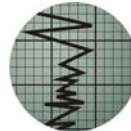




# Weatherford®



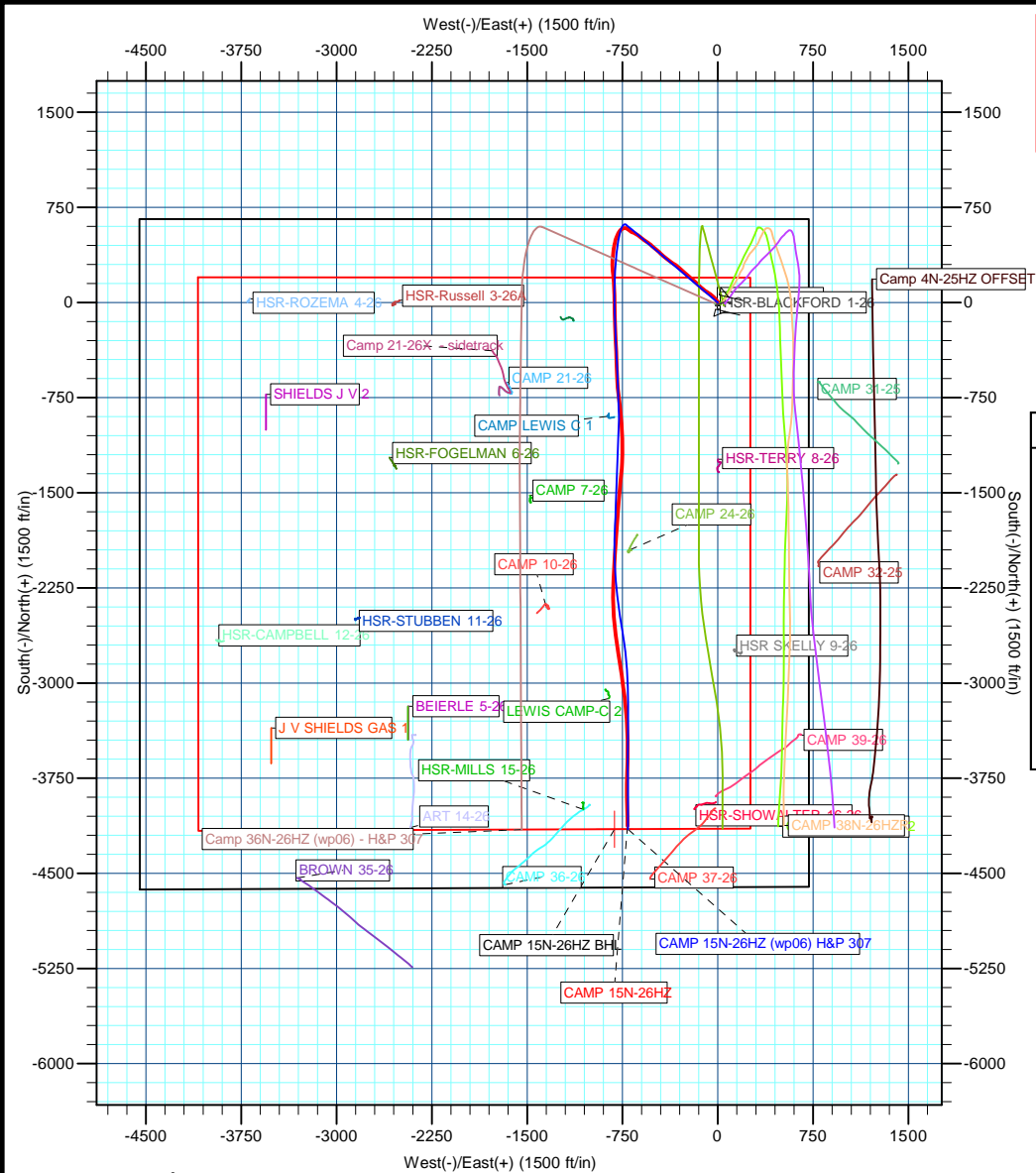
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<b>FINAL SURVEYS.....</b>	<b>SEC.1</b>
<b>DAILY ACTIVITY.....</b>	<b>SEC.2</b>
<b>BHA REPORTS.....</b>	<b>SEC.3</b>
<b>MOTOR REPORTS.....</b>	<b>SEC.4</b>
<b>SLIDE REPORT .....</b>	<b>SEC.5</b>



# FINAL SURVEYS

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**Azimuths to True North**  
Magnetic North: 8.79°

Magnetic Field  
Strength: 52995.6snT  
Dip Angle: 66.88°  
Date: 10/7/2011  
Model: IGRF2010



**Project:** COLORADO NORTHERN ZONE - 83  
**Site:** WELD\_CAMP 1-26HZ PAD  
**Well:** CAMP 15N-26HZ  
**Wellbore:** CAMP 15N-26HZ  
**Section:**  
**SHL:**  
**Design:** CAMP 15N-26HZ (wp06) H&P 307  
**Latitude:** 40.201658  
**Longitude:** -104.737489  
**GL:** 5014.00  
**KB:** 25' RKB + 5014' GL @ 5039.00ft

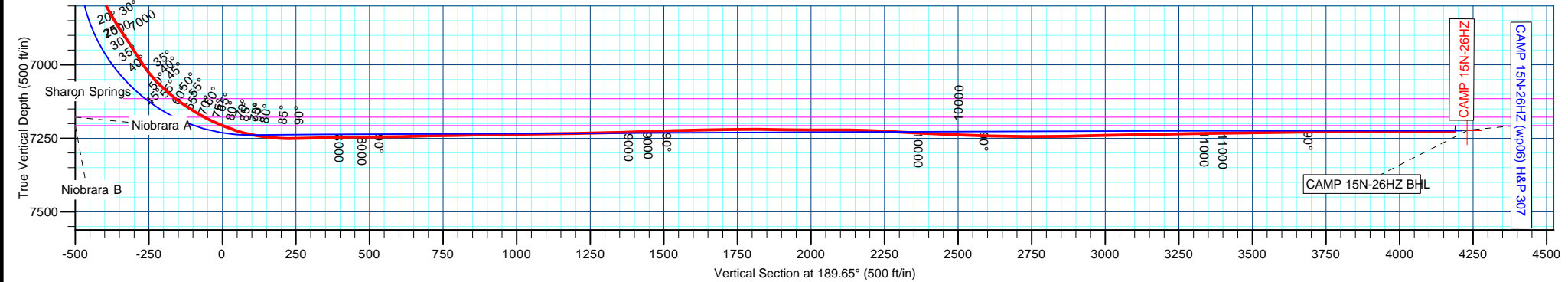
WELL DETAILS: CAMP 15N-26HZ						
+N/-S	+E/-W	Northing	Ground Level: Easting	5014.00 Latitude	-104.737489 Longitude	Slot
0.00	0.00	1317222.16	3212985.89	40.201658	-104.737489	

