

Table DR1. SIMS zircon U-Pb geochronological results from Geological Survey of Canada-Ottawa

Samples 09VL48, 09VLB37, 09VL28, and 09VL27:

Analyzed at the Geological Survey of Canada-Ottawa using the analytical protocols of Stern (1997) and Stern and Amelin (1997).

#### References

Stern, R.A., 1997, The GSC Sensitive High Resolution Ion Microprobe (SHRIMP): analytical techniques of zircon U-Th-Pb age determinations and performance evaluation: Geological Survey of Canada, Current Research 1997-F, p. 1-31.

Stern, R.A., and Amelin, Y., 2003, Assessment of errors in SIMS zircon U-Pb geochronology using a natural standard and NIST SRM 610 glass: Chemical Geology, v. 197, p. 111-146, doi: 10.1016/S0009-254(02)00320-0.

| Spot name               | Barnard Glacier pluton (306.6 ± 4.3 Ma; sample 09VL48 - 07V 460102E 6780403N NAD 83) |             |      |        |                |                     |                |        |                |      |                 |        |               |       | 204-corrected |                |      | 207-corrected |           |               |           |     |      |   |
|-------------------------|--|-------------|------|--------|----------------|---------------------|----------------|--------|----------------|------|-----------------|--------|---------------|-------|---------------|----------------|------|---------------|-----------|---------------|-----------|-----|------|---|
|                         | U<br>(ppm)   | Th<br>(ppm) | Th/U | 206Pb* | 204Pb<br>(ppm) | f <sup>206</sup> Pb | 208Pb<br>206Pb | % ±    | 238U/<br>206Pb | % ±  | 207Pb/<br>206Pb | % ±    | 206Pb<br>235U | % ±   | Corr<br>Coeff | 207Pb<br>206Pb | % ±  | 206Pb<br>238U | ±<br>(Ma) | 206Pb<br>238U | ±<br>(Ma) |     |      |   |
|                         |  |             |      |        |                |                     |                |        |                |      |                 |        |               |       | 206Pb         | % ±            | 238U | % ±           | 206Pb     | % ±           | 206Pb     | % ± |      |   |
| 10078-53.1 <sup>a</sup> | 549  | 1566        | 2.95 | 5      | 2.4E-2         | 5                   | 41.50          | 0.387  | 2.2            | 54.8 | 2.3             | 0.4029 | 0.7           | 0.079 | 52            | 0.0107         | 3.9  | 0.08          | 0.0538    | 51            | 68.5      | 3   | 67.9 | 2 |
| 10078-39.1a             | 529  | 538         | 1.05 | 19     | 1.4E-2         | 12                  | 24.43          | 0.115  | 6.0            | 18.4 | 2.3             | 0.2331 | 1.9           | 0.109 | 182           | 0.0411         | 4.6  | 0.03          | 0.0192    | 182           | 260       | 12  | 269  | 6 |
| 10078-38.1              | 1780   | 954         | 0.55 | 68     | 2.8E-3         | 10                  | 4.77           | 0.152  | 3.3            | 21.3 | 2.3             | 0.0852 | 1.0           | 0.275 | 10            | 0.0447         | 2.3  | 0.24          | 0.0447    | 10            | 282       | 6   | 284  | 6 |
| 10078-24.1 <sup>a</sup> | 1435   | 848         | 0.61 | 55     | 6.1E-3         | 7                   | 10.61          | 0.138  | 2.9            | 20.0 | 2.3             | 0.1309 | 0.9           | 0.248 | 18            | 0.0447         | 2.4  | 0.13          | 0.0402    | 18            | 282       | 7   | 286  | 6 |
| 10078-2.1               | 531  | 133         | 0.26 | 21     | 4.7E-3         | 20                  | 8.16           | -0.003 | 10.2           | 19.9 | 2.7             | 0.0938 | 2.5           | 0.144 | 71            | 0.0461         | 3.2  | 0.05          | 0.0226    | 71            | 291       | 9   | 301  | 8 |
| 10078-15.1              | 625  | 186         | 0.31 | 25     | 4.7E-3         | 18                  | 8.06           | 0.015  | 9.0            | 19.9 | 2.3             | 0.0926 | 2.3           | 0.142 | 63            | 0.0463         | 2.8  | 0.04          | 0.0222    | 63            | 292       | 8   | 302  | 7 |
| 10078-16.1              | 651  | 207         | 0.33 | 26     | 1.9E-3         | 26                  | 3.33           | 0.078  | 9.9            | 20.5 | 2.3             | 0.0739 | 2.6           | 0.297 | 17            | 0.0472         | 2.5  | 0.14          | 0.0456    | 17            | 297       | 7   | 300  | 7 |
| 10078-54.1              | 656  | 242         | 0.38 | 27     | 1.7E-3         | 29                  | 2.95           | 0.100  | 9.2            | 20.5 | 2.3             | 0.0753 | 4.1           | 0.329 | 16            | 0.0475         | 2.5  | 0.15          | 0.0504    | 16            | 299       | 7   | 300  | 7 |
| 10078-35.1              | 516  | 149         | 0.30 | 21     | 4.9E-3         | 20                  | 8.50           | -0.016 | 15.2           | 19.3 | 2.3             | 0.0973 | 2.5           | 0.152 | 72            | 0.0475         | 3.0  | 0.04          | 0.0232    | 72            | 299       | 9   | 309  | 7 |
| 10078-52.1              | 620  | 235         | 0.39 | 25     | 7.8E-4         | 39                  | 1.36           | 0.126  | 8.9            | 20.7 | 2.3             | 0.0601 | 2.6           | 0.319 | 10            | 0.0476         | 2.4  | 0.23          | 0.0487    | 10            | 300       | 7   | 301  | 7 |
| 10078-14.1              | 512  | 128         | 0.26 | 21     | 2.7E-3         | 27                  | 4.75           | 0.091  | 9.8            | 20.0 | 2.3             | 0.0906 | 2.6           | 0.332 | 23            | 0.0477         | 2.7  | 0.12          | 0.0505    | 23            | 301       | 8   | 301  | 7 |
| 10078-59.1              | 533  | 195         | 0.38 | 22     | 2.3E-3         | 25                  | 3.94           | 0.106  | 8.4            | 20.1 | 2.4             | 0.0722 | 2.5           | 0.253 | 24            | 0.0478         | 2.6  | 0.11          | 0.0384    | 24            | 301       | 8   | 306  | 7 |
| 10078-4.1               | 469  | 131         | 0.29 | 19     | 2.4E-3         | 43                  | 4.12           | 0.105  | 10.5           | 20.1 | 2.3             | 0.0757 | 3.0           | 0.267 | 39            | 0.0478         | 3.0  | 0.08          | 0.0406    | 39            | 301       | 9   | 305  | 7 |
| 10078-20.1              | 543  | 151         | 0.29 | 22     | 1.9E-3         | 29                  | 3.36           | 0.090  | 10.2           | 20.1 | 2.5             | 0.0855 | 2.5           | 0.380 | 16            | 0.0480         | 2.7  | 0.17          | 0.0573    | 15            | 303       | 8   | 301  | 7 |
| 10078-42.1              | 669  | 180         | 0.28 | 28     | 2.9E-3         | 26                  | 5.00           | 0.126  | 8.8            | 19.6 | 2.3             | 0.0918 | 2.5           | 0.331 | 24            | 0.0485         | 2.7  | 0.11          | 0.0496    | 23            | 305       | 8   | 306  | 7 |
| 10078-72.1              | 619  | 196         | 0.33 | 26     | 2.0E-3         | 30                  | 3.41           | 0.062  | 10.5           | 19.9 | 2.3             | 0.0712 | 2.6           | 0.282 | 22            | 0.0485         | 2.5  | 0.12          | 0.0421    | 22            | 305       | 8   | 309  | 7 |
| 10078-1.1               | 928  | 395         | 0.44 | 39     | 5.6E-4         | 44                  | 0.98           | 0.133  | 7.3            | 20.4 | 2.3             | 0.0659 | 2.0           | 0.386 | 7             | 0.0485         | 2.4  | 0.33          | 0.0577    | 7             | 305       | 7   | 303  | 7 |
| 10078-10.1              | 1020   | 485         | 0.49 | 43     | 7.8E-4         | 32                  | 1.35           | 0.173  | 5.6            | 20.3 | 2.3             | 0.0638 | 1.8           | 0.351 | 8             | 0.0486         | 2.3  | 0.30          | 0.0525    | 7             | 306       | 7   | 306  | 7 |
| 10078-7.1               | 653  | 274         | 0.43 | 27     | 1.1E-3         | 31                  | 1.88           | 0.133  | 7.5            | 20.1 | 2.3             | 0.0710 | 2.1           | 0.371 | 10            | 0.0487         | 2.4  | 0.25          | 0.0552    | 9             | 307       | 7   | 306  | 7 |
| 10078-8.1               | 1772   | 889         | 0.52 | 74     | 3.7E-4         | 31                  | 0.64           | 0.160  | 4.5            | 20.4 | 2.3             | 0.0567 | 1.4           | 0.344 | 4             | 0.0488         | 2.3  | 0.53          | 0.0512    | 4             | 307       | 7   | 307  | 7 |
| 10078-46.1              | 910  | 446         | 0.51 | 38     | 6.3E-4         | 20                  | 1.09           | 0.179  | 6.4            | 20.2 | 2.3             | 0.0684 | 2.0           | 0.399 | 5             | 0.0489         | 2.3  | 0.51          | 0.0593    | 4             | 307       | 7   | 305  | 7 |
| 10078-75.1              | 833  | 279         | 0.35 | 35     | 1.6E-3         | 24                  | 2.83           | 0.106  | 7.2            | 19.9 | 2.3             | 0.0687 | 2.0           | 0.302 | 14            | 0.0489         | 2.4  | 0.17          | 0.0447    | 14            | 308       | 7   | 311  | 7 |
| 10078-33.1              | 1447   | 797         | 0.57 | 61     | 4.9E-4         | 30                  | 0.85           | 0.185  | 4.2            | 20.2 | 2.3             | 0.0590 | 2.2           | 0.350 | 5             | 0.0490         | 2.3  | 0.42          | 0.0518    | 5             | 309       | 7   | 309  | 7 |
| 10078-43.1              | 715  | 191         | 0.28 | 30     | 1.3E-3         | 34                  | 2.23           | 0.036  | 13.4           | 19.9 | 2.3             | 0.0607 | 2.9           | 0.282 | 17            | 0.0490         | 2.4  | 0.15          | 0.0417    | 17            | 309       | 7   | 312  | 7 |
| 10078-17.1              | 635  | 229         | 0.37 | 27     | 1.5E-3         | 29                  | 2.53           | 0.109  | 8.3            | 19.9 | 2.3             | 0.0727 | 2.2           | 0.347 | 13            | 0.0490         | 2.4  | 0.19          | 0.0514    | 13            | 309       | 7   | 309  | 7 |
| 10078-34.1              | 498  | 196         | 0.41 | 21     | 3.1E-3         | 25                  | 5.35           | 0.026  | 11.5           | 19.3 | 2.3             | 0.0778 | 2.8           | 0.214 | 39            | 0.0491         | 2.7  | 0.07          | 0.0316    | 39            | 309       | 8   | 317  | 7 |

Barnard Glacier pluton ( $306.6 \pm 4.3$  Ma; sample 09VL48 - 07V 460102E 6780403N NAD 83)

| Spot name                 | U<br>(ppm) | Th<br>(ppm) | Th/U | $^{206}\text{Pb}^*$<br>(ppm) | $^{204}\text{Pb}$ |                   |       | $f^{206}\text{Pb}$ |                   |      | $^{208}\text{Pb}$ |                   |     | $^{238}\text{U}/$ |                  |        | $^{207}\text{Pb}/$ |                   |        | $^{207}\text{Pb}$ |                  |     | $^{206}\text{Pb}$ |                   |     | Corr              |                   |     | $^{207}\text{Pb}$ |                  |      | 204-corrected     |                   |     | 207-corrected    |                  |      |
|---------------------------|------------|-------------|------|------------------------------|-------------------|-------------------|-------|--------------------|-------------------|------|-------------------|-------------------|-----|-------------------|------------------|--------|--------------------|-------------------|--------|-------------------|------------------|-----|-------------------|-------------------|-----|-------------------|-------------------|-----|-------------------|------------------|------|-------------------|-------------------|-----|------------------|------------------|------|
|                           |            |             |      |                              | $^{206}\text{Pb}$ | $^{206}\text{Pb}$ | % ±   | $f^{206}\text{Pb}$ | $^{208}\text{Pb}$ | % ±  | $^{206}\text{Pb}$ | $^{206}\text{Pb}$ | % ± | $^{238}\text{U}$  | $^{238}\text{U}$ | % ±    | $^{207}\text{Pb}$  | $^{207}\text{Pb}$ | % ±    | $^{235}\text{U}$  | $^{238}\text{U}$ | % ± | $^{206}\text{Pb}$ | $^{206}\text{Pb}$ | % ± | $^{207}\text{Pb}$ | $^{207}\text{Pb}$ | % ± | $^{238}\text{U}$  | $^{238}\text{U}$ | (Ma) | $^{206}\text{Pb}$ | $^{206}\text{Pb}$ | % ± | $^{238}\text{U}$ | $^{238}\text{U}$ | (Ma) |
| 10078-40.1                | 506        | 164         | 0.33 | 21                           | 1.1E-3            | 38                | 1.90  | 0.129              | 8.9               | 20.0 | 2.3               | 0.0682            | 3.5 | 0.353             | 13               | 0.0491 | 2.4                | 0.19              | 0.0522 | 13                | 309              | 7   | <b>309</b>        | <b>7</b>          |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |
| 10078-9.1                 | 699        | 177         | 0.26 | 30                           | 7.9E-4            | 16                | 1.36  | 0.099              | 10.9              | 20.0 | 2.3               | 0.0679            | 2.7 | 0.383             | 5                | 0.0492 | 2.3                | 0.45              | 0.0564 | 5                 | 310              | 7   | <b>308</b>        | <b>7</b>          |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |
| 10078-27.1                | 472        | 175         | 0.38 | 20                           | 1.0E-3            | 24                | 1.75  | 0.161              | 8.1               | 20.0 | 2.3               | 0.0682            | 2.5 | 0.363             | 8                | 0.0492 | 2.3                | 0.30              | 0.0535 | 8                 | 310              | 7   | <b>309</b>        | <b>7</b>          |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |
| 10078-65.1                | 753        | 209         | 0.29 | 32                           | 1.2E-3            | 30                | 2.12  | 0.101              | 8.8               | 19.6 | 2.3               | 0.0703            | 2.3 | 0.362             | 11               | 0.0500 | 2.4                | 0.21              | 0.0524 | 11                | 315              | 7   | <b>315</b>        | <b>7</b>          |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |
| 10078-6.1                 | 1018       | 353         | 0.36 | 44                           | 3.5E-4            | 42                | 0.61  | 0.153              | 6.9               | 19.8 | 2.3               | 0.0674            | 2.0 | 0.430             | 5                | 0.0501 | 2.3                | 0.50              | 0.0623 | 4                 | 315              | 7   | <b>312</b>        | <b>7</b>          |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |
| 10078-70.1                | 605        | 169         | 0.29 | 26                           | 4.6E-4            | 61                | 0.80  | 0.142              | 9.9               | 19.5 | 2.3               | 0.0838            | 5.1 | 0.541             | 8                | 0.0508 | 2.4                | 0.30              | 0.0772 | 8                 | 319              | 7   | <b>310</b>        | <b>7</b>          |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |
| 10078-48.1                | 934        | 385         | 0.43 | 42                           | 1.6E-3            | 21                | 2.76  | 0.109              | 6.6               | 18.8 | 2.3               | 0.0639            | 1.9 | 0.287             | 13               | 0.0518 | 2.4                | 0.18              | 0.0403 | 13                | 325              | 7   | 330               | 7                 |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |
| 10078-56.1                | 605        | 172         | 0.29 | 27                           | 3.1E-3            | 25                | 5.29  | 0.004              | 13.0              | 18.3 | 2.3               | 0.0733            | 3.0 | 0.196             | 46               | 0.0518 | 2.7                | 0.06              | 0.0274 | 46                | 326              | 9   | 335               | 8                 |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |
| 10078-61.1                | 604        | 179         | 0.31 | 28                           | 5.1E-4            | 25                | 0.89  | 0.116              | 14.5              | 18.7 | 2.3               | 0.0667            | 3.3 | 0.434             | 5                | 0.0531 | 2.4                | 0.43              | 0.0593 | 5                 | 333              | 8   | 331               | 8                 |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |
| 10078-67.1 <sup>a</sup>   | 694        | 261         | 0.39 | 32                           | 1.3E-2            | 21                | 23.31 | -0.370             | 16.5              | 14.4 | 2.6               | 0.1112            | 4.2 | 0.935             | 9                | 0.0534 | 6.8                | 0.76              | 0.1270 | 6                 | 335              | 22  | 406               | 10                |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |
| 10078-26.1                | 1484       | 690         | 0.48 | 70                           | 1.3E-3            | 22                | 2.29  | 0.130              | 5.8               | 17.8 | 2.3               | 0.0677            | 1.7 | 0.366             | 10               | 0.0549 | 2.3                | 0.24              | 0.0483 | 9                 | 345              | 8   | 347               | 8                 |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |
| 10078-82.1 <sup>a</sup>   | 1222       | 646         | 0.55 | 60                           | 2.2E-2            | 8                 | 37.63 | 0.039              | 4.3               | 10.8 | 3.8               | 0.3522            | 1.3 | 0.196             | 180              | 0.0575 | 6.3                | 0.03              | 0.0247 | 180               | 360              | 22  | 373               | 14                |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |
| 10078-64.1 <sup>a,c</sup> | 3049       | 3839        | 1.30 | 155                          | 1.4E-2            | 19                | 23.98 | 0.033              | 8.7               | 12.9 | 2.4               | 0.2268            | 3.0 | 0.130             | 335              | 0.0591 | 6.5                | 0.02              | 0.0160 | 335               | 370              | 23  | 386               | 10                |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |
| 10078-45.1 <sup>a</sup>   | 916        | 333         | 0.38 | 47                           | 7.1E-3            | 21                | 12.29 | 0.000              | 10.5              | 14.6 | 2.4               | 0.1146            | 2.9 | 0.044             | 506              | 0.0603 | 3.8                | 0.01              | 0.0053 | 506               | 377              | 14  | 399               | 9                 |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |
| 10078-76.1 <sup>a</sup>   | 1109       | 434         | 0.40 | 65                           | 6.6E-3            | 24                | 11.44 | -0.037             | 13.7              | 13.1 | 2.6               | 0.1088            | 4.9 | 0.067             | 392              | 0.0678 | 4.1                | 0.01              | 0.0072 | 392               | 423              | 17  | 446               | 12                |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |

<sup>a</sup>bold ages used to calculate weighted average/reported age

Mount IP558, K100 spot size, primary intensity ~5nA

Spot name follows the convention x-y.z; where x = sample number, y = grain number and z = spot number. Multiple analyses in an individual spot are labelled as x-y.z.z

Uncertainties reported at 1s and are calculated by using SQUID 2.23.08.10.21, rev. 21 Oct 2008

$f^{206}$  refers to mole percent of total  $^{206}\text{Pb}$  that is due to common Pb, calculated using the 204Pb-method; common Pb composition used is the surface blank (4/6: 0.05770; 7/6: 0.89500; 8/6: 2.13840)

\* refers to radiogenic Pb (corrected for common Pb)

Calibration standard 6266; U = 910 ppm; Age = 559 Ma;  $^{206}\text{Pb}/^{238}\text{U}$  = 0.09059

Error in  $^{206}\text{Pb}/^{238}\text{U}$  calibration 2.24% (included)

Standard Error in Standard calibration was 0.53% (not included in above errors but required when comparing data from different mounts).

<sup>a</sup>Denotes an analysis excluded from the age calculation based on common  $^{206}\text{Pb} > 5.0\%$

<sup>b</sup>Denotes an analysis excluded from the age calculation based on suspected post-crystallization Pb loss

<sup>c</sup>Denotes an analysis excluded from the age calculation based on U concentration >2000ppm

Chitina Glacier pluton ( $301.2 \pm 2.6$  Ma; sample 09VLB37 - 07V 502752E 6766176N NAD 83)

| Spot name              | U<br>(ppm) | Th<br>(ppm) | Th/U | $^{206}\text{Pb}^*$<br>(ppm) | $^{204}\text{Pb}$ |                   |       | $f^{206}\text{Pb}$ |                   |       | $^{208}\text{Pb}$ |                   |      | $^{238}\text{U}/$ |                  |       | $^{207}\text{Pb}/$ |                   |        | $^{207}\text{Pb}$ |                  |     | $^{206}\text{Pb}$ |                   |     | Corr              |                   |     | $^{207}\text{Pb}$ |                  |      | 204-corrected     |                   |     | 207-corrected    |                  |      |
|------------------------|------------|-------------|------|------------------------------|-------------------|-------------------|-------|--------------------|-------------------|-------|-------------------|-------------------|------|-------------------|------------------|-------|--------------------|-------------------|--------|-------------------|------------------|-----|-------------------|-------------------|-----|-------------------|-------------------|-----|-------------------|------------------|------|-------------------|-------------------|-----|------------------|------------------|------|
|                        |            |             |      |                              | $^{206}\text{Pb}$ | $^{206}\text{Pb}$ | % ±   | $f^{206}\text{Pb}$ | $^{208}\text{Pb}$ | % ±   | $^{206}\text{Pb}$ | $^{206}\text{Pb}$ | % ±  | $^{238}\text{U}$  | $^{238}\text{U}$ | % ±   | $^{207}\text{Pb}$  | $^{207}\text{Pb}$ | % ±    | $^{235}\text{U}$  | $^{238}\text{U}$ | % ± | $^{206}\text{Pb}$ | $^{206}\text{Pb}$ | % ± | $^{207}\text{Pb}$ | $^{207}\text{Pb}$ | % ± | $^{238}\text{U}$  | $^{238}\text{U}$ | (Ma) | $^{206}\text{Pb}$ | $^{206}\text{Pb}$ | % ± | $^{238}\text{U}$ | $^{238}\text{U}$ | (Ma) |
| 9966-8.2 <sup>b</sup>  | 361        | 217         | 0.62 | 14                           | 3.9E-4            | 22                | 0.722 | 0.189              | 3.9               | 21.83 | 1.7               | 0.057             | 1.05 | 0.3               | 3.2              | 0.045 | 1.7                | 0.53              | 0.052  | 2.74              | 287              | 5   | 287               | 5                 |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |
| 9966-14.1 <sup>b</sup> | 560        | 398         | 0.73 | 22                           | 1.0E-4            | 35                | 0.192 | 0.234              | 2.6               | 21.79 | 1.7               | 0.054             | 0.88 | 0.3               | 2.2              | 0.046 | 1.7                | 0.78              | 0.053  | 1.36              | 289              | 5   | 288               | 5                 |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |
| 9966-4.1 <sup>b</sup>  | 463        | 399         | 0.89 | 18                           | 1.9E-4            | 28                | 0.365 | 0.273              | 2.6               | 21.57 | 1.7               | 0.055             | 0.94 | 0.3               | 2.5              | 0.046 | 1.7                | 0.68              | 0.053  | 1.81              | 291              | 5   | 291               | 5                 |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |
| 9966-41.1 <sup>b</sup> | 216        | 116         | 0.55 | 8.6                          | 4.6E-4            | 29                | 0.79  | 0.162              | 4.6               | 21.4  | 0.78              | 0.0582            | 1.48 | 0.33              | 4.2              | 0.046 | 0.81               | 0.2               | 0.0515 | 4.2               | 292              | 2   | 292               | 2                 |     |                   |                   |     |                   |                  |      |                   |                   |     |                  |                  |      |

Chitina Glacier pluton ( $301.2 \pm 2.6$  Ma; sample 09VLB37 - 07V 502752E 6766176N NAD 83)

