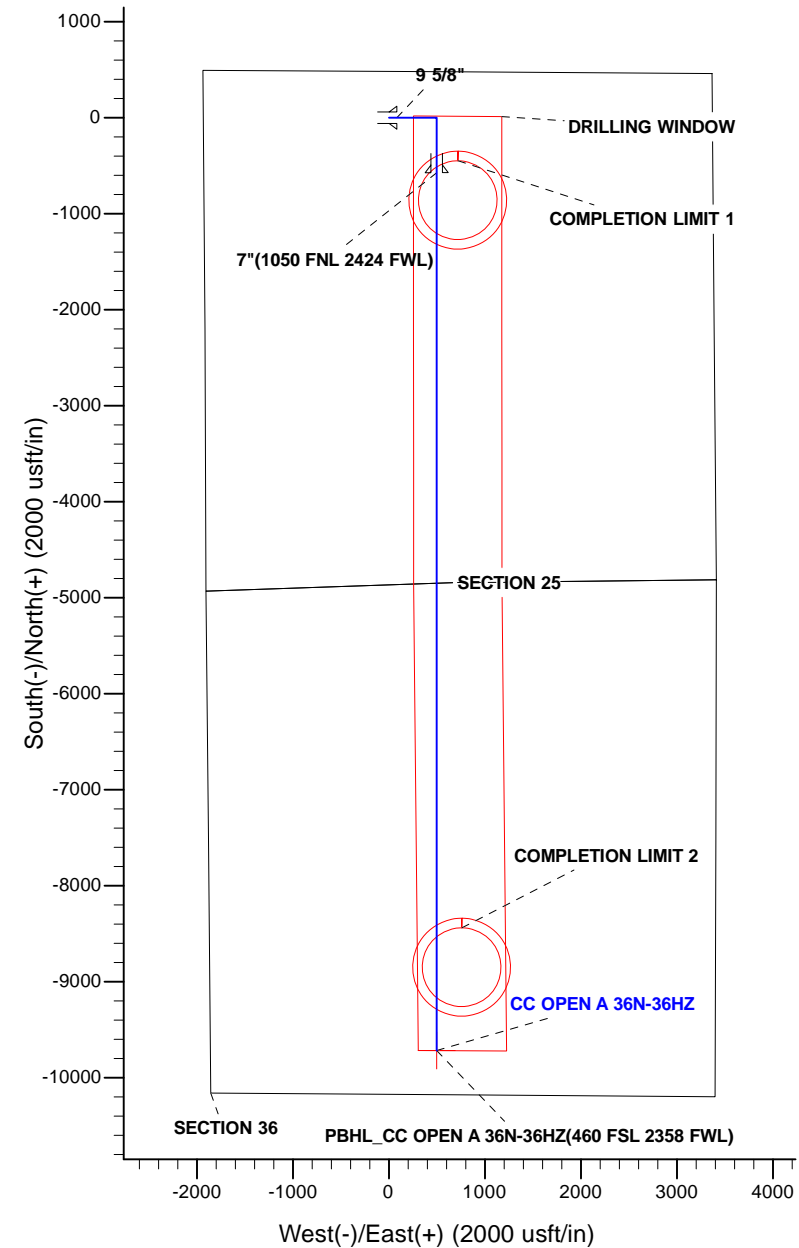
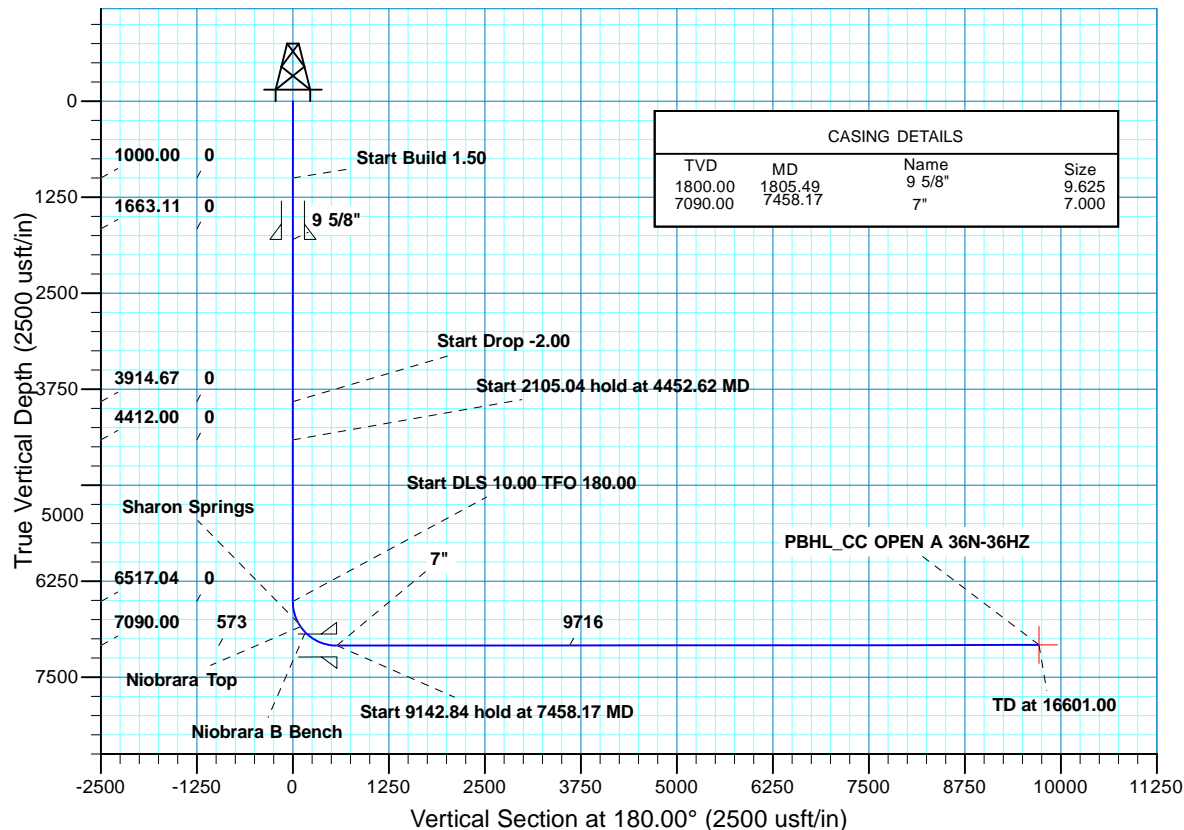




