# Palladium One Mining Inc. Announces Electromagnetic) Survey Results for Canalask Nickel - Copper Project

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Toronto, Jan. 16, 2024 - Palladium One Mining Inc. (TSXV: PDM) (OTCQB: NKORF) (FSE: 7N11) (the "Company" or "Palladium One") is pleased to announce Electromagnetic ("EM") survey results have been received and interpreted from the fall program on the Canalask Nickel - Copper Project, located in the Kluane mafic-ultramafic belt, Yukon, Canada. (Figure 1 and 2).

Highlights

- A high-resolution ground-based EM survey has confirmed the presence of a strong untested conductor down plunge of historic shallow drilling and within the mafic-ultramafic chonolith / dyke. The result has achieved several important goals:
    1. Defined the conductor's geometry, a necessary percussor to drill testing.
    2. Improved understanding of the conductor's relationship to historic shallow drilling. For example, DD hole VQ-7 which returned 0.8% Ni, 0.2% Cu over 3.0 meters including 1.3% Ni, and 0.3% Cu over 0.1 meters in disseminated to semi-massive sulphide within the ultramafic dyke..
    3. Enhanced geological understanding through additional modelling of new and historic data.
- To assist in drill program planning and future permitting, a high-resolution orthophoto survey was also flown.
- Diamond drill testing is planned for the 2024 field season, the timing of which will be dependent on the late-winter/spring breakup.

President and CEO Derrick Weyrauch commented, "The fall exploration program has highlighted the potential of the Canalask property to host significant nickel - copper sulphide mineralization within the mafic-ultramafic dyke in addition to its historical footwall deposit. Drill testing is planned for the 2024 field season.

A previous EM survey had indicated the presence of a significant conductor at depth in a flexure of the ultramafic dyke, however, due to incomplete data from the past survey, the exact geometry was poorly understood. The 2023 EM survey used the most modern equipment available and has not only confirmed the presence of the conductor but has also significantly improved its 3-dimensional orientation. The conductor's position is now interpreted to be deeper than previously understood. The closest holes to the body of the conductor are from the 1980's, hole VQ-7 contained a narrow patch of semi-massive sulphide which returned 1.3% nickel, thereby suggesting a source of massive sulphide nearby.

In addition to this untested conductor, the Canalask project contains the historic Main Zone Canalask deposit consisting of 400,000 tonnes at 1.35% nickel (copper was not reported) (Yukon Assessment Report 094599), hosted within footwall rocks of the ultramafic dyke. The occurrence of the footwall hosted mineralization is in part the basis of our hypothesis that the historic deposit was originally fed by a larger body of nickel - copper sulphide present within the ultramafic dyke."

Exploration Since Acquisition

The Company competed a drone-based magnetometer survey (Figure 1) over the entire Canalask project.

This survey consisted of 392-line kilometers at 100-meter spacing and helped refine the location and structure of the Ni-Cu-PGE prospective ultramafic dyke and greatly assisted the refinement of drill targeting. In addition, a reconnaissance site visit returned grab sample assays over 2% nickel, 6% copper and 1.55 g/t gold (see press release November, 17, 2022). These results support the high grades that were historically reported in footwall-style sulphide mineralization at the Canalask deposit. The 2023 program consisted of brushing out and re-establishing access trails, as well as re-establishing historic grid lines and was followed by a drone based airborne orthophoto survey and a high-resolution ground-based EM survey using Lamontagne's UTEM system. This work has led to a substantial better understanding of the project's geology, and has refined drill targets.

Canalask Property Overview

The Canalask Property is located within the Whitehorse Mining District, approximately 300 kilometers northwest of Whitehorse, Yukon and is accessed from the Alaska Highway near south-east of Beaver Creek. The Canalask Property consists of a contiguous block of 179 quartz claims covering approximately 3,400 hectares.

