**Supplementary table 3.** In-situ stress of coal reservoirs in the Fukang area of southern Junggar Basin.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Well No. | Coal No. | Depth (m) | Permeability (mD) | Reservoir pressure (MPa) | Breakdown pressure (MPa) | Closing pressure (MPa) | tensile strength (MPa) | Maximum principal stress (MPa) | Minimum principal stress (MPa) | Vertical stress (MPa) | Total average stress (MPa) |
| CSD01 | B42 | 759 | 16.640 | 3.59 | 8.73 | 8.26 | 0.20 | 12.66 | 8.26 | 20.49 | 13.80 |
| FK17 | B45 | 825 | 7.140 | 7.61 | 18.99 | 16.11 | 0.20 | 21.93 | 16.11 | 22.28 | 20.11 |
| FK1 | X43 | 859 | 0.170 | 8.34 | 14.43 | 14.06 | 0.20 | 19.61 | 14.06 | 23.19 | 18.95 |
| X45 | 960 | 0.058 | 8.44 | 19.58 | 17.62 | 0.20 | 25.04 | 17.62 | 25.92 | 22.86 |
| CSD03 | B43 | 971 | 5.760 | 5.47 | 19.02 | 16.00 | 0.20 | 23.71 | 16.00 | 26.22 | 21.98 |
| CS11-X1 | B45 | 994 | 0.350 | 7.54 | 13.94 | 13.10 | 0.20 | 18.02 | 13.10 | 26.84 | 19.32 |
| FK6 | X45 | 1059 | 0.019 | 9.55 | 20.97 | 19.45 | 0.20 | 28.03 | 19.45 | 28.59 | 25.36 |
| CS15-X4 | B45 | 1414 | 0.009 | 13.61 | 25.03 | 24.67 | 0.20 | 35.57 | 24.67 | 38.18 | 32.81 |