

TABLE 1: POTASSIUM-ARGON AGES AND ANALYTICAL DATA

TABLE 1: (CONTINUED)

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| Map no. | Field no. | Rock type | Quadrangle | Latitude (North) | Longitude (West) | Mineral | K ₂ O (percent) | Ar ⁴⁰ rad (10 ⁻¹² moles/gm) | Ar ³⁹ rad (10 ⁻¹² moles/gm) | Ar ⁴⁰ rad / Ar ³⁹ rad total | Calculated age (billions of years) |
|---------|-----------|------------|------------------|---|------------------|------------|----------------------------|---|---|---|------------------------------------|
| 1 | 66AR-131 | GD | Ugashik D-2 | 57°52'25" | 156°32'08" | Biotite | 7.85 | 21.53 | 0.99 | 176 | 27.1 ± 0.6 |
| | | | | | | Hornblende | 0.744 | 1.981 | 0.89 | 172 | 25.4 ± 1.0 |
| 2a | 66ALe-3 | GD | Naknek A-2 | 58°02'06" | 156°26'38" | Biotite | 7.95 | 19.99 | 0.97 | 183 | 26.0 ± 0.9 |
| 2b | 66ALe-4 | G | | | | Hornblende | 0.261 | 0.6712 | 0.42 | 166 | 28.4 ± 0.9 |
| 3 | 66AR-1280 | GD | Mount Katmai C-5 | 58°32'23" | 155°28'30" | Hornblende | 0.350 | 1.417 | 0.80 | 156 | 28.4 ± 0.9 |
| 4 | 64AE-77 | GD | Mount Katmai C-5 | 58°41'06" | 155°23'51" | Biotite | 8.84 | 22.17 | 0.94 | 162 | 26.2 ± 0.8 |
| 5 | A-126 | GD | Mount Katmai D-3 | 58°51'36" | 154°53'28" | Hornblende | 0.222 | 0.5903 | 0.69 | 169 | 25.0 ± 1.0 |
| 6 | 66ALe-5 | GD | Mount Katmai D-3 | 58°54'13" | 154°50'42" | Biotite | 8.14 | 3.241 | 0.86 | 27.5 | 171 ± 8.6 |
| | | | | | | Hornblende | 0.397 | 0.1498 | 0.50 | 25.3 | 132 ± 5.0 |
| 7 | A-113 | GD | Mount Katmai D-2 | 58°52'16" | 154°34'58" | Biotite | 8.04 | 3.203 | 0.77 | 26.7 | 147 ± 4.5 |
| 8 | 66AR-1289 | GD | Iliamna A-5 | 59°03'10" | 154°39'31" | Biotite | 8.08 | 4.191 | 0.89 | 34.7 | 152 ± 4.6 |
| | | | | | | Hornblende | 0.463 | 0.2487 | 0.48 | 36.1 | 152 ± 4.6 |
| 9 | 64AR-98 | G | Iliamna B-4 | 59°16'05" | 154°29'26" | Hornblende | 0.222 | 0.6223 | 0.73 | 179 | 157 ± 4.7 |
| 10 | 64AR-612 | GD | Iliamna B-4 | 59°18'00" | 154°18'15" | Biotite | 9.16 | 23.08 | 0.93 | 163 | 157 ± 4.7 |
| | | | | | | Hornblende | 0.411 | 0.9860 | 0.83 | 155 | 157 ± 4.7 |
| 11 | 64AD-863 | GD | Iliamna B-4 | 59°20'50" | 154°27'02" | Biotite | 8.60 | 13.66 | 0.90 | 158 | 159 ± 4.8 |
| | | | | | | Hornblende | 0.440 | 1.052 | 0.83 | 155 | 159 ± 4.8 |
| 12 | 64AD-420A | GD | Iliamna B-4 | 59°22'29" | 154°27'59" | Biotite | 7.74 | 18.49 | 0.94 | 154 | 158 ± 4.7 |
| 13 | 64AD-715 | GD | Iliamna B-4 | 59°23'50" | 154°18'32" | Biotite | 7.10 | 16.66 | 0.49 | 152 | 158 ± 4.7 |
