# Defense Metals Flotation Results Yields High Grade Mineral Concentrate at Various Grades and Lithologies

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**News Release - Vancouver, British Columbia – October 17, 2022**: Defense Metals Corp. ("**Defense Metals**" or the "**Company**"; TSX-V:DEFN / OTCQB:DFMTF / FSE:35D) announces the initial flotation results from variability samples.

Craig Taylor, CEO, and Director of Defense Metals stated: *"Flotation results from the on-going program of testwork at SGS Lakefield confirm the basis of the Preliminary Economic Assessment (PEA)**[1]** and show that the Wicheeda deposit can produce a high-grade rare earths mineral concentrate at high recovery rates with conventional flotation from a range of lithologies and grades. These are some of the best flotation results among rare earths development projects. We are encouraged with the exploration and metallurgy results to date, and confident that the pre-feasibility study, which we anticipate will commence shortly, will show that Wicheeda is well positioned to become one of the next rare earths producers in North America."*

The Company is currently performing flotation tests on samples of different lithologies. The Wicheeda deposit is characterized by three main rare earths bearing lithologies, dolomite carbonatite (DC) which is the dominant lithology, xenolithic carbonatite (XE), and syenite (SYN). Limestone is the major waste rock lithology. The predominant rare earths minerals are, synchysite/parisite, bastnäsite, and monazite.

- The results to date indicate that high grade mineral concentrate containing more than 40% total rare earths oxides (TREO) at a recovery rate exceeding 80% has been produced from all fully tested

DC samples and a Master Composite (MC) containing all lithologies, from material with a head grade of >2% TREO.

- The XE material, representing about 24% of the deposit and encountered late in the mine life, can deliver a 38% TREO concentrate at ~70% recovery rate at feed grades ~1.4%TREO.

- SYN material, which represents about 3% of the deposit and is only encountered late in the mine life, has the lowest grade but shows ~14x upgrade ratio (from 1.1% to 14.6%TREO) at recovery rates ~79%.

- Approximately 70 flotation tests have been performed. Several assay results are pending, and additional tests are continuing on variability samples of DC, XE, SYN, and mixed samples.

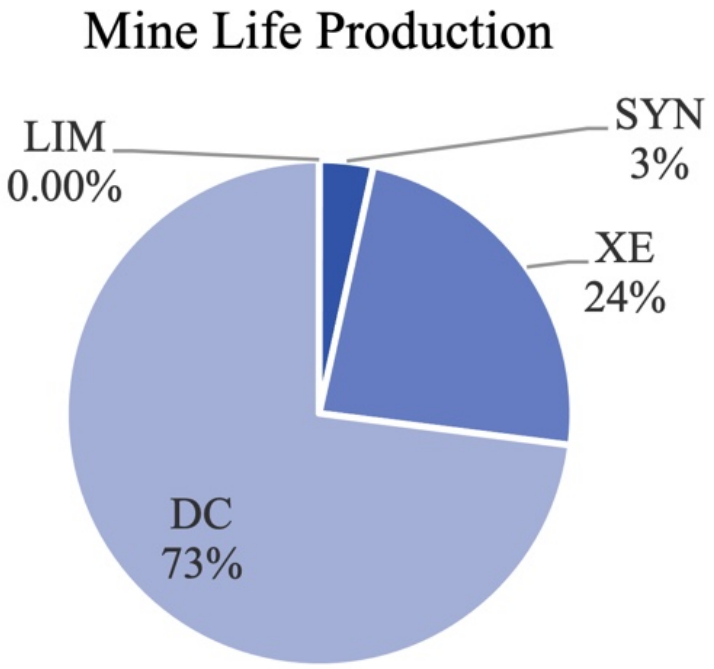
**Table 1. Selected Wicheeda Flotation Results**