Project: WELD-NAD83-UTMFT13N
Site: 2N-65W-25 CC Open A Pad #2
Well: CC OPEN A 36N-36HZ
Wellbore: PLAN A
Design: PERMIT REV-2



WELL DETAILS: CC OPEN A 36N-36HZ									
GL 4895 & KB 17 @ 4912.00usft (ASSUMED)									
		+N/-S	+E/-W	Northing		Easting		Latitude	Longitude
		0.00	0.00	14568996.20		1748102.20		40.115420	-104.614830
SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00	
1666.48	10.00	90.00	1663.11	0.00	58.00	1.50	90.00	0.00	
3952.76	10.00	90.00	3914.67	0.00	454.90	0.00	0.00	0.00	
4452.62	0.00	0.00	4412.00	0.00	498.40	2.00	180.00	0.00	
6557.66	0.00	0.00	6517.04	0.00	498.40	0.00	0.00	0.00	
7458.17	90.05	180.00	7090.00	-573.46	498.40	10.00	180.00	573.46	
16601.00	90.05	180.00	7082.00	-9716.29	498.40	0.00	0.009716.29		PBHL_CC OPEN A 36N-36HZ
DESIGN TARGET DETAILS									
Name		TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL		7082.00	-9716.29	498.40	14559282.16	1748642.68	40.088738	-104.613048	Point
- plan hits target center									
FORMATION TOP DETAILS									
		TVDPath	MDPath	Formation		DipDirInc			
		6798.00	6851.31	Sharon Springs		29.36			
		6844.00	6905.62	Niobrara Top		34.80			
		6917.00	7000.38	Niobrara B Bench		44.27			



