Contamination Characteristics of the Confluence of Polluted and Unpolluted Rivers – Range and Spatial Distribution of Contaminants of a Significant Mining Centre (Kutná Hora, Czech Republic)

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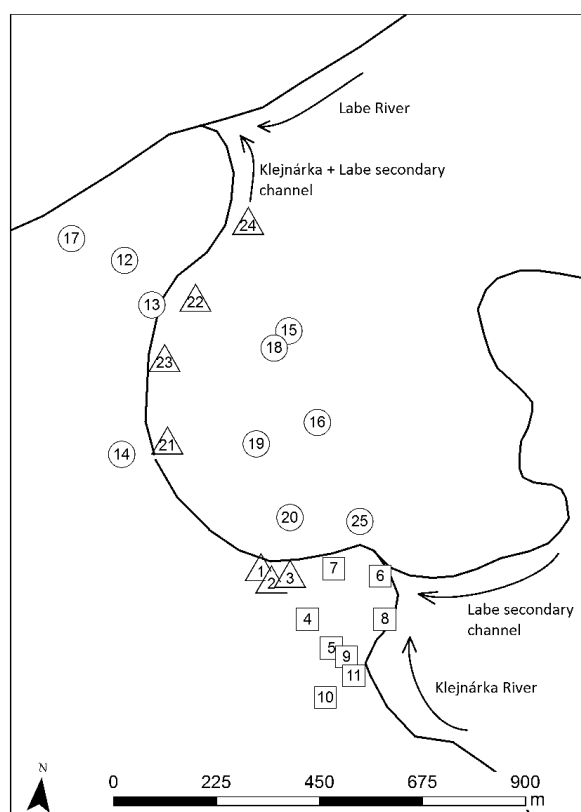**Electronic supplementary material (ESM)**
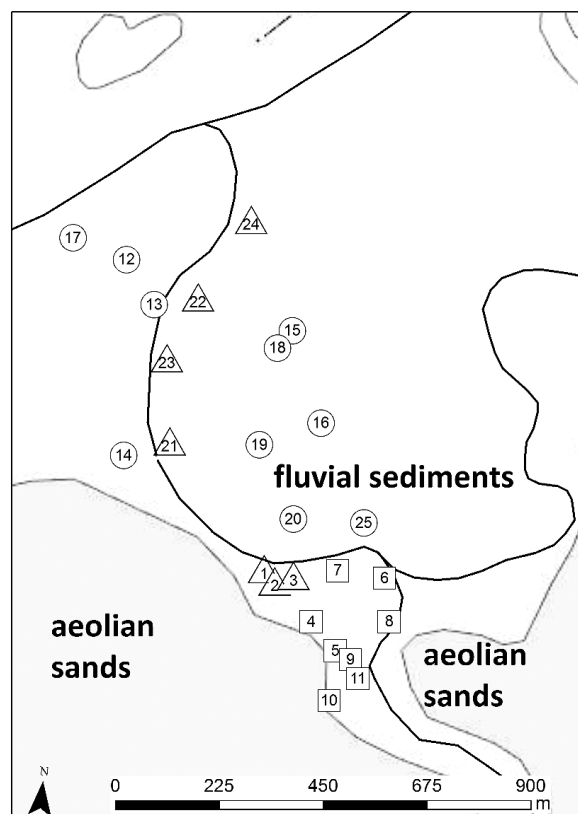

Figure S1. Detailed plan of confluence area

Figure S2. Detailed plan of confluence area with depiction of spatial distribution of main sedimentary bodies – aeolian sands and fluvial sediments; source of geological layer: Czech Geological Survey, geological map 1:50000; web map service: http://mapy.geology.cz/arcgis/services/Geologie/geocr50/MapServer/WmsServer?
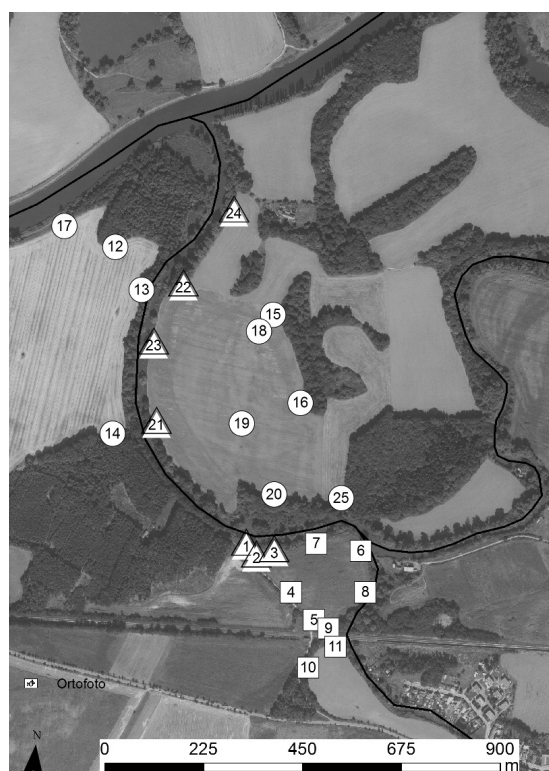
Figure S3. Detailed plan of confluence area with depiction of surface landscape features; source of orthophotographical layer: Czech Cadastral of Real Estate, web map service: http://geoportal.cuzk.cz/WMS_ORTOFOTO_PUB/WMService.aspx?
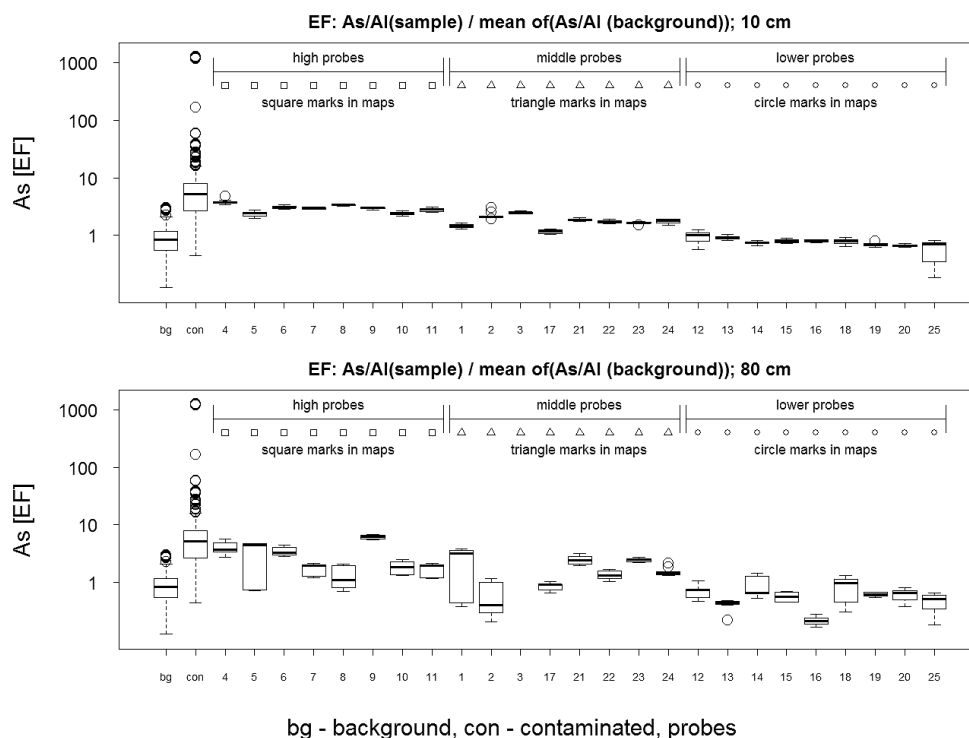

