

## ***Interactive comment on “Co, Cr and Ni contents in soils and plants from a serpentinite quarry” by M. Lago-Vila et al.***

### **Anonymous Referee #2**

Received and published: 13 January 2015

General Comment The submitted manuscript shows data of heavy metals accumulation in soils and plants from an abandoned serpentinite quarry. In my opinion the manuscript is too descriptive and also the presented results are messy. The presented results should be more concise. The authors spent a lot of words in the description of exceptions found in the general trends, while the general behaviours are not clearly described. On the other hand, a real discussion about the results implications is missing.

The hypothesis and aim of the manuscript must be improved. Can you test the plant phytoremediation capacities if you don't measure the heavy metal concentrations in the soil before and after the plants development? In think no.

However, with your data you can response to the next questions: Are the heavy metal

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concentrations in the soils and plants found in the quarry higher than in the surrounding area?

Which is the best extraction method to estimate the heavy metals availability for plants growing in the quarry? You have interesting data in this respect

Are the plants found in the quarry adequate for phytoremediation or for phytostabilisation tests?

#### Specific comments

Along the results and discussion. Use less decimals when possible

Page 3362, lines 20-21. You have no data to support that.

Page 3367, line 16. Reference for ditionite-citrate method is needed.

Page 3367, line 24. Add a Reference

Page 3367, line 25. Add a Reference for this method

Page 3368, line 5. Why only this three metals?

Page 3368, line 15. Zn? Should be Ni?

Page 3368, line 17. Add a reference for this method

Page 3368, line 20. Explain better the concept of extraction efficiency (EF)

Page 3369, line 19-20. Delete sentence

Page 3370, line 15. Replace “matter” by “material”

Page 3372, lines 4-5. Explain the difference between Ni(OM) and Ni(no OM). Maybe in materials and methods. Why do you not used it for the other metals?

Page 3373, lines 11-13. Delete. You repeat to much this sentence along the text (Page 3375, lines 3-4 again).

C1505

Page 3376, line 10. Drawbacks?

Page 3376, line 20. "Festuca" or "Juncus".

Page 3376, line 20-22. Explain better why it is an accumulator?

Page 3376. Compare the potential use of Festuca and Juncus as phytostabilizer or as accumulator with other plants in the literature.

Page 3377, lines 12-14. You have no data to support that.

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Interactive comment on Solid Earth Discuss., 6, 3361, 2014.