21 November 2022

ASSAYS CONFIRM NI-CU-CO IN MASSIVE SULPHIDES AT BASE OF GRANMUREN INTRUSION

HIGHLIGHTS

- Initial priority assay results for the semi-massive sulphides intersected in the base of hole 22DDTS010.
- **Assays confirm Ni-Cu-Co mineralisation matching previously reported visual sulphide estimations[1] from the base of the gabbroic intrusion**
  - **2.86m @ 1.14% Ni, 0.38% Cu & 0.08% Co from 442.00-444.86m including**
  - **0.71m @ 2.17% Ni, 0.29% Cu & 0.12% Co from 444.15-444.86m**

Figure 1: Semi-massive sulphides in the base of hole 22DDTS010 (442m-448m shown)

- 2,562.75m drilling program completed, with assay results pending.
- Remaining assays for hole 22DDTS010 pending
- DHIP-R surveying completed with modelling results pending and DHEM scheduled to commence in the coming weeks

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Executive Director Eddie King commented*,*

"We are pleased to report that initial priority assay results have returned intercepts showing high grade nickel exists in the system. We look forward to receiving the remaining assays this quarter, particularly for the wide zones of mineralisation that has already been visually estimated."

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[1] ASX:RAG 30/09/22 RAG "Magmatic Sulphides Intersected at Granmuren"

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Program Overview

Ragnar Metals Limited ("**Ragnar**" or "**the Company**", **ASX: RAG**) have recently completed the diamond core drilling program, led by Swedish drilling Allroc AB to further test the Granmuren nickel-copper discovery. Granmuren is located within the Company's 100%-owned Tullsta Nickel Project in Sweden, 110km NW of Stockholm ("Tullsta" or "the Project").

Initial assay results have been received for the priority rush samples which contained semi-massive sulphides at the base of the Granmuren gabbroic intrusion which returned a length weighted average of **2.86m @ 1.14% Ni, 0.38% Cu & 0.08% Co** from 442.00-444.86m (Table 1). The assays returned anomalous Ni-Cu-Co mineralisation confirming the visual estimates (Table 2) for this section as reported in late September 2022. The remainder of the hole is being processed at the laboratory which has considerable delay times, driving Ragnar's decision to put these samples in as a priority in order to verify whether laboratory assay results supported the visual field estimations at depth. Investors should note that the available assay results cover an interval less than 3 metres at the base of the hole (refer Figure 4). The remaining laboratory assays from the hole, including intervals for which visual estimates of sulphide mineralisation were reported, are still to be received. Those assay results must be received to determine the widths and grades of mineralisation at other intervals in the hole.

Table 1: Assay results from priority samples from 22DDTS010

Hole_Id	From (m)	To (m)	Length (m)	Ni %	Cu %	Co %	S %	3PGE ppm	Zone
22DDTS010	442.00	443.00	1.00	0.56	0.34	0.07	9.37	0.03	Undulating semi-massive
	443.00	443.45	0.45	**1.99**	0.38	**0.12**	30.35	0.04	Massive sulphide, brecciating metasediment
	443.45	444.15	0.70	0.39	**0.51**	0.03	5.03	0.05	Sulphide-impregnated metasediment
	444.15	444.86	0.71	**2.17**	0.29	**0.12**	**30.35**	0.04	Undulating irregular massive sulphide

Table 2: Visual Sulphide Estimates. (Note: pentlandite cannot be visually estimated however elevated Ni XRF point readings suggest that it is present in similar proportions to previous drill holes).

