

One Energy Partners

GL = 3591' @ 3616.00usft (KB +25')

Ground Level: 3591.00

Project: Lea County, NM (NAD 27)

Site: Silverton BS1 State Com

Well: 1H

Wellbore: Wellbore #1

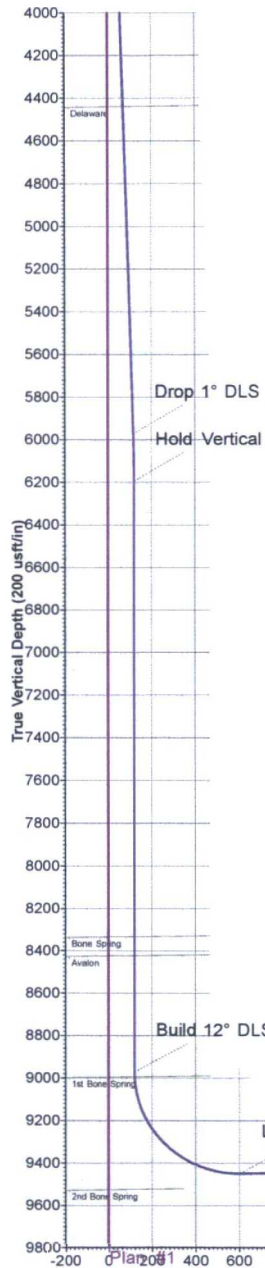
Design: Plan 1

Rig: KB +25'

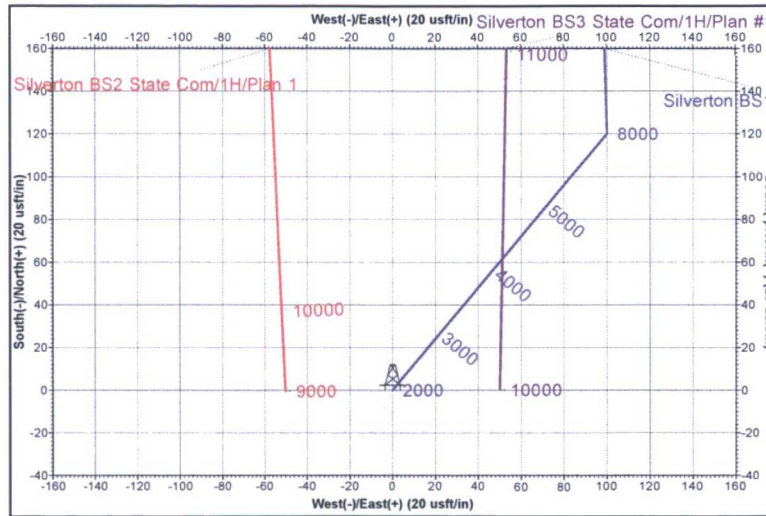
Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001



Azimuths to Grid North
True North: -0.50°
Magnetic North: 6.40°
Magnetic Field
Strength: 48056.5nT
Dip Angle: 60.23°
Date: 12/8/2017
Model: BGGM2017

