

# **US ROCKIES WATTENBERG PLANNING**

**WELD-NAD83-UTMFT13N**

**2N-68W-15 Camenisch 7-15 Pad**

**CAMENISCH STATE 36N1-3HZ**

**Plan A**

**Plan: Permit Rev-1**

## **Standard Planning Report**

**22 September, 2015**

# US ROCKIES WATTENBERG PLANNING

[illegible]

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well CAMENISCH STATE 36N1-3HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4893.00usft (D Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4893.00usft (D Rig)
<b>Site:</b>	2N-68W-15 Camenisch 7-15 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CAMENISCH STATE 36N1-3HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

<b>Project</b>	WELD-NAD83-UTMFT13N		
<b>Map System:</b>	Universal Transverse Mercator (US Survey Feet)	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Zone 13N (108 W to 102 W)		

Site		2N-68W-15 Camenisch 7-15 Pad			
Site Position:		Northing:	14,577,706.69 usft	Latitude:	40.139980
From:	Lat/Long	Easting:	1,643,790.52 usft	Longitude:	-104.987928
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.01 °

Well	CAMENISCH STATE 36N1-3HZ					
Well Position	+N/-S	0.00 usft	Northing:	14,577,706.69 usft	Latitude:	40.139980
	+E/-W	0.00 usft	Easting:	1,643,790.52 usft	Longitude:	-104.987928
Position Uncertainty		3.28 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,876.00 usft

<b>Wellbore</b>	Plan A				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	9/22/2015	8.39	66.66	52,521

<b>Design</b>	Permit Rev-1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	0.33

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,133.33	14.00	244.00	1,124.07	-49.74	-101.98	1.50	1.50	0.00	244.00	
3,833.33	14.00	244.00	3,743.87	-336.08	-689.06	0.00	0.00	0.00	0.00	
4,533.33	0.00	0.00	4,436.93	-373.38	-765.55	2.00	-2.00	0.00	180.00	
6,719.80	0.00	0.00	6,623.40	-373.38	-765.55	0.00	0.00	0.00	0.00	
7,724.29	90.40	0.33	7,260.00	267.71	-761.88	9.00	9.00	0.03	0.33	
15,392.82	90.40	0.33	7,206.00	7,935.93	-718.00	0.00	0.00	0.00	0.00	CAMENISCH STATE

