

# POTENTIAL LARGE HREE-BEARING SYENITE INTRUSIVE IDENTIFIED AT MELSON, SWEDEN

Ragnar Metals Limited ("Ragnar" or "the Company", ASX: RAG) is pleased to announce assay results for the second field program at its Olserum North Heavy Rare Earth (HREE) Project in southern Sweden. Rock chip samples taken during a recent field trip produced encouraging assay results indicating possible scale potential for HREE within a syenite intrusive at the Melsjon prospect (now called "Melson").

## **HIGHLIGHTS**

- Biotite-magnetite-altered shear zone with assays up to 1.75% TREO with up to 71% HREO
- Several outcrops of magnetite-poor HREE-bearing syenite intrusive rock with up to 0.6% & 0.5%
   TREO with 35% to 38% HREO
- Mineralised syenite mapped at surface for at least 50m by 20m and open to the west, north and east
- HREE-bearing syenite host rocks have not been previously identified in the area and are interpreted to represent a different target for large alkaline and syenite intrusive hosted HREE deposits so further work on this hypothesis is being investigated by Ragnar.

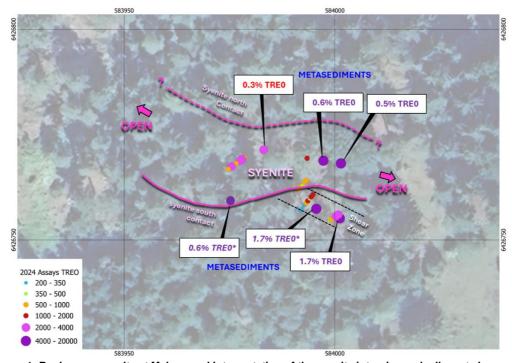


Figure 1: Rock assay results at Melson and interpretation of the syenite intrusive and adjacent shear zone (NB: TREO includes all rare earth elements plus Y and Sc. \*AR results previously reported RAG announcement 16 May 2024).



#### **Executive Director Eddie King commented:**

"We are thrilled that our summer fieldwork campaigns unveiled a possible new target style for highvalue heavy rare earth metal deposits. Discovering syenite intrusive hosted heavy rare earth mineralisation for the first time in the area is incredibly exciting given the scale of this deposit style already known in Sweden."



Figure 2: Photograph of magnetite-poor red HREE-bearing syenite intrusive at Melson Sample MEJFG06 that returned 0.6% TREO

For an explanation of the strategic location and significance of unique high-value Heavy Rare Earth (HREE) metals such as terbium and dysprosium (Refer to RAG announcement of 26 June 2023).

#### **Rock Sampling at Melson HREE Prospect**

In June 2024, Ragnar geologists completed fieldwork at Melson and collected 38 rock samples in the area. This work aimed to follow up outcropping HREE mineralisation reported in 2023 (Refer to RAG announcement 16 May 2024) in an attempt to better understand the mineralisation style and extent of mineralisation and alteration.

This fieldwork observed extensive HREE mineralisation of two types:

- 1. A large hematite-altered syenite with variable HREE mineralisation, which extends for at least 50m and 20m thick, is likely to be much larger since the western, northern and eastern contacts have not yet been defined (Figure 1). Highlight assays in the syenite include:
  - **5,856 ppm (0.59%) TREO** with **up to 35%** of high-value **HREO** in MEJF06;
  - **4,807 ppm (0.48%) TREO** with **up to 38%** of high-value **HREO** in MEJF05; as well as previously reported
  - **6,416 ppm (0.64%) TREO** with up to 39% of high-value **HREO** in B3741.
- 2. A northwest-trending biotite-magnetite altered shear zone with variable HREE mineralisation to the northeast of the syenite extends for at least 10-20m but open to the southeast (Figure 1). Highlight assays in the shear zone include:
  - **17,511 ppm (1.75%) TREO** with **up to 71%** of high-value **HREO**; with high-value HREO metals 1,090 (0.11%) Dy2O3 and 142 ppm Tb4O7 in MEJF08; as well as previously reported
  - **17,407 ppm (1.74%) TREO** with **up to 40%** of high-value **HREO**, including HREO metals 684 ppm Dy2O3 and 80 ppm Tb4O7 in B3739.