		Mapped Reported Visual Estimates						
Hole ID		**From (m)**	**To (m)**	**Width (m)**	**Rocktype**	**Sulphide type**	**Sulphide Minerals**	**Visual Sulphide Estimation (%)**
22DDTS010		149.65	197.00	47.35	Gabbro	Blebby-Matrix + Veinlets	Po, Pe, Cpy	19
	incl	**167.00**	**188.85**	**21.85**	Gabbro	Blebby-Matrix + Veinlets	Po, Pe, Cpy	**34**
	Comprising	**170.80**	**178.20**	**7.40**	Gabbro	Semi-Massive	Po, Pe, Cpy	**50**
	&	**183.40**	**184.40**	**1.00**	Gabbro	Semi-Massive	Po, Pe, Cpy	**75**
	&	**184.75**	**186.70**	**1.95**	Gabbro	Semi-Massive	Po, Pe, Cpy	**50**
		337.30	341.00	3.70	Gabbro	Interstitial-Matrix	Po, Pe, Cpy	18
		388.50	445.00	56.50	Gabbro	Multiple Styles	Po, Cpy	6
	incl	**415.15**	**416.40**	**1.25**	Gabbro	Semi-Massive	Po, Pe, Cpy	**51**
	&	**442.00**	**443.51**	**1.51**	Meta-Seds	Semi-Massive	Po, Pe, Cpy	**37**
	&	**444.23**	**445.00**	**0.77**	Meta-Seds	Semi-Massive	Po, Pe, Cpy	**80**

In relation to the disclosure of visual mineralisation, the Company cautions that visual estimates of sulphide abundance should never be considered a proxy or substitute for laboratory analysis. Laboratory assay results are required to determine the widths and grade of mineralisation. The Company will update the market when laboratory analytical results become available.

Drilling Update

Stage 1 and 2 drilling is now complete at the Granmuren Ni-Cu-Co discovery with 2,562.75m drilled during the campaign (Table 3). The program provided valuable information about the sulphide formation and deposition within the Granmuren Intrusion, leading to the development of the Company's ore-forming model, identifying the Central and Basal zones as well as the northern contact as the most favourable locations for the deposition of higher-grade Ni-Cu-Co sulphides (Figure 2).

