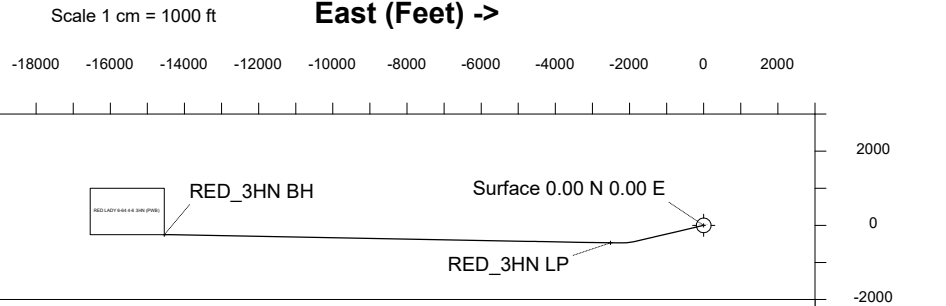


GMT Exploration

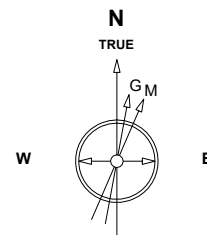
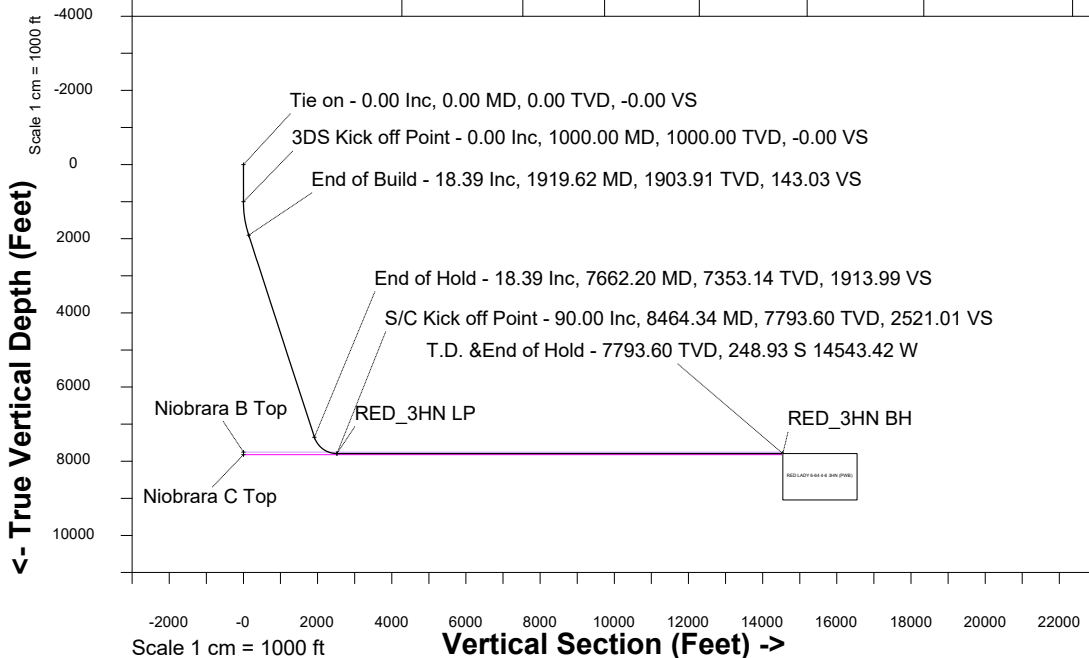
Location	DJ Basin	Slot	RED LADY 6-64 4-6 3HN
Field	Elbert County Wells	Well	RED LADY 6-64 4-6 3HN
Installation	Ragged 6-64 4 Pad	Wellbore	RED LADY 6-64 4-6 3HN (PWB)

Created by	cdoke
Date plotted	4-Apr-2023
Plot reference is RED LADY 6-64 4-6 3HN (PWB).	
Ref wellpath is RED LADY 6-64 4-6 3HN (PWB).	
Coordinates are in Feet reference RED LADY 6-64 4-6 3HN.	
True Vertical Depths are reference Rig Datum.	
Measured Depths are reference Rig Datum.	
Rig Datum: Planned Datum #1	
Rig Datum to Mean Sea Level: 6013.60 ft.	
Plot North is aligned to TRUE North.	



WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	0.00	0.00	0.00	0.00	S 0.00	W 0.00		-0.00
KOP	1000.00	0.00	256.81	1000.00	S 0.00	W 0.00	0.00	-0.00
End of Build	1919.62	18.39	256.81	1903.91	S 33.39	W 142.48	2.00	143.03
End of Hold	7662.20	18.39	256.81	7353.14	S 446.77	W 1906.62	0.00	1913.99
Target RED_3HN LP	8464.34	90.00	271.06	7793.60	S 471.59	W 2513.30	9.00	2521.01
T.D. & Target RED... BH	20496.52	90.00	271.06	7793.60	S 248.93	W 14543.42	0.00	14545.55



