**Supplementary materials**

**Table S1**: ﻿Background soil physico-chemical and microbiological properties of Kettara mine. Values represent means ± standard error.

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| --- | --- |
|  | ﻿Soil property (10 – 30 cm depth) |
| pH | 2.13 ± 0.08 |
| EC (mS/ms) | 7.50 ± 0.045 |
| CaCO3 (%) | 2.66 ± 0.44 |
| TOC (%) | 1.13 ± 0.07 |
| TN (mg/g) | 0.32 ± 0.03 |
| Pass (mg.kg-1) | BDL |
| Total Zn (mg.kg-1) | 519.60 ± 39.67 |
| Total Cu (mg.kg-1) | 964.05 ± 67.18 |
| Total Pb (mg.kg-1) | 110.62 ± 11.98 |
| Bact (CFU/g) | BDL |
| Fun (CFU/g)) | BDL |

EC: electrical conductivity; TOC: total organic carbon; TN: total nitrogen; Pass: assimilable phosphorus; Bact: total culturable bacteria; Fun: total culturable fungi.