

barite is coarse-grained, massive to granular, cream to dirty white and contains some malachite staining. As much as 10 per cent carbonate, probably siderite, may be present locally.

Immediately above the main barite zones are thin beds, 1 to 2 metres thick, that appear to be conformable with the phyllite. Only a single bed was observed to have a cross-cutting relationship. The beds are lensoidal and occur en echelon along strike.

Brisco (41)

Minfile Number: 082KNE 013

Latitude: 50°49'54" Longitude: 116°19'36" NTS: 82K/16W

The Brisco barite deposit is located between the Templeton River and Dumbar Creek 4 kilometres west of Brisco. Access to the deposit is by road, a distance of 7 kilometres from Brisco. The property consists of 5 Crown-Granted mineral claims with the main deposit and quarrying operations occurring on the Salmon mineral claim.

Production from the Brisco quarry began in 1952 and continued to 1980. Initial production was from an open pit. In subsequent years production came from underground operations. A total in excess of 133,000 tonnes of barite was produced during this time. A modest reserve of barite is still present but is not economical at the present time.

The following summary of the deposit is taken from the British Columbia Ministry of Mines Annual Report (1958): "Barite has been exposed across an average width of 7.62 metres (25 feet) for 237.7 metres (780 feet) along a northerly striking breccia zone within dolomite of the Ordovician Beaverfoot Formation (Figure 30). The west wallrock is highly fractured dark grey to black dolomite that is commonly brecciated with a few scattered lenses or horses of brown quartzite. Mountain leather is abundant as films on fracture surfaces and a few small barite veins are present. The east wallrock is light grey weathering buff to flesh-coloured dolomite and limestone. It is brecciated, and near the main barite body contains barite in the matrix. The orebody itself is brecciated. Much of the barite is white, but the white sections are irregularly shaped and are usually edged or cut by zones of variable width that consist of a fine-grained black matrix enclosing angular fragments of white barite a fraction of an inch to several inches in diameter. The black colour is due to carbon (graphite)".

The barite pinches and swells both horizontally and vertically. To the north it appears to be cut-off by a fault and it pinches out to the south. White barite occurring as irregular masses forming the matrix around breccia fragments of light coloured dolomite occurs 762 metres north of the main body. A small amount of barite, present as irregular discontinuous masses in a zone of shearing occurs 550 metres to the south.

