

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_BROWN 16-35HZ Pad**

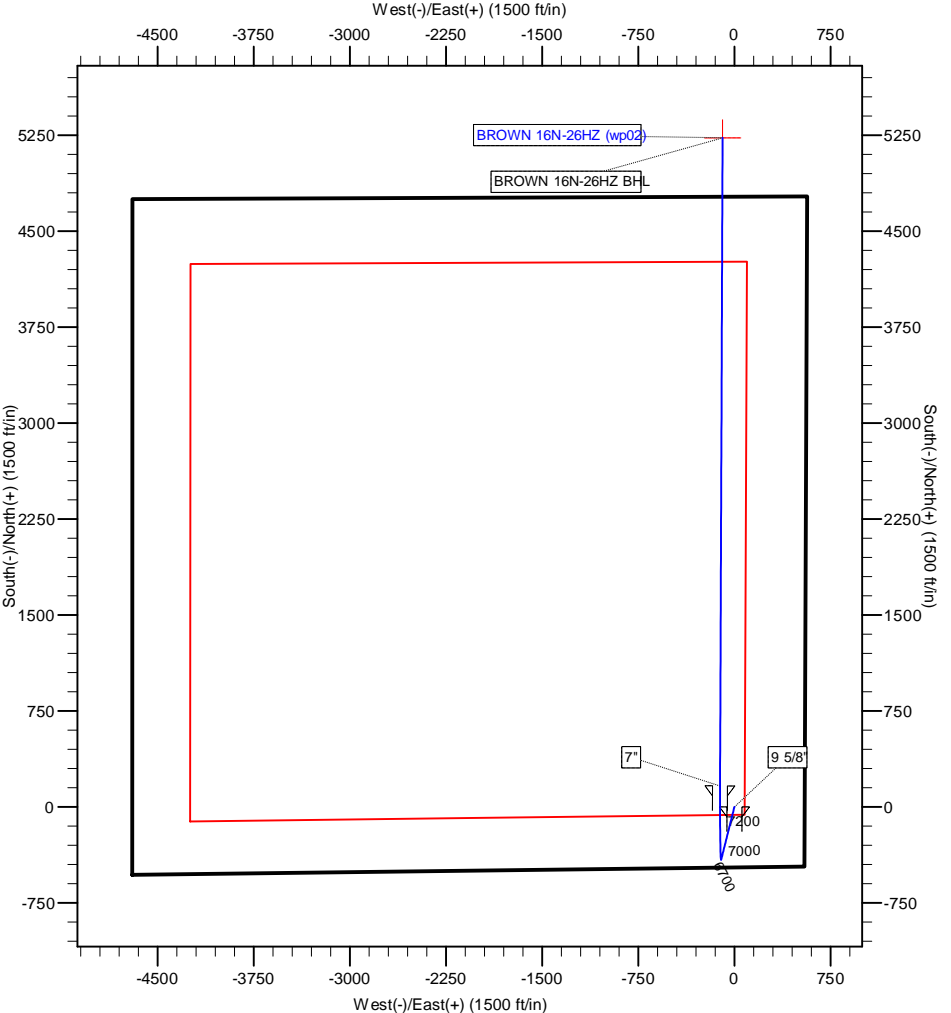
**BROWN 16N-26HZ**

**BROWN 16N-26HZ**

**Plan: BROWN 16N-26HZ (wp02)**

## **Standard Planning Report**

**04 January, 2012**



**Azimuths to True North**  
 Magnetic North: 8.76°  
 Magnetic Field Strength: 52958.4snT  
 Dip Angle: 66.86°  
 Date: 12/27/2011  
 Model: IGRF2010



**Project:** COLORADO NORTHERN ZONE - 83  
**Site:** WELD\_BROWN 16-35HZ Pad  
**Well:** BROWN 16N-26HZ  
**Wellbore:** BROWN 16N-26HZ  
**Section:**  
**SHL:**  
**Design:** BROWN 16N-26HZ (wp02)  
**Latitude:** 40.175915  
**Longitude:** -104.736958  
**GL:** 5053.00  
**KB:** GL + 17' RKB @ 5070.00ft