SECTION DETAILS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
867.00	0.32	283.57	866.98	2.71	-3.12	0.00	0.00	-2.15
1300.00	0.00	0.00	1299.98	3.00	-4.29	0.07	180.00	-2.24
1829.39	10.59	310.37	1826.37	34.59	-41.45	2.00	310.37	-27.15
6690.33	10.59	310.37	6604.54	613.11	-721.94	0.00	0.00	-483.35
7667.91	90.93	180.00	7239.00	35.00	-813.81	10.00	-129.75	101.98
7793.87	90.27	177.57	7237.68	-90.92	-811.14	2.00	-105.18	225.67
8484.06	90.27	177.57	7234.41	-780.48	-781.86	0.00	0.00	900.55
8656.17	90.00	181.00	7234.00	-952.55	-779.71	2.00	94.52	1069.83
8713.16	90.31	182.10	7233.84	-1009.52	-781.25	2.00	74.12	1126.25
9550.34	90.31	182.10	7229.29	-1846.13	-811.87	0.00	0.00	1956.14
9656.31	90.00	180.00	7229.00	-1952.08	-813.81	2.00	-98.46	2060.91
10078.56	90.30	171.56	7227.89	-2372.80	-782.77	2.00	-87.95	2470.47
10390.69	90.30	171.56	7226.25	-2681.54	-736.96	0.00	0.00	2767.15
10862.91	90.00	181.00	7225.00	-3152.23	-706.36	2.00	91.81	3226.04
10914.31	90.06	179.97	7224.97	-3203.63	-706.80	2.00	-86.72	3276.79
11862.76	90.06	179.97	7224.00	-4152.07	-706.36	0.00	0.00	4211.73

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape Point
CAMP 15N-26HZ BHL	7224.00	-4152.07	-813.81	40.190260	-104.740402	

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
4067.00	4108.84	Parkman
4575.00	4625.63	Sussex
7115.00	7272.25	Sharon Springs
7178.00	7390.16	Niobrara A
7207.00	7464.89	Niobrara B

CASING DETAILS			
TVD	MD	Name	Size
900.00	900.02	9 5/8"	9-5/8



# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_CAMP 1-26HZ PAD**

**CAMP 15N-26HZ**

**CAMP 15N-26HZ**

**Design: CAMP 15N-26HZ**

## **Standard Survey Report**

**18 April, 2012**

# Anadarko Petroleum Corp

## Survey Report

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well CAMP 15N-26HZ
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	25' RKB + 5014' GL @ 5039.00ft
<b>Site:</b>	WELD_CAMP 1-26HZ PAD	<b>MD Reference:</b>	25' RKB + 5014' GL @ 5039.00ft
<b>Well:</b>	CAMP 15N-26HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	CAMP 15N-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	CAMP 15N-26HZ	<b>Database:</b>	edmp

<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		

Site	WELD_CAMP 1-26HZ PAD				
Site Position:		Northing:	1,317,212.46 usft	Latitude:	40.201630
From:	Lat/Long	Easting:	3,213,042.68 usft	Longitude:	-104.737286
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.49 °

Well	CAMP 15N-26HZ					
Well Position	+N/-S	0.00 ft	Northing:	1,317,222.15 usft	Latitude:	40.201658
	+E/-W	0.00 ft	Easting:	3,212,985.90 usft	Longitude:	-104.737489
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,014.00 ft

<b>Wellbore</b>	CAMP 15N-26HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	10/7/2011	8.79	66.88	52,996

<b>Design</b>	CAMP 15N-26HZ				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<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		189.65

<b>Survey Program</b>	<b>Date</b>	4/18/2012			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
100.00	867.00	Survey #1 (CAMP 15N-26HZ)	NS-GYRO-MS	NORTH SENSING GYROCOMPASSING M/S	
959.00	11,770.00	Survey #2 (CAMP 15N-26HZ)	MWD	MWD - STANDARD	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100usft)</b>	<b>Build Rate (°/100usft)</b>	<b>Turn Rate (°/100usft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
100.00	0.63	304.84	100.00	0.31	-0.45	-0.23	0.63	0.63	0.00	
200.00	0.71	298.01	199.99	0.92	-1.45	-0.66	0.11	0.08	-6.83	
300.00	0.31	357.68	299.99	1.48	-2.01	-1.12	0.61	-0.40	59.67	
400.00	0.27	319.81	399.99	1.93	-2.17	-1.54	0.19	-0.04	-37.87	
500.00	0.17	206.60	499.99	1.98	-2.39	-1.55	0.37	-0.10	-113.21	
600.00	0.09	18.86	599.99	1.92	-2.43	-1.49	0.26	-0.08	172.26	
700.00	0.35	290.37	699.99	2.10	-2.69	-1.62	0.36	0.26	-88.49	
800.00	0.32	5.21	799.98	2.48	-2.95	-1.95	0.41	-0.03	74.84	
867.00	0.32	283.57	866.98	2.71	-3.12	-2.15	0.62	0.00	-121.85	

# Anadarko Petroleum Corp

## Survey Report

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well CAMP 15N-26HZ
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	25' RKB + 5014' GL @ 5039.00ft
<b>Site:</b>	WELD_CAMP 1-26HZ PAD	<b>MD Reference:</b>	25' RKB + 5014' GL @ 5039.00ft
<b>Well:</b>	CAMP 15N-26HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	CAMP 15N-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	CAMP 15N-26HZ	<b>Database:</b>	edmp

