**Table S1**. Chemical analyses (in wt.% – *n* = 60) for holotype stibiogoldfieldite.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Ag | Fe | Pb | Zn | Sn | Cu | Sb | Bi | As | Se | Te | S | total |
| Holotype sample | 0.31 | 0.08 | 0.00 | 0.31 | 0.00 | 45.48 | 8.28 | 1.86 | 4.10 | 0.35 | 13.75 | 24.08 | 98.60 |
| Holotype sample | 0.38 | 0.07 | 0.00 | 0.35 | 0.00 | 45.51 | 8.92 | 2.59 | 3.32 | 0.47 | 13.57 | 24.26 | 99.44 |
| Holotype sample | 0.31 | 0.07 | 0.10 | 0.30 | 0.00 | 45.45 | 8.80 | 2.13 | 3.43 | 0.43 | 13.99 | 24.41 | 99.42 |
| Holotype sample | 0.36 | 0.04 | 0.10 | 0.36 | 0.00 | 45.44 | 8.89 | 2.76 | 3.07 | 0.44 | 13.97 | 24.49 | 99.92 |
| Holotype sample | 0.33 | 0.00 | 0.00 | 0.00 | 0.00 | 45.17 | 8.48 | 2.04 | 2.33 | 0.46 | 16.09 | 24.40 | 99.30 |
| Holotype sample | 0.36 | 0.00 | 0.00 | 0.00 | 0.06 | 44.61 | 7.54 | 2.31 | 1.95 | 0.59 | 17.51 | 24.29 | 99.22 |
| Holotype sample | 0.35 | 0.00 | 0.10 | 0.00 | 0.00 | 45.00 | 8.13 | 2.55 | 2.04 | 0.51 | 16.28 | 24.22 | 99.18 |
| Holotype sample | 0.29 | 0.00 | 0.10 | 0.00 | 0.00 | 44.40 | 7.29 | 2.57 | 1.77 | 0.54 | 17.89 | 24.44 | 99.29 |
| Holotype sample | 0.33 | 0.00 | 0.00 | 0.00 | 0.00 | 44.14 | 6.21 | 2.12 | 2.01 | 0.56 | 19.31 | 24.73 | 99.41 |
| Holotype sample | 0.37 | 0.00 | 0.00 | 0.00 | 0.00 | 44.38 | 7.56 | 3.13 | 1.75 | 0.50 | 17.18 | 24.47 | 99.34 |
| Holotype sample | 0.35 | 0.00 | 0.00 | 0.00 | 0.06 | 44.66 | 7.47 | 2.25 | 1.87 | 0.52 | 17.54 | 24.24 | 98.96 |
| Holotype sample | 0.30 | 0.00 | 0.13 | 0.00 | 0.00 | 45.52 | 9.12 | 1.69 | 2.66 | 0.43 | 14.98 | 24.24 | 99.07 |
| Holotype sample | 0.19 | 0.00 | 0.15 | 0.00 | 0.00 | 44.59 | 7.73 | 2.24 | 1.97 | 0.47 | 17.17 | 24.72 | 99.23 |
| Holotype sample | 0.23 | 0.00 | 0.00 | 0.00 | 0.00 | 45.51 | 8.66 | 1.67 | 2.61 | 0.49 | 15.52 | 24.60 | 99.29 |
| Holotype sample | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 45.28 | 8.89 | 1.52 | 2.87 | 0.43 | 15.49 | 24.31 | 99.04 |
| Holotype sample | 0.19 | 0.00 | 0.13 | 0.40 | 0.00 | 45.09 | 8.38 | 1.58 | 4.02 | 0.51 | 13.59 | 24.54 | 98.43 |
| Holotype sample | 0.19 | 0.05 | 0.00 | 0.42 | 0.00 | 45.13 | 8.67 | 1.59 | 3.66 | 0.45 | 13.57 | 24.80 | 98.53 |
| Holotype sample | 0.14 | 0.00 | 0.14 | 0.12 | 0.00 | 45.21 | 8.06 | 2.48 | 3.07 | 0.44 | 14.52 | 24.65 | 98.83 |
| Holotype sample | 0.23 | 0.00 | 0.10 | 0.00 | 0.00 | 44.16 | 7.17 | 3.39 | 2.13 | 0.71 | 16.36 | 24.70 | 98.95 |
| Holotype sample | 0.22 | 0.00 | 0.10 | 0.00 | 0.00 | 44.32 | 7.42 | 3.80 | 2.15 | 0.69 | 15.87 | 24.08 | 98.65 |
| Holotype sample | 0.19 | 0.00 | 0.00 | 0.00 | 0.00 | 44.89 | 7.60 | 3.10 | 2.76 | 0.59 | 14.85 | 24.22 | 98.20 |
| Holotype sample | 0.31 | 0.00 | 0.00 | 0.08 | 0.08 | 44.63 | 7.55 | 3.01 | 2.70 | 0.74 | 15.32 | 24.40 | 98.82 |
| Holotype sample | 0.30 | 0.00 | 0.12 | 0.00 | 0.00 | 45.02 | 7.54 | 3.00 | 2.85 | 0.63 | 15.34 | 24.34 | 99.14 |
| Holotype sample | 0.30 | 0.00 | 0.13 | 0.24 | 0.00 | 44.82 | 7.80 | 2.81 | 3.21 | 0.53 | 14.22 | 24.39 | 98.45 |
| Holotype sample | 0.30 | 0.00 | 0.10 | 0.24 | 0.00 | 44.61 | 7.87 | 2.67 | 3.15 | 0.52 | 14.17 | 24.41 | 98.04 |
| Holotype sample | 0.35 | 0.00 | 0.10 | 0.20 | 0.00 | 44.80 | 8.26 | 2.85 | 2.81 | 0.52 | 14.23 | 24.19 | 98.31 |
| Holotype sample | 0.27 | 0.00 | 0.00 | 0.00 | 0.11 | 44.22 | 6.58 | 4.02 | 2.12 | 0.77 | 16.36 | 23.90 | 98.35 |
| Holotype sample | 0.29 | 0.00 | 0.00 | 0.00 | 0.06 | 44.42 | 7.23 | 3.63 | 2.56 | 0.68 | 15.25 | 23.94 | 98.06 |
| Holotype sample | 0.24 | 0.00 | 0.10 | 0.21 | 0.00 | 44.48 | 7.99 | 3.04 | 2.91 | 0.46 | 14.40 | 24.94 | 98.77 |
| Holotype sample | 0.26 | 0.00 | 0.10 | 0.00 | 0.00 | 44.88 | 7.93 | 2.98 | 2.46 | 0.51 | 15.16 | 24.92 | 99.20 |
| Holotype sample | 0.37 | 0.00 | 0.18 | 0.00 | 0.00 | 44.30 | 7.91 | 3.46 | 2.23 | 0.60 | 15.11 | 24.53 | 98.69 |
