

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

2N-68W-35 NELSON 28-35HZ PAD

NELSON 35-16HZ

Plan B

Plan: Permit Rev-1

SHL Lat/Long: 40.101355/-104.972548

Survey Program: MWD+IFR+MSA

Standard Planning Report

22 December, 2019

Project: WELD-NAD83-UTMFT13N
Site: 2N-68W-35 NELSON 28-35HZ PAD
Well: NELSON 35-16HZ
Wellbore: Plan B
Design: Permit Rev-1

US ROCKIES WATTENBERG PLANNING

CASING DETAILS

TVD	MD	Name	Size
1500.00	1518.36	9 5/8" Csg	9-5/8
7423.00	7946.10	Top of Production	5-1/2

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	305.00	0.00	0.00	305.00	0.00	0.00	0.00	0.00	0.00	
3	1285.67	14.71	248.90	1274.93	-45.07	-116.80	1.50	248.90	-44.95	
4	4085.67	14.71	248.90	3983.15	-301.03	-780.13	0.00	0.00	-300.21	
5	4821.17	0.00	0.00	4710.60	-334.83	-867.73	2.00	180.00	-333.92	
6	6817.38	0.00	0.00	6706.81	-334.83	-867.73	0.00	0.00	-333.92	
7	7946.10	90.30	359.94	7423.00	385.09	-868.44	8.00	359.94	386.00	
8	16227.96	90.30	359.94	7380.00	8666.83	-876.57	0.00	0.00	8667.75	NELSON 35-16HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
NELSON 35-16HZ_SHL	0.00	0.00	0.00	40.101355	-104.972548
NELSON 35-16HZ_BHL	7380.00	8666.83	-876.57	40.125155	-104.975684

