

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_BROWN 5 PAD

BROWN 13N-26HZ

BROWN 13N-26HZ

Plan: BROWN 13N-26HZ (wp02)

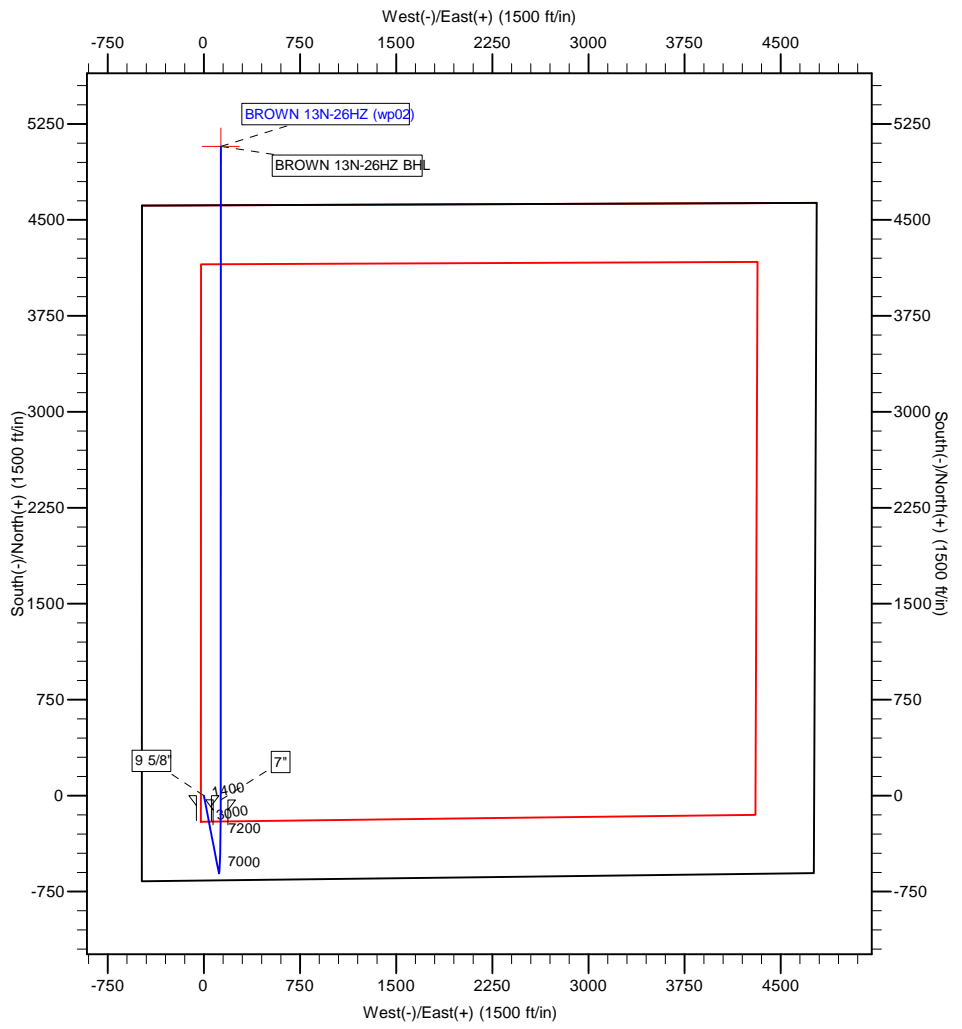
Standard Planning Report

16 December, 2011

Azimuths to True North
 Magnetic North: 8.78°
 Magnetic Field
 Strength: 52971.3snT
 Dip Angle: 66.86°
 Date: 11/8/2011
 Model: IGRF2010



Project: COLORADO NORTHERN ZONE - 83
Site: WELD_BROWN 5 PAD
Well: BROWN 13N-26HZ
Wellbore: BROWN 13N-26HZ
Section:
SHL:
Design: BROWN 13N-26HZ (wp02)
Latitude: 40.176294
Longitude: -104.752037
GL: 5020.00
KB: GL + 25' RKB @ 5045.00ft