| Spot name              | U<br>(ppm) | Th<br>(ppm) | Th/U | $^{206}\text{Pb}^*$<br>(ppm) | $^{204}\text{Pb}$ |                   | $f^{206}\text{Pb}$ |       | $^{208}\text{Pb}$ |                   | $^{238}\text{U}/$<br>$^{206}\text{Pb}$ |                   | $^{207}\text{Pb}/$<br>$^{206}\text{Pb}$ |      | $^{207}\text{Pb}$ |       | $^{206}\text{Pb}$ |      | Corr             |                   | $^{207}\text{Pb}$ |                   | $^{206}\text{Pb}$ |     | ±                | $^{206}\text{Pb}$ | $^{238}\text{U}$ | ±                 |                  |   |
|------------------------|------------|-------------|------|------------------------------|-------------------|-------------------|--------------------|-------|-------------------|-------------------|--|-------------------|---|------|-------------------|-------|-------------------|------|------------------|-------------------|-------------------|-------------------|-------------------|-----|------------------|-------------------|------------------|-------------------|------------------|---|
|                        |            |             |      |                              | $^{206}\text{Pb}$ | $^{206}\text{Pb}$ | % ±                | %     | $^{206}\text{Pb}$ | $^{206}\text{Pb}$ | % ±                                    | $^{206}\text{Pb}$ | $^{206}\text{Pb}$                       | % ±  | $^{235}\text{U}$  | % ±   | $^{238}\text{U}$  | % ±  | $^{238}\text{U}$ | $^{206}\text{Pb}$ | % ±               | $^{206}\text{Pb}$ | $^{206}\text{Pb}$ | % ± | $^{238}\text{U}$ | $^{238}\text{U}$  | ±                | $^{206}\text{Pb}$ | $^{238}\text{U}$ | ± |
| 9966-8.1 <sup>b</sup>  | 346        | 255         | 0.76 | 13.8                         | 2.6E-5            | 748               | 0.04               | 0.223 | 3.7               | 21.6              | 0.78                                   | 0.0537            | 1.36                                    | 0.34 | 5.6               | 0.046 | 0.85              | 0.2  | 0.0533           | 5.5               | 292               | 2                 | 292               | 2   | 292              | 2                 | 292              | 2                 | 292              | 2 |
| 9966-26.1 <sup>b</sup> | 508        | 261         | 0.53 | 20.4                         | 2.8E-4            | 29                | 0.48               | 0.180 | 3.0               | 21.3              | 0.73                                   | 0.0532            | 1.41                                    | 0.32 | 2.9               | 0.047 | 0.74              | 0.3  | 0.0492           | 2.8               | 294               | 2                 | 295               | 2   | 295              | 2                 | 295              | 2                 | 295              | 2 |
| 9966-62.1 <sup>b</sup> | 351        | 272         | 0.80 | 14.1                         | 4.0E-4            | 27                | 0.70               | 0.248 | 3.1               | 21.3              | 0.74                                   | 0.0546            | 1.22                                    | 0.31 | 3.7               | 0.047 | 0.76              | 0.2  | 0.0487           | 3.6               | 294               | 2                 | 295               | 2   | 295              | 2                 | 295              | 2                 | 295              | 2 |
| 9966-7.1               | 277        | 169         | 0.63 | 11                           | 4.0E-4            | 26                | 0.746              | 0.197 | 4.5               | 21.20             | 1.7                                    | 0.055             | 1.26                                    | 0.3  | 3.9               | 0.047 | 1.7               | 0.45 | 0.049            | 3.44              | 295               | 5                 | 296               | 5   | 296              | 5                 | 296              | 5                 | 296              | 5 |
| 9966-10.1              | 243        | 135         | 0.57 | 10                           | 1.7E-4            | 41                | 0.327              | 0.189 | 4.5               | 21.28             | 1.7                                    | 0.055             | 1.31                                    | 0.3  | 3.0               | 0.047 | 1.7               | 0.58 | 0.053            | 2.42              | 295               | 5                 | 295               | 5   | 295              | 5                 | 295              | 5                 | 295              | 5 |
| 9966-56.1              | 101        | 44          | 0.45 | 4.1                          | 6.7E-4            | 31                | 1.17               | 0.140 | 7.4               | 21.1              | 0.92                                   | 0.0602            | 2.24                                    | 0.33 | 6.8               | 0.047 | 0.99              | 0.1  | 0.0504           | 6.7               | 296               | 3                 | 296               | 3   | 296              | 3                 | 296              | 3                 | 296              | 3 |
| 9966-13.1              | 527        | 461         | 0.90 | 21                           | 2.3E-4            | 24                | 0.432              | 0.287 | 2.4               | 21.17             | 1.7                                    | 0.054             | 0.87                                    | 0.3  | 2.5               | 0.047 | 1.7               | 0.67 | 0.050            | 1.85              | 296               | 5                 | 297               | 5   | 297              | 5                 | 297              | 5                 | 297              | 5 |
| 9966-65.1              | 178        | 90          | 0.52 | 7.2                          | 6.1E-4            | 35                | 1.05               | 0.155 | 5.1               | 21.0              | 0.79                                   | 0.0562            | 1.64                                    | 0.31 | 7.0               | 0.047 | 0.87              | 0.1  | 0.0473           | 6.9               | 297               | 3                 | 298               | 2   | 298              | 2                 | 298              | 2                 | 298              | 2 |
| 9966-12.1              | 148        | 83          | 0.58 | 6.0                          | 6.0E-4            | 36                | 1.05               | 0.165 | 6.3               | 20.9              | 0.81                                   | 0.0548            | 2.13                                    | 0.30 | 7.5               | 0.047 | 0.89              | 0.1  | 0.0459           | 7.5               | 298               | 3                 | 300               | 2   | 300              | 2                 | 300              | 2                 | 300              | 2 |
| 9966-3.1               | 793        | 948         | 1.23 | 32                           | 1.2E-4            | 27                | 0.221              | 0.379 | 1.6               | 21.11             | 1.7                                    | 0.055             | 0.71                                    | 0.3  | 2.0               | 0.047 | 1.7               | 0.83 | 0.053            | 1.14              | 298               | 5                 | 297               | 5   | 297              | 5                 | 297              | 5                 | 297              | 5 |
| 9966-2.1               | 422        | 306         | 0.75 | 17.1                         | 2.2E-4            | 43                | 0.38               | 0.225 | 3.0               | 21.1              | 0.73                                   | 0.0542            | 1.12                                    | 0.33 | 3.0               | 0.047 | 0.75              | 0.2  | 0.0510           | 3.0               | 298               | 2                 | 298               | 2   | 298              | 2                 | 298              | 2                 | 298              | 2 |
| 9966-5.1               | 593        | 609         | 1.06 | 24                           | 2.3E-4            | 31                | 0.428              | 0.342 | 2.2               | 21.03             | 1.7                                    | 0.056             | 0.87                                    | 0.3  | 2.8               | 0.047 | 1.7               | 0.61 | 0.053            | 2.18              | 298               | 5                 | 298               | 5   | 298              | 5                 | 298              | 5                 | 298              | 5 |
| 9966-59.1              | 363        | 266         | 0.76 | 14.8                         | 9.2E-5            | 61                | 0.16               | 0.253 | 3.4               | 21.1              | 0.75                                   | 0.0541            | 1.36                                    | 0.34 | 2.2               | 0.047 | 0.75              | 0.3  | 0.0528           | 2.1               | 298               | 2                 | 298               | 2   | 298              | 2                 | 298              | 2                 | 298              | 2 |
| 9966-60.1              | 278        | 113         | 0.42 | 11.3                         | 1.0E-4            | 50                | 0.18               | 0.131 | 4.5               | 21.1              | 0.89                                   | 0.0546            | 1.28                                    | 0.35 | 2.1               | 0.047 | 0.90              | 0.4  | 0.0531           | 1.9               | 298               | 3                 | 298               | 3   | 298              | 3                 | 298              | 3                 | 298              | 3 |
| 9966-23.1              | 209        | 135         | 0.66 | 8.6                          | 3.4E-4            | 53                | 0.60               | 0.222 | 4.8               | 20.9              | 0.78                                   | 0.0535            | 1.83                                    | 0.32 | 6.0               | 0.048 | 0.84              | 0.1  | 0.0484           | 5.9               | 300               | 2                 | 301               | 2   | 301              | 2                 | 301              | 2                 | 301              | 2 |
| 9966-11.1              | 76         | 33          | 0.45 | 3.1                          | 9.2E-4            | 53                | 1.59               | 0.143 | 7.6               | 20.6              | 1.03                                   | 0.0609            | 2.39                                    | 0.31 | 15.8              | 0.048 | 1.34              | 0.1  | 0.0475           | 15.7              | 301               | 4                 | 302               | 3   | 302              | 3                 | 302              | 3                 | 302              | 3 |
| 9966-57.1              | 224        | 121         | 0.56 | 9.2                          | -5.3E-5           | 325               | -0.09              | 0.183 | 4.5               | 21.0              | 0.76                                   | 0.0555            | 1.48                                    | 0.37 | 4.7               | 0.048 | 0.81              | 0.2  | 0.0563           | 4.7               | 301               | 2                 | 299               | 2   | 299              | 2                 | 299              | 2                 | 299              | 2 |
| 9966-28.1              | 248        | 155         | 0.65 | 10.2                         | 4.5E-4            | 30                | 0.78               | 0.199 | 3.9               | 20.7              | 0.75                                   | 0.0549            | 1.42                                    | 0.32 | 4.5               | 0.048 | 0.79              | 0.2  | 0.0483           | 4.4               | 301               | 2                 | 303               | 2   | 303              | 2                 | 303              | 2                 | 303              | 2 |
| 9966-42.1              | 260        | 138         | 0.55 | 10.7                         | 7.6E-5            | 53                | 0.13               | 0.185 | 4.7               | 20.9              | 0.77                                   | 0.0531            | 1.62                                    | 0.34 | 2.1               | 0.048 | 0.77              | 0.4  | 0.0520           | 2.0               | 301               | 2                 | 301               | 2   | 301              | 2                 | 301              | 2                 | 301              | 2 |
| 9966-58.1              | 444        | 285         | 0.66 | 18.3                         | 2.0E-4            | 39                | 0.35               | 0.210 | 3.0               | 20.8              | 0.73                                   | 0.0539            | 1.10                                    | 0.34 | 2.7               | 0.048 | 0.74              | 0.3  | 0.0510           | 2.6               | 301               | 2                 | 302               | 2   | 302              | 2                 | 302              | 2                 | 302              | 2 |
| 9966-70.1              | 435        | 384         | 0.91 | 17.9                         | 7.9E-5            | 27                | 0.14               | 0.298 | 2.3               | 20.8              | 0.73                                   | 0.0541            | 0.98                                    | 0.35 | 1.4               | 0.048 | 0.73              | 0.5  | 0.0529           | 1.2               | 302               | 2                 | 302               | 2   | 302              | 2                 | 302              | 2                 | 302              | 2 |
| 9966-1.1               | 129        | 57          | 0.46 | 5.3                          | 1.4E-4            | 82                | 0.24               | 0.134 | 6.6               | 20.8              | 0.79                                   | 0.0576            | 1.87                                    | 0.37 | 3.6               | 0.048 | 0.81              | 0.2  | 0.0556           | 3.6               | 302               | 2                 | 301               | 2   | 301              | 2                 | 301              | 2                 | 301              | 2 |
| 9966-53.1              | 1082       | 606         | 0.58 | 44.7                         | 3.0E-5            | 127               | 0.05               | 0.183 | 2.0               | 20.8              | 0.71                                   | 0.0531            | 0.68                                    | 0.35 | 1.4               | 0.048 | 0.72              | 0.5  | 0.0526           | 1.3               | 303               | 2                 | 302               | 2   | 302              | 2                 | 302              | 2                 | 302              | 2 |
| 9966-27.1              | 943        | 410         | 0.45 | 39.0                         | 2.1E-5            | 54                | 0.04               | 0.140 | 2.7               | 20.8              | 0.72                                   | 0.0523            | 0.80                                    | 0.35 | 1.1               | 0.048 | 0.72              | 0.6  | 0.0520           | 0.9               | 303               | 2                 | 303               | 2   | 303              | 2                 | 303              | 2                 | 303              | 2 |
| 9966-55.1              | 462        | 325         | 0.73 | 19.1                         | -2.0E-5           | 298               | -0.03              | 0.236 | 3.1               | 20.8              | 0.74                                   | 0.0528            | 1.21                                    | 0.35 | 2.1               | 0.048 | 0.74              | 0.3  | 0.0530           | 2.0               | 303               | 2                 | 303               | 2   | 303              | 2                 | 303              | 2                 | 303              | 2 |
| 9966-36.1              | 150        | 83          | 0.57 | 6.2                          | -4.9E-4           | 66                | -0.85              | 0.194 | 6.7               | 20.9              | 0.81                                   | 0.0544            | 2.20                                    | 0.41 | 7.8               | 0.048 | 0.98              | 0.1  | 0.0615           | 7.8               | 303               | 3                 | 300               | 2   | 300              | 2                 | 300              | 2                 | 300              | 2 |
| 9966-7.1               | 230        | 101         | 0.45 | 9.5                          | 3.2E-4            | 42                | 0.56               | 0.140 | 4.7               | 20.6              | 0.86                                   | 0.0545            | 1.44                                    | 0.33 | 4.4               | 0.048 | 0.89              | 0.2  | 0.0498           | 4.3               | 304               | 3                 | 305               | 3   | 305              | 3                 | 305              | 3                 | 305              | 3 |
| 9966-39.1              | 175        | 99          | 0.59 | 7.3                          | 1.7E-5            | 98                | 0.03               | 0.210 | 4.8               | 20.6              | 0.77                                   | 0.0572            | 1.69                                    | 0.38 | 1.9               | 0.048 | 0.77              | 0.4  | 0.0570           | 1.8               | 305               | 2                 | 304               | 2   | 304              | 2                 | 304              | 2                 | 304              | 2 |
| 9966-3.1               | 782        | 359         | 0.47 | 32.6                         | 2.8E-5            | 42                | 0.05               | 0.157 | 2.7               | 20.6              | 0.74                                   | 0.0533            | 0.85                                    | 0.35 | 1.2               | 0.049 | 0.74              | 0.6  | 0.0529           | 0.9               | 305               | 2                 | 305               | 2   | 305              | 2                 | 305              | 2                 | 305              | 2 |
| 9966-22.1              | 835        | 400         | 0.49 | 34.8                         | 1.2E-4            | 25                | 0.21               | 0.159 | 2.8               | 20.6              | 0.74                                   | 0.0542            | 0.88                                    | 0.35 | 1.5               | 0.049 | 0.74              | 0.5  | 0.0524           | 1.2               | 305               | 2                 | 305               | 2   | 305              | 2                 | 305              | 2                 | 305              | 2 |
| 9966-64.1              | 59         | 24          | 0.42 | 2.5                          | -4.8E-5           | 1582              | -0.08              | 0.136 | 11.5              | 20.5              | 1.07                                   | 0.0603            | 3.09                                    | 0.41 | 18.2              | 0.049 | 1.69              | 0.1  | 0.0610           | 18.1              | 307               | 5                 | 304               | 3   | 304              | 3                 | 304              | 3                 | 304              | 3 |
| 9966-21.1              | 496        | 359         | 0.75 | 20.9                         | 1.6E-4            | 32                | 0.27               | 0.232 | 2.5               | 20.3              | 0.75                                   | 0.0541            | 0.97                                    | 0.35 | 1.9               | 0.049 | 0.75              | 0.4  | 0.0518           | 1.7               | 309               | 2                 | 309               | 2   | 309              | 2                 | 309              | 2                 | 309              | 2 |
| 9966-13.1              | 254        | 136         | 0.55 | 10.7                         | 3.2E-4            | 46                | 0.56               | 0.187 | 4.2               | 20.2              | 0.76                                   | 0.0548            | 1.47                                    | 0.34 | 4.7               | 0.049 | 0.80              | 0.2  | 0.0501           | 4.6               | 309               | 2                 | 310               | 2   | 310              | 2                 | 310              | 2                 | 310              | 2 |
| 9966-61.1              | 177        | 65          | 0.38 | 7.5                          | 1.7E-4            | 35                | 0.29               | 0.120 | 6.4               | 20.3              | 0.84                                   | 0.0545            | 2.42                                    | 0.35 | 3.1               | 0.049 | 0.84              | 0.3  | 0.0521           | 3.0               | 309               | 3                 | 310               | 3   | 310              | 3                 | 310              | 3                 | 310              | 3 |
| 9966-24.1              | 116        | 53          | 0.47 | 4.9                          | 4.7E-4            | 50                | 0.81               | 0.133 | 6.5               | 20.0              | 0.80                                   | 0.0529            | 2.00                                    | 0.31 | 8.0               | 0.050 | 0.90              | 0.1  | 0.0460           | 7.9               | 312               | 3                 | 314               | 2   | 314              | 2                 | 314              | 2                 | 314              | 2 |
| 9966-8.1 <sup>a</sup>  | 156        | 45          | 0.30 | 7                            | 3.0E-3            | 18                | 5.695</            |       |                   |                   |  |                   |   |      |                   |       |                   |      |                  |                   |                   |                   |                   |     |                  |                   |                  |                   |                  |   |

$f_{206}^{204}$  refers to mole percent of total  $^{206}\text{Pb}$  that is due to common Pb, calculated using the  $^{204}\text{Pb}$ -method;

Common Pb composition used is the surface blank (4/6: 0.05770; 7/6: 0.89500; 8/6: 2.13840)

\* refers to radiogenic Pb (corrected for common Pb)

Calibration standard 6266; U = 910 ppm; Age = 559 Ma;  $^{206}\text{Pb}/^{238}\text{U}$  = 0.09059

Error in  $^{206}\text{Pb}/^{238}\text{U}$  calibration 1.63% for IP mount 545, calibration 2 and 0.70% for IP mount 550, calibration 1 (included)

Standard Error in Standard calibration was 0.29% for IP mount 545, calibration 2 and 0.16% for IP mount 550

Calibration 1 (not included in above errors but required when comparing data from different mounts).

<sup>a</sup>Denotes an analysis excluded from the age calculation based on common  $^{206}\text{Pb}$  > 2.0%

<sup>b</sup>Denotes an analysis excluded from the age calculation based on suspected post-crystallization Pb loss

<sup>c</sup>Denotes an analysis excluded from the age calculation based on U concentration >2000 ppm

