Table 1. Uranium isotope composition of kimberlites, the enclosing and overburden deposits of the Zolotitskoye ore field.

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| --- | --- | --- | --- | --- | --- | --- |
| № n/o | Well number (place of selection) | Depth of selection, m | Field definition | Geol. age | 234U/238U, Bq/Bq | Concentration of uranium, ppm |
| ***Exploration wells*** | | | | | | |
| 1 | AL-550z-2 | 20,5 | Sand | *Q* | 1,05 | 0,70 |
| 2 | G-16 | 26 | Sand | *Q* | 0,54 | 5,13 |
| 3 | G-14 | 17,5 | Sand | *Q* | 0,89 | 1,22 |
| 4 | G-23 | 7 | Loam | *Q* | 0,832 | 1,08 |
| 5 | G-23 | 15 | Sand | *Q* | 1,131 | 10,79 |
| 6 | G-23 | 22 | Sand and gravel | *Q* | 1,074 | 0,63 |
| 7 | С-1 | 1,5 | Sand | *Q* | 0,969 | 46,13 |
| 8 | Karpinskogo-1 | - | Sand and gravel | *Q* | 0,929 | 1,33 |
| 9 | Karpinskogo-1 | - | Sand | *Q* | 1,060 | 1,91 |
| 10 | Arkhangelskaya | 1 | Sandy loam of moraine | *Q* | 0,99 | 1,42 |
| 11 | AL-550z-2 | 24 | Sand | *C2* | 0,78 | 1,01 |
| 12 | AL-550z -2 | 29,5 | Sand | *C2* | 0,91 | 1,06 |
| 13 | AL-550z -2 | 33 | Sand | *C2* | 1,00 | 0,88 |
| 14 | AL-550z -2 | 40 | Sandstone | *C2* | 0,37 | 0,43 |
| 15 | AL-550z -2 | 43 | Sandstone | *C2* | 0,97 | 0,73 |
| 16 | G-14 | 25,5 | sand | *C2* | 0,98 | 0,91 |
| 17 | G-14 | 34,5 | sand | *C2* | 1,00 | 0,79 |
| 18 | G-14 | 44,5 | Sandstone | *C2* | 0,89 | 2,00 |
| 19 | G-18 | 20 | Sandstone | *C2* | 0,94 | 1,32 |
| 20 | G-11 | 25 | sand | *C2* | 0,98 | 2,18 |
| 21 | SA-48-1 | 24,5 | sand | *C2* | 1,00 | 0,85 |
| 22 | G-23 | 27 | Sandstone | *C2* | 0,871 | 0,44 |
| 23 | G-23 | 29,5 | Sandstone | *C2* | 1,015 | 2,02 |
| 24 | С-1 | 4 | Dolomites | *C2* | 1,017 | 5,94 |
| 25 | С-1 | 8 | Sandstone | *C2* | 0,562 | 3,14 |
| 26 | С-1 | 9,3 | Sandstone | *C2* | 0,697 | 0,66 |
| 27 | С-1 | 21 | Sandstone | *C2* | 0,703 | 3,13 |
| 28 | С-1 | 25 | Sandstone | *C2* | 0,865 | 0,93 |
| 29 | С-1 | 28,5 | Sandstone | *C2* | 0,944 | 0,58 |
| 30 | С-1 | 39,3 | Sandstone | *C2* | 0,904 | 0,90 |
| 31 | С-1 | 42,8 | Sandstone | *C2* | 0,807 | 0,84 |
| 32 | С-1 | 47,1 | Sandstone | *C2* | 1,341 | 0,41 |
| 33 | Karpinskogo-1 | - | Sandstone | *C2* | 1,014 | 0,68 |
| 34 | Karpinskogo-1 | - | Sandstone | *C2* | 0,957 | 1,30 |
