**DISTRIBUTION OF RADIATION-INDUCED DEFECTS IN QUARTZ AT THE ACKIO URANIUM PROSPECT, ATHABASCA BASIN, SASKATCHEWAN: TRACING URANIUM-BEARING FLUIDS**

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**SUPPLEMENTARY DATA**

Table S1. Summary of all samples investigated in this study: EPR intensities in quartz and bulk U and Th contents and modelled doses

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Sample Name | Drill hole | Lithology | Oxygen-vacancy Electron  Center Intensity (a.u. unit) | Silicon-vacancy Hole Centers Intensity (a.u. unit) | Th (ppm) | U  (ppm) | Modelled Dose (x 107 Gy) |
| AK01\_37.0m | AK01 | SST | 0.19 | 0.24 | 7.9 | 1.0 | 1.39 |
| AK01\_42.5m | AK01 | SST | 0.34 | 0.67 | 52 | 4.8 | 8.28 |
| AK01\_47.5m | AK01 | SST | 0.34 | 0.44 | 92 | 13 | 16.8 |
| AK01\_52.5m | AK01 | SST | 0.17 | 0.36 | 15 | 1.7 | 2.49 |
| AK01\_57.4m | AK01 | SST-BSMT Contact | 0.61 | 0.70 | 33 | 2.4 | 4.96 |
| AK02A\_32.5m | AK02A | SST | 0.49 | 0.70 | 22 | 4.2 | 4.50 |
| AK02A\_37.5m | AK02A | SST | 0.41 | 0.60 | 16 | 1.9 | 2.73 |
| AK02A\_42.5m | AK02A | SST | 0.23 | 0.36 | 9.4 | 1.6 | 1.83 |
| AK02A\_47.5m | AK02A | SST | 0.47 | 0.85 | 62 | 2.6 | 8.55 |
| AK02A\_52.5m | AK02A | SST-BSMT Contact | 0.51 | 0.96 | 28 | 1.8 | 4.13 |
| AK05\_31.0m | AK05 | SST | 0.23 | 0.41 | 43 | 17 | 12.5 |
| AK05\_36.0m | AK05 | SST | 0.12 | 0.20 | 14 | 3.0 | 2.99 |
| AK05\_41.0m | AK05 | SST | 0.33 | 0.46 | 14 | 2.4 | 2.66 |
| AK05\_46.0m | AK05 | SST | 0.41 | 0.32 | 56 | 4.7 | 8.67 |
| AK05\_51.0m | AK05 | SST | 0.11 | 0.32 | 13 | 1.0 | 2.04 |
| AK05\_56.0m | AK05 | SST | 0.11 | 0.28 | 17 | 2.2 | 3.03 |
| AK05\_61.0m | AK05 | SST | 0.13 | 0.33 | 16 | 1.6 | 2.60 |
| AK05\_66.0m | AK05 | SST | 0.22 | 0.41 | 81 | 2.1 | 10.6 |
| AK05\_71.0m | AK05 | SST | 0.59 | 0.94 | 61 | 6.5 | 10.1 |
| AK05\_76.0m | AK05 | SST | 0.32 | 0.71 | 112 | 5.7 | 15.8 |
| AK05\_86.0m | AK05 | SST | 0.37 | 0.50 | 11 | 2.5 | 2.38 |
| AK05\_89.6m | AK05 | SST | 0.37 | 0.78 | 11 | 2.5 | 2.38 |
| AK05\_90.6m | AK05 | SST-BSMT Contact | 1.1 | 3.4 | 11 | 2.5 | 2.38 |
| AK05\_110.3m | AK05 | BSMT | 1.7 | 4.6 | 6.6 | 1.3 | 1.51 |
| AK05\_120.0m | AK05 | BSMT | 1.5 | 6.9 | 4.5 | 1.3 | 1.19 |
