

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_DOVE 4-12HZ PAD

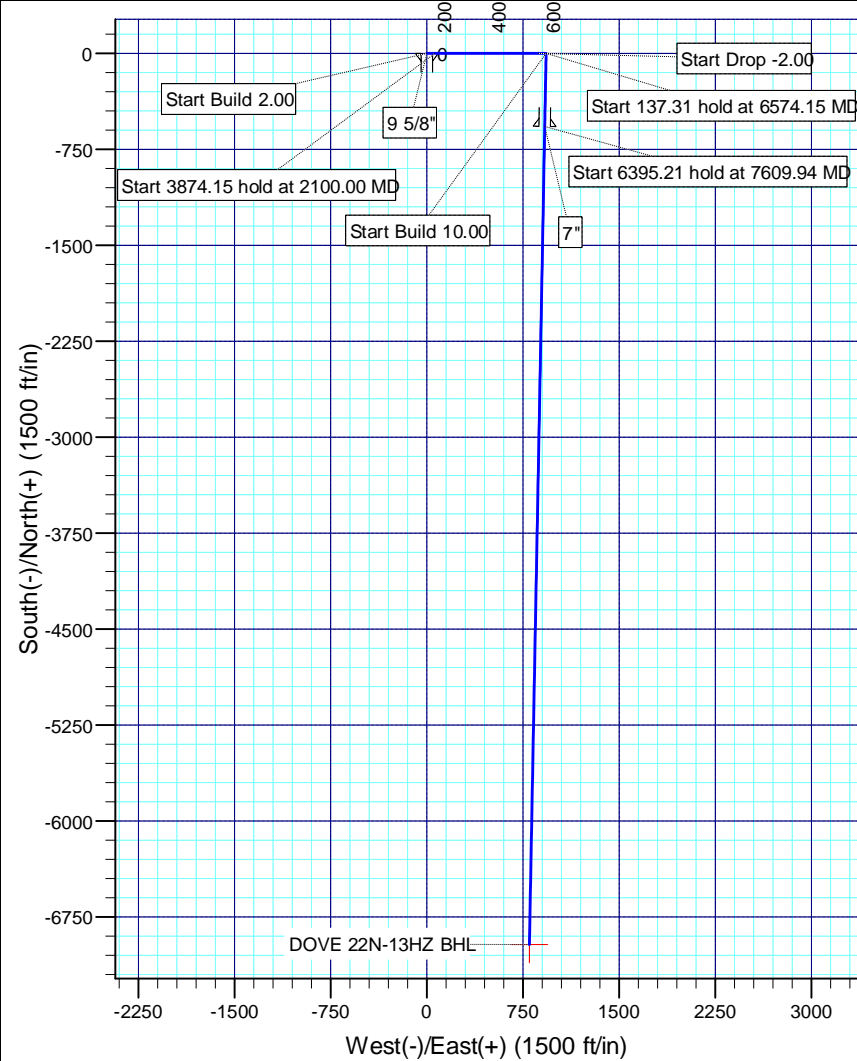
DOVE 22N-13HZ

DOVE 22N-13HZ

Plan: DOVE 22N-13HZ (wp01)

Standard Planning Report

14 February, 2012



PROJECT DETAILS: COLORADO NORTHERN ZONE - 83	
Site:	WELD DOVE 4-12HZ PAD
Well:	DOVE 22N-13HZ
Wellbore:	DOVE 22N-13HZ
Design:	DOVE 22N-13HZ (wp01)
Latitude:	40.158769
Longitude:	-104.732640
GL:	4999.00
KB:	17' RKB + GL @ 5016.00ft (Original Well Elev)