| | Composite samples | | | | Variability samples | |
|---|---|---|---|---|---|---|
| | **MC** | **DC** | **XE** | **SYN** | **DC-02** | **DC-04** |
| **Test ID** | F37 | F46 | F47 | F20 | F61 | F53 |
| **Head, TREO%** | 2.49 | 3.38 | 1.44 | 1.08 | 2.02 | 3.14 |
| **Mass Pull, %** | 4.2 | 6.3 | 2.8 | 3.3 | 3.2 | 6.2 |
| **Concentrate, TREO%** | 45.6 | 44.6 | 38.0 | 14.6 | 47.1 | 45.6 |
| **Recovery, %** | 81.3 | 82.7 | 70.3 | 78.5 | 74.3 | 88.9 |
| **Upgrade** | 18.3x | 13.2x | 26.4x | 13.6x | 23.3x | 14.5x |

Table 1, shows selected flotation results on samples from different lithologies. The Composite samples contain a mixture of intervals from different drill cores taken from different areas of the deposit and different depths and represent the different lithologies. The master composite sample (MC in Table 1) includes the three lithologies (DC (73.4%), XE (22.5%), SYN (3.8%)). The variability samples in Table 1 are just two of the seventeen such samples being tested.

The DC lithology accounts for more than 70% of PEA mill feed (Figure 1), and in the first 8 years of the expected mine life, over 90% of the flotation plant feed will be DC material, with higher rare earths grade, with the later years being mostly DC and XE material at relatively lower grades.

**Figure 1. Wicheeda Percentage of Lithologies During Expected Mine Life**




**Methods**

Samples were obtained from drill cores and separated into different lithologies. They were crushed and ground to 80% passing ~80µm and subjected to flotation tests. Several flotation parameters were investigated, including the collector types and dosage, depressant types and dosage, the addition of activator, pulp temperature, pulp density, pulp pH, and flotation feed size. All tests were performed at SGS Minerals Lakefield, Ontario.

Head grade, and concentrate products for cerium, lanthanum, neodymium and praseodymium oxides were determined via lithium-borate fusion of a 0.5-gram sample analyzed via wavelength dispersion X-ray fluorescence (WD-XRF).

The SGS analysis included a quality assurance / quality control (QA/QC) program including the insertion of rare earth element standard and blank samples. Defense Metals detected no significant QA/QC issues during review of the data. Defense Metals is not aware of any sampling, recovery or other factors that could materially affect the accuracy or reliability of the data referred to herein. SGS Minerals Lakefield is an ISO/IEC 17025 and ISO9001:2015 accredited laboratory. SGS is independent of Defense Metals Corp.

**Qualified Person**

The scientific and technical information contained in this news release, as it relates to the Wicheeda Rare-Earth Project, has been reviewed and

approved by John Goode, P. Eng., Chief Metallurgist of the Company, who is a Qualified Person as defined by National Instrument 43-101 and has provided the technical information relating to metallurgy in this news release.  Kristopher J. Raffle, P.Geo. (BC), a director of the Company, is the Qualified Person as defined in National Instrument 43-101 for the information relating to resources in this news release.

**About the Wicheeda Rare Earth Property**

The 100% owned 4,244-hectare Wicheeda Rare Earths Property, located approximately 80 km northeast of the city of Prince George, British Columbia, is readily accessible by all-weather gravel roads and is near infrastructure, including power transmission lines, the CN railway, and major highways.

The Wicheeda Rare Earths Project yielded a robust 2021 preliminary economic assessment technical report (PEA) that demonstrated an after-tax net present value (NPV@8%) of $517 million, and 18% IRR[1]. A unique advantage of the Wicheeda Rare Earths Project is the production of a saleable high-grade flotation concentrate. The PEA contemplates a 1.8 Mtpa (million tonnes per year) mill feed from an open pit mining operation with 1.75:1 (waste:mill feed) strip ratio over a 19 year mine (project) life producing an average of 25,423 tonnes REO annually. A Phase 1 initial pit strip ratio of 0.63:1 (waste:mill feed) would yield rapid access to higher grade surface mineralization in year 1 and payback of $440 million initial capital within 5 years.