#### Donjek Glacier batholith diorite (285.7 ± 2.4 Ma; sample 09VL28 - 07V 571043E 6773718N NAD 83)

| Spot name                | U<br>(ppm) | Th<br>(ppm) | Th/U | $^{206}\text{Pb}^*$<br>(ppm) | $^{204}\text{Pb}$ |                   | $f^{206}\text{Pb}$ |        | $^{238}\text{U}/^{206}\text{Pb}$ |                   | $^{207}\text{Pb}/^{206}\text{Pb}$ |                   | $^{207}\text{Pb}$ |                  | $^{206}\text{Pb}$ |                  | Corr<br>Coeff | $^{207}\text{Pb}$ |                   | $^{206}\text{Pb}$ |                   | $\pm$<br>(Ma)    | 204-corrected |                   | 207-corrected    |     |
|--------------------------|------------|-------------|------|------------------------------|-------------------|-------------------|--------------------|--------|----------------------------------|-------------------|-----------------------------------|-------------------|-------------------|------------------|-------------------|------------------|---------------|-------------------|-------------------|-------------------|-------------------|------------------|---------------|-------------------|------------------|-----|
|                          |            |             |      |                              | $^{206}\text{Pb}$ | $^{204}\text{Pb}$ | % ±                | %      | $^{206}\text{Pb}$                | $^{208}\text{Pb}$ | % ±                               | $^{206}\text{Pb}$ | % ±               | $^{235}\text{U}$ | % ±               | $^{238}\text{U}$ | % ±           | $^{206}\text{Pb}$ | $^{208}\text{Pb}$ | % ±               | $^{206}\text{Pb}$ | $^{238}\text{U}$ | % ±           | $^{206}\text{Pb}$ | $^{238}\text{U}$ | % ± |
| 10154-96.1 <sup>a</sup>  | 77         | 16          | 0.22 | 3                            | 2.7E-3            | 36                | 4.658              | -0.023 | 23.3                             | 22.9              | 1.5                               | 0.061             | 4.74              | 0.12             | 76.8              | 0.042            | 2.3           | 0.0               | 0.020             | 76.8              | 263               | 6                | 272           | 4                 |                  |     |
| 10154-11.1 <sup>b</sup>  | 74         | 27          | 0.38 | 3                            | 8.8E-4            | 31                | 1.518              | 0.078  | 21.3                             | 23.2              | 1.5                               | 0.060             | 5.16              | 0.28             | 11.1              | 0.042            | 1.6           | 0.1               | 0.047             | 11.0              | 268               | 4                | 269           | 4                 |                  |     |
| 10154-32.1 <sup>a</sup>  | 100        | 40          | 0.41 | 4                            | 1.4E-3            | 51                | 2.348              | 0.083  | 15.8                             | 22.6              | 1.7                               | 0.059             | 4.12              | 0.23             | 27.2              | 0.043            | 2.1           | 0.1               | 0.039             | 27.2              | 273               | 6                | 277           | 5                 |                  |     |
| 10154-9.1 <sup>b</sup>   | 187        | 92          | 0.51 | 7                            | 9.2E-4            | 19                | 1.598              | 0.106  | 12.4                             | 22.7              | 1.2                               | 0.056             | 3.19              | 0.25             | 7.7               | 0.043            | 1.3           | 0.2               | 0.042             | 7.6               | 274               | 3                | 277           | 3                 |                  |     |
| 10154-35.1 <sup>a</sup>  | 108        | 32          | 0.30 | 4                            | 1.7E-3            | 16                | 2.860              | 0.076  | 15.1                             | 22.3              | 1.3                               | 0.065             | 3.77              | 0.24             | 12.1              | 0.044            | 1.4           | 0.1               | 0.040             | 12.0              | 275               | 4                | 278           | 4                 |                  |     |
| 10154-100.1 <sup>i</sup> | 292        | 111         | 0.39 | 11                           | 7.2E-4            | 38                | 1.252              | 0.117  | 8.5                              | 22.6              | 1.3                               | 0.055             | 2.46              | 0.27             | 9.8               | 0.044            | 1.4           | 0.1               | 0.045             | 9.7               | 276               | 4                | 278           | 4                 |                  |     |
| 10154-102.1 <sup>i</sup> | 131        | 68          | 0.54 | 5                            | 5.8E-4            | 34                | 1.002              | 0.188  | 10.7                             | 22.6              | 2.0                               | 0.059             | 3.59              | 0.30             | 7.5               | 0.044            | 2.0           | 0.3               | 0.050             | 7.2               | 276               | 5                | 276           | 5                 |                  |     |
| 10154-14.1 <sup>b</sup>  | 302        | 116         | 0.40 | 11                           | 1.1E-4            | 73                | 0.187              | 0.113  | 9.4                              | 22.8              | 1.2                               | 0.056             | 2.44              | 0.33             | 3.5               | 0.044            | 1.2           | 0.3               | 0.054             | 3.3               | 276               | 3                | 276           | 3                 |                  |     |
| 10154-80.1 <sup>a</sup>  | 43         | 12          | 0.29 | 2                            | 1.4E-3            | 39                | 2.466              | 0.019  | 25.0                             | 22.2              | 1.7                               | 0.071             | 5.83              | 0.30             | 18.8              | 0.044            | 2.0           | 0.1               | 0.050             | 18.7              | 277               | 5                | 277           | 5                 |                  |     |
| 10154-90.1 <sup>a</sup>  | 86         | 25          | 0.31 | 3                            | 1.3E-3            | 23                | 2.280              | 0.056  | 19.2                             | 22.2              | 1.4                               | 0.063             | 4.36              | 0.27             | 12.3              | 0.044            | 1.5           | 0.1               | 0.044             | 12.2              | 278               | 4                | 280           | 4                 |                  |     |
| 10154-65.1 <sup>b</sup>  | 126        | 46          | 0.38 | 5                            | 2.8E-4            | 691               | 0.481              | 0.154  | 12.9                             | 22.6              | 1.3                               | 0.060             | 3.77              | 0.34             | 50.2              | 0.044            | 3.6           | 0.1               | 0.056             | 50.1              | 278               | 10               | 276           | 4                 |                  |     |
| 10154-23.1 <sup>b</sup>  | 323        | 106         | 0.34 | 12                           | ---               | 100               | 0.000              | 0.112  | 9.5                              | 22.7              | 1.4                               | 0.057             | 2.38              | 0.34             | 2.7               | 0.044            | 1.4           | 0.5               | 0.057             | 2.4               | 278               | 4                | 276           | 4                 |                  |     |
| 10154-59.1 <sup>b</sup>  | 250        | 144         | 0.60 | 9                            | -3.5E-4           | 47                | -0.607             | 0.237  | 7.7                              | 22.8              | 1.2                               | 0.056             | 2.80              | 0.37             | 4.8               | 0.044            | 1.2           | 0.3               | 0.061             | 4.6               | 279               | 3                | 276           | 3                 |                  |     |
| 10154-85.1               | 129        | 64          | 0.51 | 5                            | 5.6E-4            | 33                | 0.974              | 0.150  | 11.9                             | 22.4              | 2.1                               | 0.057             | 3.67              | 0.29             | 7.5               | 0.044            | 2.1           | 0.3               | 0.048             | 7.2               | 279               | 6                | 280           | 6                 |                  |     |
| 10154-57.1               | 311        | 164         | 0.54 | 12                           | 5.6E-4            | 33                | 0.971              | 0.160  | 7.7                              | 22.4              | 1.5                               | 0.054             | 2.51              | 0.28             | 6.8               | 0.044            | 1.5           | 0.2               | 0.046             | 6.6               | 279               | 4                | 281           | 4                 |                  |     |
| 10154-52.1               | 560        | 353         | 0.65 | 21                           | 1.4E-4            | 30                | 0.234              | 0.211  | 5.1                              | 22.5              | 1.3                               | 0.051             | 1.86              | 0.30             | 2.6               | 0.044            | 1.3           | 0.5               | 0.049             | 2.3               | 280               | 4                | 280           | 4                 |                  |     |
| 10154-73.1               | 176        | 54          | 0.32 | 7                            | 7.6E-4            | 39                | 1.311              | 0.098  | 12.2                             | 22.2              | 1.2                               | 0.054             | 3.33              | 0.26             | 11.3              | 0.044            | 1.3           | 0.1               | 0.043             | 11.2              | 280               | 4                | 283           | 3                 |                  |     |
| 10154-103.1              | 503        | 146         | 0.30 | 19                           | 2.9E-4            | 20                | 0.499              | 0.088  | 7.9                              | 22.4              | 1.2                               | 0.053             | 1.93              | 0.30             | 3.0               | 0.044            | 1.2           | 0.4               | 0.049             | 2.7               | 280               | 3                | 281           | 3                 |                  |     |
| 10154-67.1               | 648        | 513         | 0.82 | 25                           | -2.0E-4           | 6                 | -0.349             | 0.256  | 5.0                              | 22.4              | 1.4                               | 0.055             | 1.93              | 0.35             | 2.3               | 0.045            | 1.4           | 0.6               | 0.057             | 1.9               | 282               | 4                | 280           | 4                 |                  |     |
| 10154-5.1                | 346        | 236         | 0.71 | 13                           | 6.6E-4            | 33                | 1.148              | 0.220  | 6.3                              | 22.1              | 1.1                               | 0.055             | 2.35              | 0.28             | 7.9               | 0.045            | 1.2           | 0.2               | 0.045             | 7.8               | 282               | 3                | 284           | 3                 |                  |     |
| 10154-94.2               | 331        | 62          | 0.19 | 13                           | 2.4E-4            | 27                | 0.421              | 0.053  | 12.5                             | 22.3              | 1.1                               | 0.053             | 2.41              | 0.30             | 3.4               | 0.045            | 1.1           | 0.3               | 0.049             | 3.2               | 282               | 3                | 283           | 3                 |                  |     |
| 10154-110.1              | 438        | 271         | 0.64 | 17                           | -1.3E-4           | 68                | -0.217             | 0.210  | 6.0                              | 22.4              | 1.4                               | 0.054             | 2.09              | 0.35             | 3.3               | 0.045            | 1.4           | 0.4               | 0.056             | 3.0               | 282               | 4                | 281           | 4                 |                  |     |
| 10154-76.1               | 526        | 245         | 0.48 | 20                           | -3.1E-4           | 43                | -0.544             | 0.149  | 6.7                              | 22.4              | 1.2                               | 0.054             | 1.94              | 0.36             | 4.0               | 0.045            | 1.2           | 0.3               | 0.058             | 3.8               | 283               | 3                | 281           | 3                 |                  |     |
| 10154-104.1              | 231        | 122         | 0.55 | 9                            | 5.5E-4            | 85                | 0.943              | 0.178  | 8.2                              | 22.0              | 1.4                               | 0.057             | 2.73              | 0.31             | 14.3              | 0.045            | 1.6           | 0.1               | 0.050             | 14.2              | 283               | 4                | 284           | 4                 |                  |     |
| 10154-94.1               | 408        | 274         | 0.69 | 16                           | 1.9E-4            | 26                | 0.330              | 0.211  | 5.9                              | 22.2              | 1.1                               | 0.054             | 2.14              | 0.32             | 2.9               | 0.045            | 1.1           | 0.4               | 0.051             | 2.7               | 284               | 3                | 284           | 3                 |                  |     |
| 10154-64.1               | 430        | 266         | 0.64 | 17                           | ---               | 100               | 0.000              | 0.211  | 6.0                              | 22.2              | 1.1                               | 0.054             | 2.12              | 0.34             | 2.4               | 0.045            | 1.1           | 0.5               | 0.054             | 2.1               | 284               | 3                | 283           | 3                 |                  |     |

**Donjek Glacier batholith diorite ( $285.7 \pm 2.4$  Ma; sample 09VL28 - 07V 571043E 6773718N NAD 83)**

| Spot name               | U<br>(ppm) | Th<br>(ppm) | Th/U | $^{206}\text{Pb}^*$<br>(ppm) | $^{204}\text{Pb}$ |                   |        | $f^{206}\text{Pb}$ |                   |      | $^{238}\text{U}/$ |       |                   | $^{207}\text{Pb}/$ |                  |       | $^{207}\text{Pb}$ |      |                   | $^{206}\text{Pb}$ |               |                   | 204-corrected |                   | 207-corrected |                   |
|-------------------------|------------|-------------|------|------------------------------|-------------------|-------------------|--------|--------------------|-------------------|------|-------------------|-------|-------------------|--------------------|------------------|-------|-------------------|------|-------------------|-------------------|---------------|-------------------|---------------|-------------------|---------------|-------------------|
|                         |            |             |      |                              | $^{206}\text{Pb}$ | $^{204}\text{Pb}$ | $\%$   | $\%$               | $^{206}\text{Pb}$ | $\%$ | $^{206}\text{Pb}$ | $\%$  | $^{206}\text{Pb}$ | $\%$               | $^{235}\text{U}$ | $\%$  | $^{238}\text{U}$  | $\%$ | $^{206}\text{Pb}$ | $\%$              | Corr<br>Coeff | $^{207}\text{Pb}$ | $\%$          | $^{206}\text{Pb}$ | $\pm$         | $^{206}\text{Pb}$ |
| 10154-96.2              | 1887       | 1186        | 0.65 | 73                           | 9.3E-5            | 135               | 0.161  | 0.192              | 2.8               | 22.1 | 1.0               | 0.053 | 0.98              | 0.32               | 3.8              | 0.045 | 1.0               | 0.3  | 0.052             | 3.7               | 284           | 3                 | <b>284</b>    | <b>3</b>          |               |                   |
| 10154-112.1             | 169        | 89          | 0.55 | 7                            | ---               | 100               | 0.000  | 0.163              | 10.6              | 22.2 | 1.2               | 0.059 | 3.10              | 0.37               | 3.3              | 0.045 | 1.2               | 0.4  | 0.059             | 3.1               | 285           | 3                 | <b>282</b>    | <b>3</b>          |               |                   |
| 10154-98.1              | 474        | 206         | 0.45 | 18                           | 1.6E-5            | 1469              | 0.028  | 0.146              | 6.7               | 22.1 | 1.1               | 0.056 | 1.97              | 0.35               | 6.7              | 0.045 | 1.2               | 0.2  | 0.056             | 6.6               | 285           | 3                 | <b>284</b>    | <b>3</b>          |               |                   |
| 10154-74.1              | 770        | 295         | 0.40 | 30                           | ---               | 100               | 0.000  | 0.113              | 6.1               | 22.1 | 1.1               | 0.053 | 1.59              | 0.33               | 1.9              | 0.045 | 1.1               | 0.6  | 0.053             | 1.6               | 285           | 3                 | <b>285</b>    | <b>3</b>          |               |                   |
| 10154-20.1              | 353        | 225         | 0.66 | 14                           | -9.7E-5           | 220               | -0.167 | 0.215              | 6.3               | 22.1 | 1.1               | 0.054 | 2.25              | 0.34               | 6.1              | 0.045 | 1.2               | 0.2  | 0.055             | 6.0               | 285           | 3                 | <b>284</b>    | <b>3</b>          |               |                   |
| 10154-17.2              | 847        | 352         | 0.43 | 33                           | -2.1E-4           | 52                | -0.372 | 0.147              | 5.2               | 22.2 | 1.1               | 0.051 | 1.54              | 0.34               | 3.5              | 0.045 | 1.1               | 0.3  | 0.054             | 3.3               | 286           | 3                 | <b>285</b>    | <b>3</b>          |               |                   |
| 10154-22.1              | 239        | 76          | 0.33 | 9                            | -9.6E-5           | 461               | -0.166 | 0.115              | 11.0              | 22.1 | 1.2               | 0.054 | 4.50              | 0.34               | 12.5             | 0.045 | 1.4               | 0.1  | 0.055             | 12.4              | 286           | 4                 | <b>285</b>    | <b>3</b>          |               |                   |
| 10154-82.1              | 982        | 309         | 0.32 | 38                           | 1.1E-4            | 21                | 0.190  | 0.109              | 4.5               | 22.0 | 1.0               | 0.051 | 1.84              | 0.31               | 2.3              | 0.045 | 1.1               | 0.5  | 0.050             | 2.0               | 286           | 3                 | <b>287</b>    | <b>3</b>          |               |                   |
| 10154-56.1              | 605        | 420         | 0.72 | 24                           | 5.8E-5            | 52                | 0.101  | 0.232              | 4.6               | 21.9 | 1.1               | 0.052 | 1.76              | 0.32               | 2.3              | 0.046 | 1.1               | 0.5  | 0.052             | 2.0               | 287           | 3                 | <b>287</b>    | <b>3</b>          |               |                   |
| 10154-95.2              | 767        | 255         | 0.34 | 30                           | ---               | 100               | 0.000  | 0.115              | 6.0               | 22.0 | 1.1               | 0.051 | 1.63              | 0.32               | 1.9              | 0.046 | 1.1               | 0.5  | 0.051             | 1.6               | 287           | 3                 | <b>287</b>    | <b>3</b>          |               |                   |
| 10154-108.1             | 109        | 55          | 0.52 | 4                            | ---               | 100               | 0.000  | 0.141              | 14.9              | 21.9 | 1.3               | 0.057 | 4.14              | 0.36               | 4.3              | 0.046 | 1.3               | 0.3  | 0.057             | 4.1               | 288           | 4                 | <b>286</b>    | <b>4</b>          |               |                   |
| 10154-68.1              | 605        | 379         | 0.65 | 24                           | 4.2E-4            | 36                | 0.718  | 0.195              | 5.0               | 21.7 | 1.1               | 0.052 | 2.78              | 0.29               | 5.8              | 0.046 | 1.1               | 0.2  | 0.046             | 5.7               | 288           | 3                 | <b>290</b>    | <b>3</b>          |               |                   |
| 10154-109.1             | 1143       | 499         | 0.45 | 45                           | 7.1E-5            | 133               | 0.123  | 0.133              | 4.4               | 21.8 | 1.1               | 0.053 | 1.27              | 0.33               | 3.1              | 0.046 | 1.1               | 0.4  | 0.052             | 2.9               | 289           | 3                 | <b>289</b>    | <b>3</b>          |               |                   |
| 10154-87.1              | 1748       | 1076        | 0.64 | 69                           | 6.5E-5            | 49                | 0.112  | 0.194              | 3.0               | 21.8 | 1.1               | 0.052 | 1.04              | 0.32               | 1.8              | 0.046 | 1.1               | 0.6  | 0.051             | 1.4               | 289           | 3                 | <b>289</b>    | <b>3</b>          |               |                   |
| 10154-55.1              | 2023       | 1251        | 0.64 | 80                           | 3.8E-5            | 28                | 0.066  | 0.208              | 2.7               | 21.8 | 1.0               | 0.053 | 0.98              | 0.33               | 1.5              | 0.046 | 1.0               | 0.7  | 0.053             | 1.0               | 290           | 3                 | <b>289</b>    | <b>3</b>          |               |                   |
| 10154-106.1             | 1331       | 692         | 0.54 | 53                           | 5.6E-5            | 32                | 0.097  | 0.156              | 3.8               | 21.7 | 1.0               | 0.052 | 1.21              | 0.32               | 1.7              | 0.046 | 1.0               | 0.6  | 0.051             | 1.3               | 290           | 3                 | <b>291</b>    | <b>3</b>          |               |                   |
| 10154-91.2              | 1601       | 684         | 0.44 | 63                           | 5.2E-5            | 75                | 0.089  | 0.133              | 3.8               | 21.7 | 1.0               | 0.052 | 1.09              | 0.33               | 1.9              | 0.046 | 1.0               | 0.5  | 0.051             | 1.6               | 291           | 3                 | <b>291</b>    | <b>3</b>          |               |                   |
| 10154-111.1             | 314        | 83          | 0.27 | 12                           | 4.2E-4            | 21                | 0.720  | 0.066              | 11.5              | 21.5 | 1.3               | 0.055 | 2.49              | 0.31               | 4.0              | 0.046 | 1.3               | 0.3  | 0.049             | 3.8               | 291           | 4                 | <b>292</b>    | <b>4</b>          |               |                   |
| 10154-61.1              | 203        | 57          | 0.29 | 8                            | 5.3E-4            | 49                | 0.910  | 0.064              | 14.4              | 21.5 | 1.2               | 0.053 | 3.22              | 0.29               | 9.4              | 0.046 | 1.3               | 0.1  | 0.045             | 9.3               | 291           | 4                 | <b>293</b>    | <b>4</b>          |               |                   |
| 10154-99.1              | 218        | 40          | 0.19 | 9                            | ---               | 100               | 0.000  | 0.076              | 13.9              | 21.7 | 1.2               | 0.059 | 2.81              | 0.37               | 3.1              | 0.046 | 1.2               | 0.4  | 0.059             | 2.8               | 291           | 3                 | <b>289</b>    | <b>3</b>          |               |                   |
| 10154-91.1 <sup>a</sup> | 85         | 25          | 0.30 | 3                            | 1.3E-3            | 190               | 2.200  | 0.107              | 20.5              | 21.1 | 1.6               | 0.065 | 4.94              | 0.29               | 79.5             | 0.046 | 4.6               | 0.1  | 0.046             | 79.3              | 292           | 13                | 294           | 5                 |               |                   |
| 10154-95.1              | 2171       | 1500        | 0.71 | 86                           | 3.2E-5            | 78                | 0.055  | 0.224              | 2.1               | 21.6 | 1.0               | 0.052 | 0.79              | 0.33               | 1.5              | 0.046 | 1.0               | 0.7  | 0.052             | 1.1               | 292           | 3                 | <b>292</b>    | <b>3</b>          |               |                   |
| 10154-12.1              | 2281       | 1596        | 0.72 | 91                           | 3.6E-5            | 33                | 0.063  | 0.220              | 2.5               | 21.6 | 1.1               | 0.051 | 0.92              | 0.32               | 1.5              | 0.046 | 1.1               | 0.7  | 0.051             | 1.0               | 292           | 3                 | <b>292</b>    | <b>3</b>          |               |                   |
| 10154-49.1              | 73         | 23          | 0.32 | 3                            | -1.6E-3           | 47                | -2.735 | 0.166              | 22.7              | 22.1 | 1.4               | 0.061 | 4.28              | 0.53               | 12.7             | 0.046 | 1.9               | 0.1  | 0.084             | 12.6              | 292           | 5                 | <b>282</b>    | <b>4</b>          |               |                   |
| 10154-63.1              | 1810       | 843         | 0.48 | 72                           | 7.4E-5            | 25                | 0.128  | 0.149              | 3.5               | 21.5 | 1.0               | 0.053 | 1.07              | 0.33               | 1.6              | 0.046 | 1.0               | 0.6  | 0.052             | 1.2               | 293           | 3                 | <b>293</b>    | <b>3</b>          |               |                   |
| 10154-17.1 <sup>a</sup> | 305        | 56          | 0.19 | 12                           | 1.5E-3            | 25                | 2.570  | 0.028              | 9.7               | 21.0 | 1.2               | 0.069 | 1.91              | 0.30               | 12.4             | 0.047 | 1.4               | 0.1  | 0.047             | 12.4              | 293           | 4                 | 295           | 4                 |               |                   |
| 10154-15.1 <sup>c</sup> | 3056       | 2191        | 0.74 | 123                          | 2.4E-5            | 30                | 0.041  | 0.240              | 2.0               | 21.4 | 1.1               | 0.052 | 0.77              | 0.34               | 1.3              | 0.047 | 1.1               | 0.8  | 0.052             | 0.8               | 295           | 3                 | 295           | 3                 |               |                   |
| 10154-82.2 <sup>c</sup> | 3255       | 2383        | 0.76 | 133                          | 4.4E-5            | 30                | 0.075  | 0.236              | 1.9               | 20.9 | 1.0               | 0.052 | 0.75              | 0.33               | 1.3              | 0.048 | 1.0               | 0.8  | 0.051             | 0.8               | 300           | 3                 | 301           | 3                 |               |                   |

