

Progress Report
Geochemistry of the Collins Sericite Deposit,
Platte County, Wyoming

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The Collins sericite mica deposit is located in secs. 5 and 8, T. 23 N., R. 70 W. in Platte County, Wyoming. The sericite occurrences are in a layer of hornblende schist several hundred feet thick. Granitic gneiss is the principal rock type of the region, with less abundant biotite schist, actinolite schist, and quartzite. All of these rocks are Precambrian in age.

The sericite deposit has been mapped on the scale of 1 inch to 300 feet; a more detailed geologic and topographic map of the principal workings has been made on the scale of 1 inch to 30 feet. The former map covers an area approximately 4800 feet by 1500 feet. In addition to the geologic and topographic maps, the senior author has made structural analyses and modal analyses of the rocks at the deposit.

At present, the major and trace elements of selected minerals and rocks of the sericite area are being analyzed spectrochemically and spectrophotometrically by Mr. Wilband. The results, correlated with structural data, should give information on the mode of formation of the sericite and associated minerals, delimit the conditions under which the sericite and associated rock were formed, furnish knowledge of the geologic history of the area, and a clue to the source and origin of the sericite mica.