



NEWS RELEASE

# Forsys Reports Results from Preliminary Leaching Test Work and Project Workplan at Norasa

**Toronto, ON – June 18, 2024 - Forsys Metals Corp. (TSX: FSY) (FSE: F2T) (NSX: FSY)  
("Forsys" or the "Company")**

Forsys is pleased to be able to release the results of its metallurgical column leaching test work for its Norasa Uranium project ("Norasa Project"<sup>1</sup>) together with details of its work plan for further optimising heap leach conditions and ore-sorting testwork.

## Highlights

- Completed metallurgical test work supports utilizing heap leaching to recover uranium at Norasa.
- A total of 16 metallurgical column leach tests have been completed. Various test conditions were assessed, covering initial scouting tests aimed at evaluating the impact of binder addition, higher irrigation rates and grind size on recoveries, leach kinetics and acid consumption.
- Uranium extraction rates of up to 87 % (crushed with a conventional cone crusher, average of solids and solution based recovery) were achieved within a leach cycle time of 30 days or less. Sulphuric acid consumption ranged from 17 kg/t to 38 kg/t, depending on operational parameters. This recovery rate is on par with that achieved by other similar type operations with comparable ore type.

With the integration of higher irrigation rates, binder addition and grind size adjustments, there is an opportunity to optimise the baseline parameters, enhancing leach kinetics, reagent addition and recovery rates.

Extensive follow-up test work is planned. The primary areas of focus will include additional column tests aimed at assessing a high-pressure grinding rolls ("HPGR") crushed product, acid consumption, irrigation rate and leach duration, with the objective of achieving an optimal uranium dissolution rate. Literature indicates between 4 % to 6 % increased metal extractions in heap leach operations with HPGR crushing.

As part of this follow-up test work, ore amenability for bulk ore sorting will be assessed, aimed at upgrading material prior to leaching to enhance recoveries and expedite cash flow and bolster project economics.

<sup>1</sup> The Norasa Uranium Project ("Norasa Project") is wholly-owned by the Company's 100% subsidiary Valencia Uranium (Pty) Ltd. ("Valencia Uranium") and comprises the Valencia uranium deposits (held under ML-149) ("Valencia") and the Namibplaas uranium deposit (under EPL-3638, application for ML-251) ("Nambiplaas"), located in the Erongo region of Namibia.

## **Sample selection for metallurgical test work**

Based on the mineral exploration and resource definition, with close to 300,000 metres of drilling executed for the Norasa Project and resulting mineral resource estimate and block models for Valencia, bulk samples for metallurgical test work were composed to account for the composition and spatial variance within each of the deposits.

For the bulk samples from the Valencia ore-body which underwent leaching test work at an accredited laboratory, SGS Laboratories in South Africa ("SGS"), a mix of different lithologies was selected from drill cores of a number of diamond holes, with the objective of representing the overall run-of-mine ore composition from this deposit.

From lithology modelling, it is evident that the main uranium hosting ore is alaskite, which is a rock of granitic composition. Limited uranium mineralisation occurs at the contact zones to the country rock, i.e. in schists, marbles and gneisses by intruding alaskite veins.

The bulk samples comprise fresh rock material from diamond drill cores. The initial leach test sample for phase 1 of the column leach testing was composed of alaskite material only. The second sample for phase 2 of the column leach testing was made up of ore and country rock types in proportions of approximately 72 % of alaskite / granite lithologies, 13 % of marble and calc-silicate rock and the remaining 15 % of different types of unmineralised schists and gneisses.

## **Metallurgical column leach testwork results**

To date, leaching testwork at SGS comprised of bottle roll testing and column leach testing.

