

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_CAMP 1-26HZ PAD

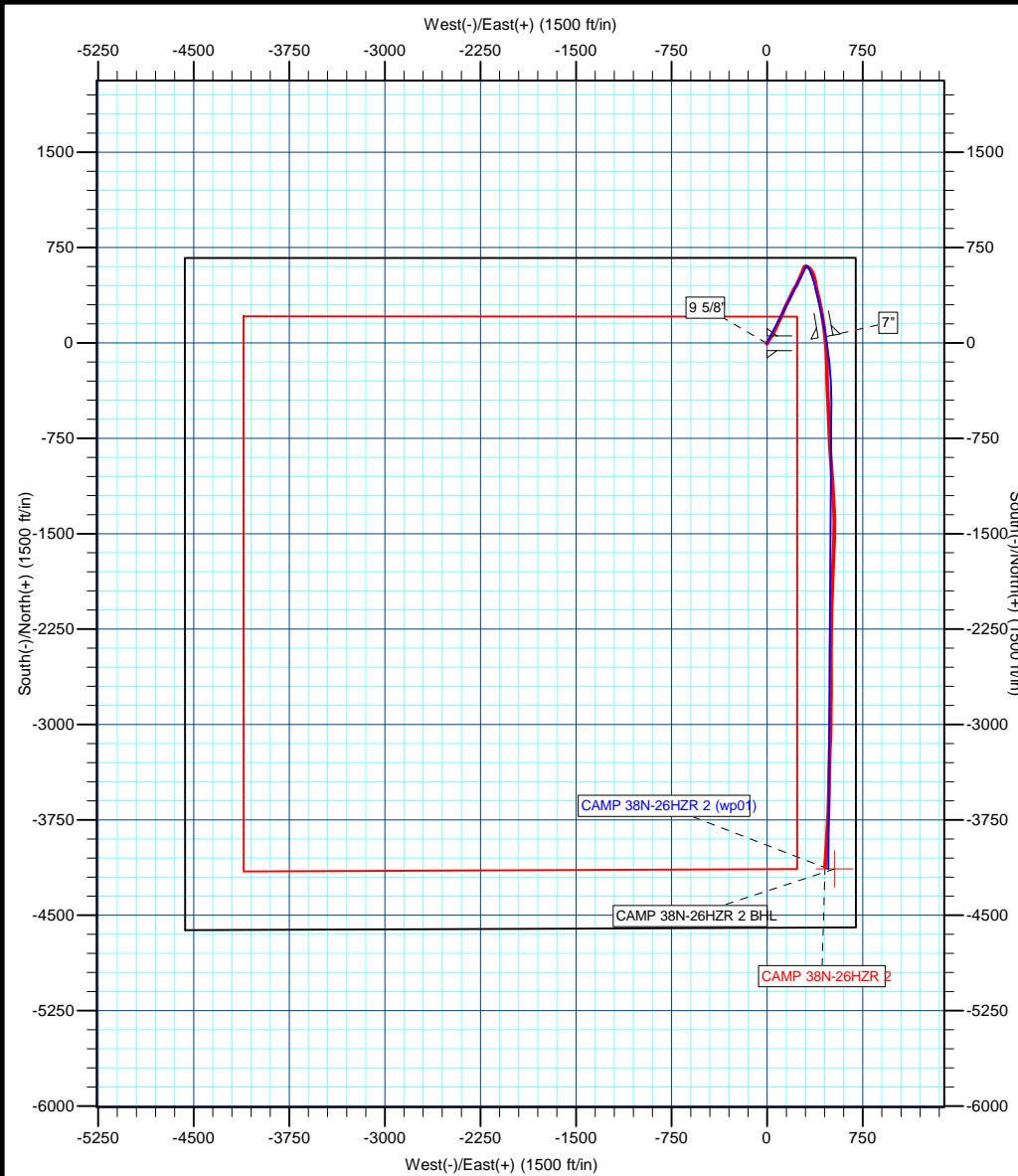
CAMP 38N-26HZR 2

CAMP 38N-26HZR 2

Design: CAMP 38N-26HZR 2

Standard Survey Report

10 April, 2012



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 38N-26HZR 2
Wellbore: CAMP 38N-26HZR 2
Section:
SHL:
Design: CAMP 38N-26HZR 2 (wp01)
Latitude: 40.201630
Longitude: -104.737420
GL: 5014.00
KB: 25' RKB + 5014' GL @ 5039.00ft

WELL DETAILS: CAMP 38N-26HZR 2

+N/-S	+E/-W	Northing	Ground Level: Easting	5014.00 Latitude	Longitude	Slot
0.00	0.00	1317212.11	3213005.26	40.201630	-104.737420	

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect
865.00	0.28	270.04	864.98	-3.80	-0.17	0.00	0.00	3.76
1800.00	0.00	0.00	1799.98	-3.80	-2.45	0.03	180.00	3.49
2213.26	8.27	27.05	2211.81	22.70	11.08	2.00	27.05	-21.27
6729.10	8.27	27.05	6680.74	600.86	306.32	0.00	0.00	-561.47
7694.98	90.00	170.00	7317.00	50.00	460.00	10.00	142.66	3.45
8213.03	90.38	180.35	7315.28	-465.51	503.50	2.00	87.89	520.54
11883.71	90.38	180.35	7291.00	-4136.04	480.81	0.00	0.00	4163.89

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

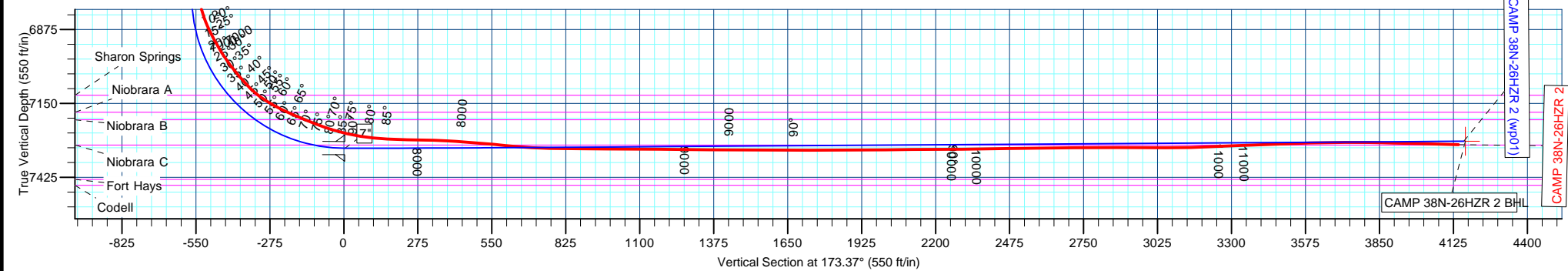
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
CAMP 38N-26HZR 2 BHL	7291.00	-4136.04	530.81	40.190276	-104.735520	Point

