

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_CAMP 1-26HZ PAD

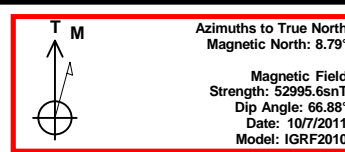
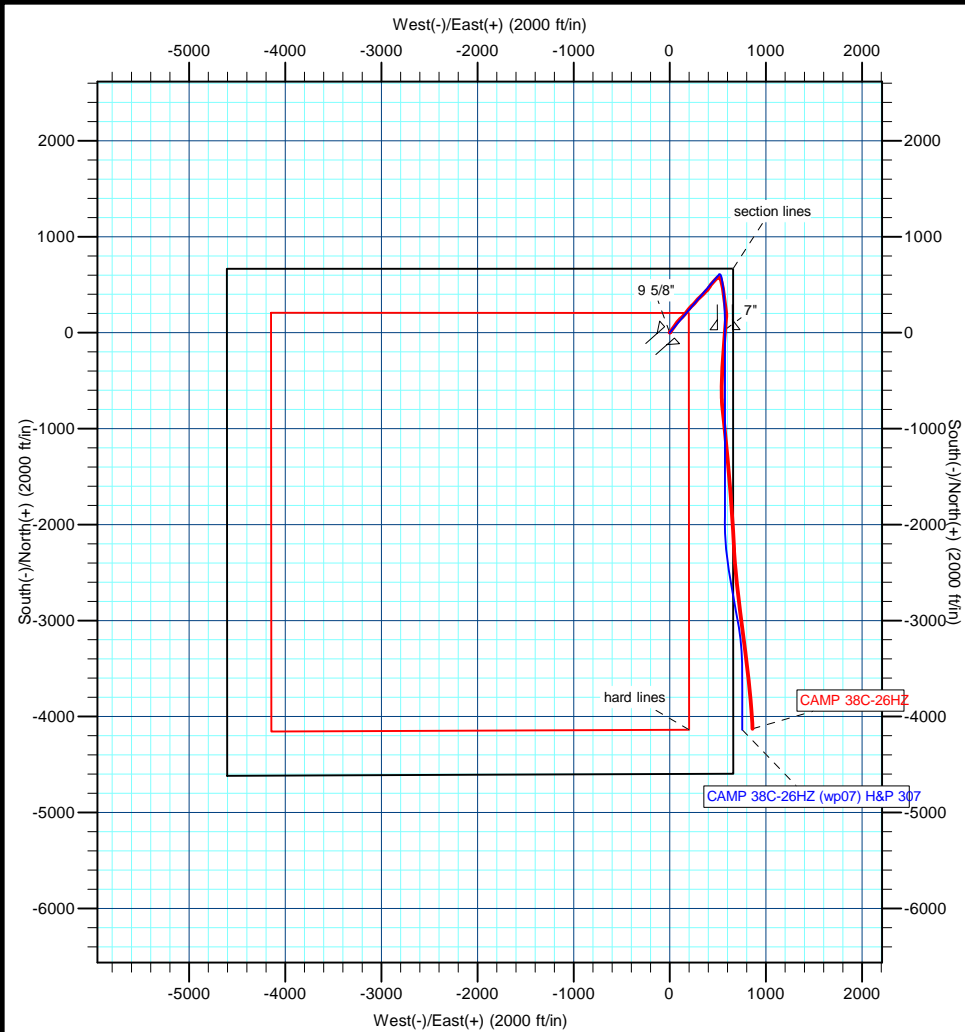
CAMP 38C-26HZ

CAMP 38C-26HZ

Design: CAMP 38C-26HZ

Standard Survey Report

27 March, 2012



Project: COLORADO NORTHERN ZONE - 83
 Site: WELD_CAMP 1-26HZ PAD
 Well: CAMP 38C-26HZ
 Wellbore: CAMP 38C-26HZ
 Section:
 SHL:
 Design: CAMP 38C-26HZ (wp07) H&P 307
 Latitude: 40.201630
 Longitude: -104.737286
 GL: 5014.00
 KB: 25' RKB + 5014' GL @ 5039.00ft

WELL DETAILS: CAMP 38C-26HZ

+N/-S	+E/-W	Northing	Ground Level: Easting	5014.00 Latitude	Longitude	Slot
0.00	0.00	1317212.46	3213042.68	40.201630	-104.737286	

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect
877.00	0.23	48.45	876.99	1.97	-2.26	0.00	0.00	-2.34
1100.00	0.00	0.00	1099.99	2.26	-1.92	0.10	180.00	-2.57
1510.08	8.20	40.45	1508.67	24.56	17.09	2.00	40.45	-21.09
6883.11	8.20	40.45	6826.74	607.85	514.39	0.00	0.00	-505.61
7853.71	90.83	180.00	7459.00	30.00	574.39	10.00	139.18	73.62
7854.34	90.82	180.00	7458.99	29.37	574.39	2.00	180.00	74.25
9883.92	90.82	180.00	7430.00	-2000.00	574.39	0.00	0.00	2070.63
10377.19	91.49	170.16	7420.04	-2490.75	616.65	2.00	-86.01	2560.99
10937.11	91.49	170.16	7405.49	-3042.24	712.35	0.00	0.00	3120.70
11434.90	90.00	180.00	7399.00	-3537.52	755.00	2.00	98.52	3615.60
12033.37	90.00	180.00	7399.00	-4136.00	755.00	0.00	0.00	4204.35

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

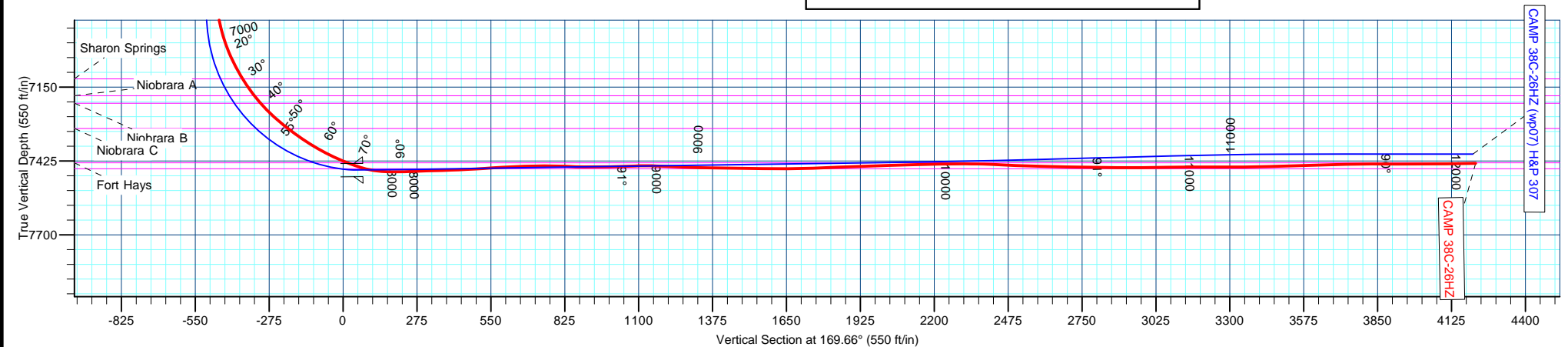
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
CAMP 38C-26HZ BHL	7399.00	-4136.07	574.39	40.190276	-104.735230	Point