\*bold ages used to calculate weighted average/reported age

Spot name follows the convention x-y.z; where x = sample number, y = grain number and z = spot number. Multiple analyses in an individual spot are labelled as x-y.z

Uncertainties reported at 1s and are calculated by using SQUID 2.23.08.10.21, rev. 21 Oct 2008

$f^{206}$  refers to mole percent of total  $^{206}\text{Pb}$  that is due to common Pb, calculated using the  $^{204}\text{Pb}$ -method; common Pb composition used is the surface blank (4/6: 0.05770; 7/6: 0.89500; 8/6: 2.13840)

\* refers to radiogenic Pb (corrected for common Pb)

Calibration standard 6266; U = 910 ppm; Age = 559 Ma;  $^{206}\text{Pb}/^{238}\text{U}$  = 0.09059

Error in  $^{206}\text{Pb}/^{238}\text{U}$  calibration 1.00% (included)

Standard Error in Standard calibration was 0.22% (not included in above errors but required when comparing data from different mounts).

<sup>a</sup>Denotes an analysis excluded from the age calculation based on common  $^{206}\text{Pb} > 2.0\%$

<sup>b</sup>Denotes an analysis excluded from the age calculation based on suspected post-crystallization Pb loss

<sup>c</sup>Denotes an analysis excluded from the age calculation based on U concentration >2000 ppm

Donjek Glacier batholith granodiorite (286 ± 2.9 Ma; sample 09VL27 - 07V 571040E 6773700N NAD 83)

| Spot name              | U<br>(ppm) | Th<br>(ppm) | Th/U  | $^{206}\text{Pb}^*$<br>(ppm) | $\frac{^{204}\text{Pb}}{^{206}\text{Pb}}$ |    | $f^{^{206}\text{Pb}}$ |       | $\frac{^{208}*\text{Pb}}{^{206}\text{Pb}}$ |      | $\frac{^{238}\text{U}}{^{206}\text{Pb}}$ |        | $\frac{^{207}\text{Pb}}{^{206}\text{Pb}}$ |       | $\frac{^{207}\text{Pb}}{^{235}\text{U}}$ |        | $\frac{^{206}*\text{Pb}}{^{238}\text{U}}$ |      | Corr<br>Coeff | $\frac{^{207}\text{Pb}}{^{206}\text{Pb}}$ |     | 204-corrected                            |     | 207-corrected |  |
|------------------------|------------|-------------|-------|------------------------------|---|----|-----------------------|-------|--|------|--|--------|---|-------|--|--------|---|------|---------------|---|-----|--|-----|---------------|--|
|                        |            |             |       |                              | %   | ±  | %                     | ±     | %  | ±    | %  | ±      | %   | ±     | %  | ±      | %   | ±    | (Ma)          | $\frac{^{206}\text{Pb}}{^{238}\text{U}}$  | ±   | $\frac{^{206}\text{Pb}}{^{238}\text{U}}$ | ±   | (Ma)          |  |
| 9963-27.1              | 289        | 151         | 0.539 | 10.9                         | 8.4E-4                                    | 26 | 1.46                  | 0.176 | 6.0  | 22.4 | 1.1                                      | 0.0661 | 2.7                                       | 0.327 | 7.1                                      | 0.0441 | 1.2                                       | 0.16 | 0.0538        | 7.0                                       | 278 | 3  | 277 | 3.1           |  |
| 9963-23.1 <sup>a</sup> | 141        | 57          | 0.422 | 5.4                          | 1.8E-3                                    | 19 | 3.04                  | 0.102 | 11.8                                       | 21.8 | 1.4                                      | 0.0685 | 2.0                                       | 0.261 | 12.6                                     | 0.0444 | 1.5                                       | 0.12 | 0.0426        | 12.5                                      | 280 | 4  | 283 | 3.9           |  |
| 9963-2.1               | 652        | 159         | 0.253 | 24.9                         | 3.4E-4                                    | 22 | 0.59                  | 0.077 | 3.5  | 22.3 | 1.3                                      | 0.0562 | 1.0                                       | 0.314 | 2.7                                      | 0.0445 | 1.3                                       | 0.47 | 0.0512        | 2.4                                       | 281 | 4  | 281 | 3.5           |  |
| 9963-8.1               | 313        | 132         | 0.435 | 12.0                         | 1.0E-3                                    | 24 | 1.80                  | 0.121 | 6.5  | 22.1 | 1.2                                      | 0.0646 | 2.6                                       | 0.303 | 8.3                                      | 0.0445 | 1.2                                       | 0.15 | 0.0494        | 8.2                                       | 281 | 3  | 282 | 3.3           |  |
| 9963-38.2 <sup>a</sup> | 79         | 14          | 0.181 | 3.0                          | 5.0E-3                                    | 24 | 8.58                  | 0.131 | 9.3  | 20.5 | 1.3                                      | 0.1150 | 3.9                                       | 0.257 | 46.8                                     | 0.0446 | 2.6                                       | 0.05 | 0.0417        | 46.7                                      | 281 | 7  | 285 | 4.0           |  |
| 9963-11.1              | 2267       | 427         | 0.195 | 87.2                         | 7.1E-5                                    | 36 | 0.12                  | 0.060 | 2.4  | 22.3 | 1.3                                      | 0.0530 | 0.6                                       | 0.321 | 1.6                                      | 0.0448 | 1.3                                       | 0.80 | 0.0520        | 0.9                                       | 282 | 3  | 282 | 3.5           |  |
| 9963-10.1              | 3750       | 1033        | 0.285 | 144.4                        | 3.3E-5                                    | 41 | 0.06                  | 0.090 | 1.5  | 22.3 | 1.3                                      | 0.0531 | 0.4                                       | 0.325 | 1.4                                      | 0.0448 | 1.3                                       | 0.91 | 0.0527        | 0.6                                       | 283 | 3  | 282 | 3.5           |  |
| 9963-69.1              | 651        | 129         | 0.205 | 25.1                         | 6.8E-4                                    | 17 | 1.18                  | 0.053 | 5.5  | 22.0 | 1.0                                      | 0.0604 | 1.6                                       | 0.312 | 4.1                                      | 0.0448 | 1.1                                       | 0.26 | 0.0504        | 4.0                                       | 283 | 3  | 283 | 2.9           |  |
| 9963-33.1              | 231        | 72          | 0.321 | 8.9                          | 7.3E-4                                    | 29 | 1.26                  | 0.095 | 5.1  | 22.0 | 1.3                                      | 0.0628 | 1.6                                       | 0.323 | 6.3                                      | 0.0449 | 1.4                                       | 0.21 | 0.0522        | 6.2                                       | 283 | 4  | 283 | 3.7           |  |
| 9963-74.1              | 339        | 125         | 0.380 | 13.1                         | 8.5E-4                                    | 18 | 1.48                  | 0.111 | 3.9  | 21.9 | 1.3                                      | 0.0610 | 1.3                                       | 0.300 | 5.3                                      | 0.0449 | 1.3                                       | 0.25 | 0.0485        | 5.1                                       | 283 | 4  | 284 | 3.6           |  |
| 9963-19.2              | 225        | 168         | 0.775 | 8.7                          | 5.8E-4                                    | 66 | 1.00                  | 0.254 | 5.8  | 22.0 | 1.1                                      | 0.0683 | 3.0                                       | 0.371 | 10.1                                     | 0.0449 | 1.3                                       | 0.13 | 0.0599        | 10.0                                      | 283 | 4  | 280 | 3.2           |  |
| 9963-19.1 <sup>a</sup> | 754        | 141         | 0.193 | 29.1                         | 4.9E-3                                    | 9  | 8.42                  | 0.061 | 2.5  | 20.4 | 1.9                                      | 0.1182 | 0.8                                       | 0.290 | 16.1                                     | 0.0449 | 2.1                                       | 0.13 | 0.0468        | 15.9                                      | 283 | 6  | 285 | 5.4           |  |
| 9963-54.1              | 548        | 130         | 0.244 | 21.1                         | 9.1E-4                                    | 20 | 1.58                  | 0.061 | 6.3  | 21.9 | 1.1                                      | 0.0636 | 2.0                                       | 0.311 | 6.1                                      | 0.0449 | 1.1                                       | 0.18 | 0.0502        | 6.0                                       | 283 | 3  | 284 | 3.0           |  |
| 9963-13.1              | 2492       | 463         | 0.192 | 96.6                         | 2.2E-4                                    | 12 | 0.37                  | 0.058 | 2.0  | 22.1 | 1.3                                      | 0.0538 | 0.5                                       | 0.315 | 1.5                                      | 0.0451 | 1.3                                       | 0.81 | 0.0506        | 0.9                                       | 285 | 3  | 285 | 3.5           |  |
| 9963-9.1               | 423        | 128         | 0.313 | 16.4                         | 9.6E-4                                    | 17 | 1.66                  | 0.103 | 4.7  | 21.7 | 1.0                                      | 0.0614 | 2.5                                       | 0.295 | 6.2                                      | 0.0453 | 1.1                                       | 0.17 | 0.0473        | 6.1                                       | 285 | 3  | 287 | 3.0           |  |
| 9963-38.1              | 1457       | 805         | 0.571 | 56.7                         | 1.3E-4                                    | 58 | 0.23                  | 0.192 | 2.3  | 22.0 | 1.0                                      | 0.0564 | 0.7                                       | 0.340 | 2.4                                      | 0.0453 | 1.0                                       | 0.43 | 0.0545        | 2.2                                       | 286 | 3  | 285 | 2.9           |  |
| 9963-31.1              | 397        | 87          | 0.226 | 15.5                         | 6.6E-4                                    | 41 | 1.15                  | 0.076 | 6.0  | 21.8 | 1.0                                      | 0.0635 | 2.0                                       | 0.337 | 7.9                                      | 0.0453 | 1.2                                       | 0.15 | 0.0539        | 7.9                                       | 286 | 3  | 285 | 3.0           |  |
| 9963-49.1              | 539        | 148         | 0.283 | 21.0                         | 1.9E-4                                    | 49 | 0.34                  | 0.106 | 4.7  | 22.0 | 1.0                                      | 0.0579 | 1.7                                       | 0.344 | 3.3                                      | 0.0453 | 1.0                                       | 0.32 | 0.0551        | 3.1                                       | 286 | 3  | 285 | 2.9           |  |
| 9963-6.1               | 1277       | 607         | 0.491 | 49.7                         | 2.6E-4                                    | 27 | 0.45                  | 0.151 | 3.2  | 22.0 | 1.0                                      | 0.0566 | 1.4                                       | 0.330 | 2.7                                      | 0.0453 | 1.0                                       | 0.38 | 0.0528        | 2.5                                       | 286 | 3  | 285 | 2.9           |  |
| 9963-24.1              | 821        | 244         | 0.306 | 32.0                         | 2.0E-4                                    | 60 | 0.35                  | 0.105 | 3.6  | 22.0 | 1.0                                      | 0.0565 | 1.3                                       | 0.335 | 3.8                                      | 0.0454 | 1.0                                       | 0.28 | 0.0535        | 3.6                                       | 286 | 3  | 286 | 2.9           |  |
| 9963-57.1              | 1789       | 633         | 0.365 | 69.8                         | 2.6E-4                                    | 22 | 0.45                  | 0.106 | 3.6  | 21.9 | 1.0                                      | 0.0550 | 1.0                                       | 0.320 | 2.2                                      | 0.0454 | 1.0                                       | 0.46 | 0.0512        | 1.9                                       | 286 | 3  | 287 | 2.9           |  |
| 9963-16.1              | 2412       | 496         | 0.213 | 94.3                         | 1.5E-4                                    | 19 | 0.26                  | 0.069 | 2.8  | 21.9 | 1.3                                      | 0.0544 | 1.3                                       | 0.328 | 2.0                                      | 0.0455 | 1.3                                       | 0.63 | 0.0523        | 1.5                                       | 287 | 4  | 287 | 3.6           |  |
| 9963-61.1              | 1252       | 932         | 0.770 | 49.1                         | 3.0E-4                                    | 27 | 0.51                  | 0.244 | 2.1  | 21.8 | 1.0                                      | 0.0559 | 1.2                                       | 0.325 | 2.8                                      | 0.0456 | 1.0                                       | 0.37 | 0.0516        | 2.6                                       | 288 | 3  | 288 | 2.9           |  |
| 9963-25.1              | 1604       | 289         | 0.186 | 63.0                         | 1.1E-4                                    | 39 | 0.19                  | 0.057 | 2.7  | 21.8 | 1.3                                      | 0.0536 | 0.6                                       | 0.328 | 1.8                                      | 0.0457 | 1.3                                       | 0.68 | 0.0520        | 1.4                                       | 288 | 4  | 288 | 3.6           |  |
| 9963-56.1 <sup>a</sup> | 63         | 22          | 0.364 | 2.5                          | 4.0E-3                                    | 33 | 6.93                  | 0.154 | 8.5  | 20.3 | 1.4                                      | 0.1218 | 2.2                                       | 0.405 | 32.2                                     | 0.0458 | 2.8                                       | 0.09 | 0.0642        | 32.1                                      | 289 | 8  | 285 | 4.0           |  |
| 9963-39.1              | 582        | 342         | 0.607 | 23.0                         | 7.5E-4                                    | 19 | 1.31                  | 0.215 | 3.2  | 21.5 | 1.0                                      | 0.0647 | 1.6                                       | 0.340 | 4.6                                      | 0.0459 | 1.1                                       | 0.23 | 0.0538        | 4.5                                       | 289 | 3  | 289 | 3.0           |  |
| 9963-29.1              | 2158       | 353         | 0.169 | 85.3                         | 1.3E-4                                    | 20 | 0.23                  | 0.052 | 2.4  | 21.7 | 1.3                                      | 0.0534 | 0.9                                       | 0.327 | 1.7                                      | 0.0460 | 1.3                                       | 0.73 | 0.0515        | 1.2                                       | 290 | 4  | 290 | 3.6           |  |
| 9963-12.1              | 2603       | 537         | 0.213 | 103.4                        | 1.9E-4                                    | 12 | 0.33                  | 0.067 | 1.8  | 21.5 | 1.3                                      | 0.0540 | 0.5                                       | 0.327 | 1.5                                      | 0.0463 | 1.3                                       | 0.83 | 0.0513        | 0.8                                       | 292 | 4  | 292 | 3.6           |  |
| 9963-52.1              | 1856       | 277         | 0.154 | 73.9                         | 1.5E-4                                    | 19 | 0.26                  | 0.049 | 2.6  | 21.5 | 1.3                                      | 0.0539 | 0.6                                       | 0.330 | 1.6                                      | 0.0463 | 1.3                                       | 0.78 | 0.0517        | 1.0                                       | 292 | 4  | 292 | 3.6           |  |
| 9963-59.1              | 2529       | 409         | 0.167 | 100.7                        | 1.2E-4                                    | 22 | 0.21                  | 0.053 | 2.2  | 21.5 | 1.3                                      | 0.0536 | 0.5                                       | 0.331 | 1.5                                      | 0.0464 | 1.3                                       | 0.81 | 0.0518        | 0.9                                       | 292 | 4  | 292 | 3.6           |  |
| 9963-70.1              | 1449       | 820         | 0.584 | 57.8                         | 4.6E-4                                    | 14 | 0.80                  | 0.190 | 2.0  | 21.4 | 1.0                                      | 0.0585 | 1.0                                       | 0.331 | 2.3                                      | 0.0464 | 1.0                                       | 0.43 | 0.0518        | 2.1                                       | 292 | 3  | 293 | 2.9           |  |
| 9963-17.1              | 2229       | 418         | 0.194 | 89.0                         | 9.3E-5                                    | 19 | 0.16                  | 0.064 | 2.2  | 21.5 | 1.3                                      | 0.0532 | 0.5                                       | 0.332 | 1.5                                      | 0.0465 | 1.3                                       | 0.86 | 0.0518        | 0.7                                       | 293 | 4  | 293 | 3.6           |  |
| 9963-7.2               | 2835       | 608         | 0.222 | 113.2                        | 1.5E-4                                    | 20 | 0.25                  | 0.073 | 3.1  | 21.5 | 1.0                                      | 0.0546 | 1.0                                       | 0.336 | 1.7                                      | 0.0465 | 1.0                                       | 0.61 | 0.0525        | 1.3                                       | 293 | 3  | 293 | 2.9           |  |
| 9963-50.1              | 1984       | 330         | 0.172 | 79.4                         | 1.6E-4                                    | 16 | 0.27                  | 0.049 | 2.5  | 21.4 | 1.3                                      | 0.0533 | 0.6                                       | 0.327 | 1.6                                      | 0.0466 | 1.3                                       | 0.80 | 0.0510        | 0.9                                       | 294 | 4  | 294 | 3.6           |  |
| 9963-36.1 <sup>c</sup> | 2281       | 430         | 0.195 | 92.3                         | 8.6E-5                                    | 26 | 0.15                  | 0.065 | 2.1  | 21.2 | 1.3                                      | 0.0534 | 0.5                                       | 0.339 | 1.5                                      | 0.0471 | 1.3                                       | 0.83 | 0.0522        | 0.8                                       | 297 | 4  | 297 | 3.7           |  |
| 9963-46.1 <sup>c</sup> | 3282       | 744         | 0.234 | 132.9                        | 1.2E-4                                    | 16 | 0.20                  | 0.074 | 1.6  | 21.2 | 1.3                                      | 0.0532 | 0.4                                       | 0.335 | 1.4                                      | 0.0471 | 1.3                                       | 0.88 | 0.0515        | 0.7                                       | 297 | 4  | 297 | 3.7           |  |
| 9963-42.1 <sup>c</sup> | 2150       | 341         | 0.164 | 87.8                         | 1.3E-4                                    | 16 | 0.22                  | 0.052 | 2.4  | 21.0 | 1.3                                      | 0.0545 | 0.5                                       | 0.345 | 1.5                                      | 0.0475 | 1.3                                       | 0.84 | 0.0527        | 0.8                                       | 299 | 4  | 299 | 3.7           |  |

