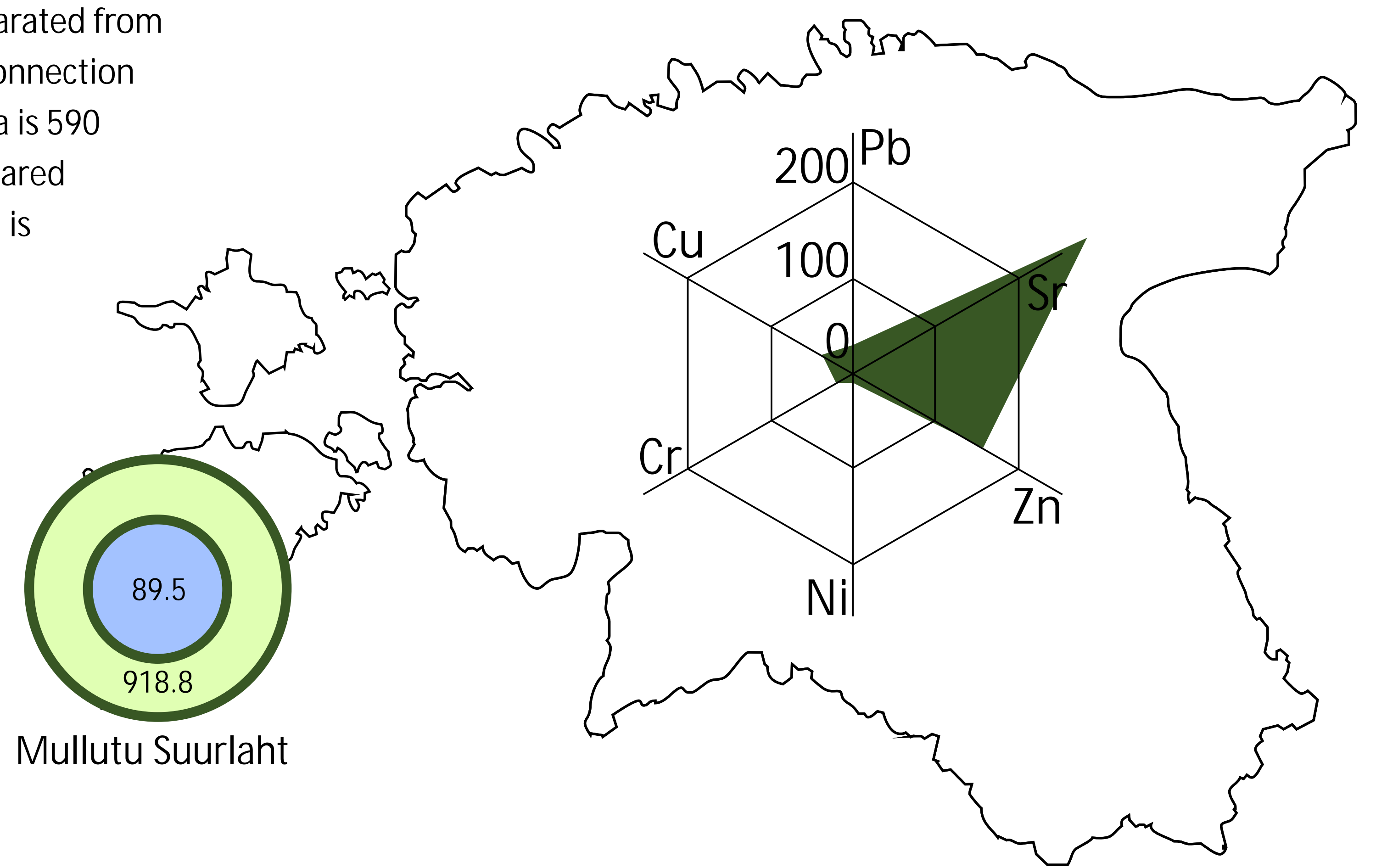
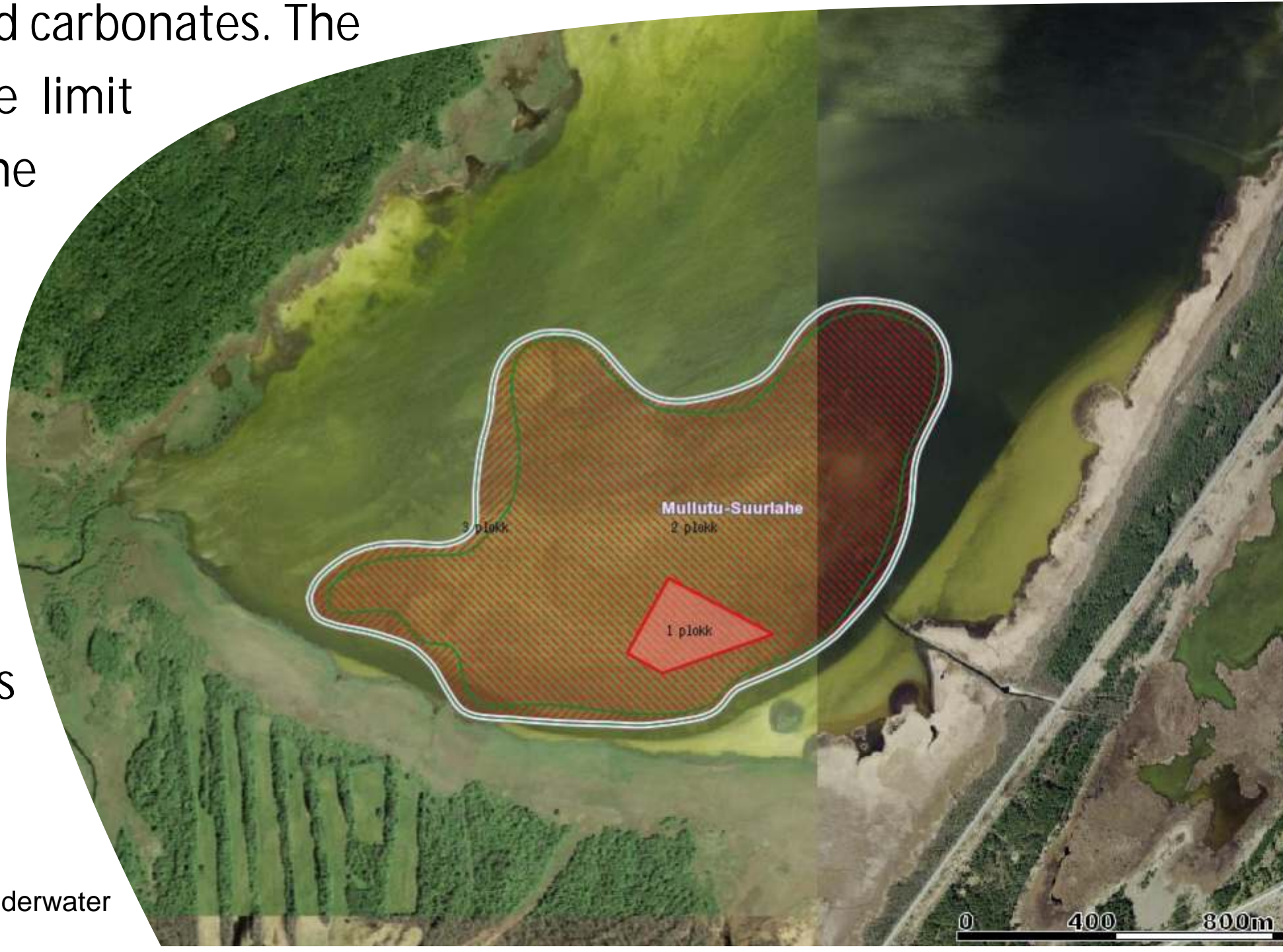


# Curative mud in Estonia 2013-2014: Mullutu Suurlaht Bay

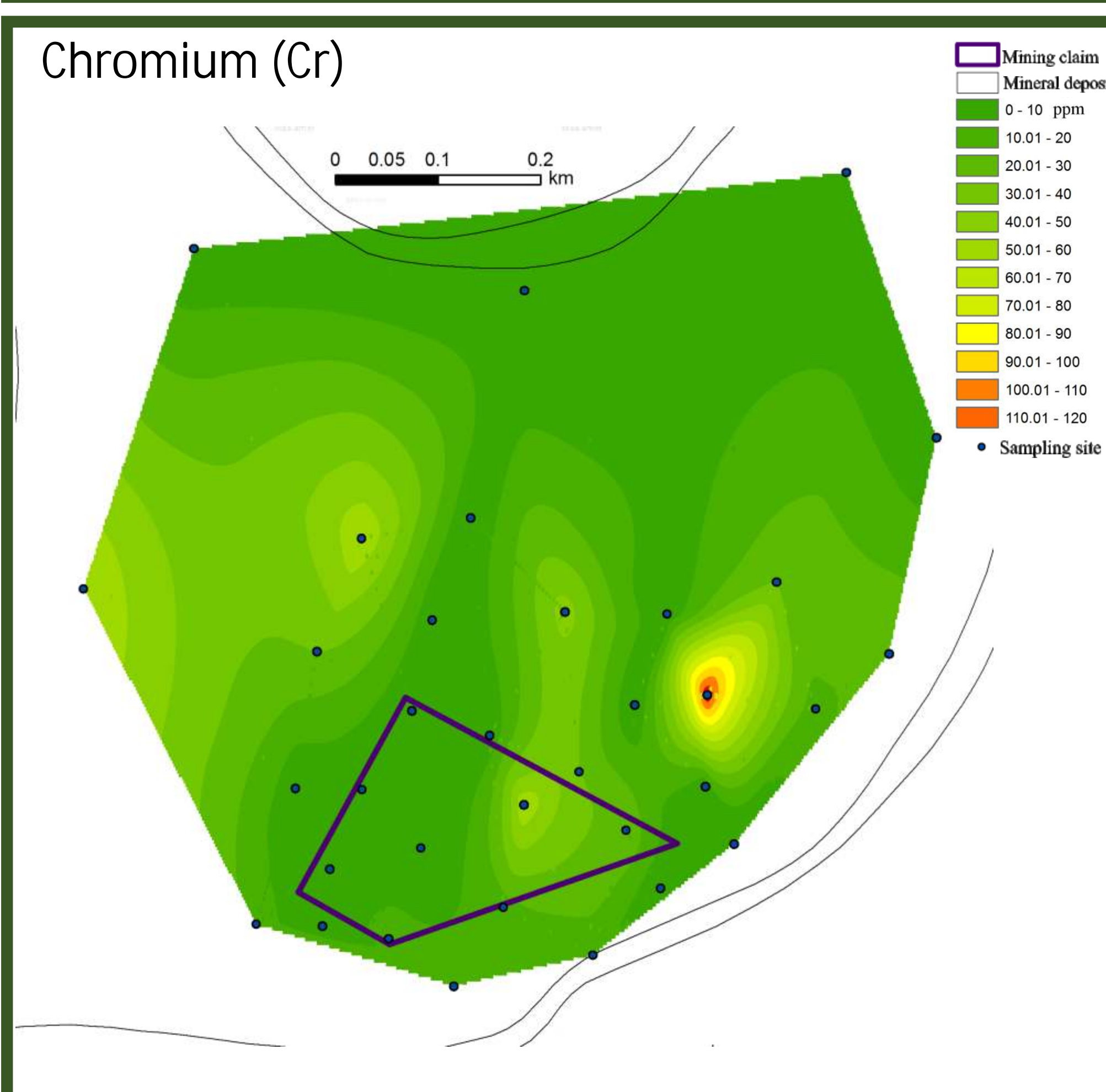
