

5 June 2018

# CANADIAN COBALT EXPLORATION UPDATE

- Completion of detailed geological field assessment for Meteoric's Eastern Ontario Cobalt Project Portfolio
- Fully funded geophysical programs and scheduling now in place for all Ontario Cobalt Projects
- **Disseminated sulphide mineralisation** in conjunction with **favourable structural complexity** confirmed at all **Cobalt Projects**
- Ground based geophysics (100m spacing) program completed at Mulligan Cobalt Project, data processing and 3D interpretation commenced
- Maiden drilling program at Mulligan on schedule for July 2018 drilling tender process commenced
- Orix Geoscience team on-site preparing drill site locations

Meteoric Resources NL (ASX: MEI; "Meteoric" or the "Company"), a Canadian focussed cobalt and Cu-Ni-PGE explorer is pleased to provide shareholders an update on the Company's exploration activities across its 100% owned Ontario Cobalt Project Portfolio in Canada. Meteoric's Cobalt Project Manager, Tony Cormack has been on-site since mid-April assessing all the Company's Cobalt assets, along with Orix Geoscience's Sudbury based geologist, Sam Grasis (see Figure 1).



Figure 1: Tony Cormack at Burt Cobalt Project (left) and Sam Grasis (Orix Geoscience) at Mulligan Cobalt Project (right)



#### Meteoric Resources Cobalt Manager, Mr Tony Cormack commented:

"Having spent the past six weeks on the ground in Ontario, I have had the opportunity to visit and assess all of the Company's Cobalt Projects and I am impressed with their prospectivity for high-grade cobalt mineralisation demonstrated at each. Having established access to the projects and confirmed the geology and structure, we have now finalised the geophysics programs for all seven of the cobalt projects in the Canadian portfolio. Ground-based geophysics have been completed at Mulligan. The Canadian Exploration Services ("CXS") crew is in the process of mobilising to Burt and then will systematically work through the projects until all are completed. Our exploration progress to date remains on schedule with drilling set to commence at Mulligan in July 2018."





Figure 2: Meteoric's Primary Cobalt Projects in Eastern Ontario, Canada



#### Mulligan Cobalt Project

- Line cutting and ground based Induced Polarisation/Magnetics/Resistivity geophysics complete
- Data processing and 3D interpretation of geophysical information commenced
- Grab sample assays grading up to 9.71% Co, 16.5 g/t Ag, 14.3 g/t Au<sup>M1</sup>
- Samples collected by the Ontario Department of Mines in 1952, yielded 12.6% cobalt, 1.03% nickel, 29.76 g/t gold and 39.69 g/t silver<sup>M1</sup>
- Samples collected by Conwest Exploration yielded 19% cobalt and 56.69 g/t gold<sup>M1</sup>
- Bulk sample of eight tons extracted from the area graded an average of 10% cobalt<sup>M1</sup>
- Significant geochemical anomalies with 209ppm cobalt and 807ppb silver reported in soils<sup>M2</sup>
- Visible cobalt bloom (erythrite) and cobaltite in grab samples from historic mining rock dump at Mulligan

Line cutting and closely spaced (100m lines with 25m centres) IP/Magnetics/Resistivity ground-based geophysics has been now been completed at Mulligan, with data processing and a 3D interpretation commenced. Upon receipt of the 3D modelled geophysical data, a maiden program for the Project will be developed with drilling set to commence in July 2018. Meteoric is already well underway with the drill tendering process.

The mineralisation at Mulligan is reminiscent of the cobalt and silver polymetallic deposits of the prolific Cobalt Mining Camp. Mineralisation occurs within veins associated with the Nipissing Diabase/Huronian sediment contact. Historically the Cobalt Mining Camp, located 50km to the south, was the most prolific cobalt province in Canada.

The cobalt-silver-nickel-gold anomalies generated from the interpretation of the detailed mapping, soil/rock chip geochemistry and the ground induced polarisation geophysical results will provide Meteoric with a high degree of confidence in identifying primary cobalt mineralisation at Mulligan.

## Burt Cobalt Project

- Burt Cobalt Project confirmed to host three major fault/shear zones highly prospective for primary cobalt mineralisation
- Over 5.7km of strike length potential for high-grade primary cobalt mineralisation
- Burt Cobalt Project located just 7kms directly along strike from Battery Minerals Resources'/ Golden Valley Mines (TSX-V: GZZ) Island 27 Project
- Historical downhole intersection at Island 27 of 4m @ 4.18% Co (incl 1.7m @ 6.33% Co)<sup>M3</sup>

Meteoric's Burt Cobalt Project has been confirmed to host three major north-south trending faults, identified as being the key hosts of primary cobalt mineralisation throughout the district. These faults, which cross-cut the same andesite unit hosting the cobalt mineralisation at Island 27, represents over



5.7kms of strike length potential for primary cobalt mineralisation. These cobalt fertile structures will be the focus of Meteoric's geophysics and drilling programs scheduled for August 2018.