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4082.00	4110.00	Parkman
4667.00	4701.05	Sussex
7119.00	7183.57	Sharon Springs
7182.00	7254.88	Niobrara A
7210.00	7288.28	Niobrara B
7304.00	7412.70	Niobrara C
7432.00	7668.18	Fort Hays
7454.00	7768.99	Codell

CASING DETAILS

TVD	MD	Name	Size
900.00	900.01	9 5/8"	9-5/8
7459.00	7853.71	7"	7



Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well CAMP 38C-26HZ
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 38C-26HZ	North Reference:	True
Wellbore:	CAMP 38C-26HZ	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38C-26HZ	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 38C-26HZ					
Well Position	+N/-S	0.00 ft	Northing:	1,317,212.46 usft	Latitude:	40.201630
	+E/-W	0.00 ft	Easting:	3,213,042.68 usft	Longitude:	-104.737286
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,014.00 ft

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

Design	CAMP 38C-26HZ				
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		169.66

Survey Program	Date	3/27/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	877.00	Survey #1 (CAMP 38C-26HZ)	NS-GYRO-MS	NORTH SENSING GYROCOMPASSING M/S	
1,100.00	11,945.00	Survey #2 (CAMP 38C-26HZ)	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	0.19	162.57	100.00	-0.16	0.05	0.16	0.19	0.19	0.00	
200.00	0.40	6.40	200.00	0.03	0.14	-0.01	0.58	0.21	-156.17	
300.00	0.56	281.66	300.00	0.48	-0.30	-0.52	0.66	0.16	-84.74	
400.00	0.30	11.87	399.99	0.83	-0.73	-0.95	0.64	-0.26	90.21	
500.00	0.60	301.05	499.99	1.36	-1.12	-1.54	0.58	0.30	-70.82	
600.00	0.35	284.12	599.99	1.70	-1.87	-2.01	0.28	-0.25	-16.93	
700.00	0.24	338.97	699.99	1.97	-2.24	-2.34	0.29	-0.11	54.85	
800.00	0.20	191.44	799.99	2.00	-2.35	-2.39	0.42	-0.04	-147.53	
877.00	0.23	48.45	876.99	1.97	-2.26	-2.34	0.53	0.04	-185.70	

Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well CAMP 38C-26HZ
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 38C-26HZ	North Reference:	True
Wellbore:	CAMP 38C-26HZ	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38C-26HZ	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 to gyros									
1,106.00	1.02	46.29	1,105.97	3.68	-0.44	-3.70	0.35	0.34	-0.94
1,137.00	1.93	44.56	1,136.96	4.24	0.13	-4.15	2.94	2.94	-5.58
1,167.00	2.72	43.50	1,166.94	5.12	0.97	-4.86	2.64	2.63	-3.53
1,198.00	3.41	41.12	1,197.89	6.35	2.08	-5.87	2.26	2.23	-7.68
1,229.00	3.96	44.23	1,228.83	7.81	3.44	-7.07	1.89	1.77	10.03
1,259.00	4.85	44.08	1,258.74	9.46	5.04	-8.40	2.97	2.97	-0.50
1,290.00	5.67	42.00	1,289.61	11.54	6.98	-10.10	2.72	2.65	-6.71
1,322.00	6.17	39.08	1,321.44	14.05	9.12	-12.19	1.82	1.56	-9.13
1,353.00	6.36	39.17	1,352.25	16.68	11.25	-14.39	0.61	0.61	0.29
1,385.00	6.64	37.76	1,384.05	19.51	13.51	-16.77	1.01	0.88	-4.41
1,417.00	7.31	38.98	1,415.81	22.56	15.92	-19.33	2.14	2.09	3.81
1,448.00	7.74	38.01	1,446.54	25.74	18.45	-22.01	1.45	1.39	-3.13
1,480.00	8.13	37.93	1,478.24	29.22	21.16	-24.95	1.22	1.22	-0.25
1,575.00	8.15	36.63	1,572.28	39.92	29.31	-34.01	0.19	0.02	-1.37
1,671.00	8.50	35.22	1,667.27	51.18	37.46	-43.62	0.42	0.36	-1.47
1,766.00	8.08	31.05	1,761.27	62.63	44.95	-53.55	0.77	-0.44	-4.39
1,862.00	7.27	35.47	1,856.41	73.36	51.96	-62.84	1.04	-0.84	4.60
1,957.00	6.45	32.32	1,950.73	82.77	58.30	-70.96	0.95	-0.86	-3.32
2,052.00	6.65	37.41	2,045.12	91.64	64.49	-78.58	0.65	0.21	5.36
2,147.00	6.69	33.42	2,139.47	100.63	70.88	-86.27	0.49	0.04	-4.20
2,243.00	7.36	40.90	2,234.75	109.95	77.99	-94.16	1.18	0.70	7.79
2,339.00	7.61	39.52	2,329.94	119.50	86.06	-102.11	0.32	0.26	-1.44
2,433.00	7.79	44.48	2,423.09	128.85	94.49	-109.79	0.73	0.19	5.28
2,528.00	6.66	37.97	2,517.33	137.78	102.39	-117.17	1.47	-1.19	-6.85
2,624.00	6.77	47.21	2,612.68	146.02	109.96	-123.91	1.13	0.11	9.63
2,718.00	7.22	50.54	2,705.98	153.53	118.59	-129.75	0.64	0.48	3.54
2,813.00	7.98	47.14	2,800.14	161.81	128.03	-136.20	0.93	0.80	-3.58
2,909.00	8.58	44.32	2,895.14	171.47	137.92	-143.93	0.75	0.63	-2.94
3,004.00	9.55	41.66	2,988.96	182.43	148.11	-152.88	1.11	1.02	-2.80
3,099.00	9.70	41.40	3,082.62	194.32	158.64	-162.69	0.16	0.16	-0.27
3,194.00	9.41	37.61	3,176.30	206.47	168.68	-172.85	0.73	-0.31	-3.99
3,289.00	8.54	37.90	3,270.14	218.19	177.75	-182.74	0.92	-0.92	0.31
3,383.00	8.15	32.61	3,363.14	229.31	185.63	-192.27	0.92	-0.41	-5.63
3,478.00	7.58	35.56	3,457.25	240.08	192.90	-201.56	0.74	-0.60	3.11
3,572.00	7.73	40.53	3,550.41	249.93	200.61	-209.86	0.72	0.16	5.29
3,667.00	7.43	43.95	3,644.58	259.21	209.03	-217.48	0.57	-0.32	3.60
3,762.00	7.74	40.59	3,738.75	268.49	217.45	-225.10	0.57	0.33	-3.54
3,857.00	7.73	45.04	3,832.89	277.86	226.14	-232.76	0.63	-0.01	4.68
3,952.00	8.07	47.77	3,926.99	286.86	235.59	-239.91	0.53	0.36	2.87
4,047.00	8.53	45.54	4,020.99	296.27	245.56	-247.39	0.59	0.48	-2.35
4,142.00	9.24	42.97	4,114.85	306.79	255.79	-255.90	0.86	0.75	-2.71
4,237.00	8.86	37.69	4,208.67	318.16	265.46	-265.35	0.96	-0.40	-5.56

Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well CAMP 38C-26HZ
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 38C-26HZ	North Reference:	True
Wellbore:	CAMP 38C-26HZ	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38C-26HZ	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)
4,331.00	8.08	35.43	4,301.65	329.27	273.72	-274.80	0.90	-0.83	-2.40
4,426.00	7.53	39.30	4,395.77	339.53	281.53	-283.48	0.80	-0.58	4.07
4,521.00	8.75	49.99	4,489.81	348.99	291.01	-291.09	2.04	1.28	11.25
4,616.00	7.78	46.19	4,583.83	358.09	301.18	-298.22	1.17	-1.02	-4.00
4,710.00	8.45	45.89	4,676.88	367.30	310.73	-305.56	0.71	0.71	-0.32
4,805.00	9.08	47.40	4,770.77	377.23	321.26	-313.45	0.71	0.66	1.59
4,900.00	8.39	43.89	4,864.67	387.30	331.59	-321.50	0.92	-0.73	-3.69
4,995.00	8.23	43.19	4,958.67	397.26	341.04	-329.59	0.20	-0.17	-0.74
5,090.00	8.44	39.87	5,052.67	407.56	350.17	-338.09	0.55	0.22	-3.49
5,184.00	7.91	45.63	5,145.72	417.38	359.21	-346.13	1.04	-0.56	6.13
5,279.00	8.13	47.31	5,239.79	426.51	368.82	-353.38	0.34	0.23	1.77
5,374.00	9.71	46.22	5,333.64	436.61	379.55	-361.39	1.67	1.66	-1.15
5,469.00	7.33	43.12	5,427.58	446.57	389.47	-369.42	2.55	-2.51	-3.26
5,564.00	7.79	37.17	5,521.76	456.13	397.51	-377.37	0.96	0.48	-6.26
5,659.00	7.72	36.84	5,615.89	466.36	405.22	-386.06	0.09	-0.07	-0.35
5,754.00	7.78	36.28	5,710.02	476.65	412.85	-394.81	0.10	0.06	-0.59
5,848.00	6.80	28.26	5,803.26	486.69	419.25	-403.53	1.50	-1.04	-8.53
5,943.00	6.92	31.74	5,897.58	496.51	424.93	-412.17	0.46	0.13	3.66
6,038.00	7.44	38.57	5,991.84	506.18	431.77	-420.46	1.05	0.55	7.19
6,133.00	7.39	41.17	6,086.05	515.59	439.63	-428.31	0.36	-0.05	2.74
6,228.00	7.21	43.80	6,180.28	524.49	447.78	-435.60	0.40	-0.19	2.77
6,323.00	7.55	43.97	6,274.49	533.29	456.24	-442.74	0.36	0.36	0.18
6,417.00	8.23	41.74	6,367.60	542.75	465.00	-450.48	0.79	0.72	-2.37
6,512.00	8.63	41.23	6,461.57	553.19	474.23	-459.08	0.43	0.42	-0.54
6,608.00	8.69	46.38	6,556.48	563.61	484.22	-467.54	0.81	0.06	5.36
6,703.00	8.06	51.09	6,650.47	572.74	494.60	-474.66	0.98	-0.66	4.96
6,723.00	7.83	51.08	6,670.27	574.48	496.75	-475.99	1.15	-1.15	-0.05
6,733.00	7.58	50.33	6,680.18	575.33	497.79	-476.63	2.69	-2.50	-7.50
6,765.00	6.76	52.64	6,711.93	577.82	500.91	-478.52	2.72	-2.56	7.22
6,796.00	6.74	71.14	6,742.72	579.51	504.08	-479.62	6.98	-0.06	59.68
6,828.00	8.70	91.03	6,774.44	580.08	508.28	-479.42	10.27	6.13	62.16
6,859.00	11.34	109.99	6,804.97	578.99	513.49	-477.42	13.52	8.52	61.16
6,891.00	13.10	125.59	6,836.25	575.80	519.40	-473.23	11.64	5.50	48.75
6,923.00	13.16	138.49	6,867.42	570.96	524.77	-467.50	9.14	0.19	40.31
6,954.00	12.04	151.45	6,897.68	565.48	528.65	-461.41	9.78	-3.61	41.81
6,986.00	13.36	158.51	6,928.90	559.11	531.60	-454.61	6.36	4.13	22.06
7,018.00	16.04	164.06	6,959.85	551.42	534.17	-446.58	9.45	8.38	17.34
7,050.00	19.77	165.29	6,990.29	541.93	536.76	-436.78	11.72	11.66	3.84
7,082.00	23.32	166.79	7,020.05	530.52	539.58	-425.06	11.23	11.09	4.69
7,113.00	26.00	169.17	7,048.23	517.87	542.26	-412.13	9.22	8.65	7.68
7,145.00	27.12	173.18	7,076.85	503.74	544.44	-397.84	6.60	3.50	12.53
7,177.00	30.46	170.96	7,104.89	488.48	546.59	-382.44	10.96	10.44	-6.94
7,208.00	33.52	171.42	7,131.18	472.25	549.10	-366.03	9.90	9.87	1.48

