
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 6-K

REPORT OF FOREIGN PRIVATE ISSUER
PURSUANT TO RULE 13a-16 OR 15d-16
UNDER THE SECURITIES EXCHANGE ACT OF 1934

For the month of March 2025

Commission File Number: 001-41973

Critical Metals Corp.
(Exact name of registrant as specified in its charter)

c/o Maples Corporate Services (BVI) Limited
Kingston Chambers, PO Box 173, Road Town
Tortola, British Virgin Islands
(Address of principal executive office)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F:

Form 20-F ☒ Form 40-F ☐

EXPLANATORY NOTE

On March 17, 2025, Critical Metals Corp. (the “Company”) released historical drill hole data and assay results related to the Tanbreez Rare Earth Project in Greenland (the “Tanbreez Project”).

Highlights - Diamond Drill Hole Historical Results

Drill hole DX-01 was successfully drilled vertically to 338m from surface and intersected high - grade rare earths and oxides averaging:

- 4209.22ppm (0.42% TREO) (“including averaged heavy rare HREO of 24.45%”),
- 2.45% ZrO₂ “zircon oxide” cut off at 0.5%,
- 73ppm Ta₂O₅ “tantalum pentoxide”,
- 1174.06ppm Nb₂O₅ “niobium pentoxide”,
- 266.45ppm HfO₂ “hafnium oxide”,
- 102ppm Ga₂O₃ “gallium oxide”,
- Mineralisation average from surface to 338m downhole.

Diamond Drill hole Drilled DX-01 was drilled to 338m depth within the Hill Zone 22MT @ 0.38% REE Maiden Mineral Resource.

Drill hole D7-14 was successfully angle drilled at 15° east to 243m from surface and intersected high-grade rare earths mineralization averaging:

- 4437.54ppm (0.44% TREO) (“including averaged heavy rare HREO of 28%”),
- 1.78% ZrO₂ “zircon oxide” cut off at 0.5%,
- 83ppm Ta₂O₅ “tantalum pentoxide”,
- 1496ppm Nb₂O₅ “niobium pentoxide”,
- 351ppm HfO₂ “hafnium oxide”,
- Ga₂O₃ “gallium oxide” was not assayed,
- Mineralisation average from surface to 243m downhole.

The announcement results for historical deep diamond drill holes DDH 7-14 drilled in 2007, and DX-01 drilled in 2010 were drilled by Rimbal P/L, which was the sole owner of the Tanbreez Project at that time.

The Company is still awaiting assay results from the September-November 2024 confirmation drilling program comprised of sixteen holes, with the first hole A1-24 reported January 2025, and expects to publish the remaining 15 diamond drill hole assay results when they become available.

The drilling results from A1-24 drilled 2024 confirmed a significant 40m deep intersection from outcropping surface mineralization of high-grade rare-earth oxide averaging:

- 4,722.51ppm (0.47% TREO) (including 26.96% averaged heavy rare earth (“HREO”),
- 1.82% ZrO₂ “zircon oxide”,
- 130.92ppm Ta₂O “tantalum pentoxide”,
- 1852.22ppm Nb₂O₅ “niobium pentoxide”,
- 393.68ppm HfO₂ “hafnium oxide”,
- 101.67ppm Ga₂O₃ “gallium oxide”.

The assay results from historical deep diamond drill holes DX-01 and D07-14 (that were drilled by Rimbal P/L in May 2007 and 2010) confirm similar average grades to drill hole A1-24.

Historical Deep Hole Summary

The Company believes that the deep hole results present a compelling opportunity to extend mineralization with further deep infill drilling between both historical diamond holes and below into the existing Tanbreez Hill Zone Deposit of 22.31MT reported on 13 March 2025.

Diamond drill holes DX-01 and D7-014 were drilled for stratigraphic and mineralogical study, with assays confirming deep highly mineralized TREO averaging 0.42% with 24.5% HREE and 0.43% with 28% HREE to depths of 338m and 243m respectively contained within the Kakortokite host rock.

Both drill holes assayed similar results for the metal oxides including tantalum, niobium, zirconium, hafnium and gallium and correlate directly to the results for A1-24 of TREO 0.43% with 26.9% HREE.

Both drill holes A1-24 and DX-01 were terminated into the basal rock unit in a Tephri -Phonolite named Black Madona that contained only background mineralization.

Drillhole D7-14 was terminated in mineralization and further drilling will be required to confirm the true thickness beyond the 243m at the bottom of the drillhole D7-14.

