

Archer Directional Drilling Services

Sandridge Energy, INC.(mid-con.)
 Isaac Farms 1-36H - Archer Survey

Finney County (KS27S)
 Sec 36-T22S-R31W
 Your Ref:

| Measured Depth (ft) | Incl. | Azim. | Vertical Depth (ft) | Northings (ft) | Eastings (ft) | Vertical Section (ft) | Dogleg Rate (°/100ft) |
|---------------------------|-------|-------|---------------------------|-------------------|------------------|-----------------------------|-----------------------------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 284 | 0.6 | 328.1 | 283.99 | 1.26 | -0.79 | -1.25 | 0.21 |
| 720 | 0.3 | 328.1 | 719.98 | 4.17 | -2.6 | -4.13 | 0.07 |
| 1186 | 0.8 | 328.1 | 1185.96 | 7.97 | -4.96 | -7.88 | 0.11 |
| 1391 | 0.8 | 328.1 | 1390.94 | 10.4 | -6.47 | -10.29 | 0 |
| 1861 | 0.9 | 320.9 | 1860.89 | 16.05 | -10.53 | -15.87 | 0.03 |
| 2327 | 0.9 | 294.5 | 2326.83 | 20.41 | -16.17 | -20.14 | 0.09 |
| 2796 | 0.8 | 284.7 | 2795.78 | 22.76 | -22.69 | -22.39 | 0.04 |
| 3272 | 0.5 | 281.5 | 3271.75 | 24.02 | -27.94 | -23.56 | 0.06 |
| 3749 | 0.3 | 283.1 | 3748.74 | 24.72 | -31.2 | -24.2 | 0.04 |
| 3909 | 0.3 | 254.9 | 3908.73 | 24.7 | -32.01 | -24.17 | 0.09 |
| 3941 | 0.3 | 165.4 | 3940.73 | 24.6 | -32.07 | -24.07 | 1.32 |
| 3973 | 1.5 | 153 | 3972.73 | 24.15 | -31.86 | -23.62 | 3.78 |
| 4005 | 3.6 | 166.4 | 4004.7 | 22.8 | -31.43 | -22.28 | 6.78 |
| 4037 | 6.3 | 172 | 4036.57 | 20.08 | -30.95 | -19.57 | 8.56 |
| 4068 | 9 | 172.2 | 4067.3 | 15.99 | -30.38 | -15.49 | 8.71 |
| 4100 | 11.3 | 170.6 | 4098.79 | 10.42 | -29.53 | -9.93 | 7.24 |
| 4132 | 13.4 | 171 | 4130.05 | 3.66 | -28.44 | -3.19 | 6.57 |
| 4164 | 15.9 | 171.5 | 4161.01 | -4.33 | -27.21 | 4.78 | 7.82 |
| 4196 | 18 | 170.8 | 4191.62 | -13.55 | -25.77 | 13.97 | 6.59 |
| 4228 | 20.3 | 172 | 4221.84 | -23.93 | -24.21 | 24.33 | 7.29 |
| 4260 | 22.5 | 174 | 4251.64 | -35.52 | -22.8 | 35.89 | 7.24 |
| 4291 | 24.7 | 175.3 | 4280.04 | -47.87 | -21.65 | 48.22 | 7.29 |
| 4323 | 26.2 | 176.7 | 4308.94 | -61.59 | -20.69 | 61.92 | 5.05 |
| 4355 | 27.9 | 177.8 | 4337.43 | -76.13 | -20 | 76.45 | 5.54 |
| 4387 | 29.9 | 178 | 4365.45 | -91.58 | -19.43 | 91.89 | 6.26 |
| 4419 | 31.7 | 178.4 | 4392.93 | -107.96 | -18.92 | 108.25 | 5.66 |
| 4451 | 33.7 | 178.6 | 4419.86 | -125.24 | -18.47 | 125.52 | 6.26 |
| 4483 | 35.7 | 178.7 | 4446.17 | -143.45 | -18.04 | 143.73 | 6.25 |
| 4515 | 37.1 | 179.2 | 4471.92 | -162.43 | -17.69 | 162.7 | 4.47 |
| 4547 | 39.3 | 178.9 | 4497.07 | -182.22 | -17.36 | 182.48 | 6.9 |
| 4579 | 42.3 | 178 | 4521.29 | -203.12 | -16.79 | 203.37 | 9.55 |