Jan-3-2023
IGRF-13 Dip: 65.95 deg Field: 51361.9 nT
Lat: N39 33 44.1720 Long: W104 33 5 5800 Elev: 6016.70 ft
Magnetic North is 7.50 deg East of TRUE North
To correct azimuth from Magnetic to TRUE add 7.50 deg

Azimuth 269.02 with reference 0.00 N, 0.00 E from RED LADY 6-64 4-6 3HN

Wellhead Details

Name	Latitude	Longitude	Northing	Easting	North	East	Slot Elevation Above Installation [ft]
RED LADY 6-64 4-6 3HN	N39 33 43.7724	W104 33 4.4352	1084785.7116	3267502.1297	40.43S	89.66E	-3.10

Installation Details

Name	Installation Position (Latitude)	Installation Position (Longitude)	Northing	Easting	Coord System Name	North Alignment	Ground Level Elev [ft]
Ragged 6-64 4 Pad	N39 33 44.1720	W104 33 5.5800	1084825.1840	3267412.0415	NAD83 Colorado State Planes, North Zone, US Foot	True	6016.70

Summary Wellpath

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	Vertical Depth SS	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]
0.00	0.00	0.00	0.00	-6013.60	0.00N	0.00E		0.00
1000.00	0.00	256.81	1000.00	-5013.60	0.00N	0.00E	==>	0.00
1919.62	18.39	256.81	1903.91	-4109.69	33.39S	142.48W	2.00	143.03
7662.20	18.39	256.81	7353.14	1339.54	446.77S	1906.62W	==>	1913.99
8464.34	90.00	271.06	7793.60	1780.00	471.59S	2513.30W	9.00	2521.01
20496.52	90.00	271.06	7793.60	1780.00	248.93S	14543.42W	==>	14545.55

