

## ANNUAL REPORT ON GEOTRACES ACTIVITIES IN POLAND

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- Institute of Oceanology in the previous year concentrated mostly on the development of LC-ICPMS method to measure metals in seawater. The system was set-up, and sample preparation method was developed, using a variety of glass cleaning procedures, different purity of acids, and acids redistillation. Low blank values were achieved and then the test was performed with two estuarine water reference materials – NASS-6 and SLEW3. Results are presented in table 1 and 2

*Table 1 Accuracy (given as recovery) and precision (given as standard deviation) of estuarine water reference material SLEW 3*

Metal	Metal concentrations (mg/kg $\pm$ st.dev.)		Recovery (%)
	Certified	Our values (n=5)	
Cd	0.048 $\pm$ 0.004	0.043 $\pm$ 0.001	90.6
Ni	1.23 $\pm$ 0,07	1.36 $\pm$ 0,02	110.3
Mn	1,61 $\pm$ 0,22	1,89 $\pm$ 0,02	117.6
Pb	0,0090 $\pm$ 0,0014	0,0097 $\pm$ 0,0003	107.8
Co	0,042 $\pm$ 0,010	0,052 $\pm$ 0.001	123.3
Cu	1,55 $\pm$ 0,12	1,77 $\pm$ 0.02	113.9

*Table 2 Accuracy (given as recovery) and precision (given as standard deviation) of estuarine water reference material NASS-6*

Metal	Metal concentrations (mg/kg $\pm$ st.dev.)		Recovery (%)
	Certified	Our values (n=5)	
Cd	0.0311 $\pm$ 0.0019	0.045 $\pm$ 0.0019	144.7
Ni	0.301 $\pm$ 0.025	0.290 $\pm$ 0.025	96.3
Mn	0.530 $\pm$ 0,050	0.620 $\pm$ 0,038	117.0
Pb	0,006 $\pm$ 0,002	0,011 $\pm$ 0,002	
Co	0.015	0,017 $\pm$ 0.0007	113.3
Cu	0.248 $\pm$ 0.025	0.348 $\pm$ 0.003	140.3

Submitted by Jacek Beldowski (hyron@iopan.gda.pl).