SPM 1: Results of isotopic composition of bulk and organic carbon (**13Cbulk and **13Corg), TOC-Total Organic Carbon (%), nitrogen (**15Nbulk), isotopic composition of carbon in carbonate **13CCaCO3 and isotopic composition of oxygen in carbonate **18OCaCO3 with lab ID numbers and macroscopic description of organic and inorganic components from Velenje coal Basin and calculated share (%) of organic matter.

| **Sample ID** | **Macroscopic description with type of mineralization and lithotype description** | **Number of excavation field** | ****13Cbulk** **(‰)** | ****13Corg.****(‰)** | ****15Nbulk****(‰)** | **% organic matter****(isotopic mass balance equation)** | **C****(%)** | ****13CCaCO3****(‰)** | ****18OCaCO3** **(‰)** | **Calculated temperature of precipitation****(°C)** | **εTOC** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 13-2112 | inorganic, A | -50C-566-32-V1 | -2.9 | -27.5 | 2.7 | 3.6 | 30.6 | n.d. | n.d. |  |  |
| 13-2113 | organic, tiny gelified detrite (dDG) | -50C-566-32-V1 | -26.6 | -27.4 | 2.9 | 97.1 | 55.0 |  |  |  |  |
| 13-2114 | organic, tiny gelified detrite (dDG) | -50C-566-32-V1 | -25.8 | -26.9 | 3.7 | 95.9 | 51.2 |  |  |  |  |
| 13-2115 | organic, gelified detrite (dDG) | -50C-560-30 | -22.2 | -28.6 | 3.1 | 77.6 | 52.3 |  |  |  |  |
| 13-2116 | organic, tiny detrital organic matter (dDG) | -50C-560-30 | -27.4 | -27.7 | 2.9 | 98.9 | 51.3 |  |  |  |  |
| 13-2117 | inorganic, C | -50C-560-30 | -2.9 | -27.6 | 3.7 | 10.5 | 15.9 | 11.50 | -7.92 | 11.5 | 40.2 |
| 13-2118 | organic, gelified detrite (dDG) | -50C-651-50 | -23.6 | -26.9 | 2.2 | 87.7 | 51.2 |  |  |  |  |
| 13-2119 | inorganic, A | -50C-651-50 | -6.6 | -26.9 | 2.3 | 16.1 | 15.2 | n.d. | n.d. |  |  |
| 13-2120 | inorganic, A | -50C-629-27 | -9.4 | -28.5 | 2.6 | 29.1 | 33.8 | 12.09 | -11.38 | 28.4 | 41.8 |
| 13-2121 | organic (dDG) | -50C-629-27 | -27.1 | -27.1 | 2.9 | 98.0 | 52.10 |  |  |  |  |
| 13-2122 | inorganic, A | -50C-587-37 | -2.6 | -27.2 | 2.1 | 1.2 | 15.7 | 12.92 | -11.13 | 27.1 | 41.2 |
| 13-2123 | organic (dDG) | -50C-587-37 | -26.9 | -27.2 | 3.1 | 98.9 | 55.7 |  |  |  |  |
| 13-2124 | organic (dDG) | -50C-582-08 | -26.9 | -27.6 | 2.8 | 97.5 | 51.4 |  |  |  |  |
| 13-2125 | organic (dDG) | -50C-582-08 | -26.6 | -27.5 | 2.7 | 96.7 | 53 |  |  |  |  |
| 13-2126 | organic (dDG) | -50C-570-28 | -27.1 | -27.3 | 2.2 | 99.3 | 50.0 |  |  |  |  |
| 13-2127 | inorganic, A | -50C-594-50 | -14.0 | -28.1 | 2.4 | 46.0 | 30.1 | 13.58 | -11.32 | 28.1 | 42.9 |