Plan: PERMIT REV-2 (CC OPEN A 36N-36HZ/PLAN A)

Created By: RobertScott Date: 13:07, July 17 2015

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

2N-65W-25 CC Open A Pad #2

CC OPEN A 36N-36HZ

PLAN A

Plan: PERMIT REV-2

Standard Planning Report

17 July, 2015

Database:	Denver Sales	Local Co-ordinate Reference:	Well CC OPEN A 36N-36HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	GL 4895 & KB 17 @ 4912.00usft (ASSUMED)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	GL 4895 & KB 17 @ 4912.00usft (ASSUMED)
Site:	2N-65W-25 CC Open A Pad #2	North Reference:	True
Well:	CC OPEN A 36N-36HZ	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	2N-65W-25 CC Open A Pad #2				
Site Position:		Northing:	14,568,996.67 usft	Latitude:	40.115422
From:	Lat/Long	Easting:	1,748,042.08 usft	Longitude:	-104.615045
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in	Grid Convergence:	0.25 °

Well	CC OPEN A 36N-36HZ					
Well Position	+N/-S	-0.73 usft	Northing:	14,568,996.20 usft	Latitude:	40.115420
	+E/-W	60.11 usft	Easting:	1,748,102.20 usft	Longitude:	-104.614830
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	4,895.00 usft

Wellbore	PLAN A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/7/2015	8.28	66.72	52,622

Design	PERMIT REV-2			
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	180.00

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	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,666.48	10.00	90.00	1,663.11	0.00	58.00	1.50	1.50	0.00	90.00	
3,952.76	10.00	90.00	3,914.67	0.00	454.90	0.00	0.00	0.00	0.00	
4,452.62	0.00	0.00	4,412.00	0.00	498.40	2.00	-2.00	0.00	180.00	
6,557.66	0.00	0.00	6,517.04	0.00	498.40	0.00	0.00	0.00	0.00	
7,458.17	90.05	180.00	7,090.00	-573.46	498.40	10.00	10.00	19.99	180.00	
16,601.00	90.05	180.00	7,082.00	-9,716.29	498.40	0.00	0.00	0.00	0.00	PBHL_CC OPEN A 36N-36HZ

