

عنوان مقاله:

Challenges of Interbasin Transfer from Karoon River to Zayanderood River Kuhrang III Tunnel

محل انتشار:

همایش ملی راهکارهای پیش روی بحران آب در ایران و خاورمیانه (سال: 1393)

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خلاصه مقاله:

Kuhrang III tunnel with the length of 4.32 km is designed to transfer 71 m³/s water from the Birgan River to the Naleshkanan River under the Zarab anticline. The karstic formations are extensively outcropped in route of the tunnel. A considerable amount of water emerged from a karstic conduit during the excavation of the Nasirabad adit. Water with a pressure of about 71 atmospheres and a flow rate of about 41 l/s emerged from a karstic channel during the excavation of the main tunnel. Two dye tracings were performed in the study area. At the first one, 2434 kg Rhodamine B was injected in ponor No. 7 in the north of Lagharak polje. In second dye tracing, 41 kg Uranine was injected in ponor No. 4 in the south of Lagharak polje. It is concluded that: 7. most of the water in the Lagharak plain does not flow in the vicinity of the tunnel. 4. karstic channels connect the injection sinkholes and most of the springs emerging from both sides of the main tunnel and .. Naleshkanan River had high dye concentrations flowing on the Eocene and Oligocene formations. Parts of Naleshkanan River water infiltrate into the above mentioned formations and head toward the karstic channels, emerging from the main tunnel and the springs. The tunnel is located at least 411 m below the karstic springs; therefore an extensive karstic system is unlikely. However small conduits with high .water pressure may be found during excavation. The flow model in the study area is proposed

کلمات کلیدی:

karstic formation; dye tracing; Rhodamine B; Uranine; ponor; polje; access adit; conduit system

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