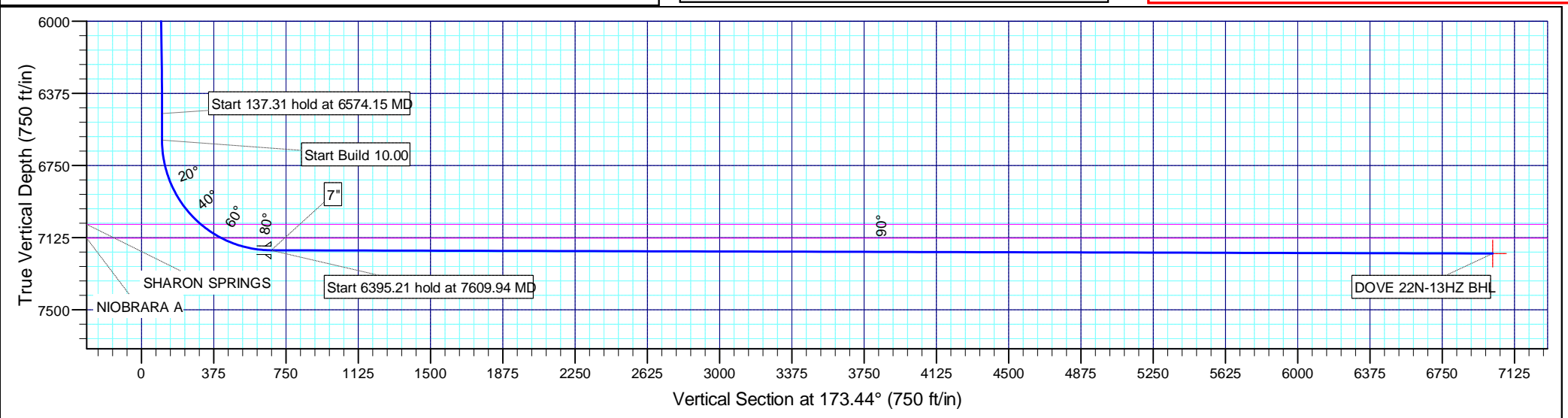
WELL DETAILS: DOVE 22N-13HZ					
Ground Level: 4999.00					
+N-S	+E-W	Northing	Easting	Latitude	Longitude
0.00	0.00	1301610.75	3214475.49	40.158769	-104.732640

DESIGN TARGET DETAILS						
Name	TVD	+N-S	+E-W	Latitude	Longitude	Shape Point
DOVE 22N-13HZ BHL	7208.00	-6965.41	800.44	40.139648	-104.729777	

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00	
3	2100.00	12.00	90.00	2095.62	0.00	62.60	2.00	90.00	7.15	
4	5974.15	12.00	90.00	5885.11	0.00	868.08	0.00	0.00	99.10	
5	6574.15	0.00	0.00	6480.74	0.00	930.69	2.00	180.00	106.25	
6	6711.46	0.00	0.00	6618.04	0.00	930.69	0.00	0.00	106.25	
7	7609.94	89.85	181.07	7191.00	-571.34	920.00	10.00	181.07	672.63	
8	14005.15	89.85	181.07	7208.00	-6965.41	800.44	0.00	0.00	7011.25	DOVE 22N-13HZ BHL

CASING DETAILS				
TVD	MD	Name	Size	
1000.00	1000.00	9 5/8"	9-5/8	
7191.00	7609.94	7"	7	

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
706.00	706.00	FOZ HILLS
3354.00	3386.49	PARKMAN
4392.00	4447.68	SUSSEX
7056.00	7209.97	SHARON SPRINGS
7128.00	7340.24	NIOBRARA A



Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well DOVE 22N-13HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	17' RKB + GL @ 5016.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	17' RKB + GL @ 5016.00ft (Original Well Elev)
Site:	WELD_DOVE 4-12HZ PAD	North Reference:	True
Well:	DOVE 22N-13HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	DOVE 22N-13HZ		
Design:	DOVE 22N-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 4-12HZ PAD			
Site Position:		Northing:	1,301,610.75 usft	Latitude:	40.158769
From:	Lat/Long	Easting:	3,214,475.49 usft	Longitude:	-104.732640
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.50 °