Database:	Denver Sales	Local Co-ordinate Reference:	Well CC OPEN A 36N-36HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	GL 4895 & KB 17 @ 4912.00usft (ASSUMED)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	GL 4895 & KB 17 @ 4912.00usft (ASSUMED)
Site:	2N-65W-25 CC Open A Pad #2	North Reference:	True
Well:	CC OPEN A 36N-36HZ	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
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 1.50									
1,100.00	1.50	90.00	1,099.99	0.00	1.31	0.00	1.50	1.50	0.00
1,200.00	3.00	90.00	1,199.91	0.00	5.23	0.00	1.50	1.50	0.00
1,300.00	4.50	90.00	1,299.69	0.00	11.77	0.00	1.50	1.50	0.00
1,400.00	6.00	90.00	1,399.27	0.00	20.92	0.00	1.50	1.50	0.00
1,500.00	7.50	90.00	1,498.57	0.00	32.68	0.00	1.50	1.50	0.00
1,600.00	9.00	90.00	1,597.54	0.00	47.03	0.00	1.50	1.50	0.00
1,666.48	10.00	90.00	1,663.11	0.00	58.00	0.00	1.50	1.50	0.00
Start 2286.28 hold at 1666.48 MD									
1,700.00	10.00	90.00	1,696.11	0.00	63.82	0.00	0.00	0.00	0.00
1,800.00	10.00	90.00	1,794.60	0.00	81.18	0.00	0.00	0.00	0.00
1,805.49	10.00	90.00	1,800.00	0.00	82.13	0.00	0.00	0.00	0.00
9 5/8"									
1,900.00	10.00	90.00	1,893.08	0.00	98.54	0.00	0.00	0.00	0.00
2,000.00	10.00	90.00	1,991.56	0.00	115.90	0.00	0.00	0.00	0.00
2,100.00	10.00	90.00	2,090.04	0.00	133.26	0.00	0.00	0.00	0.00
2,200.00	10.00	90.00	2,188.52	0.00	150.62	0.00	0.00	0.00	0.00
2,300.00	10.00	90.00	2,287.00	0.00	167.98	0.00	0.00	0.00	0.00
2,400.00	10.00	90.00	2,385.49	0.00	185.34	0.00	0.00	0.00	0.00
2,500.00	10.00	90.00	2,483.97	0.00	202.70	0.00	0.00	0.00	0.00
2,600.00	10.00	90.00	2,582.45	0.00	220.06	0.00	0.00	0.00	0.00
2,700.00	10.00	90.00	2,680.93	0.00	237.42	0.00	0.00	0.00	0.00
2,800.00	10.00	90.00	2,779.41	0.00	254.78	0.00	0.00	0.00	0.00
2,900.00	10.00	90.00	2,877.89	0.00	272.14	0.00	0.00	0.00	0.00
3,000.00	10.00	90.00	2,976.38	0.00	289.50	0.00	0.00	0.00	0.00
3,100.00	10.00	90.00	3,074.86	0.00	306.86	0.00	0.00	0.00	0.00
3,200.00	10.00	90.00	3,173.34	0.00	324.22	0.00	0.00	0.00	0.00
3,300.00	10.00	90.00	3,271.82	0.00	341.58	0.00	0.00	0.00	0.00
3,400.00	10.00	90.00	3,370.30	0.00	358.94	0.00	0.00	0.00	0.00
3,500.00	10.00	90.00	3,468.78	0.00	376.30	0.00	0.00	0.00	0.00
3,600.00	10.00	90.00	3,567.27	0.00	393.66	0.00	0.00	0.00	0.00
3,700.00	10.00	90.00	3,665.75	0.00	411.02	0.00	0.00	0.00	0.00
3,800.00	10.00	90.00	3,764.23	0.00	428.38	0.00	0.00	0.00	0.00
3,900.00	10.00	90.00	3,862.71	0.00	445.74	0.00	0.00	0.00	0.00
3,952.76	10.00	90.00	3,914.67	0.00	454.90	0.00	0.00	0.00	0.00
Start Drop -2.00									
4,000.00	9.05	90.00	3,961.26	0.00	462.71	0.00	2.00	-2.00	0.00
4,100.00	7.05	90.00	4,060.27	0.00	476.72	0.00	2.00	-2.00	0.00
4,200.00	5.05	90.00	4,159.70	0.00	487.27	0.00	2.00	-2.00	0.00
4,300.00	3.05	90.00	4,259.45	0.00	494.33	0.00	2.00	-2.00	0.00
4,400.00	1.05	90.00	4,359.38	0.00	497.91	0.00	2.00	-2.00	0.00

