

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_USA FED 15-26HZ PAD**

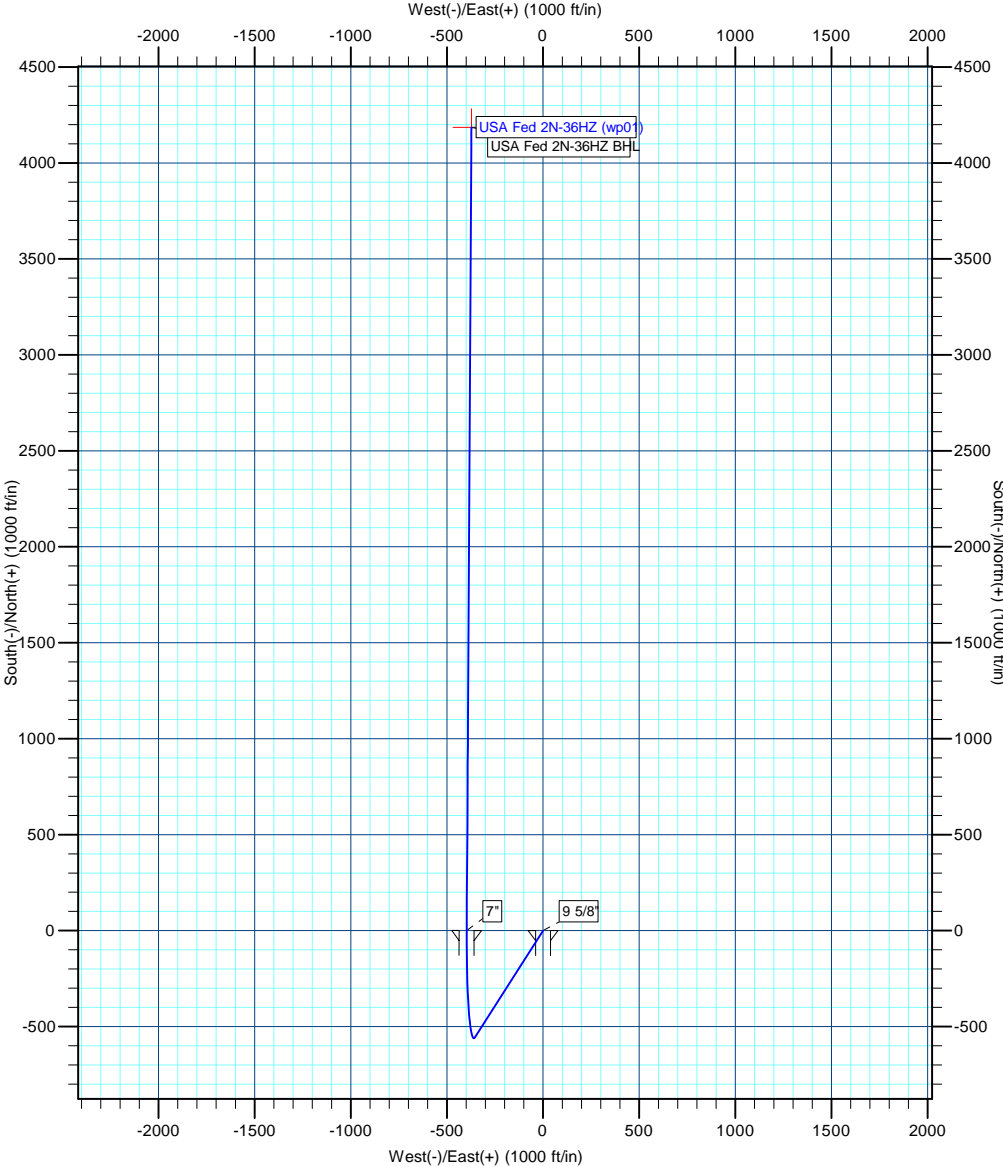
**USA Fed 2N-36HZ**

**USA Fed 2N-36HZ**

**Plan: USA Fed 2N-36HZ (wp01)**

## **Standard Planning Report**

**29 March, 2012**



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Azimuths to True North

Magnetic North: 8.72°

Magnetic Field

Strength: 52933.9snT

Dip Angle: 66.85°

Date: 3/29/2012

Model: IGRF2010



Project: COLORADO NORTHERN ZONE - 83

Site: WELD\_USA FED 15-26HZ PAD

Well: USA Fed 2N-36HZ

Wellbore: USA Fed 2N-36HZ

Section:

SHL:

Design: USA Fed 2N-36HZ (wp01)

Latitude: 40.176359

Longitude: -104.722860

GL: 4995.00

KB: gl + rkb @ 5012.00ft

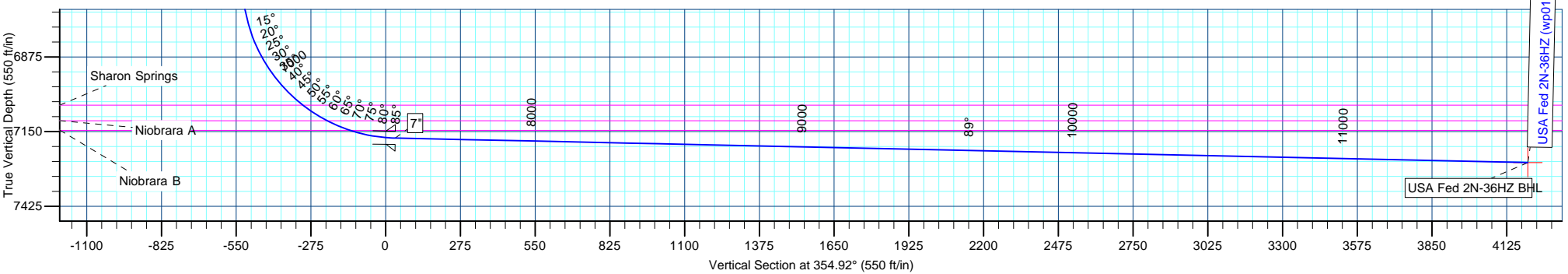
WELL DETAILS: USA Fed 2N-36HZ						
+N/-S	+E/-W	Northing	Ground Level: Easting	4995.00 Latitude	Longitude	Slot
0.00	0.00	1308042.01	3217152.76	40.176359	-104.722860	

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
1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00
1888.47	7.77	212.51	1887.28	-22.18	-14.14	2.00	212.51	-20.84
6581.48	7.77	212.51	6537.21	-557.18	-355.13	0.00	0.00	-523.51
7534.91	88.77	0.35	7174.00	0.00	-397.00	10.00	147.69	35.18
7536.26	88.77	0.34	7174.03	1.35	-396.99	1.00	-90.00	36.53
11721.94	88.77	0.34	7264.00	4185.99	-372.42	0.00	0.00	4202.52

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
USA Fed 2N-36HZ BHL	7264.00	4185.99	-372.42	40.187850	-104.724193	Point

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4133.00	4155.00	Parkman
4591.00	4617.24	Sussex
7053.00	7167.28	Sharon Springs
7110.00	7273.21	Niobrara A
7145.00	7363.52	Niobrara B

CASING DETAILS			
TVD	MD	Name	Size
800.00	800.00	9 5/8"	9-5/8
7174.00	7534.91	7"	7



# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well USA Fed 2N-36HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	gl + rkb @ 5012.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	gl + rkb @ 5012.00ft
<b>Site:</b>	WELD_USA FED 15-26HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	USA Fed 2N-36HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	USA Fed 2N-36HZ		
<b>Design:</b>	USA Fed 2N-36HZ (wp01)		

<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_USA FED 15-26HZ PAD			
<b>Site Position:</b>		<b>Northing:</b>	1,308,092.21 usft	<b>Latitude:</b> 40.176496
<b>From:</b>	Lat/Long	<b>Easting:</b>	3,217,185.29 usft	<b>Longitude:</b> -104.722742
<b>Position Uncertainty:</b>	0.00 ft	<b>Slot Radius:</b>	13-3/16 "	<b>Grid Convergence:</b> 0.50 °

<b>Well</b>	USA Fed 2N-36HZ			
<b>Well Position</b>	<b>+N/-S</b>	-49.92 ft	<b>Northing:</b>	1,308,042.01 usft
	<b>+E/-W</b>	-32.97 ft	<b>Easting:</b>	3,217,152.76 usft
<b>Position Uncertainty</b>		0.00 ft	<b>Wellhead Elevation:</b>	<b>Latitude:</b> 40.176359
				<b>Longitude:</b> -104.722860
				<b>Ground Level:</b> 4,995.00 ft

<b>Wellbore</b>	USA Fed 2N-36HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	3/29/2012	8.72	66.85	52,934