Figure S4. Boxplots depicting an example of enrichment factor pattern on gradient background area – contaminated area – confluence area probes; arsenic in depths 10 and 80 cm was chosen for depiction; plot features are the same as on Figure 2
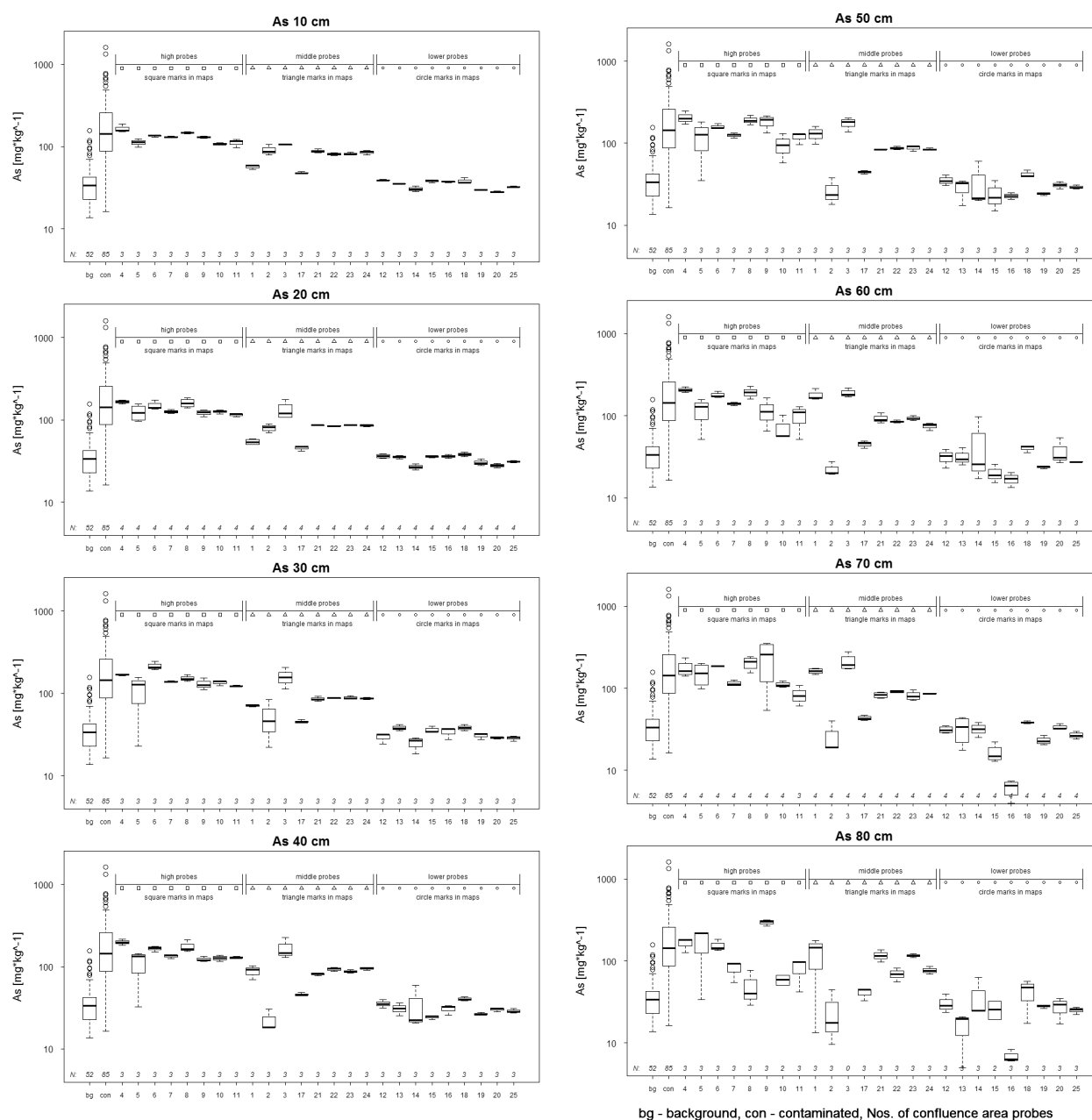
Figure S5. Boxplots depicting pattern of arsenic concentrations on gradient background area – contaminated area – confluence area probes; eight plots depict the situation in depths 10 to 80 cm of confluence area; the data from other areas are the same on all plots; plot features are the same as on Figure 2

Figure S6. Boxplots depicting pattern of copper concentrations on gradient background area – contaminated area – confluence area probes; eight plots depict the situation in depths 10 to 80 cm of confluence area; the data from other areas are the same on all plots; plot features are the same as on Figure 2