#### **Conclusions and Ongoing Work Programs**

Ragnar's recent rock sampling work is highly encouraging and provides further support for the high prospectivity of the 50.9km² tenure (Figure 3). The most significant outcome of this work at Melson is the discovery of the very first syenite intrusive hosted HREE mineralisation recorded in the area. These magnetite-poor syenite intrusions are very different host rocks from the shear-hosted biotite-magnetite HREE mineralisation characteristic of Olserum deposit and Ragnar's Flaken and Hylleled prospects (Refer to RAG announcement 16 May 2024). This new style of mineralisation at Melson provides compelling new evidence for also targeting a different deposit style since alkalic and syenite-hosted REE deposits are known to be large tonnage deposits with many examples known worldwide and even in Sweden at the Norra Karr deposit<sup>4</sup>. Further geochemical and petrographic work is now required by Ragnar to support this hypothesis.

Further field work is also warranted across the prospect area, which would initially focus on further field sampling and mapping work to try to trace out the extent of the HREE-bearing syenite intrusive in the field. Highly experienced consultants specialising in rare earth deposits in Scandinavia have been engaged by Ragnar to visit the Melson and other REE occurrences to advance our technical understanding of these important mineralisation sites, with work commencing in early October. A ground or drone-based magnetic and radiometric survey across the area is also proposed to define the extent of the mineralised syenite at the prospect and try to find further mineralised syenites along strike in the area that could be concealed beneath vegetation and forest).

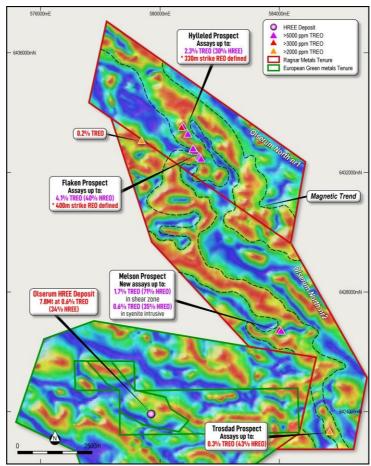


Figure 3: Airborne Magnetic Map (tilt derivative) showing the location of recent rock sample results (\*TREO includes all rare earth elements plus Y and Sc)



#### About the Olserum North HREE Project and Olserum Deposit

Project tenure at Olserum North comprises 50.9km² strategically located 8.5km north of the Olserum HREE deposit. This deposit is in an identical geological setting characterised by the same host Palaeoproterozoic Svekokarelian metasedimentary rocks (1.9Ga) and Palaeoproterozoic alkalic granite and syenite rocks (1.8Ga) mapped by the Geological Survey of Sweden (Figure 4).

The Olserum HREE deposit is hosted in hydrothermally altered metasedimentary and alkalic granites. Sweden has recently defined the Olserum REE deposit and the surrounding area as a resource of national importance for critical minerals<sup>1</sup>. The Olserum deposit and resource are characterised by variably magnetite-biotite-altered rock, often with spectacular coarse crystals of REE-bearing xenotime minerals<sup>3</sup>. The mineralisation style identified on Ragnar's 100% owned Olserum North such as the Flaken and Hylleled prospects display striking similarities to the Olserum deposit.

Another significant rare earth deposit in Sweden worthy of note is the **Norra Karr deposit** located in Southern Sweden, approximately 100km west of Olserum (Figure 5). Norra Karr is a bulk tonnage rare earth deposit hosted in a large syenite intrusion with a current inferred resource of **110 Mt at 0.5% TREO with 52% proportion of high-value HREO**<sup>4</sup>.

What is most attractive about these deposits is the high percentage of heavy rare earth elements (HREE), in particular, the Tb (Terbium) and Dy (Dysprosium), as well as Nd (Neodymium). Notably, amongst various other essential uses, these metals are critical components in manufacturing performance technology solutions for clean energy. Rare earth elements (REE) are gaining prominence in the global economy due to their diverse applications, ranging from advanced electronics to permanent magnets in electric motors. For instance, a neodymium magnet utilised in wind turbines or electric vehicle motors boasts a strength 18 times greater than that of a conventional ferrite magnet, markedly enhancing energy efficiency.

