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ASX Release  
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# Strategic Partnership to Unlock full potential of Tiros Titanium and Rare Earths Project

**Resouro Strategic Metals Inc.** ([ASX: RAU](#); [TSX-V: RSM](#); [FSE: 8TX](#); [OTCQB: RSGOF](#)) ("**Resouro**" or the "**Company**") is pleased to announce the unveiling of a new advanced processing deal to unlock high-value mineral extraction at its globally significant Tiros Titanium and Rare Earths Project ("**Tiros Project**" or "**Tiros**" or "**Project**") in Minas Gerais, Brazil.

Resouro's subsidiary, Tiros Minerais Estrategicos Mineraçao LTDSA (**Tiros Mineração**), has entered into a binding Memorandum of Understanding (**MoU**) with YM Serviços Minerais LTDA (**YM Serviços**) to develop and supply an innovative, high-performance metallurgical process for Tiros.

The MoU follows encouraging results from initial proof-of-concept tests on composite samples from Tiros using the **Fusion Sulphuric Acid Leach** ("FSAL") process developed by YM Serviços. YM Serviços and Resouro have now started additional test work under the MoU to verify initial results and to optimise the operating conditions.

On completion of these optimisation tests, the Company will process a 200-kilogram composite sample from the high-grade zone at Tiros to produce:

- high-quality and high-purity titanium concentrates;
- a precipitated mixed rare earths oxide (**MREO**) or a rare earths carbonate (**MREC**);
- determine the specifications of other by-products and their potential marketability; and
- produce sample quantities necessary for customer assessment.

On a positive outcome of this work program, the Company plans to move forward to a pilot plant test on a significantly larger sample in the second half of the year.

The high-value technology developed in this strategic partnership will be designed to maximise product recovery and aims to eliminate or substantially reduce waste disposal from the metallurgical process.

Importantly, the MoU allows the Company to continue exploring other metallurgical processes in parallel to ensure the most viable method of extraction for the Tiros Project is achieved.

### **Commenting on the MoU, Resouro's CEO Alistair Stephens said:**

*“This agreement marks a significant milestone for our Tiros Project and solidifies Resouro's position as a leader in sustainable processing of vital in-demand minerals. By securing exclusive access to a cutting-edge FSAL process developed by YM Serviços, we are unlocking the potential to efficiently extract a suite of high-value minerals, including titanium, rare earths, iron and silica. This strategic partnership places us at the forefront of innovative mineral processing in Brazil and provides significant scope to enhance Tiros' economic viability, reinforcing the highly attractive opportunity the Project represents.”*

### **Innovative Process Technology**

YM Serviços specializes in mineral analytical services with the expertise to develop and supply an innovative, high-performance metallurgical process for the Tiros Project.

Under the terms of the MoU, YM Serviços will develop a FSAL metallurgical process for processing and recovering titanium, rare earths, and potential byproducts of iron oxide, alumina, and silica. Resouro will have absolute exclusivity and perpetuity to the technology for the entire Capacete Geological Formation, which hosts the mineralisation of the Tiros Project.

To validate the merit of the technology and its application to the Tiros Project, the Company progressed a proof-of-concept metallurgical test using a two-kilogram composite sample from Tiros. The Company will now progress a series of three-kilogram bench test programs to assess the impact of different temperatures and sulfuric acid ratios to determine optimal operating conditions.

## Other Metallurgy Test Works

The Company has undertaken several campaigns of metallurgical tests on Tiros mineralisation to assess the potential for extracting titanium and rare earth minerals.

Initial test work using nitric acid returned promising extractions of 81% for Total Rare Earth Oxides (**TREO**) and, importantly, 96% for the Magnet Rare Earth Oxides (**MREO**) component<sup>1</sup>. Follow up work is pending outcomes from beneficiation works that could lead to a concentrate product for further nitric acid test work. This work specifically is targeting the removal of titanium minerals, iron minerals and silica that are inert in the nitric acid process. Nitric acid tests could then target a smaller volume of concentrated rare earths bearing mineralisation.

Beneficiation test work for the separation of titanium and iron minerals remains in progress. A 200kg sample is being tested by magnetic and gravity separation techniques, to determine the liberation and recovery parameters for the optimisation of a concentrate flow sheet. These works are on-going while other tests are currently being scoped.

