|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Supplementary Table 2: Results of U-Th dating of speleothems and tufa samples** | | | | | | | |  |  |  |  |  |  |  |  |  |  |
| U decay constants: λ238=1.55125x10-10 (Jaffey et al., 1971) and λ234= 2.82x10-6 (Cheng et al., 2013) | | | | | | | | |  |  |  |  |  |  |  |  |  |
| Th decay constant: λ230=9.1705x10-6 (Cheng et al., 2013) | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Corrected 230Th ages assume the initial 230Th/232Th atomic ratio of 4.4 ± 2.2 x10-6 for material in secular equilibrium with bulk earth 232Th/238U value of 3.8. | | | | | | | | | | | | | |  |  |  |  |
| **Sample name** | weight (mg) | 238U (ppb) | ± | 230Th (ppt) | ± | 232Th (ppt) | ± | 230Th/232Th (activity) | ± | 234U/238U (activity) | ± | 230Th/238U (activity) | ± | 230Th Age (yr before 2000) | ± | **Corrected 230Th Age (yr before 2000)** | **±** |
| **32206-C1** | 137 | 1585 | 1.4 | 3.17 | 0.014 | 478509 | 830 | 1.25462 | 0.00593 | 1.94267 | 0.00144 | 0.12249 | 0.00055 | 7063 | 0 | **2430** | **0** |
| **32209-top** | 119 | 1068 | 0.4 | 9.73 | 0.034 | 55573 | 61 | 33.48246 | 0.12249 | 2.62484 | 0.00253 | 0.55735 | 0.00196 | 25432 | 303 | **24852** | **297** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46321-A** | 148 | 669 | 0.6 | 13.30 | 0.076 | 63193 | 247 | 39.45973 | 0.27400 | 3.51756 | 0.00388 | 1.21722 | 0.00707 | 44007 | 606 | **43243** | **593** |
| **46321-B** | 173 | 446 | 0.2 | 9.38 | 0.078 | 233751 | 1110 | 7.52877 | 0.07188 | 5.09434 | 0.00631 | 1.28684 | 0.01068 | 30566 | 599 | **27683** | **554** |
| **46321-C** | 220 | 358 | 0.3 | 7.54 | 0.028 | 239031 | 526 | 5.90970 | 0.02519 | 4.21836 | 0.00605 | 1.28729 | 0.00479 | 37929 | 342 | **33497** | **297** |
| **46321-D** | 170 | 996 | 0.7 | 21.34 | 0.068 | 1561794 | 4191 | 2.55827 | 0.01061 | 2.51925 | 0.00273 | 1.31109 | 0.00424 | 73774 | 806 | **55976** | **462** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46323-A-A** | 129 | 696 | 0.4 | 13.24 | 0.066 | 5867 | 16 | 423.14497 | 2.40866 | 1.12628 | 0.00112 | 1.16388 | 0.00587 | 497512 | 98695 | **490789** | **95133** |
| **46323-A-B** | 145 | 548 | 0.3 | 10.29 | 0.049 | 13090 | 38 | 147.45399 | 0.82907 | 1.12007 | 0.00115 | 1.14955 | 0.00556 | 462144 | 63306 | **457274** | **60488** |
| **46323-A-C** | 184 | 262 | 0.1 | 4.69 | 0.023 | 7293 | 20 | 120.95359 | 0.68263 | 1.11100 | 0.00231 | 1.09782 | 0.00544 | 340278 | 27468 | **338143** | **26873** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46324-B-A** | 95 | 1224 | 0.7 | 25.44 | 0.070 | 3675434 | 8284 | 1.29664 | 0.00463 | 1.16988 | 0.00149 | 1.27093 | 0.00359 | EQ |  | **EQ** |  |
| **46324-A-A** | 105 | 1377 | 1.1 | 27.05 | 0.355 | 251748 | 798 | 20.13332 | 0.27203 | 1.10040 | 0.00099 | 1.20158 | 0.01581 | EQ |  | **EQ** |  |
| **46324-A-B** | 154 | 934 | 0.8 | 18.87 | 0.064 | 281142 | 636 | 12.57640 | 0.05143 | 1.11677 | 0.00199 | 1.23546 | 0.00433 | EQ |  | **EQ** |  |
| **46324-A-C** | 119 | 527 | 0.5 | 11.76 | 0.053 | 216673 | 404 | 10.18639 | 0.04986 | 1.19506 | 0.00266 | 1.36511 | 0.00632 | EQ |  | **EQ** |  |
| **46324-A-D** | 171 | 499 | 0.2 | 10.21 | 0.046 | 325689 | 600 | 5.88060 | 0.02835 | 1.16497 | 0.00177 | 1.25333 | 0.00561 | EQ |  | **EQ** |  |
| **46324-B-B** | 105 | 1461 | 0.7 | 27.48 | 0.087 | 5682352 | 9983 | 0.90617 | 0.00329 | 1.07804 | 0.00124 | 1.15094 | 0.00369 | EQ |  | **-303978** | **70** |
| **46324-B-C** | 131 | 412 | 0.2 | 10.03 | 0.038 | 430428 | 942 | 4.37571 | 0.01921 | 1.35162 | 0.00082 | 1.48993 | 0.00570 | 578716 | 89779 | **554034** | **84933** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46325-A** | 108 | 1171 | 1.0 | 28.44 | 0.135 | 146197 | 171 | 36.42680 | 0.17754 | 1.23619 | 0.00188 | 1.48609 | 0.00714 | EQ |  | **EQ** |  |