In addition, Ragnar remains committed to exploration in Sweden since the country is consistently ranked in the top 10 of the Fraser Institute's Annual Survey of Mining Investment Attractiveness).

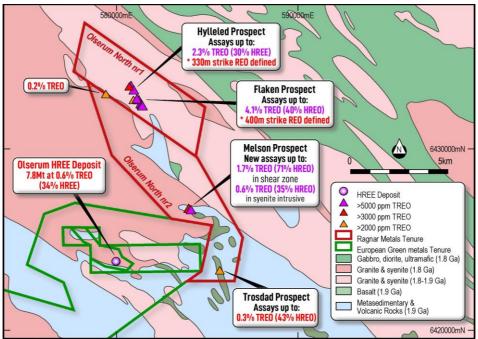


Figure 4: Interpreted bedrock geology map showing Ragnar's Olserum North project in relation to the Olserum HREE deposit.



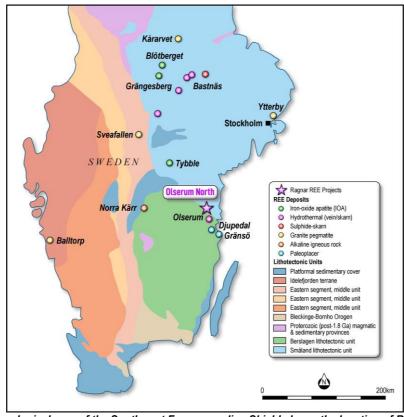


Figure 5: A simplified geological map of the Southwest Fennoscandian Shield shows the location of Ragnar's REE Projects in relation to the Olserum REE deposit.

Table 1: Rock sampling by Ragnar Metals at the Melson HREE Prospect

Table 1.	ROCK S	ampiii	ig by K	agnar	wetais	at the	weisor	INKEE	: Prosp	ect			
SAMPLE ID	MEJFG08	MEJFG06	MEJFG05	MEJFG12	MEJFG11	MCJFC02	MCJFC05	MCJFC03	MEJFG07	MCJFA07	MCJFA05	MCJFA08	MEJFG10
Easting	584001.2	583997.3	584001.5	584000.8	584000.3	583978	583975.5	583977.4	583993.4	583994.4	583993.6	583994.8	583999.2
Northing	6426755	6426769	6426768	6426756	6426756	6426769	6426767	6426769	6426769	6426760	6426759	6426761	6426755
TREO_Y_Sc	17511	5856	4807	2673	2205	2138	2097	2085	1860	1378	1089	1049	844
HREE%	71.4%	34.8%	38.3%	33.4%	53.9%	15.7%	23.7%	28.2%	29.0%	31.8%	32.9%	33.4%	54.3%
La2O3_ppm	1959	1783	1107	713	325	613	611	565	590	394	276	274	71
CeO2_ppm	2033	1677	1370	746	436	855	743	679	580	399	298	291	142
Pr6O11_ppm	114	83	92	46	30	66	49	47	31	21	19	17	16
Nd2O3_ppm	261	151	232	120	86	187	126	123	65	43	50	41	62
Sm2O3_ppm	97	29	43	24	21	25	18	20	11	9	10	8	15
Eu2O3_ppm	18	6	8	4	4	4	4	4	3	2	2	2	3
Gd2O3_ppm	479	70	85	44	55	26	27	28	22	19	18	18	23
Tb4O7_ppm	168	23	25	12	15	6	7	8	7	5	5	5	6
Dy2O3_ppm	1251	199	199	93	122	40	54	61	55	45	36	36	43
Ho2O3_ppm	305	48	45	21	28	8	12	14	13	10	8	8	10
Er2O3_ppm	987	164	138	66	83	25	38	45	44	33	25	25	29
Tm2O3_ppm	133	26	20	10	12	4	6	7	7	5	4	4	4
Yb2O3_ppm	909	171	116	59	73	22	37	45	45	32	23	23	25
Lu2O3_ppm	130	27	16	9	11	3	6	7	7	5	3	4	4
Y2O3_ppm	8496	1365	1264	582	773	223	330	391	354	278	227	222	274
Sc2O3_ppm	172	34	48	125	130	30	28	42	27	78	87	72	117



