

Table 4 Statistical Analysis of the Index of Geo-accumulation of heavy metals in cassava mill effluents contaminated soil

| Background | Heavy metals | Dry season | | | Wet season | | |
|------------|--------------|------------|---------|-------|------------|---------|-------|
| | | Minimum | Maximum | Mean | Minimum | Maximum | Mean |
| BMM | Cu | -1.56 | 0.20 | -0.61 | -1.15 | -0.62 | -0.88 |
| | Zn | -2.74 | -0.40 | -1.00 | -1.69 | -0.29 | -0.78 |
| | Mn | -1.69 | -0.09 | -0.86 | -1.69 | -0.15 | -0.73 |
| | Fe | -1.89 | 0.11 | -0.78 | -0.92 | 0.58 | -0.32 |
| | Pb | -2.25 | 0.42 | -0.71 | -1.84 | 1.53 | -0.35 |
| | Cd | -0.62 | -0.62 | -0.62 | -0.60 | 0.45 | -0.20 |
| | Cr | -3.06 | 0.30 | -0.97 | -1.03 | 0.91 | -0.37 |
| | Ni | -1.09 | 0.08 | -0.49 | -1.22 | 1.27 | -0.22 |
| | Co | -2.18 | -0.45 | -0.92 | -0.60 | 0.50 | -0.21 |
| BGM | Cu | -1.35 | 0.23 | -0.55 | -0.86 | -0.34 | -0.58 |
| | Zn | -2.32 | 0.03 | -0.58 | -1.47 | -0.10 | -0.58 |
| | Mn | -1.40 | 0.19 | -0.59 | -1.56 | 0.00 | -0.59 |
| | Fe | -1.74 | 0.30 | -0.59 | -0.94 | -0.27 | -0.57 |
| | Pb | -2.12 | 0.55 | -0.58 | -2.06 | 2.47 | -0.34 |
| | Cd | -0.62 | -0.62 | -0.62 | -0.97 | 0.10 | -0.56 |
| | Cr | -2.64 | 0.68 | -0.58 | -1.22 | 0.82 | -0.34 |
| | Ni | -1.18 | -0.03 | -0.65 | -1.60 | 0.87 | -0.58 |
| | Co | -1.89 | -0.12 | -0.59 | -0.97 | 0.11 | -0.58 |

Note: $I_{geo} \leq 0$ (uncontaminated), $0 < I_{geo} \leq 1$ (uncontaminated to moderately contaminated), $1 < I_{geo} \leq 2$ (moderately contaminated), $2 < I_{geo} < 3$ (moderately to heavily contaminated), $3 < I_{geo} < 4$ (heavily contaminated), $4 < I_{geo} < 5$ (heavily to extremely contaminated), $I_{geo} \geq 5$ (extremely contaminated); BMM- Background median mean, BGM- Background geometric mean