**Table S1.** Spearman's correlation coefficients

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **pH** | **OM** | **CaCO3** | **P** | **K** | **Cu** | **Zn** | **Fe** | **Mn** | **Ni** | **Cd** | **Pb** | **Clay** | **Cu**  **DTPA** | **Zn**  **DTPA** | **Fe**  **DTPA** | **Mn**  **DTPA** | **Ni**  **DTPA** | **Cd**  **DTPA** |
| **OM** | -.308\*\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **CaCO3** | .543\*\* | .205 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **P** | -.182 | -.190 | -.322\*\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **K** | .053 | -.070 | -.158 | .456\*\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Cu** | -.029 | -.184 | -.301\*\* | .345\*\* | .418\*\* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Zn** | -.115 | -.260\* | -.297\*\* | .251\* | .162 | .732\*\* |  |  |  |  |  |  |  |  |  |  |  |  |  |
| **Fe** | -.232\* | -.117 | -.310\*\* | .369\*\* | .408\*\* | .510\*\* | .433\*\* |  |  |  |  |  |  |  |  |  |  |  |  |
| **Mn** | -.038 | -.298\*\* | -.201 | .093 | -.122 | .308\*\* | .701\*\* | .245\* |  |  |  |  |  |  |  |  |  |  |  |
| **Ni** | .233\* | -.014 | .212 | -.107 | -.198 | -.112 | -.130 | -.256\* | -.168 |  |  |  |  |  |  |  |  |  |  |
| **Cd** | .128 | -.176 | .036 | .047 | .266\* | .465\*\* | .326\*\* | .560\*\* | .020 | .219\* |  |  |  |  |  |  |  |  |  |
| **Pb** | .078 | -.017 | .086 | -.147 | -.278\* | .093 | .348\*\* | -.049 | .358\*\* | .410\*\* | .348\*\* |  |  |  |  |  |  |  |  |
| **Clay** | .031 | .050 | -.134 | -.047 | -.208 | .034 | .190 | -.040 | .378\*\* | .286\*\* | -.086 | .375\*\* |  |  |  |  |  |  |  |
| **Cu DTPA** | -.135 | -.275\* | -.423\*\* | .403\*\* | .441\*\* | .885\*\* | .624\*\* | .614\*\* | .189 | -.198 | .482\*\* | -.133 | -.087 |  |  |  |  |  |  |
| **Zn DTPA** | -.174 | -.263\* | -.270\* | .326\*\* | .391\*\* | .709\*\* | .550\*\* | .558\*\* | .122 | -.150 | .576\*\* | -.123 | -.294\*\* | .849\*\* |  |  |  |  |  |
| **Fe DTPA** | -.432\*\* | .103 | -.404\*\* | .283\*\* | .166 | .296\*\* | .117 | .577\*\* | -.273\* | -.010 | .328\*\* | -.223\* | -.076 | .514\*\* | .457\*\* |  |  |  |  |
| **Mn DTPA** | -.344\*\* | .187 | -.214 | -.187 | -.443\*\* | -.156 | -.018 | -.392\*\* | .126 | .061 | -.479\*\* | .259\* | .252\* | -.239\* | -.302\*\* | -.133 |  |  |  |
| **Ni DTPA** | -.086 | -.069 | -.205 | -.066 | -.287\*\* | -.130 | .170 | -.202 | .460\*\* | .175 | -.254\* | .510\*\* | .619\*\* | -.297\*\* | -.444\*\* | -.346\*\* | .624\*\* |  |  |
| **Cd DTPA** | -.064 | -.219\* | -.111 | .035 | .254\* | .502\*\* | .392\*\* | .480\*\* | .093 | .022 | .759\*\* | .230\* | -.120 | .541\*\* | .585\*\* | .221\* | -.189 | -.068 |  |
| **Pb DTPA** | .087 | -.300\*\* | -.105 | .020 | .002 | .393\*\* | .673\*\* | .230\* | .644\*\* | .000 | .391\*\* | .541\*\* | .180 | .268\* | .272\* | -.168 | -.046 | .323\*\* | .348\*\* |

\*\*. Correlation is significant at the 0.01 level (2-tailed).

\*. Correlation is significant at the 0.05 level (2-tailed).