

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

1N-66W-17 Burough 20-17HZ Pad

BUROUGH 1NE-17HZ

Plan A

Plan: Permit Rev-2

Standard Planning Report

05 April, 2016



Azimuths to True North
Magnetic North: 8.28°

Magnetic Field
Strength: 52494.2snT
Dip Angle: 66.61°
Date: 9/12/2015
Model: IGRF2010

SITE: 1N-66W-17 Burough 20-17HZ Pad

Well: BUROUGH 1NE-17HZ
Wellbore: Plan A
Design: Permit Rev-2

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1402.00	1420.22	Fox Hills
4582.00	4774.44	Sussex
7184.00	7450.49	Sharon Springs
7205.00	7484.82	Niobrara

WELL DETAILS: BUROUGH 1NE-17HZ

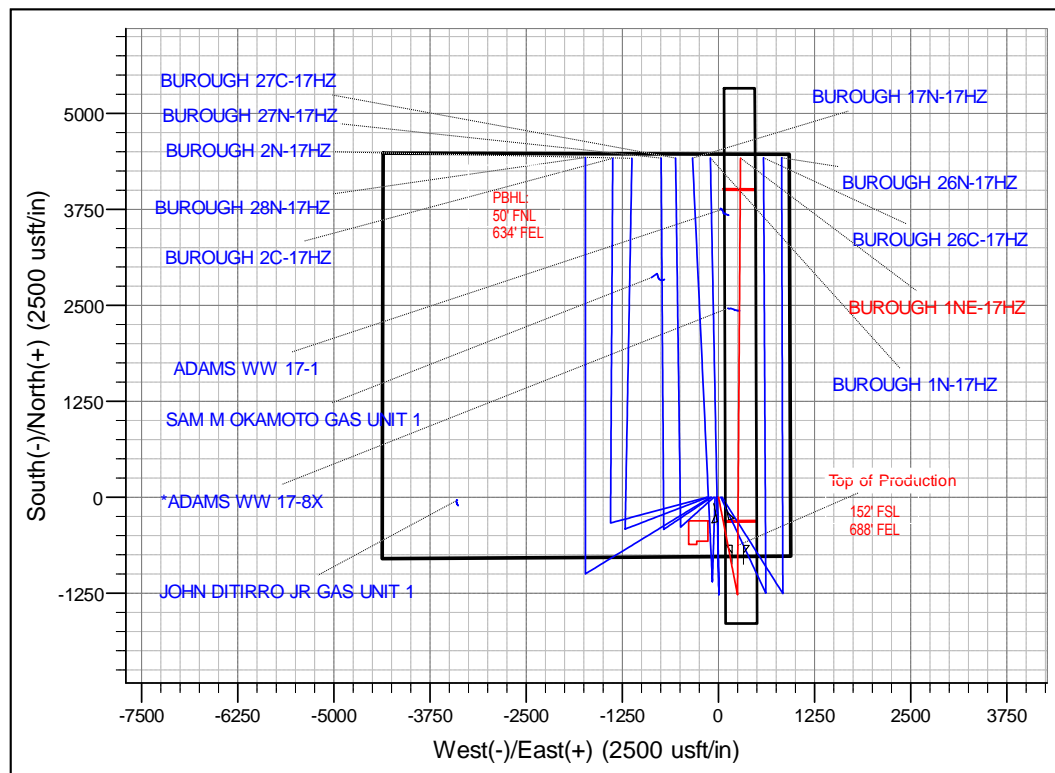
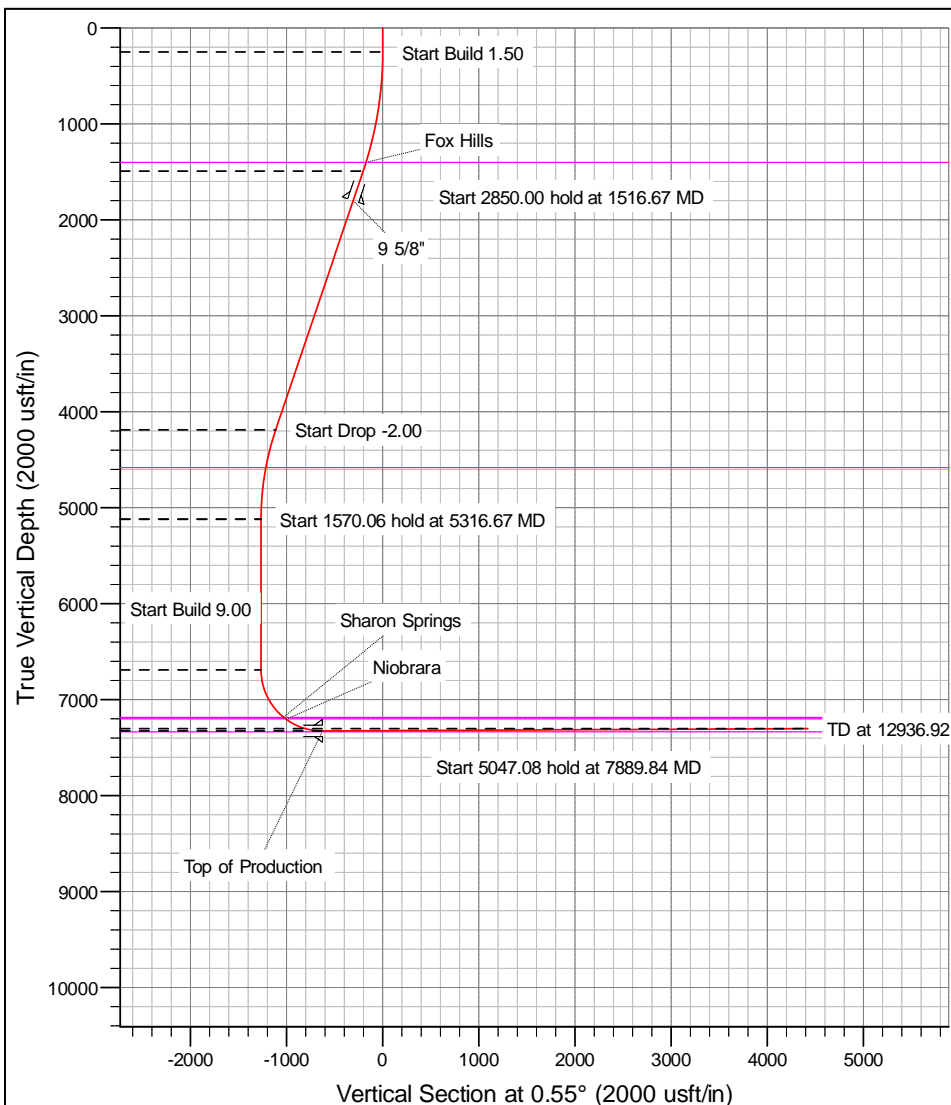
+N/-S	+E/-W	GL: 4981.00	RKB = 17' @ 4998.00usft (D Rig)	Longitude	Slot
0.00	0.00	Northing 14543612.39	Easting 1697825.11 Latitude 40.046171	-104.794869	