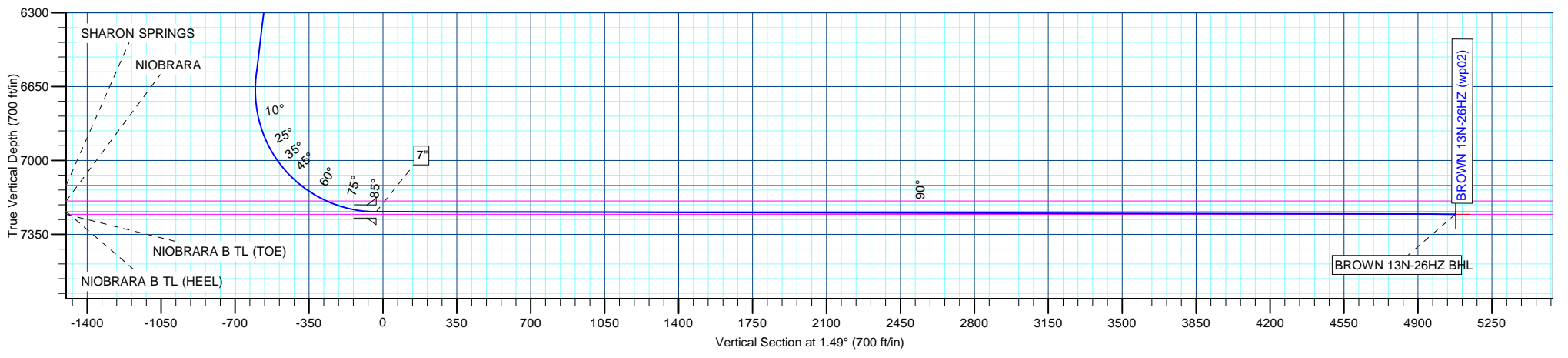
WELL DETAILS: BROWN 13N-26HZ						
+N-S	+E-W	Northing	Ground Level: Easting	5020.00	Latitude	Slot
0.00	0.00	1307948.22	3209000.35	40.176294	-104.752037	

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	
1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00	
1641.57	6.83	169.08	1640.77	-19.97	3.85	2.00	169.08	-19.86	
6639.58	6.83	169.08	6603.29	-603.72	116.45	0.00	0.00	-600.50	
7605.34	89.87	0.01	7243.00	-36.00	131.00	10.00	-169.00	-32.59	
7605.64	89.87	0.01	7243.00	-35.70	131.00	1.00	177.21	-32.29	
12716.55	89.87	0.01	7255.00	5075.20	131.58	0.00	0.00	5076.90	

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)							
Name	TVD	+N-S	+E-W	Latitude	Longitude	Shape	Point
BROWN 13N-26HZ BHL	7255.00	5075.20	131.58	40.190226	-104.751566		

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
3315.00	3327.78	PARKMAN
4503.00	4524.27	SUSSEX
7118.00	7220.89	SHARON SPRINGS
7192.00	7363.04	NIOBRARA
7243.00	7605.34	NIOBRARA B TL (HEEL)
7255.00	12716.55	NIOBRARA B TL (TOE)

CASING DETAILS			
TVD	MD	Name	Size
700.00	700.00	9 5/8"	9-5/8
7243.00	7606.34	7"	7



Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well BROWN 13N-26HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + 25' RKB @ 5045.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + 25' RKB @ 5045.00ft
Site:	WELD_BROWN 5 PAD	North Reference:	True
Well:	BROWN 13N-26HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	BROWN 13N-26HZ		
Design:	BROWN 13N-26HZ (wp02)		

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_BROWN 5 PAD					
Site Position:		Northing:	1,307,923.32 usft	Latitude:	40.176226
From:	Lat/Long	Easting:	3,208,983.52 usft	Longitude:	-104.752098
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.48 °

Well BROWN 13N-26HZ						
Well Position	+N/-S	24.76 ft	Northing:	1,307,948.22 usft	Latitude:	40.176294
	+E/-W	17.05 ft	Easting:	3,209,000.36 usft	Longitude:	-104.752037
Position Uncertainty		0.00 ft	Wellhead Elevation:		Ground Level:	5,020.00 ft

Wellbore BROWN 13N-26HZ					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/8/2011	8.78	66.86	52,971

Design BROWN 13N-26HZ (wp02)				
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	8.00	0.00	0.00	1.49

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	
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,641.57	6.83	169.08	1,640.77	-19.97	3.85	2.00	2.00	0.00	169.08	
6,639.58	6.83	169.08	6,603.29	-603.72	116.45	0.00	0.00	0.00	0.00	
7,605.34	89.87	0.01	7,243.00	-36.00	131.00	10.00	8.60	-17.51	-169.00	
7,605.64	89.87	0.01	7,243.00	-35.70	131.00	1.00	-1.00	0.05	177.21	
12,716.55	89.87	0.01	7,255.00	5,075.20	131.58	0.00	0.00	0.00	0.00	BROWN 13N-26HZ B