Well	DOVE 22N-13HZ					
Well Position	+N/-S	0.00 ft	Northing:	1,301,610.75 usft	Latitude:	40.158769
	+E/-W	0.00 ft	Easting:	3,214,475.49 usft	Longitude:	-104.732640
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	4,999.00 ft

Wellbore	DOVE 22N-13HZ				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/9/2012	8.74	66.84	52,938

Design	DOVE 22N-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	173.44

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	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,100.00	12.00	90.00	2,095.62	0.00	62.60	2.00	2.00	0.00	90.00	
5,974.15	12.00	90.00	5,885.11	0.00	868.08	0.00	0.00	0.00	0.00	
6,574.15	0.00	0.00	6,480.74	0.00	930.69	2.00	-2.00	0.00	180.00	
6,711.46	0.00	0.00	6,618.04	0.00	930.69	0.00	0.00	0.00	0.00	
7,609.94	89.85	181.07	7,191.00	-571.34	920.00	10.00	10.00	0.00	181.07	
14,005.15	89.85	181.07	7,208.00	-6,965.41	800.44	0.00	0.00	0.00	0.00	DOVE 22N-13HZ BHI

Anadarko Petroleum Corp

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Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	17' RKB + GL @ 5016.00ft (Original Well Elev)
Site:	WELD_DOVE 4-12HZ PAD	North Reference:	True
Well:	DOVE 22N-13HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	DOVE 22N-13HZ		
Design:	DOVE 22N-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
FOZ 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
Start Build 2.00									
1,600.00	2.00	90.00	1,599.98	0.00	1.75	0.20	2.00	2.00	0.00
1,700.00	4.00	90.00	1,699.84	0.00	6.98	0.80	2.00	2.00	0.00
1,800.00	6.00	90.00	1,799.45	0.00	15.69	1.79	2.00	2.00	0.00
1,900.00	8.00	90.00	1,898.70	0.00	27.88	3.18	2.00	2.00	0.00
2,000.00	10.00	90.00	1,997.47	0.00	43.52	4.97	2.00	2.00	0.00
2,100.00	12.00	90.00	2,095.62	0.00	62.60	7.15	2.00	2.00	0.00
Start 3874.15 hold at 2100.00 MD									
2,200.00	12.00	90.00	2,193.44	0.00	83.39	9.52	0.00	0.00	0.00
2,300.00	12.00	90.00	2,291.25	0.00	104.18	11.89	0.00	0.00	0.00
2,400.00	12.00	90.00	2,389.07	0.00	124.98	14.27	0.00	0.00	0.00
2,500.00	12.00	90.00	2,486.88	0.00	145.77	16.64	0.00	0.00	0.00
2,600.00	12.00	90.00	2,584.70	0.00	166.56	19.02	0.00	0.00	0.00
2,700.00	12.00	90.00	2,682.51	0.00	187.35	21.39	0.00	0.00	0.00
2,800.00	12.00	90.00	2,780.33	0.00	208.14	23.76	0.00	0.00	0.00
2,900.00	12.00	90.00	2,878.14	0.00	228.93	26.14	0.00	0.00	0.00
3,000.00	12.00	90.00	2,975.96	0.00	249.72	28.51	0.00	0.00	0.00
3,100.00	12.00	90.00	3,073.77	0.00	270.51	30.88	0.00	0.00	0.00
3,200.00	12.00	90.00	3,171.59	0.00	291.31	33.26	0.00	0.00	0.00
3,300.00	12.00	90.00	3,269.40	0.00	312.10	35.63	0.00	0.00	0.00
3,386.49	12.00	90.00	3,354.00	0.00	330.08	37.68	0.00	0.00	0.00
PARKMAN									
3,400.00	12.00	90.00	3,367.22	0.00	332.89	38.00	0.00	0.00	0.00
3,500.00	12.00	90.00	3,465.03	0.00	353.68	40.38	0.00	0.00	0.00
3,600.00	12.00	90.00	3,562.84	0.00	374.47	42.75	0.00	0.00	0.00
3,700.00	12.00	90.00	3,660.66	0.00	395.26	45.12	0.00	0.00	0.00
3,800.00	12.00	90.00	3,758.47	0.00	416.05	47.50	0.00	0.00	0.00
3,900.00	12.00	90.00	3,856.29	0.00	436.84	49.87	0.00	0.00	0.00
4,000.00	12.00	90.00	3,954.10	0.00	457.63	52.25	0.00	0.00	0.00
4,100.00	12.00	90.00	4,051.92	0.00	478.43	54.62	0.00	0.00	0.00
4,200.00	12.00	90.00	4,149.73	0.00	499.22	56.99	0.00	0.00	0.00
4,300.00	12.00	90.00	4,247.55	0.00	520.01	59.37	0.00	0.00	0.00