| AK05\_140.5m | AK05 | BSMT | 1.6 | 5.3 | 4.7 | 5.2 | 3.13 |
| AK05\_156.5m | AK05 | BSMT | 5.0 | 8.7 | 16 | 10 | 7.05 |
| AK05\_166.3m | AK05 | BSMT | 1.8 | 5.7 | 2.5 | 9.8 | 5.12 |
| AK05\_193.3m | AK05 | BSMT | 2.7 | 9.1 | 3.0 | 4.0 | 2.36 |
| AK05\_237.6m | AK05 | BSMT | 3.0 | 13 | 15 | 5.6 | 4.74 |
| AK05\_245.8m | AK05 | BSMT | 0.28 | 1.3 | 6.3 | 5.2 | 3.35 |
| AK05\_253.1m | AK05 | BSMT | 3.0 | 14 | 17 | 17 | 10.3 |
| AK07\_73.2m\* | AK07 | SST-BSMT Contact | 0.48 | 1.2 | 26 | 2.8 | 4.34 |
| AK08\_89.8m\* | AK08 | SST-BSMT Contact | 3.0 | 3.4 | 90 | 5.2 | 12.9 |
| AK09\_40.0m | AK09 | SST | 0.21 | 0.46 | 30 | 3.8 | 5.25 |
| AK09\_45.0m | AK09 | SST | 0.55 | 1.2 | 11 | 1.6 | 2.02 |
| AK09\_50.0m | AK09 | SST | 0.51 | 1.1 | 16 | 1.3 | 2.41 |
| AK09\_55.0m | AK09 | SST | 0.16 | 0.51 | 11 | 1.4 | 1.88 |
| AK09\_60.0m | AK09 | SST | 0.22 | 0.53 | 20 | 2.5 | 3.50 |
| AK09\_65.0m | AK09 | SST | 0.13 | 0.39 | 64 | 4.2 | 9.41 |
| AK09\_70.0m | AK09 | SST | 0.03 | 0.44 | 148 | 5.2 | 19.8 |
| AK09\_75.0m | AK09 | SST | 0.20 | 0.45 | 48 | 4.6 | 7.70 |
| AK09\_79.4m | AK09 | SST | 0.48 | 1.3 | 48 | 4.6 | 7.70 |
| AK09\_80.5m | AK09 | SST-BSMT Contact | 0.56 | 1.3 | 48 | 3.7 | 7.36 |
| AK10\_34.7m | AK10 | SST | 0.37 | 0.77 | 66 | 3.2 | 9.21 |
| AK10\_38.9m | AK10 | SST | 0.27 | 0.50 | 23 | 1.3 | 3.26 |
| AK10\_43.7m | AK10 | SST | 0.21 | 1.1 | 32 | 2.9 | 5.10 |
| AK10\_48.7m | AK10 | SST | 0.19 | 0.38 | 8.5 | 1.4 | 1.61 |
| AK10\_49.8m | AK10 | SST | 0.16 | 0.37 | 8.5 | 1.4 | 1.61 |
| AK10\_51.1m\* | AK10 | SST-BSMT Contact | 0.05 | 0.07 | 26 | 2.2 | 4.02 |
| AK12\_29.3m | AK12 | SST | 0.04 | 0.27 | 26 | 7.6 | 6.41 |
| AK12\_34.26m | AK12 | SST | 0.10 | 0.50 | 35 | 4.9 | 6.29 |
| AK12\_39.9m | AK12 | SST | 0.24 | 0.93 | 20 | 2.1 | 3.28 |
| AK12\_45.0m | AK12 | SST | 0.09 | 0.54 | 13 | 1.4 | 2.20 |
| AK12\_49.1m | AK12 | SST | 0.08 | 0.31 | 12 | 1.8 | 2.25 |
| AK12\_54.1m | AK12 | SST | 0.26 | 1.1 | 12 | 2.3 | 2.46 |
| AK12\_59.0m | AK12 | SST | 0.57 | 2.7 | 18 | 4.5 | 4.16 |
| AK12\_64.1m | AK12 | SST | 0.40 | 1.7 | 20 | 8.3 | 6.04 |
| AK12\_74.0m | AK12 | SST | 0.29 | 1.1 | 5.1 | 2.0 | 1.50 |
| AK12\_79.3m | AK12 | SST | 0.39 | 3.7 | 9.7 | 3.1 | 2.53 |
