

GMT Exploration

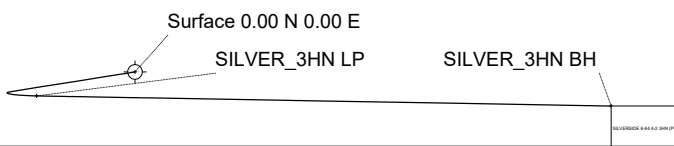
Location	DJ Basin	Slot	SILVERSIDE 6-64 4-2 3HN
Field	Elbert County Wells	Well	SILVERSIDE 6-64 4-2 3HN
Installation	Ragged 6-64 4 Pad	Wellbore	SILVERSIDE 6-64 4-2 3HN (PWB)

Created by cdoke
Date plotted 4-Apr-2023
Plot reference is SILVERSIDE 6-64 4-2 3HN (PWB).
Ref wellpath is SILVERSIDE 6-64 4-2 3HN (PWB).
Coordinates are in Feet reference SILVERSIDE 6-64 4-2 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: 6017.40 ft.
Plot North is aligned to TRUE North.

Scale 1 cm = 800 ft

East (Feet) ->

00 -3200 -1600 0 1600 3200 4800 6400 8000 9600 11200 12800

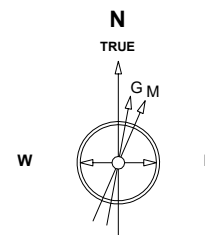
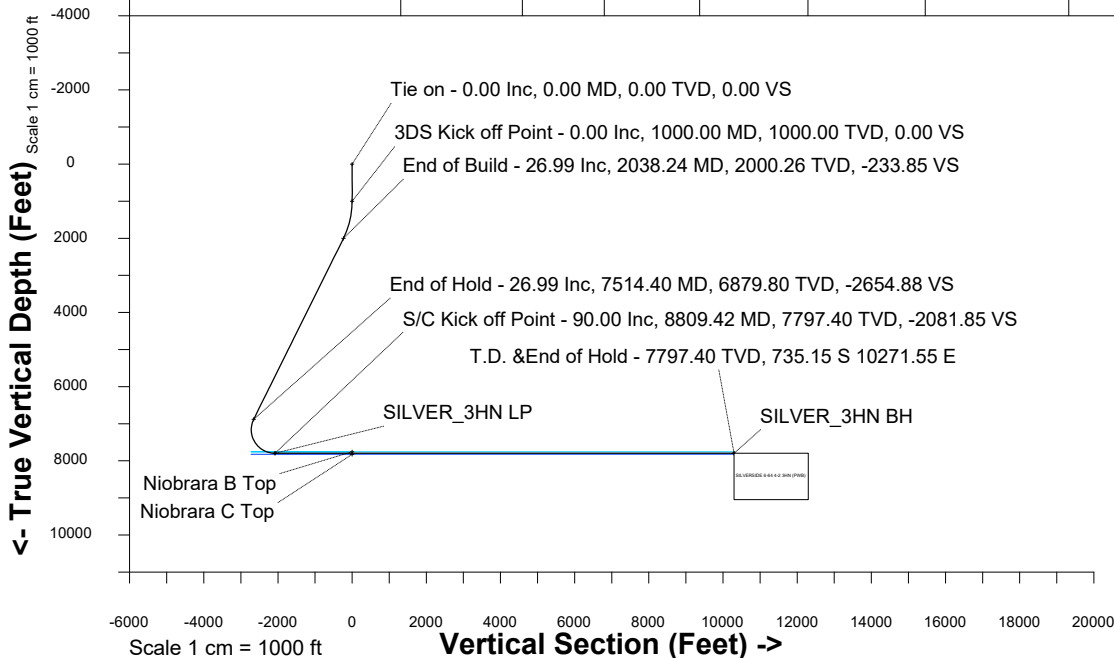


WELL PROFILE DATA

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	261.00	1000.00	S 0.00	W 0.00	0.00	0.00
End of Build	2038.24	26.99	261.00	2000.26	S 37.55	W 237.13	2.60	-233.85
End of Hold	7514.40	26.99	261.00	6879.80	S 426.33	W 2692.18	0.00	-2654.88
Target SILVER_3HN LP	8809.42	90.00	91.01	7797.40	S 517.52	W 2124.22	9.00	-2081.85
T.D. & Target SIL... BH	21207.09	90.00	91.01	7797.40	S 735.15	E 10271.55	0.00	10297.82

<- North(Feet)

Scale 1 cm = 800 ft



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 94.09 with reference 0.00 N, 0.00 E from SILVERSIDE 6-64 4-2 3HN

Wellhead Details							
Name	Latitude	Longitude	Northing	Easting	North	East	Slot Elevation Above Installation [ft]
SILVERSIDE 6-64 4-2 3HN	N39 33 43.7760	W104 33 5.5836	1084785.1137	3267412.1882	40.07S	0.28W	0.70

