

US ROCKIES WATTENBERG PLANNING

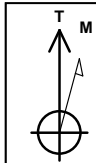
**WELD-NAD83-UTMFT13N
3N-65W-29 RW 35-29HZ Pad
RW 35N-32HZ**

Plan A

Plan: Permit Rev-1

Standard Planning Report

11 January, 2017



Azimuths to True North
Magnetic North: 8.06°

Magnetic Field
Strength: 52443.7snT
Dip Angle: 66.70°
Date: 1/4/2017
Model: IGRF2010

SITE: 3N-65W-29 RW 35-29HZ Pad

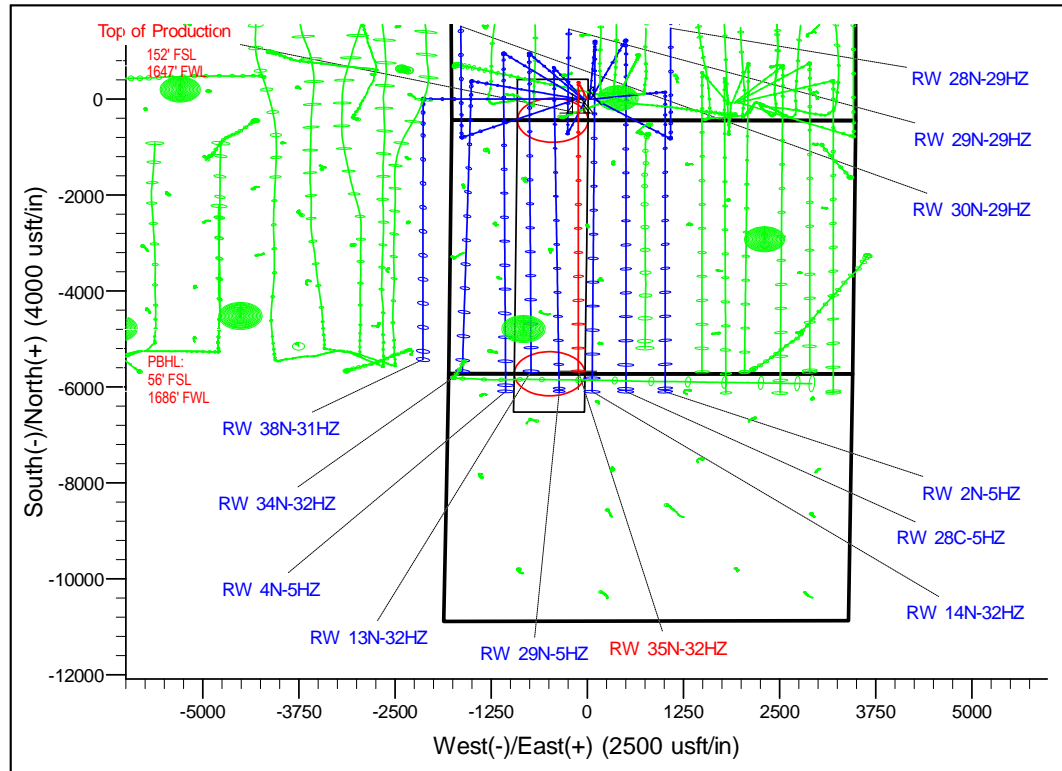
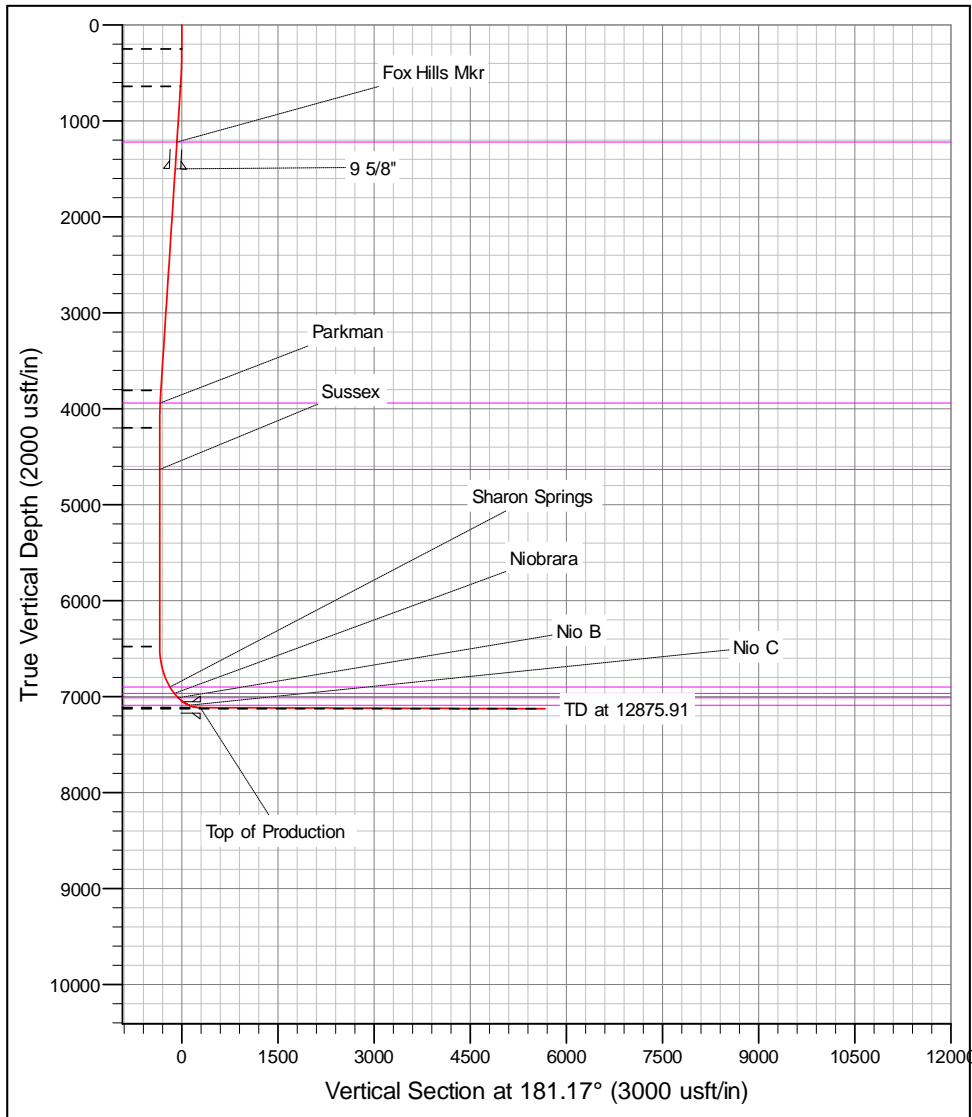
Well: RW 35N-32HZ
Wellbore: Plan A
Design: Permit Rev-1