| | | | | | | Muscovite | 9.32 | 23.01 | 0.71 | 160 | 161 ± 4.8 |
| 14 | 64AD-1084 | H | Iliamna C-3 | 59°43'50" | 153°50'51" | Hornblende | 0.266 | 0.6491 | 0.79 | 156 | 61.6 ± 1.8 |
| 15 | 62ALe-1 | GD | Iliamna C-2 | 59°42'05" | 153°42' | Biotite | 8.75 | 21.56* | 0.82 | 160 | 67.4 ± 2.0 |
| | | | | | | Hornblende | 0.951 | 2.469 | 0.77 | 168 | 64.0 ± 1.8 |
| 16 | 65AR-827 | D | Iliamna D-2 | 59°46'24" | 153°38'42" | Biotite | 8.06 | 19.57 | 0.97 | 157 | 67.1 ± 2.0 |
| | | | | | | Hornblende | 0.280 | 0.7064 | 0.85 | 157 | 67.1 ± 2.0 |
| 17 | 62ALe-2 | GD | Iliamna D-3 | 59°46'04" | 153°34'56" | Biotite | 7.76 | 10.02 | 0.91 | 85.0 | 40.8 ± 1.3 |
| | | | | | | Hornblende | 0.840 | 1.167 | 0.85 | 90.1 | 40.8 ± 1.3 |
| 18 | 65AR-618 | GD | Iliamna D-3 | 59°50'46" | 153°51'29" | Biotite | 8.28 | 9.754 | 0.95 | 77.9 | 33.9 ± 1.0 |
| 19 | 65AR-906 | GD | Iliamna D-2 | 59°53'02" | 153°44'42" | Biotite | 7.58 | 8.725 | 0.93 | 76.1 | 37.6 ± 1.1 |
| | | | | | | Hornblende | 0.854 | 1.137 | 0.81 | 87.9 | 38.3 ± 1.9 |
| 20 | 65AR-905 | altered GD | Iliamna D-2 | 59°55'13" | 153°36'28" | Muscovite | 9.80 | 21.85 | 0.85 | 145 | 70.7 ± 2.0 |
| 21 | 62ALe-5 | GD | Kenai A-6 | 60°13'10" | 152°53'10" | Biotite | 5.59 | 14.75 | 0.68 | 170 | 67.6 ± 2.0 |
| | | | | | | Hornblende | 0.473 | 1.229 | 0.58 | 168 | 67.6 ± 2.0 |
| 22 | 65AR-1034 | GM | Iliamna D-4 | 59°48'16" | 154°14'45" | Hornblende | 1.09 | 1.223 | 0.82 | 74.1 | 65.6 ± 1.9 |
| 23 | 65AR-910 | GD | Iliamna D-4 | 59°49'38" | 154°12'26" | Biotite | 6.75 | 8.238 | 0.94 | 80.7 | 69.7 ± 2.1 |
| | | | | | | Hornblende | 0.965 | 1.216 | 0.81 | 83.4 | 68.4 ± 2.0 |
| 24 | 66ALe-23 | GM | Lake Clark A-4 | 60°02'28" | 154°10'12" | Biotite | 5.01 | 3.217 | 0.83 | 43.5 | 72.5 ± 2.2 |
| 25 | 66AR-1393 | GD | Lake Clark A-3 | 60°08'20" | 154°04'10" | Biotite | 8.08 | 7.457 | 0.80 | 61.3 | 142 ± 4.3 |
| | | | | | | Hornblende | 0.471 | 0.4217 | 0.48 | 59.6 | 63.8 ± 1.8 |
| 26 | 66ALe-25 | GM | Lake Clark B-2 | 60°24'56" | 153°36'34" | Biotite | 8.22 | 4.741 | 0.84 | 38.6 | 65.9 ± 2.0 |
| 27 | 64AR-596 | GD | Line Hills A-3 | 61°08'10" | 153°48'00" | Biotite | 8.49 | 8.648 | 0.87 | 67.8 | 65.9 ± 2.0 |
| 28 | 66ALe-28 | GD | Tyonek A-7 | 61°13'00" | 152°33'08" | Biotite | 8.62 | 6.451 | 0.86 | 49.8 | 63.5 ± 1.9 |
| | | | | | | Hornblende | 0.977 | 0.9029 | 0.66 | 61.5 | 67.8 ± 2.0 |
| 29 | 66ALe-29 | GM | Tyonek A-7 | 61°12'38" | 152°22'56" | Biotite | 8.03 | 7.022 | 0.91 | 58.2 | 57.4 ± 1.7 |
