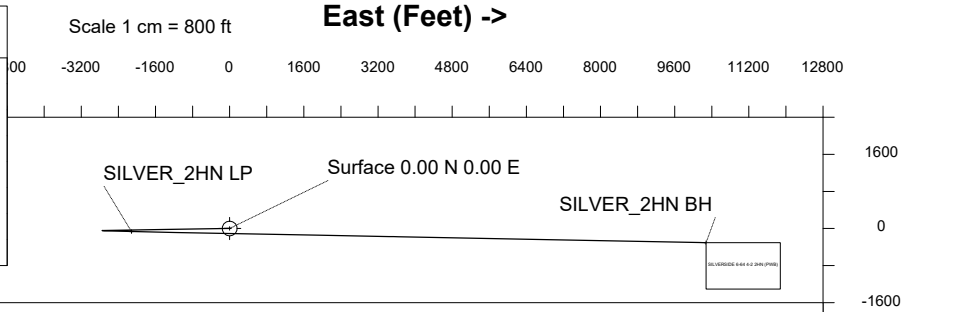


GMT Exploration

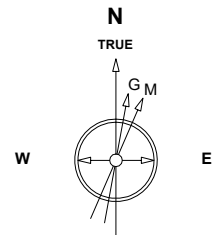
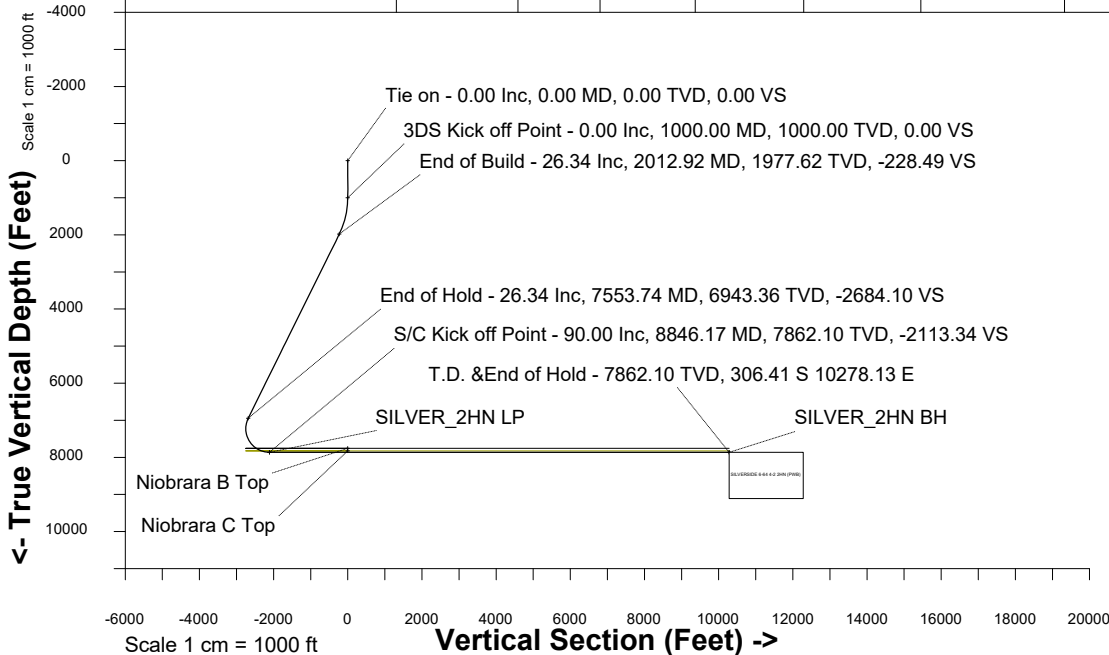
Location	DJ Basin	Slot	SILVERSIDE 6-64 4-2 2HN
Field	Elbert County Wells	Well	SILVERSIDE 6-64 4-2 2HN
Installation	Ragged 6-64 4 Pad	Wellbore	SILVERSIDE 6-64 4-2 2HN (PWB)

Created by	cdoke
Date plotted	4-Apr-2023
Plot reference is SILVERSIDE 6-64 4-2 2HN (PWB).	
Ref wellpath is SILVERSIDE 6-64 4-2 2HN (PWB).	
Coordinates are in Feet reference SILVERSIDE 6-64 4-2 2HN.	
True Vertical Depths are reference Rig Datum.	
Measured Depths are reference Rig Datum.	