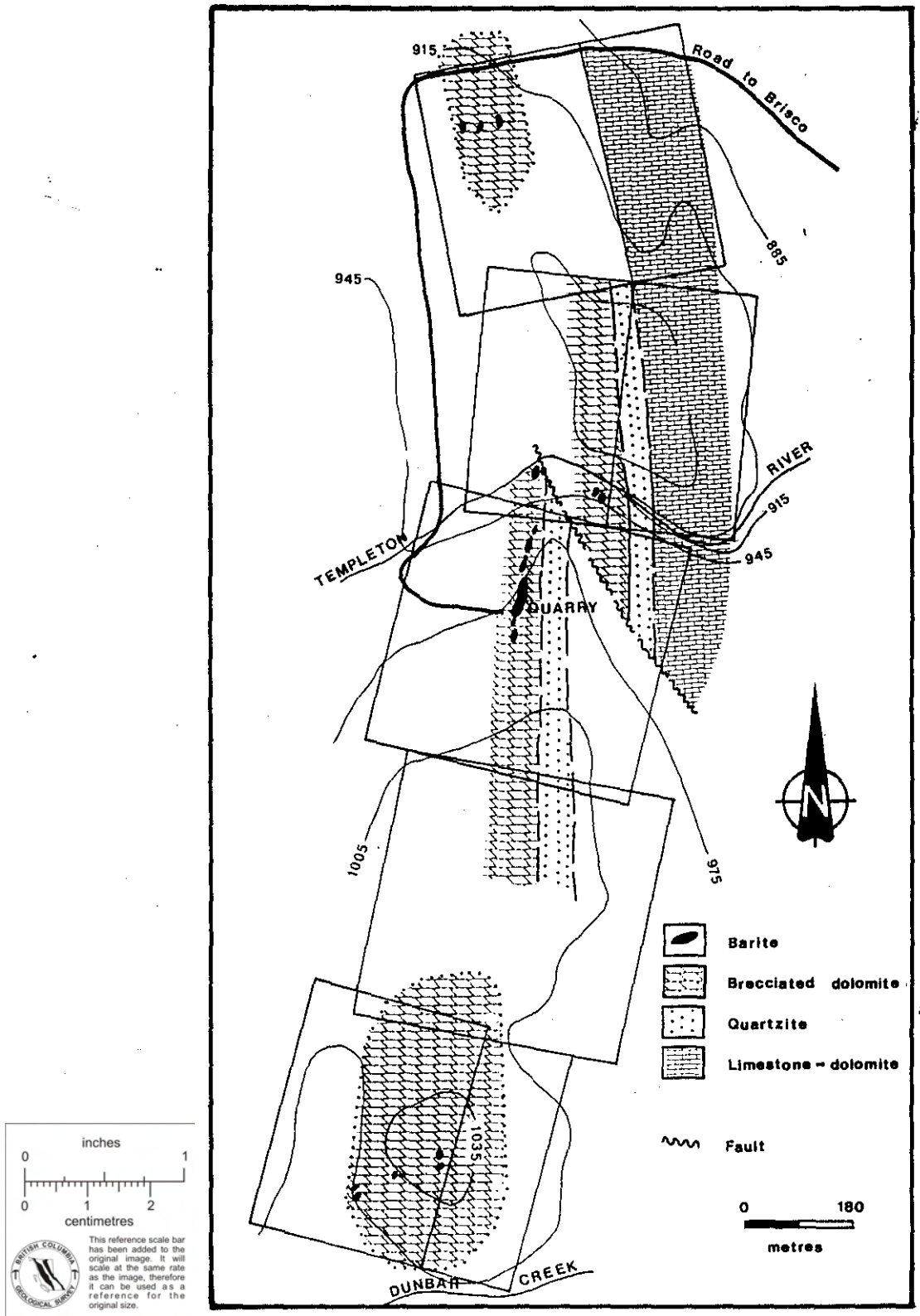


Figure 30. Brisco barite deposit (from MMAR 1958).

Drilling in 1980 at the south end of the main ore zone intersected only a few stringers of barite. Drilling to the east and northeast of the main zone indicated a potential for 3000 tonnes of barite with a specific gravity of 4.27.

This deposit was examined by the author in 1989. Old workings indicate that the barite occurred in a steeply dipping horizon bounded to the east by a fault structure. The west contact appears to be both fault controlled and conformable with the host dolomite. The mined out zone appears to have been controlled by a northerly plunging structure.

Silver Giant (42)

