Preliminary Ground Truthing of Hurricane Intrusive Zone Confirms Widespread Copper and Gold Mineralization Six Kilometres Northeast of Agnico’s Upper Beaver Deposit

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- Kirkland Lake Discoveries' ALS GoldSpot MPASS geophysics survey identifies a potential intrusive complex with similarities to Agnico's Upper Beaver deposit six kilometres to the southwest

- A ground-truthing exercise conducted to interrogate the results of the geophysical interpretation confirms the presence of various intrusive rocks, associated alteration, and mineralization

- The Company reviewed public datasets of historical work programs discovering relevant work which supports the Company's findings

- Targeted prospecting of select areas reveals widespread copper and gold

- Next exploration steps include ongoing compilation, targeting, drilling, and follow-up field work for Q1/Q2 of 2024

- Ongoing analysis of the Hurricane intrusive zone petrography, mineralogy, structure, and geochemistry will determine similarities and differences to the Upper Beaver deposit

- Summer 2023 drilling at Goodfish Kirana extends mineralization at the Jo zone downdip by ~75 m to 375m vertical depth

Kirkland Lake Discoveries Corp. (TSX-V: KLDC | US-OTC: KLKLF) ("KLDC" or the "Company") is pleased to provide results from the summer and fall exploration programs. Airborne geophysics, mapping, and prospecting on the Lucky Strike property outlined the seven-kilometre-long by three-kilometre-wide prospective Hurricane intrusive zone. Follow-up mapping and sampling returned gold and copper grab samples up to 4.25 g/t Au and 0.95% Cu. Widespread sericite, epidote +/- potassic alteration, and quartz stockwork veining coupled with pyrite, +/- chalcopyrite mineralization is common throughout. The geophysical signature, geology, mineralization, and alteration bear similarities to the intrusion-related Au-Cu system that hosts Agnico Eagle Mines Ltd. (Agnico) Upper Beaver deposit which is six kilometres southeast of the Hurricane intrusive zone.

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Figure 1 - First vertical derivative comparison between Hurricane intrusive zone and Upper Beaver deposit. (Photo: Business Wire)

"This was an incredibly productive field season for the Company. We had multiple teams of prospectors, mappers, and samplers traversing the recently acquired ground, advancing our knowledge and understanding of the Lucky Strike," Founder, Director, and CEO Danièle Spethmann commented. "Whiskey Jack is a new showing on the Hurricane intrusive zone that has the geological and structural features of a potential feeder zone for the alteration and mineralization that occurs in the area. Copper and gold assays at Whiskey Jack, Jensen, Vallillee, and Norwood showings indicate that mineralization is widespread over this newly identified regional showing. We look forward to following up these results with more detailed analysis

and drilling."

Geophysical Resemblance to Upper Beaver Deposit

Interpretation of the magnetic survey flown in June 2023 identified a ring-shaped magnetic feature similar to the one found at the Upper Beaver deposit. These magnetic features are reflected by mafic syenite in contact with mafic volcanic rocks (Figure 1).

ALS GoldSpot's additional interpretation of the M-PASS heliborne survey data over Lucky Strike and of publicly available time-domain electromagnetics (TDEM) dataset, outlines a northeast-trending corridor that envelopes the Upper Beaver deposit, the historical Copper King mine, and the Hurricane intrusive zone gold-copper showings (Figure 2). The Hurricane intrusive zone lies at the intersection of this northeast-trending TDEM corridor and the Misema-Mist Lake and Mulven fault systems. The intersection of the Cadillac-Larder Lake deformation zone with the network of high-angle NE-trending cross faults acts as conduits for gold endowments in the Larder Lake area[1].

Initial Ground Truthing Confirms Highly Prospective Target at Hurricane

In late July, Lindsay Hall, Chief Geologist of ALS GoldSpot, a structural geologist and Abitibi expert familiar with the Upper Beaver deposit, led a mapping and prospecting team to ground truth the interpretations from the geophysical survey. Historical work, combined with anomalous till samples of 60, 65, 67, 88, and 98 gold grains, collected by New Found Gold in 2020 within and surrounding the intrusive anomaly, made this a priority area of interest. Initial findings indicate that the Hurricane area contains exceptional alteration and mineralization of stockwork fractured porphyritic syenites, and epidote, potassium-feldspar-altered mafic volcanics with arsenopyrite (Figures 3 and 4).

MERC Research Indicates Structures Are Deep-Seated

In 2017 and 2018, an aeromagnetic, magnetotelluric, and seismic transect across the Kirkland Lake-Larder Lake greenstone belt was completed by Mineral Exploration Research Centre (MERC). Interpretation by MERC demonstrate that the Hurricane intrusive zone corridor lies within a strongly conductive response similar to the Cadillac-Larder Lake deformation zone (Figure 5) [2].