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00
1516.67	19.00	169.00	1493.58	-204.28	39.71	1.50	-203.89
4366.67	19.00	169.00	4188.31	-1115.10	216.75	0.00	-1112.97
5316.67	0.00	0.00	5120.99	-1268.31	246.53	2.00	-1265.89
6886.82	0.00	0.00	6691.14	-1268.31	246.53	0.00	-1265.89
7889.94	90.28	0.39	7327.75	-628.59	250.94	9.00	-626.15
12936.88	90.28	0.39	7303.00	4418.18	285.66	0.00	-4420.72

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
BUROUGH 1NE-17HZ_Toe	7303.00	4418.18	285.66	14548031.22	1698100.59	40.058304	-104.793848	Point



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Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BURGESS 1NE-17HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4998.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4998.00usft (D Rig)
Site:	1N-66W-17 Burough 20-17HZ Pad	North Reference:	True
Well:	BURGESS 1NE-17HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

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		1N-66W-17 Burough 20-17HZ Pad			
Site Position:		Northing:	14,543,611.68 usft	Latitude:	40.046170
From:	Lat/Long	Easting:	1,697,675.10 usft	Longitude:	-104.795405
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.13

Well	BUROUGH 1NE-17HZ					
Well Position	+N/-S	0.36 usft	Northing:	14,543,612.38 usft	Latitude:	40.046171
	+E/-W	150.01 usft	Easting:	1,697,825.11 usft	Longitude:	-104.794869
Position Uncertainty		3.28 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,981.00 usft

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/12/2015	8.28	66.61	52,494

Design	Permit Rev-2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	0.55

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	
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,516.67	19.00	169.00	1,493.58	-204.28	39.71	1.50	1.50	0.00	169.00	
4,366.67	19.00	169.00	4,188.31	-1,115.10	216.75	0.00	0.00	0.00	0.00	
5,316.67	0.00	0.00	5,120.99	-1,268.31	246.53	2.00	-2.00	0.00	-180.00	
6,886.82	0.00	0.00	6,691.14	-1,268.31	246.53	0.00	0.00	0.00	0.00	
7,889.94	90.28	0.39	7,327.75	-628.59	250.94	9.00	9.00	0.00	0.39	
12,936.88	90.28	0.39	7,303.00	4,418.18	285.66	0.00	0.00	0.00	0.00	BURGESS 1NE-17

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Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BURGESS 1NE-17HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4998.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4998.00usft (D Rig)
Site:	1N-66W-17 Burough 20-17HZ Pad	North Reference:	True
Well:	BURGESS 1NE-17HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

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
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.50									
300.00	0.75	169.00	300.00	-0.32	0.06	-0.32	1.50	1.50	0.00
400.00	2.25	169.00	399.96	-2.89	0.56	-2.89	1.50	1.50	0.00
500.00	3.75	169.00	499.82	-8.03	1.56	-8.01	1.50	1.50	0.00
600.00	5.25	169.00	599.51	-15.73	3.06	-15.70	1.50	1.50	0.00