<b>Design</b>	USA Fed 2N-36HZ (wp01)			
<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) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	354.92

<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	
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,888.47	7.77	212.51	1,887.28	-22.18	-14.14	2.00	2.00	0.00	212.51	
6,581.48	7.77	212.51	6,537.21	-557.18	-355.13	0.00	0.00	0.00	0.00	
7,534.91	88.77	0.35	7,174.00	0.00	-397.00	10.00	8.50	15.51	147.69	
7,536.26	88.77	0.34	7,174.03	1.35	-396.99	1.00	0.00	-1.00	-90.00	
11,721.94	88.77	0.34	7,264.00	4,185.99	-372.42	0.00	0.00	0.00	0.00	USA Fed 2N-36HZ Bt

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well USA Fed 2N-36HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	gl + rkb @ 5012.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	gl + rkb @ 5012.00ft
<b>Site:</b>	WELD_USA FED 15-26HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	USA Fed 2N-36HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	USA Fed 2N-36HZ		
<b>Design:</b>	USA Fed 2N-36HZ (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
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>9 5/8"</b>									
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
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
<b>Start Build 2.00</b>									
1,600.00	2.00	212.51	1,599.98	-1.47	-0.94	-1.38	2.00	2.00	0.00
1,700.00	4.00	212.51	1,699.84	-5.88	-3.75	-5.53	2.00	2.00	0.00
1,800.00	6.00	212.51	1,799.45	-13.23	-8.44	-12.43	2.00	2.00	0.00
1,888.47	7.77	212.51	1,887.28	-22.18	-14.14	-20.84	2.00	2.00	0.00
<b>Start 4693.01 hold at 1888.47 MD</b>									
1,900.00	7.77	212.51	1,898.70	-23.49	-14.97	-22.07	0.00	0.00	0.00
2,000.00	7.77	212.51	1,997.79	-34.89	-22.24	-32.78	0.00	0.00	0.00
2,100.00	7.77	212.51	2,096.87	-46.29	-29.50	-43.49	0.00	0.00	0.00
2,200.00	7.77	212.51	2,195.95	-57.69	-36.77	-54.21	0.00	0.00	0.00
2,300.00	7.77	212.51	2,295.03	-69.09	-44.04	-64.92	0.00	0.00	0.00
2,400.00	7.77	212.51	2,394.11	-80.49	-51.30	-75.63	0.00	0.00	0.00
2,500.00	7.77	212.51	2,493.20	-91.89	-58.57	-86.34	0.00	0.00	0.00
2,600.00	7.77	212.51	2,592.28	-103.29	-65.84	-97.05	0.00	0.00	0.00
2,700.00	7.77	212.51	2,691.36	-114.69	-73.10	-107.76	0.00	0.00	0.00
2,800.00	7.77	212.51	2,790.44	-126.09	-80.37	-118.47	0.00	0.00	0.00
2,900.00	7.77	212.51	2,889.52	-137.49	-87.63	-129.18	0.00	0.00	0.00
3,000.00	7.77	212.51	2,988.61	-148.89	-94.90	-139.89	0.00	0.00	0.00
3,100.00	7.77	212.51	3,087.69	-160.29	-102.17	-150.61	0.00	0.00	0.00
3,200.00	7.77	212.51	3,186.77	-171.69	-109.43	-161.32	0.00	0.00	0.00
3,300.00	7.77	212.51	3,285.85	-183.09	-116.70	-172.03	0.00	0.00	0.00
3,400.00	7.77	212.51	3,384.93	-194.49	-123.96	-182.74	0.00	0.00	0.00
3,500.00	7.77	212.51	3,484.02	-205.89	-131.23	-193.45	0.00	0.00	0.00
3,600.00	7.77	212.51	3,583.10	-217.29	-138.50	-204.16	0.00	0.00	0.00
3,700.00	7.77	212.51	3,682.18	-228.69	-145.76	-214.87	0.00	0.00	0.00
3,800.00	7.77	212.51	3,781.26	-240.09	-153.03	-225.58	0.00	0.00	0.00
3,900.00	7.77	212.51	3,880.35	-251.49	-160.30	-236.30	0.00	0.00	0.00
4,000.00	7.77	212.51	3,979.43	-262.89	-167.56	-247.01	0.00	0.00	0.00
4,100.00	7.77	212.51	4,078.51	-274.29	-174.83	-257.72	0.00	0.00	0.00
4,155.00	7.77	212.51	4,133.00	-280.56	-178.82	-263.61	0.00	0.00	0.00
<b>Parkman</b>									
4,200.00	7.77	212.51	4,177.59	-285.69	-182.09	-268.43	0.00	0.00	0.00
4,300.00	7.77	212.51	4,276.67	-297.09	-189.36	-279.14	0.00	0.00	0.00
4,400.00	7.77	212.51	4,375.76	-308.49	-196.63	-289.85	0.00	0.00	0.00
4,500.00	7.77	212.51	4,474.84	-319.89	-203.89	-300.56	0.00	0.00	0.00
4,600.00	7.77	212.51	4,573.92	-331.29	-211.16	-311.27	0.00	0.00	0.00
4,617.24	7.77	212.51	4,591.00	-333.25	-212.41	-313.12	0.00	0.00	0.00