| **46325-B** | 92 | 2053 | 1.7 | 36.75 | 0.111 | 42391 | 94 | 162.34662 | 0.60996 | 1.11707 | 0.00082 | 1.09503 | 0.00344 | 322320 | 11473 | **320569** | **11290** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46326-A** | 106 | 1782 | 3.4 | 58.68 | 0.242 | 6399 | 23 | 1715.74944 | 9.34904 | 1.88721 | 0.00385 | 2.01490 | 0.00915 | 293705 | 10232 | **292899** | **10177** |
| **46326-A1** | 210 | 1093 | 0.7 | 33.94 | 0.114 | 10782 | 23 | 588.99248 | 2.34275 | 1.81072 | 0.00188 | 1.90057 | 0.00649 | 282755 | 7813 | **281916** | **7722** |
| **46326-B** | 143 | 708 | 0.3 | 20.55 | 0.060 | 6306 | 17 | 610.16670 | 2.43234 | 2.06232 | 0.00255 | 1.77451 | 0.00524 | 164932 | 2135 | **164597** | **2127** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46327-A** | 199 | 1746 | 2.3 | 35.07 | 0.114 | 87497781 | 131 | 0.07500 | 0.00024 | 1.07994 | 0.00165 | 1.22884 | 0.00431 | EQ |  | **495657** | **122821** |
| **46327-B** | 179 | 2675 | 3.4 | 59.91 | 0.181 | 93595 | 230 | 119.72841 | 0.46574 | 1.08987 | 0.00187 | 1.37004 | 0.00448 | EQ |  | **EQ** |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46330-C1** | 191 | 1126 | 0.5 | 41.23 | 0.092 | 6206 | 10 | 1243.40233 | 3.38667 | 1.19117 | 0.00073 | 2.24104 | 0.00508 | EQ |  | **EQ** |  |
| **46330-D** | 368 | 2063 | 3.7 | 47.54 | 0.431 | 12095 | 26 | 735.18284 | 6.85511 | 1.55488 | 0.00290 | 1.40975 | 0.01303 | 197840 | 8942 | **197410** | **8915** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46331-A** | 116 | 1260 | 0.6 | 44.35 | 0.127 | 8360 | 20 | 992.81287 | 3.68909 | 2.21406 | 0.00188 | 2.15331 | 0.00623 | 212056 | 3120 | **211623** | **3107** |
| **46331-A'** | 119 | 1424 | 2.1 | 53.54 | 0.083 | 10668 | 15 | 939.13252 | 1.94059 | 2.68864 | 0.00398 | 2.30063 | 0.00498 | 157021 | 1309 | **156747** | **1305** |
| **46331-B** | 133 | 1493 | 0.7 | 47.87 | 0.144 | 4081 | 12 | 2195.15543 | 9.35768 | 2.00840 | 0.00128 | 1.96095 | 0.00597 | 219596 | 3488 | **219162** | **3474** |
| **46331-B'** | 144 | 1383 | 1.1 | 41.12 | 0.080 | 3750 | 7 | 2052.12377 | 5.64056 | 1.89435 | 0.00258 | 1.81935 | 0.00382 | 214255 | 2708 | **213834** | **2697** |
| **46331-C** | 154 | 1446 | 1.0 | 42.74 | 0.157 | 12973 | 39 | 616.50116 | 2.92050 | 1.83164 | 0.00242 | 1.80811 | 0.00674 | 232932 | 5542 | **232359** | **5500** |
| **46331-C'** | 128 | 1673 | 1.4 | 49.47 | 0.145 | 3178 | 7 | 2912.51757 | 10.83094 | 1.88342 | 0.00193 | 1.80879 | 0.00551 | 214601 | 3451 | **214187** | **3437** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46332-A** | 145 | 2749 | 5.7 | 69.75 | 0.228 | 4214 | 18 | 3096.05546 | 16.54873 | 1.46990 | 0.00287 | 1.55246 | 0.00602 | 336227 | 13620 | **334954** | **13437** |
| **46332-B** | 123 | 1016 | 0.6 | 35.25 | 0.114 | 8037 | 19 | 820.92654 | 3.30870 | 1.84119 | 0.00185 | 2.12336 | 0.00698 | 440326 | 22777 | **437858** | **22371** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46440-B** | 288 | 819 | 0.5 | 15.31 | 0.088 | 68611 | 305 | 41.77412 | 0.30256 | 1.09665 | 0.00110 | 1.14345 | 0.00657 | EQ |  | **EQ** |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46441-B** | 212 | 535 | 0.2 | 17.48 | 0.046 | 3027 | 5 | 1082.61892 | 3.33111 | 1.83587 | 0.00163 | 1.99875 | 0.00529 | 322179 | 7820 | **321139** | **7752** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46442-A** | 177 | 434 | 0.4 | 8.34 | 0.066 | 9395 | 27 | 166.45628 | 1.39685 | 1.11471 | 0.00126 | 1.17495 | 0.00932 | EQ |  | **EQ** |  |
| **46442-B** | 158 | 287 | 0.4 | 5.62 | 0.052 | 10960 | 66 | 96.52872 | 1.05869 | 1.14172 | 0.00524 | 1.20034 | 0.01117 | 682166 | 12454587 | **646558** | **12410347** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46453-A** | 102 | 385 | 0.3 | 8.37 | 0.033 | 433924 | 657 | 3.62724 | 0.01514 | 1.99734 | 0.00357 | 1.33076 | 0.00525 | 106557 | 1443 | **91078** | **1133** |
