APPENDIX 1

List of surface samples

No.	Designation of sample(s) and place of sampling	Sample symbol	R_r^o [%]	Name of lithostratigraphic beds	Structural unit	Geological age
1.	Gm – Gumna	MS 22	0.55	Vendryně Formation	Silesian	Tithonian
2.	G – Goleszów	MS 30	0.51	Cieszyn Limestones	Silesian	Tithonian–Berriasian
3.	Jw – Jaworze	MS 115	0.60	Cieszyn Limestones	Silesian	Tithonian–Berriasian
4.	Lg – Leszna Górna	MS 119	0.63	Cieszyn Limestones	Silesian	Tithonian–Berriasian
5.	Ci – Cięcina	MS 175	0.57	Cieszyn Limestones	Silesian	Tithonian–Berriasian
6.	C – Cisownica	MS 32	0.40	Cisownica Shales	Silesian	Valanginian–Hauterivian
7.	Kó – Kurów	MS 168	0.64	Cisownica Shales	Silesian	Valanginian–Hauterivian
8.	Że – Żegocina	MS 66	0.47	Grodziszcze Formation	Silesian	Hauterivian–Aptian
9.	Że – Żegocina	MS 40	0.45	Grodziszcze Formation	Silesian	Hauterivian–Aptian
10.	BB – Bielsko-Biała	MS 16	0.56	Grodziszcze Formation	Silesian	Hauterivian–Aptian
11.	Wo – Woźniki	OFL 19	0.46	Grodziszcze Formation	Silesian	Hauterivian–Aptian
12.	Zg – Zagórnik	MS 33	0.51	Veřovice Formation	Silesian	Barremian-Aptian
13.	Kw – Krzywaczka	MS 142	0.64	Veřovice Formation	Silesian	Barremian–Aptian
14.	BB – Bielsko-Biała	MS 150	0.61	Veřovice Formation	Silesian	Barremian–Aptian
15.	Lan – Lanckorona	MS 183	0.69	Veřovice Formation	Silesian	Barremian–Aptian
16.	Kó – Kurów	MS 166	0.61	Veřovice Formation	Silesian	Barremian–Aptian
17.	Lan – Lanckorona	MS 07	0.50	Lhoty Formation	Silesian	Albian–Cenomanian
18.	Rz – Rzyki	MS 10	n.o.	Lhoty Formation	Silesian	Albian–Cenomanian
19.	Tg – Targanice	MS 13	0.52	Lhoty Formation	Silesian	Albian–Cenomanian
20.	Jas – Jasienica	MS 106	0.60	Lhoty Formation	Silesian	Albian–Cenomianian
21.	Kz – Kozy	MS 121	0.58	Lhoty Formation	Silesian	Albian–Cenomianian
22.	Szcz – Szczyrk	MS 144	0.61	Lhoty Formation	Silesian	Albian–Cenomanian
23.	Lan – Lanckorona	MS 157	0.62	Lhoty Formation	Silesian	Albian–Cenomanian
24.	In – Inwałd	MS 176	0.59	Lhoty Formation	Silesian	Albian–Cenomanian
25.	Lan – Lanckorona	MS 152	n.o.	Mikuszowice Beds	Silesian	Albian–Cenomanian
26.	Lan – Lanckorona	MS 153	n.o.	Mikuszowice Beds	Silesian	Albian–Cenomanian
27.	Lan – Lanckorona	MS 155	0.48	Radiolarian Beds	Silesian	Cenomanian
28.	BB – Bielsko-Biała	MS 148	n.o.	Radiolarian Beds	Silesian	Cenomanian
29.	Ws – Wisła	MS 02	0.52	Godula Formation	Silesian	Cenomanian–Senonian
30.	Rz – Rzyki	MS 11	0.58	Godula Formation	Silesian	Cenomanian–Senonian
31.	Tr – Tresna	MS 15	0.53	Godula Formation	Silesian	Cenomanian–Senonian
