

# Imperial Mining Announces an Increase of 58% on Indicated Mineral Resource Estimate for its Scandium-Rare Earth Zone on its Crater Lake project, Quebec, Canada

# **Highlights:**

- Imperial's independent qualified persons report updated Indicated Resources of 11.8 million tonnes grading 275.9 g/t Sc<sub>2</sub>O<sub>3</sub> and Inferred Resources of 15.9 million tonnes grading 268.4 g/t Sc<sub>2</sub>O<sub>3</sub> for the Northern Lobe of the TG Scandium Zone.
- The updated Mineral Resource Estimate represents a 58% increase in total scandium tonnage for the Indicated Resources category and a 22% increase in total scandium tonnage for the Inferred Resources category.
- Determinations of magnet rare earth oxides (Nd, Pr, Dy, Tb) were made for both resource categories.
- Using a Net Smelter Return (NSR) cut-off value of \$CAN110.11/t for potential open pit extraction method, the value of the mineralization was determined to range between \$CAN414-426/t.
- Mineralization remains open laterally and at depth, demonstrating the potential to increase the mineral resource with additional drilling.

MONTREAL, QUEBEC – September 14, 2023 – Imperial Mining Group Ltd. ("Imperial") (TSX VENTURE: IPG; OTCQB: IMPNF) is pleased to announce that it has received the results of the updated NI 43-101 mineral resource estimate for the TG Scandium-Rare Earth Zone. The work was completed by InnovExplo Inc. of Val d'Or, Quebec. The effective date of the mineral resource estimate is August 3, 2023.

"We are extremely pleased by the additional mineral Resource Estimate for the Northern Lobe of the TG," said Pierre Neatby, Imperial's new President and CEO. "The increase will extend the mine life to over 40 years and allow Pre-Feasibility and Feasibility reports to be completed without additional resources. The next step in the project is the pilot testing of the metallurgical process used to support Imperial's PEA reported in June 2022 (See PEA details here). We continue to have discussions with potential strategic investors as well as offtakers of scandium, scandium aluminum alloys and rare earth elements and are pleased with the interest we are getting. A project update will be issued shortly."

## RESOURCE ESTIMATE TABLE

Category	Cut-off NSR (\$/t)	Tonnage (Mt)	NSR total (\$/t)	Sc2O3 (g/t)	Dy2O3 (g/t)	La2O3 (g/t)	Nd2O 3 (g/t)	Pr2O3 (g/t)	Tb4O7 (g/t)
Indicated	110.1	11.8	426	275.9	66.4	605.5	596.9	160.1	11.7
Inferred	110.1	15.9	414	268.4	66.1	606.9	595.6	159.8	11.6

### **Mineral Resource Estimate Notes:**

- 1. The independent and qualified persons for the mineral resource estimate, as defined by NI 43 101, are Marina Iund, P.Geo. (InnovExplo Inc.), Paul Daigle, P.Geo. (InnovExplo Inc. associate), Simon Boudreau, P.Eng., (InnovExplo Inc.), and Carl Pelletier, P.Geo. (InnovExplo Inc.). The effective date of the estimate is August 3, 2023.
- 2. These mineral resources are not mineral reserves, as they do not have demonstrated economic viability. The mineral resource estimate follows current CIM Definition Standards.
- 3. The results are presented in situ and undiluted and considered to have reasonable prospects of economic viability.
- 4. The estimate encompasses two mineralized domains using the grade of the adjacent material when assayed or a value of zero when not assayed.
- 5. High-grade capping supported by statistical analysis was done on raw assay data before compositing: La2O3 (2230 g/t), Pr2O3 (890 g/t), Nd2O3 (2200 g/t), Dy2O3 (230 g/t), Sc2O3 (850 g/t) and Tb4O7 (50 g/t).
- 6. The estimate was completed using a sub-block model in LeapFrog Edge 2023.1 with user block size of 5m x 5m x 5m and minimum block size of 1.25m x 1.25m. Grades interpolation was obtained by ID2 using hard boundaries.
- 7. Bulk density values were applied by lithology (g/cm3): OLFESYN = 3.13; PXFESYN = 2.91; SYN = 2.7; POMSYN = 2.77; PEG = 2.65 and OB = 2.0.
- 8. The mineral resource estimate is classified as indicated and inferred where reasonable geological and grade continuity have been demonstrated. The Indicated mineral resource category is defined with a minimum of three (3) drill holes in areas where the drill spacing is less than 60 m. The Inferred resources category is defined for the remaining interpolated blocks (minimum 2 DDH). Clipping boundaries were used for classification based on those criteria.
- 9. The mineral resource estimate met the reasonable prospect for eventual economic extraction by having pit-constrained volume with a bedrock slope angle of 45°, an overburden slope angle of 30° and a reported NSR cut-off of 110.11 C\$/t. The NSR cut-off was calculated using the following parameters: processing cost = C\$16.08; transportation cost (concentrate transportation from mine site to processing plant): C\$18.37; G&A: C\$7.77; refining and selling costs = C\$95.81; Sc2O3 price = US\$1,500/kg; La2O3 price = US\$0.5/kg; Pr2O3 price = US\$29/kg; Nd2O3 price = US\$29/kg; Tb4O7 price = US\$386/kg; Dy2O3 price = US\$124/kg; USD:CAD exchange rate = 1.32; scandium recovery to high grade scandium oxide product = 76.0%; REE recovery to mixed REE carbonate = 63.0%. The cut-off grades should be reevaluated in light of future prevailing market conditions (metal prices, exchange rates, mining costs etc.).
- 10. The number of metric tons was rounded to the nearest thousand, following the recommendations in NI 43 101 and any discrepancies in the totals are due to rounding effects.
- 11. The authors are not aware of any known environmental, permitting, legal, title-related, taxation, socio-political, or marketing issues, or any other relevant issue not reported in the Technical Report, that could materially affect the Mineral Resource Estimate.

