

26 February 2025

# **New Discovery Extends Soru Mn Prospect**

### **HIGHLIGHTS**

- Surficial alluvial manganese mapped over wide area at the newly discovered Soru Manganese Prospect
  - The alluvial manganese deposits are derived from the erosion of secondary manganese forming in nearby hills
  - > The layer of alluvial and exposed secondary manganese can be traced over a 1.5km by 700m area
  - Work in progress to ascertain grade, width and source of the manganese with samples brought back to Australia for analysis
  - > Environmental License upgrade being sought to allow for trenching and drilling

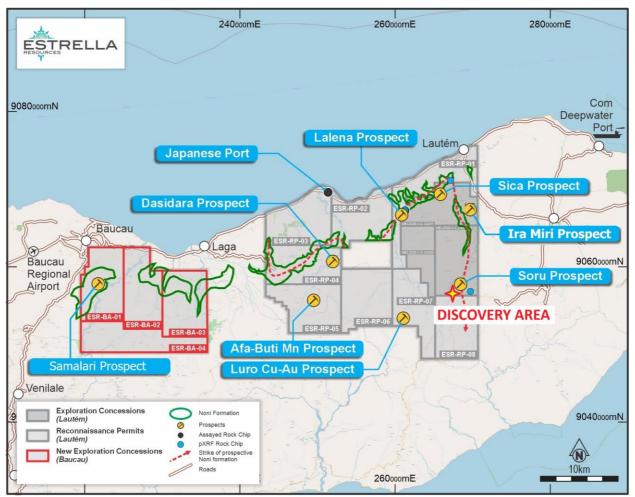


Figure 1: The discovery area just south of the Soru Prospect



Estrella Resources Limited (ASX: ESR) (Estrella or the Company) is pleased to announce the local geological team has identified a significant area of tertiary (alluvial / colluvial) manganese, which has been deposited due to the erosion of nearby hills where secondary manganese (supergene) has been forming. This discovery is located near the Soru Prospect within its Lautém Manganese Project, Timor-Leste (Figure 1).

## Commenting on the new discoveries Estrella Managing Director Chris Daws said:

"We are very pleased to report the discovery of extensive surficial alluvial manganese at the newly identified Soru Manganese Prospect which have come about through the development of Estrella's exploration model which is now being tested and proving highly successful.

The alluvial manganese deposits are derived from the erosion of secondary manganese in the nearby hills, and the layer can be traced over a significant area of 1.5km by 700m. This is a promising development and our team is currently working to ascertain the grade, width, and source of the manganese.

To facilitate further exploration and resource definition, we are in the process of upgrading our Environmental License to enable trenching and drilling activities. The necessary environmental assessment documents are being prepared to support this upgrade. Once authorised, we will be able to undertake the necessary ground-disturbing activities to gain a more detailed understanding of the mineralisation and move forward with economic studies.

We have already transported several indicative samples back to Australia for laboratory analysis, and we look forward to sharing the results with our shareholders as they become available. This is yet another exciting step forward for Estrella as we continue to progress the Lautém Manganese Project."



Figure 2: Large clasts of supergene manganese located on hillsides (left, visually >95% Manganese oxides) and within local creek systems (right, visually >80% Manganese oxides). Samples have been brought back to Australia for analysis with assay results due in late March.

**Cautionary Statement:** Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.

The alluvial and colluvial deposits so far cover a mapped area of 1.5 km x 0.7 km (Figure 3). The red area outlines the alluvial mineralisation which can be found scattered in creek debris and in the alluvial layered sediments within creek walls. Typically, clasts range from a 5cm to several 10's of centimetres in size with an average thickness of 4-5 cm.

The colluvial mineralisation occurs as sub-centimetre to 1 metre sized clasts derived from the soils over adjacent hills to the tertiary deposits. Erosion on the hills is slowly uncovering supergene mineralisation that formed on the hill slopes (what we call secondary manganese) and moving it onto the alluvial fans that occur along the wider rivers (tertiary manganese).





