

BAYSWATER E & P, LLC

| | | | |
|---------------------|----------------------------------|-----------------|--------------------------|
| Location | Weld County, CO | Slot | LEFFLER HA-26-28HN |
| Field | WATTENBERG | Well | LEFFLER HA-26-28HN |
| Installation | Leffler Pad - Updates 05-20-2019 | Wellbore | LEFFLER HA-26-28HN (PWB) |

Created by sean.dollinger
Date plotted 21-May-2019
Plot reference is LEFFLER HA-26-28HN (PWB).
Ref wellpath is LEFFLER HA-26-28HN (PWP#1).
Coordinates are in Feet reference LEFFLER HA-26-28HN.
True Vertical Depths are reference Rig Datum.
Measured Depths are reference Rig Datum.
Rig Datum: Planned Datum #1
Rig Datum to Mean Sea Level: 4923.00 ft.
Plot North is aligned to TRUE North.

Scale 1 cm = 800 ft

East (Feet) ->

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

LEFFLER HA-26-28HN - BHL

LEFFLER HA-26-28HN - LP

Surface 0.00 N 0.00 E

1600

<- North(Feet)
Scale 1 cm = 800 ft
0
-1600
-3200

WELL PROFILE DATA

| Point | MD | Inc | Azi | TVD | North | East | deg/100ft | V. Sect |
|-------------------------|----------|-------|--------|---------|-----------|------------|-----------|----------|
| Tie on | 25.00 | 0.00 | 0.00 | 25.00 | S 0.00 | W 0.00 | | -0.00 |
| KOP | 1025.00 | 0.00 | 166.41 | 1025.00 | S 0.00 | W 0.00 | 0.00 | -0.00 |
| End of Build | 1737.61 | 14.25 | 166.41 | 1730.28 | S 85.71 | E 20.72 | 2.00 | -8.68 |
| End of Hold | 6804.20 | 14.25 | 166.41 | 6640.93 | S 1298.13 | E 313.83 | 0.00 | -131.50 |
| Target LEFFLE...N - LP | 7740.74 | 90.45 | 269.56 | 7228.00 | S 1448.91 | W 261.51 | 10.00 | 459.16 |
| T.D. & Target LEF...BHL | 18451.17 | 90.45 | 269.56 | 7143.00 | S 1530.26 | W 10971.29 | 0.00 | 11077.50 |

Scale 1 cm = 400 ft

<- True Vertical Depth (Feet)

Tie on - 0.00 Inc, 25.00 MD, 25.00 TVD, -0.00 VS

3DS Kick off Point - 0.00 Inc, 1025.00 MD, 1025.00 TVD, -0.00 VS

End of Build - 14.25 Inc, 1737.61 MD, 1730.28 TVD, -8.68 VS

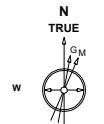
End of Hold - 14.25 Inc, 6804.20 MD, 6640.93 TVD, -131.50 VS

LEFFLER HA-26-28HN - LP

S/C Kick off Point - 90.45 Inc, 7740.74 MD, 7228.00 TVD, 459.16 VS

T.D. & End of Hold - 7143.00 TVD, 1530.26 S 10971.29 W

LEFFLER HA-26-28HN - BHL



Jul-30-2018
EMMA-2015 Dip: 66.98 deg Field: 52352.2 nT
Lat: N40 33 9.9648 Long: W104 45 12.7260 Elev: 4898.00 ft
Magnetic North is 8.07 deg East of TRUE North
To correct azimuth from Magnetic to TRUE add 8.07 deg

-800 -0 800 1600 2400 3200 4000 4800 5600 6400 7200 8000 8800 9600 10400 11200 12000

Scale 1 cm = 400 ft

Vertical Section (Feet) ->

Azimuth 262.06 with reference 0.00 N, 0.00 E from LEFFLER HA-26-28HN

SYSDRILL
Well Design Combined Report
Wellbore: LEFFLER HA-26-28HN (PWB)



| Wellhead Details | | | | | | | |
|--------------------|-------------|---------------|--------------|--------------|--------|--------|-----------------------------|
| Name | Latitude | Longitude | Northing | Easting | North | East | Slot Elevation Above Ground |
| LEFFLER HA-26-28HN | 40.55268600 | -104.75331800 | 1445057.9955 | 3207487.8386 | 29.87S | 60.30E | 0.00 |

| Declination | | |
|-------------|----------|-------|
| Date | Source | Time |
| Jul-30-2018 | EMM-2015 | 11:39 |

| Installation Details | | | | | | |
|----------------------------------|----------------------------------|-----------------------------------|--------------|--------------|---|-----------------|
| Name | Installation Position (Latitude) | Installation Position (Longitude) | Northing | Easting | Coord System Name | North Alignment |
| Leffler Pad - Updates 05-20-2019 | 40.55276800 | -104.75353500 | 1445087.3602 | 3207427.2886 | NAD83 Based Colorado State Planes, Northern Zone, US Feet | True |

| Summary Wellpath | | | | | | | | |
|------------------|----------|----------|---------|-------------------|-----------|-----------|--------------------|----------------------|
| MD[ft] | Inc[deg] | Azi[deg] | TVD[ft] | Vertical Depth SS | North[ft] | East[ft] | Dogleg [deg/100ft] | Vertical Section[ft] |
| 25.00 | 0.00 | 0.00 | 25.00 | -4898.00 | 0.00N | 0.00E | | 0.00 |
| 1025.00 | 0.00 | 166.41 | 1025.00 | -3898.00 | 0.00N | 0.00E | ==> | 0.00 |
| 1737.61 | 14.25 | 166.41 | 1730.28 | -3192.72 | 85.71S | 20.72E | 2.00 | -8.68 |
| 6804.20 | 14.25 | 166.41 | 6640.93 | 1717.93 | 1298.13S | 313.83E | ==> | -131.50 |
| 7740.74 | 90.45 | 269.56 | 7228.00 | 2305.00 | 1448.91S | 261.51W | 10.00 | 459.16 |
| 18451.17 | 90.45 | 269.56 | 7143.00 | 2220.00 | 1530.26S | 10971.29W | ==> | 11077.50 |