## DESCRIPTION OF THE TG ZONE

The mineral resource estimate underwent a revision, incorporating data from the most recent drilling program conducted in 2022. This program consisted of seven drillholes with a cumulative depth of 1,588 meters and was conducted within the Northern Lobe of the TG Scandium-Rare-Earth mineralized Zone, as illustrated in Figure 1. Notably, our resource estimation efforts have been concentrated exclusively on the Northern Lobe of the TG Zone, which constitutes approximately half of the magnetic anomaly depicted in Figure 1. Although drilling activity in the Southern Lobe has been relatively limited, the available data from these operations has yielded intercepts that are consistent with those observed in the Northern Lobe.

The TG Zone mineralization is characterized by the strong continuity of the iron-rich syenitic intrusive (Ferrosyenite) sill and dyke system and was drilled over a strike length of 300 m, to a vertical depth of 200 m. Intersection lengths through the zone varied between 10 m and 145 m, representing a true thickness of up to 100 m. There was an observed general increase in resource grade and true thickness to mineralization at depth below the pit-shell and towards the north. In addition, numerous Scandium-Rare-Earth resource opportunities remain to be drill-defined on the property and will be evaluated in future exploration programs.

# INDEPENDENT QUALIFIED PERSONS

The Mineral Resource Estimate was prepared for Imperial Mining Group Ltd. by InnovExplo Inc. The Qualified Persons ("QPs") have reviewed and approved technical information provided on the Crater Lake

deposit mineral resource estimate presented in this news release. The independent QPs who have prepared and supervised the preparation of the technical information relating to the 2023 Crater Lake Mineral Resource Estimate are:

- Marina Iund, P.Geo., M.Sc., Senior Resources Geologist. Ms. Iund is a professional geologist in good standing with the OGQ (No. 1525), PGO (No. 3123) and the NAPEG (No. L4431).
- Carl Pelletier, P.Geo., Co-President Founder of InnovExplo Inc. Mr. Pelletier is a professional geologist in good standing with the OGQ (licence No. 384), PGO (licence No. 1713), EGBC (licence No. 43167) and the NAPEG (No. L4160).
- Paul Daigle, P.Geo., Senior Resources Geologist. Mr. Daigle is a professional geologist in good standing with the OGQ (licence No. 1632).
- Simon Boudreau, P.Eng., Senior Mine Engineer. Mr. Boudreau is a professional engineer in good standing with the OIQ (No. 1320338).

The technical content in this press release was reviewed and certified by Pierre Guay, P. Geo. (OGQ no. 1635), Imperial's Technical Advisor, Exploration, a Geologist and Qualified Person as defined by NI43-101.

### ABOUT IMPERIAL MINING GROUP LTD.

Imperial is a Canadian mineral exploration and development company focused on the advancement of its technology metals projects in Québec. Imperial is publicly listed on the TSX Venture Exchange as "IPG" and on the OTCQB Exchange as "IMPNF" and is led by an experienced team of mineral exploration and development professionals with a strong track record of mineral deposit discovery in numerous metal commodities.

