

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

5N-67W-22 BLUE CHIP 6-22HZ PAD

BLUE CHIP 22-6HZ

Plan A

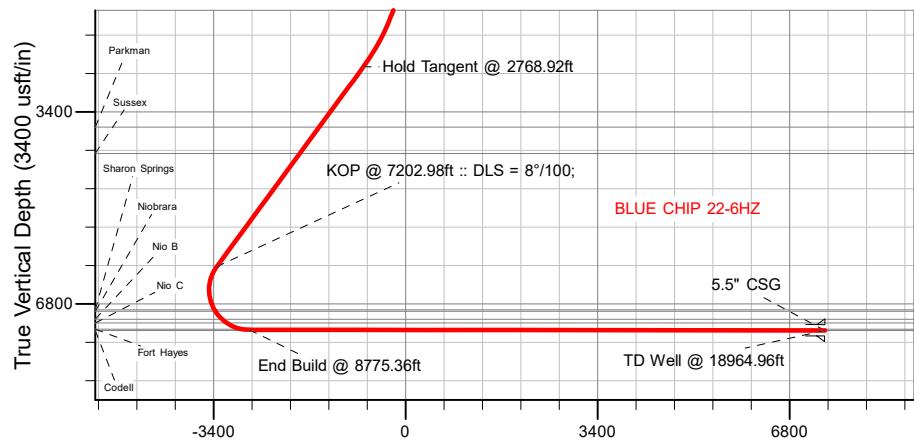
Plan: Permit Rev-1

Standard Planning Report

08 September, 2022

US ROCKIES WATTENBERG PLANNING

CASING DETAILS			
TVD	MD	Name	Size
1500.00	1520.66	9 5/8"	9-5/8
7270.00	18964.96	5.5" CSG	5-1/2



Vertical Section at 269.49° (3400 usft/in)

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	
300.25	0.00	0.00	300.25	0.00	0.00	0.00	0.00	0.00	
2768.92	37.03	102.95	2600.61	-172.64	750.77	1.50	102.95	-749.65	
7202.98	37.03	102.95	6140.41	-771.06	3353.19	0.00	0.00	-3346.19	
8775.36	89.94	269.49	7259.00	-972.45	2775.23	8.00	163.32	-2766.46	
18964.96	89.94	269.49	7270.00	-1063.76	-7413.96	0.00	0.00	7423.13	BLUE CHIP 22-6HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	Northing	Easting	Latitude	Longitude
BLUE CHIP 22-6HZ_SHL	0.00	14668104.80	1673746.51	40.388158	-104.880306
BLUE CHIP 22-6HZ_LP	7259.00	14667136.11	1676523.05	40.385487	-104.870340
BLUE CHIP 22-6HZ_BHL	7270.00	14667031.00	1666334.00	40.385234	-104.890930

WELL DETAILS: BLUE CHIP 22-6HZ

GL = 5036'

RKB = 17' @ 5053.00usft (RIG)

Plan: Permit Rev-1 (BLUE CHIP 22-6HZ/Plan A)

Date: 9/8/2022

FORMATION TOP DETAILS

TVDPATH	MDPATH	FORMATION
919.00	921.74	Fox Hills
3670.00	4108.47	Parkman
4137.00	4693.44	Sussex
6907.00	8026.98	Sharon Springs
6930.00	8054.27	Niobrara
7071.00	8240.89	Nio B
7138.00	8350.42	Nio C
7249.00	8655.41	Fort Hayes
7269.00	18038.74	Codyell



Azimuths to True North
Magnetic North: 7.78°

Magnetic Field
Strength: 51805.4nT
Dip Angle: 66.58°
Date: 9/3/2022
Model: IGRF2020

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well BLUE CHIP 22-6HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5053.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5053.00usft (RIG)
Site:	5N-67W-22 BLUE CHIP 6-22HZ PAD	North Reference:	True
Well:	BLUE CHIP 22-6HZ	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		5N-67W-22 BLUE CHIP 6-22HZ PAD				
Site Position:		Northing:	14,668,179.77	usft	Latitude:	40.388364
From:	Map	Easting:	1,673,746.93	usft	Longitude:	-104.880304
Position Uncertainty:		0.00	usft	Slot Radius:	13-3/16	"

