# PERENJORI E57/5311 (100%)

## RECONNAISSANCE ROCK CHIPS UNEARTH:

- **Rare Earth Results**
- **Kaolin occurrences**
- **Pegmatites containing TREO**

## COMPREHENSIVE ENVIRONMENTAL SURVEY:

- **Nearing Completion**

Surefire Resources NL ("**Surefire**" or "the **Company**") is pleased to update the market on recent work conducted on the Perenjori Iron tenement E70/5311. During a reconnaissance site visit in December 2022, a total of 17 samples were taken from interesting lithologies within the Surefire exploration tenement, at locations peripheral to the current existing Perenjori Iron resource**.**

The sampling of newly discovered pegmatites on the property has returned significantly anomalous results with a maximum of **345ppm Total Rare Earth Oxides (TREO)** in sample PI Peg001 (Figure 1).

Additional sampling in the vicinity of the pegmatite, and elsewhere on the tenement, also returned anomalous TREO values.

***Figure 1*** *Coarse pegmatite rock sample PI Peg001, encountered in the south-eastern periphery of exploration licence E70/5311*

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Pegmatites were found on the eastern periphery of a kaolinised sheared granite contact between the sediments, hosting the Perenjori Iron deposit, and an intruded granite stock to the east. The results indicate either the pegmatites within the granitoid, the sheared kaolinised granite/sediment contact zone, or all the above contain rare earth elements.

| SAMPLE ID | Easting | Northing | TREO | $Li_2O$ | $Rb_2O$ | $Cs_2O$ | $Nb_2O5$ |
|---|---|---|---|---|---|---|---|
| | | | ppm | ppm | ppm | ppm | ppm |
| PI Peg001 | 439680 | 6751267 | 345.8 | na | na | na | 0.0 |
| PI Peg002 | 439680 | 6751268 | 181.8 | 107.6 | 240.6 | 5.3 | 64.4 |
| PI Peg003 | 439680 | 6751268 | 14.2 | 150.7 | 27.3 | 4.2 | bd |
| PI Peg004 | 439671 | 6751266 | 25.9 | 43.1 | 87.5 | 3.2 | 14.3 |
| PI 001-1 | 439610 | 6751192 | 2.6 | 43.1 | bd | bd | bd |
| PI 002-1 | 439656 | 6751183 | 14.7 | 21.5 | 21.9 | bd | 7.2 |
| PI 003-1 | 439812 | 6750988 | 139.3 | 86.1 | 27.3 | bd | 21.5 |
| PI 004-1 | 439741 | 6751019 | 1.5 | 43.1 | bd | bd | bd |
| PI 005-1 | 439741 | 6751275 | 267.2 | 107.6 | 1930.2 | 111.3 | 207.4 |
| PI 006-1 | 439944 | 6751651 | 25.6 | bd | 27.3 | bd | 7.2 |
| PI 006-2 | 439944 | 6751651 | 218.7 | 86.1 | 98.4 | 2.1 | 14.3 |
| PI 007-1 | 439950 | 6752497 | 235.4 | bd | 87.5 | 1.1 | 21.5 |
| PI 008-1 | 439696 | 6752385 | 224.6 | bd | 65.6 | bd | 21.5 |
| PI 008-2 | 439696 | 6752385 | 235.9 | 86.1 | 120.3 | 2.1 | 21.5 |
| PI 3 | 435492 | 6757555 | 62.9 | na | na | na | na |
| PI 4 | 435365 | 6757932 | 64.0 | na | na | na | na |
| PI 5 | 435278 | 6758135 | 49.1 | na | na | na | na |

***Table 1*** *Table of Total Rare Earth Oxide (TREO) results with sample ID & location (na = not assayed, bd = below detection)*

The south-eastern portion of the tenement hosts a historical kaolin occurrence (Figure 3) and additional kaolin occurrences have been noted in outcrop within the Surefire tenements during the reconnaissance field trip.

**Kaolin has recently been recognised as a host for rare earth mineralisation** within Australia and internationally; examples are the Georgia kaolin mines (Georgia State University USA), Cloud Nine (investingnews.com.au) and Caralue Bluff (smallcaps.com.au) among others. **Kaolin has become a primary source for production of HPA high purity** alumina for use in lithium-ion batteries. 4HPA is a high value product currently valued at approximately **$AUD30,000/t.**

The anomalous rare earth mineralisation occurs close to the eastern tenement boundary of E70/5311, the tenement hosting the Perenjori Iron Deposit. Surefire has applied for an additional exploration licence contiguous with E70/5311 to east (refer Figure 3).