The Burt Cobalt Project is located approximately 7 kilometres along strike from Battery Mineral Resources'/Golden Valley Mines, Island 27 Project (see Figure 3). The cobalt-silver-nickel-gold anomalies generated at Island 27 were identified through a 2013 induced polarisation geophysical survey and diamond core drilling. Drilling intercepted high-grade cobalt mineralisation in a breccia associated with the regional fault zone, including a sulphide-rich zone returning high grade cobalt assays in association with strongly elevated silver, nickel and gold. The weighted average of the 4m downhole intercept is **4.18% Co, 12.1 g/t Ag, 0.38% Ni and 0.098 g/t Au<sup>M3</sup>**.



Figure 3: Burt Cobalt Project Location, approximately 7 kilometres along strike from the Island 27 Project





Figure 4: Quartz veining within Nipissing Diabase (left); Felsic intrusive within the Nipissing Diabase (right) at Burt Cobalt Project



Figure 5: Finalised 100m spaced IP/Magnetics/Resistivity ground-based geophysics program for Burt Cobalt Project



## Lorrain Cobalt Project

- Numerous historical cobalt-silver mine shafts and open pit workings confirmed on the property
- Lorrain Cobalt Project area has never been explored using modern exploration techniques
- Comprises 4.9km<sup>2</sup> of highly prospective ground for primary cobalt mineralisation
- Regional scale Cross-Lake Fault that controls cobalt / silver mineralisation in the Cobalt Camp tracks through the Lorrain Cobalt Project

The project is located just 9kms south-south-west from the well-known historical mining town of Cobalt in Ontario. The Lorrain Cobalt Project covers an area over 4.9kms<sup>2</sup> being highly prospective for primary cobalt mineralisation. The project contains large areas of Nipissing Diabase, being the host rock type for cobalt / silver mineralisation, and has the same major fault structure, the Cross-Lake Fault, which runs directly through the prolific Cobalt Camp (see Figure 6).

The Cross-Lake fault is interpreted as the controlling structure for cobalt / silver mineralisation in the Cobalt Camp area and will form the target for the Company's geophysics (see Figure 7) and maiden drill program.



Figure 6: Lorrain Cobalt Project located 9 kilometres south-south-west of the Cobalt, Ontario





Figure 7: Lorrain Cobalt Project 100m line spaced ground-based IP/Magnetics/Resistivity geophysics program





Figure 8: Rock chip specimens containing disseminated sulphides recently collected from workings at the Lorrain Cobalt Project



Figure 9: Historical mine shaft and open stope workings at the Lorrain Cobalt Project



#### Iron Mask Cobalt Project

- Historical Iron Mask and Cobalt Shafts and Cobra Showing just 500m to the north-west:
- Cobra Showing
  - Chip sampling grades 11.3% Co<sup>M5</sup>
  - Grab sampling 21.3% Co & 6.19% Ni<sup>™5</sup>
- Cobalt Shaft
  - Bulk sample av. 15% Co and 279 g/t Ag  $^{M4}$
  - Grab sampling grades of up to 16% Co, 4.8% Ni and 17%  ${\rm Bi}^{\rm M5}$
- Iron Mask Shaft
  - Channel sample 3.2% Co and 6 g/t Au<sup>M4</sup>
- EM and magnetic surveys confirm extension of mineralised zones into Meteoric claims
- Several geophysical targets identified from historic data compilation

The Iron Mask claims are accessed through existing, well maintained logging roads. The geological package in the area was observed to include: gabbro, Nipissing diabase, metasediments and ultramafic rocks. Skarn-type cobalt-rich polymetallic mineralisation, including copper, zinc, nickel and gold has formed along the contact between the Nipissing diabase and the Espanola Limestone Formation of the Huronian Supergroup. The target limestone formation can be traced north-easterly across the claim area towards the Iron Shaft and Cobalt historical workings, which lie within 500m and 1500m, respectively, immediately north-east of the claims. Extensions to the structurally controlled mineralisation was previously noted in technical reports by Champion Bear (2003).



