

US ROCKIES WATTENBERG PLANNING

LARIMER-NAD83-UTMFT13N

5N-68W-25 JODSTER SOUTH 24-25HZ PAD

JODSTER SOUTH 25-9HZ

Plan A

Plan: Permit Rev-2

SHL Lat/Long: 40.371682/-104.947736

Survey Program: MWD+IFR

Standard Planning Report

30 December, 2018

Project: LARIMER-NAD83-UTMFT13N
Site: 5N-68W-25 JODSTER SOUTH 24-25HZ PAD
Well: JODSTER SOUTH 25-9HZ
Wellbore: Plan A
Design: Permit Rev-2

US ROCKIES WATTENBERG PLANNING

CASING DETAILS

TVD	MD	Size
1500.00	1522.88	9-5/8
6930.00	7799.45	5-1/2

WELL DETAILS: JODSTER SOUTH 25-9HZ

GL = 4861.00

RKB = 17' @ 4878.00usft (Drilling Rig)

SECTION DETAILS

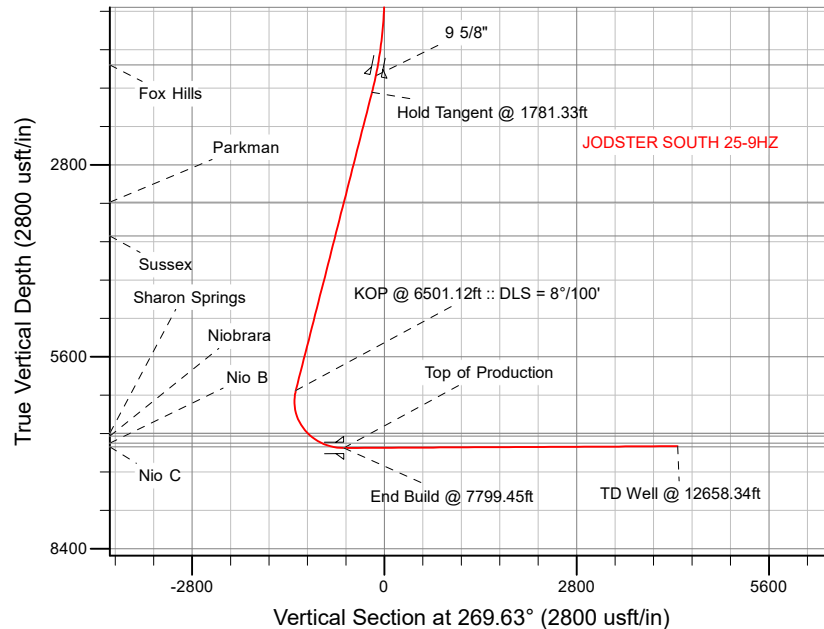
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	260.00	0.00	0.00	260.00	0.00	0.00	0.00	0.00	0.00	
3	1781.33	22.82	142.35	1741.43	-236.72	182.63	1.50	142.35	-181.09	
4	6501.12	22.82	142.35	6091.79	-1686.04	1300.77	0.00	0.00	-1289.85	
5	7799.45	90.29	269.63	6930.00	-1972.74	602.95	8.00	124.96	-590.20	
6	12658.34	90.29	269.63	6905.00	-2004.05	-4255.77	0.00	0.00	4268.62	JODSTER SOUTH 25-9HZ_BHL

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
JODSTER SOUTH 25-9HZ_SHL	0.00	0.00	0.00	40.371682	-104.947736
JODSTER SOUTH 25-9HZ_BHL	6905.00	-2004.05	-4255.77	40.366178	-104.963014

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
1340.00	1354.93	Fox Hills
3342.00	3517.82	Parkman
3837.00	4054.86	Sussex
6714.00	7207.97	Sharon Springs
6757.00	7272.79	Niobrara
6859.00	7465.12	Nio B
6913.00	7634.94	Nio C