| **46453-B** | 140 | 555 | 0.3 | 9.85 | 0.041 | 931800 | 1528 | 1.98286 | 0.00891 | 1.50031 | 0.00216 | 1.08598 | 0.00458 | 126757 | 2012 | **92314** | **1212** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46606-A1-C** | 87 | 1320 | 0.6 | 1.31 | 0.026 | 203936 | 863 | 1.25813 | 0.02524 | 2.16682 | 0.00184 | 0.06085 | 0.00119 | 3130 | 190 | **999** | **0** |
| **46606-A2-C** | 100 | 773 | 0.3 | 1.34 | 0.026 | 444081 | 1779 | 0.58872 | 0.01187 | 2.12144 | 0.00268 | 0.10580 | 0.00209 | 5556 | 225 | **-2743** | **-45** |
| **46606-A3-B** | 120 | 935 | 0.7 | 0.56 | 0.017 | 52062 | 227 | 2.13699 | 0.06778 | 2.21853 | 0.00470 | 0.03636 | 0.00114 | 1827 | 178 | **1066** | **0** |
| **46606-A4-A** | 95 | 652 | 0.5 | 2.16 | 0.046 | 491816 | 3618 | 0.84027 | 0.01882 | 2.18944 | 0.00538 | 0.20268 | 0.00429 | 10512 | 466 | **-56** | **0** |
| **46606-B1-G** | 108 | 718 | 0.5 | 2.67 | 0.039 | 656428 | 2896 | 0.77436 | 0.01171 | 1.87366 | 0.00318 | 0.22765 | 0.00330 | 14002 | 431 | **-1308** | **0** |
| **46606-B2-F** | 82 | 955 | 0.6 | 1.88 | 0.026 | 305117 | 959 | 1.18755 | 0.01664 | 1.99269 | 0.00295 | 0.12029 | 0.00164 | 6787 | 136 | **1974** | **0** |
| **46606-B3-F** | 94 | 651 | 0.4 | 2.84 | 0.043 | 536119 | 3799 | 1.00709 | 0.01670 | 1.88911 | 0.00254 | 0.26665 | 0.00400 | 16417 | 528 | **2975** | **177** |
| **46606-B4-E** | 145 | 540 | 0.5 | 1.36 | 0.019 | 251339 | 1413 | 1.03932 | 0.01594 | 2.01435 | 0.00278 | 0.15437 | 0.00221 | 8685 | 339 | **1689** | **0** |
| **46606-B5-E** | 100 | 1307 | 1.0 | 1.70 | 0.021 | 153750 | 545 | 2.12028 | 0.02712 | 2.03812 | 0.00168 | 0.07947 | 0.00098 | 4355 | 87 | **2645** | **53** |
| **46606-B6-D** | 77 | 1017 | 0.5 | 3.30 | 0.057 | 619269 | 2069 | 1.01409 | 0.01776 | 1.93473 | 0.00180 | 0.19829 | 0.00341 | 11702 | 422 | **2135** | **43** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46619-C** | 100 | 1182 | 0.7 | 17.16 | 0.072 | 63043 | 167 | 51.02388 | 0.25194 | 2.49067 | 0.00193 | 0.88842 | 0.00374 | 45991 | 466 | **45366** | **459** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46620-A** | 135 | 6395 | 4.0 | 120.87 | 0.507 | 105247 | 257 | 214.78149 | 1.04129 | 1.53490 | 0.00130 | 1.15627 | 0.00490 | 135489 | 2130 | **135039** | **2118** |
| **46620-B** | 88 | 6588 | 2.2 | 111.23 | 0.446 | 80186 | 227 | 259.49562 | 1.27536 | 1.45304 | 0.00063 | 1.03290 | 0.00416 | 123550 | 1736 | **123176** | **1727** |
| **46620-B'** | 156 | 7356 | 12.5 | 124.06 | 0.374 | 85263 | 207 | 272.12970 | 1.05382 | 1.45876 | 0.00259 | 1.03173 | 0.00357 | 122395 | 1543 | **122035** | **1536** |
| **46620-C** | 163 | 5741 | 4.4 | 106.01 | 0.363 | 42218 | 120 | 469.64947 | 2.09133 | 1.53610 | 0.00188 | 1.12966 | 0.00396 | 129780 | 1716 | **129491** | **1709** |
| **46620-C'** | 174 | 7804 | 14.0 | 138.34 | 0.470 | 66392 | 184 | 389.67395 | 1.70993 | 1.53510 | 0.00362 | 1.08453 | 0.00417 | 121116 | 1782 | **120824** | **1775** |
| **46620-D** | 130 | 2665 | 1.3 | 48.14 | 0.142 | 31627 | 45 | 284.84010 | 0.93191 | 1.53560 | 0.00107 | 1.10531 | 0.00330 | 125028 | 1328 | **124673** | **1322** |
| **46620-E** | 108 | 5566 | 5.0 | 104.77 | 0.341 | 62205 | 171 | 315.09518 | 1.34289 | 1.56088 | 0.00298 | 1.15161 | 0.00388 | 130153 | 1811 | **129804** | **1803** |
| **46620-E'** | 182 | 5915 | 12.8 | 108.63 | 0.246 | 71495 | 153 | 284.15929 | 0.88468 | 1.63560 | 0.00571 | 1.12355 | 0.00352 | 114509 | 1659 | **114184** | **1652** |
| **46620-F** | 128 | 3904 | 2.6 | 70.87 | 0.279 | 104045 | 297 | 127.43022 | 0.61966 | 1.56192 | 0.00154 | 1.11063 | 0.00444 | 122108 | 1715 | **121519** | **1702** |