| 13-2128 | organic (dDG) | -50C-594-50 | -27.8 | -28.2 | 2.3 | 98.6 | 53.3 |  |  |  |  |
| 13-2129 | inorganic, A | -50C-594-61 | -9.8 | -27.5 | 2.8 | 31.0 | 25.6 | 6.61 | -12.41 | 33.9 | 35.1 |
| 13-2130 | organic (dDG) | -50C-594-61 | -27.3 | -27.5 | 2.3 | 99.3 | 50.8 |  |  |  |  |
| 13-2131 | inorganic, A | -50C-597-22 | -2.2 | -28.5 | 2.8 | 3.1 | 35.5 | n.d. | n.d. |  |  |
| 13-2132 | organic (dDG) | -50C-597-22 | -27.0 | -27.9 | 3.0 | 96.8 | 51.6 |  |  |  |  |
| 13-2133 | organic (dDG) | -50C-597-29 | -26.4 | -28.0 | 2.6 | 94.3 | 50.5 |  |  |  |  |
| 13-2134 | organic (dDG) | -50C-597-29 | -27.5 | -27.8 | 3.2 | 98.9 | 53.1 |  |  |  |  |
| 13-2135 | inorganic, A | -50C-597-20 | -11.4 | -28.1 | 2.9 | 36.1 | 33.9 | n.d. | n.d. |  |  |
| 13-2136 | organic (dDG) | -50C-597-20 | -27.5 | -27.7 | 2.9 | 99.3 | 53.8 |  |  |  |  |
| 13-2137 | inorganic, A | -50C-597-36 | -7.5 | -27.9 | 2.4 | 21.2 | 25.9 | 14.13 | -9.39 | 18.4 | 43.2 |
| 13-2138 | organic (dDG) | -50C-597-36 | -26.9 | -27.7 | 2.9 | 97.1 | 52.9 |  |  |  |  |
| 13-2139 | organic (xylite) | G3B | -26.1 | -26.1 | 4.4 | 100.0 | 56.9 |  |  |  |  |
| 13-2140 | inorganic, A | -50C-597-21 | -9.1 | -28.3 | 2.4 | 27.0 | 34.9 | 12.33 | -11.74 | 30.3 | 41.8 |
| 13-2141 | organic (xylite) | -50C-597-21 | -28.1 | -28.1 | 2.6 | 100 | 57.1 |  |  |  |  |
| 13-2142 | inorganic, D | -50C-597-28 | -2.9 | -26.9 | 2.6 | 3.61 | 39.3 | n.d. | n.d. |  |  |
| 13-2143 | organic (dDG) | -50C-597-28 | -26.8 | -26.8 | 3.0 | 100 | 56.0 |  |  |  |  |
| 13-2144 | organic (dDG) | -130B-430-36 | -26.3 | -26.3 | 2.7 | 100 | 52.8 |  |  |  |  |
| 13-2145 | organic (dDG) | -50C-597-14 | -25.5 | -26.3 | 5.9 | 97.0 | 50.6 |  |  |  |  |
| 13-2146 | organic (xylite) | -50C-597-17 | -26.1 | -27.3 | 3.8 | 95.6 | 51.5 |  |  |  |  |
| 13-2147 | inorganic, D | -50C-597-37 | -6.6 | -27.3 | 3.2 | 81.8 | 22.6 | n.d. | n.d. |  |  |
| 13-2148 | inorganic, D | -130B-460-24 | -5.0 | -26.3 | n.d. | 19.0 | 17.2 | 11.04 | -14.49 | 45.5 | 38.3 |
| 13-2149 | organic (xylite) | -130B-460-24 | -21.0 | -26.3 | 3.2 | 79.8 | 51.0 |  |  |  |  |
| 13-2150 | inorganic, D | -130B-460-31 | -8.1 | -25.5 | 2.5 | 26.0 | 23.7 | -4.26 | -11.47 | 28.9 | 21.8 |
| 13-2151 | inorganic, A | -50C-651-46 | -3.9 | -27.6 | 2.2 | 7.5 | 21.0 | 14.18 | -9.65 | 19.7 | 43.0 |
| 13-2152 | inorganic, D | -50C-651-46 | -5.2 | -26.8 | 2.8 | 13 | 15.0 | n.d. | n.d. |  |  |
| 13-2153 | inorganic, D | -50C-594-51 | -7.2 | -24.9 | 3.4 | 23 | 19.0 | 14.83 | -14.11 | 43.3 | 40.7 |