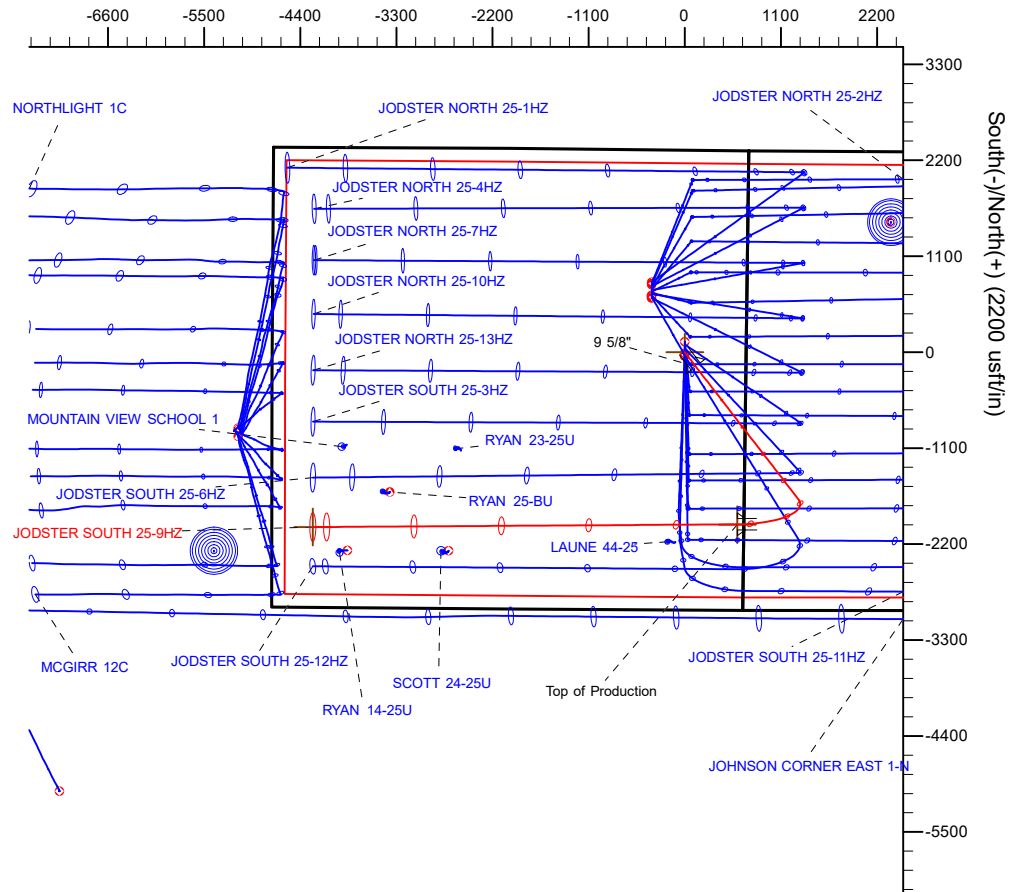


SHL
2317' FNL
704' FEL

HEEL
984' FSL
75' FEL

TOE
920' FSL
470' FWL

West(-)/East(+) (2200 usft/in)



Plan: Permit Rev-2 (JODSTER SOUTH 25-9HZ/Plan A)

Date: 12/30/2018

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well JODSTER SOUTH 25-9HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4878.00usft (Drilling Rig)
Project:	LARIMER-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4878.00usft (Drilling Rig)
Site:	5N-68W-25 JODSTER SOUTH 24-25HZ PAD	North Reference:	True
Well:	JODSTER SOUTH 25-9HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

Project	LARIMER-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-68W-25 JODSTER SOUTH 24-25HZ PAD			
Site Position:		Northing:	14,662,206.38 usft	Latitude:	40.372011
From:	Lat/Long	Easting:	1,654,974.62 usft	Longitude:	-104.947732
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.03 °

Well	JODSTER SOUTH 25-9HZ					
Well Position	+N/-S	-119.81 usft	Northing:	14,662,086.57 usft	Latitude:	40.371682
	+E/-W	-1.11 usft	Easting:	1,654,973.58 usft	Longitude:	-104.947736
Position Uncertainty		3.28 usft	Wellhead Elevation:		Ground Level:	4,861.00 usft

Wellbore	Plan A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	9/5/2018	8.18	66.77	52,218.99542565

Design	Permit Rev-2			
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	269.63