| Holotype sample | 0.29 | 0.00 | 0.00 | 0.00 | 0.00 | 44.49 | 7.85 | 3.36 | 2.19 | 0.60 | 15.45 | 24.56 | 98.79 |
| Holotype sample | 0.18 | 0.00 | 0.00 | 0.00 | 0.00 | 46.14 | 7.44 | 1.85 | 3.46 | 0.33 | 15.41 | 24.89 | 99.70 |
| Holotype sample | 0.19 | 0.00 | 0.11 | 0.15 | 0.00 | 46.59 | 7.94 | 0.86 | 3.88 | 0.41 | 15.21 | 25.12 | 100.46 |
| Holotype sample | 0.20 | 0.00 | 0.00 | 0.08 | 0.07 | 46.26 | 8.00 | 2.27 | 3.25 | 0.36 | 15.03 | 25.01 | 100.53 |
| Holotype sample | 0.17 | 0.00 | 0.11 | 0.07 | 0.00 | 46.43 | 7.60 | 1.46 | 3.90 | 0.41 | 15.34 | 25.31 | 100.80 |
| Holotype sample | 0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 46.71 | 7.45 | 1.18 | 4.16 | 0.39 | 15.41 | 25.05 | 100.57 |
| Holotype sample | 0.33 | 0.00 | 0.00 | 0.00 | 0.00 | 45.19 | 8.28 | 3.24 | 2.56 | 0.61 | 15.01 | 24.41 | 99.63 |
| Holotype sample | 0.32 | 0.00 | 0.00 | 0.00 | 0.00 | 45.27 | 7.58 | 3.02 | 2.82 | 0.60 | 15.76 | 24.46 | 99.83 |
| Holotype sample | 0.25 | 0.04 | 0.00 | 0.33 | 0.00 | 45.45 | 8.69 | 2.24 | 3.34 | 0.54 | 14.11 | 24.38 | 99.37 |
| Holotype sample | 0.31 | 0.05 | 0.11 | 0.39 | 0.00 | 45.67 | 8.76 | 1.32 | 3.88 | 0.43 | 13.99 | 24.86 | 99.77 |
| Holotype sample | 0.30 | 0.05 | 0.00 | 0.20 | 0.00 | 45.50 | 8.31 | 3.27 | 3.06 | 0.52 | 14.48 | 24.49 | 100.18 |
| Holotype sample | 0.29 | 0.06 | 0.00 | 0.20 | 0.09 | 45.40 | 8.59 | 3.46 | 2.75 | 0.50 | 14.10 | 24.54 | 99.98 |
| Holotype sample | 0.35 | 0.00 | 0.00 | 0.00 | 0.00 | 45.20 | 7.92 | 2.91 | 2.43 | 0.72 | 15.66 | 24.64 | 99.83 |
| Holotype sample | 0.30 | 0.05 | 0.11 | 0.47 | 0.00 | 45.65 | 8.97 | 1.21 | 3.90 | 0.48 | 13.77 | 24.83 | 99.74 |
| Holotype sample | 0.30 | 0.10 | 0.13 | 0.35 | 0.12 | 45.26 | 8.64 | 3.39 | 3.16 | 0.55 | 13.51 | 24.42 | 99.93 |
|  | Ag | Fe | Pb | Zn | Sn | Cu | Sb | Bi | As | Se | Te | S | total |
| Holotype sample | 0.35 | 0.13 | 0.00 | 0.41 | 0.00 | 45.05 | 9.07 | 2.68 | 3.27 | 0.40 | 13.65 | 25.34 | 100.35 |
| Holotype sample | 0.23 | 0.00 | 0.00 | 0.00 | 0.09 | 44.68 | 7.38 | 4.65 | 1.91 | 0.63 | 16.37 | 24.66 | 100.60 |
| Holotype sample | 0.24 | 0.00 | 0.00 | 0.06 | 0.00 | 45.03 | 7.96 | 4.47 | 2.20 | 0.62 | 15.34 | 24.00 | 99.92 |
| Holotype sample | 0.20 | 0.00 | 0.10 | 0.00 | 0.00 | 44.67 | 7.48 | 4.48 | 2.13 | 0.77 | 16.16 | 24.11 | 100.10 |
| Holotype sample | 0.21 | 0.07 | 0.11 | 0.29 | 0.00 | 45.20 | 8.23 | 3.12 | 3.17 | 0.46 | 14.00 | 24.45 | 99.31 |
| Holotype sample | 0.24 | 0.05 | 0.00 | 0.21 | 0.00 | 45.05 | 8.32 | 2.91 | 3.26 | 0.35 | 14.68 | 24.76 | 99.83 |
| Holotype sample | 0.12 | 0.00 | 0.00 | 0.09 | 0.00 | 44.60 | 8.07 | 3.84 | 2.13 | 0.56 | 14.75 | 24.20 | 98.36 |
| Holotype sample | 0.09 | 0.00 | 0.00 | 0.11 | 0.00 | 44.71 | 8.02 | 3.44 | 2.45 | 0.57 | 14.54 | 24.42 | 98.35 |
| Holotype sample | 0.12 | 0.05 | 0.12 | 0.00 | 0.00 | 44.14 | 7.47 | 4.17 | 2.01 | 0.67 | 15.45 | 24.53 | 98.73 |
| Holotype sample | 0.20 | 0.00 | 0.00 | 0.16 | 0.00 | 45.12 | 8.35 | 3.66 | 2.67 | 0.53 | 14.46 | 24.45 | 99.60 |
| Holotype sample | 0.21 | 0.07 | 0.10 | 0.27 | 0.20 | 44.66 | 8.65 | 3.14 | 3.20 | 0.55 | 13.58 | 23.85 | 98.48 |
| Holotype sample | 0.20 | 0.08 | 0.10 | 0.32 | 0.00 | 44.81 | 8.44 | 3.24 | 3.36 | 0.37 | 13.70 | 24.49 | 99.11 |
| Holotype sample | 0.16 | 0.00 | 0.10 | 0.00 | 0.00 | 44.28 | 7.13 | 3.35 | 2.33 | 0.60 | 16.82 | 24.46 | 99.23 |
| Holotype sample | 0.17 | 0.04 | 0.00 | 0.25 | 0.00 | 44.46 | 8.91 | 3.02 | 2.91 | 0.42 | 14.49 | 24.53 | 99.20 |
| Average | 0.26 | 0.02 | 0.05 | 0.13 | 0.02 | 45.03 | 8.02 | 2.77 | 2.80 | 0.52 | 15.15 | 24.50 | 99.27 |
| Standard deviation | 0.07 | 0.03 | 0.06 | 0.15 | 0.04 | 0.60 | 0.62 | 0.87 | 0.65 | 0.11 | 1.24 | 0.32 | 0.69 |
| Minimum value | 0.09 | 0.00 | 0.00 | 0.00 | 0.00 | 44.14 | 6.21 | 0.86 | 1.75 | 0.33 | 13.51 | 23.85 | 98.04 |
| Maximum value | 0.38 | 0.13 | 0.18 | 0.47 | 0.20 | 46.71 | 9.12 | 4.65 | 4.16 | 0.77 | 19.31 | 25.34 | 100.80 |