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|------|------|-------|---------|----------|--------|---------|-------|
| 4611 | 44.4 | 177.5 | 4544.56 | -225.07 | -15.93 | 225.3 | 6.65 |
| 4643 | 46.1 | 177.3 | 4567.09 | -247.77 | -14.9 | 247.98 | 5.33 |
| 4675 | 48.2 | 177 | 4588.85 | -271.2 | -13.73 | 271.39 | 6.6 |
| 4707 | 50.8 | 176.5 | 4609.63 | -295.49 | -12.35 | 295.65 | 8.21 |
| 4739 | 51.6 | 176.6 | 4629.68 | -320.38 | -10.85 | 320.52 | 2.51 |
| 4771 | 51.8 | 176.2 | 4649.51 | -345.44 | -9.27 | 345.55 | 1.16 |
| 4803 | 52 | 175.8 | 4669.26 | -370.57 | -7.51 | 370.64 | 1.17 |
| 4835 | 51.8 | 176.2 | 4689 | -395.69 | -5.76 | 395.73 | 1.17 |
| 4867 | 51.9 | 175.5 | 4708.77 | -420.78 | -3.93 | 420.79 | 1.75 |
| 4899 | 52 | 175.8 | 4728.49 | -445.91 | -2.02 | 445.88 | 0.8 |
| 4931 | 53.5 | 176.4 | 4747.86 | -471.32 | -0.29 | 471.26 | 4.92 |
| 4963 | 56 | 176.7 | 4766.33 | -497.41 | 1.28 | 497.32 | 7.85 |
| 4995 | 58.5 | 177.8 | 4783.64 | -524.29 | 2.57 | 524.17 | 8.33 |
| 5027 | 61.6 | 178.1 | 4799.61 | -551.99 | 3.56 | 551.86 | 9.72 |
| 5059 | 66 | 178 | 4813.74 | -580.68 | 4.53 | 580.53 | 13.75 |
| 5091 | 69.7 | 177.9 | 4825.8 | -610.29 | 5.59 | 610.12 | 11.57 |
| 5123 | 71.7 | 177.8 | 4836.38 | -640.47 | 6.73 | 640.27 | 6.26 |
| 5155 | 74 | 177.9 | 4845.81 | -671.03 | 7.87 | 670.81 | 7.19 |
| 5187 | 77 | 177.7 | 4853.82 | -701.98 | 9.06 | 701.74 | 9.39 |
| 5218 | 80.4 | 177.3 | 4859.9 | -732.35 | 10.39 | 732.07 | 11.04 |
| 5250 | 83 | 177.9 | 4864.52 | -763.98 | 11.72 | 763.68 | 8.33 |
| 5282 | 84.8 | 178.4 | 4867.92 | -795.78 | 12.74 | 795.46 | 5.84 |
| 5310 | 87.3 | 178.5 | 4869.85 | -823.7 | 13.5 | 823.37 | 8.94 |
| 5379 | 90.9 | 177.2 | 4870.93 | -892.63 | 16.09 | 892.25 | 5.55 |
| 5411 | 91.2 | 177.2 | 4870.34 | -924.59 | 17.65 | 924.17 | 0.94 |
| 5443 | 90.9 | 178.3 | 4869.76 | -956.56 | 18.91 | 956.12 | 3.56 |
| 5474 | 90 | 178.8 | 4869.51 | -987.55 | 19.69 | 987.09 | 3.32 |
| 5506 | 89.9 | 179.4 | 4869.54 | -1019.54 | 20.19 | 1019.07 | 1.9 |
| 5538 | 90.1 | 179.2 | 4869.54 | -1051.54 | 20.58 | 1051.06 | 0.88 |
| 5570 | 90.3 | 179.4 | 4869.43 | -1083.54 | 20.97 | 1083.04 | 0.88 |
| 5602 | 90.5 | 179.4 | 4869.21 | -1115.54 | 21.31 | 1115.03 | 0.62 |
| 5634 | 90.8 | 179.7 | 4868.84 | -1147.53 | 21.56 | 1147.02 | 1.33 |
| 5666 | 90.9 | 179.7 | 4868.37 | -1179.53 | 21.73 | 1179.01 | 0.31 |
| 5698 | 91 | 180.1 | 4867.84 | -1211.52 | 21.78 | 1211 | 1.29 |
| 5730 | 90.9 | 179.9 | 4867.31 | -1243.52 | 21.78 | 1242.99 | 0.7 |
| 5762 | 91.1 | 179.7 | 4866.75 | -1275.51 | 21.9 | 1274.98 | 0.88 |
| 5794 | 90.4 | 180.1 | 4866.33 | -1307.51 | 21.95 | 1306.97 | 2.52 |
| 5858 | 90.8 | 180.7 | 4865.66 | -1371.51 | 21.5 | 1370.96 | 1.13 |
| 5953 | 91.2 | 180.3 | 4864 | -1466.49 | 20.68 | 1465.95 | 0.6 |
| 6049 | 90.5 | 180.5 | 4862.58 | -1562.47 | 20.01 | 1561.93 | 0.76 |
| 6144 | 91.8 | 181.2 | 4860.67 | -1657.44 | 18.6 | 1656.91 | 1.55 |
| 6240 | 89.8 | 181 | 4859.33 | -1753.41 | 16.75 | 1752.89 | 2.09 |
| 6336 | 89.6 | 181 | 4859.83 | -1849.39 | 15.08 | 1848.89 | 0.21 |
| 6431 | 89.8 | 181.8 | 4860.33 | -1944.36 | 12.76 | 1943.89 | 0.87 |
| 6527 | 89.7 | 182.1 | 4860.75 | -2040.31 | 9.49 | 2039.87 | 0.33 |
| 6623 | 90.4 | 182.2 | 4860.67 | -2136.24 | 5.89 | 2135.85 | 0.74 |
| 6719 | 90.6 | 181.5 | 4859.83 | -2232.18 | 2.79 | 2231.83 | 0.76 |

