Midland Exploration TSX-V:MD

Moria Project

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June 2024

Moria Project Highlights



- New nickel showings in meta-pyroxenites, in a previously unexplored area, up to 1.07% Ni in grabs, 0.8% Ni / 0.8 m in channel (Gimli), 0.78% Ni in grab samples and 0.68% Ni / 0.5 m in channel (Gloin showing).
- At least three meta-pyroxenite dykes, probably hundreds of meters large and several kilometers long.
- ✓ Very high nickel tenor of the mineralization up to 15% Ni recalculated at 100% sulfides.
- ✓ Unexplained EM anomalies associated with the meta-pyroxenite dykes could indicate semi-massive to massive Ni-Cu-Co sulfides mineralization.
- Strong carbonate (ankerite, calcite) overprint of the pyroxenite and proximity to the favorable Cannard regional deformation zone also suggests orogenic gold potential as well.
- ✓ Under option agreement with Rio Tinto.

James Bay – Gold and Lithium Prospects





Moria Project Area



- Moria project located south of the Eau Claire gold project
- Ni-Cu-Co showings (Gimli, Gloin) found in 2017 in an area with very little previous exploration



Moria Project Geology



- Gimli / Gloin Ni showings
- Up to 1.07% Ni, 0.24% Cu, 0.09% Co (grabs); 0.8% Ni / 0.8 m (channel)
- Very high nickel "tenors" (Ni values recalculated to 100% sulfides): up to 14.1% Ni on Gimli, up to 16.0% Ni on Gloin.
- Ni-Cu-Co showings found in pyroxenite dyke cutting a large dioritic intrusion
- No previous prospection recorded on the project \rightarrow large dioritic intrusion



Gimli-Gloin Trenching 2018 – Ni





Gimli-Gloin Trenching 2018 – Ni





 Host rock is meta-pyroxenite dyke within gabbro. Mineralized zone is at the contact of the dyke. Lower sulfides (<0.5%) within the rest of the dyke





Gloin Trenching 2018



- Gloin showing : 2-3% disseminated sulfides zone, discontinuous.
- Host rock is meta-pyroxenite with numerous gabbro xenoliths -- Evidence of dynamic system, favorable for Ni-Cu
- Zone is close to a sheared zone (remobilized?)



Xenoliths in Ultramafic Intrusive – Gloin





Pyroxenite with numerous gabbro xenoliths → indicates that country rock assimilation took place → good for magmatic Ni-Cu

Gimli + Gloin Showing Channels



- Values at 100% sulfides indicate how much Nickel, Copper and Cobalt would be found in massive sulfides that correspond to disseminated sulfides
- Useful as a broad guide but not absolute
- Our limit is 1% S on these calculations to diminish the effects of nickel background in the rock and also very weakly disseminated sulfides are usually more metal rich than massive ore
- Very high Ni values at 100% sulfides -13 to 15% Ni -- More concentrated sulfide mineralization would be highly valuable

Gimli channels										
Sample	From m	To m	Length m	Ni %	Со %	Cu %	S %	% Ni at 100% sulfides		
W179803	3	3.5	0.5	0.783	0.056	0.088	2.14	<mark>13.48</mark>		
W179802	3.5	3.8	0.3	0.825	0.047	0.061	2.16	<mark>14.05</mark>		

Gloin channels

Sample	From m	To m	Length m	Ni %	Со %	Cu %	S %	% Ni at 100% sulfides
S432319	1.9	2.4	0.5	0.69	0.03	0.02	1.67	<mark>15.15</mark>

Both Gloin and Gimli showing channels, separated by 100m, exhibited <u>consistent and very high</u> Ni values at 100% sulfides: 13.48% Ni (Gimli-1) 14.05% Ni (Gimli-2) 15.15% Ni (Gloin-1) Even disseminated 2% S are close to economic Ni grades

Gimli Showing – Thin Sections



- Sulfides have typical magmatic sulfides textures -- xenomorphic around silicate grains.
- Pyrrhotite has pentlandite exsolution lamella --> high T to low
 T evolution → very diagnostic of magmatic sulfides
- Lots of free pentlandite as well





Po: pyrrhotite Pn: pentlandite Cp: chalcopyrite

Gimli-Gloin Pyroxenite Lithogeochemistry



Sample	SiO2	Al2O3	MgO	TiO2	CaO	Fe2O3	Cr2O3	LOI 1000	SO3
Gloin 0.46% ni	41.92	8.57	4.29	1.52	12.7	18.42	0.27	6.48	2.85
Gimli non-min, Cb alt. 0.08% Ni	36.32	6.13	5.31	0.97	17.7	12.96	0.16	17.93	0.22
Gimli 1.06% Ni	34.19	8.89	6.55	1.64	8.89	30.51	0.29	4.9	11.55

Metapyroxenite altered in carbonates. Strange "Moria-type" signature with high Cr (>0.1%), Ti (>0.6%), V (>200 ppm), Fe, Ca, and low MgO (<7%), Al2O3 (<10%).

Moria – VTEM + Mag Survey 2017



 VTEM electromagnetic + magnetic survey flown in 2017 to cover the Ni-Cu-Co showings and dykes



Moria – VTEM + Mag Survey 2017



- The Gimli-Gloin meta-pyroxenite dyke appears as a weak linear magnetic feature on the magnetic response (Tilt derivative here)
- The 2017 VTEM electromagnetic survey identified promising series of rather short EM anomalies associated with other similar mag highs
- Notably <u>unexplained</u> EM anomalies on the same mag high as the Gimli-Gloin dyke to the northeast



Magnetic tilt derivative, VTEM survey 2017

Moria – VTEM + Mag Survey 2017



- At least 2 additional high Cr-Ni low Mg metapyroxenite dykes have been identified on SE Moria, visible on the mag, confirmed by outcrops and lithogeochemistry
- More work needed to find additional intrusions suggested by long and narrow mag anomalies
- None of these were ever drilled



Magnetic tilt derivative, VTEM survey 2017

EM Resistivity Depth Imaging





Moria Area – Gold Showings



- Moria located south of the Eau Claire gold project (Fury Gold). 2 gold deposits known on the Eau Claire project, with Percival deposit only 2 km north of Moria
- Fury considers that both the Eau Claire and Percival deposits are broadly controlled by the Cannard regional deformation zone. Both gold deposits are located less than 2 kilometers from the Cannard deformation zone.
- Much exploration **north** of the Cannard deformation, however <u>comparatively little</u> <u>exploration has been done immediately</u> <u>south of this zone, including on Moria and</u> <u>Helm's Deep</u>
- Strong carbonate alteration noted in the Moria pyroxenite suggests orogenic overprint and gold potential on Moria



Moria Area – Carbonate Orogenic Alteration

- Strong carbonate alteration widespread in Gimli

 Gloin trenches and the proximity to the Cannard regional deformation zone suggests gold potential on Moria
- Holes visible in the rock are due to carbonates that are dissolved