**Table S2**. Spot analyses (in wt% – n = 181) for cotype stibiogoldfieldite.

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Ag | Cu | Sb | Bi | As | Se | Te | S | total |
| Cotype sample | 0.11 | 43.21 | 6.71 | 0.24 | 1.28 | 2.04 | 21.83 | 24.31 | 99.73 |
| Cotype sample | 0.16 | 43.32 | 6.52 | 0.35 | 1.27 | 2.06 | 21.74 | 24.42 | 99.84 |
| Cotype sample | 0.16 | 44.03 | 7.70 | 0.23 | 1.80 | 1.45 | 20.10 | 24.83 | 100.3 |
| Cotype sample | 0.15 | 43.12 | 5.85 | 0.34 | 1.58 | 1.56 | 22.73 | 24.60 | 99.93 |
| Cotype sample | 0.11 | 43.55 | 7.03 | 1.26 | 1.90 | 1.04 | 19.71 | 25.56 | 100.16 |
| Cotype sample | 0.10 | 42.95 | 6.68 | 1.17 | 1.87 | 1.11 | 20.32 | 25.54 | 99.74 |
| Cotype sample | 0.08 | 43.39 | 6.69 | 1.42 | 1.90 | 1.02 | 20.15 | 25.53 | 100.18 |
| Cotype sample | 0.19 | 43.73 | 7.16 | 0.94 | 2.12 | 1.25 | 19.21 | 24.65 | 99.25 |
| Cotype sample | 0.23 | 43.62 | 5.63 | 1.12 | 1.68 | 1.34 | 21.18 | 25.60 | 100.4 |
| Cotype sample | 0.23 | 44.18 | 7.30 | 0.75 | 2.18 | 1.31 | 19.15 | 24.67 | 99.77 |
| Cotype sample | 0.24 | 43.40 | 6.96 | 1.06 | 2.11 | 1.23 | 19.36 | 24.41 | 98.77 |
| Cotype sample | 0.21 | 43.53 | 7.21 | 0.92 | 2.22 | 1.31 | 19.18 | 24.63 | 99.21 |
| Cotype sample | 0.17 | 43.04 | 6.71 | 0.95 | 2.09 | 1.22 | 20.16 | 24.71 | 99.05 |
| Cotype sample | 0.29 | 43.74 | 7.09 | 0.83 | 2.21 | 1.32 | 19.15 | 24.61 | 99.24 |
| Cotype sample | 0.23 | 43.92 | 6.23 | 1.09 | 1.98 | 1.35 | 20.24 | 24.58 | 99.62 |
| Cotype sample | 0.10 | 44.62 | 6.45 | 0.86 | 2.09 | 1.15 | 19.93 | 25.91 | 101.11 |
| Cotype sample | 0.24 | 45.02 | 7.12 | 1.02 | 2.34 | 1.08 | 18.35 | 25.05 | 100.22 |
| Cotype sample | 0.18 | 43.34 | 6.56 | 1.13 | 2.16 | 1.32 | 19.78 | 24.61 | 99.08 |
| Cotype sample | 0.30 | 43.93 | 5.90 | 1.48 | 1.96 | 1.20 | 19.89 | 25.38 | 100.04 |
| Cotype sample | 0.26 | 44.10 | 6.80 | 0.72 | 2.26 | 1.34 | 20.00 | 23.99 | 99.47 |
| Cotype sample | 0.13 | 43.49 | 6.55 | 0.95 | 2.20 | 1.27 | 19.75 | 24.51 | 98.85 |
| Cotype sample | 0.31 | 43.55 | 6.37 | 0.93 | 2.14 | 1.35 | 20.17 | 24.49 | 99.31 |
| Cotype sample | 0.28 | 43.87 | 6.99 | 0.80 | 2.36 | 1.32 | 19.16 | 24.51 | 99.29 |
| Cotype sample | 0.28 | 43.18 | 5.78 | 0.88 | 1.98 | 1.49 | 20.83 | 24.76 | 99.18 |
| Cotype sample | 0.10 | 43.77 | 6.94 | 0.68 | 2.38 | 1.29 | 19.21 | 24.58 | 98.95 |
| Cotype sample | 0.23 | 43.20 | 6.05 | 0.94 | 2.10 | 1.37 | 20.66 | 24.89 | 99.44 |
| Cotype sample | 0.13 | 45.33 | 7.65 | 0.25 | 2.66 | 0.93 | 18.76 | 25.96 | 101.67 |
| Cotype sample | 0.09 | 44.07 | 7.52 | 0.34 | 2.63 | 0.90 | 19.12 | 25.89 | 100.56 |
| Cotype sample | 0.27 | 43.06 | 5.47 | 1.28 | 1.92 | 1.48 | 20.93 | 24.66 | 99.07 |
| Cotype sample | 0.24 | 43.74 | 5.81 | 0.73 | 2.07 | 1.38 | 20.78 | 24.80 | 99.55 |
| Cotype sample | 0.06 | 44.70 | 6.47 | 1.58 | 2.31 | 1.07 | 19.41 | 25.55 | 101.15 |
| Cotype sample | 0.17 | 43.41 | 6.54 | 0.68 | 2.34 | 0.84 | 20.06 | 24.87 | 98.91 |
| Cotype sample | 0.10 | 43.42 | 6.35 | 0.91 | 2.29 | 0.81 | 19.96 | 25.59 | 99.43 |
| Cotype sample | 0.13 | 44.56 | 6.29 | 1.38 | 2.27 | 1.18 | 19.74 | 25.67 | 101.22 |
| Cotype sample | 0.23 | 42.97 | 5.70 | 1.21 | 2.08 | 1.36 | 20.73 | 24.39 | 98.67 |
| Cotype sample | 0.18 | 43.80 | 6.97 | 0.56 | 2.56 | 0.72 | 19.08 | 24.66 | 98.53 |
| Cotype sample | 0.21 | 43.40 | 6.18 | 0.35 | 2.27 | 0.99 | 20.30 | 24.81 | 98.51 |
| Cotype sample | 0.10 | 43.49 | 6.58 | 0.41 | 2.42 | 0.99 | 20.19 | 24.87 | 99.05 |
| Cotype sample | 0.16 | 44.26 | 5.96 | 1.44 | 2.22 | 1.18 | 19.66 | 24.54 | 99.42 |
| Cotype sample | 0.22 | 43.68 | 5.98 | 0.96 | 2.23 | 1.48 | 20.54 | 24.25 | 99.34 |
| Cotype sample | 0.13 | 43.96 | 6.88 | 0.43 | 2.57 | 0.89 | 19.28 | 25.84 | 99.98 |
| Cotype sample | 0.24 | 43.45 | 6.36 | 0.39 | 2.39 | 1.05 | 20.18 | 24.88 | 98.94 |
| Cotype sample | 0.26 | 42.53 | 5.15 | 1.41 | 1.96 | 1.46 | 21.75 | 24.14 | 98.66 |
