

MacDonald Mines Reports Near-Surface Discovery at Scadding Deposit - Intersects 7.99 g/t Gold over 26.2 Metres - 16 Holes Pending

TORONTO, Dec. 09, 2019 -- MacDonald Mines Exploration Ltd. (TSX-V: BMK) ("MacDonald Mines", "MacDonald" or the "Company") announces results from four holes of its now completed Fall 2019 drilling program at the Company's SPJ Property, 40 kilometres east of Sudbury, Ontario. Results are highlighted by hole SM-19-022 with the discovery of a significant zone of near-surface gold mineralization north of the Scadding East-West ("E-W") Pit - 7.99 g/t gold over 26.2 metres including 10.98 g/t over 4.98 metres and 11.54 g/t over 13.24 metres was intersected from 16 to 42 metres depth. Twenty-five (25) holes have been completed with 9 holes reported to date. The remaining 16 holes are being processed and assay results will be announced as they are received.

Table 1. Assay highlights from reported holes

Hole	From (m)	To (m)	Length (m)*	Gold (g/t)	Gold Structure
SM-19-006	284.78	287.33	2.55	1.18	Bristol
	296.21	300.44	4.23	1.30	
SM-19-007	No significant results				Villeneuve
SM-19-018	31.45	32.52	1.07	3.99	
SM-19-022	16.00	42.20	26.20	7.99	Discovery - TBD
	including				
	16.00	20.98	4.98	10.98	
	28.00	41.24	13.24	11.54	

* Assays results presented over core length. In SM-19-006 they are estimated to represent 65-75% true width in the North Zone. Additional drilling is necessary to estimate true width in the zones discovered in SM-19-018 and SM-19-022.

Quentin Yarie, MacDonald's President and CEO commented: "Our 2019 drilling program shows that significant zones of near-surface, high-grade gold mineralization are present beyond the original footprint of the historic operations of the Scadding Deposit. Having successfully completed the first phase of our diamond drilling program at Scadding, we will now finalize the logging of all remaining drill holes, update our geological model of the deposit and define the next targets for the budgeted early 2020 diamond drilling campaign."

Table 2. Diamond Drill Hole Locations

Hole ID	Easting	Northing	Elev	Azimuth	Dip	Depth
SM-19-006	529354.372	5166611.645	316.513	245	-45	328
SM-19-007	529234.31	5166605.28	311.772	265	-66	257
SM-19-018	529607.318	5166487.92	292.766	235	-45	112
SM-19-022	529532.88	5166472.304	304.605	232.1	-62.3	166

Figure 1. Location of reported drilling to date relative to Scadding Mine is available at <https://www.globenewswire.com/NewsRoom/AttachmentNg/477003b0-af39-4325-8618-96bc23e9e0c7>

- Holes SM-19-006 and SM-19-007 targeted the deeper extension of the Bristol Structure that was intersected in holes SM-19-001 to SM-19-005. Hole SM-19-006 successfully intersected the extension of the Bristol Structure 215 metres down-dip of the intersection in SM-19-003. Hole SM-19-006 proves that the Bristol Structure continues at depth and remains mineralized. Hole SM-19-007 intersected the Bristol Structure 150 metres down-dip of SM-19-003. At that pierce point, no significant mineralization was intersected. However, given the nature of mineralization, additional drilling will be required to confirm that mineralization is not present.
- Hole SM-19-018 targeted the extension of the mineralized structures observed on the Villeneuve trench, located east of the E-W Pit of the Scadding Deposit. Hole SM-19-018 successfully intersected the Villeneuve Structure and showed that the structure remains mineralized at depth.
- Hole SM-19-022 tested a mineralized structure observed located north of the eastern end of the E-W Pit of the Scadding Deposit. Consistent with MacDonald's observation that the historic drilling patterns were not systematically optimized to test the mineralized structures of the property, hole SM-19-022 was collared at an azimuth that was 193.5 degrees opposite of the azimuth a drill hole from the 2011 drilling program located on the same drill pad. This led in hole SM-19-022 to the discovery of a significant zone of near-surface high-grade gold mineralization starting from 16 metres down-hole. Additional drilling will be necessary to fully constrain the geometry and extent of the newly discovered structure.

Summary of the Fall 2019 Drilling Program

The objectives of the Fall 2019 drilling program were to confirm and expand the zones of high-grade gold mineralization, documented along several mineralized structures, that form the Scadding Deposit.

The structures targeted included those associated with gold mineralization in the North, South and E-W pits of the Scadding Mine, the Scadding underground mine, the Villeneuve discovery, the historic New Zone located between the Scadding Mine and the E-W Pit, and a historic exploration pit located between the New Zone and the E-W Pit. Evidence of chlorite alteration associated with gold mineralization was observed in all the completed drill holes:

- Hole SM-19-008 successfully intersected the down-dip extension of the Bristol and Monaco Structures in the North Pit area. One speck of visible gold, in addition to variable pyrite and minor chalcopyrite mineralization, was observed in both the Bristol and Monaco Structures in SM-19-008.
- Hole SM-19-009 tested a chlorite-bearing structure, located west of the Scadding Mine. One speck of visible gold, variable pyrite and minor chalcopyrite mineralization were observed in the zone of chlorite in SM-19-009.
- Holes SM-19-010, SM-19-011 and SM-19-012 were collared east of the Scadding Mine to test mineralization in the vicinity of the underground workings of the Scadding Mine. They intersected two new N-S structures – the Calabogie and Mosport Structures that also host zones of chlorite alteration with variable pyrite and pyrrhotite, and minor chalcopyrite mineralization. Specks of visible gold were observed in the chlorite zone of the Mosport Structure in SM-19-012. SM-19-011 had to be terminated before intersecting the Mosport Structure as it intersected the Scadding Mine's underground development.
- The structure where visible gold was intersected in SM-19-009 was likely intersected in holes SM-19-010 and SM-19-012. Holes SM-19-010 and SM-19-012 also successfully intersected the northern and southern extensions of the chlorite-bearing structure mined in the Scadding Mine – the Talladega Structure. This is suggesting that the zones of chlorite alteration associated gold mineralization in the Talladega Structure remain open in all directions and beneath of the underground developments of the Scadding Mine.
- SM-19-013, SM-19-016 and SM-19-025 tested chlorite structures located between the Scadding Mine and the E-W Pit that were historically named the New Zone. Hole SM-19-013 successfully intersected two structures hosting chlorite alteration with variable pyrrhotite, pyrite, and minor chalcopyrite mineralization. Hole SM-19-016 successfully intersected the down-dip and lateral extensions of the chlorite structures intersected in SM-19-013. Hole SM-19-025 tested a structure associated with a small pit located between the E-W Pit and the New Zone, and the extension of the chlorite structures of the New Zone north of SM-19-016. SM-19-025 successfully intersected a chlorite-bearing structure between 10 and 15 metres. One speck of visible gold was observed in that structure. Hole SM-19-025 also successfully intersected the northern extension of the chlorite structures of the New Zone, 40 metres north of the intersections in SM-19-016. Visible gold was observed in one of the intersected chlorite structures between 88 and 94.5 metres.
- SM-19-014 and SM-19-015 tested the western extension of the E-W Pit and successfully intersected zones of chlorite alteration with variable pyrrhotite, pyrite and magnetite, and minor chalcopyrite, in a new N-S structure named the Bugatti Structure. The Bugatti Structure is interpreted as one of the structures that controls chlorite alteration and gold mineralization shallowly mined in the E-W Pit. Additional drilling will be necessary to confirm the geometry of the Bugatti Structure.
- Hole SM-19-019, SM-19-020 and SM-19-021 tested the extension of the Villeneuve Structure north, south and down-dip of the intersection in SM-19-018. All the holes successfully intersected chlorite structures that are interpreted to be the potential extensions of the Villeneuve Structure.
- Hole SM-19-017, SM-19-023 and SM-19-024 tested mineralization associated with the South Pit of the Scadding Deposit. With the exception of SM-19-023, that intersected a significant diabase dyke instead of the mineralization indicated by historic drilling, both holes SM-19-017 and SM-19-024 successfully intersected structures with chlorite alteration.

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

Drill core samples were transported in security-sealed bags for analyses to Bureau Veritas in Timmins, Ontario. Individual samples are labeled, placed in plastic sample bags and sealed. Groups of samples are then placed into durable rice bags and then shipped. The remaining coarse reject portions of the samples remain in storage if further work or verification is needed.

MacDonald has implemented a quality-control program to comply with best practices in the sampling and analysis of drill core. As part of its QA/QC program, MacDonald inserts external gold standards (low to high grade) and blanks every 20 samples in addition to random standards, blanks, and duplicates. All samples over 10 g/t gold or the samples with abundant visible gold are analysed by 1 kilogram metallic screen.

SPJ Property highlights

- 100% ownership
- 17,720 hectares in excellent mining jurisdiction and close to infrastructure
- Hosts the high-grade past producing Scadding Gold Mine
- Evidence of polymetallic mineralization at the Scadding Deposit indicative of IOCG potential

- Significant gold, cobalt-copper, silver, nickel and rare earth showings outside of the Scadding Deposit footprint

Historically, the Scadding Mine produced 914 kilograms of gold from 127,000 tonnes of mineralized material grading 7.2 g/t (OFR 5771). MacDonald's reinterpretation of the geological model at the Scadding Deposit and larger SPJ property indicates that it could host a gold-rich Iron-Oxide-Copper-Gold deposit and that significant gold structures may have been missed by previous operators' drilling campaigns (2009-2011).

Figure 2. Macdonald Mines SPJ Property is available at

<https://www.globenewswire.com/NewsRoom/AttachmentNg/66c47246-43d5-4a58-94de-ea5ebd753640>

Qualified Person

Quentin Yarie, P. Geo. is the qualified person responsible for preparing, supervising and approving the scientific and technical content of this news release.

About MacDonald Mines Exploration Ltd.

MacDonald Mines Exploration Ltd. is a mineral exploration company headquartered in Toronto, Ontario focused on gold exploration in Canada. The Company is focused on developing its large SPJ Project in Northern Ontario.

The Company's common shares trade on the TSX Venture Exchange under the symbol "BMK".

To learn more about MacDonald Mines, please visit www.macdonaldmines.com

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