Figure S7. Boxplots depicting pattern of lead concentrations on gradient background area – contaminated area – confluence area probes; eight plots depict the situation in depths 10 to 80 cm of confluence area; the data from other areas are the same on all plots; plot features are the same as on Figure 2
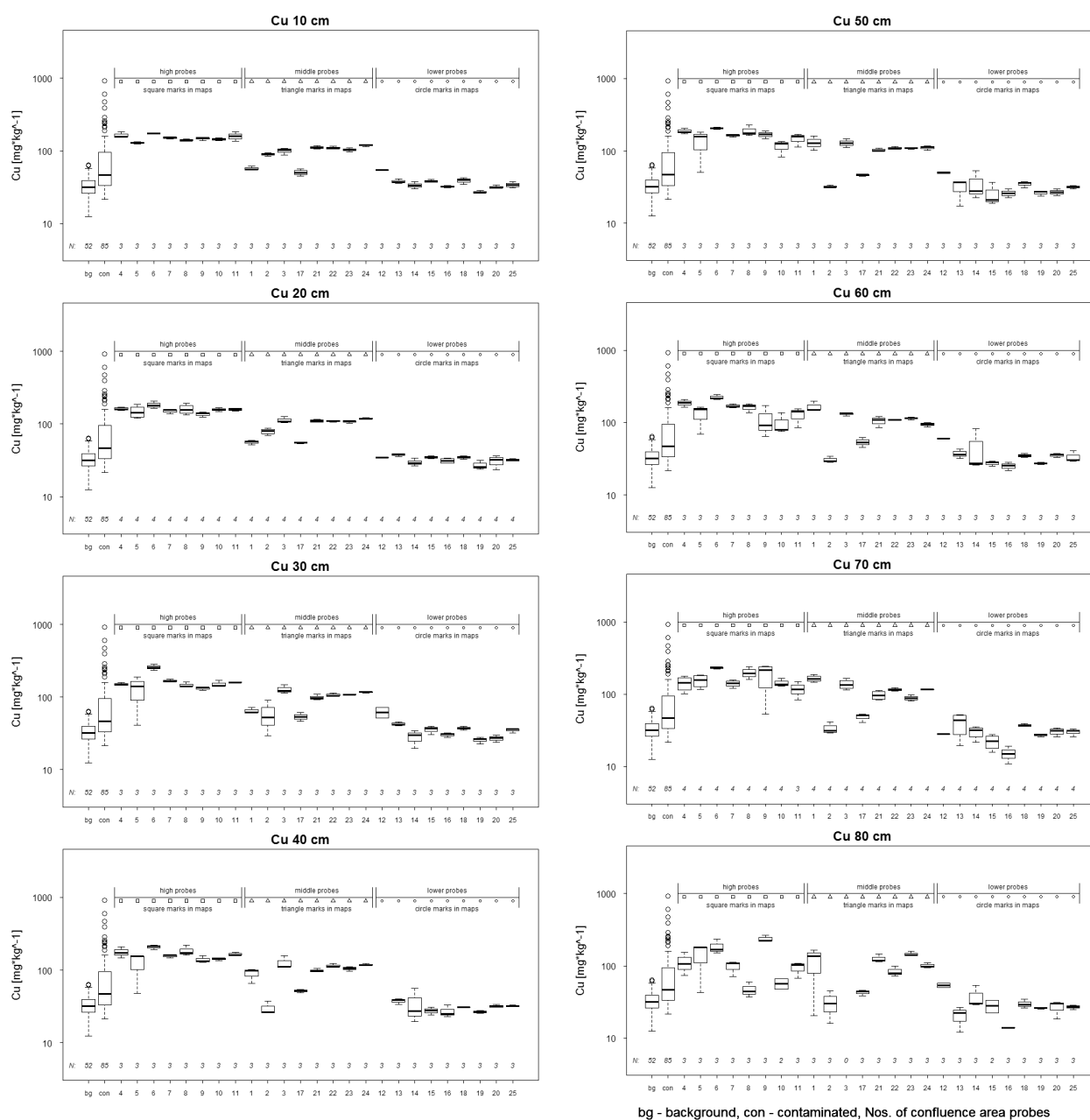
Figure S8. Boxplots depicting pattern of zinc concentrations on gradient background area – contaminated area – confluence area probes; eight plots depict the situation in depths 10 to 80 cm of confluence area; the data from other areas are the same on all plots; plot features are the same as on Figure 2
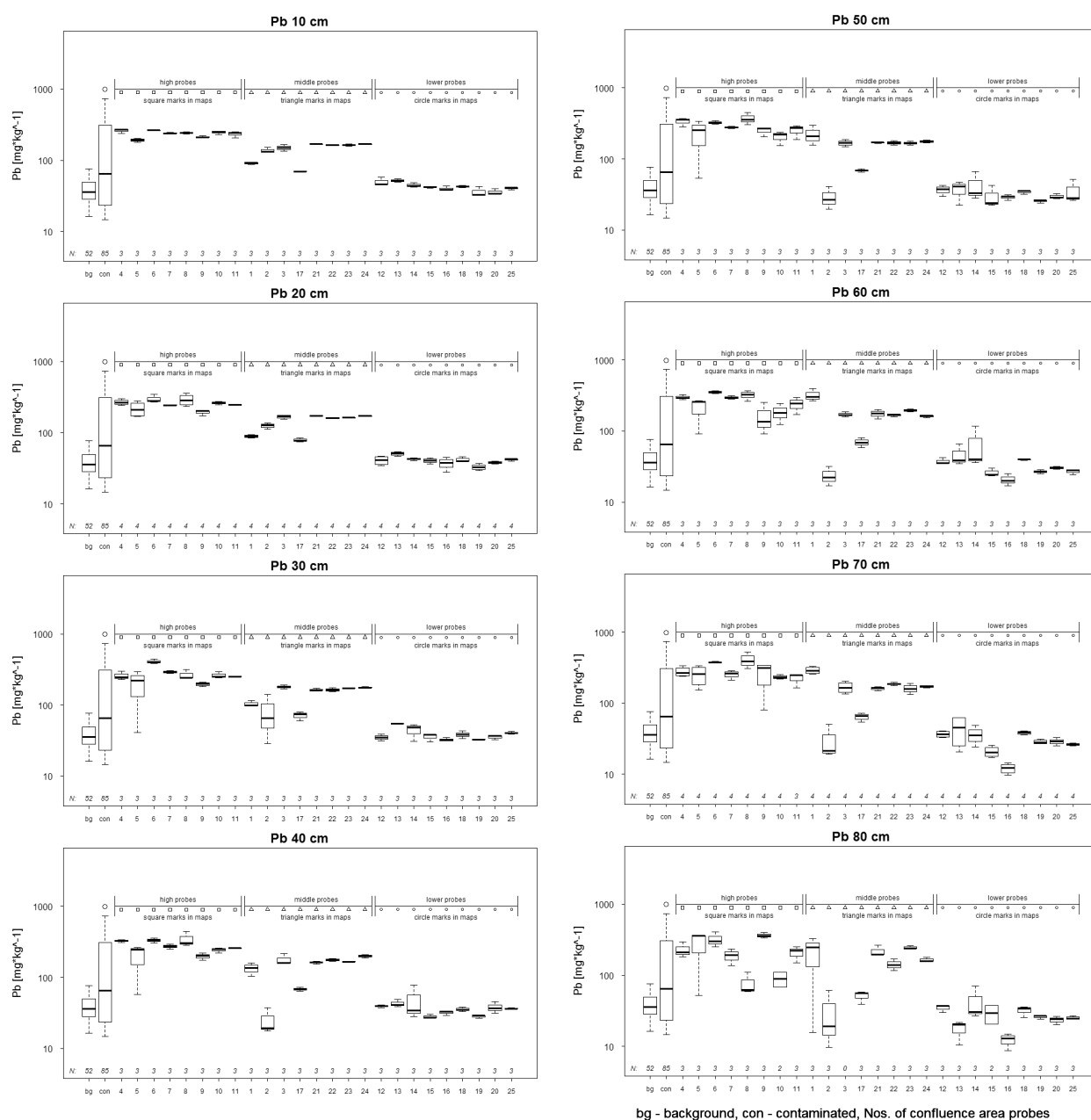
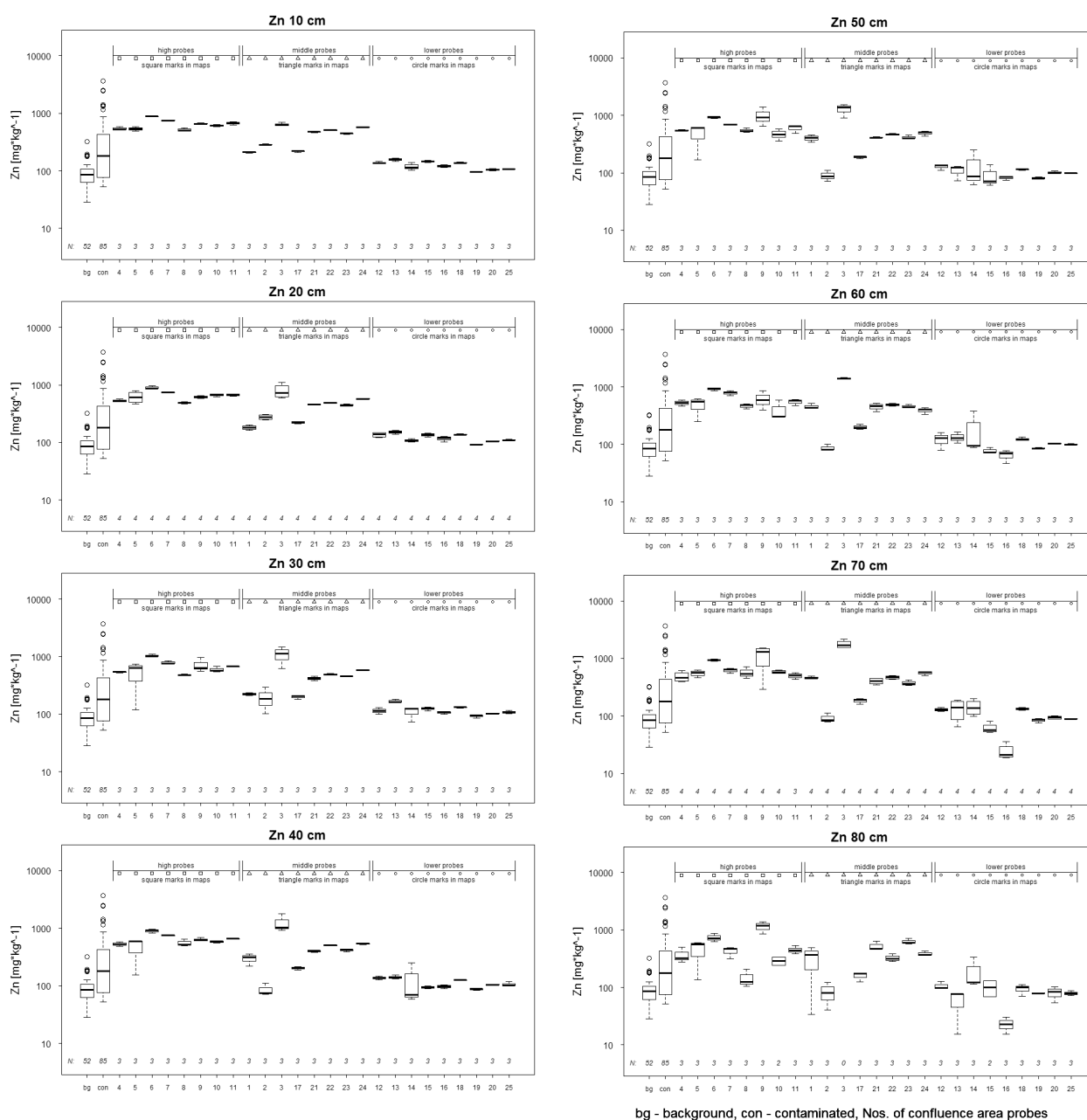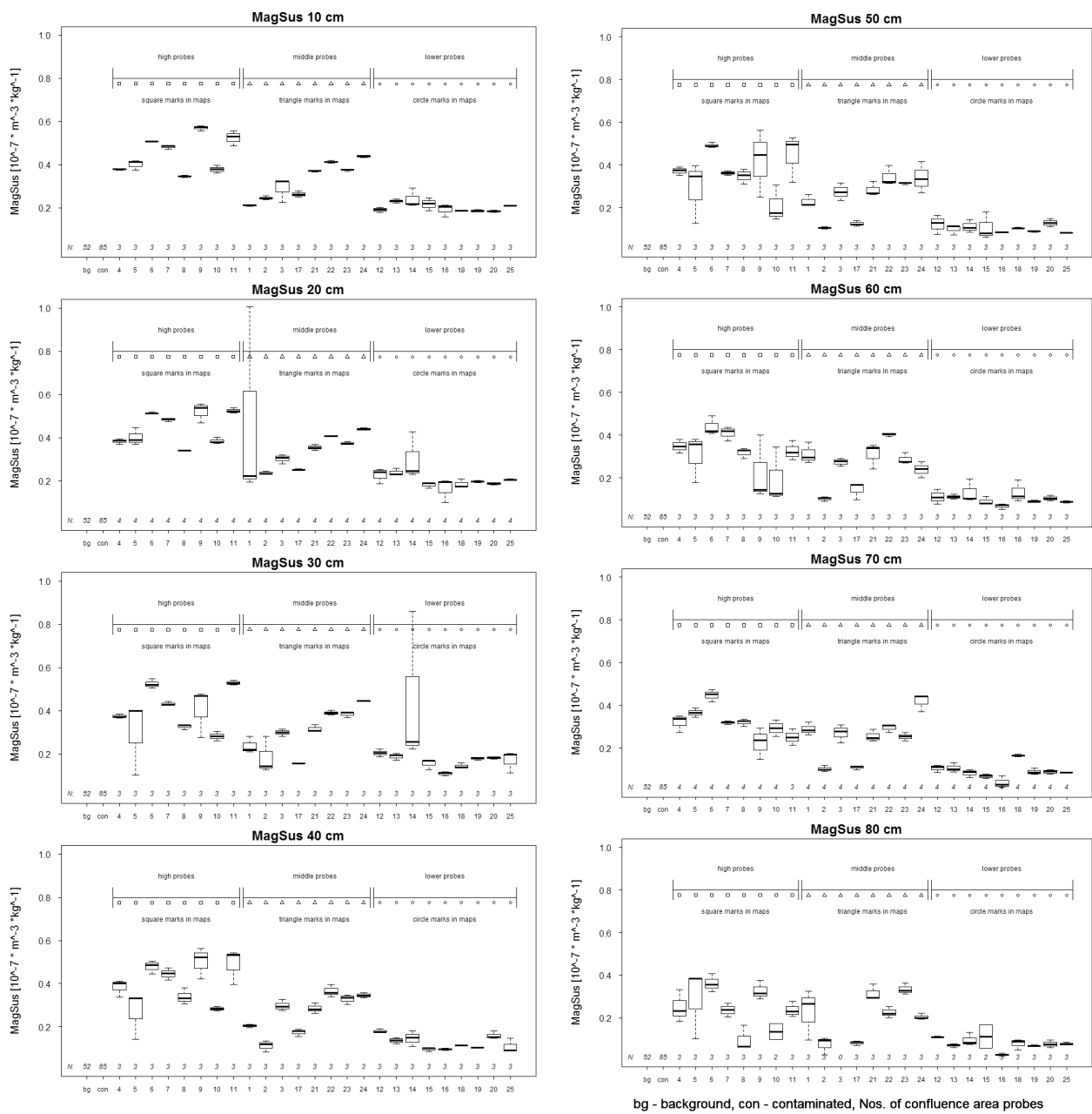Figure S9. Boxplots depicting pattern of magnetic susceptibility values on gradient of confluence area probes; eight plots depict the situation in depths 10 to 80 cm of confluence area; there are only data for confluence area; plot features are the same as on Figure 2

Figure S10. Interpolation of arsenic clr transformation values in depths 10 to 80 cm of confluence areas; features except the interpolation raster are the same as on Figure 1