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	-6017.40	0.00N	0.00E		0.00
1000.00	0.00	261.00	1000.00	-5017.40	0.00N	0.00E	==>	0.00
2038.24	26.99	261.00	2000.26	-4017.14	37.55S	237.13W	2.60	-233.85
7514.40	26.99	261.00	6879.80	862.40	426.33S	2692.18W	==>	-2654.88
8809.42	90.00	91.01	7797.40	1780.00	517.52S	2124.22W	9.00	-2081.85
21207.09	90.00	91.01	7797.40	1780.00	735.15S	10271.55E	==>	10297.82

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 43.7760	W104 33 5.5836	Tie on, Slot Datum	
79.00	0.00	0.00	79.00	0.00N	0.00E	==>	0.00	N39 33 43.7760	W104 33 5.5836	Lower Dawson	
100.00	0.00	0.00	100.00	0.00N	0.00E	==>	0.00	N39 33 43.7760	W104 33 5.5836		
200.00	0.00	0.00	200.00	0.00N	0.00E	==>	0.00	N39 33 43.7760	W104 33 5.5836		
204.00	0.00	0.00	204.00	0.00N	0.00E	==>	0.00	N39 33 43.7760	W104 33 5.5836	Denver	
300.00	0.00	0.00	300.00	0.00N	0.00E	==>	0.00	N39 33 43.7760	W104 33 5.5836		
400.00	0.00	0.00	400.00	0.00N	0.00E	==>	0.00	N39 33 43.7760	W104 33 5.5836		
500.00	0.00	0.00	500.00	0.00N	0.00E	==>	0.00	N39 33 43.7760	W104 33 5.5836		
600.00	0.00	0.00	600.00	0.00N	0.00E	==>	0.00	N39 33 43.7760	W104 33 5.5836		
700.00	0.00	0.00	700.00	0.00N	0.00E	==>	0.00	N39 33 43.7760	W104 33 5.5836		
800.00	0.00	0.00	800.00	0.00N	0.00E	==>	0.00	N39 33 43.7760	W104 33 5.5836		
900.00	0.00	0.00	900.00	0.00N	0.00E	==>	0.00	N39 33 43.7760	W104 33 5.5836		
1000.00	0.00	261.00	1000.00	0.00N	0.00E	==>	0.00	N39 33 43.7760	W104 33 5.5836	3DS Kick off Point	
1091.03	2.37	261.00	1091.00	0.29S	1.86W	2.60	-1.83	N39 33 43.7731	W104 33 5.6073	Upper Arapahoe	
1100.00	2.60	261.00	1099.97	0.35S	2.24W	2.60	-2.21	N39 33 43.7725	W104 33 5.6122		
1200.00	5.20	261.00	1199.73	1.42S	8.96W	2.60	-8.83	N39 33 43.7620	W104 33 5.6980		
1300.00	7.80	261.00	1299.07	3.19S	20.14W	2.60	-19.86	N39 33 43.7445	W104 33 5.8407		
1400.00	10.40	261.00	1397.81	5.66S	35.76W	2.60	-35.26	N39 33 43.7200	W104 33 6.0402		
1500.00	13.00	261.00	1495.72	8.83S	55.79W	2.60	-55.01	N39 33 43.6887	W104 33 6.2959		
1600.00	15.60	261.00	1592.61	12.70S	80.18W	2.60	-79.07	N39 33 43.6505	W104 33 6.6074		
1700.00	18.20	261.00	1688.29	17.24S	108.89W	2.60	-107.38	N39 33 43.6056	W104 33 6.9739		
1800.00	20.80	261.00	1782.54	22.46S	141.86W	2.60	-139.89	N39 33 43.5540	W104 33 7.3949		
1900.00	23.40	261.00	1875.19	28.35S	179.01W	2.60	-176.53	N39 33 43.4958	W104 33 7.8693		
1922.73	23.99	261.00	1896.00	29.78S	188.03W	2.60	-185.43	N39 33 43.4817	W104 33 7.9845	Laramie - Fox Hills	
2000.00	26.00	261.00	1966.03	34.88S	220.28W	2.60	-217.23	N39 33 43.4312	W104 33 8.3962		