**Donjek Glacier batholith granodiorite (286 ± 2.9 Ma; sample 09VL27 - 07V 571040E 6773700N NAD 83)**

| Spot name              | U<br>(ppm) | Th<br>(ppm) | Th/U  | $^{206}\text{Pb}^*$<br>(ppm) | $^{204}\text{Pb}$ |     | $f^{206}\text{Pb}$ |       | $^{208}\text{Pb}$ |      | $^{238}\text{U}/$ |        | $^{207}\text{Pb}/$ |       | $^{207}\text{Pb}$ |        | $^{206}\text{Pb}$ |      | Corr             |      | $^{207}\text{Pb}$ |     | 204-corrected    |      | 207-corrected |  |
|------------------------|------------|-------------|-------|------------------------------|-------------------|-----|--------------------|-------|-------------------|------|-------------------|--------|--------------------|-------|-------------------|--------|-------------------|------|------------------|------|-------------------|-----|------------------|------|---------------|--|
|                        |            |             |       |                              | $^{206}\text{Pb}$ | % ± | $^{206}\text{Pb}$  | %     | $^{206}\text{Pb}$ | % ±  | $^{206}\text{Pb}$ | % ±    | $^{235}\text{U}$   | % ±   | $^{238}\text{U}$  | % ±    | $^{206}\text{Pb}$ | % ±  | $^{238}\text{U}$ | (Ma) | $^{206}\text{Pb}$ | % ± | $^{238}\text{U}$ | (Ma) |               |  |
| 9963-67.1 <sup>c</sup> | 3367       | 737         | 0.226 | 138.3                        | 1.5E-4            | 13  | 0.27               | 0.070 | 1.6               | 20.9 | 1.3               | 0.0533 | 0.6                | 0.337 | 1.5               | 0.0478 | 1.3               | 0.83 | 0.0511           | 0.8  | 301               | 4   | 301              | 3.7  |               |  |
| 9963-7.1 <sup>a</sup>  | 45         | 14          | 0.313 | 1.9                          | 1.6E-3            | 25  | 2.84               | 0.190 | 10.3              | 19.9 | 1.3               | 0.1010 | 4.3                | 0.523 | 9.7               | 0.0488 | 1.5               | 0.16 | 0.0778           | 9.5  | 307               | 5   | 298              | 4.2  |               |  |
| 9963-48.1 <sup>c</sup> | 11942      | 3591        | 0.311 | 562.2                        | 4.9E-5            | 16  | 0.09               | 0.097 | 1.1               | 18.2 | 1.0               | 0.0522 | 0.4                | 0.389 | 1.1               | 0.0548 | 1.0               | 0.91 | 0.0515           | 0.5  | 344               | 3   | 345              | 3.4  |               |  |

\*bold ages used to calculate weighted average/reported age

Mount IP538, K100 spot size, primary intensity ~5nA

Spot name follows the convention x-y.z; where x = sample number, y = grain number and z = spot number. Multiple analyses in an individual spot are labelled as x-y.z.z

Uncertainties reported at 1s and are calculated by using SQUID 2.23.08.10.21, rev. 21 Oct 2008

$f^{206}$ <sup>204</sup> refers to mole percent of total  $^{206}\text{Pb}$  that is due to common Pb, calculated using the 204Pb-method; common Pb composition used is the surface blank (4/6: 0.05770; 7/6: 0.89500; 8/6: 2.13840)

\* refers to radiogenic Pb (corrected for common Pb)

Calibration standard 6266; U = 910 ppm; Age = 559 Ma;  $^{206}\text{Pb}/^{238}\text{U}$  = 0.09059

Error in  $^{206}\text{Pb}/^{238}\text{U}$  calibration 1.25% for calibration 1 and 1.0% for calibration 3 (included)

Standard Error in Standard calibration was 0.4% for calibration 1 and 0.2% for calibration 3 (not included in above errors but required when comparing data from different mounts).

<sup>a</sup>Denotes an analysis excluded from the age calculation based on common  $^{206}\text{Pb} > 2.0\%$

<sup>b</sup>Denotes an analysis excluded from the age calculation based on suspected post-crystallization Pb loss

<sup>c</sup>Denotes an analysis excluded from the age calculation based on high U concentration >2000 ppm

Table DR2. SIMS zircon U-Pb geochronological results from Stanford-USGS SHRIMP laboratory

Samples 09VL21 and 09VL30:

Analyzed at U.S. Geological Survey - Stanford University Ion Probe Laboratory using analytical protocols of Barth and Wooden (2006).

Calibration concentrations and compositions based on replicate analyses of CZ3 (U = 550 ppm; Pidgeon et al., 1994) and R33 ( 421 Ma; Black et al., 2004; Mattinson, 2010).

Initial common Pb isotopic composition approximated from Stacey and Kramers (1975).

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Black, L.P., Kamo, S.L., Allen, C.M., Davis, D.W., Aleinikoff, J.N., Valley, J.W., Mundil, R., Campbell, I.H., Korsh, R.J., Williams, I.S., and Foudoulis, C., 2004, Improved 206Pb/238U microprobe geochronology by monitoring of a trace-element-related matrix effect; SHRIMP, ID-TIMS, ELA-ICP-MS and oxygen isotope documentation for a series of zircon standards: Chemical Geology, v. 205, p. 115-140.

Mattinson, J.M., 2010, Analysis of the relative decay constants of 235U and 238U by multi-step CA-TIMS measurements of closed-system natural zircon samples: Chemical Geology, v. 275, p. 186-198, doi:10.1016/j.chemgeo.2010.05.007.

Pidgeon, R.T., Furfarro, D., Kennedy, A.K., Nemchin, A.A., and van Bronswijk, W., 1994, Calibration of zircon standards for the Curtin SHRIMP II: U.S. Geological Survey Circular 1107, p. 251.

Stacey, J.S., and Kramers, J.D., 1975, Approximation of terrestrial lead isotope evolution by a two-stage model: Earth and Planetary Science Letters, v. 26, p. 207-221.

| Centennial Range pluton (303.5 ± 2.1 Ma; sample 09VL21 - 07V 501051E 6754474N NAD 83) |            |             |      |                 |                |                     |                |                            |                 |               |                           |               |                |               |           |               |           |      |        |     |       |     |              |     |
|---|------------|-------------|------|-----------------|----------------|---------------------|----------------|----------------------------|-----------------|---------------|---------------------------|---------------|----------------|---------------|-----------|---------------|-----------|------|--------|-----|-------|-----|--------------|-----|
| Spot name   | U<br>(ppm) | Th<br>(ppm) | Th/U | 206Pb*<br>(ppm) | 204Pb<br>206Pb | f <sup>206</sup> Pb | 208Pb<br>206Pb | <sup>238</sup> U/<br>206Pb | 207Pb/<br>206Pb | 207Pb<br>235U | <sup>206</sup> Pb<br>238U | Corr<br>Coeff | 207Pb<br>206Pb | 206Pb<br>238U | ±<br>(Ma) | 206Pb<br>238U | ±<br>(Ma) |      |        |     |       |     |              |     |
| 09VL21-8.1  | 219        | 66          | 0.31 | 8.8             | 6.70E-05       | 64                  | <0.01          | 0.099                      | 4.4             | 21.29         | 1.3                       | 0.0517        | 2.4            | 0.33          | 3         | 0.0469        | 1.3       | 0.42 | 0.0517 | 2.4 | 295.6 | 3.6 | <b>296.1</b> | 3.7 |
| 09VL21-15.1   | 169        | 51          | 0.31 | 6.9             | ---            | 0                   | <0.01          | 0.097                      | 3               | 21.2          | 1.4                       | 0.0509        | 2.6            | 0.33          | 2.9       | 0.0472        | 1.4       | 0.48 | 0.0509 | 2.6 | 297.2 | 4.1 | <b>297.7</b> | 4.2 |
| 09VL21-1.1  | 259        | 68          | 0.27 | 10.6            | 5.40E-05       | 64                  | 0.11           | 0.086                      | 2.6             | 20.94         | 1.2                       | 0.0532        | 2.1            | 0.35          | 2.6       | 0.0477        | 1.2       | 0.46 | 0.0532 | 2.1 | 300.5 | 3.5 | <b>300.4</b> | 3.5 |
| 09VL21-2.1  | 424        | 143         | 0.35 | 17.4            | 3.20E-05       | 64                  | 0              | 0.112                      | 2.8             | 20.95         | 1.1                       | 0.0523        | 1.6            | 0.34          | 2         | 0.0477        | 1.1       | 0.52 | 0.0523 | 1.6 | 300.4 | 3.1 | <b>300.6</b> | 3.2 |
| 09VL21-14.1   | 290        | 86          | 0.31 | 11.9            | 5.60E-05       | 71                  | <0.01          | 0.102                      | 2.1             | 20.92         | 1.1                       | 0.0523        | 1.9            | 0.34          | 2.5       | 0.0478        | 1.1       | 0.45 | 0.0523 | 1.9 | 300.7 | 3.3 | <b>301</b>   | 3.4 |
| 09VL21-13.1   | 313        | 97          | 0.32 | 12.8            | 7.60E-05       | 64                  | <0.01          | 0.105                      | 2               | 20.92         | 1.1                       | 0.0518        | 1.8            | 0.33          | 2.6       | 0.0477        | 1.1       | 0.43 | 0.0518 | 1.8 | 300.7 | 3.3 | <b>301.3</b> | 3.3 |
| 09VL21-4.1  | 390        | 121         | 0.32 | 16.1            | ---            | 0                   | <0.01          | 0.106                      | 1.9             | 20.79         | 1.1                       | 0.0517        | 1.7            | 0.34          | 2         | 0.0481        | 1.1       | 0.54 | 0.0517 | 1.7 | 302.8 | 3.2 | <b>303.1</b> | 3.3 |
| 09VL21-10.1   | 306        | 109         | 0.37 | 12.7            | 4.10E-05       | 63                  | 0.2            | 0.118                      | 3.2             | 20.71         | 1.1                       | 0.054         | 1.9            | 0.36          | 2.4       | 0.0483        | 1.1       | 0.48 | 0.054  | 1.9 | 303.8 | 3.4 | <b>303.5</b> | 3.5 |
| 09VL21-5.1  | 332        | 125         | 0.39 | 13.8            | 4.40E-05       | 64                  | <0.01          | 0.124                      | 1.9             | 20.73         | 1.1                       | 0.0524        | 1.9            | 0.34          | 2.4       | 0.0482        | 1.1       | 0.48 | 0.0524 | 1.9 | 303.5 | 3.3 | <b>303.7</b> | 3.4 |
| 09VL21-9.1  | 265        | 99          | 0.39 | 11.1            | 2.10E-04       | 45                  | 0.5            | 0.142                      | 3.1             | 20.57         | 1.2                       | 0.0565        | 2              | 0.36          | 3.5       | 0.0484        | 1.2       | 0.34 | 0.0565 | 2   | 304.8 | 3.6 | <b>304.5</b> | 3.6 |
| 09VL21-11.1   | 294        | 89          | 0.31 | 12.3            | 7.10E-05       | 66                  | <0.01          | 0.097                      | 2.2             | 20.64         | 1.2                       | 0.0519        | 2              | 0.34          | 2.7       | 0.0484        | 1.2       | 0.43 | 0.0519 | 2   | 304.6 | 3.4 | <b>305.2</b> | 3.5 |