| **46620-F'** | 113 | 3793 | 4.7 | 65.16 | 0.287 | 31296 | 130 | 389.54975 | 2.35878 | 1.51743 | 0.00237 | 1.05103 | 0.00481 | 117375 | 1879 | **117092** | **1871** |
| **46620-G** | 139 | 4162 | 4.6 | 80.24 | 0.293 | 137490 | 441 | 109.15743 | 0.53120 | 1.57659 | 0.00199 | 1.17939 | 0.00451 | 133136 | 1890 | **132434** | **1873** |
| **46620-G'** | 112 | 3227 | 3.9 | 57.66 | 0.153 | 108149 | 235 | 99.77595 | 0.34226 | 1.65415 | 0.00248 | 1.09322 | 0.00319 | 107476 | 1071 | **106828** | **1065** |
| **46620-POWDER** | 130 | 5889 | 7.2 | 109.17 | 0.161 | 185549 | 204 | 110.04643 | 0.20213 | 1.64259 | 0.00170 | 1.13409 | 0.00217 | 115394 | 713 | **114764** | **707** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46624-1-La** | 324 | 1525 | 1.9 | 21.13 | 0.045 | 3417 | 7 | 1157.18681 | 3.48134 | 1.45294 | 0.00183 | 0.84793 | 0.00210 | 90309 | 692 | **90170** | **691** |
| **46624-1-Lb** | 343 | 1387 | 1.5 | 19.64 | 0.039 | 26757 | 57 | 137.33340 | 0.40064 | 1.56656 | 0.00207 | 0.86631 | 0.00198 | 82862 | 587 | **82445** | **582** |
| **46624-1-L7** | 134 | 1582 | 1.0 | 21.24 | 0.137 | 4155 | 13 | 957.87322 | 6.80653 | 1.42844 | 0.00133 | 0.82177 | 0.00531 | 88559 | 1781 | **88414** | **1778** |
| **46624-1-L8** | 127 | 2387 | 1.4 | 30.76 | 0.116 | 2877 | 8 | 2001.19127 | 9.48781 | 1.34711 | 0.00135 | 0.78839 | 0.00300 | 91543 | 1093 | **91419** | **1091** |
| **46624-1-L9** | 127 | 1644 | 1.4 | 21.01 | 0.073 | 5901 | 11 | 667.11916 | 2.59751 | 1.32332 | 0.00140 | 0.78188 | 0.00278 | 93088 | 1042 | **92911** | **1039** |
| **46624-1-L10** | 135 | 1262 | 1.6 | 20.01 | 0.062 | 6970 | 17 | 537.79416 | 2.13476 | 1.53656 | 0.00220 | 0.96995 | 0.00323 | 100989 | 1097 | **100781** | **1094** |
| **46624-1-U1** | 126 | 917 | 0.9 | 2.15 | 0.016 | 156828 | 558 | 2.61361 | 0.02185 | 1.90696 | 0.00251 | 0.14381 | 0.00110 | 8536 | 171 | **5859** | **0** |
| **46624.1-U1'** | 238 | 645 | 0.4 | 1.42 | 0.010 | 86845 | 154 | 3.09815 | 0.02146 | 1.91865 | 0.00169 | 0.13487 | 0.00091 | 7959 | 159 | **5884** | **118** |
| **46624-1-U2** | 233 | 3 | 0.5 | 6.50 | 0.032 | 107352 | 272 | 11.35741 | 0.06229 | 2556.83359 | 3.09905 | 146.08258 | 24.62881 | 6358 | 65 | **5905** | **60** |
| **46624-1-U3** | 49 | 3358 | 2.7 | 7.16 | 0.071 | 31793 | 105 | 42.60580 | 0.44740 | 2.07026 | 0.00227 | 0.13037 | 0.00130 | 7056 | 147 | **6918** | **144** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46624-2-LOW-L4** | 159 | 1266 | 0.9 | 19.35 | 0.061 | 12598 | 20 | 287.80769 | 1.00561 | 1.68059 | 0.00157 | 0.93525 | 0.00299 | 83069 | 875 | **82826** | **873** |
| **46624-2-LOW-L5** | 183 | 1229 | 1.1 | 19.06 | 0.518 | 78316 | 156 | 45.56025 | 1.24162 | 1.54525 | 0.00118 | 0.94886 | 0.02580 | 96698 | 8198 | **95494** | **8042** |
| **46624-2-LOW-L6** | 194 | 1647 | 1.6 | 21.91 | 0.394 | 9373 | 16 | 437.60797 | 7.89594 | 1.40599 | 0.00200 | 0.81418 | 0.01465 | 89612 | 4762 | **89405** | **4746** |
| **46624-2-LOW-L7** | 215 | 1311 | 3.7 | 18.14 | 0.072 | 2724 | 12 | 1246.64374 | 7.37020 | 1.44040 | 0.00352 | 0.84637 | 0.00412 | 91324 | 1313 | **91186** | **1310** |
| **46624-2-LOW-L8** | 209 | 1188 | 0.8 | 18.67 | 0.033 | 8992 | 16 | 388.73323 | 0.96526 | 1.61167 | 0.00134 | 0.96137 | 0.00180 | 92207 | 548 | **91983** | **546** |
| **46624-2-LOW-L9** | 200 | 1029 | 0.7 | 17.15 | 0.061 | 7469 | 19 | 429.95004 | 1.86404 | 1.62302 | 0.00143 | 1.02036 | 0.00369 | 99693 | 1130 | **99465** | **1126** |
| **46624-2-UP-L1** | 184 | 2054 | 2.8 | 9.87 | 0.037 | 5481 | 14 | 337.55933 | 1.55669 | 2.32557 | 0.00664 | 0.29402 | 0.00118 | 14570 | 147 | **14526** | **147** |
| **46624-2-UP-L2** | 190 | 1285 | 0.7 | 18.93 | 0.060 | 1740 | 6 | 2037.38678 | 9.88335 | 1.53666 | 0.00145 | 0.90153 | 0.00290 | 90441 | 901 | **90321** | **900** |