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<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4893.00usft (D Rig)
<b>Site:</b>	2N-68W-15 Camenisch 7-15 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CAMENISCH STATE 36N1-3HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 200.00ft									
300.00	1.50	244.00	299.99	-0.57	-1.18	-0.58	1.50	1.50	0.00
400.00	3.00	244.00	399.91	-2.29	-4.70	-2.32	1.50	1.50	0.00
500.00	4.50	244.00	499.69	-5.16	-10.58	-5.22	1.50	1.50	0.00
600.00	6.00	244.00	599.27	-9.17	-18.81	-9.28	1.50	1.50	0.00
700.00	7.50	244.00	698.57	-14.33	-29.37	-14.49	1.50	1.50	0.00
800.00	9.00	244.00	797.54	-20.62	-42.27	-20.86	1.50	1.50	0.00
819.61	9.29	244.00	816.90	-21.98	-45.07	-22.24	1.50	1.50	0.00
Fox Hills									
900.00	10.50	244.00	896.09	-28.04	-57.49	-28.37	1.50	1.50	0.00
1,000.00	12.00	244.00	994.16	-36.59	-75.02	-37.02	1.50	1.50	0.00
1,100.00	13.50	244.00	1,091.70	-46.27	-94.86	-46.81	1.50	1.50	0.00
1,133.33	14.00	244.00	1,124.07	-49.74	-101.98	-50.32	1.50	1.50	0.00
End Nudge @ 1133.33ft									
1,200.00	14.00	244.00	1,188.76	-56.81	-116.47	-57.48	0.00	0.00	0.00
1,300.00	14.00	244.00	1,285.79	-67.41	-138.22	-68.21	0.00	0.00	0.00
1,400.00	14.00	244.00	1,382.82	-78.02	-159.96	-78.94	0.00	0.00	0.00
1,500.00	14.00	244.00	1,479.85	-88.62	-181.71	-89.67	0.00	0.00	0.00
1,600.00	14.00	244.00	1,576.88	-99.23	-203.45	-100.40	0.00	0.00	0.00
1,700.00	14.00	244.00	1,673.91	-109.83	-225.19	-111.13	0.00	0.00	0.00
1,800.00	14.00	244.00	1,770.94	-120.44	-246.94	-121.86	0.00	0.00	0.00
1,829.95	14.00	244.00	1,800.00	-123.62	-253.45	-125.07	0.00	0.00	0.00
9 5/8"									
1,900.00	14.00	244.00	1,867.97	-131.04	-268.68	-132.59	0.00	0.00	0.00
2,000.00	14.00	244.00	1,965.00	-141.65	-290.43	-143.32	0.00	0.00	0.00
2,100.00	14.00	244.00	2,062.03	-152.25	-312.17	-154.05	0.00	0.00	0.00
2,200.00	14.00	244.00	2,159.06	-162.86	-333.91	-164.78	0.00	0.00	0.00
2,300.00	14.00	244.00	2,256.09	-173.47	-355.66	-175.51	0.00	0.00	0.00
2,400.00	14.00	244.00	2,353.11	-184.07	-377.40	-186.24	0.00	0.00	0.00
2,500.00	14.00	244.00	2,450.14	-194.68	-399.14	-196.97	0.00	0.00	0.00
2,600.00	14.00	244.00	2,547.17	-205.28	-420.89	-207.70	0.00	0.00	0.00
2,700.00	14.00	244.00	2,644.20	-215.89	-442.63	-218.43	0.00	0.00	0.00
2,800.00	14.00	244.00	2,741.23	-226.49	-464.38	-229.16	0.00	0.00	0.00
2,900.00	14.00	244.00	2,838.26	-237.10	-486.12	-239.89	0.00	0.00	0.00
3,000.00	14.00	244.00	2,935.29	-247.70	-507.86	-250.62	0.00	0.00	0.00
3,100.00	14.00	244.00	3,032.32	-258.31	-529.61	-261.35	0.00	0.00	0.00
3,200.00	14.00	244.00	3,129.35	-268.91	-551.35	-272.08	0.00	0.00	0.00
3,300.00	14.00	244.00	3,226.38	-279.52	-573.09	-282.81	0.00	0.00	0.00
3,400.00	14.00	244.00	3,323.41	-290.12	-594.84	-293.54	0.00	0.00	0.00
3,500.00	14.00	244.00	3,420.44	-300.73	-616.58	-304.27	0.00	0.00	0.00
3,600.00	14.00	244.00	3,517.47	-311.33	-638.33	-315.00	0.00	0.00	0.00
3,700.00	14.00	244.00	3,614.50	-321.94	-660.07	-325.73	0.00	0.00	0.00
3,800.00	14.00	244.00	3,711.53	-332.54	-681.81	-336.46	0.00	0.00	0.00
3,833.33	14.00	244.00	3,743.87	-336.08	-689.06	-340.04	0.00	0.00	0.00
Begin Drop @ 3833.33ft									
3,900.00	12.67	244.00	3,808.74	-342.82	-702.88	-346.86	2.00	-2.00	0.00
4,000.00	10.67	244.00	3,906.67	-351.68	-721.05	-355.83	2.00	-2.00	0.00
4,100.00	8.67	244.00	4,005.24	-359.04	-736.15	-363.28	2.00	-2.00	0.00
4,200.00	6.67	244.00	4,104.35	-364.89	-748.14	-369.19	2.00	-2.00	0.00
4,248.94	5.69	244.00	4,153.00	-367.20	-752.87	-371.53	2.00	-2.00	0.00