2038.24	26.99	261.00	2000.26	37.55S	237.13W	2.60	-233.85	N39 33 43.4049	W104 33 8.6114	End of Build	
2100.00	26.99	261.00	2055.29	41.94S	264.82W	==>	-261.15	N39 33 43.3615	W104 33 8.9649		
2183.85	26.99	261.00	2130.00	47.89S	302.41W	==>	-298.22	N39 33 43.3027	W104 33 9.4449	Pierre Shale (Base of Fox Hills)	
2200.00	26.99	261.00	2144.39	49.04S	309.65W	==>	-305.36	N39 33 43.2914	W104 33 9.5374		
2300.00	26.99	261.00	2233.50	56.14S	354.48W	==>	-349.57	N39 33 43.2212	W104 33 10.1098		
2400.00	26.99	261.00	2322.60	63.24S	399.31W	==>	-393.78	N39 33 43.1510	W104 33 10.6822		
2500.00	26.99	261.00	2411.71	70.34S	444.15W	==>	-437.99	N39 33 43.0808	W104 33 11.2546		
2600.00	26.99	261.00	2500.81	77.43S	488.98W	==>	-482.20	N39 33 43.0107	W104 33 11.8271		
2700.00	26.99	261.00	2589.92	84.53S	533.81W	==>	-526.41	N39 33 42.9405	W104 33 12.3995		
2800.00	26.99	261.00	2679.02	91.63S	578.64W	==>	-570.62	N39 33 42.8703	W104 33 12.9719		
2900.00	26.99	261.00	2768.13	98.73S	623.47W	==>	-614.83	N39 33 42.8001	W104 33 13.5443		
3000.00	26.99	261.00	2857.23	105.83S	668.30W	==>	-659.04	N39 33 42.7300	W104 33 14.1168		
3100.00	26.99	261.00	2946.34	112.93S	713.14W	==>	-703.25	N39 33 42.6598	W104 33 14.6892		
3200.00	26.99	261.00	3035.44	120.03S	757.97W	==>	-747.46	N39 33 42.5896	W104 33 15.2616		
3300.00	26.99	261.00	3124.55	127.13S	802.80W	==>	-791.67	N39 33 42.5194	W104 33 15.8340		
3400.00	26.99	261.00	3213.65	134.23S	847.63W	==>	-835.88	N39 33 42.4492	W104 33 16.4065		
3500.00	26.99	261.00	3302.76	141.33S	892.46W	==>	-880.09	N39 33 42.3791	W104 33 16.9789		
3600.00	26.99	261.00	3391.86	148.43S	937.29W	==>	-924.31	N39 33 42.3089	W104 33 17.5513		
3700.00	26.99	261.00	3480.97	155.53S	982.12W	==>	-968.52	N39 33 42.2387	W104 33 18.1237		
3800.00	26.99	261.00	3570.07	162.63S	1026.96W	==>	-1012.73	N39 33 42.1685	W104 33 18.6962		
3900.00	26.99	261.00	3659.18	169.73S	1071.79W	==>	-1056.94	N39 33 42.0983	W104 33 19.2686		
4000.00	26.99	261.00	3748.28	176.83S	1116.62W	==>	-1101.15	N39 33 42.0281	W104 33 19.8410		
4100.00	26.99	261.00	3837.39	183.93S	1161.45W	==>	-1145.36	N39 33 41.9580	W104 33 20.4134		
4200.00	26.99	261.00	3926.49	191.03S	1206.28W	==>	-1189.57	N39 33 41.8878	W104 33 20.9858		
4300.00	26.99	261.00	4015.60	198.13S	1251.11W	==>	-1233.78	N39 33 41.8176	W104 33 21.5583		
4400.00	26.99	261.00	4104.70	205.23S	1295.95W	==>	-1277.99	N39 33 41.7474	W104 33 22.1307		
4500.00	26.99	261.00	4193.81	212.33S	1340.78W	==>	-1322.20	N39 33 41.6772	W104 33 22.7031		