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)
tie on to gyro									
959.00	0.22	333.89	958.98	2.93	-3.44	-2.32	0.27	-0.11	54.70
1,143.00	0.35	337.15	1,142.98	3.77	-3.82	-3.08	0.07	0.07	1.77
1,235.00	0.28	323.35	1,234.98	4.21	-4.06	-3.47	0.11	-0.08	-15.00
1,327.00	2.82	347.54	1,326.94	6.60	-4.68	-5.72	2.79	2.76	26.29
1,419.00	5.17	327.86	1,418.71	12.32	-7.38	-10.91	2.92	2.55	-21.39
1,514.00	7.18	326.15	1,513.16	20.88	-12.96	-18.41	2.12	2.12	-1.80
1,609.00	8.15	319.88	1,607.31	30.96	-20.61	-27.06	1.35	1.02	-6.60
1,703.00	9.19	311.82	1,700.24	41.06	-30.50	-35.36	1.70	1.11	-8.57
1,798.00	8.64	309.77	1,794.09	50.68	-41.64	-42.98	0.67	-0.58	-2.16
1,894.00	8.08	309.89	1,889.07	59.62	-52.35	-50.00	0.58	-0.58	0.13
1,988.00	7.79	308.83	1,982.17	67.85	-62.39	-56.43	0.35	-0.31	-1.13
2,083.00	8.68	302.86	2,076.19	75.78	-73.42	-62.40	1.30	0.94	-6.28
2,177.00	8.02	301.98	2,169.19	83.10	-84.94	-67.68	0.72	-0.70	-0.94
2,272.00	9.06	301.69	2,263.14	90.54	-96.93	-73.01	1.10	1.09	-0.31
2,367.00	9.97	311.60	2,356.84	99.93	-109.45	-80.17	1.97	0.96	10.43
2,462.00	9.24	310.43	2,450.50	110.33	-121.40	-88.42	0.80	-0.77	-1.23
2,556.00	9.98	314.07	2,543.18	120.89	-133.00	-96.89	1.02	0.79	3.87
2,651.00	9.29	312.98	2,636.84	131.85	-144.52	-105.76	0.75	-0.73	-1.15
2,746.00	9.18	309.48	2,730.61	141.89	-155.98	-113.74	0.60	-0.12	-3.68
2,840.00	10.98	312.63	2,823.16	152.73	-168.36	-122.34	2.00	1.91	3.35
2,934.00	10.93	312.54	2,915.45	164.81	-181.51	-132.05	0.06	-0.05	-0.10
3,030.00	10.46	311.95	3,009.78	176.79	-194.70	-141.65	0.50	-0.49	-0.61
3,124.00	10.03	311.30	3,102.28	187.90	-207.19	-150.51	0.47	-0.46	-0.69
3,220.00	9.50	310.55	3,196.89	198.57	-219.49	-158.96	0.57	-0.55	-0.78
3,314.00	8.28	307.90	3,289.76	207.77	-230.73	-166.15	1.37	-1.30	-2.82
3,410.00	9.98	311.92	3,384.54	217.57	-242.37	-173.87	1.89	1.77	4.19
3,505.00	10.88	313.91	3,477.97	229.29	-254.96	-183.31	1.02	0.95	2.09
3,599.00	9.33	311.83	3,570.51	240.53	-267.03	-192.36	1.69	-1.65	-2.21
3,694.00	10.08	311.47	3,664.15	251.17	-278.99	-200.85	0.79	0.79	-0.38
3,789.00	11.05	311.16	3,757.54	262.66	-292.08	-209.99	1.02	1.02	-0.33
3,883.00	9.72	307.84	3,849.99	273.46	-305.13	-218.44	1.55	-1.41	-3.53
3,978.00	10.78	307.64	3,943.48	283.81	-318.50	-226.40	1.12	1.12	-0.21
4,074.00	12.07	306.48	4,037.57	295.26	-333.68	-235.15	1.36	1.34	-1.21
4,169.00	11.54	303.64	4,130.56	306.43	-349.58	-243.49	0.83	-0.56	-2.99
4,264.00	11.05	302.28	4,223.72	316.55	-365.18	-250.86	0.59	-0.52	-1.43
4,359.00	11.08	309.14	4,316.96	327.18	-379.96	-258.86	1.39	0.03	7.22
4,454.00	9.79	307.53	4,410.39	337.86	-393.45	-267.13	1.39	-1.36	-1.69
4,644.00	10.68	310.69	4,597.37	359.18	-419.61	-283.76	0.55	0.47	1.66
4,738.00	9.64	310.66	4,689.89	369.99	-432.18	-292.31	1.11	-1.11	-0.03
4,833.00	11.22	312.51	4,783.32	381.42	-445.03	-301.42	1.70	1.66	1.95
4,928.00	10.46	312.07	4,876.62	393.44	-458.25	-311.06	0.80	-0.80	-0.46
5,023.00	10.80	312.87	4,969.99	405.27	-471.17	-320.56	0.39	0.36	0.84

# Anadarko Petroleum Corp

## Survey Report

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well CAMP 15N-26HZ
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	25' RKB + 5014' GL @ 5039.00ft
<b>Site:</b>	WELD_CAMP 1-26HZ PAD	<b>MD Reference:</b>	25' RKB + 5014' GL @ 5039.00ft
<b>Well:</b>	CAMP 15N-26HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	CAMP 15N-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	CAMP 15N-26HZ	<b>Database:</b>	edmp

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)	
5,118.00	11.76	311.13	5,063.16	417.70	-484.99	-330.49	1.07	1.01	-1.83	
5,213.00	10.46	309.90	5,156.37	429.60	-498.89	-339.89	1.39	-1.37	-1.29	
5,309.00	11.89	310.85	5,250.55	441.66	-513.06	-349.40	1.50	1.49	0.99	
5,404.00	10.19	309.13	5,343.79	453.36	-526.98	-358.61	1.82	-1.79	-1.81	
5,498.00	10.14	307.94	5,436.31	463.70	-539.96	-366.62	0.23	-0.05	-1.27	
5,593.00	11.59	305.25	5,529.61	474.35	-554.35	-374.71	1.62	1.53	-2.83	
5,688.00	9.70	302.95	5,622.97	484.21	-568.86	-382.00	2.04	-1.99	-2.42	
5,783.00	10.57	305.36	5,716.49	493.60	-582.68	-388.95	1.02	0.92	2.54	
5,878.00	11.75	309.85	5,809.69	504.85	-597.21	-397.59	1.54	1.24	4.73	
5,973.00	11.78	310.11	5,902.70	517.29	-612.06	-407.37	0.06	0.03	0.27	
6,070.00	9.82	305.45	5,997.97	528.47	-626.37	-415.99	2.21	-2.02	-4.80	
6,165.00	11.95	302.69	6,091.26	538.48	-641.25	-423.37	2.31	2.24	-2.91	
6,260.00	11.81	291.26	6,184.24	547.32	-658.59	-429.18	2.48	-0.15	-12.03	
6,355.00	11.67	296.45	6,277.25	555.12	-676.25	-433.91	1.12	-0.15	5.46	
6,450.00	13.03	309.79	6,370.07	566.26	-693.09	-442.07	3.32	1.43	14.04	
6,545.00	12.82	309.83	6,462.67	579.87	-709.41	-452.74	0.22	-0.22	0.04	
6,640.00	11.98	274.48	6,555.58	587.40	-727.36	-457.16	7.91	-0.88	-37.21	
6,672.00	14.93	257.40	6,586.71	586.76	-734.70	-455.30	15.37	9.22	-53.38	
6,704.00	17.36	250.42	6,617.45	584.26	-743.22	-451.40	9.71	7.59	-21.81	
6,735.00	18.09	244.77	6,646.98	580.66	-751.93	-446.39	6.02	2.35	-18.23	
6,767.00	18.06	233.92	6,677.41	575.62	-760.44	-440.00	10.51	-0.09	-33.91	
6,799.00	19.60	222.60	6,707.71	568.74	-768.08	-431.94	12.37	4.81	-35.38	
6,830.00	22.39	213.91	6,736.65	560.01	-774.90	-422.19	13.46	9.00	-28.03	
6,862.00	24.64	208.64	6,766.00	549.09	-781.50	-410.32	9.62	7.03	-16.47	
6,893.00	26.97	206.00	6,793.90	537.10	-787.68	-397.47	8.38	7.52	-8.52	
6,925.00	29.26	203.40	6,822.13	523.40	-793.97	-382.90	8.11	7.16	-8.13	
6,956.00	31.81	200.50	6,848.83	508.79	-799.84	-367.52	9.50	8.23	-9.35	
6,988.00	33.74	195.17	6,875.74	492.31	-805.12	-350.38	10.84	6.03	-16.66	
7,020.00	33.75	192.44	6,902.35	475.05	-809.36	-332.66	4.74	0.03	-8.53	
7,051.00	33.22	191.17	6,928.20	458.31	-812.86	-315.57	2.83	-1.71	-4.10	
7,083.00	32.43	190.31	6,955.09	441.27	-816.09	-298.23	2.87	-2.47	-2.69	
7,115.00	32.03	188.87	6,982.16	424.44	-818.94	-281.16	2.71	-1.25	-4.50	
7,146.00	34.96	187.75	7,008.01	407.52	-821.40	-264.06	9.66	9.45	-3.61	
7,178.00	39.13	186.18	7,033.55	388.39	-823.73	-244.81	13.36	13.03	-4.91	
7,209.00	43.99	184.63	7,056.74	367.92	-825.65	-224.31	16.02	15.68	-5.00	
7,241.00	48.03	184.80	7,078.96	344.98	-827.54	-201.38	12.63	12.63	0.53	
7,273.00	49.38	182.16	7,100.08	320.98	-829.00	-177.48	7.50	4.22	-8.25	
7,304.00	53.00	178.84	7,119.51	296.84	-829.19	-153.64	14.35	11.68	-10.71	
7,336.00	56.74	176.74	7,137.92	270.69	-828.17	-128.04	12.86	11.69	-6.56	
7,367.00	58.95	175.25	7,154.42	244.52	-826.33	-102.54	8.21	7.13	-4.81	
7,399.00	60.78	175.04	7,170.48	216.94	-823.99	-75.75	5.75	5.72	-0.66	
7,431.00	64.27	176.02	7,185.24	188.64	-821.78	-48.22	11.24	10.91	3.06	
7,462.00	67.34	176.10	7,197.95	160.44	-819.84	-20.74	9.91	9.90	0.26	