| 30 | 66ALe-30 | GD | Tyonek A-6 | 61°01'58" | 152°08'34" | Biotite | 8.88 | 9.483 | 0.96 | 70.9 | 68.8 ± 2.0 |
| | | | | | | Hornblende | 0.674 | 0.7340 | 0.75 | 72.1 | 67.1 ± 1.6 |
| 31 | 66AR-1464 | GM | Kenai D-7 | 60°48'13" | 152°21'20" | Biotite | 7.78 | 18.67 | 0.88 | 155 | 39.1 ± 1.1 |
| 32 | 66AR-1 | GD | Tyonek A-4 | E/2 SE/4 SW/4 sec. 30, T20N, R.12E, T.452-7, 459 E., Tom American Steadfast Creek No. 1 | 7.42 | 18.76 | 0.95 | 163 | | | 31.1 ± 0.9 |
| | | | | | | Hornblende | 0.656 | 1.655 | 0.86 | 163 | 35.4 ± 1.8 |
| 33 | 60A2-45 | GD | Tyonek B-2 | 61°27'48" | 150°44'37" | Hornblende | 1.11 | 1.209 | 0.84 | 72.0 | 33.7 ± 1.3 |
| 34 | 67AR-571 | GD | Mt. Katmai D-3 | 58° 31'17" | 154° 45' 55" | Biotite | 8.59 | 3.512 | 0.91 | 0.65 | 27.1 ± 0.6 |
| | | | | | | Hornblende | 0.365 | 0.1602 | 0.36 | 0.370 | 25.4 ± 1.0 |
| 35 | 67AR-570 | GD | Mt. Katmai D-3 | 58° 49' 44" | 154° 43' 45" | Hornblende | 0.357 | 0.358 | 0.1384 | 0.28 | 26.0 ± 0.9 |
| 36 | A-123 | GD | Mt. Katmai D-2 | 58° 48' 27" | 154° 37' 45" | Biotite | 8.15 | 3.465 | 0.81 | 0.81 | 28.4 ± 0.9 |
| 37 | 67AR-563 | GD | Mt. Katmai D-2 | 58° 55' 08" | 154° 34' 58" | Biotite | 8.16 | 3.176 | 0.81 | 0.81 | 26.2 ± 0.8 |
| | | | | | | Hornblende | 0.335 | 0.1256 | 0.27 | 0.27 | 25.0 ± 1.0 |
| 38 | 68AR-1 | GD | Mt. Katmai D-2 | 58° 58' 27" | 154° 32' 55" | Hornblende | 0.158 | 0.162 | 0.4266 | 0.64 | 171 ± 8.6 |
| 39 | 66ALe-22 | GD | Iliamna B-5 | 59° 24' 05" | 154° 38' 02" | Biotite | 6.23 | 12.95 | 0.94 | 0.94 | 132 ± 5.0 |
| | | | | | | Hornblende | 0.992 | 2.267 | 0.86 | 0.86 | 147 ± 4.5 |
| 40 | 66ALe-13 | GD | Iliamna B-6 | 59° 23' 15" | 154° 26' 54" | Biotite | 6.80 | 15.95 | 0.90 | 0.90 | 152 ± 4.6 |
| | | | | | | Hornblende | 0.704 | 1.670 | 0.85 | 0.85 | 152 ± 4.6 |
| 41 | 66ALe-45 | GD | Iliamna B-4 | 59° 22' 37" | 154° 19' 20" | Biotite | 6.44 | 15.37 | 0.91 | 0.91 | 155 ± 4.6 |
| | | | | | | Muscovite | 9.25 | 22.45 | 0.93 | 0.93 | 157 ± 4.7 |
| 42 | 70AR-175 | GD | Kenai C-8 | 60° 35' 26" | 152° 46' 48" | Biotite | 8.91 | 12.90 | 0.87 | 0.87 | 95.4 ± 2.8 |
| 43 | 70AR-177 | GD | Kenai C-6 | 60° 36' 51" | 152° 37' 40" | Biotite | 8.80 | 21.69 | 0.92 | 0.92 | 159 ± 4.7 |
| | | | | | | Hornblende | 0.937 | 2.279 | 0.83 | 0.83 | 158 ± 4.7 |
| 44 | 70AR-178 | GD | Kenai C-7 | 60° 40' 33" | 152° 27' 03" | Biotite | 7.39 | 18.33 | 0.90 | 0.90 | 149 ± 4.8 |
| | | | | | | Hornblende | 0.631 | 1.545 | 0.85 | 0.85 | 159 ± 4.8 |