Anadarko Petroleum Corp

Planning Report

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Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + 25' RKB @ 5045.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + 25' RKB @ 5045.00ft
Site:	WELD_BROWN 5 PAD	North Reference:	True
Well:	BROWN 13N-26HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	BROWN 13N-26HZ		
Design:	BROWN 13N-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	
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	
Start Build 2.00										
1,400.00	2.00	169.08	1,399.98	-1.71	0.33	-1.70	2.00	2.00	0.00	
1,500.00	4.00	169.08	1,499.84	-6.85	1.32	-6.82	2.00	2.00	0.00	
1,600.00	6.00	169.08	1,599.45	-15.41	2.97	-15.33	2.00	2.00	0.00	
1,641.57	6.83	169.08	1,640.77	-19.97	3.85	-19.86	2.00	2.00	0.00	
Start 4998.01 hold at 1641.57 MD										
1,700.00	6.83	169.08	1,698.78	-26.79	5.17	-26.65	0.00	0.00	0.00	
1,800.00	6.83	169.08	1,798.07	-38.47	7.42	-38.27	0.00	0.00	0.00	
1,900.00	6.83	169.08	1,897.36	-50.15	9.67	-49.89	0.00	0.00	0.00	
2,000.00	6.83	169.08	1,996.65	-61.83	11.93	-61.50	0.00	0.00	0.00	
2,100.00	6.83	169.08	2,095.94	-73.51	14.18	-73.12	0.00	0.00	0.00	
2,200.00	6.83	169.08	2,195.23	-85.19	16.43	-84.74	0.00	0.00	0.00	
2,300.00	6.83	169.08	2,294.52	-96.87	18.69	-96.36	0.00	0.00	0.00	
2,400.00	6.83	169.08	2,393.81	-108.55	20.94	-107.97	0.00	0.00	0.00	
2,500.00	6.83	169.08	2,493.10	-120.23	23.19	-119.59	0.00	0.00	0.00	
2,600.00	6.83	169.08	2,592.39	-131.91	25.44	-131.21	0.00	0.00	0.00	
2,700.00	6.83	169.08	2,691.68	-143.59	27.70	-142.83	0.00	0.00	0.00	
2,800.00	6.83	169.08	2,790.97	-155.27	29.95	-154.44	0.00	0.00	0.00	
2,900.00	6.83	169.08	2,890.26	-166.95	32.20	-166.06	0.00	0.00	0.00	
3,000.00	6.83	169.08	2,989.55	-178.63	34.45	-177.68	0.00	0.00	0.00	
3,100.00	6.83	169.08	3,088.84	-190.31	36.71	-189.29	0.00	0.00	0.00	
3,200.00	6.83	169.08	3,188.13	-201.99	38.96	-200.91	0.00	0.00	0.00	
3,300.00	6.83	169.08	3,287.42	-213.67	41.21	-212.53	0.00	0.00	0.00	
3,327.78	6.83	169.08	3,315.00	-216.91	41.84	-215.76	0.00	0.00	0.00	
PARKMAN										
3,400.00	6.83	169.08	3,386.71	-225.35	43.47	-224.15	0.00	0.00	0.00	
3,500.00	6.83	169.08	3,486.00	-237.03	45.72	-235.76	0.00	0.00	0.00	
3,600.00	6.83	169.08	3,585.29	-248.71	47.97	-247.38	0.00	0.00	0.00	
3,700.00	6.83	169.08	3,684.58	-260.39	50.22	-259.00	0.00	0.00	0.00	
3,800.00	6.83	169.08	3,783.87	-272.07	52.48	-270.62	0.00	0.00	0.00	
3,900.00	6.83	169.08	3,883.16	-283.75	54.73	-282.23	0.00	0.00	0.00	
4,000.00	6.83	169.08	3,982.45	-295.43	56.98	-293.85	0.00	0.00	0.00	
4,100.00	6.83	169.08	4,081.74	-307.11	59.24	-305.47	0.00	0.00	0.00	
4,200.00	6.83	169.08	4,181.03	-318.79	61.49	-317.09	0.00	0.00	0.00	
4,300.00	6.83	169.08	4,280.32	-330.47	63.74	-328.70	0.00	0.00	0.00	
4,400.00	6.83	169.08	4,379.61	-342.15	65.99	-340.32	0.00	0.00	0.00	
4,500.00	6.83	169.08	4,478.90	-353.83	68.25	-351.94	0.00	0.00	0.00	
4,524.28	6.83	169.08	4,503.00	-356.66	68.79	-354.76	0.00	0.00	0.00	
SUSSEX										