| 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) |
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00N | 0.00E | | 0.00 | 40.55268600 | -104.75331800 |
| 25.00 | 0.00 | 0.00 | 25.00 | 0.00N | 0.00E | ==> | 0.00 | 40.55268600 | -104.75331800 |
| 100.00 | 0.00 | 0.00 | 100.00 | 0.00N | 0.00E | ==> | 0.00 | 40.55268600 | -104.75331800 |
| 200.00 | 0.00 | 0.00 | 200.00 | 0.00N | 0.00E | ==> | 0.00 | 40.55268600 | -104.75331800 |
| 300.00 | 0.00 | 0.00 | 300.00 | 0.00N | 0.00E | ==> | 0.00 | 40.55268600 | -104.75331800 |
| 400.00 | 0.00 | 0.00 | 400.00 | 0.00N | 0.00E | ==> | 0.00 | 40.55268600 | -104.75331800 |
| 500.00 | 0.00 | 0.00 | 500.00 | 0.00N | 0.00E | ==> | 0.00 | 40.55268600 | -104.75331800 |
| 600.00 | 0.00 | 0.00 | 600.00 | 0.00N | 0.00E | ==> | 0.00 | 40.55268600 | -104.75331800 |
| 700.00 | 0.00 | 0.00 | 700.00 | 0.00N | 0.00E | ==> | 0.00 | 40.55268600 | -104.75331800 |
| 800.00 | 0.00 | 0.00 | 800.00 | 0.00N | 0.00E | ==> | 0.00 | 40.55268600 | -104.75331800 |
| 900.00 | 0.00 | 0.00 | 900.00 | 0.00N | 0.00E | ==> | 0.00 | 40.55268600 | -104.75331800 |
| 1000.00 | 0.00 | 0.00 | 1000.00 | 0.00N | 0.00E | ==> | 0.00 | 40.55268600 | -104.75331800 |
| 1025.00 | 0.00 | 166.41 | 1025.00 | 0.00N | 0.00E | ==> | 0.00 | 40.55268600 | -104.75331800 |
| 1125.00 | 2.00 | 166.41 | 1124.98 | 1.70S | 0.41E | 2.00 | -0.17 | 40.55268134 | -104.75331652 |
| 1225.00 | 4.00 | 166.41 | 1224.84 | 6.78S | 1.64E | 2.00 | -0.69 | 40.55266738 | -104.75331210 |
| 1325.00 | 6.00 | 166.41 | 1324.45 | 15.25S | 3.69E | 2.00 | -1.55 | 40.55264413 | -104.75330473 |
| 1425.00 | 8.00 | 166.41 | 1423.70 | 27.10S | 6.55E | 2.00 | -2.75 | 40.55261162 | -104.75329442 |
| 1525.00 | 10.00 | 166.41 | 1522.47 | 42.30S | 10.23E | 2.00 | -4.29 | 40.55256988 | -104.75328120 |
| 1625.00 | 12.00 | 166.41 | 1620.62 | 60.85S | 14.71E | 2.00 | -6.16 | 40.55251898 | -104.75326506 |
| 1725.00 | 14.00 | 166.41 | 1718.06 | 82.71S | 20.00E | 2.00 | -8.38 | 40.55245897 | -104.75324604 |
| 1737.61 | 14.25 | 166.41 | 1730.28 | 85.71S | 20.72E | 2.00 | -8.68 | 40.55245075 | -104.75324344 |
| 1825.00 | 14.25 | 166.41 | 1814.98 | 106.62S | 25.78E | ==> | -10.80 | 40.55239335 | -104.75322525 |
| 1925.00 | 14.25 | 166.41 | 1911.91 | 130.55S | 31.56E | ==> | -13.22 | 40.55232767 | -104.75320443 |
| 2025.00 | 14.25 | 166.41 | 2008.83 | 154.48S | 37.35E | ==> | -15.65 | 40.55226199 | -104.75318361 |
| 2125.00 | 14.25 | 166.41 | 2105.75 | 178.41S | 43.13E | ==> | -18.07 | 40.55219631 | -104.75316279 |
| 2225.00 | 14.25 | 166.41 | 2202.67 | 202.34S | 48.92E | ==> | -20.50 | 40.55213062 | -104.75314198 |
| 2325.00 | 14.25 | 166.41 | 2299.59 | 226.27S | 54.70E | ==> | -22.92 | 40.55206494 | -104.75312116 |
| 2425.00 | 14.25 | 166.41 | 2396.52 | 250.20S | 60.49E | ==> | -25.34 | 40.55199926 | -104.75310034 |
| 2525.00 | 14.25 | 166.41 | 2493.44 | 274.13S | 66.27E | ==> | -27.77 | 40.55193357 | -104.75307952 |
| 2625.00 | 14.25 | 166.41 | 2590.36 | 298.05S | 72.06E | ==> | -30.19 | 40.55186789 | -104.75305871 |
| 2725.00 | 14.25 | 166.41 | 2687.28 | 321.98S | 77.84E | ==> | -32.62 | 40.55180221 | -104.75303789 |
| 2825.00 | 14.25 | 166.41 | 2784.21 | 345.91S | 83.63E | ==> | -35.04 | 40.55173652 | -104.75301707 |