Plan Survey Tool Program	Date	12/30/2018		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	1,500.00	Permit Rev-2 (Plan A)	APC_ISCWSA REV 2 MWD+I Fixed:v2:crustal field declinatio
2	1,500.00	12,658.34	Permit Rev-2 (Plan A)	APC_ISCWSA REV 2 MWD+I Fixed:v2:crustal field declinatio

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	
260.00	0.00	0.00	260.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,781.33	22.82	142.35	1,741.43	-236.72	182.63	1.50	1.50	0.00	142.35	
6,501.12	22.82	142.35	6,091.79	-1,686.04	1,300.77	0.00	0.00	0.00	0.00	
7,799.45	90.29	269.63	6,930.00	-1,972.74	602.95	8.00	5.20	9.80	124.96	
12,658.34	90.29	269.63	6,905.00	-2,004.05	-4,255.77	0.00	0.00	0.00	0.00	JODSTER SOUTH 25

Planning Report

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Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4878.00usft (Drilling Rig)
Project:	LARIMER-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4878.00usft (Drilling Rig)
Site:	5N-68W-25 JODSTER SOUTH 24-25HZ PAD	North Reference:	True
Well:	JODSTER SOUTH 25-9HZ	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
260.00	0.00	0.00	260.00	0.00	0.00	0.00	0.00	0.00	0.00
Begin Nudge @ 260.00ft									
300.00	0.60	142.35	300.00	-0.17	0.13	-0.13	1.50	1.50	0.00
400.00	2.10	142.35	399.97	-2.03	1.57	-1.55	1.50	1.50	0.00
500.00	3.60	142.35	499.84	-5.97	4.60	-4.57	1.50	1.50	0.00
600.00	5.10	142.35	599.55	-11.97	9.24	-9.16	1.50	1.50	0.00
700.00	6.60	142.35	699.03	-20.04	15.46	-15.33	1.50	1.50	0.00
800.00	8.10	142.35	798.20	-30.17	23.28	-23.08	1.50	1.50	0.00
900.00	9.60	142.35	897.01	-42.35	32.67	-32.40	1.50	1.50	0.00
1,000.00	11.10	142.35	995.38	-56.58	43.65	-43.28	1.50	1.50	0.00
1,100.00	12.60	142.35	1,093.25	-72.83	56.19	-55.72	1.50	1.50	0.00
1,200.00	14.10	142.35	1,190.54	-91.12	70.30	-69.71	1.50	1.50	0.00
1,300.00	15.60	142.35	1,287.20	-111.41	85.95	-85.23	1.50	1.50	0.00
1,354.93	16.42	142.35	1,340.00	-123.40	95.21	-94.41	1.50	1.50	0.00
Fox Hills									
1,400.00	17.10	142.35	1,383.15	-133.69	103.14	-102.28	1.50	1.50	0.00
1,500.00	18.60	142.35	1,478.33	-157.96	121.87	-120.85	1.50	1.50	0.00
