

118° 34' - 49° 04'

001140 82E/12

The width of the vein in the old workings varied from 6 to 12 feet, without commercial walls, and is consequently difficult to mine.

Construction since the Hecla Mining Company commenced operations is as follows: A combination dining-room, kitchen, store-room, and sleeping-quarters for the cooking-staff, size 24 by 70 feet, with a seating capacity for fifty men; blacksmith-shop, size 16 by 40 feet, with 2 forges; engine-room, 24 by 68 feet, including a dry, 14 by 24 feet; a 33,000-gallon water-tank, for main supply and pump-house, on Gloucester creek. A Bessimer 150-horse-power fuel-oil engine is used to drive an Ingersoll-Rand 8-inch by 12-inch by 15-inch compressor; a Waugh drill-sharpener and a 220-volt motor for driving a Triplex high-pressure pump. A 15-horse-power Fairbanks-Morse fuel-oil engine is used to drive one Sturgeon No. 5 and one Buffalo No. 5 ventilation-blower and 230-volt generator for the electric plant, which lights the entire camp.

Two-inch pipes are used for domestic water-supply and 4-inch for use in case of fire. A 12-inch Ventube Rubberoid ventilation-pipe tapering to 8 inches is used in the mine and has proved very satisfactory. An average number of twenty-six men has been working, including superintendents. A 2,500-imperial-gallon crude-oil tank has been erected at the mine and at Lynch Creek Station on the railway a 10,000-imperial-gallon crude-oil tank and a pump have been installed. Supplies are transported from Lynch Creek Station to the mine by motor-truck.

Until the ore-bodies between Nos. 1, 2, 3, and 4 tunnels are connected and some idea of their size and value is obtained, no steps will be taken in regard to mill-construction. The ore found in the old workings is chiefly pyrite carrying gold and silver in a gangue of silica and presents no serious metallurgical difficulties.

WELLINGTON CAMP.

This claim is owned and has been prospected for several years by Robert Butte. Denzler, of Greenwood. On the east slope of the mountain several open-cuts, trenches, tunnels, and shafts have been excavated on quartz veins impregnated with pyrite and arsenopyrite. Owing to the intense shearing and warping of the serpentine rock in which these veins occur, great difficulty has been experienced in following the ore for more than a few feet at a time. The veins taper from 2 to 12 inches in width and appear to conform to the strike of the serpentine. Samples of the ore from the different workings vary considerably in value, from 0.20 oz. to 1.20 oz. in gold to the ton; the higher precious metal contents always being associated with the predominance of the arsenopyrite. A short distance below the workings the granodiorite batholith outcrops. On top of the hill, about 60 feet higher than the main developments, a large open-cut has exposed lenses of chromite, also in the serpentine. Insufficient work has been done to prove the extent of this deposit, but a general sample assayed 52 per cent. Cr₂O₃, which is a high-grade ore.

Keno.—This claim, owned by E. A. Wanke and associates, of Greenwood, was not developed this year.

LIGHTNING PEAK SECTION.

This section was not visited in 1928, but reports from the owners of the Waterloo, Killarney, Lightning Peak group and other claims are encouraging. A full report upon this area appears in the Annual Report for 1927. A new cut-off rawhide trail was constructed by the Government over more solid ground in the neighbourhood of the summit. This new work cuts off about 3 miles of the original distance to the camp and should be helpful to the operators.

GREENWOOD MINING DIVISION.

PHOENIX SECTION.

Owing to a revival of interest in this area, a part of the Economic Geology, Memoir No. 21, written by O. E. LeRoy, of the Geological Survey of Canada, in 1912, may be of use to those who have not had the opportunity of reading this memoir and who contemplate mining operations:—

“Economic Geology—Phoenix Mineral-zone.

“The extensive deposits of low-grade copper ore, which have given rise to the important mining industry at Phoenix, occur in a mineralized area of the Brooklyn limestone which has all the characteristics of a zone of contact metamorphism. This zone is composed essentially of epidote and garnet, together with calcite, quartz, and chlorite. Actinolite, tremolite, zoisite, sericite, and apatite have been noted microscopically and, with the exception of the first-named

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R E P O R T

ON

MINERAL PROPERTIES

IN

GREENWOOD MINING DIVISION.

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REPORT BY:

John D. Galloway

Provincial Mineralogist.

EXAMINATION MADE
1926.

REPORT WRITTEN
1927.

The tunnel commences in altered limestone and passes through garnetite, epidote, etc. into greenstone. An ore-body 14 to 15 feet wide is exposed by the tunnel and has been proved along the strike for a short distance by drifting.

This showing is characteristic of the ore-bodies in Summit camp which were worked on a large scale. It is quite possible that further exploration would show a considerable tonnage of low grade copper ore--probably 1 to 1 1/2 per cent. material--in this property.

R D Galloway 1926

BUTTE

08255E047

Athelstan

This property is situated in Wellington camp; it is owned by R. Denzler.

The showing on this property are similar to those on the ... The showing consists of a large exposure of calcareous rock carrying arsenopyrite. The mineralization would seem to be a replacement deposit in original limestone with the development of some quartz and lime silicates, occurring at and near an intrusive diorite rock. Development by tunnels and shafts had been done on the property many years ago and new work has been carried on by Mr. Denzler working single-handed in the last year. There is an abundance of mineralised rock in the various showings, there being bands of nearly solid iron sulphides 4 to 6 feet wide and much disseminated material. In places considerable oxidation has taken place with the formation of bands of iron oxide.