LNSZ Lincoln Nipissing Shear Zone; CLDZ Cadillac Larder deformation zone; BRG Blake River Group; MLF Mulven/Missema Lake fault.

Historical Work Review Confirms Prospectivity

Historical exploration work in the Hurricane area identified six showings with varying degrees of copper and gold mineralization.

Whiskey Jack East (formerly MacDonald):

The Whiskey Jack East showing is a syenite with associated feldspar porphyry with sericitic and fuchsitic alteration. Although numerous old workings (1920s) were discovered during the recent prospecting program, samples assayed returned limited results, none exceeding 0.4g/t Au, despite being the most altered rocks observed on the property.

Norwood:

The Norwood showing is located within a magnetic high and exhibits strong sericite alteration on the margins of quartz vein sets. There are two distinct, parallel EW-trending vein sets with intermittent intensity of shearing within this EW zone. In 1936, Norwood Kirkland Gold Mines identified multiple gold-bearing veins with samples from trenches grading as high as 96.53 g/t Au (Figure 6). In 2009, Wallbridge conducted a

limited 997.61 m drill program (eight holes). Three of these holes were at the Norwood showing, two at Vallillee showing, one at the Wood showing, and two regional targets. [3] The KLDC sampling returned gold mineralization including 4.25 g/t Au, 3.81 g/t Au, and 3.32 g/t Au (see Table 1).

Jensen:

All samples taken by the KLDC team at and around the Jensen showing, a 1930s pit, returned copper and gold assays with values up to 0.76 g/t Au with 0.69% Cu. These values are also correlative with elevated bismuth supporting an epithermal model of the mineralization. Field observations by KLDC geologists at Jensen are similar to observations made at Upper Beaver, including the quartz veining found in the syenite with distinct quartz-hematite potassium feldspar alteration along vein margins.

Vallillee:

A 2006 grab sample of altered syenite with minor pyrite and no quartz veining assayed 128 g/t Au. This highly anomalous sample was followed up in 2007 with two x-ray diamond holes totalling 104 feet. The first hole intersected high-grade gold including 13 g/t Au over 76 cm and 7 g/t Au over 91 cm. The second hole intersected anomalous gold concentrations, but no record of sample intervals was found in the government reports[3]. Sampling by KLDC returned gold and copper mineralization including 1.93 g/t Au with 0.73% Cu, 0.79 g/t Au with 0.63% Cu and 0.49 g/t Au with 0.73% Cu.

Flood:

A 1923 report by a prospector indicated that gold could be panned on the Macdonald, Wood, and Flood showings on the Misema Lake Peninsula. He described a number of feldspar porphyry (and presumable syenite) dikes that come together. In 1947, 1,088 m of drilling was completed at an old shaft with reported trace gold results. KLDC sampling returned 0.76% Cu and 0.95% Cu.

Wood:

The Wood showing (1920s) was drill tested by Wallbridge in 2009, southwest of the showing targeting a strong chargeability anomaly, that is coincident with a strong magnetic signature. The hole intersected gabbro intruded by a feldspar porphyry and a syenite sequence, and no significant mineralization was reported.

KLDC Concerted Prospecting and Mapping Reveals Prolific Copper and Gold Mineralization

From August to November, systematic mapping and prospecting was undertaken across the Hurricane intrusive zone, structurally prepared felsic to intermediate intrusions between the Mulven and Misema Mist Lake faults (Figure 7). Tightly spaced blocks of 50 m line spacing were planned for prospectors to traverse systematically.

The results from this program suggest that the consistency of mineralization may indicates the existence of an extensive Au-Cu intrusive system.

Whiskey Jack is a new showing discovered by the Company and is located west of the previous named MacDonald showing and south of the Wood showing. It is located on an ESE-WSW trending structure on the margin of a magnetic high, interpreted as the contact between mafic volcanics and a syenite intrusion. The area exhibits very strong sericite and epidote alteration, silicification, pyrite, and stockwork quartz veinlets possibly representing a skarnoid-style deposit model (Figure 8). Grab samples have returned up to 0.13% Cu and 0.44 g/t Au. The structural features of this intrusive zone are near vertical and indicate that they may be the conduits for the alteration of the Hurricane intrusive zone.

Planned Drilling and Future Exploration Work at Hurricane Intrusive Zone

A 4,000-m diamond drilling program is planned at the Hurricane intrusive zone for Q1 2024. Emphasis of the drilling campaign will be to target all showings that have returned consistent gold and copper values and to investigate the nature, significance, and extent of the associated mineralized and widespread alteration haloes.

Twenty samples have been prepared for petrographic study to determine origin, mineral content, and classification of rock types which will help to determine the conditions which formed these rocks and will refine the geological model. A continuation of the concerted prospecting program is planned for 2024.