1,522.88	18.94	142.35	1,500.00	-163.79	126.37	-125.31	1.50	1.50	0.00
9 5/8"									
1,600.00	20.10	142.35	1,572.68	-184.20	142.11	-140.91	1.50	1.50	0.00
1,700.00	21.60	142.35	1,666.13	-212.38	163.85	-162.47	1.50	1.50	0.00
1,781.33	22.82	142.35	1,741.43	-236.72	182.63	-181.09	1.50	1.50	0.00
Hold Tangent @ 1781.33ft									
1,800.00	22.82	142.35	1,758.64	-242.45	187.05	-185.48	0.00	0.00	0.00
1,900.00	22.82	142.35	1,850.81	-273.16	210.74	-208.97	0.00	0.00	0.00
2,000.00	22.82	142.35	1,942.98	-303.86	234.43	-232.46	0.00	0.00	0.00
2,100.00	22.82	142.35	2,035.15	-334.57	258.12	-255.95	0.00	0.00	0.00
2,200.00	22.82	142.35	2,127.33	-365.28	281.81	-279.45	0.00	0.00	0.00
2,300.00	22.82	142.35	2,219.50	-395.99	305.50	-302.94	0.00	0.00	0.00
2,400.00	22.82	142.35	2,311.67	-426.69	329.19	-326.43	0.00	0.00	0.00
2,500.00	22.82	142.35	2,403.84	-457.40	352.88	-349.92	0.00	0.00	0.00
2,600.00	22.82	142.35	2,496.02	-488.11	376.57	-373.41	0.00	0.00	0.00
2,700.00	22.82	142.35	2,588.19	-518.82	400.26	-396.90	0.00	0.00	0.00
2,800.00	22.82	142.35	2,680.36	-549.52	423.95	-420.40	0.00	0.00	0.00
2,900.00	22.82	142.35	2,772.54	-580.23	447.64	-443.89	0.00	0.00	0.00
3,000.00	22.82	142.35	2,864.71	-610.94	471.33	-467.38	0.00	0.00	0.00
3,100.00	22.82	142.35	2,956.88	-641.64	495.03	-490.87	0.00	0.00	0.00
3,200.00	22.82	142.35	3,049.05	-672.35	518.72	-514.36	0.00	0.00	0.00
3,300.00	22.82	142.35	3,141.23	-703.06	542.41	-537.85	0.00	0.00	0.00
3,400.00	22.82	142.35	3,233.40	-733.77	566.10	-561.35	0.00	0.00	0.00
3,500.00	22.82	142.35	3,325.57	-764.47	589.79	-584.84	0.00	0.00	0.00
3,517.82	22.82	142.35	3,342.00	-769.95	594.01	-589.03	0.00	0.00	0.00
Parkman									
3,600.00	22.82	142.35	3,417.75	-795.18	613.48	-608.33	0.00	0.00	0.00
3,700.00	22.82	142.35	3,509.92	-825.89	637.17	-631.82	0.00	0.00	0.00
3,800.00	22.82	142.35	3,602.09	-856.60	660.86	-655.31	0.00	0.00	0.00
3,900.00	22.82	142.35	3,694.26	-887.30	684.55	-678.81	0.00	0.00	0.00
4,000.00	22.82	142.35	3,786.44	-918.01	708.24	-702.30	0.00	0.00	0.00
4,054.86	22.82	142.35	3,837.00	-934.86	721.24	-715.18	0.00	0.00	0.00
Sussex									