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well BROWN 13N-26HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + 25' RKB @ 5045.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + 25' RKB @ 5045.00ft
Site:	WELD_BROWN 5 PAD	North Reference:	True
Well:	BROWN 13N-26HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	BROWN 13N-26HZ		
Design:	BROWN 13N-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	6.83	169.08	4,578.19	-365.51	70.50	-363.56	0.00	0.00	0.00
4,700.00	6.83	169.08	4,677.48	-377.18	72.75	-375.17	0.00	0.00	0.00
4,800.00	6.83	169.08	4,776.77	-388.86	75.01	-386.79	0.00	0.00	0.00
4,900.00	6.83	169.08	4,876.06	-400.54	77.26	-398.41	0.00	0.00	0.00
5,000.00	6.83	169.08	4,975.35	-412.22	79.51	-410.02	0.00	0.00	0.00
5,100.00	6.83	169.08	5,074.64	-423.90	81.76	-421.64	0.00	0.00	0.00
5,200.00	6.83	169.08	5,173.93	-435.58	84.02	-433.26	0.00	0.00	0.00
5,300.00	6.83	169.08	5,273.22	-447.26	86.27	-444.88	0.00	0.00	0.00
5,400.00	6.83	169.08	5,372.51	-458.94	88.52	-456.49	0.00	0.00	0.00
5,500.00	6.83	169.08	5,471.80	-470.62	90.77	-468.11	0.00	0.00	0.00
5,600.00	6.83	169.08	5,571.09	-482.30	93.03	-479.73	0.00	0.00	0.00
5,700.00	6.83	169.08	5,670.38	-493.98	95.28	-491.35	0.00	0.00	0.00
5,800.00	6.83	169.08	5,769.67	-505.66	97.53	-502.96	0.00	0.00	0.00
5,900.00	6.83	169.08	5,868.96	-517.34	99.79	-514.58	0.00	0.00	0.00
6,000.00	6.83	169.08	5,968.25	-529.02	102.04	-526.20	0.00	0.00	0.00
6,100.00	6.83	169.08	6,067.54	-540.70	104.29	-537.82	0.00	0.00	0.00
6,200.00	6.83	169.08	6,166.83	-552.38	106.54	-549.43	0.00	0.00	0.00
6,300.00	6.83	169.08	6,266.12	-564.06	108.80	-561.05	0.00	0.00	0.00
6,400.00	6.83	169.08	6,365.41	-575.74	111.05	-572.67	0.00	0.00	0.00
6,500.00	6.83	169.08	6,464.70	-587.42	113.30	-584.28	0.00	0.00	0.00
6,600.00	6.83	169.08	6,563.99	-599.10	115.56	-595.90	0.00	0.00	0.00
6,639.58	6.83	169.08	6,603.29	-603.72	116.45	-600.50	0.00	0.00	0.00
Start DLS 10.00 TFO -169.00									
6,700.00	1.46	117.11	6,663.54	-607.60	117.81	-604.35	10.00	-8.89	-86.03
6,800.00	9.42	7.86	6,763.10	-600.06	120.07	-596.74	10.00	7.96	-109.24
6,900.00	19.38	3.70	6,859.84	-575.33	122.27	-571.97	10.00	9.95	-4.16
7,000.00	29.36	2.32	6,950.82	-534.17	124.34	-530.77	10.00	9.98	-1.39
7,100.00	39.35	1.59	7,033.27	-477.84	126.21	-474.41	10.00	9.99	-0.73
7,200.00	49.35	1.12	7,104.68	-408.05	127.84	-404.60	10.00	9.99	-0.47
7,220.89	51.44	1.04	7,118.00	-391.96	128.14	-388.51	10.00	10.00	-0.38
SHARON SPRINGS									
7,300.00	59.34	0.77	7,162.90	-326.91	129.16	-323.45	10.00	10.00	-0.34
7,363.04	65.65	0.59	7,192.00	-271.02	129.83	-267.57	10.00	10.00	-0.29
NIOBRARA									
7,400.00	69.34	0.49	7,206.15	-236.89	130.15	-233.44	10.00	10.00	-0.27
7,500.00	79.34	0.25	7,233.11	-140.72	130.77	-137.29	10.00	10.00	-0.25
7,600.00	89.33	0.02	7,242.96	-41.34	131.00	-37.93	10.00	10.00	-0.23
7,605.34	89.87	0.01	7,243.00	-36.00	131.00	-32.59	10.00	10.00	-0.23
NIOBRARA B TL (HEEL)									
7,605.64	89.87	0.01	7,243.00	-35.70	131.00	-32.29	1.00	-1.00	0.05
Start 5110.91 hold at 7605.64 MD									
7,606.34	89.87	0.01	7,243.00	-35.00	131.00	-31.59	0.00	0.00	0.00
7"									
7,700.00	89.87	0.01	7,243.22	58.66	131.01	62.04	0.00	0.00	0.00
7,800.00	89.87	0.01	7,243.46	158.66	131.02	162.00	0.00	0.00	0.00
7,900.00	89.87	0.01	7,243.69	258.66	131.03	261.97	0.00	0.00	0.00
8,000.00	89.87	0.01	7,243.93	358.66	131.05	361.94	0.00	0.00	0.00
8,100.00	89.87	0.01	7,244.16	458.66	131.06	461.90	0.00	0.00	0.00
8,200.00	89.87	0.01	7,244.40	558.66	131.07	561.87	0.00	0.00	0.00
8,300.00	89.87	0.01	7,244.63	658.66	131.08	661.83	0.00	0.00	0.00
8,400.00	89.87	0.01	7,244.87	758.66	131.09	761.80	0.00	0.00	0.00
8,500.00	89.87	0.01	7,245.10	858.66	131.10	861.77	0.00	0.00	0.00
8,600.00	89.87	0.01	7,245.34	958.66	131.11	961.73	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