| **46624-2-UP-U1** | 189 | 767 | 0.6 | 1.59 | 0.014 | 68442 | 133 | 4.41178 | 0.03890 | 1.92051 | 0.00319 | 0.12671 | 0.00109 | 7405 | 148 | **6037** | **0** |
| **46624.2-UP-U1'** | 257 | 1043 | 0.9 | 1.94 | 0.013 | 111388 | 188 | 3.28936 | 0.02222 | 1.93498 | 0.00211 | 0.11379 | 0.00075 | 6582 |  | **4981** | **100** |
| **46624-2-UP-U2** | 111 | 10386 | 14.6 | 19.23 | 0.062 | 70365 | 142 | 51.20743 | 0.19429 | 1.97863 | 0.00326 | 0.11325 | 0.00040 | 6422 |  | **6313** | **0** |
| **46624-2-UP-U3** | 124 | 8308 | 12.3 | 18.19 | 0.060 | 260159 | 607 | 13.09779 | 0.05293 | 2.06355 | 0.00257 | 0.13392 | 0.00048 | 7305 |  | **6854** | **0** |
| **46624-2-UP-U4** | 145 | 10180 | 12.3 | 23.97 | 0.120 | 11018 | 44 | 407.58964 | 2.61786 | 2.34435 | 0.00410 | 0.14405 | 0.00074 | 6915 | 138 | **6899** | **138** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46624-3-L1** | 202 | 1251 | 0.8 | 20.82 | 0.063 | 5989 | 14 | 650.87614 | 2.48562 | 1.82683 | 0.00188 | 1.01832 | 0.00315 | 82678 | 894 | **82525** | **892** |
| **46624-3-L2** | 221 | 1795 | 1.5 | 29.46 | 0.094 | 3197 | 7 | 1724.84116 | 6.51282 | 1.79050 | 0.00149 | 1.00445 | 0.00331 | 83560 | 878 | **83448** | **878** |
| **46624.3-L3** | 24 | 14608 | 12.1 | 223.58 | 1.008 | 126870 | 492 | 329.73430 | 1.96013 | 1.77613 | 0.00175 | 0.93635 | 0.00429 | 76691 | 981 | **76484** | **977** |
| **46624.3-L4** | 283 | 1489 | 1.6 | 23.32 | 0.061 | 3891 | 7 | 1121.07594 | 3.49463 | 1.70211 | 0.00241 | 0.95779 | 0.00271 | 84286 | 949 | **84158** | **948** |
| **46624.3-L5** | 258 | 1613 | 2.2 | 25.31 | 0.067 | 3393 | 9 | 1395.61676 | 5.24096 | 1.68127 | 0.00206 | 0.96015 | 0.00287 | 86181 | 974 | **86058** | **973** |
| **46624.3-L6** | 305 | 1715 | 1.4 | 26.73 | 0.149 | 3943 | 17 | 1268.11561 | 8.99946 | 1.68088 | 0.00206 | 0.95362 | 0.00537 | 85373 | 1407 | **85247** | **1404** |
| **46624.3-L7** | 288 | 2441 | 4.1 | 37.57 | 0.136 | 3748 | 1 | 1874.72395 | 6.79545 | 1.68342 | 0.00271 | 0.94156 | 0.00376 | 83649 | 962 | **83538** | **960** |
| **46624.3-L8** | 285 | 1712 | 3.3 | 26.40 | 0.067 | 7563 | 17 | 653.02572 | 2.22186 | 1.67366 | 0.00357 | 0.94348 | 0.00301 | 84632 | 856 | **84474** | **855** |
| **46624.3-L9** | 292 | 1592 | 1.4 | 23.96 | 0.055 | 5081 | 11 | 882.09923 | 2.79147 | 1.65444 | 0.00198 | 0.92088 | 0.00228 | 83207 | 632 | **83070** | **631** |
| **46624.3-L10** | 223 | 2737 | 7.5 | 16.33 | 0.076 | 120696 | 344 | 25.31814 | 0.13823 | 1.86135 | 0.00602 | 0.36485 | 0.00197 | 23419 | 294 | **22722** | **285** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46624-4-L9** | 206 | 1575 | 1.2 | 23.38 | 0.063 | 1289 | 2 | 3393.39047 | 10.63174 | 1.57479 | 0.00154 | 0.90816 | 0.00255 | 87967 | 1004 | **87860** | **1003** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46662-A1** | 103 | 546 | 0.5 | 9.06 | 0.044 | 401144 | 1231 | 4.23905 | 0.02430 | 1.41848 | 0.00294 | 1.01429 | 0.00500 | 125158 | 2814 | **110633** | **2213** |
| **46662-A2** | 123 | 777 | 0.6 | 18.68 | 0.057 | 183782 | 351 | 19.05586 | 0.06845 | 1.50165 | 0.00179 | 1.47202 | 0.00460 | 248631 | 5019 | **244274** | **5316** |
| **46662-B** | 122 | 783 | 0.5 | 11.73 | 0.049 | 57494 | 164 | 38.27416 | 0.19307 | 1.35041 | 0.00206 | 0.91637 | 0.00386 | 115665 | 1780 | **114058** | **1740** |
| **46662-C** | 127 | 961 | 0.9 | 14.47 | 0.044 | 362573 | 848 | 7.47957 | 0.02863 | 1.40163 | 0.00113 | 0.92080 | 0.00291 | 108967 | 1131 | **101383** | **1010** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46663-A** | 169 | 754 | 0.4 | 15.14 | 0.064 | 54770 | 116 | 51.77757 | 0.24545 | 1.73563 | 0.00159 | 1.22859 | 0.00525 | 119305 | 1736 | **118102** | **1708** |
