## Curative mud in Estonia 2013-2014: Käina Bay

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(4.8%->6.7%).

Economic reserves underwater

Reconnaissance resources

✓ Mining claim

Lake mud

✓ Sea mud

N Mine service plot

aina Bay is a low bay in the south-east of Hiiumaa Island, which is separated from Väinameri by Kassari Island. The connection with the sea passes through the bridgeways of the dam, the seawater exchange is minimal (water salinity is 2-3 ‰). The area of Käina Bay is 900 hectares, the average depth is 0.3-0.5 m and the maximum depth is up to 1 meter. There are numerous small islets and reed-beds. Käina Bay has the most mineral mud among curative mud deposits - an average of 92.4% of the sediment is mineral, the organic content is 6.7% and the carbonate content is 0.9%. The lithological composition of mud is statistically connected to individual heavy metals (lead (Pb), zinc (Zn)). Concentrations of heavy metals are the lowest and below the limit values. Compared to the 1990s, Käina Bay mud has 5 plokkina become slightly more organic





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



Average92.46.70.911.49.11.050.811421.63403.00.81.62.90.23.42.80.9Minimum88.93.10.410.00.010.0		Mineral matter		Organic matter	Carbonates (%)	Pb (PPM)	Cu (PPM)	Ni (PPM)	Zn (PPM)	Sr (PPM)	Cr (PPM)	Zr (PPM)	AI (%)	Ca (%)	Fe (%)	K (%)	Mg (%)	Cl (mg/g)	P (mg/g)	S (mg/g)	Kadaklaid Kadaklaid Kadaklaid Kadaklaid Kadaklaid Kadaklaid Kadaklaid Kadaklaid Kadaklaid Kadaklaid Kadaklaid
Minimum 88.9 3.1 0.4 10.0 0.0 18.5 104 0.0 265 2.4 0.7 0.8 2.4 0.0 1.5 2.6 0.0   First quartile 91.8 6.0 0.8 10.0 0.0 36.9 104 15.1 298 2.8 0.8 1.3 2.8 0.0 1.5 2.6 0.0   Median 92.4 6.7 0.9 1.4 0.0 55.4 121 30.2 33.9 0.8 1.7 3.0 0.2 3.2 1.0 1.0 1.0 1.4 0.0 55.4 121 30.2 33.9 0.8 1.3 2.8 0.1 2.8 2.7 0.0 1.4 1.0 1.4 0.0 55.4 121 30.2 33.9 3.0 0.8 1.3 0.2 3.1 0.2 3.2 2.8 1.3 2.8 1.3 2.8 1.3 2.8 1.3 2.8 1.3 2.8 1.3 2.8 1.3 2.8 1.3 2.8 1.3 2.8 1.3 2.8<	Average	92.4	. 6	6.7	0.9	11.4	9.1	1 1.0	50.8	114	21.6	340	3.0	0.8	1.6	2.9	0.2	3.4	2.8	0.9	Vasikrahu
First quartile91.86.00.810.00.036.910415.12982.80.81.32.80.12.82.70.0Median92.46.70.910.014.90.055.412130.23393.00.81.73.02.81.0Third quartile93.07.41.110.014.90.055.412130.23523.30.81.93.10.23.22.81.0Maximum96.59.91.320.014.914.373.912145.34803.81.22.63.20.45.52.92.01.4	Minimum	88.9		3.1	0.4	10.0	0.0	0 0.0	) 18.5	104	0.0	265	2.4	0.7	0.8	2.4	0.0	1.5	2.6	0.0	Lõunarahu
Median 92.4 6.7 0.9 10.0 14.9 0.0 55.4 121 30.2 339 3.0 0.8 1.7 3.0 0.2 3.2 2.8 1.0   Third quartile 93.0 7.4 1.1 10.0 14.9 0.0 55.4 121 30.2 352 3.3 0.8 1.9 3.1 0.2 2.8 1.0   Maximum 96.5 9.9 1.3 20.0 14.9 73.9 121 45.3 480 3.8 1.2 2.6 3.2 0.4 5.5 2.9 2.0 1.5	First quartile	91.8	6	6.0	0.8	10.0	0.0	0 0.0	36.9	104	15.1	298	2.8	0.8	1.3	2.8	0.1	2.8	2.7	0.0	tee
Third quartile 93.0 7.4 1.1 10.0 14.9 0.0 55.4 121 30.2 352 3.3 0.8 1.9 3.1 0.2 4.3 2.8 1.5 Image: A transmission of the second of the	Median	92.4	. (	6.7	0.9	10.0	14.9	9 0.0	) 55.4	121	30.2	339	3.0	0.8	1.7	3.0	0.2	3.2	2.8	1.0	Kibuspuu
Maximum 96.5 9.9 1.3 20.0 14.9 14.3 73.9 121 45.3 480 3.8 1.2 2.6 3.2 0.4 5.5 2.9 2.0	Third quartile	93.0		7.4	1.1	10.0	14.9	9 0.0	) 55.4	121	30.2	352	3.3	0.8	1.9	3.1	0.2	4.3	2.8	1.5	Otsa Otsa
	Maximum	96.5		9.9	1.3	20.0	14.9	9 14.3	3 73.9	121	45.3	480	3.8	1.2	2.6	3.2	0.4	5.5	2.9	2.0	

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