Description

The claims cover the headwaters of Renfrew (Granite) Creek, and the mineral showings occur in the creek valley at elevations ranging from 1,200 to 1,800 feet. Access is provided by Granite Main Line and several branch logging roads. The creek is crossed by a bridge at 1,200 feet elevation.

In 1970 a B.C. Forest Products crew excavated road ballast from a pit at the southeast end of area 8 of this report and exposed magnetite and sulphides. Martial H. Levasseur located covering claims in 1970, and expanded the holdings in 1971-73; he transferred the claims to Reako Explorations Ltd. An extensive magnetometer survey in 1972 was followed by extensive diamond drilling in 1972 and 1973. Robert L. Roscoe was retained as consulting geologist.

The writer visited the property in May, 1974, and was guided to the showings by Mr. Roscoe. Some geological mapping was done on the showings and along logging roads late in May. A copy of Roscoe's 1973 report to the company was subsequently obtained, and in October representative sections of mineralized drill core were examined at their place of storage in Vancouver.

The geology is partly illustrated in Figure GEM 1. The predominant rock is an intrusive breccia. The primary fragments are fine grained and dark greyish-green in colour, resembling andesite. Some contains amygdules. This andesitic rock is successively intruded by mafic-rich and mafic-poor diorite. The breccia grades to massive diorite southwest of a line through showings 3 and 5. At least four patches of white to light grey crystalline limestone occur in the area, and an extensive area of similar limestone adjoins the intrusive breccia on the northeast.

The patch north of showings 1 and 2 has been mapped only along two logging roads, but can be followed by eye up the logged-off hillside. It has the appearance of a pancake resting on the intrusive breccia and showing remarkably little involvement with the underlying chaos. The south contact is well exposed at Granite Main Line, where fingers and tongues of leucodiorite penetrating the andesitic rock terminate abruptly against the limestone. However, this contact is marked by a rind of massive garnetite 8 inches thick, and farther north the limestone is intruded by andesite dykes which are in part altered to skarn and intruded by dykes of leucodiorite. A similar pattern of intrusion occurs in the large area of limestone in the north. The limestone was clearly present when the diorite was intruded, but it appears to have been generally impenetrable. The limestone patch west of showing 7 has been mapped only along a logging road, and its contact relations and full extent are not known. An abrupt termination at the northwest end may mark a fault. Small outcrops of limestone occur east and west of showing 6, but they are separated by diorite; possibly the limestone is involved in the complex here. A body of limestone is indicated by drilling of showing 1.

The structural geology is not understood. Bedding is rarely apparent in the limestone, but in a few places thin sandy beds are discernible on the weathered surface. North of showing 1 the limestone contains a layer of andesite chips. Nearby, close to the south contact, a small northwest-plunging dragfold is outlined by sandy beds and indicates the limestone overlies the complex. This patch of limestone thus appears to be a synclinal pancake plunging northwest. However, it does not appear in road cuts west of Renfrew Creek, and it is not clear what happens to it. The south

contact of the north area of limestone dips 80 degrees south, but no other structural information was obtained from this area. No faults have been identified. A set of long, narrow, fine-grained grey dykes strike consistently 020 degrees, transect all other rocks, and may follow late fractures.

The age of the rocks is unknown. ~~The~~ Fossils have not been found in the limestone, and metamorphism has probably obliterated any that may have been present. Lithologically the limestone closely resembles the Quatsino and the andesitic rock resembles the Karmutsen. The intrusive breccia would appear to represent ~~the~~ a gently-dipping roof zone of a batholith or large stock. The apparent large size of the intrusion would suggest correlation with the Island Intrusions.

Eight mineralized zones are shown in Figure SEE 1 . Most are skarn zones in intrusive breccia, but No. 4 consists of massive magnetite with minor garnet in massive diorite. Individual descriptions follow:

1. Known to the company as South Pit A Zone, it is exposed for a length of 40 feet and a width of 15 feet in a road ditch. Drilling has not outlined it conclusively but appears to indicate that it is not much larger than the surface exposure. As exposed it consists of 35% magnetite, 35% garnet, and 30% pyrrhotite. Chalcopyrite occurs as small blebs, minute veinlets, and fine disseminations in this skarn. Core from vertical hole No. 10 was logged by the writer. From 15 to 53 feet the rock is limestone, with short sections of skarn which are probably altered andesite dykes. Almost massive magnetite occurs from 17 to 20 feet and from 38 to 42 feet, containing minor disseminated chalcopyrite in the first interval. Some