Interpolated Wellpath

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Station Position (Latitude)	Station Position (Longitude)	All Station Comments
0.00	0.00	0.00	0.00	0.00N	0.00E		0.00	N39 33 43.7724	W104 33 4.4352	Tie on, Slot Datum
76.00	0.00	0.00	76.00	0.00N	0.00E	==>	0.00	N39 33 43.7724	W104 33 4.4352	Lower Dawson
100.00	0.00	0.00	100.00	0.00N	0.00E	==>	0.00	N39 33 43.7724	W104 33 4.4352	
200.00	0.00	0.00	200.00	0.00N	0.00E	==>	0.00	N39 33 43.7724	W104 33 4.4352	
201.00	0.00	0.00	201.00	0.00N	0.00E	==>	0.00	N39 33 43.7724	W104 33 4.4352	Denver
300.00	0.00	0.00	300.00	0.00N	0.00E	==>	0.00	N39 33 43.7724	W104 33 4.4352	
400.00	0.00	0.00	400.00	0.00N	0.00E	==>	0.00	N39 33 43.7724	W104 33 4.4352	
500.00	0.00	0.00	500.00	0.00N	0.00E	==>	0.00	N39 33 43.7724	W104 33 4.4352	
600.00	0.00	0.00	600.00	0.00N	0.00E	==>	0.00	N39 33 43.7724	W104 33 4.4352	
700.00	0.00	0.00	700.00	0.00N	0.00E	==>	0.00	N39 33 43.7724	W104 33 4.4352	
800.00	0.00	0.00	800.00	0.00N	0.00E	==>	0.00	N39 33 43.7724	W104 33 4.4352	
900.00	0.00	0.00	900.00	0.00N	0.00E	==>	0.00	N39 33 43.7724	W104 33 4.4352	
1000.00	0.00	256.81	1000.00	0.00N	0.00E	==>	0.00	N39 33 43.7724	W104 33 4.4352	3DS Kick off Point
1088.01	1.76	256.81	1088.00	0.31S	1.32W	2.00	1.32	N39 33 43.7694	W104 33 4.4520	Upper Arapahoe
1100.00	2.00	256.81	1099.98	0.40S	1.70W	2.00	1.71	N39 33 43.7685	W104 33 4.4569	
1200.00	4.00	256.81	1199.84	1.59S	6.79W	2.00	6.82	N39 33 43.7567	W104 33 4.5220	
1300.00	6.00	256.81	1299.45	3.58S	15.28W	2.00	15.34	N39 33 43.7370	W104 33 4.6303	
1400.00	8.00	256.81	1398.70	6.36S	27.14W	2.00	27.25	N39 33 43.7095	W104 33 4.7818	
1500.00	10.00	256.81	1497.47	9.93S	42.37W	2.00	42.54	N39 33 43.6743	W104 33 4.9763	
1600.00	12.00	256.81	1595.62	14.28S	60.95W	2.00	61.19	N39 33 43.6312	W104 33 5.2135	
1700.00	14.00	256.81	1693.06	19.41S	82.85W	2.00	83.17	N39 33 43.5805	W104 33 5.4931	
1800.00	16.00	256.81	1789.64	25.32S	108.05W	2.00	108.47	N39 33 43.5222	W104 33 5.8148	
1900.00	18.00	256.81	1885.27	31.99S	136.51W	2.00	137.04	N39 33 43.4563	W104 33 6.1783	
1908.14	18.16	256.81	1893.00	32.56S	138.97W	2.00	139.51	N39 33 43.4506	W104 33 6.2097	Laramie - Fox Hills
1919.62	18.39	256.81	1903.91	33.39S	142.48W	2.00	143.03	N39 33 43.4424	W104 33 6.2545	End of Build
2000.00	18.39	256.81	1980.18	39.17S	167.17W	==>	167.82	N39 33 43.3852	W104 33 6.5697	
2100.00	18.39	256.81	2075.07	46.37S	197.89W	==>	198.66	N39 33 43.3141	W104 33 6.9620	
2154.72	18.39	256.81	2127.00	50.31S	214.70W	==>	215.53	N39 33 43.2752	W104 33 7.1766	Pierre Shale (Base of Fox Hills)
2200.00	18.39	256.81	2169.96	53.57S	228.61W	==>	229.50	N39 33 43.2430	W104 33 7.3542	
2300.00	18.39	256.81	2264.86	60.77S	259.33W	==>	260.34	N39 33 43.1718	W104 33 7.7465	
2400.00	18.39	256.81	2359.75	67.97S	290.05W	==>	291.18	N39 33 43.1007	W104 33 8.1387	
2500.00	18.39	256.81	2454.64	75.17S	320.77W	==>	322.01	N39 33 43.0295	W104 33 8.5310	
2600.00	18.39	256.81	2549.53	82.36S	351.50W	==>	352.85	N39 33 42.9584	W104 33 8.9232	
2700.00	18.39	256.81	2644.42	89.56S	382.22W	==>	383.69	N39 33 42.8872	W104 33 9.3155	
2800.00	18.39	256.81	2739.32	96.76S	412.94W	==>	414.53	N39 33 42.8161	W104 33 9.7077	
2900.00	18.39	256.81	2834.21	103.96S	443.66W	==>	445.37	N39 33 42.7449	W104 33 10.1000	
3000.00	18.39	256.81	2929.10	111.16S	474.38W	==>	476.21	N39 33 42.6738	W104 33 10.4922	
3100.00	18.39	256.81	3023.99	118.36S	505.10W	==>	507.05	N39 33 42.6026	W104 33 10.8845	
3200.00	18.39	256.81	3118.88	125.55S	535.82W	==>	537.89	N39 33 42.5315	W104 33 11.2767	
3300.00	18.39	256.81	3213.77	132.75S	566.54W	==>	568.73	N39 33 42.4603	W104 33 11.6690	
3400.00	18.39	256.81	3308.67	139.95S	597.26W	==>	599.57	N39 33 42.3892	W104 33 12.0612	
3500.00	18.39	256.81	3403.56	147.15S	627.98W	==>	630.40	N39 33 42.3180	W104 33 12.4535	
3600.00	18.39	256.81	3498.45	154.35S	658.70W	==>	661.24	N39 33 42.2469	W104 33 12.8457	
3700.00	18.39	256.81	3593.34	161.55S	689.42W	==>	692.08	N39 33 42.1757	W104 33 13.2380	
3800.00	18.39	256.81	3688.23	168.75S	720.14W	==>	722.92	N39 33 42.1046	W104 33 13.6302	
3900.00	18.39	256.81	3783.12	175.94S	750.86W	==>	753.76	N39 33 42.0334	W104 33 14.0225	
4000.00	18.39	256.81	3878.02	183.14S	781.58W	==>	784.60	N39 33 41.9623	W104 33 14.4147	
4100.00	18.39	256.81	3972.91	190.34S	812.30W	==>	815.44	N39 33 41.8911	W104 33 14.8069	
4200.00	18.39	256.81	4067.80	197.54S	843.02W	==>	846.28	N39 33 41.8200	W104 33 15.1992	
4300.00	18.39	256.81	4162.69	204.74S	873.74W	==>	877.12	N39 33 41.7488	W104 33 15.5914	
4400.00	18.39	256.81	4257.58	211.94S	904.46W	==>	907.96	N39 33 41.6777	W104 33 15.9837	
4500.00	18.39	256.81	4352.47	219.13S	935.18W	==>	938.79	N39 33 41.6065	W104 33 16.3759	

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 6013.6ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 269.02 degrees
Bottom hole distance is 14545.55 Feet on azimuth 269.02 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 6-Apr-2023

