Table 2. Compositions of PGE minerals from borehole **PH-72**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| No. | Depth | Formula | Ag | As | Au | Bi | Fe | Ni | Pd | Pt | Rh | Ru | S | Sb | Sn | Te | Total |
| 1 | 768.8 | (Pt0.95Fe0.06Rh0.03)1.04(As1.87S0.08Sb0.02)1.97 |  | 41.71 |  |  | 1.04 |  |  | 54.97 | 0.90 |  | 0.72 | 0.65 |  |  | 99.99 |
| 2 | 768.8 | (Rh0.71Fe0.12Pd0.09Ni0.07)0.99As1.02S0.98 |  | 36.54 |  |  | 3.26 | 2.04 | 4.41 | 0.94 | 35.13 |  | 14.97 |  |  |  | 97.29 |
| 3 | 774.4 | (Pt0.92Fe0.05Pd0.01Rh0.01)0.99(As1.88S0.13)2.01 |  | 41.98 |  |  | 0.85 |  | 0.36 | 53.28 | 0.34 |  | 1.23 |  |  |  | 98.04 |
| 4 | 775.5 | Pd1.00Te1.00 |  |  |  |  |  |  | 34.28 |  |  |  |  |  |  | 40.90 | 75.18\* |
| 5 | 778.2 | (Pt0.98Fe0.01Ru0.01)1.00(As1.87S0.09Te0.03)1.99 |  | 40.33 |  |  | 0.12 |  |  | 55.03 |  | 0.41 | 0.82 |  |  | 1.27 | 97.98 |
| 6 | 778.2 | Pd1.02Bi0.99Te0.98 |  |  |  | 46.25 |  |  | 24.24 |  |  |  |  |  |  | 27.95 | 98.44 |
| 7 | 778.2 | (Pt0.93Pd0.09)1.02(Te1.40Bi0.58)1.98 |  |  |  | 24.28 |  |  | 1.86 | 36.36 |  |  |  |  |  | 35.58 | 98.08 |
| 8 | 780.3 | (Pt0.91Fe0.11Rh0.02Ru0.02)1.06(As1.74S0.15Te0.05)1.94 |  | 39.83 |  |  | 1.90 |  |  | 53.82 | 0.50 | 0.69 | 1.51 |  |  | 1.75 | 100.00 |
| 9 | 780.3 | (Pd1.70Pt1.32)3.02Sn0.99 |  |  |  |  |  |  | 32.17 | 45.68 |  |  |  |  | 20.82 |  | 98.67 |
| 10 | 780.3 | (Pt1.57Pd1.46)3.03Sn0.97 |  |  |  |  |  |  | 26.57 | 52.18 |  |  |  |  | 19.60 |  | 98.35 |
| 11 | 780.3 | (Pt0.97Pd0.05)1.02(Te1.44Bi0.54)1.98 |  |  |  | 22.72 |  |  | 1.14 | 38.00 |  |  |  |  |  | 36.90 | 98.76 |
| 12 | 781.0 | (Pt0.98Fe0.05)1.03(As1.92S0.05)1.97 |  | 41.92 |  |  | 0.77 |  |  | 55.75 |  |  | 0.46 |  |  |  | 98.90 |
| 13 | 781.0 | Pd2.98(As0.84Sn0.18)1.02 |  | 15.43 |  |  |  |  | 77.81 |  |  |  |  |  | 5.22 |  | 98.46 |
| 14 | 781.0 | (Pd1.67Pt1.17Au0.19)3.03Sn0.97 |  |  | 6.46 |  |  |  | 31.52 | 40.46 |  |  |  |  | 20.47 |  | 98.91 |
| 15 | 781.0 | (Pd1.66Pt1.33)2.99Sn1.01 |  |  |  |  |  |  | 31.32 | 45.93 |  |  |  |  | 21.3 |  | 98.55 |
| 16 | 781.0 | Pt1.02(Te1.21Bi0.77)1.98 |  |  |  | 30.78 |  |  |  | 38.13 |  |  |  |  |  | 29.56 | 98.47 |
| 17 | 782.0 | Pt1.01(As1.55Te0.24Bi0.21)2.00 |  | 26.64 |  | 9.91 |  |  |  | 45.06 |  |  |  |  |  | 7.05 | 88.66 |

Note. 1-4 – picritic g-d; 5-17 – taxitic g-d; \* – The Total after subtracting of matrix elements; 1,3,5,8,12,17 – Sperrylite PtAs2; 2 – Hollingworthite RhAsS; 4 – Kotulskite PdTe; 6 – Michenirite PdBiTe; 7,11,16 – Moncheite PtTe2; 9,14,15 – Atokite Pd3Sn; 10 – Rustenburgite Pt3Sn; 13 – Vincentite Pd3A