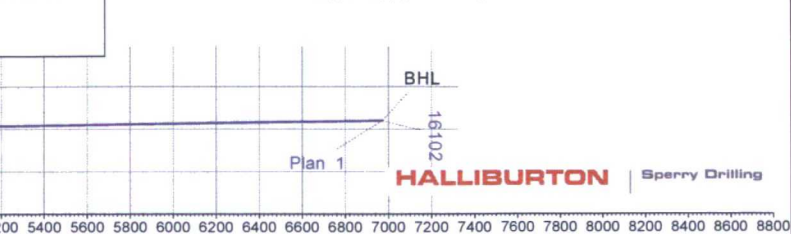
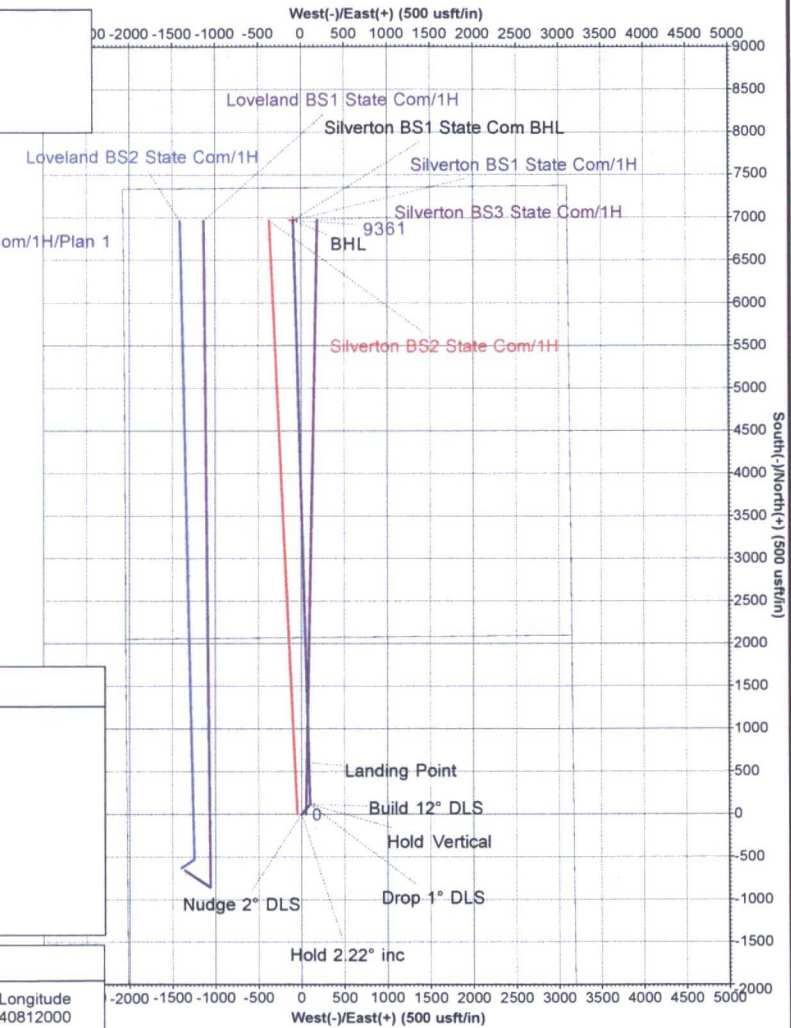


WELL DETAILS					
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	507977.17	785617.83	32.39314700	-103.40801700



SECTION DETAILS								
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	Nudge 2° DLS
2111.03	2.22	39.81	2111.00	1.65	1.38	2.00	1.63	Hold 2.22° inc
5975.93	2.22	39.81	5973.00	116.69	97.25	0.00	115.39	Drop 1° DLS
6197.99	0.00	0.00	6195.00	120.00	100.00	1.00	118.66	Hold Vertical
8975.20	0.00	0.00	8972.22	120.00	100.00	0.00	118.66	Build 12° DLS
9731.87	90.80	358.39	9449.63	603.94	86.43	12.00	602.74	Landing Point
16101.55	90.80	358.39	9360.70	6970.50	-92.12	0.00	6971.11	BHL

DESIGN TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Silverton BS1 State Com BHL	6970.50	-92.12	514947.67	785525.71	32.41230800	-103.40812000	



HALLIBURTON | Sperry Drilling

KB +25'

One Energy Partners

Lea County, NM (NAD 27) Silverton BS1 State Com

API#

1H

Wellbore #1

Plan: Plan 1

Sperry Drilling Services

Combo Report

08 December, 2017

Well Coordinates: 32° 23' 35.33" N
103° 24' 28.86" W

NAD 1927 (NADCON CONUS)
New Mexico East 3001
507,977.17 N
785,617.83 E

Ground Level: 3,591.00 usft

Local Coordinate Origin:

Viewing Datum:

TVDs to System:

North Reference:

Unit System:

Centered on Site Silverton BS1 State Com

GL = 3591' @ 3616.00usft (KB +25')

N

Grid

Midcon (2 decimal)

