

NAME OF PROPERTY
NOM DE LA PROPRIÉTÉ

GEM

OBJECT LOCATED - showing on Map 46-1962.
OBJET LOCALISÉ

UNCERTAINTY 150 m Lat. 59°27' Long. 126°05'40"
FACTEUR D'INCERTITUDE Lat. Long.

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| Mining Division <i>Division minière</i> | Liard | District <i>District</i> | Cassiar |
| County <i>Comté</i> | | Township or Parish <i>Canton ou paroisse</i> | |
| Lot <i>Lot</i> | | Concession or Range <i>Concession ou rang</i> | |
| Sec <i>Sec.</i> | Tp. <i>Ct.</i> | R. <i>R.</i> | |

OWNER OR OPERATOR/PROPRIÉTAIRE OU EXPLOITANT

DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT

The rocks in the area belong to the Middle Devonian Dunedin Formation and the Middle Devonian to Mississippian Besa River Formation. The former consists of fine-grained, commonly fossiliferous, light and dark grey and black limestone. The overlying Besa River Formation consists mainly of hard black thin-bedded argillite. The argillite in this area has been described as overlying the limestone disconformably. The rocks are folded into a major anticline that plunges gently southward.

The mineralization located to date consists of irregular lenses scattered along the contact between the limestone and argillite. The mineralizing process has involved replacing rock, filling spaces between rock fragments in breccia and some minor forming of veins. The bulk of the mineralized material appears to be either in limestone or in space that was probably formerly occupied by limestone.

The breccia may consist of limestone, argillite, mineral, or mixed fragments in a matrix of fluorite and/or one or more of the barium minerals. Fragments are mostly angular and no more than a few inches in diameter but may be larger. The

Associated minerals or products - Barium.
Minéraux ou produits associés

p.t.o.

HISTORY OF EXPLORATION AND DEVELOPMENT
HISTORIQUE DE L'EXPLORATION ET DE LA MISE EN VALEUR

The Gem showings are located at the north edge of Liard River Hotsprings Provincial Park at Mile 497 on the Alaska Highway. The main showings are about 2 miles north of the Highway and 1,300 feet above it in elevation.

Outcrops of fluorite and witherite were discovered in the summer of 1953 by prospectors in search of radioactive mineralization. The Gem 1-25 claims were staked and subsequently optioned to Conwest Exploration Company Limited. In 1954 Conwest bulldozed a road from Mile 498 to the Gem No. 1 claim, carried out stripping on the known showings, and shipped a bulk sample to Ottawa for testing. Geological mapping was also carried out in the course of which several new showings were found.

No further activity was reported until 1971 when Conwest returned to explore the area north of the Gem group under a joint venture agreement with Jorex Limited and J.R. Woodcock Consultants Ltd. Exploration work during 1971-1972 located a number of new showings and some 785 claims were staked. No work was reported on the Gem group at that time.

Liard Fluorspar Mines Limited was incorporated in June 1972 by Conwest (47.5%), and Jorex (42.5%) to consolidate the new claims with the Gem group and carry out further exploration of the property. Work was suspended later in the year.

For subsequent History see 94 M/9, FSP 1.

DESCRIPTION OF DEPOSIT/DESCRIPTION DU GISEMENT (continued)

amount of brecciation varies greatly in different exposures. The breccia is commonly mostly within the limestone but may occur in the overlying argillite.

Seven main mineralized outcrops have been described as forming the Gem showings. One such outcrop is a 30 to 50-foot-high ridge-like mesa about 50 feet wide which extends for 350 feet northwesterly. Rock is well exposed on its sides and north end. The ridge is capped by slaty argillite that strikes north 30 degrees east, dips 12 degrees southeast, and overlies dark grey fine-grained limestone. Mineralization is exposed at the contact along part of each side and around the north end of the ridge. The mineralized material consists both of limestone replaced by purple to black fluorite mixed with witherite, and brecciated limestone and argillite cemented by the same minerals. The zone pinches and swells, with thickness ranging between zero and 20 feet. A chip channel sample collected down the slope for 30 feet perpendicular to the contact at the widest exposure at the northeast corner of the ridge had the following percentage composition: Ca = 22.92, F = 18.62, Ba = 16.93, CO₂ = 10.04, SO₃ = 2.03, SiO₂ = 3.56. Spectrographic analysis indicated the presence of more than 1 per cent of strontium in the sample.

REFERENCES/BIBLIOGRAPHIE

Report of Minister of Mines, British Columbia: 1954, pp. 178, 179.

Geology, Exploration, and Mining; British Columbia Dept. of Mines: 1972, pp. 587-595⁺.

Mineral Policy Sector; Corporation Files: "Conwest Exploration Company Limited"; "Jorex Limited".

MAP REFERENCES/RÉFÉRENCES CARTOGRAPHIQUES

#Map 49-1962, Rabbit River, (Geol.), Sc. 1":4 miles.

Fluorite-witherite occurrences near Liard River Hot Springs Park, Sc. 1":1.5 miles, Fig. 70, Geology, Exploration, and Mining, 1972.

Map 94 M/8 E, Vents River, (Topo.), Sc. 1:50,000.

REMARKS/REMARQUES

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| Comp./Rev. By Comp./rév. par | DMacR | DMacR | | | | | |
| Date Date | 09-76 | 05-83 | | | | | |