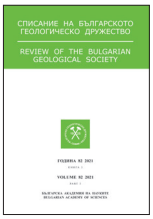
СПИСАНИЕ НА БЪЛГАРСКОТО ГЕОЛОГИЧЕСКО ДРУЖЕСТВО,
год. 82, кн. 3, 2021, с. 140

REVIEW OF THE BULGARIAN GEOLOGICAL SOCIETY,
vol. 82, part 3, 2021, p. 140



Национална конференция с международно участие „ГЕОНАУКИ 2021“
National Conference with International Participation “GEOSCIENCES 2021”

Ore deposits of Bor and Raska mineral districts, Serbia – Sofia University SEG student chapter field trip, 2021

Рудни находища в районите Бор и Рашка, Сърбия – геоложка екскурзия на Студентската секция към Асоциацията по икономическа геология на Софийския университет, 2021

Yana Georgieva[1], Elitsa Lulcheva[1], Kristiyan Elenkov[1], Georgi Milenkov[2], Ivan Krumov[1]
Яна Георгиева[1], Елица Лулчева[1], Кристиян Еленков[1], Георги Миленков[2], Иван Крумов[1]

[1] Sofia University St. Kl. Ohridski, Dept. of Mineralogy, Petrology and Economic Geology, 15 Tsar Osvoboditel Blvd., 1504 Sofia; E-mails: segsofia@gmail.com; yordanova0907@gmail.com; elitsa.lulcheva@gmail.com; elenkovkristiyan9@gmail.com; ivan.d.krumov@gmail.com
[2] Geological Institute, Bulgarian Academy of Sciences, 1113 Sofia; E-mail: georgimilenkov7@gmail.com

Keywords: Cu-porphyry, hydrothermal, epithermal gold, skarn, Sofia University SEG Student Chapter.

Sofia University SEG student chapter has organized a 4-day field trip to Serbia. The aim was to introduce the students with the Cu-Au porphyry from Timok magmatic complex and epithermal Pb-Zn-Cu-Au deposits part of the Serbo-Macedonian magmatic and metallogenic belt. Our field trip leader was Prof. K. Bogdanov from Sofia University.

During the first day we visited the Borsko Jezero Prospect (Mundoro Capital Inc.), located at 2 km west of Zijin Bor mining complex. Our guide was geologist Nikifor Reljic, who told us more about the rocks in the license area, which consist of Upper Cretaceous volcano-sedimentary successions, predominantly andesite and pyroclastics. The main host rock of the Bor Cu-Au porphyry and epithermal deposits is hornblende porphyritic andesite, locally referred to as “timocite”. The whole reserves of the Bor region are estimated to 1 505 727 167 t with average 0.33% Cu and 0.7 g/t Au.

Our next two stops were located in the Raška district of SW Serbia. First, we visited two Zn-Pb-Ag open pit mines – Kizevak Prospect and Sastavci Prospect (Adriatic Metals Plc.), with the support of Exploration manager Theodore Veligrakis. The region comprises a Neogene andesite volcanic sequence with coeval diorite intrusions, overlying a serpentinised ophiolitic basement. All units are intruded by later granodiorite stocks. Porphyry and the related epithermal mineralization are spatially associated with diorite intrusions and andesite domes on the flanks of the larger granodiorite stocks. Extensional fault and tectonic breccia zones host intermediate sulphidation epithermal mineralization, within an andesitic volcanic suite of massive andesite, tuff and volcanic breccia.

During next day we visited Rogozna project (Zlatna Reka Resources & Ibaera Capital). Thanks to Exploration manager Jonathan Hunt, we had the opportunity to get acquainted with the deposit geology. The exploration expenditure of the license area resulted in the discovery of three large-scale skarn-hosted Au-Cu-Pb-Zn prospects at Shanac, Copper Canyon and Gradina. The brand-new Medenovac Au-Cu-Zn project, discovered in 2020, indicates that skarn-hosted mineralization continues in depth.

Acknowledgments: Sofia University SEG Student Chapter would like to thank our field trip sponsors from Society of Economic Geologists, Dundee Precious Metals, Geotechmin and Murgana Geological Consulting for the financial support. Special thanks are also to Senior Exploration Manager Yassen Khrischev at Mundoro Capital, Chief Geologist Phil Fox at Adriatic Metals and Manager of Exploration Paul L’Herpiniere at Ibaera Capital for their kind support for organizing the field trip.