Well		BLUE CHIP 22-6HZ				
Well Position	+N/-S	0.00 usft	Northing:	14,668,104.80 usft	Latitude:	40.388158
	+E/-W	0.00 usft	Easting:	1,673,746.51 usft	Longitude:	-104.880306
Position Uncertainty		3.28 usft	Wellhead Elevation:	usft	Ground Level:	5,036.00 usft
Grid Convergence:		0.08 °				

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF202013	9/3/2022	7.78	66.58	51,805.38462313

Design	Permit Rev-1				
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	269.49	

Plan Survey Tool Program	Date	9/5/2022			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	1,500.00	Permit Rev-1 (Plan A)	APC_ISCWSA REV 2 MWD+I	
				Fixed:v2:crustal field declinatio	
2	1,500.00	18,964.96	Permit Rev-1 (Plan A)	APC_ISCWSA REV 2 MWD+I	
				Fixed:v2:crustal field declinatio	

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Well:	BLUE CHIP 22-6HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-1		

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	
300.25	0.00	0.00	300.25	0.00	0.00	0.00	0.00	0.00	0.00	
2,768.92	37.03	102.95	2,600.61	-172.64	750.77	1.50	1.50	0.00	102.95	
7,202.98	37.03	102.95	6,140.41	-771.06	3,353.19	0.00	0.00	0.00	0.00	
8,775.36	89.94	269.49	7,259.00	-972.45	2,775.23	8.00	3.36	10.59	163.32	
18,964.96	89.94	269.49	7,270.00	-1,063.76	-7,413.96	0.00	0.00	0.00	0.00	BLUE CHIP 22-6HZ_I

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Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5053.00usft (RIG)
Site:	5N-67W-22 BLUE CHIP 6-22HZ PAD	North Reference:	True
Well:	BLUE CHIP 22-6HZ	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
300.25	0.00	0.00	300.25	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 300.25ft									
400.00	1.50	102.95	399.99	-0.29	1.27	-1.27	1.50	1.50	0.00
500.00	3.00	102.95	499.91	-1.17	5.09	-5.08	1.50	1.50	0.00
600.00	4.50	102.95	599.69	-2.63	11.46	-11.43	1.50	1.50	0.00
700.00	6.00	102.95	699.27	-4.68	20.37	-20.32	1.50	1.50	0.00
800.00	7.50	102.95	798.58	-7.32	31.82	-31.75	1.50	1.50	0.00
900.00	9.00	102.95	897.54	-10.53	45.79	-45.70	1.50	1.50	0.00
921.74	9.32	102.95	919.00	-11.31	49.17	-49.06	1.50	1.50	0.00
Fox Hills									
1,000.00	10.50	102.95	996.09	-14.32	62.29	-62.16	1.50	1.50	0.00
1,100.00	12.00	102.95	1,094.17	-18.69	81.30	-81.13	1.50	1.50	0.00
1,200.00	13.50	102.95	1,191.70	-23.64	102.80	-102.58	1.50	1.50	0.00
1,300.00	15.00	102.95	1,288.62	-29.15	126.78	-126.52	1.50	1.50	0.00
1,400.00	16.50	102.95	1,384.87	-35.23	153.23	-152.91	1.50	1.50	0.00
