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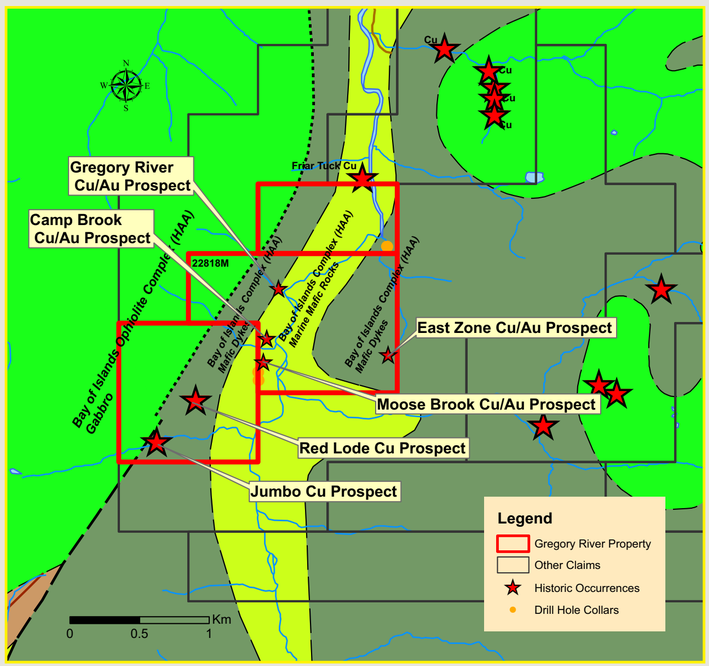
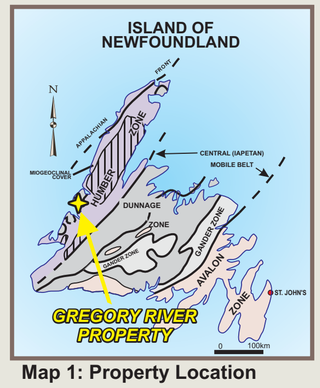
# Gregory River - Cu-Zn-Au




Map 2: Claims Location, Geology, Mineralization

The ***Gregory River Property*** is located on the west coast of Newfoundland, 45 km NW of Corner Brook, 15 km south of the community of Trout River (Maps 1 and 2), NTS map 12G/8 and is best accessed by helicopter from Pasadena, about 50 km SE of the claims.




Map 1: Property Location

### Regional Geology

***Tectonostratigraphic Zone - Humber.*** The Bay of Islands-Trout River area is underlain by the Lower Ordovician Humber Arm Allochthon (HAA, Map 2), comprising lower structural slices of the Humber Arm Supergroup metasedimentary rocks, which are structurally overlain by the Lower Ordovician Bay of Islands Ophiolite Complex. Both the Humber Arm Supergroup and Bay of Islands Complex were thrust westward over Lower Ordovician carbonate rocks during the Ordovician Taconian Orogeny

### Local Geology

The Gregory River Property is underlain by slightly to moderately deformed and metamorphosed, ultramafic/mafic intrusives (dunites, pyroxenites, gabbros, etc.), sheeted diabase dikes, basaltic pillow lavas and breccias, and narrow zones of sedimentary rocks of the Bay of Islands Ophiolite Complex. The basalts lie structurally and in places conformably above the gabbros. The NS-trending Gregory River fault transects the property and is associated with numerous fault spays and widespread NNE-trending high angle shearing and brecciation. Local EW-striking faults may be the focus of mineralization and alteration.

### Mineralization and Previous Work

There are 6 historic Cu-Zn±Au occurrences on the property and the following account of the mineralization is taken from a compilation report by J. Harris (Playfair, 2008). High-grade Cu boulders were first discovered along Gregory River in 1921 by Mines and Forest NFLD Ltd. Subsequent exploration work by junior and senior exploration companies have identified numerous Cu-Zn±Au showings: twenty-three major Cu-lode showings (plus at least thirty additional smaller Cu-lode showings), up to seven Cyprus-type massive sulphide showings and perhaps up to four epithermal Au showings. Of these, the ***Gregory River, Camp Brook, Moose Brook and the East Zone showings*** (Map 2) are the high priority VMS/low sulphidation gold targets within the present property. Other noteworthy showings, in the SW portion of the property, are the ***Red Lode and Jumbo (Map 2)***. These occurrences also show strong clay-silica alteration or are associated with significant unexplored Cu-Zn soil anomalies.