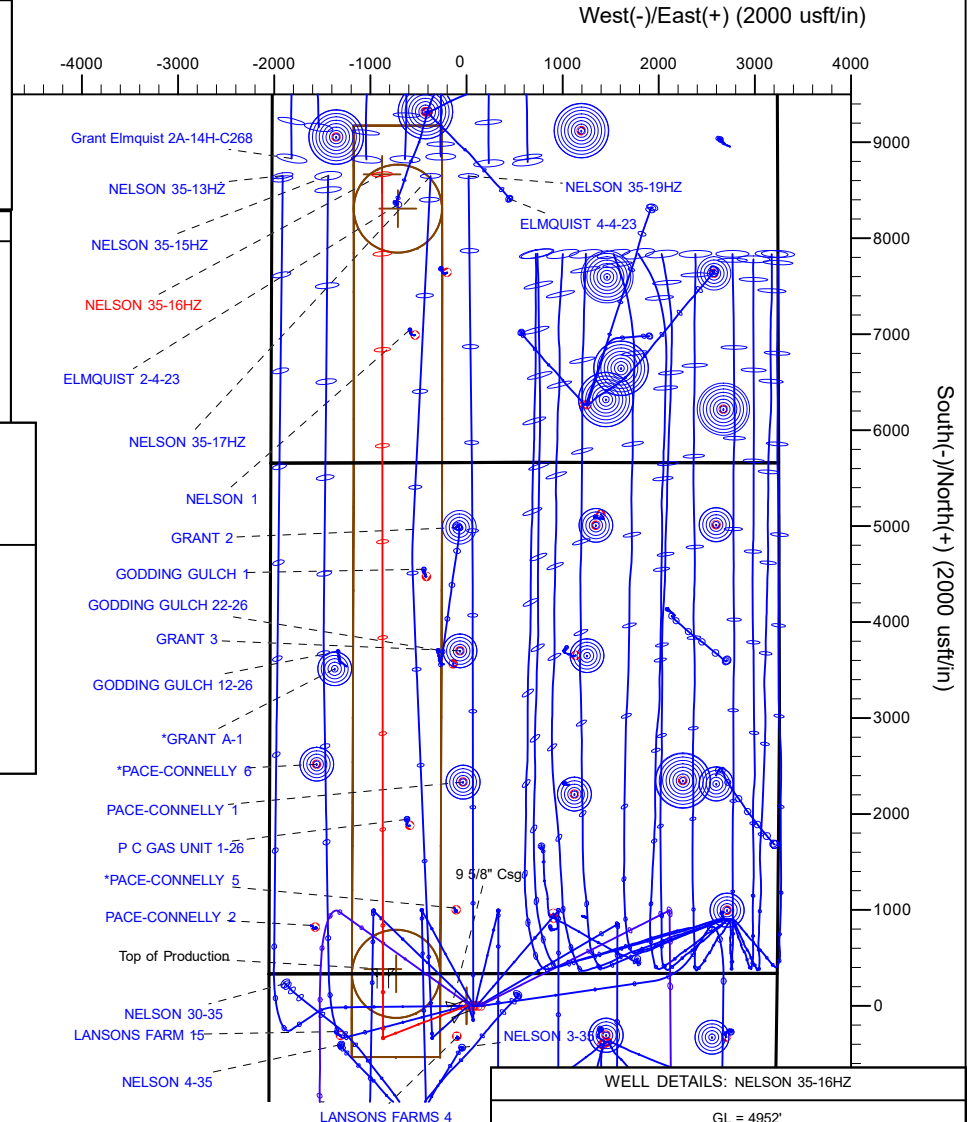
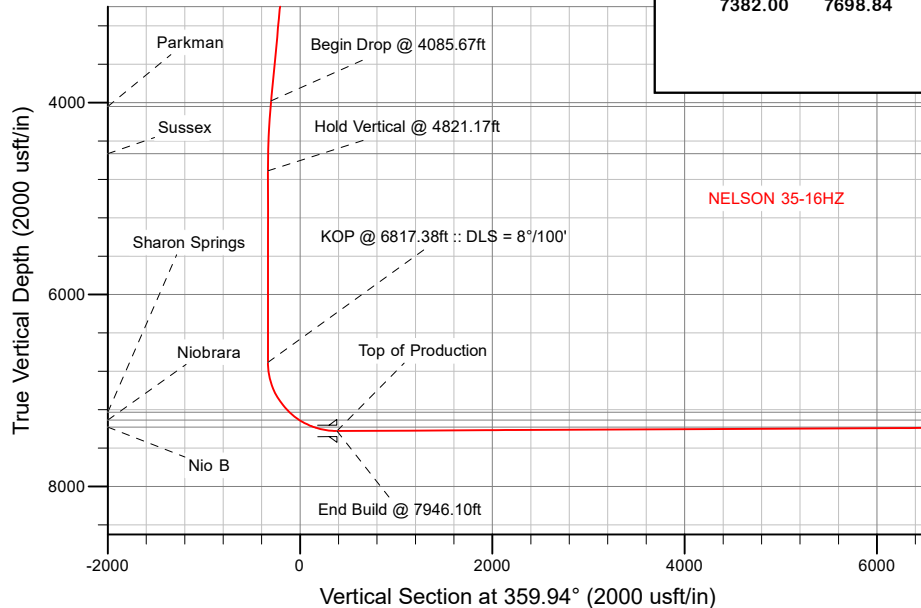
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
980.00	983.56	Fox Hills
4040.00	4144.29	Parkman
4532.00	4642.45	Sussex
7227.00	7399.61	Sharon Springs
7309.00	7532.70	Niobrara
7382.00	7698.84	Nio B

SHL
336' FNL
2054' FWL

HEEL
50' FSL
1184' FWL

BHL
2295' FNL
1145' FWL



WELL DETAILS: NELSON 35-16HZ

GL = 4952'

RKB = 17' @ 4969.00usft (Drilling Rig)

Plan: Permit Rev-1 (NELSON 35-16HZ/Plan B)

Date: 12/22/2019

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well NELSON 35-16HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4969.00usft (Drilling Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4969.00usft (Drilling Rig)
Site:	2N-68W-35 NELSON 28-35HZ PAD	North Reference:	True
Well:	NELSON 35-16HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
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-35 NELSON 28-35HZ PAD			
Site Position:		Northing:	14,563,661.77 usft	Latitude:	40.101408
From:	Lat/Long	Easting:	1,648,208.17 usft	Longitude:	-104.972137
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.02 °

