

Serbia mining: “Relocation of the Peštan riverbed section with a view to the opening of the new Open Pit Mine Field E - Kolubara mining basin”

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In the present state, the Peštan river flows along its own alluvial plain in the approximate direction East - West, along one part of the mining Field E, which is the replacement open pit mine of the Field D. And therefore, as it flows through the mining field, the relocation and regulation of the natural water flow is necessary in order to use the space for coal exploitation. Presentation of the paper made by Stevanović Petrović N., Stojanović S., Cojić M., was held at the Sixth International Conference on Coal, held at Zlatibor, from 2nd to 5th October 2013.

Field E coal deposit is located in the southeastern part of the Kolubara basin and occupies the area between the Field F in the west, Field D to the north and Field C in the east.

The authors proposed a technical solution for the relocation of the Peštan River in three stages. In order to complete these three stages, the following conditions must be fulfilled: that the Peštan riverbed lies outside the coal seam; that the Peštan riverbed can take up to 10^3 of water and that the control on the right - the coastal embankment is 10^4 ; that the riverbed should be at least 180m away from the southern boundary of the open pit mine; that the riverbed is clayed and to prevent hydraulic contact of the Peštan riverbed and the associated deposits of coal seam; that the riverbed Peštan has to accept any intermittent surface flows when this water course has been relocated; the relocation, preferably should be carried out in stages; that to reconnect the downstream riverbed at the point under a bridge on the road Vreoci - Lazarevac.

In conclusion, this paper indicates that the relocation and regulation of the Peštan River is by scope and issues far beyond the traditional tasks in the area of watercourses regulation, for the following reasons: it requires the relocation of the Peštan river out of the current route, and largely outside of its own alluvium; flood control by implementing active measures is required in the part of the flow upstream the exploitation area; the Peštan riverbed must be watertight, i.e. infiltration of water from the riverbed to the mine must be prevented by applying appropriate technical solutions; dislocation, the Peštan River regulation and flood control by applying active measures in the catchment area, represent important requirements needing considerable financial resources.

Source; MB Kolubara