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Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + 25' RKB @ 5045.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + 25' RKB @ 5045.00ft
Site:	WELD_BROWN 5 PAD	North Reference:	True
Well:	BROWN 13N-26HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	BROWN 13N-26HZ		
Design:	BROWN 13N-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	89.87	0.01	7,245.57	1,058.66	131.13	1,061.70	0.00	0.00	0.00	
8,800.00	89.87	0.01	7,245.80	1,158.66	131.14	1,161.67	0.00	0.00	0.00	
8,900.00	89.87	0.01	7,246.04	1,258.66	131.15	1,261.63	0.00	0.00	0.00	
9,000.00	89.87	0.01	7,246.27	1,358.66	131.16	1,361.60	0.00	0.00	0.00	
9,100.00	89.87	0.01	7,246.51	1,458.66	131.17	1,461.57	0.00	0.00	0.00	
9,200.00	89.87	0.01	7,246.74	1,558.66	131.18	1,561.53	0.00	0.00	0.00	
9,300.00	89.87	0.01	7,246.98	1,658.66	131.19	1,661.50	0.00	0.00	0.00	
9,400.00	89.87	0.01	7,247.21	1,758.66	131.21	1,761.47	0.00	0.00	0.00	
9,500.00	89.87	0.01	7,247.45	1,858.66	131.22	1,861.43	0.00	0.00	0.00	
9,600.00	89.87	0.01	7,247.68	1,958.65	131.23	1,961.40	0.00	0.00	0.00	
9,700.00	89.87	0.01	7,247.92	2,058.65	131.24	2,061.36	0.00	0.00	0.00	
9,800.00	89.87	0.01	7,248.15	2,158.65	131.25	2,161.33	0.00	0.00	0.00	
9,900.00	89.87	0.01	7,248.39	2,258.65	131.26	2,261.30	0.00	0.00	0.00	
10,000.00	89.87	0.01	7,248.62	2,358.65	131.27	2,361.26	0.00	0.00	0.00	
10,100.00	89.87	0.01	7,248.86	2,458.65	131.29	2,461.23	0.00	0.00	0.00	
10,200.00	89.87	0.01	7,249.09	2,558.65	131.30	2,561.20	0.00	0.00	0.00	
10,300.00	89.87	0.01	7,249.33	2,658.65	131.31	2,661.16	0.00	0.00	0.00	
10,400.00	89.87	0.01	7,249.56	2,758.65	131.32	2,761.13	0.00	0.00	0.00	
10,500.00	89.87	0.01	7,249.80	2,858.65	131.33	2,861.10	0.00	0.00	0.00	
10,600.00	89.87	0.01	7,250.03	2,958.65	131.34	2,961.06	0.00	0.00	0.00	
10,700.00	89.87	0.01	7,250.27	3,058.65	131.35	3,061.03	0.00	0.00	0.00	
10,800.00	89.87	0.01	7,250.50	3,158.65	131.37	3,161.00	0.00	0.00	0.00	
10,900.00	89.87	0.01	7,250.74	3,258.65	131.38	3,260.96	0.00	0.00	0.00	
11,000.00	89.87	0.01	7,250.97	3,358.65	131.39	3,360.93	0.00	0.00	0.00	
11,100.00	89.87	0.01	7,251.20	3,458.65	131.40	3,460.89	0.00	0.00	0.00	
11,200.00	89.87	0.01	7,251.44	3,558.65	131.41	3,560.86	0.00	0.00	0.00	
11,300.00	89.87	0.01	7,251.67	3,658.65	131.42	3,660.83	0.00	0.00	0.00	
11,400.00	89.87	0.01	7,251.91	3,758.65	131.43	3,760.79	0.00	0.00	0.00	
11,500.00	89.87	0.01	7,252.14	3,858.65	131.45	3,860.76	0.00	0.00	0.00	
11,600.00	89.87	0.01	7,252.38	3,958.65	131.46	3,960.73	0.00	0.00	0.00	
11,700.00	89.87	0.01	7,252.61	4,058.65	131.47	4,060.69	0.00	0.00	0.00	
11,800.00	89.87	0.01	7,252.85	4,158.65	131.48	4,160.66	0.00	0.00	0.00	
11,900.00	89.87	0.01	7,253.08	4,258.65	131.49	4,260.63	0.00	0.00	0.00	
12,000.00	89.87	0.01	7,253.32	4,358.65	131.50	4,360.59	0.00	0.00	0.00	
12,100.00	89.87	0.01	7,253.55	4,458.65	131.51	4,460.56	0.00	0.00	0.00	
12,200.00	89.87	0.01	7,253.79	4,558.65	131.53	4,560.53	0.00	0.00	0.00	
12,300.00	89.87	0.01	7,254.02	4,658.65	131.54	4,660.49	0.00	0.00	0.00	
12,400.00	89.87	0.01	7,254.26	4,758.65	131.55	4,760.46	0.00	0.00	0.00	
12,500.00	89.87	0.01	7,254.49	4,858.65	131.56	4,860.42	0.00	0.00	0.00	
12,600.00	89.87	0.01	7,254.73	4,958.65	131.57	4,960.39	0.00	0.00	0.00	
12,700.00	89.87	0.01	7,254.96	5,058.65	131.58	5,060.36	0.00	0.00	0.00	
12,716.55	89.87	0.01	7,255.00	5,075.20	131.58	5,076.90	0.00	0.00	0.00	
TD at 12716.55 - NIOBRARA B TL (TOE) - BROWN 13N-26HZ BHL										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
BROWN 13N-26HZ BHL	0.00	0.00	7,255.00	5,075.20	131.58	1,313,024.34	3,209,089.13	40.190226	-104.751566	
- hit/miss target										
- Shape										
- plan hits target center										
- Point										