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<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
<b>Sussex</b>									
4,300.00	4.67	244.00	4,203.85	-369.22	-757.01	-373.57	2.00	-2.00	0.00
4,400.00	2.67	244.00	4,303.64	-372.02	-762.76	-376.41	2.00	-2.00	0.00
4,500.00	0.67	244.00	4,403.59	-373.30	-765.37	-377.70	2.00	-2.00	0.00
4,533.33	0.00	244.00	4,436.92	-373.38	-765.55	-377.78	2.00	-2.00	0.00
<b>End Drop @ 4533.33ft</b>									
4,600.00	0.00	0.00	4,503.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
4,700.00	0.00	0.00	4,603.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
4,800.00	0.00	0.00	4,703.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
4,900.00	0.00	0.00	4,803.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
5,000.00	0.00	0.00	4,903.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
5,100.00	0.00	0.00	5,003.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
5,200.00	0.00	0.00	5,103.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
5,300.00	0.00	0.00	5,203.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
5,400.00	0.00	0.00	5,303.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
5,500.00	0.00	0.00	5,403.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
5,600.00	0.00	0.00	5,503.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
5,700.00	0.00	0.00	5,603.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
5,800.00	0.00	0.00	5,703.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
5,900.00	0.00	0.00	5,803.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
6,000.00	0.00	0.00	5,903.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
6,100.00	0.00	0.00	6,003.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
6,200.00	0.00	0.00	6,103.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
6,300.00	0.00	0.00	6,203.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
6,400.00	0.00	0.00	6,303.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
6,500.00	0.00	0.00	6,403.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
6,600.00	0.00	0.00	6,503.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
6,700.00	0.00	0.00	6,603.59	-373.38	-765.55	-377.78	0.00	0.00	0.00
6,719.80	0.00	0.00	6,623.39	-373.38	-765.55	-377.78	0.00	0.00	0.00
<b>KOP @ 6719.80ft</b>									
6,800.00	7.22	0.33	6,703.38	-368.34	-765.52	-372.74	9.00	9.00	0.00
6,900.00	16.22	0.33	6,801.20	-348.05	-765.40	-352.45	9.00	9.00	0.00
7,000.00	25.22	0.33	6,894.63	-312.71	-765.20	-317.11	9.00	9.00	0.00
7,100.00	34.22	0.33	6,981.39	-263.19	-764.92	-267.59	9.00	9.00	0.00
7,200.00	43.22	0.33	7,059.34	-200.71	-764.56	-205.11	9.00	9.00	0.00
<b>DLS = 9°/100'</b>									
7,300.00	52.22	0.33	7,126.55	-126.80	-764.13	-131.20	9.00	9.00	0.00
7,322.99	54.29	0.33	7,140.30	-108.38	-764.03	-112.78	9.00	9.00	0.00
<b>Sharon Springs</b>									
7,400.00	61.22	0.33	7,181.37	-43.29	-763.66	-47.69	9.00	9.00	0.00
7,500.00	70.22	0.33	7,222.45	47.77	-763.14	43.37	9.00	9.00	0.00
7,541.82	73.98	0.33	7,235.30	87.56	-762.91	83.17	9.00	9.00	0.00
<b>Niobrara Top</b>									
7,600.00	79.22	0.33	7,248.78	144.13	-762.58	139.74	9.00	9.00	0.00
7,700.00	88.22	0.33	7,259.71	243.43	-762.02	239.04	9.00	9.00	0.00
7,724.29	90.40	0.33	7,260.00	267.71	-761.88	263.32	9.00	9.00	0.00
<b>End Build @ 7724.29ft - Top of Production</b>									
7,800.00	90.40	0.33	7,259.47	343.42	-761.44	339.03	0.00	0.00	0.00
7,900.00	90.40	0.33	7,258.76	443.42	-760.87	439.03	0.00	0.00	0.00
8,000.00	90.40	0.33	7,258.06	543.41	-760.30	539.03	0.00	0.00	0.00
8,100.00	90.40	0.33	7,257.36	643.41	-759.73	639.02	0.00	0.00	0.00
8,200.00	90.40	0.33	7,256.65	743.40	-759.16	739.02	0.00	0.00	0.00
8,300.00	90.40	0.33	7,255.95	843.40	-758.58	839.02	0.00	0.00	0.00

