

## Frog Northern BC Zinc Project

The **Frog lead-zinc-silver deposit** is located about 170 km east of Dease Lake, BC, which is on the Cassiar highway 37, and about 70 km east of the major Kutcho Creek copper-zinc deposit held by Capstone Mining Ltd.

There is a gravel airstrip at Kutcho and a 100 km long seasonal road connects that property to the town of Dease Lake on highway 37.

The Frog zinc-lead-silver-copper deposit dates back to before the 1950's when an area of massive galena and sphalerite boulders measuring roughly 180 meters by 120 meters was discovered at the head of Halls creek that drains easterly into the Frog River. The property was held by Conwest Mining Ltd from the early 1960's until the early 1970's and subsequently by Cominco Ltd through the 1970's until 1989.

In the early 1960's Conwest dug two hand trenches across the zone of massive sulfide boulders from which they excavated 25 to 30 tons of highgrade material. Sampling of a number of these blocks of high grade mineralization by Conwest and later by Cominco averaged 29.7% lead, 6.8% zinc, 0.6% copper, 16.6 oz/t silver and 0.01 oz/t gold. As well as galena, sphalerite and chalcopyrite the mineralization contains considerable amounts of the manganese mineral rhodochrosite.

In 1971 Conwest conducted a small drill program to test the several IP anomalies but it did not intersect any high grade mineralization and Cominco geologists later mapped the zone and concluded that Conwest's holes were drilled parallel to the strike of the mineralized zones and therefore in the wrong direction.

Over the years eight separate surveys were conducted on the property attempting to locate the source of the massive sulfide float boulders. These include a soil sample survey by Conwest, an IP survey as well as a 2 gravity surveys by Cominco, all of which outlined significant anomalies, however no further drilling was conducted.

The most important survey was Conwest's soil sample survey that outlined a large, high value lead, zinc and manganese anomalous area measuring roughly 2 km by 2 km in size. This anomaly remains open to the southeast and definitely shows that the main mineralized zone has a south-southeast trend, which apparently has not been fully appreciated nor tested by the previous exploration efforts.

**Eight historical assessment reports** have been done on the property and can be viewed on the Aris.com website, they are **AR #'s 467, 2336, 2995, 7523, 8549, 16898, 20517, & 23774**. The Frog property government **Mineral Inventory number is NMI #094L3Pb1** and its' **Minfile number is #094L 001**.

**AR #2336** reports on a soil sample survey conducted by Conwest in 1969. The soils outlined a very high value lead, zinc and manganese anomaly roughly 2 km by 2 km in size that remains open to the south and southeast.

**AR #2995** reports on an IP and resistivity geophysical survey conducted by McPhar geophysics for Conwest in 1970. The survey located four IP anomalies in the area of the soil anomaly, the most significant of which occurs in the area of the massive sulfide boulders and follow up drilling was recommended.

In 1971 Conwest drilled eight holes totaling 929 meters to test the IP anomalies but no report of this drilling was filed for assessment, however it was reported in GEMS p.106/7 that the drilling was on their claims Linda 11 & 13 and West 3, 5 & 6. The drill holes were in the wrong direction and did not intersect high grade zinc/lead.

**AR #7523** reports on a ground gravity and VLF electromagnetic survey conducted by Cominco in 1979. The gravity survey outlined a prominent gravity high in the central portion of the soil anomaly area just north of the massive sulfide boulders.

The VLF survey located a distinct northerly trending conductor immediately south of the massive sulfide boulders area.

**AR #8549** reports on a followup ground gravity and magnetics survey conducted by Cominco in 1980. The magnetic survey located a significant magnetic high anomaly under the northern portion of the soil anomaly and the gravity survey further refined the large gravity high into 3 separate gravity high anomalies flanking a more central gravity low area. The gravity low more or less coincides with the magnetic high anomaly.

**AR #16898** reports on a limited VLF-EM survey and prospecting/rock sampling program conducted by Skylark Resources in 1987, Skylark had optioned the property from Cominco. Three low grade conductors were located by the VLF survey none of which had been previously tested by drilling and one of these is in the vicinity of high soil geochem.

Interestingly one mineralized sample that Skylark collected from an old Conwest trench assayed 4,700 ppb gold (4.7 g/t gold).

The report also includes an important excerpt from an internal Cominco report on a detailed field examination of the mineralization by senior geologist Bruce Mawer. One of Mawer's key observations was that the drilling by Conwest in 1971 was most likely oriented parallel to the direction of the mineral zone which explains why the drilling did not intersect any zones of high grade mineralization.

**AR #20517** reports on a prospecting and sampling program conducted by Formosa Resources in 1989 and 1990. This report mentions numerous quartz-eye porphyry dikes occurring on the property and that some of the massive sulfide boulders locally contain large yellowish

secondary micas, likely zinwaldite, suggesting to them that the mineralization may be related to an intrusive greisen or a manto type deposit like the past producing Midway mine near Watson Lake. Several samples of mineralization they assayed contained over 2% copper.

No exploration work has been done on the property since 1994 however in 2005 the BC government funded an airborne magnetic survey over a large portion of northern BC and the survey results were released to the public under the title Cassiar Geophysics in Open File # 3198.

**Open File report #3198** consists of thirteen maps and map # 11 covers the area where the Frog property is located. Importantly an isolated, discreet aeromagnetic high anomaly measuring roughly 2 km by 2 km was discovered directly on the mineralized area of the Frog property. The ground magnetic high anomaly located by Cominco in AR #8549 corresponds to the northern portion of the larger aeromagnetic anomaly and this magnetic anomaly occurring in conjunction with the large soil geochemical anomaly suggests that a large **porphyry copper deposit** could lie below the higher level lead-zinc-copper-manganese mineralization.