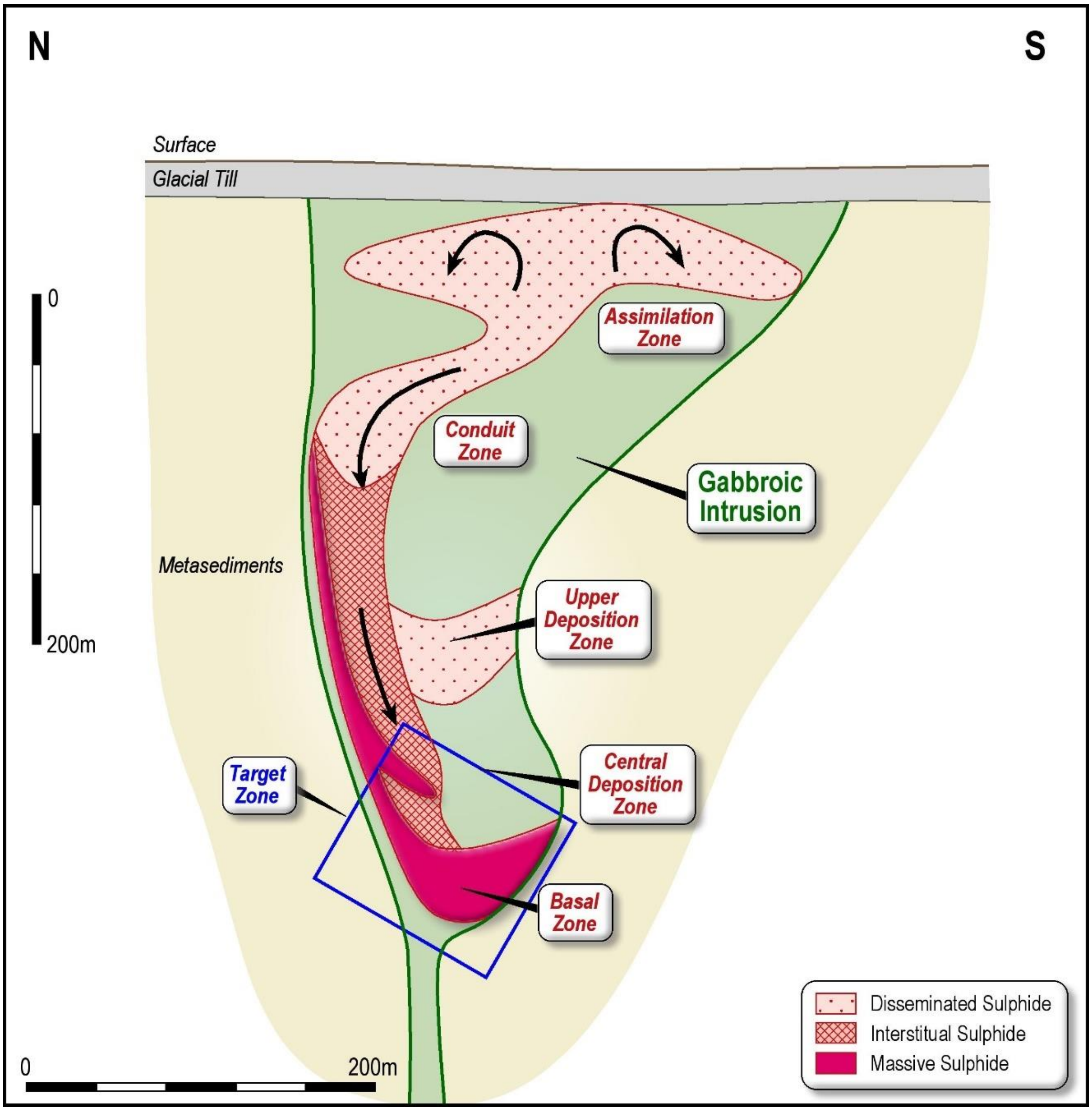

Figure 2: Schematic section showing the interpreted ore forming model within the Granmuren gabbroic intrusion. The Central and Basal zones are the most prospective for massive and semi-massive sulphide deposition and will be the focus for future drilling programs.

The sulphide mineralisation in hole 22DDTS010 displays typical disseminated, interstitial, matrix, semi-massive and vein style sulphide mineralisation over broad zones. It was drilled to the south of hole 21DDTS007 to determine the 3-dimensional nature of the mineralisation, to intersect the basal contact to the south and to test the northern contact higher up in the intrusion (Figures 3 & 4). The intersections of the extensive magmatic sulphide support the potential of the Granmuren intrusive system to host a substantial Ni-Cu-Co deposit in the Sala District of Sweden.

DHIP-R geophysical surveying of the holes has been completed with GeoVista currently processing and interpreting the model in combination with the previous DHIP-R data. DHEM down a number of key drill holes has been scheduled and will be completed in the near future. The results of the geophysical survey data will provide a more concise model and controls around the deposition of the sulphide system which will allow for accurate targeting of the massive sulphide accumulation within the intrusion.

Table 3: Tullsta Project-Collar Details

Hole ID	Type	Easting	Northing	RL	Coords	Azi	Dip	Depth
22DDTS008	DD	582220	6640480	78	SWEREF99	225.13	-69.40	400.80m
22DDTS009	DD	582220	6640480	78	SWEREF99	200.60	-69.30	460.60m
22DDTS010	DD	582165	6640477	79	SWEREF99	205.37	-70.00	457.35m
22DDTS011	DD	582234	6640193	84	SWEREF99	330.84	-61.00	116m: Hole caved in
22DDTS012	DD	582241	6640197	84	SWEREF99	323.73	-59.71	482.00m
22DDTS013	DD	582290	6640220	81	SWEREF99	360.00	-70.00	281.00m
22DDTS014	DD	582300	6640300	79	SWEREF99	360.00	-70.00	156.00m
22DDTS015	DD	582142	6640000	84	SWEREF99	360.00	-60.00	209.00m