32.	U – Ustroń	MS 31	0.52	Godula Formation	Silesian	Cenomanian–Senonian
33.	Br – Brenna	MS 37	0.54	Godula Formation	Silesian	Cenomanian–Senonian
34.	Że – Żegocina	MS 89	n.o.	Godula Formation	Silesian	Cenomanian–Senonian
35.	Pr – Porąbka	MS 101	0.58	Godula Formation	Silesian	Cenomanian–Senonian
36.	Szcz – Szczyrk	MS 131	0.72	Godula Formation	Silesian	Cenomanian–Senonian
37.	Szcz – Szczyrk	MS 133	n.o.	Godula Formation	Silesian	Cenomanian–Senonian
38.	Zw – Zawadka	MS 164	0.41	Variegated Shales	Silesian	Maastrichtian
39.	Zw – Zawadka	MS 162	0.58	Variegated Shales	Silesian	Maastrichtian
40.	Tw – Tarnawa	MS 03	n.o.	Istebna Formation	Silesian	Senonian–Paleocene
41.	Lan – Lanckorona	MS 18	0.53	Istebna Formation	Silesian	Senonian–Paleocene
42.	Łę – Łęki	MS 20	0.60	Istebna Formation	Silesian	Senonian–Paleocene
43.	Łę – Łęki	MS 26	0.46	Istebna Formation	Silesian	Senonian–Paleocene

44.	Db – Dobczyce	MS 21	0.49	Istebna Formation	Silesian	Senonian–Paleocene
45.	Db – Dobczyce	MS 25	0.40	Istebna Formation	Silesian	Senonian–Paleocene
46.	Db – Dobczyce	MS 27	0.48	Istebna Formation	Silesian	Senonian–Paleocene
47.	Cz – Czarne	MS 34	0.61	Istebna Formation	Silesian	Senonian–Paleocene
48.	Rż – Rożnów	MS 45	0.44	Istebna Formation	Silesian	Senonian–Paleocene
49.	Ze – Zegartowice	MS 47	0.65	Istebna Formation	Silesian	Senonian–Paleocene
50.	Zn – Znamirowice	MS 53	0.64	Istebna Formation	Silesian	Senonian–Paleocene
51.	Bu – Bukowiec	OFL 32	0.49	Istebna Formation	Silesian	Senonian–Paleocene
52.	Rd – Radziechowy	MS 103	n.o.	Istebna Formation	Silesian	Senonian–Paleocene
53.	Szcz – Szczyrk	MS 141	0.55	Istebna Formation	Silesian	Senonian–Paleocene
54.	Lan – Lanckorona	MS 158	n.o.	Istebna Formation	Silesian	Senonian–Paleocene
55.	Sb – Sobolów	MS 74	n.o.	Istebna Formation	Silesian	Senonian–Paleocene
56.	Sb – Sobolów	MS 78	n.o.	Istebna Formation	Silesian	Senonian–Paleocene
57.	Zn – Znamirowice	MS 124	n.o.	Istebna Formation	Silesian	Senonian–Paleocene
58.	Kam – Kamesznica	MS 178	0.73	Istebna Formation	Silesian	Senonian–Paleocene
59.	Bę – Bęczarka	MS 143	0.45	Istebna Formation	Silesian	Senonian–Paleocene
60.	Ka – Kamyk	MS 85	n.o.	Cieżkowice Formation	Silesian	Lower Eocene
61.	Gr – Gródek n/Dunajcem	MS 88	n.o.	Cieżkowice Formation	Silesian	Lower Eocene
62.	Gr – Gródek n/Dunajcem	MS 129	n.o.	Cieżkowice Formation	Silesian	Lower Eocene
63.	Zn – Znamirowice	MS 145	n.o.	Cieżkowice Formation	Silesian	Lower Eocene
64.	Kam – Kamesznica	MS 05	0.55	Hieroglyphic Beds	Silesian	Middle Eocene
65.	Kam – Kamesznica	MS 179	0.60	Hieroglyphic Beds	Silesian	Middle Eocene