Drill hole DX-01 was collared at surface and drilled to 338m within the Tanbreez Hill Zone Deposit containing 22.31 MT @ 0.33% TREO with 27% HREE and within a gridded area containing 49 RC holes and 46 diamond drill holes that were drilled to an average depth of 35m and used by Maynard and Associates in 2016 in reporting the MRE.

The drill results have a consistent average grade of mineralization for TREO and metal oxides of 0.43% between the three drillhole collars that span approximately 1549m length and 372m width with a higher priority placed over the area between DX-01 and D7-14 with a 1037m length and 372m width. The distance was measured from GPS coordinates between DX-01 to A1-24 m and is 1549m on a similar Northing with a width difference of 6m from the Easting.

The distance from GPS coordinates between drill holes DX-01 and D7-014 is 1037m and width of approximately 372m.

The distance from GPS coordinates between A1-24 and D7-014 is 512m and an approximate width of 372m.

The Ga203, gallium oxide for both diamond holes assayed A1-24 and DX-01, were 101.7ppm and 102.2ppm respectively and add a vital oxide credit to the TREO mixed concentrate adding to the project's economic status. D7-014 was not assayed for gallium in 2007. The Company will submit sample pulp for assay in the coming months.

Next Steps

The Company is currently re-assaying historical pulps stored in Perth and Greenland from some of the existing 2007, 2010 and 2013 drill, rock chip and bulk sampling for confirmation and check assay reconciliation. The pulp will be analyzed by ALS Metallurgical Laboratory in Perth Western Australia and the results will be published when they become available.

The Company is currently reviewing all available data from the previous owner's data base and will publish results upon third party and in house consultation.

On March 17, 2025, the Company issued a press release announcing the historical drill results related to the Tanbreez Project. A copy of this press release is furnished as Exhibit 99.1 herewith.

The information contained in this Report on Form 6-K (the "Form 6-K"), except for Exhibit 99.1, is hereby incorporated by reference into the Company's registration statements on Form S-8 (File No. 333-280017) (including any prospectuses forming a part of such registration statement) and to be a part thereof from the date on which this Form 6-K is furnished, to the extent not superseded by documents or reports subsequently filed or furnished.

Cautionary Note Regarding Forward Looking Statements

This Form 6-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Forward-looking statements include, without limitation, statements regarding the expected rare earth metal supply located in the Tanbreez Project, the timing and completion of additional studies related to the Tanbreez project, the financial position, financial performance, business strategy, expectations of our business and the plans and objectives of management for future operations. These statements constitute projections, forecasts and forward-looking statements, and do not guarantee performance. Such statements can be identified by the fact that they do not relate strictly to historical or current facts. When used in this news release, forward-looking statements may be identified by the use of words such as “estimate,” “plan,” “project,” “forecast,” “intend,” “will,” “expect,” “anticipate,” “believe,” “seek,” “target,” “designed to” or other similar expressions that predict or indicate future events or trends or that are not statements of historical facts. In addition, any statements that refer to projections, forecasts or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements.

Forward-looking statements are subject to known and unknown risks and uncertainties and are based on potentially inaccurate assumptions that could cause actual results to differ materially from those expected or implied by the forward-looking statements. Actual results could differ materially from those anticipated in forward-looking statements for many reasons, including the factors discussed under the “Risk Factors” section in the Company’s Annual Report on Form 20-F filed with the U.S. Securities and Exchange Commission. These forward-looking statements are based on information available as of the date of this news release, and expectations, forecasts and assumptions as of that date involve a number of judgments, risks and uncertainties. Accordingly, forward-looking statements should not be relied upon as representing our views as of any subsequent date, and we do not undertake any obligation to update forward-looking statements to reflect events or circumstances after the date they were made, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws.

EXHIBIT INDEX

Exhibit No.	Description
99.1	Press Release of Critical Metals Corp., dated March 17, 2025.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Critical Metals Corp.

By: /s/ Tony Sage

Name: Tony Sage

Title: Chief Executive Officer and
Executive Chairman

Date: March 17, 2025



Critical Metals Corp. Unveils Exceptional Drilling Results Confirming Extensive Depth Potential at World-Class Tanbreez Rare Earth Project

March 17, 2025

The Tanbreez Project possesses high grade TREO, including 103ppm gallium oxide, based on deep diamond drill results

NEW YORK, March 17, 2025 (GLOBE NEWSWIRE) -- Critical Metals Corp. (Nasdaq: CRML) ("Critical Metals Corp" or the "Company"), a leading mining development company focused on critical metals and minerals and producing strategic products essential to electrification and next generation technologies for Europe and its western world partners, today announced that the Company has released historical drilling results from the Tanbreez Project, one of the largest rare earth deposits in the world located in Southern Greenland.