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|------|------|-------|---------|----------|--------|---------|------|
| 6815 | 90.1 | 182.2 | 4859.24 | -2328.13 | -0.31 | 2327.82 | 0.9 |
| 6911 | 90.2 | 182.3 | 4858.99 | -2424.06 | -4.08 | 2423.79 | 0.15 |
| 7007 | 90.6 | 182.9 | 4858.32 | -2519.96 | -8.43 | 2519.75 | 0.75 |
| 7102 | 89.6 | 182.9 | 4858.15 | -2614.83 | -13.24 | 2614.69 | 1.05 |
| 7198 | 90.3 | 183.4 | 4858.24 | -2710.69 | -18.51 | 2710.62 | 0.9 |
| 7294 | 90.9 | 183.6 | 4857.23 | -2806.5 | -24.37 | 2806.52 | 0.66 |
| 7390 | 89.8 | 182.7 | 4856.65 | -2902.35 | -29.65 | 2902.45 | 1.48 |
| 7485 | 89.6 | 182.6 | 4857.14 | -2997.25 | -34.04 | 2997.4 | 0.24 |
| 7580 | 88.2 | 182.3 | 4858.97 | -3092.14 | -38.1 | 3092.35 | 1.51 |
| 7676 | 88.7 | 181.4 | 4861.56 | -3188.06 | -41.2 | 3188.3 | 1.07 |
| 7771 | 90.1 | 179.3 | 4862.56 | -3283.04 | -41.78 | 3283.28 | 2.66 |
| 7867 | 91 | 180.1 | 4861.64 | -3379.03 | -41.28 | 3379.25 | 1.25 |
| 7963 | 91.6 | 179.6 | 4859.46 | -3475.01 | -41.03 | 3475.21 | 0.81 |
| 8058 | 92.2 | 179.4 | 4856.31 | -3569.95 | -40.2 | 3570.13 | 0.67 |
| 8154 | 91.7 | 179.6 | 4853.04 | -3665.89 | -39.36 | 3666.04 | 0.56 |
| 8250 | 89.7 | 179.5 | 4851.87 | -3761.88 | -38.61 | 3762 | 2.09 |
| 8345 | 89.3 | 179.6 | 4852.7 | -3856.87 | -37.86 | 3856.97 | 0.43 |
| 8441 | 89.4 | 180 | 4853.79 | -3952.86 | -37.52 | 3952.94 | 0.43 |
| 8537 | 89.1 | 180.2 | 4855.04 | -4048.85 | -37.69 | 4048.92 | 0.38 |
| 8633 | 90.5 | 180.2 | 4855.38 | -4144.85 | -38.03 | 4144.91 | 1.46 |
| 8729 | 90.5 | 180.6 | 4854.54 | -4240.84 | -38.7 | 4240.91 | 0.42 |
| 8824 | 90.4 | 180.5 | 4853.8 | -4335.84 | -39.61 | 4335.9 | 0.15 |
| 8919 | 90.5 | 179.6 | 4853.05 | -4430.83 | -39.69 | 4430.88 | 0.95 |
| 9015 | 91.1 | 178.6 | 4851.71 | -4526.81 | -38.18 | 4526.82 | 1.21 |
| 9111 | 91.5 | 178.4 | 4849.53 | -4622.75 | -35.67 | 4622.71 | 0.47 |
| 9217 | 91.9 | 177.3 | 4846.39 | -4728.63 | -31.7 | 4728.51 | 1.1 |
| 9271 | 91.9 | 177.3 | 4844.6 | -4782.54 | -29.15 | 4782.37 | 0 |

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North. Vertical depths are relative to WELL. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet.

Vertical Section is from Slot and calculated along an Azimuth of 180.946° (Grid).

Coordinate System is NAD 1927 (NADCON CONUS) US State Plane 1927 (Exact solution), Kansas South 1 Central meridian is -98.500°.

Grid Convergence at Surface is -1.340°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 9271.00ft., the Bottom Hole Displacement is 4782.63ft., in the Direction of 180.946° (Grid).