## "Centrum-Szombierki" Mine.

#### **HISTORY**

The mining plant operating in Bytom (Śródmieście, Szombierki) and Ruda Śląska (Orzegów) was created by merging two smaller mines: "Centrum" and "Szombierki" in 1993. The beginnings of operation at the plant date back to 1870 when the "Hohenzollern" mine was launched in the Szombierki district, which in 1945 was renamed to "Szombierki" coal mine. In 1970, the "Karol" mine (formerly known as "Gotthard") in Ruda Śląska was also attached to "Szombierki". The exploitation in Śródmieście area was carried out at the end of 1850s, where after mining of zinc ore (galman), hard coal was exploited in the "Karsten" and "Centrum" mines. In the years 1950-1990 the mine operated under the name "Dimitrow". The liquidation of "Centrum-Szombierki" mine was a two-stage process. First, in 1996, the operation of "Szombierki" mining plant was terminated, and then on May 9, 2015, on the basis of Mining Company resolution "Centrum" mining plant was liquidated.

#### **GEOLOGY**

The overburden of hard coal deposit of the "Centrum-Szombierki" mine is made up of Quaternary deposits from 0 to 52 m thick and Triassic deposits from 0 to 185 m thick. The mining area is within two tectonic units: the central part of the Bytom Basin and main saddle. The Bytom Basin is characterized by asymmetry of wings in the area of "Centrum-Szombierki" mine. The north wing is characterized by gentle dip angles (maximum about 15°) towards the south, while the south wing dips steeply to the north. The axis of the Bytom basin runs almost latitudinally near the border between the former "Centrum" and "Szombierki" mines, sinking westwards and reaching the lowest point about 200 m south of the main shafts of the former "Centrum" mine. The southern part of the mine, located within the range of the main saddle, is characterized by mild dip angles, within 0-10°, usually towards the south. The "Centrum-Szombierki" mining area is cut by numerous faults. The most important ones are:

- "Radzionkowski" fault, with a drop h = 120 220 m, constituting the natural eastern border of the deposit,
- Bytom faults, with a total discharge of up to about 20 m.
- fault In the inactive part of the deposit (southern part) with a drop of about 40 m running south from the liquidated shaft "Jerzy".

# MINING

In the "Centrum-Szombierki" mining area seams: 407, 410, 411, 412, 414, 415, 416, 417, 418, 419, 501, 503, 504, 506, 507, 510, 615, 620 were exploited. The mining was carried out at a depth of up to 30-40 to 900 meters. The thickest seam 510 extracted reached up to 7.5 m.

### SINKHOLE THREAT

Exists in the Szombierki and Orzegów districts associated with shallow exploitation (at a depth not exceeding 100 m) of the deposits of the Rudzkie layers in seams: 417, 418, 419 carried out between 1876-1958.