| **46663-D** | 137 | 1380 | 1.1 | 31.26 | 0.071 | 2660661 | 522 | 2.19915 | 0.00501 | 1.73922 | 0.00188 | 1.38560 | 0.00332 | 146686 | 1490 | **114877** | **927** |
| **46663-E** | 192 | 3267 | 4.1 | 90.61 | 0.194 | 259691 | 417 | 65.25920 | 0.17482 | 1.78254 | 0.00242 | 1.69702 | 0.00423 | 213512 | 2913 | **212153** | **2868** |
| **46663-F** | 142 | 1784 | 1.7 | 37.49 | 0.102 | 141441 | 28 | 49.60523 | 0.13482 | 1.74312 | 0.00218 | 1.28554 | 0.00370 | 127747 | 1352 | **126451** | **1328** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46664-A** | 148 | 306 | 0.2 | 4.89 | 0.024 | 126219 | 214 | 7.29841 | 0.03739 | 1.87986 | 0.00238 | 0.97903 | 0.00476 | 75122 | 1031 | **69034** | **919** |
| **46664-A1** | 129 | 3870 | 2.2 | 62.13 | 0.306 | 1790860 | 3246 | 6.53538 | 0.03427 | 1.79392 | 0.00316 | 0.98221 | 0.00487 | 80750 | 1197 | **73587** | **1052** |
| **46664-B** | 133 | 1475 | 1.2 | 2.61 | 0.087 | 37450 | 143 | 13.21798 | 0.44398 | 1.77653 | 0.00219 | 0.10835 | 0.00362 | 6836 | 469 | **6413** | **439** |
| **46664-B1** | 102 | 9884 | 13.7 | 163.81 | 0.602 | 9701018 | 25845 | 3.16640 | 0.01437 | 1.47601 | 0.00300 | 1.01393 | 0.00398 | 116287 | 1697 | **96970** | **1268** |
| **46664-C** | 115 | 274 | 0.2 | 4.28 | 0.024 | 171605 | 208 | 4.71354 | 0.02747 | 1.86195 | 0.00305 | 0.95659 | 0.00548 | 73799 | 1196 | **64322** | **995** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46667-A** | 119 | 13173 | 21.3 | 434.13 | 0.974 | 14969 | 40 | 5423.30322 | 18.98572 | 1.24268 | 0.00235 | 2.01614 | 0.00558 | EQ |  | **EQ** |  |
| **46667-B** | 108 | 7203 | 9.8 | 214.33 | 0.843 | 161475 | 595 | 248.22320 | 1.33770 | 1.46771 | 0.00257 | 1.82037 | 0.00758 | EQ |  | **EQ** |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46668-A1** | 192 | 978 | 0.9 | 25.95 | 0.059 | 272284 | 492 | 17.83695 | 0.05184 | 1.52465 | 0.00172 | 1.62415 | 0.00397 | 338635 | 9712 | **334537** | **10477** |
| **46668-A2** | 98 | 1264 | 0.7 | 24.67 | 0.056 | 1385919 | 2587 | 3.33450 | 0.00979 | 1.25055 | 0.00112 | 1.19404 | 0.00278 | 255644 | 5113 | **230797** | **3903** |
| **46668-C1** | 130 | 1244 | 0.8 | 26.71 | 0.070 | 374286 | 557 | 13.35991 | 0.04030 | 1.37602 | 0.00175 | 1.31336 | 0.00355 | 239850 | 4797 | **233948** | **4679** |
| **46668-C2** | 101 | 1119 | 0.9 | 29.94 | 0.078 | 183657 | 471 | 30.53359 | 0.11166 | 1.50099 | 0.00144 | 1.63721 | 0.00445 | 393909 | 15204 | **390135** | **14637** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46669-1** | 169 | 426 | 0.2 | 8.62 | 0.022 | 234158 | 344 | 6.90572 | 0.02021 | 1.67293 | 0.00183 | 1.23660 | 0.00319 | 129069 | 1293 | **120317** | **1265** |
| **46669-2** | 117 | 1238 | 0.4 | 28.74 | 0.097 | 343 | 498 | 15680.96245 | 22771.36027 | 1.80431 | 0.00183 | 1.42004 | 0.00481 | 142507 | 1872 | **142314** | **1868** |
| **46669-A** | 141 | 580 | 0.3 | 10.53 | 0.057 | 371071 | 1040 | 5.32357 | 0.03235 | 1.58147 | 0.00256 | 1.11125 | 0.00602 | 119425 | 2389 | **108212** | **2169** |
| **46669-B** | 155 | 395 | 0.2 | 7.58 | 0.033 | 398641 | 1182 | 3.57207 | 0.01900 | 1.66451 | 0.00222 | 1.17382 | 0.00522 | 119263 | 1867 | **102334** | **1459** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46670-A** | 94 | 700 | 0.3 | 12.96 | 0.060 | 43914 | 64 | 55.43393 | 0.26921 | 2.14423 | 0.00200 | 1.13294 | 0.00527 | 75951 | 978 | **75108** | **963** |
| **46670-A-B** | 165 | 604 | 0.3 | 14.23 | 0.158 | 40602 | 153 | 65.65233 | 0.77139 | 1.89571 | 0.00159 | 1.44051 | 0.01605 | 132852 | 5126 | **131821** | **5059** |
| **46670-B** | 84 | 808 | 0.5 | 16.58 | 0.089 | 38667 | 115 | 80.46610 | 0.49246 | 1.84013 | 0.00279 | 1.25604 | 0.00677 | 111556 | 2200 | **110765** | **2186** |