Figure S11. Interpolation of arsenic concentrations in depths 10 to 80 cm of confluence areas; features except the interpolation raster are the same as on Figure 1

Cu 10 clr

[clr value]
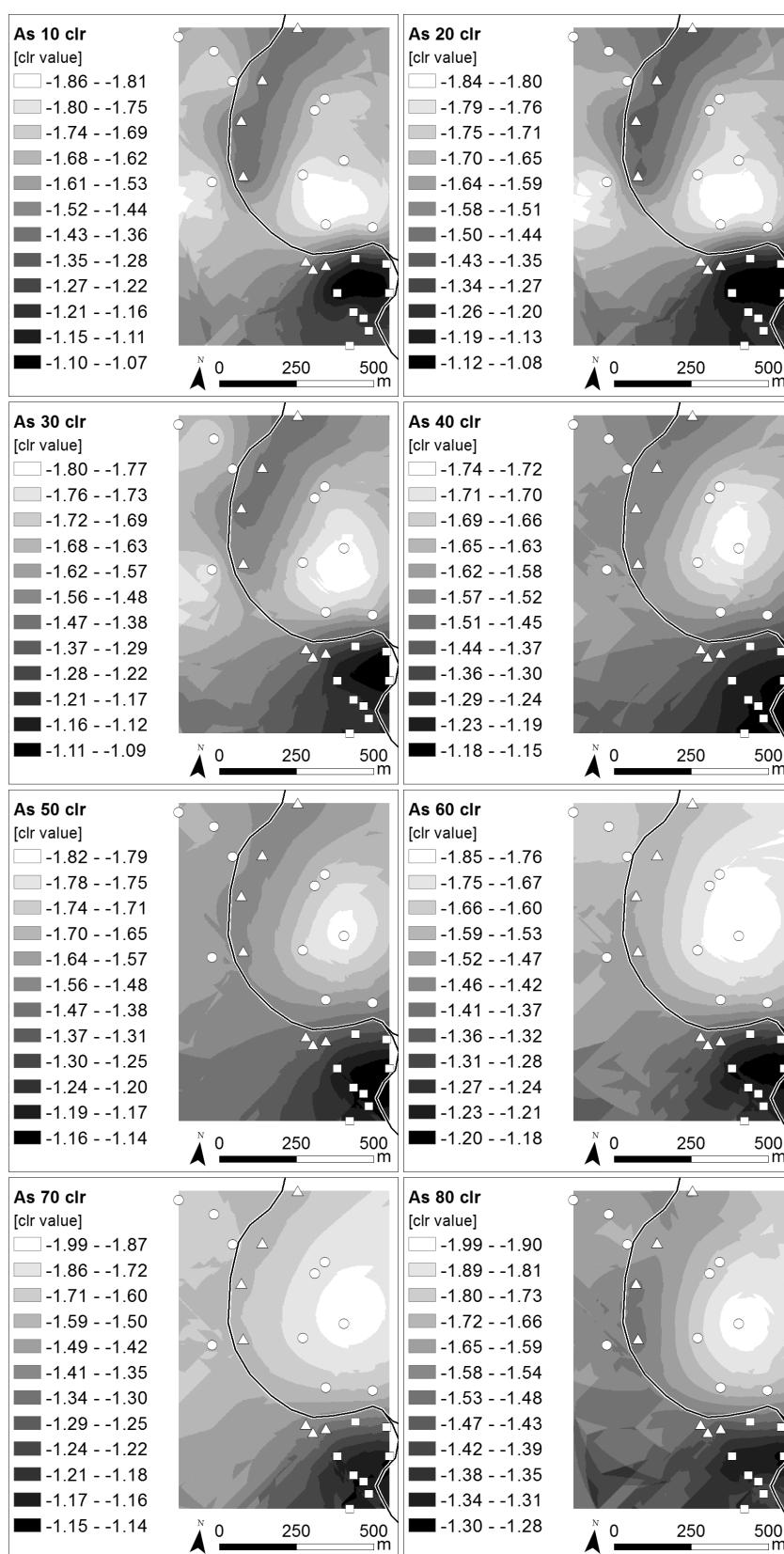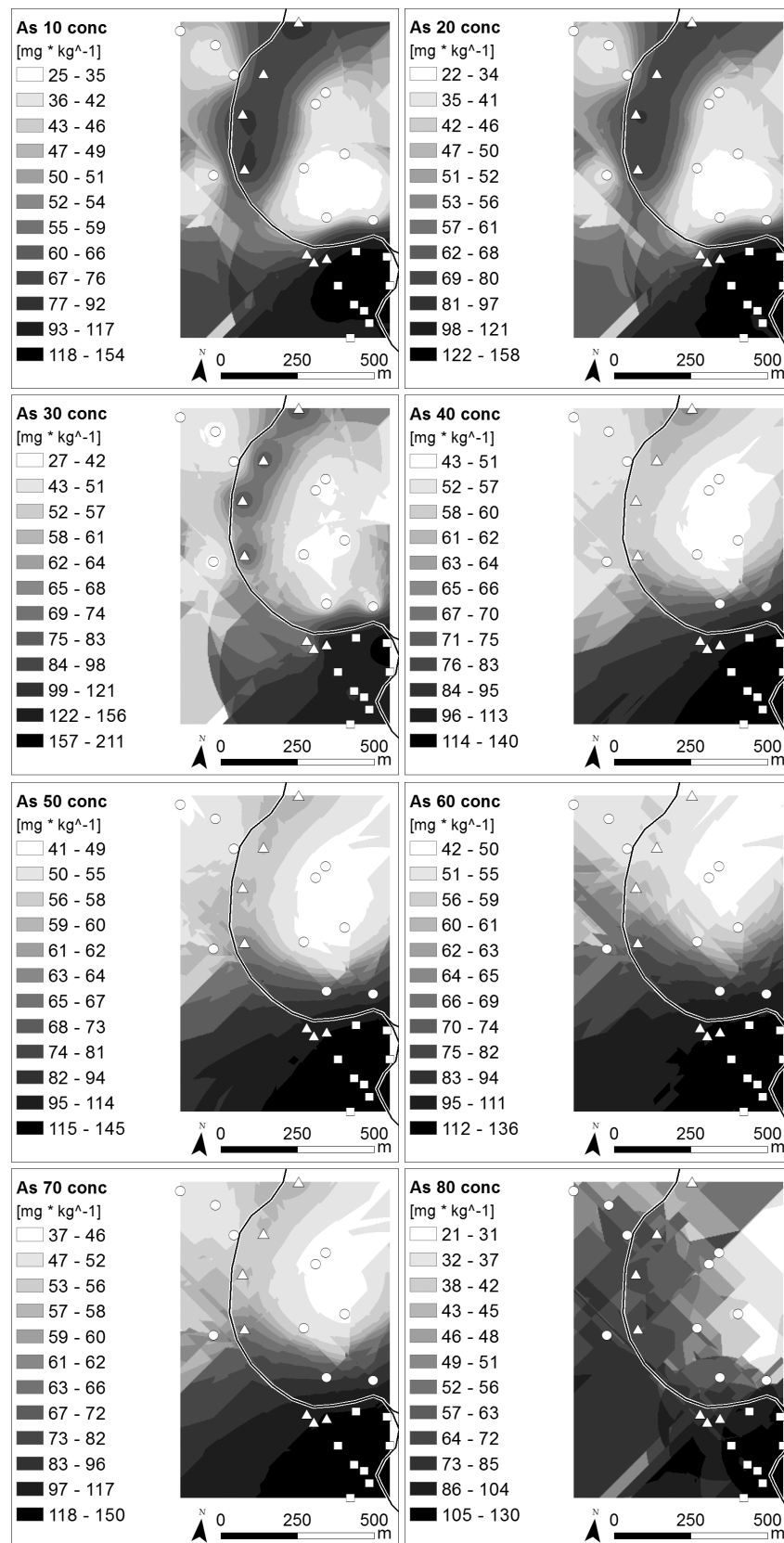
- -1.86 - -1.81
- -1.80 - -1.75
- -1.74 - -1.69
- -1.68 - -1.61
- -1.60 - -1.53
- -1.52 - -1.43
- -1.42 - -1.34
- -1.33 - -1.27
- -1.26 - -1.20
- -1.19 - -1.14
- -1.13 - -1.09
- -1.08 - -1.05

0   250   500 m

Cu 20 clr

[clr value]

- -1.89 - -1.84
- -1.83 - -1.78
- -1.77 - -1.71
- -1.70 - -1.62
- -1.61 - -1.53
- -1.52 - -1.43
- -1.42 - -1.33
- -1.32 - -1.25
- -1.24 - -1.18
- -1.17 - -1.12
- -1.11 - -1.06
- -1.05 - -1.02

0   250   500 m

Cu 30 clr

[clr value]

- -1.91 - -1.82
- -1.81 - -1.73
- -1.72 - -1.65
- -1.64 - -1.58
- -1.57 - -1.52
- -1.51 - -1.45
- -1.44 - -1.37
- -1.36 - -1.29
- -1.28 - -1.20
- -1.19 - -1.10
- -1.09 - -0.99
- -0.98 - -0.88

0   250   500 m

Cu 40 clr

[clr value]

- -1.85 - -1.76
- -1.75 - -1.66
- -1.65 - -1.57
- -1.56 - -1.48
- -1.47 - -1.41
- -1.40 - -1.34
- -1.33 - -1.28
- -1.27 - -1.23
- -1.22 - -1.18
- -1.17 - -1.13
- -1.12 - -1.09
- -1.08 - -1.05