- Phase 1: Six column leach tests (including duplicates) were completed on predominantly alaskite samples (see Figure 1), yielding uranium extractions ranging from 77% to 87% (average of solids and solution based recovery) with acid consumption rates ranging from 17 kg/t up to 22 kg/t.
- Phase 2: A further ten column leach tests (including duplicates) have been completed on samples sourced from various parts of the orebody, encompassing country rock and marbles. During these tests, uranium extractions ranged from 69% to 85% (average of solids and solution based recovery) dependant on leach operating conditions at a leach cycle duration of 30 days. Acid consumption ranged from 23 kg/t up to 38 kg/t.
- Thirty-four bottle roll leach optimisation tests were completed to guide conditions for the column testing during Phase 1 and 2 of the programme.

Phase 1 of the programme focused on a composite sample comprising primarily alaskite material, with a head grade of approximately 187 ppm  $U_3O_8$ . Various crush sizes were examined after preparation in a laboratory-scale cone crusher to achieve a targeted particle size distribution (PSD). Testwork assessed crush sizes with a top size of 4.75 mm, 6.7 mm and 8 mm.

The programme's second phase evaluated three distinct ore samples sourced from different locations within the ore body, characterised by varying lithologies. These samples exhibited head grades ranging from 136 ppm to 201 ppm  $U_3O_8$ , with an increased presence of marbles, schists, and country rock lithologies. Crush sizes assessed ranged from a top size of approximately 6 mm to 8 mm.

SGS was chosen for its comprehensive laboratory services and global expertise. In addition to internal laboratory test procedures and quality control measures, numerous repeat assays and external laboratory assays were conducted throughout the programmes to interrogate the data set and critique accountabilities.



*Figure 1: Leaching Columns at SGS South Africa*

The current testwork programme has yielded the following observations and inferences:

- Enhanced leach kinetics were noted in the latter part of the programme, attributed to the acid curing procedure conducted prior to sample introduction into the columns.
- Comparative tests carried out at higher irrigation rates demonstrated improved leach kinetics and recoveries.
- Preliminary evaluation of using flocculant as a binder warrants further investigation, potentially contributing to enhanced leach kinetics and recoveries.
- The impact of crush size remains inconclusive at present. While some comparative tests indicate that finer crush sizes result in higher uranium extractions, others show no discernible effect. This aspect will be further investigated in the subsequent phase of the programme, with particular emphasis on the utilisation of HPGR crushing. Existing literature suggests a potential increase of between 4% to 6% in metal extractions in heap leach operations with HPGR crushing compared to conventional crushing methods.
- The grade-recovery relationship remains partly defined, but preliminary observations suggest a correlation between grade and its subsequent impact on recovery. The precise extent of this relationship will also be further investigated in the subsequent phase of the programme
- The acid consumption for the alaskite samples averaged approximately 17kg/ton for coarser crush sizes, with higher consumption observed for finer sizes. In the second part of the test programme, acid consumption increased up to 38kg/ton with the marble-containing samples. Optimisation of acid consumption, acid strength, irrigation rates, cycle duration and crush size are all planned for the next phase of the programme.

Grading analyses conducted on the alaskite sample leach residues revealed a higher proportion of uranium remaining in the coarser end of the size range, whereas the finer end of the size spectrum exhibited minimal uranium content. This suggests a potential liberation challenge, which will be investigated further in the next phase of the programme, particularly utilising an HPGR crushed product supported by further mineralogical analysis.

## **Workplan**

Forsys is initiating the next phase of the test work programme along with ongoing optimisation efforts. The key workstreams will include two further phases of Column Leach tests at SGS with ongoing mineralogical analysis to complete the data evaluation.

These phases of follow up testing are aimed at enhancing the efficiency and effectiveness of extracting the uranium mineralisation from ore samples with a wider head grade range.

The programme is designed to test a range of leaching variables, including crushing by HPGR to assess the impact of the particle cracking effect to expose increased mineral surface area for improved leaching. Column work to date has shown higher uranium grades in coarser fractions of the residue, indicating the majority of mineralisation in the fines has been leached. Physical leaching variables will also be tested for optimising leach conditions.

As part of the programme a boxcut is planned which will enable access to adequate mass of bulk fresh ore material for large scale column leach testing to inform process design.

