

US ROCKIES WATTENBERG PLANNING

WELD-NAD83-UTMFT13N

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

NELSON 35-19HZ

Plan B

Plan: Permit Rev-1

SHL Lat/Long: 40.101355/-104.972441

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 35-19HZ
Wellbore: Plan B
Design: Permit Rev-1

US ROCKIES WATTENBERG PLANNING

CASING DETAILS

TVD	MD	Name	Size
1500.00	1508.25	9 5/8" Csg	9-5/8
7420.00	7759.94	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	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	333.33	2.00	193.00	333.31	-2.27	-0.52	1.50	193.00	-2.26	
4	550.00	2.00	193.00	549.84	-9.63	-2.22	0.00	0.00	-9.62	
5	1042.44	9.00	160.70	1039.78	-54.42	8.59	1.50	-40.56	-54.47	
6	1433.85	9.00	160.70	1426.37	-112.21	28.83	0.00	0.00	-112.37	
7	1883.85	0.00	0.00	1874.52	-145.50	40.48	2.00	180.00	-145.72	
8	6856.38	0.00	0.00	6847.05	-145.50	40.48	0.00	0.00	-145.72	
9	7759.94	90.36	359.93	7420.00	431.02	39.81	10.00	359.93	430.79	
10	12243.50	90.36	359.93	7392.15	4914.49	34.56	0.00	4914.23		NELSON 35-19HZ_target
11	12282.23	90.36	359.35	7391.91	4953.22	34.31	1.50	-90.07	4952.96	
12	15977.88	90.36	359.35	7369.00	8648.56	-7.49	0.00	8648.47		NELSON 35-19HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
NELSON 35-19HZ_SHL	0.00	0.00	0.00	40.101355	-104.972441
NELSON 35-19HZ_BHL	7369.00	8648.56	-7.49	40.125105	-104.972468