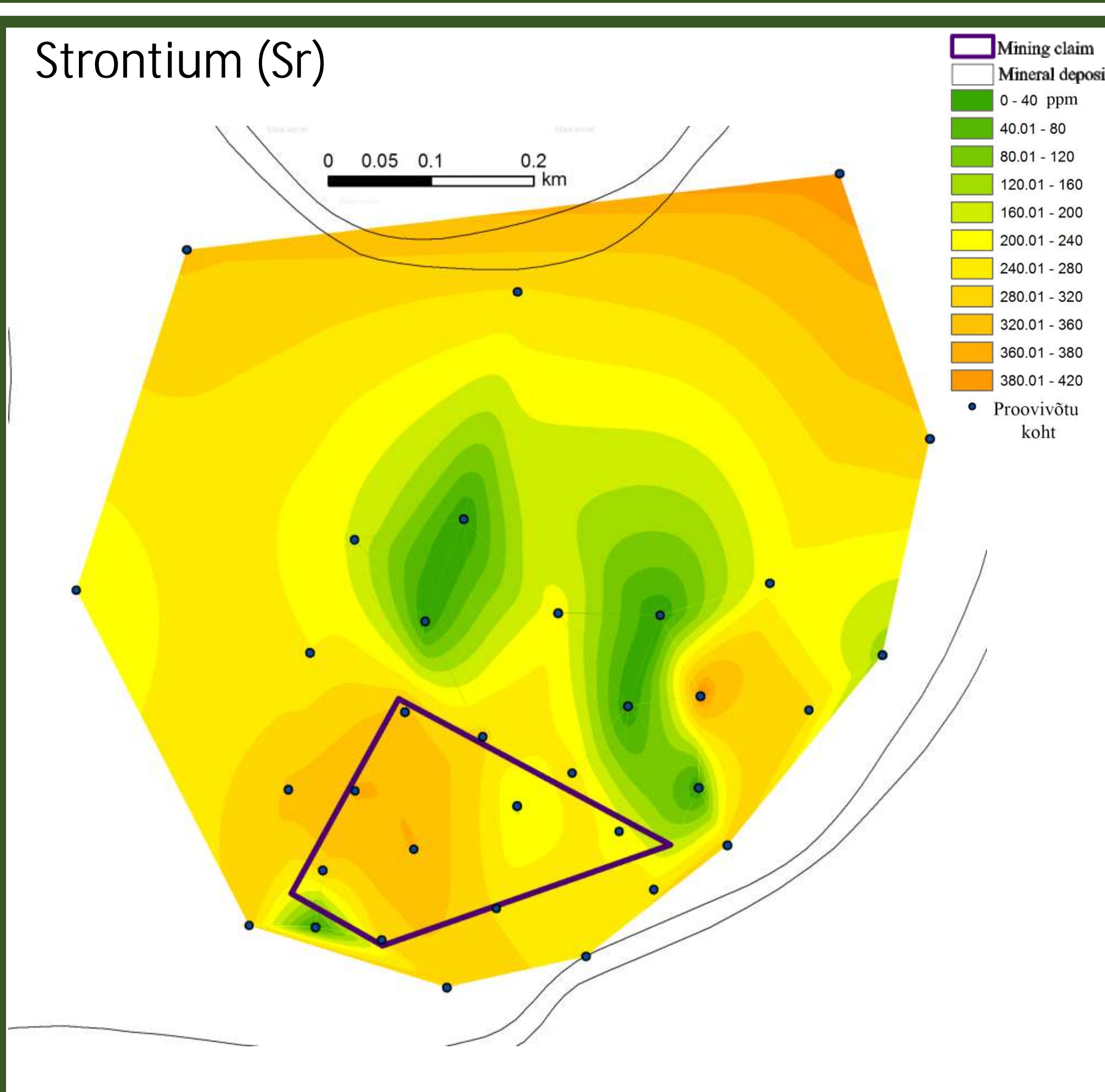
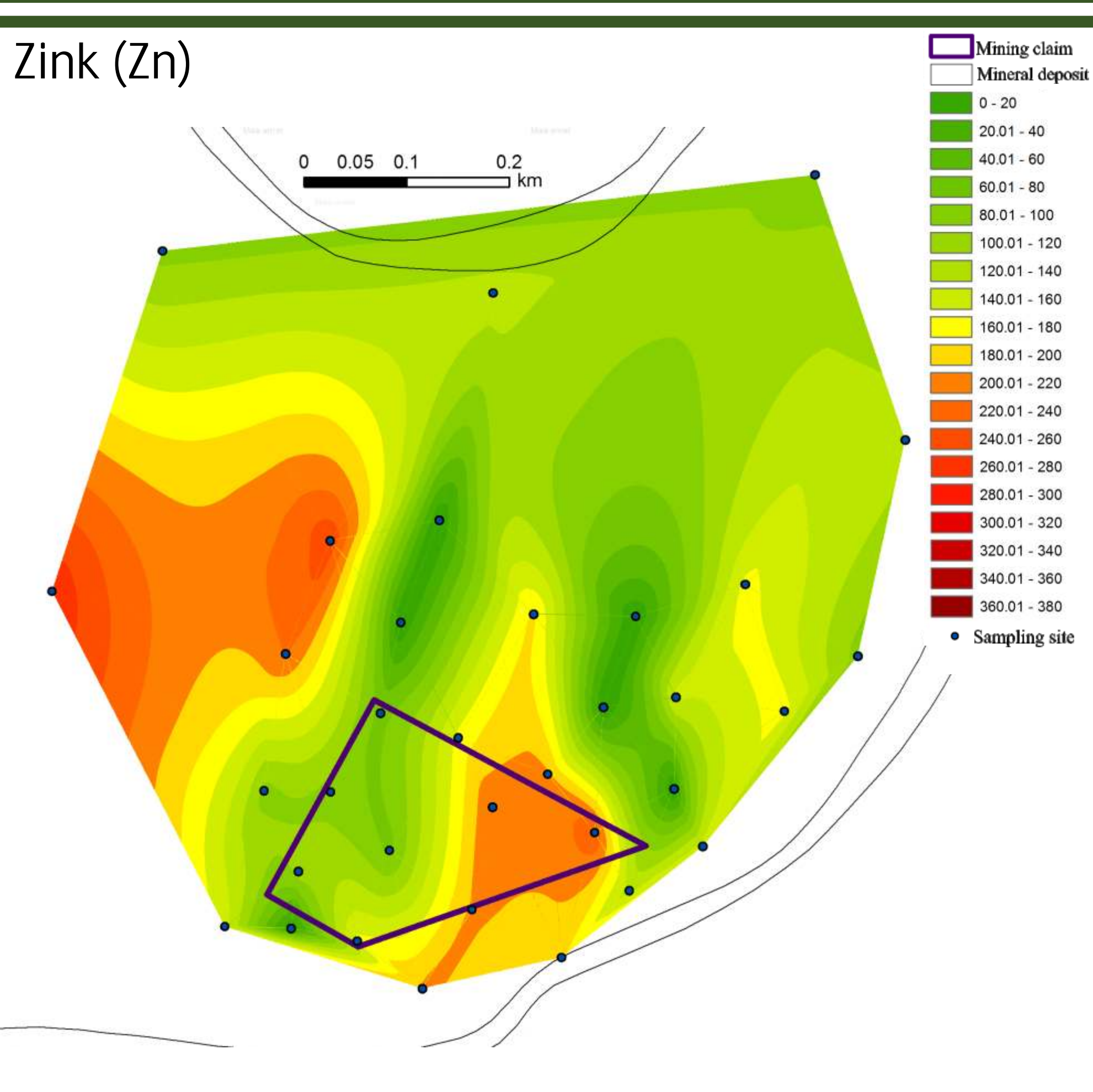
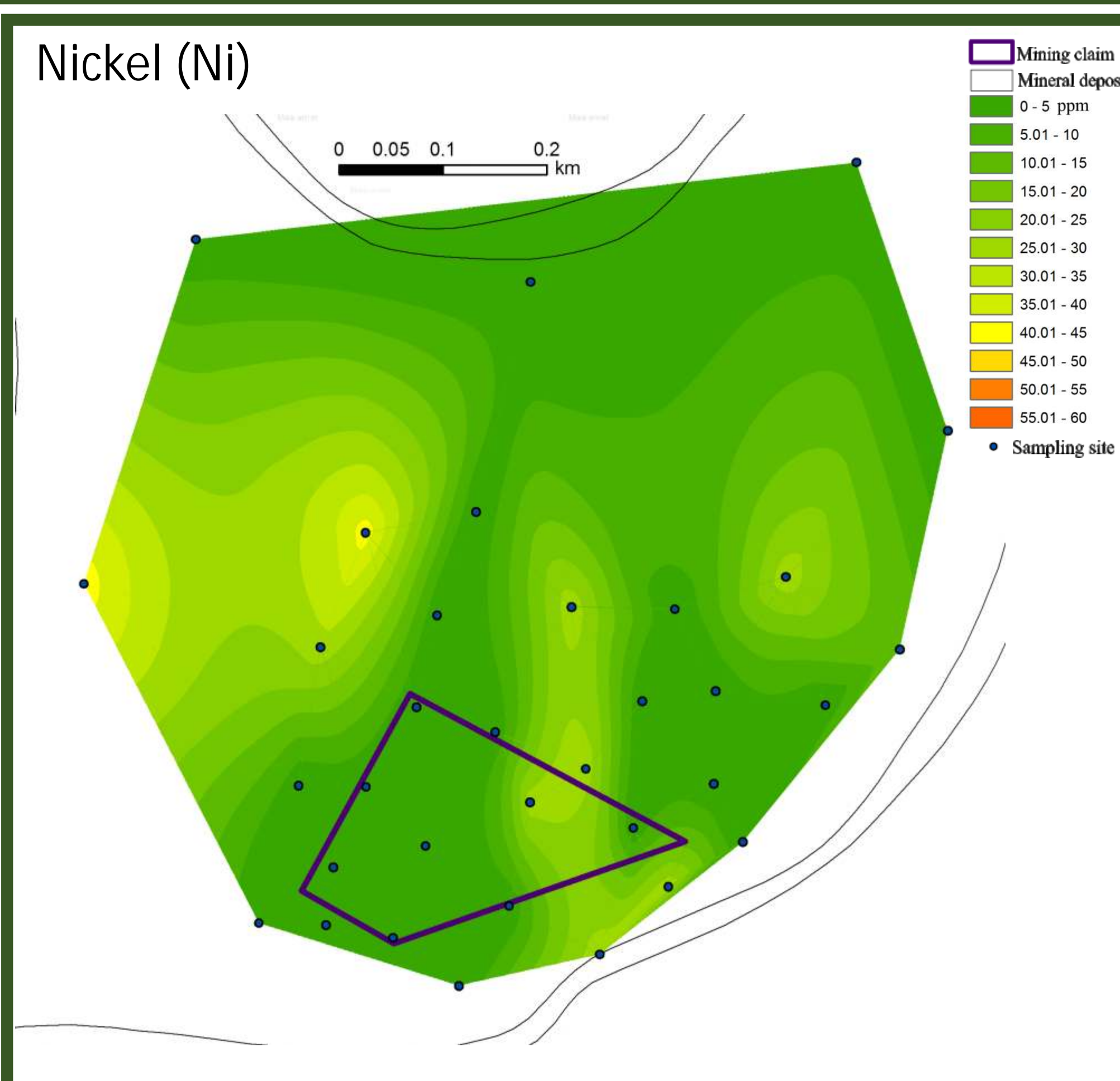
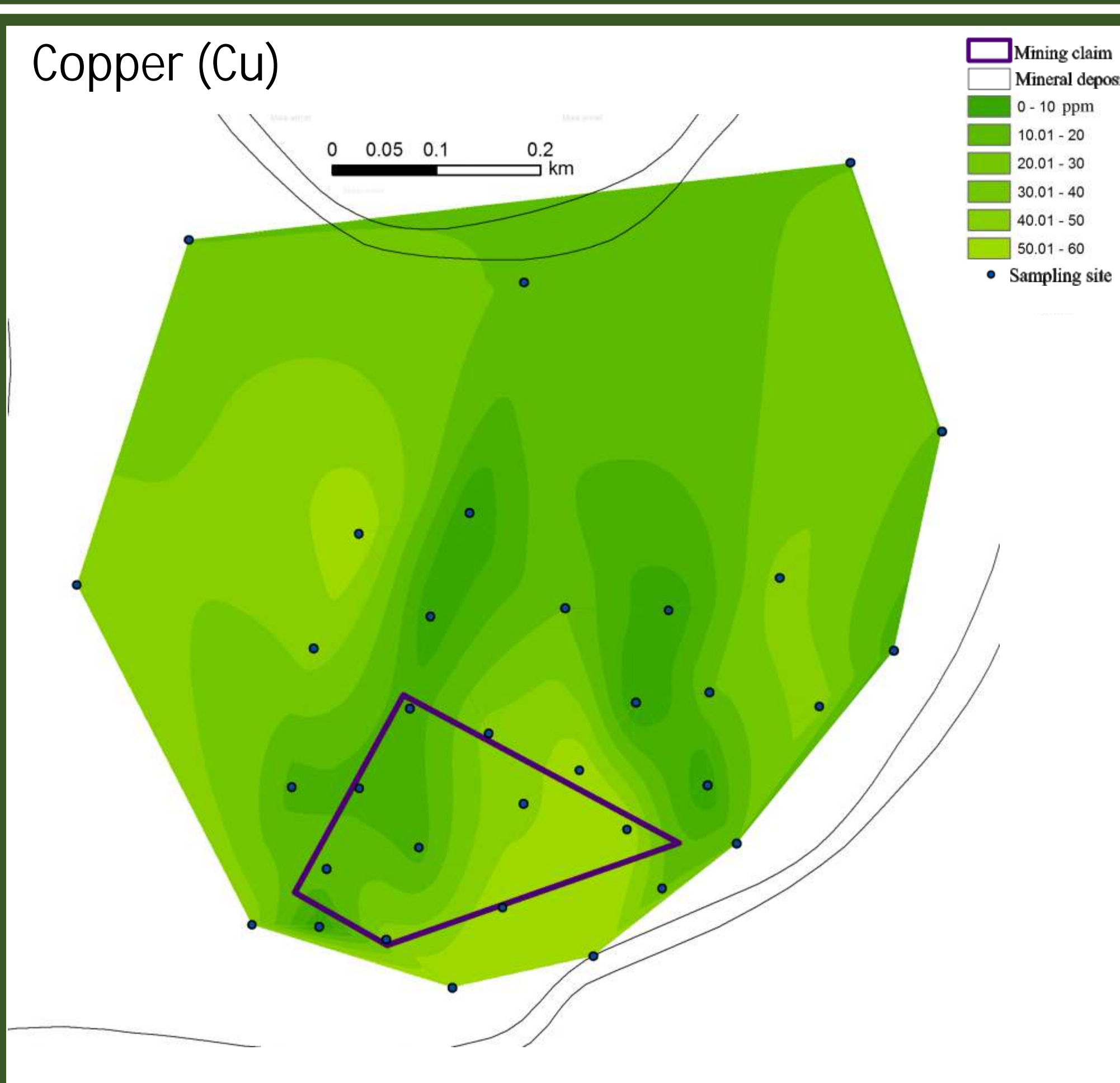
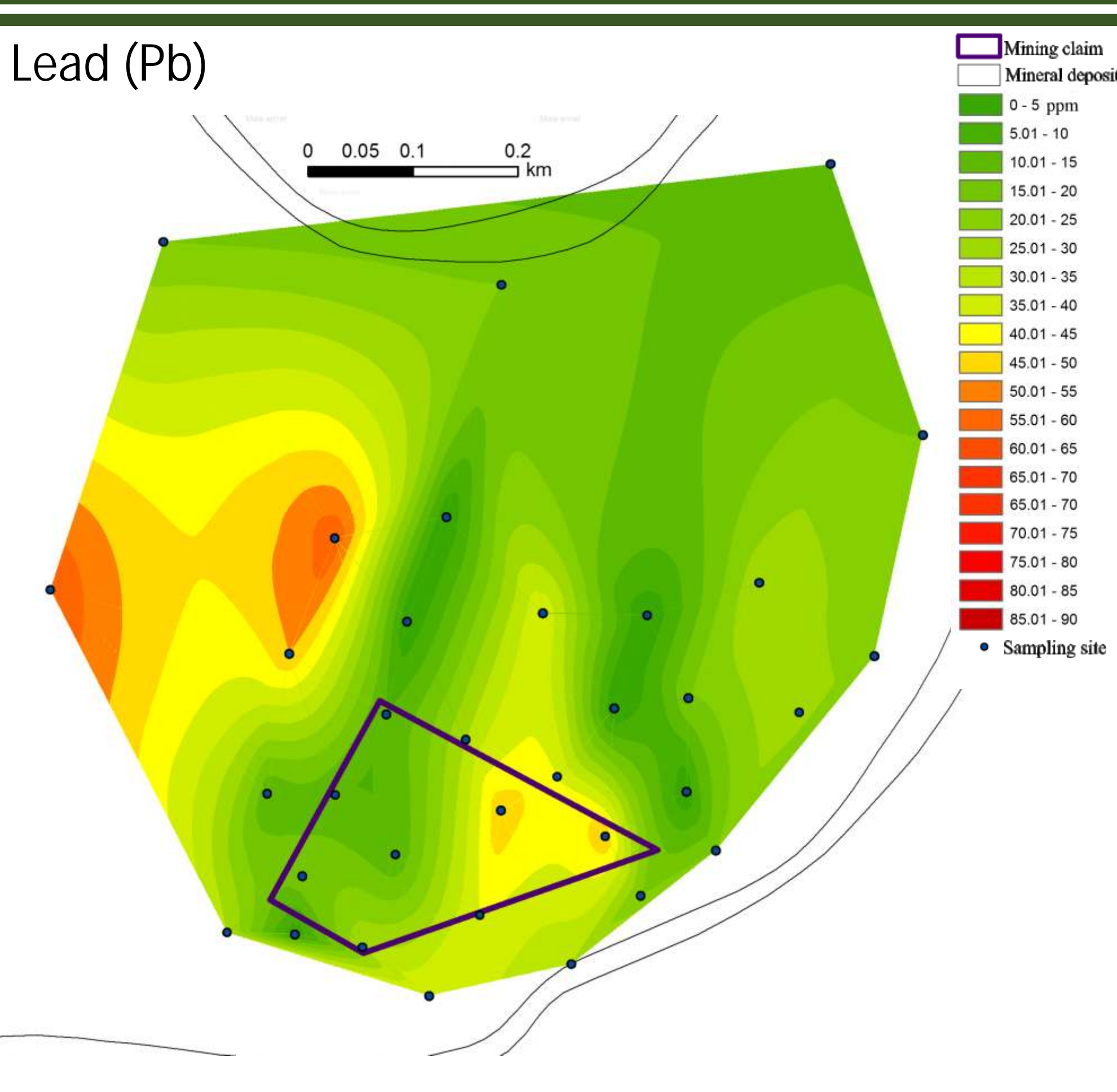
Jaanus Terasmaa, Galina Kapanen, Agata Marzecova, Sander Rautam

**M**ullutu Suurlaht Bay is located in Saaremaa, west of the town of Kuressaare. It was separated from the sea 1000-1500 years ago, is currently located about 2 km from the sea and has a connection with it through the Nasva River. Sea water reaches the bay only during the floods. Area is 590 ha, the average depth is 1 m, and the maximum depth is 2.1 m. Carbonate content is highest compared with other deposits - 14.6%. The mineral matter content is 51.6% and the organic matter content is 33.9%. The spatial distribution of heavy metals does not have a statistical relationship with organic matter, but with mineral matter and carbonates. The heavy metal content is below the limit values, in few spots exceeding the target numbers for lead (Pb) and nickel (Ni). Strontium (Sr) content is the highest in comparison to other deposits. Over time, the average organic content has increased (27.6% -> 33.9%), the minimum and maximum values have remained the same.