1,500.00	18.00	102.95	1,480.37	-41.88	182.12	-181.74	1.50	1.50	0.00
1,520.66	18.31	102.95	1,500.00	-43.32	188.39	-188.00	1.50	1.50	0.00
9 5/8"									
1,600.00	19.50	102.95	1,575.06	-49.08	213.44	-212.99	1.50	1.50	0.00
1,700.00	21.00	102.95	1,668.88	-56.84	247.16	-246.65	1.50	1.50	0.00
1,800.00	22.50	102.95	1,761.76	-65.14	283.27	-282.68	1.50	1.50	0.00
1,900.00	24.00	102.95	1,853.64	-73.98	321.73	-321.06	1.50	1.50	0.00
2,000.00	25.50	102.95	1,944.46	-83.36	362.53	-361.77	1.50	1.50	0.00
2,100.00	27.00	102.95	2,034.14	-93.27	405.63	-404.78	1.50	1.50	0.00
2,200.00	28.50	102.95	2,122.64	-103.71	451.00	-450.05	1.50	1.50	0.00
2,300.00	30.00	102.95	2,209.89	-114.65	498.61	-497.57	1.50	1.50	0.00
2,400.00	31.50	102.95	2,295.83	-126.11	548.43	-547.29	1.50	1.50	0.00
2,500.00	33.00	102.95	2,380.41	-138.07	600.43	-599.17	1.50	1.50	0.00
2,600.00	34.50	102.95	2,463.56	-150.52	654.56	-653.20	1.50	1.50	0.00
2,700.00	36.00	102.95	2,545.22	-163.45	710.80	-709.32	1.50	1.50	0.00
2,768.92	37.03	102.95	2,600.61	-172.64	750.77	-749.20	1.50	1.50	0.00
Hold Tangent @ 2768.92ft									
2,800.00	37.03	102.95	2,625.43	-176.83	769.01	-767.41	0.00	0.00	0.00
2,900.00	37.03	102.95	2,705.26	-190.33	827.70	-825.97	0.00	0.00	0.00
3,000.00	37.03	102.95	2,785.09	-203.83	886.39	-884.54	0.00	0.00	0.00
3,100.00	37.03	102.95	2,864.92	-217.32	945.08	-943.11	0.00	0.00	0.00
3,200.00	37.03	102.95	2,944.75	-230.82	1,003.78	-1,001.68	0.00	0.00	0.00
3,300.00	37.03	102.95	3,024.59	-244.31	1,062.47	-1,060.25	0.00	0.00	0.00
3,400.00	37.03	102.95	3,104.42	-257.81	1,121.16	-1,118.82	0.00	0.00	0.00
3,500.00	37.03	102.95	3,184.25	-271.31	1,179.85	-1,177.39	0.00	0.00	0.00
3,600.00	37.03	102.95	3,264.08	-284.80	1,238.54	-1,235.96	0.00	0.00	0.00
3,700.00	37.03	102.95	3,343.91	-298.30	1,297.23	-1,294.53	0.00	0.00	0.00
3,800.00	37.03	102.95	3,423.75	-311.79	1,355.93	-1,353.10	0.00	0.00	0.00
3,900.00	37.03	102.95	3,503.58	-325.29	1,414.62	-1,411.67	0.00	0.00	0.00
4,000.00	37.03	102.95	3,583.41	-338.79	1,473.31	-1,470.23	0.00	0.00	0.00
4,100.00	37.03	102.95	3,663.24	-352.28	1,532.00	-1,528.80	0.00	0.00	0.00
4,108.47	37.03	102.95	3,670.00	-353.42	1,536.97	-1,533.76	0.00	0.00	0.00
Parkman									
4,200.00	37.03	102.95	3,743.07	-365.78	1,590.69	-1,587.37	0.00	0.00	0.00
4,300.00	37.03	102.95	3,822.91	-379.27	1,649.38	-1,645.94	0.00	0.00	0.00
4,400.00	37.03	102.95	3,902.74	-392.77	1,708.08	-1,704.51	0.00	0.00	0.00