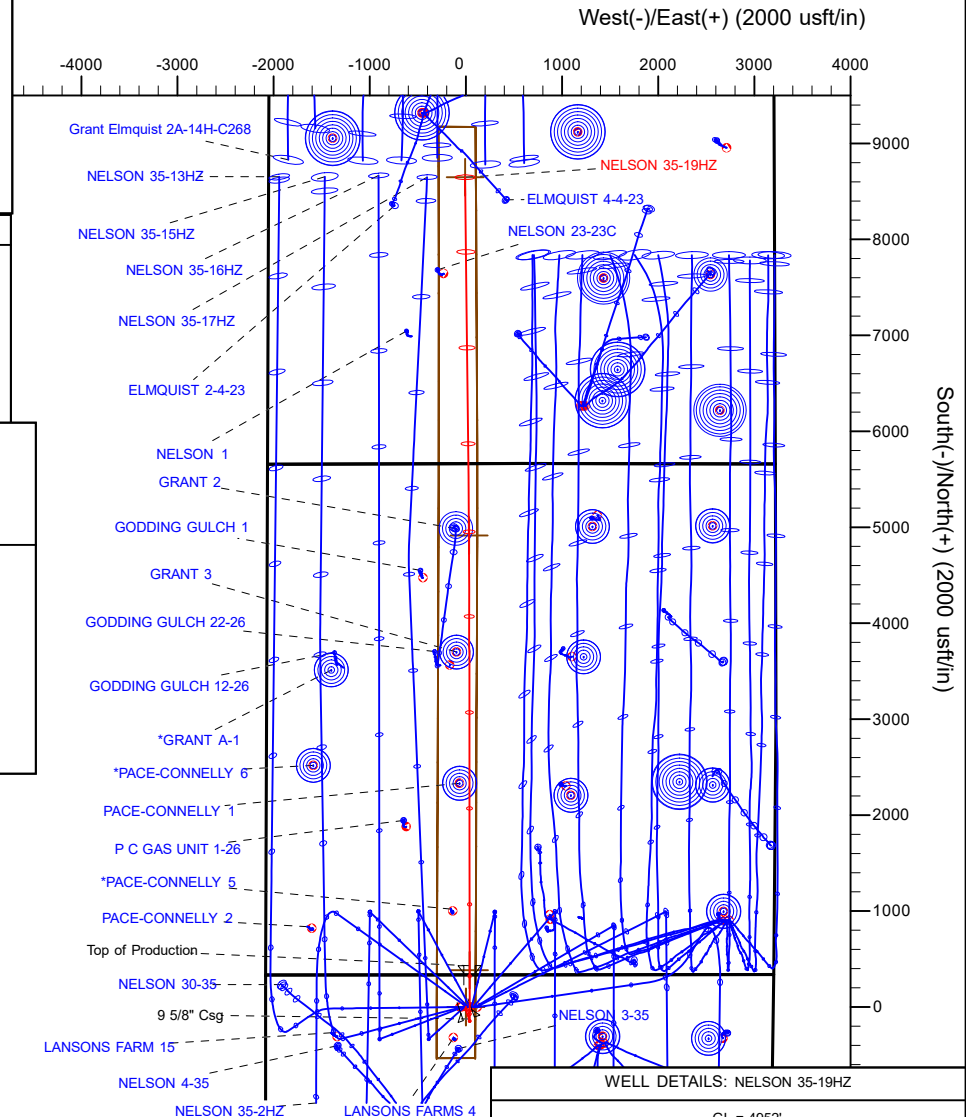
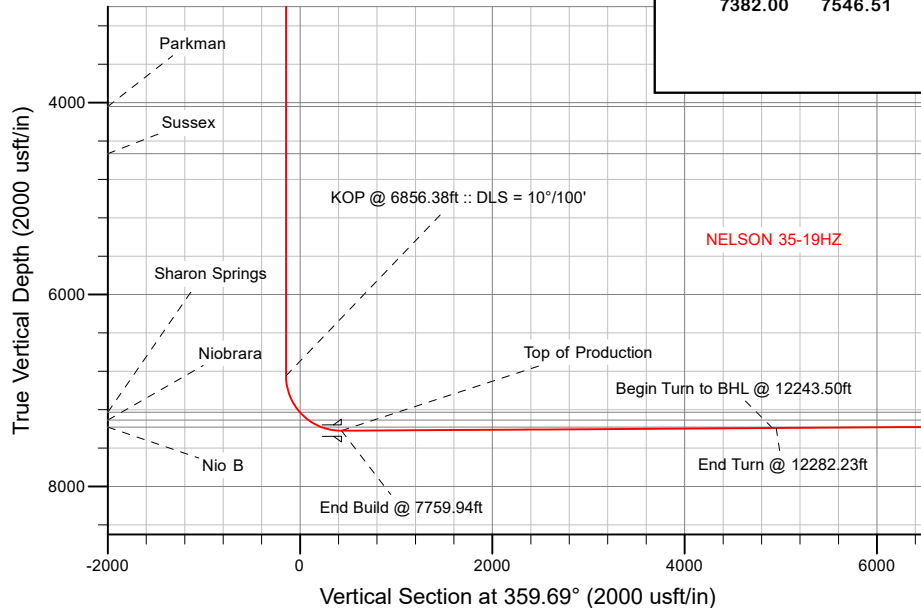
FORMATION TOP DETAILS

TVDPath	MDPath	Formation
980.00	981.99	Fox Hills
4040.00	4049.33	Parkman
4532.00	4541.33	Sussex
7227.00	7271.77	Sharon Springs
7309.00	7393.69	Niobrara
7382.00	7546.51	Nio B

SHL
336' FNL
2084' FWL

HEEL
98' FSL
2123' FWL

BHL
2311' FNL
2044' FWL



WELL DETAILS: NELSON 35-19HZ

GL = 4952'

RKB = 17" @ 4969.00usft (Drilling Rig)

Plan: Permit Rev-1 (NELSON 35-19HZ/Plan B)

Date: 12/22/2019

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well NELSON 35-19HZ
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 35-19HZ	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 35-19HZ				
Well Position	+N/-S	-19.30 usft	Northing:	14,563,642.44 usft	Latitude:	40.101355
	+E/-W	-85.01 usft	Easting:	1,648,123.16 usft	Longitude:	-104.972441
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	52,033.90301753

