## APPENDIX 2

### Trace element analysis (ppm) of 50 samples from six sample localities

| Sample | Sc | Ba | Co | Cs | Hf | Nb | Sr | Th | U | V | Zr | Cu | Pb | Zn | Ni | As | Mo | Co/Zn | Co/Ni |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D1 | 2.0 | 746.0 | 48.7 | 0.1 | 0.3 | 0.2 | 568.0 | 0.4 | 7.2 | 328.0 | 18.8 | 76.7 | 3.5 | 123.0 | 161.6 | 65.1 | 45.9 | 0.4 | 0.3 |
| D2 | 1.0 | 5211.0 | 225.6 | 0.1 | 0.1 | 0.1 | 119.7 | 0.2 | 1.5 | 85.0 | 1.3 | 28.7 | 0.4 | 49.0 | 63.2 | 80.2 | 10.7 | 4.6 | 3.6 |
| D3 | 1.0 | 37137.0 | 505.4 | 0.2 | 0.1 | 0.1 | 782.0 | 0.3 | 6.4 | 51.0 | 4.4 | 27.3 | 1.0 | 53.0 | 59.7 | 20.2 | 3.7 | 9.5 | 8.5 |
| D4 | 1.0 | 309.0 | 129.0 | 0.1 | 0.1 | 0.1 | 77.9 | 0.2 | 0.9 | 23.0 | 5.8 | 56.6 | 0.1 | 70.0 | 77.2 | 53.7 | 13.1 | 1.8 | 1.7 |
| D5 | 1.0 | 905.0 | 170.2 | 0.1 | 0.1 | 0.1 | 402.1 | 0.2 | 2.6 | 25.0 | 1.8 | 31.9 | 0.2 | 112.0 | 111.6 | 72.8 | 11.5 | 1.5 | 1.5 |
| D6 | 1.0 | 729.0 | 80.3 | 0.1 | 0.1 | 0.1 | 682.1 | 0.2 | 7.7 | 304.0 | 3.2 | 1410.1 | 5.0 | 72.0 | 119.8 | 115.9 | 60.0 | 1.1 | 0.7 |
| D7 | 1.0 | 1464.0 | 73.9 | 0.1 | 0.2 | 0.2 | 653.1 | 0.2 | 5.7 | 256.0 | 11.3 | 321.7 | 1.1 | 109.0 | 175.1 | 79.5 | 119.1 | 0.7 | 0.4 |
| D8 | 1.0 | 11204.0 | 171.2 | 0.2 | 0.3 | 0.3 | 1649.9 | 0.3 | 5.0 | 367.0 | 12.6 | 148.2 | 3.3 | 110.0 | 149.7 | 57.2 | 106.2 | 1.6 | 1.1 |
| D9 | 4.0 | 18684.0 | 890.2 | 0.1 | 0.1 | 0.1 | 3509.0 | 0.2 | 1.5 | 198.0 | 2.6 | 28.8 | 0.1 | 53.0 | 741.5 | 37.9 | 20.2 | 16.8 | 1.2 |
| D10 | 6.0 | 8922.0 | 1327.8 | 0.1 | 0.1 | 0.1 | 2382.3 | 0.2 | 2.9 | 160.0 | 4.6 | 81.8 | 0.2 | 113.0 | 878.4 | 17.3 | 20.9 | 11.8 | 1.5 |
| D11 | 11.0 | 17868.0 | 918.8 | 0.1 | 0.3 | 0.1 | 3380.7 | 0.2 | 1.2 | 252.0 | 8.1 | 89.5 | 0.3 | 167.0 | 950.9 | 33.4 | 21.0 | 5.5 | 1.0 |
| D12 | 1.0 | 15388.0 | 321.9 | 0.1 | 0.3 | 0.1 | 6598.9 | 0.2 | 2.1 | 85.0 | 46.9 | 138.4 | 1.0 | 80.0 | 67.7 | 27.0 | 61.1 | 4.0 | 4.8 |
| D13 | 1.0 | 10827.0 | 183.5 | 0.1 | 0.2 | 0.1 | 6481.0 | 0.3 | 1.6 | 58.0 | 20.6 | 95.2 | 1.9 | 141.0 | 136.1 | 36.5 | 93.2 | 1.3 | 1.3 |
| D14 | 1.0 | 8089.0 | 101.8 | 0.1 | 0.1 | 0.1 | 5610.1 | 0.2 | 1.8 | 36.0 | 17.6 | 89.0 | 1.7 | 95.0 | 84.3 | 38.3 | 89.1 | 1.1 | 1.2 |
