

82K/2W

004138

Nov. '62 R.N.K.

82K/5E-11

Moonshine (Moonstone, Moonlight) -
[Willett Mines Ltd.]

PROPERTY FILE

This property is on the west side of Kootenay Lake, approximately one mile south of the town of Lardeau. The workings are located between elevations 2,200 and 2,500 feet, and are easily reached by a short access road from the main Kaslo-Lardeau highway. They comprise two short ^{adits} connected by a raise and small stope, a short, inclined shaft, and some small trenches. Buildings include an explosive shed and a tool shed. The property is presently owned by Willett Mines Ltd., 310-317 West Pender Street, Vancouver, B.C. It now consists of two adjoining Crown-granted claims, the Moonshine and Right Bower. In 1951, fourteen located claims were added to form the Moonshine group, but these were subsequently forfeited in 1955. During the period from 1955 to 1961, sixteen located claims were forfeited and restaked four times.

The Moonshine has had a limited but involved development and mining history. The lower adit and the shaft were driven by early miners around the turn of the century. The lower adit, the 2,230 foot level, is now caved. It was driven in a southwesterly direction and is reported to be 172 feet long. The shaft is uphill, 130 feet to the southwest. It is 30 feet deep, and inclined to the west at 36 degrees. In 1951, fourteen claims and fractions were staked, and in November of the same year J. Robinson made a short cut midway between the adit and shaft. From this cut, 1,400 pounds of lead ore was sacked and shipped to the Trail smelter. In 1952, B.C. Metal Mines Ltd. optioned the property from the owner, Mrs. R. M. Robinson, of Nelson. At this time a raise was driven at a point 35 feet from the portal of the lower adit, and a sublevel 38 feet long was established at 2,250 feet elevation. This sublevel later became a second adit, the one that is now most easily accessible. Stopping and limited drifting were carried out from the sublevel, and one car of lead ore was sent to

- ① Introduction { location
Ownership
workings
Buildings etc.
- ② History { Production
& Development
- ③ Geology & Exposure
- ④ Structure
- ⑤ Mineralization

④

Some of the lenses of the coarse sulphides are up to 5 feet long and 1 foot wide. A chip sample across 6 feet assayed: silver, 16.9 oz. per ton; lead, 33.26 per cent; zinc, 20.4 per cent; and copper, 0.2 per cent. This sample was taken from a high grade arch approximately 20 feet from the portal of the 2,250 foot level. It was partly oxidized.

[References: Minister of Mines, B.C., Ann. Rept., 1956, 1952, 1953, 1956, and 1957]

the Trail smelter, and one car of "zincy" ore was sent to the Kenville mill. No work was done in 1953, but ore mined in 1952 was trucked to the Gale mill at Ainsworth. 445 tons of milled ore contained: 2,262 oz. of silver, 65,938 pounds of lead, and 91,969 pounds of zinc. In 1956 the present owners, Willett Mines Ltd., optioned the claims. At this time they constructed the short access road which has remained in good condition to this day. In November of 1952 the 2,250 sublevel was extended and the raise connecting it to the lower adit was driven. At present this level is 87 feet long, 6 to 17 feet high, and from 3 to 12 feet wide. It trends south 32 degrees west, and dips 43 degrees north. The raise is 30 feet long and is inclined 43^{degrees} to the north. During this same period of development some small trenches were also constructed. In 1957, 268 tons of ore from underground and surface work was shipped to the smelters at Trail and Kellogg, Idaho.

Rocks outcropping on the property belong to the Upper Hamill, Badshot, and Lower Index formations. Exposure is generally good but there are some large areas of cover. The workings are located near the base of a series of limestone, argillite, and quartzite bluffs. Some of these bluffs are as much as 200 feet in height, but they are still reasonably accessible. The regional attitude is relatively uniform, the strike being approximately south-southeast and the dip being from 0 to 35 degrees west-southwest. The plunge of folds is very low to the north-northwest, generally being from 0 to 5 degrees. The rocks of the area are between the biotite and garnet zones of regional metamorphism. The main deposit is found near the Badshot-Hamill contact, the Mopican being thinned-out completely.