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	359.69

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	15,977.88	Permit Rev-1 (Plan B)	APC_ISCWSA REV 2 MWD+II Fixed:v2:Rockies, crustal dec +

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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 35-19HZ	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	
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	
333.33	2.00	193.00	333.31	-2.27	-0.52	1.50	1.50	0.00	193.00	
550.00	2.00	193.00	549.84	-9.63	-2.22	0.00	0.00	0.00	0.00	
1,042.44	9.00	160.70	1,039.78	-54.42	8.59	1.50	1.42	-6.56	-40.56	
1,433.85	9.00	160.70	1,426.37	-112.21	28.83	0.00	0.00	0.00	0.00	
1,883.85	0.00	0.00	1,874.52	-145.50	40.48	2.00	-2.00	0.00	180.00	
6,856.38	0.00	0.00	6,847.05	-145.50	40.48	0.00	0.00	0.00	0.00	
7,759.94	90.36	359.93	7,420.00	431.02	39.81	10.00	10.00	-0.01	359.93	
12,243.50	90.36	359.93	7,392.15	4,914.49	34.56	0.00	0.00	0.00	0.00	NELSON 35-19HZ_ta
12,282.23	90.36	359.35	7,391.91	4,953.22	34.31	1.50	0.00	-1.50	-90.07	
15,977.88	90.36	359.35	7,369.00	8,648.56	-7.49	0.00	0.00	0.00	0.00	NELSON 35-19HZ_BI