66.	Zn – Znamirowice	MS 128	n.o.	Globigerina Marls	Silesian	Upper Eocene
67.	Zn – Znamirowice	MS 137	0.48	Globigerina Marls	Silesian	Upper Eocene
68.	Zn – Znamirowice	MS 75	n.o.	Menilite Formation	Silesian	Eocene–Oligocene
69.	Skr – Skrzydlna	MS 72	0.44	Menilite Formation	Silesian	Eocene–Oligocene
70.	Skr – Skrzydlna	MS 90	0.40	Menilite Formation	Silesian	Eocene–Oligocene
71.	Zn – Znamirowice	MS 125	0.53	Menilite Formation	Silesian	Eocene–Oligocene
72.	Zn – Znamirowice	MS 80	n.o.	Menilite Formation	Silesian	Eocene–Oligocene
73.	Sk – Skawce	MS 12	0.58	Krosno Formation	Silesian	Oligocene
74.	Sk – Skawce	SK14W	0.53	Krosno Formation	Silesian	Oligocene
75.	Ł – Łodygowice	MS 29	0.46	Krosno Formation	Silesian	Oligocene
76.	Mu – Mucharz	MS 54	0.56	Krosno Formation	Silesian	Oligocene
77.	Mu – Mucharz	15MuW	0.55	Krosno Formation	Silesian	Oligocene
78.	Kam – Kamesznica	OFL 1	0.51	Krosno Formation	Silesian	Oligocene
79.	Bw – Barwałd	MS 165W	0.60	Krosno Formation	Silesian	Oligocene
80.	Br – Barwałd	MS 165D	0.54	Krosno Formation	Silesian	Oligocene
81.	Kó – Kurów	MS 169	0.53	Krosno Formation	Silesian	Oligocene
82.	Zn – Znamirowice	MS 139	0.63	Krosno Formation	Silesian	Oligocene
83.	Ja – Jaworzynka	MS 96	0.40	Jaworzynka Formation	Magura	Senonian–Paleocene
84.	Mut – Mutne	MS 99	0.49	Jaworzynka Formation	Magura	Senonian–Paleocene
85.	PW – Poręba Wielka	MS 60	0.38	Ropianka Formation	Magura	Senonian–Paleocene
86.	Zaw – Zawoja	MS 189	0.60	Ropianka Formation	Magura	Senonian–Paleocene
87.	Budz – Budzów	MS 190	0.53	Ropianka Formation	Magura	Senonian–Paleocene
88.	Zu – Zubrzyca Górna	MS 91	0.64	Ropianka Formation	Magura	Senonian–Paleocene
89.	Zs – Zasadne	MS 42	n.o.	Szczawnica Formation	Magura	Senonian–Paleocene
90.	Kr – Krościenko n/Dunajcem	MS 43	0.71	Szczawnica Formation	Magura	Senonian–Paleocene
91.	Kr – Krościenko n/Dunajcem	MS 83	0.59	Szczawnica Formation	Magura	Senonian–Paleocene
92.	Tl – Tylmanowa	MS 67	0.57	Szczawnica Formation	Magura	Senonian–Paleocene
93.	Tl – Tylmanowa	MS 79	0.57	Szczawnica Formation	Magura	Senonian–Paleocene
94.	OD – Ochotnica Dolna	MS 58	0.43	Szczawnica Formation	Magura	Senonian–Paleocene
95.	My – Maniowy	MS 109	0.81	Szczawnica Formation	Magura	Senonian–Paleocene
96.	Zb – Zbludza	MS 38	0.64	Beloveza Formation	Magura	Senonian–Paleocene
97.	Zb – Zbludza	MS 41	0.60	Beloveza Formation	Magura	Lower Eocene
98.	Ko – Koninki	MS 46	0.56	Beloveza Formation	Magura	Lower Eocene

99.	Ko – Koninki	MS 51	0.44	Beloveza Formation	Magura	Lower Eocene
100.	Zb – Zbludza	MS 50	0.43	Beloveza Formation	Magura	Lower Eocene