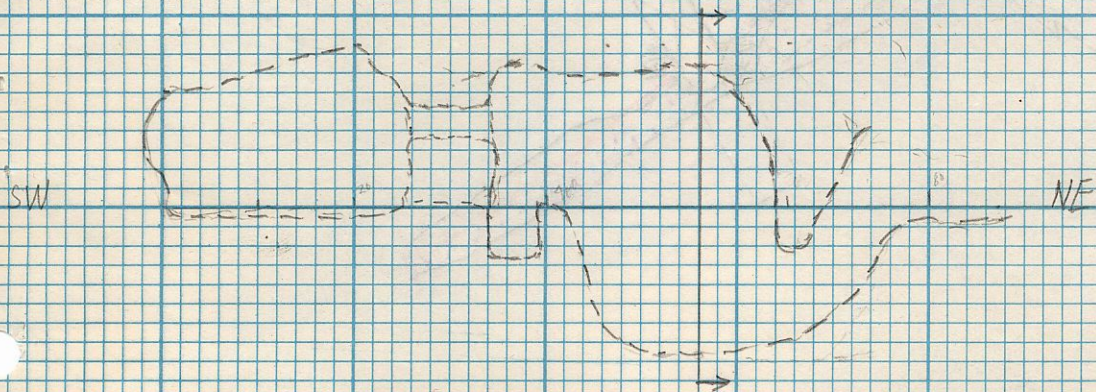
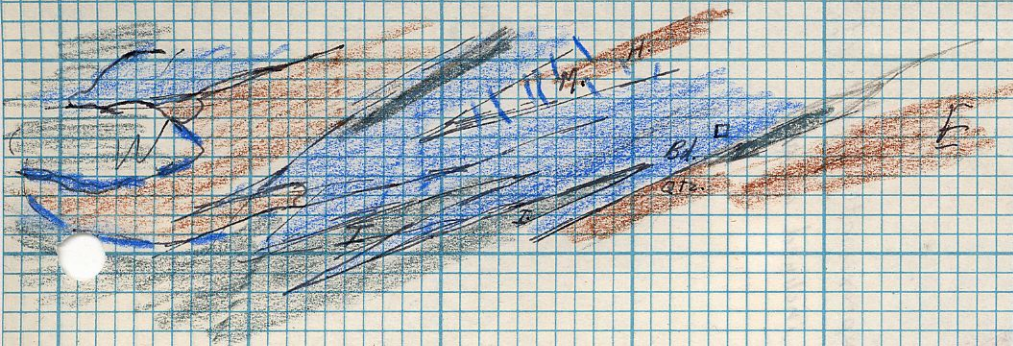
The structure of the Moonshine is dominated by a series of low plunging, highly attenuated folds which culminate on or near the property. A complete understanding of these folds would require detailed mapping on the property and an extensive knowledge of the regional geology. The structural sequence is complicated by missing stratigraphic units, and by extensive thickening and

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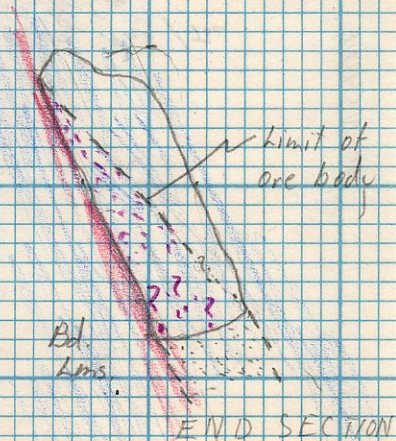
thinning of existing units. Mapping in the vicinity showed that the limestone, so prominently displayed on the bluffs, does not continue to depth. It represents the hinge of a major Phase II fold, whose axial plane dips low to the west. In the immediate vicinity of the workings, exposed ~~just~~ a few hundred feet south of the shaft, there is a small antiform with black, Index argillite underlying Badshot limestone. Such a fold requires the stratigraphic succession to be completely reversed. In the workings two small boudins or detached lenses of argillite are found as islands in the limestone.