### ***Qualified Persons Statement for Metallurgy***

Mr Aveshan Naidoo is a Specialist Engineer: Hydromet and Economics, for DRA South Africa Projects (Pty) Ltd of Building 33, Woodlands Office Park, 20 Woodlands Drive, Woodlands, Sandton, 2080. He holds a Bachelor of Science in Chemical Engineering from the University of KwaZulu-Natal and a Master of Business Administration from the University of Witwatersrand. He is a registered Professional Engineer with the Engineering Council of South Africa (Registration No. 20130523). Mr Naidoo has been practising his profession continuously since 2008 and has 16 years of experience across a range of African projects. He is familiar with NI 43-101 and, by reason of his education, experience, and professional registrations, he fulfils the requirements of an independent Qualified Person as defined in NI 43-101.

### ***Qualified Persons Statement for Mining***

Mr Peter Christians is an Associate and Principal Mining Engineer with Qubeka Mining Consultants CC in Windhoek, Namibia. He holds a Bachelor of Science in Mining Engineering at Queen's University in Kingston, Ontario, Canada. He is a registered Fellow Member of the Australian Institute of Mining and Metallurgy (FAusIMM, registration number 221754). Mr Christians has been practicing as a Mining Engineer continuously since 1985 in various roles and his ~40-years' experience covers a range of projects across Africa, North America, Australia, and Russia. He is familiar with NI 43-101 and, by reason of his education, experience, and professional registrations, he fulfils the requirements of an independent Qualified Person as defined in NI 43-101.

### ***Qualified Persons Statement for Geology***

The information in this release that relates to the Preliminary Leaching Test Work and Project Workplan at Norasa is based on information compiled or reviewed by Dr Guy Freemantle of The MSA Group (Pty) Ltd., Johannesburg, South Africa. The MSA Group are independent consultants to the Norasa Project, Namibia. Dr Freemantle holds a Bachelor of Science in Geology (2006) and Doctor of Philosophy in Geology (2017) both at the University of the Witwatersrand. He is a member of the Society of Economic Geologists (892905); a Fellow of the Geological Society of South Africa (965392); and is registered with SACNASP (Registration 117527). Dr Freemantle has practiced his profession continuously for 14 years and has sufficient experience and knowledge that is relevant to the style of mineralisation and type of deposits under consideration as well as to the activity that is being undertaken to fulfil requirements of a Qualified Person as per NI 43-101. Dr Freemantle consents to this release in the form and context in which it appears.

## **About Forsys Metals Corp.**

Forsys Metals Corp. (TSX: FSY, FSE: F2T, NSX: FSY) is an emerging uranium developer focused on advancing its wholly owned Norasa Uranium Project, located in the politically and uranium friendly jurisdiction of Namibia, Africa. The Norasa Uranium Project is comprised of the Valencia Uranium deposit (ML-149) and the nearby Namibplaas Uranium deposit (EPL-3638). Further information is available at the Company website [www.forsysmetals.com](http://www.forsysmetals.com)

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## **Forward Looking Statement**

*Certain information contained in this press release constitutes "forward-looking information", within the meaning of Canadian legislation. Generally, these forward-looking statements can be identified by the use of forward-looking terminology such as "plans", "expects" or "does not expect", "is expected", "budget", "scheduled", "estimates", "forecasts", "intends", "anticipates" or "does not anticipate", or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might" or "will be taken", "occur", "be achieved" or "has the potential to". Forward looking statements contained in this press release are qualified in their entirety by the inherent risks and uncertainties surrounding future expectations. Among those factors which could cause actual results to differ materially are the following: market conditions and other risk factors listed from time to time in our reports filed with Canadian securities regulators on SEDAR+ at [www.sedarplus.ca](http://www.sedarplus.ca). The forward-looking statements included in this press release are made as of the date of this press release and Forsys Metals Corp disclaim any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as expressly required by applicable securities legislation.*