"These exceptional assay results from historical deep drilling confirm substantial high-grade, high tonnage potential that extends far deeper than previously documented at Tanbreez," said Tony Sage, CEO and Chairman of Critical Metals Corp. "This confirmation of deep mineralization represents a significant strategic advantage as we position Critical Metals Corp to become a leading western supplier of these essential materials. The Company recently assembled a highly experienced team which is rapidly assessing the full potential of this world-class deposit by analyzing the extensive historical data, including over 400 drill holes and 366,000 samples – most of which have never been disclosed. By applying modern analytical technologies to the \$45 million investment made by Greg Barnes, we expect to unlock significant value for the Tanbreez Project's long-term success."

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Figure 1

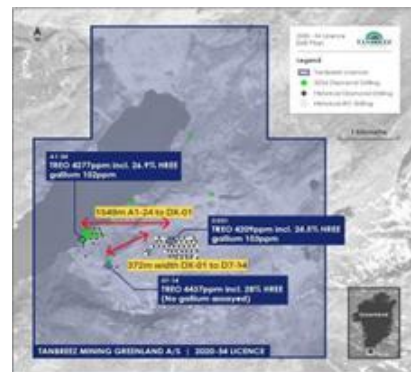


Figure 1

Figure 2



Figure 2

Critical Metals Corp acquired a 42.5% interest in the Tanbreez Project in 2024 (which is expected to increase to 92.5% after Critical Metals Corp invests \$US10m in the Tanbreez Project to further its development, and upon the issuance of an additional \$116 million worth of newly issued shares of Critical Metals Corp to Rimbal) from the privately owned Australian Company Rimbal P/L (which had no obligation to publish or disclose drill results). The Company is now announcing for the first time historical drill hole data and assay results to further unlock the true potential of the Tanbreez project.

Critical Metals Corp recently announced its maiden SK1300 report for the Tanbreez Project of 45MT (consisting of 19.5 million metric tonnes of inferred resource and 25.4 million metric tonnes of indicated resource) containing 0.38% TREO including 27% contained HREO plus rare metal oxides.

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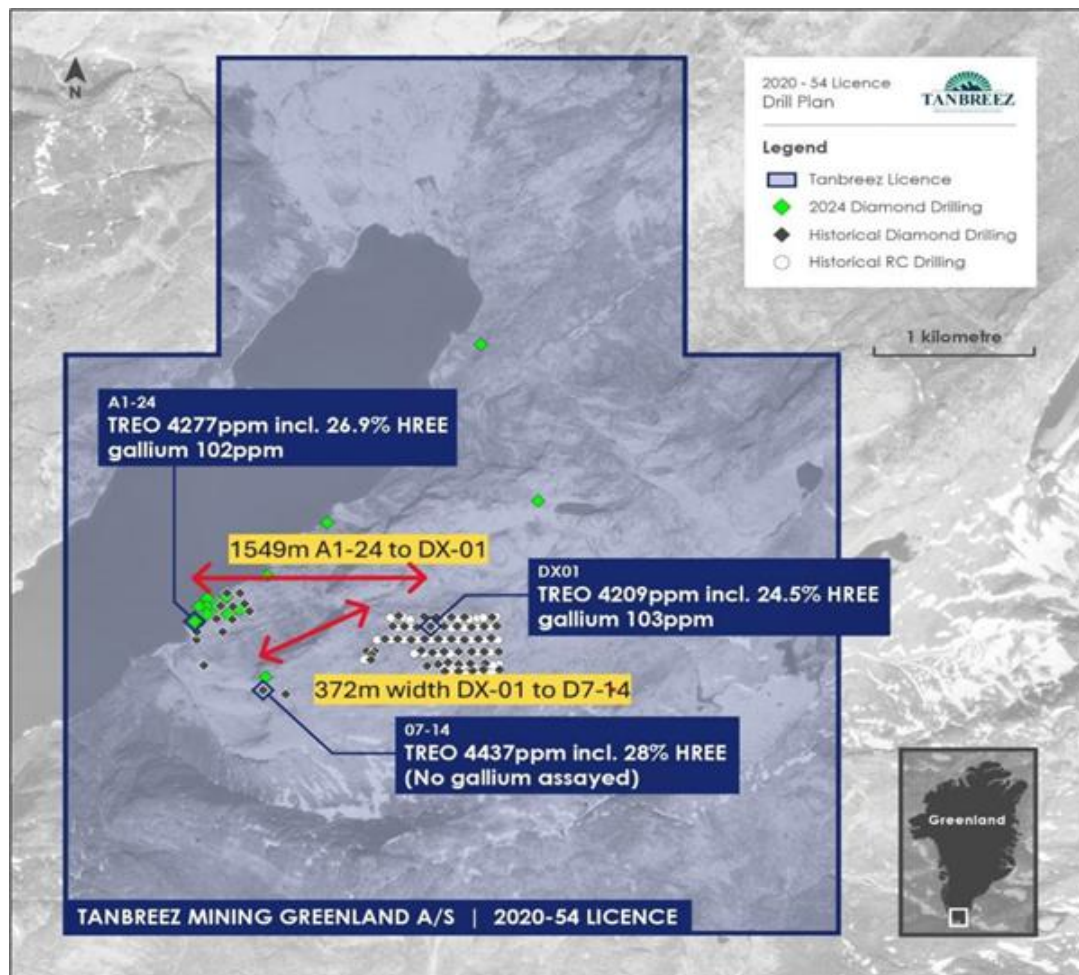