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 38C-26HZ	North Reference:	True
Wellbore:	CAMP 38C-26HZ	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38C-26HZ	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)	
7,240.00	35.45	173.22	7,157.56	454.30	551.51	-347.93	6.82	6.03	5.63	
7,271.00	37.71	172.75	7,182.45	435.97	553.77	-329.49	7.35	7.29	-1.52	
7,303.00	40.64	172.12	7,207.25	415.93	556.43	-309.30	9.24	9.16	-1.97	
7,335.00	44.03	170.79	7,230.91	394.62	559.64	-287.77	10.96	10.59	-4.16	
7,366.00	47.12	167.96	7,252.60	372.87	563.74	-265.63	11.91	9.97	-9.13	
7,398.00	49.25	167.98	7,273.94	349.55	568.71	-241.80	6.66	6.66	0.06	
7,430.00	51.08	170.76	7,294.44	325.40	573.23	-217.23	8.79	5.72	8.69	
7,461.00	52.66	172.68	7,313.58	301.27	576.74	-192.86	7.05	5.10	6.19	
7,493.00	55.08	172.97	7,332.45	275.63	579.97	-167.06	7.60	7.56	0.91	
7,524.00	57.19	174.39	7,349.72	250.05	582.80	-141.38	7.80	6.81	4.58	
7,556.00	59.18	176.81	7,366.59	222.94	584.88	-114.34	8.94	6.22	7.56	
7,588.00	60.66	179.39	7,382.63	195.27	585.79	-86.96	8.37	4.63	8.06	
7,619.00	62.63	181.61	7,397.36	168.00	585.55	-60.17	8.95	6.35	7.16	
7,651.00	65.63	182.77	7,411.32	139.23	584.44	-32.07	9.93	9.38	3.63	
7,682.00	68.97	184.38	7,423.28	110.69	582.66	-4.31	11.79	10.77	5.19	
7,714.00	69.44	183.94	7,434.64	80.85	580.49	24.65	1.95	1.47	-1.38	
7,746.00	71.73	184.42	7,445.28	50.76	578.28	53.86	7.29	7.16	1.50	
7,777.00	76.11	185.74	7,453.86	21.09	575.64	82.57	14.71	14.13	4.26	
7,808.00	81.38	185.79	7,459.91	-9.15	572.59	111.77	17.00	17.00	0.16	
7,858.58	87.17	185.28	7,464.95	-59.22	567.74	160.16	11.49	11.45	-1.02	
7" casing point										
7,886.00	90.31	185.00	7,465.55	-86.52	565.29	186.57	11.49	11.45	-1.01	
7,917.00	91.41	184.50	7,465.09	-117.41	562.72	216.50	3.90	3.55	-1.61	
7,949.00	91.79	184.12	7,464.20	-149.30	560.32	247.45	1.68	1.19	-1.19	
7,981.00	91.85	184.12	7,463.18	-181.20	558.02	278.42	0.19	0.19	0.00	
8,013.00	91.91	184.29	7,462.13	-213.10	555.67	309.38	0.56	0.19	0.53	
8,044.00	91.94	183.79	7,461.09	-244.01	553.49	339.39	1.61	0.10	-1.61	
8,076.00	91.60	183.33	7,460.10	-275.93	551.50	370.44	1.79	-1.06	-1.44	
8,108.00	91.73	183.47	7,459.17	-307.86	549.61	401.51	0.60	0.41	0.44	
8,139.00	92.71	183.11	7,457.97	-338.79	547.83	431.61	3.37	3.16	-1.16	
8,171.00	93.17	182.74	7,456.33	-370.70	546.20	462.72	1.84	1.44	-1.16	
8,202.00	93.15	182.62	7,454.62	-401.62	544.75	492.87	0.39	-0.06	-0.39	
8,234.00	93.27	181.98	7,452.83	-433.54	543.47	524.05	2.03	0.38	-2.00	
8,266.00	93.35	181.50	7,450.98	-465.48	542.50	555.29	1.52	0.25	-1.50	
8,297.00	93.33	181.48	7,449.17	-496.41	541.69	585.58	0.09	-0.06	-0.06	
8,329.00	93.33	181.58	7,447.31	-528.35	540.84	616.84	0.31	0.00	0.31	
8,423.00	91.17	179.73	7,443.62	-622.26	539.77	709.04	3.02	-2.30	-1.97	
8,518.00	87.84	177.17	7,444.45	-717.20	542.34	802.90	4.42	-3.51	-2.69	
8,613.00	89.38	174.69	7,446.75	-811.92	549.08	897.29	3.07	1.62	-2.61	
8,708.00	91.05	173.32	7,446.39	-906.40	559.00	992.01	2.27	1.76	-1.44	
8,804.00	92.16	173.88	7,443.70	-1,001.76	569.70	1,087.74	1.29	1.16	0.58	
8,899.00	87.10	173.75	7,444.32	-1,096.17	579.93	1,182.46	5.33	-5.33	-0.14	
8,994.00	88.09	174.55	7,448.30	-1,190.59	589.60	1,277.08	1.34	1.04	0.84	
9,089.00	89.20	174.82	7,450.55	-1,285.16	598.40	1,371.69	1.20	1.17	0.28	

Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well CAMP 38C-26HZ
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 38C-26HZ	North Reference:	True
Wellbore:	CAMP 38C-26HZ	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38C-26HZ	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)
9,183.00	89.20	175.09	7,451.86	-1,378.78	606.66	1,465.28	0.29	0.00	0.29
9,278.00	88.64	174.32	7,453.65	-1,473.36	615.43	1,559.90	1.00	-0.59	-0.81
9,373.00	90.71	175.68	7,454.19	-1,567.99	623.71	1,654.47	2.61	2.18	1.43
9,468.00	92.28	176.26	7,451.71	-1,662.72	630.38	1,748.86	1.76	1.65	0.61
9,563.00	92.10	175.88	7,448.08	-1,757.43	636.89	1,843.20	0.44	-0.19	-0.40
9,658.00	91.97	175.90	7,444.71	-1,852.12	643.69	1,937.58	0.14	-0.14	0.02
9,753.00	91.97	175.78	7,441.44	-1,946.82	650.58	2,031.97	0.13	0.00	-0.13
9,847.00	91.42	175.99	7,438.66	-2,040.53	657.32	2,125.38	0.63	-0.59	0.22
9,943.00	90.99	177.32	7,436.65	-2,136.34	662.92	2,220.64	1.46	-0.45	1.39
10,037.00	90.18	177.80	7,435.69	-2,230.25	666.92	2,313.74	1.00	-0.86	0.51
10,132.00	87.44	176.21	7,437.66	-2,325.09	671.89	2,407.93	3.33	-2.88	-1.67
10,227.00	87.62	175.51	7,441.75	-2,419.75	678.74	2,502.28	0.76	0.19	-0.74
10,321.00	88.52	174.51	7,444.92	-2,513.34	686.91	2,595.82	1.43	0.96	-1.06
10,416.00	88.83	174.15	7,447.12	-2,607.85	696.29	2,690.48	0.50	0.33	-0.38
10,511.00	89.12	173.22	7,448.81	-2,702.26	706.74	2,785.23	1.03	0.31	-0.98
10,606.00	89.75	172.84	7,449.75	-2,796.55	718.27	2,880.06	0.77	0.66	-0.40
10,700.00	90.55	172.37	7,449.51	-2,889.77	730.37	2,973.93	0.99	0.85	-0.50
10,794.00	90.68	172.99	7,448.50	-2,983.00	742.34	3,067.80	0.67	0.14	0.66
10,889.00	90.35	172.69	7,447.64	-3,077.25	754.18	3,162.65	0.47	-0.35	-0.32
10,985.00	89.69	171.94	7,447.61	-3,172.39	767.02	3,258.54	1.04	-0.69	-0.78
11,079.00	90.43	173.18	7,447.51	-3,265.60	779.19	3,352.42	1.54	0.79	1.32
11,174.00	91.60	173.07	7,445.83	-3,359.90	790.56	3,447.23	1.24	1.23	-0.12
11,269.00	91.60	173.31	7,443.18	-3,454.19	801.82	3,542.01	0.25	0.00	0.25
11,364.00	91.66	174.02	7,440.47	-3,548.57	812.30	3,636.74	0.75	0.06	0.75
11,459.00	91.79	173.91	7,437.61	-3,643.00	822.28	3,731.43	0.18	0.14	-0.12
11,555.00	90.00	175.33	7,436.11	-3,738.56	831.28	3,827.05	2.38	-1.86	1.48
11,649.00	89.81	174.29	7,436.27	-3,832.17	839.79	3,920.67	1.12	-0.20	-1.11
11,744.00	90.31	175.63	7,436.17	-3,926.80	848.13	4,015.26	1.51	0.53	1.41
11,839.00	90.49	176.31	7,435.51	-4,021.57	854.81	4,109.68	0.74	0.19	0.72
11,886.00	90.99	177.16	7,434.90	-4,068.48	857.48	4,156.32	2.10	1.06	1.81
last mwd surveys									
11,945.00	90.99	177.16	7,433.88	-4,127.40	860.41	4,214.81	0.00	0.00	0.00
projection									