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4083.00	4104.10	Parkman
4668.00	4695.24	Sussex
7120.00	7204.07	Sharon Springs
7183.00	7294.26	Niobrara A
7211.00	7340.15	Niobrara B
7305.00	7577.29	Niobrara C

CASING DETAILS

TVD	MD	Name	Size
900.00	900.02	9 5/8"	9-5/8
7317.00	7694.98	7"	7



Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well CAMP 38N-26HZR 2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 5014' GL @ 5039.00ft
Site:	WELD_CAMP 1-26HZ PAD	MD Reference:	25' RKB + 5014' GL @ 5039.00ft
Well:	CAMP 38N-26HZR 2	North Reference:	True
Wellbore:	CAMP 38N-26HZR 2	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38N-26HZR 2	Database:	edmp

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

Well CAMP 38N-26HZR 2			
Well Position	+N/-S	0.00 ft	Northing: 1,317,212.11 usft
	+E/-W	0.00 ft	Easting: 3,213,005.26 usft
Position Uncertainty		0.00 ft	Wellhead Elevation: ft
			Latitude: 40.201630
			Longitude: -104.737420
			Ground Level: 5,014.00 ft

Wellbore CAMP 38N-26HZR 2					
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	10/7/2011	8.79	66.88	52,996

Design CAMP 38N-26HZR 2				
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	173.37

Survey Program		Date 4/10/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	865.00	Survey #1 (CAMP 38N-26HZR 2)	NS-GYRO-MS	NORTH SENSING GYROCOMPASSING M/S	
1,050.00	11,777.00	Survey #2 (CAMP 38N-26HZR 2)	MWD	MWD - STANDARD	

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	0.64	160.86	100.00	-0.53	0.18	0.55	0.64	0.64	0.00	
200.00	0.36	81.59	199.99	-1.01	0.68	1.08	0.67	-0.28	-79.27	
300.00	0.72	172.71	299.99	-1.59	1.07	1.70	0.81	0.36	91.12	
400.00	0.40	180.01	399.99	-2.56	1.15	2.67	0.33	-0.32	7.30	
500.00	0.52	210.24	499.98	-3.30	0.92	3.38	0.27	0.12	30.23	
600.00	0.17	7.47	599.98	-3.54	0.71	3.60	0.68	-0.35	157.23	
700.00	0.49	223.76	699.98	-3.71	0.43	3.73	0.64	0.32	-143.71	
800.00	0.18	325.12	799.98	-3.89	0.05	3.87	0.55	-0.31	101.36	
865.00	0.28	270.04	864.98	-3.80	-0.17	3.76	0.35	0.15	-84.74	

Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well CAMP 38N-26HZR 2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 5014' GL @ 5039.00ft
Site:	WELD_CAMP 1-26HZ PAD	MD Reference:	25' RKB + 5014' GL @ 5039.00ft
Well:	CAMP 38N-26HZR 2	North Reference:	True
Wellbore:	CAMP 38N-26HZR 2	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38N-26HZR 2	Database:	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									
1,050.00	0.10	299.73	1,049.98	-3.72	-0.76	3.61	0.11	-0.10	16.05
1,142.00	0.25	256.05	1,141.98	-3.73	-1.03	3.59	0.21	0.16	-47.48
1,234.00	0.20	268.36	1,233.98	-3.78	-1.38	3.60	0.08	-0.05	13.38
1,418.00	0.22	228.14	1,417.98	-4.03	-1.97	3.77	0.08	0.01	-21.86
1,608.00	0.51	117.05	1,607.97	-4.66	-1.48	4.45	0.33	0.15	-58.47
1,734.00	0.41	152.57	1,733.97	-5.31	-0.78	5.19	0.24	-0.08	28.19
1,798.00	0.56	233.65	1,797.97	-5.70	-0.92	5.56	1.00	0.23	126.69
1,893.00	0.91	317.91	1,892.96	-5.42	-1.80	5.17	1.07	0.37	88.69
1,988.00	3.50	22.25	1,987.89	-2.17	-1.21	2.02	3.38	2.73	67.73
2,083.00	5.64	30.31	2,082.59	4.54	2.24	-4.25	2.35	2.25	8.48
2,178.00	8.51	34.18	2,176.85	14.39	8.55	-13.31	3.06	3.02	4.07
2,273.00	10.60	35.24	2,270.53	27.34	17.54	-25.14	2.21	2.20	1.12
2,367.00	9.87	32.22	2,363.03	41.22	26.83	-37.85	0.96	-0.78	-3.21
2,462.00	9.33	31.63	2,456.70	54.67	35.21	-50.24	0.58	-0.57	-0.62
2,557.00	8.47	30.13	2,550.56	67.27	42.76	-61.89	0.94	-0.91	-1.58
2,652.00	10.37	27.63	2,644.27	80.90	50.23	-74.56	2.05	2.00	-2.63
2,747.00	9.53	28.10	2,737.84	95.41	57.90	-88.09	0.89	-0.88	0.49
2,841.00	8.74	28.12	2,830.65	108.58	64.93	-100.35	0.84	-0.84	0.02
2,937.00	8.53	27.19	2,925.56	121.34	71.63	-112.26	0.26	-0.22	-0.97
3,031.00	8.93	27.65	3,018.47	134.01	78.20	-124.08	0.43	0.43	0.49
3,126.00	8.75	25.33	3,112.35	147.07	84.71	-136.31	0.42	-0.19	-2.44
3,221.00	8.42	25.28	3,206.28	159.89	90.77	-148.34	0.35	-0.35	-0.05
3,316.00	7.44	20.40	3,300.37	171.94	95.89	-159.72	1.25	-1.03	-5.14
3,411.00	8.71	23.00	3,394.43	184.33	100.84	-171.46	1.39	1.34	2.74
3,506.00	7.79	19.42	3,488.45	197.02	105.79	-183.49	1.11	-0.97	-3.77
3,600.00	9.20	24.12	3,581.41	209.89	110.98	-195.67	1.67	1.50	5.00
3,695.00	8.37	22.77	3,675.30	223.20	116.76	-208.23	0.90	-0.87	-1.42
3,790.00	7.02	23.35	3,769.44	234.90	121.74	-219.28	1.42	-1.42	0.61
3,885.00	7.53	25.34	3,863.68	245.86	126.70	-229.59	0.60	0.54	2.09
3,979.00	8.68	25.81	3,956.74	257.81	132.43	-240.80	1.23	1.22	0.50
4,074.00	7.90	21.29	4,050.74	270.35	137.92	-252.62	1.07	-0.82	-4.76
4,169.00	7.20	21.13	4,144.92	281.99	142.44	-263.65	0.74	-0.74	-0.17
4,264.00	9.08	28.38	4,238.96	294.14	148.15	-275.06	2.25	1.98	7.63
4,359.00	8.06	28.39	4,332.90	306.59	154.88	-286.66	1.07	-1.07	0.01
4,454.00	6.79	25.17	4,427.10	317.53	160.43	-296.89	1.41	-1.34	-3.39
4,548.00	8.31	26.72	4,520.28	328.63	165.85	-307.28	1.63	1.62	1.65
4,643.00	7.55	24.70	4,614.37	340.43	171.54	-318.35	0.85	-0.80	-2.13
4,738.00	7.06	22.84	4,708.60	351.48	176.42	-328.76	0.57	-0.52	-1.96
4,832.00	8.46	26.50	4,801.74	363.00	181.75	-339.58	1.58	1.49	3.89
4,927.00	7.74	26.24	4,895.79	374.99	187.69	-350.81	0.76	-0.76	-0.27
5,022.00	8.28	24.95	4,989.86	386.93	193.41	-362.01	0.60	0.57	-1.36
5,116.00	7.20	24.09	5,083.01	398.44	198.67	-372.84	1.16	-1.15	-0.91