Rig Datum: Planned Datum #1	
Rig Datum to Mean Sea Level: 6017.10 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	269.13	1000.00	S 0.00	W 0.00	0.00	0.00
End of Build	2012.92	26.34	269.13	1977.62	S 3.46	W 228.70	2.60	-228.49
End of Hold	7553.74	26.34	269.13	6943.36	S 40.64	W 2686.50	0.00	-2684.10
Target SILVER_2HN LP	8846.17	90.00	91.11	7862.10	S 67.30	W 2116.28	9.00	-2113.34
T.D. & Target SIL... BH	21242.89	90.00	91.11	7862.10	S 306.41	E 10278.13	0.00	10282.70



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

Wellhead Details							
Name	Latitude	Longitude	Northing	Easting	North	East	Slot Elevation Above Installation [ft]
SILVERSIDE 6-64 4-2 2HN	N39 33 43.9740	W104 33 5.5800	1084805.1504	3267412.2558	20.03S	0.00E	0.40

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	-6017.10	0.00N	0.00E		0.00
1000.00	0.00	269.13	1000.00	-5017.10	0.00N	0.00E	==>	0.00
2012.92	26.34	269.13	1977.62	-4039.48	3.46S	228.70W	2.60	-228.49
7553.74	26.34	269.13	6943.36	926.26	40.64S	2686.50W	==>	-2684.10
8846.17	90.00	91.11	7862.10	1845.00	67.30S	2116.28W	9.00	-2113.34
21242.89	90.00	91.11	7862.10	1845.00	306.41S	10278.13E	==>	10282.70

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 43.9740	W104 33 5.5800	Tie on, Slot Datum	
79.00	0.00	0.00	79.00	0.00N	0.00E	==>	0.00	N39 33 43.9740	W104 33 5.5800	Lower Dawson	
100.00	0.00	0.00	100.00	0.00N	0.00E	==>	0.00	N39 33 43.9740	W104 33 5.5800		
200.00	0.00	0.00	200.00	0.00N	0.00E	==>	0.00	N39 33 43.9740	W104 33 5.5800		
204.00	0.00	0.00	204.00	0.00N	0.00E	==>	0.00	N39 33 43.9740	W104 33 5.5800	Denver	
300.00	0.00	0.00	300.00	0.00N	0.00E	==>	0.00	N39 33 43.9740	W104 33 5.5800		
400.00	0.00	0.00	400.00	0.00N	0.00E	==>	0.00	N39 33 43.9740	W104 33 5.5800		
500.00	0.00	0.00	500.00	0.00N	0.00E	==>	0.00	N39 33 43.9740	W104 33 5.5800		
600.00	0.00	0.00	600.00	0.00N	0.00E	==>	0.00	N39 33 43.9740	W104 33 5.5800		
700.00	0.00	0.00	700.00	0.00N	0.00E	==>	0.00	N39 33 43.9740	W104 33 5.5800		
800.00	0.00	0.00	800.00	0.00N	0.00E	==>	0.00	N39 33 43.9740	W104 33 5.5800		
900.00	0.00	0.00	900.00	0.00N	0.00E	==>	0.00	N39 33 43.9740	W104 33 5.5800		
1000.00	0.00	269.13	1000.00	0.00N	0.00E	==>	0.00	N39 33 43.9740	W104 33 5.5800	3DS Kick off Point	
1091.03	2.37	269.13	1091.00	0.03S	1.88W	2.60	-1.88	N39 33 43.9737	W104 33 5.6040	Upper Arapahoe	
1100.00	2.60	269.13	1099.97	0.03S	2.27W	2.60	-2.27	N39 33 43.9737	W104 33 5.6090		
1200.00	5.20	269.13	1199.73	0.14S	9.07W	2.60	-9.06	N39 33 43.9726	W104 33 5.6958		
1300.00	7.80	269.13	1299.07	0.31S	20.39W	2.60	-20.37	N39 33 43.9710	W104 33 5.8403		
1400.00	10.40	269.13	1397.81	0.55S	36.20W	2.60	-36.17	N39 33 43.9686	W104 33 6.0422		
1500.00	13.00	269.13	1495.72	0.85S	56.47W	2.60	-56.42	N39 33 43.9656	W104 33 6.3011		
1600.00	15.60	269.13	1592.61	1.23S	81.17W	2.60	-81.10	N39 33 43.9619	W104 33 6.6164		
1700.00	18.20	269.13	1688.29	1.67S	110.23W	2.60	-110.13	N39 33 43.9575	W104 33 6.9875		
1800.00	20.80	269.13	1782.54	2.17S	143.61W	2.60	-143.48	N39 33 43.9525	W104 33 7.4136		
1900.00	23.40	269.13	1875.19	2.74S	181.22W	2.60	-181.06	N39 33 43.9469	W104 33 7.8939		
1922.73	23.99	269.13	1896.01	2.88S	190.36W	2.60	-190.19	N39 33 43.9455	W104 33 8.0106	Laramie - Fox Hills	
2000.00	26.00	269.13	1966.03	3.37S	223.00W	2.60	-222.80	N39 33 43.9406	W104 33 8.4274		
2012.92	26.34	269.13	1977.62	3.46S	228.70W	2.60	-228.49	N39 33 43.9398	W104 33 8.5001	End of Build	