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<b>Site:</b>	2N-68W-15 Camenisch 7-15 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CAMENISCH STATE 36N1-3HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
8,400.00	90.40	0.33	7,255.24	943.40	-758.01	939.02	0.00	0.00	0.00	
8,500.00	90.40	0.33	7,254.54	1,043.39	-757.44	1,039.01	0.00	0.00	0.00	
8,600.00	90.40	0.33	7,253.83	1,143.39	-756.87	1,139.01	0.00	0.00	0.00	
8,700.00	90.40	0.33	7,253.13	1,243.38	-756.29	1,239.01	0.00	0.00	0.00	
8,800.00	90.40	0.33	7,252.43	1,343.38	-755.72	1,339.01	0.00	0.00	0.00	
8,900.00	90.40	0.33	7,251.72	1,443.38	-755.15	1,439.00	0.00	0.00	0.00	
9,000.00	90.40	0.33	7,251.02	1,543.37	-754.58	1,539.00	0.00	0.00	0.00	
9,100.00	90.40	0.33	7,250.31	1,643.37	-754.01	1,639.00	0.00	0.00	0.00	
9,200.00	90.40	0.33	7,249.61	1,743.36	-753.43	1,739.00	0.00	0.00	0.00	
9,300.00	90.40	0.33	7,248.91	1,843.36	-752.86	1,838.99	0.00	0.00	0.00	
9,400.00	90.40	0.33	7,248.20	1,943.36	-752.29	1,938.99	0.00	0.00	0.00	
9,500.00	90.40	0.33	7,247.50	2,043.35	-751.72	2,038.99	0.00	0.00	0.00	
9,600.00	90.40	0.33	7,246.79	2,143.35	-751.15	2,138.99	0.00	0.00	0.00	
9,700.00	90.40	0.33	7,246.09	2,243.34	-750.57	2,238.98	0.00	0.00	0.00	
9,800.00	90.40	0.33	7,245.38	2,343.34	-750.00	2,338.98	0.00	0.00	0.00	
9,900.00	90.40	0.33	7,244.68	2,443.33	-749.43	2,438.98	0.00	0.00	0.00	
10,000.00	90.40	0.33	7,243.98	2,543.33	-748.86	2,538.98	0.00	0.00	0.00	
10,100.00	90.40	0.33	7,243.27	2,643.33	-748.28	2,638.97	0.00	0.00	0.00	
10,200.00	90.40	0.33	7,242.57	2,743.32	-747.71	2,738.97	0.00	0.00	0.00	
10,300.00	90.40	0.33	7,241.86	2,843.32	-747.14	2,838.97	0.00	0.00	0.00	
10,400.00	90.40	0.33	7,241.16	2,943.31	-746.57	2,938.97	0.00	0.00	0.00	
10,500.00	90.40	0.33	7,240.46	3,043.31	-746.00	3,038.96	0.00	0.00	0.00	
10,600.00	90.40	0.33	7,239.75	3,143.31	-745.42	3,138.96	0.00	0.00	0.00	
10,700.00	90.40	0.33	7,239.05	3,243.30	-744.85	3,238.96	0.00	0.00	0.00	
10,800.00	90.40	0.33	7,238.34	3,343.30	-744.28	3,338.96	0.00	0.00	0.00	
10,900.00	90.40	0.33	7,237.64	3,443.29	-743.71	3,438.95	0.00	0.00	0.00	
11,000.00	90.40	0.33	7,236.93	3,543.29	-743.13	3,538.95	0.00	0.00	0.00	
11,100.00	90.40	0.33	7,236.23	3,643.29	-742.56	3,638.95	0.00	0.00	0.00	
11,200.00	90.40	0.33	7,235.53	3,743.28	-741.99	3,738.95	0.00	0.00	0.00	
11,300.00	90.40	0.33	7,234.82	3,843.28	-741.42	3,838.94	0.00	0.00	0.00	
11,400.00	90.40	0.33	7,234.12	3,943.27	-740.85	3,938.94	0.00	0.00	0.00	
11,500.00	90.40	0.33	7,233.41	4,043.27	-740.27	4,038.94	0.00	0.00	0.00	
11,600.00	90.40	0.33	7,232.71	4,143.26	-739.70	4,138.94	0.00	0.00	0.00	
11,700.00	90.40	0.33	7,232.00	4,243.26	-739.13	4,238.93	0.00	0.00	0.00	
11,800.00	90.40	0.33	7,231.30	4,343.26	-738.56	4,338.93	0.00	0.00	0.00	
11,900.00	90.40	0.33	7,230.60	4,443.25	-737.99	4,438.93	0.00	0.00	0.00	
12,000.00	90.40	0.33	7,229.89	4,543.25	-737.41	4,538.93	0.00	0.00	0.00	
12,100.00	90.40	0.33	7,229.19	4,643.24	-736.84	4,638.92	0.00	0.00	0.00	
12,200.00	90.40	0.33	7,228.48	4,743.24	-736.27	4,738.92	0.00	0.00	0.00	
12,300.00	90.40	0.33	7,227.78	4,843.24	-735.70	4,838.92	0.00	0.00	0.00	
12,400.00	90.40	0.33	7,227.08	4,943.23	-735.12	4,938.92	0.00	0.00	0.00	
12,500.00	90.40	0.33	7,226.37	5,043.23	-734.55	5,038.91	0.00	0.00	0.00	
12,600.00	90.40	0.33	7,225.67	5,143.22	-733.98	5,138.91	0.00	0.00	0.00	
12,700.00	90.40	0.33	7,224.96	5,243.22	-733.41	5,238.91	0.00	0.00	0.00	
12,800.00	90.40	0.33	7,224.26	5,343.22	-732.84	5,338.91	0.00	0.00	0.00	
12,900.00	90.40	0.33	7,223.55	5,443.21	-732.26	5,438.90	0.00	0.00	0.00	
13,000.00	90.40	0.33	7,222.85	5,543.21	-731.69	5,538.90	0.00	0.00	0.00	
13,100.00	90.40	0.33	7,222.15	5,643.20	-731.12	5,638.90	0.00	0.00	0.00	
13,200.00	90.40	0.33	7,221.44	5,743.20	-730.55	5,738.90	0.00	0.00	0.00	
13,300.00	90.40	0.33	7,220.74	5,843.19	-729.97	5,838.89	0.00	0.00	0.00	
13,400.00	90.40	0.33	7,220.03	5,943.19	-729.40	5,938.89	0.00	0.00	0.00	
13,500.00	90.40	0.33	7,219.33	6,043.19	-728.83	6,038.89	0.00	0.00	0.00	
13,600.00	90.40	0.33	7,218.63	6,143.18	-728.26	6,138.89	0.00	0.00	0.00	
13,700.00	90.40	0.33	7,217.92	6,243.18	-727.69	6,238.88	0.00	0.00	0.00	