Database:	Denver Sales	Local Co-ordinate Reference:	Well CC OPEN A 36N-36HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	GL 4895 & KB 17 @ 4912.00usft (ASSUMED)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	GL 4895 & KB 17 @ 4912.00usft (ASSUMED)
Site:	2N-65W-25 CC Open A Pad #2	North Reference:	True
Well:	CC OPEN A 36N-36HZ	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)
4,452.62	0.00	0.00	4,412.00	0.00	498.40	0.00	2.00	-2.00	0.00
Start 2105.04 hold at 4452.62 MD									
4,500.00	0.00	0.00	4,459.38	0.00	498.40	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,559.38	0.00	498.40	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,659.38	0.00	498.40	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,759.38	0.00	498.40	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,859.38	0.00	498.40	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	4,959.38	0.00	498.40	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,059.38	0.00	498.40	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,159.38	0.00	498.40	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,259.38	0.00	498.40	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,359.38	0.00	498.40	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,459.38	0.00	498.40	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,559.38	0.00	498.40	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,659.38	0.00	498.40	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,759.38	0.00	498.40	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,859.38	0.00	498.40	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	5,959.38	0.00	498.40	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,059.38	0.00	498.40	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,159.38	0.00	498.40	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,259.38	0.00	498.40	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,359.38	0.00	498.40	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,459.38	0.00	498.40	0.00	0.00	0.00	0.00
6,557.66	0.00	0.00	6,517.04	0.00	498.40	0.00	0.00	0.00	0.00
Start DLS 10.00 TFO 180.00									
6,600.00	4.23	180.00	6,559.34	-1.56	498.40	1.56	10.00	10.00	0.00
6,700.00	14.23	180.00	6,657.92	-17.59	498.40	17.59	10.00	10.00	0.00
6,800.00	24.23	180.00	6,752.22	-50.49	498.40	50.49	10.00	10.00	0.00
6,851.31	29.36	180.00	6,798.00	-73.62	498.40	73.62	10.00	10.00	0.00
Sharon Springs									
6,900.00	34.23	180.00	6,839.37	-99.26	498.40	99.26	10.00	10.00	0.00
6,905.62	34.80	180.00	6,844.00	-102.45	498.40	102.45	10.00	10.00	0.00
Niobrara Top									
7,000.00	44.23	180.00	6,916.73	-162.43	498.40	162.43	10.00	10.00	0.00
7,000.38	44.27	180.00	6,917.00	-162.70	498.40	162.70	10.00	10.00	0.00
Niobrara B Bench									
7,100.00	54.23	180.00	6,981.94	-238.07	498.40	238.07	10.00	10.00	0.00
7,200.00	64.23	180.00	7,033.03	-323.89	498.40	323.89	10.00	10.00	0.00
7,300.00	74.23	180.00	7,068.44	-417.28	498.40	417.28	10.00	10.00	0.00
7,400.00	84.23	180.00	7,087.10	-515.39	498.40	515.39	10.00	10.00	0.00
7,458.17	90.05	180.00	7,090.00	-573.46	498.40	573.46	10.00	10.00	0.00
Start 9142.84 hold at 7458.17 MD - 7"(1050 FNL 2424 FWL)									
7,500.00	90.05	180.00	7,089.96	-615.29	498.40	615.29	0.00	0.00	0.00
7,600.00	90.05	180.00	7,089.87	-715.29	498.40	715.29	0.00	0.00	0.00
7,700.00	90.05	180.00	7,089.79	-815.29	498.40	815.29	0.00	0.00	0.00
7,800.00	90.05	180.00	7,089.70	-915.29	498.40	915.29	0.00	0.00	0.00
7,900.00	90.05	180.00	7,089.61	-1,015.29	498.40	1,015.29	0.00	0.00	0.00
8,000.00	90.05	180.00	7,089.52	-1,115.29	498.40	1,115.29	0.00	0.00	0.00
8,100.00	90.05	180.00	7,089.44	-1,215.29	498.40	1,215.29	0.00	0.00	0.00
8,200.00	90.05	180.00	7,089.35	-1,315.29	498.40	1,315.29	0.00	0.00	0.00
8,300.00	90.05	180.00	7,089.26	-1,415.29	498.40	1,415.29	0.00	0.00	0.00