# Anadarko Petroleum Corp

## Survey Report

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well CAMP 15N-26HZ
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	25' RKB + 5014' GL @ 5039.00ft
<b>Site:</b>	WELD_CAMP 1-26HZ PAD	<b>MD Reference:</b>	25' RKB + 5014' GL @ 5039.00ft
<b>Well:</b>	CAMP 15N-26HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	CAMP 15N-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	CAMP 15N-26HZ	<b>Database:</b>	edmp

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)
7,494.00	68.69	175.53	7,209.93	130.84	-817.67	8.08	4.53	4.22	-1.78
7,526.00	71.44	175.65	7,220.84	100.85	-815.36	37.25	8.60	8.59	0.38
7,557.00	74.13	177.95	7,230.01	71.29	-813.71	66.12	11.20	8.68	7.42
7,589.00	79.01	179.06	7,237.44	40.19	-812.90	96.65	15.62	15.25	3.47
7,624.40	81.76	179.22	7,243.35	5.29	-812.38	130.96	7.78	7.77	0.45
7" casing point									
7,732.00	90.12	179.69	7,250.97	-101.94	-811.36	236.50	7.78	7.77	0.44
7,827.00	92.73	177.25	7,248.60	-196.86	-808.83	329.66	3.76	2.75	-2.57
7,922.00	90.43	177.38	7,245.98	-291.71	-804.38	422.42	2.42	-2.42	0.14
8,017.00	89.91	177.78	7,245.70	-386.63	-800.37	515.32	0.69	-0.55	0.42
8,112.00	91.48	178.33	7,244.55	-481.56	-797.14	608.37	1.75	1.65	0.58
8,206.00	91.67	177.34	7,241.97	-575.46	-793.59	700.35	1.07	0.20	-1.05
8,301.00	90.31	174.89	7,240.32	-670.22	-787.16	792.68	2.95	-1.43	-2.58
8,396.00	91.67	173.90	7,238.68	-764.74	-777.88	884.32	1.77	1.43	-1.04
8,491.00	90.71	173.20	7,236.71	-859.12	-767.21	975.57	1.25	-1.01	-0.74
8,586.00	90.80	175.12	7,235.46	-953.62	-757.55	1,067.11	2.02	0.09	2.02
8,680.00	90.68	178.17	7,234.24	-1,047.44	-752.05	1,158.68	3.25	-0.13	3.24
8,775.00	91.23	180.42	7,232.66	-1,142.41	-750.88	1,252.11	2.44	0.58	2.37
8,870.00	91.91	181.70	7,230.06	-1,237.35	-752.63	1,346.01	1.53	0.72	1.35
8,965.00	91.48	185.66	7,227.25	-1,332.10	-758.73	1,440.43	4.19	-0.45	4.17
9,060.00	91.91	185.34	7,224.44	-1,426.62	-767.83	1,535.14	0.56	0.45	-0.34
9,154.00	90.99	184.54	7,222.06	-1,520.24	-775.92	1,628.79	1.30	-0.98	-0.85
9,249.00	91.48	184.05	7,220.01	-1,614.95	-783.03	1,723.36	0.73	0.52	-0.52
9,344.00	88.89	184.35	7,219.70	-1,709.68	-789.99	1,817.92	2.74	-2.73	0.32
9,438.00	89.14	184.14	7,221.32	-1,803.41	-796.95	1,911.49	0.35	0.27	-0.22
9,533.00	89.65	184.13	7,222.32	-1,898.16	-803.80	2,006.04	0.54	0.54	-0.01
9,628.00	90.25	183.64	7,222.40	-1,992.94	-810.23	2,100.56	0.82	0.63	-0.52
9,723.00	88.03	183.40	7,223.83	-2,087.74	-816.07	2,195.00	2.35	-2.34	-0.25
9,818.00	86.61	182.88	7,228.27	-2,182.50	-821.26	2,289.28	1.59	-1.49	-0.55
9,914.00	87.16	180.66	7,233.49	-2,278.30	-824.22	2,384.23	2.38	0.57	-2.31
10,009.00	88.27	178.52	7,237.28	-2,373.22	-823.54	2,477.69	2.54	1.17	-2.25
10,104.00	87.72	176.13	7,240.60	-2,468.05	-819.11	2,570.43	2.58	-0.58	-2.52
10,200.00	88.46	174.08	7,243.80	-2,563.64	-810.93	2,663.30	2.27	0.77	-2.14
10,294.00	90.88	171.43	7,244.34	-2,656.87	-799.07	2,753.23	3.82	2.57	-2.82
10,389.00	90.35	171.08	7,243.32	-2,750.76	-784.63	2,843.37	0.67	-0.56	-0.37
10,484.00	91.29	171.80	7,241.96	-2,844.69	-770.49	2,933.60	1.25	0.99	0.76
10,580.00	91.23	171.96	7,239.85	-2,939.71	-756.94	3,024.99	0.18	-0.06	0.17
10,675.00	91.11	172.27	7,237.91	-3,033.79	-743.91	3,115.56	0.35	-0.13	0.33
10,770.00	91.06	172.31	7,236.11	-3,127.91	-731.16	3,206.22	0.07	-0.05	0.04
10,866.00	90.99	175.76	7,234.40	-3,223.36	-721.19	3,298.65	3.59	-0.07	3.59
10,961.00	90.88	176.90	7,232.85	-3,318.15	-715.11	3,391.08	1.21	-0.12	1.20
11,057.00	90.79	178.66	7,231.45	-3,414.07	-711.39	3,485.01	1.84	-0.09	1.83
11,152.00	90.80	180.23	7,230.13	-3,509.05	-710.47	3,578.49	1.65	0.01	1.65
11,248.00	90.86	180.38	7,228.74	-3,605.04	-710.98	3,673.21	0.17	0.06	0.16