| D15 | 1.0 | 14497.0 | 296.3 | 0.1 | 0.1 | 0.1 | 7353.4 | 0.2 | 1.6 | 52.0 | 32.5 | 107.6 | 0.8 | 89.0 | 71.5 | 29.4 | 90.4 | 3.3 | 4.1 |
| D16 | 1.0 | 26654.0 | 635.0 | 0.1 | 0.3 | 0.1 | 8842.0 | 0.2 | 1.8 | 67.0 | 46.9 | 155.9 | 1.0 | 95.0 | 69.2 | 45.2 | 83.6 | 6.7 | 9.2 |
| D17 | 1.0 | 6268.0 | 170.2 | 0.1 | 0.1 | 0.1 | 2502.2 | 0.2 | 1.5 | 27.0 | 33.9 | 180.4 | 1.0 | 80.0 | 70.2 | 19.6 | 74.7 | 2.1 | 2.4 |
| Average | 2.1 | 10876.6 | 367.6 | 0.1 | 0.2 | 0.1 | 3035.0 | 0.2 | 3.1 | 139.6 | 16.1 | 180.5 | 1.3 | 94.8 | 234.6 | 48.8 | 54.4 | 4.3 | 2.6 |
| B1 | 1.0 | 8555.0 | 81.5 | 0.1 | 0.2 | 0.1 | 2447.3 | 0.3 | 2.6 | 167.0 | 6.4 | 44.6 | 5.3 | 101.0 | 276.9 | 22.2 | 13.8 | 0.8 | 0.3 |
| B2 | 1.0 | 36638.0 | 131.5 | 0.3 | 0.2 | 0.1 | 7946.3 | 0.2 | 3.6 | 212.0 | 12.2 | 186.1 | 0.9 | 164.0 | 376.3 | 62.6 | 39.0 | 0.8 | 0.3 |
| B3 | 1.0 | 11134.0 | 55.6 | 0.1 | 0.3 | 0.1 | 3392.3 | 0.7 | 2.8 | 206.0 | 10.6 | 31.2 | 7.1 | 110.0 | 404.5 | 20.8 | 16.2 | 0.5 | 0.1 |
| B4 | 1.0 | 5708.0 | 369.9 | 0.1 | 0.2 | 0.1 | 1566.8 | 0.7 | 3.1 | 84.0 | 9.9 | 109.4 | 9.6 | 110.0 | 375.4 | 5.9 | 6.2 | 3.4 | 1.0 |
| Average | 1.0 | 15508.8 | 159.6 | 0.2 | 0.2 | 0.1 | 3838.2 | 0.5 | 3.0 | 167.3 | 9.8 | 92.8 | 5.7 | 121.3 | 358.3 | 27.9 | 18.8 | 1.4 | 0.4 |
| C1 | 7.0 | 525.0 | 56.9 | 0.5 | 1.4 | 3.6 | 497.7 | 2.5 | 1.3 | 296.0 | 83.8 | 542.2 | 142.3 | 297.0 | 286.7 | 69.4 | 11.0 | 0.2 | 0.2 |
| C2 | 7.0 | 445.0 | 49.9 | 0.6 | 1.3 | 3.4 | 317.1 | 3.1 | 1.2 | 336.0 | 83.4 | 474.9 | 114.6 | 278.0 | 276.4 | 88.6 | 12.0 | 0.2 | 0.2 |
| C3 | 9.0 | 2511.0 | 181.5 | 1.3 | 1.8 | 5.0 | 279.6 | 3.9 | 0.7 | 476.0 | 111.0 | 794.6 | 130.9 | 407.0 | 557.8 | 127.3 | 43.5 | 0.4 | 0.3 |
| C4 | 9.0 | 91.0 | 136.0 | 0.6 | 2.0 | 4.9 | 118.6 | 3.4 | 0.8 | 555.0 | 118.0 | 796.1 | 147.8 | 331.0 | 441.1 | 199.9 | 24.2 | 0.4 | 0.3 |
| Average | 8.0 | 893.0 | 106.1 | 0.8 | 1.6 | 4.2 | 303.3 | 3.2 | 1.0 | 415.8 | 99.1 | 652.0 | 133.9 | 328.3 | 390.5 | 121.3 | 22.7 | 0.3 | 0.3 |
| BM1 | 7.0 | 5408.0 | 147.8 | 0.9 | 1.3 | 2.3 | 766.1 | 4.3 | 1.8 | 346.0 | 65.1 | 409.9 | 30.7 | 119.0 | 238.5 | 16.7 | 8.3 | 1.2 | 0.6 |