| 35 | Arkhangelskaya | 10 | Sandstone | *C2* | 1,14 | 0,83 |
| 36 | Arkhangelskaya | 10 | Sandstone | *C2* | 0,86 | 1,19 |
| 37 | Arkhangelskaya | 3,1 | Sandstone | *C2* | 1,04 | 1,27 |
| 38 | Arkhangelskaya | 20,5 | Siltstones | *C2* | 1,12 | 1,03 |
| 39 | Arkhangelskaya | 9,9 | Siltstones | *C2* | 0,93 | 0,90 |
| 40 | Arkhangelskaya | 11,7 | Siltstones | *C2* | 0,98 | 0,76 |
| 41 | Arkhangelskaya | 20,3 | Sandstone | *C2* | 1,00 | 1,83 |
| 42 | AL-550z -2 | 51 | Sandstone | *V2* | 1,05 | 0,98 |
| 43 | AL-550z -2 | 55 | Sandstone | *V2* | 1,03 | 1,42 |
| 44 | AL-550z -2 | 96 | Sandstone | *V2* | 0,99 | 0,50 |
| 45 | AL-550z -2 | 103,5 | Sandstone | *V2* | 1,09 | 0,87 |
| 46 | AL-550z -2 | 109,5 | Sandstone | *V2* | 1,00 | 0,75 |
| 47 | G-16 | - | Siltstones | *V2* | 1,06 | 2,49 |
| 48 | G-16 | 67 | Sandstone | *V2* | 1,19 | 0,32 |
| 49 | G-16 | - | Siltstones | *V2* | 1,15 | 1,67 |
| 50 | G-14 | 53 | Sandstone with interbeds of siltstone | *V2* | 0,95 | 1,61 |
| 51 | G-14 | 70,5 | Sandstone | *V2* | 1,03 | 1,97 |
| 52 | G-14 | 73,5 | Sandstone | *V2* | 0,98 | 0,96 |
| 53 | G-14 | 87 | Sandstone | *V2* | 0,99 | 1,14 |
| 54 | G-14 | 92 | Sandstone | *V2* | 0,91 | 1,46 |
| 55 | G-18 | 36 | Sandstone | *V2* | 0,81 | 1,90 |
| 56 | G-18 | 43 | Sandstone | *V2* | 1,02 | 1,18 |
| 57 | G-18 | 50 | Sandstone | *V2* | 0,51 | 9,73 |
| 58 | G-18 | 60,3 | Sandstone | *V2* | 0,56 | 10,73 |
| 59 | G-18 | 75 | Siltstones | *V2* | 1,02 | 2,01 |
| 60 | G-18 | 89 | Sandstone | *V2* | 0,85 | 2,74 |
| 61 | G-18 | 99 | Sandstone | *V2* | 0,64 | 2,53 |
| 62 | G-18 | 106 | Argillite | *V2* | 0,89 | 7,66 |
| 63 | G-18 | 115 | Siltstones | *V2* | 0,91 | 6,95 |
| 64 | G-11 | 35 | Siltstones | *V2* | 0,92 | 2,22 |
| 65 | G-11 | 42,5 | Siltstones | *V2* | 0,71 | 2,70 |
| 66 | G-11 | 53 | Sandstone | *V2* | 0,91 | 2,35 |
| 67 | G-11 | 63,5 | Sandstone with interbeds of siltstone | *V2* | 0,86 | 1,75 |
| 68 | SA-48-1 | 49,8 | Siltstones | *V2* | 0,95 | 1,98 |
| 69 | SA-48-1 | 55,5 | Sandstone | *V2* | 1,06 | 1,15 |
| 70 | SA-48-1 | 58,4 | Sandstone | *V2* | 0,92 | 1,41 |
| 71 | SA-48-1 | 60,9 | Sandstone | *V2* | 1,17 | 1,27 |
| 72 | SA-48-1 | 64,8 | Sandstone | *V2* | 0,84 | 0,68 |
| 73 | G-23 | 33 | Sandstone | *V2* | 1,105 | 2,65 |
| 74 | G-23 | 40 | Sandstone | *V2* | 1,05 | 2,03 |