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Site:	5N-67W-22 BLUE CHIP 6-22HZ PAD	North Reference:	True
Well:	BLUE CHIP 22-6HZ	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)
4,500.00	37.03	102.95	3,982.57	-406.27	1,766.77	-1,763.08	0.00	0.00	0.00
4,600.00	37.03	102.95	4,062.40	-419.76	1,825.46	-1,821.65	0.00	0.00	0.00
4,693.44	37.03	102.95	4,137.00	-432.37	1,880.30	-1,876.38	0.00	0.00	0.00
Sussex									
4,700.00	37.03	102.95	4,142.23	-433.26	1,884.15	-1,880.22	0.00	0.00	0.00
4,800.00	37.03	102.95	4,222.07	-446.75	1,942.84	-1,938.79	0.00	0.00	0.00
4,900.00	37.03	102.95	4,301.90	-460.25	2,001.53	-1,997.36	0.00	0.00	0.00
5,000.00	37.03	102.95	4,381.73	-473.75	2,060.22	-2,055.93	0.00	0.00	0.00
5,100.00	37.03	102.95	4,461.56	-487.24	2,118.92	-2,114.50	0.00	0.00	0.00
5,200.00	37.03	102.95	4,541.39	-500.74	2,177.61	-2,173.06	0.00	0.00	0.00
5,300.00	37.03	102.95	4,621.23	-514.24	2,236.30	-2,231.63	0.00	0.00	0.00
5,400.00	37.03	102.95	4,701.06	-527.73	2,294.99	-2,290.20	0.00	0.00	0.00
5,500.00	37.03	102.95	4,780.89	-541.23	2,353.68	-2,348.77	0.00	0.00	0.00
5,600.00	37.03	102.95	4,860.72	-554.72	2,412.37	-2,407.34	0.00	0.00	0.00
5,700.00	37.03	102.95	4,940.55	-568.22	2,471.07	-2,465.91	0.00	0.00	0.00
5,800.00	37.03	102.95	5,020.39	-581.72	2,529.76	-2,524.48	0.00	0.00	0.00
5,900.00	37.03	102.95	5,100.22	-595.21	2,588.45	-2,583.05	0.00	0.00	0.00
6,000.00	37.03	102.95	5,180.05	-608.71	2,647.14	-2,641.62	0.00	0.00	0.00
6,100.00	37.03	102.95	5,259.88	-622.20	2,705.83	-2,700.19	0.00	0.00	0.00
6,200.00	37.03	102.95	5,339.71	-635.70	2,764.52	-2,758.76	0.00	0.00	0.00
6,300.00	37.03	102.95	5,419.55	-649.20	2,823.22	-2,817.33	0.00	0.00	0.00
6,400.00	37.03	102.95	5,499.38	-662.69	2,881.91	-2,875.89	0.00	0.00	0.00
6,500.00	37.03	102.95	5,579.21	-676.19	2,940.60	-2,934.46	0.00	0.00	0.00
6,600.00	37.03	102.95	5,659.04	-689.68	2,999.29	-2,993.03	0.00	0.00	0.00
6,700.00	37.03	102.95	5,738.87	-703.18	3,057.98	-3,051.60	0.00	0.00	0.00
6,800.00	37.03	102.95	5,818.71	-716.68	3,116.67	-3,110.17	0.00	0.00	0.00
6,900.00	37.03	102.95	5,898.54	-730.17	3,175.37	-3,168.74	0.00	0.00	0.00
7,000.00	37.03	102.95	5,978.37	-743.67	3,234.06	-3,227.31	0.00	0.00	0.00
7,100.00	37.03	102.95	6,058.20	-757.16	3,292.75	-3,285.88	0.00	0.00	0.00
7,202.98	37.03	102.95	6,140.41	-771.06	3,353.19	-3,346.19	0.00	0.00	0.00
KOP @ 7202.98ft :: DLS = 8°/100;									
7,250.00	33.44	104.91	6,178.81	-777.57	3,379.52	-3,372.46	8.00	-7.63	4.16
7,300.00	29.67	107.44	6,221.42	-784.83	3,404.65	-3,397.52	8.00	-7.55	5.07
7,350.00	25.95	110.63	6,265.64	-792.40	3,426.70	-3,419.51	8.00	-7.43	6.38
7,400.00	22.33	114.79	6,311.26	-800.24	3,445.57	-3,438.31	8.00	-7.25	8.32
7,450.00	18.85	120.43	6,358.06	-808.31	3,461.16	-3,453.83	8.00	-6.96	11.27
7,500.00	15.61	128.40	6,405.82	-816.59	3,473.41	-3,466.00	8.00	-6.48	15.94
7,550.00	12.80	140.06	6,454.29	-825.02	3,482.24	-3,474.76	8.00	-5.62	23.33
7,600.00	10.75	157.02	6,503.25	-833.56	3,487.62	-3,480.06	8.00	-4.10	33.91
7,650.00	9.95	178.97	6,552.46	-842.18	3,489.52	-3,481.89	8.00	-1.60	43.90
7,700.00	10.69	201.06	6,601.67	-850.83	3,487.93	-3,480.22	8.00	1.46	44.19
7,750.00	12.69	218.28	6,650.64	-859.47	3,482.86	-3,475.07	8.00	4.00	34.44
7,800.00	15.47	230.16	6,699.14	-868.06	3,474.33	-3,466.47	8.00	5.57	23.75
7,850.00	18.70	238.26	6,746.94	-876.55	3,462.39	-3,454.45	8.00	6.45	16.21
7,900.00	22.17	243.98	6,793.79	-884.91	3,447.09	-3,439.08	8.00	6.94	11.44
7,950.00	25.79	248.20	6,839.47	-893.09	3,428.51	-3,420.43	8.00	7.23	8.43
8,000.00	29.50	251.42	6,883.76	-901.05	3,406.74	-3,398.58	8.00	7.42	6.45
8,026.98	31.52	252.87	6,907.00	-905.25	3,393.70	-3,385.51	8.00	7.52	5.37
Sharon Springs									
8,050.00	33.27	253.98	6,926.44	-908.76	3,381.88	-3,373.66	8.00	7.57	4.82
8,054.27	33.59	254.18	6,930.00	-909.41	3,379.62	-3,371.39	8.00	7.60	4.56
Niobrara									
8,100.00	37.08	256.07	6,967.30	-916.18	3,354.06	-3,345.77	8.00	7.63	4.14

