

these cells. Although it does not appear likely that the lymphocytes and eosinophils are completely different in their life span from the other leucocytes, final certainty on this point must await further experimentation.

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## Significant Spatial Distribution Patterns of Minerals in the Coeur d'Alene District, Idaho

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In the Silver Belt of the Coeur d'Alene mining district, deeply buried high-grade oreshoots are found in carbonate-quartz veins. A plan map of the area has been published (1), and the geological problems involved in ore-search have been discussed (2).

A spatial distribution study has been made of the minerals of the area to determine which have distribution patterns indicative of the proximity of ore. Such minerals are called "indicators." The genesis of each mineral has been interpreted as an aid in the evaluation of the spatial distribution patterns.

Disseminated arsenopyrite forms envelopes around a number of the highest grade oreshoots. In horizontal or vertical cross sections, these envelopes have an average width of less than 15 ft; viewed normal to the plane of a vein, an envelope would appear as a halo of roughly 500-ft radius around an oreshoot. Similarly, late hydrothermal chlorite is considered to be an indicator; however, it is rather sporadically scattered in zones which tend to be umbrellalike in form above oreshoots, and which appear to extend as far as 3,000 ft above ore in some cases. Sericite and carbonates of prehydrothermal-vein origin have a negative significance as indicators; i.e., little ore has been found in areas where these minerals are concentrated. Also, since beds rich in detrital quartz are the best ore horizons, such quartz is considered to be an indicator of limited practicability.

In an attempt to clarify the origin of chlorite, six genetic types of chlorite are defined in the Coeur d'Alene District. These are chlorite in detrital biotite; diagenetic chlorite in certain strata; early, hydrothermal-vein chlorite; contact-metamorphic chlorite in

and near the monzonitic intrusives; late, hydrothermal-vein chlorite; and chlorite resulting from the alteration of diabase and lamprophyre dikes.

The hydrothermal-vein history of the district is divided into three stages. In chronological order these are: the bleaching alteration stage, the carbonate-quartz stage, and the sulfide stage. The hydrothermal bleaching alteration of large areas of the country rock is largely the destruction of the rock pigments, and no strong sericitization appears to be involved, as previously believed. Regionally, the only exposed sedimentary rocks are those of the Algonkian Belt series; sericite is a major constituent of these rocks. If additional sericite is formed in the localized, bleached areas of the Algonkian rocks, it is a relatively negligible amount.

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## DDT Resistance in Korean Body Lice<sup>1</sup>

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Contrary to expectation, routine application of 10% DDT powder to a large group of Korean military personnel during the winter and spring of 1951 resulted only in an increase of infestation with the body louse (*Pediculus humanus corporis* Deg.). The method used was essentially that employed by Soper *et al.* (1) in 1943, except that power dusters were used. The dust is applied without the removal of clothing. The DDT came from various sources, including a large stock of American manufacture that had been in storage for 5 or 6 years. Tests with mosquito larvae, however, demonstrated that it had retained its full insecticidal potency. The diluents most commonly used were talc and pyrophyllite.

The group of men treated increased rapidly in size during the first 3 months, then remained relatively stable. By the end of the second month it was possible to replace clothing worn by new arrivals with uninfested clothing. The number of layers of garments to be treated was thereby materially reduced. Living conditions were steadily improved so that bathing and clothes-washing facilities became readily available by the fourth month.

Despite these improvements, and the weekly application of DDT louse powder to all personnel, the percentage of infested persons increased steadily. During

<sup>1</sup> The opinions and assertions contained in this article are the private ones of the writers and are not to be construed as official or reflecting the views of the Navy Department or the Department of the Army.