0   250   500 m

Cu 50 clr

[clr value]

- -1.84 - -1.74
- -1.73 - -1.64
- -1.63 - -1.55
- -1.54 - -1.48
- -1.47 - -1.40
- -1.39 - -1.34
- -1.33 - -1.28
- -1.27 - -1.23
- -1.22 - -1.18
- -1.17 - -1.14
- -1.13 - -1.10
- -1.09 - -1.06

0   250   500 m

Cu 60 clr

[clr value]

- -1.80 - -1.72
- -1.71 - -1.63
- -1.62 - -1.55
- -1.54 - -1.48
- -1.47 - -1.42
- -1.41 - -1.36
- -1.35 - -1.31
- -1.30 - -1.27
- -1.26 - -1.23
- -1.22 - -1.19
- -1.18 - -1.16
- -1.15 - -1.13

0   250   500 m

Cu 70 clr

[clr value]

- -1.93 - -1.79
- -1.78 - -1.66
- -1.65 - -1.55
- -1.54 - -1.46
- -1.45 - -1.39
- -1.38 - -1.32
- -1.31 - -1.26
- -1.25 - -1.22
- -1.21 - -1.18
- -1.17 - -1.14
- -1.13 - -1.11
- -1.10 - -1.09

0   250   500 m

Cu 80 clr

[clr value]

- -1.95 - -1.87
- -1.86 - -1.78
- -1.77 - -1.70
- -1.69 - -1.62
- -1.61 - -1.55
- -1.54 - -1.49
- -1.48 - -1.43
- -1.42 - -1.38
- -1.37 - -1.34
- -1.33 - -1.30
- -1.29 - -1.26
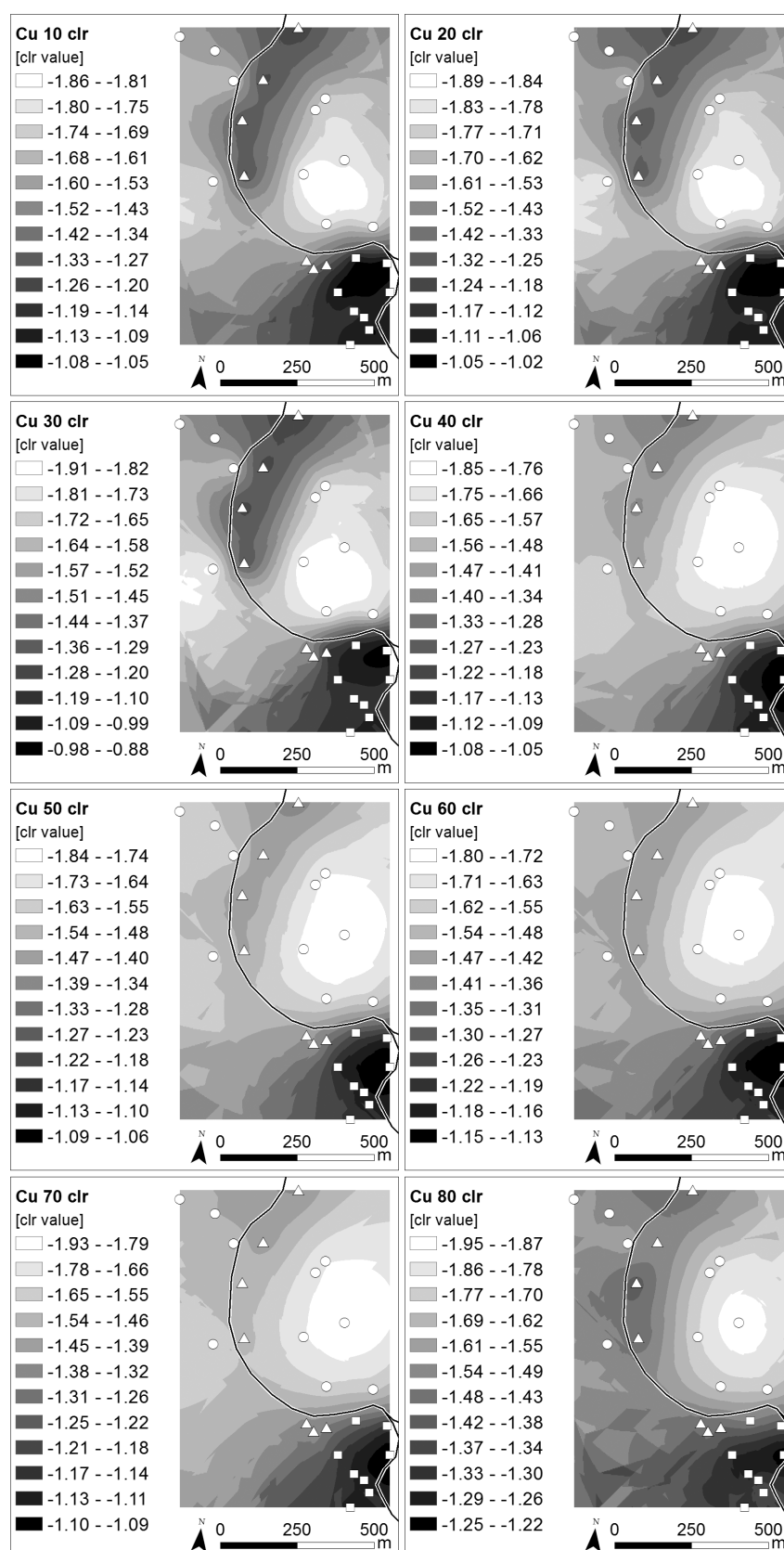- -1.25 - -1.22