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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)	
8,150.00	40.93	257.82	7,006.15	-923.27	3,323.40	-3,315.05	8.00	7.69	3.50	
8,200.00	44.80	259.32	7,042.80	-929.99	3,290.07	-3,281.66	8.00	7.74	2.99	
8,240.89	47.97	260.40	7,071.00	-935.20	3,260.93	-3,252.48	8.00	7.77	2.64	
Nio B										
8,250.00	48.68	260.62	7,077.05	-936.32	3,254.22	-3,245.76	8.00	7.78	2.48	
8,300.00	52.58	261.78	7,108.76	-942.22	3,216.03	-3,207.51	8.00	7.80	2.32	
8,350.00	56.49	262.82	7,137.77	-947.66	3,175.68	-3,167.12	8.00	7.82	2.09	
8,350.42	56.52	262.83	7,138.00	-947.71	3,175.33	-3,166.77	8.00	7.83	1.99	
Nio C										
8,400.00	60.41	263.78	7,163.93	-952.62	3,133.37	-3,124.77	8.00	7.83	1.91	
8,450.00	64.33	264.66	7,187.11	-957.08	3,089.31	-3,080.66	8.00	7.85	1.76	
8,500.00	68.26	265.48	7,207.21	-961.01	3,043.70	-3,035.03	8.00	7.86	1.65	
8,550.00	72.19	266.27	7,224.12	-964.39	2,996.78	-2,988.08	8.00	7.86	1.56	
8,600.00	76.12	267.01	7,237.77	-967.20	2,948.77	-2,940.05	8.00	7.87	1.49	
8,650.00	80.06	267.74	7,248.09	-969.44	2,899.91	-2,891.17	8.00	7.87	1.44	
8,655.41	80.49	267.81	7,249.00	-969.65	2,894.58	-2,885.83	8.00	7.88	1.42	
Fort Hayes										
8,700.00	84.00	268.44	7,255.02	-971.09	2,850.43	-2,841.68	8.00	7.88	1.41	
8,750.00	87.94	269.14	7,258.53	-972.15	2,800.58	-2,791.81	8.00	7.88	1.39	
8,775.36	89.94	269.49	7,259.00	-972.45	2,775.23	-2,766.46	8.00	7.88	1.38	
End Build @ 8775.36ft										
8,800.00	89.94	269.49	7,259.03	-972.67	2,750.59	-2,741.82	0.00	0.00	0.00	
8,900.00	89.94	269.49	7,259.13	-973.57	2,650.59	-2,641.82	0.00	0.00	0.00	
9,000.00	89.94	269.49	7,259.24	-974.46	2,550.59	-2,541.82	0.00	0.00	0.00	
9,100.00	89.94	269.49	7,259.35	-975.36	2,450.60	-2,441.82	0.00	0.00	0.00	
9,200.00	89.94	269.49	7,259.46	-976.26	2,350.60	-2,341.82	0.00	0.00	0.00	
9,300.00	89.94	269.49	7,259.57	-977.15	2,250.61	-2,241.82	0.00	0.00	0.00	
9,400.00	89.94	269.49	7,259.67	-978.05	2,150.61	-2,141.82	0.00	0.00	0.00	
9,500.00	89.94	269.49	7,259.78	-978.94	2,050.61	-2,041.82	0.00	0.00	0.00	
9,600.00	89.94	269.49	7,259.89	-979.84	1,950.62	-1,941.82	0.00	0.00	0.00	
9,700.00	89.94	269.49	7,260.00	-980.74	1,850.62	-1,841.82	0.00	0.00	0.00	
9,800.00	89.94	269.49	7,260.11	-981.63	1,750.63	-1,741.82	0.00	0.00	0.00	
9,900.00	89.94	269.49	7,260.21	-982.53	1,650.63	-1,641.82	0.00	0.00	0.00	
10,000.00	89.94	269.49	7,260.32	-983.43	1,550.63	-1,541.82	0.00	0.00	0.00	
10,100.00	89.94	269.49	7,260.43	-984.32	1,450.64	-1,441.82	0.00	0.00	0.00	
10,200.00	89.94	269.49	7,260.54	-985.22	1,350.64	-1,341.82	0.00	0.00	0.00	
10,300.00	89.94	269.49	7,260.64	-986.11	1,250.65	-1,241.82	0.00	0.00	0.00	
10,400.00	89.94	269.49	7,260.75	-987.01	1,150.65	-1,141.82	0.00	0.00	0.00	
10,500.00	89.94	269.49	7,260.86	-987.91	1,050.65	-1,041.82	0.00	0.00	0.00	
10,600.00	89.94	269.49	7,260.97	-988.80	950.66	-941.82	0.00	0.00	0.00	
10,700.00	89.94	269.49	7,261.08	-989.70	850.66	-841.82	0.00	0.00	0.00	
10,800.00	89.94	269.49	7,261.18	-990.59	750.67	-741.82	0.00	0.00	0.00	
10,900.00	89.94	269.49	7,261.29	-991.49	650.67	-641.82	0.00	0.00	0.00	
11,000.00	89.94	269.49	7,261.40	-992.39	550.67	-541.82	0.00	0.00	0.00	
11,100.00	89.94	269.49	7,261.51	-993.28	450.68	-441.82	0.00	0.00	0.00	
11,200.00	89.94	269.49	7,261.62	-994.18	350.68	-341.82	0.00	0.00	0.00	
11,300.00	89.94	269.49	7,261.72	-995.08	250.69	-241.82	0.00	0.00	0.00	
11,400.00	89.94	269.49	7,261.83	-995.97	150.69	-141.82	0.00	0.00	0.00	
11,500.00	89.94	269.49	7,261.94	-996.87	50.70	-41.82	0.00	0.00	0.00	
11,600.00	89.94	269.49	7,262.05	-997.76	-49.30	58.18	0.00	0.00	0.00	
11,700.00	89.94	269.49	7,262.16	-998.66	-149.30	158.18	0.00	0.00	0.00	
11,800.00	89.94	269.49	7,262.26	-999.56	-249.29	258.18	0.00	0.00	0.00	
11,900.00	89.94	269.49	7,262.37	-1,000.45	-349.29	358.18	0.00	0.00	0.00	

