



Belgrade University
Faculty of Forestry



World Association of Soil and Water
Conservation (WASWC)

**INTERNATIONAL CONFERENCE ON
“LAND CONSERVATION” – LANDCON 1209
SUSTAINABLE LAND MANAGEMENT
AND CLIMATE CHANGES**

**September 17-21, 2012
Danube Region/Republic of Serbia**

Conference Abstracts



International Sediment
Initiative (ISI-UNESCO)

WASER

World Association for
Sedimentation and Erosion
Research (WASER)



European Society for Soil
Conservation (ESSC)



Water Management Institute
“JAROSLAV ČERNI”

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Editors:

Miodrag ZLATIC

Stanimir KOSTADINOV

Belgrade, 2012

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GEOENVIRONMENTAL INVESTIGATION AT A LOCALITY OF A SMELTER UNDER RECONSTRUCTION IN BOR (EAST SERBIA)

Petar PAPIĆ¹, Zvonimir MILIJIĆ², Jana STOJKOVIĆ¹, Jovana MILOSAVLJEVIĆ¹,
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The goal of these geoenvironmental investigations was to identify and determine the degree of possible contamination present in the areas of a plant planned for redevelopment. The degree of contamination also included a determination of whether the soil underlying the investigated areas would be considered a hazardous waste. The secondary goal was to determine the level of contamination in the surface dust accumulated on the abandoned buildings being prepared for demolition. On the basis of the results, the principal contaminants of concern were heavy metals. Other contaminants were noted as being potentially present in some areas and they included fuels and oils, PCBs, VOCs, PAHs and some pesticides (atrazine and simazine). In borehole soil samples, Pb, Hg, As and PCB were above the action level (according to the New Dutch list) in many samples. The contaminated soils should mainly remain *in situ* and undisturbed, since groundwater leaching would not appear to be a significant issue. According to TCLP (leaching of heavy metals from soil) there would be a negative impact to workers during demolition and construction activities. According to geochemical and geomechanical investigations, the possibility of relocating the plant was recommended for consideration, and it was necessary to excavate the contaminated soil.

Key words: soil, geochemistry, heavy metals, organic pollutants.

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