

# NEWFOUNDLAND & LABRADOR

## Prospect • Discover • Develop



# Shamrock - Cu-Pb-Zn-Ag-Au



Map 2: Claims Location and Geology

### Highlights:

Well defined VMS-type, Zn-Cu-Pb - rich mineralization

Grab Samples - up to 6.9% Zn, 4.8% Pb.

Channel samples returned up to 4.3% Zn over 3 m, 5.7% Pb over 1 m, 0.7% Cu over 2 m.,

Grab samples returned up to 88.44 g/t Au and up to 6.6 g/t Au in drill core

The **Shamrock Property** consists of 9 claims (Lic.#s 22261M & 22442M) located on Long Island, Notre Dame Bay (NTS 2E/12) (Map 1). Access is via Route 380, a paved road off the TCH that leads to the ferry terminal on Pilley's Island. The ferry leaves at hourly intervals for Long Island.

### Regional Geology

The property lies in the northeasternmost section of the Notre Dame Subzone (Dunnage Zone) of the Newfoundland Appalachians (Map 1). Long Island is underlain principally by Middle Ordovician and older, basalt and mafic tuffs of the Cutwell Group which has been correlated with the Buchan's - Robert's Arm Belt (Map 2). The general interpretation of the Cutwell Group is that of a lower sequence of mafic volcanics, an upper felsic volcanic sequence and a cap of carbonaceous and calcareous sediments.

### Local Geology

The mineral occurrences on this property are hosted by the Long Tickle Formation (Cutwell Group). Two separate packages of rock occur at the Shamrock Prospect (Churchill and Pickett, Altius Minerals, 2001), termed the upper and lower panels. On the west side and hosting all the known mineralization, is a package of weakly to intensely altered mafic and felsic volcanic rocks in the Lower Panel. Fragmental textures have been recognized in probable mafic volcanic breccias. The Upper Panel comprises mixed mafic and felsic volcanic and volcanoclastic rocks locally containing minor, fine-grained disseminated pyrite, underlying the eastern side of the property. The contact between the upper and lower panels is very sharp and is characterized by brittle-ductile shearing as seen on the shoreline near the ferry terminal. The Long Island Pluton which is gabbroic to dioritic in nature, intrudes the lower panel.

The Cutwell Group to the south of the property (on Pilley's Island), comprises basaltic pillow lava, interfingered locally with argillite and chert, pyroxene-crystal tuff, breccia and lapilli tuff with intercalated sedimentary rocks.

### Previous Work and Mineralization

Two mineral occurrences are present on the property, the Shamrock Cu-Pb-Zn-Ag-Au Prospect and the Tickle Ferry Gold Showing.

The **Shamrock base metal occurrence** is volcanogenic in origin and displays both gas vent brecciation and stratiform depositional features. The sulphides consist of red brown to honey brown sphalerite along with minor to trace galena, chalcopyrite and bornite. Mineralization occurs as disseminated blebs or fine grained disseminations (commonly associated with quartz segregations), stockwork veins or veinlets in a quartz-calcite or baritic gangue, as clasts and lenses along the foliation (often enclosed in chlorite and epidote), and as open space fillings (Evans, 1996). Chalcopyrite and pyrrhotite commonly occur as inclusions in the pyrite. Sulphide mineralization, for the most part, appears primary whereas the enclosing chlorite and epidote appear to be related to a later episode of regional metamorphism. Blebs of sulphide in quartz segregations and sulphide in late veinlets are the result of sulphide remobilization during later events. Much of the pyrite mineralization, and questionably the gold and silver, appear to be structurally controlled (McHale, 1990). Tillicum (1988) and Eastern Goldfields (1990) collected grab samples and resampled Brinco drill core and returned assay values up to **88.44 g/t Au** in grab samples and up to **6.6 g/t Au over 0.94 m** in drill core. Trench sampling returned up to **4.8 g/t Au over 1 m**. Channel samples returned **2.5% Zn, 0.5% Cu and 1.5 g/t Au over 4.0 m and 2.7% Zn, 1.7% Pb and 0.1% Cu over 1.5 m**. Grab samples of stringer mineralization at the most easterly part of the zone returned assays of **6.9% Zn; 4.8% Pb; 25 g/t Ag**

and **0.2 g/t Au**. The best assay from drilling was **7.2 g/t Au over 1.2 m**. Two grab samples of quartz-sulphide veins assayed **32 and 88 g/t Au**. More significant assay results from the eastern part of the prospect are:

**3.7% zinc, 3.9% lead, 0.3% copper over 3 m.**

**5.5% zinc, 0.1% lead, 0.7% copper over 2 m.**

**7.4% zinc, 5.7% lead, 0.5% copper over 1 m.**

**4.3 % zinc, 3.9% lead, 0.2% copper over 3 m.** (Press Release, Altius Minerals Corp., Nov. 9, 1999).

The **Tickle Ferry Au Showing** is hosted by Early to Middle Ordovician acidic to intermediate volcanic flows and pyroclastics of the Cutwell Group. Mineralization, occurring over an 114 m section of road-cut, consists mainly of pyrite, pyrrhotite, copper and zinc in dacite, rhyodacite and andesite. Gold occurs at two intervals along the road-cut representing two potential gold zones that are stratigraphically 80 m apart. These zones may represent continuity with the near-by Shamrock gold and base metal prospect (McHale, 1990).

Sampling over 114 m of road-cut by Tillicum Resources in 1986, resulted in assays of **5800 ppb Au over 1.0 m and 4100 ppb Au over 1.0 m** in dacite and andesite tuffs respectively. Two other channel samples taken near the latter returned **1200 and 1000 ppb Au**. A 4.0 m section containing **>10,000 ppm Zn** and a **3.0 m section containing 3098-9397 ppm Cu** is synonymous with the gold mineralization occurring in the andesite. Zinc values are anomalous throughout the entire section of rock-cut with intervals containing **300 to 800 ppm Zn** alternating with wide intervals containing **1000 to 5000 ppm Zn**. Occasionally, 1.0 m channels host **>10,000 ppm Zn**. Further sampling in 1987 and a re-analysis of pulps in 1989 revealed another anomalous Au value of **0.372 oz/t Au (over 0.3 m)** as well as values of **0.438 and 0.454 oz/t Au** for +140 mesh fraction splits (McHale, 1990).

### Mineralization Model

The Shamrock Prospect is interpreted to be VMS style mineralization and alteration overprinted by widespread K-metasomatism caused by the emplacement of the Long Island Pluton (Pickett, 2001).



Map 1: Property Location

### FOR MORE INFORMATION CONTACT:

**Stephen Stockley**

Tel: (709) 424-5333

E-Mail: stockleysteve@hotmail.com

July, 2014