Corporate Planning Report

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Site:	2N-68W-35 NELSON 28-35HZ PAD	North Reference:	True
Well:	NELSON 35-19HZ	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
Begin Nudge @ 200.00ft									
300.00	1.50	193.00	299.99	-1.28	-0.29	-1.27	1.50	1.50	0.00
333.33	2.00	193.00	333.31	-2.27	-0.52	-2.26	1.50	1.50	0.00
Hold Tangent @ 333.33ft									
400.00	2.00	193.00	399.93	-4.53	-1.05	-4.53	0.00	0.00	0.00
500.00	2.00	193.00	499.87	-7.93	-1.83	-7.92	0.00	0.00	0.00
550.00	2.00	193.00	549.84	-9.63	-2.22	-9.62	0.00	0.00	0.00
Change Tangent Direction @ 550.00ft									
600.00	2.62	182.25	599.80	-11.63	-2.47	-11.61	1.50	1.23	-21.50
700.00	3.99	171.46	699.63	-17.34	-2.04	-17.33	1.50	1.37	-10.79
800.00	5.43	166.28	799.29	-25.38	-0.40	-25.37	1.50	1.44	-5.18
900.00	6.89	163.28	898.71	-35.72	2.45	-35.73	1.50	1.47	-3.00
981.99	8.10	161.63	980.00	-45.92	5.68	-45.95	1.50	1.48	-2.01
Fox Hills									
1,000.00	8.37	161.33	997.83	-48.36	6.50	-48.40	1.50	1.48	-1.66
1,042.44	9.00	160.70	1,039.78	-54.42	8.59	-54.47	1.50	1.48	-1.49
Hold Tangent @ 1042.44ft									
1,100.00	9.00	160.70	1,096.63	-62.92	11.56	-62.98	0.00	0.00	0.00
1,200.00	9.00	160.70	1,195.40	-77.69	16.73	-77.77	0.00	0.00	0.00
1,300.00	9.00	160.70	1,294.17	-92.45	21.91	-92.57	0.00	0.00	0.00
1,400.00	9.00	160.70	1,392.94	-107.21	27.08	-107.36	0.00	0.00	0.00
1,433.85	9.00	160.70	1,426.37	-112.21	28.83	-112.37	0.00	0.00	0.00
Begin Drop @ 1433.85ft									
1,500.00	7.68	160.70	1,491.82	-121.27	32.00	-121.44	2.00	-2.00	0.00
1,508.25	7.51	160.70	1,500.00	-122.29	32.36	-122.47	2.00	-2.00	0.00
9 5/8" Csg									
1,600.00	5.68	160.70	1,591.14	-132.24	35.84	-132.43	2.00	-2.00	0.00
1,700.00	3.68	160.70	1,690.80	-139.93	38.53	-140.14	2.00	-2.00	0.00
1,800.00	1.68	160.70	1,790.68	-144.34	40.08	-144.56	2.00	-2.00	0.00
1,883.85	0.00	0.00	1,874.52	-145.50	40.48	-145.72	2.00	-2.00	-191.65
Hold Vertical @ 1883.85ft									
1,900.00	0.00	0.00	1,890.67	-145.50	40.48	-145.72	0.00	0.00	0.00
2,000.00	0.00	0.00	1,990.67	-145.50	40.48	-145.72	0.00	0.00	0.00
2,100.00	0.00	0.00	2,090.67	-145.50	40.48	-145.72	0.00	0.00	0.00
2,200.00	0.00	0.00	2,190.67	-145.50	40.48	-145.72	0.00	0.00	0.00
2,300.00	0.00	0.00	2,290.67	-145.50	40.48	-145.72	0.00	0.00	0.00
2,400.00	0.00	0.00	2,390.67	-145.50	40.48	-145.72	0.00	0.00	0.00
2,500.00	0.00	0.00	2,490.67	-145.50	40.48	-145.72	0.00	0.00	0.00
2,600.00	0.00	0.00	2,590.67	-145.50	40.48	-145.72	0.00	0.00	0.00
2,700.00	0.00	0.00	2,690.67	-145.50	40.48	-145.72	0.00	0.00	0.00
2,800.00	0.00	0.00	2,790.67	-145.50	40.48	-145.72	0.00	0.00	0.00
2,900.00	0.00	0.00	2,890.67	-145.50	40.48	-145.72	0.00	0.00	0.00
3,000.00	0.00	0.00	2,990.67	-145.50	40.48	-145.72	0.00	0.00	0.00
3,100.00	0.00	0.00	3,090.67	-145.50	40.48	-145.72	0.00	0.00	0.00
3,200.00	0.00	0.00	3,190.67	-145.50	40.48	-145.72	0.00	0.00	0.00
3,300.00	0.00	0.00	3,290.67	-145.50	40.48	-145.72	0.00	0.00	0.00
3,400.00	0.00	0.00	3,390.67	-145.50	40.48	-145.72	0.00	0.00	0.00
3,500.00	0.00	0.00	3,490.67	-145.50	40.48	-145.72	0.00	0.00	0.00
3,600.00	0.00	0.00	3,590.67	-145.50	40.48	-145.72	0.00	0.00	0.00
3,700.00	0.00	0.00	3,690.67	-145.50	40.48	-145.72	0.00	0.00	0.00