| 45 | 70AR-169 | GD | Lake Clark C-2 | 60° 35' 56" | 153° 28' 19" | Biotite | 8.43 | 7.805 | 0.89 | 0.89 | 61.6 ± 1.8 |
| | | | | | | Hornblende | 0.984 | 0.9970 | 0.73 | 0.73 | 67.4 ± 2.0 |
| 46 | 70AR-168 | GD | Lake Clark C-1 | 60° 38' 33" | 153° 09' 31" | Biotite | 9.21 | 8.857 | 0.93 | 0.93 | 64.0 ± 1.8 |
| | | | | | | Hornblende | 0.825 | 0.8333 | 0.84 | 0.84 | 67.1 ± 2.0 |
| 47 | 68AR-251 | GD | Lake Clark C-2 | 60° 43' 23" | 153° 32' 20" | Biotite | 8.27 | 5.088 | 0.73 | 0.73 | 38.4 ± 1.1 |
| | | | | | | Hornblende | 0.667 | 0.4066 | 0.52 | 0.52 | 40.8 ± 1.3 |
| 48 | 70AR-181 | GD | Lake Clark D-1 | 60° 46' 03" | 153° 20' 10" | Biotite | 8.28 | 4.187 | 0.82 | 0.82 | 33.9 ± 1.0 |
| 49 | 70AR-159 | GD | Lake Clark C-1 | 60° 42' 20" | 153° 16' 47" | Biotite | 8.81 | 4.954 | 0.88 | 0.88 | 37.6 ± 1.1 |
| | | | | | | Hornblende | 0.299 | 0.1688 | 0.29 | 0.29 | 38.3 ± 1.9 |
| 50 | 70AR-184 | GD | Lake Clark C-1 | 60° 44' 14" | 153° 06' 09" | Biotite | 8.69 | 9.253 | 0.89 | 0.89 | 70.7 ± 2.0 |
| | | | | | | Hornblende | 0.850 | 1.207 | 0.84 | 0.84 | 67.6 ± 2.0 |
| 51 | 70AR-164 | GD | Kenai C-8 | 60° 44' 34" | 152° 37' 30" | Biotite | 8.27 | 8.94 | 0.90 | 0.90 | 64.9 ± 1.9 |
| 52 | 70AR-173 | D | Kenai C-8 | 60° 44' 55" | 152° 48' 40" | Biotite | 8.73 | 8.616 | 0.89 | 0.89 | 65.6 ± 1.9 |
| | | | | | | Hornblende | 0.732 | 0.7684 | 0.72 | 0.72 | 69.7 ± 2.1 |
| 53 | 70AR-158 | GD | Kenai D-7 | 60° 49' 56" | 152° 36' 55" | Biotite | 9.40 | 9.684 | 0.87 | 0.87 | 68.4 ± 2.0 |
| | | | | | | Hornblende | 1.033 | 1.129 | 0.78 | 0.78 | 72.5 ± 2.2 |
| 54 | 70AR-156 | D | Kenai D-7 | 60° 48' 18" | 152° 29' 32" | Hornblende | 0.537 | 1.173 | 0.85 | 0.85 | 142 ± 4.3 |
| 55 | 70AR-147 | GD | Kenai D-8 | 60° 51' 54" | 152° 40' 47" | Biotite | 8.36 | 8.508 | 0.88 | 0.88 | 63.8 ± 1.8 |
| | | | | | | Hornblende | 0.837 | 0.8308 | 0.65 | 0.65 | 65.9 ± 2.0 |
| 56 | 70AR-140 | GD | Kenai D-8 | 60° 56' 35" | 152° 51' 41" | Biotite | 9.12 | 8.726 | 0.96 | 0.96 | 63.5 ± 1.9 |
| | | | | | | Hornblende | 0.783 | 0.8117 | 0.80 | 0.80 | 67.8 ± 2.0 |
| 57 | 68 AR-261 | GD | Lake Clark D-1 | 60° 53' 13" | 153° 01' 53" | Biotite | 9.17 | 7.898 | 0.83 | 0.83 | 57.4 ± 1.7 |
| | | | | | | Hornblende | 0.724 | 0.731 | 0.56 | 0.67 | 95.1 ± 3.8 |
| 58 | 70AR-165 | GD | Lake Clark D-2 | 60° 52' 04" | 153° 24' 54" | Biotite | 8.73 | 4.754 | 0.85 | 0.85 | 36.5 ± 1.0 |
| 59 | 68AR-248 | GM | Lake Clark D-2 | 60° 50' 18" | 153° 34' 56" | Biotite | 8.76 | 4.941 | 0.63 | 0.63 | 37.6 ± 1.1 |
| 60 | 68AR-244 | GD | | | | | | | | | |