| BM2 | 9.0 | 16855.0 | 134.6 | 2.5 | 2.0 | 5.1 | 1670.1 | 5.7 | 2.0 | 260.0 | 83.0 | 374.4 | 38.3 | 128.0 | 255.2 | 16.2 | 10.1 | 1.1 | 0.5 |
| BM3 | 4.0 | 740.0 | 1432.1 | 0.1 | 0.9 | 1.4 | 321.2 | 2.6 | 2.9 | 983.0 | 46.8 | 233.1 | 29.2 | 120.0 | 342.7 | 45.1 | 25.5 | 11.9 | 4.2 |
| BM4 | 7.0 | 3355.0 | 417.3 | 1.0 | 1.5 | 3.0 | 512.0 | 4.7 | 2.1 | 311.0 | 65.6 | 372.8 | 36.6 | 152.0 | 320.0 | 11.6 | 5.6 | 2.7 | 1.3 |
| BM5 | 3.0 | 5036.0 | 975.6 | 0.3 | 0.7 | 0.7 | 552.8 | 1.4 | 8.7 | 183.0 | 31.5 | 744.1 | 17.6 | 128.0 | 174.3 | 30.7 | 15.9 | 7.6 | 5.6 |
| Average | 6.0 | 6278.8 | 621.5 | 1.0 | 1.3 | 2.5 | 764.4 | 3.7 | 3.5 | 416.6 | 58.4 | 426.9 | 30.5 | 129.4 | 266.1 | 24.1 | 13.1 | 4.9 | 2.4 |
| E1 | 1.0 | 3339.0 | 87.6 | 0.1 | 0.5 | 0.2 | 197.3 | 1.6 | 1.7 | 142.0 | 20.3 | 92.7 | 22.0 | 52.0 | 66.2 | 53.6 | 198.2 | 1.7 | 1.3 |
| E2 | 1.0 | 1742.0 | 147.0 | 0.1 | 0.5 | 0.3 | 47.0 | 1.6 | 2.9 | 211.0 | 18.2 | 96.5 | 19.0 | 66.0 | 67.7 | 55.0 | 17.7 | 2.2 | 2.2 |
| E3 | 1.0 | 1818.0 | 82.8 | 0.1 | 0.2 | 0.1 | 39.2 | 0.6 | 1.5 | 114.0 | 7.7 | 70.9 | 9.6 | 47.0 | 44.9 | 36.6 | 32.0 | 1.8 | 1.8 |

| | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| E4 | 1.0 | 1572.0 | 79.7 | 0.1 | 0.1 | 0.1 | 37.6 | 0.4 | 1.2 | 66.0 | 4.7 | 40.6 | 15.2 | 53.0 | 49.9 | 47.5 | 13.7 | 1.5 | 1.6 |
| E5 | 1.0 | 5947.0 | 31.7 | 0.1 | 0.1 | 0.1 | 40.3 | 0.2 | 1.7 | 109.0 | 0.5 | 31.0 | 5.7 | 40.0 | 55.3 | 65.1 | 17.3 | 0.8 | 0.6 |
| E6 | 1.0 | 1989.0 | 128.9 | 0.1 | 0.1 | 0.1 | 60.2 | 0.3 | 3.3 | 110.0 | 9.0 | 28.5 | 7.8 | 49.0 | 47.1 | 49.3 | 14.3 | 2.6 | 2.7 |
| E7 | 1.0 | 1209.0 | 78.6 | 0.1 | 0.2 | 0.1 | 34.4 | 0.3 | 1.9 | 70.0 | 8.9 | 58.3 | 6.0 | 49.0 | 65.0 | 54.0 | 11.0 | 1.6 | 1.2 |
| E8 | 2.0 | 3194.0 | 67.9 | 0.1 | 0.1 | 0.1 | 245.6 | 0.2 | 1.7 | 83.0 | 6.6 | 247.1 | 2.2 | 151.0 | 153.0 | 25.3 | 14.4 | 0.4 | 0.4 |
| E9 | 1.0 | 3179.0 | 42.3 | 0.1 | 0.1 | 0.1 | 273.1 | 0.2 | 3.0 | 137.0 | 7.9 | 146.3 | 4.1 | 129.0 | 153.8 | 35.3 | 24.7 | 0.3 | 0.3 |
| E10 | 1.0 | 1819.0 | 140.6 | 0.1 | 0.1 | 0.2 | 67.6 | 0.3 | 2.5 | 99.0 | 3.0 | 28.1 | 7.9 | 44.0 | 50.7 | 43.7 | 16.7 | 3.2 | 2.8 |
| E11 | 1.0 | 2086.0 | 141.4 | 0.1 | 0.2 | 0.1 | 33.4 | 0.4 | 1.6 | 138.0 | 6.9 | 51.9 | 10.4 | 35.0 | 39.3 | 40.2 | 22.5 | 4.0 | 3.6 |