Corporate
Planning Report

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Project:	LARIMER-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4878.00usft (Drilling Rig)
Site:	5N-68W-25 JODSTER SOUTH 24-25HZ PAD	North Reference:	True
Well:	JODSTER SOUTH 25-9HZ	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)
4,100.00	22.82	142.35	3,878.61	-948.72	731.93	-725.79	0.00	0.00	0.00
4,200.00	22.82	142.35	3,970.78	-979.42	755.62	-749.28	0.00	0.00	0.00
4,300.00	22.82	142.35	4,062.95	-1,010.13	779.31	-772.77	0.00	0.00	0.00
4,400.00	22.82	142.35	4,155.13	-1,040.84	803.00	-796.26	0.00	0.00	0.00
4,500.00	22.82	142.35	4,247.30	-1,071.55	826.69	-819.76	0.00	0.00	0.00
4,600.00	22.82	142.35	4,339.47	-1,102.25	850.38	-843.25	0.00	0.00	0.00
4,700.00	22.82	142.35	4,431.65	-1,132.96	874.07	-866.74	0.00	0.00	0.00
4,800.00	22.82	142.35	4,523.82	-1,163.67	897.76	-890.23	0.00	0.00	0.00
4,900.00	22.82	142.35	4,615.99	-1,194.38	921.45	-913.72	0.00	0.00	0.00
5,000.00	22.82	142.35	4,708.16	-1,225.08	945.15	-937.21	0.00	0.00	0.00
5,100.00	22.82	142.35	4,800.34	-1,255.79	968.84	-960.71	0.00	0.00	0.00
5,200.00	22.82	142.35	4,892.51	-1,286.50	992.53	-984.20	0.00	0.00	0.00
5,300.00	22.82	142.35	4,984.68	-1,317.20	1,016.22	-1,007.69	0.00	0.00	0.00
5,400.00	22.82	142.35	5,076.86	-1,347.91	1,039.91	-1,031.18	0.00	0.00	0.00
5,500.00	22.82	142.35	5,169.03	-1,378.62	1,063.60	-1,054.67	0.00	0.00	0.00
5,600.00	22.82	142.35	5,261.20	-1,409.33	1,087.29	-1,078.16	0.00	0.00	0.00
5,700.00	22.82	142.35	5,353.37	-1,440.03	1,110.98	-1,101.66	0.00	0.00	0.00
5,800.00	22.82	142.35	5,445.55	-1,470.74	1,134.67	-1,125.15	0.00	0.00	0.00
5,900.00	22.82	142.35	5,537.72	-1,501.45	1,158.36	-1,148.64	0.00	0.00	0.00
6,000.00	22.82	142.35	5,629.89	-1,532.16	1,182.05	-1,172.13	0.00	0.00	0.00
6,100.00	22.82	142.35	5,722.06	-1,562.86	1,205.74	-1,195.62	0.00	0.00	0.00
6,200.00	22.82	142.35	5,814.24	-1,593.57	1,229.43	-1,219.11	0.00	0.00	0.00
6,300.00	22.82	142.35	5,906.41	-1,624.28	1,253.12	-1,242.61	0.00	0.00	0.00
6,400.00	22.82	142.35	5,998.58	-1,654.99	1,276.81	-1,266.10	0.00	0.00	0.00
6,500.00	22.82	142.35	6,090.76	-1,685.69	1,300.50	-1,289.59	0.00	0.00	0.00
6,501.12	22.82	142.35	6,091.79	-1,686.04	1,300.77	-1,289.85	0.00	0.00	0.00
KOP @ 6501.12ft :: DLS = 8°/100'									
6,600.00	19.34	162.26	6,184.15	-1,716.87	1,317.50	-1,306.38	8.00	-3.51	20.13
6,700.00	18.68	186.90	6,278.85	-1,748.59	1,320.63	-1,309.31	8.00	-0.67	24.65
6,800.00	21.14	209.42	6,373.01	-1,780.24	1,309.82	-1,298.30	8.00	2.46	22.52
6,900.00	25.85	225.76	6,464.79	-1,811.21	1,285.30	-1,273.58	8.00	4.71	16.34
7,000.00	31.83	236.85	6,552.40	-1,840.89	1,247.54	-1,235.63	8.00	5.98	11.09
7,100.00	38.49	244.59	6,634.15	-1,868.71	1,197.27	-1,185.18	8.00	6.65	7.75
7,200.00	45.52	250.31	6,708.44	-1,894.12	1,135.48	-1,123.22	8.00	7.03	5.72
7,207.97	46.09	250.71	6,714.00	-1,896.03	1,130.09	-1,117.82	8.00	7.17	4.95
Sharon Springs									
7,272.79	50.78	253.66	6,757.00	-1,910.82	1,083.92	-1,071.56	8.00	7.24	4.55
Niobrara									
7,300.00	52.78	254.78	6,773.83	-1,916.63	1,063.35	-1,050.96	8.00	7.32	4.12
7,400.00	60.17	258.45	6,829.04	-1,935.80	982.31	-969.79	8.00	7.39	3.67
7,465.12	65.03	260.55	6,859.00	-1,946.31	925.48	-912.90	8.00	7.47	3.23
Nio B									
7,500.00	67.65	261.61	6,873.00	-1,951.26	893.92	-881.30	8.00	7.50	3.03
7,600.00	75.19	264.45	6,904.85	-1,962.70	799.91	-787.22	8.00	7.54	2.84
7,634.94	77.83	265.38	6,913.00	-1,965.71	766.07	-753.36	8.00	7.56	2.69
Nio C									
7,700.00	82.75	267.09	6,923.97	-1,969.91	702.10	-689.37	8.00	7.57	2.62
7,799.45	90.29	269.63	6,930.00	-1,972.74	602.96	-590.20	8.00	7.58	2.56
End Build @ 7799.45ft - Top of Production									
7,800.00	90.29	269.63	6,929.99	-1,972.75	602.41	-589.65	0.02	0.02	0.01
7,900.00	90.29	269.63	6,929.48	-1,973.39	502.41	-489.66	0.00	0.00	0.00
8,000.00	90.29	269.63	6,928.97	-1,974.04	402.41	-389.66	0.00	0.00	0.00
8,100.00	90.29	269.63	6,928.45	-1,974.68	302.42	-289.66	0.00	0.00	0.00