Figure 3: Very large clasts of supergene manganese washed into a small creek from the hillsides. Both photos show Noni Chert fragments with supergene enrichment (both ~35% Chert, 65% manganese-iron oxides). Samples have been brought back to Australia for analysis, with assay results due in late March.

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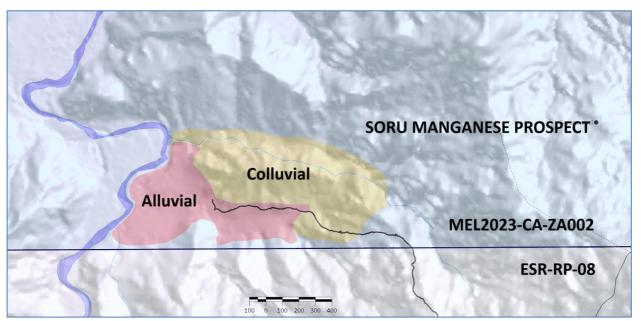


Figure 4: Mapped location of the alluvial and colluvial surficial manganese at the Soru Manganese Prospect

## **Next Steps**

The company is preparing the necessary environmental assessment documents required to upgrade the Environmental License so that it may perform ground-disturbing activities such as trenching and drilling.

This work will be necessary to enable the company to define a resource in order to progress economic studies on the mineralisation.

The company has transported several indicative samples of manganese back to Australia and will submit them to the laboratory for analysis.

The company will update shareholders as results come to hand.

The Board has authorised for this announcement to be released to the ASX.

## **ENDS**



#### **FURTHER INFORMATION CONTACT**

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## **Forward Looking Statements**

This announcement contains certain forward-looking statements which have not been based solely on historical facts but, rather, on ESR's current expectations about future events and on a number of assumptions which are subject to significant uncertainties and contingencies many of which are outside the control of ESR and its directors, officers and advisers.

#### **Competent Person Statement**

The information in this announcement relating to Exploration Results is based on information compiled by Steve Warriner, who is the Group Exploration Manager of Estrella Resources, and a member of The Australasian Institute of Geoscientists, and based on information compiled by Beau Nicholls, who is a Director of Sahara Natural Resources and is the Exploration Manager for Estrella Timor-Leste, and a fellow of The Australasian Institute of Geoscientists. Mr Warriner and Mr Nicholls have sufficient experience relevant to the style of mineralisation and type of deposit under consideration, and to the activity they are undertaking to qualify as Competent Persons as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resource and Ore Reserves". Mr Warriner and Mr Nicholls consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

#### **Cautionary Statement**

Visual estimates of mineral abundance should never be considered a proxy or substitute for laboratory analyses where concentrations or grades are the factor of principal economic interest. Visual estimates also potentially provide no information regarding impurities or deleterious physical properties relevant to valuations.