## FOLLOW UP WORK PROGRAM

Surefire plans GIS review of the aeromagnetic imagery, detailed geological mapping, local geochemistry and follow up shallow drill testing to explore the Perenjori pegmatites and kaolin occurrences.

The historical focus of aeromagnetic interpretation was the huge Perenjori Iron BIF. Initial recent review of aeromagnetic data suggests the pegmatites are structurally controlled and that additional similar trending repetitions could occur within the current EL and the new EL in application.

***Figure 2*** *Outcropping Pegmatite PI Peg001 – 439680mE, 6751267mN & 345.8ppm TREO*

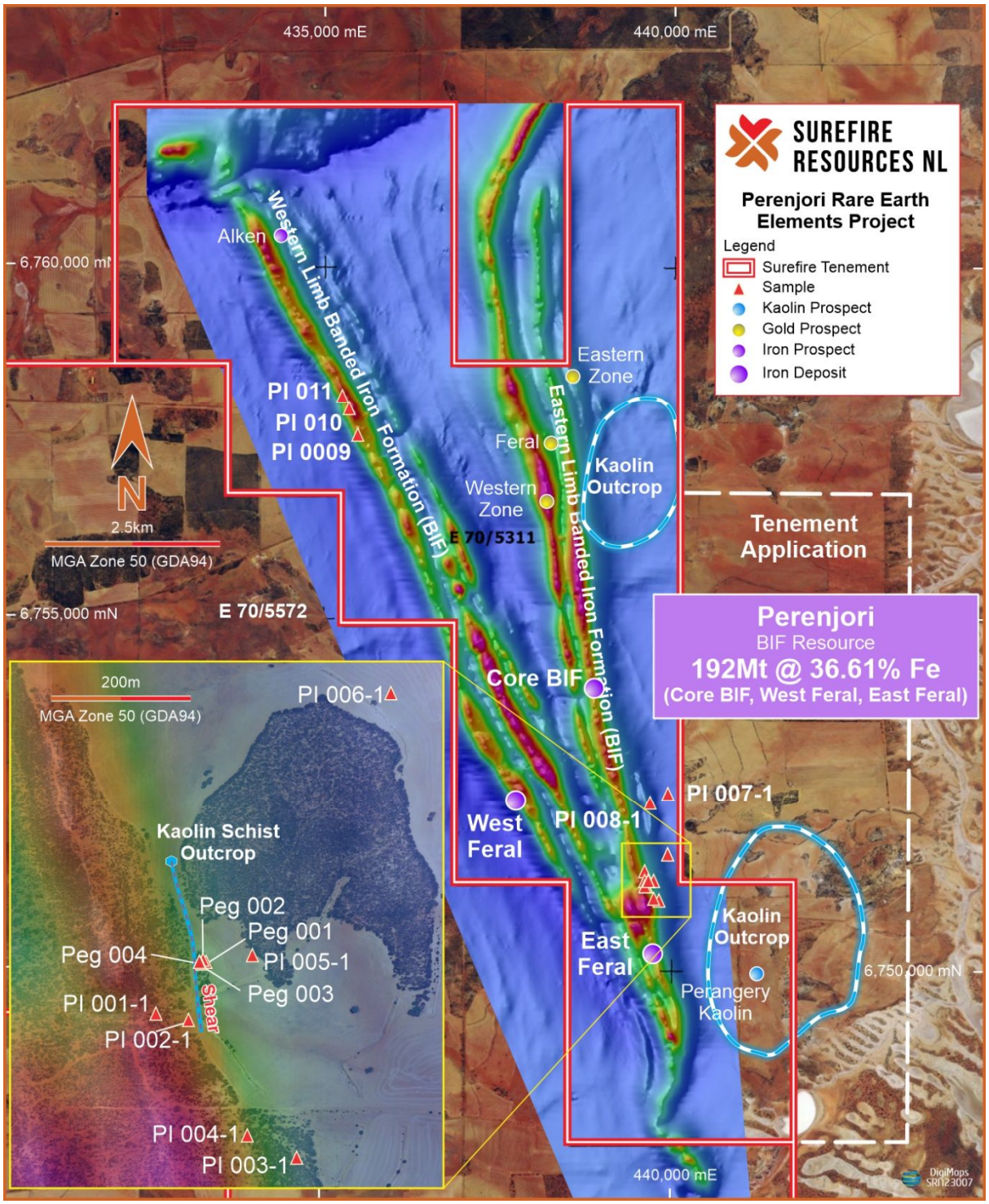



***Figure 3*** *Rare Earth sample Locations – all samples are located within Surefire tenement E 70/5311*


Sample PI 005-1, a highly micaceous rock which produced an assay of **267.2ppm TREO and 1930ppm Rubidium Oxide ($Rb_2O$, Table 1).**

Many of the assayed samples also contain a lithium response, with the maximum of 150.7ppm $Li_2O$.

***Figure 4 Sample PI 005-1 A highly micaceous rock which produced an assay grading 267.2ppm TREO and 1930ppm $Rb_2O$***

## COMPREHENSIVE ENVIRONMENTAL SURVEY (2022 – 2023)

Environmental consultants were contracted to conduct a comprehensive flora and vegetation database review for the Banded Iron Formations (**BIF**) on the tenement as a requirement of obtaining a Program of Work (POW) for the planned 6,000m infill reverse circulation (**RC**) drilling program. A report is due by early February 2023.

The infill drilling is planned to provide the basis for a resource upgrade and an economic prefeasibility study as an update from the previous scoping study.