**Centennial Range pluton (303.5 ± 2.1 Ma; sample 09VL21 - 07V 501051E 6754474N NAD 83)**

| Spot name   | U<br>(ppm) | Th<br>(ppm) | Th/U | 206Pb*         |          | 204Pb          |       | f <sup>206</sup> Pb |     | 208 <sup>*</sup> Pb |     | 238U/<br>206Pb |     | 207Pb/<br>206Pb |     | 207 <sup>*</sup> Pb |     | 206 <sup>*</sup> Pb |        | Corr  |                | 207 <sup>*</sup> Pb |              | 204-corrected  |     | 207-corrected |                |
|-------------|------------|-------------|------|----------------|----------|----------------|-------|---------------------|-----|---------------------|-----|----------------|-----|-----------------|-----|---------------------|-----|---------------------|--------|-------|----------------|---------------------|--------------|----------------|-----|---------------|----------------|
|             |            |             |      | 206Pb<br>(ppm) | % ±      | 206Pb<br>(ppm) | % ±   | 206Pb<br>(ppm)      | % ± | 206Pb<br>(ppm)      | % ± | 235U<br>206Pb  | % ± | 238U<br>206Pb   | % ± | 235U<br>207Pb       | % ± | 238U<br>207Pb       | % ±    | Coeff | 206Pb<br>(ppm) | % ±                 | 238U<br>(Ma) | 206Pb<br>(ppm) | % ± | 238U<br>(Ma)  | 206Pb<br>(ppm) |
| 09VL21-3.1  | 233        | 60          | 0.27 | 9.7            | 1.70E-04 | 45             | 0.05  | 0.081               | 2.7 | 20.57               | 1.2 | 0.0529         | 2.2 | 0.34            | 3.4 | 0.0485              | 1.2 | 0.36                | 0.0529 | 2.2   | 305.1          | 3.6                 | <b>305.8</b> | 3.6            |     |               |                |
| 09VL21-7.1  | 352        | 90          | 0.26 | 14.8           | ---      | 0              | <0.01 | 0.083               | 2.3 | 20.46               | 1.1 | 0.0524         | 1.9 | 0.35            | 2.2 | 0.0489              | 1.1 | 0.51                | 0.0524 | 1.9   | 307.6          | 3.4                 | <b>307.6</b> | 3.4            |     |               |                |
| 09VL21-12.1 | 348        | 88          | 0.26 | 14.6           | 6.00E-05 | 50             | <0.01 | 0.082               | 2.3 | 20.44               | 1.1 | 0.0518         | 1.9 | 0.34            | 2.4 | 0.0489              | 1.1 | 0.47                | 0.0518 | 1.9   | 307.5          | 3.4                 | <b>308.1</b> | 3.4            |     |               |                |
| 09VL21-6.1  | 469        | 212         | 0.47 | 19.9           | ---      | 0              | <0.01 | 0.148               | 1.5 | 20.28               | 1.1 | 0.0519         | 1.6 | 0.35            | 1.9 | 0.0493              | 1.1 | 0.55                | 0.0519 | 1.6   | 310.3          | 3.2                 | <b>310.6</b> | 3.3            |     |               |                |

Spot name follows the convention x-y-z; where x = sample number, y = grain number and z = spot number.

\*bold ages used to calculate weighted average/reported age

Uncertainties reported at 1s and are calculated by using the SQUID program.

\* refers to radiogenic Pb (corrected for common Pb).

Reported age errors are at the 2s uncertainty level and incorporate the 2s external spot-to-spot error of the R33 standard.

f<sup>206</sup>Pb refers to mole percent of total 206Pb that is due to common Pb, calculated using the 204Pb-method.

**Steele Glacier pluton (290.6 ± 2.7 Ma; sample 09VL30 - 07V 554394E 6783511N NAD 83)**

| Spot name   | U<br>(ppm) | Th<br>(ppm) | Th/U | 206Pb*         |          | 204Pb          |       | f <sup>206</sup> Pb |     | 208 <sup>*</sup> Pb |     | 238U/<br>206Pb |     | 207Pb/<br>206Pb |     | 207 <sup>*</sup> Pb |     | 206 <sup>*</sup> Pb |        | Corr  |                | 207 <sup>*</sup> Pb |              | 204-corrected  |     | 207-corrected |                |
|-------------|------------|-------------|------|----------------|----------|----------------|-------|---------------------|-----|---------------------|-----|----------------|-----|-----------------|-----|---------------------|-----|---------------------|--------|-------|----------------|---------------------|--------------|----------------|-----|---------------|----------------|
|             |            |             |      | 206Pb<br>(ppm) | % ±      | 206Pb<br>(ppm) | % ±   | 206Pb<br>(ppm)      | % ± | 206Pb<br>(ppm)      | % ± | 235U<br>206Pb  | % ± | 238U<br>206Pb   | % ± | 235U<br>207Pb       | % ± | 238U<br>207Pb       | % ±    | Coeff | 206Pb<br>(ppm) | % ±                 | 238U<br>(Ma) | 206Pb<br>(ppm) | % ± | 238U<br>(Ma)  | 206Pb<br>(ppm) |
| 09VL30-7.1  | 1990       | 858         | 0.45 | 75.2           | 4.80E-04 | 17             | 0.82  | 0.164               | 0.7 | 22.75               | 0.9 | 0.058          | 1.2 | 0.31            | 3   | 0.0436              | 0.9 | 0.31                | 0.0584 | 1.2   | 275            | 2.5                 | <b>275.1</b> | 2.5            |     |               |                |
| 09VL30-12.1 | 1412       | 742         | 0.54 | 54.1           | 7.20E-04 | 24             | 1.34  | 0.196               | 0.7 | 22.41               | 0.9 | 0.063          | 2.6 | 0.32            | 6   | 0.044               | 1   | 0.16                | 0.0626 | 2.6   | 277.8          | 2.6                 | <b>277.7</b> | 2.6            |     |               |                |
| 09VL30-2.1  | 885        | 303         | 0.35 | 34.3           | 1.20E-05 | 64             | 0.04  | 0.116               | 2.8 | 22.2                | 0.9 | 0.052          | 1   | 0.32            | 1.4 | 0.045               | 0.9 | 0.67                | 0.0523 | 1     | 283.9          | 2.6                 | <b>283.9</b> | 2.7            |     |               |                |
| 09VL30-8.1  | 1473       | 378         | 0.27 | 57.2           | ---      | 0              | 0.02  | 0.083               | 1   | 22.12               | 0.9 | 0.052          | 0.8 | 0.32            | 1.2 | 0.0452              | 0.9 | 0.74                | 0.0521 | 0.8   | 285.1          | 2.6                 | <b>285</b>   | 2.6            |     |               |                |
| 09VL30-15.1 | 902        | 265         | 0.3  | 35.4           | 1.30E-05 | 64             | 0.07  | 0.099               | 1.2 | 21.89               | 0.9 | 0.053          | 1   | 0.33            | 1.4 | 0.0457              | 0.9 | 0.67                | 0.0527 | 1     | 287.9          | 2.7                 | <b>287.8</b> | 2.7            |     |               |                |
| 09VL30-4.1  | 1353       | 335         | 0.26 | 53.5           | 1.60E-04 | 21             | 0.33  | 0.086               | 1   | 21.72               | 0.9 | 0.055          | 0.8 | 0.33            | 1.6 | 0.0459              | 0.9 | 0.59                | 0.0548 | 0.8   | 289.4          | 2.6                 | <b>289.3</b> | 2.6            |     |               |                |
| 09VL30-14.1 | 2161       | 595         | 0.28 | 85.5           | 1.00E-04 | 39             | 0.17  | 0.097               | 0.8 | 21.7                | 0.9 | 0.053          | 0.6 | 0.33            | 1.6 | 0.046               | 0.9 | 0.57                | 0.0534 | 0.6   | 289.9          | 2.6                 | <b>289.9</b> | 2.6            |     |               |                |
| 09VL30-1.1  | 1911       | 341         | 0.18 | 75.6           | 9.80E-06 | 45             | <0.01 | 0.06                | 1   | 21.73               | 0.9 | 0.052          | 1.1 | 0.33            | 1.4 | 0.046               | 0.9 | 0.64                | 0.0517 | 1.1   | 290            | 2.6                 | <b>290.2</b> | 2.6            |     |               |                |
| 09VL30-11.1 | 1327       | 556         | 0.43 | 52.6           | 2.00E-05 | 50             | -0.02 | 0.139               | 0.9 | 21.65               | 0.9 | 0.052          | 0.9 | 0.33            | 1.3 | 0.0462              | 0.9 | 0.7                 | 0.0519 | 0.9   | 291            | 2.7                 | <b>291.2</b> | 2.7            |     |               |                |
| 09VL30-10.1 | 1048       | 357         | 0.35 | 42             | 2.60E-05 | 74             | 0.09  | 0.112               | 1.1 | 21.46               | 0.9 | 0.053          | 1   | 0.34            | 1.5 | 0.0466              | 0.9 | 0.64                | 0.0529 | 1     | 293.5          | 2.7                 | <b>293.4</b> | 2.7            |     |               |                |
| 09VL30-5.1  | 2363       | 847         | 0.37 | 94.7           | 3.00E-05 | 41             | 0     | 0.117               | 1   | 21.42               | 0.9 | 0.052          | 0.6 | 0.33            | 1.2 | 0.0467              | 0.9 | 0.77                | 0.0522 | 0.6   | 293.9          | 2.6                 | <b>294.1</b> | 2.6            |     |               |                |
| 09VL30-3.1  | 3940       | 1516        | 0.4  | 159.9          | 3.90E-04 | 9              | 0.68  | 0.144               | 1.2 | 21.18               | 0.9 | 0.058          | 0.5 | 0.34            | 1.4 | 0.0469              | 0.9 | 0.62                | 0.0577 | 0.5   | 295.4          | 2.6                 | <b>295.5</b> | 2.6            |     |               |                |
| 09VL30-9.1  | 1295       | 446         | 0.36 | 52.4           | 1.40E-05 | 66             | <0.01 | 0.114               | 1.6 | 21.26               | 0.9 | 0.052          | 1.3 | 0.33            | 1.6 | 0.047               | 0.9 | 0.58                | 0.0515 | 1.3   | 296.3          | 2.7                 | <b>296.6</b> | 2.7            |     |               |                |
| 09VL30-13.1 | 3479       | 1033        | 0.31 | 141.9          | 1.40E-05 | 50             | 0.14  | 0.101               | 1   | 21.06               | 0.9 | 0.053          | 0.5 | 0.35            | 1.1 | 0.0475              | 0.9 | 0.84                | 0.0534 | 0.5   | 299            | 2.6                 | 298.6        | 2.6            |     |               |                |
| 09VL30-6.1  | 4536       | 1414        | 0.32 | 187.6          | 9.30E-05 | 24             | 0.22  | 0.107               | 1.2 | 20.77               | 0.9 | 0.054          | 0.9 | 0.35            | 1.4 | 0.0481              | 0.9 | 0.61                | 0.0542 | 0.9   | 302.6          | 2.6                 | 302.4        | 2.7            |     |               |                |

Spot name follows the convention x-y-z; where x = sample number, y = grain number and z = spot number.

\*bold ages used to calculate weighted average/reported age

Uncertainties reported at 1s and are calculated by using the SQUID program.

\* refers to radiogenic Pb (corrected for common Pb).

Reported age errors are at the 2s uncertainty level and incorporate the 2s external spot-to-spot error of the R33 standard.

f<sup>206</sup>Pb refers to mole percent of total 206Pb that is due to common Pb, calculated using the 204Pb-method.

Table DR3. CA-ID-TIMS zircon U-Pb results from Geological Survey of Canada

Sample 09VL27:

Analyzed at the Geological Survey of Canada-Ottawa using the methods of Parrish et al. (1987), Roddick et al. (1987), and Mattinson (2005).

References

Parrish, R.R., Roddick, J.C., Loveridge, W.D., and Sullivan, R.W., 1987, Uranium-lead analytical techniques at the geochronology laboratory: Geological Survey of Canada, Radiogenic Age and Isotopic Studies, Paper 87-2, p. 3-7.

Roddick, J.C., Loveridge, W.D., and Parrish, R.R., 1987, Precise U-Pb dating of zircon at the sub-nanogram Pb level: Chemical Geology, v. 66, p. 111-121, doi:10.1016/0168-9622(87)90034-0.

Mattinson, J.M., 2005, Zircon U-Pb chemical abrasion ("CA-TIMS") method: Combined annealing and multi-step partial dissolution analysis for improved precision and accuracy of zircon ages: Chemical Geology, v. 220, p. 47-66, doi:10.1016/j.chemgeo.2005.03.011.

**Donjek Glacier batholith granodiorite (284.4 ± 0.9 Ma; sample 09VL27 - 07V 571040E 6773700N NAD 83)**

| Fract. <sup>1</sup> | Wt.<br>ug | U<br>ppm | Pb <sup>3</sup><br>ppm | 206Pb <sup>4</sup><br>204Pb | Pb <sup>b</sup><br>pg | Isotopic Ratios <sup>b</sup> |               |             |               |             |                              | Ages (Ma) <sup>g</sup> |             |               |      |               |      |                |      |           |
|---------------------|-----------|----------|------------------------|-----------------------------|-----------------------|------------------------------|---------------|-------------|---------------|-------------|------------------------------|------------------------|-------------|---------------|------|---------------|------|----------------|------|-----------|
|                     |           |          |                        |                             |                       | 208Pb<br>206Pb               | 207Pb<br>235U | ±1SE<br>Abs | 206Pb<br>238U | ±1SE<br>Abs | Corr. <sup>f</sup><br>Coeff. | 207Pb<br>206Pb         | ±1SE<br>Abs | 206Pb<br>238U | ±2SE | 207Pb<br>235U | ±2SE | 207Pb<br>206Pb | ±2SE | %<br>Disc |
| A12-1 (Z,12)        | 403       | 18       | 18                     | 1160.1                      | 1                     | 0.08                         | 0.32607       | 0.00089     | 0.04517       | 0.00005     | 0.629                        | 0.05236                | 0.00012     | 284.8         | 0.6  | 286.6         | 1.4  | 301.2          | 10.1 | 5.57      |
| A2-1 (Z,2)          | 2237      | 97       | 97                     | 6628.7                      | 2                     | 0.072                        | 0.32439       | 0.00042     | 0.04508       | 0.00005     | 0.862                        | 0.05219                | 0.00003     | 284.2         | 0.6  | 285.3         | 0.6  | 293.7          | 3    | 3.28      |
| A4-1 (Z,4)          | 1295      | 56       | 56                     | 645                         | 7                     | 0.063                        | 0.32394       | 0.00095     | 0.04507       | 0.00005     | 0.717                        | 0.05213                | 0.00012     | 284.2         | 0.7  | 284.9         | 1.5  | 291.1          | 10.1 | 2.42      |

A12-1 (Z,12) Co, Clr, Eu, St, nln, Pr, NM1, 100

A2-1 (Z,2) Clr, Co, Eu, nln, Pr, NM1, 150

A4-1 (Z,4) Clr, Co, Eu, nln, Pr, NM1, 115

<sup>1</sup>Z=zircon fraction; All fractions were single-grain and annealed and chemically abraded following Mattinson (2005), number in brackets refers to the number of hours of chemical abrasion.