| AK12\_84.3m | AK12 | SST | 0.19 | 1.0 | 12 | 69 | 32.0 |
| AK12\_89.1m | AK12 | SST | 0.61 | 3.4 | 9.2 | 6.7 | 4.08 |
| AK12\_91.4m | AK12 | SST | 0.91 | 7.4 | 9.2 | 6.7 | 4.08 |
| AK12\_92.2m | AK12 | SST-BSMT Contact | 2.1 | 8.1 | 0.79 | 3.5 | 1.66 |
| AK12\_112.3m | AK12 | BSMT | 1.4 | 9.4 | 7.1 | 8.8 | 5.23 |
| AK12\_120.5m | AK12 | BSMT | 3.3 | 21 | 16 | 6.9 | 5.39 |
| AK12\_138.2m\* | AK12 | BSMT | 3.2 | 21 | 19 | 6.1 | 5.41 |
| AK12\_153.8m | AK12 | BSMT | 0.30 | 1.5 | 2.1 | 5.4 | 2.90 |
| AK12\_175.6m | AK12 | BSMT | 5.2 | 26 | 23 | 19 | 12.3 |
| AK12\_182.0m | AK12 | BSMT | 4.6 | 22 | 27 | 54 | 29.6 |
| AK12\_198.9m | AK12 | BSMT | 2.0 | 15 | 3.1 | 1.7 | 1.23 |
| AK12\_210.7m | AK12 | BSMT | 1.8 | 10 | 15 | 6.7 | 5.24 |
| AK12\_225.6m | AK12 | BSMT | 1.2 | 5.1 | 3.0 | 1.3 | 1.02 |
| AK12\_232.1m | AK12 | BSMT | 1.9 | 8.5 | 17 | 5.4 | 4.85 |
| AK15\_55.0m | AK15 | SST-BSMT Contact | 0.66 | 1.3 | 12 | 2.2 | 2.36 |
| AK16\_59.8m | AK16 | SST-BSMT Contact | 1.8 | 2.1 | 26 | 5.5 | 5.53 |
| AK17\_28.2m | AK17 | SST | 0.17 | 0.31 | 9.3 | 1.3 | 1.69 |
| AK17\_33.1m\* | AK17 | SST | 0.07 | 0.14 | 100 | 6.1 | 14.5 |
| AK17\_38.1m | AK17 | SST | 0.20 | 0.37 | 93 | 3.4 | 12.5 |
| AK17\_43.2m | AK17 | SST | 0.27 | 0.47 | 52 | 2.7 | 7.36 |
| AK17\_48.1m | AK17 | SST | 0.63 | 1.0 | 11 | 1.4 | 1.96 |
| AK17\_53.1m | AK17 | SST | 0.13 | 0.25 | 9.4 | 1.1 | 1.58 |
| AK17\_56.6m | AK17 | SST-BSMT Contact | 0.16 | 0.29 | 9.4 | 1.1 | 1.58 |
| AK18\_49.1m | AK18 | SST-BSMT Contact | 0.82 | 1.2 | 228 | 13 | 32.8 |
| AK19\_37.7m | AK19 | SST | 0.16 | 0.37 | 16 | 1.7 | 2.65 |
| AK19\_41.5m | AK19 | SST | 0.34 | 0.79 | 16 | 1.7 | 2.65 |
| AK19\_45.8m | AK19 | SST | 0.12 | 0.22 | 33 | 1.8 | 4.67 |
| AK19\_50.2m | AK19 | SST | 0.30 | 0.55 | 12 | 3.5 | 2.94 |
| AK19\_54.5m | AK19 | SST | 0.18 | 0.41 | 5.7 | 3.0 | 2.00 |
| AK19\_61.8m | AK19 | SST | 0.23 | 0.51 | 5.8 | 1.6 | 1.37 |
| AK19\_64.4m | AK19 | SST | 0.18 | 0.40 | 9.6 | 1.3 | 1.71 |
| AK19\_65.2m | AK19 | SST-BSMT Contact | 0.20 | 0.66 | 209 | 6.2 | 27.5 |
| AK20\_43.0m | AK20 | SST-BSMT Contact | 1.4 | 2.4 | 244 | 11 | 33.9 |
| AK22\_89.7m | AK22 | SST-BSMT Contact | 4.0 | 5.2 | 3.9 | 1.2 | 0.97 |