Anadarko Petroleum Corp

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Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	17' RKB + GL @ 5016.00ft (Original Well Elev)
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Well:	DOVE 22N-13HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	DOVE 22N-13HZ		
Design:	DOVE 22N-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)
4,400.00	12.00	90.00	4,345.36	0.00	540.80	61.74	0.00	0.00	0.00
4,447.68	12.00	90.00	4,392.00	0.00	550.71	62.87	0.00	0.00	0.00
SUSSEX									
4,500.00	12.00	90.00	4,443.18	0.00	561.59	64.11	0.00	0.00	0.00
4,600.00	12.00	90.00	4,540.99	0.00	582.38	66.49	0.00	0.00	0.00
4,700.00	12.00	90.00	4,638.81	0.00	603.17	68.86	0.00	0.00	0.00
4,800.00	12.00	90.00	4,736.62	0.00	623.96	71.23	0.00	0.00	0.00
4,900.00	12.00	90.00	4,834.44	0.00	644.76	73.61	0.00	0.00	0.00
5,000.00	12.00	90.00	4,932.25	0.00	665.55	75.98	0.00	0.00	0.00
5,100.00	12.00	90.00	5,030.07	0.00	686.34	78.36	0.00	0.00	0.00
5,200.00	12.00	90.00	5,127.88	0.00	707.13	80.73	0.00	0.00	0.00
5,300.00	12.00	90.00	5,225.70	0.00	727.92	83.10	0.00	0.00	0.00
5,400.00	12.00	90.00	5,323.51	0.00	748.71	85.48	0.00	0.00	0.00
5,500.00	12.00	90.00	5,421.33	0.00	769.50	87.85	0.00	0.00	0.00
5,600.00	12.00	90.00	5,519.14	0.00	790.29	90.22	0.00	0.00	0.00
5,700.00	12.00	90.00	5,616.95	0.00	811.08	92.60	0.00	0.00	0.00
5,800.00	12.00	90.00	5,714.77	0.00	831.88	94.97	0.00	0.00	0.00
5,900.00	12.00	90.00	5,812.58	0.00	852.67	97.34	0.00	0.00	0.00
5,974.15	12.00	90.00	5,885.11	0.00	868.08	99.10	0.00	0.00	0.00
Start Drop -2.00									
6,000.00	11.48	90.00	5,910.42	0.00	873.34	99.71	2.00	-2.00	0.00
6,100.00	9.48	90.00	6,008.75	0.00	891.54	101.78	2.00	-2.00	0.00
6,200.00	7.48	90.00	6,107.65	0.00	906.29	103.47	2.00	-2.00	0.00
6,300.00	5.48	90.00	6,207.01	0.00	917.58	104.76	2.00	-2.00	0.00
6,400.00	3.48	90.00	6,306.69	0.00	925.39	105.65	2.00	-2.00	0.00
6,500.00	1.48	90.00	6,406.60	0.00	929.73	106.14	2.00	-2.00	0.00
6,574.15	0.00	0.00	6,480.74	0.00	930.69	106.25	2.00	-2.00	0.00
Start 137.31 hold at 6574.15 MD									
6,600.00	0.00	0.00	6,506.59	0.00	930.69	106.25	0.00	0.00	0.00
6,700.00	0.00	0.00	6,606.59	0.00	930.69	106.25	0.00	0.00	0.00
6,711.46	0.00	0.00	6,618.04	0.00	930.69	106.25	0.00	0.00	0.00
Start Build 10.00									
6,800.00	8.85	181.07	6,706.23	-6.83	930.56	113.02	10.00	10.00	0.00
6,900.00	18.85	181.07	6,803.20	-30.74	930.11	136.72	10.00	10.00	0.00
7,000.00	28.85	181.07	6,894.54	-71.12	929.36	176.76	10.00	10.00	0.00
7,100.00	38.85	181.07	6,977.48	-126.75	928.32	231.90	10.00	10.00	0.00
7,200.00	48.85	181.07	7,049.50	-195.93	927.02	300.48	10.00	10.00	0.00
7,209.97	49.85	181.07	7,056.00	-203.50	926.88	307.98	10.00	10.00	0.00
SHARON SPRINGS									
7,300.00	58.85	181.07	7,108.41	-276.57	925.51	380.42	10.00	10.00	0.00
7,340.24	62.88	181.07	7,128.00	-311.70	924.86	415.25	10.00	10.00	0.00
NIORARA A									
7,400.00	68.85	181.07	7,152.42	-366.20	923.84	469.28	10.00	10.00	0.00
7,500.00	78.85	181.07	7,180.20	-462.12	922.04	564.36	10.00	10.00	0.00
7,600.00	88.85	181.07	7,190.89	-561.40	920.19	662.79	10.00	10.00	0.00
7,609.94	89.85	181.07	7,191.00	-571.34	920.00	672.64	10.00	10.00	0.00
Start 6395.21 hold at 7609.94 MD - 7"									
7,700.00	89.85	181.07	7,191.24	-661.38	918.32	761.90	0.00	0.00	0.00
7,800.00	89.85	181.07	7,191.51	-761.37	916.45	861.01	0.00	0.00	0.00
7,900.00	89.85	181.07	7,191.77	-861.35	914.58	960.13	0.00	0.00	0.00
8,000.00	89.85	181.07	7,192.04	-961.33	912.71	1,059.24	0.00	0.00	0.00