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Survey Report

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Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 5014' GL @ 5039.00ft
Site:	WELD_CAMP 1-26HZ PAD	MD Reference:	25' RKB + 5014' GL @ 5039.00ft
Well:	CAMP 38N-26HZR 2	North Reference:	True
Wellbore:	CAMP 38N-26HZR 2	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38N-26HZR 2	Database:	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)	
5,211.00	7.71	27.30	5,177.20	409.54	204.02	-383.25	0.69	0.54	3.38	
5,306.00	9.61	31.48	5,271.12	421.97	211.08	-394.77	2.11	2.00	4.40	
5,402.00	9.97	30.72	5,365.72	435.94	219.51	-407.68	0.40	0.38	-0.79	
5,496.00	8.46	29.01	5,458.50	448.99	227.02	-419.77	1.63	-1.61	-1.82	
5,592.00	6.95	27.50	5,553.63	460.32	233.13	-430.32	1.59	-1.57	-1.57	
5,687.00	7.91	25.48	5,647.84	471.32	238.60	-440.62	1.05	1.01	-2.13	
5,782.00	10.15	24.25	5,741.65	484.85	244.85	-453.34	2.37	2.36	-1.29	
5,878.00	8.77	24.19	5,836.34	499.24	251.32	-466.88	1.44	-1.44	-0.06	
5,972.00	9.03	23.37	5,929.21	512.55	257.18	-479.43	0.31	0.28	-0.87	
6,067.00	9.18	24.41	6,023.02	526.29	263.27	-492.38	0.23	0.16	1.09	
6,163.00	7.86	23.43	6,117.95	539.29	269.05	-504.62	1.38	-1.38	-1.02	
6,258.00	8.99	22.56	6,211.93	552.10	274.48	-516.72	1.20	1.19	-0.92	
6,353.00	7.85	21.14	6,305.90	565.01	279.67	-528.94	1.22	-1.20	-1.49	
6,448.00	6.52	19.20	6,400.15	576.15	283.78	-539.54	1.42	-1.40	-2.04	
6,544.00	7.95	22.40	6,495.39	587.44	288.10	-550.25	1.55	1.49	3.33	
6,569.00	7.89	22.47	6,520.15	590.62	289.42	-553.26	0.24	-0.24	0.28	
6,638.00	9.19	51.75	6,588.41	598.42	295.56	-560.29	6.50	1.88	42.43	
6,670.00	11.57	77.35	6,619.91	600.70	300.70	-561.97	16.03	7.44	80.00	
6,701.00	13.99	96.23	6,650.15	600.98	307.46	-561.46	15.47	7.81	60.90	
6,733.00	16.42	113.03	6,681.04	598.79	315.47	-558.36	15.65	7.59	52.50	
6,764.00	18.62	127.79	6,710.62	594.04	323.42	-552.72	15.94	7.10	47.61	
6,796.00	19.00	136.25	6,740.91	587.14	331.06	-544.99	8.60	1.19	26.44	
6,828.00	18.42	136.72	6,771.22	579.70	338.13	-536.78	1.87	-1.81	1.47	
6,859.00	18.01	140.62	6,800.67	572.43	344.53	-528.82	4.15	-1.32	12.58	
6,891.00	20.66	151.02	6,830.87	563.66	350.41	-519.44	13.55	8.28	32.50	
6,923.00	24.80	153.30	6,860.38	552.72	356.16	-507.91	13.22	12.94	7.13	
6,954.00	28.03	159.46	6,888.14	540.09	361.64	-494.72	13.65	10.42	19.87	
6,986.00	29.16	164.84	6,916.24	525.52	366.32	-479.71	8.78	3.53	16.81	
7,017.00	29.67	166.51	6,943.25	510.77	370.08	-464.62	3.12	1.65	5.39	
7,049.00	32.17	166.45	6,970.70	494.78	373.92	-448.30	7.81	7.81	-0.19	
7,081.00	36.36	168.29	6,997.14	477.20	377.85	-430.39	13.49	13.09	5.75	
7,112.00	39.32	170.23	7,021.62	458.52	381.38	-411.42	10.29	9.55	6.26	
7,144.00	40.09	168.92	7,046.24	438.42	385.08	-391.03	3.55	2.41	-4.09	
7,176.00	41.64	167.89	7,070.44	417.91	389.29	-370.17	5.28	4.84	-3.22	
7,207.00	45.97	166.52	7,092.81	396.99	394.05	-348.84	14.30	13.97	-4.42	
7,239.00	50.45	166.02	7,114.13	373.82	399.72	-325.17	14.05	14.00	-1.56	
7,270.00	55.78	166.62	7,132.73	349.74	405.57	-300.57	17.26	17.19	1.94	
7,302.00	60.00	168.28	7,149.73	323.29	411.45	-273.62	13.90	13.19	5.19	
7,334.00	62.86	168.77	7,165.03	295.75	417.04	-245.62	9.04	8.94	1.53	
7,365.00	64.82	168.94	7,178.70	268.45	422.42	-217.88	6.34	6.32	0.55	
7,397.00	65.72	169.52	7,192.09	239.90	427.85	-188.89	3.26	2.81	1.81	
7,428.00	67.57	170.52	7,204.38	211.87	432.78	-160.48	6.66	5.97	3.23	
7,460.00	68.78	171.21	7,216.27	182.54	437.50	-130.81	4.28	3.78	2.16	