| AK23\_86.5m | AK23 | SST-BSMT Contact | 2.1 | 5.0 | 5.0 | 6.6 | 3.53 |
| AK24\_27.3m | AK24 | SST | 0.38 | 0.71 | 30 | 1.6 | 4.27 |
| AK24\_32.2m | AK24 | SST | 0.08 | 0.21 | 7.0 | 1.7 | 1.57 |
| AK24\_37.9m | AK24 | SST | 0.06 | 0.14 | 55 | 12 | 11.8 |
| AK24\_42.0m | AK24 | SST | 0.16 | 0.37 | 41 | 3.1 | 6.27 |
| AK24\_47.6m | AK24 | SST | 0.16 | 0.43 | 51 | 2.8 | 7.28 |
| AK24\_50.9m | AK24 | SST | 1.3 | 3.3 | 812 | 9.3 | 100.1 |
| AK24\_51.2m | AK24 | SST | 0.47 | 0.96 | 33 | 4.2 | 5.73 |
| AK24\_72.3m | AK24 | SST | 0.54 | 1.5 | 5.4 | 2.3 | 1.66 |
| AK24\_82.8m | AK24 | SST-BSMT Contact | 2.8 | 4.4 | 11 | 5.1 | 3.58 |
| AK25\_33.4m | AK25 | SST | 0.05 | 0.12 | 14 | 1.9 | 2.53 |
| AK25\_38.2m | AK25 | SST | 0.15 | 0.25 | 14 | 1.9 | 2.53 |
| AK25\_42.4m | AK25 | SST | 0.16 | 0.32 | 13 | 1.3 | 2.06 |
| AK25\_46.5m | AK25 | SST | 0.13 | 0.24 | 94 | 3.7 | 12.7 |
| AK25\_50.7m | AK25 | SST | 0.31 | 0.55 | 7.3 | 1.8 | 1.66 |
| AK25\_56.5m | AK25 | SST | 0.07 | 0.12 | 15 | 3.2 | 3.23 |
| AK25\_58.5m | AK25 | SST | 0.17 | 0.38 | 72 | 6.2 | 11.3 |
| AK25\_60.2m | AK25 | SST-BSMT Contact | 0.94 | 2.2 | 72 | 6.2 | 11.3 |
| AK26\_60.1m | AK26 | SST-BSMT Contact | 0.72 | 1.3 | 9.5 | 0.91 | 1.53 |
| AK27\_57.9m | AK27 | SST-BSMT Contact | 7.6 | 5.9 | 21 | 5.7 | 4.98 |
| AK29\_45.0m | AK29 | SST-BSMT Contact | 2.5 | 3.5 | 79 | 4.7 | 11.4 |
| AK30\_43.2m | AK30 | SST | 0.30 | 0.78 | 40 | 2.5 | 5.89 |
| AK30\_51.3m | AK30 | SST | 0.19 | 0.37 | 33 | 2.7 | 5.12 |
| AK30\_53.4m\* | AK30 | SST | 0.17 | 0.51 | 9.1 | 1.3 | 1.66 |
| AK30\_59.8m | AK30 | SST | 0.22 | 0.41 | 9.3 | 1.3 | 1.68 |
| AK30\_62.8m | AK30 | SST | 0.18 | 0.38 | 7.8 | 1.9 | 1.78 |
| AK30\_66.9m | AK30 | SST | 0.20 | 0.51 | 7.8 | 1.9 | 1.78 |
| AK30\_71.3m | AK30 | SST | 0.28 | 0.51 | 7.0 | 1.6 | 1.56 |
| AK30\_75.5m | AK30 | SST | 0.28 | 0.47 | 28 | 4.5 | 5.38 |
| AK30\_82.7m | AK30 | SST | 0.11 | 0.19 | 29 | 1.9 | 4.26 |
| AK30\_85.2m | AK30 | SST | 0.25 | 0.40 | 29 | 1.9 | 4.26 |
| AK30\_90.8m | AK30 | SST | 0.20 | 0.50 | 19 | 2.6 | 3.35 |
| AK30\_95.5m | AK30 | SST | 0.18 | 0.33 | 12 | 1.8 | 2.24 |
| AK30\_98.4m | AK30 | SST | 0.15 | 0.26 | 17 | 2.2 | 3.03 |