| E12 | 1.0 | 2227.0 | 258.9 | 0.1 | 0.3 | 0.2 | 144.7 | 1.1 | 2.4 | 170.0 | 16.7 | 34.7 | 10.3 | 35.0 | 50.2 | 52.9 | 120.5 | 7.4 | 5.2 |
| E13 | 1.0 | 3614.0 | 110.0 | 0.1 | 0.1 | 0.1 | 127.8 | 0.5 | 1.8 | 179.0 | 7.2 | 50.4 | 10.5 | 37.0 | 46.5 | 41.7 | 55.5 | 3.0 | 2.4 |
| E14 | 1.0 | 2393.0 | 134.8 | 0.1 | 0.1 | 0.1 | 42.7 | 0.8 | 1.7 | 120.0 | 7.9 | 44.1 | 15.1 | 35.0 | 38.0 | 40.7 | 19.2 | 3.9 | 3.5 |
| E15 | 1.0 | 2693.0 | 27.2 | 0.1 | 0.3 | 0.1 | 335.0 | 0.4 | 2.0 | 226.0 | 8.0 | 332.6 | 2.2 | 179.0 | 157.7 | 10.3 | 6.3 | 0.2 | 0.2 |
| Average | 1.1 | 2588.1 | 104.0 | 0.1 | 0.2 | 0.1 | 115.1 | 0.6 | 2.1 | 131.6 | 8.9 | 90.2 | 9.9 | 66.7 | 72.4 | 43.4 | 38.9 | 2.3 | 2.0 |
| T1 | 4.0 | 8781.0 | 91.9 | 0.1 | 0.7 | 4.6 | 2822.0 | 0.4 | 9.3 | 449.0 | 44.1 | 205.0 | 1.4 | 332.0 | 436.0 | 53.4 | 20.5 | 0.3 | 0.2 |
| T2 | 1.0 | 2295.0 | 403.8 | 0.1 | 0.1 | 0.2 | 1359.6 | 0.2 | 25.0 | 213.0 | 2.5 | 784.1 | 32.2 | 80.0 | 102.5 | 15.6 | 40.9 | 5.0 | 3.9 |
| T3 | 1.0 | 2634.0 | 355.4 | 0.1 | 0.1 | 0.1 | 1154.2 | 0.2 | 21.1 | 159.0 | 4.0 | 1606.5 | 11.8 | 61.0 | 141.6 | 18.7 | 39.3 | 5.8 | 2.5 |
| T4 | 1.0 | 2719.0 | 308.9 | 0.1 | 0.1 | 0.1 | 1377.3 | 0.2 | 21.8 | 122.0 | 1.8 | 767.8 | 12.7 | 75.0 | 70.3 | 15.8 | 38.8 | 4.1 | 4.4 |
| T5 | 1.0 | 3233.0 | 265.6 | 0.1 | 0.1 | 0.9 | 2023.9 | 0.2 | 14.5 | 325.0 | 1.6 | 812.7 | 6.7 | 75.0 | 89.0 | 12.4 | 61.5 | 3.5 | 3.0 |
| Average | 1.0 | 2720.3 | 333.4 | 0.1 | 0.1 | 0.3 | 1478.8 | 0.2 | 20.6 | 204.8 | 2.5 | 992.8 | 15.9 | 72.8 | 100.9 | 15.6 | 45.1 | 4.6 | 3.5 |
| TotalMax | 11.0 | 37137.0 | 1432.1 | 2.5 | 2.0 | 5.1 | 8842.0 | 5.7 | 25.0 | 983.0 | 118.0 | 1606.5 | 147.8 | 407.0 | 950.9 | 199.9 | 198.2 | 16.8 | 9.2 |
| TotalMin | 1.0 | 91.0 | 27.2 | 0.1 | 0.1 | 0.1 | 33.4 | 0.2 | 0.7 | 23.0 | 0.5 | 27.3 | 0.1 | 35.0 | 38.0 | 5.9 | 3.7 | 0.2 | 0.1 |
| TotalAve. | 2.5 | 6807.7 | 268.1 | 0.2 | 0.4 | 0.8 | 1648.9 | 1.0 | 4.2 | 200.6 | 23.8 | 274.2 | 18.9 | 113.6 | 204.8 | 46.3 | 38.8 | 3.2 | 2.1 |

D – Derbent deposit; B – Baltasarılar deposit; C – Cihanpaşa deposit; BM – Büyükmahal deposit; E – Eymir deposit; T – Tarhana deposit