

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

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

CAMENISCH STATE 36N2-3HZ

Plan A

Plan: Permit Rev-1

Standard Planning Report

22 September, 2015

Project: WELD-NAD83-UTMFT13N
Site: 2N-68W-15 Camenisch 7-15 Pad
Well: CAMENISCH STATE 36N2-3HZ
Wellbore: Plan A
Design: Permit Rev-1

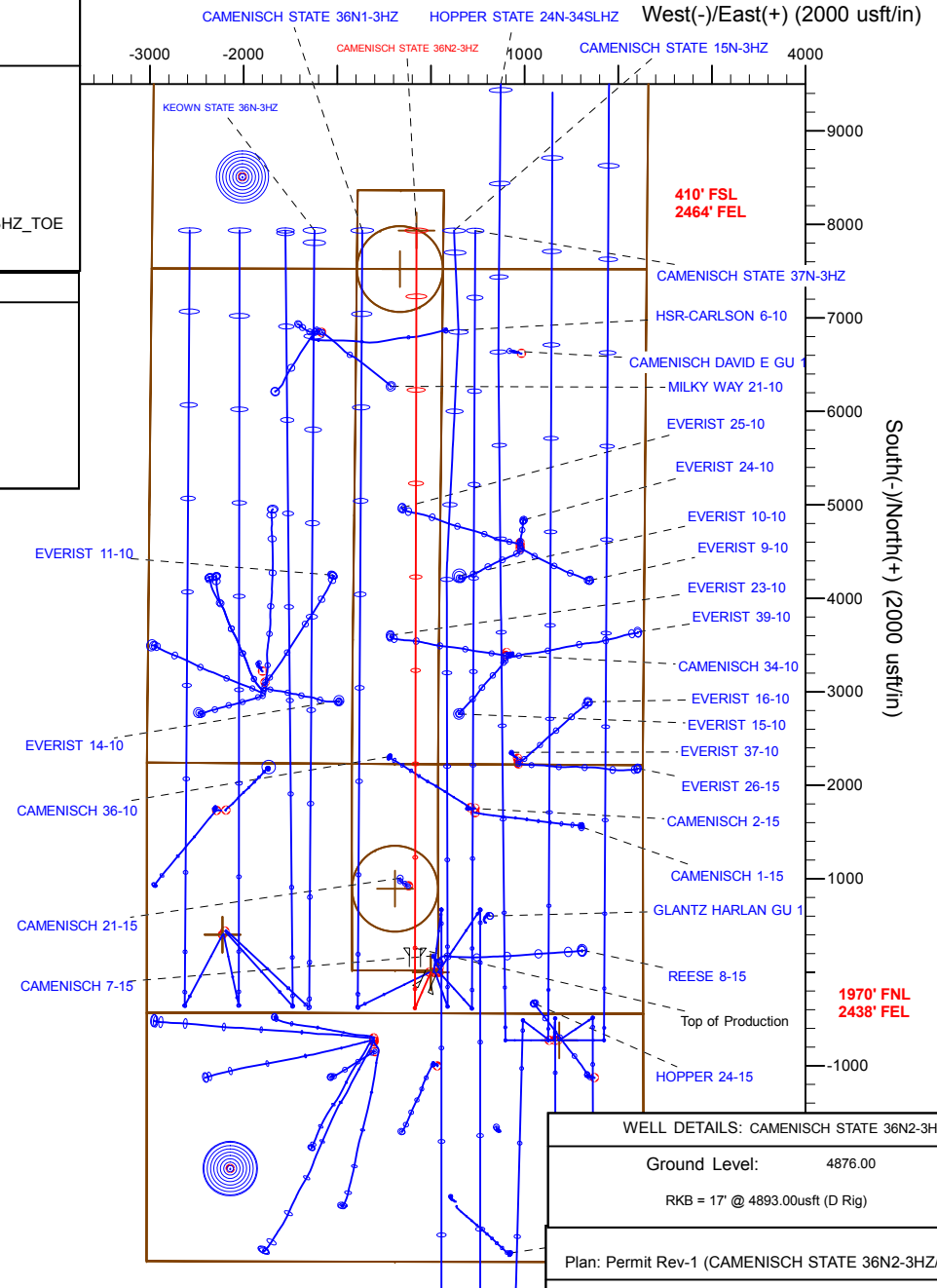
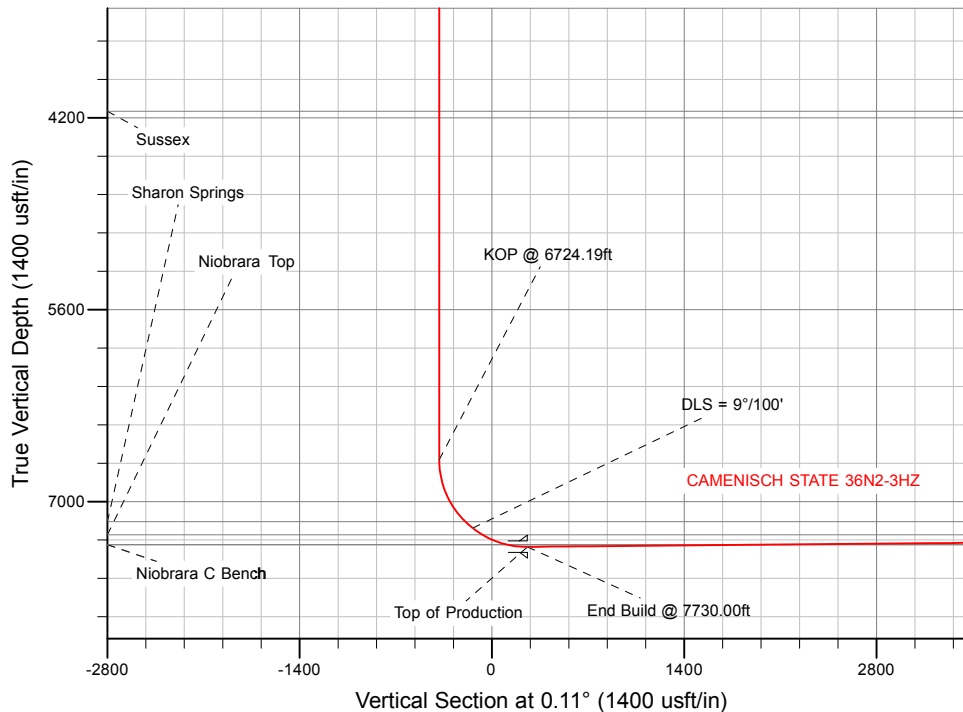
US ROCKIES WATTENBERG PLANNING

