

W.A. NO.

NAME *External Publications*

SUBJECT

PROPERTY

82FNW 166 Kaluspeu

PROPERTY FILE

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Nelson Map-Area, West Half, British Columbia

Silver-gold Deposits, With or Without Some Lead and Minor Zinc

Twenty-six deposits that have produced silver and gold in that order of value occur within the map-area. Of these, only three, the Mowitch, Lone Silver, and Republic No. 2, have also produced lead. The value of the lead produced by the Lone Silver is about equal to that of gold, the Mowitch much less, and the Republic No. 2 only small. The Mowitch and Lone Silver have produced some zinc and the Republic No. 2 only a little.

The silver-gold deposits are the truly 'dry ores'; the Kalispell, Highland Light, Silver Nugget, Colorado, Elise, Norway, and Gold Hill have produced only silver, and the Meteor has yielded only a minor amount of gold with the silver. Only the Meteor, and Hunter V and Double Standard properties are of more than minor economic importance.

All the deposits, except the Hunter V and Double Standard, and Lone Silver, which are replacement deposits in dolomitic limestone, are fissure-filled lodes. The host rocks of these deposits are of many types. The Mowitch, Kalispell, Highland Light, and Silver Nugget veins are in argillite or quartzite of the Slocan group. The Commodore and Elise veins are in argillaceous schist of the Ymir group, although the former is also partly in porphyritic granite. The Hunter V and Double Standard deposit is in limestone of the lower Laib formation, and the Lone Silver is in dolomite of the Nelway formation. The Birdseye and Curlew veins are in porphyritic augite andesite of the Rosslund formation, and the Gold Hill in argillite and banded tuff (?) of the Mount Roberts formation. All the remaining deposits are in porphyritic Nelson granite or, to a lesser extent, in granodiorite as in the Norway, or partly in gneiss as are the V and M, Senator, and Skylark and Ranger veins. In a few deposits, the granite in the vicinity is strongly sheared as in the Republic No. 2, Meteor, and Crusader properties.

The gangue mineral in the silver-gold veins is invariably quartz, with some siderite in the Mowitch and Curlew veins, some calcite in the Highland Light and Gold Hill veins, minor barite in the Highland Light, and minor scheelite in the Meteor veins.

In the two replacement deposits carbonates are of course abundant. Tremolite occurs in the Hunter V and Double Standard ore, and quartz veins intrude the disseminated sulphide deposit of the Lone Silver.

On the other hand the assemblages of ore minerals in the veins are highly divergent. In only half of these deposits have such silver minerals as grey copper, ruby silver, native silver, argentite, and stephanite been identified. Galena is reported in ten of the deposits, in some cases associated with silver minerals, but it is generally of minor importance. In most veins where galena is present a little sphalerite is also reported. Pyrite is the most widespread metallic mineral and in the V and M, Meteor, and Elise it is accompanied by chalcopryite. Pyrite is the

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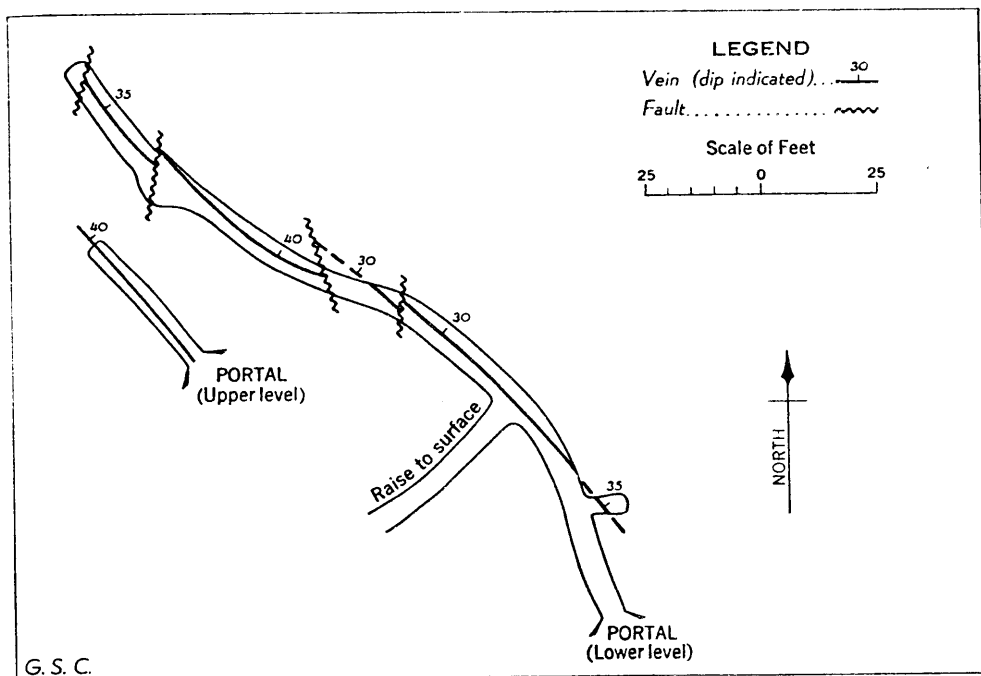


