



MacDonald Drills Broad Zones of Gold Mineralization at the Glade Gold Trend: 0.82 g/t gold over 40.5m including 7.76 g/t gold over 2.9m

Toronto, Ontario – September 19, 2022 - MacDonald Mines Exploration Ltd. (TSX-V: BMK, OTC: MCDMF) (“MacDonald Mines” or the “Company”) is pleased to announce the results of its ongoing drill program undertaken at the Glade Gold Trend (“Glade”) on its 100% owned SPJ Property (“SPJ”) near Sudbury, Ontario.

Highlights of Glade Drill Program (Tables 1 and 2)

- Intersections of broad and near-surface zones of gold mineralization starting between 6 and 100 m vertical depth
 - Hole AG-22-103 – Multiple zones of near-surface gold mineralization within an untested area of the Glade gold trend, including one zone of stronger mineralization
 - Upper Zone – 0.47 g/t gold over 8.5 m
 - Middle Zone – 0.71 g/t gold over 10.35 m
 - Lower Zone – **0.82 g/t gold over 40.5 m including 7.76 g/t gold over 2.9 m**
 - Hole AG-22-105 – Broad zone of near-surface gold mineralization
 - **0.72 g/t gold over 37.45 m including 16 g/t gold over 1 m**
- Mineralization remains open in all directions
 - The combination of channel sampling and diamond drilling confirmed the presence gold mineralization at Glade over a strike length of >350 m
 - Earthlabs Inc. (“Earthlabs”) (formerly GoldSpot Discoveries Corp.) identified high-priority and moderate priority targets at Glade spanning a strike length of approximately 3 km
 - Results support the potential of an extensive gold mineralization trend at Glade
- Identification of PGM mineralization in the Glade Nipissing intrusion
 - 0.16 g/t Pd over 4.00 m in AG-22-103 with anomalous Cu and Ni at the contact(s) of the intrusion(s)
 - Results are indicative of a PGE-Cu-Ni bearing intrusive unit

Greg Romain, President & CEO, commented;

“The ongoing drill program at SPJ continues to deliver positive results and confirms the continuity of the gold and polymetallic mineralization at depth as well as a potential connection between the Glade Gold Trend and the mineralized system associated with the Scadding Deposit.”

Mr. Romain added: Our drill program to date coupled with these results provide further insight to expand and target new areas of exploration both at Glade and Alwyn.”

Phase 1 Drill Program

MacDonald Mines Phase 1 2022 drilling program consisted of 693 m of oriented diamond drilling at the northern end of a 1.0 km-long high-priority target identified by Earthlabs at Alwyn, as well as 502 m of oriented diamond drilling at Glade (Figure 1 & Table 1).

