,712.60	490.23	3,737.29	0.00	0.00	0.00	
11,000.00	90.09	180.17	7,387.01	-3,812.60	489.94	3,837.03	0.00	0.00	0.00	
11,100.00	90.09	180.17	7,386.86	-3,912.60	489.64	3,936.78	0.00	0.00	0.00	
11,200.00	90.09	180.17	7,386.70	-4,012.60	489.35	4,036.53	0.00	0.00	0.00	
11,300.00	90.09	180.17	7,386.55	-4,112.60	489.05	4,136.28	0.00	0.00	0.00	
11,400.00	90.09	180.17	7,386.40	-4,212.59	488.76	4,236.03	0.00	0.00	0.00	
11,500.00	90.09	180.17	7,386.24	-4,312.59	488.46	4,335.78	0.00	0.00	0.00	
11,600.00	90.09	180.17	7,386.09	-4,412.59	488.17	4,435.53	0.00	0.00	0.00	
11,700.00	90.09	180.17	7,385.94	-4,512.59	487.87	4,535.28	0.00	0.00	0.00	
11,800.00	90.09	180.17	7,385.78	-4,612.59	487.58	4,635.03	0.00	0.00	0.00	
11,900.00	90.09	180.17	7,385.63	-4,712.59	487.28	4,734.78	0.00	0.00	0.00	
12,000.00	90.09	180.17	7,385.47	-4,812.59	486.99	4,834.53	0.00	0.00	0.00	
12,100.00	90.09	180.17	7,385.32	-4,912.59	486.69	4,934.28	0.00	0.00	0.00	
12,200.00	90.09	180.17	7,385.17	-5,012.59	486.39	5,034.03	0.00	0.00	0.00	
12,300.00	90.09	180.17	7,385.01	-5,112.59	486.10	5,133.78	0.00	0.00	0.00	
12,400.00	90.09	180.17	7,384.86	-5,212.59	485.80	5,233.53	0.00	0.00	0.00	
12,500.00	90.09	180.17	7,384.70	-5,312.59	485.51	5,333.28	0.00	0.00	0.00	
12,600.00	90.09	180.17	7,384.55	-5,412.59	485.21	5,433.03	0.00	0.00	0.00	
12,700.00	90.09	180.17	7,384.40	-5,512.59	484.92	5,532.78	0.00	0.00	0.00	
12,800.00	90.09	180.17	7,384.24	-5,612.59	484.62	5,632.53	0.00	0.00	0.00	
12,900.00	90.09	180.17	7,384.09	-5,712.59	484.33	5,732.28	0.00	0.00	0.00	
13,000.00	90.09	180.17	7,383.94	-5,812.59	484.03	5,832.03	0.00	0.00	0.00	
13,100.00	90.09	180.17	7,383.78	-5,912.59	483.74	5,931.77	0.00	0.00	0.00	
13,200.00	90.09	180.17	7,383.63	-6,012.58	483.44	6,031.52	0.00	0.00	0.00	
13,300.00	90.09	180.17	7,383.47	-6,112.58	483.15	6,131.27	0.00	0.00	0.00	
13,400.00	90.09	180.17	7,383.32	-6,212.58	482.85	6,231.02	0.00	0.00	0.00	
13,500.00	90.09	180.17	7,383.17	-6,312.58	482.56	6,330.77	0.00	0.00	0.00	
13,600.00	90.09	180.17	7,383.01	-6,412.58	482.26	6,430.52	0.00	0.00	0.00	

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well Dove 8C-13HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + RKB @ 4987.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + RKB @ 4987.00ft
Site:	WELD_DOVE 27-12HZ PAD	North Reference:	True
Well:	Dove 8C-13HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Dove 8C-13HZ		
Design:	Dove 8C-13HZ (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)
13,700.00	90.09	180.17	7,382.86	-6,512.58	481.97	6,530.27	0.00	0.00	0.00
13,800.00	90.09	180.17	7,382.70	-6,612.58	481.67	6,630.02	0.00	0.00	0.00
13,900.00	90.09	180.17	7,382.55	-6,712.58	481.37	6,729.77	0.00	0.00	0.00
14,000.00	90.09	180.17	7,382.40	-6,812.58	481.08	6,829.52	0.00	0.00	0.00
14,100.00	90.09	180.17	7,382.24	-6,912.58	480.78	6,929.27	0.00	0.00	0.00
14,200.00	90.09	180.17	7,382.09	-7,012.58	480.49	7,029.02	0.00	0.00	0.00
14,257.75	90.09	180.17	7,382.00	-7,070.32	480.32	7,086.62	0.00	0.00	0.00
TD at 14257.74 - Dove 8C-13HZ 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									
Dove 8C-13HZ BHL	0.00	0.00	7,382.00	-7,070.32	480.32	1,294,717.55	3,218,353.51	40.139754	-104.718983
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
1,000.00	1,000.00	9 5/8"	9-5/8	12-1/4	
7,761.22	7,392.00	7"	7	8-3/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
706.00	706.00	Fox Hills			
3,360.61	3,345.00	Parkman			
4,414.62	4,383.00	Sussex			
7,094.79	7,047.00	Sharon Springs			
7,176.04	7,119.00	Niobrara A			
7,684.62	7,387.00	Codell			

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
2,000.00	2,000.00	0.00	0.00	Start Build 2.00
2,500.00	2,497.47	0.00	43.52	Start 2385.00 hold at 2500.00 MD
4,885.00	4,846.23	0.00	457.67	Start Drop -2.00
5,385.00	5,343.70	0.00	501.20	Start 1475.34 hold at 5385.00 MD
6,860.34	6,819.04	0.00	501.20	Start Build 10.00
7,761.22	7,392.00	-573.84	499.50	Start 6496.52 hold at 7761.22 MD
14,257.75	7,382.00	-7,070.32	480.32	TD at 14257.74