Interpolated Wellpath										
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Station Position (Latitude)	Station Position (Longitude)	All Station Comments
4600.00	18.39	256.81	4447.37	226.33S	965.90W	==>	969.63	N39 33 41.5353	W104 33 16.7682	
4700.00	18.39	256.81	4542.26	233.53S	996.62W	==>	1000.47	N39 33 41.4642	W104 33 17.1604	
4800.00	18.39	256.81	4637.15	240.73S	1027.34W	==>	1031.31	N39 33 41.3930	W104 33 17.5527	
4900.00	18.39	256.81	4732.04	247.93S	1058.06W	==>	1062.15	N39 33 41.3219	W104 33 17.9449	
5000.00	18.39	256.81	4826.93	255.13S	1088.78W	==>	1092.99	N39 33 41.2507	W104 33 18.3371	
5100.00	18.39	256.81	4921.83	262.33S	1119.50W	==>	1123.83	N39 33 41.1796	W104 33 18.7294	
5200.00	18.39	256.81	5016.72	269.52S	1150.22W	==>	1154.67	N39 33 41.1084	W104 33 19.1216	
5300.00	18.39	256.81	5111.61	276.72S	1180.94W	==>	1185.51	N39 33 41.0373	W104 33 19.5139	
5400.00	18.39	256.81	5206.50	283.92S	1211.66W	==>	1216.35	N39 33 40.9661	W104 33 19.9061	
5500.00	18.39	256.81	5301.39	291.12S	1242.38W	==>	1247.19	N39 33 40.8949	W104 33 20.2984	
5600.00	18.39	256.81	5396.28	298.32S	1273.11W	==>	1278.02	N39 33 40.8238	W104 33 20.6906	
5663.98	18.39	256.81	5457.00	302.92S	1292.76W	==>	1297.76	N39 33 40.7782	W104 33 20.9416	Sussex Sandstone
5700.00	18.39	256.81	5491.18	305.52S	1303.83W	==>	1308.86	N39 33 40.7526	W104 33 21.0828	
5800.00	18.39	256.81	5586.07	312.72S	1334.55W	==>	1339.70	N39 33 40.6815	W104 33 21.4751	
5900.00	18.39	256.81	5680.96	319.91S	1365.27W	==>	1370.54	N39 33 40.6103	W104 33 21.8673	
6000.00	18.39	256.81	5775.85	327.11S	1395.99W	==>	1401.38	N39 33 40.5391	W104 33 22.2596	
6100.00	18.39	256.81	5870.74	334.31S	1426.71W	==>	1432.22	N39 33 40.4680	W104 33 22.6518	
6200.00	18.39	256.81	5965.63	341.51S	1457.43W	==>	1463.06	N39 33 40.3968	W104 33 23.0440	
6300.00	18.39	256.81	6060.53	348.71S	1488.15W	==>	1493.90	N39 33 40.3257	W104 33 23.4363	
6400.00	18.39	256.81	6155.42	355.91S	1518.87W	==>	1524.74	N39 33 40.2545	W104 33 23.8285	
6500.00	18.39	256.81	6250.31	363.10S	1549.59W	==>	1555.58	N39 33 40.1833	W104 33 24.2208	
6600.00	18.39	256.81	6345.20	370.30S	1580.31W	==>	1586.41	N39 33 40.1122	W104 33 24.6130	
6700.00	18.39	256.81	6440.09	377.50S	1611.03W	==>	1617.25	N39 33 40.0410	W104 33 25.0052	
6800.00	18.39	256.81	6534.98	384.70S	1641.75W	==>	1648.09	N39 33 39.9698	W104 33 25.3975	
6900.00	18.39	256.81	6629.88	391.90S	1672.47W	==>	1678.93	N39 33 39.8987	W104 33 25.7897	
7000.00	18.39	256.81	6724.77	399.10S	1703.19W	==>	1709.77	N39 33 39.8275	W104 33 26.1820	
7100.00	18.39	256.81	6819.66	406.30S	1733.91W	==>	1740.61	N39 33 39.7564	W104 33 26.5742	
7200.00	18.39	256.81	6914.55	413.49S	1764.63W	==>	1771.45	N39 33 39.6852	W104 33 26.9664	
7300.00	18.39	256.81	7009.44	420.69S	1795.35W	==>	1802.29	N39 33 39.6140	W104 33 27.3587	
7400.00	18.39	256.81	7104.34	427.89S	1826.07W	==>	1833.13	N39 33 39.5429	W104 33 27.7509	
7500.00	18.39	256.81	7199.23	435.09S	1856.79W	==>	1863.97	N39 33 39.4717	W104 33 28.1432	
7600.00	18.39	256.81	7294.12	442.29S	1887.51W	==>	1894.80	N39 33 39.4005	W104 33 28.5354	
7662.20	18.39	256.81	7353.14	446.77S	1906.62W	==>	1913.99	N39 33 39.3563	W104 33 28.7794	End of Hold
7700.00	21.70	259.19	7388.65	449.44S	1919.29W	9.00	1926.70	N39 33 39.3298	W104 33 28.9412	
7800.00	30.54	263.09	7478.36	455.98S	1962.76W	9.00	1970.27	N39 33 39.2652	W104 33 29.4961	
7900.00	39.44	265.35	7560.20	461.62S	2019.75W	9.00	2027.36	N39 33 39.2094	W104 33 30.2239	
7908.86	40.23	265.51	7567.00	462.07S	2025.41W	9.00	2033.02	N39 33 39.2049	W104 33 30.2961	Sharon Springs Shale
7977.61	46.38	266.59	7617.01	465.30S	2072.43W	9.00	2080.09	N39 33 39.1730	W104 33 30.8964	Niobrara
7992.28	47.69	266.79	7627.01	465.92S	2083.15W	9.00	2090.81	N39 33 39.1669	W104 33 31.0333	Niobrara A
8000.00	48.38	266.89	7632.17	466.23S	2088.88W	9.00	2096.55	N39 33 39.1637	W104 33 31.1065	
8100.00	57.33	268.05	7692.50	469.70S	2168.43W	9.00	2176.15	N39 33 39.1294	W104 33 32.1222	