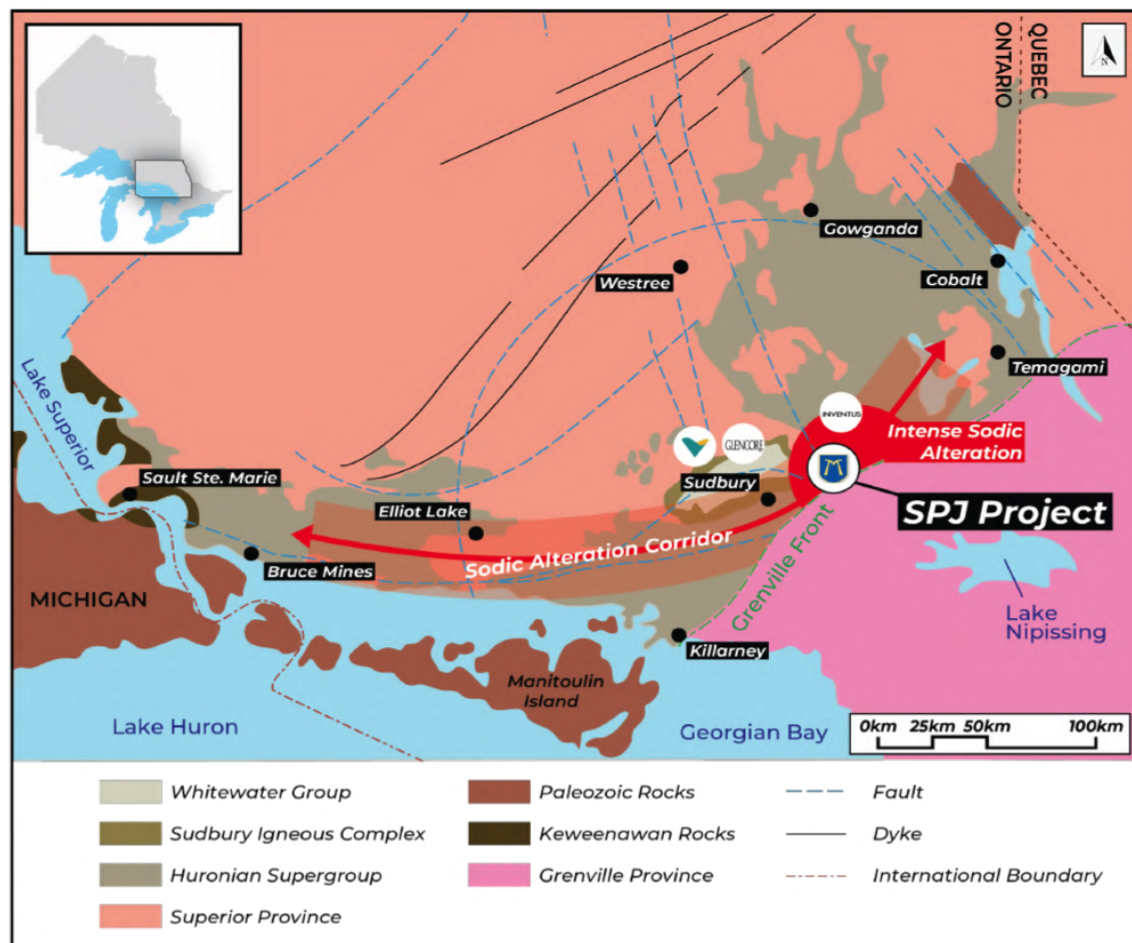
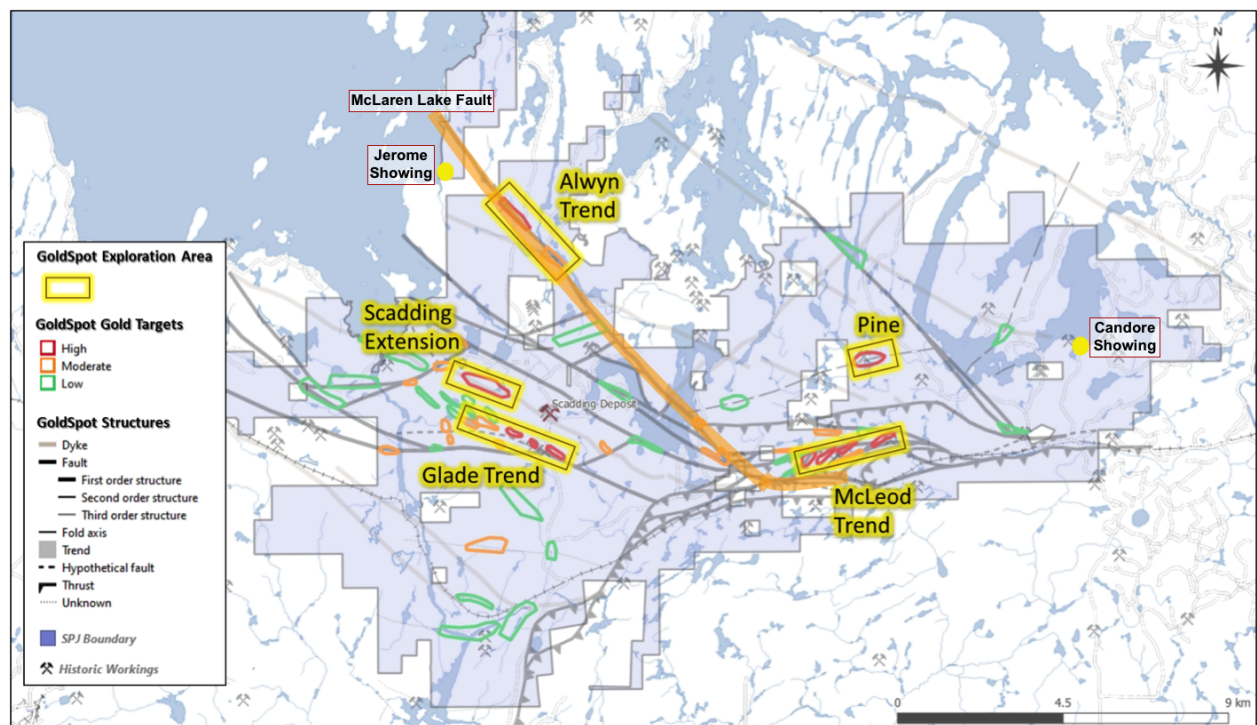


Table 1: Collar details for Phase 1 drilling at Alwyn Mine and Glade.