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
877.00	876.99	1.97	-2.26	tie-on to gyros
7,858.58	7,464.95	-59.22	567.74	7" casing point
11,886.00	7,434.90	-4,068.48	857.48	last mwd surveys
11,945.00	7,433.88	-4,127.40	860.41	projection

Anadarko Petroleum Corp

Survey Report

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well CAMP 38C-26HZ
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 38C-26HZ	North Reference:	True
Wellbore:	CAMP 38C-26HZ	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38C-26HZ	Database:	edmp

Checked By: _____ Approved By: _____ Date: _____

US ROCKIES REGION PLANNING

COLORADO NORTHERN ZONE - 83

WELD_CAMP 1-26HZ PAD

CAMP 38C-26HZ

CAMP 38C-26HZ

Design: CAMP 38C-26HZ

Survey Report - Geographic

27 March, 2012

Anadarko Petroleum Corp

Survey Report - Geographic

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well CAMP 38C-26HZ
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 38C-26HZ	North Reference:	True
Wellbore:	CAMP 38C-26HZ	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38C-26HZ	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 38C-26HZ					
Well Position	+N/-S	0.00 ft	Northing:	1,317,212.46 usft	Latitude:	40.201630
	+E/-W	0.00 ft	Easting:	3,213,042.68 usft	Longitude:	-104.737286
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,014.00 ft

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

Design	CAMP 38C-26HZ				
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	169.66	

Survey Program	Date	3/27/2012			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
100.00	877.00	Survey #1 (CAMP 38C-26HZ)	NS-GYRO-MS	NORTH SENSING GYROCOMPASSING M/S	
1,100.00	11,945.00	Survey #2 (CAMP 38C-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	1,317,212.46	3,213,042.68	40.201630	-104.737286
100.00	0.19	162.57	100.00	-0.16	0.05	1,317,212.31	3,213,042.74	40.201630	-104.737286
200.00	0.40	6.40	200.00	0.03	0.14	1,317,212.50	3,213,042.82	40.201630	-104.737286
300.00	0.56	281.66	300.00	0.48	-0.30	1,317,212.94	3,213,042.38	40.201631	-104.737287
400.00	0.30	11.87	399.99	0.83	-0.73	1,317,213.29	3,213,041.95	40.201632	-104.737289
500.00	0.60	301.05	499.99	1.36	-1.12	1,317,213.81	3,213,041.55	40.201634	-104.737290
600.00	0.35	284.12	599.99	1.70	-1.87	1,317,214.15	3,213,040.80	40.201635	-104.737293
700.00	0.24	338.97	699.99	1.97	-2.24	1,317,214.42	3,213,040.43	40.201636	-104.737294
800.00	0.20	191.44	799.99	2.00	-2.35	1,317,214.44	3,213,040.32	40.201636	-104.737295
877.00	0.23	48.45	876.99	1.97	-2.26	1,317,214.41	3,213,040.41	40.201635	-104.737294
tie-on to gyros									