Corporate
Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well NELSON 35-19HZ
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 35-19HZ	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)
3,800.00	0.00	0.00	3,790.67	-145.50	40.48	-145.72	0.00	0.00	0.00
3,900.00	0.00	0.00	3,890.67	-145.50	40.48	-145.72	0.00	0.00	0.00
4,000.00	0.00	0.00	3,990.67	-145.50	40.48	-145.72	0.00	0.00	0.00
4,049.33	0.00	0.00	4,040.00	-145.50	40.48	-145.72	0.00	0.00	0.00
Parkman									
4,100.00	0.00	0.00	4,090.67	-145.50	40.48	-145.72	0.00	0.00	0.00
4,200.00	0.00	0.00	4,190.67	-145.50	40.48	-145.72	0.00	0.00	0.00
4,300.00	0.00	0.00	4,290.67	-145.50	40.48	-145.72	0.00	0.00	0.00
4,400.00	0.00	0.00	4,390.67	-145.50	40.48	-145.72	0.00	0.00	0.00
4,500.00	0.00	0.00	4,490.67	-145.50	40.48	-145.72	0.00	0.00	0.00
4,541.33	0.00	0.00	4,532.00	-145.50	40.48	-145.72	0.00	0.00	0.00
Sussex									
4,600.00	0.00	0.00	4,590.67	-145.50	40.48	-145.72	0.00	0.00	0.00
4,700.00	0.00	0.00	4,690.67	-145.50	40.48	-145.72	0.00	0.00	0.00
4,800.00	0.00	0.00	4,790.67	-145.50	40.48	-145.72	0.00	0.00	0.00
4,900.00	0.00	0.00	4,890.67	-145.50	40.48	-145.72	0.00	0.00	0.00
5,000.00	0.00	0.00	4,990.67	-145.50	40.48	-145.72	0.00	0.00	0.00
5,100.00	0.00	0.00	5,090.67	-145.50	40.48	-145.72	0.00	0.00	0.00
5,200.00	0.00	0.00	5,190.67	-145.50	40.48	-145.72	0.00	0.00	0.00
5,300.00	0.00	0.00	5,290.67	-145.50	40.48	-145.72	0.00	0.00	0.00
5,400.00	0.00	0.00	5,390.67	-145.50	40.48	-145.72	0.00	0.00	0.00
5,500.00	0.00	0.00	5,490.67	-145.50	40.48	-145.72	0.00	0.00	0.00
5,600.00	0.00	0.00	5,590.67	-145.50	40.48	-145.72	0.00	0.00	0.00
5,700.00	0.00	0.00	5,690.67	-145.50	40.48	-145.72	0.00	0.00	0.00
5,800.00	0.00	0.00	5,790.67	-145.50	40.48	-145.72	0.00	0.00	0.00
5,900.00	0.00	0.00	5,890.67	-145.50	40.48	-145.72	0.00	0.00	0.00
6,000.00	0.00	0.00	5,990.67	-145.50	40.48	-145.72	0.00	0.00	0.00
6,100.00	0.00	0.00	6,090.67	-145.50	40.48	-145.72	0.00	0.00	0.00
6,200.00	0.00	0.00	6,190.67	-145.50	40.48	-145.72	0.00	0.00	0.00
6,300.00	0.00	0.00	6,290.67	-145.50	40.48	-145.72	0.00	0.00	0.00
6,400.00	0.00	0.00	6,390.67	-145.50	40.48	-145.72	0.00	0.00	0.00
6,500.00	0.00	0.00	6,490.67	-145.50	40.48	-145.72	0.00	0.00	0.00
6,600.00	0.00	0.00	6,590.67	-145.50	40.48	-145.72	0.00	0.00	0.00
6,700.00	0.00	0.00	6,690.67	-145.50	40.48	-145.72	0.00	0.00	0.00
6,800.00	0.00	0.00	6,790.67	-145.50	40.48	-145.72	0.00	0.00	0.00
6,856.38	0.00	0.00	6,847.05	-145.50	40.48	-145.72	0.00	0.00	0.00
KOP @ 6856.38ft :: DLS = 10°/100'									
6,900.00	4.36	359.93	6,890.63	-143.84	40.48	-144.06	10.00	10.00	0.00
7,000.00	14.36	359.93	6,989.17	-127.59	40.46	-127.81	10.00	10.00	0.00
7,100.00	24.36	359.93	7,083.40	-94.48	40.42	-94.70	10.00	10.00	0.00
7,200.00	34.36	359.93	7,170.44	-45.51	40.37	-45.73	10.00	10.00	0.00
7,271.77	41.54	359.93	7,227.00	-1.40	40.31	-1.62	10.00	10.00	0.00
Sharon Springs									
7,300.00	44.36	359.93	7,247.66	17.83	40.29	17.61	10.00	10.00	0.00
7,393.69	53.73	359.93	7,309.00	88.51	40.21	88.29	10.00	10.00	0.00
Niobrara									
7,400.00	54.36	359.93	7,312.70	93.62	40.20	93.40	10.00	10.00	0.00
7,500.00	64.36	359.93	7,363.60	179.55	40.10	179.33	10.00	10.00	0.00
7,546.51	69.01	359.93	7,382.00	222.25	40.05	222.03	10.00	10.00	0.00
Nio B									
7,600.00	74.36	359.93	7,398.80	273.01	39.99	272.79	10.00	10.00	0.00
7,700.00	84.36	359.93	7,417.24	371.17	39.88	370.95	10.00	10.00	0.00
7,759.94	90.36	359.93	7,420.00	431.02	39.81	430.80	10.00	10.00	0.00