FORMATION TOP DETAILS		
TVDPath	MDPath	Formation
1220.00	1223.74	Fox Hills Mkr
3940.00	3957.87	Parkman
4633.00	4651.07	Sussex
6900.00	6957.03	Sharon Springs
6967.00	7053.07	Niobrara
7012.00	7128.64	Nio B
7091.00	7319.15	Nio C

WELL DETAILS: RW 35N-32HZ						
+N/-S	+E/-W	GL: 4885.00	RKB @ 4902.00usft (D Rig)			
		Northing	Easting	Latitude	Longitude	Slot
0.00	0.00	14596213.69	1726876.16	40.190389	-104.690411	

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	0.00
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00
641.37	5.87	341.52	640.69	19.00	-6.35	1.50	-18.87	
3826.70	5.87	341.52	3809.31	328.01	-109.59	0.00	-325.70	
4218.07	0.00	0.00	4200.00	347.01	-115.94	1.50	-344.57	
6497.19	0.00	0.00	6479.11	347.01	-115.94	0.00	-344.57	
7495.85	89.88	180.00	7115.73	-288.28	-115.94	9.00	290.59	
12875.91	89.88	180.00	7127.00	-5668.32	-115.93	0.00	5669.50	

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
RW 35N-32HZ_PBHL	7127.00	-5668.32	-115.93	14590545.00	1726780.00	40.174823	-104.690826



Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well RW 35N-32HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 4902.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 4902.00usft (D Rig)
Site:	3N-65W-29 RW 35-29HZ Pad	North Reference:	True
Well:	RW 35N-32HZ	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	3N-65W-29 RW 35-29HZ Pad				
Site Position:		Northing:	14,596,214.62 usft	Latitude:	40.190393
From:	Lat/Long	Easting:	1,726,726.18 usft	Longitude:	-104.690948
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.20 °

Well	RW 35N-32HZ					
Well Position	+N-S	-1.46 usft	Northing:	14,596,213.68 usft	Latitude:	40.190389
	+E-W	149.97 usft	Easting:	1,726,876.16 usft	Longitude:	-104.690411
Position Uncertainty		3.28 usft	Wellhead Elevation:		Ground Level:	4,885.00 usft

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	1/4/2017	8.06	66.70	52,443.66714982

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	181.17

Plan Survey Tool Program	Date	1/11/2017			
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	12,875.91	Permit Rev-1 (Plan A)	APC_ISCWSA REV 2 MWI Fixed:v2:crustal field declinat	

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	
641.37	5.87	341.52	640.69	19.00	-6.35	1.50	1.50	0.00	341.52	
3,826.70	5.87	341.52	3,809.31	328.01	-109.59	0.00	0.00	0.00	0.00	
4,218.07	0.00	0.00	4,200.00	347.01	-115.94	1.50	-1.50	0.00	180.00	
6,497.19	0.00	0.00	6,479.11	347.01	-115.94	0.00	0.00	0.00	0.00	
7,495.85	89.88	180.00	7,115.73	-288.28	-115.94	9.00	9.00	0.00	180.00	
12,875.91	89.88	180.00	7,127.00	-5,668.32	-115.93	0.00	0.00	0.00	0.00	RW 35N-32HZ_PBI