Figure 15. Plan of workings on Joan (Duplex) property (geology by A. B. Irwin, 1950).

Along the drift the vein is offset by three small faults with slight left-hand displacements. These strike roughly north and dip 70° to 80° W. The vein strikes $N40^{\circ}$ to 50° W and dips 30° to 40° NE. It is 1 foot to 2 feet wide on both levels.

The vein matter is quartz that in many places shows coarse crystal faces; no carbonates were observed. Narrow streaks and disseminations of galena occur in the vein together with a little pyrite and argentite.

Other silver-gold properties together with principal references except where these are numerous, are listed below.

Mowitch (4)

Minister of Mines, B.C., Ann. Repts.: 1904, p. 180; 1920, p. 125; 1949, p. 189.
Cairnes, 1935, pp. 90, 91.

Kalispell (127)

Minister of Mines, B.C., Ann. Rept. 1896, p. 71.
Cairnes, 1935, p. 177.

Highland Light (128)

Cairnes, 1935, pp. 176, 177.

Silver Nugget (129)

Cairnes, 1935, p. 124.

where it was in places 12 to 16 inches wide of blended quartz, iron oxides and galena, and in others more solid galena with some blende. On the Pine Log a short cross-cut tunnel, then in 25 feet, was nearing the vein, down which an incline was to be sunk, and to the S.W. over a thousand feet distant, and near the ridge, an open cut showed an 8-inch vein, while to the N.E. on the Bondholder, where the vein can be easily seen for several hundred feet cutting across the face of the steep bluff, tunnel No. 2 was in just 12 feet and showing mixed ore in the face. Excellent facilities are here for the extensive development of this vein, and when the extraction of the ore begins a trail for rawhiding will have been built down to the road along Ten-Mile Creek, 2,600 feet below the mine, and a waggon road may be built. This property can be also reached by trail from Slocan City, *via* Springer Creek. Foreman B. C. Bradshaw was in charge of 15 men.

KALISPELL.

Enterprise

The *Kalispell*, Crown-granted, 37.1 acres, is located on ~~Ten-Mile-Creek~~ one mile from the lake, in a small area of stratified rocks, *i.e.*, altered slate quartzites &c., and is owned by Wm. Lardner, Deadwood, South Dakota. In a 75-foot tunnel on the south bank of the Creek is seen evidence of a shear zone and later faulting, and along this is quartz, crushed country rocks, galena and silver minerals, such as ruby silver. Some stoping has been done along this lead that has a strike of N. & S. (mag.) and a dip easterly of 70°, and several tons of high grade silver ore have been shipped, of which 8 tons assayed 289 ozs. of silver per ton and 3 tons 212 ounces. There is ample water in the creek, and a large amount of fine timber on the property, and a short trail connects with the waggon road. No work was being done at time of visit in September.

Springer and Lemon Creeks.

