METHOD OF COMBINED MINING OF BEDDED DEPOSITS

Description
The essence of the method consists in cutting an internal trench of bedded deposit on the section for open-cast mining across the strike from exit of the bed into surface to the border between open-cast and underground mining. After the extraction of the mineral resources a support is mounted in the trench on the bed surface by opening capital workings for development of underground mining and cut of the development workings on the section of the underground work to prevent the interruption in the output of mineral resources when open-cast mining is ceased. All workings for preparation of mining of the first pillar under section will be cut of to the moment of stopping of the open-cast mining.

Method of mining:
1 – mineral deposit; 2 – open-cast mining section; 3 – internal trench; 4 – bed of deposit; 5 – the border between open-cast and underground mining; 6 – permanent opening; 7 – development working; 8 – the last stope; 9 – ventilation drift; 10 – barren rock.

Technical appraisal and economic advantages
The method enables preparation of the section of underground works and prevention of mining interruption and reduction of the volume of the underground mining workings.

Application areas
Mining of bedded deposits by combined (open-cast and underground) method of mining.

Development stage
Method may be used for mining of coal deposits in South Yakutia.

Patent situation
The method has been protected by the patent of the Russian Federation (2002).
Commercial offers
Contracts for development of practical recommendations and technical documentation.

Estimated cost
Contract conditions to be negotiated.

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