Worldwide the most important Mo resources are associated with continental rift-related high F-type Mo (Climax) and continental volcanic arc-related low F-type Mo porphyry-stockwerk (Quartz-Hill) and Cu-Mo(-Au) porphyry deposits (e.g., El Teniente, Erdenet) [1, 2]. Medium and small deposits of skarn ores and quartz-molybdenite veins (possibly related with LCT-pegmatites) with Mo contents of up 1 wt.% cover c. 10 % of the Mo world reserves (e.g., Tyrny Auz, Preissac) [3].

Other Mo occurrences are related with breccia-, greisen- and vein-type Sn-(W-Mo)-polymetallic (e.g. Heberton-Mt. Garnet and Wolfram camp, Erzgebirge-Krušné hory) and W-(Mo-Bi) mineralization (e.g. Mt. Pleasant, Erzgebirge-Krušné hory) [1, 4, 5, 6]. One of the most important rare metal metallogenic provinces in Europe is the Erzgebirge-Krušné hory. This region was important for the mining of Ag-, Sn-, Cu-, Co-, W-, U-, and fluorite-barite ore deposits from the 12th century until 1990. In the middle of the 20th century an unknown quantity of Mo was produced from Sn-Mo-

The indicated Mo resources in the Erzgebirge-Krušné hory are about 10 kt [5, 7, 8]. The largest Mo concentration is related to the Altenberg Sn deposit with a pre-mining resource of 75 Mt ore @ 0.02 wt.% Mo [7]. The high HFSE (Nb, Ta, Sc, Th, In) concentrations in wolframites (up to 7 wt.% Nb, up to 0.6 wt.% Ta, up to 1.1 wt.% Sc, up to 67 ppm Th), scheelites (up to 0.39 wt.% Sc) and in paragenetic associated cassiterites (up to 0.9 wt.% Nb, up to 0.45 wt.% Ta, up to 1.1 wt.% Sc) and sphalerites (up to 2.5 wt.% In) may reflect the influence of mantle-derived fluids. High formation T and p of the fluids responsible for the formation of W-Mo and Sn-W-Mo mineralization stages are indicated by primary fluid inclusions in cogenetic quartz and cassiterite with Tn 350 °C to 600 °C and p up to 1210 bar [9].
References:
[7] Archive material, unpubl., Bergarachiv Freiberg – Sächsisches Staatsarchiv