Copper King Results

Located within a NE-trending TDEM corridor between the Hurricane intrusive zone and Upper Beaver is the historical Copper King mine. Copper King is a vein-hosted copper system defined by two intersecting structures that trend N-S and NE-SW. Both trends are mineralized consisting of quartz, pyrite, chalcopyrite, and bornite. Grab samples during 2023 returned assays including 0.8%, 1% and 1.16% Cu.

Goodfish Kirana Drill Results

The drilling at the Goodfish-Kirana focused on regional targets along the east-west trending Kirana deformation zone defined by coincident northwest structures, IP chargeability anomalies, and known gold mineralization at shallow depths. Two holes (KLD23-08 and KLD23-09) were also completed at the Jo Zone to investigate recent high-grade assays in the hanging-wall, where drilling in 2021 reported 155 g/t Au over 0.75m and 72 g/t Au over 0.50m. The Jo Zone was extended down-plunge ~75 m in hole KLD23-08 returning 2.07 g/t Au over 7.7 m.

Results of the drill program are tabled below (Table 2). Intervals are downhole intervals in metres. For hole locations see press release dated September 7, 2023.[4].

This drill program targeted gaps in historical drilling incorporating all the compiled data and exploration work completed over the Goodfish-Kirana claim package over the last ten years. The Kirana Deformation Zone, a second-order structure of the Larder Lake Cadillac Deformation Zone, remains a target of high merit.

Drill permit approval for the Hurricane intrusive zone on the Lucky Strike claim group has been received and the next phase of drilling is scheduled for Q1 2024.

QA/QC Protocol

Drill core samples were cut by diamond saw at KLDC's core logging facility. Field duplicate samples, blank rock samples, and certified reference materials were inserted into the sample sequence at a frequency of one per 20 samples. A halved core sample was left in the core box with the other half core sent for sample analysis and picked up at site by ALS. Samples were prepared at ALS Limited's sample laboratory in Timmins, Ontario and then shipped to ALS's Vancouver facility for gold analysis by fire assay (50 gm subsample) with atomic absorption (AA) and gravimetric finish for samples greater than 3.0 g/t Au. ALS is a certified and accredited laboratory service. ALS routinely inserts certified gold reference materials, blanks, and pulp duplicates, and results of all QC samples are reported.

The QA/QC results from the drilling program and the technical information contained in this news release have been approved by Mike Kilbourne, P.Geo. who is a Qualified Person as defined in National Instrument 43-101, Standards of Disclosure for Mineral Projects.

About Kirkland Lake Discoveries Corp.

Kirkland Lake Discoveries Corp. is a TSX Venture Exchange listed company that has recently consolidated a district-scale and highly prospective land package in the Kirkland Lake Gold Camp in Ontario, Canada. The properties are hosted in the Abitibi Greenstone Belt, one of the world's best-endowed greenstone belts, with

200+ million ounces of gold produced to date.[5] The properties are host to regional and property-scale mineralized structures that are considered second-order structures off the Larder Lake Cadillac Deformation Zone (LLCDZ), the regional structure in the belt known to be spatially associated with the gold mines hosted in the camp.

The properties assembled include the 100%-owned Lucky Strike Property, Goodfish-Kirana, the Arnold property, and the optioned KL West (KLW) and KL Central (KLC) properties. The KLDC land position comprises approximately 38,000 ha, over 1,338 claims and 29 patented claims and ranks the Company as the largest landholder in the Kirkland Lake region.

?The TSX Venture Exchange Inc. has neither approved nor disapproved the contents of this news release.

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The forward-looking information contained in this release is made as of the date hereof, and the Company is not obligated to update or revise any forward-looking information, whether as a result of new information, future events or otherwise, except as required by applicable securities laws.

Because of the risks, uncertainties and assumptions contained herein, investors should not place undue reliance on forward-looking information. The foregoing statements expressly qualify any forward-looking information contained herein.

[1] Haiming Liu, Jeff Harris, Ross Sherlock, Pouran Behnia, Eric Grunsky, Mostafa Naghizadeh, Kate Rubingh, Györgyi Tuba, Eric Roots, Graham Hill 2023: Mineral prospectivity mapping using machine learning techniques for gold exploration in the Larder Lake area, Ontario, Canada, Journal of Geochemical Exploration, Volume 253
[2] https://metalearth.geohub.laurentian.ca/documents/bc64905cb70d4c098d5f5d3c1e5b2f13/explore
[3] http://www.geologyontario.mndmf.gov.on.ca/mndmfiles/afri/data/imaging/20000005216/20007459.pdf
[4] https://www.kirklandlakediscoveries.com/post/kirkland-lake-discoveries-announces-phase-1-drilling-completion-and-pro
[5] Canada's Gold Exploration Frontier: The Abitibi Greenstone Belt - https://www.visualcapitalist.com/sp/canadas-gold-exploration-frontier-the-abitibi-greenstone-belt/

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