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well RW 35N-32HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 4902.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 4902.00usft (D Rig)
Site:	3N-65W-29 RW 35-29HZ Pad	North Reference:	True
Well:	RW 35N-32HZ	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
250.00	0.00	0.00	250.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.75	341.52	300.00	0.31	-0.10	-0.31	1.50	1.50	0.00
400.00	2.25	341.52	399.96	2.79	-0.93	-2.77	1.50	1.50	0.00
500.00	3.75	341.52	499.82	7.76	-2.59	-7.70	1.50	1.50	0.00
600.00	5.25	341.52	599.51	15.20	-5.08	-15.09	1.50	1.50	0.00
641.37	5.87	341.52	640.69	19.00	-6.35	-18.87	1.50	1.50	0.00
700.00	5.87	341.52	699.01	24.69	-8.25	-24.51	0.00	0.00	0.00
800.00	5.87	341.52	798.48	34.39	-11.49	-34.15	0.00	0.00	0.00
900.00	5.87	341.52	897.96	44.09	-14.73	-43.78	0.00	0.00	0.00
1,000.00	5.87	341.52	997.43	53.79	-17.97	-53.41	0.00	0.00	0.00
1,100.00	5.87	341.52	1,096.91	63.49	-21.21	-63.04	0.00	0.00	0.00
1,200.00	5.87	341.52	1,196.39	73.19	-24.45	-72.68	0.00	0.00	0.00
1,223.74	5.87	341.52	1,220.00	75.50	-25.22	-74.96	0.00	0.00	0.00
Fox Hills Mkr									
1,300.00	5.87	341.52	1,295.86	82.89	-27.70	-82.31	0.00	0.00	0.00
1,400.00	5.87	341.52	1,395.34	92.59	-30.94	-91.94	0.00	0.00	0.00
1,500.00	5.87	341.52	1,494.81	102.30	-34.18	-101.58	0.00	0.00	0.00
1,505.21	5.87	341.52	1,500.00	102.80	-34.35	-102.08	0.00	0.00	0.00
9 5/8"									
1,600.00	5.87	341.52	1,594.29	112.00	-37.42	-111.21	0.00	0.00	0.00
1,700.00	5.87	341.52	1,693.76	121.70	-40.66	-120.84	0.00	0.00	0.00
1,800.00	5.87	341.52	1,793.24	131.40	-43.90	-130.47	0.00	0.00	0.00
1,900.00	5.87	341.52	1,892.71	141.10	-47.14	-140.11	0.00	0.00	0.00
2,000.00	5.87	341.52	1,992.19	150.80	-50.38	-149.74	0.00	0.00	0.00
2,100.00	5.87	341.52	2,091.67	160.50	-53.63	-159.37	0.00	0.00	0.00
2,200.00	5.87	341.52	2,191.14	170.20	-56.87	-169.00	0.00	0.00	0.00
2,300.00	5.87	341.52	2,290.62	179.90	-60.11	-178.64	0.00	0.00	0.00
2,400.00	5.87	341.52	2,390.09	189.61	-63.35	-188.27	0.00	0.00	0.00
2,500.00	5.87	341.52	2,489.57	199.31	-66.59	-197.90	0.00	0.00	0.00
2,600.00	5.87	341.52	2,589.04	209.01	-69.83	-207.54	0.00	0.00	0.00
2,700.00	5.87	341.52	2,688.52	218.71	-73.07	-217.17	0.00	0.00	0.00
2,800.00	5.87	341.52	2,787.99	228.41	-76.31	-226.80	0.00	0.00	0.00
2,900.00	5.87	341.52	2,887.47	238.11	-79.56	-236.43	0.00	0.00	0.00
3,000.00	5.87	341.52	2,986.95	247.81	-82.80	-246.07	0.00	0.00	0.00
3,100.00	5.87	341.52	3,086.42	257.51	-86.04	-255.70	0.00	0.00	0.00
3,200.00	5.87	341.52	3,185.90	267.21	-89.28	-265.33	0.00	0.00	0.00
3,300.00	5.87	341.52	3,285.37	276.91	-92.52	-274.96	0.00	0.00	0.00
3,400.00	5.87	341.52	3,384.85	286.62	-95.76	-284.60	0.00	0.00	0.00
3,500.00	5.87	341.52	3,484.32	296.32	-99.00	-294.23	0.00	0.00	0.00
3,600.00	5.87	341.52	3,583.80	306.02	-102.24	-303.86	0.00	0.00	0.00
3,700.00	5.87	341.52	3,683.27	315.72	-105.49	-313.50	0.00	0.00	0.00
3,800.00	5.87	341.52	3,782.75	325.42	-108.73	-323.13	0.00	0.00	0.00
3,826.70	5.87	341.52	3,809.31	328.01	-109.59	-325.70	0.00	0.00	0.00
3,900.00	4.77	341.52	3,882.29	334.46	-111.75	-332.10	1.50	-1.50	0.00
3,957.87	3.90	341.52	3,940.00	338.61	-113.13	-336.22	1.50	-1.50	0.00
Parkman									
4,000.00	3.27	341.52	3,982.04	341.11	-113.97	-338.71	1.50	-1.50	0.00
4,100.00	1.77	341.52	4,081.94	345.28	-115.36	-342.85	1.50	-1.50	0.00
4,200.00	0.27	341.52	4,181.93	346.97	-115.93	-344.53	1.50	-1.50	0.00
4,218.07	0.00	0.00	4,200.00	347.01	-115.94	-344.57	1.50	-1.50	0.00