8200.00	66.29	269.00	7739.68	471.93S	2256.45W	9.00	2264.20	N39 33 39.1073	W104 33 33.2461	
8232.58	69.21	269.28	7752.01	472.38S	2286.60W	9.00	2294.35	N39 33 39.1028	W104 33 33.6310	Niobrara B Top
8300.00	75.26	269.83	7772.58	472.88S	2350.78W	9.00	2358.53	N39 33 39.0978	W104 33 34.4504	
8400.00	84.23	270.59	7790.36	472.51S	2449.08W	9.00	2456.80	N39 33 39.1013	W104 33 35.7056	
8464.34	90.00	271.06	7793.60	471.59S	2513.30W	9.00	2521.01	N39 33 39.1104	W104 33 36.5256	S/C Kick off Point/Target, RED_3HN LP
8500.00	90.00	271.06	7793.60	470.93S	2548.96W	==>	2556.64	N39 33 39.1169	W104 33 36.9808	
8600.00	90.00	271.06	7793.60	469.08S	2648.94W	==>	2656.58	N39 33 39.1351	W104 33 38.2574	
8700.00	90.00	271.06	7793.60	467.23S	2748.92W	==>	2756.51	N39 33 39.1533	W104 33 39.5340	
8800.00	90.00	271.06	7793.60	465.38S	2848.90W	==>	2856.45	N39 33 39.1714	W104 33 40.8106	
8900.00	90.00	271.06	7793.60	463.53S	2948.89W	==>	2956.39	N39 33 39.1896	W104 33 42.0872	
9000.00	90.00	271.06	7793.60	461.68S	3048.87W	==>	3056.32	N39 33 39.2078	W104 33 43.3639	
9100.00	90.00	271.06	7793.60	459.83S	3148.85W	==>	3156.26	N39 33 39.2259	W104 33 44.6405	
9200.00	90.00	271.06	7793.60	457.98S	3248.84W	==>	3256.20	N39 33 39.2441	W104 33 45.9171	
9300.00	90.00	271.06	7793.60	456.13S	3348.82W	==>	3356.13	N39 33 39.2623	W104 33 47.1937	
9400.00	90.00	271.06	7793.60	454.27S	3448.80W	==>	3456.07	N39 33 39.2804	W104 33 48.4703	
9500.00	90.00	271.06	7793.60	452.42S	3548.78W	==>	3556.01	N39 33 39.2986	W104 33 49.7469	
9600.00	90.00	271.06	7793.60	450.57S	3648.77W	==>	3655.94	N39 33 39.3167	W104 33 51.0235	
9700.00	90.00	271.06	7793.60	448.72S	3748.75W	==>	3755.88	N39 33 39.3349	W104 33 52.3001	
9800.00	90.00	271.06	7793.60	446.87S	3848.73W	==>	3855.82	N39 33 39.3530	W104 33 53.5767	
9900.00	90.00	271.06	7793.60	445.02S	3948.72W	==>	3955.75	N39 33 39.3711	W104 33 54.8533	
10000.00	90.00	271.06	7793.60	443.17S	4048.70W	==>	4055.69	N39 33 39.3893	W104 33 56.1299	
10100.00	90.00	271.06	7793.60	441.32S	4148.68W	==>	4155.63	N39 33 39.4074	W104 33 57.4065	
10200.00	90.00	271.06	7793.60	439.47S	4248.66W	==>	4255.56	N39 33 39.4255	W104 33 58.6831	
10300.00	90.00	271.06	7793.60	437.62S	4348.65W	==>	4355.50	N39 33 39.4436	W104 33 59.9598	
10400.00	90.00	271.06	7793.60	435.77S	4448.63W	==>	4455.44	N39 33 39.4617	W104 34 1.2364	
10500.00	90.00	271.06	7793.60	433.92S	4548.61W	==>	4555.37	N39 33 39.4799	W104 34 2.5130	
10600.00	90.00	271.06	7793.60	432.07S	4648.60W	==>	4655.31	N39 33 39.4980	W104 34 3.7896	
10700.00	90.00	271.06	7793.60	430.22S	4748.58W	==>	4755.25	N39 33 39.5161	W104 34 5.0662	
10800.00	90.00	271.06	7793.60	428.37S	4848.56W	==>	4855.18	N39 33 39.5342	W104 34 6.3428	
10900.00	90.00	271.06	7793.60	426.52S	4948.54W	==>	4955.12	N39 33 39.5523	W104 34 7.6194	
11000.00	90.00	271.06	7793.60	424.67S	5048.53W	==>	5055.06	N39 33 39.5704	W104 34 8.8960	
11100.00	90.00	271.06	7793.60	422.82S	5148.51W	==>	5154.99	N39 33 39.5884	W104 34 10.1726	
11200.00	90.00	271.06	7793.60	420.97S	5248.49W	==>	5254.93	N39 33 39.6065	W104 34 11.4492	
11300.00	90.00	271.06	7793.60	419.11S	5348.48W	==>	5354.87	N39 33 39.6246	W104 34 12.7259	
11400.00	90.00	271.06	7793.60	417.26S	5448.46W	==>	5454.80	N39 33 39.6427	W104 34 14.0025	
11500.00	90.00	271.06	7793.60	415.41S	5548.44W	==>	5554.74	N39 33 39.6608	W104 34 15.2791	
11600.00	90.00	271.06	7793.60	413.56S	5648.42W	==>	5654.67	N39 33 39.6788	W104 34 16.5557	
11700.00	90.00	271.06	7793.60	411.71S	5748.41W	==>	5754.61	N39 33 39.6969	W104 34 17.8323	
11800.00	90.00	271.06	7793.60	409.86S	5848.39W	==>	5854.55	N39 33 39.7149	W104 34 19.1089	
11900.00	90.00	271.06	7793.60	408.01S	5948.37W	==>	5954.48	N39 33 39.7330	W104 34 20.3855	
12000.00	90.00	271.06	7793.60	406.16S	6048.36W	==>	6054.42	N39 33 39.7511	W104 34 21.6621	
12100.00	90.00	271.06	7793.60	404.31S	6148.34W	==>	6154.36	N39 33 39.7691	W104 34 22.9387	