2100.00	26.34	269.13	2055.67	4.04S	267.32W	==>	-267.09	N39 33 43.9340	W104 33 8.9933		
2182.94	26.34	269.13	2130.00	4.60S	304.11W	==>	-303.84	N39 33 43.9285	W104 33 9.4631	Pierre Shale (Base of Fox Hills)	
2200.00	26.34	269.13	2145.29	4.72S	311.68W	==>	-311.40	N39 33 43.9274	W104 33 9.5597		
2300.00	26.34	269.13	2234.91	5.39S	356.04W	==>	-355.72	N39 33 43.9207	W104 33 10.1261		
2400.00	26.34	269.13	2324.53	6.06S	400.40W	==>	-400.04	N39 33 43.9141	W104 33 10.6925		
2500.00	26.34	269.13	2414.15	6.73S	444.76W	==>	-444.36	N39 33 43.9075	W104 33 11.2589		
2600.00	26.34	269.13	2503.77	7.40S	489.12W	==>	-488.68	N39 33 43.9008	W104 33 11.8253		
2700.00	26.34	269.13	2593.39	8.07S	533.47W	==>	-533.00	N39 33 43.8942	W104 33 12.3916		
2800.00	26.34	269.13	2683.02	8.74S	577.83W	==>	-577.31	N39 33 43.8875	W104 33 12.9580		
2900.00	26.34	269.13	2772.64	9.41S	622.19W	==>	-621.63	N39 33 43.8809	W104 33 13.5244		
3000.00	26.34	269.13	2862.26	10.08S	666.55W	==>	-665.95	N39 33 43.8742	W104 33 14.0908		
3100.00	26.34	269.13	2951.88	10.76S	710.91W	==>	-710.27	N39 33 43.8676	W104 33 14.6572		
3200.00	26.34	269.13	3041.50	11.43S	755.26W	==>	-754.59	N39 33 43.8610	W104 33 15.2236		
3300.00	26.34	269.13	3131.12	12.10S	799.62W	==>	-798.91	N39 33 43.8543	W104 33 15.7899		
3400.00	26.34	269.13	3220.74	12.77S	843.98W	==>	-843.23	N39 33 43.8477	W104 33 16.3563		
3500.00	26.34	269.13	3310.36	13.44S	888.34W	==>	-887.54	N39 33 43.8410	W104 33 16.9227		
3600.00	26.34	269.13	3399.98	14.11S	932.70W	==>	-931.86	N39 33 43.8344	W104 33 17.4891		
3700.00	26.34	269.13	3489.60	14.78S	977.05W	==>	-976.18	N39 33 43.8277	W104 33 18.0555		
3800.00	26.34	269.13	3579.22	15.45S	1021.41W	==>	-1020.50	N39 33 43.8211	W104 33 18.6219		
3900.00	26.34	269.13	3668.85	16.12S	1065.77W	==>	-1064.82	N39 33 43.8144	W104 33 19.1883		
4000.00	26.34	269.13	3758.47	16.80S	1110.13W	==>	-1109.14	N39 33 43.8078	W104 33 19.7546		
4100.00	26.34	269.13	3848.09	17.47S	1154.49W	==>	-1153.45	N39 33 43.8011	W104 33 20.3210		
4200.00	26.34	269.13	3937.71	18.14S	1198.85W	==>	-1197.77	N39 33 43.7945	W104 33 20.8874		
4300.00	26.34	269.13	4027.33	18.81S	1243.20W	==>	-1242.09	N39 33 43.7878	W104 33 21.4538		
4400.00	26.34	269.13	4116.95	19.48S	1287.56W	==>	-1286.41	N39 33 43.7812	W104 33 22.0202		
4500.00	26.34	269.13	4206.57	20.15S	1331.92W	==>	-1330.73	N39 33 43.7745	W104 33 22.5866		

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 6017.1ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 91.71 degrees
Bottom hole distance is 10282.70 Feet on azimuth 91.71 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	26.34	269.13	4296.19	20.82S	1376.28W	=>	-1375.05	N39 33 43.7678	W104 33 23.1530	
4700.00	26.34	269.13	4385.81	21.49S	1420.64W	=>	-1419.36	N39 33 43.7612	W104 33 23.7193	
4800.00	26.34	269.13	4475.43	22.16S	1464.99W	=>	-1463.68	N39 33 43.7545	W104 33 24.2857	
4900.00	26.34	269.13	4565.05	22.84S	1509.35W	=>	-1508.00	N39 33 43.7479	W104 33 24.8521	
5000.00	26.34	269.13	4654.68	23.51S	1553.71W	=>	-1552.32	N39 33 43.7412	W104 33 25.4185	
5100.00	26.34	269.13	4744.30	24.18S	1598.07W	=>	-1596.64	N39 33 43.7345	W104 33 25.9849	
5200.00	26.34	269.13	4833.92	24.85S	1642.43W	=>	-1640.96	N39 33 43.7279	W104 33 26.5513	
5300.00	26.34	269.13	4923.54	25.52S	1686.79W	=>	-1685.28	N39 33 43.7212	W104 33 27.1176	
5400.00	26.34	269.13	5013.16	26.19S	1731.14W	=>	-1729.59	N39 33 43.7146	W104 33 27.6840	