Figure 1 Drillhole collar positions for deep diamond holes DX-01 to 338m, D7-14 to 243m and A1-24 to 40m with the average assays results from surface. The length between drill holes is 1549 metres from A1-24 to DX-01 and 1037m from DX-01 to D7-14 with a 372m width between DX-01 and D7-14.

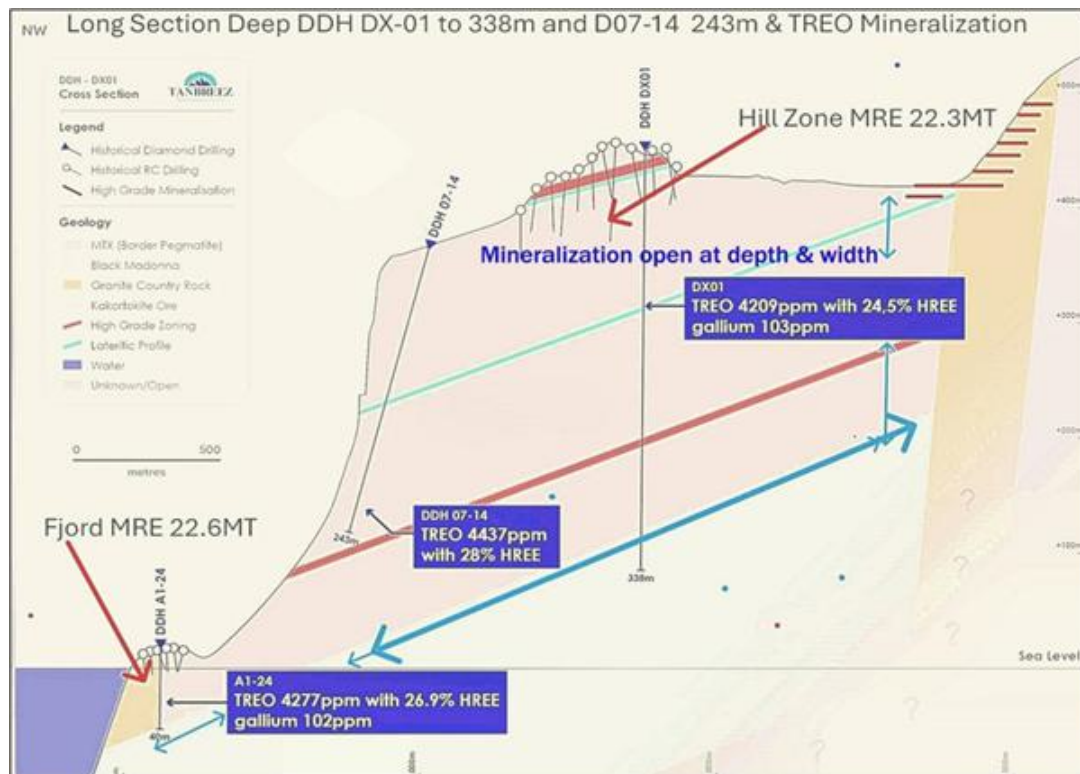


Figure 2: Deep Diamond Hole intersections containing high grade TREO average mineralization from surface to 338m in hole DX-0, to 243m in D7-014 and 40m in A1-24. The approximate dimensions between drillholes DX-01 and D7-14 is 1037m in length with a width of 372m. The thicker blue line annotations indicate mineralization is open at depth below drill holes DX-01 and D7-14 and not A1-24. The thinner blue line annotation indicates the 2025 extension drilling program target which may or may not contain economic mineralization until drilled and assayed.