Version: 5000.1 Build: 81D

Report Version: Midcon Combo v1.11

HALLIBURTON

Plan Report for 1H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	TVD below System (usft)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Comments
					Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)			
0.00	0.00	0.00	-3,616.00	0.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	Silverton BS1 State Com BHL
100.00	0.00	0.00	-3,516.00	100.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	
200.00	0.00	0.00	-3,416.00	200.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	
300.00	0.00	0.00	-3,316.00	300.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	
400.00	0.00	0.00	-3,216.00	400.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	
500.00	0.00	0.00	-3,116.00	500.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	
566.00	0.00	0.00	-3,050.00	566.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	Rustler
600.00	0.00	0.00	-3,016.00	600.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	
700.00	0.00	0.00	-2,916.00	700.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	
800.00	0.00	0.00	-2,816.00	800.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	
900.00	0.00	0.00	-2,716.00	900.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	
1,000.00	0.00	0.00	-2,616.00	1,000.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	13 3/8"
1,100.00	0.00	0.00	-2,516.00	1,100.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	
1,200.00	0.00	0.00	-2,416.00	1,200.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	
1,300.00	0.00	0.00	-2,316.00	1,300.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	
1,400.00	0.00	0.00	-2,216.00	1,400.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	
1,500.00	0.00	0.00	-2,116.00	1,500.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	
1,566.00	0.00	0.00	-2,050.00	1,566.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	Top of Salt
1,600.00	0.00	0.00	-2,016.00	1,600.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	
1,700.00	0.00	0.00	-1,916.00	1,700.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	
1,800.00	0.00	0.00	-1,816.00	1,800.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	
1,900.00	0.00	0.00	-1,716.00	1,900.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	
2,000.00	0.00	0.00	-1,616.00	2,000.00	0.00 N	0.00 E	507,977.17	785,617.83	0.00	0.00	Nudge 2° DLS
2,100.00	2.00	39.81	-1,516.02	2,099.98	1.34 N	1.12 E	507,978.51	785,618.95	2.00	1.33	
2,111.03	2.22	39.81	-1,505.00	2,111.00	1.65 N	1.38 E	507,978.82	785,619.21	2.00	1.63	Hold 2.22° inc
2,200.00	2.22	39.81	-1,416.09	2,199.91	4.30 N	3.58 E	507,981.47	785,621.42	0.00	4.25	
2,300.00	2.22	39.81	-1,316.17	2,299.83	7.28 N	6.06 E	507,984.45	785,623.90	0.00	7.20	
2,400.00	2.22	39.81	-1,216.24	2,399.76	10.25 N	8.55 E	507,987.42	785,626.38	0.00	10.14	
2,500.00	2.22	39.81	-1,116.32	2,499.68	13.23 N	11.03 E	507,990.40	785,628.86	0.00	13.08	
2,600.00	2.22	39.81	-1,016.39	2,599.61	16.21 N	13.51 E	507,993.38	785,631.34	0.00	16.03	
2,700.00	2.22	39.81	-916.47	2,699.53	19.18 N	15.99 E	507,996.35	785,633.82	0.00	18.97	
2,800.00	2.22	39.81	-816.55	2,799.45	22.16 N	18.47 E	507,999.33	785,636.30	0.00	21.91	
2,900.00	2.22	39.81	-716.62	2,899.38	25.14 N	20.95 E	508,002.31	785,638.78	0.00	24.86	
3,000.00	2.22	39.81	-616.70	2,999.30	28.11 N	23.43 E	508,005.28	785,641.26	0.00	27.80	
3,100.00	2.22	39.81	-516.77	3,099.23	31.09 N	25.91 E	508,008.26	785,643.74	0.00	30.74	
3,200.00	2.22	39.81	-416.85	3,199.15	34.07 N	28.39 E	508,011.24	785,646.22	0.00	33.69	
3,300.00	2.22	39.81	-316.92	3,299.08	37.04 N	30.87 E	508,014.21	785,648.70	0.00	36.63	
3,400.00	2.22	39.81	-217.00	3,399.00	40.02 N	33.35 E	508,017.19	785,651.18	0.00	39.57	
3,500.00	2.22	39.81	-117.07	3,498.93	43.00 N	35.83 E	508,020.17	785,653.66	0.00	42.52	
3,566.50	2.22	39.81	-50.62	3,565.38	44.98 N	37.48 E	508,022.14	785,655.31	0.00	44.47	Base of Salt
3,600.00	2.22	39.81	-17.15	3,598.85	45.97 N	38.31 E	508,023.14	785,656.14	0.00	45.46	