Well		NELSON 35-16HZ				
Well Position	+N/-S	-19.30 usft	Northing:	14,563,642.43 usft	Latitude:	40.101355
	+E/-W	-114.93 usft	Easting:	1,648,093.24 usft	Longitude:	-104.972548
Position Uncertainty	3.28 usft		Wellhead Elevation:		Ground Level:	4,952.00 usft

Wellbore	Plan B				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	1/15/2019	8.13	66.54	52,033.89162711

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	359.94	

Plan Survey Tool Program		Date	12/22/2019		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks	
1	0.00	1,500.00	Permit Rev-1 (Plan B)	APC_ISCWSA REV 2 MWD+II Fixed:v2:crustal field declinatio	
2	1,500.00	16,227.96	Permit Rev-1 (Plan B)	APC_ISCWSA REV 2 MWD+II Fixed:v2:Rockies, crustal dec +	

Corporate
Planning Report

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Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4969.00usft (Drilling Rig)
Site:	2N-68W-35 NELSON 28-35HZ PAD	North Reference:	True
Well:	NELSON 35-16HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
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	
305.00	0.00	0.00	305.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,285.67	14.71	248.90	1,274.93	-45.07	-116.80	1.50	1.50	0.00	248.90	
4,085.67	14.71	248.90	3,983.15	-301.03	-780.13	0.00	0.00	0.00	0.00	
4,821.17	0.00	0.00	4,710.60	-334.83	-867.73	2.00	-2.00	15.11	180.00	
6,817.38	0.00	0.00	6,706.81	-334.83	-867.73	0.00	0.00	0.00	0.00	
7,946.10	90.30	359.94	7,423.00	385.09	-868.44	8.00	8.00	0.00	359.94	
16,227.96	90.30	359.94	7,380.00	8,666.83	-876.57	0.00	0.00	0.00	0.00	NELSON 35-16HZ_BI