| Cotype sample | 0.28 | 43.18 | 5.46 | 1.27 | 2.09 | 1.44 | 21.21 | 24.95 | 99.88 |
| Cotype sample | 0.16 | 44.35 | 6.27 | 0.37 | 2.42 | 0.49 | 20.09 | 26.01 | 100.16 |
| Cotype sample | 0.10 | 43.99 | 5.85 | 0.84 | 2.26 | 1.01 | 20.84 | 25.53 | 100.42 |
|  | Ag | Cu | Sb | Bi | As | Se | Te | S | total |
| Cotype sample | 0.25 | 44.20 | 6.59 | 0.56 | 2.55 | 1.01 | 19.70 | 24.51 | 99.37 |
| Cotype sample | 0.25 | 42.87 | 5.37 | 0.47 | 2.08 | 0.71 | 21.79 | 25.17 | 98.71 |
| Cotype sample | 0.16 | 44.41 | 6.92 | 0.41 | 2.69 | 0.37 | 18.81 | 25.54 | 99.31 |
| Cotype sample | 0.12 | 43.21 | 5.53 | 1.46 | 2.18 | 1.23 | 20.65 | 25.46 | 99.84 |
| Cotype sample | 0.36 | 44.16 | 6.10 | 0.43 | 2.41 | 0.56 | 20.76 | 25.74 | 100.52 |
| Cotype sample | 0.29 | 44.38 | 6.13 | 1.14 | 2.43 | 1.16 | 20.15 | 25.43 | 101.11 |
| Cotype sample | 0.28 | 44.31 | 6.70 | 0.28 | 2.68 | 0.97 | 19.85 | 24.37 | 99.44 |
| Cotype sample | 0.20 | 44.69 | 7.42 | 0.59 | 2.97 | 1.04 | 16.81 | 25.25 | 98.97 |
| Cotype sample | 0.18 | 44.53 | 7.71 | 0.40 | 3.09 | 1.15 | 17.10 | 24.84 | 99 |
| Cotype sample | 0.11 | 43.40 | 5.83 | 0.66 | 2.34 | 1.46 | 20.54 | 24.76 | 99.1 |
| Cotype sample | 0.29 | 43.15 | 5.33 | 0.45 | 2.18 | 0.76 | 21.31 | 25.25 | 98.72 |
| Cotype sample | 0.17 | 44.87 | 7.82 | 0.19 | 3.21 | 0.80 | 17.04 | 24.97 | 99.07 |
| Cotype sample | 0.20 | 43.92 | 5.26 | 0.61 | 2.18 | 0.65 | 21.33 | 25.00 | 99.15 |
| Cotype sample | 0.23 | 44.52 | 6.61 | 0.35 | 2.74 | 0.73 | 18.99 | 25.44 | 99.61 |
| Cotype sample | 0.24 | 44.30 | 7.00 | 0.29 | 2.91 | 0.82 | 18.51 | 25.88 | 99.95 |
| Cotype sample | 0.11 | 44.47 | 6.85 | 0.44 | 2.86 | 0.53 | 18.91 | 26.09 | 100.26 |
| Cotype sample | 0.15 | 43.50 | 6.32 | 0.35 | 2.64 | 1.01 | 20.28 | 24.85 | 99.1 |
| Cotype sample | 0.15 | 43.67 | 5.26 | 0.83 | 2.20 | 1.47 | 20.88 | 24.71 | 99.17 |
| Cotype sample | 0.18 | 43.25 | 6.23 | 1.12 | 2.63 | 0.91 | 19.37 | 24.87 | 98.56 |
| Cotype sample | 0.24 | 43.57 | 6.16 | 0.54 | 2.62 | 0.93 | 20.06 | 24.82 | 98.94 |
| Cotype sample | 0.32 | 42.95 | 5.05 | 1.27 | 2.15 | 0.95 | 21.55 | 26.06 | 100.3 |
| Cotype sample | 0.24 | 42.90 | 4.97 | 1.51 | 2.12 | 1.25 | 21.16 | 24.70 | 98.85 |
| Cotype sample | 0.30 | 43.33 | 5.15 | 1.40 | 2.21 | 1.21 | 20.88 | 24.90 | 99.38 |
| Cotype sample | 0.24 | 43.81 | 5.59 | 0.78 | 2.41 | 1.40 | 20.79 | 24.66 | 99.68 |
| Cotype sample | 0.10 | 43.91 | 7.21 | 0.30 | 3.11 | 0.95 | 18.47 | 25.13 | 99.18 |
| Cotype sample | 0.28 | 44.83 | 6.85 | 0.67 | 2.96 | 1.15 | 18.51 | 25.56 | 100.81 |
| Cotype sample | 0.38 | 43.17 | 5.33 | 1.29 | 2.33 | 1.02 | 21.03 | 25.86 | 100.41 |
| Cotype sample | 0.18 | 44.59 | 7.31 | 0.53 | 3.20 | 0.96 | 17.48 | 24.97 | 99.22 |
| Cotype sample | 0.31 | 42.98 | 5.01 | 1.02 | 2.20 | 1.20 | 21.71 | 25.84 | 100.27 |
| Cotype sample | 0.16 | 43.03 | 5.50 | 0.79 | 2.43 | 1.35 | 20.88 | 24.68 | 98.82 |
| Cotype sample | 0.27 | 43.86 | 6.83 | 1.16 | 3.03 | 0.74 | 18.25 | 24.85 | 98.99 |
| Cotype sample | 0.20 | 43.87 | 5.52 | 0.76 | 2.45 | 1.39 | 20.59 | 24.83 | 99.61 |
| Cotype sample | 0.26 | 43.76 | 5.57 | 0.35 | 2.48 | 0.79 | 20.82 | 25.81 | 99.84 |
| Cotype sample | 0.16 | 43.87 | 6.17 | 0.48 | 2.75 | 0.43 | 20.19 | 25.25 | 99.3 |
| Cotype sample | 0.20 | 43.55 | 6.73 | 1.45 | 3.00 | 0.87 | 18.04 | 24.91 | 98.75 |
| Cotype sample | 0.13 | 42.70 | 5.45 | 0.44 | 2.45 | 1.09 | 21.34 | 25.11 | 98.71 |
| Cotype sample | 0.22 | 43.82 | 5.47 | 0.66 | 2.46 | 1.38 | 20.62 | 24.89 | 99.52 |
| Cotype sample | 0.19 | 42.95 | 5.23 | 0.87 | 2.36 | 1.48 | 21.09 | 24.58 | 98.75 |
| Cotype sample | 0.20 | 43.98 | 6.41 | 0.34 | 2.91 | 0.82 | 19.39 | 24.67 | 98.72 |
| Cotype sample | 0.24 | 44.59 | 6.73 | 0.72 | 3.06 | 1.18 | 18.37 | 25.57 | 100.46 |
| Cotype sample | 0.13 | 43.95 | 5.43 | 1.26 | 2.47 | 1.25 | 20.08 | 24.63 | 99.2 |