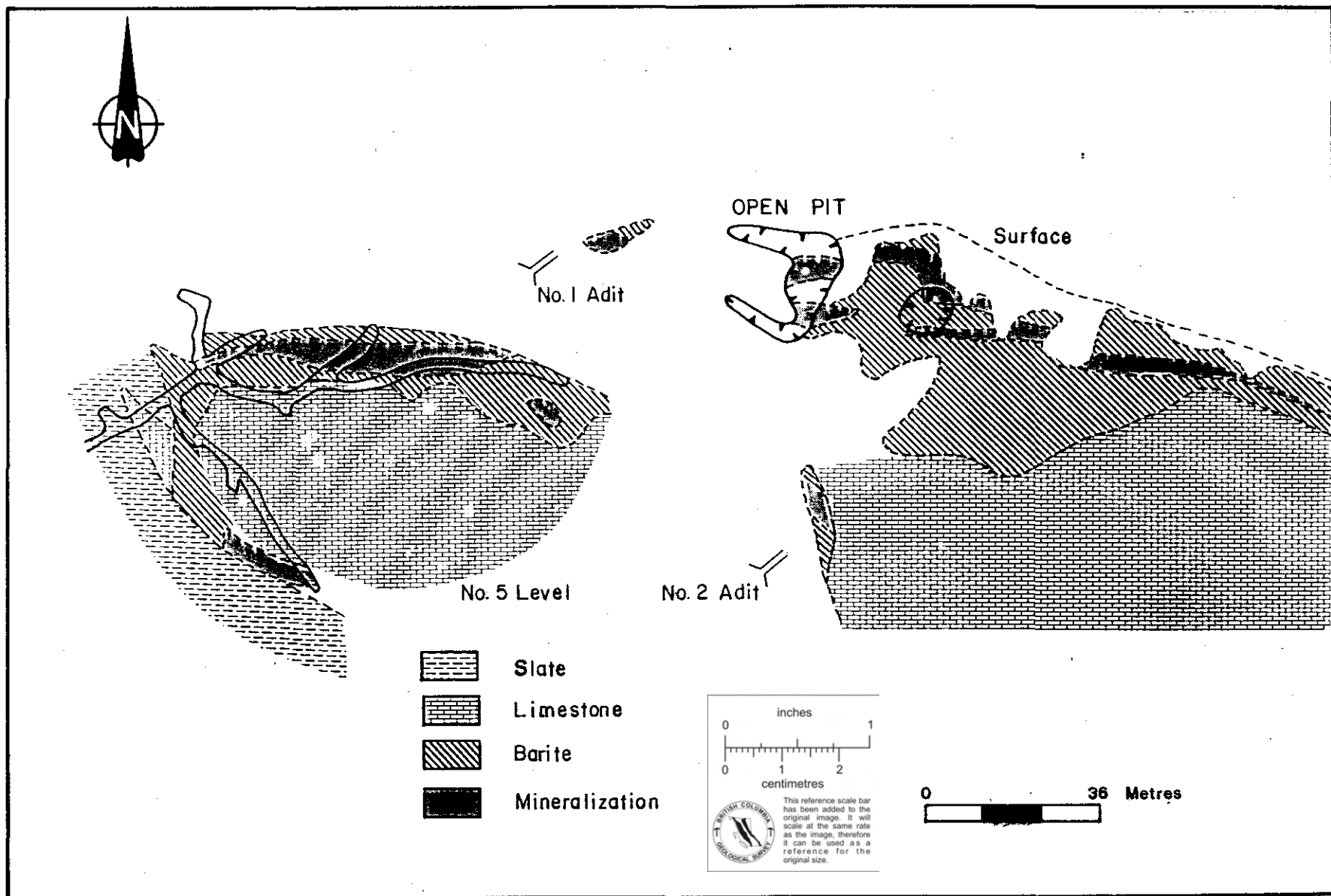
Minfile Number: 082KNE 018

Latitude: 50° Longitude: 116°28'48" NTS: 82K/16W

The Silver Giant Mine is located on the west side of Jubilee Mountain approximately 11 kilometres by road west of Spillmacheen. Its discovery dates back to 1883 and was a producer of lead and zinc during the period 1947 to 1957. In 1959 Baroid of Canada Limited entered into an agreement to produce barite from the property. Production in excess of 239,000 tonnes of barite came from undergrown and open-pit operations and re-concentration of the mill tailings. Although continuous production ceased in 1976, there has been some minor intermittent production in more recent years.

Mineralization occurs in limestone of the Cambrian Jubilee Formation (Figure 31) close to its contact with slates of the

Figure 31. Geology of the Silver Giant lead-zinc-barite deposit
(from Hedley, 1949.)



Cambrian to Ordovician McKay Group (Dawson 1985). The orebodies occur on the crest of an overturned anticline that has been subsequently folded and faulted.

At the mine the main ore zone occupies the nose of the overturned anticline. The structure has a limestone core surrounded by slate. A large regional thrust fault has been mapped 0.4 kilometres to the west and in the underground workings.

The various mineralized zones are barite-sulphide replacements with varying amounts of silica. They occur beneath the slate at its contact with the limestone along the nose of the fold and along the west limb. Some barren masses of barite also occur in the limestone beneath the contact. Dawson interprets these as representing the roots of the orebodies. Mineralogy consists of galena with lesser amounts of sphalerite, pyrite, chalcopyrite and bornite. The barite is most commonly white. It varies from very fine grained (less than 25 microns) to coarse bladed crystal aggregates (2.5 millimetres in size). The fine grained barite is either massive or foliated and commonly contains sulphides and argillaceous material. Both fine and medium-grained carbonate occurs interstitial to the barite. Some chert may also be present. Locally, there is the suggestion of brecciation.