| 75 | G-23 | 55 | Sandstone | *V2* | 0,916 | 1,53 |
| 76 | G-23 | 62 | Sandstone | *V2* | 0,828 | 0,71 |
| 77 | G-23 | 67 | Sandstone | *V2* | 0,928 | 1,19 |
| 78 | G-23 | 75 | Sandstone | *V2* | 0,689 | 1,15 |
| 79 | G-23 | 81 | Sandstone | *V2* | 0,989 | 1,25 |
| 80 | G-23 | 87 | Sandstone | *V2* | 0,996 | 1,23 |
| 81 | G-23 | 94 | Sandstone | *V2* | 0,873 | 0,58 |
| 82 | G-23 | 100,5 | Sandstone | *V2* | 0,455 | 0,67 |
| 83 | G-23 | 110 | Sandstone | *V2* | 1,196 | 1,56 |
| 84 | G-23 | 117,8 | Sandstone | *V2* | 1,052 | 0,60 |
| 85 | G-23 | 119,7 | Sandstone | *V2* | 0,878 | 0,50 |
| 86 | С-1 | 52 | Sandstone | *V2* | 1,113 | 3,35 |
| 87 | С-1 | 62 | Sandstone | *V2* | 0,986 | 2,95 |
| 88 | С-1 | 68 | Sandstone | *V2* | 0,967 | 2,48 |
| 89 | С-1 | 73 | Sandstone | *V2* | 1,007 | 2,61 |
| 90 | С-1 | 78,4 | Sandstone | *V2* | 0,961 | 1,80 |
| 91 | С-1 | 87,8 | Sandstone | *V2* | 0,735 | 0,76 |
| 92 | С-1 | 91,3 | Sandstone | *V2* | 0,982 | 4,61 |
| 93 | С-1 | 98,5 | Sandstone | *V2* | 0,772 | 1,10 |
| 94 | С-1 | 107,3 | Sandstone | *V2* | 1,022 | 0,72 |
| 95 | С-1 | 119,7 | Sandstone | *V2* | 1,01 | 0,80 |
| ***Kimberlites of the vent facies*** | | | | | | |
| 96 | Karpinskogo-1 | - | Autolithic breccia | *iD3-C2* | 1,022 | 0,64 |
| 97 | Karpinskogo-1 | - | Autolithic breccia | *iD3-C2* | 0,978 | 0,87 |
| 98 | Karpinskogo-1 | - | Autolithic breccia | *iD3-C2* | 1,045 | 1,07 |
| 99 | Karpinskogo-1 | - | Autolithic breccia | *iD3-C2* | 0,804 | 1,01 |
| 100 | Arkhangelskaya | 180 | Autolithic breccia | *iD3-C2* | 1,01 | 0,78 |
| 101 | Pionerskaya | 490 | Autolithic breccia | *iD3-C2* | 1,01 | 0,68 |
| 102 | Pionerskaya | 560 | Autolithic breccia | *iD3-C2* | 1,08 | 0,80 |
| 103 | Pionerskaya | 700 | Autolithic breccia | *iD3-C2* | 1,14 | 0,48 |
| 104 | Pionerskaya | 765 | Autolithic breccia | *iD3-C2* | 1,11 | 0,71 |
| 105 | Pionerskaya | 840 | Autolithic breccia | *iD3-C2* | 0,85 | 0,45 |
| 106 | Pionerskaya | 910 | Autolithic breccia | *iD3-C2* | 0,89 | 0,33 |
| 107 | Pionerskaya | 960 | Autolithic breccia | *iD3-C2* | 1,03 | 0,44 |
| 108 | Pionerskaya | 1030 | Autolithic breccia | *iD3-C2* | 1,04 | 0,47 |
| ***Near-contact space (tuffaceous-sedimentary formations of the peripheral parts of the crater facies, Vendian sandstones and siltstones)*** | | | | | | |