0   250   500 m

Figure S12. Interpolation of copper clr transformation values in depths 10 to 80 cm of confluence areas; features except the interpolation raster are the same as on Figure 1
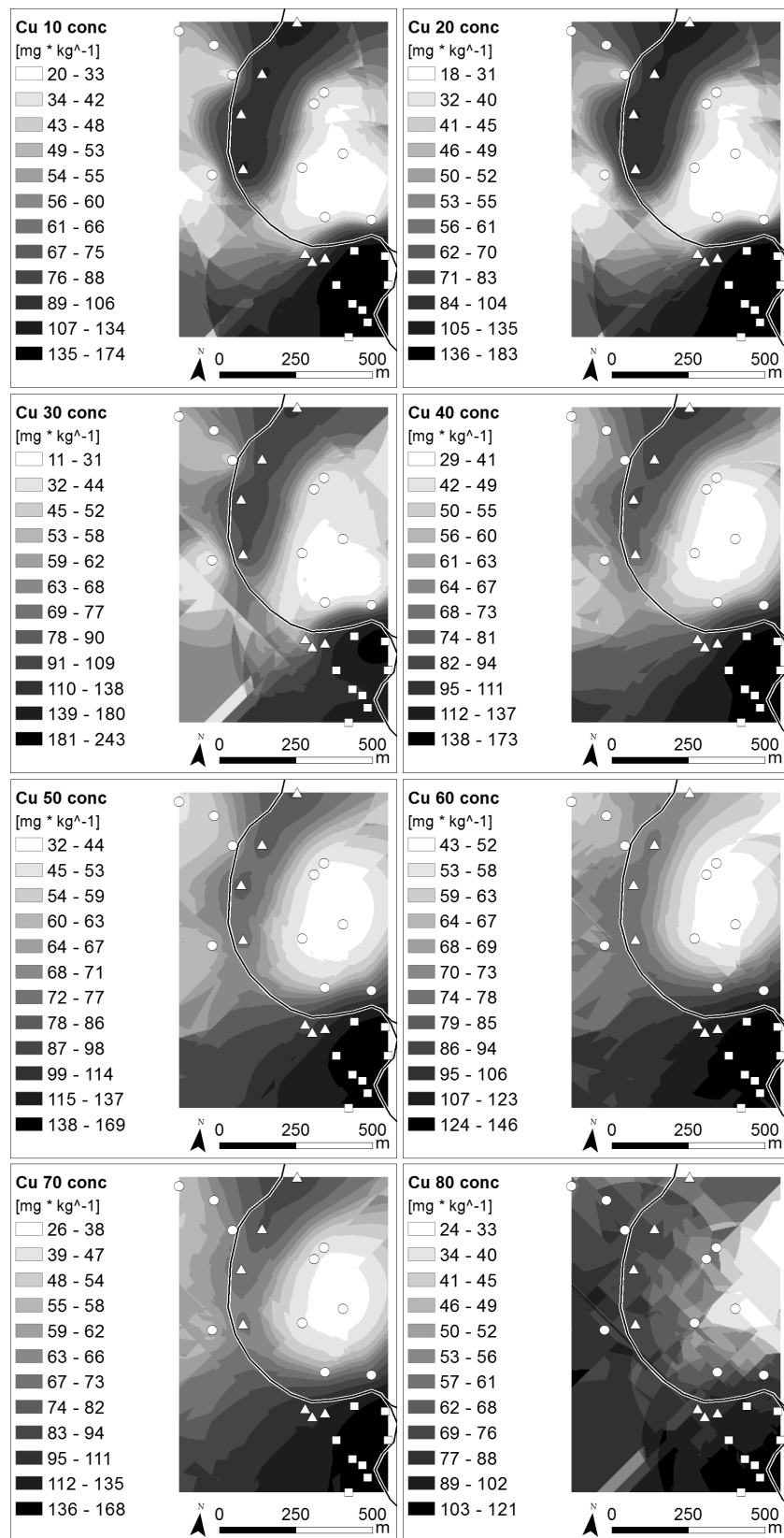
Figure S13. Interpolation of copper concentrations in depths 10 to 80 cm of confluence areas; features except the interpolation raster are the same as on Figure 1