SAMPLE ID	MEJFG03	MEJFG17	MCJFB01 I	MEJFG02	MEJFG18	MCJFC04	MCJFA04	MCJFB0	2 MEJI	G14 M	CJFB04	MCJFB	05 MCJFC	01 MCJFC0
Easting	583933.7	584106	583991.4	583957.5	584114.5	583976.6	583993.3	583991	9 584	.000 58	33992.8	583993	.2 58397	3.6 583974.
Northing	6426859	6426402	6426762	6426830	6426419	6426768	6426759	642676	3 6420	6542 64	426764	642676	64267	70 642676
TREO_Y_Sc	829	764	746	719	681	674	673	640	6:	28	587	560	552	539
HREE%	4.5%	4.6%	31.2%	19.9%	5.2%	11.3%	38.5%	39.4%	14.	.7%	41.9%	8.4%	13.10	6 27.3%
La2O3_ppm	216	179	126	91	159	196	66	89	9	5	91	149	131	154
CeO2_ppm	402	391	202	246	350	281	155	150	2	33	130	249	209	169
Pr6O11_ppm	36	33	20	31	28	23	18	15	3	0	11	23	20	11
Nd2O3_ppm	109	99	74	129	85	67	73	57	1	18	38	66	71	25
Sm2O3_ppm	11	11	17	23	10	8	15	13	1	.9	9	8	11	4
Eu2O3_ppm	2	1	3	4	1	2	3	3		4	2	1	3	1
Gd2O3_ppm	7	7	18	18	6	7	17	16		.3	13	6	9	6
Tb4O7_ppm	1	1	4	3	1	1	3	4	_	2	3	1	1	2
Dy2O3_ppm	4	4	24	15	5	7	24	24	_	.0	23	5	8	14
Ho2O3_ppm	1	1	5	3	1	2	5	5	_	2	5	1	2	3
Er2O3_ppm	2	2	15	9	2	5	15	17		3	17	3	5	11
Tm2O3_ppm	0	0	2	1	0	1	2	2		1	2	0	1	2
Yb2O3_ppm	0	0	14	7	0	5 1	13 2	16		5 1	16 2	3	4	11
Lu2O3_ppm	26	24	2 144	96	24	53	152	2 154		2	144	32	47	95
Y2O3_ppm Sc2O3_ppm	9	8	77	41	6	15	108	73		17	79	11	30	30
SAMPLE ID	MCJFA06								JFA01				MEJFG04	MEJFG01
Easting	583994	583998.7		_					3991.7	583982			83947.3	583963.2
Northing	6426760	6426755							26757	642653			6426862	6426823
TREO_Y_Sc	480	433	427	402	348			73	270	249		214	89	30
HREE%	25.8%	38.5%	13.6%	38.0%					2.3%	11.09		3.6%	20.8%	22.3%
La2O3_ppm	127	54	71	65	44	54	. 3	4	28	45	:	35	11	5
CeO2_ppm	159	101	154	92	93	109	9 6	8	57	113		72	24	9
Pr6O11_ppm	12	11	19	8	10	13		3	7	10		8	3	1
Nd2O3_ppm	34	41	76	28	39	49	2	9	24	35		31	11	4
Sm2O3_ppm	5	8	13	7	7	8	(	6	5	5		5	2	1
Eu2O3_ppm	1	2	3	2	2	2	2	2	2	2		1	1	0
Gd2O3_ppm	7	10	9	9	8	6	(	6	7	4		5	2	0
Tb4O7_ppm	2	2	1	2	1	1		l	1	1		1	0	0
Dy2O3_ppm	12	15	7	14	9	4	-	7	7	3		4	1	1
Ho2O3_ppm	3	3	1	3	2	1	:	L	1	1		1	0	0
Er2O3_ppm	9	10	3	10	6	2	4	1	5	2		2	1	0
Tm2O3_ppm	1	2	0	1	1	0		L	1	0		0	0	0
Yb2O3_ppm	8	10	3	10	6	2	4	1	4	1		2	1	0
Lu2O3_ppm	1	2	0	1	1	0	(	)	1	0		0	0	0
Y2O3_ppm	84	99	38	89	58	25	4	0	43	19		25	10	4
Sc2O3_ppm	14	64	27	62	62	14	. 6	3	78	10		20	23	4