Anadarko Petroleum Corp

Survey Report

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Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 5014' GL @ 5039.00ft
Site:	WELD_CAMP 1-26HZ PAD	MD Reference:	25' RKB + 5014' GL @ 5039.00ft
Well:	CAMP 38N-26HZR 2	North Reference:	True
Wellbore:	CAMP 38N-26HZR 2	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38N-26HZR 2	Database:	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)	
7,491.00	68.91	170.99	7,227.46	153.98	441.97	-101.92	0.78	0.42	-0.71	
7,523.00	70.86	171.56	7,238.47	124.28	446.53	-71.89	6.32	6.09	1.78	
7,555.00	72.99	172.22	7,248.39	94.16	450.82	-41.48	6.94	6.66	2.06	
7,587.00	75.74	173.22	7,257.02	63.60	454.72	-10.67	9.11	8.59	3.13	
7,618.00	77.61	174.90	7,264.16	33.60	457.84	19.49	8.01	6.03	5.42	
7,650.00	79.67	176.14	7,270.47	2.32	460.29	50.84	7.47	6.44	3.88	
7,681.00	82.00	176.73	7,275.40	-28.22	462.19	81.39	7.75	7.52	1.90	
7,713.00	84.33	177.68	7,279.21	-59.95	463.74	113.09	7.86	7.28	2.97	
7,744.00	87.41	178.26	7,281.44	-90.85	464.83	143.91	10.11	9.94	1.87	
7,776.00	88.46	178.36	7,282.60	-122.81	465.78	175.77	3.30	3.28	0.31	
7,825.10	88.40	178.28	7,283.94	-171.87	467.22	224.67	0.21	-0.13	-0.16	
7" casing point - 7"										
7,922.00	88.27	178.12	7,286.76	-268.68	470.26	321.18	0.21	-0.13	-0.16	
8,017.00	86.12	177.60	7,291.41	-363.50	473.80	415.77	2.33	-2.26	-0.55	
8,111.00	85.25	177.53	7,298.48	-457.15	477.78	509.25	0.93	-0.93	-0.07	
8,206.00	84.19	177.45	7,307.23	-551.65	481.93	603.60	1.12	-1.12	-0.08	
8,301.00	86.74	177.96	7,314.74	-646.27	485.72	698.03	2.74	2.68	0.54	
8,396.00	89.20	177.64	7,318.10	-741.13	489.36	792.68	2.61	2.59	-0.34	
8,490.00	89.69	176.75	7,319.01	-835.01	493.96	886.46	1.08	0.52	-0.95	
8,585.00	89.65	175.66	7,319.56	-929.80	500.25	981.34	1.15	-0.04	-1.15	
8,680.00	89.88	175.72	7,319.95	-1,024.53	507.39	1,076.26	0.25	0.24	0.06	
8,775.00	89.69	176.22	7,320.30	-1,119.30	514.07	1,171.17	0.56	-0.20	0.53	
8,870.00	89.03	176.72	7,321.37	-1,214.11	519.91	1,266.02	0.87	-0.69	0.53	
8,965.00	89.26	177.23	7,322.78	-1,308.97	524.93	1,360.82	0.59	0.24	0.54	
9,060.00	89.91	179.54	7,323.47	-1,403.92	527.60	1,455.45	2.53	0.68	2.43	
9,154.00	89.57	180.71	7,323.90	-1,497.92	527.40	1,548.79	1.30	-0.36	1.24	
9,249.00	90.00	182.84	7,324.25	-1,592.87	524.46	1,642.77	2.29	0.45	2.24	
9,343.00	90.18	182.55	7,324.11	-1,686.76	520.04	1,735.52	0.36	0.19	-0.31	
9,438.00	90.31	182.39	7,323.70	-1,781.67	515.94	1,829.33	0.22	0.14	-0.17	
9,533.00	90.31	182.09	7,323.19	-1,876.60	512.23	1,923.19	0.32	0.00	-0.32	
9,627.00	90.37	181.76	7,322.63	-1,970.54	509.07	2,016.14	0.36	0.06	-0.35	
9,722.00	90.62	181.48	7,321.81	-2,065.50	506.39	2,110.15	0.40	0.26	-0.29	
9,818.00	90.37	181.43	7,320.98	-2,161.47	503.95	2,205.20	0.27	-0.26	-0.05	
9,913.00	90.18	180.73	7,320.52	-2,256.45	502.16	2,299.34	0.76	-0.20	-0.74	
10,008.00	91.23	180.78	7,319.35	-2,351.43	500.91	2,393.54	1.11	1.11	0.05	
10,103.00	90.92	180.44	7,317.57	-2,446.41	499.90	2,487.77	0.48	-0.33	-0.36	
10,198.00	90.86	179.99	7,316.10	-2,541.40	499.54	2,582.08	0.48	-0.06	-0.47	
10,294.00	90.62	179.88	7,314.86	-2,637.39	499.65	2,677.44	0.28	-0.25	-0.11	
10,388.00	89.51	178.97	7,314.75	-2,731.38	500.59	2,770.91	1.53	-1.18	-0.97	
10,484.00	90.31	181.55	7,314.90	-2,827.37	500.16	2,866.21	2.81	0.83	2.69	
10,579.00	90.00	179.64	7,314.64	-2,922.36	499.17	2,960.45	2.04	-0.33	-2.01	
10,674.00	89.26	181.55	7,315.26	-3,017.35	498.18	3,054.69	2.16	-0.78	2.01	
10,769.00	92.22	182.23	7,314.03	-3,112.28	495.05	3,148.62	3.20	3.12	0.72	
10,865.00	92.22	181.73	7,310.31	-3,208.15	491.74	3,243.47	0.52	0.00	-0.52	

Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well CAMP 38N-26HZR 2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 5014' GL @ 5039.00ft
Site:	WELD_CAMP 1-26HZ PAD	MD Reference:	25' RKB + 5014' GL @ 5039.00ft
Well:	CAMP 38N-26HZR 2	North Reference:	True
Wellbore:	CAMP 38N-26HZR 2	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38N-26HZR 2	Database:	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)	
10,960.00	92.03	181.48	7,306.79	-3,303.05	489.08	3,337.42	0.33	-0.20	-0.26	
11,055.00	92.53	181.26	7,303.01	-3,397.94	486.81	3,431.43	0.57	0.53	-0.23	
11,151.00	92.84	180.87	7,298.51	-3,493.82	485.03	3,526.46	0.52	0.32	-0.41	
11,246.00	90.06	180.56	7,296.11	-3,588.77	483.84	3,620.64	2.94	-2.93	-0.33	
11,342.00	90.00	182.54	7,296.06	-3,684.73	481.24	3,715.66	2.06	-0.06	2.06	
11,437.00	90.00	183.95	7,296.06	-3,779.58	475.87	3,809.25	1.48	0.00	1.48	
11,531.00	88.46	183.39	7,297.32	-3,873.38	469.85	3,901.72	1.74	-1.64	-0.60	
11,626.00	88.58	183.58	7,299.78	-3,968.17	464.08	3,995.21	0.24	0.13	0.20	
11,727.00	88.68	183.24	7,302.19	-4,068.96	458.07	4,094.64	0.35	0.10	-0.34	
LAST SVY										
11,777.00	88.73	183.07	7,303.32	-4,118.87	455.32	4,143.90	0.35	0.10	-0.34	
projection										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,825.10	7,283.94	7"	7	8-3/4	

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
865.00	864.98	-3.80	-0.17	tie on	
7,825.10	7,283.94	-171.87	467.22	7" casing point	
11,727.00	7,302.19	-4,068.96	458.07	LAST SVY	
11,777.00	7,303.32	-4,118.87	455.32	projection	

Checked By: _____ Approved By: _____ Date: _____

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_CAMP 1-26HZ PAD

CAMP 38N-26HZR 2

CAMP 38N-26HZR 2

Design: CAMP 38N-26HZR 2

Survey Report - Geographic

10 April, 2012

Anadarko Petroleum Corp

Survey Report - Geographic

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well CAMP 38N-26HZR 2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 5014' GL @ 5039.00ft
Site:	WELD_CAMP 1-26HZ PAD	MD Reference:	25' RKB + 5014' GL @ 5039.00ft
Well:	CAMP 38N-26HZR 2	North Reference:	True
Wellbore:	CAMP 38N-26HZR 2	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38N-26HZR 2	Database:	edmp

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_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 38N-26HZR 2						
Well Position	+N/-S	0.00 ft	Northing:	1,317,212.11 usft	Latitude:	40.201630
	+E/-W	0.00 ft	Easting:	3,213,005.26 usft	Longitude:	-104.737420
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,014.00 ft

Wellbore CAMP 38N-26HZR 2					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	10/7/2011	(°)	(°)	(nT)
			8.79	66.88	52,996

Design CAMP 38N-26HZR 2					
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction	
	(ft)	(ft)	(ft)	(°)	
	0.00	0.00	0.00	173.37	

Survey Program		Date	4/10/2012		
From	To	Survey (Wellbore)	Tool Name	Description	
(ft)	(ft)				
100.00	865.00	Survey #1 (CAMP 38N-26HZR 2)	NS-GYRO-MS	NORTH SENSING GYROCOMPASSING M/S	
1,050.00	11,777.00	Survey #2 (CAMP 38N-26HZR 2)	MWD	MWD - STANDARD	

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Map	Map	Latitude	Longitude
Depth	(°)	(°)	Depth	(ft)	(ft)	Northing	Easting		
(ft)			(ft)	(ft)	(ft)	(usft)	(usft)		
0.00	0.00	0.00	0.00	0.00	0.00	1,317,212.11	3,213,005.26	40.201630	-104.737420
100.00	0.64	160.86	100.00	-0.53	0.18	1,317,211.58	3,213,005.44	40.201629	-104.737420
200.00	0.36	81.59	199.99	-1.01	0.68	1,317,211.10	3,213,005.94	40.201627	-104.737418
300.00	0.72	172.71	299.99	-1.59	1.07	1,317,210.53	3,213,006.34	40.201626	-104.737416
400.00	0.40	180.01	399.99	-2.56	1.15	1,317,209.56	3,213,006.43	40.201623	-104.737416
500.00	0.52	210.24	499.98	-3.30	0.92	1,317,208.82	3,213,006.20	40.201621	-104.737417
600.00	0.17	7.47	599.98	-3.54	0.71	1,317,208.57	3,213,006.00	40.201620	-104.737418
700.00	0.49	223.76	699.98	-3.71	0.43	1,317,208.41	3,213,005.72	40.201620	-104.737419
800.00	0.18	325.12	799.98	-3.89	0.05	1,317,208.22	3,213,005.34	40.201619	-104.737420
865.00	0.28	270.04	864.98	-3.80	-0.17	1,317,208.30	3,213,005.12	40.201620	-104.737421
tie on									

Anadarko Petroleum Corp

Survey Report - Geographic

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well CAMP 38N-26HZR 2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 5014' GL @ 5039.00ft
Site:	WELD_CAMP 1-26HZ PAD	MD Reference:	25' RKB + 5014' GL @ 5039.00ft
Well:	CAMP 38N-26HZR 2	North Reference:	True
Wellbore:	CAMP 38N-26HZR 2	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38N-26HZR 2	Database:	edmp