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## Planning Report

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<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	gl + rkb @ 5012.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	gl + rkb @ 5012.00ft
<b>Site:</b>	WELD_USA FED 15-26HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	USA Fed 2N-36HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	USA Fed 2N-36HZ		
<b>Design:</b>	USA Fed 2N-36HZ (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)
<b>Sussex</b>									
4,700.00	7.77	212.51	4,673.00	-342.69	-218.42	-321.98	0.00	0.00	0.00
4,800.00	7.77	212.51	4,772.08	-354.09	-225.69	-332.70	0.00	0.00	0.00
4,900.00	7.77	212.51	4,871.17	-365.49	-232.96	-343.41	0.00	0.00	0.00
5,000.00	7.77	212.51	4,970.25	-376.89	-240.22	-354.12	0.00	0.00	0.00
5,100.00	7.77	212.51	5,069.33	-388.29	-247.49	-364.83	0.00	0.00	0.00
5,200.00	7.77	212.51	5,168.41	-399.69	-254.75	-375.54	0.00	0.00	0.00
5,300.00	7.77	212.51	5,267.49	-411.09	-262.02	-386.25	0.00	0.00	0.00
5,400.00	7.77	212.51	5,366.58	-422.49	-269.29	-396.96	0.00	0.00	0.00
5,500.00	7.77	212.51	5,465.66	-433.89	-276.55	-407.67	0.00	0.00	0.00
5,600.00	7.77	212.51	5,564.74	-445.29	-283.82	-418.39	0.00	0.00	0.00
5,700.00	7.77	212.51	5,663.82	-456.69	-291.09	-429.10	0.00	0.00	0.00
5,800.00	7.77	212.51	5,762.90	-468.09	-298.35	-439.81	0.00	0.00	0.00
5,900.00	7.77	212.51	5,861.99	-479.49	-305.62	-450.52	0.00	0.00	0.00
6,000.00	7.77	212.51	5,961.07	-490.89	-312.88	-461.23	0.00	0.00	0.00
6,100.00	7.77	212.51	6,060.15	-502.29	-320.15	-471.94	0.00	0.00	0.00
6,200.00	7.77	212.51	6,159.23	-513.69	-327.42	-482.65	0.00	0.00	0.00
6,300.00	7.77	212.51	6,258.31	-525.09	-334.68	-493.36	0.00	0.00	0.00
6,400.00	7.77	212.51	6,357.40	-536.49	-341.95	-504.07	0.00	0.00	0.00
6,500.00	7.77	212.51	6,456.48	-547.89	-349.21	-514.79	0.00	0.00	0.00
6,581.48	7.77	212.51	6,537.21	-557.18	-355.13	-523.51	0.00	0.00	0.00
<b>Start DLS 10.00 TFO 147.69</b>									
6,600.00	6.28	221.60	6,555.59	-558.99	-356.48	-525.20	10.00	-8.03	49.05
6,700.00	6.70	322.39	6,655.20	-558.46	-363.69	-524.03	10.00	0.42	100.79
6,800.00	15.81	345.62	6,753.22	-540.59	-370.66	-505.62	10.00	9.11	23.23
6,900.00	25.59	351.74	6,846.66	-505.93	-377.16	-470.52	10.00	9.78	6.12
7,000.00	35.49	354.61	6,932.68	-455.54	-383.01	-419.80	10.00	9.90	2.87
7,100.00	45.42	356.35	7,008.68	-390.93	-388.02	-355.01	10.00	9.94	1.74
7,167.28	52.12	357.21	7,053.00	-340.44	-390.84	-304.47	10.00	9.95	1.28
<b>Sharon Springs</b>									
7,200.00	55.38	357.57	7,072.35	-314.09	-392.04	-278.11	10.00	9.96	1.11
7,273.21	62.67	358.29	7,110.00	-251.40	-394.29	-215.47	10.00	9.96	0.99
<b>Niobrara A</b>									
7,300.00	65.34	358.53	7,121.74	-227.33	-394.96	-191.44	10.00	9.97	0.89
7,363.52	71.68	359.06	7,145.00	-168.27	-396.19	-132.50	10.00	9.97	0.84
<b>Niobrara B</b>									
7,400.00	75.31	359.35	7,155.36	-133.30	-396.67	-97.63	10.00	9.97	0.79
7,500.00	85.29	0.10	7,172.19	-34.86	-397.14	0.47	10.00	9.97	0.75
7,534.91	88.77	0.35	7,174.00	0.00	-397.00	35.18	10.00	9.97	0.72
<b>Start DLS 1.00 TFO -90.00 - 7"</b>									
7,536.26	88.77	0.34	7,174.03	1.35	-396.99	36.53	1.00	0.01	-1.00
<b>Start 4185.68 hold at 7536.26 MD</b>									
7,600.00	88.77	0.34	7,175.40	65.07	-396.62	99.96	0.00	0.00	0.00
7,700.00	88.77	0.34	7,177.55	165.05	-396.03	199.49	0.00	0.00	0.00
7,800.00	88.77	0.34	7,179.70	265.02	-395.44	299.02	0.00	0.00	0.00
7,900.00	88.77	0.34	7,181.85	365.00	-394.86	398.55	0.00	0.00	0.00
8,000.00	88.77	0.34	7,184.00	464.97	-394.27	498.08	0.00	0.00	0.00
8,100.00	88.77	0.34	7,186.15	564.95	-393.68	597.61	0.00	0.00	0.00
8,200.00	88.77	0.34	7,188.30	664.92	-393.09	697.14	0.00	0.00	0.00
8,300.00	88.77	0.34	7,190.45	764.90	-392.51	796.67	0.00	0.00	0.00
8,400.00	88.77	0.34	7,192.60	864.87	-391.92	896.20	0.00	0.00	0.00
8,500.00	88.77	0.34	7,194.74	964.85	-391.33	995.73	0.00	0.00	0.00
8,600.00	88.77	0.34	7,196.89	1,064.82	-390.75	1,095.26	0.00	0.00	0.00