# Anadarko Petroleum Corp

## Survey Report

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well CAMP 15N-26HZ
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	25' RKB + 5014' GL @ 5039.00ft
<b>Site:</b>	WELD_CAMP 1-26HZ PAD	<b>MD Reference:</b>	25' RKB + 5014' GL @ 5039.00ft
<b>Well:</b>	CAMP 15N-26HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	CAMP 15N-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	CAMP 15N-26HZ	<b>Database:</b>	edmp

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)
11,343.00	90.55	181.86	7,227.57	-3,700.01	-712.84	3,767.15	1.59	-0.33	1.56
11,437.00	90.43	181.21	7,226.77	-3,793.97	-715.36	3,860.20	0.70	-0.13	-0.69
11,532.00	90.53	178.48	7,225.97	-3,888.96	-715.10	3,953.81	2.88	0.11	-2.87
11,627.00	90.00	178.93	7,225.53	-3,983.94	-712.95	4,047.08	0.73	-0.56	0.47
11,720.00	89.69	179.29	7,225.78	-4,076.92	-711.51	4,138.51	0.51	-0.33	0.39
last mwd survey									
11,770.00	89.69	179.29	7,226.05	-4,126.92	-710.89	4,187.69	0.00	0.00	0.00
projection									

Casing Points				
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")
7,624.40	7,243.35	7"	7	8-3/4

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
867.00	866.98	2.71	-3.12	tie on to gyro
7,624.40	7,243.35	5.29	-812.38	7" casing point
11,720.00	7,225.78	-4,076.92	-711.51	last mwd survey
11,770.00	7,226.05	-4,126.92	-710.89	projection

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_

# **US ROCKIES REGION PLANNING**

**COLORADO NORTHERN ZONE - 83**

**WELD\_CAMP 1-26HZ PAD**

**CAMP 15N-26HZ**

**CAMP 15N-26HZ**

**Design: CAMP 15N-26HZ**

## **Survey Report - Geographic**

**18 April, 2012**

# Anadarko Petroleum Corp

## Survey Report - Geographic

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well CAMP 15N-26HZ
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	25' RKB + 5014' GL @ 5039.00ft
<b>Site:</b>	WELD_CAMP 1-26HZ PAD	<b>MD Reference:</b>	25' RKB + 5014' GL @ 5039.00ft
<b>Well:</b>	CAMP 15N-26HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	CAMP 15N-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	CAMP 15N-26HZ	<b>Database:</b>	edmp

<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		

Site		WELD_CAMP 1-26HZ PAD			
Site Position:		Northing:	1,317,212.46 usft	Latitude:	40.201630
From:	Lat/Long	Easting:	3,213,042.68 usft	Longitude:	-104.737286
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.49 °

Well	CAMP 15N-26HZ					
Well Position	+N/-S	0.00 ft	Northing:	1,317,222.15 usft	Latitude:	40.201658
	+E/-W	0.00 ft	Easting:	3,212,985.90 usft	Longitude:	-104.737489
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,014.00 ft

<b>Wellbore</b>	CAMP 15N-26HZ				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	10/7/2011	8.79	66.88	52,996

<b>Design</b>	CAMP 15N-26HZ				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<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		189.65

<b>Survey Program</b>	<b>Date</b>	4/18/2012			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
100.00	867.00	Survey #1 (CAMP 15N-26HZ)	NS-GYRO-MS	NORTH SENSING GYROCOMPASSING M/S	
959.00	11,770.00	Survey #2 (CAMP 15N-26HZ)	MWD	MWD - STANDARD	

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	1,317,222.15	3,212,985.90	40.201658	-104.737489
100.00	0.63	304.84	100.00	0.31	-0.45	1,317,222.46	3,212,985.44	40.201659	-104.737491
200.00	0.71	298.01	199.99	0.92	-1.45	1,317,223.06	3,212,984.44	40.201661	-104.737494
300.00	0.31	357.68	299.99	1.48	-2.01	1,317,223.62	3,212,983.88	40.201662	-104.737496
400.00	0.27	319.81	399.99	1.93	-2.17	1,317,224.07	3,212,983.71	40.201663	-104.737497
500.00	0.17	206.60	499.99	1.98	-2.39	1,317,224.11	3,212,983.49	40.201663	-104.737498
600.00	0.09	18.86	599.99	1.92	-2.43	1,317,224.05	3,212,983.45	40.201663	-104.737498
700.00	0.35	290.37	699.99	2.10	-2.69	1,317,224.23	3,212,983.19	40.201664	-104.737499
800.00	0.32	5.21	799.98	2.48	-2.95	1,317,224.61	3,212,982.92	40.201665	-104.737500
867.00	0.32	283.57	866.98	2.71	-3.12	1,317,224.84	3,212,982.76	40.201665	-104.737500
tie on to gyro									

# Anadarko Petroleum Corp

## Survey Report - Geographic

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well CAMP 15N-26HZ
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	25' RKB + 5014' GL @ 5039.00ft
<b>Site:</b>	WELD_CAMP 1-26HZ PAD	<b>MD Reference:</b>	25' RKB + 5014' GL @ 5039.00ft
<b>Well:</b>	CAMP 15N-26HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	CAMP 15N-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	CAMP 15N-26HZ	<b>Database:</b>	edmp