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
1,050.00	0.10	299.73	1,049.98	-3.72	-0.76	1,317,208.38	3,213,004.53	40.201620	-104.737423	
1,142.00	0.25	256.05	1,141.98	-3.73	-1.03	1,317,208.37	3,213,004.26	40.201620	-104.737424	
1,234.00	0.20	268.36	1,233.98	-3.78	-1.38	1,317,208.31	3,213,003.91	40.201620	-104.737425	
1,418.00	0.22	228.14	1,417.98	-4.03	-1.97	1,317,208.06	3,213,003.33	40.201619	-104.737427	
1,608.00	0.51	117.05	1,607.97	-4.66	-1.48	1,317,207.44	3,213,003.81	40.201617	-104.737426	
1,734.00	0.41	152.57	1,733.97	-5.31	-0.78	1,317,206.79	3,213,004.53	40.201615	-104.737423	
1,798.00	0.56	233.65	1,797.97	-5.70	-0.92	1,317,206.40	3,213,004.38	40.201614	-104.737424	
1,893.00	0.91	317.91	1,892.96	-5.42	-1.80	1,317,206.68	3,213,003.50	40.201615	-104.737427	
1,988.00	3.50	22.25	1,987.89	-2.17	-1.21	1,317,209.93	3,213,004.06	40.201624	-104.737425	
2,083.00	5.64	30.31	2,082.59	4.54	2.24	1,317,216.67	3,213,007.46	40.201642	-104.737412	
2,178.00	8.51	34.18	2,176.85	14.39	8.55	1,317,226.57	3,213,013.68	40.201670	-104.737390	
2,273.00	10.60	35.24	2,270.53	27.34	17.54	1,317,239.60	3,213,022.56	40.201705	-104.737357	
2,367.00	9.87	32.22	2,363.03	41.22	26.83	1,317,253.56	3,213,031.73	40.201743	-104.737324	
2,462.00	9.33	31.63	2,456.70	54.67	35.21	1,317,267.08	3,213,039.99	40.201780	-104.737294	
2,557.00	8.47	30.13	2,550.56	67.27	42.76	1,317,279.75	3,213,047.43	40.201815	-104.737267	
2,652.00	10.37	27.63	2,644.27	80.90	50.23	1,317,293.44	3,213,054.79	40.201852	-104.737240	
2,747.00	9.53	28.10	2,737.84	95.41	57.90	1,317,308.02	3,213,062.34	40.201892	-104.737213	
2,841.00	8.74	28.12	2,830.65	108.58	64.93	1,317,321.24	3,213,069.26	40.201928	-104.737188	
2,937.00	8.53	27.19	2,925.56	121.34	71.63	1,317,334.06	3,213,075.84	40.201963	-104.737164	
3,031.00	8.93	27.65	3,018.47	134.01	78.20	1,317,346.78	3,213,082.30	40.201998	-104.737140	
3,126.00	8.75	25.33	3,112.35	147.07	84.71	1,317,359.90	3,213,088.70	40.202034	-104.737117	
3,221.00	8.42	25.28	3,206.28	159.89	90.77	1,317,372.77	3,213,094.65	40.202069	-104.737095	
3,316.00	7.44	20.40	3,300.37	171.94	95.89	1,317,384.87	3,213,099.66	40.202102	-104.737077	
3,411.00	8.71	23.00	3,394.43	184.33	100.84	1,317,397.30	3,213,104.51	40.202136	-104.737059	
3,506.00	7.79	19.42	3,488.45	197.02	105.79	1,317,410.04	3,213,109.35	40.202171	-104.737042	
3,600.00	9.20	24.12	3,581.41	209.89	110.98	1,317,422.95	3,213,114.43	40.202206	-104.737023	
3,695.00	8.37	22.77	3,675.30	223.20	116.76	1,317,436.30	3,213,120.09	40.202243	-104.737002	
3,790.00	7.02	23.35	3,769.44	234.90	121.74	1,317,448.05	3,213,124.97	40.202275	-104.736984	
3,885.00	7.53	25.34	3,863.68	245.86	126.70	1,317,459.05	3,213,129.84	40.202305	-104.736967	
3,979.00	8.68	25.81	3,956.74	257.81	132.43	1,317,471.05	3,213,135.46	40.202338	-104.736946	
4,074.00	7.90	21.29	4,050.74	270.35	137.92	1,317,483.63	3,213,140.85	40.202372	-104.736927	
4,169.00	7.20	21.13	4,144.92	281.99	142.44	1,317,495.31	3,213,145.26	40.202404	-104.736910	
4,264.00	9.08	28.38	4,238.96	294.14	148.15	1,317,507.51	3,213,150.87	40.202437	-104.736890	
4,359.00	8.06	28.39	4,332.90	306.59	154.88	1,317,520.02	3,213,157.49	40.202472	-104.736866	
4,454.00	6.79	25.17	4,427.10	317.53	160.43	1,317,531.01	3,213,162.95	40.202502	-104.736846	
4,548.00	8.31	26.72	4,520.28	328.63	165.85	1,317,542.15	3,213,168.27	40.202532	-104.736827	
4,643.00	7.55	24.70	4,614.37	340.43	171.54	1,317,554.00	3,213,173.87	40.202565	-104.736806	
4,738.00	7.06	22.84	4,708.60	351.48	176.42	1,317,565.09	3,213,178.65	40.202595	-104.736789	
4,832.00	8.46	26.50	4,801.74	363.00	181.75	1,317,576.65	3,213,183.87	40.202626	-104.736770	
4,927.00	7.74	26.24	4,895.79	374.99	187.69	1,317,588.70	3,213,189.72	40.202659	-104.736748	
5,022.00	8.28	24.95	4,989.86	386.93	193.41	1,317,600.68	3,213,195.33	40.202692	-104.736728	
5,116.00	7.20	24.09	5,083.01	398.44	198.67	1,317,612.24	3,213,200.49	40.202724	-104.736709	
5,211.00	7.71	27.30	5,177.20	409.54	204.02	1,317,623.39	3,213,205.75	40.202754	-104.736690	
5,306.00	9.61	31.48	5,271.12	421.97	211.08	1,317,635.87	3,213,212.70	40.202788	-104.736665	
5,402.00	9.97	30.72	5,365.72	435.94	219.51	1,317,649.92	3,213,221.01	40.202827	-104.736634	
5,496.00	8.46	29.01	5,458.50	448.99	227.02	1,317,663.03	3,213,228.41	40.202863	-104.736607	
5,592.00	6.95	27.50	5,553.63	460.32	233.13	1,317,674.41	3,213,234.42	40.202894	-104.736586	
5,687.00	7.91	25.48	5,647.84	471.32	238.60	1,317,685.46	3,213,239.79	40.202924	-104.736566	
5,782.00	10.15	24.25	5,741.65	484.85	244.85	1,317,699.05	3,213,245.93	40.202961	-104.736544	
5,878.00	8.77	24.19	5,836.34	499.24	251.32	1,317,713.49	3,213,252.27	40.203000	-104.736521	
5,972.00	9.03	23.37	5,929.21	512.55	257.18	1,317,726.85	3,213,258.02	40.203037	-104.736500	
6,067.00	9.18	24.41	6,023.02	526.29	263.27	1,317,740.64	3,213,263.99	40.203075	-104.736478	
6,163.00	7.86	23.43	6,117.95	539.29	269.05	1,317,753.69	3,213,269.66	40.203110	-104.736457	
6,258.00	8.99	22.56	6,211.93	552.10	274.48	1,317,766.55	3,213,274.98	40.203146	-104.736438	
6,353.00	7.85	21.14	6,305.90	565.01	279.67	1,317,779.50	3,213,280.05	40.203181	-104.736419	