Database:	Denver Sales	Local Co-ordinate Reference:	Well CC OPEN A 36N-36HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	GL 4895 & KB 17 @ 4912.00usft (ASSUMED)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	GL 4895 & KB 17 @ 4912.00usft (ASSUMED)
Site:	2N-65W-25 CC Open A Pad #2	North Reference:	True
Well:	CC OPEN A 36N-36HZ	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)
8,400.00	90.05	180.00	7,089.17	-1,515.29	498.40	1,515.29	0.00	0.00	0.00
8,500.00	90.05	180.00	7,089.09	-1,615.29	498.40	1,615.29	0.00	0.00	0.00
8,600.00	90.05	180.00	7,089.00	-1,715.29	498.40	1,715.29	0.00	0.00	0.00
8,700.00	90.05	180.00	7,088.91	-1,815.29	498.40	1,815.29	0.00	0.00	0.00
8,800.00	90.05	180.00	7,088.82	-1,915.29	498.40	1,915.29	0.00	0.00	0.00
8,900.00	90.05	180.00	7,088.74	-2,015.29	498.40	2,015.29	0.00	0.00	0.00
9,000.00	90.05	180.00	7,088.65	-2,115.29	498.40	2,115.29	0.00	0.00	0.00
9,100.00	90.05	180.00	7,088.56	-2,215.29	498.40	2,215.29	0.00	0.00	0.00
9,200.00	90.05	180.00	7,088.47	-2,315.29	498.40	2,315.29	0.00	0.00	0.00
9,300.00	90.05	180.00	7,088.39	-2,415.29	498.40	2,415.29	0.00	0.00	0.00
9,400.00	90.05	180.00	7,088.30	-2,515.29	498.40	2,515.29	0.00	0.00	0.00
9,500.00	90.05	180.00	7,088.21	-2,615.29	498.40	2,615.29	0.00	0.00	0.00
9,600.00	90.05	180.00	7,088.12	-2,715.29	498.40	2,715.29	0.00	0.00	0.00
9,700.00	90.05	180.00	7,088.04	-2,815.29	498.40	2,815.29	0.00	0.00	0.00
9,800.00	90.05	180.00	7,087.95	-2,915.29	498.40	2,915.29	0.00	0.00	0.00
9,900.00	90.05	180.00	7,087.86	-3,015.29	498.40	3,015.29	0.00	0.00	0.00
10,000.00	90.05	180.00	7,087.77	-3,115.29	498.40	3,115.29	0.00	0.00	0.00
10,100.00	90.05	180.00	7,087.69	-3,215.29	498.40	3,215.29	0.00	0.00	0.00
10,200.00	90.05	180.00	7,087.60	-3,315.29	498.40	3,315.29	0.00	0.00	0.00
10,300.00	90.05	180.00	7,087.51	-3,415.29	498.40	3,415.29	0.00	0.00	0.00
10,400.00	90.05	180.00	7,087.42	-3,515.29	498.40	3,515.29	0.00	0.00	0.00
10,500.00	90.05	180.00	7,087.34	-3,615.29	498.40	3,615.29	0.00	0.00	0.00
10,600.00	90.05	180.00	7,087.25	-3,715.29	498.40	3,715.29	0.00	0.00	0.00
10,700.00	90.05	180.00	7,087.16	-3,815.29	498.40	3,815.29	0.00	0.00	0.00
10,800.00	90.05	180.00	7,087.07	-3,915.29	498.40	3,915.29	0.00	0.00	0.00
10,900.00	90.05	180.00	7,086.99	-4,015.29	498.40	4,015.29	0.00	0.00	0.00
11,000.00	90.05	180.00	7,086.90	-4,115.29	498.40	4,115.29	0.00	0.00	0.00
11,100.00	90.05	180.00	7,086.81	-4,215.29	498.40	4,215.29	0.00	0.00	0.00
11,200.00	90.05	180.00	7,086.72	-4,315.29	498.40	4,315.29	0.00	0.00	0.00
11,300.00	90.05	180.00	7,086.64	-4,415.29	498.40	4,415.29	0.00	0.00	0.00
11,400.00	90.05	180.00	7,086.55	-4,515.29	498.40	4,515.29	0.00	0.00	0.00
11,500.00	90.05	180.00	7,086.46	-4,615.29	498.40	4,615.29	0.00	0.00	0.00
11,600.00	90.05	180.00	7,086.37	-4,715.29	498.40	4,715.29	0.00	0.00	0.00
11,700.00	90.05	180.00	7,086.29	-4,815.29	498.40	4,815.29	0.00	0.00	0.00
11,800.00	90.05	180.00	7,086.20	-4,915.29	498.40	4,915.29	0.00	0.00	0.00
11,900.00	90.05	180.00	7,086.11	-5,015.29	498.40	5,015.29	0.00	0.00	0.00
12,000.00	90.05	180.00	7,086.02	-5,115.29	498.40	5,115.29	0.00	0.00	0.00
12,100.00	90.05	180.00	7,085.94	-5,215.29	498.40	5,215.29	0.00	0.00	0.00
12,200.00	90.05	180.00	7,085.85	-5,315.29	498.40	5,315.29	0.00	0.00	0.00
12,300.00	90.05	180.00	7,085.76	-5,415.29	498.40	5,415.29	0.00	0.00	0.00
12,400.00	90.05	180.00	7,085.67	-5,515.29	498.40	5,515.29	0.00	0.00	0.00
12,500.00	90.05	180.00	7,085.59	-5,615.29	498.40	5,615.29	0.00	0.00	0.00
12,600.00	90.05	180.00	7,085.50	-5,715.29	498.40	5,715.29	0.00	0.00	0.00
12,700.00	90.05	180.00	7,085.41	-5,815.29	498.40	5,815.29	0.00	0.00	0.00
12,800.00	90.05	180.00	7,085.33	-5,915.29	498.40	5,915.29	0.00	0.00	0.00
12,900.00	90.05	180.00	7,085.24	-6,015.29	498.40	6,015.29	0.00	0.00	0.00
13,000.00	90.05	180.00	7,085.15	-6,115.29	498.40	6,115.29	0.00	0.00	0.00
13,100.00	90.05	180.00	7,085.06	-6,215.29	498.40	6,215.29	0.00	0.00	0.00
13,200.00	90.05	180.00	7,084.98	-6,315.29	498.40	6,315.29	0.00	0.00	0.00
13,300.00	90.05	180.00	7,084.89	-6,415.29	498.40	6,415.29	0.00	0.00	0.00
13,400.00	90.05	180.00	7,084.80	-6,515.29	498.40	6,515.29	0.00	0.00	0.00
13,500.00	90.05	180.00	7,084.71	-6,615.29	498.40	6,615.29	0.00	0.00	0.00

