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# Tasisuak Lake - Ni-Cu-Co-Pt-Pd



#### Map 2: Claims Location and Geology Mineralization and Previous Work

The *Tasisuak Lake (TL) Property* is located in Northern Labrador (NTS map sheet 14D/10) approx 70 km west of Nain, and 400 km NNW of Happy Valley-Goose Bay. The area is remote and is accessed by helicopter or float plane from Nain. Nain also has daily air service and weekly coastal boat service. The property is 50 km NW of the Voisey's Bay Ni-Cu-Co mine.

### **Regional Geology**

The TL property is located in the Paleoproterozoic Churchill Province of Labrador, west of the regional suture separating the Churchill and Archean Nain Provinces (Map 1). The eastern Churchill Province consists predominately of quartofeldspathic and metasedimentary gneisses derived from plutonic and sedimentary rocks (Ryan, 1990). The eastern Churchill Province rocks are intruded by the multi-phase, Mesoproterozoic Map 1. Property location map

Nain Plutonic Suite (NPS) composed primarily of anorthosite, troctolite, diorite and granitoids.

## Local Geology

The Tasisuak Lake Property is predominantly underlain by rocks of the Tasiuyak Paragneiss. These are intercalated with lesser orthogneiss and are intruded by rocks of the NPS and later diabase.

OZOIC

The area was first explored by Consolidated Magna Ventures in 1995 (See Saunders and Scott, 2003 unpublished report in Scott, 2005 for Nortec Ventures)). Prospecting led to the discovery of 3 bedrock pyrrhotite-chalcopyrite-pyrite showings - the TL-Long Pond, All-About-It and Gas Can - in mafic intrusives. Long Pond Showing grabs returned up to **1.36% Ni and 0.58% Cu. Assays for the All-About-It were up to** 



#### 1.05% Ni and 1.53% Cu. Another occurrence, the No Baccy Showing returned up to .71% Ni and .85% Cu over 2.3 m.

Vulcan Minerals Inc. staked the property and performed compilation work in 2001, followed by geochemical and geophysical work (UTEM survey) by Falconbridge in the same year (Saunders & Scott, 2003). Pursuant to an option agreement with Vulcan, detailed geological mapping, ground geophysical gravity, UTEM and magnetic surveys were undertaken by Nortec Ventures Corp. Nortec also performed diamond drilling (14 holes totalling 2335 m) in 2005 (Watters, 2005). Saunders and Scott (2003) concluded that the TL Property has several features that bear geological and geophysical similarity to the Voisey's Bay Mine including Ni-Cu-Co mineralization, hosted by mafic rocks and a large EM anomaly with very high conductance and a coincident magnetic anomaly. The mineralization is contained within troctolitic



gabbroic intrusive rocks and consists of pyrrhotite, pentlandite and chalcopyrite, up to 40% locally, and exhibits leopard textures typical of mineralization at the Voisey's Bay orebody (Vulcan Minerals press release June 26, 2007). Thus far, this style of mineralization contains up to 40% sulphides and returned individual assays up to 2.0% Ni,

Voisey's Bay type Magmatic Sulphide Up to 2% Ni, 0.85% Cu, 0.08% Co in outcrop DDH intersections up to 2.2% Ni, 4% Cu Hosted by Mafic Plutonics, up to 40% sulphides Primarily pyrrhotite-pentlandite-chalcopyrite High Ni/Cu ratios: PGEs+Au up to 0.53 g/t Mineralized gabbro remains unsourced

0.85% Cu and 0.08% Co from chip sampling in 1996, 2.2% Ni, 1.1% Cu and 0.06% Co from drill core in 2005 and 2.15% Ni, 4.02% Cu, 0.04% Co and 1.01 g/t PGE+Au from drill core in 2008.

At Long Pond, one of the most significant intersections was from hole 3-2 where 23.7 m graded 0.47% Ni, 0.16% Cu and 0.02% Co. A 5.2 m section included in that assayed 1.15% Ni, 0.42% Cu, 0.04% Co, 0.11 g/t Pd and 0.25 g/t Pt.

2008 prospecting resulted in a new mineral showing, the Windy Showing (C Zone, Figure 1), suggesting a possible extension of surface mineralization of the C Zone of 2300 m, from the Windy Showing to the Long Pond Showing with multiple, intermittent mineralized outcrops, including the No Baccy Showing. The 2008 drill program tested the three surface showings and five blind geophysical VTEM targets. The Long Pond Showing was tested by three holes: Hole 08-LP-55 encountered **14m of 0.80% Ni, 0.85% Cu, 0.03% Co, 0.10% Cr and 0.36 g/t PGE+Au, including 6m of** 

1.02% Ni, 1.59% Cu, 0.05% Co, 0.13% Cr and 0.30 g/t PGE+Au. Individual 1m samples graded as high as 4.02% Cu. Five holes tested the All About-it showing, - Hole 08-AA-60 intersected 39 m of 0.57% Ni, 0.28% Cu, 0.02% Co, 0.13% Cr and 0.25 g/t PGE+Au, including 14m of 1.02% Ni, 0.51% Cu, 0.03% Co, 0.12% Cr and 0.35g/t PGE+Au. An individual 1m sample assayed 2.15% Ni. The No-Baccy Showing was tested with three drill holes - Hole 64 encountered 6 m of 0.75% Ni, 0.22% Cu, 0.02% Co and 0.32 g/t PGE+Au including 2 m of 1.47% Ni, 0.28% Cu, 0.03% Co and 0.46 g/t PGE+Au. Hole 08-NB-66 had a one m intersection of 0.28% Ni. An airborne VTEM/MAG survey has outlined numerous EM conductors and coincident Magnetic anomalies giving better definition to current targets and identifying



new ones. It also has shown that the B and C Zones can be traced for several km. Drilling has better defined mineralization and has encountered good intervals of ore grade Cu-Co mineralization with Pt, Pd and Au enrichment. Drilling has also uncovered widespread sulphide mineralization and indicates that the Tasisuak Property has the potential to host an economic Ni-Cu-Co-PGE deposit.

#### Recommendations

Much work is still needed at Tasisuak Lake to further define the mineralization and to outline possible targets for further drill testing. As most of the drilling has been at relatively shallow depths, future drilling should test potential extensions of existing mineralization at depth. To mitigate costs, some detailed work needs to be done to more clearly define deep targets (Watters, 2005).

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