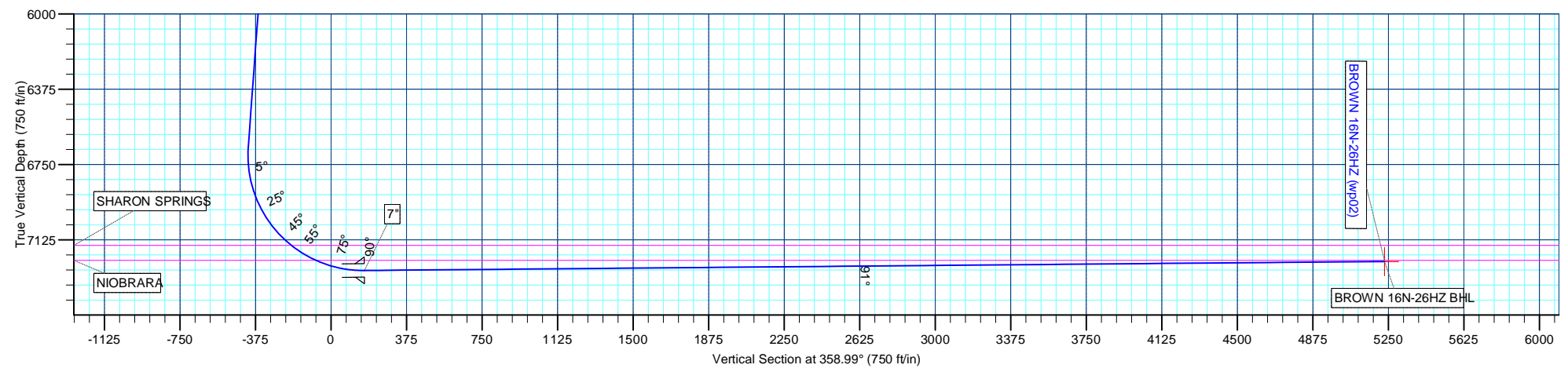
WELL DETAILS: BROWN 16N-26HZ						
+N-S	+E-W	Northing	Ground Level: Easting	5053.00 Latitude	Longitude	Slot
0.00	0.00	1307846.07	3213214.90	40.175915	-104.736958	

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	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	
1115.21	4.30	194.01	1115.01	-7.84	-1.96	2.00	194.01	-7.80	
6679.30	4.30	194.01	6663.40	-413.00	-103.08	0.00	0.00	-411.12	
7626.20	90.51	0.22	7278.00	163.57	-112.00	10.00	166.16	165.52	
7626.61	90.51	0.22	7278.00	163.99	-112.00	1.00	104.55	165.93	
12692.16	90.51	0.22	7233.00	5229.29	-92.19	0.00	0.00	5230.10	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)						
Name	TVD	+N-S	+E-W	Latitude	Longitude	Shape
BROWN 16N-26HZ BHL	7233.00	5229.29	-92.19	40.190270	-104.737288	Point

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3350.00	3356.52	PARKMAN
4538.00	4547.88	SUSSEX
7153.00	7235.32	SHARON SPRINGS
7227.00	7377.44	NIOBRARA

CASING DETAILS			
TVD	MD	Name	Size
700.00	700.00	9 5/8"	9-5/8
7278.00	7626.20	7"	7



# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well BROWN 16N-26HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL + 17' RKB @ 5070.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL + 17' RKB @ 5070.00ft
<b>Site:</b>	WELD_BROWN 16-35HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	BROWN 16N-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	BROWN 16N-26HZ		
<b>Design:</b>	BROWN 16N-26HZ (wp02)		

<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_BROWN 16-35HZ Pad				
<b>Site Position:</b>	<b>Northing:</b>	1,307,837.32 usft	<b>Latitude:</b>	40.175890	
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,213,256.34 usft	<b>Longitude:</b>	-104.736810
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b>	0.49 °