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	800.00	9.00	204.00	797.54	-42.96	-19.13	1.50	204.00	-43.00	
4	2950.00	9.00	204.00	2921.07	-350.22	-155.93	0.00	0.00	-350.52	
5	3400.00	0.00	0.00	3369.22	-382.44	-170.27	2.00	180.00	-382.77	
6	6724.19	0.00	0.00	6693.41	-382.44	-170.27	0.00	0.00	-382.77	
7	7730.00	90.52	0.11	7330.00	259.99	-168.98	9.00	0.11	259.66	
8	15405.18	90.52	0.11	7260.00	7934.83	-153.58	0.00	0.00	7934.52	CAMENISCH STATE 36N2-3HZ_TOE

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
CAMENISCH STATE 36N2-3HZ_SHL	0.00	0.00	0.00	40.139980	-104.987874	Point
CAMENISCH STATE 36N2-3HZ_TOE	7260.00	7934.83	-153.58	40.161770	-104.988424	Point



WELL DETAILS: CAMENISCH STATE 36N2-3HZ

Ground Level: 4876.00

RKB = 17' @ 4893.00usft (D Rig)

Plan: Permit Rev-1 (CAMENISCH STATE 36N2-3HZ/Plan A)

Created By: Clint Eshelman

Date: 9/22/2015

Reviewed: _____

Date: _____

Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well CAMENISCH STATE 36N2-3HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4893.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4893.00usft (D Rig)
Site:	2N-68W-15 Camenisch 7-15 Pad	North Reference:	True
Well:	CAMENISCH STATE 36N2-3HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-1		