Plan Report for 1H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	TVD below System (usft)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Comments
					Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)			
3,700.00	2.22	39.81	82.78	3,698.78	48.95 N	40.79 E	508,026.12	785,658.62	0.00	48.40	
3,800.00	2.22	39.81	182.70	3,798.70	51.93 N	43.27 E	508,029.10	785,661.10	0.00	51.35	
3,900.00	2.22	39.81	282.63	3,898.63	54.90 N	45.75 E	508,032.07	785,663.58	0.00	54.29	
4,000.00	2.22	39.81	382.55	3,998.55	57.88 N	48.23 E	508,035.05	785,666.06	0.00	57.23	
4,100.00	2.22	39.81	482.48	4,098.48	60.86 N	50.71 E	508,038.02	785,668.54	0.00	60.18	
4,200.00	2.22	39.81	582.40	4,198.40	63.83 N	53.19 E	508,041.00	785,671.02	0.00	63.12	
4,300.00	2.22	39.81	682.33	4,298.33	66.81 N	55.67 E	508,043.98	785,673.51	0.00	66.06	
4,400.00	2.22	39.81	782.25	4,398.25	69.79 N	58.15 E	508,046.95	785,675.99	0.00	69.01	
4,441.80	2.22	39.81	824.02	4,440.02	71.03 N	59.19 E	508,048.20	785,677.02	0.00	70.24	Delaware
4,500.00	2.22	39.81	882.18	4,498.18	72.76 N	60.64 E	508,049.93	785,678.47	0.00	71.95	
4,600.00	2.22	39.81	982.10	4,598.10	75.74 N	63.12 E	508,052.91	785,680.95	0.00	74.90	
4,700.00	2.22	39.81	1,082.03	4,698.03	78.72 N	65.60 E	508,055.88	785,683.43	0.00	77.84	
4,800.00	2.22	39.81	1,181.95	4,797.95	81.69 N	68.08 E	508,058.86	785,685.91	0.00	80.78	
4,900.00	2.22	39.81	1,281.88	4,897.88	84.67 N	70.56 E	508,061.84	785,688.39	0.00	83.73	
5,000.00	2.22	39.81	1,381.80	4,997.80	87.65 N	73.04 E	508,064.81	785,690.87	0.00	86.67	
5,100.00	2.22	39.81	1,481.73	5,097.73	90.62 N	75.52 E	508,067.79	785,693.35	0.00	89.61	
5,200.00	2.22	39.81	1,581.65	5,197.65	93.60 N	78.00 E	508,070.77	785,695.83	0.00	92.56	
5,300.00	2.22	39.81	1,681.58	5,297.58	96.58 N	80.48 E	508,073.74	785,698.31	0.00	95.50	
5,400.00	2.22	39.81	1,781.50	5,397.50	99.55 N	82.96 E	508,076.72	785,700.79	0.00	98.44	
5,500.00	2.22	39.81	1,881.43	5,497.43	102.53 N	85.44 E	508,079.70	785,703.27	0.00	101.39	
5,600.00	2.22	39.81	1,981.35	5,597.35	105.50 N	87.92 E	508,082.67	785,705.75	0.00	104.33	
5,700.00	2.22	39.81	2,081.28	5,697.28	108.48 N	90.40 E	508,085.65	785,708.23	0.00	107.27	
5,800.00	2.22	39.81	2,181.20	5,797.20	111.46 N	92.88 E	508,088.63	785,710.71	0.00	110.22	
5,900.00	2.22	39.81	2,281.13	5,897.13	114.43 N	95.36 E	508,091.60	785,713.19	0.00	113.16	
5,975.93	2.22	39.81	2,357.00	5,973.00	116.69 N	97.25 E	508,093.86	785,715.08	0.00	115.39	Drop 1° DLS
6,000.00	1.98	39.81	2,381.05	5,997.05	117.37 N	97.81 E	508,094.54	785,715.64	1.00	116.06	
6,100.00	0.98	39.81	2,481.02	6,097.02	119.36 N	99.46 E	508,096.53	785,717.29	1.00	118.03	
6,197.99	0.00	0.00	2,579.00	6,195.00	120.00 N	100.00 E	508,097.17	785,717.83	1.00	118.66	Hold Vertical
6,200.00	0.00	0.00	2,581.01	6,197.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
6,300.00	0.00	0.00	2,681.01	6,297.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
6,400.00	0.00	0.00	2,781.01	6,397.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
6,500.00	0.00	0.00	2,881.01	6,497.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
6,600.00	0.00	0.00	2,981.01	6,597.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
6,700.00	0.00	0.00	3,081.01	6,697.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
6,800.00	0.00	0.00	3,181.01	6,797.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
6,900.00	0.00	0.00	3,281.01	6,897.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
7,000.00	0.00	0.00	3,381.01	6,997.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
7,100.00	0.00	0.00	3,481.01	7,097.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
7,200.00	0.00	0.00	3,581.01	7,197.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
7,300.00	0.00	0.00	3,681.01	7,297.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
7,400.00	0.00	0.00	3,781.01	7,397.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	