Planning Report

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Site:	5N-68W-25 JODSTER SOUTH 24-25HZ PAD	North Reference:	True
Well:	JODSTER SOUTH 25-9HZ	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)
8,200.00	90.29	269.63	6,927.94	-1,975.33	202.42	-189.66	0.00	0.00	0.00
8,300.00	90.29	269.63	6,927.42	-1,975.97	102.42	-89.66	0.00	0.00	0.00
8,400.00	90.29	269.63	6,926.91	-1,976.61	2.43	10.34	0.00	0.00	0.00
8,500.00	90.29	269.63	6,926.39	-1,977.26	-97.57	110.34	0.00	0.00	0.00
8,600.00	90.29	269.63	6,925.88	-1,977.90	-197.57	210.34	0.00	0.00	0.00
8,700.00	90.29	269.63	6,925.36	-1,978.55	-297.56	310.33	0.00	0.00	0.00
8,800.00	90.29	269.63	6,924.85	-1,979.19	-397.56	410.33	0.00	0.00	0.00
8,900.00	90.29	269.63	6,924.34	-1,979.84	-497.56	510.33	0.00	0.00	0.00
9,000.00	90.29	269.63	6,923.82	-1,980.48	-597.55	610.33	0.00	0.00	0.00
9,100.00	90.29	269.63	6,923.31	-1,981.12	-697.55	710.33	0.00	0.00	0.00
9,200.00	90.29	269.63	6,922.79	-1,981.77	-797.55	810.33	0.00	0.00	0.00
9,300.00	90.29	269.63	6,922.28	-1,982.41	-897.54	910.33	0.00	0.00	0.00
9,400.00	90.29	269.63	6,921.76	-1,983.06	-997.54	1,010.32	0.00	0.00	0.00
9,500.00	90.29	269.63	6,921.25	-1,983.70	-1,097.54	1,110.32	0.00	0.00	0.00
9,600.00	90.29	269.63	6,920.73	-1,984.35	-1,197.53	1,210.32	0.00	0.00	0.00
9,700.00	90.29	269.63	6,920.22	-1,984.99	-1,297.53	1,310.32	0.00	0.00	0.00
9,800.00	90.29	269.63	6,919.71	-1,985.64	-1,397.53	1,410.32	0.00	0.00	0.00
9,900.00	90.29	269.63	6,919.19	-1,986.28	-1,497.52	1,510.32	0.00	0.00	0.00
10,000.00	90.29	269.63	6,918.68	-1,986.92	-1,597.52	1,610.32	0.00	0.00	0.00
10,100.00	90.29	269.63	6,918.16	-1,987.57	-1,697.52	1,710.32	0.00	0.00	0.00
10,200.00	90.29	269.63	6,917.65	-1,988.21	-1,797.51	1,810.31	0.00	0.00	0.00
10,300.00	90.29	269.63	6,917.13	-1,988.86	-1,897.51	1,910.31	0.00	0.00	0.00
10,400.00	90.29	269.63	6,916.62	-1,989.50	-1,997.51	2,010.31	0.00	0.00	0.00
10,500.00	90.29	269.63	6,916.10	-1,990.15	-2,097.50	2,110.31	0.00	0.00	0.00
10,600.00	90.29	269.63	6,915.59	-1,990.79	-2,197.50	2,210.31	0.00	0.00	0.00
10,700.00	90.29	269.63	6,915.07	-1,991.43	-2,297.50	2,310.31	0.00	0.00	0.00
10,800.00	90.29	269.63	6,914.56	-1,992.08	-2,397.49	2,410.31	0.00	0.00	0.00
10,900.00	90.29	269.63	6,914.05	-1,992.72	-2,497.49	2,510.31	0.00	0.00	0.00
11,000.00	90.29	269.63	6,913.53	-1,993.37	-2,597.49	2,610.30	0.00	0.00	0.00
11,100.00	90.29	269.63	6,913.02	-1,994.01	-2,697.48	2,710.30	0.00	0.00	0.00
11,200.00	90.29	269.63	6,912.50	-1,994.66	-2,797.48	2,810.30	0.00	0.00	0.00
11,300.00	90.29	269.63	6,911.99	-1,995.30	-2,897.48	2,910.30	0.00	0.00	0.00
11,400.00	90.29	269.63	6,911.47	-1,995.95	-2,997.47	3,010.30	0.00	0.00	0.00
11,500.00	90.29	269.63	6,910.96	-1,996.59	-3,097.47	3,110.30	0.00	0.00	0.00
11,600.00	90.29	269.63	6,910.44	-1,997.23	-3,197.46	3,210.30	0.00	0.00	0.00
11,700.00	90.29	269.63	6,909.93	-1,997.88	-3,297.46	3,310.29	0.00	0.00	0.00
11,800.00	90.29	269.63	6,909.42	-1,998.52	-3,397.46	3,410.29	0.00	0.00	0.00
11,900.00	90.29	269.63	6,908.90	-1,999.17	-3,497.45	3,510.29	0.00	0.00	0.00
12,000.00	90.29	269.63	6,908.39	-1,999.81	-3,597.45	3,610.29	0.00	0.00	0.00
12,100.00	90.29	269.63	6,907.87	-2,000.46	-3,697.45	3,710.29	0.00	0.00	0.00
12,200.00	90.29	269.63	6,907.36	-2,001.10	-3,797.44	3,810.29	0.00	0.00	0.00
12,300.00	90.29	269.63	6,906.84	-2,001.74	-3,897.44	3,910.29	0.00	0.00	0.00
12,400.00	90.29	269.63	6,906.33	-2,002.39	-3,997.44	4,010.29	0.00	0.00	0.00
12,500.00	90.29	269.63	6,905.81	-2,003.03	-4,097.43	4,110.28	0.00	0.00	0.00
12,600.00	90.29	269.63	6,905.30	-2,003.68	-4,197.43	4,210.28	0.00	0.00	0.00
12,658.34	90.29	269.63	6,905.00	-2,004.05	-4,255.77	4,268.62	0.00	0.00	0.00
TD Well @ 12658.34ft									