Project	WELD-NAD83-UTMFT13N		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	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 36N2-3HZ					
Well Position	+N/-S	0.00 usft	Northing:	14,577,706.69 usft	Latitude:	40.139980
	+E/-W	15.09 usft	Easting:	1,643,805.62 usft	Longitude:	-104.987874
Position Uncertainty		3.28 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,876.00 usft

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

Design	Permit Rev-1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	0.11

Plan Sections										
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	
800.00	9.00	204.00	797.54	-42.96	-19.13	1.50	1.50	0.00	204.00	
2,950.00	9.00	204.00	2,921.07	-350.22	-155.93	0.00	0.00	0.00	0.00	
3,400.00	0.00	0.00	3,369.22	-382.44	-170.27	2.00	-2.00	34.67	180.00	
6,724.19	0.00	0.00	6,693.41	-382.44	-170.27	0.00	0.00	0.00	0.00	
7,730.00	90.52	0.11	7,330.00	259.99	-168.98	9.00	9.00	0.01	0.11	
15,405.18	90.52	0.11	7,260.00	7,934.83	-153.58	0.00	0.00	0.00	0.00	CAMENISCH STATE

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Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well CAMENISCH STATE 36N2-3HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4893.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4893.00usft (D Rig)
Site:	2N-68W-15 Camenisch 7-15 Pad	North Reference:	True
Well:	CAMENISCH STATE 36N2-3HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	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	204.00	299.99	-1.20	-0.53	-1.20	1.50	1.50	0.00
400.00	3.00	204.00	399.91	-4.78	-2.13	-4.79	1.50	1.50	0.00
500.00	4.50	204.00	499.69	-10.76	-4.79	-10.77	1.50	1.50	0.00
600.00	6.00	204.00	599.27	-19.12	-8.51	-19.13	1.50	1.50	0.00
700.00	7.50	204.00	698.57	-29.85	-13.29	-29.88	1.50	1.50	0.00
800.00	9.00	204.00	797.54	-42.96	-19.13	-43.00	1.50	1.50	0.00
End Nudge @ 800.00ft									
819.61	9.00	204.00	816.90	-45.76	-20.38	-45.80	0.00	0.00	0.00
Fox Hills									
900.00	9.00	204.00	896.30	-57.25	-25.49	-57.30	0.00	0.00	0.00
1,000.00	9.00	204.00	995.07	-71.54	-31.85	-71.60	0.00	0.00	0.00
1,100.00	9.00	204.00	1,093.84	-85.83	-38.22	-85.91	0.00	0.00	0.00
1,200.00	9.00	204.00	1,192.61	-100.13	-44.58	-100.21	0.00	0.00	0.00
1,300.00	9.00	204.00	1,291.38	-114.42	-50.94	-114.51	0.00	0.00	0.00
1,400.00	9.00	204.00	1,390.15	-128.71	-57.30	-128.82	0.00	0.00	0.00
1,500.00	9.00	204.00	1,488.92	-143.00	-63.67	-143.12	0.00	0.00	0.00
1,600.00	9.00	204.00	1,587.69	-157.29	-70.03	-157.42	0.00	0.00	0.00
1,700.00	9.00	204.00	1,686.46	-171.58	-76.39	-171.73	0.00	0.00	0.00
1,800.00	9.00	204.00	1,785.22	-185.87	-82.76	-186.03	0.00	0.00	0.00
1,814.96	9.00	204.00	1,800.00	-188.01	-83.71	-188.17	0.00	0.00	0.00
9 5/8"									
1,900.00	9.00	204.00	1,883.99	-200.16	-89.12	-200.33	0.00	0.00	0.00
2,000.00	9.00	204.00	1,982.76	-214.45	-95.48	-214.64	0.00	0.00	0.00
2,100.00	9.00	204.00	2,081.53	-228.74	-101.84	-228.94	0.00	0.00	0.00
2,200.00	9.00	204.00	2,180.30	-243.04	-108.21	-243.24	0.00	0.00	0.00
2,300.00	9.00	204.00	2,279.07	-257.33	-114.57	-257.55	0.00	0.00	0.00
2,400.00	9.00	204.00	2,377.84	-271.62	-120.93	-271.85	0.00	0.00	0.00
2,500.00	9.00	204.00	2,476.61	-285.91	-127.29	-286.15	0.00	0.00	0.00
2,600.00	9.00	204.00	2,575.37	-300.20	-133.66	-300.46	0.00	0.00	0.00
2,700.00	9.00	204.00	2,674.14	-314.49	-140.02	-314.76	0.00	0.00	0.00
2,800.00	9.00	204.00	2,772.91	-328.78	-146.38	-329.06	0.00	0.00	0.00
2,900.00	9.00	204.00	2,871.68	-343.07	-152.75	-343.36	0.00	0.00	0.00
2,950.00	9.00	204.00	2,921.07	-350.22	-155.93	-350.52	0.00	0.00	0.00
Begin Drop @ 2950.00ft									
3,000.00	8.00	204.00	2,970.52	-356.97	-158.93	-357.27	2.00	-2.00	0.00
3,100.00	6.00	204.00	3,069.77	-368.10	-163.89	-368.42	2.00	-2.00	0.00
3,200.00	4.00	204.00	3,169.38	-376.06	-167.43	-376.38	2.00	-2.00	0.00
3,300.00	2.00	204.00	3,269.24	-380.84	-169.56	-381.17	2.00	-2.00	0.00
3,400.00	0.00	0.00	3,369.22	-382.44	-170.27	-382.77	2.00	-2.00	0.00
End Drop @ 3400.00ft									
3,500.00	0.00	0.00	3,469.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
3,600.00	0.00	0.00	3,569.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
3,700.00	0.00	0.00	3,669.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
3,800.00	0.00	0.00	3,769.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
3,900.00	0.00	0.00	3,869.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
4,000.00	0.00	0.00	3,969.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
4,100.00	0.00	0.00	4,069.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
4,183.78	0.00	0.00	4,153.00	-382.44	-170.27	-382.77	0.00	0.00	0.00
Sussex									