| Cotype sample | 0.29 | 43.05 | 5.42 | 0.39 | 2.47 | 0.73 | 21.12 | 25.03 | 98.5 |
| Cotype sample | 0.09 | 44.61 | 6.78 | 0.44 | 3.10 | 0.95 | 18.42 | 25.62 | 100.01 |
| Cotype sample | 0.16 | 43.09 | 5.00 | 1.19 | 2.29 | 1.34 | 21.23 | 25.68 | 99.98 |
| Cotype sample | 0.21 | 43.73 | 5.93 | 0.56 | 2.73 | 1.13 | 19.94 | 26.19 | 100.42 |
| Cotype sample | 0.12 | 43.98 | 5.24 | 0.32 | 2.42 | 0.41 | 22.14 | 25.12 | 99.75 |
| Cotype sample | 0.08 | 44.51 | 6.86 | 0.32 | 3.17 | 0.34 | 18.71 | 26.47 | 100.46 |
| Cotype sample | 0.24 | 43.62 | 4.84 | 0.91 | 2.24 | 0.78 | 21.72 | 25.61 | 99.96 |
|  | Ag | Cu | Sb | Bi | As | Se | Te | S | total |
| Cotype sample | 0.27 | 43.57 | 5.35 | 0.43 | 2.48 | 1.14 | 20.88 | 25.37 | 99.49 |
| Cotype sample | 0.14 | 43.76 | 5.93 | 0.49 | 2.76 | 0.40 | 20.43 | 25.22 | 99.13 |
| Cotype sample | 0.18 | 43.65 | 6.03 | 0.43 | 2.81 | 0.44 | 20.18 | 25.26 | 98.98 |
| Cotype sample | 0.09 | 43.68 | 6.90 | 0.39 | 3.22 | 1.32 | 18.40 | 24.98 | 98.98 |
| Cotype sample | 0.20 | 43.80 | 6.60 | 1.13 | 3.10 | 0.80 | 18.16 | 24.75 | 98.54 |
| Cotype sample | 0.15 | 44.35 | 6.02 | 0.40 | 2.84 | 0.52 | 19.86 | 26.36 | 100.5 |
| Cotype sample | 0.19 | 42.70 | 5.44 | 0.41 | 2.57 | 0.97 | 21.31 | 25.10 | 98.69 |
| Cotype sample | 0.20 | 44.76 | 6.91 | 0.74 | 3.27 | 0.68 | 17.60 | 25.08 | 99.24 |
| Cotype sample | 0.27 | 42.89 | 4.80 | 1.29 | 2.28 | 1.21 | 21.60 | 25.72 | 100.06 |
| Cotype sample | 0.23 | 44.85 | 5.13 | 0.95 | 2.44 | 0.68 | 19.93 | 25.31 | 99.52 |
| Cotype sample | 0.17 | 43.64 | 6.20 | 0.32 | 2.95 | 0.36 | 20.02 | 25.20 | 98.86 |
| Cotype sample | 0.20 | 43.57 | 6.01 | 0.37 | 2.87 | 0.80 | 20.34 | 25.03 | 99.19 |
| Cotype sample | 0.17 | 43.82 | 5.86 | 0.41 | 2.80 | 0.47 | 20.51 | 25.16 | 99.2 |
| Cotype sample | 0.27 | 43.57 | 5.90 | 0.41 | 2.82 | 1.06 | 19.74 | 24.90 | 98.67 |
| Cotype sample | 0.28 | 43.09 | 5.06 | 0.93 | 2.43 | 0.74 | 21.42 | 24.78 | 98.73 |
| Cotype sample | 0.18 | 43.90 | 5.63 | 0.39 | 2.71 | 1.20 | 20.85 | 24.47 | 99.33 |
| Cotype sample | 0.29 | 43.74 | 6.24 | 1.11 | 3.01 | 0.65 | 18.77 | 25.16 | 98.97 |
| Cotype sample | 0.29 | 42.87 | 5.19 | 0.35 | 2.51 | 0.38 | 21.86 | 25.75 | 99.2 |
| Cotype sample | 0.15 | 44.01 | 5.78 | 0.56 | 2.80 | 0.53 | 20.32 | 25.16 | 99.31 |
| Cotype sample | 0.09 | 43.41 | 5.59 | 0.46 | 2.71 | 1.21 | 20.52 | 24.92 | 98.91 |
| Cotype sample | 0.28 | 43.82 | 5.38 | 0.41 | 2.62 | 0.96 | 20.95 | 24.95 | 99.37 |
| Cotype sample | 0.25 | 44.31 | 6.26 | 0.79 | 3.05 | 1.17 | 18.47 | 25.18 | 99.48 |
| Cotype sample | 0.14 | 43.88 | 6.29 | 0.26 | 3.07 | 0.82 | 19.49 | 24.72 | 98.67 |
| Cotype sample | 0.29 | 43.43 | 5.03 | 0.57 | 2.47 | 1.41 | 21.18 | 24.59 | 98.97 |
| Cotype sample | 0.22 | 43.26 | 5.26 | 1.34 | 2.60 | 1.43 | 20.28 | 24.35 | 98.74 |
| Cotype sample | 0.14 | 43.31 | 5.48 | 0.42 | 2.71 | 1.06 | 21.06 | 24.90 | 99.08 |
| Cotype sample | 0.26 | 44.02 | 4.89 | 0.77 | 2.42 | 0.80 | 21.48 | 25.58 | 100.22 |
| Cotype sample | 0.24 | 44.33 | 5.27 | 0.23 | 2.61 | 0.37 | 21.21 | 25.86 | 100.12 |
| Cotype sample | 0.23 | 44.19 | 5.30 | 0.27 | 2.63 | 0.49 | 21.76 | 24.87 | 99.74 |
| Cotype sample | 0.15 | 44.23 | 5.75 | 0.79 | 2.86 | 1.29 | 19.40 | 24.81 | 99.28 |
| Cotype sample | 0.25 | 43.50 | 5.84 | 0.43 | 2.91 | 1.26 | 19.71 | 24.76 | 98.66 |
| Cotype sample | 0.34 | 43.12 | 5.09 | 0.82 | 2.54 | 0.65 | 21.22 | 25.08 | 98.86 |
| Cotype sample | 0.36 | 44.06 | 5.09 | 0.27 | 2.56 | 0.40 | 21.81 | 25.64 | 100.19 |
| Cotype sample | 0.36 | 44.95 | 6.22 | 1.05 | 3.14 | 0.70 | 18.38 | 25.24 | 100.04 |
| Cotype sample | 0.32 | 43.65 | 5.11 | 0.93 | 2.58 | 1.41 | 21.23 | 24.17 | 99.4 |
| Cotype sample | 0.33 | 43.74 | 4.81 | 1.14 | 2.43 | 1.42 | 21.06 | 24.41 | 99.34 |
| Cotype sample | 0.26 | 43.28 | 5.15 | 0.44 | 2.61 | 0.71 | 21.11 | 25.15 | 98.71 |
| Cotype sample | 0.27 | 43.49 | 5.36 | 0.70 | 2.75 | 0.91 | 20.43 | 25.10 | 99.01 |