Hole ID	Collar location			Hole Attributes		
	Easting (m)	Northing (m)	Elevation (m)	Final Depth (m)	Azimuth	Dip
Alwyn Mine Cu-Au Trend						
AW-22-098	5172074	528287.2	283	129	25	-45
AW-22-099	5172086	528243.8	288	120	45	-45
AW-22-100	5172086	528243.8	288	153	65	-60
AW-22-101	5172047	528333.2	278	150	0	-62
AW-22-102	5172047	528333.2	278	141	30	-45
Glade Au Trend						
AG-22-103	5165586	529007.1	293	220	135	-45
AG-22-104	5165555	529176.5	306	156	140	-45
AG-22-105	5165536	529274.5	305	126	135	-45

Table 2: Reported assays – May 2022 drill program at the Glade Trend

Hole ID	From (m)	To (m)	Length (m)*	Visible Gold	Au (g/t)	Pd (g/t)	Cu (wt. %)	Ni (wt. %)
AG-22-103	66.5	75	8.5		0.47			
	Including							
	66.5	67.5	1		1.57			
	102.75	113.1	10.35		0.71			
	Including							
	104	106.35	2.35		2.26			
	125.1	129.1	4.00		0.03	0.16	0.08	0.04
	144.5	185	40.5		0.82			
	Including							
	150	152.9	2.9		7.76			
AG-22-104	10.2	14.25	4.05	VG	1.36			
	Including							
	10.2	11.25	1.05	VG	4.33			
AG-22-105	8.65	46.1	37.45	VG	0.72			
	Including							
	27.9	28.9	1	VG	16			

*Assay results are presented over core length. As the zones of mineralization in the Glade Gold Trend are formed by multi-directional alteration fronts and veins, additional drilling is necessary to estimate the true width of the geological envelope containing the discovered zones of mineralization.

Glade Gold Trend

During the 2022 drill program, 502 m of drilling tested the Glade Gold Trend following positive drilling and trench work completed in 2021 (see news releases May 13th, June 15th, and July 6, 2021). Gold mineralization appears to follow the upper and lower contacts of a Nipissing intrusion (Glade Nipissing

diabase) with Huronian sedimentary rocks, potentially spanning a 3 km east-southeasterly trend, as indicated by Earthlabs targeting results.

2022 drilling in the Glade Gold Trend (Figure 3) successfully intersected gold mineralization down dip and laterally from Au-bearing quartz veins and zones of strong alteration hosted in the Glade Nipissing diabase and the Espanola Limestone that were identified in our 2021 drilling and trenching campaign. Gold mineralization has now been confirmed in the Glade Gold Trend over a strike length of 350 m. The intersection of three gold zones in hole AG-22-103 suggests a potential for stacked zones of gold mineralization in the Glade Gold Trend.

In the two upper gold zones in hole AG-22-103, and in holes AG-22-104 and AG-22-105, gold mineralization is associated with multidirectional networks of quartz veins hosted in the Glade Nipissing Diabase. Surface work indicated that the networks of quartz veins associated with gold mineralization are oriented E-W to N-S. Drilling was planned to intersect all the network of quartz veins observed in the Glade Nipissing Diabase. In the lower zone of gold mineralization in hole AG-22-103, gold mineralization straddles the contact between the Glade Nipissing Diabase and the Espanola Limestone and is associated with strong alteration fronts. In the Nipissing diabase, the mineralized alteration fronts occur as chlorite replacements that are comparable to alteration associated with gold in the Scadding Deposit located 800 m north.

Hole AG-22-103 also identified palladium anomalies in the Glade Nipissing diabase in hole AG-22-103. The identification of elevated palladium associated with anomalous copper and nickel indicates a potential for PGE-Ni-Cu mineralization. This new palladium anomaly in AG-22-103 is located 1.9 km northwest from the New Arcadia occurrence that is also hosted in the Glade Nipissing diabase. At the New Arcadia occurrence, the Ontario Geological Survey has reported PGE-Cu-Ni grades of up to 0.19 Oz Pd, 0.70% Cu and 0.17% Ni (MDI41110NE00083 in the Ontario Mineral Inventory dated 1991-Mar-12). The reader is cautioned that the assay results presented above for the New Arcadia showing are historical and were not independently verified and confirmed by the qualified person.