Noranda reported that the mineralization at ***Camp Brook*** exhibits "true massive sulphide" characteristics (Sparkes 1991). A random grab sample (metre sized boulder) returned **1.67 g/t Au and 4,950 ppm Cu**. In addition, a 25-m wide exhalative-type clay-sericite-chlorite alteration zone was identified 125 m west of the showing. Drilling by Playfair Minerals (Moore, 2006) at the Camp and Moose Brook Zones identified a fairly large subsurface extension of the altered mafic rocks that contains a distinct mineralized horizon with massive, stringer and disseminated pyrite, chalcopyrite, sphalerite and arsenopyrite. Drill hole 4 yielded the highest assay values of the drill program; from **5.79 to 25.80 m, a core length of 21.01m averages 539.6 ppb Au, 4.51 ppm Ag, 4,516.7 ppm Zn, 3,305.0 ppm Cu and 582.6 ppm As; including an enriched section from 6.34 to 14.63m, an interval of 8.29m, which averages 1,191.1ppb Au, 10.2 ppm Ag, 10,549.7 ppm Zn, 7,847.7 ppm Cu and 1,350.5 ppm As.** Rock samples collected from the Camp Brook, Moose Brook and East Zone showings confirmed previously identified exhalative-type alteration zones with anomalous gold and less significant base metal credits. For example, the Moose Brook Showing had values of **1 to 7 g/t Au**, over an approximately fifty-metre long exposure (combination of grab, chip and channel rock samples).

The ***Jumbo Cu*** Prospect occurs in two zones adjacent to the Gregory River fault and consists of a rusty gossan with some remnant massive pyrite/pyrrhotite in altered gabbro. The mineralization appears to occur at the base of a gabbro sill. Pillow basalts occur nearby and there are also conspicuous veins of solid pyrite in the lava. The maximum thickness of the mineralized zone is 4.5 m. Two adits mark the site of mineralization. Channel samples assayed **14% Cu over 3.0 m and 9.3% Cu over 10.0 m. Grab samples assayed 6.4% Cu from the basal 0.3 m of lode and 0.13% Cu from the upper 1.5 m of the lode. Dean (1978) estimated grade and tonnage of high grade ore as 14.7% Cu and 13,400 tonnes and disseminated ore as 6.0% Cu and 25,000 tonnes. Placer Development Ltd. sampled the Jumbo Lode and one sample yielded 0.24% Co.**

### Highlights

- **6 historic Cu-Zn-Au occurrences; ≥ 25 drill holes in area**
- **Grabs to 7 g/t Au; channel samples up to 14% Cu over 3 m.**
- **Drill intersections - 8 m with 1.2 g/t Au, 1% Zn, 0.78% Cu**
- **Deposit Models: Cyprus type Cu-Zn and Epithermal Au**

### Mineralization Models

There are several deposit types identified on the property, viz., Cu-lode quartz vein deposits, Cyprus-type massive sulphide deposits and epithermal Au mineralization. The exact nature of mineralization of some showings has not been adequately characterized; therefore, there is some uncertainty and overlap of the probable deposit classification of some showings. This is particularly true where the low (?) sulphidation epithermal gold targets are concerned. It is possible that the anomalous gold values discovered in some hydrothermally altered rocks are derived from preexisting Cyprus-type massive sulphide mineralization. The claims are 37 kms NE of the dormant York Harbour Cu-Zn-Ag mine in geologically similar rocks, which produced over 100,000 tonnes of high grade ore (3-12% Cu, 7% Zn), from 1898 to1913 (Dearin, 2002).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