| Cotype sample | 0.37 | 44.76 | 5.67 | 0.83 | 2.91 | 0.48 | 20.11 | 25.51 | 100.64 |
| Cotype sample | 0.23 | 44.08 | 6.04 | 0.45 | 3.10 | 0.68 | 19.35 | 25.10 | 99.03 |
| Cotype sample | 0.24 | 44.45 | 5.58 | 0.62 | 2.87 | 0.95 | 19.82 | 25.40 | 99.93 |
| Cotype sample | 0.12 | 43.92 | 5.48 | 0.25 | 2.82 | 1.33 | 20.70 | 24.03 | 98.65 |
| Cotype sample | 0.13 | 44.06 | 6.32 | 0.44 | 3.28 | 0.30 | 18.20 | 26.10 | 98.83 |
| Cotype sample | 0.16 | 44.17 | 5.76 | 0.25 | 2.99 | 0.64 | 19.97 | 25.30 | 99.24 |
| Cotype sample | 0.16 | 42.83 | 5.24 | 0.61 | 2.73 | 1.04 | 20.93 | 25.07 | 98.61 |
| Cotype sample | 0.26 | 44.23 | 5.81 | 0.18 | 3.03 | 0.60 | 19.75 | 25.86 | 99.72 |
| Cotype sample | 0.23 | 44.60 | 6.03 | 0.62 | 3.15 | 1.29 | 19.19 | 24.48 | 99.59 |
| Cotype sample | 0.23 | 44.12 | 5.53 | 0.23 | 2.89 | 0.96 | 20.61 | 24.41 | 98.98 |
|  | Ag | Cu | Sb | Bi | As | Se | Te | S | total |
| Cotype sample | 0.10 | 45.84 | 6.70 | 0.35 | 3.52 | 0.27 | 18.03 | 26.60 | 101.41 |
| Cotype sample | 0.25 | 44.72 | 5.79 | 0.27 | 3.05 | 0.55 | 19.95 | 25.77 | 100.35 |
| Cotype sample | 0.20 | 44.16 | 5.79 | 0.31 | 3.08 | 0.58 | 19.40 | 25.94 | 99.46 |
| Cotype sample | 0.27 | 44.09 | 4.99 | 0.56 | 2.66 | 1.17 | 21.21 | 25.07 | 100.02 |
| Cotype sample | 0.24 | 44.28 | 5.52 | 0.32 | 2.95 | 0.47 | 20.26 | 25.95 | 99.99 |
| Cotype sample | 0.26 | 44.24 | 5.78 | 0.39 | 3.09 | 0.63 | 19.62 | 25.16 | 99.17 |
| Cotype sample | 0.29 | 43.54 | 6.14 | 1.07 | 3.29 | 0.78 | 18.43 | 25.42 | 98.96 |
| Cotype sample | 0.16 | 43.09 | 5.16 | 0.70 | 2.77 | 0.93 | 21.09 | 25.16 | 99.06 |
| Cotype sample | 0.21 | 43.21 | 5.01 | 0.67 | 2.72 | 0.77 | 21.05 | 25.47 | 99.11 |
| Cotype sample | 0.18 | 44.22 | 5.59 | 1.29 | 3.05 | 1.27 | 18.86 | 24.65 | 99.11 |
| Cotype sample | 0.35 | 44.55 | 6.47 | 0.72 | 3.55 | 0.79 | 17.49 | 25.24 | 99.16 |
| Cotype sample | 0.21 | 43.99 | 5.81 | 1.28 | 3.19 | 1.27 | 18.48 | 24.39 | 98.62 |
| Cotype sample | 0.28 | 44.69 | 5.86 | 0.19 | 3.23 | 0.61 | 19.66 | 25.87 | 100.39 |
| Cotype sample | 0.23 | 44.32 | 5.55 | 1.26 | 3.06 | 1.34 | 18.94 | 24.59 | 99.29 |
| Cotype sample | 0.34 | 43.32 | 4.59 | 0.89 | 2.54 | 1.38 | 21.50 | 25.17 | 99.73 |
| Cotype sample | 0.29 | 44.57 | 5.28 | 0.49 | 2.93 | 0.91 | 20.34 | 25.30 | 100.11 |
| Cotype sample | 0.18 | 44.94 | 6.09 | 0.53 | 3.38 | 1.23 | 19.06 | 24.64 | 100.05 |
| Cotype sample | 0.17 | 45.70 | 6.17 | 0.29 | 3.45 | 0.53 | 18.40 | 25.86 | 100.57 |
| Cotype sample | 0.24 | 43.57 | 5.20 | 0.65 | 2.92 | 0.86 | 20.64 | 24.63 | 98.71 |
| Cotype sample | 0.25 | 44.17 | 6.44 | 0.78 | 3.63 | 1.02 | 18.11 | 25.08 | 99.48 |
| Cotype sample | 0.17 | 44.08 | 6.37 | 0.90 | 3.62 | 0.64 | 18.05 | 24.99 | 98.82 |
| Cotype sample | 0.27 | 44.04 | 5.17 | 0.37 | 2.94 | 1.45 | 20.71 | 24.24 | 99.19 |
| Cotype sample | 0.20 | 43.98 | 5.57 | 0.35 | 3.17 | 0.52 | 20.16 | 25.08 | 99.03 |
| Cotype sample | 0.25 | 43.07 | 4.54 | 0.93 | 2.59 | 0.82 | 21.72 | 25.48 | 99.4 |
| Cotype sample | 0.28 | 43.21 | 4.29 | 0.71 | 2.47 | 0.78 | 22.04 | 25.65 | 99.43 |
| Cotype sample | 0.30 | 44.05 | 5.76 | 0.83 | 3.38 | 0.67 | 18.81 | 25.34 | 99.14 |
| Cotype sample | 0.17 | 45.45 | 6.32 | 0.39 | 3.72 | 0.63 | 17.93 | 25.04 | 99.65 |
| Cotype sample | 0.30 | 43.88 | 4.41 | 0.63 | 2.61 | 0.77 | 21.62 | 25.62 | 99.84 |
| Cotype sample | 0.29 | 43.61 | 4.59 | 1.05 | 2.72 | 1.40 | 20.89 | 24.43 | 98.98 |
| Cotype sample | 0.15 | 44.19 | 4.73 | 0.76 | 2.82 | 0.86 | 20.91 | 25.55 | 99.97 |
| Cotype sample | 0.28 | 44.46 | 5.26 | 0.61 | 3.14 | 0.74 | 19.94 | 25.69 | 100.12 |
| Cotype sample | 0.30 | 44.65 | 4.61 | 0.71 | 2.76 | 0.77 | 21.07 | 25.56 | 100.43 |
| Cotype sample | 0.25 | 42.97 | 4.16 | 0.76 | 2.50 | 0.81 | 22.27 | 25.22 | 98.94 |
| Cotype sample | 0.30 | 43.15 | 4.59 | 0.46 | 2.76 | 0.96 | 21.44 | 25.24 | 98.9 |