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 6017.4ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 94.09 degrees
Bottom hole distance is 10297.82 Feet on azimuth 94.09 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	26.99	261.00	4282.91	219.43S	1385.61W	=>	-1366.41	N39 33 41.6070	W104 33 23.2755	
4700.00	26.99	261.00	4372.02	226.52S	1430.44W	=>	-1410.62	N39 33 41.5368	W104 33 23.8480	
4800.00	26.99	261.00	4461.12	233.62S	1475.27W	=>	-1454.83	N39 33 41.4666	W104 33 24.4204	
4900.00	26.99	261.00	4550.23	240.72S	1520.10W	=>	-1499.04	N39 33 41.3965	W104 33 24.9928	
5000.00	26.99	261.00	4639.33	247.82S	1564.93W	=>	-1543.25	N39 33 41.3263	W104 33 25.5652	
5100.00	26.99	261.00	4728.44	254.92S	1609.77W	=>	-1587.46	N39 33 41.2561	W104 33 26.1376	
5200.00	26.99	261.00	4817.55	262.02S	1654.60W	=>	-1631.67	N39 33 41.1859	W104 33 26.7100	
5300.00	26.99	261.00	4906.65	269.12S	1699.43W	=>	-1675.88	N39 33 41.1157	W104 33 27.2825	
5400.00	26.99	261.00	4995.76	276.22S	1744.26W	=>	-1720.09	N39 33 41.0455	W104 33 27.8549	
5500.00	26.99	261.00	5084.86	283.32S	1789.09W	=>	-1764.30	N39 33 40.9753	W104 33 28.4273	
5600.00	26.99	261.00	5173.97	290.42S	1833.92W	=>	-1808.51	N39 33 40.9051	W104 33 28.9997	
5700.00	26.99	261.00	5263.07	297.52S	1878.76W	=>	-1852.72	N39 33 40.8349	W104 33 29.5721	
5800.00	26.99	261.00	5352.18	304.62S	1923.59W	=>	-1896.93	N39 33 40.7647	W104 33 30.1445	
5900.00	26.99	261.00	5441.28	311.72S	1968.42W	=>	-1941.14	N39 33 40.6945	W104 33 30.7170	
5921.01	26.99	261.00	5460.00	313.21S	1977.84W	=>	-1950.43	N39 33 40.6797	W104 33 30.8372	Sussex Sandstone
6000.00	26.99	261.00	5530.39	318.82S	2013.25W	=>	-1985.35	N39 33 40.6243	W104 33 31.2894	
6100.00	26.99	261.00	5619.49	325.92S	2058.08W	=>	-2029.56	N39 33 40.5541	W104 33 31.8618	
6200.00	26.99	261.00	5708.60	333.02S	2102.91W	=>	-2073.77	N39 33 40.4839	W104 33 32.4342	
6300.00	26.99	261.00	5797.70	340.12S	2147.74W	=>	-2117.98	N39 33 40.4137	W104 33 33.0066	
6400.00	26.99	261.00	5886.81	347.22S	2192.58W	=>	-2162.19	N39 33 40.3435	W104 33 33.5790	
6500.00	26.99	261.00	5975.91	354.32S	2237.41W	=>	-2206.40	N39 33 40.2733	W104 33 34.1514	
6600.00	26.99	261.00	6065.02	361.42S	2282.24W	=>	-2250.62	N39 33 40.2031	W104 33 34.7239	
6700.00	26.99	261.00	6154.12	368.52S	2327.07W	=>	-2294.83	N39 33 40.1329	W104 33 35.2963	
6800.00	26.99	261.00	6243.23	375.62S	2371.90W	=>	-2339.04	N39 33 40.0627	W104 33 35.8687	
6900.00	26.99	261.00	6332.33	382.71S	2416.73W	=>	-2383.25	N39 33 39.9925	W104 33 36.4411	
7000.00	26.99	261.00	6421.44	389.81S	2461.57W	=>	-2427.46	N39 33 39.9222	W104 33 37.0135	
7100.00	26.99	261.00	6510.54	396.91S	2506.40W	=>	-2471.67	N39 33 39.8520	W104 33 37.5859	
7200.00	26.99	261.00	6599.65	404.01S	2551.23W	=>	-2515.88	N39 33 39.7818	W104 33 38.1583	
7300.00	26.99	261.00	6688.75	411.11S	2596.06W	=>	-2560.09	N39 33 39.7116	W104 33 38.7307	
7400.00	26.99	261.00	6777.86	418.21S	2640.89W	=>	-2604.30	N39 33 39.6414	W104 33 39.3032	
7500.00	26.99	261.00	6866.96	425.31S	2685.72W	=>	-2648.51	N39 33 39.5712	W104 33 39.8756	
7514.40	26.99	261.00	6879.80	426.33S	2692.18W	=>	-2654.88	N39 33 39.5611	W104 33 39.9580	End of Hold
7600.00	19.49	256.53	6958.40	432.71S	2725.30W	9.00	-2687.46	N39 33 39.4980	W104 33 40.3809	
7700.00	11.06	244.08	7054.80	440.81S	2750.21W	9.00	-2711.72	N39 33 39.4180	W104 33 40.6989	
7800.00	5.13	190.53	7153.88	449.41S	2759.67W	9.00	-2720.54	N39 33 39.3330	W104 33 40.8197	
7900.00	9.58	122.61	7253.18	458.31S	2753.46W	9.00	-2713.72	N39 33 39.2450	W104 33 40.7404	
8000.00	17.86	106.95	7350.28	467.28S	2731.73W	9.00	-2691.40	N39 33 39.1563	W104 33 40.4630	
8100.00	26.60	101.18	7442.76	476.11S	2695.02W	9.00	-2654.16	N39 33 39.0691	W104 33 39.9942	
8200.00	35.47	98.14	7528.37	484.58S	2644.23W	9.00	-2602.89	N39 33 38.9855	W104 33 39.3457	
8252.72	40.16	97.02	7570.00	488.83S	2612.20W	9.00	-2570.64	N39 33 38.9435	W104 33 38.9367	Sharon Springs Shale