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Rig (Planned Datum #1 6013.6ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 269.02 degrees
Bottom hole distance is 14545.55 Feet on azimuth 269.02 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 6-Apr-2023

Interpolated Wellpath										
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Station Position (Latitude)	Station Position (Longitude)	All Station Comments
12200.00	90.00	271.06	7793.60	402.46S	6248.32W	==>	6254.29	N39 33 39.7871	W104 34 24.2154	
12300.00	90.00	271.06	7793.60	400.61S	6348.30W	==>	6354.23	N39 33 39.8052	W104 34 25.4920	
12400.00	90.00	271.06	7793.60	398.76S	6448.29W	==>	6454.17	N39 33 39.8232	W104 34 26.7686	
12500.00	90.00	271.06	7793.60	396.91S	6548.27W	==>	6554.10	N39 33 39.8413	W104 34 28.0452	
12600.00	90.00	271.06	7793.60	395.06S	6648.25W	==>	6654.04	N39 33 39.8593	W104 34 29.3218	
12700.00	90.00	271.06	7793.60	393.21S	6748.24W	==>	6753.98	N39 33 39.8773	W104 34 30.5984	
12800.00	90.00	271.06	7793.60	391.36S	6848.22W	==>	6853.91	N39 33 39.8953	W104 34 31.8750	
12900.00	90.00	271.06	7793.60	389.51S	6948.20W	==>	6953.85	N39 33 39.9133	W104 34 33.1517	
13000.00	90.00	271.06	7793.60	387.66S	7048.18W	==>	7053.79	N39 33 39.9314	W104 34 34.4283	
13100.00	90.00	271.06	7793.60	385.81S	7148.17W	==>	7153.72	N39 33 39.9494	W104 34 35.7049	
13200.00	90.00	271.06	7793.60	383.95S	7248.15W	==>	7253.66	N39 33 39.9674	W104 34 36.9815	
13300.00	90.00	271.06	7793.60	382.10S	7348.13W	==>	7353.60	N39 33 39.9854	W104 34 38.2581	
13400.00	90.00	271.06	7793.60	380.25S	7448.12W	==>	7453.53	N39 33 40.0034	W104 34 39.5347	
13500.00	90.00	271.06	7793.60	378.40S	7548.10W	==>	7553.47	N39 33 40.0214	W104 34 40.8113	
13600.00	90.00	271.06	7793.60	376.55S	7648.08W	==>	7653.41	N39 33 40.0393	W104 34 42.0880	
13700.00	90.00	271.06	7793.60	374.70S	7748.06W	==>	7753.34	N39 33 40.0573	W104 34 43.3646	
13800.00	90.00	271.06	7793.60	372.85S	7848.05W	==>	7853.28	N39 33 40.0753	W104 34 44.6412	
13900.00	90.00	271.06	7793.60	371.00S	7948.03W	==>	7953.22	N39 33 40.0933	W104 34 45.9178	
14000.00	90.00	271.06	7793.60	369.15S	8048.01W	==>	8053.15	N39 33 40.1113	W104 34 47.1944	
14100.00	90.00	271.06	7793.60	367.30S	8148.00W	==>	8153.09	N39 33 40.1292	W104 34 48.4710	
14200.00	90.00	271.06	7793.60	365.45S	8247.98W	==>	8253.03	N39 33 40.1472	W104 34 49.7477	
14300.00	90.00	271.06	7793.60	363.60S	8347.96W	==>	8352.96	N39 33 40.1652	W104 34 51.0243	
14400.00	90.00	271.06	7793.60	361.75S	8447.95W	==>	8452.90	N39 33 40.1831	W104 34 52.3009	
14500.00	90.00	271.06	7793.60	359.90S	8547.93W	==>	8552.84	N39 33 40.2011	W104 34 53.5775	
14600.00	90.00	271.06	7793.60	358.05S	8647.91W	==>	8652.77	N39 33 40.2190	W104 34 54.8541	
14700.00	90.00	271.06	7793.60	356.20S	8747.89W	==>	8752.71	N39 33 40.2370	W104 34 56.1307	
14800.00	90.00	271.06	7793.60	354.35S	8847.88W	==>	8852.65	N39 33 40.2549	W104 34 57.4074	
14900.00	90.00	271.06	7793.60	352.50S	8947.86W	==>	8952.58	N39 33 40.2728	W104 34 58.6840	
15000.00	90.00	271.06	7793.60	350.65S	9047.84W	==>	9052.52	N39 33 40.2908	W104 34 59.9606	
15100.00	90.00	271.06	7793.60	348.79S	9147.83W	==>	9152.45	N39 33 40.3087	W104 35 1.2372	
15200.00	90.00	271.06	7793.60	346.94S	9247.81W	==>	9252.39	N39 33 40.3266	W104 35 2.5138	
15300.00	90.00	271.06	7793.60	345.09S	9347.79W	==>	9352.33	N39 33 40.3445	W104 35 3.7904	
15400.00	90.00	271.06	7793.60	343.24S	9447.77W	==>	9452.26	N39 33 40.3625	W104 35 5.0671	
15500.00	90.00	271.06	7793.60	341.39S	9547.76W	==>	9552.20	N39 33 40.3804	W104 35 6.3437	
15600.00	90.00	271.06	7793.60	339.54S	9647.74W	==>	9652.14	N39 33 40.3983	W104 35 7.6203	
15700.00	90.00	271.06	7793.60	337.69S	9747.72W	==>	9752.07	N39 33 40.4162	W104 35 8.8969	
15800.00	90.00	271.06	7793.60	335.84S	9847.71W	==>	9852.01	N39 33 40.4341	W104 35 10.1735	
15900.00	90.00	271.06	7793.60	333.99S	9947.69W	==>	9951.95	N39 33 40.4520	W104 35 11.4502	
16000.00	90.00	271.06	7793.60	332.14S	10047.67W	==>	10051.88	N39 33 40.4699	W104 35 12.7268	
16100.00	90.00	271.06	7793.60	330.29S	10147.65W	==>	10151.82	N39 33 40.4878	W104 35 14.0034	