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well BLUE CHIP 22-6HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5053.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5053.00usft (RIG)
Site:	5N-67W-22 BLUE CHIP 6-22HZ PAD	North Reference:	True
Well:	BLUE CHIP 22-6HZ	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)
12,000.00	89.94	269.49	7,262.48	-1,001.35	-449.28	458.18	0.00	0.00	0.00
12,100.00	89.94	269.49	7,262.59	-1,002.24	-549.28	558.18	0.00	0.00	0.00
12,200.00	89.94	269.49	7,262.70	-1,003.14	-649.28	658.18	0.00	0.00	0.00
12,300.00	89.94	269.49	7,262.80	-1,004.04	-749.27	758.18	0.00	0.00	0.00
12,400.00	89.94	269.49	7,262.91	-1,004.93	-849.27	858.18	0.00	0.00	0.00
12,500.00	89.94	269.49	7,263.02	-1,005.83	-949.26	958.18	0.00	0.00	0.00
12,600.00	89.94	269.49	7,263.13	-1,006.73	-1,049.26	1,058.18	0.00	0.00	0.00
12,700.00	89.94	269.49	7,263.24	-1,007.62	-1,149.26	1,158.18	0.00	0.00	0.00
12,800.00	89.94	269.49	7,263.34	-1,008.52	-1,249.25	1,258.18	0.00	0.00	0.00
12,900.00	89.94	269.49	7,263.45	-1,009.41	-1,349.25	1,358.18	0.00	0.00	0.00
13,000.00	89.94	269.49	7,263.56	-1,010.31	-1,449.24	1,458.18	0.00	0.00	0.00
13,100.00	89.94	269.49	7,263.67	-1,011.21	-1,549.24	1,558.18	0.00	0.00	0.00
13,200.00	89.94	269.49	7,263.78	-1,012.10	-1,649.24	1,658.18	0.00	0.00	0.00
13,300.00	89.94	269.49	7,263.88	-1,013.00	-1,749.23	1,758.18	0.00	0.00	0.00
13,400.00	89.94	269.49	7,263.99	-1,013.89	-1,849.23	1,858.18	0.00	0.00	0.00
13,500.00	89.94	269.49	7,264.10	-1,014.79	-1,949.22	1,958.18	0.00	0.00	0.00
13,600.00	89.94	269.49	7,264.21	-1,015.69	-2,049.22	2,058.18	0.00	0.00	0.00
13,700.00	89.94	269.49	7,264.32	-1,016.58	-2,149.22	2,158.18	0.00	0.00	0.00
13,800.00	89.94	269.49	7,264.42	-1,017.48	-2,249.21	2,258.18	0.00	0.00	0.00
13,900.00	89.94	269.49	7,264.53	-1,018.38	-2,349.21	2,358.18	0.00	0.00	0.00
14,000.00	89.94	269.49	7,264.64	-1,019.27	-2,449.20	2,458.18	0.00	0.00	0.00
14,100.00	89.94	269.49	7,264.75	-1,020.17	-2,549.20	2,558.18	0.00	0.00	0.00
14,200.00	89.94	269.49	7,264.86	-1,021.06	-2,649.19	2,658.18	0.00	0.00	0.00
14,300.00	89.94	269.49	7,264.96	-1,021.96	-2,749.19	2,758.18	0.00	0.00	0.00
14,400.00	89.94	269.49	7,265.07	-1,022.86	-2,849.19	2,858.18	0.00	0.00	0.00