**Table 2: Ragnar Metals Swedish Projects Tenement Details** 

Name	License ID	RAG Ownership	Area Ha	Expiry Date
Gruvhagen nr 1	2023 38	100%	1612.54	23/03/2026
Olserum North	2023 55	100%	2082.61	25/04/2026
Olserum North Nr 2	2023 118	100%	3014.02	17/08/2026
Bergom nr 2	2023 35	100%	2767.31	20/03/2026
Bergom nr 3	2023 116	100%	4773.73	17/08/2026
Hälleberget nr 1	2023 36	100%	2110.45	20/03/2026
Hälleberget nr 2	2023 58	100%	2985.79	25/10/2026
Flugen nr 1	2024 89	100%	3885.98	14/05/2027
Ingelsbo nr 1	2024 92	100%	719.66	23/05/2027
Viken East	2024 93	100%	2275.11	23/05/2027
Viken South	2024 88	100%	3963.56	14/05/2027
Orrvik Nr 110	2020 93	100%	600	3/12/2026
Orrvik Nr 210	2021 23	100%	922.52	16/03/2027
Orrvik Nr 300	2020 83	100%	450.07	5/11/2026
Orrvik Nr 400	2022 77	100%	1636.18	14/11/2025
Total Area			33799.53	

For the purpose of ASX Listing Rule 15.5, the Board has authorised this announcement to be released.

For further information please contact:

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#### References

<sup>&</sup>lt;sup>1</sup> <u>https://www.sgu.se/om-sgu/nyheter/2023/maj/olserum-blir-riksintresse-for-sallsynta-jordartsmetaller/</u>

<sup>&</sup>lt;sup>2</sup>Olserum indicated resource of 4.5Mt at 6000 ppm TREO (33.9% HREE) and an additional inferred resource of 3.3Mt at 6300 ppm TREO (33.7% HREE) reported in 2013 Amended and Restated Technical Report for Olserum REE Deposit Southern Sweden: <a href="https://www.sec.gov/Archives/edgar/data/1474547/000094935313000119/exh99-1\_olserum.htm">https://www.sec.gov/Archives/edgar/data/1474547/000094935313000119/exh99-1\_olserum.htm</a>

<sup>&</sup>lt;sup>3</sup> Sadeghi, Arvanitidis, Ripa, 2019. Rare Earth Elements Distribution, mineralisation and exploration potential in Sweden. Geological Survey of Sweden

<sup>&</sup>lt;sup>4</sup>Bowell., R.J., et al. Preliminary Economic Assessment of Norra Kärr Rare Earth Deposit and Potential Byproducts, Sweden. https://wp-leadingedgematerials-2023.s3.ca-central-1.amazonaws.com/media/2021/08/NorraKarr PEA 43-101.pdf



#### **Competent Person Statement**

The information in this announcement relating to exploration results is based on information compiled by Leo Horn of All Terrain Geology, a consultant to Ragnar Metals and a member of The Australasian Institute of Geoscientists. Mr Horn has sufficient experience relevant to the style of mineralisation and type of deposit under consideration and to the activity he is undertaking to qualify as a Competent Person as defined in the 2012 Edition of the "Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves". Mr Horn consents to the inclusion in the report of the matters based on his information and documents in the form and context in which it appears.



# APPENDIX 1 JORC TABLE 1 - JORC CODE, 2012 EDITION - TABLE 1 Section 1 Sampling Techniques and Data

(Criteria in this section apply to all succeeding sections.)

Criteria	JORC Code explanation	Commentary
Sampling techniques	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.	Rock sampling by Ragnar Metals is mainly outcrop rock samples, however in the absence of outcrop some float samples have been taken near historical workings that are interpreted to be sourced close to outcrop. All sample types and descriptions were carefully recorded by the geologist.
	<ul> <li>Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.</li> </ul>	No drilling reported in this announcement.
	<ul> <li>Aspects of the determination of mineralisation that are material to the Public Report.</li> </ul>	No drilling reported in this announcement.
	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 30g 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 information	No drilling reported in this announcement.
Drilling techniques	<ul> <li>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).</li> </ul>	No drilling reported in this announcement.
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 reported in this announcement.