Corporate Planning Report

Database:	PLANNING	Local Co-ordinate Reference:	Well JODSTER SOUTH 25-9HZ
Company:	US ROCKIES WATTENBERG PLANNING	TVD Reference:	RKB = 17' @ 4878.00usft (Drilling Rig)
Project:	LARIMER-NAD83-UTMFT13N	MD Reference:	RKB = 17' @ 4878.00usft (Drilling Rig)
Site:	5N-68W-25 JODSTER SOUTH 24-25HZ PAD	North Reference:	True
Well:	JODSTER SOUTH 25-9HZ	Survey Calculation Method:	Minimum Curvature
Wellbore:	Plan A		
Design:	Permit Rev-2		

Casing Points					
Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")	
1,522.88	1,500.00	9 5/8"	9-5/8	13-1/2	
7,799.45	6,930.00	Top of Production	5-1/2	7-7/8	

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,354.93	1,340.00	Fox Hills				
3,517.82	3,342.00	Parkman				
4,054.86	3,837.00	Sussex				
7,207.97	6,714.00	Sharon Springs				
7,272.79	6,757.00	Niobrara				
7,465.12	6,859.00	Nio B				
7,634.94	6,913.00	Nio C				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment	
		+N/-S (usft)	+E/-W (usft)		
260.00	260.00	0.00	0.00	Begin Nudge @ 260.00ft	
1,781.33	1,741.43	-236.72	182.63	Hold Tangent @ 1781.33ft	
6,501.12	6,091.79	-1,686.04	1,300.77	KOP @ 6501.12ft :: DLS = 8°/100'	
7,799.45	6,930.00	-1,972.74	602.95	End Build @ 7799.45ft	
12,658.34	6,905.00	-2,004.05	-4,255.77	TD Well @ 12658.34ft	