<b>Well</b>	BROWN 16N-26HZ					
<b>Well Position</b>	<b>+N/-S</b>	9.10 ft	<b>Northing:</b>	1,307,846.06 usft	<b>Latitude:</b>	40.175915
	<b>+E/-W</b>	-41.36 ft	<b>Easting:</b>	3,213,214.91 usft	<b>Longitude:</b>	-104.736958
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>		<b>Ground Level:</b>	5,053.00 ft

<b>Wellbore</b>	BROWN 16N-26HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination</b>	<b>Dip Angle</b>	<b>Field Strength</b>
	IGRF2010	12/27/2011	(°)	(°)	(nT)
			8.76	66.86	52,958

<b>Design</b>	BROWN 16N-26HZ (wp02)			
<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)</b>	<b>+N/-S</b>	<b>+E/-W</b>	<b>Direction</b>
	(ft)	(ft)	(ft)	(°)
	0.00	0.00	0.00	358.99

<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	
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,115.21	4.30	194.01	1,115.01	-7.84	-1.96	2.00	2.00	0.00	194.01	
6,679.30	4.30	194.01	6,663.40	-413.00	-103.08	0.00	0.00	0.00	0.00	
7,626.20	90.51	0.22	7,278.00	163.57	-112.00	10.00	9.10	17.55	166.16	
7,626.61	90.51	0.22	7,278.00	163.99	-112.00	1.00	-0.25	0.97	104.55	
12,692.16	90.51	0.22	7,233.00	5,229.29	-92.19	0.00	0.00	0.00	0.00	BROWN 16N-26HZ B

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well BROWN 16N-26HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL + 17' RKB @ 5070.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL + 17' RKB @ 5070.00ft
<b>Site:</b>	WELD_BROWN 16-35HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	BROWN 16N-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	BROWN 16N-26HZ		
<b>Design:</b>	BROWN 16N-26HZ (wp02)		