Plan Report for 1H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	TVD below System (usft)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Comments
					Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)			
7,500.00	0.00	0.00	3,881.01	7,497.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
7,600.00	0.00	0.00	3,981.01	7,597.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
7,700.00	0.00	0.00	4,081.01	7,697.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
7,800.00	0.00	0.00	4,181.01	7,797.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
7,900.00	0.00	0.00	4,281.01	7,897.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
8,000.00	0.00	0.00	4,381.01	7,997.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
8,100.00	0.00	0.00	4,481.01	8,097.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
8,200.00	0.00	0.00	4,581.01	8,197.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
8,300.00	0.00	0.00	4,681.01	8,297.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
8,337.33	0.00	0.00	4,718.34	8,334.34	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	Bone Spring
8,400.00	0.00	0.00	4,781.01	8,397.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
8,427.33	0.00	0.00	4,808.34	8,424.34	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	Avalon
8,500.00	0.00	0.00	4,881.01	8,497.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
8,600.00	0.00	0.00	4,981.01	8,597.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
8,700.00	0.00	0.00	5,081.01	8,697.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
8,800.00	0.00	0.00	5,181.01	8,797.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
8,900.00	0.00	0.00	5,281.01	8,897.01	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	
8,975.20	0.00	0.00	5,356.22	8,972.22	120.00 N	100.00 E	508,097.17	785,717.83	0.00	118.66	Build 12" DLS
8,997.33	2.66	358.39	5,378.34	8,994.34	120.51 N	99.99 E	508,097.68	785,717.82	12.00	119.18	1st Bone Spring
9,000.00	2.98	358.39	5,381.00	8,997.00	120.64 N	99.98 E	508,097.81	785,717.81	12.00	119.31	
9,100.00	14.98	358.39	5,479.60	9,095.60	136.21 N	99.55 E	508,113.38	785,717.38	12.00	134.88	
9,200.00	26.98	358.39	5,572.80	9,188.80	171.93 N	98.54 E	508,149.10	785,716.37	12.00	170.61	
9,300.00	38.98	358.39	5,656.54	9,272.54	226.24 N	97.02 E	508,203.40	785,714.85	12.00	224.93	
9,400.00	50.98	358.39	5,727.15	9,343.15	296.76 N	95.04 E	508,273.93	785,712.87	12.00	295.47	
9,500.00	62.98	358.39	5,781.55	9,397.55	380.42 N	92.70 E	508,357.59	785,710.53	12.00	379.15	
9,600.00	74.98	358.39	5,817.36	9,433.36	473.55 N	90.08 E	508,450.72	785,707.92	12.00	472.32	
9,700.00	86.98	358.39	5,833.02	9,449.02	572.10 N	87.32 E	508,549.27	785,705.15	12.00	570.89	
9,731.87	90.80	358.39	5,833.63	9,449.63	603.94 N	86.43 E	508,581.11	785,704.26	12.00	602.74	Landing Point
9,800.00	90.80	358.39	5,832.68	9,448.68	672.04 N	84.52 E	508,649.21	785,702.35	0.00	670.86	
9,900.00	90.80	358.39	5,831.29	9,447.29	771.99 N	81.72 E	508,749.16	785,699.55	0.00	770.84	
10,000.00	90.80	358.39	5,829.89	9,445.89	871.94 N	78.91 E	508,849.11	785,696.74	0.00	870.82	
10,100.00	90.80	358.39	5,828.49	9,444.49	971.89 N	76.11 E	508,949.06	785,693.94	0.00	970.80	
10,200.00	90.80	358.39	5,827.10	9,443.10	1,071.84 N	73.31 E	509,049.01	785,691.14	0.00	1,070.78	
10,300.00	90.80	358.39	5,825.70	9,441.70	1,171.79 N	70.50 E	509,148.96	785,688.33	0.00	1,170.76	
10,400.00	90.80	358.39	5,824.31	9,440.31	1,271.74 N	67.70 E	509,248.91	785,685.53	0.00	1,270.73	
10,500.00	90.80	358.39	5,822.91	9,438.91	1,371.70 N	64.90 E	509,348.86	785,682.73	0.00	1,370.71	
10,600.00	90.80	358.39	5,821.51	9,437.51	1,471.65 N	62.09 E	509,448.82	785,679.92	0.00	1,470.69	
10,700.00	90.80	358.39	5,820.12	9,436.12	1,571.60 N	59.29 E	509,548.77	785,677.12	0.00	1,570.67	
10,800.00	90.80	358.39	5,818.72	9,434.72	1,671.55 N	56.49 E	509,648.72	785,674.32	0.00	1,670.65	
10,900.00	90.80	358.39	5,817.32	9,433.32	1,771.50 N	53.68 E	509,748.67	785,671.52	0.00	1,770.63	
11,000.00	90.80	358.39	5,815.93	9,431.93	1,871.45 N	50.88 E	509,848.62	785,668.71	0.00	1,870.61	