5500.00	26.34	269.13	5102.78	26.86S	1775.50W	=>	-1773.91	N39 33 43.7079	W104 33 28.2504	
5600.00	26.34	269.13	5192.40	27.53S	1819.86W	=>	-1818.23	N39 33 43.7012	W104 33 28.8168	
5700.00	26.34	269.13	5282.02	28.20S	1864.22W	=>	-1862.55	N39 33 43.6946	W104 33 29.3832	
5800.00	26.34	269.13	5371.64	28.88S	1908.58W	=>	-1906.87	N39 33 43.6879	W104 33 29.9496	
5898.59	26.34	269.13	5460.00	29.54S	1952.31W	=>	-1950.56	N39 33 43.6813	W104 33 30.5080	Sussex Sandstone
5900.00	26.34	269.13	5461.26	29.55S	1952.93W	=>	-1951.19	N39 33 43.6812	W104 33 30.5159	
6000.00	26.34	269.13	5550.88	30.22S	1997.29W	=>	-1995.50	N39 33 43.6746	W104 33 31.0823	
6100.00	26.34	269.13	5640.50	30.89S	2041.65W	=>	-2039.82	N39 33 43.6679	W104 33 31.6487	
6200.00	26.34	269.13	5730.13	31.56S	2086.01W	=>	-2084.14	N39 33 43.6612	W104 33 32.2151	
6300.00	26.34	269.13	5819.75	32.23S	2130.37W	=>	-2128.46	N39 33 43.6546	W104 33 32.7815	
6400.00	26.34	269.13	5909.37	32.90S	2174.72W	=>	-2172.78	N39 33 43.6479	W104 33 33.3479	
6500.00	26.34	269.13	5998.99	33.57S	2219.08W	=>	-2217.10	N39 33 43.6412	W104 33 33.9143	
6600.00	26.34	269.13	6088.61	34.24S	2263.44W	=>	-2261.42	N39 33 43.6345	W104 33 34.4806	
6700.00	26.34	269.13	6178.23	34.92S	2307.80W	=>	-2305.73	N39 33 43.6279	W104 33 35.0470	
6800.00	26.34	269.13	6267.85	35.59S	2352.16W	=>	-2350.05	N39 33 43.6212	W104 33 35.6134	
6900.00	26.34	269.13	6357.47	36.26S	2396.52W	=>	-2394.37	N39 33 43.6145	W104 33 36.1798	
7000.00	26.34	269.13	6447.09	36.93S	2440.87W	=>	-2438.69	N39 33 43.6079	W104 33 36.7462	
7100.00	26.34	269.13	6536.71	37.60S	2485.23W	=>	-2483.01	N39 33 43.6012	W104 33 37.3126	
7200.00	26.34	269.13	6626.33	38.27S	2529.59W	=>	-2527.33	N39 33 43.5945	W104 33 37.8789	
7300.00	26.34	269.13	6715.95	38.94S	2573.95W	=>	-2571.64	N39 33 43.5878	W104 33 38.4453	
7400.00	26.34	269.13	6805.58	39.61S	2618.31W	=>	-2615.96	N39 33 43.5811	W104 33 39.0117	
7500.00	26.34	269.13	6895.20	40.28S	2662.66W	=>	-2660.28	N39 33 43.5745	W104 33 39.5781	
7553.74	26.34	269.13	6943.36	40.64S	2686.50W	=>	-2684.10	N39 33 43.5709	W104 33 39.8824	End of Hold
7600.00	22.18	268.71	6985.53	41.00S	2705.50W	9.00	-2703.08	N39 33 43.5674	W104 33 40.1250	
7700.00	13.19	266.94	7080.70	42.03S	2735.82W	9.00	-2733.35	N39 33 43.5571	W104 33 40.5122	
7800.00	4.27	257.91	7179.45	43.43S	2750.89W	9.00	-2748.37	N39 33 43.5433	W104 33 40.7045	
7900.00	4.94	102.47	7279.33	45.14S	2750.32W	9.00	-2747.75	N39 33 43.5264	W104 33 40.6973	
8000.00	13.88	95.06	7377.89	47.13S	2734.13W	9.00	-2731.51	N39 33 43.5067	W104 33 40.4906	
8100.00	22.86	93.42	7472.69	49.35S	2702.73W	9.00	-2700.06	N39 33 43.4848	W104 33 40.0896	
8200.00	31.86	92.68	7561.42	51.75S	2656.88W	9.00	-2654.16	N39 33 43.4612	W104 33 39.5042	
8210.16	32.77	92.62	7570.00	52.00S	2651.45W	9.00	-2648.73	N39 33 43.4587	W104 33 39.4349	Sharon Springs Shale
8271.63	38.30	92.34	7620.00	53.54S	2615.77W	9.00	-2613.02	N39 33 43.4435	W104 33 38.9794	Niobrara
8284.48	39.46	92.29	7630.01	53.86S	2607.71W	9.00	-2604.95	N39 33 43.4403	W104 33 38.8764	Niobrara A
8300.00	40.85	92.23	7641.87	54.26S	2597.71W	9.00	-2594.94	N39 33 43.4364	W104 33 38.7487	
8400.00	49.85	91.93	7712.07	56.82S	2526.69W	9.00	-2523.87	N39 33 43.4111	W104 33 37.8419	
8471.50	56.28	91.76	7755.01	58.66S	2469.60W	9.00	-2466.75	N39 33 43.3931	W104 33 37.1129	Niobrara B Top
8500.00	58.85	91.70	7770.29	59.38S	2445.55W	9.00	-2442.70	N39 33 43.3859	W104 33 36.8059	