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well CAMENISCH STATE 36N1-3HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4893.00usft (D Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4893.00usft (D Rig)
<b>Site:</b>	2N-68W-15 Camenisch 7-15 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CAMENISCH STATE 36N1-3HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
13,800.00	90.40	0.33	7,217.22	6,343.17	-727.11	6,338.88	0.00	0.00	0.00	
13,900.00	90.40	0.33	7,216.51	6,443.17	-726.54	6,438.88	0.00	0.00	0.00	
14,000.00	90.40	0.33	7,215.81	6,543.17	-725.97	6,538.88	0.00	0.00	0.00	
14,100.00	90.40	0.33	7,215.10	6,643.16	-725.40	6,638.87	0.00	0.00	0.00	
14,200.00	90.40	0.33	7,214.40	6,743.16	-724.83	6,738.87	0.00	0.00	0.00	
14,300.00	90.40	0.33	7,213.70	6,843.15	-724.25	6,838.87	0.00	0.00	0.00	
14,400.00	90.40	0.33	7,212.99	6,943.15	-723.68	6,938.87	0.00	0.00	0.00	
14,500.00	90.40	0.33	7,212.29	7,043.15	-723.11	7,038.86	0.00	0.00	0.00	
14,600.00	90.40	0.33	7,211.58	7,143.14	-722.54	7,138.86	0.00	0.00	0.00	
14,700.00	90.40	0.33	7,210.88	7,243.14	-721.96	7,238.86	0.00	0.00	0.00	
14,800.00	90.40	0.33	7,210.17	7,343.13	-721.39	7,338.86	0.00	0.00	0.00	
14,900.00	90.40	0.33	7,209.47	7,443.13	-720.82	7,438.85	0.00	0.00	0.00	
15,000.00	90.40	0.33	7,208.77	7,543.13	-720.25	7,538.85	0.00	0.00	0.00	
15,100.00	90.40	0.33	7,208.06	7,643.12	-719.68	7,638.85	0.00	0.00	0.00	
15,200.00	90.40	0.33	7,207.36	7,743.12	-719.10	7,738.85	0.00	0.00	0.00	
15,300.00	90.40	0.33	7,206.65	7,843.11	-718.53	7,838.84	0.00	0.00	0.00	
15,392.82	90.40	0.33	7,206.00	7,935.93	-718.00	7,931.66	0.00	0.00	0.00	
TD Well @ 15392.82ft										

# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well CAMENISCH STATE 36N1-3HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4893.00usft (D Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4893.00usft (D Rig)
<b>Site:</b>	2N-68W-15 Camenisch 7-15 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CAMENISCH STATE 36N1-3HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
CAMENISCH STATE 36	0.00	0.00	0.00	0.00	0.00	14,577,706.69	1,643,790.52	40.139980	-104.987928
- plan hits target center									
- Point									
CAMENISCH STATE 36	0.00	0.00	0.00	894.98	-368.17	14,578,601.63	1,643,422.23	40.142438	-104.989246
- plan misses target center by 967.75usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Circle (radius 460.00)									
CAMENISCH STATE 36	0.00	0.00	0.00	0.00	0.00	14,577,706.69	1,643,790.52	40.139980	-104.987928
- plan hits target center									
- Polygon									
Point 1			0.00	8,364.65	153.56	14,586,071.36	1,643,942.95		
Point 2			0.00	7,521.83	144.52	14,585,228.54	1,643,934.02		
Point 3			0.00	6,202.15	130.28	14,583,908.86	1,643,919.96		
Point 4			0.00	4,886.72	116.10	14,582,593.43	1,643,905.96		
Point 5			0.00	3,555.94	102.93	14,581,262.65	1,643,892.97		
Point 6			0.00	2,227.35	89.78	14,579,934.05	1,643,880.00		
Point 7			0.00	893.49	91.83	14,578,600.19	1,643,882.23		
Point 8			0.00	19.64	93.16	14,577,726.34	1,643,883.68		
Point 9			0.00	20.45	-366.84	14,577,727.09	1,643,423.68		
Point 10			0.00	21.35	-826.84	14,577,727.93	1,642,963.68		
Point 11			0.00	896.57	-828.18	14,578,603.15	1,642,962.22		
Point 12			0.00	2,231.79	-830.22	14,579,938.37	1,642,960.00		
Point 13			0.00	3,562.32	-817.05	14,581,268.90	1,642,972.99		
Point 14			0.00	4,892.86	-803.88	14,582,599.44	1,642,985.98		
Point 15			0.00	6,212.07	-789.65	14,583,918.65	1,643,000.03		
Point 16			0.00	7,527.71	-775.47	14,585,234.30	1,643,014.03		
Point 17			0.00	8,367.02	-766.47	14,586,073.61	1,643,022.92		
Point 18			0.00	8,364.28	-306.47	14,586,070.93	1,643,482.92		
Point 19			0.00	8,364.65	153.56	14,586,071.36	1,643,942.95		
CAMENISCH STATE 36	0.00	0.00	0.00	7,522.75	-315.49	14,585,229.40	1,643,474.01	40.160638	-104.989057
- plan misses target center by 7220.07usft at 15032.70usft MD (7208.54 TVD, 7575.83 N, -720.06 E)									
- Circle (radius 460.00)									
2N-R68W-Sec. 15_Secti	0.00	0.00	4.00	403.58	-2,208.96	14,578,109.97	1,641,581.51	40.141088	-104.995832
- plan misses target center by 2245.52usft at 4.00usft MD (4.00 TVD, 0.00 N, 0.00 E)									
- Polygon									
Point 1			4.00	1,838.97	-809.58	14,579,948.83	1,640,771.68		
Point 2			4.00	1,825.91	1,838.52	14,579,936.13	1,643,419.78		
Point 3			4.00	1,813.87	4,487.46	14,579,924.45	1,646,068.72		
Point 4			4.00	-845.15	4,491.86	14,577,265.43	1,646,073.48		
Point 5			4.00	-3,504.52	4,495.41	14,574,606.06	1,646,077.40		
Point 6			4.00	-3,497.58	1,841.43	14,574,612.64	1,643,423.41		
Point 7			4.00	-3,492.17	-813.11	14,574,617.69	1,640,768.87		
Point 8			4.00	-835.71	-811.34	14,577,274.15	1,640,770.28		
2N-R68W-Sec. 3_Sectio	0.00	0.00	4.00	403.58	-2,208.96	14,578,109.97	1,641,581.51	40.141088	-104.995832
- plan misses target center by 2245.52usft at 4.00usft MD (4.00 TVD, 0.00 N, 0.00 E)									
- Polygon									
Point 1			4.00	12,346.53	-703.08	14,590,456.40	1,640,876.75		
Point 2			4.00	12,327.66	1,945.29	14,590,437.89	1,643,525.13		
Point 3			4.00	12,348.39	4,570.76	14,590,458.98	1,646,150.59		
Point 4			4.00	9,783.31	4,550.84	14,587,893.90	1,646,131.02		
Point 5			4.00	7,116.64	4,529.53	14,585,227.22	1,646,110.07		
Point 6			4.00	7,121.75	1,889.82	14,585,231.97	1,643,470.36		
Point 7			4.00	7,126.42	-756.60	14,585,236.28	1,640,823.94		
2N-R68W-Sec. 10_Secti	0.00	0.00	4.00	403.58	-2,208.96	14,578,109.97	1,641,581.51	40.141088	-104.995832
- plan misses target center by 2245.52usft at 4.00usft MD (4.00 TVD, 0.00 N, 0.00 E)									
- Polygon									