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 4923.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 262.06 degrees
Bottom hole distance is 11077.50 Feet on azimuth 262.06 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 21-May-2019

SYSDRILL
Well Design Combined Report
Wellbore: LEFFLER HA-26-28HN (PWB)



| 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) |
| 2925.00 | 14.25 | 166.41 | 2881.13 | 369.84S | 89.41E | ==> | -37.46 | 40.55167084 | -104.75299625 |
| 3025.00 | 14.25 | 166.41 | 2978.05 | 393.77S | 95.20E | ==> | -39.89 | 40.55160516 | -104.75297544 |
| 3125.00 | 14.25 | 166.41 | 3074.97 | 417.70S | 100.98E | ==> | -42.31 | 40.55153948 | -104.75295462 |
| 3225.00 | 14.25 | 166.41 | 3171.89 | 441.63S | 106.77E | ==> | -44.74 | 40.55147379 | -104.75293380 |
| 3325.00 | 14.25 | 166.41 | 3268.82 | 465.56S | 112.55E | ==> | -47.16 | 40.55140811 | -104.75291298 |
| 3425.00 | 14.25 | 166.41 | 3365.74 | 489.49S | 118.34E | ==> | -49.58 | 40.55134243 | -104.75289217 |
| 3525.00 | 14.25 | 166.41 | 3462.66 | 513.42S | 124.12E | ==> | -52.01 | 40.55127674 | -104.75287135 |
| 3625.00 | 14.25 | 166.41 | 3559.58 | 537.35S | 129.91E | ==> | -54.43 | 40.55121106 | -104.75285053 |
| 3725.00 | 14.25 | 166.41 | 3656.50 | 561.28S | 135.69E | ==> | -56.86 | 40.55114538 | -104.75282972 |
| 3825.00 | 14.25 | 166.41 | 3753.43 | 585.21S | 141.48E | ==> | -59.28 | 40.55107970 | -104.75280890 |
| 3925.00 | 14.25 | 166.41 | 3850.35 | 609.14S | 147.26E | ==> | -61.70 | 40.55101401 | -104.75278808 |
| 4025.00 | 14.25 | 166.41 | 3947.27 | 633.07S | 153.05E | ==> | -64.13 | 40.55094833 | -104.75276726 |
| 4125.00 | 14.25 | 166.41 | 4044.19 | 657.00S | 158.83E | ==> | -66.55 | 40.55088265 | -104.75274645 |
| 4225.00 | 14.25 | 166.41 | 4141.12 | 680.93S | 164.62E | ==> | -68.98 | 40.55081696 | -104.75272563 |
| 4325.00 | 14.25 | 166.41 | 4238.04 | 704.86S | 170.40E | ==> | -71.40 | 40.55075128 | -104.75270481 |
| 4425.00 | 14.25 | 166.41 | 4334.96 | 728.79S | 176.19E | ==> | -73.82 | 40.55068560 | -104.75268400 |
| 4525.00 | 14.25 | 166.41 | 4431.88 | 752.72S | 181.97E | ==> | -76.25 | 40.55061991 | -104.75266318 |
| 4625.00 | 14.25 | 166.41 | 4528.80 | 776.65S | 187.76E | ==> | -78.67 | 40.55055423 | -104.75264236 |
| 4725.00 | 14.25 | 166.41 | 4625.73 | 800.58S | 193.55E | ==> | -81.10 | 40.55048855 | -104.75262155 |
| 4825.00 | 14.25 | 166.41 | 4722.65 | 824.51S | 199.33E | ==> | -83.52 | 40.55042286 | -104.75260073 |
| 4925.00 | 14.25 | 166.41 | 4819.57 | 848.44S | 205.12E | ==> | -85.94 | 40.55035718 | -104.75257991 |
| 5025.00 | 14.25 | 166.41 | 4916.49 | 872.37S | 210.90E | ==> | -88.37 | 40.55029150 | -104.75255910 |
| 5125.00 | 14.25 | 166.41 | 5013.41 | 896.30S | 216.69E | ==> | -90.79 | 40.55022582 | -104.75253828 |
| 5225.00 | 14.25 | 166.41 | 5110.34 | 920.23S | 222.47E | ==> | -93.22 | 40.55016013 | -104.75251746 |
| 5325.00 | 14.25 | 166.41 | 5207.26 | 944.16S | 228.26E | ==> | -95.64 | 40.55009445 | -104.75249665 |
| 5425.00 | 14.25 | 166.41 | 5304.18 | 968.09S | 234.04E | ==> | -98.06 | 40.55002877 | -104.75247583 |
| 5525.00 | 14.25 | 166.41 | 5401.10 | 992.02S | 239.83E | ==> | -100.49 | 40.54996308 | -104.75245501 |