| Cotype sample | 0.15 | 45.77 | 6.11 | 0.46 | 3.70 | 0.32 | 18.10 | 26.38 | 100.99 |
| Cotype sample | 0.14 | 43.20 | 4.67 | 0.62 | 2.85 | 0.80 | 21.56 | 25.23 | 99.07 |
| Cotype sample | 0.15 | 43.76 | 4.98 | 0.34 | 3.05 | 0.45 | 20.55 | 25.29 | 98.57 |
| Cotype sample | 0.31 | 43.14 | 4.54 | 0.63 | 2.79 | 0.80 | 21.14 | 25.57 | 98.92 |
| Cotype sample | 0.30 | 43.82 | 5.71 | 0.67 | 3.51 | 0.54 | 19.17 | 25.51 | 99.23 |
| Average | 0.21 | 43.84 | 5.92 | 0.70 | 2.63 | 0.97 | 20.07 | 25.13 | 99.47 |
| Standard deviation | 0.07 | 0.63 | 0.78 | 0.35 | 0.45 | 0.35 | 1.19 | 0.53 | 0.66 |
| Minimum value | 0.06 | 42.53 | 4.16 | 0.18 | 1.27 | 0.27 | 16.81 | 23.99 | 98.50 |
| Maximum value | 0.38 | 45.84 | 7.82 | 1.58 | 3.72 | 2.06 | 22.73 | 26.60 | 101.67 |

**Table S3**. Spot analyses (in wt% – n = 24) for “arsenogoldfieldite”.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Ag | Pb | Zn | Cu | Sb | Bi | As | Se | Te | S | total |
| Arsenogoldfieldite | 0.34 | 0.00 | 0.00 | 43.03 | 4.44 | 0.62 | 2.78 | 0.78 | 21.85 | 24.85 | 98.69 |
| Arsenogoldfieldite | 0.24 | 0.00 | 0.00 | 44.15 | 6.11 | 0.61 | 3.92 | 1.02 | 18.27 | 25.04 | 99.36 |
| Arsenogoldfieldite | 0.21 | 0.00 | 0.00 | 43.85 | 4.56 | 0.96 | 2.97 | 1.41 | 20.73 | 24.37 | 99.06 |
| Arsenogoldfieldite | 0.29 | 0.00 | 0.00 | 43.13 | 4.42 | 0.76 | 2.88 | 0.78 | 21.69 | 25.09 | 99.04 |
| Arsenogoldfieldite | 0.19 | 0.00 | 0.00 | 45.11 | 5.87 | 0.49 | 3.87 | 0.44 | 17.73 | 25.94 | 99.64 |
| Arsenogoldfieldite | 0.31 | 0.00 | 0.00 | 42.74 | 4.03 | 0.84 | 2.70 | 0.88 | 22.55 | 25.09 | 99.14 |
| Arsenogoldfieldite | 0.32 | 0.00 | 0.00 | 43.88 | 5.13 | 0.56 | 3.44 | 0.65 | 19.68 | 25.61 | 99.27 |
| Arsenogoldfieldite | 0.33 | 0.00 | 0.00 | 43.87 | 5.41 | 0.76 | 3.72 | 0.47 | 19.44 | 25.61 | 99.61 |
| Arsenogoldfieldite | 0.17 | 0.00 | 0.00 | 45.06 | 5.37 | 0.66 | 3.73 | 0.62 | 18.83 | 25.43 | 99.87 |
| Arsenogoldfieldite | 0.40 | 0.00 | 0.00 | 45.56 | 5.46 | 0.76 | 3.81 | 0.57 | 18.55 | 25.37 | 100.48 |
| Arsenogoldfieldite | 0.30 | 0.00 | 0.00 | 43.65 | 4.46 | 1.11 | 3.17 | 0.80 | 20.52 | 25.40 | 99.41 |
| Arsenogoldfieldite | 0.31 | 0.00 | 0.00 | 43.75 | 4.16 | 0.55 | 2.98 | 0.78 | 20.90 | 25.59 | 99.02 |
| Arsenogoldfieldite | 0.36 | 0.00 | 0.00 | 45.24 | 5.33 | 0.47 | 4.26 | 1.07 | 17.64 | 25.26 | 99.63 |
| Arsenogoldfieldite | 0.32 | 0.00 | 0.00 | 44.51 | 5.28 | 0.45 | 4.30 | 1.00 | 17.95 | 25.41 | 99.22 |
| Arsenogoldfieldite | 0.29 | 0.11 | 0.00 | 44.32 | 4.90 | 0.62 | 3.05 | 0.69 | 20.51 | 25.69 | 100.18 |
| Arsenogoldfieldite | 0.20 | 0.00 | 0.00 | 43.49 | 5.04 | 0.47 | 3.14 | 0.85 | 20.06 | 24.72 | 97.97 |
| Arsenogoldfieldite | 0.22 | 0.00 | 0.00 | 43.07 | 4.17 | 0.53 | 2.83 | 0.79 | 22.45 | 25.05 | 99.11 |
| Arsenogoldfieldite | 0.13 | 0.00 | 0.28 | 46.58 | 3.45 | 0.05 | 6.65 | 0.65 | 16.39 | 25.20 | 99.38 |
| Arsenogoldfieldite | 0.12 | 0.00 | 0.26 | 45.32 | 3.30 | 0.15 | 6.44 | 0.67 | 16.77 | 25.95 | 98.98 |
| Arsenogoldfieldite | 0.13 | 0.00 | 0.29 | 45.20 | 3.18 | 0.13 | 6.68 | 0.65 | 16.73 | 25.72 | 98.71 |
| Arsenogoldfieldite | 0.14 | 0.00 | 0.15 | 45.11 | 2.66 | 0.17 | 5.85 | 0.72 | 18.35 | 25.61 | 98.76 |
| Arsenogoldfieldite | 0.08 | 0.00 | 0.00 | 45.00 | 2.12 | 0.45 | 5.80 | 0.66 | 18.48 | 25.65 | 98.24 |
| Arsenogoldfieldite | 0.12 | 0.00 | 0.00 | 45.29 | 0.85 | 0.35 | 6.34 | 0.60 | 19.05 | 25.42 | 98.02 |
| Arsenogoldfieldite | 0.08 | 0.00 | 0.00 | 44.92 | 0.48 | 0.32 | 7.05 | 0.71 | 19.34 | 25.89 | 98.79 |
| Average | 0.23 | 0.00 | 0.04 | 44.41 | 4.17 | 0.54 | 4.27 | 0.76 | 19.35 | 25.37 | 99.15 |
| Standard deviation | 0.10 | 0.02 | 0.10 | 0.98 | 1.47 | 0.26 | 1.49 | 0.21 | 1.78 | 0.39 | 0.61 |
| Minimum value | 0.08 | 0.00 | 0.00 | 42.74 | 0.48 | 0.05 | 2.70 | 0.44 | 16.39 | 24.37 | 97.97 |
| Maximum value | 0.40 | 0.11 | 0.29 | 46.58 | 6.11 | 1.11 | 7.05 | 1.41 | 22.55 | 25.95 | 100.48 |