8600.00	67.85	91.50	7815.10	61.87S	2356.30W	9.00	-2353.41	N39 33 43.3615	W104 33 35.6663	
8627.74	70.34	91.45	7825.00	62.54S	2330.40W	9.00	-2327.50	N39 33 43.3549	W104 33 35.3355	Niobrara C Top
8700.00	76.85	91.33	7845.40	64.22S	2261.14W	9.00	-2258.22	N39 33 43.3383	W104 33 34.512	
8800.00	85.85	91.18	7860.43	66.38S	2162.40W	9.00	-2159.46	N39 33 43.3170	W104 33 33.1905	
8846.17	90.00	91.11	7862.10	67.30S	2116.28W	9.00	-2113.34	N39 33 43.3080	W104 33 32.6016	S/C Kick off Point/Target, SILVER_2HN LP
8900.00	90.00	91.11	7862.10	68.34S	2062.46W	=>	-2059.51	N39 33 43.2978	W104 33 31.9144	
9000.00	90.00	91.11	7862.10	70.27S	1962.48W	=>	-1959.51	N39 33 43.2788	W104 33 30.6378	
9100.00	90.00	91.11	7862.10	72.19S	1862.50W	=>	-1859.52	N39 33 43.2598	W104 33 29.3612	
9200.00	90.00	91.11	7862.10	74.12S	1762.52W	=>	-1759.53	N39 33 43.2408	W104 33 28.0846	
9300.00	90.00	91.11	7862.10	76.05S	1662.54W	=>	-1659.53	N39 33 43.2218	W104 33 26.8080	
9400.00	90.00	91.11	7862.10	77.98S	1562.55W	=>	-1559.54	N39 33 43.2028	W104 33 25.5314	
9500.00	90.00	91.11	7862.10	79.91S	1462.57W	=>	-1459.54	N39 33 43.1838	W104 33 24.2548	
9600.00	90.00	91.11	7862.10	81.84S	1362.59W	=>	-1359.55	N39 33 43.1648	W104 33 22.9781	
9700.00	90.00	91.11	7862.10	83.77S	1262.61W	=>	-1259.55	N39 33 43.1458	W104 33 21.7015	
9800.00	90.00	91.11	7862.10	85.70S	1162.63W	=>	-1159.56	N39 33 43.1268	W104 33 20.4249	
9900.00	90.00	91.11	7862.10	87.63S	1062.65W	=>	-1059.56	N39 33 43.1078	W104 33 19.1483	
10000.00	90.00	91.11	7862.10	89.55S	962.67W	=>	-959.57	N39 33 43.0887	W104 33 17.8717	
10100.00	90.00	91.11	7862.10	91.48S	862.68W	=>	-859.57	N39 33 43.0697	W104 33 16.5951	
10200.00	90.00	91.11	7862.10	93.41S	762.70W	=>	-759.58	N39 33 43.0507	W104 33 15.3185	
10300.00	90.00	91.11	7862.10	95.34S	662.72W	=>	-659.59	N39 33 43.0317	W104 33 14.0419	
10400.00	90.00	91.11	7862.10	97.27S	562.74W	=>	-559.59	N39 33 43.0126	W104 33 12.7653	
10500.00	90.00	91.11	7862.10	99.20S	462.76W	=>	-459.60	N39 33 42.9936	W104 33 11.4887	
10600.00	90.00	91.11	7862.10	101.13S	362.78W	=>	-359.60	N39 33 42.9745	W104 33 10.2121	
10700.00	90.00	91.11	7862.10	103.06S	262.80W	=>	-259.61	N39 33 42.9555	W104 33 8.9355	
10800.00	90.00	91.11	7862.10	104.99S	162.81W	=>	-159.61	N39 33 42.9364	W104 33 7.6589	
10900.00	90.00	91.11	7862.10	106.91S	62.83W	=>	-59.62	N39 33 42.9174	W104 33 6.3823	
11000.00	90.00	91.11	7862.10	108.84S	37.15E	=>	40.38	N39 33 42.8983	W104 33 5.1057	
11100.00	90.00	91.11	7862.10	110.77S	137.13E	=>	140.37	N39 33 42.8792	W104 33 3.8291	
11200.00	90.00	91.11	7862.10	112.70S	237.11E	=>	240.36	N39 33 42.8602	W104 33 2.5525	
11300.00	90.00	91.11	7862.10	114.63S	337.09E	=>	340.36	N39 33 42.8411	W104 33 1.2759	
11400.00	90.00	91.11	7862.10	116.56S	437.07E	=>	440.35	N39 33 42.8220	W104 32 59.9993	
11500.00	90.00	91.11	7862.10	118.49S	537.06E	=>	540.35	N39 33 42.8029	W104 32 58.7227	
11600.00	90.00	91.11	7862.10	120.42S	637.04E	=>	640.34	N39 33 42.7838	W104 32 57.4461	
11700.00	90.00	91.11	7862.10	122.35S	737.02E	=>	740.34	N39 33 42.7647	W104 32 56.1694	
11800.00	90.00	91.11	7862.10	124.27S	837.00E	=>	840.33	N39 33 42.7457	W104 32 54.8928	
11900.00	90.00	91.11	7862.10	126.20S	936.98E	=>	940.33	N39 33 42.7266	W104 32 53.6162	
12000.00	90.00	91.11	7862.10	128.13S	1036.96E	=>	1040.32	N39 33 42.7075	W104 32 52.3396	
12100.00	90.00	91.11	7862.10	130.06S	1136.94E	=>	1140.31	N39 33 42.6883	W104 32 51.0630	