| AK30\_101.2m | AK30 | SST | 0.39 | 0.65 | 17 | 2.2 | 3.03 |
| AK30\_106.8m | AK30 | SST | 0.21 | 0.36 | 11 | 3.1 | 2.63 |
| AK30\_113.2m | AK30 | SST | 0.11 | 0.32 | 46 | 4.0 | 7.21 |
| AK30\_115.9m | AK30 | SST | 0.11 | 1.1 | 46 | 4.0 | 7.21 |
| AK30\_116.9m | AK30 | SST-BSMT Contact | 0.19 | 1 | 96 | 9.6 | 15.6 |
| AK30\_190.0m | AK30 | BSMT | 1.8 | 5.1 | 8.4 | 3.5 | 2.76 |
| AK30\_200.0m | AK30 | BSMT | 1.5 | 6.1 | 8.4 | 3.5 | 2.76 |
| AK30\_210.0m\* | AK30 | BSMT | 1.2 | 6.6 | 3.1 | 3.4 | 2.07 |
| AK30\_250.0m | AK30 | BSMT | 6.9 | 29 | 11 | 26 | 14.1 |
| AK30\_121.8m | AK30 | BSMT | 2.2 | 7.4 | 15 | 8.0 | 5.81 |
| AK30\_135.1m | AK30 | BSMT | 3.0 | 6.3 | 11 | 5.8 | 4.26 |
| AK30\_149.2m | AK30 | BSMT | 3.4 | 8.0 | 24 | 12 | 8.86 |
| AK30\_167.8m | AK30 | BSMT | 4.6 | 6.5 | 17 | 3.9 | 4.06 |
| AK30\_182.0m | AK30 | BSMT | 2.9 | 8.5 | 9.2 | 6.9 | 4.56 |
| AK30\_195.2m | AK30 | BSMT | 7.0 | 21 | 6.3 | 6.1 | 3.79 |
| AK30\_211.0m | AK30 | BSMT | 4.4 | 22 | 3.1 | 3.4 | 2.07 |
| AK30\_227.1m | AK30 | BSMT | 7.9 | 38 | 24 | 13 | 9.39 |
| AK30\_236.5m | AK30 | BSMT | 3.7 | 22 | 26 | 5.4 | 5.95 |
| AK30\_248.8m | AK30 | BSMT | 3.9 | 26 | 11 | 26 | 14.1 |
| AK30\_263.7m | AK30 | BSMT | 3.7 | 14 | 4.9 | 4.3 | 2.72 |
| AK30\_275.6m | AK30 | BSMT | 4.4 | 18 | 16 | 12 | 7.94 |
| AK31\_55.3m | AK31 | SST-BSMT Contact | 1.6 | 2.8 | 127 | 10 | 19.60 |
| AK32\_56.2m | AK32 | SST-BSMT Contact | 4.9 | 4.2 | 70 | 4.9 | 10.40 |
| AK32\_202.0m | AK32 | Mineralized | 39 | 33 | 144 | 6360 | 3117.4 |
| AK33\_28.32m | AK33 | SST | 0.07 | 0.12 | 9.8 | 1.1 | 1.65 |
| AK33\_33.3m | AK33 | SST | 0.14 | 0.28 | 52 | 3.1 | 7.55 |
| AK33\_36.3m | AK33 | SST | 0.28 | 0.68 | 18 | 1.3 | 2.69 |
| AK33\_42.0m | AK33 | SST | 0.15 | 0.34 | 44 | 4.7 | 7.34 |
| AK33\_45.3m | AK33 | SST | 0.27 | 0.71 | 46 | 6.8 | 8.40 |
| AK33\_51.1m | AK33 | SST | 0.16 | 0.28 | 53 | 13 | 11.9 |
| AK33\_55.6m | AK33 | SST | 0.29 | 0.54 | 38 | 5.6 | 6.99 |
| AK33\_60.3m | AK33 | SST | 0.33 | 0.65 | 110 | 6.5 | 15.9 |
| AK33\_61.1m | AK33 | SST | 0.17 | 0.51 | 110 | 6.5 | 15.9 |
| AK33\_63.5m | AK33 | SST | 0.16 | 0.56 | 137 | 10 | 20.6 |
| AK33\_65.7m | AK33 | SST-BSMT Contact | 1.6 | 3.6 | 33 | 67 | 33.7 |