# **APPENDIX 1 JORC TABLE 1 – TIMOR-LESTE EXPLORATION**

Section 1 - Sampling Techniques and Data

Criteria	JORC Code explanation	Commentary
Sampling techniques	<ul> <li>Nature and quality of sampling (e.g. cut channels, random chips, or specific specialised industry standard measurement tools appropriate to the minerals under investigation, such as down hole gamma sondes, or handheld XRF instruments, etc). These examples should not be taken as limiting the broad meaning of sampling.</li> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> <li>Aspects of the determination of mineralisation that are Material to the Public Report. In cases where 'industry standard' work has been done this would be relatively simple (e.g. 'reverse circulation drilling was used to obtain 1 m samples from which 3 kg was pulverised to produce a 30 g charge for fire assay'). In other cases more explanation may be required, such as where there is coarse gold that has inherent sampling problems. Unusual commodities or mineralisation types (e.g. submarine nodules) may warrant disclosure of detailed</li> </ul>	<ul> <li>Determination of mineralisation has been based on geological mapping, visual mineral estimates and confirmation of metallic concentration using a Bruker S1 Titan Portable XRF instrument.</li> <li>Initial rock-chip samples were taken and pXRF determinations on uncrushed samples made in the field.</li> <li>Samples are then brought back to Dili and pulverized to 100% passing 1mm before the powder is again subjected to PXRF</li> <li>A sub-sample of 300g is then dispatched through customs and quarantine in Australia to ALS in Malaga for multi-element analysis.</li> <li>Exported samples are analysed using a 4-acid digest, ME-XRF26s, ME-MS61L and B-ICP69 at ALS in Malaga</li> </ul>
Drilling techniques	information.  • Drill type (e.g. core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (e.g. core diameter, triple or standard tube, depth of diamond tails, face-sampling bit or other type, whether core is oriented and if so, by what method, etc).	No drilling has been undertaken to date.
Drill sample recovery	<ul> <li>Method of recording and assessing core and chip sample recoveries and results assessed.</li> <li>Measures taken to maximise sample recovery and ensure representative nature of the samples.</li> <li>Whether a relationship exists between sample recovery and grade and whether sample bias may have occurred due to preferential loss/gain of fine/coarse material.</li> </ul>	No drilling has been undertaken to date.     The installation of pulverising sample prep facilities in Timor-Leste ensures sample representivity when presented to the PXRF and when obtaining the 300g split to send to Australia.
Logging	<ul> <li>Whether core and chip samples have been geologically and geotechnically logged to a level of detail to support appropriate Mineral Resource estimation, mining studies and metallurgical studies.</li> <li>Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography.</li> <li>The total length and percentage of the relevant intersections logged.</li> </ul>	Rock-chip samples were geologically logged for mineral content and photographed prior to sending for assay or screening by pXRF.
Sub- sampling techniques and sample preparation	<ul> <li>If core, whether cut or sawn and whether quarter, half or all core taken.</li> <li>If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry.</li> <li>For all sample types, the nature, quality and appropriateness of the sample preparation technique.</li> <li>Quality control procedures adopted for all sub-sampling stages to maximise</li> </ul>	Sample sizes are appropriate to the grain size of the mineralisation which in manganese oxides is very fine.     The exploration program is in its very early stages and initial sample sizes are kept small due to freight and customs / quarantine restrictions. They are not considered representative of the bulk of mineralisation.



Criteria	IODC Code explanation	Commentary
Criteria	JORC Code explanation representivity of samples.	Commentary
	<ul> <li>Measures taken to ensure that the sampling is representative of the in-situ material collected, including for instance results for field duplicate/second-half sampling.</li> <li>Whether sample sizes are appropriate to the grain size of the material being sampled.</li> </ul>	
Quality of assay data and laboratory tests	<ul> <li>The nature, quality and appropriateness of the assaying and laboratory procedures used and whether the technique is considered partial or total.</li> <li>For geophysical tools, spectrometers, handheld XRF instruments, etc, the parameters used in determining the analysis including instrument make and model, reading times, calibrations factors applied and their derivation, etc.</li> <li>Nature of quality control procedures adopted (e.g. standards, blanks, duplicates, external laboratory checks) and whether acceptable levels of accuracy (i.e. lack of bias) and precision have been established.</li> </ul>	<ul> <li>Three sample types are quoted:         <ul> <li>1 – Uncrushed Field PXRF (a fresh mineral face is chipped from samples prior to the XRF determination in the field)</li> <li>2 – Crushed PXRF (samples from above are taken back to Dili, 1-3kg of material, and crushed/pulverised to 100% passing 1mm in the company's dedicated sample preparation facility, and 15g of powder is then taken for PXRF analysis. Crushed PXRF determinations have been subjected to repeat samples, standards and confirmation of accuracy by laboratory analysis.</li> <li>3 – Assay, where 150g of material is exported to ALS in Malaga via quarantine in Darwin. Standards and blanks have not been included in samples sent to Australia. The company relies on the internal standards and blanks used by ALS.</li> </ul> </li> <li>Samples are being analysed at ALS in Malaga using a 4-acid digest, ME-ICP for 61 elements and all samples are also being tested for Pt, Pd and Au by fire assay and ICP-MS finish on a 50g sub-sample.</li> <li>Currently, uncrushed field samples are being analysed by PXRF on location,. The Cautionary statement is included when assessing pXRF.</li> </ul>
Verification of sampling and	The verification of significant intersections by either independent or alternative company personnel.	No prior modern exploration has been conducted in the area.
assaying	<ul> <li>The use of twinned holes.</li> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> <li>Discuss any adjustment to assay data.</li> </ul>	<ul> <li>No adjustments to assay data were undertaken save where the ME-XRF26s method reports MnO%.</li> <li>Mn% is derived by dividing MnO by 1.2912</li> </ul>
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Specification of the grid system used.</li> <li>Quality and adequacy of topographic control.</li> </ul>	<ul> <li>Timor personnel use GRID software on mobile phones to record GPS locations, sampling data and photographs. Mobile phone accuracy (shown during coordinate capture) is set at a maximum tolerance of 5m.</li> <li>Topographic control is accomplished using 30m spaced satellite point data.</li> </ul>
Data spacing and distribution	<ul> <li>Data spacing for reporting of Exploration Results.</li> <li>Whether the data spacing and distribution is sufficient to establish the degree of geological and grade continuity appropriate for the Mineral Resource and Ore Reserve estimation procedure(s) and classifications applied.</li> <li>Whether sample compositing has been applied.</li> </ul>	No systematic sampling has been conducted at this early stage.
Orientation of data in relation to geological structure	<ul> <li>Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type.</li> <li>If the relationship between the drilling orientation and the orientation of key mineralised structures is considered to have</li> </ul>	No orientation-based sampling bias has been identified.