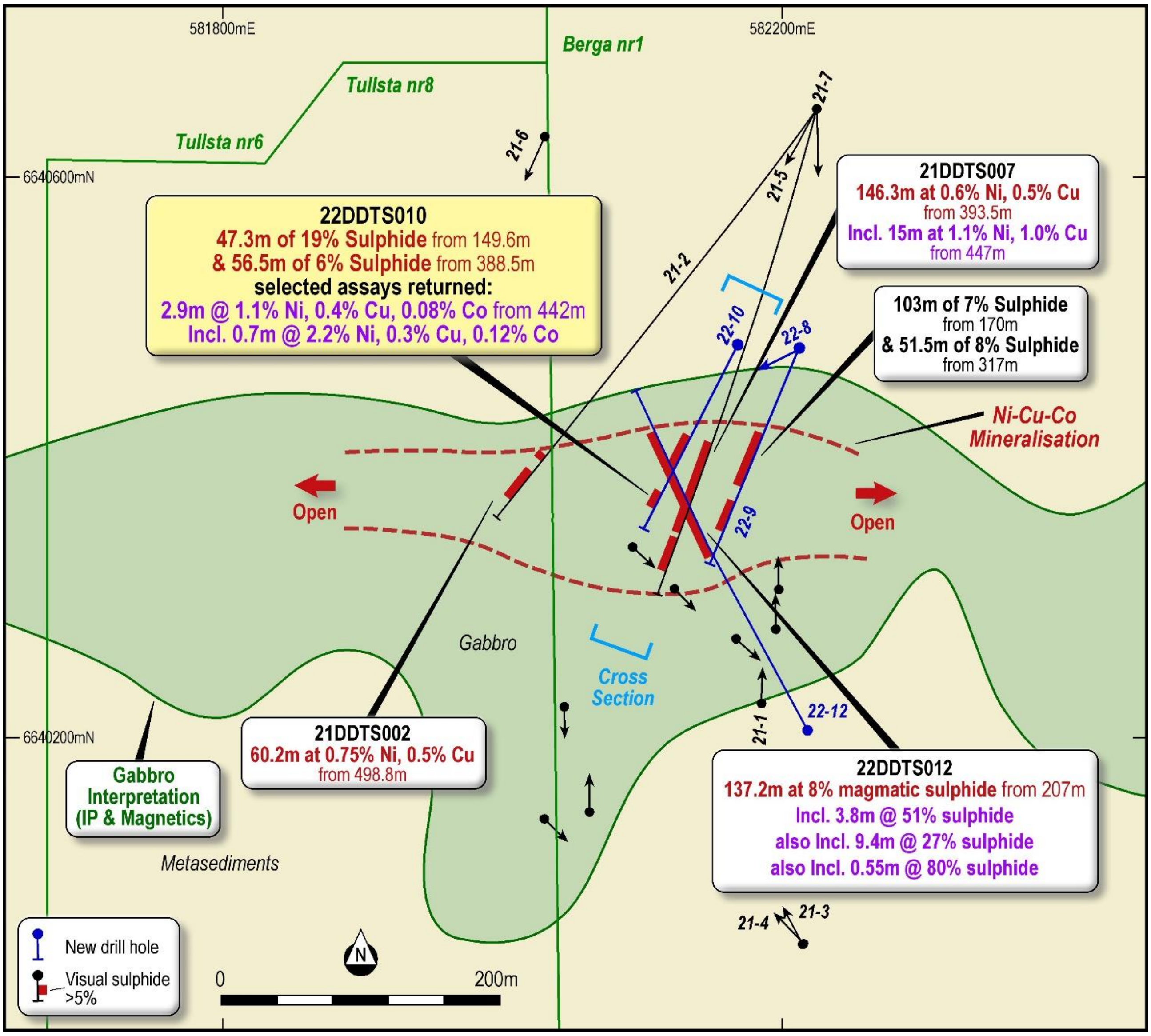

Figure 3: Plan view with drilling with local tenure and interpreted geology from drilling and aeromagnetics.