| AK33\_79.8m | AK33 | BSMT | 3.4 | 11 | 1.6 | 1.4 | 0.89 |
| AK33\_104.8m | AK33 | BSMT | 1.9 | 16 | 23 | 8.8 | 7.26 |
| AK33\_120.0m | AK33 | BSMT | 2.3 | 7.7 | 21 | 6.2 | 5.70 |
| AK33\_141.9m | AK33 | BSMT | 6.6 | 35 | 3.0 | 20 | 10.0 |
| AK33\_163.0m | AK33 | BSMT | 1.4 | 5.5 | 4.9 | 3.4 | 2.29 |
| AK33\_176.7m | AK33 | BSMT | 0.97 | 5.5 | 21 | 5.3 | 5.33 |
| AK33\_198.0m | AK33 | BSMT | 3.3 | 15 | 1.8 | 4.3 | 2.31 |
| AK33\_233.2m | AK33 | BSMT | 1.3 | 5.7 | 19 | 7.0 | 5.91 |
| AK33\_253.8m | AK33 | BSMT | 3.4 | 6.2 | 26 | 19 | 12.7 |
| AK33\_277.9m | AK33 | BSMT | 1.6 | 6.9 | 31 | 6.6 | 7.21 |
| AK33\_302.1m | AK33 | BSMT | 0.52 | 4.7 | 22 | 4.8 | 5.20 |
| AK33\_321.1m\* | AK33 | BSMT | 0.87 | 2.9 | 21 | 2.1 | 3.79 |
| AK41\_56.1m | AK41 | BSMT | 5.4 | 22 | 2.0 | 10 | 5.33 |
| AK41\_154.0m | AK41 | BSMT | 0.52 | 4.4 | 24 | 6.9 | 6.39 |
| AK41\_194.8m\* | AK41 | BSMT | 0.22 | 0.76 | 24 | 3.5 | 4.79 |
| AK41\_212.1m | AK41 | BSMT | 0.86 | 2.2 | 24 | 7.9 | 7.00 |
| AK41\_228.7m | AK41 | BSMT | 0.93 | 3.0 | 20 | 4.9 | 4.93 |
| AK41\_239.6m | AK41 | BSMT | 0.62 | 2.6 | 18 | 4.5 | 4.45 |
| AK41\_252.4m | AK41 | BSMT | 0.73 | 2.0 | 23 | 5.8 | 5.74 |
| AK47\_50.0m | AK47 | BSMT | 1.6 | 3.8 | 9.5 | 3.5 | 2.93 |
| AK47\_60.0m | AK47 | BSMT | 3.7 | 15 | 0.45 | 1.1 | 0.57 |
| AK47\_80.0m | AK47 | BSMT | 1.3 | 7.9 | 1.9 | 6.6 | 3.46 |
| AK47\_118.7m | AK47 | BSMT | 0.97 | 2.7 | 7.9 | 2.8 | 2.40 |
| AK47\_160.3m | AK47 | BSMT | 0.99 | 2.1 | 19 | 5.1 | 5.01 |
| AK47\_190.0m | AK47 | BSMT | 3.9 | 21 | 11 | 10 | 6.22 |
| AK47\_200.0m | AK47 | BSMT | 1.1 | 7.0 | 20 | 12 | 8.48 |
| AK47\_210.0m | AK47 | BSMT | 0.82 | 5.6 | 23 | 66 | 35.0 |
| AK47\_250.0m | AK47 | BSMT | 0.56 | 3.1 | 4.3 | 2.9 | 1.96 |
| AK54\_42.1m | AK54 | SST-BSMT Contact | 2.3 | 3.2 | 40 | 4.3 | 6.61 |
| AK55\_35.5m | AK55 | SST | 0.32 | 0.68 | 13 | 1.9 | 2.40 |
| AK55\_40.6m | AK55 | SST | 0.47 | 1.0 | 24 | 1.5 | 3.51 |
| AK55\_45.0m | AK55 | SST | 0.20 | 0.48 | 108 | 6.2 | 15.5 |
| AK55\_50.1m | AK55 | SST | 0.21 | 0.37 | 39 | 4.8 | 6.69 |
| AK55\_55.1m | AK55 | SST | 0.24 | 0.51 | 25 | 3.2 | 4.38 |
| AK55\_60.1m | AK55 | SST | 0.24 | 0.37 | 27 | 1.9 | 3.98 |
