

MacDonald Mines Expands its SPJ IOCG Property

TORONTO, July 16, 2019 -- MacDonald Mines Exploration Ltd. (TSX-V: BMK) ("MacDonald Mines", "MacDonald" or the "Company") announces the expansion of its SPJ (Scadding-Powerline-Jovan) Property (the "Property") located near Sudbury, Ontario. The Company has staked 14 claims and purchased an additional 130 claims. All the new claims are contiguous to MacDonald's property and cover prospective extensions of the potential IOCG system identified at the Scadding Mine (Figure 1) The Scadding Mine produced 914 kilogram of gold from 127,000 tonnes of ore grading 7.2 g/t (OFR 5771) and the large land package surrounding the mine has also yielded multiple discovery areas to explore - including significant showings of copper, cobalt, nickel and silver in addition to high-grade gold.

Quentin Yarie, MacDonald's President and CEO commented: *"We continue to pursue opportunities to expand our land position around our SPJ property. The new claims are covering strategic extensions of the prospective IOCG system that related to the formation of the historic Scadding Deposit. As we develop the Scadding Deposit, we will continue to review opportunities to grow our land position in this potential IOCG district."*

Figure 1. Location of newly acquired and staked claims

<https://www.globenewswire.com/NewsRoom/AttachmentNg/27bbfade-2cf4-4aba-9ee8-3b9f8997856f>

Terms of the transaction with Blueberry Development

To acquire 100% interest in the claims owned by Blueberry Development, MacDonald Mines agrees to pay the seller \$50,000 in cash and issue 3,000,000 in the Company's Common Shares. The transaction is subject to TSX Venture Exchange approval and certain other customary closing conditions.

About the newly acquired claims

The claims staked in the northern extension of the SPJ property, located 8 kilometres north of the Scadding Deposit, cover a structural system where diamond drilling intersected a broad zone of gold mineralization containing 0.73 g/t gold over 28 metres in 1985 (Flag Resources, AFRI 41114NE0047).

The drill logs show that gold mineralization occurs in a zone of veined and brecciated albite alteration. The veins and the breccias are in-filled by a carbonate-quartz-pyrite assemblage associated with gold mineralization. The work of MacDonald on the SPJ property indicates that these zones of carbonate-quartz-pyrite alteration can form the proximal halos of high-grade gold mineralization zones associated with chlorite and amphibole-biotite-magnetite alteration in the Scadding Deposit. The drill logs of Flag Resources also reveal the presence of zones of chlorite and magnetite alteration, typically associated with gold mineralization in the Scadding Deposit, that were not sampled during the drilling program. The newly acquired claims cover the interpreted extension of that mineralization.

Aeromagnetic data available for the Sudbury area shows that the Bonanza property, located 4.8 kilometres east of the Scadding Deposit, covers the extension of the ESE regional magnetic structures that are spatially associated with the Scadding Deposit. The showings around the Bonanza property and diamond drilling conducted by Falconbridge in 1957 (AFRI 41110NE0242) indicate zones of silicification and zones of quartz breccias variably mineralized by pyrite and pyrrhotite. The recent work of MacDonald on its SPJ property indicates that these zones, characterized by silica-rich alteration, can represent the apical part of the geological system that formed the Scadding Deposit.

The aeromagnetic data also shows that the Murray Lake property covers the eastern extension of the magnetic structures associated with the zones of cobalt-copper-gold-nickel mineralization present on MacDonald's property. This potential is supported by the presence of the Mid-North Idrex copper showing. Historical diamond drilling near the showing indicated the presence of albite alteration (AFRI 20000001478), which is the typical host of high-grade gold mineralization at the Scadding Deposit and the regional alteration present in IOCG systems.

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 recently acquired the high-grade past-producing and permitted Scadding Gold Mine and 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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