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well NELSON 35-19HZ
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 35-19HZ	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)
End Build @ 7759.94ft - Top of Production									
7,800.00	90.36	359.93	7,419.75	471.08	39.76	470.85	0.00	0.00	0.00
7,900.00	90.36	359.93	7,419.13	571.07	39.64	570.85	0.00	0.00	0.00
8,000.00	90.36	359.93	7,418.51	671.07	39.53	670.85	0.00	0.00	0.00
8,100.00	90.36	359.93	7,417.89	771.07	39.41	770.85	0.00	0.00	0.00
8,200.00	90.36	359.93	7,417.26	871.07	39.29	870.84	0.00	0.00	0.00
8,300.00	90.36	359.93	7,416.64	971.07	39.18	970.84	0.00	0.00	0.00
8,400.00	90.36	359.93	7,416.02	1,071.06	39.06	1,070.84	0.00	0.00	0.00
8,500.00	90.36	359.93	7,415.40	1,171.06	38.94	1,170.84	0.00	0.00	0.00
8,600.00	90.36	359.93	7,414.78	1,271.06	38.82	1,270.83	0.00	0.00	0.00
8,700.00	90.36	359.93	7,414.16	1,371.06	38.71	1,370.83	0.00	0.00	0.00
8,800.00	90.36	359.93	7,413.54	1,471.06	38.59	1,470.83	0.00	0.00	0.00
8,900.00	90.36	359.93	7,412.92	1,571.05	38.47	1,570.82	0.00	0.00	0.00
9,000.00	90.36	359.93	7,412.30	1,671.05	38.36	1,670.82	0.00	0.00	0.00
9,100.00	90.36	359.93	7,411.67	1,771.05	38.24	1,770.82	0.00	0.00	0.00
9,200.00	90.36	359.93	7,411.05	1,871.05	38.12	1,870.82	0.00	0.00	0.00
9,300.00	90.36	359.93	7,410.43	1,971.05	38.00	1,970.81	0.00	0.00	0.00
9,400.00	90.36	359.93	7,409.81	2,071.04	37.89	2,070.81	0.00	0.00	0.00
9,500.00	90.36	359.93	7,409.19	2,171.04	37.77	2,170.81	0.00	0.00	0.00
9,600.00	90.36	359.93	7,408.57	2,271.04	37.65	2,270.80	0.00	0.00	0.00
9,700.00	90.36	359.93	7,407.95	2,371.04	37.54	2,370.80	0.00	0.00	0.00
9,800.00	90.36	359.93	7,407.33	2,471.04	37.42	2,470.80	0.00	0.00	0.00
9,900.00	90.36	359.93	7,406.71	2,571.03	37.30	2,570.80	0.00	0.00	0.00
10,000.00	90.36	359.93	7,406.08	2,671.03	37.18	2,670.79	0.00	0.00	0.00
10,100.00	90.36	359.93	7,405.46	2,771.03	37.07	2,770.79	0.00	0.00	0.00
10,200.00	90.36	359.93	7,404.84	2,871.03	36.95	2,870.79	0.00	0.00	0.00
10,300.00	90.36	359.93	7,404.22	2,971.03	36.83	2,970.78	0.00	0.00	0.00
10,400.00	90.36	359.93	7,403.60	3,071.02	36.72	3,070.78	0.00	0.00	0.00
10,500.00	90.36	359.93	7,402.98	3,171.02	36.60	3,170.78	0.00	0.00	0.00
10,600.00	90.36	359.93	7,402.36	3,271.02	36.48	3,270.78	0.00	0.00	0.00
10,700.00	90.36	359.93	7,401.74	3,371.02	36.36	3,370.77	0.00	0.00	0.00
10,800.00	90.36	359.93	7,401.12	3,471.02	36.25	3,470.77	0.00	0.00	0.00
10,900.00	90.36	359.93	7,400.49	3,571.01	36.13	3,570.77	0.00	0.00	0.00
11,000.00	90.36	359.93	7,399.87	3,671.01	36.01	3,670.76	0.00	0.00	0.00
11,100.00	90.36	359.93	7,399.25	3,771.01	35.90	3,770.76	0.00	0.00	0.00
11,200.00	90.36	359.93	7,398.63	3,871.01	35.78	3,870.76	0.00	0.00	0.00
11,300.00	90.36	359.93	7,398.01	3,971.01	35.66	3,970.76	0.00	0.00	0.00
11,400.00	90.36	359.93	7,397.39	4,071.00	35.54	4,070.75	0.00	0.00	0.00
11,500.00	90.36	359.93	7,396.77	4,171.00	35.43	4,170.75	0.00	0.00	0.00
11,600.00	90.36	359.93	7,396.15	4,271.00	35.31	4,270.75	0.00	0.00	0.00
11,700.00	90.36	359.93	7,395.53	4,371.00	35.19	4,370.74	0.00	0.00	0.00
11,800.00	90.36	359.93	7,394.90	4,471.00	35.08	4,470.74	0.00	0.00	0.00
11,900.00	90.36	359.93	7,394.28	4,570.99	34.96	4,570.74	0.00	0.00	0.00
12,000.00	90.36	359.93	7,393.66	4,670.99	34.84	4,670.74	0.00	0.00	0.00
12,100.00	90.36	359.93	7,393.04	4,770.99	34.72	4,770.73	0.00	0.00	0.00
12,200.00	90.36	359.93	7,392.42	4,870.99	34.61	4,870.73	0.00	0.00	0.00
12,243.50	90.36	359.93	7,392.15	4,914.49	34.56	4,914.23	0.00	0.00	0.00
Begin Turn to BHL @ 12243.50ft									
12,282.23	90.36	359.35	7,391.91	4,953.22	34.31	4,952.96	1.50	0.00	-1.50
End Turn @ 12282.23ft									
12,300.00	90.36	359.35	7,391.80	4,970.98	34.11	4,970.73	0.00	0.00	0.00
12,400.00	90.36	359.35	7,391.18	5,070.98	32.98	5,070.72	0.00	0.00	0.00
12,500.00	90.36	359.35	7,390.56	5,170.97	31.85	5,170.72	0.00	0.00	0.00