8300.00	44.38	96.19	7604.98	492.48S	2580.61W	9.00	-2538.87	N39 33 38.9075	W104 33 38.5334	
8321.38	46.29	95.86	7620.01	494.07S	2565.49W	9.00	-2523.67	N39 33 38.8917	W104 33 38.3403	Niobrara
8336.02	47.60	95.64	7630.00	495.15S	2554.85W	9.00	-2512.98	N39 33 38.8812	W104 33 38.2045	Niobrara A
8400.00	53.32	94.79	7670.72	499.61S	2505.73W	9.00	-2463.67	N39 33 38.8371	W104 33 37.5773	
8500.00	62.27	93.67	7723.96	505.80S	2421.43W	9.00	-2379.15	N39 33 38.7759	W104 33 36.5010	
8575.34	69.02	92.95	7755.01	509.75S	2352.96W	9.00	-2310.56	N39 33 38.7370	W104 33 35.6266	Niobrara B Top
8600.00	71.23	92.73	7763.40	510.90S	2329.79W	9.00	-2287.38	N39 33 38.7256	W104 33 35.3309	
8700.00	80.19	91.88	7788.06	514.78S	2233.06W	9.00	-2190.62	N39 33 38.6874	W104 33 34.0958	
8800.00	89.16	91.08	7797.33	517.35S	2133.63W	9.00	-2091.25	N39 33 38.6621	W104 33 32.8262	
8809.42	90.00	91.01	7797.40	517.52S	2124.22W	9.00	-2081.85	N39 33 38.6604	W104 33 32.7060	S/C Kick off Point/Target, SILVER 3HN LP
8900.00	90.00	91.01	7797.40	519.11S	2033.65W	=>	-1991.40	N39 33 38.6448	W104 33 31.5496	
9000.00	90.00	91.01	7797.40	520.87S	1933.66W	=>	-1891.54	N39 33 38.6275	W104 33 30.2730	
9100.00	90.00	91.01	7797.40	522.62S	1833.68W	=>	-1791.69	N39 33 38.6102	W104 33 28.9964	
9200.00	90.00	91.01	7797.40	524.38S	1733.69W	=>	-1691.84	N39 33 38.5929	W104 33 27.7197	
9300.00	90.00	91.01	7797.40	526.13S	1633.71W	=>	-1591.98	N39 33 38.5757	W104 33 26.4431	
9400.00	90.00	91.01	7797.40	527.89S	1533.72W	=>	-1492.13	N39 33 38.5584	W104 33 25.1665	
9500.00	90.00	91.01	7797.40	529.64S	1433.74W	=>	-1392.27	N39 33 38.5411	W104 33 23.8899	
9600.00	90.00	91.01	7797.40	531.40S	1333.76W	=>	-1292.42	N39 33 38.5238	W104 33 22.6132	
9700.00	90.00	91.01	7797.40	533.16S	1233.77W	=>	-1192.56	N39 33 38.5065	W104 33 21.3366	
9800.00	90.00	91.01	7797.40	534.91S	1133.79W	=>	-1092.71	N39 33 38.4892	W104 33 20.0600	
9900.00	90.00	91.01	7797.40	536.67S	1033.80W	=>	-992.85	N39 33 38.4719	W104 33 18.7834	
10000.00	90.00	91.01	7797.40	538.42S	933.82W	=>	-893.00	N39 33 38.4546	W104 33 17.5067	
10100.00	90.00	91.01	7797.40	540.18S	833.83W	=>	-793.14	N39 33 38.4373	W104 33 16.2301	
10200.00	90.00	91.01	7797.40	541.93S	733.85W	=>	-693.29	N39 33 38.4199	W104 33 14.9535	
10300.00	90.00	91.01	7797.40	543.69S	633.86W	=>	-593.43	N39 33 38.4026	W104 33 13.6769	
10400.00	90.00	91.01	7797.40	545.44S	533.88W	=>	-493.58	N39 33 38.3853	W104 33 12.4003	
10500.00	90.00	91.01	7797.40	547.20S	433.89W	=>	-393.72	N39 33 38.3680	W104 33 11.1236	
10600.00	90.00	91.01	7797.40	548.95S	333.91W	=>	-293.87	N39 33 38.3506	W104 33 9.8470	
10700.00	90.00	91.01	7797.40	550.71S	233.92W	=>	-194.01	N39 33 38.3333	W104 33 8.5704	
10800.00	90.00	91.01	7797.40	552.46S	133.94W	=>	-94.16	N39 33 38.3159	W104 33 7.2938	
10900.00	90.00	91.01	7797.40	554.22S	33.96W	=>	5.70	N39 33 38.2986	W104 33 6.0171	
11000.00	90.00	91.01	7797.40	555.98S	66.03E	=>	105.55	N39 33 38.2813	W104 33 4.7405	
11100.00	90.00	91.01	7797.40	557.73S	166.01E	=>	205.41	N39 33 38.2639	W104 33 3.4639	
11200.00	90.00	91.01	7797.40	559.49S	266.00E	=>	305.26	N39 33 38.2465	W104 33 2.1873	
11300.00	90.00	91.01	7797.40	561.24S	365.98E	=>	405.12	N39 33 38.2292	W104 33 0.9107	
11400.00	90.00	91.01	7797.40	563.00S	465.97E	=>	504.97	N39 33 38.2118	W104 33 59.6340	
11500.00	90.00	91.01	7797.40	564.75S	565.95E	=>	604.83	N39 33 38.1944	W104 33 58.3574	
11600.00	90.00	91.01	7797.40	566.51S	665.94E	=>	704.68	N39 33 38.1771	W104 33 57.0808	
11700.00	90.00	91.01	7797.40	568.26S	765.92E	=>	804.53	N39 33 38.1597	W104 33 55.8042	
11800.00	90.00	91.01	7797.40	570.02S	865.91E	=>	904.39	N39 33 38.1423	W104 33 54.5276	
11900.00	90.00	91.01	7797.40	571.77S	965.89E	=>	1004.24	N39 33 38.1249	W104 33 53.2509	
12000.00	90.00	91.01	7797.40	573.53S	1065.88E	=>	1104.10	N39 33 38.1075	W104 33 51.9743	
12100.00	90.00	91.01	7797.40	575.29S	1165.86E	=>	1203.95	N39 33 38.0901	W104 33 50.6977	
12200.00	90.00	91.01	7797.40	577.04S	1265.84E	=>	1303.81	N39 33 38.0728	W104 33 49.4211	