Figure 10: Iron Mask Cobalt Project 100m line spaced ground-based IP/Magnetics/Resistivity geophysics program



#### **Beauchamp Cobalt Project**

- Beauchamp Cobalt Project located just 40km north of the Cobalt Camp
- Beauchamp comprises 33.5km<sup>2</sup> highly prospective for primary cobalt mineralisation
- The regional scale Cross-Lake Fault that controls cobalt / silver mineralisation in the Cobalt Camp tracks directly through the Beauchamp Cobalt Project area

The Beauchamp Cobalt Project is located just 40kms north-north-west of the Cobalt Camp. The project covers an area over 33.5kms<sup>2</sup> being prospective for primary cobalt mineralisation, containing large areas of Nipissing Diabase, being the host rock type for cobalt/silver mineralisation.

Most significantly, Beauchamp hosts the same major fault structure, the Cross-Lake Fault, which runs directly through the Cobalt Camp. The Cross-Lake fault is interpreted as the controlling structure for cobalt/silver mineralisation in the area and is the focus of the Company's planned airborne geophysical survey (see Figure 11).



Figure 11: Beauchamp Cobalt Project 100m line spaced airborne EM geophysics program



#### Mulligan East Cobalt Project

- Similar controlling structures that host historical high-grade cobalt production at Mulligan grading 10% Co<sup>M6</sup>
- Nearby historical assays grading 4.5 Co and 87g/t Ag<sup>M6</sup> within mineralisation at Foster Marshall
- Aeromagnetic data show several major North-East structures in the east of the region



Figure 12: Quartz veining in Nipissing Diabase (left) and Nipissing Diabase hosting sulphide mineralisation (right)



Figure 13: Mulligan East Cobalt Project 100m line spaced airborne EM geophysics program



## Western Ontario Cobalt Project

#### Joyce Cobalt Project

- Rock chip assay values grading up to 0.3% cobalt, 11.0% copper and 8.1g/t gold M7
- Outcropping sulphide mineralisation, targeting significant tonnage high-grade cobalt-coppergold mineralisation
- Detailed EM/Magnetic geophysical data with significant co-incident anomalies that have never previously been modelled or tested

The Joyce River Cobalt Project is in North-western Ontario within the Uchi Greenstone Belt (see Figure 4) covering 4.6kms<sup>2</sup>. The Project contains large bodies of mafic and ultramafic intrusive rocks containing highly prospective cobalt, copper and gold mineralisation in semi-massive to massive sulphides (see Figure 14).

Numerous Co-Cu-Ni-Au-Cr-PGE occurrences are known in the area, with mineralisation hosted in several mafic intrusions associated with extensive faulting. The Joyce River Cobalt Project is a recent discovery, having been uncovered through trenching in 2007.



Figure 14: Joyce River Cobalt Project Location - Regional Geology and Structure





Figure 15: Joyce River Cobalt Project 100m line spaced ground-based IP/Magnetics/Resistivity geophysics program



Figure 16: Massive sulphide mineralisation at the Joyce Cobalt Project, Western Ontario



Three trenches have been completed at Joyce River to date with the mafic-ultramafic geological contact being a classic rheology contrast target. Magnetic signatures and airborne EM anomaly trends suggest that the sulphide-bearing pyroxenite is approximately 1.6km in strike length. The EM/Magnetic survey has defined the exploration targets and will form the basis of Meteoric's maiden drilling campaign at the project.

#### Summary list of Meteoric ASX releases and other documents referenced in this announcement:

M1: December 13, 2017 – ASX: MEI announcement: Meteoric Confirms High-Grade Cobalt Results at Mulligan. M2: February 5, 2018 – ASX: MEI announcement: High Grade Cobalt Rock and Soil Assays Advance Mulligan. M3: June 12, 2017 - TSX-V: GZZ announcement: Golden Valley Mines Options Island 27 Prospect to Battery Mineral Resources.

*M4: July 17, 2017 – ASX: MEI announcement: Due Diligence Completed – Meteoric to Proceed with Acquisition of Cobalt Canada Pty. Ltd.* 

M5: September 26, 2017 – ASX: MEI announcement: Meteoric Roadshow Presentation.

M6: November 23, 2017 – ASX: MEI announcement: Meteoric Stakes Additional Cobalt Ground at Mulligan M7: May 14, 2018 – ASX: MEI announcement: Meteoric Expands Dominant Canadian Cobalt Portfolio For full versions of the Company's releases see Meteoric's website: <u>www.meteoric.com.au</u>

#### **Competent Persons Statement**

The information in this announcement that relates to exploration and exploration results is based on information compiled and fairly represented by Mr Tony Cormack who is a Member of the Australasian Institute of Mining and Metallurgy and a consultant to Meteoric Resources NL. Mr Cormack has sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity which has been undertaken, to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee (JORC) Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves. Mr Cormack consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.

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