16200.00	90.00	271.06	7793.60	328.44S	10247.64W	==>	10251.76	N39 33 40.5057	W104 35 15.2800	
16300.00	90.00	271.06	7793.60	326.59S	10347.62W	==>	10351.69	N39 33 40.5235	W104 35 16.5566	
16400.00	90.00	271.06	7793.60	324.74S	10447.60W	==>	10451.63	N39 33 40.5414	W104 35 17.8333	
16500.00	90.00	271.06	7793.60	322.89S	10547.59W	==>	10551.57	N39 33 40.5593	W104 35 19.1099	
16600.00	90.00	271.06	7793.60	321.04S	10647.57W	==>	10651.50	N39 33 40.5772	W104 35 20.3865	
16700.00	90.00	271.06	7793.60	319.19S	10747.55W	==>	10751.44	N39 33 40.5950	W104 35 21.6631	
16800.00	90.00	271.06	7793.60	317.34S	10847.53W	==>	10851.38	N39 33 40.6129	W104 35 22.9397	
16900.00	90.00	271.06	7793.60	315.48S	10947.52W	==>	10951.31	N39 33 40.6308	W104 35 24.2164	
17000.00	90.00	271.06	7793.60	313.63S	11047.50W	==>	11051.25	N39 33 40.6486	W104 35 25.4930	
17100.00	90.00	271.06	7793.60	311.78S	11147.48W	==>	11151.19	N39 33 40.6665	W104 35 26.7696	
17200.00	90.00	271.06	7793.60	309.93S	11247.47W	==>	11251.12	N39 33 40.6843	W104 35 28.0462	
17300.00	90.00	271.06	7793.60	308.08S	11347.45W	==>	11351.06	N39 33 40.7021	W104 35 29.3228	
17400.00	90.00	271.06	7793.60	306.23S	11447.43W	==>	11451.00	N39 33 40.7200	W104 35 30.5995	
17500.00	90.00	271.06	7793.60	304.38S	11547.41W	==>	11550.93	N39 33 40.7378	W104 35 31.8761	
17600.00	90.00	271.06	7793.60	302.53S	11647.40W	==>	11650.87	N39 33 40.7556	W104 35 33.1527	
17700.00	90.00	271.06	7793.60	300.68S	11747.38W	==>	11750.81	N39 33 40.7735	W104 35 34.4293	
17800.00	90.00	271.06	7793.60	298.83S	11847.36W	==>	11850.74	N39 33 40.7913	W104 35 35.7060	
17900.00	90.00	271.06	7793.60	296.98S	11947.35W	==>	11950.68	N39 33 40.8091	W104 35 36.9826	
18000.00	90.00	271.06	7793.60	295.13S	12047.33W	==>	12050.62	N39 33 40.8269	W104 35 38.2592	
18100.00	90.00	271.06	7793.60	293.28S	12147.31W	==>	12150.55	N39 33 40.8447	W104 35 39.5358	
18200.00	90.00	271.06	7793.60	291.43S	12247.29W	==>	12250.49	N39 33 40.8625	W104 35 40.8125	
18300.00	90.00	271.06	7793.60	289.58S	12347.28W	==>	12350.42	N39 33 40.8804	W104 35 42.0891	
18400.00	90.00	271.06	7793.60	287.73S	12447.26W	==>	12450.36	N39 33 40.8982	W104 35 43.3657	
18500.00	90.00	271.06	7793.60	285.88S	12547.24W	==>	12550.30	N39 33 40.9159	W104 35 44.6423	
18600.00	90.00	271.06	7793.60	284.03S	12647.23W	==>	12650.23	N39 33 40.9337	W104 35 45.9189	
18700.00	90.00	271.06	7793.60	282.18S	12747.21W	==>	12750.17	N39 33 40.9515	W104 35 47.1956	
18800.00	90.00	271.06	7793.60	280.32S	12847.19W	==>	12850.11	N39 33 40.9693	W104 35 48.4722	
18900.00	90.00	271.06	7793.60	278.47S	12947.17W	==>	12950.04	N39 33 40.9871	W104 35 49.7488	
19000.00	90.00	271.06	7793.60	276.62S	13047.16W	==>	13049.98	N39 33 41.0049	W104 35 51.0254	
19100.00	90.00	271.06	7793.60	274.77S	13147.14W	==>	13149.92	N39 33 41.0226	W104 35 52.3021	
19200.00	90.00	271.06	7793.60	272.92S	13247.12W	==>	13249.85	N39 33 41.0404	W104 35 53.5787	
19300.00	90.00	271.06	7793.60	271.07S	13347.11W	==>	13349.79	N39 33 41.0582	W104 35 54.8553	
19400.00	90.00	271.06	7793.60	269.22S	13447.09W	==>	13449.73	N39 33 41.0759	W104 35 56.1320	
19500.00	90.00	271.06	7793.60	267.37S	13547.07W	==>	13549.66	N39 33 41.0937	W104 35 57.4086	
19600.00	90.00	271.06	7793.60	265.52S	13647.05W	==>	13649.60	N39 33 41.1114	W104 35 58.6852	
19700.00	90.00	271.06	7793.60	263.67S	13747.04W	==>	13749.54	N39 33 41.1292	W104 35 59.9618	
19800.00	90.00	271.06	7793.60	261.82S	13847.02W	==>	13849.47	N39 33 41.1469	W104 36 1.2385	
19900.00	90.00	271.06	7793.60	259.97S	13947.00W	==>	13949.41	N39 33 41.1647	W104 36 2.5151	
20000.00	90.00	271.06	7793.60	258.12S	14046.99W	==>	14049.35	N39 33 41.1824	W104 36 3.7917	
20100.00	90.00	271.06	7793.60	256.27S	14146.97W	==>	14149.28	N39 33 41.2001	W104 36 5.0683	
20200.00	90.00	271.06	7793.60	254.42S	14246.95W	==>	14249.22	N39 33 41.2179	W104 36 6.3450	
20300.00	90.00	271.06	7793.60	252.57S	14346.93W	==>	14349.16	N39 33 41.2356	W104 36 7.6216	
20400.00	90.00	271.06	7793.60	250.72S	14446.92W	==>	14449.09	N39 33 41.2533	W104 36 8.8982	
20496.52	90.00	271.06	7793.60	248.93S	14543.42W	==>	14545.55	N39 33 41.2704	W104 36 10.1304	End of Hold/Target, RED_3HN BH