<sup>2</sup>Zircon descriptions: Co=Colourless, Clr=Clear, nln=Numerous Inclusions, Eu=Euhedral, Pr=Prismatic, St=Stubby Prism, NM1=NonMag @1.8A 10SS; Number refers to size of zircon in um.

<sup>3</sup>Radiogenic Pb

<sup>4</sup>Measured ratio, corrected for spike and fractionation.

<sup>5</sup>Total common Pb in analysis corrected for fractionation and spike.

<sup>6</sup>Corrected for blank Pb and U and common Pb, errors quoted are 1 sigma absolute; procedural blank values for this study were from 0.1 pg U and 1 pg Pb for zircon analyses;

Pb blank isotopic composition is based on the analysis of procedural blanks; corrections for common Pb were made using Stacey-Kramers compositions.

<sup>7</sup>Correlation Coefficient.

<sup>8</sup>Corrected for blank and common Pb, errors quoted are 2 sigma in Ma.

The error on the calibration of the GSC  $^{205}\text{Pb}$ - $^{233}\text{U}$ - $^{235}\text{U}$  spike utilized in this study is 0.22% (2s).

Table DR4. Lithogeochemical data for the Barnard Glacier and Donjek Glacier suites

| Suite                            | Barnard Gl. | Donjek Gl. | Donjek Gl. | Donjek Gl. |
|----------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|------------|------------|------------|
| Field Collection No.             | 09VL48      | 09VL19      | 09VL21      | 09VBL37     | 09VBL35     | 09VL38      | 09VL39      | 09VL30     | 09VL31     | 09VL27     |
| UTM Zone                         | 07V         | 07V         | 07V         | 07V         | 07V         | 08V         | 08V         | 07V        | 07V        | 07V        |
| Easting (NAD 83)                 | 460102      | 528831      | 501051      | 502752      | 502778      | 336714      | 336714      | 554394     | 553474     | 571040     |
| Northing (NAD83)                 | 6780403     | 6749989     | 6754474     | 6766176     | 6766225     | 6686413     | 6686413     | 6783511    | 6792099    | 6773700    |
| SiO <sub>2</sub> (wt.%)          | 60.50       | 73.99       | 61.1        | 63.67       | 49.3        | 44.55       | 43.23       | 75.89      | 72.87      | 72.36      |
| TiO <sub>2</sub>                 | 0.478       | 0.065       | 0.569       | 0.284       | 1.013       | 0.972       | 2.013       | 0.122      | 0.263      | 0.19       |
| Al <sub>2</sub> O <sub>3</sub>   | 16.27       | 12.44       | 16.12       | 18.03       | 17.23       | 14.24       | 13.63       | 12.56      | 13.72      | 13.77      |
| Fe <sub>2</sub> O <sub>3</sub> t | 4.65        | 1.31        | 5.78        | 3.13        | 9.04        | 9.4         | 13.19       | 1.12       | 1.8        | 1.71       |
| MnO                              | 0.052       | 0.014       | 0.142       | 0.076       | 0.154       | 0.13        | 0.187       | 0.02       | 0.018      | 0.029      |
| MgO                              | 0.65        | 0.13        | 2.14        | 0.24        | 6.49        | 6.92        | 5.81        | 0.14       | 0.12       | 0.23       |
| CaO                              | 2.14        | 1.16        | 3.66        | 1.1         | 10.14       | 8.08        | 7.31        | 0.72       | 0.61       | 1.02       |
| Na <sub>2</sub> O                | 3.69        | 2.83        | 3.96        | 4.82        | 3.03        | 3.49        | 2.85        | 3.15       | 3.9        | 3.19       |
| K <sub>2</sub> O                 | 4.76        | 5.32        | 4.19        | 6.79        | 0.96        | 0.34        | 0.16        | 5.04       | 4.34       | 5.75       |
| P <sub>2</sub> O <sub>5</sub>    | 0.14        | 0.02        | 0.17        | 0.04        | 0.08        | 0.34        | 0.29        | 0.02       | 0.06       | 0.04       |
| LOI                              | 4.97        | 1.85        | 1.65        | 1.27        | 2.12        | 10.1        | 9.89        | 0.21       | 0.89       | 0.4        |
| TOTAL                            | 98.29       | 99.14       | 99.49       | 99.43       | 99.55       | 98.56       | 98.57       | 98.99      | 98.6       | 98.68      |
| Sc (ppm)                         | 4           | 1           | 9           | 3           | 33          | 34          | 35          | < 1        | 1          | 2          |
| V                                | 23          | <5          | 81          | < 5         | 252         | 275         | 349         | < 5        | 15         | 10         |
| Cr                               | <20         | <20         | <20         | < 20        | 120         | 190         | 30          | < 20       | < 20       | < 20       |
| Co                               | 5           | 1           | 11          | 1           | 34          | 32          | 38          | < 1        | < 1        | < 1        |
| Ni                               | <20         | <20         | <20         | < 20        | 70          | 30          | 20          | < 20       | < 20       | < 20       |
| Y                                | 36          | 20.6        | 26.6        | 24.6        | 15.9        | 18          | 36.2        | 5.1        | 18.8       | 11.7       |
| Zr                               | 520         | 143         | 285         | 621         | 99          | 57          | 118         | 72         | 155        | 163        |
| Hf                               | 9.9         | 4.2         | 6.3         | 11.2        | 2.1         | 1.4         | 2.9         | 1.9        | 4.1        | 4.1        |
| Nb                               | 35.6        | 12.4        | 14.1        | 17.4        | 6.3         | 4.2         | 5.9         | 5.7        | 28.3       | 8          |
| Ta                               | 2.6         | 1.5         | 1.34        | 0.92        | 0.42        | 0.26        | 0.37        | 0.57       | 4.49       | 0.45       |
| Th                               | 18.7        | 29.9        | 16.7        | 9.75        | 1.2         | 1.16        | 0.88        | 23.9       | 21.1       | 25.5       |
| U                                | 9.5         | 9.0         | 4.92        | 2.75        | 0.4         | 0.56        | 0.26        | 7.94       | 10.8       | 7.22       |
| La                               | 56.9        | 58.3        | 37.4        | 96.8        | 12.6        | 10.8        | 9.06        | 32.6       | 31         | 46.8       |
| Ce                               | 104         | 101         | 71.9        | 168         | 24.8        | 23.7        | 23.4        | 55.5       | 54.3       | 85.1       |
| Pr                               | 11.1        | 10.3        | 8.24        | 17.1        | 2.98        | 3.39        | 3.54        | 5.39       | 5.54       | 8.91       |
| Nd                               | 37.1        | 31.6        | 29.3        | 53.4        | 11.5        | 15.1        | 17          | 16.1       | 17.7       | 28.9       |
| Sm                               | 6.91        | 5.21        | 5.68        | 7.53        | 2.72        | 3.82        | 5.06        | 2.13       | 3.15       | 4.78       |
| Eu                               | 1.19        | 0.326       | 1.21        | 0.94        | 0.89        | 1.25        | 1.7         | 0.536      | 0.524      | 0.51       |
| Gd                               | 5.35        | 3.67        | 4.49        | 4.73        | 2.65        | 3.64        | 5.85        | 1.21       | 2.45       | 3.07       |
| Tb                               | 0.92        | 0.60        | 0.74        | 0.72        | 0.47        | 0.58        | 1.06        | 0.14       | 0.43       | 0.43       |
| Dy                               | 5.66        | 3.51        | 4.42        | 4.21        | 2.78        | 3.34        | 6.39        | 0.74       | 2.72       | 2.16       |
| Ho                               | 1.16        | 0.69        | 0.87        | 0.85        | 0.52        | 0.63        | 1.22        | 0.15       | 0.56       | 0.39       |
| Er                               | 3.62        | 2.10        | 2.63        | 2.55        | 1.49        | 1.76        | 3.49        | 0.53       | 1.75       | 1.15       |
| Tm                               | 0.597       | 0.348       | 0.437       | 0.395       | 0.223       | 0.256       | 0.526       | 0.088      | 0.303      | 0.173      |
| Yb                               | 4.27        | 2.49        | 3.02        | 2.74        | 1.4         | 1.61        | 3.4         | 0.74       | 2.24       | 1.19       |
| Lu                               | 0.702       | 0.409       | 0.484       | 0.472       | 0.217       | 0.254       | 0.533       | 0.131      | 0.365      | 0.194      |

Table DR4. Lithogeochemical data for the Barnard Glacier and Donjek Glacier suites (continued)

| Suite                            | Donjek Gl. | Donjek Gl. | Donjek Gl. | Donjek Gl. |
|----------------------------------|------------|------------|------------|------------|
| Field Collection No.             | 09VL28     | 09VL37     | 09VL16     | 09VL05     |
| UTM Zone                         | 07V        | 08V        | 08V        | 08V        |
| Easting (NAD 83)                 | 571043     | 336904     | 346394     | 638155     |
| Northing (NAD83)                 | 6773718    | 6687636    | 6712977    | 6742335    |
| SiO <sub>2</sub> (wt.%)          | 46.21      | 48.43      | 44.72      | 45.69      |
| TiO <sub>2</sub>                 | 3.313      | 2.129      | 2.432      | 2.266      |
| Al <sub>2</sub> O <sub>3</sub>   | 15.66      | 13.33      | 14.44      | 16.12      |
| Fe <sub>2</sub> O <sub>3</sub> t | 11.81      | 15.09      | 10.16      | 11.52      |
| MnO                              | 0.182      | 0.235      | 0.148      | 0.173      |
| MgO                              | 5.01       | 5.32       | 8.46       | 5.01       |
| CaO                              | 8.35       | 9.27       | 8.96       | 10.32      |
| Na <sub>2</sub> O                | 3.66       | 2.48       | 3.05       | 2.85       |
| K <sub>2</sub> O                 | 2.02       | 0.54       | 2.09       | 0.41       |
| P <sub>2</sub> O <sub>5</sub>    | 1.54       | 0.19       | 0.55       | 0.5        |
| LOI                              | 1.08       | 1.93       | 4.17       | 4.05       |
| TOTAL                            | 98.83      | 98.94      | 99.19      | 98.91      |
| Sc (ppm)                         | 19         | 41         | 26         | 22         |
| V                                | 242        | 441        | 258        | 235        |
| Cr                               | < 20       | 50         | 170        | 20         |
| Co                               | 21         | 43         | 37         | 34         |
| Ni                               | < 20       | 40         | 120        | 30         |
| Y                                | 39.9       | 32.2       | 20.2       | 24.8       |
| Zr                               | 153        | 141        | 152        | 154        |
| Hf                               | 3.3        | 3.4        | 3.3        | 3.5        |
| Nb                               | 24.6       | 11.7       | 32         | 43.2       |
| Ta                               | 1.8        | 0.83       | 2.27       | 3          |
| Th                               | 2.13       | 0.95       | 3.1        | 3.53       |
| U                                | 1.31       | 0.31       | 1.11       | 1.12       |
| La                               | 39.4       | 10.5       | 37.4       | 31.9       |
| Ce                               | 90.5       | 25.5       | 77.8       | 62.1       |
| Pr                               | 12.4       | 3.7        | 9.63       | 7.6        |
| Nd                               | 52.6       | 17.3       | 37.3       | 30.5       |
| Sm                               | 11         | 4.96       | 6.91       | 6.5        |
| Eu                               | 3.24       | 1.63       | 2.13       | 2.25       |
| Gd                               | 9.65       | 5.6        | 5.46       | 5.88       |
| Tb                               | 1.44       | 0.97       | 0.8        | 0.9        |
| Dy                               | 7.77       | 5.82       | 4.15       | 4.99       |
| Ho                               | 1.39       | 1.12       | 0.71       | 0.91       |
| Er                               | 3.78       | 3.21       | 1.95       | 2.5        |
| Tm                               | 0.516      | 0.484      | 0.268      | 0.349      |
| Yb                               | 3.05       | 3.02       | 1.61       | 2.19       |
| Lu                               | 0.474      | 0.478      | 0.241      | 0.327      |

Table DR5. Nd-Sr isotopic data for the Barnard Glacier and Donjek Glacier suites

| Suite           | Field Collection No. | Age (Ma) | Sm (ppm) | Nd (ppm) | $^{143}\text{Nd}/^{144}\text{Nd}_{\text{m}}$ | $^{143}\text{Nd}/^{144}\text{Nd}_{\text{i}}$ | $^{147}\text{Sm}/^{144}\text{Nd}$ | Epsilon Nd(t) | $T_{\text{DM}} (\text{Ma})$ |
|-----------------|----------------------|----------|----------|----------|--|--|-----------------------------------|---------------|-----------------------------|
| Barnard Glacier | 09VL48               | 307      | 6.06     | 32.36    | 0.512594 (11)                                | 0.512367                                     | 0.1132                            | 2.43          | 788                         |
| Barnard Glacier | 09VL19               | 307      | 4.55     | 26.94    | 0.512419 (11)                                | 0.512214                                     | 0.1021                            | -0.56         | 948                         |
| Barnard Glacier | 09VL21               | 304      | 5.47     | 27.76    | 0.512493 (11)                                | 0.512256                                     | 0.1191                            | 0.19          | 998                         |
| Barnard Glacier | 09VLB35              | 301      | 2.78     | 12.23    | 0.512695 (12)                                | 0.512424                                     | 0.1375                            | 3.39          | 837                         |
| Barnard Glacier | 09VL38               | 304      | 5.21     | 20.57    | 0.512901 (13)                                | 0.512597                                     | 0.1531                            | 6.84          | 535                         |
| Barnard Glacier | 09VL39               | 304      | 6.01     | 21.65    | 0.512889 (13)                                | 0.512556                                     | 0.1678                            | 6.04          | 743                         |
| Donjek Glacier  | 09VL31               | 291      | 2.91     | 16.06    | 0.512664 (11)                                | 0.512456                                     | 0.1095                            | 3.75          | 658                         |
| Donjek Glacier  | 09VL27               | 284      | 4.89     | 28.94    | 0.512571 (11)                                | 0.512381                                     | 0.1021                            | 2.12          | 742                         |
| Donjek Glacier  | 09VL28               | 286      | 10.75    | 51.04    | 0.512788 (12)                                | 0.51255                                      | 0.1274                            | 5.46          | 576                         |
| Donjek Glacier  | 09VL37               | 286      | 5.09     | 17.83    | 0.512907 (13)                                | 0.512584                                     | 0.1727                            | 6.13          | 767                         |
| Donjek Glacier  | 09VL16               | 286      | 7.13     | 37.75    | 0.512776 (12)                                | 0.512563                                     | 0.1142                            | 5.72          | 518                         |
| Donjek Glacier  | 09VL05               | 286      | 6.37     | 29.67    | 0.512741 (12)                                | 0.512498                                     | 0.1298                            | 4.46          | 678                         |

| Suite           | Field Collection No. | Age (Ma) | Rb (ppm) | Sr (ppm) | Rb/Sr  | $^{87}\text{Sr}/^{86}\text{Sr}_{\text{m}}$ | $^{87}\text{Rb}/^{86}\text{Sr}$ | $^{87}\text{Sr}/^{86}\text{Sr}_{\text{i}}$ |
|-----------------|----------------------|----------|----------|----------|--------|--|---------------------------------|--|
| Barnard Glacier | 09VL48               | 307      | 130      | 155      | 0.8387 | 0.714651 (10)                              | 2.429                           | 0.704037                                   |
| Barnard Glacier | 09VL21               | 304      | 131      | 353      | 0.3711 | 0.710417 (11)                              | 1.074                           | 0.705769                                   |
| Donjek Glacier  | 09VL31               | 291      | 165      | 173      | 0.9538 | 0.713805 (11)                              | 2.762                           | 0.702367                                   |
| Donjek Glacier  | 09VL27               | 284      | 130      | 163      | 0.7975 | 0.713634 (10)                              | 2.310                           | 0.704300                                   |
| Donjek Glacier  | 09VL28               | 286      | 46       | 1162     | 0.0396 | 0.703824 (11)                              | 0.115                           | 0.703358                                   |