**Table S4**. Spot analyses (in wt% – n = 45) for stibiogoldfieldite from the Kuril Islands, Russia.

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Ag | Fe | Pb | Cd | Zn | Cu | Sb | As | Se | Te | S | total |
| Kuril islands | 0.06 | 0.40 | 0.16 | 0.00 | 4.58 | 41.88 | 17.86 | 3.99 | 0.63 | 4.88 | 24.88 | 99.32 |
| Kuril islands | 0.36 | 0.50 | 0.16 | 0.07 | 4.90 | 41.47 | 15.85 | 5.67 | 0.00 | 4.32 | 26.16 | 99.46 |
| Kuril islands | 0.06 | 0.34 | 0.10 | 0.07 | 4.26 | 42.24 | 16.81 | 4.04 | 0.20 | 6.09 | 25.87 | 100.08 |
| Kuril islands | 0.14 | 0.28 | 0.13 | 0.00 | 3.75 | 43.01 | 16.01 | 4.08 | 0.83 | 7.05 | 24.75 | 100.03 |
| Kuril islands | 0.18 | 0.29 | 0.00 | 0.06 | 2.78 | 43.32 | 14.22 | 3.94 | 0.85 | 8.77 | 23.90 | 98.31 |
| Kuril islands | 0.57 | 0.97 | 0.26 | 0.13 | 5.73 | 40.24 | 16.10 | 7.89 | 0.15 | 0.76 | 25.25 | 98.05 |
| Kuril islands | 0.11 | 0.20 | 0.15 | 0.00 | 2.87 | 43.73 | 14.30 | 3.93 | 0.78 | 9.07 | 24.78 | 99.92 |
| Kuril islands | 0.08 | 0.14 | 0.10 | 0.00 | 2.29 | 44.20 | 13.95 | 3.22 | 0.87 | 10.55 | 24.52 | 99.92 |
| Kuril islands | 0.00 | 0.20 | 0.00 | 0.00 | 2.94 | 43.41 | 15.49 | 3.20 | 0.88 | 8.91 | 24.80 | 99.83 |
| Kuril islands | 0.08 | 0.21 | 0.00 | 0.00 | 3.35 | 43.40 | 15.53 | 3.96 | 0.34 | 7.90 | 24.83 | 99.60 |
| Kuril islands | 0.41 | 0.48 | 0.16 | 0.11 | 4.98 | 41.82 | 15.95 | 6.19 | 0.00 | 4.07 | 25.05 | 99.22 |
| Kuril islands | 0.36 | 0.25 | 0.13 | 0.00 | 2.02 | 44.04 | 12.49 | 3.94 | 1.93 | 10.89 | 23.78 | 99.83 |
| Kuril islands | 0.18 | 0.53 | 0.14 | 0.10 | 4.99 | 41.56 | 16.39 | 5.96 | 0.00 | 3.82 | 25.75 | 99.42 |
| Kuril islands | 0.09 | 0.17 | 0.10 | 0.00 | 3.41 | 43.33 | 15.74 | 3.85 | 0.36 | 7.91 | 24.82 | 99.78 |
| Kuril islands | 0.10 | 0.13 | 0.00 | 0.00 | 1.99 | 44.22 | 13.99 | 2.96 | 0.92 | 10.90 | 24.35 | 99.56 |
| Kuril islands | 0.07 | 0.15 | 0.00 | 0.00 | 2.35 | 44.13 | 13.48 | 3.85 | 1.10 | 10.19 | 24.42 | 99.74 |
| Kuril islands | 0.00 | 0.08 | 0.10 | 0.00 | 0.50 | 45.58 | 10.46 | 3.04 | 0.81 | 14.50 | 24.92 | 99.99 |
| Kuril islands | 0.19 | 0.33 | 0.10 | 0.00 | 2.72 | 42.93 | 14.12 | 4.07 | 0.86 | 8.85 | 25.63 | 99.80 |
| Kuril islands | 0.08 | 0.19 | 0.00 | 0.00 | 2.96 | 43.96 | 15.27 | 3.68 | 0.42 | 9.00 | 24.50 | 100.06 |
| Kuril islands | 0.13 | 0.16 | 0.15 | 0.00 | 1.51 | 44.88 | 11.39 | 4.19 | 0.50 | 11.97 | 25.20 | 100.08 |
| Kuril islands | 0.08 | 0.35 | 0.00 | 0.00 | 3.68 | 42.37 | 16.78 | 3.81 | 0.53 | 6.86 | 24.57 | 99.03 |
| Kuril islands | 0.12 | 0.19 | 0.17 | 0.06 | 1.41 | 44.65 | 11.25 | 3.98 | 0.36 | 12.38 | 24.94 | 99.51 |
| Kuril islands | 0.42 | 0.53 | 0.28 | 0.11 | 4.94 | 41.49 | 15.17 | 6.81 | 0.00 | 4.08 | 25.60 | 99.43 |
| Kuril islands | 0.25 | 0.56 | 0.12 | 0.14 | 6.52 | 40.43 | 18.18 | 6.90 | 0.00 | 1.03 | 25.36 | 99.49 |
| Kuril islands | 0.07 | 0.30 | 0.00 | 0.06 | 2.96 | 43.08 | 15.18 | 3.76 | 0.46 | 8.68 | 24.90 | 99.45 |
| Kuril islands | 0.43 | 0.60 | 0.20 | 0.07 | 4.91 | 41.30 | 15.73 | 6.40 | 0.00 | 4.11 | 25.23 | 98.98 |
| Kuril islands | 0.13 | 0.42 | 0.12 | 0.00 | 3.80 | 42.17 | 16.87 | 4.06 | 0.77 | 6.51 | 24.44 | 99.29 |
| Kuril islands | 0.07 | 0.16 | 0.12 | 0.00 | 1.26 | 44.99 | 10.66 | 4.17 | 0.57 | 12.85 | 25.00 | 99.85 |
| Kuril islands | 0.42 | 0.69 | 0.10 | 0.13 | 5.99 | 40.81 | 17.27 | 7.14 | 0.00 | 1.75 | 25.09 | 99.39 |
| Kuril islands | 0.41 | 0.49 | 0.14 | 0.09 | 4.59 | 42.11 | 14.33 | 6.87 | 0.00 | 5.09 | 25.65 | 99.77 |
| Kuril islands | 0.49 | 0.60 | 0.22 | 0.12 | 5.69 | 40.67 | 16.62 | 7.16 | 0.00 | 2.10 | 24.93 | 98.60 |
| Kuril islands | 0.09 | 0.15 | 0.00 | 0.00 | 1.99 | 44.14 | 14.52 | 2.80 | 1.15 | 11.05 | 24.38 | 100.27 |
| Kuril islands | 0.16 | 0.28 | 0.12 | 0.00 | 1.92 | 43.82 | 12.21 | 4.27 | 0.22 | 10.88 | 25.01 | 98.89 |
| Kuril islands | 0.08 | 0.31 | 0.00 | 0.06 | 2.97 | 42.97 | 15.44 | 3.74 | 0.52 | 8.52 | 24.74 | 99.35 |
| Kuril islands | 0.11 | 0.28 | 0.13 | 0.00 | 1.98 | 43.56 | 12.44 | 4.14 | 0.14 | 10.77 | 25.09 | 98.64 |
| Kuril islands | 0.08 | 0.18 | 0.10 | 0.00 | 2.20 | 44.15 | 14.21 | 3.45 | 0.53 | 10.64 | 24.35 | 99.89 |
| Kuril islands | 0.39 | 0.63 | 0.18 | 0.10 | 4.83 | 41.10 | 15.81 | 6.66 | 0.00 | 3.72 | 25.32 | 98.74 |
| Kuril islands | 0.11 | 0.29 | 0.00 | 0.00 | 2.57 | 42.99 | 15.09 | 3.44 | 1.05 | 9.33 | 24.43 | 99.30 |
| Kuril islands | 0.14 | 0.69 | 0.20 | 0.12 | 6.06 | 39.75 | 18.66 | 6.29 | 0.00 | 1.25 | 26.20 | 99.36 |
| Kuril islands | 0.00 | 0.24 | 0.00 | 0.00 | 1.64 | 44.15 | 11.98 | 3.97 | 0.56 | 11.79 | 25.39 | 99.72 |
| Kuril islands | 0.09 | 0.07 | 0.00 | 0.00 | 0.52 | 45.13 | 10.06 | 3.45 | 0.66 | 14.57 | 25.11 | 99.66 |
| Kuril islands | 0.11 | 0.39 | 0.12 | 0.07 | 3.71 | 42.16 | 15.07 | 5.10 | 0.11 | 7.04 | 25.22 | 99.10 |
| Kuril islands | 0.28 | 0.63 | 0.20 | 0.09 | 5.80 | 39.99 | 17.97 | 6.48 | 0.13 | 2.09 | 25.42 | 99.08 |
| Kuril islands | 0.13 | 0.31 | 0.11 | 0.00 | 2.29 | 43.14 | 13.15 | 4.48 | 0.23 | 10.02 | 24.87 | 98.73 |
| Kuril islands | 0.19 | 0.27 | 0.17 | 0.00 | 2.63 | 42.27 | 14.48 | 3.97 | 1.07 | 9.20 | 23.93 | 98.18 |