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
959.00	0.22	333.89	958.98	2.93	-3.44	1,317,225.06	3,212,982.43	40.201666	-104.737502	
1,143.00	0.35	337.15	1,142.98	3.77	-3.82	1,317,225.89	3,212,982.05	40.201668	-104.737503	
1,235.00	0.28	323.35	1,234.98	4.21	-4.06	1,317,226.33	3,212,981.80	40.201670	-104.737504	
1,327.00	2.82	347.54	1,326.94	6.60	-4.68	1,317,228.71	3,212,981.16	40.201676	-104.737506	
1,419.00	5.17	327.86	1,418.71	12.32	-7.38	1,317,234.41	3,212,978.41	40.201692	-104.737516	
1,514.00	7.18	326.15	1,513.16	20.88	-12.96	1,317,242.92	3,212,972.75	40.201715	-104.737536	
1,609.00	8.15	319.88	1,607.31	30.96	-20.61	1,317,252.93	3,212,965.02	40.201743	-104.737563	
1,703.00	9.19	311.82	1,700.24	41.06	-30.50	1,317,262.95	3,212,955.05	40.201771	-104.737598	
1,798.00	8.64	309.77	1,794.09	50.68	-41.64	1,317,272.47	3,212,943.83	40.201797	-104.737638	
1,894.00	8.08	309.89	1,889.07	59.62	-52.35	1,317,281.32	3,212,933.03	40.201822	-104.737677	
1,988.00	7.79	308.83	1,982.17	67.85	-62.39	1,317,289.47	3,212,922.93	40.201844	-104.737713	
2,083.00	8.68	302.86	2,076.19	75.78	-73.42	1,317,297.30	3,212,911.82	40.201866	-104.737752	
2,177.00	8.02	301.98	2,169.19	83.10	-84.94	1,317,304.52	3,212,900.24	40.201886	-104.737793	
2,272.00	9.06	301.69	2,263.14	90.54	-96.93	1,317,311.86	3,212,888.19	40.201907	-104.737836	
2,367.00	9.97	311.60	2,356.84	99.93	-109.45	1,317,321.14	3,212,875.60	40.201932	-104.737881	
2,462.00	9.24	310.43	2,450.50	110.33	-121.40	1,317,331.44	3,212,863.55	40.201961	-104.737924	
2,556.00	9.98	314.07	2,543.18	120.89	-133.00	1,317,341.90	3,212,851.86	40.201990	-104.737965	
2,651.00	9.29	312.98	2,636.84	131.85	-144.52	1,317,352.75	3,212,840.25	40.202020	-104.738007	
2,746.00	9.18	309.48	2,730.61	141.89	-155.98	1,317,362.70	3,212,828.70	40.202048	-104.738048	
2,840.00	10.98	312.63	2,823.16	152.73	-168.36	1,317,373.43	3,212,816.23	40.202077	-104.738092	
2,934.00	10.93	312.54	2,915.45	164.81	-181.51	1,317,385.40	3,212,802.98	40.202110	-104.738139	
3,030.00	10.46	311.95	3,009.78	176.79	-194.70	1,317,397.27	3,212,789.69	40.202143	-104.738186	
3,124.00	10.03	311.30	3,102.28	187.90	-207.19	1,317,408.26	3,212,777.10	40.202174	-104.738231	
3,220.00	9.50	310.55	3,196.89	198.57	-219.49	1,317,418.83	3,212,764.71	40.202203	-104.738275	
3,314.00	8.28	307.90	3,289.76	207.77	-230.73	1,317,427.93	3,212,753.39	40.202228	-104.738315	
3,410.00	9.98	311.92	3,384.54	217.57	-242.37	1,317,437.63	3,212,741.66	40.202255	-104.738357	
3,505.00	10.88	313.91	3,477.97	229.29	-254.96	1,317,449.24	3,212,728.98	40.202287	-104.738402	
3,599.00	9.33	311.83	3,570.51	240.53	-267.03	1,317,460.37	3,212,716.81	40.202318	-104.738445	
3,694.00	10.08	311.47	3,664.15	251.17	-278.99	1,317,470.91	3,212,704.75	40.202348	-104.738488	
3,789.00	11.05	311.16	3,757.54	262.66	-292.08	1,317,482.30	3,212,691.57	40.202379	-104.738535	
3,883.00	9.72	307.84	3,849.99	273.46	-305.13	1,317,492.98	3,212,678.43	40.202409	-104.738582	
3,978.00	10.78	307.64	3,943.48	283.81	-318.50	1,317,503.21	3,212,664.97	40.202437	-104.738630	
4,074.00	12.07	306.48	4,037.57	295.26	-333.68	1,317,514.53	3,212,649.69	40.202469	-104.738684	
4,169.00	11.54	303.64	4,130.56	306.43	-349.58	1,317,525.56	3,212,633.70	40.202499	-104.738741	
4,264.00	11.05	302.28	4,223.72	316.55	-365.18	1,317,535.56	3,212,618.00	40.202527	-104.738797	
4,359.00	11.08	309.14	4,316.96	327.18	-379.96	1,317,546.05	3,212,603.14	40.202556	-104.738850	
4,454.00	9.79	307.53	4,410.39	337.86	-393.45	1,317,556.62	3,212,589.56	40.202585	-104.738898	
4,644.00	10.68	310.69	4,597.37	359.18	-419.61	1,317,577.71	3,212,563.22	40.202644	-104.738992	
4,738.00	9.64	310.66	4,689.89	369.99	-432.18	1,317,588.41	3,212,550.55	40.202674	-104.739037	
4,833.00	11.22	312.51	4,783.32	381.42	-445.03	1,317,599.73	3,212,537.60	40.202705	-104.739083	
4,928.00	10.46	312.07	4,876.62	393.44	-458.25	1,317,611.64	3,212,524.28	40.202738	-104.739130	
5,023.00	10.80	312.87	4,969.99	405.27	-471.17	1,317,623.36	3,212,511.26	40.202771	-104.739176	
5,118.00	11.76	311.13	5,063.16	417.70	-484.99	1,317,635.67	3,212,497.34	40.202805	-104.739226	
5,213.00	10.46	309.90	5,156.37	429.60	-498.89	1,317,647.45	3,212,483.33	40.202837	-104.739275	
5,309.00	11.89	310.85	5,250.55	441.66	-513.06	1,317,659.38	3,212,469.06	40.202870	-104.739326	
5,404.00	10.19	309.13	5,343.79	453.36	-526.98	1,317,670.97	3,212,455.03	40.202903	-104.739376	
5,498.00	10.14	307.94	5,436.31	463.70	-539.96	1,317,681.19	3,212,441.97	40.202931	-104.739422	
5,593.00	11.59	305.25	5,529.61	474.35	-554.35	1,317,691.72	3,212,427.49	40.202960	-104.739474	
5,688.00	9.70	302.95	5,622.97	484.21	-568.86	1,317,701.45	3,212,412.90	40.202987	-104.739526	
5,783.00	10.57	305.36	5,716.49	493.60	-582.68	1,317,710.73	3,212,398.99	40.203013	-104.739575	
5,878.00	11.75	309.85	5,809.69	504.85	-597.21	1,317,721.85	3,212,384.36	40.203044	-104.739627	
5,973.00	11.78	310.11	5,902.70	517.29	-612.06	1,317,734.16	3,212,369.41	40.203078	-104.739681	
6,070.00	9.82	305.45	5,997.97	528.47	-626.37	1,317,745.22	3,212,355.01	40.203109	-104.739732	
6,165.00	11.95	302.69	6,091.26	538.48	-641.25	1,317,755.10	3,212,340.04	40.203136	-104.739785	
6,260.00	11.81	291.26	6,184.24	547.32	-658.59	1,317,763.79	3,212,322.63	40.203160	-104.739847	

