

For mining the world's largest deposit of polyhalite

Conveyor system for the drive 1 construction project section of the Woodsmith Mine Tunnel Project

Polyhalite is a rather rare mineral belonging to the mineral class of sulfates, and it is used to manufacture fertilisers. In the region between Whitby and Scarborough (GB), at a depth of 1,000 to 1,500 meters, the world's largest deposit to date was discovered. As of 2022, the mineral is expected to be mined in the new Woodsmith Mine - up to 20 million tonnes per year! It is expected to have an operating time of up to 100 years.



The Woodsmith Mine Tunnel is a 37-kilometre-long tunnel that will run between the Woodsmith Mine in Sneatonthorpe at Whitby in North Yorkshire and the Wilton International complex in Teesside, England.

The mine working contains several shafts that are up to 1,500 metres deep and a tunnel for accessing the main shaft. The tunnel construction order was divided into three sections: Drive 1 from Wilton to Lockwood Beck, drive 2 from Lockwood Beck southwards, and drive 3 from Woodsmith Mine towards Lockwood Beck.





Constructor
York Potash Ltd. / Sirius Minerals PLC

Client
STRABAG AG UK Branch

Commissioning
End of August 2019

Technical specification
Tunnel diameter: 5.60 m
Length of tunnel: 12.6 km
Belt width: 800 mm
Conveying capacity: 300 t/h



Conveyor belt system for the drive 1 construction project section

In 2018, Sirius Minerals commissioned STRABAG AG UK Branch with the drive 1 construction project section. This company in turn awarded Marti Technik AG a contract for a conveyor belt system that carries away the excavated material from the tunnel boring machine in the dumpsite hall to the Wilton site. The contract includes planning, manufacturing, delivering, and supervising the assembly and commissioning of the entire conveyor system, consisting of a tunnel conveyor and a dumpsite conveyor. The special thing about the tunnel conveyor is that, despite its 13-kilometre length, it does not have an intermediate drive, and it has been equipped with a wireless emergency stop system at the customer's request.