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Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	17' RKB + GL @ 5016.00ft (Original Well Elev)
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Wellbore:	DOVE 22N-13HZ		
Design:	DOVE 22N-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)
8,100.00	89.85	181.07	7,192.30	-1,061.31	910.84	1,158.36	0.00	0.00	0.00
8,200.00	89.85	181.07	7,192.57	-1,161.30	908.97	1,257.47	0.00	0.00	0.00
8,300.00	89.85	181.07	7,192.84	-1,261.28	907.10	1,356.59	0.00	0.00	0.00
8,400.00	89.85	181.07	7,193.10	-1,361.26	905.23	1,455.71	0.00	0.00	0.00
8,500.00	89.85	181.07	7,193.37	-1,461.24	903.36	1,554.82	0.00	0.00	0.00
8,600.00	89.85	181.07	7,193.63	-1,561.22	901.49	1,653.94	0.00	0.00	0.00
8,700.00	89.85	181.07	7,193.90	-1,661.21	899.62	1,753.05	0.00	0.00	0.00
8,800.00	89.85	181.07	7,194.16	-1,761.19	897.75	1,852.17	0.00	0.00	0.00
8,900.00	89.85	181.07	7,194.43	-1,861.17	895.88	1,951.28	0.00	0.00	0.00
9,000.00	89.85	181.07	7,194.70	-1,961.15	894.01	2,050.40	0.00	0.00	0.00
9,100.00	89.85	181.07	7,194.96	-2,061.13	892.14	2,149.51	0.00	0.00	0.00
9,200.00	89.85	181.07	7,195.23	-2,161.12	890.28	2,248.63	0.00	0.00	0.00
9,300.00	89.85	181.07	7,195.49	-2,261.10	888.41	2,347.74	0.00	0.00	0.00
9,400.00	89.85	181.07	7,195.76	-2,361.08	886.54	2,446.86	0.00	0.00	0.00
9,500.00	89.85	181.07	7,196.02	-2,461.06	884.67	2,545.97	0.00	0.00	0.00
9,600.00	89.85	181.07	7,196.29	-2,561.05	882.80	2,645.09	0.00	0.00	0.00
9,700.00	89.85	181.07	7,196.56	-2,661.03	880.93	2,744.20	0.00	0.00	0.00
9,800.00	89.85	181.07	7,196.82	-2,761.01	879.06	2,843.32	0.00	0.00	0.00
9,900.00	89.85	181.07	7,197.09	-2,860.99	877.19	2,942.43	0.00	0.00	0.00
10,000.00	89.85	181.07	7,197.35	-2,960.97	875.32	3,041.55	0.00	0.00	0.00
10,100.00	89.85	181.07	7,197.62	-3,060.96	873.45	3,140.66	0.00	0.00	0.00
10,200.00	89.85	181.07	7,197.89	-3,160.94	871.58	3,239.78	0.00	0.00	0.00
10,300.00	89.85	181.07	7,198.15	-3,260.92	869.71	3,338.89	0.00	0.00	0.00
10,400.00	89.85	181.07	7,198.42	-3,360.90	867.84	3,438.01	0.00	0.00	0.00
10,500.00	89.85	181.07	7,198.68	-3,460.89	865.97	3,537.12	0.00	0.00	0.00
10,600.00	89.85	181.07	7,198.95	-3,560.87	864.10	3,636.24	0.00	0.00	0.00