| AK55\_66.0m | AK55 | SST | 0.25 | 0.47 | 19 | 2.4 | 3.29 |
| AK55\_71.1m | AK55 | SST | 0.46 | 0.73 | 16 | 2.7 | 3.08 |
| AK55\_76.7m | AK55 | SST | 0.40 | 0.69 | 6.3 | 2.7 | 1.95 |
| AK55\_78.1m | AK55 | SST | 0.10 | 0.20 | 33 | 2.8 | 5.13 |
| AK55\_80.2m | AK55 | SST | 0.13 | 0.24 | 13 | 3.5 | 3.08 |
| AK55\_83.4m | AK55 | SST-BSMT Contact | 0.80 | 1.1 | 15 | 3.6 | 3.38 |
| AK55\_128.0m | AK55 | BSMT | 1.1 | 4.0 | 3.4 | 18 | 9.07 |
| AK55\_162.2m | AK55 | BSMT | 2.3 | 4.8 | 42 | 8.7 | 9.66 |
| AK55\_190.2m | AK55 | BSMT | 1.8 | 8.4 | 3.9 | 2.2 | 1.57 |
| AK55\_203.8m | AK55 | BSMT | 0.66 | 7.4 | 5.5 | 2.5 | 1.92 |
| AK55\_235.9m | AK55 | BSMT | 0.72 | 3.4 | 2.8 | 1.3 | 0.98 |
| AK55\_268.8m | AK55 | BSMT | 1.8 | 11 | 12 | 7.9 | 5.33 |
| AK55\_282.8m | AK55 | BSMT | 1.4 | 10 | 17 | 9.9 | 7.01 |
| AK56\_76.5m | AK56 | SST-BSMT Contact | 2.5 | 5.4 | 227 | 4.7 | 28.9 |
| AK59\_76.3m | AK59 | BSMT | 1.9 | 5.0 | 1.7 | 5.4 | 2.84 |
| AK59\_92.0m | AK59 | BSMT | 4.9 | 17 | 7.1 | 8.2 | 4.91 |
| AK59\_121.8m | AK59 | BSMT | 3.7 | 8.0 | 17 | 7.8 | 6.05 |
| AK59\_134.8m | AK59 | BSMT | 4.6 | 16 | 19 | 6.9 | 5.75 |
| AK59\_145.1m\* | AK59 | BSMT | 7.1 | 29 | 40 | 13 | 11.3 |
| AK59\_158.4m | AK59 | BSMT | 1.7 | 6.3 | 25 | 47 | 25.9 |
| AK59\_169.2m | AK59 | BSMT | 1.2 | 5.7 | 14 | 8.7 | 5.98 |
| AK59\_182.5m | AK59 | BSMT | 0.96 | 3.2 | 2.1 | 3.4 | 1.91 |
| AK59\_198.1m | AK59 | BSMT | 0.44 | 1.6 | 2.4 | 1.8 | 1.18 |
| AK59\_209.7m | AK59 | BSMT | 1.3 | 4.2 | 1.8 | 1.2 | 0.80 |
| AK59\_235.4m | AK59 | BSMT | 5.5 | 13 | 24 | 8.0 | 7.02 |
| AK59\_252.0m | AK59 | BSMT | 2.1 | 9.3 | 24 | 8.1 | 7.07 |
| AK59\_282.0m | AK59 | BSMT | 2.8 | 11 | 25 | 11 | 8.63 |
| AK59\_295.0m | AK59 | BSMT | 1.0 | 5.2 | 21 | 3.0 | 4.16 |
| AK61\_46.6m | AK61 | BSMT | 6.2 | 37 | 4.0 | 2.3 | 1.63 |
| AK61\_69.9m | AK61 | BSMT | 1.3 | 8.9 | 1.4 | 1.4 | 0.86 |
| AK61\_82.4m | AK61 | BSMT | 3.6 | 23 | 11 | 6.0 | 4.36 |
| AK61\_107.0m | AK61 | BSMT | 0.65 | 3.2 | 21 | 3.8 | 4.51 |
| AK61\_128.8m | AK61 | BSMT | 0.35 | 6.3 | 20 | 5.2 | 5.11 |
| AK61\_143.6m | AK61 | BSMT | 1.5 | 4.2 | 19 | 3.5 | 4.19 |
| AK61\_157.5m | AK61 | BSMT | 0.64 | 2.3 | 20 | 4.6 | 4.85 |