| **46670-C** | 93 | 979 | 0.7 | 19.15 | 0.132 | 12173 | 41 | 294.92453 | 2.25906 | 1.76327 | 0.00312 | 1.19672 | 0.00830 | 111208 | 2554 | **110900** | **2543** |
| **46670-D** | 109 | 1194 | 0.6 | 25.44 | 0.102 | 21617 | 34 | 220.39606 | 0.95326 | 1.79129 | 0.00113 | 1.30319 | 0.00529 | 124334 | 1722 | **123931** | **1713** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46671-A** | 105 | 586 | 0.2 | 11.44 | 0.055 | 74099 | 129 | 29.01013 | 0.14929 | 1.94822 | 0.00175 | 1.19396 | 0.00581 | 94200 | 1374 | **92421** | **1336** |
| **46671-B** | 91 | 574 | 0.3 | 9.29 | 0.046 | 157165 | 260 | 11.11633 | 0.05858 | 1.90214 | 0.00261 | 0.98946 | 0.00498 | 74940 | 1066 | **70974** | **990** |
| **46671-C** | 101 | 491 | 0.2 | 9.35 | 0.042 | 567134 | 1082 | 3.09995 | 0.01503 | 1.68109 | 0.00236 | 1.16580 | 0.00523 | 115854 | 1808 | **96371** | **1353** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46672** | 175 | 274 | 0.3 | 4.33 | 0.023 | 56659 | 969 | 14.41728 | 0.25840 | 1.72646 | 0.00443 | 0.96925 | 0.00525 | 83789 | 1682 | **80593** | **1361** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46744-A** | 129 | 702 | 0.5 | 10.50 | 0.058 | 16929 | 36 | 116.44859 | 0.68493 | 2.24855 | 0.00258 | 0.91557 | 0.00506 | 54180 | 754 | **53841** | **748** |
| **46744-B** | 135 | 1027 | 0.8 | 23.26 | 0.094 | 1965 | 3 | 2217.09402 | 9.71050 | 2.09933 | 0.00210 | 1.38561 | 0.00567 | 104529 | 1339 | **104390** | **1337** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46855-1B-C** | 110 | 1705 | 0.8 | 18.88 | 0.103 | 8313 | 24 | 425.91249 | 2.62133 | 1.39353 | 0.00122 | 0.67769 | 0.00372 | 70091 | 1061 | **69924** | **1058** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46856-IC2-L** | 247 | 1206 | 0.7 | 12.65 | 0.078 | 27439 | 71 | 86.47534 | 0.57742 | 1.82273 | 0.00179 | 0.64204 | 0.00397 | 45792 | 690 | **45405** | **683** |
| **46856-IC2-M** | 261 | 1275 | 0.6 | 15.13 | 0.148 | 880 | 7 | 3220.20085 | 39.88895 | 1.54565 | 0.00115 | 0.72564 | 0.00712 | 66299 | 1725 | **66223** | **1722** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46856-1-C3-9** | 308 | 703 | 0.3 | 5.91 | 0.054 | 508967 | 3270 | 2.18071 | 0.02450 | 2.66643 | 0.00190 | 0.51411 | 0.00474 | 22878 | 459 | **14834** | **297** |
| **46856-1-C3-10** | 213 | 1032 | 0.8 | 8.05 | 0.030 | 821999 | 1081 | 1.84119 | 0.00723 | 2.93717 | 0.00256 | 0.47705 | 0.00181 | 18986 | 223 | **10923** | **111** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **46856-1C4-1-tufa** | 402 | 1067 | 0.8 | 8.92 | 0.085 | 106834 | 582 | 15.63858 | 0.17191 | 2.42330 | 0.00220 | 0.51114 | 0.00490 | 25290 | 506 | **24095** | **482** |
| **46856-1C4-2-tufa** | 419 | 988 | 0.7 | 6.37 | 0.044 | 21687 | 120 | 55.05321 | 0.48485 | 2.68244 | 0.00262 | 0.39408 | 0.00271 | 17026 | 338 | **16780** | **332** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **50103-1A** | 211 | 944 | 0.7 | 14.66 | 0.120 | 18236 | 34 | 150.55069 | 1.26466 | 1.47706 | 0.00145 | 0.95018 | 0.00782 | 104553 | 2733 | **104085** | **2715** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **110617-A** | 160 | 2145 | 0.9 | 26.14 | 0.077 | 2137 | 6 | 2288.92312 | 9.68978 | 1.52008 | 0.00097 | 0.00000 | 0.00000 | 70353 | 821 | **70266** | **820** |
| **110617-1** | 194 | 1888 | 1.5 | 27.00 | 0.075 | 3119 | 7 | 1619.79573 | 5.85938 | 1.65487 | 0.00288 | 0.00000 | 0.00000 | 77415 | 816 | **77310** | **815** |
| **110617-2** | 196 | 2216 | 1.6 | 29.58 | 0.106 | 2704 | 17 | 2048.03247 | 14.60097 | 1.54714 | 0.00137 | 0.00000 | 0.00000 | 77685 | 811 | **77584** | **810** |
| **110617-3** | 208 | 10087 | 4.7 | 152.43 | 0.491 | 38872 | 104 | 734.45869 | 3.07601 | 1.80137 | 0.00245 | 0.00000 | 0.00000 | 73861 | 758 | **73731** | **757** |