The Company has also conducted tests for the leaching of rare earths using ammonium sulphate that achieved recoveries below expectation. This is supported with mineralogical work that identifies that a significant portion of the rare-earth mineralisation is present in mineral form and a small portion as an ionic absorption clay. This has helped direct the Company to assess beneficiation test work for rare earths mineral recovery.

## NEXT STEPS

The Company will progress the FSAL test work on 3kg samples for the optimisation of process operating conditions. This work is expected to be completed by the end of the second quarter of 2025. The optimisation of the FSAL process will be followed by a 200kg test that is expected to commence early in the third quarter of 2025 and used as the basis of a Scoping Study and preliminary economic assessment. The Company expects that these works will be followed by a pilot plant study for the basis of a pre-feasibility study with a target of completion by the end of the current calendar year.

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<sup>1</sup> For full results including relevant JORC Table information and Competent Persons Statement, refer to ASX release dated 13 August 2024/TSXV 12 August, 2024 titled “*Outstanding Metallurgical Test Results – Tiros Project.*”

Parallel beneficiation test works should be completed during the third quarter of 2025 with the outcome used to determine the flowsheet for the pilot plant.

The Company is also anticipating that a mineral resource estimate for the Northern Block should be available by the end of the second quarter of 2025.

## **Commercial terms of the MoU<sup>2</sup>**

Payments by Resouro for exclusive and perpetual use of the FSAL process over the Capacete Geological Formation:

- a) BRL 30,000/month (circa AUD\$8,000/month, CAD\$7,000/month) up to 12 months or until the conclusion of the Pre-Feasibility Study (**PFS**), starting with laboratory tests on two 200-kilogram samples, whatever comes first;
- b) BRL 2,000,000 (circa AUD\$540,000 / CAD\$480,000) upon successful completion of pilot tests (30-ton sample) and issuance of the PFS, subject to at least one signed off-take agreement that will be paid in two monthly instalments of equal value; and
- c) BRL 10,000,000 (circa AUD\$2.7M / CAD\$2.4M) based on 10% Net Profit Interest from the demonstration plant's positive cash flow, capped at this amount. Early payment is optional.

## **Other Provisions**

- a) Tiros Mineração shall bear the costs of patent registration, which will remain under the ownership of YS Serviços with exclusive and perpetual use to Tiros Mineração for the Capacete Geological Formation (that hosts the Tiros Project mineralisation);
- b) Once all payments are completed, no further royalties or financial obligations shall be owed to YM Serviços; and
- c) Tiros Mineração may withdraw from using the FSAL method at any time, with no further payments due, provided it ceases all use of the method.

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<sup>2</sup> Using rounded number at a conversion of 1.00BRL to 0.27AUD and 0.24CAD

## Conditions Precedent

- a) The commercial effectiveness of the MoU is subject to the full viability of laboratory testing on two 200-kilogram samples from the Tiros Project, which shall support the feasibility of a 30-ton pilot test.
- b) The BRL 2,000,000 payment is contingent upon:
  - Successful completion of metallurgical pilot tests using the FSAL process;
  - The completion of a PFS; and
  - The execution of at least one off-take agreement.
- c) Tiros Mineração's obligation to pay BRL 10,000,000 is conditional upon achieving a positive financial outcome from commercial production at the demonstration plant stage using the FSAL process.

Full terms of the MoU will be contained within long form documents to be agreed between the parties within the next 120 days.

This announcement has been authorized for release by the Board of Directors.

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## About the Company

Resouro is a Canadian incorporated mineral exploration and development company, listed on the ASX, TSXV, OTC and FSE, focused on the discovery and advancement of economic mineral projects in Brazil, including the Tiros Titanium-Rare Earths Project and the Novo Mundo Gold Project. The Tiros project has 28 mineral concessions totalling 497 km<sup>2</sup> located in the state of Minas Gerais, one of the best infrastructurally developed states of Brazil, 350 km from the state capital of Belo Horizonte. Resouro's Mineral Resource Estimate for the Tiros Project contains 165 million tonne of titanium dioxide and 5.5 million tonne of total rare earths oxides within a Measured and Indicated Resource of 1.4 billion tonne.