Plan Report for 1H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	TVD below System (usft)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Comments
					Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)			
11,100.00	90.80	358.39	5,814.53	9,430.53	1,971.40 N	48.08 E	509,948.57	785,665.91	0.00	1,970.59	
11,200.00	90.80	358.39	5,813.14	9,429.14	2,071.35 N	45.28 E	510,048.52	785,663.11	0.00	2,070.57	
11,300.00	90.80	358.39	5,811.74	9,427.74	2,171.30 N	42.47 E	510,148.47	785,660.30	0.00	2,170.55	
11,400.00	90.80	358.39	5,810.34	9,426.34	2,271.25 N	39.67 E	510,248.42	785,657.50	0.00	2,270.53	
11,500.00	90.80	358.39	5,808.95	9,424.95	2,371.21 N	36.87 E	510,348.37	785,654.70	0.00	2,370.51	
11,600.00	90.80	358.39	5,807.55	9,423.55	2,471.16 N	34.06 E	510,448.32	785,651.89	0.00	2,470.49	
11,700.00	90.80	358.39	5,806.16	9,422.16	2,571.11 N	31.26 E	510,548.28	785,649.09	0.00	2,570.47	
11,800.00	90.80	358.39	5,804.76	9,420.76	2,671.06 N	28.46 E	510,648.23	785,646.29	0.00	2,670.45	
11,900.00	90.80	358.39	5,803.36	9,419.36	2,771.01 N	25.65 E	510,748.18	785,643.48	0.00	2,770.42	
12,000.00	90.80	358.39	5,801.97	9,417.97	2,870.96 N	22.85 E	510,848.13	785,640.68	0.00	2,870.40	
12,100.00	90.80	358.39	5,800.57	9,416.57	2,970.91 N	20.05 E	510,948.08	785,637.88	0.00	2,970.38	
12,200.00	90.80	358.39	5,799.17	9,415.17	3,070.86 N	17.24 E	511,048.03	785,635.08	0.00	3,070.36	
12,300.00	90.80	358.39	5,797.78	9,413.78	3,170.81 N	14.44 E	511,147.98	785,632.27	0.00	3,170.34	
12,400.00	90.80	358.39	5,796.38	9,412.38	3,270.76 N	11.64 E	511,247.93	785,629.47	0.00	3,270.32	
12,500.00	90.80	358.39	5,794.99	9,410.99	3,370.71 N	8.84 E	511,347.88	785,626.67	0.00	3,370.30	
12,600.00	90.80	358.39	5,793.59	9,409.59	3,470.67 N	6.03 E	511,447.83	785,623.86	0.00	3,470.28	
12,700.00	90.80	358.39	5,792.19	9,408.19	3,570.62 N	3.23 E	511,547.79	785,621.06	0.00	3,570.26	
12,800.00	90.80	358.39	5,790.80	9,406.80	3,670.57 N	0.43 E	511,647.74	785,618.26	0.00	3,670.24	
12,900.00	90.80	358.39	5,789.40	9,405.40	3,770.52 N	2.38 W	511,747.69	785,615.45	0.00	3,770.22	
13,000.00	90.80	358.39	5,788.00	9,404.00	3,870.47 N	5.18 W	511,847.64	785,612.65	0.00	3,870.20	
13,100.00	90.80	358.39	5,786.61	9,402.61	3,970.42 N	7.98 W	511,947.59	785,609.85	0.00	3,970.18	
13,200.00	90.80	358.39	5,785.21	9,401.21	4,070.37 N	10.79 W	512,047.54	785,607.04	0.00	4,070.16	
13,300.00	90.80	358.39	5,783.82	9,399.82	4,170.32 N	13.59 W	512,147.49	785,604.24	0.00	4,170.14	
13,400.00	90.80	358.39	5,782.42	9,398.42	4,270.27 N	16.39 W	512,247.44	785,601.44	0.00	4,270.12	
13,500.00	90.80	358.39	5,781.02	9,397.02	4,370.22 N	19.20 W	512,347.39	785,598.64	0.00	4,370.09	
13,600.00	90.80	358.39	5,779.63	9,395.63	4,470.18 N	22.00 W	512,447.34	785,595.83	0.00	4,470.07	
13,700.00	90.80	358.39	5,778.23	9,394.23	4,570.13 N	24.80 W	512,547.29	785,593.03	0.00	4,570.05	
13,800.00	90.80	358.39	5,776.83	9,392.83	4,670.08 N	27.60 W	512,647.25	785,590.23	0.00	4,670.03	
13,900.00	90.80	358.39	5,775.44	9,391.44	4,770.03 N	30.41 W	512,747.20	785,587.42	0.00	4,770.01	
14,000.00	90.80	358.39	5,774.04	9,390.04	4,869.98 N	33.21 W	512,847.15	785,584.62	0.00	4,869.99	
14,100.00	90.80	358.39	5,772.65	9,388.65	4,969.93 N	36.01 W	512,947.10	785,581.82	0.00	4,969.97	
14,200.00	90.80	358.39	5,771.25	9,387.25	5,069.88 N	38.82 W	513,047.05	785,579.01	0.00	5,069.95	
14,300.00	90.80	358.39	5,769.85	9,385.85	5,169.83 N	41.62 W	513,147.00	785,576.21	0.00	5,169.93	
14,400.00	90.80	358.39	5,768.46	9,384.46	5,269.78 N	44.42 W	513,246.95	785,573.41	0.00	5,269.91	
14,500.00	90.80	358.39	5,767.06	9,383.06	5,369.73 N	47.23 W	513,346.90	785,570.60	0.00	5,369.89	
14,600.00	90.80	358.39	5,765.66	9,381.66	5,469.68 N	50.03 W	513,446.85	785,567.80	0.00	5,469.87	
14,700.00	90.80	358.39	5,764.27	9,380.27	5,569.64 N	52.83 W	513,546.80	785,565.00	0.00	5,569.85	
14,800.00	90.80	358.39	5,762.87	9,378.87	5,669.59 N	55.64 W	513,646.76	785,562.20	0.00	5,669.83	
14,900.00	90.80	358.39	5,761.48	9,377.48	5,769.54 N	58.44 W	513,746.71	785,559.39	0.00	5,769.81	
15,000.00	90.80	358.39	5,760.08	9,376.08	5,869.49 N	61.24 W	513,846.66	785,556.59	0.00	5,869.78	
15,100.00	90.80	358.39	5,758.68	9,374.68	5,969.44 N	64.04 W	513,946.61	785,553.79	0.00	5,969.76	