# For further information please contact:

Pierre Neatby

President and Chief Executive Officer

Phone: +1 (514) 360-0571 Email: info@imperialmgp.com

Website: <a href="https://www.imperialmgp.com">www.imperialmgp.com</a> Twitter: <a href="mailto:@imperial\_mining">@imperial\_mining</a> Facebook: <a href="mailto:Imperial Mining Group">Imperial Mining Group</a>

This press release may contain forward-looking statements relating to the Company's operations or to its business environment. Such statements are based on the Company's operations, estimates, forecasts, and projections, but are not guarantees of future performance and involve risks and uncertainties that are difficult to predict or control. Several factors could cause actual outcomes and results to differ materially from those expressed. These factors include those set forth in the corporate filings. Although any such forward-looking statements are based upon what management believes to be reasonable assumptions, the Company cannot guarantee that actual results will be consistent with these forward-looking statements. In addition, the Company disclaims any intention or obligation to update or revise any forward-looking statements, for any reason. We also do not commit in any way to guarantee that we will continue reporting on items or issues that arise. Investors are cautioned that this press release contains quoted historical exploration results. These are derived from filed assessment reports and compiled from governmental databases. The Company and a QP have not independently verified and make no representations as to the accuracy of historical exploration results: these results should not be relied upon. Selected highlight results may not be indicative of average grades.

Neither TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

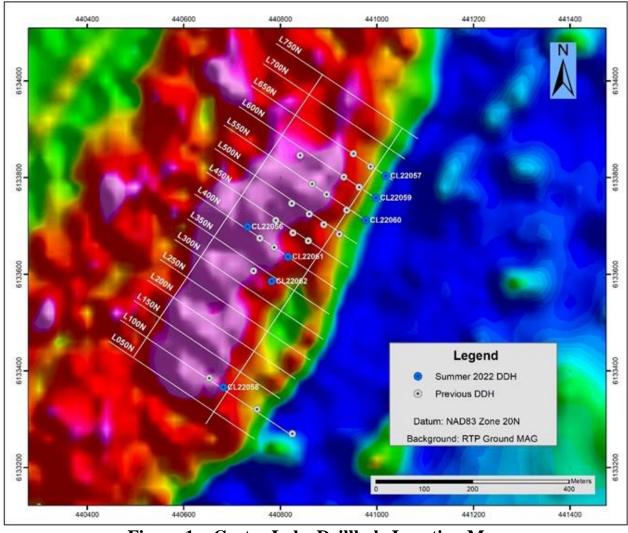


Figure 1 – Crater Lake Drillhole Location Map

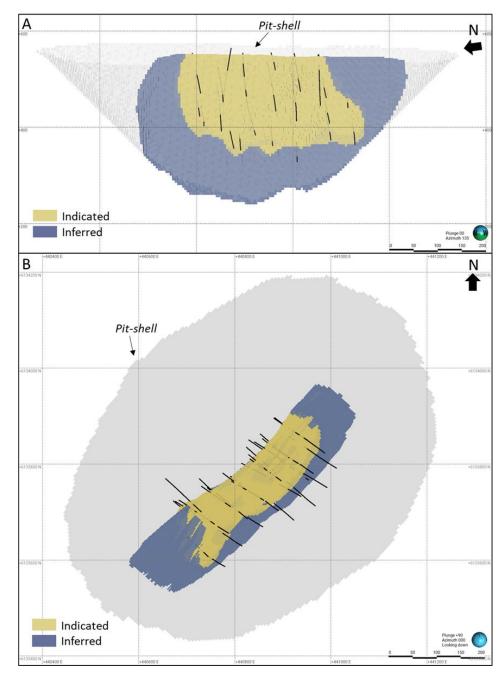


Figure 2 – Longitudinal (A) and plan view (B) showing the pit-shell and the classified mineral resources above Gog of the TG Zone, Crater Lake Project, Quebec

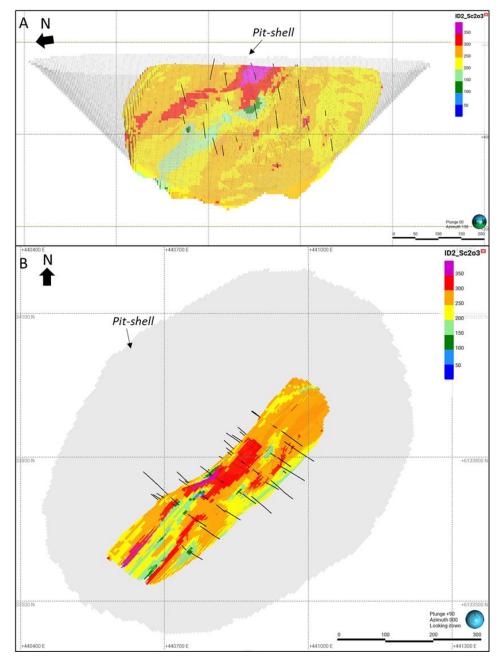


Figure 3 – Longitudinal (A) and plan view (B) showing the pit-shell and the scandium grade distribution above Gog of the TG Zone, Crater Lake Project, Quebec