Criteria	JORC Code explanation	Commentary
	introduced a sampling bias, this should be assessed and reported if material.	
Sample security	The measures taken to ensure sample security.	<ul> <li>Exported samples are in the possession of ESR personnel from field collection to customs submission in Darwin. Possession then passes to the Department of Agriculture, Forestry and fisheries where Northline Couriers pick up the samples and take them by road to ALS in Malaga.</li> <li>Non-exported samples remain with ESR personnel past Darwin Airport Customs.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	<ul> <li>No independent audit or review has been undertaken.</li> <li>Internal QAQC involves frequent standard checks on the PXRF instrument to determine any drift of accuracy.</li> <li>Additional checks involve analysis of any assayed samples in comparison to the crushed and uncrushed in-country PXRF determinations so as to provide confidence in in-country analysis.</li> </ul>



**Section 2 - Reporting of Exploration Results** 

Criteria	JORC Code explanation	Commentary
Mineral	Type, reference name/number, location and	Exploration and Evaluation Concessions
tenement and	ownership including agreements or material	MEL2023-CA-ZA001, MEL2023-CA-
land tenure	issues with third parties such as joint	ZA002 and MEL2023-CA-ZA003 are
status	ventures, partnerships, overriding royalties,	awarded for two years to Estrella Murak
	native title interests, historical sites,	Rai, forming the joint-venture between
	wilderness or national park and	Estrella Resources Representante
	environmental settings.	Permanente (70%) and Murak Rai Timor
	The security of the tenure held at the time	(30%).
	of reporting along with any known	Reconnaissance Permits ESR-RP-01,     FER RP 03 FER RP 04
	impediments to obtaining a license to	ESR-RP-02, ESR-RP-03, ESR-RP-04, ESR-RP-05, ESR-RP-06, ESR-RP-07
	operate in the area.	and ESR-RP-08 are awarded to Estrella
		Resources Limited Representante
		Permanente (100%)
		Exploration and Evaluation Concessions
		MEL2024-DA-ZB001, MEL2024-DA-
		ZB002 and MEL2024-DA-ZB003 are
		awarded for four years to Estrella Murak
		Rai, forming the joint-venture between
		Estrella Resources Representante
		Permanente (70%) and Murak Rai Timor
		(30%).
		Estrella Resources Limited
		Representante Permanente and Estrella
		Murak Rai are registered in Timor-Leste
		and is a wholly-owned subsidiary of
		<ul> <li>Estrella Resources Limited (Australia).</li> <li>All of the Concessions and Permits are</li> </ul>
		current and in good standing.
Exploration	Acknowledgment and appraisal of	The first exploration was conducted by
done by other	exploration by other parties.	Allied Mining Corporation in 1937 during
parties	exploration by other parties.	which mineral potential was discovered.
parties		Very small-scale mining of manganese,
		gold and construction material was
		conducted. The exploration was not
		systematic and hampered by difficult
		access.
		Other work in the early 2000's has been
		conducted by the Pacific Economic
		Cooperation Council -PECC Minerals
		Network to assist Timor-Leste to
		understand and develop its minerals potential.
		Local geologists and companies have sporadically explored the area however
		there has been no documentation
		collected nor systematic exploration to
		quantify mineral occurrences.
		No minerals drilling has taken place.
		No close-spaced geophysics has taken
		place.
		No systematic, modern exploration has
		taken place.
		The Geological Institute of Timor-Leste
		(IGTL) has recently (and still is)
		conducting stratigraphic analysis and
		fossil dating to reconstruct the geological
Coology	Demosit time analysis of action and the	history of Timor-Leste.
Geology	Deposit type, geological setting and style of minoralisation.	The current Concessions and Permits     host three main forms of managenese
	mineralisation.	host three main forms of manganese mineralisation.
		<ul> <li>Primary mineralisation can be found in</li> </ul>
		stratigraphic banded cherts and banded
		irons formed from direct precipitation of
		manganese onto the sea floor. Evidence
		for both microbial and inorganic
		processes exist.
		Secondary mineralisation exists as a supergene blanket above the cherts