14,500.00	89.94	269.49	7,265.18	-1,023.75	-2,949.18	2,958.18	0.00	0.00	0.00
14,600.00	89.94	269.49	7,265.29	-1,024.65	-3,049.18	3,058.18	0.00	0.00	0.00
14,700.00	89.94	269.49	7,265.40	-1,025.54	-3,149.17	3,158.18	0.00	0.00	0.00
14,800.00	89.94	269.49	7,265.50	-1,026.44	-3,249.17	3,258.18	0.00	0.00	0.00
14,900.00	89.94	269.49	7,265.61	-1,027.34	-3,349.17	3,358.18	0.00	0.00	0.00
15,000.00	89.94	269.49	7,265.72	-1,028.23	-3,449.16	3,458.18	0.00	0.00	0.00
15,100.00	89.94	269.49	7,265.83	-1,029.13	-3,549.16	3,558.18	0.00	0.00	0.00
15,200.00	89.94	269.49	7,265.94	-1,030.03	-3,649.15	3,658.18	0.00	0.00	0.00
15,300.00	89.94	269.49	7,266.04	-1,030.92	-3,749.15	3,758.18	0.00	0.00	0.00
15,400.00	89.94	269.49	7,266.15	-1,031.82	-3,849.15	3,858.18	0.00	0.00	0.00
15,500.00	89.94	269.49	7,266.26	-1,032.71	-3,949.14	3,958.18	0.00	0.00	0.00
15,600.00	89.94	269.49	7,266.37	-1,033.61	-4,049.14	4,058.18	0.00	0.00	0.00
15,700.00	89.94	269.49	7,266.48	-1,034.51	-4,149.13	4,158.18	0.00	0.00	0.00
15,800.00	89.94	269.49	7,266.58	-1,035.40	-4,249.13	4,258.18	0.00	0.00	0.00
15,900.00	89.94	269.49	7,266.69	-1,036.30	-4,349.13	4,358.18	0.00	0.00	0.00
16,000.00	89.94	269.49	7,266.80	-1,037.19	-4,449.12	4,458.18	0.00	0.00	0.00
16,100.00	89.94	269.49	7,266.91	-1,038.09	-4,549.12	4,558.18	0.00	0.00	0.00
16,200.00	89.94	269.49	7,267.01	-1,038.99	-4,649.11	4,658.18	0.00	0.00	0.00
16,300.00	89.94	269.49	7,267.12	-1,039.88	-4,749.11	4,758.18	0.00	0.00	0.00
16,400.00	89.94	269.49	7,267.23	-1,040.78	-4,849.11	4,858.18	0.00	0.00	0.00
16,500.00	89.94	269.49	7,267.34	-1,041.68	-4,949.10	4,958.18	0.00	0.00	0.00
16,600.00	89.94	269.49	7,267.45	-1,042.57	-5,049.10	5,058.18	0.00	0.00	0.00
16,700.00	89.94	269.49	7,267.55	-1,043.47	-5,149.09	5,158.18	0.00	0.00	0.00
16,800.00	89.94	269.49	7,267.66	-1,044.36	-5,249.09	5,258.18	0.00	0.00	0.00
16,900.00	89.94	269.49	7,267.77	-1,045.26	-5,349.08	5,358.18	0.00	0.00	0.00
17,000.00	89.94	269.49	7,267.88	-1,046.16	-5,449.08	5,458.18	0.00	0.00	0.00
17,100.00	89.94	269.49	7,267.99	-1,047.05	-5,549.08	5,558.18	0.00	0.00	0.00
17,200.00	89.94	269.49	7,268.09	-1,047.95	-5,649.07	5,658.18	0.00	0.00	0.00
17,300.00	89.94	269.49	7,268.20	-1,048.84	-5,749.07	5,758.18	0.00	0.00	0.00