Mineralization is found impregnating a fractured zone in Badshot limestone along the hanging wall of a narrow, discontinuous, branching quartz vein. The attitude of the vein is constant at north 32 degrees east by 65° northwest. Of the areas investigated the most extensive mineralization is found adjacent to the Hamill quartzite contact. Since the lower adit could not be entered, the exact relationship between the Badshot - Hamill contact and the ore emplacement could not be established. It is possible that the difference in competency of the two lithologies could be responsible, ^{along the fault,} for a greater degree of shattering of the Badshot limestone against the quartzite. The larger fracture zone would result in more open space for the sulphides to fill. This hypothesis would serve to explain the "wedge" shape of the ore zone. The width of the zone at the 2,250 foot level expands from 0 to 6 inches at the surface to 5 or 6 feet fifteen feet below the surface. It should be noted that these observed phenomena are still fifteen feet above the quartzite contact. From studying the area it is apparent that the fracture zone and quartz vein are late features, postdating such things as the folding and metamorphism. The mineralization comprises mostly galena and sphalerite with minor chalcopyrite. These sulphides occur as fracture fillings and replacement blebs and lenses in limestone.

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LONGITUDINAL PROFILE OF SLOPE



END SECTION

PROPERTY FILE




Hammill Quartzites.

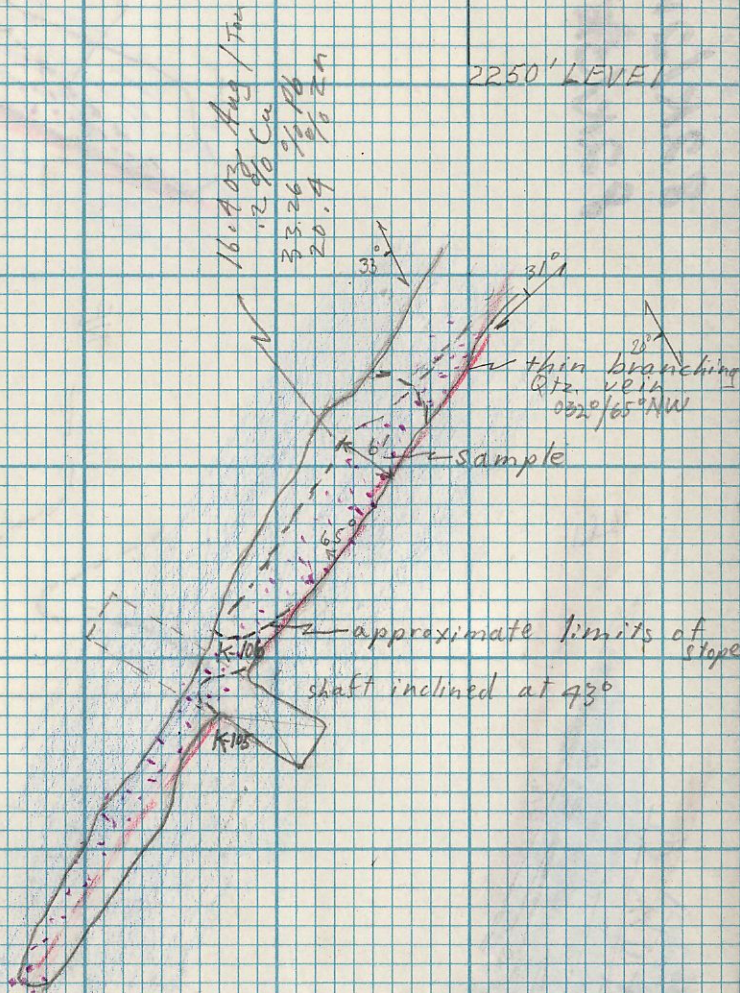
MOONSHINE

NA


20' = 1"

2250' LEVEL

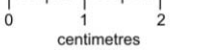
-  mineralization
-  Bd. Lms.
-  Qtz. vein



inches



centimetres



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