# Anadarko Petroleum Corp

## Survey Report - Geographic

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well CAMP 15N-26HZ
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	25' RKB + 5014' GL @ 5039.00ft
<b>Site:</b>	WELD_CAMP 1-26HZ PAD	<b>MD Reference:</b>	25' RKB + 5014' GL @ 5039.00ft
<b>Well:</b>	CAMP 15N-26HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	CAMP 15N-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	CAMP 15N-26HZ	<b>Database:</b>	edmp

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
6,355.00	11.67	296.45	6,277.25	555.12	-676.25	1,317,771.44	3,212,304.90	40.203182	-104.739910
6,450.00	13.03	309.79	6,370.07	566.26	-693.09	1,317,782.43	3,212,287.97	40.203212	-104.739971
6,545.00	12.82	309.83	6,462.67	579.87	-709.41	1,317,795.90	3,212,271.53	40.203250	-104.740029
6,640.00	11.98	274.48	6,555.58	587.40	-727.36	1,317,803.27	3,212,253.51	40.203270	-104.740093
6,672.00	14.93	257.40	6,586.71	586.76	-734.70	1,317,802.57	3,212,246.18	40.203269	-104.740120
6,704.00	17.36	250.42	6,617.45	584.26	-743.22	1,317,800.00	3,212,237.68	40.203262	-104.740150
6,735.00	18.09	244.77	6,646.98	580.66	-751.93	1,317,796.32	3,212,229.00	40.203252	-104.740181
6,767.00	18.06	233.92	6,677.41	575.62	-760.44	1,317,791.21	3,212,220.54	40.203238	-104.740212
6,799.00	19.60	222.60	6,707.71	568.74	-768.08	1,317,784.27	3,212,212.95	40.203219	-104.740239
6,830.00	22.39	213.91	6,736.65	560.01	-774.90	1,317,775.48	3,212,206.21	40.203195	-104.740264
6,862.00	24.64	208.64	6,766.00	549.09	-781.50	1,317,764.51	3,212,199.71	40.203165	-104.740287
6,893.00	26.97	206.00	6,793.90	537.10	-787.68	1,317,752.46	3,212,193.63	40.203132	-104.740309
6,925.00	29.26	203.40	6,822.13	523.40	-793.97	1,317,738.71	3,212,187.46	40.203095	-104.740332
6,956.00	31.81	200.50	6,848.83	508.79	-799.84	1,317,724.05	3,212,181.71	40.203055	-104.740353
6,988.00	33.74	195.17	6,875.74	492.31	-805.12	1,317,707.52	3,212,176.58	40.203009	-104.740372
7,020.00	33.75	192.44	6,902.35	475.05	-809.36	1,317,690.23	3,212,172.48	40.202962	-104.740387
7,051.00	33.22	191.17	6,928.20	458.31	-812.86	1,317,673.46	3,212,169.13	40.202916	-104.740399
7,083.00	32.43	190.31	6,955.09	441.27	-816.09	1,317,656.39	3,212,166.04	40.202869	-104.740411
7,115.00	32.03	188.87	6,982.16	424.44	-818.94	1,317,639.54	3,212,163.34	40.202823	-104.740421
7,146.00	34.96	187.75	7,008.01	407.52	-821.40	1,317,622.59	3,212,161.02	40.202777	-104.740430
7,178.00	39.13	186.18	7,033.55	388.39	-823.73	1,317,603.44	3,212,158.86	40.202724	-104.740438
7,209.00	43.99	184.63	7,056.74	367.92	-825.65	1,317,582.96	3,212,157.11	40.202668	-104.740445
7,241.00	48.03	184.80	7,078.96	344.98	-827.54	1,317,560.00	3,212,155.42	40.202605	-104.740452
7,273.00	49.38	182.16	7,100.08	320.98	-829.00	1,317,536.00	3,212,154.17	40.202539	-104.740457
7,304.00	53.00	178.84	7,119.51	296.84	-829.19	1,317,511.85	3,212,154.19	40.202473	-104.740458
7,336.00	56.74	176.74	7,137.92	270.69	-828.17	1,317,485.72	3,212,155.43	40.202401	-104.740454
7,367.00	58.95	175.25	7,154.42	244.52	-826.33	1,317,459.56	3,212,157.49	40.202329	-104.740448
7,399.00	60.78	175.04	7,170.48	216.94	-823.99	1,317,432.00	3,212,160.07	40.202254	-104.740439
7,431.00	64.27	176.02	7,185.24	188.64	-821.78	1,317,403.72	3,212,162.52	40.202176	-104.740431
7,462.00	67.34	176.10	7,197.95	160.44	-819.84	1,317,375.53	3,212,164.71	40.202098	-104.740424
7,494.00	68.69	175.53	7,209.93	130.84	-817.67	1,317,345.96	3,212,167.13	40.202017	-104.740417
7,526.00	71.44	175.65	7,220.84	100.85	-815.36	1,317,315.99	3,212,169.70	40.201935	-104.740408
7,557.00	74.13	177.95	7,230.01	71.29	-813.71	1,317,286.45	3,212,171.60	40.201854	-104.740402
7,589.00	79.01	179.06	7,237.44	40.19	-812.90	1,317,255.35	3,212,172.68	40.201768	-104.740400
7,624.40	81.76	179.22	7,243.35	5.29	-812.38	1,317,220.46	3,212,173.50	40.201673	-104.740398
7" casing point									
7,732.00	90.12	179.69	7,250.97	-101.94	-811.36	1,317,113.24	3,212,175.44	40.201378	-104.740394
7,827.00	92.73	177.25	7,248.60	-196.86	-808.83	1,317,018.35	3,212,178.79	40.201118	-104.740385
7,922.00	90.43	177.38	7,245.98	-291.71	-804.38	1,316,923.54	3,212,184.06	40.200857	-104.740369
8,017.00	89.91	177.78	7,245.70	-386.63	-800.37	1,316,828.66	3,212,188.88	40.200597	-104.740355
8,112.00	91.48	178.33	7,244.55	-481.56	-797.14	1,316,733.76	3,212,192.93	40.200336	-104.740343
8,206.00	91.67	177.34	7,241.97	-575.46	-793.59	1,316,639.89	3,212,197.28	40.200078	-104.740330
8,301.00	90.31	174.89	7,240.32	-670.22	-787.16	1,316,545.20	3,212,204.53	40.199818	-104.740307
8,396.00	91.67	173.90	7,238.68	-764.74	-777.88	1,316,450.75	3,212,214.62	40.199559	-104.740274
8,491.00	90.71	173.20	7,236.71	-859.12	-767.21	1,316,356.47	3,212,226.10	40.199300	-104.740236
8,586.00	90.80	175.12	7,235.46	-953.62	-757.55	1,316,262.06	3,212,236.58	40.199040	-104.740201
8,680.00	90.68	178.17	7,234.24	-1,047.44	-752.05	1,316,168.29	3,212,242.89	40.198783	-104.740182
8,775.00	91.23	180.42	7,232.66	-1,142.41	-750.88	1,316,073.33	3,212,244.87	40.198522	-104.740177
8,870.00	91.91	181.70	7,230.06	-1,237.35	-752.63	1,315,978.38	3,212,243.93	40.198261	-104.740184
8,965.00	91.48	185.66	7,227.25	-1,332.10	-758.73	1,315,883.58	3,212,238.65	40.198001	-104.740205
9,060.00	91.91	185.34	7,224.44	-1,426.62	-767.83	1,315,788.99	3,212,230.36	40.197742	-104.740238
9,154.00	90.99	184.54	7,222.06	-1,520.24	-775.92	1,315,695.30	3,212,223.08	40.197485	-104.740267
9,249.00	91.48	184.05	7,220.01	-1,614.95	-783.03	1,315,600.54	3,212,216.78	40.197225	-104.740292
9,344.00	88.89	184.35	7,219.70	-1,709.68	-789.99	1,315,505.74	3,212,210.64	40.196965	-104.740317
9,438.00	89.14	184.14	7,221.32	-1,803.41	-796.95	1,315,411.96	3,212,204.49	40.196707	-104.740342