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 6013.6ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 269.02 degrees
Bottom hole distance is 14545.55 Feet on azimuth 269.02 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 6-Apr-2023

Targets							
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting
RED 3HN BH	248.93S	14543.42W	7793.60	N39 33 41.2704	W104 36 10.1304	1084381.18	3252961.82
RED 3HN LP	471.59S	2513.30W	7793.60	N39 33 39.1104	W104 33 36.5256	1084287.25	3264993.95

Formations						
Formation Name	Formation MD	Formation TVD	Wellpath Inc	Incidence Angle	North	East
Lower Dawson	76.00	76.00	0.00	90.00	0.00N	0.00E
Denver	201.00	201.00	0.00	90.00	0.00N	0.00E
Upper Arapahoe	1088.01	1088.00	1.76	88.24	0.31S	1.32W
Laramie - Fox Hills	1908.14	1893.00	18.16	71.84	32.56S	138.97W
Pierre Shale (Base of Fox Hills)	2154.72	2127.00	18.39	71.61	50.31S	214.70W
Sussex Sandstone	5663.98	5457.00	18.39	71.61	302.92S	1292.76W
Sharon Springs Shale	7908.86	7567.00	40.23	49.77	462.07S	2025.41W
Niobrara	7977.61	7617.01	46.38	43.62	465.30S	2072.43W
Niobrara A	7992.28	7627.01	47.69	42.31	465.92S	2083.15W
Niobrara B Top	8232.58	7752.01	69.21	20.79	472.38S	2286.60W

Survey Tool Program					
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
1095730	Planned	20496.52	7793.60	WdW Rate Gyro	Standard

Notes