

MacDonald Mines Assays Up to 14.74 Grams Per Tonne Gold, 6.8% Cobalt, 7.2% Copper and 0.28% Nickel in Channel Samples at its Jovan-Powerline Project

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TORONTO, Nov. 27, 2018 - [MacDonald Mines Exploration Ltd.](#) (TSX-V: BMK) ("MacDonald Mines" or the "Company") provides update on the fieldwork it is conducting at its Jovan-Powerline Project near Sudbury, Ontario. Following impressive results from an initial prospecting program, channel samples were collected to identify new zones of polymetallic mineralization and better understand the geology of the area.

Location of trenches on the Jovan-Powerline Project

Highlights from channel samples (Figure 1 and Table 1) include:

- High-grade cobalt-copper-gold mineralization at the Jovan Property:
 - 4.31% copper, 4.42 g/t gold, 0.011% cobalt, 11.15 g/t silver and 0.013% Ni (11.5 g/t AuEq) over 3.6 metres;
 - 3.44% cobalt, 3.81 g/t gold, 0.14% nickel, 0.59 % copper, and 3.79 g/t silver (53.26 g/t AuEq) over 1.5 metres;
- Extensive zone of anomalous cobalt-gold-nickel mineralization at the Powerline Property:
 - 0.25 g/t gold, 0.011% cobalt and 0.027% nickel (0.49 g/t AuEq) over 13 metres
 - 0.23 g/t gold, 0.008% cobalt and 0.019% nickel (0.39 g/t AuEq) over 18 metres
 - 0.009% cobalt and 0.022% nickel (0.014% CoEq) over 22 metres

The AuEq and CoEq grades are calculated using metal prices from the London Metal Exchange on November 20, 2018 assuming 100% recovery for each metal: cobalt \$55,250 US/tonne, copper \$6,262 US/tonne, gold \$1219.3 US/oz, nickel \$11,190 US/tonne and silver \$14.25 US/oz.

Channel and grab samples on the Powerline and Jovan properties uncovered several zones of variably brecciated and mineralized albitites (Na alteration) that are similar to those found at the historic Scadding and Norstar mines. These zones are typically associated with polymetallic gold mineralization, and they have been classified as a modified Iron Oxide Copper Gold system ("IOCG") (Schandl et al., 1994; Schandl and Gorton, 2007).

High-grade cobalt-copper-gold-nickel mineralization at the Jovan Property

Following significant cobalt, copper, gold and nickel results in grab samples at the Brady Showing (September 5, 2018 news release), 7.1 metres of channel sampling was completed to test the continuity of the high-grade mineralization previously detected at the Jovan Property. Channel sampling suggests that the high-grade metal content is relatively continuous at the scale of the mineralized zone, and that significant near-surface cobalt-copper-gold-nickel mineralization exists at the Brady Showing.

Extensive zone of cobalt mineralization discovered at the Powerline Property

Channel sampling on the Powerline Property revealed a significant cobalt-copper-gold anomaly in the bedrock that was exposed at surface with mechanized stripping. The mineralization is hosted in a breccia zone that was exposed in a cross-shaped trench. It was traced for over 50 metres along both segments of the cross, and along the edges of the trench. The breccia is made of fragments of albitized sedimentary rocks cemented by quartz and iron carbonate with variable pyrite. At some of the edges of the trench and below cover, the quartz and iron carbonate alteration that cements the breccia transitions to chloritic

alteration. This transition suggests that the zone of quartz and iron carbonate breccia could transition to the chloritic breccias that are shown to host the high-grade gold mineralization at the nearby Scadding Mine. The channel sample results also suggest that cobalt mineralization is related to cobaltiferous pyrite. This mineralization style, hosted in altered and brecciated sedimentary rocks, is similar to First Cobalt's Iron Creek Deposit, located in Idaho (TSX & FCC & 43-101 Technical Report on the Iron Creek Project; USGS Bulletin 1882).

Ongoing exploration program

Assays are pending for additional channel samples on the Powerline Property and 144 grab samples on the Jovan Property that were collected after the channel sampling program was completed. Permits have been applied for and the Company intends to initiate a drilling program once this first phase of exploration is complete and permits have been received.

Table 1. Highlights of assay results for channel sampling program

Trench	From (m)	To (m)	Length * (m)	Cobalt (wt. %)	Copper (wt. %)	Gold (g/t)	Nickel (wt. %)	Silver (wt. %)	Showing
	0	3.6	3.6	.011	4.31	4.42	.013	11.15	
Jov-1	Including								Brady Showing
	2	2.8	0.8	0.015	4.7	14.74	0.022	16.7	
				0.01	7.2	2.22	0.012	7.55	
Jov-2	0	1.5	1.5	3.44	0.59	3.81	0.14	3.79	Brady Showing
	Including								
	0.75	1.5	0.75	6.85	1.05	7.36	0.28	6.56	
	0	13	13	0.011		0.25	0.027		
Trench-1c	Including								Long Trench
	0	1	1	0.005		2.56	0.009		
	9	13	4	0.026		0.16	0.06		
Trench-1d	0	3	3	0.019		0.05	0.044		Long Trench
	0	18		0.008		0.23	0.019		
Trench-1b	Including								Long Trench
	1	5	4	0.011		0.96	0.021		
	3	25	22	0.009			0.022		
Trench-1a	Including								Long Trench
	3	11	8	0.013			0.031		
	20	25	5	0.013			0.025		

**Channel samples presented as sample length. True width estimation are not yet available for the mineralized zones. Additional surface work and possibly diamond drilling will be necessary to define the true width of the mineralized zones.*

Figure 1. Location of trenches on the Jovan-Powerline Project

On-site Quality Assurance/Quality Control ("QA/QC") Measures

Channel samples were transported in security-sealed bags for analyses to Activation Laboratories Ltd. in Ancaster, Ontario. Individual samples were labeled, placed in plastic sample bags and sealed. Groups of samples were then placed into durable rice bags and shipped. The remaining coarse reject portions of the samples remain in storage if further work or verification is needed.

As part of its QA/QC program, MacDonald Mines inserts external standards every 40 samples and analytical blanks every 50 samples in addition to random standards, blanks, and duplicates. Analytical methods used are: ME-MS61 for base metals and silver, 8-Peroxide ICP-OES for overlimits on base metals, 1A2-50 for gold, and 1A4 for gold overlimits.

Qualified Person