Anadarko Petroleum Corp

Survey Report - Geographic

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well CAMP 38N-26HZR 2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 5014' GL @ 5039.00ft
Site:	WELD_CAMP 1-26HZ PAD	MD Reference:	25' RKB + 5014' GL @ 5039.00ft
Well:	CAMP 38N-26HZR 2	North Reference:	True
Wellbore:	CAMP 38N-26HZR 2	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38N-26HZR 2	Database:	edmp

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
6,448.00	6.52	19.20	6,400.15	576.15	283.78	1,317,790.68	3,213,284.07	40.203212	-104.736404	
6,544.00	7.95	22.40	6,495.39	587.44	288.10	1,317,802.00	3,213,288.30	40.203243	-104.736389	
6,569.00	7.89	22.47	6,520.15	590.62	289.42	1,317,805.20	3,213,289.58	40.203251	-104.736384	
6,638.00	9.19	51.75	6,588.41	598.42	295.56	1,317,813.04	3,213,295.66	40.203273	-104.736362	
6,670.00	11.57	77.35	6,619.91	600.70	300.70	1,317,815.37	3,213,300.78	40.203279	-104.736344	
6,701.00	13.99	96.23	6,650.15	600.98	307.46	1,317,815.71	3,213,307.54	40.203280	-104.736320	
6,733.00	16.42	113.03	6,681.04	598.79	315.47	1,317,813.58	3,213,315.57	40.203274	-104.736291	
6,764.00	18.62	127.79	6,710.62	594.04	323.42	1,317,808.90	3,213,323.56	40.203261	-104.736262	
6,796.00	19.00	136.25	6,740.91	587.14	331.06	1,317,802.07	3,213,331.26	40.203242	-104.736235	
6,828.00	18.42	136.72	6,771.22	579.70	338.13	1,317,794.69	3,213,338.39	40.203221	-104.736210	
6,859.00	18.01	140.62	6,800.67	572.43	344.53	1,317,787.48	3,213,344.85	40.203201	-104.736187	
6,891.00	20.66	151.02	6,830.87	563.66	350.41	1,317,778.76	3,213,350.80	40.203177	-104.736166	
6,923.00	24.80	153.30	6,860.38	552.72	356.16	1,317,767.87	3,213,356.65	40.203147	-104.736145	
6,954.00	28.03	159.46	6,888.14	540.09	361.64	1,317,755.29	3,213,362.24	40.203113	-104.736126	
6,986.00	29.16	164.84	6,916.24	525.52	366.32	1,317,740.76	3,213,367.04	40.203073	-104.736109	
7,017.00	29.67	166.51	6,943.25	510.77	370.08	1,317,726.04	3,213,370.93	40.203032	-104.736095	
7,049.00	32.17	166.45	6,970.70	494.78	373.92	1,317,710.09	3,213,374.91	40.202988	-104.736082	
7,081.00	36.36	168.29	6,997.14	477.20	377.85	1,317,692.54	3,213,378.99	40.202940	-104.736068	
7,112.00	39.32	170.23	7,021.62	458.52	381.38	1,317,673.89	3,213,382.68	40.202889	-104.736055	
7,144.00	40.09	168.92	7,046.24	438.42	385.08	1,317,653.82	3,213,386.55	40.202833	-104.736042	
7,176.00	41.64	167.89	7,070.44	417.91	389.29	1,317,633.35	3,213,390.94	40.202777	-104.736027	
7,207.00	45.97	166.52	7,092.81	396.99	394.05	1,317,612.48	3,213,395.88	40.202720	-104.736010	
7,239.00	50.45	166.02	7,114.13	373.82	399.72	1,317,589.35	3,213,401.74	40.202656	-104.735989	
7,270.00	55.78	166.62	7,132.73	349.74	405.57	1,317,565.32	3,213,407.81	40.202590	-104.735968	
7,302.00	60.00	168.28	7,149.73	323.29	411.45	1,317,538.92	3,213,413.91	40.202517	-104.735947	
7,334.00	62.86	168.77	7,165.03	295.75	417.04	1,317,511.43	3,213,419.74	40.202442	-104.735927	
7,365.00	64.82	168.94	7,178.70	268.45	422.42	1,317,484.18	3,213,425.35	40.202367	-104.735908	
7,397.00	65.72	169.52	7,192.09	239.90	427.85	1,317,455.68	3,213,431.03	40.202289	-104.735889	
7,428.00	67.57	170.52	7,204.38	211.87	432.78	1,317,427.69	3,213,436.20	40.202212	-104.735871	
7,460.00	68.78	171.21	7,216.27	182.54	437.50	1,317,398.40	3,213,441.17	40.202131	-104.735854	
7,491.00	68.91	170.99	7,227.46	153.98	441.97	1,317,369.88	3,213,445.89	40.202053	-104.735838	
7,523.00	70.86	171.56	7,238.47	124.28	446.53	1,317,340.22	3,213,450.70	40.201971	-104.735822	
7,555.00	72.99	172.22	7,248.39	94.16	450.82	1,317,310.15	3,213,455.25	40.201888	-104.735806	
7,587.00	75.74	173.22	7,257.02	63.60	454.72	1,317,279.62	3,213,459.41	40.201805	-104.735792	
7,618.00	77.61	174.90	7,264.16	33.60	457.84	1,317,249.64	3,213,462.79	40.201722	-104.735781	
7,650.00	79.67	176.14	7,270.47	2.32	460.29	1,317,218.39	3,213,465.51	40.201636	-104.735772	
7,681.00	82.00	176.73	7,275.40	-28.22	462.19	1,317,187.86	3,213,467.67	40.201553	-104.735766	
7,713.00	84.33	177.68	7,279.21	-59.95	463.74	1,317,156.15	3,213,469.49	40.201465	-104.735760	
7,744.00	87.41	178.26	7,281.44	-90.85	464.83	1,317,125.26	3,213,470.85	40.201381	-104.735756	
7,776.00	88.46	178.36	7,282.60	-122.81	465.78	1,317,093.31	3,213,472.07	40.201293	-104.735753	
7,825.10	88.40	178.28	7,283.94	-171.87	467.22	1,317,044.26	3,213,473.93	40.201158	-104.735748	
7" casing point - 7"										
7,922.00	88.27	178.12	7,286.76	-268.68	470.26	1,316,947.48	3,213,477.81	40.200892	-104.735737	
8,017.00	86.12	177.60	7,291.41	-363.50	473.80	1,316,852.70	3,213,482.17	40.200632	-104.735724	
8,111.00	85.25	177.53	7,298.48	-457.15	477.78	1,316,759.09	3,213,486.95	40.200375	-104.735710	
8,206.00	84.19	177.45	7,307.23	-551.65	481.93	1,316,664.62	3,213,491.91	40.200116	-104.735695	
8,301.00	86.74	177.96	7,314.74	-646.27	485.72	1,316,570.04	3,213,496.51	40.199856	-104.735681	
8,396.00	89.20	177.64	7,318.10	-741.13	489.36	1,316,475.21	3,213,500.97	40.199595	-104.735668	
8,490.00	89.69	176.75	7,319.01	-835.01	493.96	1,316,381.37	3,213,506.38	40.199338	-104.735652	
8,585.00	89.65	175.66	7,319.56	-929.80	500.25	1,316,286.64	3,213,513.48	40.199078	-104.735629	
8,680.00	89.88	175.72	7,319.95	-1,024.53	507.39	1,316,191.98	3,213,521.44	40.198818	-104.735604	
8,775.00	89.69	176.22	7,320.30	-1,119.30	514.07	1,316,097.27	3,213,528.93	40.198557	-104.735580	
8,870.00	89.03	176.72	7,321.37	-1,214.11	519.91	1,316,002.52	3,213,535.59	40.198297	-104.735559	
8,965.00	89.26	177.23	7,322.78	-1,308.97	524.93	1,315,907.71	3,213,541.42	40.198037	-104.735541	
9,060.00	89.91	179.54	7,323.47	-1,403.92	527.60	1,315,812.78	3,213,544.91	40.197776	-104.735532	