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well RW 35N-32HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 4902.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 4902.00usft (D Rig)
Site:	3N-65W-29 RW 35-29HZ Pad	North Reference:	True
Well:	RW 35N-32HZ	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)	
4,300.00	0.00	0.00	4,281.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
4,400.00	0.00	0.00	4,381.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
4,500.00	0.00	0.00	4,481.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
4,600.00	0.00	0.00	4,581.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
4,651.07	0.00	0.00	4,633.00	347.01	-115.94	-344.57	0.00	0.00	0.00	
Sussex										
4,700.00	0.00	0.00	4,681.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
4,800.00	0.00	0.00	4,781.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
4,900.00	0.00	0.00	4,881.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
5,000.00	0.00	0.00	4,981.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
5,100.00	0.00	0.00	5,081.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
5,200.00	0.00	0.00	5,181.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
5,300.00	0.00	0.00	5,281.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
5,400.00	0.00	0.00	5,381.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,481.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,581.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,681.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,781.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,881.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
6,000.00	0.00	0.00	5,981.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
6,100.00	0.00	0.00	6,081.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
6,200.00	0.00	0.00	6,181.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
6,300.00	0.00	0.00	6,281.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,381.93	347.01	-115.94	-344.57	0.00	0.00	0.00	
6,497.19	0.00	0.00	6,479.11	347.01	-115.94	-344.57	0.00	0.00	0.00	
6,500.00	0.25	180.00	6,481.93	347.00	-115.94	-344.56	9.00	9.00	0.00	
6,600.00	9.25	180.00	6,581.48	338.73	-115.94	-336.28	9.00	9.00	0.00	
6,700.00	18.25	180.00	6,678.51	314.98	-115.94	-312.54	9.00	9.00	0.00	
6,800.00	27.25	180.00	6,770.64	276.34	-115.94	-273.91	9.00	9.00	0.00	
6,900.00	36.25	180.00	6,855.58	223.77	-115.94	-221.35	9.00	9.00	0.00	
6,957.03	41.39	180.00	6,900.00	188.03	-115.94	-185.62	9.00	9.00	0.00	
Sharon Springs										
7,000.00	45.25	180.00	6,931.26	158.56	-115.94	-156.15	9.00	9.00	0.00	
7,053.07	50.03	180.00	6,967.00	119.35	-115.94	-116.96	9.00	9.00	0.00	
Niobrara										
7,100.00	54.25	180.00	6,995.80	82.31	-115.94	-79.92	9.00	9.00	0.00	
7,128.64	56.83	180.00	7,012.00	58.70	-115.94	-56.31	9.00	9.00	0.00	
Nio B										
7,200.00	63.25	180.00	7,047.62	-3.10	-115.94	5.47	9.00	9.00	0.00	
7,300.00	72.25	180.00	7,085.44	-95.56	-115.94	97.91	9.00	9.00	0.00	
7,319.15	73.98	180.00	7,091.00	-113.88	-115.94	116.23	9.00	9.00	0.00	
Nio C										
7,400.00	81.25	180.00	7,108.33	-192.80	-115.94	195.13	9.00	9.00	0.00	
7,495.85	89.88	180.00	7,115.73	-288.27	-115.94	290.58	9.00	9.00	0.00	
Top of Production - RW 35N-32HZ_PHL										
7,500.00	89.88	180.00	7,115.74	-292.42	-115.94	294.73	0.01	0.01	0.00	
7,600.00	89.88	180.00	7,115.95	-392.42	-115.94	394.71	0.00	0.00	0.00	
7,700.00	89.88	180.00	7,116.16	-492.42	-115.94	494.69	0.00	0.00	0.00	
7,800.00	89.88	180.00	7,116.37	-592.42	-115.94	594.67	0.00	0.00	0.00	
7,900.00	89.88	180.00	7,116.58	-692.42	-115.94	694.65	0.00	0.00	0.00	
8,000.00	89.88	180.00	7,116.79	-792.42	-115.94	794.63	0.00	0.00	0.00	
8,100.00	89.88	180.00	7,117.00	-892.42	-115.94	894.60	0.00	0.00	0.00	
8,200.00	89.88	180.00	7,117.21	-992.42	-115.94	994.58	0.00	0.00	0.00	