Exploration dates to the 1950s when the Canalask footwall zone was originally discovered, drilled, and partially developed. A historical resource estimate on the Main Zone is quoted at 400,000 tonnes at 1.35% nickel (copper was not reported) by Discovery Mines Ltd. in 1968 (Yukon Assessment Report 094599). Early Metallurgical floatation test work returned concentrate grades as high as 19.7% nickel (Yukon Assessment Report 093256). Exploration continued up until the early 2000s through a series of surface programs including geochemical surveys, geological mapping, and geophysics. During these campaigns, numerous high-grade Ni-Cu-PGE showings such 4.7% Nickel, 0.6% Cu and 6.82 g/t TPM (Total Precious Metals) in grade samples at the Discovery Zone (Yukon Assessment Report 094599), were discovered along the length of the ultramafic-mafic dyke. In 2006, Xstrata completed an assessment Report (Yukon Assessment Report 094599) summarizing this earlier work. Readers are cautioned that the Company has not verified the 1968 Historical Mineral Resource Estimate and therefore the data should not be relied upon.

Geological Setting

The Canalask Property covers the lateral extent of the northwest - southeast striking, steeply dipping "White River Intrusive Complex" (WRIC) which is part of the larger Kluane Mafic-Ultramafic Belt. The Kluane Belt extends from northern British Columbia to east-central Alaska, within the Pennsylvanian to Triassic Wrangellia Terrane volcanics and sediments. The belt is host to numerous nickel-copper +/- platinum-palladium deposits and prospects, most notably the past producing Wellgreen Deposit, now owned by Nickel Creek Platinum Corp., approximately 110 kilometers to the south. The WRIC occurs as a sill-like body of ultramafic and mafic rocks 100 to 150 meters thick and dipping approximately 50 degrees to the southwest. The northern margin of the WRIC represents the basal footwall contact zone while the southern margin delineates the upper hanging wall intrusive contact. The intrusion itself is dominantly composed of peridotite and dunite with a mineralized basal gabbro zone.

Exploration Target

The WRIC is a favourable setting for magmatic nickel-copper sulphide mineralization and is considered a "feeder system" with a high volume of magma flow. As evidenced by the abundance of magmatic Ni-Cu-PGE showings at the base of the WRIC and the discovery of the nickel-rich Canalask footwall deposit, the project hosts strong potential for both "magmatic feeder-type" basal deposits and "epigenetic footwall-type" footwall deposits. The geological setting draws comparison to the world-class Norilsk Ni-Cu-PGE camp.

Figure 1. Canalask Project showing the modeled Maxwell plate (yellow) from the 2023 ground-based EM survey overlaid on the 2022 drone based magnetic survey showing total field and location of the historic drill holes and Main Zone footwall deposit.

To view an enhanced version of this graphic, please visit:
https://images.newsfilecorp.com/files/6502/194281_a78ebd9d6482b8ad_001full.jpg

Figure 2. Isometric view new looking southwest of the modelled ultramafic dyke (purple) and modelled Maxwell plate (yellow) from the 2023 ground EM survey and position of historic drill holes including VQ-7 which is located near the upper northeast corner of the plate. Insert map in the upper left is a stylized cross section illustrating the exploration target consisting of massive magmatic sulphides located at the base of the ultramafic dyke.

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Qualified Person

The technical information in this release has been reviewed and verified by Neil Pettigrew, M.Sc., P. Geo., Vice President of Exploration and a director of the Company and the Qualified Person as defined by National Instrument 43-101.

About Palladium One

Palladium One Mining Inc. (TSXV: PDM) is focused on discovering environmentally and socially conscious Critical Green Transportation Metals. A Canadian mineral exploration and development company, Palladium One is targeting district scale, nickel - copper sulphide and platinum-group-element (PGE) deposits in Canada and Finland. The Läntinen Koillismaa (LK) Project in north-central Finland, is a PGE-copper-nickel project that has existing NI43-101 Mineral Resources, while both the Tyko and Canalask high-grade nickel-copper projects are located in Ontario and the Yukon, Canada, respectively. Follow Palladium One on LinkedIn, Twitter, and at www.palladiumoneinc.com.

ON BEHALF OF THE BOARD
"Derrick Weyrauch"
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