

# Imperial Mining Develops High-Recovery Extraction Process for Scandium and Rare Earth Elements for Crater Lake Mineralization

June 9, 2021 (Source) – Imperial Mining Group Ltd. (“Imperial”) (TSX VENTURE: IPG) (OTCQB: IMPNF) is pleased to announce that it has developed an innovative process for extraction of scandium (Sc) and rare earth elements (REE) from its Crater Lake scandium mineralization as part of its current Phase 3 Hydrometallurgical Development Program. Results from this work show very high recovery of both scandium and rare earths for all mineralization types defined in diamond drilling on the property.

The two-stage hydrometallurgical extraction method entails a high-pressure caustic leach (HPC) followed by hydrochloric acid leach of the HPC residue. The new method showed remarkable recovery of scandium and the rare earth elements from Imperial’s Crater Lake Sc-REE mineralization (see Imperial Mining press release dated March 2, 2020, for details of the MET samples herein mentioned):

- The method showed **scandium recovery to primary leach solution (PLS) of 87%** for MET01, and **84%** for MET02 samples.
- The recovery of **total rare earth element, including yttrium (TREE+Y) of 84%**, from both MET01 and MET02 samples.
- The high recoveries of Sc and TREE+Y from both samples show that the method has excellent efficacy in extracting Sc and REE from samples representing

different mineralization types observed in drilling.

“We are extremely pleased with the results obtained to date from our metallurgical test work on Crater Lake mineralization,” said Peter Cashin, Imperial’s President & CEO. “Along with our partners MPlan-Dorfner ANZAPLAN, we have now obtained high scandium and rare earth recoveries from both the mineral concentration and hydrometallurgical study phases of the program. More importantly, the process that we have developed is effective across the various mineralization types defined on the project thus far. We are now ready to move to the final stages of our test work to recover a high-purity scandium oxide product.”

Imperial Mining is currently working to further optimize the process parameters with its hydrometallurgical development partners, MPlan-Dorfner ANZAPLAN GmbH, and is planning to apply for a patent for the new process.

Imperial Mining Group and MPlan-Dorfner ANZAPLAN continue to develop its hydrometallurgical flowsheet by treating a 100 kg mineral concentrate that was produced from two bulk samples collected from drillcore: MET01 and MET02. The program will recover scandium as scandium oxide ( $\text{Sc}_2\text{O}_3$ ), and TREE+Y as a bulk concentrate. The Phase 3 hydrometallurgical flowsheet development program will be completed in the third quarter of 2021.

## **QUALIFIED PERSON**

The technical content in this press release was reviewed and certified by Dr. Yemi Oyediran, an Ontario-registered P. Eng., Imperial’s Manager of Metallurgical Development.

## **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.

## **ABOUT M.PLAN INTERNATIONAL LIMITED**

M.Plan International Limited is a joint venture between two internationally recognized consulting companies, Dorfner Anzaplan GmbH and Micon International Limited, combining their expertise in global geological and mining consulting with analytics, processing and engineering with significant experience in the specialty minerals and metals sector.

M.Plan has deep project experience from initial mineral resource estimation through to process development, engineering design and project development. M.Plan and its joint venture owners have been involved in several rare earth element projects globally and hundreds of development studies in the mining sector, including independent lenders' engineer assignments and as due diligence lead for multiple European and North American capital providers.

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