Plan Report for 1H - Plan 1

Measured Depth (usft)	Inclination (°)	Grid Azimuth (°)	TVD below System (usft)	Vertical Depth (usft)	Local Coordinates		Map Coordinates		Dogleg Rate (°/100usft)	Vertical Section (usft)	Comments
					Northing (usft)	Easting (usft)	Northing (usft)	Easting (usft)			
15,200.00	90.80	358.39	5,757.29	9,373.29	6,069.39 N	66.85 W	514,046.56	785,550.98	0.00	6,069.74	
15,300.00	90.80	358.39	5,755.89	9,371.89	6,169.34 N	69.65 W	514,146.51	785,548.18	0.00	6,169.72	
15,400.00	90.80	358.39	5,754.50	9,370.50	6,269.29 N	72.45 W	514,246.46	785,545.38	0.00	6,269.70	
15,500.00	90.80	358.39	5,753.10	9,369.10	6,369.24 N	75.26 W	514,346.41	785,542.57	0.00	6,369.68	
15,600.00	90.80	358.39	5,751.70	9,367.70	6,469.19 N	78.06 W	514,446.36	785,539.77	0.00	6,469.66	
15,700.00	90.80	358.39	5,750.31	9,366.31	6,569.15 N	80.86 W	514,546.31	785,536.97	0.00	6,569.64	
15,800.00	90.80	358.39	5,748.91	9,364.91	6,669.10 N	83.67 W	514,646.26	785,534.16	0.00	6,669.62	
15,900.00	90.80	358.39	5,747.51	9,363.51	6,769.05 N	86.47 W	514,746.22	785,531.36	0.00	6,769.60	
16,000.00	90.80	358.39	5,746.12	9,362.12	6,869.00 N	89.27 W	514,846.17	785,528.56	0.00	6,869.58	
16,100.00	90.80	358.39	5,744.72	9,360.72	6,968.95 N	92.08 W	514,946.12	785,525.76	0.00	6,969.56	
16,101.55	90.80	358.39	5,744.70	9,360.70	6,970.50 N	92.12 W	514,947.67	785,525.71	0.00	6,971.11	BHL

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,000.00	2,000.00	0.00	0.00	Nudge 2° DLS
2,111.03	2,111.00	1.65	1.38	Hold 2.22° inc
5,975.93	5,973.00	116.69	97.25	Drop 1° DLS
6,197.99	6,195.00	120.00	100.00	Hold Vertical
8,975.20	8,972.22	120.00	100.00	Build 12° DLS
9,731.87	9,449.63	603.94	86.43	Landing Point
16,101.55	9,360.70	6,970.50	-92.12	BHL

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin +N/_S (usft)	Origin +E/-W (usft)	Start TVD (usft)
User	No Target (Freehand)	359.24	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	16,101.55	Plan 1	MWD

Plan Report for 1H - Plan 1

Casing Details

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,000.00	1,000.00	13 3/8"	13-3/8	17-1/2

Formation Details

Measured Depth (usft)	Vertical Depth (usft)	TVDSS (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
566.00	566.00	-3,050.00	Rustler		-0.80	359.24
1,566.00	1,566.00	-2,050.00	Top of Salt		-0.80	359.24
3,566.50	3,566.00	-50.00	Base of Salt		-0.80	359.24
4,441.80	4,441.00	825.00	Delaware		-0.80	359.24
8,337.33	8,336.00	4,720.00	Bone Spring		-0.80	359.24
8,427.33	8,426.00	4,810.00	Avalon		-0.80	359.24
8,997.33	8,996.00	5,380.00	1st Bone Spring		-0.80	359.24

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Silverton BS1 State Com BHL ()	0.00	0.00	0.00	6,970.50	-92.12	514,947.67	785,525.71	32.41230800	-103.40812000
- plan misses target center by 6971.11usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)									
- Point									