# Anadarko

## Planning Report

<b>Database:</b>	PLANNING	<b>Local Co-ordinate Reference:</b>	Well CAMENISCH STATE 36N1-3HZ
<b>Company:</b>	US ROCKIES WATTENBERG PLANNING	<b>TVD Reference:</b>	RKB = 17' @ 4893.00usft (D Rig)
<b>Project:</b>	WELD-NAD83-UTMFT13N	<b>MD Reference:</b>	RKB = 17' @ 4893.00usft (D Rig)
<b>Site:</b>	2N-68W-15 Camenisch 7-15 Pad	<b>North Reference:</b>	True
<b>Well:</b>	CAMENISCH STATE 36N1-3HZ	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	Plan A		
<b>Design:</b>	Permit Rev-1		

Point 1	4.00	7,126.42	-756.60	14,585,236.28	1,640,823.94		
Point 2	4.00	7,121.75	1,889.82	14,585,231.97	1,643,470.36		
Point 3	4.00	7,116.64	4,529.53	14,585,227.22	1,646,110.07		
Point 4	4.00	4,479.82	4,509.34	14,582,590.40	1,646,090.24		
Point 5	4.00	1,813.87	4,487.46	14,579,924.45	1,646,068.72		
Point 6	4.00	1,825.91	1,838.52	14,579,936.13	1,643,419.78		
Point 7	4.00	1,838.97	-809.58	14,579,948.83	1,640,771.68		
Point 8	4.00	4,495.81	-782.94	14,582,605.67	1,640,797.96		
2N-R68W-Sec. 15_Half	0.00	0.00	-17.00	-726.80	1,385.41	14,576,980.08	1,645,176.04
- plan misses target center by 1564.58usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)							
- Polygon							
Point 1	-17.00	294.98	-4,405.77	14,577,274.46	1,640,770.23		
Point 2	-17.00	284.78	897.42	14,577,264.98	1,646,073.42		
CAMENISCH STATE 36	0.00	0.00	7,206.00	7,935.93	-718.00	14,585,642.52	1,643,071.45
- plan hits target center							
- Point							

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")	
1,829.95	1,800.00	9 5/8"		9-5/8	13-1/2	
7,724.29	7,260.00	Top of Production		5-1/2	7-7/8	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
819.61	816.90	Fox Hills				
4,248.94	4,153.00	Sussex				
7,322.99	7,140.30	Sharon Springs				
7,541.82	7,235.30	Niobrara Top				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
200.00	200.00	0.00	0.00	Begin Nudge @ 200.00ft	
1,133.33	1,124.07	-49.74	-101.98	End Nudge @ 1133.33ft	
3,833.33	3,743.87	-336.08	-689.06	Begin Drop @ 3833.33ft	
4,533.33	4,436.92	-373.38	-765.55	End Drop @ 4533.33ft	
6,719.80	6,623.39	-373.38	-765.55	KOP @ 6719.80ft	
7,200.00	7,059.34	-200.71	-764.56	DLS = 9°/100'	
7,724.29	7,260.00	267.71	-761.88	End Build @ 7724.29ft	
15,392.82	7,206.00	7,935.93	-718.00	TD Well @ 15392.82ft	