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well RW 35N-32HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 4902.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 4902.00usft (D Rig)
Site:	3N-65W-29 RW 35-29HZ Pad	North Reference:	True
Well:	RW 35N-32HZ	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)
8,300.00	89.88	180.00	7,117.42	-1,092.42	-115.94	1,094.56	0.00	0.00	0.00
8,400.00	89.88	180.00	7,117.63	-1,192.42	-115.94	1,194.54	0.00	0.00	0.00
8,500.00	89.88	180.00	7,117.84	-1,292.42	-115.94	1,294.52	0.00	0.00	0.00
8,600.00	89.88	180.00	7,118.04	-1,392.42	-115.94	1,394.50	0.00	0.00	0.00
8,700.00	89.88	180.00	7,118.25	-1,492.42	-115.94	1,494.48	0.00	0.00	0.00
8,800.00	89.88	180.00	7,118.46	-1,592.42	-115.94	1,594.46	0.00	0.00	0.00
8,900.00	89.88	180.00	7,118.67	-1,692.42	-115.94	1,694.44	0.00	0.00	0.00
9,000.00	89.88	180.00	7,118.88	-1,792.42	-115.93	1,794.41	0.00	0.00	0.00
9,100.00	89.88	180.00	7,119.09	-1,892.42	-115.93	1,894.39	0.00	0.00	0.00
9,200.00	89.88	180.00	7,119.30	-1,992.42	-115.93	1,994.37	0.00	0.00	0.00
9,300.00	89.88	180.00	7,119.51	-2,092.42	-115.93	2,094.35	0.00	0.00	0.00
9,400.00	89.88	180.00	7,119.72	-2,192.42	-115.93	2,194.33	0.00	0.00	0.00
9,500.00	89.88	180.00	7,119.93	-2,292.42	-115.93	2,294.31	0.00	0.00	0.00
9,600.00	89.88	180.00	7,120.14	-2,392.42	-115.93	2,394.29	0.00	0.00	0.00
9,700.00	89.88	180.00	7,120.35	-2,492.42	-115.93	2,494.27	0.00	0.00	0.00
9,800.00	89.88	180.00	7,120.56	-2,592.42	-115.93	2,594.25	0.00	0.00	0.00
9,900.00	89.88	180.00	7,120.77	-2,692.42	-115.93	2,694.22	0.00	0.00	0.00
10,000.00	89.88	180.00	7,120.98	-2,792.42	-115.93	2,794.20	0.00	0.00	0.00
10,100.00	89.88	180.00	7,121.19	-2,892.42	-115.93	2,894.18	0.00	0.00	0.00
10,200.00	89.88	180.00	7,121.40	-2,992.42	-115.93	2,994.16	0.00	0.00	0.00
10,300.00	89.88	180.00	7,121.61	-3,092.42	-115.93	3,094.14	0.00	0.00	0.00
10,400.00	89.88	180.00	7,121.81	-3,192.42	-115.93	3,194.12	0.00	0.00	0.00
10,500.00	89.88	180.00	7,122.02	-3,292.42	-115.93	3,294.10	0.00	0.00	0.00
10,600.00	89.88	180.00	7,122.23	-3,392.41	-115.93	3,394.08	0.00	0.00	0.00
10,700.00	89.88	180.00	7,122.44	-3,492.41	-115.93	3,494.06	0.00	0.00	0.00
10,800.00	89.88	180.00	7,122.65	-3,592.41	-115.93	3,594.03	0.00	0.00	0.00
10,900.00	89.88	180.00	7,122.86	-3,692.41	-115.93	3,694.01	0.00	0.00	0.00
11,000.00	89.88	180.00	7,123.07	-3,792.41	-115.93	3,793.99	0.00	0.00	0.00
11,100.00	89.88	180.00	7,123.28	-3,892.41	-115.93	3,893.97	0.00	0.00	0.00