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well NELSON 35-16HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4969.00usft (Drilling Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4969.00usft (Drilling Rig)
Site:	2N-68W-35 NELSON 28-35HZ PAD	North Reference:	True
Well:	NELSON 35-16HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
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
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
305.00	0.00	0.00	305.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 305.00ft									
400.00	1.43	248.90	399.99	-0.43	-1.10	-0.42	1.50	1.50	0.00
500.00	2.93	248.90	499.92	-1.79	-4.64	-1.79	1.50	1.50	0.00
600.00	4.43	248.90	599.71	-4.10	-10.62	-4.09	1.50	1.50	0.00
700.00	5.93	248.90	699.30	-7.35	-19.04	-7.33	1.50	1.50	0.00
800.00	7.43	248.90	798.62	-11.53	-29.88	-11.50	1.50	1.50	0.00
900.00	8.93	248.90	897.60	-16.65	-43.15	-16.60	1.50	1.50	0.00
983.56	10.18	248.90	980.00	-21.64	-56.08	-21.58	1.50	1.50	0.00
Fox Hills									
1,000.00	10.43	248.90	996.17	-22.70	-58.83	-22.64	1.50	1.50	0.00
1,100.00	11.93	248.90	1,094.27	-29.68	-76.91	-29.60	1.50	1.50	0.00
1,200.00	13.43	248.90	1,191.83	-37.57	-97.38	-37.47	1.50	1.50	0.00
1,285.67	14.71	248.90	1,274.93	-45.07	-116.80	-44.95	1.50	1.50	0.00
Hold Tangent @ 1285.67ft									
1,300.00	14.71	248.90	1,288.79	-46.38	-120.20	-46.25	0.00	0.00	0.00
1,400.00	14.71	248.90	1,385.51	-55.52	-143.89	-55.37	0.00	0.00	0.00
1,500.00	14.71	248.90	1,482.24	-64.66	-167.58	-64.49	0.00	0.00	0.00
1,518.36	14.71	248.90	1,500.00	-66.34	-171.93	-66.16	0.00	0.00	0.00
9 5/8" Csg									
1,600.00	14.71	248.90	1,578.96	-73.80	-191.27	-73.60	0.00	0.00	0.00
1,700.00	14.71	248.90	1,675.68	-82.95	-214.96	-82.72	0.00	0.00	0.00
1,800.00	14.71	248.90	1,772.40	-92.09	-238.65	-91.84	0.00	0.00	0.00
1,900.00	14.71	248.90	1,869.13	-101.23	-262.34	-100.95	0.00	0.00	0.00
2,000.00	14.71	248.90	1,965.85	-110.37	-286.03	-110.07	0.00	0.00	0.00
2,100.00	14.71	248.90	2,062.57	-119.51	-309.72	-119.19	0.00	0.00	0.00
2,200.00	14.71	248.90	2,159.29	-128.65	-333.41	-128.30	0.00	0.00	0.00
2,300.00	14.71	248.90	2,256.02	-137.79	-357.10	-137.42	0.00	0.00	0.00
2,400.00	14.71	248.90	2,352.74	-146.93	-380.79	-146.54	0.00	0.00	0.00
2,500.00	14.71	248.90	2,449.46	-156.08	-404.48	-155.65	0.00	0.00	0.00
2,600.00	14.71	248.90	2,546.18	-165.22	-428.17	-164.77	0.00	0.00	0.00
2,700.00	14.71	248.90	2,642.91	-174.36	-451.86	-173.89	0.00	0.00	0.00
2,800.00	14.71	248.90	2,739.63	-183.50	-475.55	-183.00	0.00	0.00	0.00
2,900.00	14.71	248.90	2,836.35	-192.64	-499.24	-192.12	0.00	0.00	0.00
3,000.00	14.71	248.90	2,933.07	-201.78	-522.93	-201.23	0.00	0.00	0.00
3,100.00	14.71	248.90	3,029.79	-210.92	-546.62	-210.35	0.00	0.00	0.00
3,200.00	14.71	248.90	3,126.52	-220.07	-570.31	-219.47	0.00	0.00	0.00
3,300.00	14.71	248.90	3,223.24	-229.21	-594.00	-228.58	0.00	0.00	0.00
3,400.00	14.71	248.90	3,319.96	-238.35	-617.69	-237.70	0.00	0.00	0.00
3,500.00	14.71	248.90	3,416.68	-247.49	-641.38	-246.82	0.00	0.00	0.00
3,600.00	14.71	248.90	3,513.41	-256.63	-665.07	-255.93	0.00	0.00	0.00
3,700.00	14.71	248.90	3,610.13	-265.77	-688.76	-265.05	0.00	0.00	0.00
3,800.00	14.71	248.90	3,706.85	-274.91	-712.45	-274.17	0.00	0.00	0.00
3,900.00	14.71	248.90	3,803.57	-284.05	-736.14	-283.28	0.00	0.00	0.00
4,000.00	14.71	248.90	3,900.30	-293.20	-759.83	-292.40	0.00	0.00	0.00
4,085.67	14.71	248.90	3,983.15	-301.03	-780.13	-300.21	0.00	0.00	0.00
Begin Drop @ 4085.67ft									
4,100.00	14.42	248.90	3,997.03	-302.32	-783.49	-301.50	2.00	-2.00	0.00
4,144.29	13.54	248.90	4,040.00	-306.18	-793.47	-305.34	2.00	-2.00	0.00

Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well NELSON 35-16HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4969.00usft (Drilling Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4969.00usft (Drilling Rig)
Site:	2N-68W-35 NELSON 28-35HZ PAD	North Reference:	True
Well:	NELSON 35-16HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
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)
Parkman									
4,200.00	12.42	248.90	4,094.29	-310.68	-805.15	-309.84	2.00	-2.00	0.00
4,300.00	10.42	248.90	4,192.30	-317.81	-823.63	-316.95	2.00	-2.00	0.00
4,400.00	8.42	248.90	4,290.95	-323.70	-838.90	-322.83	2.00	-2.00	0.00
4,500.00	6.42	248.90	4,390.11	-328.36	-850.95	-327.46	2.00	-2.00	0.00
4,600.00	4.42	248.90	4,489.65	-331.76	-859.77	-330.86	2.00	-2.00	0.00
4,642.45	3.57	248.90	4,532.00	-332.82	-862.53	-331.92	2.00	-2.00	0.00
Sussex									
4,700.00	2.42	248.90	4,589.47	-333.91	-865.34	-333.00	2.00	-2.00	0.00
4,800.00	0.42	248.90	4,689.43	-334.80	-867.66	-333.89	2.00	-2.00	0.00
4,821.17	0.00	0.00	4,710.60	-334.83	-867.73	-333.92	2.00	-2.00	524.88
Hold Vertical @ 4821.17ft									
4,900.00	0.00	0.00	4,789.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
5,000.00	0.00	0.00	4,889.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
5,100.00	0.00	0.00	4,989.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
5,200.00	0.00	0.00	5,089.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
5,300.00	0.00	0.00	5,189.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
5,400.00	0.00	0.00	5,289.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
5,500.00	0.00	0.00	5,389.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
5,600.00	0.00	0.00	5,489.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
5,700.00	0.00	0.00	5,589.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
5,800.00	0.00	0.00	5,689.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
5,900.00	0.00	0.00	5,789.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
6,000.00	0.00	0.00	5,889.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
6,100.00	0.00	0.00	5,989.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
6,200.00	0.00	0.00	6,089.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
6,300.00	0.00	0.00	6,189.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
6,400.00	0.00	0.00	6,289.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
6,500.00	0.00	0.00	6,389.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
6,600.00	0.00	0.00	6,489.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
6,700.00	0.00	0.00	6,589.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
6,800.00	0.00	0.00	6,689.43	-334.83	-867.73	-333.92	0.00	0.00	0.00
6,817.38	0.00	0.00	6,706.81	-334.83	-867.73	-333.92	0.00	0.00	0.00
KOP @ 6817.38ft :: DLS = 8°/100'									
6,900.00	6.61	359.94	6,789.25	-330.07	-867.74	-329.16	8.00	8.00	-0.07
7,000.00	14.61	359.94	6,887.46	-311.67	-867.75	-310.76	8.00	8.00	0.00
7,100.00	22.61	359.94	6,982.16	-279.79	-867.78	-278.88	8.00	8.00	0.00
7,200.00	30.61	359.94	7,071.49	-235.03	-867.83	-234.12	8.00	8.00	0.00
7,300.00	38.61	359.94	7,153.73	-178.28	-867.88	-177.37	8.00	8.00	0.00
7,399.61	46.58	359.94	7,227.00	-110.92	-867.95	-110.01	8.00	8.00	0.00
Sharon Springs									
7,400.00	46.61	359.94	7,227.27	-110.64	-867.95	-109.73	8.00	8.00	0.00
7,500.00	54.61	359.94	7,290.68	-33.41	-868.03	-32.51	8.00	8.00	0.00
7,532.70	57.23	359.94	7,309.00	-6.33	-868.05	-5.42	8.00	8.00	0.00
Niobrara									
7,600.00	62.61	359.94	7,342.72	51.88	-868.11	52.79	8.00	8.00	0.00
7,698.84	70.52	359.94	7,382.00	142.49	-868.20	143.40	8.00	8.00	0.00
Nio B									
7,700.00	70.61	359.94	7,382.39	143.59	-868.20	144.50	8.00	8.00	0.00
7,800.00	78.61	359.94	7,408.91	239.92	-868.30	240.83	8.00	8.00	0.00
7,900.00	86.61	359.94	7,421.76	339.01	-868.39	339.92	8.00	8.00	0.00
7,946.10	90.30	359.94	7,423.00	385.09	-868.44	386.00	8.00	8.00	0.00
End Build @ 7946.10ft - Top of Production									