The work involved completing a single season detailed flora and vegetation survey (prior to the end of November 2022) to ensure compliance with EPA technical guidelines and basic terrestrial vertebrate fauna assessment guidelines.

The consultants will provide a comprehensive report following the completion of the field survey. The report will detail the background of the study area, the survey methodology, desktop assessment results, and field survey results, including mapping of vegetation types, fauna habitats, conservation significant flora and fauna, and significant vegetation communities.

## ABOUT THE SUREFIRE PERENJORI IRON PROJECT

The tenement hosts an **Inferred Mineral Resource of 192Mt @36.6% Fe (JORC 2004)** including an additional **Exploration Target** of **870 Mt to 1,240 Mt** at a grade of **29% to 41% Fe (ASX: 3 February 2022)**[1].

A scoping study completed in 2012 by Management Consultants Mining (**MCM**) concluded that a concentrate grade of **66 - 70% Fe** was achieved @ **75µm** using magnetic separation.

### LOCATION

The project is ideally located 15km from an existing rail siding (Figure 5).

[1] The potential quantity and grade of the Exploration Target Estimate is conceptual in nature, there has been insufficient exploration to estimate a Mineral Resource over the entire area of the Exploration Target, and it is uncertain if further exploration will result in the estimation of an increased Mineral Resource.

**SIZE**

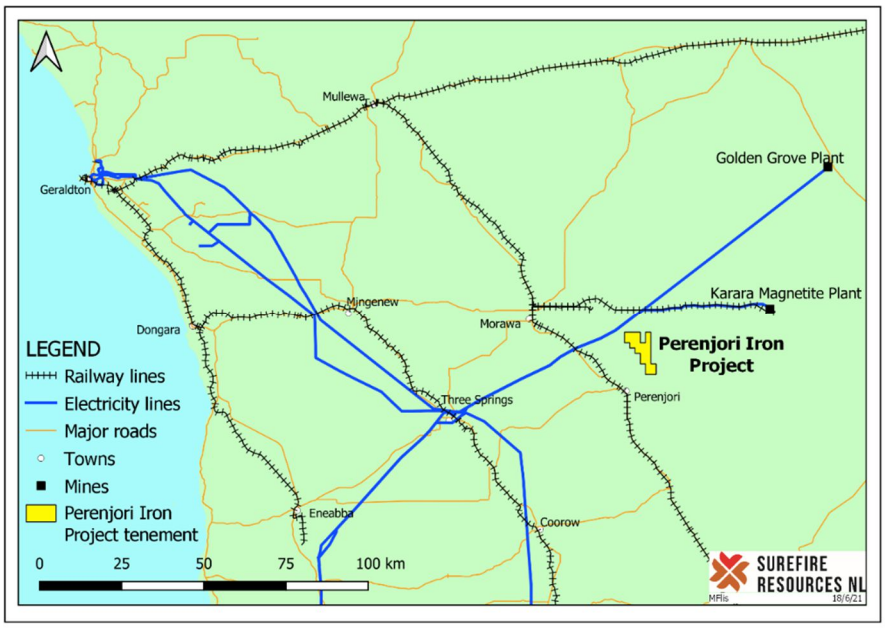
The project features up to 5 Banded Iron formation (**BIF**) horizons some individually up to 65m wide with a combined strike length of up to 25km (east limb up to 10km and west limb up to 15km, Figure 3).