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Planning Report

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Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4893.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4893.00usft (D Rig)
Site:	2N-68W-15 Camenisch 7-15 Pad	North Reference:	True
Well:	CAMENISCH STATE 36N2-3HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	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)
4,200.00	0.00	0.00	4,169.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
4,300.00	0.00	0.00	4,269.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
4,400.00	0.00	0.00	4,369.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
4,500.00	0.00	0.00	4,469.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
4,600.00	0.00	0.00	4,569.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
4,700.00	0.00	0.00	4,669.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
4,800.00	0.00	0.00	4,769.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
4,900.00	0.00	0.00	4,869.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
5,000.00	0.00	0.00	4,969.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
5,100.00	0.00	0.00	5,069.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
5,200.00	0.00	0.00	5,169.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
5,300.00	0.00	0.00	5,269.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
5,400.00	0.00	0.00	5,369.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
5,500.00	0.00	0.00	5,469.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
5,600.00	0.00	0.00	5,569.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
5,700.00	0.00	0.00	5,669.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
5,800.00	0.00	0.00	5,769.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
5,900.00	0.00	0.00	5,869.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
6,000.00	0.00	0.00	5,969.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
6,100.00	0.00	0.00	6,069.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
6,200.00	0.00	0.00	6,169.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
6,300.00	0.00	0.00	6,269.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
6,400.00	0.00	0.00	6,369.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
6,500.00	0.00	0.00	6,469.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
6,600.00	0.00	0.00	6,569.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
6,700.00	0.00	0.00	6,669.22	-382.44	-170.27	-382.77	0.00	0.00	0.00
6,724.19	0.00	0.00	6,693.41	-382.44	-170.27	-382.77	0.00	0.00	0.00
KOP @ 6724.19ft									
6,800.00	6.82	0.11	6,769.04	-377.93	-170.26	-378.26	9.00	9.00	0.15
6,900.00	15.82	0.11	6,866.99	-358.32	-170.22	-358.64	9.00	9.00	0.00
7,000.00	24.82	0.11	6,960.67	-323.62	-170.15	-323.95	9.00	9.00	0.00
7,100.00	33.82	0.11	7,047.77	-274.70	-170.06	-275.02	9.00	9.00	0.00
7,200.00	42.82	0.11	7,126.14	-212.75	-169.93	-213.08	9.00	9.00	0.00
7,228.78	45.41	0.11	7,146.80	-192.72	-169.89	-193.05	9.00	9.00	0.00
Sharon Springs									
7,300.00	51.82	0.11	7,193.86	-139.31	-169.78	-139.64	9.00	9.00	0.00
DLS = 9°/100'									
7,385.03	59.48	0.11	7,241.80	-69.16	-169.64	-69.49	9.00	9.00	0.00
Niobrara Top									
7,400.00	60.82	0.11	7,249.25	-56.18	-169.62	-56.50	9.00	9.00	0.00
7,500.00	69.82	0.11	7,290.96	34.60	-169.44	34.27	9.00	9.00	0.00
7,588.87	77.82	0.11	7,315.70	119.88	-169.26	119.55	9.00	9.00	0.00
Niobrara B Bench - Niobrara C Bench									
7,600.00	78.82	0.11	7,317.95	130.78	-169.24	130.45	9.00	9.00	0.00
7,700.00	87.82	0.11	7,329.57	230.00	-169.04	229.67	9.00	9.00	0.00
7,730.00	90.52	0.11	7,330.00	259.99	-168.98	259.66	9.00	9.00	0.00
End Build @ 7730.00ft - Top of Production									
7,800.00	90.52	0.11	7,329.36	329.99	-168.84	329.66	0.00	0.00	0.00
7,900.00	90.52	0.11	7,328.45	429.98	-168.64	429.66	0.00	0.00	0.00
8,000.00	90.52	0.11	7,327.54	529.98	-168.44	529.65	0.00	0.00	0.00
8,100.00	90.52	0.11	7,326.63	629.97	-168.24	629.65	0.00	0.00	0.00
8,200.00	90.52	0.11	7,325.71	729.97	-168.04	729.65	0.00	0.00	0.00
8,300.00	90.52	0.11	7,324.80	829.96	-167.84	829.64	0.00	0.00	0.00

Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well CAMENISCH STATE 36N2-3HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4893.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4893.00usft (D Rig)
Site:	2N-68W-15 Camenisch 7-15 Pad	North Reference:	True
Well:	CAMENISCH STATE 36N2-3HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	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	90.52	0.11	7,323.89	929.96	-167.64	929.64	0.00	0.00	0.00
8,500.00	90.52	0.11	7,322.98	1,029.96	-167.44	1,029.63	0.00	0.00	0.00
8,600.00	90.52	0.11	7,322.07	1,129.95	-167.24	1,129.63	0.00	0.00	0.00
8,700.00	90.52	0.11	7,321.15	1,229.95	-167.04	1,229.62	0.00	0.00	0.00
8,800.00	90.52	0.11	7,320.24	1,329.94	-166.84	1,329.62	0.00	0.00	0.00
8,900.00	90.52	0.11	7,319.33	1,429.94	-166.64	1,429.62	0.00	0.00	0.00
9,000.00	90.52	0.11	7,318.42	1,529.93	-166.43	1,529.61	0.00	0.00	0.00
9,100.00	90.52	0.11	7,317.51	1,629.93	-166.23	1,629.61	0.00	0.00	0.00
9,200.00	90.52	0.11	7,316.59	1,729.93	-166.03	1,729.60	0.00	0.00	0.00
9,300.00	90.52	0.11	7,315.68	1,829.92	-165.83	1,829.60	0.00	0.00	0.00
9,400.00	90.52	0.11	7,314.77	1,929.92	-165.63	1,929.60	0.00	0.00	0.00
9,500.00	90.52	0.11	7,313.86	2,029.91	-165.43	2,029.59	0.00	0.00	0.00
9,600.00	90.52	0.11	7,312.95	2,129.91	-165.23	2,129.59	0.00	0.00	0.00
9,700.00	90.52	0.11	7,312.03	2,229.90	-165.03	2,229.58	0.00	0.00	0.00
9,800.00	90.52	0.11	7,311.12	2,329.90	-164.83	2,329.58	0.00	0.00	0.00
9,900.00	90.52	0.11	7,310.21	2,429.89	-164.63	2,429.57	0.00	0.00	0.00
10,000.00	90.52	0.11	7,309.30	2,529.89	-164.43	2,529.57	0.00	0.00	0.00
10,100.00	90.52	0.11	7,308.39	2,629.89	-164.23	2,629.57	0.00	0.00	0.00
10,200.00	90.52	0.11	7,307.47	2,729.88	-164.03	2,729.56	0.00	0.00	0.00
10,300.00	90.52	0.11	7,306.56	2,829.88	-163.83	2,829.56	0.00	0.00	0.00
10,400.00	90.52	0.11	7,305.65	2,929.87	-163.62	2,929.55	0.00	0.00	0.00
10,500.00	90.52	0.11	7,304.74	3,029.87	-163.42	3,029.55	0.00	0.00	0.00
10,600.00	90.52	0.11	7,303.83	3,129.86	-163.22	3,129.55	0.00	0.00	0.00
10,700.00	90.52	0.11	7,302.91	3,229.86	-163.02	3,229.54	0.00	0.00	0.00
10,800.00	90.52	0.11	7,302.00	3,329.86	-162.82	3,329.54	0.00	0.00	0.00
10,900.00	90.52	0.11	7,301.09	3,429.85	-162.62	3,429.53	0.00	0.00	0.00
11,000.00	90.52	0.11	7,300.18	3,529.85	-162.42	3,529.53	0.00	0.00	0.00
11,100.00	90.52	0.11	7,299.27	3,629.84	-162.22	3,629.52	0.00	0.00	0.00
11,200.00	90.52	0.11	7,298.35	3,729.84	-162.02	3,729.52	0.00	0.00	0.00
11,300.00	90.52	0.11	7,297.44	3,829.83	-161.82	3,829.52	0.00	0.00	0.00
11,400.00	90.52	0.11	7,296.53	3,929.83	-161.62	3,929.51	0.00	0.00	0.00
11,500.00	90.52	0.11	7,295.62	4,029.83	-161.42	4,029.51	0.00	0.00	0.00
11,600.00	90.52	0.11	7,294.70	4,129.82	-161.22	4,129.50	0.00	0.00	0.00
11,700.00	90.52	0.11	7,293.79	4,229.82	-161.02	4,229.50	0.00	0.00	0.00
11,800.00	90.52	0.11	7,292.88	4,329.81	-160.82	4,329.50	0.00	0.00	0.00
11,900.00	90.52	0.11	7,291.97	4,429.81	-160.61	4,429.49	0.00	0.00	0.00
12,000.00	90.52	0.11	7,291.06	4,529.80	-160.41	4,529.49	0.00	0.00	0.00
12,100.00	90.52	0.11	7,290.14	4,629.80	-160.21	4,629.48	0.00	0.00	0.00
12,200.00	90.52	0.11	7,289.23	4,729.79	-160.01	4,729.48	0.00	0.00	0.00
12,300.00	90.52	0.11	7,288.32	4,829.79	-159.81	4,829.47	0.00	0.00	0.00
12,400.00	90.52	0.11	7,287.41	4,929.79	-159.61	4,929.47	0.00	0.00	0.00
12,500.00	90.52	0.11	7,286.50	5,029.78	-159.41	5,029.47	0.00	0.00	0.00
12,600.00	90.52	0.11	7,285.58	5,129.78	-159.21	5,129.46	0.00	0.00	0.00
12,700.00	90.52	0.11	7,284.67	5,229.77	-159.01	5,229.46	0.00	0.00	0.00
12,800.00	90.52	0.11	7,283.76	5,329.77	-158.81	5,329.45	0.00	0.00	0.00
12,900.00	90.52	0.11	7,282.85	5,429.76	-158.61	5,429.45	0.00	0.00	0.00
13,000.00	90.52	0.11	7,281.94	5,529.76	-158.41	5,529.45	0.00	0.00	0.00
13,100.00	90.52	0.11	7,281.02	5,629.76	-158.21	5,629.44	0.00	0.00	0.00
13,200.00	90.52	0.11	7,280.11	5,729.75	-158.01	5,729.44	0.00	0.00	0.00
13,300.00	90.52	0.11	7,279.20	5,829.75	-157.80	5,829.43	0.00	0.00	0.00
13,400.00	90.52	0.11	7,278.29	5,929.74	-157.60	5,929.43	0.00	0.00	0.00
13,500.00	90.52	0.11	7,277.38	6,029.74	-157.40	6,029.42	0.00	0.00	0.00
13,600.00	90.52	0.11	7,276.46	6,129.73	-157.20	6,129.42	0.00	0.00	0.00
13,700.00	90.52	0.11	7,275.55	6,229.73	-157.00	6,229.42	0.00	0.00	0.00