| 5625.00 | 14.25 | 166.41 | 5498.03 | 1015.95S | 245.61E | ==> | -102.91 | 40.54989740 | -104.75243420 |
| 5725.00 | 14.25 | 166.41 | 5594.95 | 1039.88S | 251.40E | ==> | -105.34 | 40.54983172 | -104.75241338 |
| 5825.00 | 14.25 | 166.41 | 5691.87 | 1063.81S | 257.18E | ==> | -107.76 | 40.54976603 | -104.75239257 |
| 5925.00 | 14.25 | 166.41 | 5788.79 | 1087.74S | 262.97E | ==> | -110.18 | 40.54970035 | -104.75237175 |
| 6025.00 | 14.25 | 166.41 | 5885.71 | 1111.66S | 268.75E | ==> | -112.61 | 40.54963467 | -104.75235093 |
| 6125.00 | 14.25 | 166.41 | 5982.64 | 1135.59S | 274.54E | ==> | -115.03 | 40.54956898 | -104.75233012 |
| 6225.00 | 14.25 | 166.41 | 6079.56 | 1159.52S | 280.32E | ==> | -117.46 | 40.54950330 | -104.75230930 |
| 6325.00 | 14.25 | 166.41 | 6176.48 | 1183.45S | 286.11E | ==> | -119.88 | 40.54943762 | -104.75228848 |
| 6425.00 | 14.25 | 166.41 | 6273.40 | 1207.38S | 291.89E | ==> | -122.30 | 40.54937194 | -104.75226767 |
| 6525.00 | 14.25 | 166.41 | 6370.32 | 1231.31S | 297.68E | ==> | -124.73 | 40.54930625 | -104.75224685 |
| 6625.00 | 14.25 | 166.41 | 6467.25 | 1255.24S | 303.46E | ==> | -127.15 | 40.54924057 | -104.75222604 |
| 6725.00 | 14.25 | 166.41 | 6564.17 | 1279.17S | 309.25E | ==> | -129.58 | 40.54917489 | -104.75220522 |
| 6804.20 | 14.25 | 166.41 | 6640.93 | 1298.13S | 313.83E | ==> | -131.50 | 40.54912286 | -104.75218873 |
| 6825.00 | 13.94 | 174.86 | 6661.11 | 1303.11S | 314.66E | 10.00 | -131.63 | 40.54910918 | -104.75218576 |
| 6925.00 | 16.45 | 212.54 | 6757.83 | 1327.11S | 308.10E | 10.00 | -121.82 | 40.54904331 | -104.75220935 |
| 7025.00 | 23.30 | 234.39 | 6851.94 | 1350.63S | 284.34E | 10.00 | -95.04 | 40.54897876 | -104.75229484 |
| 7125.00 | 31.80 | 245.93 | 6940.58 | 1372.95S | 244.10E | 10.00 | -52.10 | 40.54891750 | -104.75243965 |
| 7225.00 | 40.93 | 252.87 | 7021.06 | 1393.39S | 188.60E | 10.00 | 5.70 | 40.54886138 | -104.75263937 |
| 7325.00 | 50.34 | 257.62 | 7090.92 | 1411.34S | 119.52E | 10.00 | 76.59 | 40.54881211 | -104.75288793 |
| 7425.00 | 59.90 | 261.21 | 7148.05 | 1426.25S | 38.97E | 10.00 | 158.43 | 40.54877120 | -104.75317778 |
| 7525.00 | 69.54 | 264.16 | 7190.71 | 1437.66S | 50.61W | 10.00 | 248.73 | 40.54873987 | -104.75350012 |
| 7625.00 | 79.22 | 266.75 | 7217.60 | 1445.23S | 146.50W | 10.00 | 344.74 | 40.54871908 | -104.75384514 |
| 7725.00 | 88.93 | 269.19 | 7227.92 | 1448.73S | 245.78W | 10.00 | 443.55 | 40.54870947 | -104.75420238 |
| 7740.74 | 90.45 | 269.56 | 7228.00 | 1448.91S | 261.51W | 10.00 | 459.16 | 40.54870900 | -104.75425900 |
| 7825.00 | 90.45 | 269.56 | 7227.33 | 1449.55S | 345.77W | ==> | 542.70 | 40.54870724 | -104.75456218 |
| 7925.00 | 90.45 | 269.56 | 7226.54 | 1450.31S | 445.76W | ==> | 641.84 | 40.54870515 | -104.75492199 |
| 8025.00 | 90.45 | 269.56 | 7225.74 | 1451.06S | 545.76W | ==> | 740.98 | 40.54870306 | -104.75528180 |
| 8125.00 | 90.45 | 269.56 | 7224.95 | 1451.82S | 645.75W | ==> | 840.12 | 40.54870097 | -104.75564161 |
| 8225.00 | 90.45 | 269.56 | 7224.16 | 1452.58S | 745.74W | ==> | 939.26 | 40.54869888 | -104.75600142 |
| 8325.00 | 90.45 | 269.56 | 7223.36 | 1453.34S | 845.74W | ==> | 1038.40 | 40.54869678 | -104.75636123 |
| 8425.00 | 90.45 | 269.56 | 7222.57 | 1454.10S | 945.73W | ==> | 1137.54 | 40.54869469 | -104.75672104 |