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 6017.1ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 91.71 degrees
Bottom hole distance is 10282.70 Feet on azimuth 91.71 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	91.11	7862.10	131.99S	1236.93E	=>	1240.31	N39 33 42.6692	W104 32 49.7864	
12300.00	90.00	91.11	7862.10	133.92S	1336.91E	=>	1340.30	N39 33 42.6501	W104 32 48.5098	
12400.00	90.00	91.11	7862.10	135.85S	1436.89E	=>	1440.30	N39 33 42.6310	W104 32 47.2332	
12500.00	90.00	91.11	7862.10	137.78S	1536.87E	=>	1540.29	N39 33 42.6119	W104 32 45.9566	
12600.00	90.00	91.11	7862.10	139.70S	1636.85E	=>	1640.29	N39 33 42.5928	W104 32 44.6800	
12700.00	90.00	91.11	7862.10	141.63S	1736.83E	=>	1740.28	N39 33 42.5736	W104 32 43.4034	
12800.00	90.00	91.11	7862.10	143.56S	1836.81E	=>	1840.28	N39 33 42.5545	W104 32 42.1268	
12900.00	90.00	91.11	7862.10	145.49S	1936.80E	=>	1940.27	N39 33 42.5354	W104 32 40.8502	
13000.00	90.00	91.11	7862.10	147.42S	2036.78E	=>	2040.26	N39 33 42.5162	W104 32 39.5736	
13100.00	90.00	91.11	7862.10	149.35S	2136.76E	=>	2140.26	N39 33 42.4971	W104 32 38.2970	
13200.00	90.00	91.11	7862.10	151.28S	2236.74E	=>	2240.25	N39 33 42.4779	W104 32 37.0204	
13300.00	90.00	91.11	7862.10	153.21S	2336.72E	=>	2340.25	N39 33 42.4588	W104 32 35.7438	
13400.00	90.00	91.11	7862.10	155.14S	2436.70E	=>	2440.24	N39 33 42.4396	W104 32 34.4672	
13500.00	90.00	91.11	7862.10	157.06S	2536.68E	=>	2540.24	N39 33 42.4204	W104 32 33.1906	
13600.00	90.00	91.11	7862.10	158.99S	2636.66E	=>	2640.23	N39 33 42.4013	W104 32 31.9140	
13700.00	90.00	91.11	7862.10	160.92S	2736.65E	=>	2740.23	N39 33 42.3821	W104 32 30.6374	
13800.00	90.00	91.11	7862.10	162.85S	2836.63E	=>	2840.22	N39 33 42.3629	W104 32 29.3608	
13900.00	90.00	91.11	7862.10	164.78S	2936.61E	=>	2940.22	N39 33 42.3438	W104 32 28.0842	
14000.00	90.00	91.11	7862.10	166.71S	3036.59E	=>	3040.21	N39 33 42.3246	W104 32 26.8076	
14100.00	90.00	91.11	7862.10	168.64S	3136.57E	=>	3140.20	N39 33 42.3054	W104 32 25.5310	
14200.00	90.00	91.11	7862.10	170.57S	3236.55E	=>	3240.20	N39 33 42.2862	W104 32 24.2544	
14300.00	90.00	91.11	7862.10	172.50S	3336.53E	=>	3340.19	N39 33 42.2670	W104 32 22.9779	
14400.00	90.00	91.11	7862.10	174.42S	3436.52E	=>	3440.19	N39 33 42.2478	W104 32 21.7013	
14500.00	90.00	91.11	7862.10	176.35S	3536.50E	=>	3540.18	N39 33 42.2286	W104 32 20.4247	
14600.00	90.00	91.11	7862.10	178.28S	3636.48E	=>	3640.18	N39 33 42.2094	W104 32 19.1481	
14700.00	90.00	91.11	7862.10	180.21S	3736.46E	=>	3740.17	N39 33 42.1902	W104 32 17.8715	
14800.00	90.00	91.11	7862.10	182.14S	3836.44E	=>	3840.17	N39 33 42.1710	W104 32 16.5949	
14900.00	90.00	91.11	7862.10	184.07S	3936.42E	=>	3940.16	N39 33 42.1518	W104 32 15.3183	
15000.00	90.00	91.11	7862.10	186.00S	4036.40E	=>	4040.15	N39 33 42.1326	W104 32 14.0417	
15100.00	90.00	91.11	7862.10	187.93S	4136.39E	=>	4140.15	N39 33 42.1133	W104 32 12.7651	
15200.00	90.00	91.11	7862.10	189.86S	4236.37E	=>	4240.14	N39 33 42.0941	W104 32 11.4885	
15300.00	90.00	91.11	7862.10	191.78S	4336.35E	=>	4340.14	N39 33 42.0749	W104 32 10.2119	
15400.00	90.00	91.11	7862.10	193.71S	4436.33E	=>	4440.13	N39 33 42.0556	W104 32 8.9353	
15500.00	90.00	91.11	7862.10	195.64S	4536.31E	=>	4540.13	N39 33 42.0364	W104 32 7.6587	
15600.00	90.00	91.11	7862.10	197.57S	4636.29E	=>	4640.12	N39 33 42.0171	W104 32 6.3821	
15700.00	90.00	91.11	7862.10	199.50S	4736.27E	=>	4740.12	N39 33 41.9979	W104 32 5.1055	