The big question however is one of values and unfortunately

the results of assays of samples are not encouraging. There is no copper in the sulphides so that the only values to be expected are in the precious metals. Following are the results of assays:-

<u>Description</u>	<u>Gold, oz.</u>	<u>Silver, oz.</u>
Across 4 feet.....	trace	0.6
Across 15 feet.....	trace	trace
Oxidised material.....	0.04	0.4
Hard ore; face tunnel.....	0.06	0.8
Grab sample selected ore on dump.	0.06	0.2
Selected arsenical iron.....	trace	trace

Tests for nickel and copper showed only traces or nil results.

The showings on this property are similar to those on the Athelstan and Jack Pot mines from which a considerable tonnage of ore was produced in past years. This ore was very low grade but was valuable for its fluxing qualities.

|| An interesting occurrence of chromite has been found on this property, which is exposed by a large open cut and some stripping.

Ruthe Chain, near Phoenix, owned by R. Denzler. It

The formation is serpentine; in places extremely schistose. Throughout the serpentine rock some chromite is disseminated; very little massive chromite can be seen. The occurrence is of the nature of an impregnation and with the limited development no definite

strike or zoning of the mineralisation is apparent.

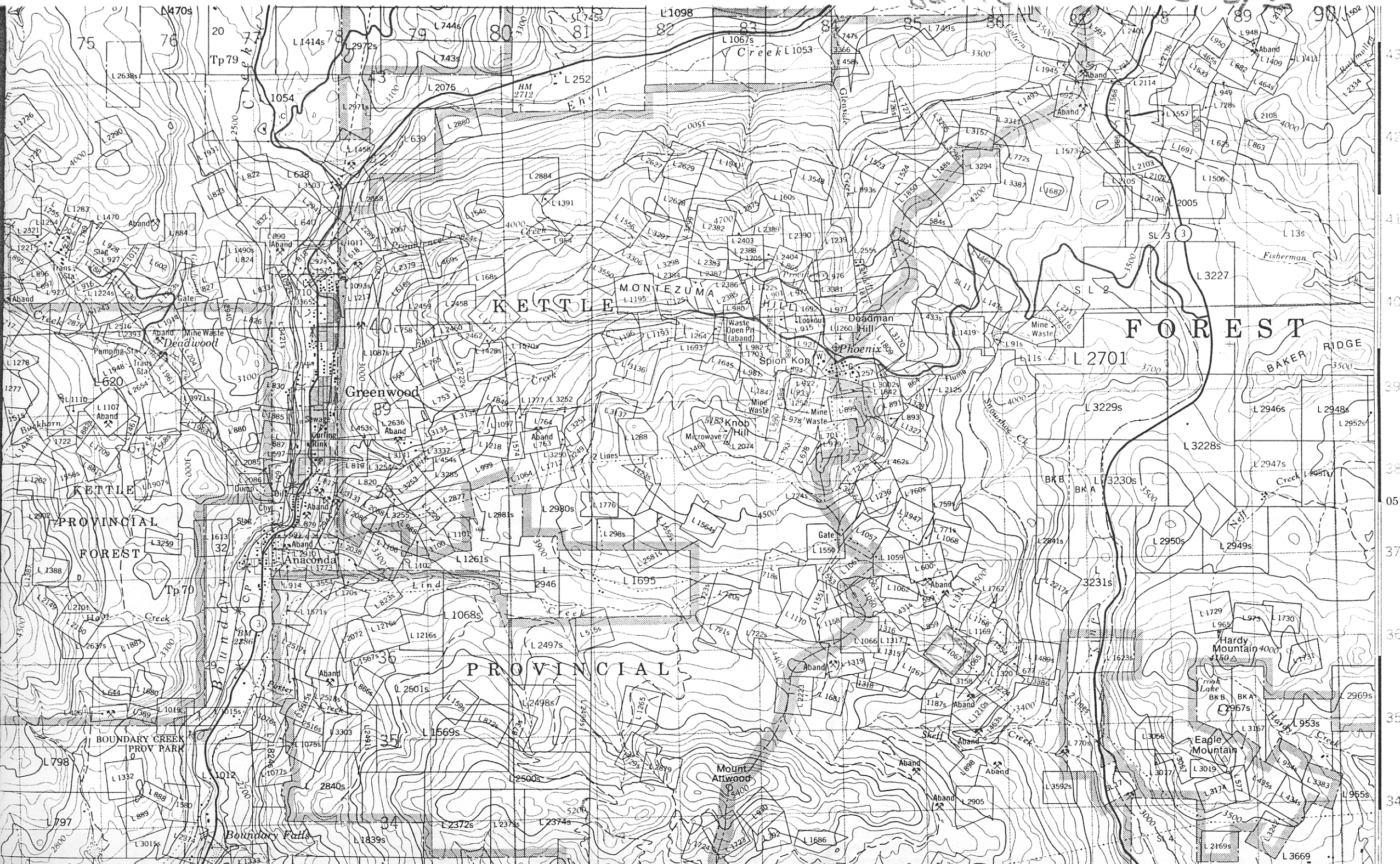
Chromite ore at the present time is not of much value in the Province but with the development of a steel industry, the ore would immediately be in demand. This showing is worth some prospecting to determine its size and extent.

An average sample from the open cut representative of 8 to 10 feet of the rock in width assayed 17.1% chromium.

A selected sample of the purest mineral from the dump assayed 21.8 per cent. chromium. 11

BUTTE

82E/2



43
42
41
40
39
38
05'
37
36
35
34

SKETCH MAP OF
WELLINGTON CAMP

IN THE
KETTLE RIVER MINING DIVISION
BRITISH COLUMBIA

— SCALE: 1500 FEET = 1 INCH. —

