APPENDIX 1

Results of electron microprobe analysis of carbonates

Borehole	Depth (m)	Rock type	Formation	Analytical point	Mg [wt.%]	Ca [wt.%]	Mn [wt.%]	Fe [wt.%]	$MgCO_3$ [mole%]	$CaCO_3$ [mole%]	$MnCO_3$ [mole%]	$FeCO_3$ [mole%]	Carbonate type
Gdańsk IG 1	2921.1	cl si cal	Pelplin	1	0.3	39.0	0.3	0.4	1.0	97.6	0.7	0.7	Fe/Mn-Cal
				2	12.8	21.6	0.0	0.5	45.0	54.0	0.0	1.0	Dol
	2981.8	cl cal	Pelplin	5	11.5	23.3	0.0	0.01	40.8	59.0	0.0	0.2	Dol rb
				6	0.3	38.4	0.9	0.3	1.0	96.9	1.4	0.7	Mn/Fe-Cal
Kościerzyna	4304.9	cl si cal	Pelplin	2	0.1	39.5	0.1	0.0	0.4	99.4	0.2	0.0	Cal
IG 1				3	11.7	24.1	0.0	0.1	40.4	59.4	0.0	0.2	Dol rb
				4	12.3	22.2	0.0	0.3	43.3	56.1	0.0	0.6	Dol rb
	4335.0	cl	Pasłęk	1	12.3	22.3	0.0	0.7	43.0	55.5	0.0	1.5	Dol rb
				2	11.6	23.5	0.2	0.5	40.2	58.2	0.5	1.1	Dol rb
				3	0.3	36.2	3.1	0.6	1.1	91.2	6.6	1.1	Mn/Fe-Cal
				4	0.1	36.7	2.9	1.0	0.2	91.6	6.1	2.1	Mn/Fe-Cal
Lębork IG 1	2099.0	cl cal	Kociewie	3	9.3	22.1	0.4	5.4	32.7	55.5	0.7	11.6	Fe-Dol rb ex.
				4	10.6	24.5	0.02	0.2	37.6	62.0	0.0	0.4	Dol rb in.
				5	12.9	22.4	0.0	0.3	44.4	55.0	0.0	0.6	Dol
				6	0.1	39.6	0.2	0.6	0.5	97.1	0.5	1.9	Fe-Cal
				7	10.8	23.8	0.0	1.7	37.6	58.9	0.0	3.5	Fe-Dol rb
	3028.5	cl cal	Kociewie	2	0.3	40.0	0.0	0.3	1.0	98.0	0.0	0.6	Cal
				3	10.8	23.7	0.2	0.8	38.1	59.9	0.3	1.7	Fe-Dol rb
Olsztyn IG 2	2208.3	cl	Pelplin	4	0.1	39.9	0.1	0.0	0.4	99.5	0.1	0.0	Cal
				5	0.3	36.7	0.4	0.0	1.1	98.1	0.8	0.0	Cal
				6	12.4	22.4	0.0	0.7	47.3	51.1	0.0	1.6	Dol rb
	2297.9	cl	Pelplin	3	0.01	39.5	0.4	0.0	0.0	99.2	0.8	0.0	Mn-Cal
	2310.2	cl	Pelplin	4	0.4	39.5	0.5	0.0	1.3	97.7	1.0	0.0	Mn-Cal
				5	7.5	28.9	0.4	1.4	25.6	70.8	0.8	2.8	Fe-Dol rb
				6	0.6	39.9	0.0	0.1	2.1	97.7	0.0	0.2	Cal
	2398.4	cl si	Pasłęk	4	11.6	24.0	0.03	0.01	40.3	59.4	0.1	0.2	Dol rb
				5	0.6	39.2	0.2	0.0	2.1	97.5	0.4	0.0	Cal
Prabuty IG 1	3201.9	cl	Pelplin	3	0.9	38.5	0.0	0.4	3.2	96.2	0.0	0.6	Cal
	3230.1	cl	Pasłęk	1	0.5	39.5	0.1	0.4	1.7	98.5	0.1	0.7	Cal
				2	11.3	23.9	0.0	0.1	39.6	59.9	0.0	0.5	Dol rb
	3347.5	cl si	Pasłęk	1	0.1	38.1	0.8	0.6	0.5	96.1	1.8	1.6	Mn/Fe-Cal
				2	12.6	21.8	0.2	0.3	43.9	54.8	0.4	0.9	Dol
Żarnowiec IG 1	2450.1	cl si cal	Pelplin	5	11.3	23.8	0.2	0.2	39.6	59.6	0.4	0.4	Dol rb
				6	0.01	39.6	0.6	0.2	0.0	98.2	1.3	0.5	Mn/Fe-Cal
	2546.7	cl cal	Pelplin	4	0.3	40.3	0.2	0.0	0.9	98.7	0.4	0.0	Cal
				5	10.8	24.6	0.1	0.2	37.1	60.7	0.1	2.1	Fe-Dol rb
	2682.5	cl cal	Sasino	2	0.3	38.2	0.3	0.9	1.1	96.4	0.6	1.9	Fe-Cal
				3	10.3	23.7	0.1	0.2	37.5	62.0	0.2	0.3	Dol rb
				4	0.8	38.9	0.0	0.2	2.9	96.7	0.0	0.4	Cal
				5	8.8	21.8	0.2	7.1	30.5	54.4	0.5	14.6	Fe-Dol rb

cl – claystone, si – silty, cal – calcareous, Cal – calcite, Dol – dolomite, rb – rhombohedrons, ex – external, in – internal