**About Defense Metals Corp.**

Defense Metals Corp. is a mineral exploration and development company focused on the acquisition, exploration and development of mineral deposits containing metals and elements commonly used in the electric power markets, defense industry, national security sector and in the production of green energy technologies, such as, rare earths magnets used in wind turbines and in permanent magnet motors for electric vehicles. Defense Metals owns 100% of the Wicheeda Rare Earth Element Deposit located near Prince George, British Columbia, Canada. Defense Metals Corp. trades in Canada under the symbol “DEFN” on the TSX Venture Exchange, in the United States, under “DFMTF” on the OTCQB and in Germany on the Frankfurt Exchange under “35D”.

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**Cautionary Statement Regarding "Forward-Looking" Information**

This news release contains "forward-looking information or statements" within the meaning of applicable securities laws, which may include, without limitation, statements relating to advancing the Wicheeda REE Project, receipt of additional flotation results and the expected outcomes, the Company's plans for its Wicheeda REE Project, the commencement of the pre-feasibility study and the anticipated outcomes, the expected mine life estimates, the technical, financial and business prospects of the Company, its project and other matters. All statements in this news release, other than statements of historical facts, that address events or developments that the Company expects to occur, are forward-looking statements. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance and actual results may differ materially from those in the forward-looking statements. Such statements and information are based on numerous assumptions regarding present and future business strategies and the environment in which the Company will operate in the future, including the price of rare earth elements, the anticipated costs and expenditures, the ability to achieve its goals, that general business and economic conditions will not change in a material adverse manner, that financing will be available if and when needed and on reasonable terms. Such forward-looking information reflects the Company's views with respect to future events and is subject to risks, uncertainties and assumptions, including the risks and uncertainties relating to the interpretation of exploration and metallurgy results, risks related to the inherent uncertainty of exploration and cost estimates, the potential for unexpected costs and expenses and those other risks filed under the Company's profile on SEDAR at www.sedar.com. While such estimates and assumptions are considered reasonable by the management of the Company, they are inherently subject to significant business, economic, competitive and regulatory uncertainties and risks. Factors that could cause actual results to differ materially from those in forward looking statements include, but are not limited to, continued availability of capital and financing and general economic, market or business conditions, adverse weather and climate conditions, failure to maintain or obtain all necessary government permits, approvals and authorizations, failure to maintain community acceptance (including First Nations), risks relating to unanticipated operational difficulties (including failure of equipment or processes to operate in accordance with specifications or expectations, cost escalation, unavailability of personnel, materials and equipment, government action or delays in the receipt of government approvals, industrial disturbances or other job action, and unanticipated events related to health, safety and

environmental matters), risks relating to inaccurate geological, metallurgical and engineering assumptions, decrease in the price of rare earth elements, the impact of Covid-19 or other viruses and diseases on the Company's ability to operate, an inability to predict and counteract the effects of COVID-19 on the business of the Company, including but not limited to, the effects of COVID-19 on the price of commodities, capital market conditions, restriction on labour and international travel and supply chains, loss of key employees, consultants, or directors, increase in costs, delayed assay results, litigation, and failure of counterparties to perform their contractual obligations. The Company does not undertake to update forward-looking statements or forward-looking information, except as required by law.

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[1] Independent Preliminary Economic Assessment for the Wicheeda Rare Earth Element Project, British Columbia, Canada, dated January 6, 2022, with an effective date of November 7, 2021, and prepared by SRK Consulting (Canada) Inc. is filed under Defense Metals Corp.'s Issuer Profile on SEDAR (www.sedar.com).

[2] Independent Preliminary Economic Assessment for the Wicheeda Rare Earth Element Project, British Columbia, Canada, dated January 6, 2022, with an effective date of November 7, 2021, and prepared by SRK Consulting (Canada) Inc. is filed under Defense Metals Corp.'s Issuer Profile on SEDAR (www.sedar.com).