15800.00	90.00	91.11	7862.10	201.43S	4836.26E	=>	4840.11	N39 33 41.9786	W104 32 3.8289	
15900.00	90.00	91.11	7862.10	203.36S	4936.24E	=>	4940.10	N39 33 41.9594	W104 32 2.5523	
16000.00	90.00	91.11	7862.10	205.29S	5036.22E	=>	5040.10	N39 33 41.9401	W104 32 1.2757	
16100.00	90.00	91.11	7862.10	207.22S	5136.20E	=>	5140.09	N39 33 41.9209	W104 31 59.9991	
16200.00	90.00	91.11	7862.10	209.14S	5236.18E	=>	5240.09	N39 33 41.9016	W104 31 58.7225	
16300.00	90.00	91.11	7862.10	211.07S	5336.16E	=>	5340.08	N39 33 41.8823	W104 31 57.4459	
16400.00	90.00	91.11	7862.10	213.00S	5436.14E	=>	5440.08	N39 33 41.8630	W104 31 56.1694	
16500.00	90.00	91.11	7862.10	214.93S	5536.13E	=>	5540.07	N39 33 41.8438	W104 31 54.8928	
16600.00	90.00	91.11	7862.10	216.86S	5636.11E	=>	5640.07	N39 33 41.8245	W104 31 53.6162	
16700.00	90.00	91.11	7862.10	218.79S	5736.09E	=>	5740.06	N39 33 41.8052	W104 31 52.3396	
16800.00	90.00	91.11	7862.10	220.72S	5836.07E	=>	5840.05	N39 33 41.7859	W104 31 51.0630	
16900.00	90.00	91.11	7862.10	222.65S	5936.05E	=>	5940.05	N39 33 41.7666	W104 31 49.7864	
17000.00	90.00	91.11	7862.10	224.58S	6036.03E	=>	6040.04	N39 33 41.7473	W104 31 48.5098	
17100.00	90.00	91.11	7862.10	226.50S	6136.01E	=>	6140.04	N39 33 41.7280	W104 31 47.2332	
17200.00	90.00	91.11	7862.10	228.43S	6236.00E	=>	6240.03	N39 33 41.7087	W104 31 45.9566	
17300.00	90.00	91.11	7862.10	230.36S	6336.98E	=>	6340.03	N39 33 41.6894	W104 31 44.6800	
17400.00	90.00	91.11	7862.10	232.29S	6436.96E	=>	6440.02	N39 33 41.6701	W104 31 43.4034	
17500.00	90.00	91.11	7862.10	234.22S	6536.94E	=>	6540.02	N39 33 41.6507	W104 31 42.1268	
17600.00	90.00	91.11	7862.10	236.15S	6636.92E	=>	6640.01	N39 33 41.6314	W104 31 40.8502	
17700.00	90.00	91.11	7862.10	238.08S	6736.90E	=>	6740.01	N39 33 41.6121	W104 31 39.5737	
17800.00	90.00	91.11	7862.10	240.01S	6836.88E	=>	6840.00	N39 33 41.5928	W104 31 38.2971	
17900.00	90.00	91.11	7862.10	241.94S	6936.86E	=>	6939.99	N39 33 41.5734	W104 31 37.0205	
18000.00	90.00	91.11	7862.10	243.86S	7036.85E	=>	7039.99	N39 33 41.5541	W104 31 35.7439	
18100.00	90.00	91.11	7862.10	245.79S	7136.83E	=>	7139.98	N39 33 41.5347	W104 31 34.4673	
18200.00	90.00	91.11	7862.10	247.72S	7236.81E	=>	7239.98	N39 33 41.5154	W104 31 33.1907	
18300.00	90.00	91.11	7862.10	249.65S	7336.79E	=>	7339.97	N39 33 41.4961	W104 31 31.9141	
18400.00	90.00	91.11	7862.10	251.58S	7436.77E	=>	7439.97	N39 33 41.4767	W104 31 30.6375	
18500.00	90.00	91.11	7862.10	253.51S	7536.75E	=>	7539.96	N39 33 41.4573	W104 31 29.3609	
18600.00	90.00	91.11	7862.10	255.44S	7636.73E	=>	7639.96	N39 33 41.4380	W104 31 28.0843	
18700.00	90.00	91.11	7862.10	257.37S	7736.72E	=>	7739.95	N39 33 41.4186	W104 31 26.8078	
18800.00	90.00	91.11	7862.10	259.29S	7836.70E	=>	7839.94	N39 33 41.3992	W104 31 25.5312	
18900.00	90.00	91.11	7862.10	261.22S	7936.68E	=>	7939.94	N39 33 41.3799	W104 31 24.2546	
19000.00	90.00	91.11	7862.10	263.15S	8036.66E	=>	8039.93	N39 33 41.3605	W104 31 22.9780	
19100.00	90.00	91.11	7862.10	265.08S	8136.64E	=>	8139.93	N39 33 41.3411	W104 31 21.7014	
19200.00	90.00	91.11	7862.10	267.01S	8236.62E	=>	8239.92	N39 33 41.3217	W104 31 20.4248	
19300.00	90.00	91.11	7862.10	268.94S	8336.60E	=>	8339.92	N39 33 41.3023	W104 31 19.1482	
19400.00	90.00	91.11	7862.10	270.87S	8436.59E	=>	8439.91	N39 33 41.2829	W104 31 17.8716	
19500.00	90.00	91.11	7862.10	272.80S	8536.57E	=>	8539.91	N39 33 41.2635	W104 31 16.5951	