| AK61\_214.0m | AK61 | BSMT | 0.51 | 0.88 | 14 | 12 | 7.65 |
| AK61\_226.3m | AK61 | BSMT | 0.71 | 1.9 | 23 | 7.0 | 6.41 |
| AK61\_248.1m | AK61 | BSMT | 0.14 | 1.3 | 0.47 | 3.1 | 1.55 |
| AK78\_61.0m | AK78 | BSMT | 3.5 | 17 | 17 | 17 | 10.5 |
| AK78\_72.5m | AK78 | BSMT | 2.3 | 19 | 2.7 | 2.0 | 1.32 |
| AK78\_89.6m | AK78 | BSMT | 1.9 | 12 | 2.9 | 2.8 | 1.72 |
| AK78\_120.0m | AK78 | BSMT | 2.1 | 9.0 | 14 | 11 | 7.04 |
| AK78\_139.3m | AK78 | BSMT | 2.1 | 18 | 14 | 2.6 | 3.03 |
| AK78\_160.0m | AK78 | BSMT | 3.0 | 11 | 7.8 | 3.6 | 2.75 |
| AK78\_172.1m | AK78 | BSMT | 2.1 | 7.2 | 12 | 4.5 | 3.68 |
| AK78\_188.2m | AK78 | BSMT | 3.5 | 6.4 | 19 | 9.8 | 7.25 |
| AK78\_208.2m | AK78 | BSMT | 0.94 | 3.6 | 15 | 8.0 | 5.78 |
| AK78\_222.4m | AK78 | BSMT | 3.4 | 8.1 | 15 | 13 | 8.16 |
| AK78\_238.4m | AK78 | BSMT | 1.6 | 5.5 | 22 | 18 | 11.5 |
| AK79\_50.8m | AK79 | SST-BSMT Contact | 2.0 | 3.0 | 25 | 5.8 | 5.52 |
| AK80\_46.9m | AK80 | SST | 0.11 | 0.25 | 27 | 3.1 | 4.56 |
| AK80\_51.4m | AK80 | SST | 0.31 | 0.63 | 74 | 4.8 | 10.9 |
| AK80\_56.8m | AK80 | SST | 0.21 | 0.35 | 69 | 4.1 | 9.98 |
| AK80\_61.4m | AK80 | SST | 0.17 | 0.35 | 44 | 3.0 | 6.48 |
| AK80\_65.2m | AK80 | SST | 0.30 | 0.46 | 31 | 2.9 | 5.00 |
| AK80\_70.1m | AK80 | SST | 0.30 | 0.54 | 31 | 2.9 | 5.00 |
| AK80\_75.3m | AK80 | SST | 0.25 | 0.46 | 19 | 2.3 | 3.30 |
| AK80\_80.1m | AK80 | SST | 0.23 | 0.41 | 7.7 | 1.4 | 1.52 |
| AK80\_84.2m | AK80 | SST | 0.27 | 0.48 | 31.4 | 2.8 | 4.94 |
| AK80\_89.2m | AK80 | SST-BSMT Contact | 0.12 | 0.22 | 20.5 | 12 | 7.67 |
| AK80\_112.8m | AK80 | SST | 0.16 | 0.41 | 33.1 | 4.8 | 6.05 |
| AK80\_117.2m | AK80 | SST | 0.08 | 0.14 | 33.1 | 4.8 | 6.05 |
| AK80\_123.0m | AK80 | SST | 0.19 | 0.63 | 14.6 | 2.8 | 2.97 |
| AK80\_128.4m | AK80 | SST | 0.91 | 2.8 | 17 | 3.2 | 3.45 |
| AK80\_152.4m | AK80 | SST | 0.12 | 0.28 | 20.2 | 4.1 | 4.19 |
| AK80\_166.9m | AK80 | SST | 1.3 | 3.3 | 19 | 5.6 | 4.72 |
| AK80\_167.6m | AK80 | SST | 0.15 | 0.27 | 43.8 | 10 | 9.81 |

Samples marked with an asterisk are those selected for powder X-ray diffraction (PXRD) analyses. “SST”, “BSMT”, and “SST-BSMT Contact” denote sandstones, basement, and sandstone-basement contact, respectively.