| DOMAIN            | Category     | Million Tonne | TiO <sub>2</sub> % | TREO (ppm)   | MREO (ppm)   | REO/TREO rat |
|-------------------|--------------|---------------|--------------------|--------------|--------------|--------------|
| HG (High Grade)   | Measured     | 30            | 24                 | 9,300        | 2,500        | 27%          |
|                   | Indicated    | 74            | 23                 | 8,900        | 2,300        | 26%          |
|                   | <b>M + I</b> | <b>103</b>    | <b>23</b>          | <b>9,100</b> | <b>2,400</b> | <b>26%</b>   |
|                   | Inferred     | 33            | 22                 | 8,300        | 2,200        | 26%          |
| MG (Medium Grade) | Measured     | 340           | 11                 | 3,700        | 1,000        | 28%          |
|                   | Indicated    | 930           | 11                 | 3,600        | 1,000        | 28%          |
|                   | <b>M + I</b> | <b>1,300</b>  | <b>11</b>          | <b>3,600</b> | <b>1,000</b> | <b>28%</b>   |
|                   | Inferred     | 470           | 11                 | 3,400        | 920          | 27%          |
| TOTAL (HG+MG)     | Measured     | 367           | 12                 | 4,100        | 1,100        | 28%          |
|                   | Indicated    | 1,000         | 12                 | 4,000        | 1,100        | 27%          |
|                   | <b>M + I</b> | <b>1,400</b>  | <b>12</b>          | <b>4,000</b> | <b>1,100</b> | <b>28%</b>   |
|                   | Inferred     | 500           | 12                 | 3,700        | 1,000        | 27%          |

Note: Further details of the Company's JORC MRE are contained within the Company's ASX announcement of 9 April, 2025/TSXV 8 April 2025. Resouro is not aware of any new information or data that materially affects the information included in the Company's announcement and that all material assumptions and technical parameters underpinning the estimates referred to therein continue to apply and have not materially changed.

## Resouro Strategic Metals Inc., capital structure

|   |                    |
|---|--------------------|
| ASX Chess Depositary Interests                          | 42,833,059         |
| TSXV Common Stock                                       | 49,756,990         |
| <b>Total on Issue</b>                                   | <b>92,590,049</b>  |
| <i>Shares held in Escrow included in Total on Issue</i> | <i>10,979,257</i>  |
| Options issued under the Company Plan                   | 12,495,000         |
| Options issued to Brokers                               | 1,843,643          |
| Warrants issued to Brokers                              | 600,616            |
| Performance Rights                                      | 750,000            |
| <b>Fully Diluted Securities</b>                         | <b>108,279,308</b> |

## Forward-Looking Information

*This news release contains certain "forward-looking information" within the meaning of applicable securities law. Forward-looking information is frequently characterized by words such as "plan", "expect", "project", "intend", "believe", "anticipate", "estimate" and other similar words, or statements that certain events or conditions "may" or "will" occur. Although we believe that the expectations reflected in the forward-looking information are reasonable, there can be no assurance that such expectations will prove to be correct. We cannot guarantee future results, performance or achievements. Consequently, there is no representation that the actual results achieved will be the same, in whole or in part, as those set out in the forward-looking information.*

*Forward-looking information is based on the opinions and estimates of management at the date the statements are made and are subject to a variety of risks and uncertainties and other factors that could cause actual events or results to differ materially from those anticipated in the forward-looking information. Some of the risks and other factors that could cause the results to differ materially from those expressed in the forward-looking information include, but are not limited to: general economic conditions in Canada and globally; industry conditions, including governmental regulation and environmental regulation; failure to obtain industry partner and other third party consents and approvals, if and when required; the need to obtain required approvals from regulatory authorities; stock market volatility; liabilities inherent in the mining industry; competition for, among other things, skilled personnel and supplies; incorrect assessments of the value of acquisitions; geological, technical, processing and transportation problems; changes in tax laws and incentive programs; failure to realize the anticipated benefits of acquisitions and dispositions; and the other factors. Readers are cautioned that this list of risk factors should not be construed as exhaustive.*

*The forward-looking information contained in this news release is expressly qualified by this cautionary statement. We undertake no duty to update any of the forward-looking information to conform such information to actual results or to changes in our expectations except as otherwise required by applicable securities legislation. Readers are cautioned not to place undue reliance on forward-looking information.*

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