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 4923.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 262.06 degrees
Bottom hole distance is 11077.50 Feet on azimuth 262.06 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 21-May-2019

SYSDRILL
Well Design Combined Report
Wellbore: LEFFLER HA-26-28HN (PWB)



| 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) |
| 8525.00 | 90.45 | 269.56 | 7221.78 | 1454.86S | 1045.73W | ==> | 1236.68 | 40.54869259 | -104.75708085 |
| 8625.00 | 90.45 | 269.56 | 7220.98 | 1455.62S | 1145.72W | ==> | 1335.82 | 40.54869049 | -104.75744066 |
| 8725.00 | 90.45 | 269.56 | 7220.19 | 1456.38S | 1245.71W | ==> | 1434.96 | 40.54868840 | -104.75780047 |
| 8825.00 | 90.45 | 269.56 | 7219.40 | 1457.14S | 1345.71W | ==> | 1534.10 | 40.54868630 | -104.75816028 |
| 8925.00 | 90.45 | 269.56 | 7218.60 | 1457.90S | 1445.70W | ==> | 1633.24 | 40.54868420 | -104.75852008 |
| 9025.00 | 90.45 | 269.56 | 7217.81 | 1458.66S | 1545.70W | ==> | 1732.38 | 40.54868210 | -104.75887989 |
| 9125.00 | 90.45 | 269.56 | 7217.01 | 1459.42S | 1645.69W | ==> | 1831.52 | 40.54867999 | -104.75923970 |
| 9225.00 | 90.45 | 269.56 | 7216.22 | 1460.18S | 1745.68W | ==> | 1930.66 | 40.54867789 | -104.75959951 |
| 9325.00 | 90.45 | 269.56 | 7215.43 | 1460.94S | 1845.68W | ==> | 2029.80 | 40.54867578 | -104.75995932 |
| 9425.00 | 90.45 | 269.56 | 7214.63 | 1461.70S | 1945.67W | ==> | 2128.94 | 40.54867368 | -104.76031913 |
| 9525.00 | 90.45 | 269.56 | 7213.84 | 1462.46S | 2045.67W | ==> | 2228.08 | 40.54867157 | -104.76067894 |
| 9625.00 | 90.45 | 269.56 | 7213.05 | 1463.22S | 2145.66W | ==> | 2327.22 | 40.54866946 | -104.76103875 |
| 9725.00 | 90.45 | 269.56 | 7212.25 | 1463.98S | 2245.65W | ==> | 2426.36 | 40.54866735 | -104.76139856 |
| 9825.00 | 90.45 | 269.56 | 7211.46 | 1464.74S | 2345.65W | ==> | 2525.50 | 40.54866524 | -104.76175837 |
| 9925.00 | 90.45 | 269.56 | 7210.67 | 1465.50S | 2445.64W | ==> | 2624.64 | 40.54866313 | -104.76211817 |
| 10025.00 | 90.45 | 269.56 | 7209.87 | 1466.26S | 2545.64W | ==> | 2723.78 | 40.54866102 | -104.76247798 |
| 10125.00 | 90.45 | 269.56 | 7209.08 | 1467.02S | 2645.63W | ==> | 2822.92 | 40.54865890 | -104.76283779 |
| 10225.00 | 90.45 | 269.56 | 7208.28 | 1467.78S | 2745.62W | ==> | 2922.06 | 40.54865679 | -104.76319760 |
| 10325.00 | 90.45 | 269.56 | 7207.49 | 1468.53S | 2845.62W | ==> | 3021.20 | 40.54865467 | -104.76355741 |
| 10425.00 | 90.45 | 269.56 | 7206.70 | 1469.29S | 2945.61W | ==> | 3120.34 | 40.54865256 | -104.76391722 |
| 10525.00 | 90.45 | 269.56 | 7205.90 | 1470.05S | 3045.61W | ==> | 3219.48 | 40.54865044 | -104.76427703 |
| 10625.00 | 90.45 | 269.56 | 7205.11 | 1470.81S | 3145.60W | ==> | 3318.62 | 40.54864832 | -104.76463684 |
| 10725.00 | 90.45 | 269.56 | 7204.32 | 1471.57S | 3245.59W | ==> | 3417.76 | 40.54864620 | -104.76499665 |
| 10825.00 | 90.45 | 269.56 | 7203.52 | 1472.33S | 3345.59W | ==> | 3516.90 | 40.54864408 | -104.76535645 |
| 10925.00 | 90.45 | 269.56 | 7202.73 | 1473.09S | 3445.58W | ==> | 3616.04 | 40.54864195 | -104.76571626 |
| 11025.00 | 90.45 | 269.56 | 7201.94 | 1473.85S | 3545.58W | ==> | 3715.18 | 40.54863983 | -104.76607607 |
| 11125.00 | 90.45 | 269.56 | 7201.14 | 1474.61S | 3645.57W | ==> | 3814.32 | 40.54863771 | -104.76643588 |
| 11225.00 | 90.45 | 269.56 | 7200.35 | 1475.37S | 3745.56W | ==> | 3913.46 | 40.54863558 | -104.76679569 |