- Mining claim
- Mine service plot
- Lake mud
- Sea mud
- Economic reserves underwater
- Potentially economic reserves underwater
- Reconnaissance resources



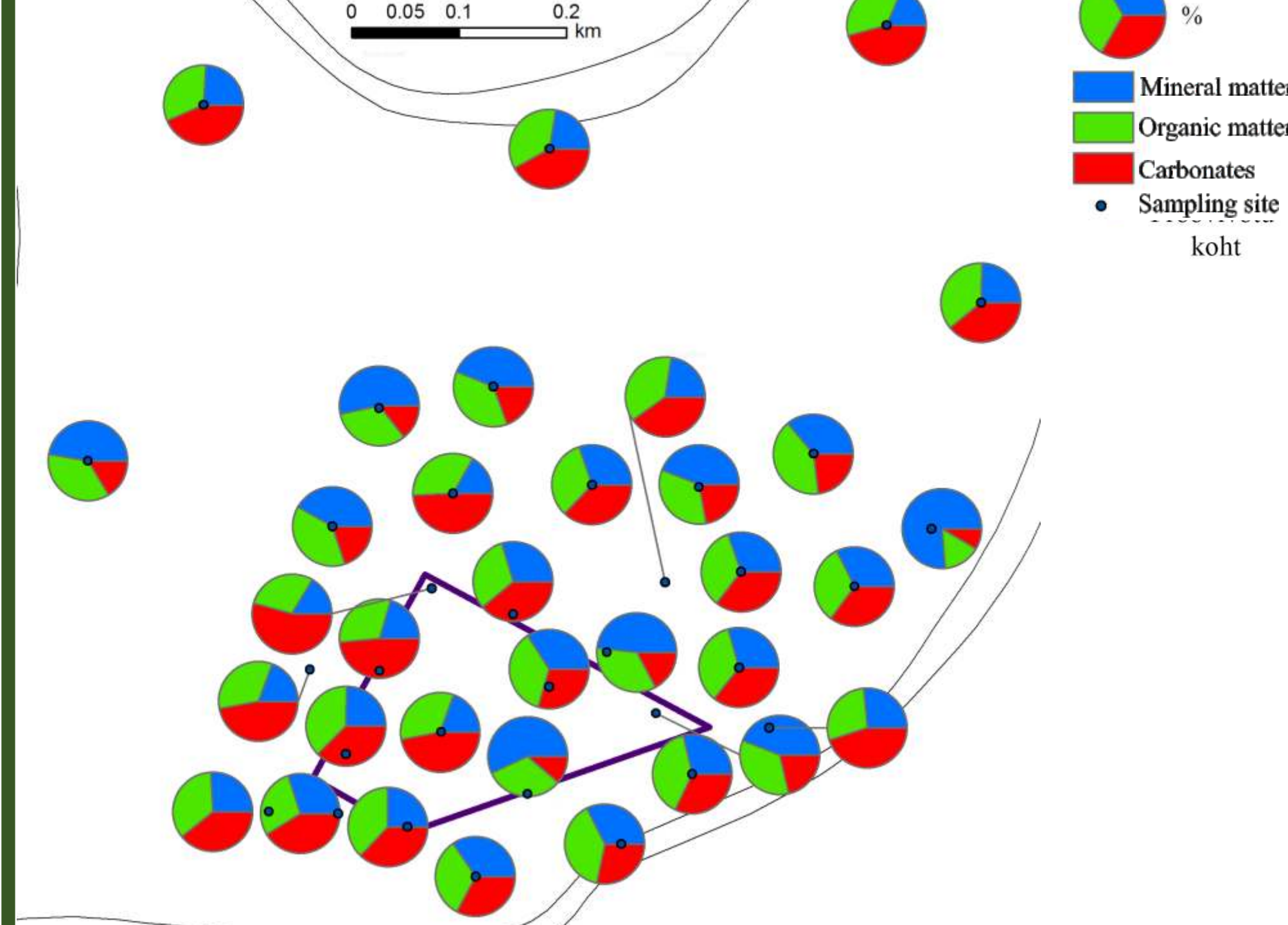
Surface area (ha) and volume (in 1000 tons) of economic proved reserves of curative mud.



## Mud composition

	Mineral matter (%)	Organic matter (%)	Carbonates (%)	Pb (PPM)	Cu (PPM)	Ni (PPM)	Zn (PPM)	Sr (PPM)	Cr (PPM)	Zr (PPM)	Al (%)	Ca (%)	Fe (%)	K (%)	Mg (%)	Cl (mg/g)	P (mg/g)	S (mg/g)
Average	51.6	33.9	14.6	29.3	37.9	10.7	158	284	21.0	72.7	1.2	28.0	1.8	1.2	0.5	7.2	2.0	5.3
Minimum	44.3	15.0	3.8	10.0	14.9	0.0	73.9	138	0.0	16.6	0.1	6.2	0.7	0.6	0.0	1.8	1.1	0.0
First quartile	46.5	32.3	10.0	20.0	29.9	0.0	106	238	0.0	33.1	0.7	22.9	1.2	0.9	0.5	6.0	1.9	4.4
Median	49.7	34.3	16.0	30.0	37.3	0.0	157	294	15.1	49.7	1.0	29.3	1.7	1.1	0.5	6.9	2.2	5.3
Third quartile	52.9	36.3	18.7	40.0	44.8	28.5	203	316	30.2	82.8	1.5	33.7	2.3	1.4	0.6	8.5	2.3	6.9
Maximum	81.2	40.8	23.9	60.0	59.7	42.8	277	415	121	397	2.9	39.7	3.6	2.2	0.8	14.1	2.4	8.4

## Lithological composition



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