| **110617-4** | 180 | 2204 | 2.2 | 26.59 | 0.079 | 1145 | 3 | 4346.22908 | 17.28260 | 1.53326 | 0.00229 | 0.00000 | 0.00000 | 68583 | 743 | **68507** | **742** |
| **110617-5** | 184 | 2738 | 4.2 | 32.83 | 0.088 | 3247 | 5 | 1891.98138 | 5.85449 | 1.54439 | 0.00364 | 0.00000 | 0.00000 | 67331 | 680 | **67245** | **680** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **110620-1** | 137 | 890 | 0.7 | 2.30 | 0.011 | 164637 | 247 | 2.64844 | 0.01373 | 2.13436 | 0.00223 | 0.00000 | 0.00000 | 8372 | 168 | **5802** | **116** |
| **110620-2** | 136 | 1341 | 0.8 | 3.56 | 0.015 | 62092 | 69 | 10.83666 | 0.04856 | 2.36282 | 0.00299 | 0.00000 | 0.00000 | 7762 | 155 | **7180** | **144** |
| **110620-3** | 180 | 1301 | 1.5 | 3.30 | 0.013 | 13048 | 28 | 47.78145 | 0.21913 | 2.36942 | 0.00262 | 0.00000 | 0.00000 | 7378 | 148 | **7251** | **145** |
| **110620-4** | 170 | 1463 | 1.2 | 3.70 | 0.018 | 7516 | 10 | 92.87110 | 0.47556 | 2.43756 | 0.00267 | 0.00000 | 0.00000 | 7142 | 143 | **7075** | **142** |
| **110620-5** | 110 | 5661 | 5.9 | 15.07 | 0.042 | 15980 | 29 | 176.97282 | 0.59431 | 2.48414 | 0.00233 | 0.00000 | 0.00000 | 7374 | 0 | **7335** | **0** |
| **110620-6** | 124 | 8261 | 10.4 | 23.62 | 0.047 | 11490 | 22 | 385.03027 | 1.07127 | 2.62095 | 0.00356 | 0.00000 | 0.00000 | 7510 | 150 | **7489** | **150** |
| **110620-7** | 146 | 2863 | 1.7 | 8.16 | 0.030 | 6401 | 11 | 239.61363 | 0.96404 | 2.63616 | 0.00290 | 0.00000 | 0.00000 | 7456 | 149 | **7413** | **148** |
| **110620-22** | 187 | 1758 | 2.1 | 7.54 | 0.033 | 1113529 | 1723 | 1.27168 | 0.00594 | 1.95314 | 0.00178 | 0.00000 | 0.00000 | 15621 | 313 | **5751** | **115** |
| **110620-23** | 189 | 2637 | 1.7 | 15.60 | 0.048 | 4901949 | 6425 | 0.59722 | 0.00199 | 2.07648 | 0.00177 | 0.00000 | 0.00000 | 20577 | 142 | **-9403** | **0** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **142820-B-A** | 271 | 1612 | 2.1 | 60.38 | 0.139 | 2367 | 4 | 4769.83263 | 13.86861 | 2.77751 | 0.00458 | 2.29183 | 0.00608 | 146465 | 1515 | **146263** | **1512** |
| **142820-B-B** | 302 | 1481 | 1.4 | 46.08 | 0.095 | 1387 | 2 | 6212.53471 | 16.14009 | 2.07315 | 0.00243 | 1.90323 | 0.00428 | 188510 | 2039 | **188199** | **2032** |
| **142820-B-C** | 287 | 1070 | 1.3 | 30.10 | 0.317 | 2495 | 5 | 2257.34998 | 24.28027 | 1.87092 | 0.00216 | 1.72187 | 0.01825 | 194107 | 9791 | **193756** | **9756** |
| **142820-B-D** | 326 | 1316 | 1.1 | 30.90 | 0.056 | 671 | 1 | 8612.75154 | 20.84118 | 1.53262 | 0.00238 | 1.43585 | 0.00285 | 216130 | 2994 | **215705** | **2982** |
| **142820-B-E** | 246 | 3092 | 2.8 | 69.96 | 0.150 | 886 | 1 | 14770.35240 | 37.97446 | 1.43319 | 0.00130 | 1.38428 | 0.00322 | 243297 | 3740 | **242744** | **3718** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **142821-A-A** | 179 | 2686 | 60.9 | 65.01 | 0.138 | 1509 | 2 | 8060.82678 | 21.33519 | 1.59363 | 0.00303 | 1.48062 | 0.03373 | 208437 | 3281 | **207834** | **3692** |
| **142821B-A** | 161 | 1056 | 1.2 | 34.14 | 0.058 | 276484 | 270 | 23.10479 | 0.04552 | 1.82757 | 0.00278 | 1.97748 | 0.00406 | 314996 | 6353 | **311407** | **6249** |
| **142821-C-A** | 37 | 1543 | 1.7 | 46.55 | 0.174 | 11786 | 38 | 740.62973 | 3.65949 | 1.71808 | 0.00192 | 1.84525 | 0.00718 | 318156 | 10747 | **317101** | **10658** |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **142834-A** | 206 | 706 | 0.5 | 13.49 | 0.065 | 3253 | 13 | 776.66572 | 4.84331 | 1.10580 | 0.00120 | 1.16846 | 0.00573 | EQ |  | **EQ** |  |
| **142834-B** | 145 | 465 | 0.2 | 9.07 | 0.028 | 38439 | 64 | 44.26987 | 0.15740 | 1.11015 | 0.00118 | 1.19330 | 0.00377 | EQ |  | **EQ** |  |
| **142834-C** | 223 | 1155 | 0.8 | 22.05 | 0.077 | 18786 | 48 | 219.71355 | 0.95389 | 1.10317 | 0.00122 | 1.16770 | 0.00417 | EQ |  | **EQ** |  |