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	0.00
100.00	0.00	0.00	100.00	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	0.00
300.00	0.00	0.00	300.00	0.00	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	0.00
500.00	0.00	0.00	500.00	0.00	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	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>9 5/8"</b>										
800.00	0.00	0.00	800.00	0.00	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	0.00
<b>Start Build 2.00</b>										
1,000.00	2.00	194.01	999.98	-1.69	-0.42	-1.69	2.00	2.00	2.00	0.00
1,100.00	4.00	194.01	1,099.84	-6.77	-1.69	-6.74	2.00	2.00	2.00	0.00
1,115.21	4.30	194.01	1,115.01	-7.84	-1.96	-7.80	2.00	2.00	2.00	0.00
<b>Start 5564.09 hold at 1115.21 MD</b>										
1,200.00	4.30	194.01	1,199.56	-14.01	-3.50	-13.95	0.00	0.00	0.00	0.00
1,300.00	4.30	194.01	1,299.28	-21.30	-5.32	-21.20	0.00	0.00	0.00	0.00
1,400.00	4.30	194.01	1,398.99	-28.58	-7.13	-28.45	0.00	0.00	0.00	0.00
1,500.00	4.30	194.01	1,498.71	-35.86	-8.95	-35.70	0.00	0.00	0.00	0.00
1,600.00	4.30	194.01	1,598.43	-43.14	-10.77	-42.94	0.00	0.00	0.00	0.00
1,700.00	4.30	194.01	1,698.15	-50.42	-12.59	-50.19	0.00	0.00	0.00	0.00
1,800.00	4.30	194.01	1,797.87	-57.70	-14.40	-57.44	0.00	0.00	0.00	0.00
1,900.00	4.30	194.01	1,897.58	-64.99	-16.22	-64.69	0.00	0.00	0.00	0.00
2,000.00	4.30	194.01	1,997.30	-72.27	-18.04	-71.94	0.00	0.00	0.00	0.00
2,100.00	4.30	194.01	2,097.02	-79.55	-19.86	-79.19	0.00	0.00	0.00	0.00
2,200.00	4.30	194.01	2,196.74	-86.83	-21.67	-86.44	0.00	0.00	0.00	0.00
2,300.00	4.30	194.01	2,296.46	-94.11	-23.49	-93.68	0.00	0.00	0.00	0.00
2,400.00	4.30	194.01	2,396.17	-101.39	-25.31	-100.93	0.00	0.00	0.00	0.00
2,500.00	4.30	194.01	2,495.89	-108.68	-27.13	-108.18	0.00	0.00	0.00	0.00
2,600.00	4.30	194.01	2,595.61	-115.96	-28.94	-115.43	0.00	0.00	0.00	0.00
2,700.00	4.30	194.01	2,695.33	-123.24	-30.76	-122.68	0.00	0.00	0.00	0.00
2,800.00	4.30	194.01	2,795.05	-130.52	-32.58	-129.93	0.00	0.00	0.00	0.00
2,900.00	4.30	194.01	2,894.76	-137.80	-34.40	-137.18	0.00	0.00	0.00	0.00
3,000.00	4.30	194.01	2,994.48	-145.09	-36.21	-144.42	0.00	0.00	0.00	0.00
3,100.00	4.30	194.01	3,094.20	-152.37	-38.03	-151.67	0.00	0.00	0.00	0.00
3,200.00	4.30	194.01	3,193.92	-159.65	-39.85	-158.92	0.00	0.00	0.00	0.00
3,300.00	4.30	194.01	3,293.64	-166.93	-41.67	-166.17	0.00	0.00	0.00	0.00
3,356.52	4.30	194.01	3,350.00	-171.05	-42.69	-170.27	0.00	0.00	0.00	0.00
<b>PARKMAN</b>										
3,400.00	4.30	194.01	3,393.35	-174.21	-43.48	-173.42	0.00	0.00	0.00	0.00
3,500.00	4.30	194.01	3,493.07	-181.49	-45.30	-180.67	0.00	0.00	0.00	0.00
3,600.00	4.30	194.01	3,592.79	-188.78	-47.12	-187.92	0.00	0.00	0.00	0.00
3,700.00	4.30	194.01	3,692.51	-196.06	-48.94	-195.16	0.00	0.00	0.00	0.00
3,800.00	4.30	194.01	3,792.23	-203.34	-50.75	-202.41	0.00	0.00	0.00	0.00
3,900.00	4.30	194.01	3,891.94	-210.62	-52.57	-209.66	0.00	0.00	0.00	0.00
4,000.00	4.30	194.01	3,991.66	-217.90	-54.39	-216.91	0.00	0.00	0.00	0.00
4,100.00	4.30	194.01	4,091.38	-225.18	-56.21	-224.16	0.00	0.00	0.00	0.00
4,200.00	4.30	194.01	4,191.10	-232.47	-58.02	-231.41	0.00	0.00	0.00	0.00
4,300.00	4.30	194.01	4,290.82	-239.75	-59.84	-238.66	0.00	0.00	0.00	0.00
4,400.00	4.30	194.01	4,390.53	-247.03	-61.66	-245.90	0.00	0.00	0.00	0.00
4,500.00	4.30	194.01	4,490.25	-254.31	-63.48	-253.15	0.00	0.00	0.00	0.00
4,547.88	4.30	194.01	4,538.00	-257.80	-64.35	-256.62	0.00	0.00	0.00	0.00
<b>SUSSEX</b>										

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well BROWN 16N-26HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL + 17' RKB @ 5070.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL + 17' RKB @ 5070.00ft
<b>Site:</b>	WELD_BROWN 16-35HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	BROWN 16N-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	BROWN 16N-26HZ		
<b>Design:</b>	BROWN 16N-26HZ (wp02)		