Database:	Denver Sales	Local Co-ordinate Reference:	Well CC OPEN A 36N-36HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	GL 4895 & KB 17 @ 4912.00usft (ASSUMED)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	GL 4895 & KB 17 @ 4912.00usft (ASSUMED)
Site:	2N-65W-25 CC Open A Pad #2	North Reference:	True
Well:	CC OPEN A 36N-36HZ	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)
13,600.00	90.05	180.00	7,084.63	-6,715.29	498.40	6,715.29	0.00	0.00	0.00
13,700.00	90.05	180.00	7,084.54	-6,815.29	498.40	6,815.29	0.00	0.00	0.00
13,800.00	90.05	180.00	7,084.45	-6,915.29	498.40	6,915.29	0.00	0.00	0.00
13,900.00	90.05	180.00	7,084.36	-7,015.29	498.40	7,015.29	0.00	0.00	0.00
14,000.00	90.05	180.00	7,084.28	-7,115.29	498.40	7,115.29	0.00	0.00	0.00
14,100.00	90.05	180.00	7,084.19	-7,215.29	498.40	7,215.29	0.00	0.00	0.00
14,200.00	90.05	180.00	7,084.10	-7,315.29	498.40	7,315.29	0.00	0.00	0.00
14,300.00	90.05	180.00	7,084.01	-7,415.29	498.40	7,415.29	0.00	0.00	0.00
14,400.00	90.05	180.00	7,083.93	-7,515.29	498.40	7,515.29	0.00	0.00	0.00
14,500.00	90.05	180.00	7,083.84	-7,615.29	498.40	7,615.29	0.00	0.00	0.00
14,600.00	90.05	180.00	7,083.75	-7,715.29	498.40	7,715.29	0.00	0.00	0.00
14,700.00	90.05	180.00	7,083.66	-7,815.29	498.40	7,815.29	0.00	0.00	0.00
14,800.00	90.05	180.00	7,083.58	-7,915.29	498.40	7,915.29	0.00	0.00	0.00
14,900.00	90.05	180.00	7,083.49	-8,015.29	498.40	8,015.29	0.00	0.00	0.00
15,000.00	90.05	180.00	7,083.40	-8,115.29	498.40	8,115.29	0.00	0.00	0.00
15,100.00	90.05	180.00	7,083.31	-8,215.29	498.40	8,215.29	0.00	0.00	0.00
15,200.00	90.05	180.00	7,083.23	-8,315.29	498.40	8,315.29	0.00	0.00	0.00
15,300.00	90.05	180.00	7,083.14	-8,415.29	498.40	8,415.29	0.00	0.00	0.00
15,400.00	90.05	180.00	7,083.05	-8,515.29	498.40	8,515.29	0.00	0.00	0.00
15,500.00	90.05	180.00	7,082.96	-8,615.29	498.40	8,615.29	0.00	0.00	0.00
15,600.00	90.05	180.00	7,082.88	-8,715.29	498.40	8,715.29	0.00	0.00	0.00
15,700.00	90.05	180.00	7,082.79	-8,815.29	498.40	8,815.29	0.00	0.00	0.00
15,800.00	90.05	180.00	7,082.70	-8,915.29	498.40	8,915.29	0.00	0.00	0.00
15,900.00	90.05	180.00	7,082.61	-9,015.29	498.40	9,015.29	0.00	0.00	0.00
16,000.00	90.05	180.00	7,082.53	-9,115.29	498.40	9,115.29	0.00	0.00	0.00
16,100.00	90.05	180.00	7,082.44	-9,215.29	498.40	9,215.29	0.00	0.00	0.00
16,200.00	90.05	180.00	7,082.35	-9,315.29	498.40	9,315.29	0.00	0.00	0.00
16,300.00	90.05	180.00	7,082.26	-9,415.29	498.40	9,415.29	0.00	0.00	0.00
16,400.00	90.05	180.00	7,082.18	-9,515.29	498.40	9,515.29	0.00	0.00	0.00
16,500.00	90.05	180.00	7,082.09	-9,615.29	498.40	9,615.29	0.00	0.00	0.00
16,600.00	90.05	180.00	7,082.00	-9,715.29	498.40	9,715.29	0.00	0.00	0.00
16,601.00	90.05	180.00	7,082.00	-9,716.29	498.40	9,716.29	0.00	0.00	0.00
TD at 16601.00 - PBHL_CC OPEN A 36N-36HZ(460 FSL 2358 FWL)									