700.00	6.75	169.00	698.96	-25.99	5.05	-25.94	1.50	1.50	0.00
800.00	8.25	169.00	798.10	-38.80	7.54	-38.73	1.50	1.50	0.00
900.00	9.75	169.00	896.87	-54.16	10.53	-54.05	1.50	1.50	0.00
1,000.00	11.25	169.00	995.19	-72.05	14.00	-71.91	1.50	1.50	0.00
1,100.00	12.75	169.00	1,093.00	-92.45	17.97	-92.28	1.50	1.50	0.00
1,200.00	14.25	169.00	1,190.24	-115.37	22.43	-115.15	1.50	1.50	0.00
1,300.00	15.75	169.00	1,286.83	-140.78	27.36	-140.51	1.50	1.50	0.00
1,400.00	17.25	169.00	1,382.71	-168.65	32.78	-168.33	1.50	1.50	0.00
1,420.22	17.55	169.00	1,402.00	-174.59	33.94	-174.26	1.50	1.50	0.00
Fox Hills									
1,500.00	18.75	169.00	1,477.81	-198.99	38.68	-198.61	1.50	1.50	0.00
1,516.67	19.00	169.00	1,493.58	-204.28	39.71	-203.89	1.50	1.50	0.00
Start 2850.00 hold at 1516.67 MD									
1,600.00	19.00	169.00	1,572.37	-230.91	44.88	-230.47	0.00	0.00	0.00
1,700.00	19.00	169.00	1,666.92	-262.87	51.10	-262.37	0.00	0.00	0.00
1,800.00	19.00	169.00	1,761.48	-294.83	57.31	-294.27	0.00	0.00	0.00
1,840.74	19.00	169.00	1,800.00	-307.85	59.84	-307.26	0.00	0.00	0.00
9 5/8"									
1,900.00	19.00	169.00	1,856.03	-326.79	63.52	-326.16	0.00	0.00	0.00
2,000.00	19.00	169.00	1,950.58	-358.75	69.73	-358.06	0.00	0.00	0.00
2,100.00	19.00	169.00	2,045.13	-390.71	75.95	-389.96	0.00	0.00	0.00
2,200.00	19.00	169.00	2,139.68	-422.66	82.16	-421.86	0.00	0.00	0.00
2,300.00	19.00	169.00	2,234.24	-454.62	88.37	-453.75	0.00	0.00	0.00
2,400.00	19.00	169.00	2,328.79	-486.58	94.58	-485.65	0.00	0.00	0.00
2,500.00	19.00	169.00	2,423.34	-518.54	100.79	-517.55	0.00	0.00	0.00
2,600.00	19.00	169.00	2,517.89	-550.50	107.01	-549.45	0.00	0.00	0.00
2,700.00	19.00	169.00	2,612.44	-582.46	113.22	-581.34	0.00	0.00	0.00
2,800.00	19.00	169.00	2,706.99	-614.42	119.43	-613.24	0.00	0.00	0.00
2,900.00	19.00	169.00	2,801.55	-646.38	125.64	-645.14	0.00	0.00	0.00
3,000.00	19.00	169.00	2,896.10	-678.33	131.85	-677.04	0.00	0.00	0.00
3,100.00	19.00	169.00	2,990.65	-710.29	138.07	-708.93	0.00	0.00	0.00
3,200.00	19.00	169.00	3,085.20	-742.25	144.28	-740.83	0.00	0.00	0.00
3,300.00	19.00	169.00	3,179.75	-774.21	150.49	-772.73	0.00	0.00	0.00
3,400.00	19.00	169.00	3,274.31	-806.17	156.70	-804.63	0.00	0.00	0.00
3,500.00	19.00	169.00	3,368.86	-838.13	162.92	-836.52	0.00	0.00	0.00
3,600.00	19.00	169.00	3,463.41	-870.09	169.13	-868.42	0.00	0.00	0.00
3,700.00	19.00	169.00	3,557.96	-902.04	175.34	-900.32	0.00	0.00	0.00
3,800.00	19.00	169.00	3,652.51	-934.00	181.55	-932.22	0.00	0.00	0.00
3,900.00	19.00	169.00	3,747.06	-965.96	187.76	-964.11	0.00	0.00	0.00
4,000.00	19.00	169.00	3,841.62	-997.92	193.98	-996.01	0.00	0.00	0.00
4,100.00	19.00	169.00	3,936.17	-1,029.88	200.19	-1,027.91	0.00	0.00	0.00
4,200.00	19.00	169.00	4,030.72	-1,061.84	206.40	-1,059.81	0.00	0.00	0.00
4,300.00	19.00	169.00	4,125.27	-1,093.80	212.61	-1,091.70	0.00	0.00	0.00
4,366.67	19.00	169.00	4,188.31	-1,115.10	216.75	-1,112.97	0.00	0.00	0.00
Start Drop -2.00									