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 6017.4ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 94.09 degrees
Bottom hole distance is 10297.82 Feet on azimuth 94.09 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
12300.00	90.00	91.01	7797.40	578.80S	1365.83E	=>	1403.66	N39 33 38.0554	W104 32 48.1445	
12400.00	90.00	91.01	7797.40	580.55S	1465.81E	=>	1503.52	N39 33 38.0379	W104 32 46.8679	
12500.00	90.00	91.01	7797.40	582.31S	1565.80E	=>	1603.37	N39 33 38.0205	W104 32 45.5912	
12600.00	90.00	91.01	7797.40	584.06S	1665.78E	=>	1703.23	N39 33 38.0031	W104 32 44.3146	
12700.00	90.00	91.01	7797.40	585.82S	1765.77E	=>	1803.08	N39 33 37.9857	W104 32 43.0380	
12800.00	90.00	91.01	7797.40	587.57S	1865.75E	=>	1902.94	N39 33 37.9683	W104 32 41.7614	
12900.00	90.00	91.01	7797.40	589.33S	1965.74E	=>	2002.79	N39 33 37.9509	W104 32 40.4848	
13000.00	90.00	91.01	7797.40	591.08S	2065.72E	=>	2102.65	N39 33 37.9334	W104 32 39.2081	
13100.00	90.00	91.01	7797.40	592.84S	2165.71E	=>	2202.50	N39 33 37.9160	W104 32 37.9315	
13200.00	90.00	91.01	7797.40	594.59S	2265.69E	=>	2302.36	N39 33 37.8986	W104 32 36.6549	
13300.00	90.00	91.01	7797.40	596.35S	2365.67E	=>	2402.21	N39 33 37.8811	W104 32 35.3783	
13400.00	90.00	91.01	7797.40	598.11S	2465.66E	=>	2502.07	N39 33 37.8637	W104 32 34.1017	
13500.00	90.00	91.01	7797.40	599.86S	2565.64E	=>	2601.92	N39 33 37.8462	W104 32 32.8251	
13600.00	90.00	91.01	7797.40	601.62S	2665.63E	=>	2701.78	N39 33 37.8288	W104 32 31.5484	
13700.00	90.00	91.01	7797.40	603.37S	2765.61E	=>	2801.63	N39 33 37.8113	W104 32 30.2718	
13800.00	90.00	91.01	7797.40	605.13S	2865.60E	=>	2901.49	N39 33 37.7939	W104 32 28.9952	
13900.00	90.00	91.01	7797.40	606.88S	2965.58E	=>	3001.34	N39 33 37.7764	W104 32 27.7186	
14000.00	90.00	91.01	7797.40	608.64S	3065.57E	=>	3101.20	N39 33 37.7589	W104 32 26.4420	
14100.00	90.00	91.01	7797.40	610.39S	3165.55E	=>	3201.05	N39 33 37.7415	W104 32 25.1654	
14200.00	90.00	91.01	7797.40	612.15S	3265.54E	=>	3300.90	N39 33 37.7240	W104 32 23.8888	
14300.00	90.00	91.01	7797.40	613.90S	3365.52E	=>	3400.76	N39 33 37.7065	W104 32 22.6121	
14400.00	90.00	91.01	7797.40	615.66S	3465.51E	=>	3500.61	N39 33 37.6890	W104 32 21.3355	
14500.00	90.00	91.01	7797.40	617.41S	3565.49E	=>	3600.47	N39 33 37.6715	W104 32 20.0589	
14600.00	90.00	91.01	7797.40	619.17S	3665.47E	=>	3700.32	N39 33 37.6540	W104 32 18.7823	
14700.00	90.00	91.01	7797.40	620.93S	3765.46E	=>	3800.18	N39 33 37.6365	W104 32 17.5057	
14800.00	90.00	91.01	7797.40	622.68S	3865.44E	=>	3900.03	N39 33 37.6190	W104 32 16.2291	
14900.00	90.00	91.01	7797.40	624.44S	3965.43E	=>	3999.89	N39 33 37.6015	W104 32 14.9525	
15000.00	90.00	91.01	7797.40	626.19S	4065.41E	=>	4099.74	N39 33 37.5840	W104 32 13.6758	
15100.00	90.00	91.01	7797.40	627.95S	4165.40E	=>	4199.60	N39 33 37.5665	W104 32 12.3992	
15200.00	90.00	91.01	7797.40	629.70S	4265.38E	=>	4299.45	N39 33 37.5490	W104 32 11.1226	
15300.00	90.00	91.01	7797.40	631.46S	4365.37E	=>	4399.31	N39 33 37.5315	W104 32 9.8460	
15400.00	90.00	91.01	7797.40	633.21S	4465.35E	=>	4499.16	N39 33 37.5140	W104 32 8.5694	
15500.00	90.00	91.01	7797.40	634.97S	4565.34E	=>	4599.02	N39 33 37.4964	W104 32 7.2928	
15600.00	90.00	91.01	7797.40	636.72S	4665.32E	=>	4698.87	N39 33 37.4789	W104 32 6.0162	
15700.00	90.00	91.01	7797.40	638.48S	4765.30E	=>	4798.73	N39 33 37.4614	W104 32 4.7395	
15800.00	90.00	91.01	7797.40	640.23S	4865.29E	=>	4898.58	N39 33 37.4438	W104 32 3.4629	
15900.00	90.00	91.01	7797.40	641.99S	4965.27E	=>	4998.44	N39 33 37.4263	W104 32 2.1863	
16000.00	90.00	91.01	7797.40	643.75S	5065.26E	=>	5098.29	N39 33 37.4087	W104 32 0.9097	
16100.00	90.00	91.01	7797.40	645.50S	5165.24E	=>	5198.15	N39 33 37.3912	W104 31 59.6331	
16200.00	90.00	91.01	7797.40	647.26S	5265.23E	=>	5298.00	N39 33 37.3736	W104 31 58.3565	
16300.00	90.00	91.01	7797.40	649.01S	5365.21E	=>	5397.86	N39 33 37.3561	W104 31 57.0799	