| 109 | Karpinskogo-1 | - | Sandstone | *V2* | 1,537 | 0,63 |
| 110 | Karpinskogo-1 | - | Sandstone | *V2* | 0,928 | 1,89 |
| 111 | Karpinskogo-1 | - | Sandstone | *V2* | 0,886 | 1,74 |
| 112 | Karpinskogo-1 | - | Sandstone | *V2* | 1,000 | 1,81 |
| 113 | Karpinskogo-1 | - | Sandstone | *V2* | 1,019 | 1,66 |
| 114 | Karpinskogo-1 | - | Sandstone | *V2* | 0,945 | 0,90 |
| 115 | Karpinskogo-1 | - | Sandstone | *V2* | 1,087 | 1,12 |
| 116 | Arkhangelskaya | 72,8 | Siltstones | *V2* | 1,00 | 2,81 |
| 117 | Arkhangelskaya | 71,7 | Siltstones | *V2* | 1,00 | 1,14 |
| 118 | Arkhangelskaya | 82,4 | Siltstones | *V2* | 1,09 | 1,45 |
| 119 | Arkhangelskaya | 109,8 | Siltstones | *V2* | 1,27 | 1,05 |
| 120 | Arkhangelskaya | 92 | Siltstones | *V2* | 1,10 | 1,17 |
| 121 | Arkhangelskaya | 92 | Siltstones | *V2* | 1,09 | 2,68 |
| 122 | Arkhangelskaya | 91,6 | Siltstones | *V2* | 1,43 | 1,22 |
| 123 | Arkhangelskaya | 73,4 | Siltstones | *V2* | 1,06 | 3,20 |
| 124 | Arkhangelskaya | 104,5 | Sandstone, siltstones | *V2* | 1,37 | 0,66 |
| 125 | Arkhangelskaya | 71,4 | Sandstone | *V2* | 1,45 | 0,78 |
| 126 | Arkhangelskaya | 91 | Sandstone | *V2* | 1,60 | 0,98 |
| 127 | Pionerskaya | 149 | Sandstone | *V2* | 3,57 | 1,31 |
| 128 | Pionerskaya | 195 | Sandstone | *V2* | 1,15 | 0,92 |
| 129 | Pionerskaya | 202 | Sandstone | *V2* | 1,17 | 0,40 |
| 130 | Pionerskaya | 208 | Sandstone | *V2* | 0,85 | 5,93 |
| 131 | Pionerskaya | 213 | Sandstone | *V2* | 1,35 | 0,45 |
| 132 | Arkhangelskaya | 106,3 | Sandstone, siltstones with KM\* | *iD3-C2* | 0,97 | 0,94 |
| 133 | Arkhangelskaya | 106 | Sandstone with KM | *iD3-C2* | 1,37 | 4,07 |
| 134 | Arkhangelskaya | 103,5 | Sandstone with KM | *iD3-C2* | 1,16 | 1,08 |
| 135 | Arkhangelskaya | 59 | Sandstone with KM | *iD3-C2* | 1,45 | 0,81 |
| 136 | Arkhangelskaya | 109,7 | Tuffite | *iD3-C2* | 1,22 | 0,78 |
| 137 | Arkhangelskaya | 63,7 | Tuff | *iD3-C2* | 1,21 | 0,61 |
| 138 | Arkhangelskaya | 75,4 | Sandstone with KM | *iD3-C2* | 1,04 | 2,16 |
| 139 | Arkhangelskaya | 71,8 | Sandstone with KM | *iD3-C2* | 1,12 | 1,24 |
| 140 | Arkhangelskaya | 107,4 | Tuff | *iD3-C2* | 1,26 | 1,16 |

Note. KM\* means with an admixture of kimberlite material.