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL_CC OPEN A 36N - plan hits target center - Point	0.00	0.00	7,082.00	-9,716.29	498.40	14,559,282.16	1,748,642.68	40.088738	-104.613048

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,805.49	1,800.00	9 5/8"	9.625	13.500	
7,458.17	7,090.00	7"(1050 FNL 2424 FWL)	7.000	8.750	

Database:	Denver Sales	Local Co-ordinate Reference:	Well CC OPEN A 36N-36HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	GL 4895 & KB 17 @ 4912.00usft (ASSUMED)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	GL 4895 & KB 17 @ 4912.00usft (ASSUMED)
Site:	2N-65W-25 CC Open A Pad #2	North Reference:	True
Well:	CC OPEN A 36N-36HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	PLAN A		
Design:	PERMIT REV-2		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
6,851.31	6,876.00	Sharon Springs				
6,905.62	6,922.00	Niobrara Top				
7,000.38	6,995.00	Niobrara B Bench				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,000.00	1,000.00	0.00	0.00	Start Build 1.50	
1,666.48	1,663.11	0.00	58.00	Start 2286.28 hold at 1666.48 MD	
3,952.76	3,914.67	0.00	454.90	Start Drop -2.00	
4,452.62	4,412.00	0.00	498.40	Start 2105.04 hold at 4452.62 MD	
6,557.66	6,517.04	0.00	498.40	Start DLS 10.00 TFO 180.00	
7,458.17	7,090.00	-573.46	498.40	Start 9142.84 hold at 7458.17 MD	
16,601.00	7,082.00	-9,716.29	498.40	TD at 16601.00	