**Additional file**

# Risk Assessment of Heavy Metal in the Surface Sediment at the Drinking Water Source of the Xiangjiang River in South China

Table S1 Parameters of sediment sampls. All values are given as mean values with standard deviation.

|  |  |  |  |
| --- | --- | --- | --- |
| Parameter/Sampling sites | OM （mg L-1） | *D*50(μm) | Grain size <63μm (%) |
| S1 | 2.06±0.86 | 63.58±17.89 | 45.64±8.94 |
| S2 | 1.73±1.00 | 50.50±10.80 | 51.90±18.22 |
| S3 | 2.01±1.20 | 37.13±11.52 | 59.77±8.60 |
| S4 | 1.58±1.46 | 58.81±14.24 | 57.06±8.04 |
| S5 | 2.45±0.82 | 33.64±11.59 | 67.19±11.77 |
| S6 | 2.51±0.99 | 49.19±17.02 | 67.53±11.20 |
| S7 | 2.16±0.51 | 46.36±9.42 | 68.89±2.91 |
| S8 | 2.44±0.74 | 41.72±32.91 | 72.10±21.70 |
| S9 | 1.90±2.01 | 52.32±11.23 | 60.46±2.95 |
| S10 | 2.41±0.87 | 43.03±24.57 | 71.73±15.27 |

Table S2 $E\_{r}^{i}$ values of heavy metals in sediment. All values are given as mean values with standard deviation.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Co | Cd | Ni | Cr | Cu | As | Pb | Zn |
| S1 | 8.73±1.63 | 1215.76±500.68 | 7.58±2.33 | 2.24±0.70 | 10.93±4.55 | 40.94±13.54 | 14.48±6.08 | 2.03±0.99 |
| S2 | 9.49±2.76 | 865.45±545.64 | 8.46±2.72 | 2.36±1.03 | 11.92±6.90 | 43.55±14.67 | 26.01±18.98 | 3.09±2.56 |
| S3 | 9.09±1.34 | 1600.91±408.12 | 9.76±1.75 | 3.31±0.49 | 15.52±3.15 | 64.18±5.83 | 21.07±6.04 | 2.58±0.94 |
| S4 | 7.65±1.92 | 1998.79±88.19 | 9.15±2.70 | 2.79±0.71 | 15.59±1.39 | 61.57±7.40 | 21.66±1.86 | 2.98±0.54 |
| S5 | 9.89±3.50 | 3231.52±1957.48 | 9.83±2.77 | 3.25±1.05 | 30.46±17.49 | 86.01±39.83 | 28.67±10.60 | 4.58±2.52 |
| S6 | 9.28±1.78 | 4656.06±762.56 | 9.89±1.27 | 3.18±0.77 | 27.20±9.02 | 112.02±13.46 | 31.55±3.62 | 5.23±1.44 |
| S7 | 3.96±1.17 | 363.33±196.40 | 4.72±0.84 | 1.35±0.25 | 7.90±1.50 | 28.84±5.28 | 11.10±1.93 | 1.10±0.44 |
| S8 | 8.06±2.40 | 2403.64±2097.38 | 8.66±2.37 | 2.85±0.97 | 16.85±9.60 | 70.79±31.71 | 21.26±8.37 | 3.04±2.01 |
| S9 | 7.34±2.73 | 2059.09±1668.44 | 8.14±2.69 | 2.65±0.88 | 18.25±4.70 | 62.33±32.33 | 18.66±7.50 | 2.85±1.64 |
| S10 | 8.90±1.79 | 2791.82±1190.84 | 9.41±1.80 | 3.17±0.67 | 23.60±5.71 | 85.63±26.46 | 25.54±5.95 | 3.37±1.17 |



Fig. S1 PCA score plot of heavy metals in the sediment of different sampling sites.