| 13-2154 | organic (xylite) | -50C-594-51 | -26.4 | -26.4 | 2.8 | 100.0 | 51.9 |  |  |  |  |
| 13-2155 | inorganic, D | -50C-594-51 | -10.9 | -25.8 | n.d. | 42.2 | 13.8 | 16.10 | -9.81 | 20.5 | 43.0 |
| 13-2156 | inorganic, A | -50C-566-32 | -9.9 | -25.9 | 2.6 | 33.1 | 26.3 | n.d. | n.d. |  |  |
| 13-2157 | organic (dDG) | -50C-566-32 | -27.0 | -27.0 | 2.8 | 100.0 | 55.2 |  |  |  |  |
| 13-2158 | inorganic, C | -50C-566-32 | -14.4 | -26.6 | 3.8 | 54.1 | 19.4 | 0.41 | -11.63 | 29.7 | 27.7 |
| 13-2159 | inorganic, C | -50C-533-12 | -3.8 | -26.3 | 3.9 | 14.4 | 17.2 | 10.59 | -10.46 | 23.7 | 37.9 |
| 13-2160 | organic (xylite) | -50C-533-12 | -3.1 | -26.2 | 5.1 | 11.8 | 56.1 |  |  |  |  |
| 13-2161 | inorganic, A | -50C-582-34 | -15.4 | -26.7 | 2.8 | 57.7 | 25.2 | 14.97 | -9.52 | 19.1 | 42.8 |
| 13-2162 | organic (dDG) | -50C-582-34 | -27.3 | -27.3 | 2.8 | 100.0 | 52.0 |  |  |  |  |
| 13-2163 | organic (dDG and xylite) | -50C-533-24 | -25.0 | -25.7 | 3.1 | 97.3 | 51.0 |  |  |  |  |
| 13-2164 | organic (xylite) | -50C-533-24 | -24.0 | -26.3 | 3.2 | 91.3 | 51 |  |  |  |  |
| 13-2165 | organic (xylite) | -50C-566-32-V2 | -14.4 | -23.7 | 5.0 | 60.8 | 53 |  |  |  |  |
| 13-2166 | organic (xylite) | -50C-570-18 | -12.6 | -25.8 | 4.5 | 48.8 | 51 |  |  |  |  |
| 13-2167 | organic (xylite) | -50C-575-51 | -21.5 | -27.5 | 2.8 | 78.2 | 50.5 |  |  |  |  |
| 13-2168 | inorganic, A | -50C-582-25 | -21.6 | -27.5 | 3.0 | 78.5 | 27.4 | n.d. | n.d. |  |  |
| 13-2169 | organic (dDG) | -50C-582-25 | -24.1 | -27.7 | 3.3 | 87.0 | 52.8 |  |  |  |  |
| 13-2170 | inorganic, C | -50C-582-25 | -7.6 | -27.1 | 3.7 | 28.0 | 17.0 | 7.14 | -10.98 | 25.9 | 35.2 |
| 13-2171 | inorganic, C | -50C-594-39V1 | -3.9 | -25.3 | 4.1 | 15.4 | 16.6 | 7.39 | -10.94 | 26.2 | 33.5 |
| 13-2172 | organic (dDG) | -50C-594-39V1 | -29.0 | -29.4 | 2.0 | 98.6 | 50.7 |  |  |  |  |
| 13-2173 | inorganic, C | -50C-594-39V1 | 6.7 | -28.5 | 3.3 | Below 1% | 14.3 | 16.40 | -9.31 | 18.0 | 46.2 |
| 13-2174 | inorganic, C | -50C-575-07 | 7.4 | -26.5 | 3.1 | Below 1% | 13.9 | 14.80 | -9.99 | 21.4 | 42.4 |
| 13-2175 | inorganic, C | -50C-575-07 | -16.4 | -25.6 | 2.5 | 64.1 | 24.8 | 14.20 | -10.90 | 25.9 | 40.8 |
| 13-2176 | inorganic, C | -50C-566-06 | 0.8 | -26.3 | 3.8 | Below 1% | 17.2 | n.d. | n.d. |  |  |
| 13-2177 | inorganic, C | -50C-566-06 | 6.7 | -26.3 | 4.2 | Below 1% | 13.4 | 12.08 | -6.64 | 5.7 | 39.4 |
| 13-2178 | inorganic, C | -50C-582-10 | -5.7 | -26.2 | 4.4 | 21.8 | 19.0 | 11.10 | -8.22 | 12.9 | 38.7 |