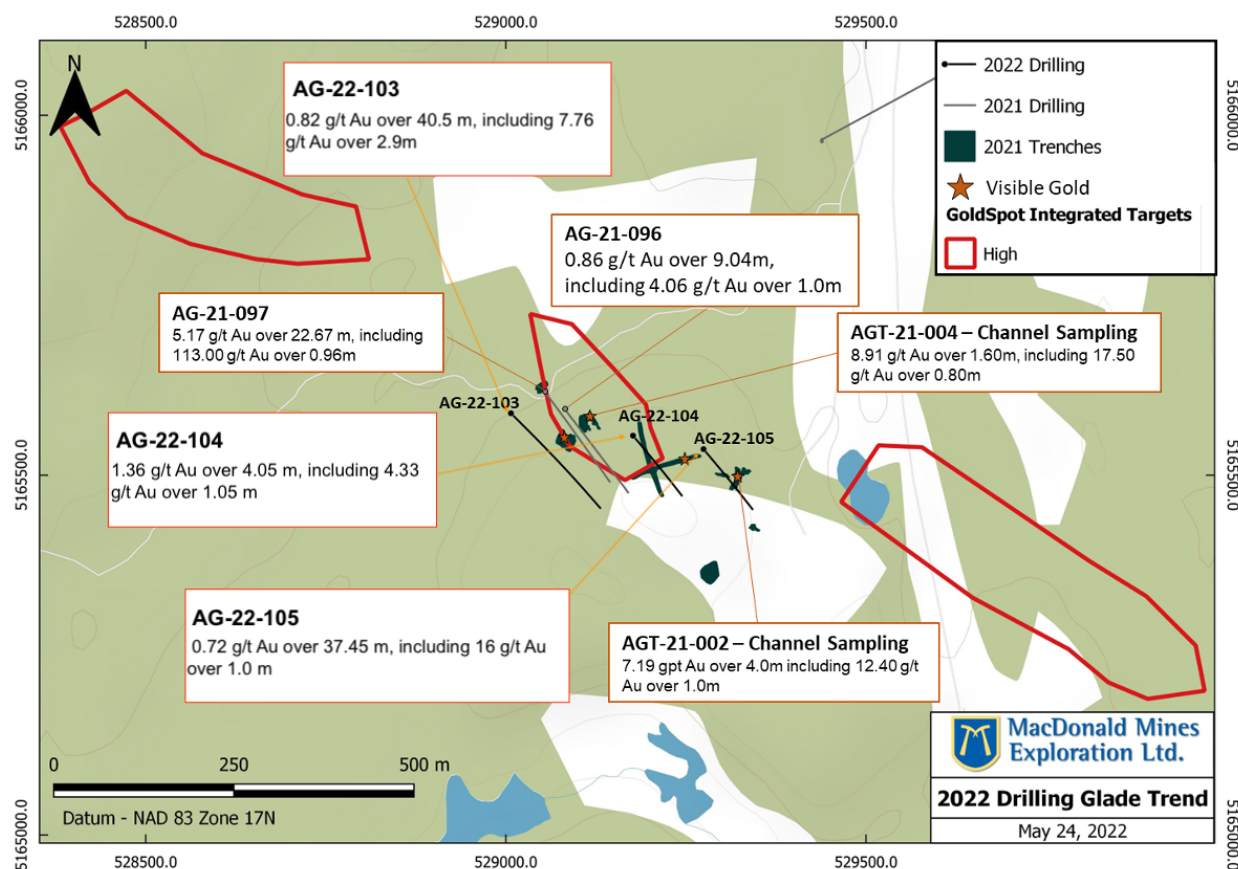


Figure 3 - Phase 1 drilling by MacDonald Mines along the Glade Gold Trend.

About MacDonald Mines Exploration Ltd.

MacDonald Mines is a Canadian gold and base metal exploration company focused on exploring its 100%-owned, 19,720ha (197km²) SPJ Project, 20km southeast of the prolific Sudbury Mining Camp in Northern Ontario. The Company's focus is to locate what it theorizes to be large gold systems with high-grade gold surrounding the past producing Scadding Gold Mine and potential large gold and polymetallic structures surrounding Alwyn, Glade, MacLeod and Norstar. The Company is also focusing on key critical metal systems surrounding Candore and Jerome within the SPJ Project to supply the renewable energy transition, particularly nickel, copper, and PGE's. The demand and need for critical metals is at an all-time high, and Macdonald Mines' believes the SPJ Property Area has the potential to be part of the solution.

Qualified Person

Jean-François Montreuil, P.Geo., Chief Geologist of MacDonald Mines, is the qualified person as defined by National Instrument 43-101 *Standards of Disclosure for Mineral Projects*, responsible for preparing, supervising, and approving this news release's scientific and technical content.

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