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well NELSON 35-19HZ
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 35-19HZ	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)	
12,600.00	90.36	359.35	7,389.94	5,270.96	30.72	5,270.72	0.00	0.00	0.00	
12,700.00	90.36	359.35	7,389.32	5,370.95	29.59	5,370.71	0.00	0.00	0.00	
12,800.00	90.36	359.35	7,388.70	5,470.94	28.46	5,470.71	0.00	0.00	0.00	
12,900.00	90.36	359.35	7,388.08	5,570.94	27.33	5,570.71	0.00	0.00	0.00	
13,000.00	90.36	359.35	7,387.46	5,670.93	26.20	5,670.70	0.00	0.00	0.00	
13,100.00	90.36	359.35	7,386.84	5,770.92	25.06	5,770.70	0.00	0.00	0.00	
13,200.00	90.36	359.35	7,386.22	5,870.91	23.93	5,870.69	0.00	0.00	0.00	
13,300.00	90.36	359.35	7,385.60	5,970.90	22.80	5,970.69	0.00	0.00	0.00	
13,400.00	90.36	359.35	7,384.98	6,070.89	21.67	6,070.69	0.00	0.00	0.00	
13,500.00	90.36	359.35	7,384.36	6,170.89	20.54	6,170.68	0.00	0.00	0.00	
13,600.00	90.36	359.35	7,383.74	6,270.88	19.41	6,270.68	0.00	0.00	0.00	
13,700.00	90.36	359.35	7,383.12	6,370.87	18.28	6,370.68	0.00	0.00	0.00	
13,800.00	90.36	359.35	7,382.50	6,470.86	17.15	6,470.67	0.00	0.00	0.00	
13,900.00	90.36	359.35	7,381.88	6,570.85	16.02	6,570.67	0.00	0.00	0.00	
14,000.00	90.36	359.35	7,381.26	6,670.84	14.88	6,670.67	0.00	0.00	0.00	
14,100.00	90.36	359.35	7,380.64	6,770.84	13.75	6,770.66	0.00	0.00	0.00	
14,200.00	90.36	359.35	7,380.02	6,870.83	12.62	6,870.66	0.00	0.00	0.00	
14,300.00	90.36	359.35	7,379.40	6,970.82	11.49	6,970.65	0.00	0.00	0.00	
14,400.00	90.36	359.35	7,378.78	7,070.81	10.36	7,070.65	0.00	0.00	0.00	
14,500.00	90.36	359.35	7,378.16	7,170.80	9.23	7,170.65	0.00	0.00	0.00	
14,600.00	90.36	359.35	7,377.54	7,270.79	8.10	7,270.64	0.00	0.00	0.00	
14,700.00	90.36	359.35	7,376.92	7,370.79	6.97	7,370.64	0.00	0.00	0.00	
14,800.00	90.36	359.35	7,376.30	7,470.78	5.84	7,470.64	0.00	0.00	0.00	
14,900.00	90.36	359.35	7,375.68	7,570.77	4.70	7,570.63	0.00	0.00	0.00	
15,000.00	90.36	359.35	7,375.06	7,670.76	3.57	7,670.63	0.00	0.00	0.00	
15,100.00	90.36	359.35	7,374.44	7,770.75	2.44	7,770.63	0.00	0.00	0.00	
15,200.00	90.36	359.35	7,373.82	7,870.74	1.31	7,870.62	0.00	0.00	0.00	
15,300.00	90.36	359.35	7,373.20	7,970.74	0.18	7,970.62	0.00	0.00	0.00	
15,400.00	90.36	359.35	7,372.58	8,070.73	-0.95	8,070.61	0.00	0.00	0.00	
15,500.00	90.36	359.35	7,371.96	8,170.72	-2.08	8,170.61	0.00	0.00	0.00	
15,600.00	90.36	359.35	7,371.34	8,270.71	-3.21	8,270.61	0.00	0.00	0.00	
15,700.00	90.36	359.35	7,370.72	8,370.70	-4.34	8,370.60	0.00	0.00	0.00	
15,800.00	90.36	359.35	7,370.10	8,470.69	-5.48	8,470.60	0.00	0.00	0.00	
15,900.00	90.36	359.35	7,369.48	8,570.69	-6.61	8,570.60	0.00	0.00	0.00	
15,977.88	90.36	359.35	7,369.00	8,648.56	-7.49	8,648.47	0.00	0.00	0.00	
TD Well @ 15977.88ft										