Criteria	JORC Code explanation	Commentary
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>	Geological descriptions were recorded by Ragnar Metals for each rock sample when collected by geologist.
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 representivity of samples.</li> <li>Measures taken to ensure that the sampling is representative of the insitu 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>	<ul> <li>No drilling reported in this announcement.</li> <li>No sub-sampling completed for rock chip samples.</li> </ul>
Quality of assay data and laboratory tests	<ul> <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>Rock assays were conducted by ALS laboratories in Piteå Sweden where samples were subject to lithium borate fusion followed by ICP-MS for full suite REE and other rare metals, four-acid digest for base metals ICP-AES and whole rock package by ICP-AES.</li> </ul>
Verification of	• The verification of significant intersections by either independent or	These assays verify and expand on previous sampling by Ragnar at
sampling	alternative company personnel.	Melson in early 2024.
and assaying	The use of twinned holes.	No drilling reported in this announcement.
	<ul> <li>Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.</li> </ul>	No drilling reported in this announcement.



Criteria	JORC Code explanation	Commentary
	Discuss any adjustment to assay data.	Oxide conversions calculated for REE (see Data Aggregation Methods section)
Location of data points	<ul> <li>Accuracy and quality of surveys used to locate drill holes (collar and downhole 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>Location of rock samples by Ragnar Metals were recorded using a handheld GPS which is considered appropriate for reconnaissance sampling.</li> <li>SWEREF99TM</li> <li>Elevation data not collected from handheld GPS.</li> </ul>
Data spacing and	Data spacing for reporting of Exploration Results.	Rock samples were taken at selected outcrops and historic iron occurrences and workings.
distribution	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.	Further sampling work is required to establish continuity of mineralisation.
	Whether sample compositing has been applied	No drilling or channel composite samples reported in this announcement.
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 introduced a sampling bias, this should be assessed and reported if material.</li> </ul>	Reconnaissance rock sampling by Ragnar Metals was taken where outcrops are available. The orientation of magnetite-REE mineralisation is established to be oriented northwest-southeast (Strike 310-320 degrees) with steep dip to the northeast. Orientation of magnetite-poor syenite-hosted mineralisation has not yet been defined but is interpreted to be east-west trending with an unknown dip.
Sample security	The measures taken to ensure sample security.	<ul> <li>Ragnar Metals ensured that sample security was maintained to ensure the integrity of sample quality.</li> </ul>
Audits or reviews	The results of any audits or reviews of sampling techniques and data.	No audits or reviews have been conducted for this release given the early stage of the project

### **Section 2 Reporting of Exploration Results**

(Criteria listed in the preceding section also apply to this section.)

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Criteria	JORC Code explanation	Commentary				
Mineral	Type, reference name/number,	• Exploration Permits Olserum North (2023:55				
tenement and	location and ownership including	and Olserum North nr 2 (2023:118) are owned				
land tenure	agreements or material issues	100% by Ragnar Metals. The tenures are				
status	with third parties such as joint	located in Bergslagen District within the				