| 11325.00 | 90.45 | 269.56 | 7199.55 | 1476.13S | 3845.56W | ==> | 4012.60 | 40.54863345 | -104.76715550 |
| 11425.00 | 90.45 | 269.56 | 7198.76 | 1476.89S | 3945.55W | ==> | 4111.74 | 40.54863132 | -104.76751531 |
| 11525.00 | 90.45 | 269.56 | 7197.97 | 1477.65S | 4045.55W | ==> | 4210.88 | 40.54862919 | -104.76787511 |
| 11625.00 | 90.45 | 269.56 | 7197.17 | 1478.41S | 4145.54W | ==> | 4310.02 | 40.54862706 | -104.76823492 |
| 11725.00 | 90.45 | 269.56 | 7196.38 | 1479.17S | 4245.53W | ==> | 4409.16 | 40.54862493 | -104.76859473 |
| 11825.00 | 90.45 | 269.56 | 7195.59 | 1479.93S | 4345.53W | ==> | 4508.30 | 40.54862280 | -104.76895454 |
| 11925.00 | 90.45 | 269.56 | 7194.79 | 1480.69S | 4445.52W | ==> | 4607.44 | 40.54862067 | -104.76931435 |
| 12025.00 | 90.45 | 269.56 | 7194.00 | 1481.45S | 4545.51W | ==> | 4706.58 | 40.54861853 | -104.76967416 |
| 12125.00 | 90.45 | 269.56 | 7193.21 | 1482.21S | 4645.51W | ==> | 4805.72 | 40.54861640 | -104.77003397 |
| 12225.00 | 90.45 | 269.56 | 7192.41 | 1482.97S | 4745.50W | ==> | 4904.86 | 40.54861426 | -104.77039377 |
| 12325.00 | 90.45 | 269.56 | 7191.62 | 1483.73S | 4845.50W | ==> | 5004.00 | 40.54861212 | -104.77075358 |
| 12425.00 | 90.45 | 269.56 | 7190.82 | 1484.49S | 4945.49W | ==> | 5103.14 | 40.54860998 | -104.77111339 |
| 12525.00 | 90.45 | 269.56 | 7190.03 | 1485.25S | 5045.48W | ==> | 5202.28 | 40.54860784 | -104.77147320 |
| 12625.00 | 90.45 | 269.56 | 7189.24 | 1486.00S | 5145.48W | ==> | 5301.43 | 40.54860570 | -104.77183301 |
| 12725.00 | 90.45 | 269.56 | 7188.44 | 1486.76S | 5245.47W | ==> | 5400.57 | 40.54860356 | -104.77219282 |
| 12825.00 | 90.45 | 269.56 | 7187.65 | 1487.52S | 5345.47W | ==> | 5499.71 | 40.54860141 | -104.77255262 |
| 12925.00 | 90.45 | 269.56 | 7186.86 | 1488.28S | 5445.46W | ==> | 5598.85 | 40.54859927 | -104.77291243 |
| 13025.00 | 90.45 | 269.56 | 7186.06 | 1489.04S | 5545.45W | ==> | 5697.99 | 40.54859712 | -104.77327224 |
| 13125.00 | 90.45 | 269.56 | 7185.27 | 1489.80S | 5645.45W | ==> | 5797.13 | 40.54859497 | -104.77363205 |
| 13225.00 | 90.45 | 269.56 | 7184.48 | 1490.56S | 5745.44W | ==> | 5896.27 | 40.54859282 | -104.77399186 |
| 13325.00 | 90.45 | 269.56 | 7183.68 | 1491.32S | 5845.44W | ==> | 5995.41 | 40.54859068 | -104.77435167 |
| 13425.00 | 90.45 | 269.56 | 7182.89 | 1492.08S | 5945.43W | ==> | 6094.55 | 40.54858852 | -104.77471147 |
| 13525.00 | 90.45 | 269.56 | 7182.09 | 1492.84S | 6045.42W | ==> | 6193.69 | 40.54858637 | -104.77507128 |
| 13625.00 | 90.45 | 269.56 | 7181.30 | 1493.60S | 6145.42W | ==> | 6292.83 | 40.54858422 | -104.77543109 |
| 13725.00 | 90.45 | 269.56 | 7180.51 | 1494.36S | 6245.41W | ==> | 6391.97 | 40.54858207 | -104.77579090 |
| 13825.00 | 90.45 | 269.56 | 7179.71 | 1495.12S | 6345.41W | ==> | 6491.11 | 40.54857991 | -104.77615071 |
| 13925.00 | 90.45 | 269.56 | 7178.92 | 1495.88S | 6445.40W | ==> | 6590.25 | 40.54857776 | -104.77651051 |
| 14025.00 | 90.45 | 269.56 | 7178.13 | 1496.64S | 6545.39W | ==> | 6689.39 | 40.54857560 | -104.77687032 |
| 14125.00 | 90.45 | 269.56 | 7177.33 | 1497.40S | 6645.39W | ==> | 6788.53 | 40.54857344 | -104.77723013 |
| 14225.00 | 90.45 | 269.56 | 7176.54 | 1498.16S | 6745.38W | ==> | 6887.67 | 40.54857128 | -104.77758994 |
| 14325.00 | 90.45 | 269.56 | 7175.75 | 1498.92S | 6845.38W | ==> | 6986.81 | 40.54856912 | -104.77794975 |