Anadarko Petroleum Corp

Survey Report - Geographic

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well CAMP 38C-26HZ
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 38C-26HZ	North Reference:	True
Wellbore:	CAMP 38C-26HZ	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38C-26HZ	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
1,106.00	1.02	46.29	1,105.97	3.68	-0.44	1,317,216.14	3,213,042.21	40.201640	-104.737288
1,137.00	1.93	44.56	1,136.96	4.24	0.13	1,317,216.71	3,213,042.77	40.201642	-104.737286
1,167.00	2.72	43.50	1,166.94	5.12	0.97	1,317,217.59	3,213,043.61	40.201644	-104.737283
1,198.00	3.41	41.12	1,197.89	6.35	2.08	1,317,218.83	3,213,044.71	40.201648	-104.737279
1,229.00	3.96	44.23	1,228.83	7.81	3.44	1,317,220.30	3,213,046.05	40.201652	-104.737274
1,259.00	4.85	44.08	1,258.74	9.46	5.04	1,317,221.97	3,213,047.64	40.201656	-104.737268
1,290.00	5.67	42.00	1,289.61	11.54	6.98	1,317,224.07	3,213,049.56	40.201662	-104.737261
1,322.00	6.17	39.08	1,321.44	14.05	9.12	1,317,226.59	3,213,051.68	40.201669	-104.737254
1,353.00	6.36	39.17	1,352.25	16.68	11.25	1,317,229.24	3,213,053.79	40.201676	-104.737246
1,385.00	6.64	37.76	1,384.05	19.51	13.51	1,317,232.09	3,213,056.02	40.201684	-104.737238
1,417.00	7.31	38.98	1,415.81	22.56	15.92	1,317,235.16	3,213,058.41	40.201692	-104.737229
1,448.00	7.74	38.01	1,446.54	25.74	18.45	1,317,238.36	3,213,060.91	40.201701	-104.737220
1,480.00	8.13	37.93	1,478.24	29.22	21.16	1,317,241.86	3,213,063.60	40.201710	-104.737210
1,575.00	8.15	36.63	1,572.28	39.92	29.31	1,317,252.63	3,213,071.65	40.201740	-104.737181
1,671.00	8.50	35.22	1,667.27	51.18	37.46	1,317,263.96	3,213,079.70	40.201771	-104.737152
1,766.00	8.08	31.05	1,761.27	62.63	44.95	1,317,275.48	3,213,087.10	40.201802	-104.737125
1,862.00	7.27	35.47	1,856.41	73.36	51.96	1,317,286.27	3,213,094.01	40.201831	-104.737100
1,957.00	6.45	32.32	1,950.73	82.77	58.30	1,317,295.73	3,213,100.27	40.201857	-104.737078
2,052.00	6.65	37.41	2,045.12	91.64	64.49	1,317,304.66	3,213,106.39	40.201882	-104.737055
2,147.00	6.69	33.42	2,139.47	100.63	70.88	1,317,313.70	3,213,112.70	40.201906	-104.737032
2,243.00	7.36	40.90	2,234.75	109.95	77.99	1,317,323.08	3,213,119.73	40.201932	-104.737007
2,339.00	7.61	39.52	2,329.94	119.50	86.06	1,317,332.70	3,213,127.72	40.201958	-104.736978
2,433.00	7.79	44.48	2,423.09	128.85	94.49	1,317,342.12	3,213,136.06	40.201984	-104.736948
2,528.00	6.66	37.97	2,517.33	137.78	102.39	1,317,351.12	3,213,143.88	40.202008	-104.736920
2,624.00	6.77	47.21	2,612.68	146.02	109.96	1,317,359.42	3,213,151.39	40.202031	-104.736893
2,718.00	7.22	50.54	2,705.98	153.53	118.59	1,317,367.01	3,213,159.95	40.202052	-104.736862
2,813.00	7.98	47.14	2,800.14	161.81	128.03	1,317,375.37	3,213,169.32	40.202074	-104.736828
2,909.00	8.58	44.32	2,895.14	171.47	137.92	1,317,385.11	3,213,179.13	40.202101	-104.736792
3,004.00	9.55	41.66	2,988.96	182.43	148.11	1,317,396.16	3,213,189.22	40.202131	-104.736756
3,099.00	9.70	41.40	3,082.62	194.32	158.64	1,317,408.14	3,213,199.65	40.202164	-104.736718
3,194.00	9.41	37.61	3,176.30	206.47	168.68	1,317,420.38	3,213,209.58	40.202197	-104.736682
3,289.00	8.54	37.90	3,270.14	218.19	177.75	1,317,432.18	3,213,218.55	40.202229	-104.736650
3,383.00	8.15	32.61	3,363.14	229.31	185.63	1,317,443.36	3,213,226.33	40.202260	-104.736622
3,478.00	7.58	35.56	3,457.25	240.08	192.90	1,317,454.20	3,213,233.51	40.202289	-104.736596
3,572.00	7.73	40.53	3,550.41	249.93	200.61	1,317,464.11	3,213,241.14	40.202316	-104.736568
3,667.00	7.43	43.95	3,644.58	259.21	209.03	1,317,473.46	3,213,249.47	40.202342	-104.736538
3,762.00	7.74	40.59	3,738.75	268.49	217.45	1,317,482.81	3,213,257.82	40.202367	-104.736508
3,857.00	7.73	45.04	3,832.89	277.86	226.14	1,317,492.26	3,213,266.42	40.202393	-104.736477
3,952.00	8.07	47.77	3,926.99	286.86	235.59	1,317,501.34	3,213,275.80	40.202418	-104.736443
4,047.00	8.53	45.54	4,020.99	296.27	245.56	1,317,510.84	3,213,285.69	40.202443	-104.736407
4,142.00	9.24	42.97	4,114.85	306.79	255.79	1,317,521.44	3,213,295.82	40.202472	-104.736371
4,237.00	8.86	37.69	4,208.67	318.16	265.46	1,317,532.90	3,213,305.40	40.202503	-104.736336
4,331.00	8.08	35.43	4,301.65	329.27	273.72	1,317,544.08	3,213,313.56	40.202534	-104.736306
4,426.00	7.53	39.30	4,395.77	339.53	281.53	1,317,554.40	3,213,321.28	40.202562	-104.736278
4,521.00	8.75	49.99	4,489.81	348.99	291.01	1,317,563.95	3,213,330.68	40.202588	-104.736244
4,616.00	7.78	46.19	4,583.83	358.09	301.18	1,317,573.13	3,213,340.78	40.202613	-104.736208
4,710.00	8.45	45.89	4,676.88	367.30	310.73	1,317,582.42	3,213,350.25	40.202638	-104.736174
4,805.00	9.08	47.40	4,770.77	377.23	321.26	1,317,592.45	3,213,360.69	40.202666	-104.736136
4,900.00	8.39	43.89	4,864.67	387.30	331.59	1,317,602.60	3,213,370.93	40.202693	-104.736099
4,995.00	8.23	43.19	4,958.67	397.26	341.04	1,317,612.64	3,213,380.30	40.202721	-104.736065
5,090.00	8.44	39.87	5,052.67	407.56	350.17	1,317,623.02	3,213,389.33	40.202749	-104.736033
5,184.00	7.91	45.63	5,145.72	417.38	359.21	1,317,632.92	3,213,398.29	40.202776	-104.736000
5,279.00	8.13	47.31	5,239.79	426.51	368.82	1,317,642.13	3,213,407.83	40.202801	-104.735966
5,374.00	9.71	46.22	5,333.64	436.61	379.55	1,317,652.32	3,213,418.46	40.202829	-104.735927
5,469.00	7.33	43.12	5,427.58	446.57	389.47	1,317,662.37	3,213,428.30	40.202856	-104.735892