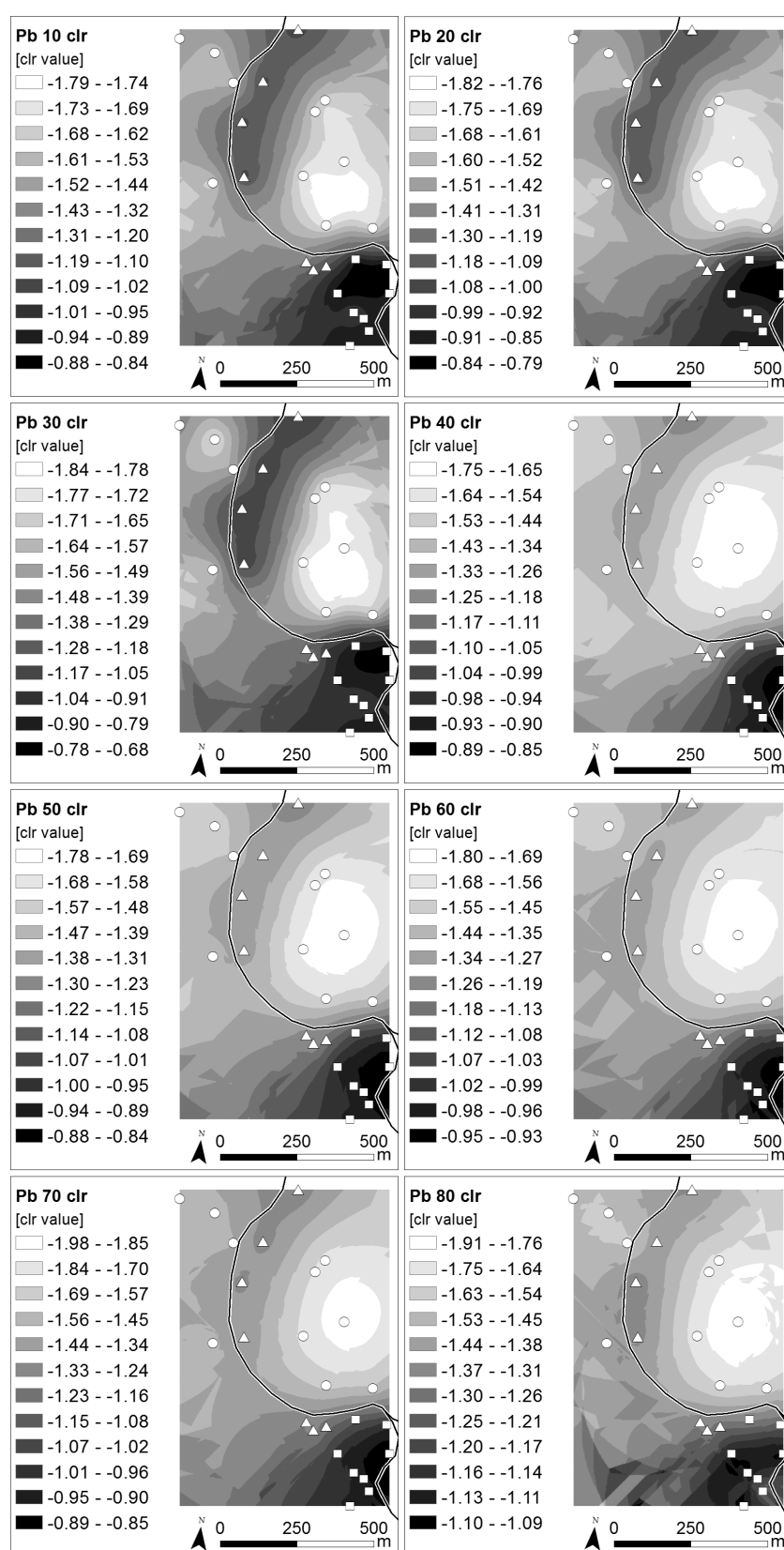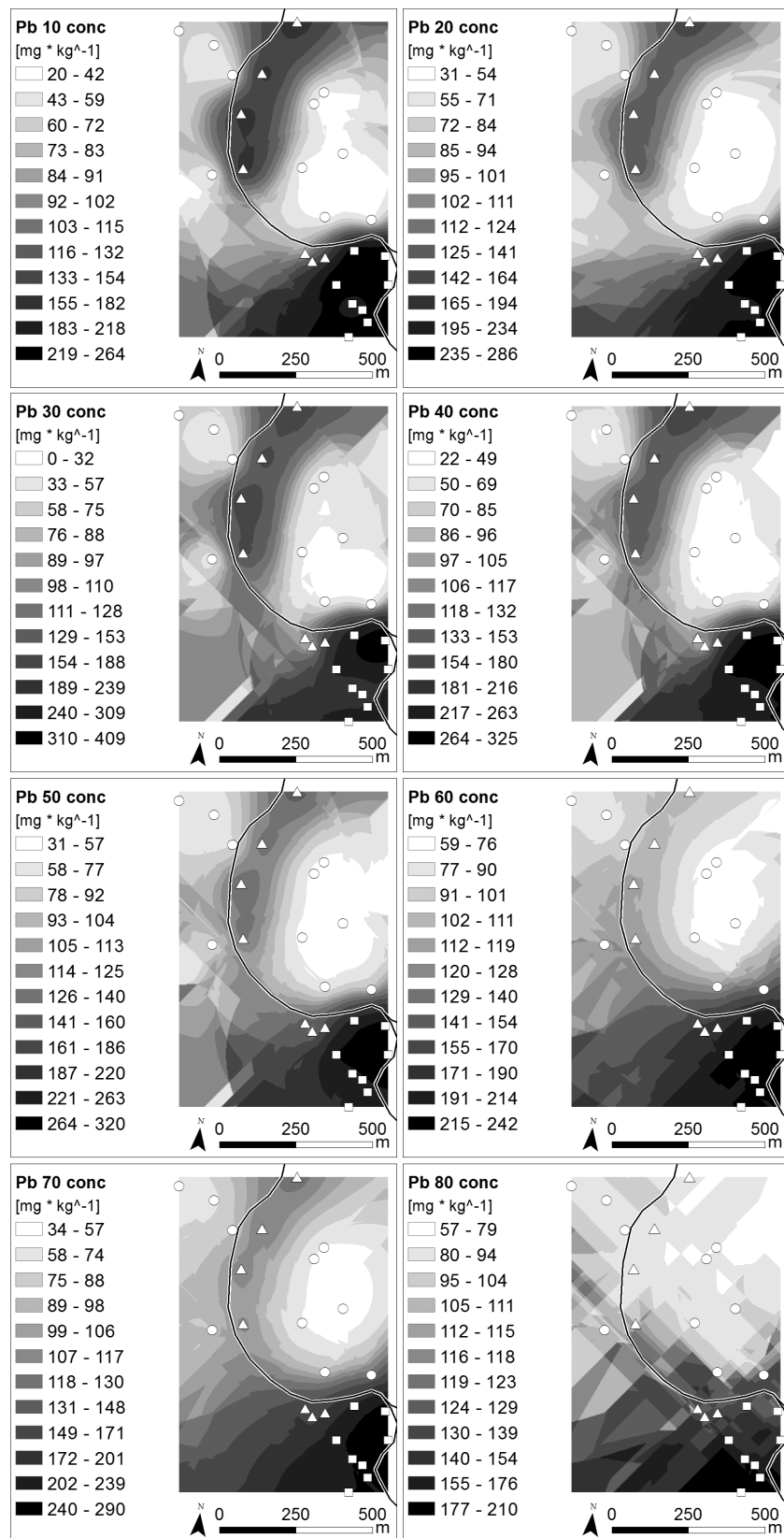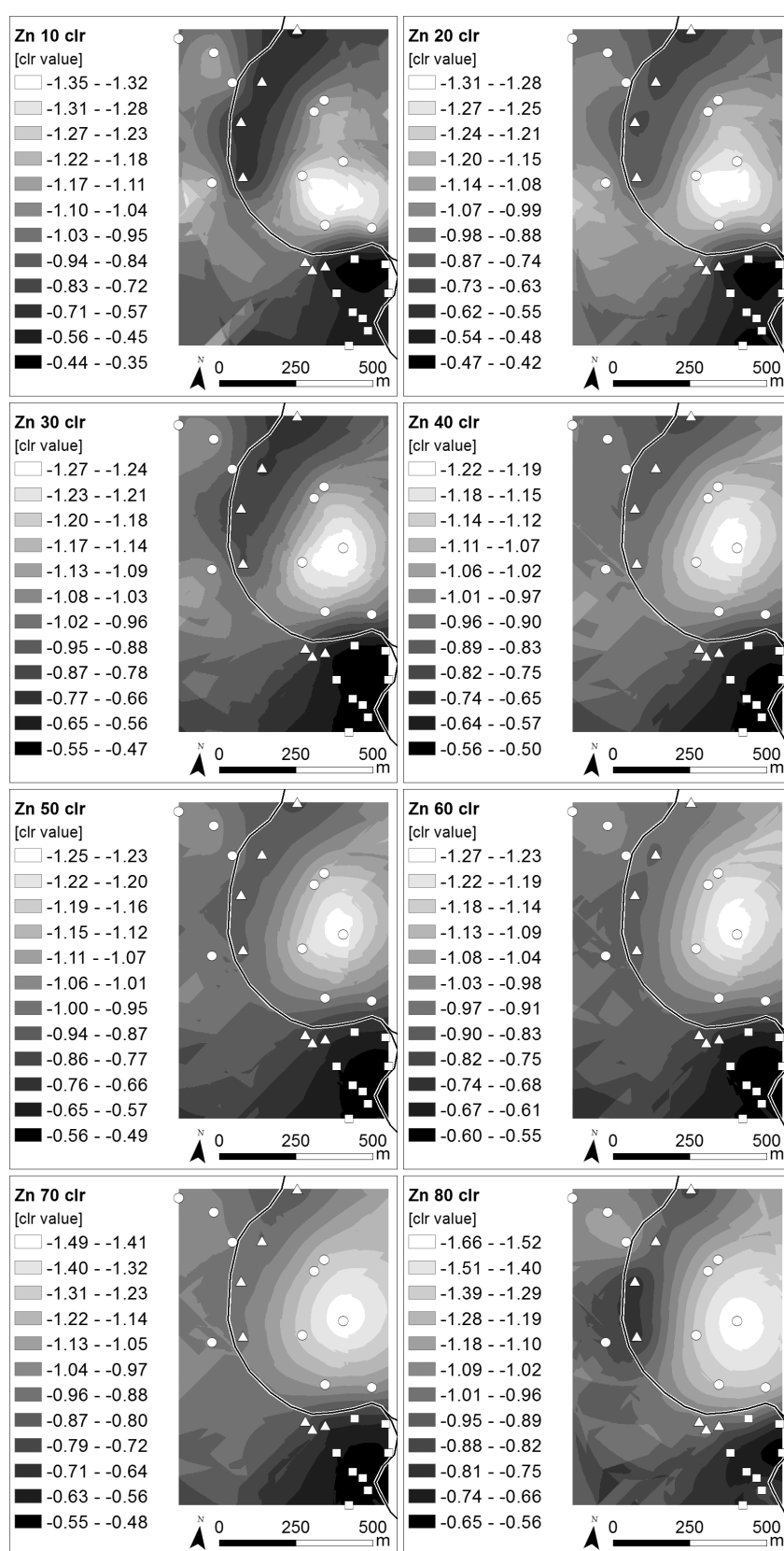
Figure S14. Interpolation of lead clr transformation values in depths 10 to 80 cm of confluence areas; features except the interpolation raster are the same as on Figure 1
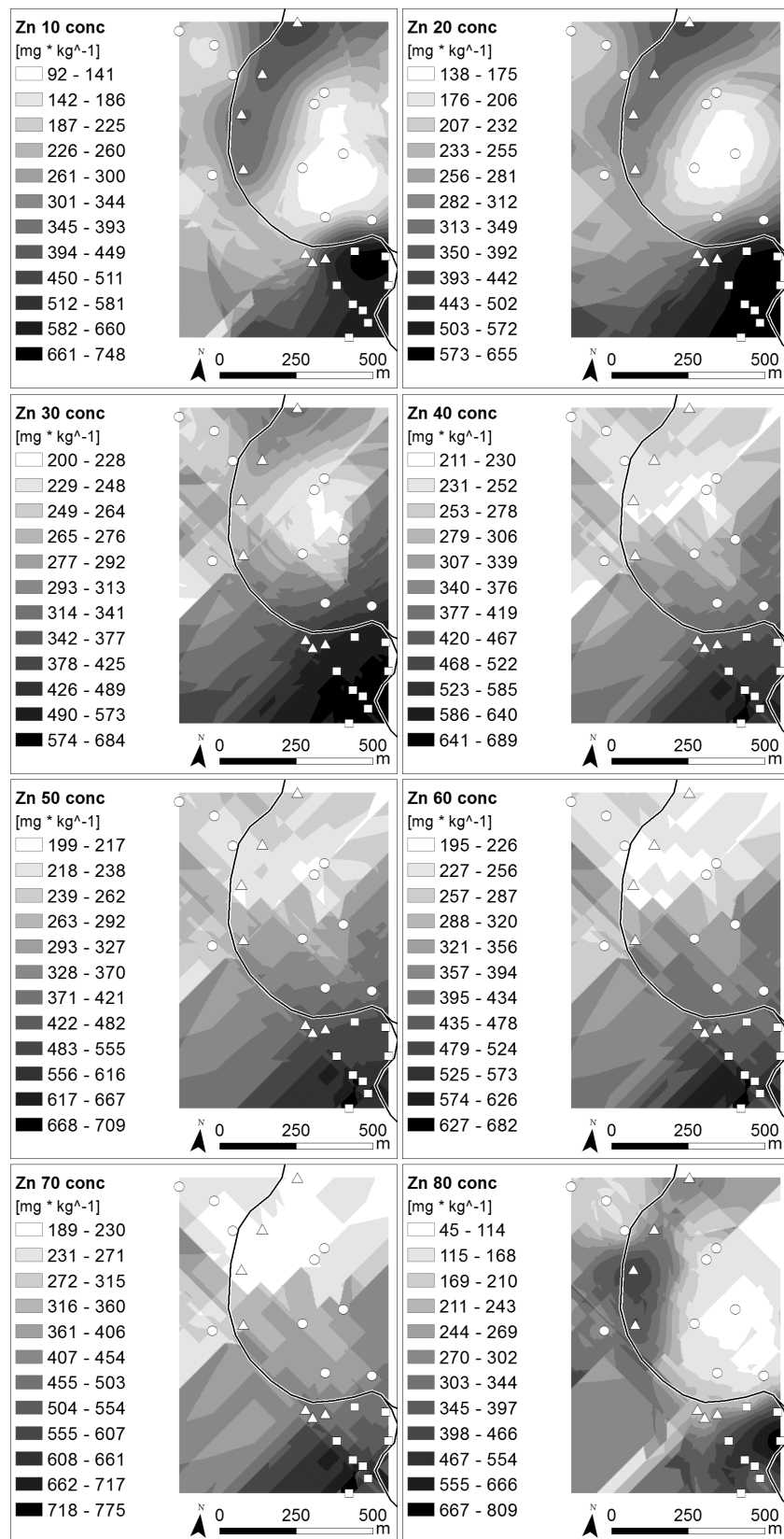
Figure S15. Interpolation of lead concentrations in depths 10 to 80 cm of confluence areas; features except the interpolation raster are the same as on Figure 1