16400.00	90.00	91.01	7797.40	650.77S	5465.20E	=>	5497.71	N39 33 37.3385	W104 31 55.8033	
16500.00	90.00	91.01	7797.40	652.52S	5565.18E	=>	5597.57	N39 33 37.3210	W104 31 54.5267	
16600.00	90.00	91.01	7797.40	654.28S	5665.17E	=>	5697.42	N39 33 37.3034	W104 31 53.2500	
16700.00	90.00	91.01	7797.40	656.03S	5765.15E	=>	5797.27	N39 33 37.2858	W104 31 51.9734	
16800.00	90.00	91.01	7797.40	657.79S	5865.14E	=>	5897.13	N39 33 37.2682	W104 31 50.6968	
16900.00	90.00	91.01	7797.40	659.54S	5965.12E	=>	5996.98	N39 33 37.2506	W104 31 49.4202	
17000.00	90.00	91.01	7797.40	661.30S	6065.10E	=>	6096.84	N39 33 37.2331	W104 31 48.1436	
17100.00	90.00	91.01	7797.40	663.06S	6165.09E	=>	6196.69	N39 33 37.2155	W104 31 46.8670	
17200.00	90.00	91.01	7797.40	664.81S	6265.07E	=>	6296.55	N39 33 37.1979	W104 31 45.5904	
17300.00	90.00	91.01	7797.40	666.57S	6365.06E	=>	6396.40	N39 33 37.1803	W104 31 44.3138	
17400.00	90.00	91.01	7797.40	668.32S	6465.04E	=>	6496.26	N39 33 37.1627	W104 31 43.0372	
17500.00	90.00	91.01	7797.40	670.08S	6565.03E	=>	6596.11	N39 33 37.1451	W104 31 41.7606	
17600.00	90.00	91.01	7797.40	671.83S	6665.01E	=>	6695.97	N39 33 37.1275	W104 31 40.4839	
17700.00	90.00	91.01	7797.40	673.59S	6765.00E	=>	6795.82	N39 33 37.1098	W104 31 39.2073	
17800.00	90.00	91.01	7797.40	675.34S	6864.98E	=>	6895.68	N39 33 37.0922	W104 31 37.9307	
17900.00	90.00	91.01	7797.40	677.10S	6964.97E	=>	6995.53	N39 33 37.0746	W104 31 36.6541	
18000.00	90.00	91.01	7797.40	678.85S	7064.95E	=>	7095.39	N39 33 37.0570	W104 31 35.3775	
18100.00	90.00	91.01	7797.40	680.61S	7164.94E	=>	7195.24	N39 33 37.0393	W104 31 34.1009	
18200.00	90.00	91.01	7797.40	682.36S	7264.92E	=>	7295.10	N39 33 37.0217	W104 31 32.8243	
18300.00	90.00	91.01	7797.40	684.12S	7364.90E	=>	7394.95	N39 33 37.0041	W104 31 31.5477	
18400.00	90.00	91.01	7797.40	685.88S	7464.89E	=>	7494.81	N39 33 36.9864	W104 31 30.2711	
18500.00	90.00	91.01	7797.40	687.63S	7564.87E	=>	7594.66	N39 33 36.9688	W104 31 28.9945	
18600.00	90.00	91.01	7797.40	689.39S	7664.86E	=>	7694.52	N39 33 36.9511	W104 31 27.7179	
18700.00	90.00	91.01	7797.40	691.14S	7764.84E	=>	7794.37	N39 33 36.9335	W104 31 26.4413	
18800.00	90.00	91.01	7797.40	692.90S	7864.83E	=>	7894.23	N39 33 36.9158	W104 31 25.1647	
18900.00	90.00	91.01	7797.40	694.65S	7964.81E	=>	7994.08	N39 33 36.8982	W104 31 23.8880	
19000.00	90.00	91.01	7797.40	696.41S	8064.80E	=>	8093.94	N39 33 36.8805	W104 31 22.6114	
19100.00	90.00	91.01	7797.40	698.16S	8164.78E	=>	8193.79	N39 33 36.8628	W104 31 21.3348	
19200.00	90.00	91.01	7797.40	699.92S	8264.77E	=>	8293.64	N39 33 36.8452	W104 31 20.0582	
19300.00	90.00	91.01	7797.40	701.67S	8364.75E	=>	8393.50	N39 33 36.8275	W104 31 18.7816	
19400.00	90.00	91.01	7797.40	703.43S	8464.73E	=>	8493.35	N39 33 36.8098	W104 31 17.5050	
19500.00	90.00	91.01	7797.40	705.18S	8564.72E	=>	8593.21	N39 33 36.7921	W104 31 16.2284	
19600.00	90.00	91.01	7797.40	706.94S	8664.70E	=>	8693.06	N39 33 36.7744	W104 31 14.9518	
19700.00	90.00	91.01	7797.40	708.70S	8764.69E	=>	8792.92	N39 33 36.7567	W104 31 13.6752	
19800.00	90.00	91.01	7797.40	710.45S	8864.67E	=>	8892.77	N39 33 36.7390	W104 31 12.3986	
19900.00	90.00	91.01	7797.40	712.21S	8964.66E	=>	8992.63	N39 33 36.7213	W104 31 11.1220	
20000.00	90.00	91.01	7797.40	713.96S	9064.64E	=>	9092.48	N39 33 36.7036	W104 31 9.8454	
20100.00	90.00	91.01	7797.40	715.72S	9164.63E	=>	9192.34	N39 33 36.6859	W104 31 8.5688	
20200.00	90.00	91.01	7797.40	717.47S	9264.61E	=>	9292.19	N39 33 36.6682	W104 31 7.2922	
20300.00	90.00	91.01	7797.40	719.23S	9364.60E	=>	9392.05	N39 33 36.6505	W104 31 6.0156	
20400.00	90.00	91.01	7797.40	720.98S	9464.58E	=>	9491.90	N39 33 36.6328	W104 31 4.7390	
20500.00	90.00	91.01	7797.40	722.74S	9564.57E	=>	9591.76	N39 33 36.6150	W104 31 3.4624	
20600.00	90.00	91.01	7797.40	724.49S	9664.55E	=>	9691.61	N39 33 36.5973	W104 31 2.1858	
20700.00	90.00	91.01	7797.40	726.25S	9764.53E	=>	9791.47	N39 33 36.5796	W104 31 0.9092	