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well USA Fed 2N-36HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	gl + rkb @ 5012.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	gl + rkb @ 5012.00ft
<b>Site:</b>	WELD_USA FED 15-26HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	USA Fed 2N-36HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	USA Fed 2N-36HZ		
<b>Design:</b>	USA Fed 2N-36HZ (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)	
8,700.00	88.77	0.34	7,199.04	1,164.80	-390.16	1,194.79	0.00	0.00	0.00	
8,800.00	88.77	0.34	7,201.19	1,264.77	-389.57	1,294.32	0.00	0.00	0.00	
8,900.00	88.77	0.34	7,203.34	1,364.75	-388.99	1,393.85	0.00	0.00	0.00	
9,000.00	88.77	0.34	7,205.49	1,464.73	-388.40	1,493.38	0.00	0.00	0.00	
9,100.00	88.77	0.34	7,207.64	1,564.70	-387.81	1,592.91	0.00	0.00	0.00	
9,200.00	88.77	0.34	7,209.79	1,664.68	-387.22	1,692.44	0.00	0.00	0.00	
9,300.00	88.77	0.34	7,211.94	1,764.65	-386.64	1,791.97	0.00	0.00	0.00	
9,400.00	88.77	0.34	7,214.09	1,864.63	-386.05	1,891.50	0.00	0.00	0.00	
9,500.00	88.77	0.34	7,216.24	1,964.60	-385.46	1,991.03	0.00	0.00	0.00	
9,600.00	88.77	0.34	7,218.39	2,064.58	-384.88	2,090.56	0.00	0.00	0.00	
9,700.00	88.77	0.34	7,220.54	2,164.55	-384.29	2,190.09	0.00	0.00	0.00	
9,800.00	88.77	0.34	7,222.69	2,264.53	-383.70	2,289.62	0.00	0.00	0.00	
9,900.00	88.77	0.34	7,224.84	2,364.50	-383.11	2,389.15	0.00	0.00	0.00	
10,000.00	88.77	0.34	7,226.99	2,464.48	-382.53	2,488.68	0.00	0.00	0.00	
10,100.00	88.77	0.34	7,229.14	2,564.45	-381.94	2,588.21	0.00	0.00	0.00	
10,200.00	88.77	0.34	7,231.29	2,664.43	-381.35	2,687.74	0.00	0.00	0.00	
10,300.00	88.77	0.34	7,233.44	2,764.40	-380.77	2,787.27	0.00	0.00	0.00	
10,400.00	88.77	0.34	7,235.59	2,864.38	-380.18	2,886.80	0.00	0.00	0.00	
10,500.00	88.77	0.34	7,237.73	2,964.35	-379.59	2,986.33	0.00	0.00	0.00	
10,600.00	88.77	0.34	7,239.88	3,064.33	-379.00	3,085.86	0.00	0.00	0.00	
10,700.00	88.77	0.34	7,242.03	3,164.30	-378.42	3,185.39	0.00	0.00	0.00	
10,800.00	88.77	0.34	7,244.18	3,264.28	-377.83	3,284.92	0.00	0.00	0.00	
10,900.00	88.77	0.34	7,246.33	3,364.25	-377.24	3,384.45	0.00	0.00	0.00	
11,000.00	88.77	0.34	7,248.48	3,464.23	-376.66	3,483.98	0.00	0.00	0.00	
11,100.00	88.77	0.34	7,250.63	3,564.20	-376.07	3,583.51	0.00	0.00	0.00	
11,200.00	88.77	0.34	7,252.78	3,664.18	-375.48	3,683.04	0.00	0.00	0.00	
11,300.00	88.77	0.34	7,254.93	3,764.15	-374.89	3,782.57	0.00	0.00	0.00	
11,400.00	88.77	0.34	7,257.08	3,864.13	-374.31	3,882.10	0.00	0.00	0.00	
11,500.00	88.77	0.34	7,259.23	3,964.10	-373.72	3,981.63	0.00	0.00	0.00	
11,600.00	88.77	0.34	7,261.38	4,064.08	-373.13	4,081.16	0.00	0.00	0.00	
11,700.00	88.77	0.34	7,263.53	4,164.05	-372.55	4,180.69	0.00	0.00	0.00	
11,721.94	88.77	0.34	7,264.00	4,185.99	-372.42	4,202.52	0.00	0.00	0.00	
TD at 11721.94 - USA Fed 2N-36HZ BHL										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
USA Fed 2N-36HZ BHL	0.00	0.00	7,264.00	4,185.99	-372.42	1,312,224.56	3,216,743.67	40.187850	-104.724193
- hit/miss target									
- Shape									
- plan hits target center									
- Point									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
800.00	800.00	9 5/8"	9-5/8	12-1/4	
7,534.91	7,174.00	7"	7	8-3/4	