101.	Mzł – Muszyna Złockie	MS 71	0.57	Beloveza Formation	Magura	Lower Eocene
102.	Mzł – Muszyna Złockie	MS 77	n.o.	Beloveza Formation	Magura	Lower Eocene
103.	Mzł – Muszyna Złockie	MS 97	0.56	Beloveza Formation	Magura	Lower Eocene
104.	Pkł – Piekiełko k/Tymbarku	MS 76	0.65	Beloveza Formation	Magura	Lower Eocene
105.	Tm – Tymbark	MS 108	0.55	Beloveza Formation	Magura	Lower Eocene
106.	LW – Lipnica Wielka	MS 111	0.64	Beloveza Formation	Magura	Lower Eocene
107.	LW – Lipnica Wielka	MS 120	0.64	Beloveza Formation	Magura	Lower Eocene
108.	Ku – Kuków	MS 102	0.55	Beloveza Formation	Magura	Lower Eocene
109.	Lw – Lachowice	MS 107	n.o.	Beloveza Formation	Magura	Lower Eocene
110.	Zaw – Zawoja	MS 61	0.51	Hieroglyphic Beds	Magura	Eocene
111.	Zaw – Zawoja	MS 93	0.65	Hieroglyphic Beds	Magura	Eocene
112.	Zaw – Zawoja	MS 95	0.63	Hieroglyphic Beds	Magura	Eocene
113.	Ż – Żabnica	MS 35	0.61	Hieroglyphic Beds	Magura	Eocene
114.	Grz – Grzechynia	MS 116	0.58	Hieroglyphic Beds	Magura	Eocene
115.	Łt – Łętownia	MS 105	0.51	Hieroglyphic Beds	Magura	Eocene
116.	Gł – Gołkowice	MS 57	0.43	Łącko Formation	Magura	Eocene
117.	Msz – Maszkowice	MS 151	0.41	Łacko Formation	Magura	Eocene
118.	Kr – Krościenko n/Dunajcem	MS 84	0.60	Zarzecze Formation	Magura	Eocene
119.	Ps – Przysietnica	OFL 23	0.48	Zarzecze Formation	Magura	Eocene
120.	Kł – Kłodne	MS 98	0.56	Magura Formation	Magura	Eocene–Oligocene
121.	Budz – Budzów	MS 06	0.40	Magura Formation	Magura	Eocene–Oligocene
122.	Zm – Zembrzyce	MS 08	0.50	Magura Formation	Magura	Eocene–Oligocene
123.	Budz – Budzów	MS 09	0.47	Magura Formation	Magura	Eocene–Oligocene
124.	Budz – Budzów	MS 17	0.47	Magura Formation	Magura	Eocene–Oligocene
125.	Tn – Tenczyn	MS 23	0.43	Magura Formation	Magura	Eocene–Oligocene
126.	Tn – Tenczyn	MS 127	0.57	Magura Formation	Magura	Eocene–Oligocene
127.	Tn – Tenczyn	KerTen	0.47	Magura Formation	Magura	Eocene–Oligocene
128.	Tn – Tenczyn	Ten 1	0.41	Magura Formation	Magura	Eocene–Oligocene
129.	Kb – Korbielów	MS 28	0.54	Magura Formation	Magura	Eocene–Oligocene
130.	Ż – Żabnica	MS 36	0.58	Magura Formation	Magura	Eocene–Oligocene
131.	Ż – Żabnica	MS 182	0.63	Magura Formation	Magura	Eocene–Oligocene
132.	Br – Barcice	MS 68	0.46	Magura Formation	Magura	Eocene–Oligocene
133.	Żg – Żegiestów	MS 86	0.46	Magura Formation	Magura	Eocene–Oligocene
134.	Zaw – Zawoja	MS 92	0.46	Magura Formation	Magura	Eocene–Oligocene
135.	Zaw – Zawoja	MS 94	0.51	Magura Formation	Magura	Eocene–Oligocene
136.	Zb – Zbludza	MS 59	0.57	Magura Formation	Magura	Eocene–Oligocene