... from 46 to 48 feet

2. Known to the company as South Pit B Zone, it was originally represented by a few outcrops of garnetite and silicified rock. It produced a strong magnetic anomaly and was systematically drilled. A trench was then bulldozed 250 feet northeast of the bridge, exposing magnetite in garnetite. The outline shown is derived from Roscoe's drill logs. Core from two vertical holes was logged by the writer. No. 19 is from near the centre of the zone and shows magnetite thinly to fairly thickly disseminated in epidote-pyroxene-garnet skarn from 8 to 67 feet and sporadically from 67 to 83 feet; there is some sporadic chalcopyrite. No. 20 is from the northwest part of the zone and shows considerable veining of epidote-pyroxene skarn by magnetite, with local pyrite and chalcopyrite, from 7 to 12 feet. Patches of magnetite occur in massive andesite from 14 to 20 feet.

3. Known to the company as South Pit C Zone, it has not been exposed and is known only from the drilling of a magnetic anomaly. The outline shown is derived from Roscoe's drill logs. The writer logged core from hole No. 9, which is inclined at 45 degrees to the west through the centre of the zone. From 62 to 78 feet skarn is more or less mineralized with magnetite, pyrrhotite, and pyrite, both disseminated and as veins or veinlets. Below 80 feet the rock is predominantly diorite.

4. Known to the company as Martin's Pit Zone, it is displayed on a bluff face and has the appearance of a thin wedge plastered onto the diorite. The company reports, however, that drilling into the base of the exposure in 1974 obtained substantial lengths of magnetite, indicating that the magnetite extends back under the diorite. The length shown is the length of

outcrop; the width is exaggerated from the 20 feet exposed. The showing consists of irregular veins, pockets, and masses of magnetite in partly skarned diorite. Sulphides have not been found.

5. Known to the company as the Northwest Zone, it is partly exposed in bulldozer strippings and one small outcrop. The outline shown is derived from Roscoe's drill logs. As exposed it consists of a mixture of magnetite and sulphides in skarn. The writer logged core from hole No. 7, which is inclined at 45 degrees to the west near the north end of the zone. Abundant magnetite occurs with more or less chalcopyrite, pyrrhotite, and pyrite from ? to 26 feet, interrupted by a 5-foot diorite dyke. From 67 to 87 feet the core is mostly massive pyrrhotite, containing lenses and blebs of chalcopyrite. Lenses and megacrysts of pyrite are commonly rimmed by chalcopyrite. Magnetite is very minor in this section.

6. Known to the company as the Falls showing, it forms a xxxxxx natural weir across a small tributary of Renfrew Creek. A mixture of magnetite and skarn is exposed over an area of 20 square feet and a weir height of 12 feet. It is flanked by diorite and andesite, but the ground upstream and down is covered. No work has been done on this showing.

7. It consists of two small exposures of massive pyrrhotite containing networks of chalcopyrite. It has been cut by two 15-foot packsack diamond drill holes. Its extent and relations to enclosing rocks are unknown.

8. Known to the company as the North Pit B Zone, it consists of numerous small exposures of magnetite and skarn on two knolls and in a small quarry. Drilling appears to confirm that the

mineralization is sporadic, and has not been extended far enough to delimit the zone. The writer logged core from vertical hole No. 16, which is toward the southwest side of the zone outlined. Massive and near-massive magnetite from 9 to 32 feet is interrupted by 8 feet of very weakly mineralized skarn. Pyrite is minor and chalcopyrite was not seen.

Roscoe has estimated the following probable tonnages from the drilling results, without specifying grades:

Zone 1	45,250 tons
2	1,070,000
3	35,100
8	36,450
5	38,250
Total	1,225,050 tons

NAME: Reko, Kestrel (Fig. 00, No. 00) AUTHOR: G. E. P. Eastwood

LOCATION: Lat. 48° 38.5-40' Long. 124° 17-19.5' NTS: 92 C/9 W

CLAIMS: REKO 1 to 66, KESTREL 1 to 15

OWNER: Reako Explorations Ltd., 501 409 Granville Mall, Vancouver

OPERATOR:

METALS: Iron, copper

DESCRIPTION: (attached)

WORK DONE: Prospecting

REFERENCE: GEM, 1974, pp. 166-170; Geological Fieldwork, 1975, p. 34; Muller, J.E. and Carson, D.J.T. (1969), Geology and Mineral Deposits of Alberni Map-area, British Columbia, Geol. Surv. Canada, Paper 68-50, p. 19; Northcote, K.E. (1972), in G.E.M., 1972, pp. 243-44.