From the rival towns of Slocan City and Brandon at the foot of the lake, trails lead off to the country drained by Twelve-Mile, Springer and Lemon Creeks, and in this part of the district many locations have been made, some on galena veins, but many others on the "dry ore" veins and the gold-bearing quartz leads, all in the granite. Much prospecting was being done and considerable development work; but as many investors have recently been securing bonds and options on many locations, the coming season promises much greater activity, and certainly the careful attention of mining men is warranted by the very favourable results already attained by the as yet very small amount of work. The Howard Fraction, Two Friends Group and the Arlington were visited, besides these properties on Ten-Mile Creek already described, and the writer is much indebted to Messrs. Gwillim and Johnson, Mining Engineers, Slocan City, for information concerning other claims it was impossible to visit this season.

THE TWO FRIENDS.

This claim, 1,500 by 1,500 feet, is 7 or 8 miles east of Slocan City, on the divide between Springer and Lemon Creeks, and is bonded to the Two Friends Mine Co. Ltd.; Pres. F. C. Innis, Sec. C. C. Bennett, Vancouver. Capital stock \$240,000 in 800,000 shares at 30 cents each.

By the discovery near a small spring, of a little honey-combed quartz sprinkled with zinc blende, another vein in the granite of very high grade galena had been located, and was being opened up in an excellent manner by Capt. J. A. Wood when visited in Sept. With a good supply of timber close at hand, good mine buildings were being completed and all the underground workings carefully timbered up where necessary. This vein strikes N.E. by S.W. (mag.) and dips S.E. 80°, and Tunnel No. 1, after cross-cutting 25 feet, ran 50 feet along the vein which was stoped up 10 or 12 feet to the surface, and about 100 feet below. Tunnel No. 2 was driven 206 feet in 60 days to the ledge where the solid galena in large crystals lies next the smooth well defined foot-wall, or with a narrow seam of iron oxides between, while next to the hanging wall of dark, fine-grained altered granite was segregated more or less of zinc blende. To the S.W. a narrow dyke crosses the vein, beyond which no work had been done, and in the drift, then about 40 feet long, the vein varied from a narrow streak to 12 to 14 inches of solid blende and galena ore, which in a raise up 20 feet and 8 feet wide there were 12 to 16 inches of this solid, clean, very rich ore.

ORE was then being shipped by pack-horses to Slocan City, at a cost of \$15 per ton, which rate will be made less when the rawhiding season has begun after the fall of the snow. Up to the end of the year shipments of over 40 tons of silicious high grade ore had been made that yielded, as per smelter returns, from 250 to 380 ounces of silver per ton and 38% to 52% lead, and ore, after deducting all charges, showed net to the owners the high value of \$150 to \$160 per ton. Number of men 20.

1974

(82F/9W)

(82F/14W)

KALISPELL (82F/SW-166) (Fig. A, No. 50)

LOCATION: Lat. 49° 52' Long. 117° 25' (82F/14W)
 SLOCAN M.D. Seven miles north-northeast of Slocan, on Enterprise Creek, three-quarters of a mile upstream from Slocan Lake, at approximately 4,000 feet elevation.

CLAIMS: KALMAR (Lot 1012), KAISER (Lot 1254), KALISPELL (Lot 1011).
OWNER: Peter Leontowicz.
OPERATOR: McCORMICK ELECTRIC LTD., 100, 885 Dunsmuir Street, Vancouver.
METALS: Silver, lead, zinc, silica.
DESCRIPTION: A sheared and faulted zone occurs in an inclusion of sedimentary rocks in coarse-grained porphyritic granite.
WORK DONE: Surface diamond drilling; trenching, 80 feet; road construction, 1 mile on Kalispell.
REFERENCE: *Geol. Surv., Canada*, Mem. 184, p. 177.

HEWITT (82F/NW-65) (Fig. A, No. 108) By J.B.C. Lang

LOCATION: Lat. 49° 56' Long. 117° 18' (82F/14W)
 SLOCAN M.D. Three miles east-southeast of Silverton, 500 feet west of Twigg Creek, a tributary of Silverton Creek, at approximately 3,700 feet elevation.