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well BLUE CHIP 22-6HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5053.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5053.00usft (RIG)
Site:	5N-67W-22 BLUE CHIP 6-22HZ PAD	North Reference:	True
Well:	BLUE CHIP 22-6HZ	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)	
17,400.00	89.94	269.49	7,268.31	-1,049.74	-5,849.06	5,858.18	0.00	0.00	0.00	
17,500.00	89.94	269.49	7,268.42	-1,050.64	-5,949.06	5,958.18	0.00	0.00	0.00	
17,600.00	89.94	269.49	7,268.53	-1,051.53	-6,049.06	6,058.18	0.00	0.00	0.00	
17,700.00	89.94	269.49	7,268.63	-1,052.43	-6,149.05	6,158.18	0.00	0.00	0.00	
17,800.00	89.94	269.49	7,268.74	-1,053.32	-6,249.05	6,258.18	0.00	0.00	0.00	
17,900.00	89.94	269.49	7,268.85	-1,054.22	-6,349.04	6,358.18	0.00	0.00	0.00	
18,000.00	89.94	269.49	7,268.96	-1,055.12	-6,449.04	6,458.18	0.00	0.00	0.00	
18,038.74	89.94	269.49	7,269.00	-1,055.46	-6,487.78	6,496.92	0.00	0.00	0.00	
Codell										
18,100.00	89.94	269.49	7,269.07	-1,056.01	-6,549.04	6,558.18	0.00	0.00	0.00	
18,200.00	89.94	269.49	7,269.17	-1,056.91	-6,649.03	6,658.18	0.00	0.00	0.00	
18,300.00	89.94	269.49	7,269.28	-1,057.81	-6,749.03	6,758.18	0.00	0.00	0.00	
18,400.00	89.94	269.49	7,269.39	-1,058.70	-6,849.02	6,858.18	0.00	0.00	0.00	
18,500.00	89.94	269.49	7,269.50	-1,059.60	-6,949.02	6,958.18	0.00	0.00	0.00	
18,600.00	89.94	269.49	7,269.61	-1,060.49	-7,049.02	7,058.18	0.00	0.00	0.00	
18,700.00	89.94	269.49	7,269.71	-1,061.39	-7,149.01	7,158.18	0.00	0.00	0.00	
18,800.00	89.94	269.49	7,269.82	-1,062.29	-7,249.01	7,258.18	0.00	0.00	0.00	
18,900.00	89.94	269.49	7,269.93	-1,063.18	-7,349.00	7,358.18	0.00	0.00	0.00	
18,964.96	89.94	269.49	7,270.00	-1,063.76	-7,413.96	7,423.13	0.00	0.00	0.00	
TD Well @ 18964.96ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,520.66	1,500.00	9 5/8"	9-5/8	13-1/2	
18,964.96	7,270.00	5.5" CSG	5-1/2	7-7/8	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
921.74	919.00	Fox Hills				
4,108.47	3,670.00	Parkman				
4,693.44	4,137.00	Sussex				
8,026.98	6,907.00	Sharon Springs				
8,054.27	6,930.00	Niobrara				
8,240.89	7,071.00	Nio B				
8,350.42	7,138.00	Nio C				
8,655.41	7,249.00	Fort Hayes				
18,038.74	7,269.00	Codell				

Planning Report

Database:	EDM 5000.16 Single User Db	Local Co-ordinate Reference:	Well BLUE CHIP 22-6HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 5053.00usft (RIG)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 5053.00usft (RIG)
Site:	5N-67W-22 BLUE CHIP 6-22HZ PAD	North Reference:	True
Well:	BLUE CHIP 22-6HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
300.25	300.25	0.00	0.00	Begin Nudge @ 300.25ft
2,768.92	2,600.61	-172.64	750.77	Hold Tangent @ 2768.92ft
7,202.98	6,140.41	-771.06	3,353.19	KOP @ 7202.98ft :: DLS = 8°/100;
8,775.36	7,259.00	-972.45	2,775.23	End Build @ 8775.36ft
18,964.96	7,270.00	-1,063.76	-7,413.96	TD Well @ 18964.96ft