Figure S16. Interpolation of zinc clr transformation values in depths 10 to 80 cm of confluence areas; features except the interpolation raster are the same as on Figure 1

Figure S17. Interpolation of zinc concentrations in depths 10 to 80 cm of confluence areas; features except the interpolation raster are the same as on Figure 1
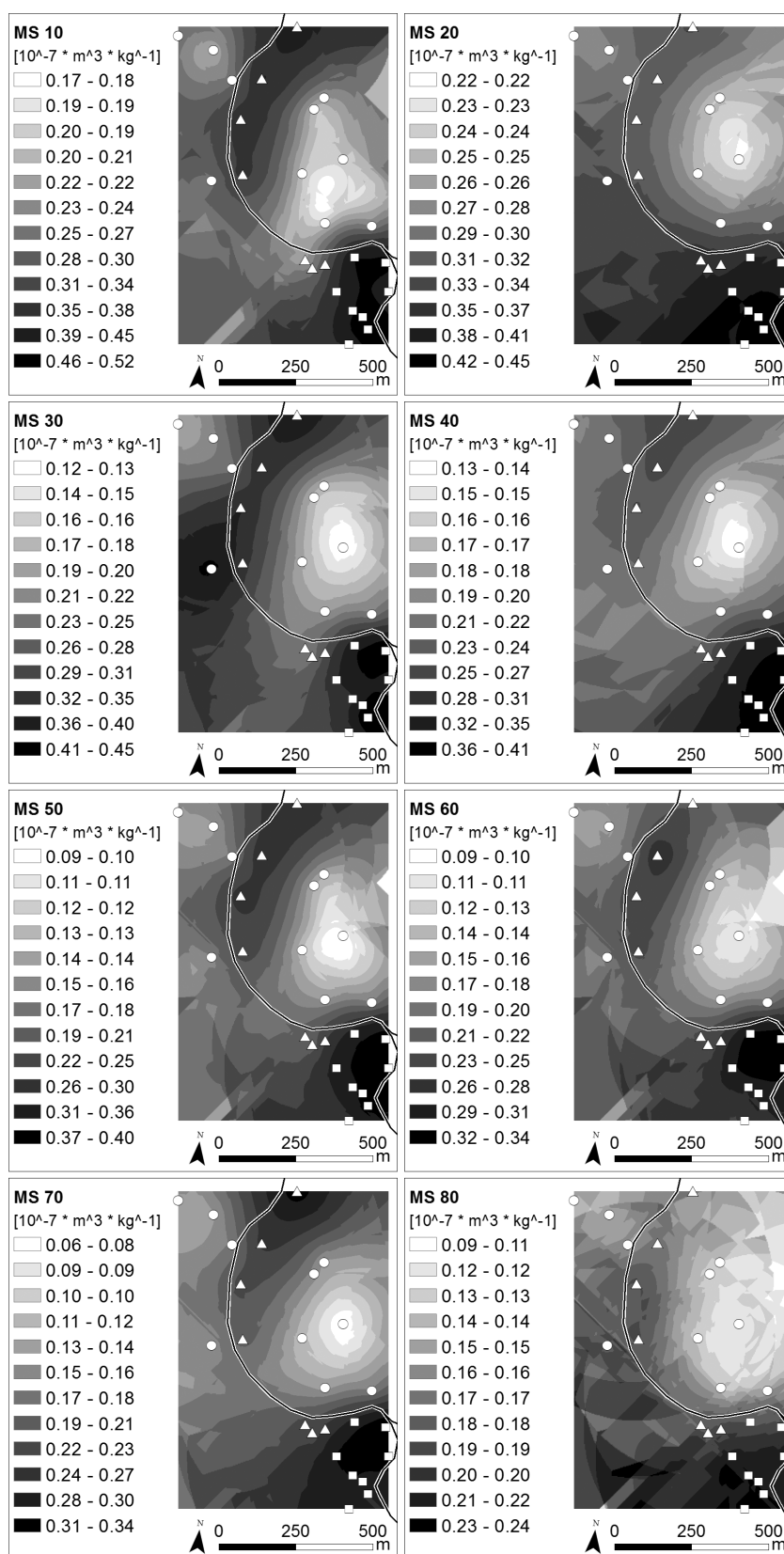
Figure S18. Interpolation of magnetic susceptibility values in depths 10 to 80 cm of confluence areas; features except the interpolation raster are the same as on Figure 1
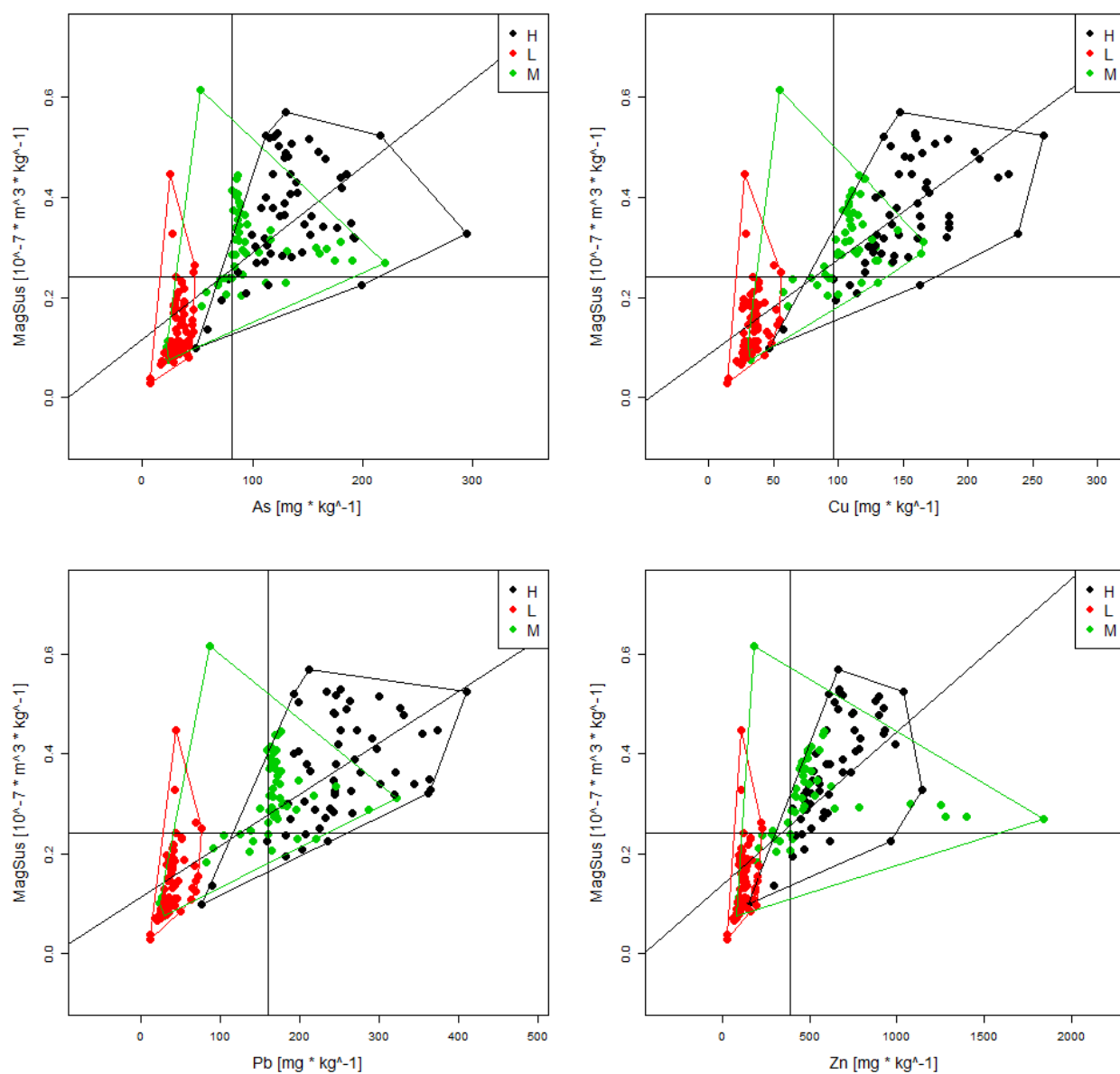
Figure S19. Scatterplot of magnetic susceptibility and concentrations of As, Cu, Pb and Zn; points are distinguished by colours: black indicate values from "higher" probes (H), green indicate values from "middle" probes (M) and red indicate values from "lower" probes (L)
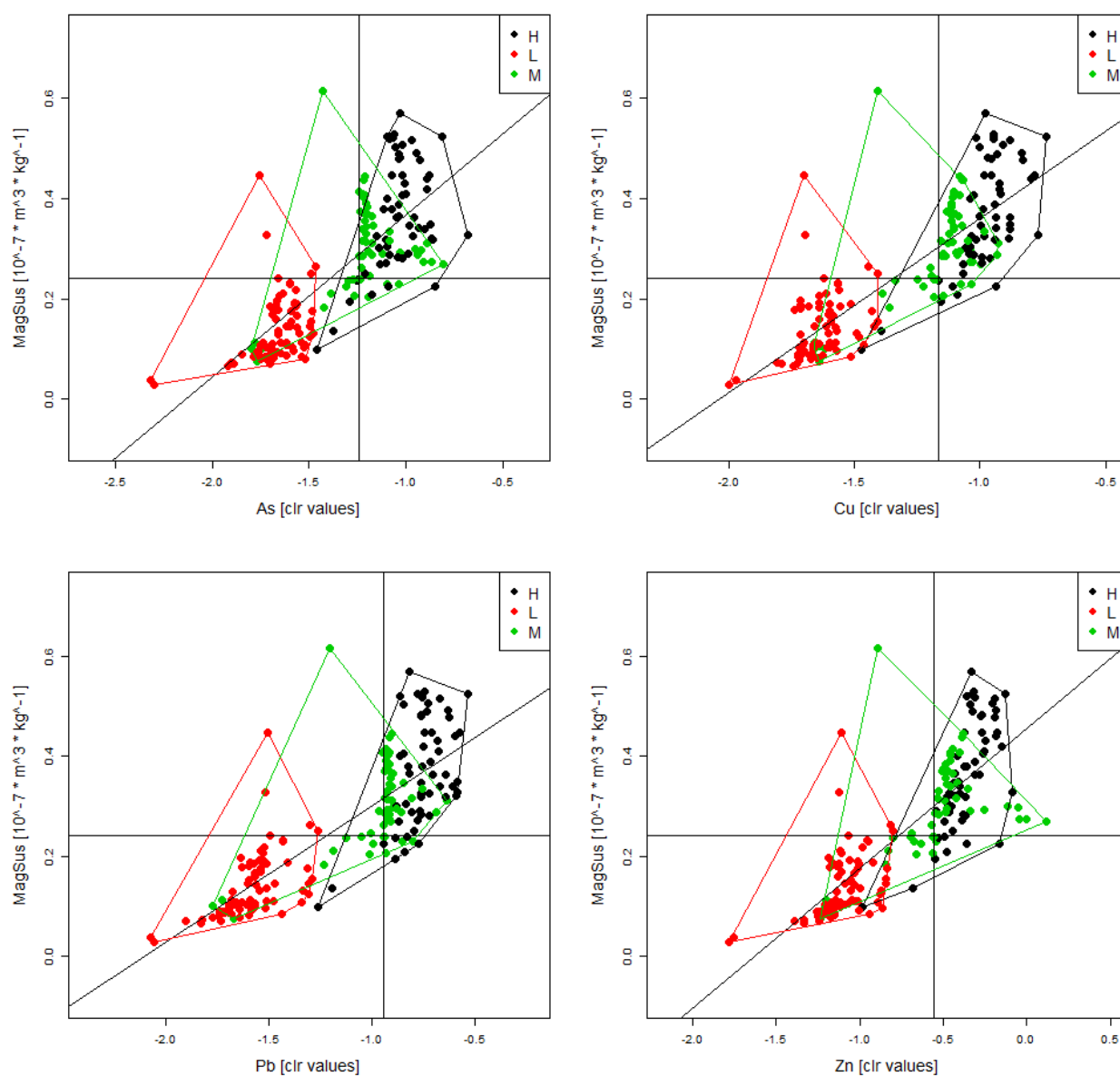
Figure S20. Scatterplot of magnetic susceptibility and clr transformation values of As, Cu, Pb and Zn; points are distinguished by colours: black indicate values from "higher" probes (H), green indicate values from "middle" probes (M) and red indicate values from "lower" probes (L)