The stratigraphic cross section was originally drafted in 2014 (by the previous owner Rimbal P/L) to log the stratigraphy, Kakortokite mineralogy and to estimate the potential resource at depth by outlining the thickness into the mineralized Kakortokite host rock.

The diamond drill hole DX-01 and D7-14 was sampled and logged by independent Geologists and supervised by Tanbreez Mining's Greenland Chief Geologist, Mr. Hans Kristian Schönwandt, to JORC 2004 and 2012 QA - QC standards.

The processed core logs, core photos and core samples were shipped to Ultra Trace Laboratory in Perth Western Australia.

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Critical Metals Corp is currently reviewing all available data from the previous owner's data base and will publish results upon third party and in house consultation.

Critical Metals Corp has engaged a third-party consultant who will report on the Preliminary Economic Assessment (PEA) for Tanbreez and is due for completion in the second quarter of 2025. The PEA Report is expected to cover the extensive economic and historical data on hand from the previous owner which will evaluate the economic potential for Tanbreez.

About Tanbreez

The Tanbreez Rare Earth Project is one of the world's largest hard rock rare earth elements (REE) deposits, located in southern Greenland near the town of Quaqortoq. The project is notable for its high concentration of heavy rare earth elements (HREEs), which are critical for high-tech applications, clean energy, and defence industries. Unlike other major REE deposits, Tanbreez contains very low levels of uranium and thorium, making it more environmentally and politically viable.

- Deposit Type: Kakortokite (a layered igneous rock rich in REEs)
- Kakortokite Estimate: -4.7 billion tonnes of REE-bearing mineralisation
- Heavy REE Content: -27% of Total Rare Earth Oxides (TREO)
- Uranium & Thorium: Extremely low (avoiding nuclear regulatory issues)
- Location: Near Quaqortoq, southern Greenland
- New international airport is expected to open soon,
- 12kms from the Tanbreez deposit near Quaqortoq
- No ice or permafrost, temperature ranges from -5°C to 15°C which allows for all year mining
- Mining exploitation license granted for initial 500,000 tonnes per annum
- Deep water (70m) from edge of deposit to allow panamax ships to easily access ore body
- No need for a port, Critical Metals Corp expects to use a floating dock

About Critical Metals Corp.

Critical Metals Corp (Nasdaq: CRML) is a leading mining development company focused on critical metals and minerals, and producing strategic products essential to electrification and next generation technologies for Europe and its western world partners. Its flagship Project, Tanbreez, is one of the world's largest, rare-earth deposits and is located in Southern Greenland. The deposit is expected to have access to key transportation outlets as the area features year-round direct shipping access via deep water fjords that lead directly to the North Atlantic Ocean.

Another key asset is the Wolfsberg Lithium Project located in Carinthia, 270 km south of Vienna, Austria. The Wolfsberg Lithium Project is the first fully permitted mine in Europe and is strategically located with access to established road and rail infrastructure and is expected to be the next major producer of key lithium products to support the European market. Wolfsberg is well positioned with offtake and downstream partners to become a unique and highly valued asset in an expanding geostrategic critical metals portfolio.

With this strategic asset portfolio, Critical Metals Corp is positioned to become a reliable and sustainable supplier of critical minerals essential for defense applications, clean energy transition, and next-generation technologies in the western world.

For more information, please visit <https://www.criticalmetalscorp.com/>.

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Critical Metals Corp.

Investor Relations: ir@criticalmetalscorp.com

Media: pr@criticalmetalscorp.com

Photos accompanying this announcement are available at

<https://www.globenewswire.com/NewsRoom/AttachmentNg/2f12095e-fde6-497a-bd70-037977518a98>

<https://www.globenewswire.com/NewsRoom/AttachmentNg/056953b2-b3d5-4463-b292-f22cd3d11689>