Anadarko Petroleum Corp

Planning Report

Database:	edmp	Local Co-ordinate Reference:	Well BROWN 13N-26HZ
Company:	US ROCKIES REGION PLANNING	TVD Reference:	GL + 25' RKB @ 5045.00ft
Project:	COLORADO NORTHERN ZONE - 83	MD Reference:	GL + 25' RKB @ 5045.00ft
Site:	WELD_BROWN 5 PAD	North Reference:	True
Well:	BROWN 13N-26HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	BROWN 13N-26HZ		
Design:	BROWN 13N-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	
7,606.34	7,243.00	7"	7	8-3/4	

Formations					
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,327.78	3,315.00	PARKMAN		0.00	
4,524.28	4,503.00	SUSSEX		0.00	
7,220.89	7,118.00	SHARON SPRINGS		0.00	
7,363.04	7,192.00	NIOBRARA		0.00	
7,605.34	7,243.00	NIOBRARA B TL (HEEL)		0.00	
12,716.55	7,255.00	NIOBRARA B TL (TOE)		0.00	

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
1,300.00	1,300.00	0.00	0.00	Start Build 2.00	
1,641.57	1,640.77	-19.97	3.85	Start 4998.01 hold at 1641.57 MD	
6,639.58	6,603.29	-603.72	116.45	Start DLS 10.00 TFO -169.00	
7,605.64	7,243.00	-35.70	131.00	Start 5110.91 hold at 7605.64 MD	
12,716.55	7,255.00	5,075.20	131.58	TD at 12716.55	