Anadarko Petroleum Corp

Survey Report - Geographic

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well CAMP 38C-26HZ
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 38C-26HZ	North Reference:	True
Wellbore:	CAMP 38C-26HZ	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38C-26HZ	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
5,564.00	7.79	37.17	5,521.76	456.13	397.51	1,317,671.99	3,213,436.25	40.202882	-104.735863
5,659.00	7.72	36.84	5,615.89	466.36	405.22	1,317,682.30	3,213,443.88	40.202910	-104.735836
5,754.00	7.78	36.28	5,710.02	476.65	412.85	1,317,692.65	3,213,451.42	40.202939	-104.735808
5,848.00	6.80	28.26	5,803.26	486.69	419.25	1,317,702.74	3,213,457.73	40.202966	-104.735785
5,943.00	6.92	31.74	5,897.58	496.51	424.93	1,317,712.61	3,213,463.32	40.202993	-104.735765
6,038.00	7.44	38.57	5,991.84	506.18	431.77	1,317,722.34	3,213,470.09	40.203020	-104.735740
6,133.00	7.39	41.17	6,086.05	515.59	439.63	1,317,731.82	3,213,477.86	40.203045	-104.735712
6,228.00	7.21	43.80	6,180.28	524.49	447.78	1,317,740.79	3,213,485.93	40.203070	-104.735683
6,323.00	7.55	43.97	6,274.49	533.29	456.24	1,317,749.65	3,213,494.32	40.203094	-104.735653
6,417.00	8.23	41.74	6,367.60	542.75	465.00	1,317,759.19	3,213,503.00	40.203120	-104.735621
6,512.00	8.63	41.23	6,461.57	553.19	474.23	1,317,769.71	3,213,512.14	40.203149	-104.735588
6,608.00	8.69	46.38	6,556.48	563.61	484.22	1,317,780.21	3,213,522.04	40.203177	-104.735553
6,703.00	8.06	51.09	6,650.47	572.74	494.60	1,317,789.44	3,213,532.34	40.203202	-104.735516
6,723.00	7.83	51.08	6,670.27	574.48	496.75	1,317,791.19	3,213,534.48	40.203207	-104.735508
6,733.00	7.58	50.33	6,680.18	575.33	497.79	1,317,792.05	3,213,535.51	40.203209	-104.735504
6,765.00	6.76	52.64	6,711.93	577.82	500.91	1,317,794.57	3,213,538.61	40.203216	-104.735493
6,796.00	6.74	71.14	6,742.72	579.51	504.08	1,317,796.29	3,213,541.77	40.203221	-104.735482
6,828.00	8.70	91.03	6,774.44	580.08	508.28	1,317,796.89	3,213,545.96	40.203222	-104.735467
6,859.00	11.34	109.99	6,804.97	578.99	513.49	1,317,795.85	3,213,551.18	40.203219	-104.735448
6,891.00	13.10	125.59	6,836.25	575.80	519.40	1,317,792.71	3,213,557.11	40.203211	-104.735427
6,923.00	13.16	138.49	6,867.42	570.96	524.77	1,317,787.92	3,213,562.52	40.203197	-104.735408
6,954.00	12.04	151.45	6,897.68	565.48	528.65	1,317,782.47	3,213,566.45	40.203182	-104.735394
6,986.00	13.36	158.51	6,928.90	559.11	531.60	1,317,776.12	3,213,569.46	40.203165	-104.735383
7,018.00	16.04	164.06	6,959.85	551.42	534.17	1,317,768.45	3,213,572.09	40.203144	-104.735374
7,050.00	19.77	165.29	6,990.29	541.93	536.76	1,317,758.99	3,213,574.76	40.203118	-104.735365
7,082.00	23.32	166.79	7,020.05	530.52	539.58	1,317,747.61	3,213,577.68	40.203086	-104.735354
7,113.00	26.00	169.17	7,048.23	517.87	542.26	1,317,734.98	3,213,580.47	40.203052	-104.735345
7,145.00	27.12	173.18	7,076.85	503.74	544.44	1,317,720.87	3,213,582.78	40.203013	-104.735337
7,177.00	30.46	170.96	7,104.89	488.48	546.59	1,317,705.63	3,213,585.05	40.202971	-104.735329
7,208.00	33.52	171.42	7,131.18	472.25	549.10	1,317,689.42	3,213,587.70	40.202926	-104.735320
7,240.00	35.45	173.22	7,157.56	454.30	551.51	1,317,671.49	3,213,590.27	40.202877	-104.735312
7,271.00	37.71	172.75	7,182.45	435.97	553.77	1,317,653.18	3,213,592.68	40.202827	-104.735304
7,303.00	40.64	172.12	7,207.25	415.93	556.43	1,317,633.16	3,213,595.52	40.202772	-104.735294
7,335.00	44.03	170.79	7,230.91	394.62	559.64	1,317,611.89	3,213,598.91	40.202713	-104.735283
7,366.00	47.12	167.96	7,252.60	372.87	563.74	1,317,590.17	3,213,603.19	40.202654	-104.735268
7,398.00	49.25	167.98	7,273.94	349.55	568.71	1,317,566.89	3,213,608.37	40.202590	-104.735250
7,430.00	51.08	170.76	7,294.44	325.40	573.23	1,317,542.78	3,213,613.10	40.202523	-104.735234
7,461.00	52.66	172.68	7,313.58	301.27	576.74	1,317,518.69	3,213,616.81	40.202457	-104.735221
7,493.00	55.08	172.97	7,332.45	275.63	579.97	1,317,493.07	3,213,620.26	40.202387	-104.735210
7,524.00	57.19	174.39	7,349.72	250.05	582.80	1,317,467.52	3,213,623.31	40.202316	-104.735200
7,556.00	59.18	176.81	7,366.59	222.94	584.88	1,317,440.43	3,213,625.62	40.202242	-104.735192
7,588.00	60.66	179.39	7,382.63	195.27	585.79	1,317,412.77	3,213,626.77	40.202166	-104.735189
7,619.00	62.63	181.61	7,397.36	168.00	585.55	1,317,385.49	3,213,626.76	40.202091	-104.735190
7,651.00	65.63	182.77	7,411.32	139.23	584.44	1,317,356.71	3,213,625.91	40.202012	-104.735194
7,682.00	68.97	184.38	7,423.28	110.69	582.66	1,317,328.16	3,213,624.37	40.201934	-104.735200
7,714.00	69.44	183.94	7,434.64	80.85	580.49	1,317,298.31	3,213,622.45	40.201852	-104.735208
7,746.00	71.73	184.42	7,445.28	50.76	578.28	1,317,268.19	3,213,620.51	40.201769	-104.735216
7,777.00	76.11	185.74	7,453.86	21.09	575.64	1,317,238.51	3,213,618.12	40.201688	-104.735225
7,808.00	81.38	185.79	7,459.91	-9.15	572.59	1,317,208.24	3,213,615.33	40.201605	-104.735236
7,858.58	87.17	185.28	7,464.95	-59.22	567.74	1,317,158.13	3,213,610.91	40.201468	-104.735254
7" casing point									
7,886.00	90.31	185.00	7,465.55	-86.52	565.29	1,317,130.81	3,213,608.69	40.201393	-104.735263
7,917.00	91.41	184.50	7,465.09	-117.41	562.72	1,317,099.90	3,213,606.39	40.201308	-104.735272
7,949.00	91.79	184.12	7,464.20	-149.30	560.32	1,317,067.99	3,213,604.26	40.201220	-104.735280
7,981.00	91.85	184.12	7,463.18	-181.20	558.02	1,317,036.07	3,213,602.24	40.201133	-104.735289