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 Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 6017.4ft above Mean Sea Level)
 Vertical Section is from 0.00N 0.00E on azimuth 94.09 degrees
 Bottom hole distance is 10297.82 Feet on azimuth 94.09 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
20800.00	90.00	91.01	7797.40	728.00S	9864.52E	==>	9891.32	N39 33 36.5618	W104 30 59.6326	
20900.00	90.00	91.01	7797.40	729.76S	9964.50E	==>	9991.18	N39 33 36.5441	W104 30 58.3560	
21000.00	90.00	91.01	7797.40	731.52S	10064.49E	==>	10091.03	N39 33 36.5264	W104 30 57.0793	
21100.00	90.00	91.01	7797.40	733.27S	10164.47E	==>	10190.89	N39 33 36.5086	W104 30 55.8027	
21200.00	90.00	91.01	7797.40	735.03S	10264.46E	==>	10290.74	N39 33 36.4909	W104 30 54.5261	
21207.09	90.00	91.01	7797.40	735.15S	10271.55E	==>	10297.82	N39 33 36.4896	W104 30 54.4356	End of Hold/Target, SILVER_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 6017.4ft above Mean Sea Level)
 Vertical Section is from 0.00N 0.00E on azimuth 94.09 degrees
 Bottom hole distance is 10297.82 Feet on azimuth 94.09 degrees from Wellhead
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Targets							
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting
SILVER 3HN BH	735.15S	10271.55E	7797.40	N39 33 36.4896	W104 30 54.4356	1084159.85	3277691.29
SILVER 3HN LP	517.52S	2124.22W	7797.40	N39 33 38.6604	W104 33 32.7060	1084244.89	3265293.57

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	0.29S	1.86W
Laramie - Fox Hills	1922.73	1896.00	23.99	66.01	29.78S	188.03W
Pierre Shale (Base of Fox Hills)	2183.85	2130.00	26.99	63.01	47.89S	302.41W
Sussex Sandstone	5921.01	5460.00	26.99	63.01	313.21S	1977.84W
Sharon Springs Shale	8252.72	7570.00	40.16	49.84	488.83S	2612.20W
Niobrara	8321.38	7620.01	46.29	43.71	494.07S	2565.49W
Niobrara A	8336.02	7630.00	47.60	42.40	495.15S	2554.85W
Niobrara B Top	8575.34	7755.01	69.02	20.98	509.75S	2352.96W

Survey Tool Program					
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
1095550	Planned	21207.09	7797.40	WdW Rate Gyro	Standard

Notes