10,700.00	89.85	181.07	7,199.21	-3,660.85	862.23	3,735.35	0.00	0.00	0.00
10,800.00	89.85	181.07	7,199.48	-3,760.83	860.36	3,834.47	0.00	0.00	0.00
10,900.00	89.85	181.07	7,199.75	-3,860.81	858.49	3,933.58	0.00	0.00	0.00
11,000.00	89.85	181.07	7,200.01	-3,960.80	856.62	4,032.70	0.00	0.00	0.00
11,100.00	89.85	181.07	7,200.28	-4,060.78	854.75	4,131.81	0.00	0.00	0.00
11,200.00	89.85	181.07	7,200.54	-4,160.76	852.88	4,230.93	0.00	0.00	0.00
11,300.00	89.85	181.07	7,200.81	-4,260.74	851.01	4,330.04	0.00	0.00	0.00
11,400.00	89.85	181.07	7,201.08	-4,360.72	849.14	4,429.16	0.00	0.00	0.00
11,500.00	89.85	181.07	7,201.34	-4,460.71	847.27	4,528.27	0.00	0.00	0.00
11,600.00	89.85	181.07	7,201.61	-4,560.69	845.41	4,627.39	0.00	0.00	0.00
11,700.00	89.85	181.07	7,201.87	-4,660.67	843.54	4,726.50	0.00	0.00	0.00
11,800.00	89.85	181.07	7,202.14	-4,760.65	841.67	4,825.62	0.00	0.00	0.00
11,900.00	89.85	181.07	7,202.40	-4,860.64	839.80	4,924.73	0.00	0.00	0.00
12,000.00	89.85	181.07	7,202.67	-4,960.62	837.93	5,023.85	0.00	0.00	0.00
12,100.00	89.85	181.07	7,202.94	-5,060.60	836.06	5,122.96	0.00	0.00	0.00
12,200.00	89.85	181.07	7,203.20	-5,160.58	834.19	5,222.08	0.00	0.00	0.00
12,300.00	89.85	181.07	7,203.47	-5,260.56	832.32	5,321.19	0.00	0.00	0.00
12,400.00	89.85	181.07	7,203.73	-5,360.55	830.45	5,420.31	0.00	0.00	0.00
12,500.00	89.85	181.07	7,204.00	-5,460.53	828.58	5,519.42	0.00	0.00	0.00
12,600.00	89.85	181.07	7,204.27	-5,560.51	826.71	5,618.54	0.00	0.00	0.00
12,700.00	89.85	181.07	7,204.53	-5,660.49	824.84	5,717.65	0.00	0.00	0.00
12,800.00	89.85	181.07	7,204.80	-5,760.47	822.97	5,816.77	0.00	0.00	0.00
12,900.00	89.85	181.07	7,205.06	-5,860.46	821.10	5,915.88	0.00	0.00	0.00
13,000.00	89.85	181.07	7,205.33	-5,960.44	819.23	6,015.00	0.00	0.00	0.00
13,100.00	89.85	181.07	7,205.59	-6,060.42	817.36	6,114.11	0.00	0.00	0.00
13,200.00	89.85	181.07	7,205.86	-6,160.40	815.49	6,213.23	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well DOVE 22N-13HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	17' RKB + GL @ 5016.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	17' RKB + GL @ 5016.00ft (Original Well Elev)
Site:	WELD_DOVE 4-12HZ PAD	North Reference:	True