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Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well CAMENISCH STATE 36N2-3HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4893.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4893.00usft (D Rig)
Site:	2N-68W-15 Camenisch 7-15 Pad	North Reference:	True
Well:	CAMENISCH STATE 36N2-3HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	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	90.52	0.11	7,274.64	6,329.72	-156.80	6,329.41	0.00	0.00	0.00	
13,900.00	90.52	0.11	7,273.73	6,429.72	-156.60	6,429.41	0.00	0.00	0.00	
14,000.00	90.52	0.11	7,272.82	6,529.72	-156.40	6,529.40	0.00	0.00	0.00	
14,100.00	90.52	0.11	7,271.90	6,629.71	-156.20	6,629.40	0.00	0.00	0.00	
14,200.00	90.52	0.11	7,270.99	6,729.71	-156.00	6,729.40	0.00	0.00	0.00	
14,300.00	90.52	0.11	7,270.08	6,829.70	-155.80	6,829.39	0.00	0.00	0.00	
14,400.00	90.52	0.11	7,269.17	6,929.70	-155.60	6,929.39	0.00	0.00	0.00	
14,500.00	90.52	0.11	7,268.26	7,029.69	-155.40	7,029.38	0.00	0.00	0.00	
14,600.00	90.52	0.11	7,267.34	7,129.69	-155.20	7,129.38	0.00	0.00	0.00	
14,700.00	90.52	0.11	7,266.43	7,229.69	-155.00	7,229.37	0.00	0.00	0.00	
14,800.00	90.52	0.11	7,265.52	7,329.68	-154.79	7,329.37	0.00	0.00	0.00	
14,900.00	90.52	0.11	7,264.61	7,429.68	-154.59	7,429.37	0.00	0.00	0.00	
15,000.00	90.52	0.11	7,263.70	7,529.67	-154.39	7,529.36	0.00	0.00	0.00	
15,100.00	90.52	0.11	7,262.78	7,629.67	-154.19	7,629.36	0.00	0.00	0.00	
15,200.00	90.52	0.11	7,261.87	7,729.66	-153.99	7,729.35	0.00	0.00	0.00	
15,300.00	90.52	0.11	7,260.96	7,829.66	-153.79	7,829.35	0.00	0.00	0.00	
15,400.00	90.52	0.11	7,260.05	7,929.66	-153.59	7,929.35	0.00	0.00	0.00	
15,405.18	90.52	0.11	7,260.00	7,934.83	-153.58	7,934.52	0.00	0.00	0.00	
TD Well @ 15405.18ft										