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well NELSON 35-16HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4969.00usft (Drilling Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4969.00usft (Drilling Rig)
Site:	2N-68W-35 NELSON 28-35HZ PAD	North Reference:	True
Well:	NELSON 35-16HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
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)	
8,000.00	90.30	359.94	7,422.72	438.99	-868.49	439.90	0.00	0.00	0.00	
8,100.00	90.30	359.94	7,422.20	538.99	-868.59	539.89	0.00	0.00	0.00	
8,200.00	90.30	359.94	7,421.68	638.98	-868.69	639.89	0.00	0.00	0.00	
8,300.00	90.30	359.94	7,421.16	738.98	-868.78	739.89	0.00	0.00	0.00	
8,400.00	90.30	359.94	7,420.65	838.98	-868.88	839.89	0.00	0.00	0.00	
8,500.00	90.30	359.94	7,420.13	938.98	-868.98	939.89	0.00	0.00	0.00	
8,600.00	90.30	359.94	7,419.61	1,038.98	-869.08	1,039.89	0.00	0.00	0.00	
8,700.00	90.30	359.94	7,419.09	1,138.98	-869.18	1,139.89	0.00	0.00	0.00	
8,800.00	90.30	359.94	7,418.57	1,238.98	-869.28	1,239.89	0.00	0.00	0.00	
8,900.00	90.30	359.94	7,418.05	1,338.97	-869.37	1,339.88	0.00	0.00	0.00	
9,000.00	90.30	359.94	7,417.53	1,438.97	-869.47	1,439.88	0.00	0.00	0.00	
9,100.00	90.30	359.94	7,417.01	1,538.97	-869.57	1,539.88	0.00	0.00	0.00	
9,200.00	90.30	359.94	7,416.49	1,638.97	-869.67	1,639.88	0.00	0.00	0.00	
9,300.00	90.30	359.94	7,415.97	1,738.97	-869.77	1,739.88	0.00	0.00	0.00	
9,400.00	90.30	359.94	7,415.45	1,838.97	-869.86	1,839.88	0.00	0.00	0.00	
9,500.00	90.30	359.94	7,414.93	1,938.97	-869.96	1,939.88	0.00	0.00	0.00	
9,600.00	90.30	359.94	7,414.41	2,038.96	-870.06	2,039.87	0.00	0.00	0.00	
9,700.00	90.30	359.94	7,413.90	2,138.96	-870.16	2,139.87	0.00	0.00	0.00	
9,800.00	90.30	359.94	7,413.38	2,238.96	-870.26	2,239.87	0.00	0.00	0.00	
9,900.00	90.30	359.94	7,412.86	2,338.96	-870.36	2,339.87	0.00	0.00	0.00	
10,000.00	90.30	359.94	7,412.34	2,438.96	-870.45	2,439.87	0.00	0.00	0.00	
10,100.00	90.30	359.94	7,411.82	2,538.96	-870.55	2,539.87	0.00	0.00	0.00	
10,200.00	90.30	359.94	7,411.30	2,638.96	-870.65	2,639.87	0.00	0.00	0.00	
10,300.00	90.30	359.94	7,410.78	2,738.95	-870.75	2,739.87	0.00	0.00	0.00	
10,400.00	90.30	359.94	7,410.26	2,838.95	-870.85	2,839.86	0.00	0.00	0.00	