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Planning Report

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Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4998.00usft (D Rig)
Site:	1N-66W-17 Burough 20-17HZ Pad	North Reference:	True
Well:	BURGESS 1NE-17HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

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)
4,400.00	18.33	169.00	4,219.89	-1,125.57	218.79	-1,123.42	2.00	-2.00	0.00
4,500.00	16.33	169.00	4,315.34	-1,154.82	224.47	-1,152.61	2.00	-2.00	0.00
4,600.00	14.33	169.00	4,411.78	-1,180.78	229.52	-1,178.52	2.00	-2.00	0.00
4,700.00	12.33	169.00	4,509.08	-1,203.41	233.92	-1,201.11	2.00	-2.00	0.00
4,774.44	10.84	169.00	4,582.00	-1,218.09	236.77	-1,215.76	2.00	-2.00	0.00
Sussex									
4,800.00	10.33	169.00	4,607.12	-1,222.70	237.67	-1,220.36	2.00	-2.00	0.00
4,900.00	8.33	169.00	4,705.79	-1,238.62	240.76	-1,236.25	2.00	-2.00	0.00
5,000.00	6.33	169.00	4,804.97	-1,251.15	243.20	-1,248.76	2.00	-2.00	0.00
5,100.00	4.33	169.00	4,904.53	-1,260.27	244.97	-1,257.86	2.00	-2.00	0.00
5,200.00	2.33	169.00	5,004.36	-1,265.98	246.08	-1,263.56	2.00	-2.00	0.00
5,300.00	0.33	169.00	5,104.32	-1,268.26	246.53	-1,265.84	2.00	-2.00	0.00
5,316.67	0.00	0.00	5,120.99	-1,268.31	246.53	-1,265.89	2.00	-2.00	0.00
Start 1570.06 hold at 5316.67 MD									
5,400.00	0.00	0.00	5,204.32	-1,268.31	246.53	-1,265.89	0.00	0.00	0.00
5,500.00	0.00	0.00	5,304.32	-1,268.31	246.53	-1,265.89	0.00	0.00	0.00
5,600.00	0.00	0.00	5,404.32	-1,268.31	246.53	-1,265.89	0.00	0.00	0.00
5,700.00	0.00	0.00	5,504.32	-1,268.31	246.53	-1,265.89	0.00	0.00	0.00
5,800.00	0.00	0.00	5,604.32	-1,268.31	246.53	-1,265.89	0.00	0.00	0.00
5,900.00	0.00	0.00	5,704.32	-1,268.31	246.53	-1,265.89	0.00	0.00	0.00
6,000.00	0.00	0.00	5,804.32	-1,268.31	246.53	-1,265.89	0.00	0.00	0.00
6,100.00	0.00	0.00	5,904.32	-1,268.31	246.53	-1,265.89	0.00	0.00	0.00
6,200.00	0.00	0.00	6,004.32	-1,268.31	246.53	-1,265.89	0.00	0.00	0.00
6,300.00	0.00	0.00	6,104.32	-1,268.31	246.53	-1,265.89	0.00	0.00	0.00
6,400.00	0.00	0.00	6,204.32	-1,268.31	246.53	-1,265.89	0.00	0.00	0.00
6,500.00	0.00	0.00	6,304.32	-1,268.31	246.53	-1,265.89	0.00	0.00	0.00
6,600.00	0.00	0.00	6,404.32	-1,268.31	246.53	-1,265.89	0.00	0.00	0.00
6,700.00	0.00	0.00	6,504.32	-1,268.31	246.53	-1,265.89	0.00	0.00	0.00
6,800.00	0.00	0.00	6,604.32	-1,268.31	246.53	-1,265.89	0.00	0.00	0.00
6,886.73	0.00	0.00	6,691.05	-1,268.31	246.53	-1,265.89	0.00	0.00	0.00
Start Build 9.00									
6,886.82	0.00	0.00	6,691.14	-1,268.31	246.53	-1,265.89	0.00	0.00	0.00
6,900.00	1.19	0.39	6,704.32	-1,268.18	246.54	-1,265.75	9.00	9.00	0.00
7,000.00	10.19	0.39	6,803.73	-1,258.28	246.60	-1,255.85	9.00	9.00	0.00
7,100.00	19.19	0.39	6,900.36	-1,232.95	246.78	-1,230.53	9.00	9.00	0.00
7,200.00	28.19	0.39	6,991.84	-1,192.82	247.05	-1,190.39	9.00	9.00	0.00
7,300.00	37.19	0.39	7,075.92	-1,138.87	247.43	-1,136.44	9.00	9.00	0.00
7,400.00	46.19	0.39	7,150.52	-1,072.44	247.88	-1,070.01	9.00	9.00	0.00
7,450.49	50.73	0.39	7,184.00	-1,034.65	248.14	-1,032.22	9.00	9.00	0.00
Sharon Springs									
7,484.82	53.82	0.39	7,205.00	-1,007.51	248.33	-1,005.08	9.00	9.00	0.00
Niobrara									
7,500.00	55.19	0.39	7,213.81	-995.15	248.41	-992.72	9.00	9.00	0.00
7,600.00	64.19	0.39	7,264.24	-908.91	249.01	-906.48	9.00	9.00	0.00
7,700.00	73.19	0.39	7,300.55	-815.85	249.65	-813.42	9.00	9.00	0.00
7,800.00	82.19	0.39	7,321.85	-718.25	250.32	-715.82	9.00	9.00	0.00
7,889.84	90.27	0.39	7,327.75	-628.68	250.94	-626.25	9.00	9.00	0.00
Start 5047.08 hold at 7889.84 MD									
7,889.94	90.28	0.39	7,327.75	-628.58	250.94	-626.15	8.82	8.82	0.00
Top of Production									
7,900.00	90.28	0.39	7,327.70	-618.52	251.01	-616.09	0.00	0.00	0.00
8,000.00	90.28	0.39	7,327.21	-518.53	251.69	-516.09	0.00	0.00	0.00
8,100.00	90.28	0.39	7,326.72	-418.53	252.38	-416.09	0.00	0.00	0.00

Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BURGESS 1NE-17HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4998.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4998.00usft (D Rig)
Site:	1N-66W-17 Burough 20-17HZ Pad	North Reference:	True
Well:	BURGESS 1NE-17HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

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)
8,200.00	90.28	0.39	7,326.23	-318.53	253.07	-316.09	0.00	0.00	0.00
8,300.00	90.28	0.39	7,325.74	-218.54	253.76	-216.09	0.00	0.00	0.00
8,400.00	90.28	0.39	7,325.25	-118.54	254.45	-116.09	0.00	0.00	0.00
8,500.00	90.28	0.39	7,324.76	-18.55	255.13	-16.10	0.00	0.00	0.00
8,600.00	90.28	0.39	7,324.27	81.45	255.82	83.90	0.00	0.00	0.00
8,700.00	90.28	0.39	7,323.78	181.45	256.51	183.90	0.00	0.00	0.00
8,800.00	90.28	0.39	7,323.29	281.44	257.20	283.90	0.00	0.00	0.00
8,900.00	90.28	0.39	7,322.80	381.44	257.89	383.90	0.00	0.00	0.00
9,000.00	90.28	0.39	7,322.31	481.44	258.57	483.90	0.00	0.00	0.00
9,100.00	90.28	0.39	7,321.82	581.43	259.26	583.90	0.00	0.00	0.00
9,200.00	90.28	0.39	7,321.33	681.43	259.95	683.89	0.00	0.00	0.00
9,300.00	90.28	0.39	7,320.84	781.43	260.64	783.89	0.00	0.00	0.00
9,400.00	90.28	0.39	7,320.35	881.42	261.33	883.89	0.00	0.00	0.00
9,500.00	90.28	0.39	7,319.86	981.42	262.01	983.89	0.00	0.00	0.00
9,600.00	90.28	0.39	7,319.37	1,081.42	262.70	1,083.89	0.00	0.00	0.00
9,700.00	90.28	0.39	7,318.87	1,181.41	263.39	1,183.89	0.00	0.00	0.00
9,800.00	90.28	0.39	7,318.38	1,281.41	264.08	1,283.88	0.00	0.00	0.00
9,900.00	90.28	0.39	7,317.89	1,381.40	264.77	1,383.88	0.00	0.00	0.00
10,000.00	90.28	0.39	7,317.40	1,481.40	265.45	1,483.88	0.00	0.00	0.00
10,100.00	90.28	0.39	7,316.91	1,581.40	266.14	1,583.88	0.00	0.00	0.00
10,200.00	90.28	0.39	7,316.42	1,681.39	266.83	1,683.88	0.00	0.00	0.00
10,300.00	90.28	0.39	7,315.93	1,781.39	267.52	1,783.88	0.00	0.00	0.00
10,400.00	90.28	0.39	7,315.44	1,881.39	268.21	1,883.87	0.00	0.00	0.00
10,500.00	90.28	0.39	7,314.95	1,981.38	268.89	1,983.87	0.00	0.00	0.00
10,600.00	90.28	0.39	7,314.46	2,081.38	269.58	2,083.87	0.00	0.00	0.00
10,700.00	90.28	0.39	7,313.97	2,181.38	270.27	2,183.87	0.00	0.00	0.00
10,800.00	90.28	0.39	7,313.48	2,281.37	270.96	2,283.87	0.00	0.00	0.00
10,900.00	90.28	0.39	7,312.99	2,381.37	271.65	2,383.87	0.00	0.00	0.00
11,000.00	90.28	0.39	7,312.50	2,481.37	272.33	2,483.87	0.00	0.00	0.00
11,100.00	90.28	0.39	7,312.01	2,581.36	273.02	2,583.86	0.00	0.00	0.00
11,200.00	90.28	0.39	7,311.52	2,681.36	273.71	2,683.86	0.00	0.00	0.00
11,300.00	90.28	0.39	7,311.03	2,781.36	274.40	2,783.86	0.00	0.00	0.00
11,400.00	90.28	0.39	7,310.54	2,881.35	275.09	2,883.86	0.00	0.00	0.00
11,500.00	90.28	0.39	7,310.05	2,981.35	275.77	2,983.86	0.00	0.00	0.00
11,600.00	90.28	0.39	7,309.56	3,081.34	276.46	3,083.86	0.00	0.00	0.00
11,700.00	90.28	0.39	7,309.07	3,181.34	277.15	3,183.85	0.00	0.00	0.00
11,800.00	90.28	0.39	7,308.58	3,281.34	277.84	3,283.85	0.00	0.00	0.00
11,900.00	90.28	0.39	7,308.09	3,381.33	278.53	3,383.85	0.00	0.00	0.00
12,000.00	90.28	0.39	7,307.59	3,481.33	279.21	3,483.85	0.00	0.00	0.00
12,100.00	90.28	0.39	7,307.10	3,581.33	279.90	3,583.85	0.00	0.00	0.00
12,200.00	90.28	0.39	7,306.61	3,681.32	280.59	3,683.85	0.00	0.00	0.00
12,300.00	90.28	0.39	7,306.12	3,781.32	281.28	3,783.85	0.00	0.00	0.00
12,400.00	90.28	0.39	7,305.63	3,881.32	281.97	3,883.84	0.00	0.00	0.00
12,500.00	90.28	0.39	7,305.14	3,981.31	282.65	3,983.84	0.00	0.00	0.00
12,600.00	90.28	0.39	7,304.65	4,081.31	283.34	4,083.84	0.00	0.00	0.00
12,700.00	90.28	0.39	7,304.16	4,181.31	284.03	4,183.84	0.00	0.00	0.00
12,800.00	90.28	0.39	7,303.67	4,281.30	284.72	4,283.84	0.00	0.00	0.00
12,900.00	90.28	0.39	7,303.18	4,381.30	285.41	4,383.84	0.00	0.00	0.00
12,936.80	90.28	0.39	7,303.00	4,418.09	285.66	4,420.63	0.00	0.00	0.00
TD at 12936.92									
12,936.88	90.28	0.39	7,303.00	4,418.18	285.66	4,420.72	0.00	0.00	0.00
BURGESS 1NE-17HZ_Toe									