		<u> </u>
Criteria	JORC Code explanation	Commentary
Drill hole information  Data aggregation methods	A summary of all information material to the under-standing of the exploration results including a tabulation of the following information for all Material drill holes:	where they have been exposed to chemical weathering.  Tertiary mineralisation exists where high rainfall and erosion has sorted and concentrated detrital manganese into river paleo-channels or scree deposits.  Alluvial gold mineralisation has been reported in the area however no exploration has been undertaken.  Estrella will use and expand upon the current known stratigraphy to evaluate and document mineralisation styles and relate them back to the tectonostratigraphic genesis of the area.  No drilling has been undertaken in the area.  Sample locations are shown in the body of the text.  Exploration results with all relevant drillhole information are reported in the body of the text.  No aggregation methods have been used.  Metal equivalent values have not been used.
Relationship between mineralisation widths and intercept lengths	<ul> <li>stated.</li> <li>These relationships are particularly important in the reporting of Exploration Results.</li> <li>If the geometry of the mineralisation with respect to the drill hole angle is known, its nature should be reported.</li> <li>If it is not known and only the down hole lengths are reported, there should be a clear statement to this effect (e.g. 'down hole length, true width not known').</li> </ul>	Any relationships have been discussed within the body of the text.
Diagrams	Appropriate maps and sections (with scales) and tabulations of intercepts should be included for any significant discovery being reported. These should include, but not be limited to a plan view of drill hole collar locations and appropriate sectional views.	Relevant diagrams have been included within the main body of text.
Balanced Reporting	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and down-hole surveys), trenches, mine workings and other locations used in Mineral Resource estimation.</li> <li>Where comprehensive reporting of all</li> </ul>	No new information has been withheld.



Criteria	JORC Code explanation	Commentary
	Exploration Results is not practicable, representative reporting of both low and high grades and/or widths should be practiced to avoid misleading reporting of Exploration Results.	
Other substantive exploration data	Other exploration data, if meaningful and material, should be reported including (but not limited to): geological observations; geophysical survey results; geochemical survey results; bulk samples - size and method of treatment; metallurgical test results; bulk density, groundwater, geotechnical and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>No other substantive data exists as the program is in its early stages.</li> <li>All observations are discussed within the body of the text.</li> </ul>
Further work	<ul> <li>The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large- scale step-out drilling).</li> <li>Diagrams clearly highlighting the areas of possible extensions, including the main geological interpretations and future drilling areas, provided this information is not commercially sensitive.</li> </ul>	systematic mapping and sampling along with stratigraphic and structural classification.