11,200.00	89.88	180.00	7,123.49	-3,992.41	-115.93	3,993.95	0.00	0.00	0.00
11,300.00	89.88	180.00	7,123.70	-4,092.41	-115.93	4,093.93	0.00	0.00	0.00
11,400.00	89.88	180.00	7,123.91	-4,192.41	-115.93	4,193.91	0.00	0.00	0.00
11,500.00	89.88	180.00	7,124.12	-4,292.41	-115.93	4,293.89	0.00	0.00	0.00
11,600.00	89.88	180.00	7,124.33	-4,392.41	-115.93	4,393.86	0.00	0.00	0.00
11,700.00	89.88	180.00	7,124.54	-4,492.41	-115.93	4,493.84	0.00	0.00	0.00
11,800.00	89.88	180.00	7,124.75	-4,592.41	-115.93	4,593.82	0.00	0.00	0.00
11,900.00	89.88	180.00	7,124.96	-4,692.41	-115.93	4,693.80	0.00	0.00	0.00
12,000.00	89.88	180.00	7,125.17	-4,792.41	-115.93	4,793.78	0.00	0.00	0.00
12,100.00	89.88	180.00	7,125.38	-4,892.41	-115.93	4,893.76	0.00	0.00	0.00
12,200.00	89.88	180.00	7,125.58	-4,992.41	-115.93	4,993.74	0.00	0.00	0.00
12,300.00	89.88	180.00	7,125.79	-5,092.41	-115.93	5,093.72	0.00	0.00	0.00
12,400.00	89.88	180.00	7,126.00	-5,192.41	-115.93	5,193.70	0.00	0.00	0.00
12,500.00	89.88	180.00	7,126.21	-5,292.41	-115.93	5,293.67	0.00	0.00	0.00
12,600.00	89.88	180.00	7,126.42	-5,392.41	-115.93	5,393.65	0.00	0.00	0.00
12,700.00	89.88	180.00	7,126.63	-5,492.41	-115.93	5,493.63	0.00	0.00	0.00
12,800.00	89.88	180.00	7,126.84	-5,592.41	-115.93	5,593.61	0.00	0.00	0.00
12,875.91	89.88	180.00	7,127.00	-5,668.32	-115.93	5,669.50	0.00	0.00	0.00
RW 35N-32HZ_PBHL									

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well RW 35N-32HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB @ 4902.00usft (D Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB @ 4902.00usft (D Rig)
Site:	3N-65W-29 RW 35-29HZ Pad	North Reference:	True
Well:	RW 35N-32HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-1		

Design Targets									
Target Name	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
RW 35N-32HZ_PHL - plan hits target center - Point	0.00	0.00	7,115.73	-288.27	-115.94	14,595,925.01	1,726,761.22	40.189597	-104.690826
RW 35N-32HZ_PBHL - plan hits target center - Point	0.00	0.00	7,127.00	-5,668.32	-115.93	14,590,545.00	1,726,780.00	40.174823	-104.690826

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,505.21	1,500.00	9 5/8"	9-5/8	13-1/2	
7,495.85	7,115.73	Top of Production	5-1/2	8-1/2	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,223.74	1,220.00	Fox Hills Mkr				
3,957.87	3,940.00	Parkman				
4,651.07	4,633.00	Sussex				
6,957.03	6,900.00	Sharon Springs				
7,053.07	6,967.00	Niobrara				
7,128.64	7,012.00	Nio B				
7,319.15	7,091.00	Nio C				