19600.00	90.00	91.11	7862.10	274.73S	8636.55E	=>	8639.90	N39 33 41.2441	W104 31 15.3185	
19700.00	90.00	91.11	7862.10	276.65S	8736.53E	=>	8739.89	N39 33 41.2247	W104 31 14.0419	
19800.00	90.00	91.11	7862.10	278.58S	8836.51E	=>	8839.89	N39 33 41.2053	W104 31 12.7653	
19900.00	90.00	91.11	7862.10	280.51S	8936.49E	=>	8939.88	N39 33 41.1859	W104 31 11.4887	
20000.00	90.00	91.11	7862.10	282.44S	9036.47E	=>	9039.88	N39 33 41.1665	W104 31 10.2121	
20100.00	90.00	91.11	7862.10	284.37S	9136.46E	=>	9139.87	N39 33 41.1471	W104 31 8.9355	
20200.00	90.00	91.11	7862.10	286.30S	9236.44E	=>	9239.87	N39 33 41.1276	W104 31 7.6590	
20300.00	90.00	91.11	7862.10	288.23S	9336.42E	=>	9339.86	N39 33 41.1082	W104 31 6.3824	
20400.00	90.00	91.11	7862.10	290.16S	9436.40E	=>	9439.86	N39 33 41.0888	W104 31 5.1058	
20500.00	90.00	91.11	7862.10	292.09S	9536.38E	=>	9539.85	N39 33 41.0693	W104 31 3.8292	
20600.00	90.00	91.11	7862.10	294.01S	9636.36E	=>	9639.84	N39 33 41.0499	W104 31 2.5526	

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Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 6017.1ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 91.71 degrees
Bottom hole distance is 10282.70 Feet on azimuth 91.71 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
20700.00	90.00	91.11	7862.10	295.94S	9735.34E	==>	9739.84	N39 33 41.0304	W104 31 1.2760	
20800.00	90.00	91.11	7862.10	297.87S	9835.33E	==>	9839.83	N39 33 41.0110	W104 30 59.9994	
20900.00	90.00	91.11	7862.10	299.80S	9935.31E	==>	9939.83	N39 33 40.9915	W104 30 58.7229	
21000.00	90.00	91.11	7862.10	301.73S	10035.29E	==>	10039.82	N39 33 40.9721	W104 30 57.4463	
21100.00	90.00	91.11	7862.10	303.66S	10135.27E	==>	10139.82	N39 33 40.9526	W104 30 56.1697	
21200.00	90.00	91.11	7862.10	305.59S	10235.25E	==>	10239.81	N39 33 40.9331	W104 30 54.8931	
21242.89	90.00	91.11	7862.10	306.41S	10278.13E	==>	10282.70	N39 33 40.9248	W104 30 54.3456	End of Hold/Target, SILVER 2HN BH

All data is in Feet unless otherwise stated
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Vertical Section is from 0.00N 0.00E on azimuth 91.71 degrees
Bottom hole distance is 10282.70 Feet on azimuth 91.71 degrees from Wellhead
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Targets							
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting
SILVER 2HN BH	306.41S	10278.13E	7862.10	N39 33 40.9248	W104 30 54.3456	1084608.68	3277693.35
SILVER 2HN LP	67.30S	2116.28W	7862.10	N39 33 43.3080	W104 33 32.6016	1084715.22	3265296.76

Formations						
Formation Name	Formation MD	Formation TVD	Wellpath Inc	Incidence Angle	North	East
Lower Dawson	79.00	79.00	0.00	90.00	0.00N	0.00E
Denver	204.00	204.00	0.00	90.00	0.00N	0.00E
Upper Arapahoe	1091.03	1091.00	2.37	87.63	0.03S	1.88W
Laramie - Fox Hills	1922.73	1896.01	23.99	66.01	2.88S	190.36W
Pierre Shale (Base of Fox Hills)	2182.94	2130.00	26.34	63.66	4.60S	304.11W
Sussex Sandstone	5898.59	5460.00	26.34	63.66	29.54S	1952.31W
Sharon Springs Shale	8210.16	7570.00	32.77	57.23	52.00S	2651.45W
Niobrara	8271.63	7620.00	38.30	51.70	53.54S	2615.77W
Niobrara A	8284.48	7630.01	39.46	50.54	53.86S	2607.71W
Niobrara B Top	8471.50	7755.01	56.28	33.72	58.66S	2469.60W
Niobrara C Top	8627.74	7825.00	70.34	19.66	62.54S	2330.40W

Survey Tool Program					
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
1095532	Planned	21242.89	7862.10	WdW Rate Gyro	Standard

Notes