

## **„Śląsk -Matylda” Mine**

### History

Mining Plant operating in Świętochłowice in the years 1883-1976. After the end of World War II, it was created by merging the "Śląsk" coal mine in Chropaczów and "Matylda" the mine liquidated in Lipiny. The northern part of the area shown on the map is the "Łagiewniki" coal mine connected to the "Rozbark" coal mine. In the nineteenth century, it was created by joining the mining fields: "Gabor", "Jung Detlev" and "Excellenz". The owner of the mine was Guido Henckel von Donnersmarck. Until 1922 it was called "Schlesien" and then "Śląsk". In the years 1945–1957 it belonged to the Chorzów Federation of the Coal Industry. From 1957 it belonged to the Katowice Union of the Coal Industry.

### Geology

In the geological structure of the mining area participate the deposits of Quaternary, Triassic and Carboniferous strata. The thickness of the Quaternary deposits is small and of the order of several meters in the majority of the area. It grows in the valleys and glacial valleys of the streams of surface watercourses. It reaches several dozen meters in the river valley of the Bytomka. From the northern border of the mine area to the town of Łagiewniki, under the Quaternary, there are Triassic deposits (shell limestone) and in the Bytom development area there is also metalliferous dolomite. In the south of the Triassic range, carboniferous deposits are exposed on the surface. They are locally covered with sediments of the Quaternary glacial genesis. Carboniferous deposits form an extensive basin whose longitudinal axis extends in the direction of W-E. It runs through the central area of the city of Bytom on the line connecting its northern districts with the Miechowice district. The carbon deposits are disturbed by numerous faults with the WE and SW-NE directions. Generally, they dip to the axis of the basin towards the north and north-east. The values of the Carboniferous deposition dip angle are in the order of 8-10 degrees in the southern part of the area. They rise northwards where they reach values in the range of 25-35 degrees.

### Mining

Seams 416, 418, 419, 501, 504 were exploited in the mining area of the “Śląsk-Matylda” Mine, in the depth zone from 40 to approx. 270 m. The thickness of the seams and extracted coal varied from approx. 1 to 8-9m (501 seam).

### Sinkhole threat

Exists on the surface in the areas where the coal was extracted in the depth ranging from 0 to 100 m. Such exploitation was carried out in six irregularly distributed mining areas. The greatest threat exists in the areas of shallow exploitation of 501 and 504 seams in the area stretching from Chropaczów through the center of Świętochłowice to the Katowice-Gliwice PKP railway line.