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Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well CAMENISCH STATE 36N2-3HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4893.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4893.00usft (D Rig)
Site:	2N-68W-15 Camenisch 7-15 Pad	North Reference:	True
Well:	CAMENISCH STATE 36N2-3HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	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	7,522.75	-330.58	14,585,229.40	1,643,474.01	40.160638	-104.989057
- plan misses target center by 7265.60usft at 15058.97usft MD (7263.16 TVD, 7588.64 N, -154.27 E)									
- Circle (radius 460.00)									
CAMENISCH STATE 36	0.00	0.00	0.00	0.00	0.00	14,577,706.69	1,643,805.62	40.139980	-104.987874
- plan hits target center									
- Point									
CAMENISCH STATE 36	0.00	0.00	0.00	894.98	-383.27	14,578,601.63	1,643,422.23	40.142438	-104.989246
- plan misses target center by 973.60usft 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	1,643,805.62	40.139980	-104.987874
- plan hits target center									
- Polygon									
Point 1			0.00	8,364.65	138.47	14,586,071.36	1,643,942.95		
Point 2			0.00	7,521.83	129.44	14,585,228.54	1,643,934.03		
Point 3			0.00	6,202.15	115.20	14,583,908.86	1,643,919.97		
Point 4			0.00	4,886.72	101.01	14,582,593.43	1,643,905.96		
Point 5			0.00	3,555.94	87.85	14,581,262.65	1,643,892.98		
Point 6			0.00	2,227.35	74.69	14,579,934.05	1,643,880.00		
Point 7			0.00	893.49	76.74	14,578,600.19	1,643,882.23		
Point 8			0.00	19.64	78.07	14,577,726.34	1,643,883.68		
Point 9			0.00	20.45	-381.93	14,577,727.09	1,643,423.68		
Point 10			0.00	21.35	-841.93	14,577,727.93	1,642,963.68		
Point 11			0.00	896.57	-843.27	14,578,603.15	1,642,962.22		
Point 12			0.00	2,231.79	-845.31	14,579,938.37	1,642,960.00		
Point 13			0.00	3,562.33	-832.14	14,581,268.91	1,642,972.99		
Point 14			0.00	4,892.86	-818.97	14,582,599.44	1,642,985.98		
Point 15			0.00	6,212.07	-804.74	14,583,918.65	1,643,000.03		
Point 16			0.00	7,527.71	-790.55	14,585,234.30	1,643,014.04		
Point 17			0.00	8,367.02	-781.56	14,586,073.61	1,643,022.92		
Point 18			0.00	8,364.28	-321.56	14,586,070.93	1,643,482.92		
Point 19			0.00	8,364.65	138.47	14,586,071.36	1,643,942.95		
2N-R68W-Sec. 15_Secti	0.00	0.00	4.00	403.58	-2,224.05	14,578,109.97	1,641,581.51	40.141088	-104.995832
- plan misses target center by 2260.37usft 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	1,646,073.49		
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	1,643,423.42		
Point 7			4.00	-3,492.17	-813.11	14,574,617.69	1,640,768.88		
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	-2,224.05	14,578,109.97	1,641,581.51	40.141088	-104.995832
- plan misses target center by 2260.37usft 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	1,643,525.12		
Point 3			4.00	12,348.39	4,570.76	14,590,458.98	1,646,150.58		
Point 4			4.00	9,783.31	4,550.84	14,587,893.90	1,646,131.01		
Point 5			4.00	7,116.64	4,529.53	14,585,227.23	1,646,110.07		
Point 6			4.00	7,121.75	1,889.82	14,585,231.98	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	-2,224.05	14,578,109.97	1,641,581.51	40.141088	-104.995832
- plan misses target center by 2260.37usft at 4.00usft MD (4.00 TVD, 0.00 N, 0.00 E)									
- Polygon									

Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well CAMENISCH STATE 36N2-3HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4893.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4893.00usft (D Rig)
Site:	2N-68W-15 Camenisch 7-15 Pad	North Reference:	True
Well:	CAMENISCH STATE 36N2-3HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	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	14,585,231.98	1,643,470.36		
Point 3	4.00	7,116.64	4,529.53	14,585,227.23	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	1,370.32	14,576,980.08	1,645,176.04
- plan misses target center by 1551.23usft 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	7,260.00	7,934.83	-153.58	14,585,641.50	1,643,650.95
- plan hits target center							
- Point							

Casing Points						
Measured Depth (usft)	Vertical Depth (usft)	Name		Casing Diameter (")	Hole Diameter (")	
1,814.96	1,800.00	9 5/8"		9-5/8	13-1/2	
7,730.00	7,330.00	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				
4,183.78	4,153.00	Sussex				
7,228.78	7,146.80	Sharon Springs				
7,385.03	7,241.80	Niobrara Top				
7,588.87	7,315.70	Niobrara B Bench				
7,588.87	7,315.70	Niobrara C Bench				

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	
800.00	797.54	-42.96	-19.13	End Nudge @ 800.00ft	
2,950.00	2,921.07	-350.22	-155.93	Begin Drop @ 2950.00ft	
3,400.00	3,369.22	-382.44	-170.27	End Drop @ 3400.00ft	
6,724.19	6,693.41	-382.44	-170.27	KOP @ 6724.19ft	
7,300.00	7,193.86	-139.31	-169.78	DLS = 9°/100'	
7,730.00	7,330.00	259.99	-168.98	End Build @ 7730.00ft	
15,405.18	7,260.00	7,934.83	-153.58	TD Well @ 15405.18ft	