# Anadarko Petroleum Corp

## Planning Report

<b>Database:</b>	edmp	<b>Local Co-ordinate Reference:</b>	Well USA Fed 2N-36HZ
<b>Company:</b>	US ROCKIES REGION PLANNING	<b>TVD Reference:</b>	gl + rkb @ 5012.00ft
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>MD Reference:</b>	gl + rkb @ 5012.00ft
<b>Site:</b>	WELD_USA FED 15-26HZ PAD	<b>North Reference:</b>	True
<b>Well:</b>	USA Fed 2N-36HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	USA Fed 2N-36HZ		
<b>Design:</b>	USA Fed 2N-36HZ (wp01)		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,155.00	4,133.00	Parkman				
4,617.24	4,591.00	Sussex				
7,167.28	7,053.00	Sharon Springs				
7,273.21	7,110.00	Niobrara A				
7,363.52	7,145.00	Niobrara B				

Plan Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
1,500.00	1,500.00	0.00	0.00	Start Build 2.00	
1,888.47	1,887.28	-22.18	-14.14	Start 4693.01 hold at 1888.47 MD	
6,581.48	6,537.21	-557.18	-355.13	Start DLS 10.00 TFO 147.69	
7,534.91	7,174.00	0.00	-397.00	Start DLS 1.00 TFO -90.00	
7,536.26	7,174.03	1.35	-396.99	Start 4185.68 hold at 7536.26 MD	
11,721.94	7,264.00	4,185.99	-372.42	TD at 11721.94	