Anadarko

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well BURGESS 1NE-17HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4998.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4998.00usft (D Rig)
Site:	1N-66W-17 Burough 20-17HZ Pad	North Reference:	True
Well:	BURGESS 1NE-17HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

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)		
BURGESS 1NE-17HZ	0.00	0.00	7,303.00	4,418.18	285.66	14,548,031.21	1,698,100.59	40.058304	-104.793848
- plan hits target center									
- Point									

Casing Points					
Measured Depth	Vertical Depth			Casing Diameter	Hole Diameter
(usft)	(usft)	Name		(")	(")
1,840.74	1,800.00	9 5/8"		9-5/8	13-1/2
7,889.94	7,327.75	Top of Production		5-1/2	7-7/8

Formations					
Measured Depth	Vertical Depth			Dip	Dip Direction
(usft)	(usft)	Name	Lithology	(°)	(°)
1,420.22	1,402.00	Fox Hills		0.00	
4,774.44	4,582.00	Sussex		0.00	
7,450.49	7,184.00	Sharon Springs		0.00	
7,484.82	7,205.00	Niobrara			

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
250.00	250.00	0.00	0.00	Start Build 1.50
1,516.67	1,493.58	-204.28	39.71	Start 2850.00 hold at 1516.67 MD
4,366.67	4,188.31	-1,115.10	216.75	Start Drop -2.00
5,316.67	5,120.99	-1,268.31	246.53	Start 1570.06 hold at 5316.67 MD
6,886.73	6,691.05	-1,268.31	246.53	Start Build 9.00
7,889.84	7,327.75	-628.68	250.94	Start 5047.08 hold at 7889.84 MD
12,936.80	7,303.00	4,418.09	285.66	TD at 12936.92