10,500.00	90.30	359.94	7,409.74	2,938.95	-870.94	2,939.86	0.00	0.00	0.00	
10,600.00	90.30	359.94	7,409.22	3,038.95	-871.04	3,039.86	0.00	0.00	0.00	
10,700.00	90.30	359.94	7,408.70	3,138.95	-871.14	3,139.86	0.00	0.00	0.00	
10,800.00	90.30	359.94	7,408.18	3,238.95	-871.24	3,239.86	0.00	0.00	0.00	
10,900.00	90.30	359.94	7,407.66	3,338.95	-871.34	3,339.86	0.00	0.00	0.00	
11,000.00	90.30	359.94	7,407.15	3,438.94	-871.44	3,439.86	0.00	0.00	0.00	
11,100.00	90.30	359.94	7,406.63	3,538.94	-871.53	3,539.85	0.00	0.00	0.00	
11,200.00	90.30	359.94	7,406.11	3,638.94	-871.63	3,639.85	0.00	0.00	0.00	
11,300.00	90.30	359.94	7,405.59	3,738.94	-871.73	3,739.85	0.00	0.00	0.00	
11,400.00	90.30	359.94	7,405.07	3,838.94	-871.83	3,839.85	0.00	0.00	0.00	
11,500.00	90.30	359.94	7,404.55	3,938.94	-871.93	3,939.85	0.00	0.00	0.00	
11,600.00	90.30	359.94	7,404.03	4,038.94	-872.02	4,039.85	0.00	0.00	0.00	
11,700.00	90.30	359.94	7,403.51	4,138.94	-872.12	4,139.85	0.00	0.00	0.00	
11,800.00	90.30	359.94	7,402.99	4,238.93	-872.22	4,239.84	0.00	0.00	0.00	
11,900.00	90.30	359.94	7,402.47	4,338.93	-872.32	4,339.84	0.00	0.00	0.00	
12,000.00	90.30	359.94	7,401.95	4,438.93	-872.42	4,439.84	0.00	0.00	0.00	
12,100.00	90.30	359.94	7,401.43	4,538.93	-872.52	4,539.84	0.00	0.00	0.00	
12,200.00	90.30	359.94	7,400.91	4,638.93	-872.61	4,639.84	0.00	0.00	0.00	
12,300.00	90.30	359.94	7,400.40	4,738.93	-872.71	4,739.84	0.00	0.00	0.00	
12,400.00	90.30	359.94	7,399.88	4,838.93	-872.81	4,839.84	0.00	0.00	0.00	
12,500.00	90.30	359.94	7,399.36	4,938.92	-872.91	4,939.84	0.00	0.00	0.00	
12,600.00	90.30	359.94	7,398.84	5,038.92	-873.01	5,039.83	0.00	0.00	0.00	
12,700.00	90.30	359.94	7,398.32	5,138.92	-873.10	5,139.83	0.00	0.00	0.00	
12,800.00	90.30	359.94	7,397.80	5,238.92	-873.20	5,239.83	0.00	0.00	0.00	
12,900.00	90.30	359.94	7,397.28	5,338.92	-873.30	5,339.83	0.00	0.00	0.00	
13,000.00	90.30	359.94	7,396.76	5,438.92	-873.40	5,439.83	0.00	0.00	0.00	
13,100.00	90.30	359.94	7,396.24	5,538.92	-873.50	5,539.83	0.00	0.00	0.00	
13,200.00	90.30	359.94	7,395.72	5,638.91	-873.59	5,639.83	0.00	0.00	0.00	
13,300.00	90.30	359.94	7,395.20	5,738.91	-873.69	5,739.82	0.00	0.00	0.00	