**METALLURGY**

The initial project scoping study completed in 2012 by MCM demonstrates potential for a financially robust project.

MCM conclusions included:

- a quality **concentrate of 66-70% Fe** with Al2O3 + CaO less than 5%, can be achieved by conventional magnetic separation with a relatively **coarse grind of 75µm;**
- A **42% Estimated product yield** from 3 drillholes.




The project has a published **192Mt** preliminary resource of high-grade magnetite **+36%Fe** (in-situ)

An additional **Exploration Target of 870 Mt to 1,240 Mt** at a grade of **29% to 41% Fe** has been defined at the Perenjori Iron Project (ASX release Feb 2022).

***Figure 5 SUREFIRE Perenjori Iron Project - Ideally located, close to the Geraldton Port, existing rail within 15km***

The Perenjori BIF has huge upside potential due to it being:

- open at depth
- open along strike
- features up to 4 subordinate parallel horizons
- up to 25km in strike length

**Authorised for ASX release by:**
**Vladimir Nikolaenko**

**Managing Director**

## Cautionary Statement

*The Exploration Target referred to in this announcement, being conceptual in nature, takes no account of geological complexity, possible mining method or metallurgical recovery factors. The Exploration Target was estimated in order to provide an assessment of the potential scale of the exploration on the Perenjori Iron Project and to inform the Company prior to a decision to proceed with additional resource definition work and more advanced and definitive studies.*
*There is a low level of geological confidence associated with Inferred Mineral Resources and there is no certainty that further exploration work will result in the determination of Indicated Mineral Resources or Reserves.*

## No New Information or Data

*SRN confirms that it is not aware of any new information or data that materially affects the information included previous market announcements and, in the case of Mineral Resources, which all material assumptions and technical parameters underpinning the estimates in the relevant announcements continue to apply and have not materially changed. The Company confirms that the form and context in which the Competent Person's findings are presented have not materially changed from the original market announcement.*

## Forward Looking Statements

*This announcement contains 'forward-looking information' that is based on the Company's expectations, estimates and projections as of the date on which the statements were made. This forward-looking information includes, among other things, statements with respect to the Company'sbusiness strategy, plans, development, objectives, performance, outlook, growth, cash flow, projections, targets and expectations, mineral reserves and resources, results of exploration and related expenses. Generally, this forward-looking information can be identified by the use of forward-looking terminology such as 'outlook', 'anticipate', 'project', 'target', 'potential', 'likely', 'believe', 'estimate', 'expect', 'intend', 'may', 'would', 'could', 'should', 'scheduled', 'will', 'plan', 'forecast', 'evolve' and similar expressions. Persons reading this announcement are cautioned that such statements are only predictions, and that the Company's actual future results or performance may bematerially different. Forward-looking information is subject to known and unknown risks, uncertainties and other factors that may cause the Company's actual results, level of activity, performance, or achievements to be materially different from those expressed or implied by such forward-looking information.*

## Competent Person Statement

*The information in this report that relates to exploration results has been reviewed, compiled and fairly represented by Mr Horst Prumm, a Member of the Australian Institute of Mining and Metallurgy ('AusIMM') and the Australian Institute of Geoscience ('AIG') and a fulltime employee of Prumm Corporation Pty Ltd. Mr Prumm has sufficient experience relevant to the style of mineralisation and type of deposits under consideration to qualify as a Competent Person as defined in the 2012 Edition of the Joint Ore Reserves Committee ('JORC') Australasian Code for Reporting of Exploration Results, Minerals Resources and Ore Reserves. Mr Prumm consents to the inclusion in this report of the matters based on this information in the form and context in which it appears.*