Anadarko Petroleum Corp

Survey Report - Geographic

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well CAMP 38C-26HZ
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 38C-26HZ	North Reference:	True
Wellbore:	CAMP 38C-26HZ	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38C-26HZ	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
8,013.00	91.91	184.29	7,462.13	-213.10	555.67	1,317,004.15	3,213,600.17	40.201045	-104.735297
8,044.00	91.94	183.79	7,461.09	-244.01	553.49	1,316,973.23	3,213,598.25	40.200960	-104.735305
8,076.00	91.60	183.33	7,460.10	-275.93	551.50	1,316,941.29	3,213,596.54	40.200873	-104.735312
8,108.00	91.73	183.47	7,459.17	-307.86	549.61	1,316,909.34	3,213,594.92	40.200785	-104.735319
8,139.00	92.71	183.11	7,457.97	-338.79	547.83	1,316,878.40	3,213,593.41	40.200700	-104.735325
8,171.00	93.17	182.74	7,456.33	-370.70	546.20	1,316,846.47	3,213,592.05	40.200612	-104.735331
8,202.00	93.15	182.62	7,454.62	-401.62	544.75	1,316,815.54	3,213,590.87	40.200528	-104.735336
8,234.00	93.27	181.98	7,452.83	-433.54	543.47	1,316,783.61	3,213,589.86	40.200440	-104.735341
8,266.00	93.35	181.50	7,450.98	-465.48	542.50	1,316,751.67	3,213,589.17	40.200352	-104.735344
8,297.00	93.33	181.48	7,449.17	-496.41	541.69	1,316,720.73	3,213,588.63	40.200267	-104.735347
8,329.00	93.33	181.58	7,447.31	-528.35	540.84	1,316,688.79	3,213,588.05	40.200180	-104.735350
8,423.00	91.17	179.73	7,443.62	-622.26	539.77	1,316,594.87	3,213,587.78	40.199922	-104.735354
8,518.00	87.84	177.17	7,444.45	-717.20	542.34	1,316,499.96	3,213,591.17	40.199661	-104.735345
8,613.00	89.38	174.69	7,446.75	-811.92	549.08	1,316,405.30	3,213,598.73	40.199401	-104.735321
8,708.00	91.05	173.32	7,446.39	-906.40	559.00	1,316,310.91	3,213,609.46	40.199142	-104.735285
8,804.00	92.16	173.88	7,443.70	-1,001.76	569.70	1,316,215.64	3,213,620.97	40.198880	-104.735247
8,899.00	87.10	173.75	7,444.32	-1,096.17	579.93	1,316,121.32	3,213,632.02	40.198621	-104.735210
8,994.00	88.09	174.55	7,448.30	-1,190.59	589.60	1,316,026.99	3,213,642.50	40.199362	-104.735176
9,089.00	89.20	174.82	7,450.55	-1,285.16	598.40	1,315,932.50	3,213,652.11	40.198102	-104.735144
9,183.00	89.20	175.09	7,451.86	-1,378.78	606.66	1,315,838.95	3,213,661.18	40.197845	-104.735114
9,278.00	88.64	174.32	7,453.65	-1,473.36	615.43	1,315,744.45	3,213,670.76	40.197586	-104.735083
9,373.00	90.71	175.68	7,454.19	-1,567.99	623.71	1,315,649.90	3,213,679.86	40.197326	-104.735053
9,468.00	92.28	176.26	7,451.71	-1,662.72	630.38	1,315,555.23	3,213,687.34	40.197066	-104.735030
9,563.00	92.10	175.88	7,448.08	-1,757.43	636.89	1,315,460.58	3,213,694.66	40.196806	-104.735006
9,658.00	91.97	175.90	7,444.71	-1,852.12	643.69	1,315,365.95	3,213,702.28	40.196546	-104.734982
9,753.00	91.97	175.78	7,441.44	-1,946.82	650.58	1,315,271.32	3,213,709.99	40.196286	-104.734957
9,847.00	91.42	175.99	7,438.66	-2,040.53	657.32	1,315,177.67	3,213,717.53	40.196029	-104.734933
9,943.00	90.99	177.32	7,436.65	-2,136.34	662.92	1,315,081.90	3,213,723.96	40.195766	-104.734913
10,037.00	90.18	177.80	7,435.69	-2,230.25	666.92	1,314,988.03	3,213,728.77	40.195508	-104.734899
10,132.00	87.44	176.21	7,437.66	-2,325.09	671.89	1,314,893.24	3,213,734.54	40.195247	-104.734881
10,227.00	87.62	175.51	7,441.75	-2,419.75	678.74	1,314,798.64	3,213,742.21	40.194988	-104.734857
10,321.00	88.52	174.51	7,444.92	-2,513.34	686.91	1,314,705.13	3,213,751.19	40.194731	-104.734827
10,416.00	88.83	174.15	7,447.12	-2,607.85	696.29	1,314,610.70	3,213,761.38	40.194471	-104.734794
10,511.00	89.12	173.22	7,448.81	-2,702.26	706.74	1,314,516.39	3,213,772.64	40.194212	-104.734756
10,606.00	89.75	172.84	7,449.75	-2,796.55	718.27	1,314,422.20	3,213,784.98	40.193953	-104.734715
10,700.00	90.55	172.37	7,449.51	-2,889.77	730.37	1,314,329.09	3,213,797.88	40.193697	-104.734672
10,794.00	90.68	172.99	7,448.50	-2,983.00	742.34	1,314,235.97	3,213,810.66	40.193441	-104.734629
10,889.00	90.35	172.69	7,447.64	-3,077.25	754.18	1,314,141.82	3,213,823.31	40.193183	-104.734587
10,985.00	89.69	171.94	7,447.61	-3,172.39	767.02	1,314,046.80	3,213,836.96	40.192921	-104.734541
11,079.00	90.43	173.18	7,447.51	-3,265.60	779.19	1,313,953.70	3,213,849.93	40.192666	-104.734497
11,174.00	91.60	173.07	7,445.83	-3,359.90	790.56	1,313,859.50	3,213,862.11	40.192407	-104.734456
11,269.00	91.60	173.31	7,443.18	-3,454.19	801.82	1,313,765.31	3,213,874.19	40.192148	-104.734416
11,364.00	91.66	174.02	7,440.47	-3,548.57	812.30	1,313,671.02	3,213,885.48	40.191889	-104.734379
11,459.00	91.79	173.91	7,437.61	-3,643.00	822.28	1,313,576.68	3,213,896.27	40.191630	-104.734343
11,555.00	90.00	175.33	7,436.11	-3,738.56	831.28	1,313,481.20	3,213,906.09	40.191367	-104.734311
11,649.00	89.81	174.29	7,436.27	-3,832.17	839.79	1,313,387.66	3,213,915.40	40.191110	-104.734280
11,744.00	90.31	175.63	7,436.17	-3,926.80	848.13	1,313,293.11	3,213,924.56	40.190851	-104.734250
11,839.00	90.49	176.31	7,435.51	-4,021.57	854.81	1,313,198.41	3,213,932.05	40.190590	-104.734227
11,886.00	90.99	177.16	7,434.90	-4,068.48	857.48	1,313,151.51	3,213,935.13	40.190462	-104.734217
last mwd surveys									
11,945.00	90.99	177.16	7,433.88	-4,127.40	860.41	1,313,092.62	3,213,938.56	40.190300	-104.734206
projection									

Anadarko Petroleum Corp

Survey Report - Geographic

Company:	US ROCKIES REGION PLANNING	Local Co-ordinate Reference:	Well CAMP 38C-26HZ
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 38C-26HZ	North Reference:	True
Wellbore:	CAMP 38C-26HZ	Survey Calculation Method:	Minimum Curvature
Design:	CAMP 38C-26HZ	Database:	edmp

Design Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
877.00	876.99	1.97	-2.26	tie-on to gyros
7,858.58	7,464.95	-59.22	567.74	7" casing point
11,886.00	7,434.90	-4,068.48	857.48	last mwd surveys
11,945.00	7,433.88	-4,127.40	860.41	projection

Checked By: _____ Approved By: _____ Date: _____