| 13-2179 | inorganic, C | -50C-582-10 | 2.2 | -25.9 | 5.2 | Below 1% | 14.0 | 9.73 | -7.95 | 11.6 | 36.6 |
| 13-2180 | inorganic, C | -50C-575-14 | -13.3 | -27.5 | 3.8 | 18.4 | 16.7 | 8.84 | -9.05 | 16.8 | 37.4 |
| 13-2181 | organic (dDG) | -50C-575-14 | -6.9 | -27.3 | 3.4 | 25.3 | 59.2 |  |  |  |  |
| 13-2182 | inorganic, C | -50C-575-14 | 1.3 | -26.2 | n.d. | Below 1% | 14.5 | 9.72 | -7.85 | 11.1 | 36.9 |
| 13-2183 | inorganic, C | -50C-570-27 | -4.2 | -24.3 | 4.2 | 17.3 | 17.7 | 9.20 | -9.27 | 17.9 | 34.4 |
| 13-2184 | organic (dDG) | -50C-570-27 | -23.5 | -25.0 | 3.9 | 94.0 | 47.2 |  |  |  |  |
| 13-2185 | inorganic, C | -50C-570-27 | 6.5 | -25.3 | 3.3 | 0.0 | 11.1 | 10.84 | -8.06 | 12.1 | 37.1 |
| 13-2186 | inorganic, C | -50C-597-03 | 1.4 | -26.6 | 3.6 | Below 1% | 10.1 | 12.65 | -7.83 | 11.0 | 40.3 |
| 13-2187 | organic (dDG) | -50C-597-03 | -26.7 | -27.0 | 2.8 | 98.9 | 52.9 |  |  |  |  |
| 13-2188 | inorganic, D | -50C-597-03 | 1.4 | -29.1 | 3.7 | Below 1% | 14.9 | 12.76 | -8.92 | 16.2 | 43.0 |
| 13-2189 | inorganic, C | -50C-589-40 | -18.1 | -27.3 | 4.0 | 66.3 | 13.3 | 4.73 | -9.73 | 20.1 | 32.9 |
| 13-2190 | inorganic, C | -50C-589-40 | -8.5 | -26.8 | 3.4 | 31.7 | 19.6 | 5.33 | -10.60 | 24.4 | 33.0 |
| 13-2191 | inorganic, D | -130B-430-04 | -0.9 | -27.6 | 3.9 | 3.3 | 15.5 | 11.05 | -10.43 | 23.6 | 39.7 |
| 13-2192 | inorganic, calcified wood, D | -50C-651-31-V2 | 10.0 | -26.3 | 3.1 | Below 1% | 13.3 | 15.96 | -8.40 | 13.7 | 43.4 |
| 13-2193 | inorganic, calcified wood, C | -50C-597-56 | 7.7 | -28.8 | 1.8 | Below 1% | 13.8 | 15.39 | -9.41 | 28.5 | 45.5 |
| 13-2194 | inorganic, calcified wood, D | -50C-651-21-V1 | 8.0 | -27.7 | 3.0 | Below 1% | 14.0 | 16.17 | -8.82 | 15.7 | 45.1 |
| 13-2195 | inorganic, calcified wood, D | -50C-582-39 | 7.6 | -28.7 | 2.4 | Below 1% | 14.4 | 16.08 | -9.11 | 17.1 | 46.1 |
| 13-2196 | inorganic, calcified wood, D | -50C-629-71 | 7.2 | -26.3 | 3.4 | Below 1% | 14.2 | 14.95 | -10.21 | 22.5 | 42.4 |
| 13-2197 | inorganic, calcified wood, D | -50C-597-35 | 4.2 | -26.3 | 2.2 | Below 1% | 15.9 | -8.61 | -26.3 | 14.7 | 43.1 |
| 13-2198 | inorganic, calcified wood,D | -50C-594-39-V3 | 12.7 | -27.5 | n.d. | Below 1% | 15.9 | -8.64 | n.d. | 14.8 | 44.1 |
| 13-2199 | inorganic, calcified wood, D | -50C-594-39-V3 | 13.1 | -25.1 | n.d. | Below 1% | 11.8 | -9.41 | n.d. | 18.5 | 41.8 |
| 13-2200 | inorganic, calcified wood, D | -50C-594-39-V2 | 12.4 | -25.1 | n.d. | Below 1% | 12.8 | -9.28 | n.d. | 17.9 | 41.9 |