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)
4,600.00	4.30	194.01	4,589.97	-261.59	-65.29	-260.40	0.00	0.00	0.00
4,700.00	4.30	194.01	4,689.69	-268.87	-67.11	-267.65	0.00	0.00	0.00
4,800.00	4.30	194.01	4,789.41	-276.16	-68.93	-274.90	0.00	0.00	0.00
4,900.00	4.30	194.01	4,889.12	-283.44	-70.75	-282.15	0.00	0.00	0.00
5,000.00	4.30	194.01	4,988.84	-290.72	-72.56	-289.40	0.00	0.00	0.00
5,100.00	4.30	194.01	5,088.56	-298.00	-74.38	-296.64	0.00	0.00	0.00
5,200.00	4.30	194.01	5,188.28	-305.28	-76.20	-303.89	0.00	0.00	0.00
5,300.00	4.30	194.01	5,288.00	-312.57	-78.02	-311.14	0.00	0.00	0.00
5,400.00	4.30	194.01	5,387.71	-319.85	-79.83	-318.39	0.00	0.00	0.00
5,500.00	4.30	194.01	5,487.43	-327.13	-81.65	-325.64	0.00	0.00	0.00
5,600.00	4.30	194.01	5,587.15	-334.41	-83.47	-332.89	0.00	0.00	0.00
5,700.00	4.30	194.01	5,686.87	-341.69	-85.29	-340.14	0.00	0.00	0.00
5,800.00	4.30	194.01	5,786.59	-348.97	-87.10	-347.38	0.00	0.00	0.00
5,900.00	4.30	194.01	5,886.30	-356.26	-88.92	-354.63	0.00	0.00	0.00
6,000.00	4.30	194.01	5,986.02	-363.54	-90.74	-361.88	0.00	0.00	0.00
6,100.00	4.30	194.01	6,085.74	-370.82	-92.56	-369.13	0.00	0.00	0.00
6,200.00	4.30	194.01	6,185.46	-378.10	-94.37	-376.38	0.00	0.00	0.00
6,300.00	4.30	194.01	6,285.17	-385.38	-96.19	-383.63	0.00	0.00	0.00
6,400.00	4.30	194.01	6,384.89	-392.66	-98.01	-390.88	0.00	0.00	0.00
6,500.00	4.30	194.01	6,484.61	-399.95	-99.83	-398.13	0.00	0.00	0.00
6,600.00	4.30	194.01	6,584.33	-407.23	-101.64	-405.37	0.00	0.00	0.00
6,679.30	4.30	194.01	6,663.40	-413.00	-103.08	-411.12	0.00	0.00	0.00
<b>Start DLS 10.00 TFO 166.16</b>									
6,700.00	2.35	206.20	6,684.07	-414.14	-103.46	-412.25	10.00	-9.45	58.85
6,800.00	7.96	352.83	6,783.80	-409.09	-105.23	-407.18	10.00	5.61	146.63
6,900.00	17.92	357.03	6,881.14	-386.81	-106.90	-384.86	10.00	9.96	4.20
7,000.00	27.91	358.27	6,973.13	-347.95	-108.41	-345.99	10.00	9.99	1.24
7,100.00	37.90	358.89	7,056.98	-293.71	-109.71	-291.73	10.00	9.99	0.62
7,200.00	47.90	359.28	7,130.15	-225.74	-110.78	-223.75	10.00	10.00	0.39
7,235.32	51.43	359.39	7,153.00	-198.82	-111.09	-196.83	10.00	10.00	0.31
<b>SHARON SPRINGS</b>									
7,300.00	57.90	359.57	7,190.39	-146.09	-111.57	-144.10	10.00	10.00	0.27
7,377.44	65.64	359.74	7,227.00	-77.91	-111.97	-75.92	10.00	10.00	0.23
<b>NIOBRARA</b>									
7,400.00	67.89	359.79	7,235.90	-57.18	-112.06	-55.20	10.00	10.00	0.21
7,455.01	73.39	359.90	7,254.12	-5.30	-112.19	-3.32	10.00	10.00	0.20
<b>BROWN 16N-26HZ heel</b>									
7,500.00	77.89	359.99	7,265.28	38.27	-112.23	40.24	10.00	10.00	0.19
7,600.00	87.89	0.17	7,277.63	137.38	-112.09	139.33	10.00	10.00	0.18
7,626.20	90.51	0.22	7,278.00	163.57	-112.00	165.52	10.00	10.00	0.18
<b>7"</b>									
7,626.61	90.51	0.22	7,278.00	163.99	-112.00	165.93	1.01	-0.25	0.97
<b>Start 5065.54 hold at 7626.61 MD</b>									
7,700.00	90.51	0.22	7,277.34	237.37	-111.71	239.30	0.00	0.00	0.00
7,800.00	90.51	0.22	7,276.46	337.36	-111.32	339.27	0.00	0.00	0.00
7,900.00	90.51	0.22	7,275.57	437.36	-110.93	439.25	0.00	0.00	0.00
8,000.00	90.51	0.22	7,274.68	537.35	-110.54	539.22	0.00	0.00	0.00
8,100.00	90.51	0.22	7,273.79	637.35	-110.15	639.19	0.00	0.00	0.00
8,200.00	90.51	0.22	7,272.90	737.35	-109.76	739.17	0.00	0.00	0.00
8,300.00	90.51	0.22	7,272.01	837.34	-109.37	839.14	0.00	0.00	0.00
8,400.00	90.51	0.22	7,271.13	937.34	-108.97	939.11	0.00	0.00	0.00
8,500.00	90.51	0.22	7,270.24	1,037.33	-108.58	1,039.08	0.00	0.00	0.00
8,600.00	90.51	0.22	7,269.35	1,137.33	-108.19	1,139.06	0.00	0.00	0.00