Anadarko Petroleum Corp

Survey Report - Geographic

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well CAMP 38N-26HZR 2
Project:	COLORADO NORTHERN ZONE - 83	TVD Reference:	25' RKB + 5014' GL @ 5039.00ft
Site:	WELD_CAMP 1-26HZ PAD	MD Reference:	25' RKB + 5014' GL @ 5039.00ft
Well:	CAMP 38N-26HZR 2	North Reference:	True
Wellbore:	CAMP 38N-26HZR 2	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38N-26HZR 2	Database:	edmp

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
9,154.00	89.57	180.71	7,323.90	-1,497.92	527.40	1,315,718.78	3,213,545.52	40.197518	-104.735532	
9,249.00	90.00	182.84	7,324.25	-1,592.87	524.46	1,315,623.81	3,213,543.39	40.197257	-104.735543	
9,343.00	90.18	182.55	7,324.11	-1,686.76	520.04	1,315,529.88	3,213,539.78	40.197000	-104.735559	
9,438.00	90.31	182.39	7,323.70	-1,781.67	515.94	1,315,434.94	3,213,536.50	40.196739	-104.735573	
9,533.00	90.31	182.09	7,323.19	-1,876.60	512.23	1,315,339.99	3,213,533.61	40.196479	-104.735587	
9,627.00	90.37	181.76	7,322.63	-1,970.54	509.07	1,315,246.02	3,213,531.26	40.196221	-104.735598	
9,722.00	90.62	181.48	7,321.81	-2,065.50	506.39	1,315,151.04	3,213,529.39	40.195960	-104.735608	
9,818.00	90.37	181.43	7,320.98	-2,161.47	503.95	1,315,055.06	3,213,527.77	40.195697	-104.735616	
9,913.00	90.18	180.73	7,320.52	-2,256.45	502.16	1,314,960.07	3,213,526.80	40.195436	-104.735623	
10,008.00	91.23	180.78	7,319.35	-2,351.43	500.91	1,314,865.08	3,213,526.37	40.195175	-104.735627	
10,103.00	90.92	180.44	7,317.57	-2,446.41	499.90	1,314,770.09	3,213,526.17	40.194914	-104.735631	
10,198.00	90.86	179.99	7,316.10	-2,541.40	499.54	1,314,675.11	3,213,526.63	40.194654	-104.735632	
10,294.00	90.62	179.88	7,314.86	-2,637.39	499.65	1,314,579.12	3,213,527.57	40.194390	-104.735632	
10,388.00	89.51	178.97	7,314.75	-2,731.38	500.59	1,314,485.14	3,213,529.32	40.194132	-104.735628	
10,484.00	90.31	181.55	7,314.90	-2,827.37	500.16	1,314,389.15	3,213,529.71	40.193869	-104.735630	
10,579.00	90.00	179.64	7,314.64	-2,922.36	499.17	1,314,294.15	3,213,529.54	40.193608	-104.735633	
10,674.00	89.26	181.55	7,315.26	-3,017.35	498.18	1,314,199.16	3,213,529.37	40.193347	-104.735637	
10,769.00	92.22	182.23	7,314.03	-3,112.28	495.05	1,314,104.21	3,213,527.05	40.193086	-104.735648	
10,865.00	92.22	181.73	7,310.31	-3,208.15	491.74	1,314,008.31	3,213,524.56	40.192823	-104.735660	
10,960.00	92.03	181.48	7,306.79	-3,303.05	489.08	1,313,913.40	3,213,522.72	40.192563	-104.735670	
11,055.00	92.53	181.26	7,303.01	-3,397.94	486.81	1,313,818.48	3,213,521.27	40.192302	-104.735678	
11,151.00	92.84	180.87	7,298.51	-3,493.82	485.03	1,313,722.59	3,213,520.31	40.192039	-104.735684	
11,246.00	90.06	180.56	7,296.11	-3,588.77	483.84	1,313,627.63	3,213,519.94	40.191778	-104.735688	
11,342.00	90.00	182.54	7,296.06	-3,684.73	481.24	1,313,531.66	3,213,518.17	40.191515	-104.735698	
11,437.00	90.00	183.95	7,296.06	-3,779.58	475.87	1,313,436.77	3,213,513.61	40.191255	-104.735717	
11,531.00	88.46	183.39	7,297.32	-3,873.38	469.85	1,313,342.92	3,213,508.40	40.190997	-104.735738	
11,626.00	88.58	183.58	7,299.78	-3,968.17	464.08	1,313,248.09	3,213,503.44	40.190737	-104.735759	
11,727.00	88.68	183.24	7,302.19	-4,068.96	458.07	1,313,147.25	3,213,498.30	40.190460	-104.735781	
LAST SVY										
11,777.00	88.73	183.07	7,303.32	-4,118.87	455.32	1,313,097.31	3,213,495.98	40.190323	-104.735790	
projection										

Casing Points					
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")	
7,825.10	7,283.94	7"	7	8-3/4	

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
865.00	864.98	-3.80	-0.17	tie on	
7,825.10	7,283.94	-171.87	467.22	7" casing point	
11,727.00	7,302.19	-4,068.96	458.07	LAST SVY	
11,777.00	7,303.32	-4,118.87	455.32	projection	

Checked By: _____ Approved By: _____ Date: _____