Criteria	JORC Code explanation	Commentary
	ventures, partnerships, overriding royalties, native title interests, historical sites, wilderness or national park and environmental settings.  • The security of the tenure held at the time of reporting along with any known impediments to obtaining a licence to operate in the area.	<ul> <li>Municipality of Sala on Map page 11G. The Permits are valid until 25/04/2026 &amp; 17/08/2026 respectively.</li> <li>There are no known impediments to operate in the licenses areas for early stage exploration work.</li> </ul>
Exploration done by other parties	Acknowledgment and appraisal of exploration by other parties.	No other assays are reported in this announcement.
Geology	Deposit type, geological setting and style of mineralisation.	<ul> <li>REE mineralisation style at each prospect are not well understood. However, the Geological Survey of Sweden describes mineralisation at the Olserum deposit and other regional prospects associated with magnetite-biotite-bearing shear zones as a 'hydrothermal-style iron oxide-REE mineralisation style' possibly sourced from intrusive magmas. Further work is required to better understand the deposit type.</li> <li>The magnetite-poor HREE-bearing syenite rocks newly discovered at Melson may be similar in style to the syenite- and alkalic-intrusive hosted deposits widely known around the world including Norra Karr in Sweden. Further work is required by Ragnar to support this hypothesis.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (e.g. cutting of high grades) and cut-off grades are usually Material and should be stated.</li> <li>Where aggregate intercepts incorporate short lengths of high grade results and longer lengths of low grade results, the procedure used for such aggregation should be stated and some typical examples of such aggregations should be shown in detail.</li> </ul>	<ul> <li>No drilling reported in this announcement however rock assay results are converted to stoichiometric oxide (REO) using element-to-stoichiometric oxide conversion factors.</li> <li>These stoichiometric conversion factors are stated in the table below</li> <li>Rare earth oxide is the industry accepted form for reporting rare earth metal assay results.</li> <li>Heavy Rare Earth Oxide (HREO) % refers to total of all HREO species divided by the total rare earth oxide (TREO) expressed as a percent and includes both Y and Sc in the calculation.</li> </ul>

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Criteria	JORC Code explanation	Comme	ntary		
Orneria	Corto codo explanación		Conversion Factor	Oxide Form	Туре
		Ce	1.2284	CeO2	Light
		Dy	1.1477	Dy2O3	Heavy
		Er	1.1435	Er2O3	Heavy
		Eu	1.1579	Eu2O3	Heavy
		Gd	1.1526	Gd2O3	Heavy
		Но	1.1455	Ho2O3	Heavy
		La	1.1728	La2O3	Light
		Lu	1.1372	Lu2O3	Heavy
		Nd	1.1664	Nd2O3	Light
		Pr	1.2082	Pr6O11	Light
		Sc	1.5338	Sc2O3	J
		Sm	1.1596	Sm2O3	Light
		Tb	1.1762	Tb4O7	Heavy
		Tm	1.1421	Tm2O3	Heavy
		Υ	1.2699	Y2O3	Heavy
		Yb	1.1387	Yb2O3	Heavy
	The assumptions used for any	• No	metal equivalen	ts reported	d in this
	reporting of metal equivalent		uncement.		
	values should be clearly stated.				
Relationship	• These relationships are		samples are main		
between	particularly important in the		isseminated, vei		•
mineralisation widths and	reporting of Exploration Results.	_	etite-REE mineral	lisation ident	tified in the
intercept	If the geometry of the mineralisation with respect to the	field.			
lengths	drill hole angle is known, its				
	nature should be reported.				
	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				
Diagrams	<ul><li>length, true width not known').</li><li>Appropriate maps and sections</li></ul>	• Annre	opriate maps and	tables are	included in
Diagrailis	(with scales) and tabulations of		ody of the Report.	iavies ale	iiiciuu <del>c</del> u III
	intercepts should be included for		ou, or the report.		
	any significant discovery being				
	reported. These should include,				
	but not be limited to a plan view				
	of drill hole collar locations and				
Balanced	appropriate sectional views.	• No dei	lling roported in thi	ic announce	mont
reporting	<ul> <li>Where comprehensive reporting of all Exploration Results is not</li> </ul>		lling reported in thi		
	practicable, representative		of recent rock sar		
	reporting of both low and high	Metals		r 2000,0	- ,
	grades and/or widths should be				
	practiced to avoid misleading				
0//-	reporting of Exploration Results.				
Other substantive	Other exploration data, if  magningful and material abouts		eaningful and ma	•	
รนมริเสที่แก่ย	meaningful and material, should be reported including (but not		ble to the Compa of this announcem	•	sea in the
	pe reported including (but not	body	or triis armouncem	ıcı II.	



Criteria	JORC Code explanation	Commentary
exploration data	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.	and data compilation and image processing was contracted to GeoVista Geophysical consultants based in Luleå, Sweden who provided Ragnar Metals with a small suite of industry-standard images including 1Vd, RTP,
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>	Further work is described in the body of this announcement.