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well BROWN 16N-26HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL + 17' RKB @ 5070.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL + 17' RKB @ 5070.00ft
<b>Site:</b>	WELD_BROWN 16-35HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	BROWN 16N-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	BROWN 16N-26HZ		
<b>Design:</b>	BROWN 16N-26HZ (wp02)		

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)	
8,700.00	90.51	0.22	7,268.46	1,237.32	-107.80	1,239.03	0.00	0.00	0.00	
8,800.00	90.51	0.22	7,267.57	1,337.32	-107.41	1,339.00	0.00	0.00	0.00	
8,900.00	90.51	0.22	7,266.69	1,437.31	-107.02	1,438.98	0.00	0.00	0.00	
9,000.00	90.51	0.22	7,265.80	1,537.31	-106.63	1,538.95	0.00	0.00	0.00	
9,100.00	90.51	0.22	7,264.91	1,637.30	-106.24	1,638.92	0.00	0.00	0.00	
9,200.00	90.51	0.22	7,264.02	1,737.30	-105.85	1,738.89	0.00	0.00	0.00	
9,300.00	90.51	0.22	7,263.13	1,837.29	-105.46	1,838.87	0.00	0.00	0.00	
9,400.00	90.51	0.22	7,262.24	1,937.29	-105.06	1,938.84	0.00	0.00	0.00	
9,500.00	90.51	0.22	7,261.36	2,037.28	-104.67	2,038.81	0.00	0.00	0.00	
9,600.00	90.51	0.22	7,260.47	2,137.28	-104.28	2,138.79	0.00	0.00	0.00	
9,700.00	90.51	0.22	7,259.58	2,237.27	-103.89	2,238.76	0.00	0.00	0.00	
9,800.00	90.51	0.22	7,258.69	2,337.27	-103.50	2,338.73	0.00	0.00	0.00	
9,900.00	90.51	0.22	7,257.80	2,437.27	-103.11	2,438.70	0.00	0.00	0.00	
10,000.00	90.51	0.22	7,256.91	2,537.26	-102.72	2,538.68	0.00	0.00	0.00	
10,100.00	90.51	0.22	7,256.03	2,637.26	-102.33	2,638.65	0.00	0.00	0.00	
10,200.00	90.51	0.22	7,255.14	2,737.25	-101.94	2,738.62	0.00	0.00	0.00	
10,300.00	90.51	0.22	7,254.25	2,837.25	-101.55	2,838.60	0.00	0.00	0.00	
10,400.00	90.51	0.22	7,253.36	2,937.24	-101.15	2,938.57	0.00	0.00	0.00	
10,500.00	90.51	0.22	7,252.47	3,037.24	-100.76	3,038.54	0.00	0.00	0.00	
10,600.00	90.51	0.22	7,251.58	3,137.23	-100.37	3,138.51	0.00	0.00	0.00	
10,700.00	90.51	0.22	7,250.70	3,237.23	-99.98	3,238.49	0.00	0.00	0.00	
10,800.00	90.51	0.22	7,249.81	3,337.22	-99.59	3,338.46	0.00	0.00	0.00	
10,900.00	90.51	0.22	7,248.92	3,437.22	-99.20	3,438.43	0.00	0.00	0.00	
11,000.00	90.51	0.22	7,248.03	3,537.21	-98.81	3,538.41	0.00	0.00	0.00	
11,100.00	90.51	0.22	7,247.14	3,637.21	-98.42	3,638.38	0.00	0.00	0.00	
11,200.00	90.51	0.22	7,246.25	3,737.20	-98.03	3,738.35	0.00	0.00	0.00	
11,300.00	90.51	0.22	7,245.37	3,837.20	-97.64	3,838.32	0.00	0.00	0.00	