# Anadarko Petroleum Corp

## Survey Report - Geographic

<b>Company:</b>	US ROCKIES REGION PLANNING	<b>Local Co-ordinate Reference:</b>	Well CAMP 15N-26HZ
<b>Project:</b>	COLORADO NORTHERN ZONE - 83	<b>TVD Reference:</b>	25' RKB + 5014' GL @ 5039.00ft
<b>Site:</b>	WELD_CAMP 1-26HZ PAD	<b>MD Reference:</b>	25' RKB + 5014' GL @ 5039.00ft
<b>Well:</b>	CAMP 15N-26HZ	<b>North Reference:</b>	True
<b>Wellbore:</b>	CAMP 15N-26HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	CAMP 15N-26HZ	<b>Database:</b>	edmp

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
9,533.00	89.65	184.13	7,222.32	-1,898.16	-803.80	1,315,317.16	3,212,198.45	40.196447	-104.740367
9,628.00	90.25	183.64	7,222.40	-1,992.94	-810.23	1,315,222.32	3,212,192.83	40.196187	-104.740390
9,723.00	88.03	183.40	7,223.83	-2,087.74	-816.07	1,315,127.47	3,212,187.81	40.195927	-104.740411
9,818.00	86.61	182.88	7,228.27	-2,182.50	-821.26	1,315,032.68	3,212,183.43	40.195667	-104.740429
9,914.00	87.16	180.66	7,233.49	-2,278.30	-824.22	1,314,936.85	3,212,181.29	40.195404	-104.740440
10,009.00	88.27	178.52	7,237.28	-2,373.22	-823.54	1,314,841.95	3,212,182.79	40.195143	-104.740437
10,104.00	87.72	176.13	7,240.60	-2,468.05	-819.11	1,314,747.16	3,212,188.04	40.194883	-104.740421
10,200.00	88.46	174.08	7,243.80	-2,563.64	-810.93	1,314,651.64	3,212,197.04	40.194621	-104.740392
10,294.00	90.88	171.43	7,244.34	-2,656.87	-799.07	1,314,558.52	3,212,209.70	40.194365	-104.740350
10,389.00	90.35	171.08	7,243.32	-2,750.76	-784.63	1,314,464.75	3,212,224.95	40.194107	-104.740298
10,484.00	91.29	171.80	7,241.96	-2,844.69	-770.49	1,314,370.95	3,212,239.89	40.193849	-104.740247
10,580.00	91.23	171.96	7,239.85	-2,939.71	-756.94	1,314,276.05	3,212,254.27	40.193588	-104.740199
10,675.00	91.11	172.27	7,237.91	-3,033.79	-743.91	1,314,182.09	3,212,268.11	40.193330	-104.740152
10,770.00	91.06	172.31	7,236.11	-3,127.91	-731.16	1,314,088.08	3,212,281.66	40.193072	-104.740107
10,866.00	90.99	175.76	7,234.40	-3,223.36	-721.19	1,313,992.72	3,212,292.45	40.192810	-104.740071
10,961.00	90.88	176.90	7,232.85	-3,318.15	-715.11	1,313,897.98	3,212,299.35	40.192549	-104.740049
11,057.00	90.79	178.66	7,231.45	-3,414.07	-711.39	1,313,802.10	3,212,303.89	40.192286	-104.740036
11,152.00	90.80	180.23	7,230.13	-3,509.05	-710.47	1,313,707.13	3,212,305.62	40.192025	-104.740032
11,248.00	90.86	180.38	7,228.74	-3,605.04	-710.98	1,313,611.14	3,212,305.94	40.191762	-104.740034
11,343.00	90.55	181.86	7,227.57	-3,700.01	-712.84	1,313,516.16	3,212,304.90	40.191501	-104.740041
11,437.00	90.43	181.21	7,226.77	-3,793.97	-715.36	1,313,422.18	3,212,303.19	40.191243	-104.740050
11,532.00	90.53	178.48	7,225.97	-3,888.96	-715.10	1,313,327.20	3,212,304.26	40.190982	-104.740049
11,627.00	90.00	178.93	7,225.53	-3,983.94	-712.95	1,313,232.24	3,212,307.23	40.190722	-104.740041
11,720.00	89.69	179.29	7,225.78	-4,076.92	-711.51	1,313,139.27	3,212,309.47	40.190466	-104.740036
last mwd survey									
11,770.00	89.69	179.29	7,226.05	-4,126.92	-710.89	1,313,089.28	3,212,310.52	40.190329	-104.740034
projection									

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,624.40	7,243.35	7"	7	8-3/4	

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
867.00	866.98	2.71	-3.12	tie on to gyro	
7,624.40	7,243.35	5.29	-812.38	7" casing point	
11,720.00	7,225.78	-4,076.92	-711.51	last mwd survey	
11,770.00	7,226.05	-4,126.92	-710.89	projection	

Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_