CLAIMS: HEWITT (Lot 4440), LORNA DOONE (Lot 1401).
OWNER: ARJAN PACIFIC LTD., 1712 West Fourth Avenue, Vancouver.
METALS: Silver, lead, zinc.
DESCRIPTION: Mineralization occurs in a shear zone up to 200 feet. Economic deposits occur where this shear zone cuts across bedding planes in Slocan Group sedimentary rocks. Two such areas are known on the property.
WORK DONE: Approximately 1,300 feet of the 10W adit was reopened and rehabilitated to the shear zone. As the heading was caved at this point, a run-around was collared and advanced about 200 feet on grade. Portal conveniences were completed and compressor and dry houses were built. All underground work was in waste rock.
REFERENCE: *B.C. Dept. of Mines & Pet. Res.*, GEM, 1973, pp. 76, 77.

RECO, BLUEBIRD, NOBLE FIVE (82F/NW-19, 20, 31 to 37, 200) (Fig. A, No. 52)

LOCATION: Lat. 49° 59' Long. 117° 11' (82F/14E)
 SLOCAN M.D. Eight miles east of New Denver, extending south from Mount Reco and Mount Payne to Carpenter Creek at Cody, between 4,000 and 7,000 feet elevation.

CLAIMS: Sixty-eight including RUECAU (Lot 624), BLUEBIRD (Lot 540), NOBLE FIVE (Lot 467), NUMBER ONE (Lot 4560), GREY COPPER (Lot 580), TEXAS (Lot 589), CHAMBERS (Lot 1752).
OWNER: Reco Silver Mines Limited.

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On the Highland Light claim, at an elevation of about 5,800 feet, an adit has been driven on a fault fissure as much as 2 feet wide. This fissure strikes north 50 degrees west, dips 75 degrees northeast, and intersects banded quartzitic rocks which trend north 50 to 56 degrees east and dip 70 degrees southeast. The fissure carries a little quartz and calcite, and a couple of small kidneys of barite. Except for a little pyrite no ore mineral was seen. The vein matter is partly stained with iron oxide.

HOWARD FRACTION GROUP

References: Ann. Repts., Minister of Mines, B.C., 1896, p. 72; 1919, p. 127; and other years.

This group consists of the Howard and Tiger fractions and Bland No. 2, Deadwood, and Tiger No. 7 claims, all Crown-granted. The Deadwood is owned by P. Maguire, Slocan, B.C.; the others have reverted to the Crown. The property was located in 1895, and most of the work on it was done in that and the following year. It adjoins the Meteor group on the southern slope of the divide between Springer and Lemon creeks at an elevation of about 6,500 feet, and is reached by wagon road from Slocan City about 6½ miles up Springer creek and thence by a trail 2½ miles long.

The workings, comprising three adits and an incline shaft, are inaccessible, but according to earlier reports explore a quartz vein running east, dipping from 10 to 15 degrees north or into the hill, and intersecting coarse-grained, porphyritic granite of the Nelson batholith which, in this vicinity, is traversed by many dykes. At intervals along its dip it is faulted for distances of from 3 to 8 feet. According to W. A. Carlyle, this vein was 12 to 20 inches wide and was composed of honeycombed quartz with crystalline argentite disseminated through it. Seven tons shipped in 1895 gave 163 ounces silver and \$16 in gold to the ton, and 12 tons in 1896 carried 206 ounces in silver and \$26 in gold to the ton.

KALISPELL GROUP

Reference: Ann. Rept., Minister of Mines, B.C., 1896, p. 71.

The Kalispell, Kaiser, and Kalmar Crown-granted claims are on Enterprise creek about 1 mile by road from Slocan lake. They are owned by Mrs. E. C. Lardner, Deadwood, S.D.

Two adits aggregating over 250 feet of tunnelling have been driven along a sheared and faulted zone in a small inclusion of sediments in coarse-grained porphyritic granite. The zone strikes from north 40 degrees east to about north 15 degrees east and dips 50 to 60 degrees east. It is about 30 feet wide and has well-defined walls. The portal of the main adit is on the south bank of the creek. In the first 150 feet the adit traverses dark-coloured, limy, and quartzitic argillites, and for the remainder of its length is in granite. The zone contains much brecciated wall-rock partly cemented by milky quartz which carries a little galena, ruby silver, zinc blende, and pyrite.

Shipments were made in 1896 and 1897 and consisted of 16 tons averaging 240 ounces in silver to the ton.