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well NELSON 35-16HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4969.00usft (Drilling Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4969.00usft (Drilling Rig)
Site:	2N-68W-35 NELSON 28-35HZ PAD	North Reference:	True
Well:	NELSON 35-16HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
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)	
13,400.00	90.30	359.94	7,394.68	5,838.91	-873.79	5,839.82	0.00	0.00	0.00	
13,500.00	90.30	359.94	7,394.16	5,938.91	-873.89	5,939.82	0.00	0.00	0.00	
13,600.00	90.30	359.94	7,393.65	6,038.91	-873.99	6,039.82	0.00	0.00	0.00	
13,700.00	90.30	359.94	7,393.13	6,138.91	-874.09	6,139.82	0.00	0.00	0.00	
13,800.00	90.30	359.94	7,392.61	6,238.91	-874.18	6,239.82	0.00	0.00	0.00	
13,900.00	90.30	359.94	7,392.09	6,338.90	-874.28	6,339.82	0.00	0.00	0.00	
14,000.00	90.30	359.94	7,391.57	6,438.90	-874.38	6,439.82	0.00	0.00	0.00	
14,100.00	90.30	359.94	7,391.05	6,538.90	-874.48	6,539.81	0.00	0.00	0.00	
14,200.00	90.30	359.94	7,390.53	6,638.90	-874.58	6,639.81	0.00	0.00	0.00	
14,300.00	90.30	359.94	7,390.01	6,738.90	-874.67	6,739.81	0.00	0.00	0.00	
14,400.00	90.30	359.94	7,389.49	6,838.90	-874.77	6,839.81	0.00	0.00	0.00	
14,500.00	90.30	359.94	7,388.97	6,938.90	-874.87	6,939.81	0.00	0.00	0.00	
14,600.00	90.30	359.94	7,388.45	7,038.89	-874.97	7,039.81	0.00	0.00	0.00	
14,700.00	90.30	359.94	7,387.93	7,138.89	-875.07	7,139.81	0.00	0.00	0.00	
14,800.00	90.30	359.94	7,387.41	7,238.89	-875.17	7,239.80	0.00	0.00	0.00	
14,900.00	90.30	359.94	7,386.90	7,338.89	-875.26	7,339.80	0.00	0.00	0.00	
15,000.00	90.30	359.94	7,386.38	7,438.89	-875.36	7,439.80	0.00	0.00	0.00	
15,100.00	90.30	359.94	7,385.86	7,538.89	-875.46	7,539.80	0.00	0.00	0.00	
15,200.00	90.30	359.94	7,385.34	7,638.89	-875.56	7,639.80	0.00	0.00	0.00	
15,300.00	90.30	359.94	7,384.82	7,738.88	-875.66	7,739.80	0.00	0.00	0.00	
15,400.00	90.30	359.94	7,384.30	7,838.88	-875.75	7,839.80	0.00	0.00	0.00	
15,500.00	90.30	359.94	7,383.78	7,938.88	-875.85	7,939.80	0.00	0.00	0.00	
15,600.00	90.30	359.94	7,383.26	8,038.88	-875.95	8,039.79	0.00	0.00	0.00	
15,700.00	90.30	359.94	7,382.74	8,138.88	-876.05	8,139.79	0.00	0.00	0.00	
15,800.00	90.30	359.94	7,382.22	8,238.88	-876.15	8,239.79	0.00	0.00	0.00	
15,900.00	90.30	359.94	7,381.70	8,338.88	-876.25	8,339.79	0.00	0.00	0.00	
16,000.00	90.30	359.94	7,381.18	8,438.88	-876.34	8,439.79	0.00	0.00	0.00	
16,100.00	90.30	359.94	7,380.66	8,538.87	-876.44	8,539.79	0.00	0.00	0.00	
16,200.00	90.30	359.94	7,380.15	8,638.87	-876.54	8,639.79	0.00	0.00	0.00	
16,227.96	90.30	359.94	7,380.00	8,666.83	-876.57	8,667.75	0.00	0.00	0.00	
TD Well @ 16227.96ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,518.36	1,500.00	9 5/8" Csg	9-5/8	13-1/2	
7,946.10	7,423.00	Top of Production	5-1/2	7-7/8	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
983.56	980.00	Fox Hills				
4,144.29	4,040.00	Parkman				
4,642.45	4,532.00	Sussex				
7,399.61	7,227.00	Sharon Springs				
7,532.70	7,309.00	Niobrara				
7,698.84	7,382.00	Nio B				

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well NELSON 35-16HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4969.00usft (Drilling Rig)
Project:	WELD-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4969.00usft (Drilling Rig)
Site:	2N-68W-35 NELSON 28-35HZ PAD	North Reference:	True
Well:	NELSON 35-16HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	Permit Rev-1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
305.00	305.00	0.00	0.00	Begin Nudge @ 305.00ft
1,285.67	1,274.93	-45.07	-116.80	Hold Tangent @ 1285.67ft
4,085.67	3,983.15	-301.03	-780.13	Begin Drop @ 4085.67ft
4,821.17	4,710.60	-334.83	-867.73	Hold Vertical @ 4821.17ft
6,817.38	6,706.81	-334.83	-867.73	KOP @ 6817.38ft :: DLS = 8"/100'
7,946.10	7,423.00	385.09	-868.44	End Build @ 7946.10ft
16,227.96	7,380.00	8,666.83	-876.57	TD Well @ 16227.96ft