137.	Os – Osielec	MS 100	0.50	Magura Formation	Magura	Eocene–Oligocene
138.	PZ – Piwniczna Zdrój	MS 104	0.53	Magura Formation	Magura	Eocene–Oligocene
139.	Gl – Glinka	MS 114	0.66	Magura Formation	Magura	Eocene–Oligocene
140.	Mę – Męcina	MS 118	0.44	Magura Formation	Magura	Eocene–Oligocene
141.	Po – Porąbka	MS 123	0.59	Magura Formation	Magura	Eocene–Oligocene
142.	Kl – Klikuszowa	MS 130	0.82	Magura Formation	Magura	Eocene–Oligocene
143.	W – Wierchomla Wielka	MS 160	0.45	Magura Formation	Magura	Eocene–Oligocene
144.	OR – Obłazy Ryterskie	MS 163	0.47	Magura Formation	Magura	Eocene–Oligocene
145.	Db– Dobra	MS 112	0.59	Magura Formation	Magura	Eocene–Oligocene
146.	Jr – Jurków	MS 146	0.42	Magura Formation	Magura	Eocene–Oligocene
147.	Ci – Cięcina	MS 174	0.91	Jaworzynka Formation	Fore-Magura	Upper Senonian
148.	Prz – Przybędza/Juraszów	MS 187	0.54	Menilite Formation	Fore-Magura	Upper Eocene
149.	Sz – Szczawa	MS 52	0.42	Grybów Formation	Fore-Magura	Middle/Upper Eocene
150.	Ko – Koninki	MS 56	0.64	Grybów Formation	Fore-Magura	Middle/Upper Eocene
151.	Kam – Kamesznica	MS 01	0.42	Krosno Formation	Fore-Magura	Oligocene
152.	Kam – Kamesznica	MS 04	0.45	Krosno Formation	Fore-Magura	Oligocene
153.	Prz – Przybędza/Juraszów	MS 14	0.45	Krosno Formation	Fore-Magura	Oligocene

154.	Sz – Szczawa	MS 55	0.64	Krosno Formation	Fore-Magura	Oligocene
155.	Sz – Szczawa	MS 38	0.58	Krosno Formation	Fore-Magura	Oligocene
156.	Kc – Klęczany	MS 81	0.76	Krosno Formation	Fore-Magura	Oligocene
157.	MG – Mszana Górna	MS 87	0.66	Krosno Formation	Fore-Magura	Oligocene
158.	MG – Mszana Górna	MS 69	0.60	Krosno Formation	Fore-Magura	Oligocene
159.	Is – Istebna	MS 117	0.45	Krosno Formation	Fore-Magura	Oligocene
160.	Żw – Żywiec	MS 140	0.49	Cisownica Shales	Subsilesian	Valanginian
161.	Rb – Rybie	MS 177	0.46	Cisownica Shales	Subsilesian	Valanginian
162.	Rb – Rybie	MS 170	0.50	Veřovice Formation	Subsilesian	Barremian–Aptian
163.	Lan – Lanckorona	MS 154	n.o.	Variegated Shales	Subsilesian	Turonian
164.	Lan – Lanckorona	MS 156	n.o.	Variegated Shales	Subsilesian	Turonian
165.	Rb – Rybie	MS 39	0.63	Żegocina Marls	Subsilesian	Senonian
166.	Rb – Rybie	MS 44	0.49	Frydek Marls	Subsilesian	Senonian
167.	Rb – Rybie	MS 49	n.o.	Rybie Sandstones	Subsilesian	Upper Senonian
168.	Ci – Cięcina	MS 173	0.48	Szydłowiec Sandstones	Subsilesian	Upper Senonian
169.	Rb – Rybie	MS 172	0.46	Menilite Formation	Subsilasian	Eocene–Oligocene
170.	Rb – Rybie	MS 171	0.52	Krosno Formation	Subsilasian	Oligocene

R_r^o – random vitrinite reflectance; n.d. – not determined