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,508.25	1,500.00	9 5/8" Csg	9-5/8	13-1/2	
7,759.94	7,420.00	Top of Production	5-1/2	7-7/8	

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well NELSON 35-19HZ
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 35-19HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan B		
Design:	Permit Rev-1		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
981.99	980.00	Fox Hills				
4,049.33	4,040.00	Parkman				
4,541.33	4,532.00	Sussex				
7,271.77	7,227.00	Sharon Springs				
7,393.69	7,309.00	Niobrara				
7,546.51	7,382.00	Nio B				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
200.00	200.00	0.00	0.00	Begin Nudge @ 200.00ft	
333.33	333.31	-2.27	-0.52	Hold Tangent @ 333.33ft	
550.00	549.84	-9.63	-2.22	Change Tangent Direction @ 550.00ft	
1,042.44	1,039.78	-54.42	8.59	Hold Tangent @ 1042.44ft	
1,433.85	1,426.37	-112.21	28.83	Begin Drop @ 1433.85ft	
1,883.85	1,874.52	-145.50	40.48	Hold Vertical @ 1883.85ft	
6,856.38	6,847.05	-145.50	40.48	KOP @ 6856.38ft :: DLS = 10°/100'	
7,759.94	7,420.00	431.02	39.81	End Build @ 7759.94ft	
12,243.50	7,392.15	4,914.49	34.56	Begin Turn to BHL @ 12243.50ft	
12,282.23	7,391.91	4,953.22	34.31	End Turn @ 12282.23ft	
15,977.88	7,369.00	8,648.56	-7.49	TD Well @ 15977.88ft	