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ANNUAL REPORT OF THE MINISTER OF MINES FOR 1936

92 H SE-55

PART D -- Special Report

by

M. S. Hedley.

Paul Creek Area.

Shamrock: This group of 8 claims, formerly owned by Hedley Mascot Holdings, Ltd., is now part of the holdings of Hedley Shamrock Gold Mines, Ltd. It is situated immediately above the river-flat in the south-west angle between the Similkameen and Ashnola Rivers. Steep bluff- and slide-covered slopes rise from an elevation of 1,800 feet at the river-flat to mountain summits. The foot of the bluffs is 1 mile from the Ashnola River.

The rocks are dark-colored thin-bedded argillites and include interbedded greenstone: there is some contortion, and the structure as a whole is not apparent. Intrusive into these rocks are irregular dykes of granodiorite. Two dykes, trending north-easterly converge towards the south-west and a third, trending north 30 degrees west, crosses them where they are 200 feet apart. A fourth, smaller dyke is an east-west branch of the northernmost dyke. These dykes are probably all inter-related, and vary in width from 10 to 30 feet. Irregularly-spaced veinlets of quartz cross the dykes, and stop within a few inches of the contact with schistose sediments; a few, locally, follow the contact. The veinlets are from a fraction of an inch to a rare maximum of 16 inches in width and are far from regular: the vitreous quartz contains locally arsenopyrite and pyrite between somewhat altered walls. Where veinlets are closely spaced some alteration and light mineralization may be found in the granodiorite. The distribution of the veinlets is highly irregular.

An adit, elevation 1,900 feet, is driven 55 feet on the southernmost or No. 1 dyke where cross-veinlets of quartz occur over a length on the dyke of 150 feet. The adit is lagged near the portal, but in the inner 25 feet some 10 veinlets, many irregular and some discontinuous, aggregate about 36 inches of quartz; the average strike is north 40 degrees west and the dip 55 degrees southwest. Mineralization is erratic and not heavy, and some veinlets are barren of sulphides. On the second dyke, elevation 2,055 feet, an adit is driven 20 feet to disclose a few quartz-veinlets, to a local maximum of 8 inches wide, in quite fresh granodiorite. A third adit, about 50 feet above the second is only collared, and is in similar ground. Immediately above, elevation about

2,180 feet, a local enlargement of a narrow vein attains a maximum of 12 inches and contains a fist-sized pod of sulphide; a similar enlargement of another vein contains very little sulphide. A narrower cross-dyke in this vicinity is also seen to contain quartz-veinlets.

Where Nos. 1 and 2 dykes are cut by the third major dyke, elevation 2,405 and 2,450 feet, the third is not mineralized as are the first two in this vicinity. A little stripping at the junction between Nos. 1 and 3 shows no concentration of mineralization at this point.

Other sections of No. 1 and No. 2 dykes also contain veinlets, in no greater abundance than at the lower adit. No samples were taken by the writer: pockets of arsenopyrite undoubtedly carry good gold values and the white quartz does not. Mineralization so far encountered bordering the veinlets within the granodiorite is not particularly strong.

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ARCAN. This group of two claims, formerly known as the Arawanna and owned by Hedley Mascot Holdings, Limited, is now part of the holdings of Hedley Shamrock Gold Mines, Limited, and is south of the Speculator group. It lies within and along the west margin of Indian Reserve 10-A just north of Paul Creek. The claims are on a steep bare side-hill covered with detrital materials and with rare outcrops. Access is by the Paul Creek Trail.

The sediments here are stratigraphically between those on the Lost Horse and Speculator ground. The strike is north 25 degrees west and the dip 60 to 65 degrees south-westerly. Granodiorite lies immediately to the east and two or more dykelike bodies occur cross-cutting the sediments. At an elevation of 5,100 feet, the formation has been exposed across its strike by open-cuts and stripping for 190 feet along the side-hill. These are greenish and brownish quartzitic to dense argillaceous rocks on the west of which and apparently on the east are calcareous to argillaceous sediments. The main body of granodiorite is 200 feet to the east and granodiorite of unknown extent is 150 feet to the north; this latter body apparently continues as a dyke 200 to 400 feet west of the open-cuts. Three hundred feet down the slope and 100 feet west is a breccia-zone in calcareous sediments.

Where exposed on the face of the hill the sediments are seen to be altered to greenish, fine granular or cherty rocks bearing disseminated arsenopyrite which appears to follow the bedding selectively. The maximum percentage of arsenopyrite, except over narrow widths, is not high. The 190-foot thickness of sediments is not uniformly mineralized, and the stripping is not clean and continuous enough to permit of thorough examination and sampling.