11,400.00	90.51	0.22	7,244.48	3,937.19	-97.25	3,938.30	0.00	0.00	0.00	
11,500.00	90.51	0.22	7,243.59	4,037.19	-96.85	4,038.27	0.00	0.00	0.00	
11,600.00	90.51	0.22	7,242.70	4,137.19	-96.46	4,138.24	0.00	0.00	0.00	
11,700.00	90.51	0.22	7,241.81	4,237.18	-96.07	4,238.22	0.00	0.00	0.00	
11,800.00	90.51	0.22	7,240.93	4,337.18	-95.68	4,338.19	0.00	0.00	0.00	
11,900.00	90.51	0.22	7,240.04	4,437.17	-95.29	4,438.16	0.00	0.00	0.00	
12,000.00	90.51	0.22	7,239.15	4,537.17	-94.90	4,538.13	0.00	0.00	0.00	
12,100.00	90.51	0.22	7,238.26	4,637.16	-94.51	4,638.11	0.00	0.00	0.00	
12,200.00	90.51	0.22	7,237.37	4,737.16	-94.12	4,738.08	0.00	0.00	0.00	
12,300.00	90.51	0.22	7,236.48	4,837.15	-93.73	4,838.05	0.00	0.00	0.00	
12,400.00	90.51	0.22	7,235.60	4,937.15	-93.34	4,938.03	0.00	0.00	0.00	
12,500.00	90.51	0.22	7,234.71	5,037.14	-92.94	5,038.00	0.00	0.00	0.00	
12,600.00	90.51	0.22	7,233.82	5,137.14	-92.55	5,137.97	0.00	0.00	0.00	
12,692.16	90.51	0.22	7,233.00	5,229.29	-92.19	5,230.10	0.00	0.00	0.00	
<b>TD at 12692.16 - BROWN 16N-26HZ BHL</b>										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
BROWN 16N-26HZ BHL	0.00	0.00	7,233.00	5,229.29	-92.19	1,313,074.36	3,213,077.72	40.190270	-104.737288	
- hit/miss target										
- Shape										
- plan hits target center										
- Point										

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well BROWN 16N-26HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	GL + 17' RKB @ 5070.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	GL + 17' RKB @ 5070.00ft
<b>Site:</b>	WELD_BROWN 16-35HZ Pad	<b>North Reference:</b>	True
<b>Well:</b>	BROWN 16N-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	BROWN 16N-26HZ		
<b>Design:</b>	BROWN 16N-26HZ (wp02)		

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	
7,626.20	7,278.00	7"		7	8-3/4	

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,356.52	3,350.00	PARKMAN		0.00		
4,547.88	4,538.00	SUSSEX		0.00		
7,235.32	7,153.00	SHARON SPRINGS		0.00		
7,377.44	7,227.00	NIOBRARA		0.00		

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
900.00	900.00	0.00	0.00	Start Build 2.00	
1,115.21	1,115.01	-7.84	-1.96	Start 5564.09 hold at 1115.21 MD	
6,679.30	6,663.40	-413.00	-103.08	Start DLS 10.00 TFO 166.16	
7,626.61	7,278.00	163.99	-112.00	Start 5065.54 hold at 7626.61 MD	
12,692.16	7,233.00	5,229.29	-92.19	TD at 12692.16	