

TR2-70-72
**No. 5 LODE, No. 3 LEVEL, S & M MINE,
MOINA**

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Introduction

Several days of June, 1957, were spent in No. 3 level of No. 5 lode of Shepherd and Murphy Mine to establish a sequence of events for regional purposes. It is emphasized that the observations apply only to a very small section of the mine, and are intended primarily as a pointer for work elsewhere.

Description

A preliminary measurement of several hundred joint surfaces showed an isotropic distribution. Several intersecting sets of shear cleavage are present.

On the accompanying map the numbers 1B-3B denote "banded lodes". They consist mainly of quartz, with some chalcopyrite and fluorite, and are frequently banded, consisting of laminations of fine siltstone and quartz varying from $\frac{1}{8}$ " to $\frac{1}{2}$ " thick. They are highly jointed, and carry most, if not all, of the joints found in the country rock. The banding may be silification of fracture cleavage in shale bands interbedded with the quartzite.

The banded lodes appear contemporaneous with the lode indicated on the map as 5 lode. This quartz lode varies from two inches to eight inches in width and strikes 275° .

The lode denoted 5 north-west varies from 8" to 12" wide and consists of quartz and mica. The lode is frozen to the walls except in the vicinity of later faults. The strike swings from 287° to 300° .

Twenty lineated faults were observed and these show a strong concentration striking near 295° , having near vertical. The most important runs sub-parallel to 5 north-west lode, with the south side upthrown.

History

As can be seen from the map, three events have occurred:—

- (1) The banded lodes are the earliest, are penecontemporaneous with 5 lode, and are affected by the jointing

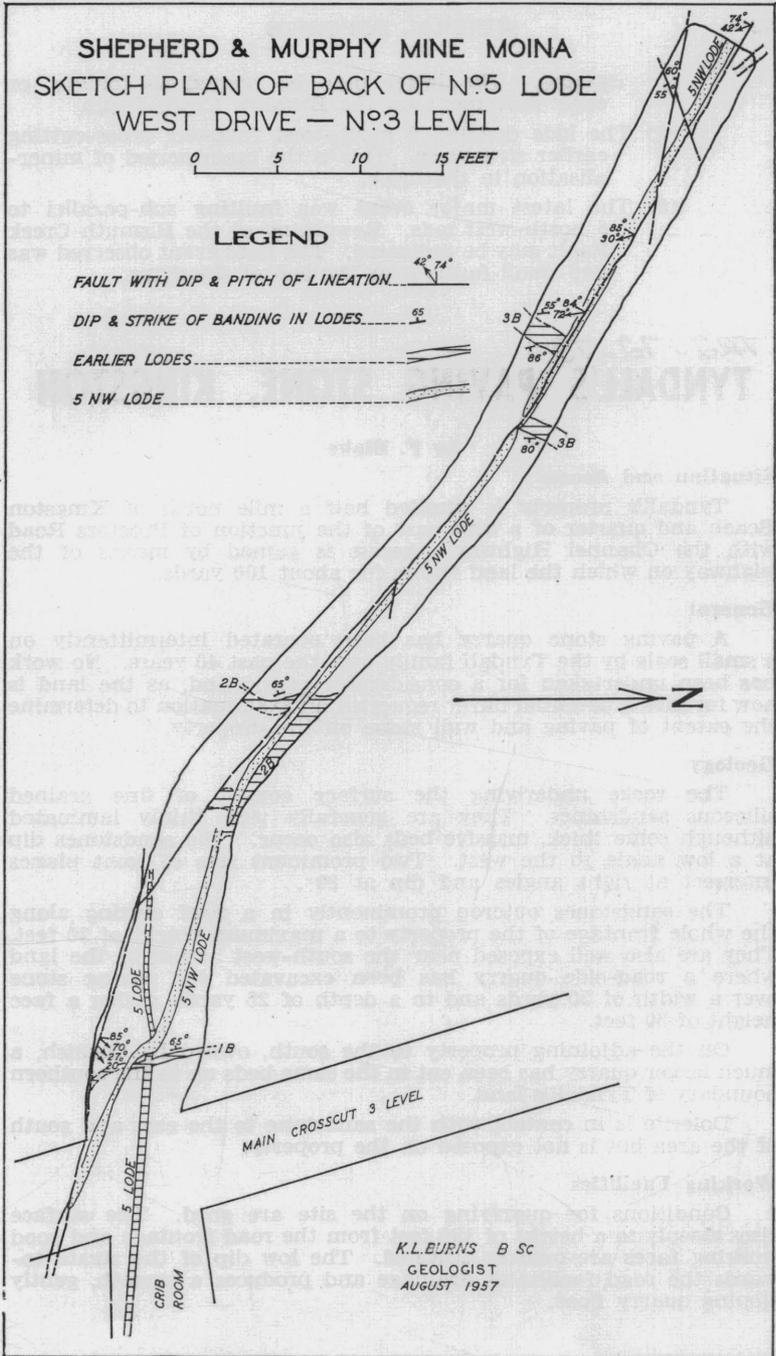
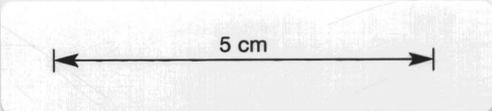


Plate 21



MINERAL DEPOSITS

period. The latter may be related to folding, or early movement on the Bismuth Creek Fault.

- (2) The lode denoted 5 north-west followed, cross-cutting earlier structures. This is the main period of mineralisation in the drive.
- (3) The latest major event was faulting sub-parallel to 5 north-west lode. Reworking of the Bismuth Creek Fault may be indicated. The final event observed was two small faults near the end of the drive.