Directional Difficulty Index

Average Dogleg over Survey:	0.59 °/100usft	Maximum Dogleg over Survey:	12.00 °/100usft at 9,731.87 usft
Net Tortousity applicable to Plans:	0.59 °/100usft	Directional Difficulty Index:	6.308

Audit Info

North Reference Sheet for Silverton BS1 State Com - 1H - Wellbore #1

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to GL = 3591' @ 3616.00usft (KB +25'). Northing and Easting are relative to Silverton BS1 State Com

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 3001 using datum NAD 1927 (NADCON CONUS), ellipsoid Clarke 1866

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is -104.33333333°, Longitude Origin:0.00000000°, Latitude Origin:0.00000000°

False Easting: 500,000.00usft, False Northing: 0.00usft, Scale Reduction: 1.00000252

Grid Coordinates of Well: 507,977.17 usft N, 785,617.83 usft E

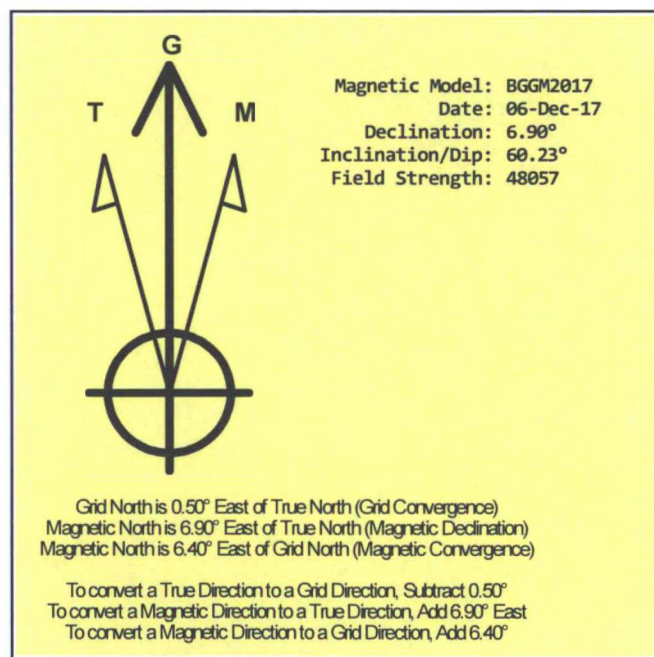
Geographical Coordinates of Well: 32° 23' 35.33" N, 103° 24' 28.86" W

Grid Convergence at Surface is: 0.50°

Based upon Minimum Curvature type calculations, at a Measured Depth of 16,101.55usft

the Bottom Hole Displacement is 6,971.11usft in the Direction of 359.24° (Grid).

Magnetic Convergence at surface is: -6.40° (6 December 2017, , BGGM2017)





SILVERTON BSI STATE COM

Engineer:

Melissa Saurborn
11/30/2017
Melissa Saurborn, (c) 303-325-1233
Vladimir Roudakov: (c) 720-933-9784

Side-track

Surface/Bottom Hole Footage Calls	FNL	FSL	FEL	FWL
Sec. 18 T22S R35E	2070			2030
Sec. 7 T22S R35E	380			1980

Kelly Bushing Elev (FEET)

y Bushing Elev:

Rig KB: 25

Kelly Bushing Elev:

Formations	Lithology	(calc)		(calc)	Sample Top	(calc)	(calc)	Actual Log	(calc)	(calc)	Adjusted Prog Top	(calc)		(calc)
		TVD (RKB)	TVD Subsea	Is to Target		Δft	Sample <Lo Hi>		Δft	Log <Lo Hi>		TVD (RKB)	TVD Subsea	Is to Target
Rustler	Mixed lithologies	566	3050	8892		566			566					0
Top of Salt	Salt (Halite)	1566	2050	7892		1566			1566					0
Base of Salt	Limestone/Anhydrite	3566	50	5892		3566			3566					0
Delaware	Sand/Siltstone/Shale/Limestone	4441	-825	5017		4441			4441					0
Bone Spring	Limestone	8336	-4720	1122		8336			8336					0
Avalon	Shale	8426	-4810	1032		8426			8426					0
1st Bone Spring	Sand/Siltstone/Shale/Limestone	8996	-5380	462		8996			8996					0
Target (± 90.8")	Shale/Siltstone/Limestone	9458	-5842	0		9458			9458					0
2nd Bone Spring	Sand/Siltstone/Shale/Limestone	9526	-5910	-68		9526			9526					0
SURFACE CASING POINT														
1st INT. CASING POINT														
2nd INT. CASING POINT														
PROD. CASING POINT														