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 4923.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 262.06 degrees
Bottom hole distance is 11077.50 Feet on azimuth 262.06 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 21-May-2019

SYSDRILL
Well Design Combined Report
Wellbore: LEFFLER HA-26-28HN (PWB)



| 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) |
| 14425.00 | 90.45 | 269.56 | 7174.95 | 1499.68S | 6945.37W | ==> | 7085.95 | 40.54856696 | -104.77830955 |
| 14525.00 | 90.45 | 269.56 | 7174.16 | 1500.44S | 7045.36W | ==> | 7185.09 | 40.54856480 | -104.77866936 |
| 14625.00 | 90.45 | 269.56 | 7173.37 | 1501.20S | 7145.36W | ==> | 7284.23 | 40.54856263 | -104.77902917 |
| 14725.00 | 90.45 | 269.56 | 7172.57 | 1501.96S | 7245.35W | ==> | 7383.37 | 40.54856047 | -104.77938898 |
| 14825.00 | 90.45 | 269.56 | 7171.78 | 1502.72S | 7345.35W | ==> | 7482.51 | 40.54855830 | -104.77974879 |
| 14925.00 | 90.45 | 269.56 | 7170.98 | 1503.47S | 7445.34W | ==> | 7581.65 | 40.54855613 | -104.78010859 |
| 15025.00 | 90.45 | 269.56 | 7170.19 | 1504.23S | 7545.33W | ==> | 7680.79 | 40.54855396 | -104.78046840 |
| 15125.00 | 90.45 | 269.56 | 7169.40 | 1504.99S | 7645.33W | ==> | 7779.93 | 40.54855180 | -104.78082821 |
| 15225.00 | 90.45 | 269.56 | 7168.60 | 1505.75S | 7745.32W | ==> | 7879.07 | 40.54854962 | -104.78118802 |
| 15325.00 | 90.45 | 269.56 | 7167.81 | 1506.51S | 7845.32W | ==> | 7978.21 | 40.54854745 | -104.78154782 |
| 15425.00 | 90.45 | 269.56 | 7167.02 | 1507.27S | 7945.31W | ==> | 8077.35 | 40.54854528 | -104.78190763 |
| 15525.00 | 90.45 | 269.56 | 7166.22 | 1508.03S | 8045.30W | ==> | 8176.49 | 40.54854311 | -104.78226744 |
| 15625.00 | 90.45 | 269.56 | 7165.43 | 1508.79S | 8145.30W | ==> | 8275.63 | 40.54854093 | -104.78262725 |
| 15725.00 | 90.45 | 269.56 | 7164.64 | 1509.55S | 8245.29W | ==> | 8374.77 | 40.54853875 | -104.78298706 |
| 15825.00 | 90.45 | 269.56 | 7163.84 | 1510.31S | 8345.29W | ==> | 8473.91 | 40.54853658 | -104.78334686 |
| 15925.00 | 90.45 | 269.56 | 7163.05 | 1511.07S | 8445.28W | ==> | 8573.05 | 40.54853440 | -104.78370667 |
| 16025.00 | 90.45 | 269.56 | 7162.25 | 1511.83S | 8545.27W | ==> | 8672.19 | 40.54853222 | -104.78406648 |
| 16125.00 | 90.45 | 269.56 | 7161.46 | 1512.59S | 8645.27W | ==> | 8771.33 | 40.54853004 | -104.78442629 |
| 16225.00 | 90.45 | 269.56 | 7160.67 | 1513.35S | 8745.26W | ==> | 8870.47 | 40.54852786 | -104.78478609 |
| 16325.00 | 90.45 | 269.56 | 7159.87 | 1514.11S | 8845.26W | ==> | 8969.61 | 40.54852567 | -104.78514590 |
| 16425.00 | 90.45 | 269.56 | 7159.08 | 1514.87S | 8945.25W | ==> | 9068.75 | 40.54852349 | -104.78550571 |
| 16525.00 | 90.45 | 269.56 | 7158.29 | 1515.63S | 9045.24W | ==> | 9167.89 | 40.54852131 | -104.78586552 |
| 16625.00 | 90.45 | 269.56 | 7157.49 | 1516.39S | 9145.24W | ==> | 9267.03 | 40.54851912 | -104.78622532 |
| 16725.00 | 90.45 | 269.56 | 7156.70 | 1517.15S | 9245.23W | ==> | 9366.17 | 40.54851693 | -104.78658513 |
| 16825.00 | 90.45 | 269.56 | 7155.91 | 1517.91S | 9345.23W | ==> | 9465.31 | 40.54851474 | -104.78694494 |
| 16925.00 | 90.45 | 269.56 | 7155.11 | 1518.67S | 9445.22W | ==> | 9564.45 | 40.54851255 | -104.78730474 |
| 17025.00 | 90.45 | 269.56 | 7154.32 | 1519.43S | 9545.21W | ==> | 9663.59 | 40.54851036 | -104.78766455 |
| 17125.00 | 90.45 | 269.56 | 7153.52 | 1520.19S | 9645.21W | ==> | 9762.73 | 40.54850817 | -104.78802436 |
| 17225.00 | 90.45 | 269.56 | 7152.73 | 1520.95S | 9745.20W | ==> | 9861.87 | 40.54850598 | -104.78838417 |
| 17325.00 | 90.45 | 269.56 | 7151.94 | 1521.70S | 9845.20W | ==> | 9961.01 | 40.54850378 | -104.78874397 |
| 17425.00 | 90.45 | 269.56 | 7151.14 | 1522.46S | 9945.19W | ==> | 10060.16 | 40.54850159 | -104.78910378 |
| 17525.00 | 90.45 | 269.56 | 7150.35 | 1523.22S | 10045.18W | ==> | 10159.30 | 40.54849939 | -104.78946359 |
| 17625.00 | 90.45 | 269.56 | 7149.56 | 1523.98S | 10145.18W | ==> | 10258.44 | 40.54849720 | -104.78982340 |
| 17725.00 | 90.45 | 269.56 | 7148.76 | 1524.74S | 10245.17W | ==> | 10357.58 | 40.54849500 | -104.79018320 |
| 17825.00 | 90.45 | 269.56 | 7147.97 | 1525.50S | 10345.16W | ==> | 10456.72 | 40.54849280 | -104.79054301 |
| 17925.00 | 90.45 | 269.56 | 7147.18 | 1526.26S | 10445.16W | ==> | 10555.86 | 40.54849060 | -104.79090282 |
| 18025.00 | 90.45 | 269.56 | 7146.38 | 1527.02S | 10545.15W | ==> | 10655.00 | 40.54848840 | -104.79126262 |
| 18125.00 | 90.45 | 269.56 | 7145.59 | 1527.78S | 10645.15W | ==> | 10754.14 | 40.54848619 | -104.79162243 |
| 18225.00 | 90.45 | 269.56 | 7144.79 | 1528.54S | 10745.14W | ==> | 10853.28 | 40.54848399 | -104.79198224 |
| 18325.00 | 90.45 | 269.56 | 7144.00 | 1529.30S | 10845.13W | ==> | 10952.42 | 40.54848178 | -104.79234205 |
| 18425.00 | 90.45 | 269.56 | 7143.21 | 1530.06S | 10945.13W | ==> | 11051.56 | 40.54847958 | -104.79270185 |
| 18451.17 | 90.45 | 269.56 | 7143.00 | 1530.26S | 10971.29W | ==> | 11077.50 | 40.54847900 | -104.79279600 |