Well:	DOVE 22N-13HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	DOVE 22N-13HZ		
Design:	DOVE 22N-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)
13,300.00	89.85	181.07	7,206.13	-6,260.39	813.62	6,312.34	0.00	0.00	0.00
13,400.00	89.85	181.07	7,206.39	-6,360.37	811.75	6,411.46	0.00	0.00	0.00
13,500.00	89.85	181.07	7,206.66	-6,460.35	809.88	6,510.57	0.00	0.00	0.00
13,600.00	89.85	181.07	7,206.92	-6,560.33	808.01	6,609.69	0.00	0.00	0.00
13,700.00	89.85	181.07	7,207.19	-6,660.31	806.14	6,708.80	0.00	0.00	0.00
13,800.00	89.85	181.07	7,207.45	-6,760.30	804.27	6,807.92	0.00	0.00	0.00
13,900.00	89.85	181.07	7,207.72	-6,860.28	802.40	6,907.03	0.00	0.00	0.00
14,000.00	89.85	181.07	7,207.99	-6,960.26	800.54	7,006.15	0.00	0.00	0.00
14,005.15	89.85	181.07	7,208.00	-6,965.41	800.44	7,011.25	0.00	0.00	0.00
TD at 14005.15 - DOVE 22N-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 22N-13HZ BHL	0.00	0.00	7,208.00	-6,965.41	800.44	1,294,652.55	3,215,336.18	40.139648	-104.729777
- 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	13-1/2	
7,609.94	7,191.00	7"	7	8-3/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
706.00	706.00	FOZ HILLS		0.00		
3,386.49	3,354.00	PARKMAN		0.00		
4,447.68	4,392.00	SUSSEX		0.00		
7,209.97	7,056.00	SHARON SPRINGS		0.00		
7,340.24	7,128.00	NIOBRARA A		0.00		

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well DOVE 22N-13HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	17' RKB + GL @ 5016.00ft (Original Well Elev)
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	17' RKB + GL @ 5016.00ft (Original Well Elev)
Site:	WELD_DOVE 4-12HZ PAD	North Reference:	True
Well:	DOVE 22N-13HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	DOVE 22N-13HZ		
Design:	DOVE 22N-13HZ (wp01)		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
1,500.00	1,500.00	0.00	0.00	Start Build 2.00
2,100.00	2,095.62	0.00	62.60	Start 3874.15 hold at 2100.00 MD
5,974.15	5,885.11	0.00	868.08	Start Drop -2.00
6,574.15	6,480.74	0.00	930.69	Start 137.31 hold at 6574.15 MD
6,711.46	6,618.04	0.00	930.69	Start Build 10.00
7,609.94	7,191.00	-571.34	920.00	Start 6395.21 hold at 7609.94 MD
14,005.15	7,208.00	-6,965.41	800.44	TD at 14005.15