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Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 4923.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 262.06 degrees
Bottom hole distance is 11077.50 Feet on azimuth 262.06 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 21-May-2019

SYS DRILL
Well Design Combined Report
Wellbore: LEFFLER HA-26-28HN (PWB)



| Targets | | | | | | | |
|-----------------------------|-----------|-----------|---------|-------------|---------------|------------|------------|
| Name | North[ft] | East[ft] | TVD[ft] | Latitude | Longitude | Northing | Easting |
| LEFFLER HA-26-28HN - LP | 1448.91S | 261.51W | 7228.00 | 40.54870900 | -104.75425900 | 1443606.98 | 3207238.54 |
| LEFFLER HA-26-28HN - BHL | 1530.26S | 10971.29W | 7143.00 | 40.54847900 | -104.79279600 | 1443435.46 | 3196530.16 |

| Survey Tool Program | | | | | |
|---------------------|-------------|----------|---------|---------------|-------------------|
| Reference | Survey Name | MD[ft] | TVD[ft] | Survey Tool | Error Model |
| 836585 | Planned | 1025.00 | 1025.00 | WdW Rate Gyro | Standard |
| 836584 | Planned | 18451.17 | 7143.00 | ISCWSA MWD | Rev 4 + SAG + FLT |

| Notes |
|-------|
| |

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 4923.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 262.06 degrees
Bottom hole distance is 11077.50 Feet on azimuth 262.06 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 21-May-2019

SYSDRILL
Closest Approach + Clearance Factor Summary Report
Wellbore: LEFFLER HA-26-28HN (PWB)
Wellpath: LEFFLER HA-26-28HN (PWP#1)
Ellipse separations are reported ONLY if BOTH wells have uncertainty data
Only Depth and Magnetic Reference Field error terms are correlated across tie points
Scan limit is calculated on CENTRE to CENTRE distance

Summary data uses Closest Approach clearance calculation for all minima
Hole size/Casings ARE included
Hole size/Casings are NOT subtracted from Centre-Centre distance
Confidence limit of 95.00% / 2.80 SD.
Errors on Ref start at Slot Permanent Datum (25.00)

Report uses Common: D/(E+Csg) Factor Calculation

Wellbore

| Name | Created | Last Revised |
|--------------------------|-------------|--------------|
| LEFFLER HA-26-28HN (PWB) | May-20-2019 | May-21-2019 |

Well

| Name | Government ID | Last Revised |
|--------------------|---------------|--------------|
| LEFFLER HA-26-28HN | | May-20-2019 |

Slot

| Name | Grid Northing | Grid Easting | Latitude | Longitude | North | East |
|--------------------|---------------|--------------|-------------|---------------|--------|--------|
| LEFFLER HA-26-28HN | 1445057.9955 | 3207487.8386 | 40.55268600 | -104.75331800 | 29.87S | 60.30E |

Installation

| Name | Easting | Northing | Map Name | North Alignment |
|----------------------------------|--------------|--------------|---|-----------------|
| Leffler Pad - Updates 05-20-2019 | 3207427.2886 | 1445087.3602 | NAD83 Based Colorado State Planes, Northern Zone, US Feet | True |

Field

| Name | Easting | Northing | Map Name | North Alignment |
|------------|--------------|--------------|---|-----------------|
| WATTENBERG | 3230716.7970 | 1397094.8569 | NAD83 Based Colorado State Planes, Northern Zone, US Feet | Grid |

Clearance Summary

| Offset WellName | Offset Wellbore | Offset Slot | Offset Structure | Separation [ft] | MD[ft] | Diverging From[ft] | Ellipse Separation [ft] | Ellipse MD[ft] | Clearance Factor | Clearance MD[ft] |
|--------------------|--------------------------|------------------|---------------------|-----------------|----------|--------------------|-------------------------|----------------|------------------|------------------|
| W Thornton 21K-443 | W Thornton 21K-443 (AWB) | Thornton 21K-443 | Leffler Pad OFFSETS | 251.34 | 17415.39 | 17415.39 | 145.27 | 17372.05 | 2.20 | 17290.03 |
| W Leffler 27C | W Leffler 27C (AWB) | Leffler 27C | Leffler Pad OFFSETS | 367.21 | 9025.00 | 9025.00 | 289.43 | 9025.00 | 4.72 | 9022.31 |
| W Leffler 32-27 | W Leffler 32-27 (AWB) | Leffler 32-27 | Leffler Pad OFFSETS | 508.39 | 9964.81 | 9964.81 | 396.41 | 9990.16 | 4.47 | 10055.77 |
| W Leffler 42-27 | W Leffler 42-27 (AWB) | Leffler 42-27 | Leffler Pad OFFSETS | 562.71 | 8314.57 | 8314.57 | 507.15 | 8349.74 | 9.32 | 8530.18 |
| W Leffler 41-27 | W Leffler 41-27 (AWB) | Leffler 41-27 | Leffler Pad OFFSETS | 756.85 | 1789.22 | 8300.52 | 750.53 | 1886.48 | 19.54 | 8661.42 |
| W Leffler 1-27 | W Leffler 1-27 (AWB) | Leffler 1-27 | Leffler Pad OFFSETS | 1032.83 | 9687.72 | 9687.72 | 931.31 | 9711.29 | 10.05 | 9809.71 |
| W Leffler 31-27 | W Leffler 31-27 (AWB) | Leffler 31-27 | Leffler Pad OFFSETS | 1142.54 | 9969.18 | 9969.18 | 1031.20 | 9990.16 | 10.13 | 10121.39 |