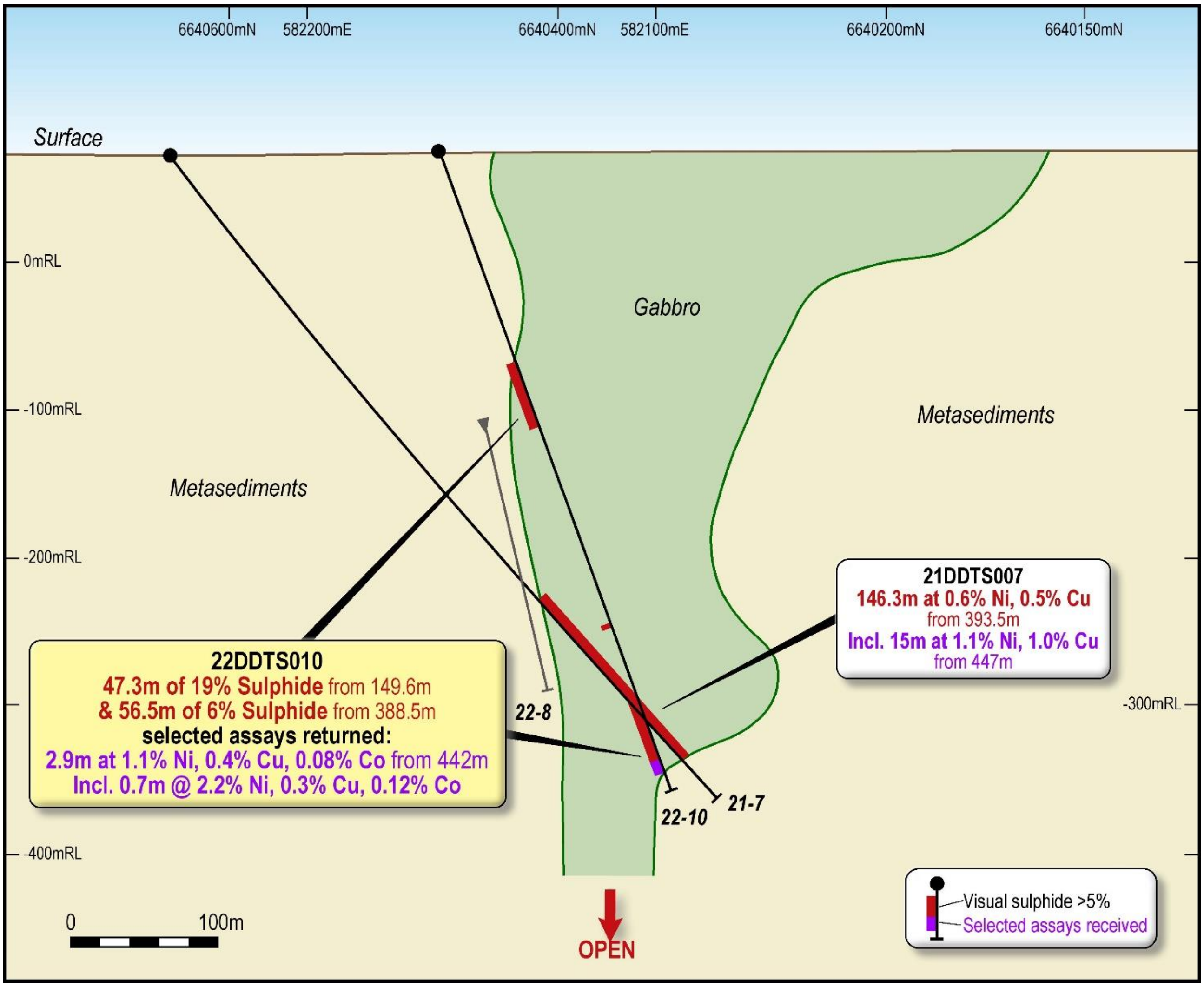

Figure 4: Cross-Section (looking East) showing holes 22DDTS010 and 21DDTS007 intersecting sulphide mineralisation along the northern margin and in the base of the Granmuren Intrusion.

Table 4: Ragnar Metals Tullsta Project Tenement Details.

Name	License ID	RAG Ownership	Area Ha	Valid From	Valid To
Berga nr 1	2018 48	100%	2181.52	28/03/2018	28/03/2026
Tullsta nr 6	2017 158	100%	2695.03	06/11/2017	06/11/2025
Tullsta nr 7	2019 5	100%	4452.74	25/01/2019	25/01/2024
Tullsta nr 8	2020 45	100%	31.41	07/05/2020	07/05/2025
Tullsta nr 9	2021 75	100%	1599	02/11/2021	02/11/2024
Total Area			**10959.70**		

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

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Competent Person Statement

The information in this announcement relating to Exploration Results is based on information compiled by Neil Hutchison of Geolithic Geological Services, a consultant to Ragnar Metals and a member of The Australasian Institute Geoscientists. Mr Hutchison 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 Resource and Ore Reserves".
Mr Hutchison consents to the inclusion in the report of the matters based on his information in the form and context in which it appears.

END

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.	• NQ sized Diamond drill core was collected in wooden core trays and geological sampling intervals were selected then cut in half using a core saw. • Half core was collected for assay testing
	• Include reference to measures taken to ensure sample representivity and the appropriate calibration of any measurement tools or systems used.	• Core is cut and sampled to ensure the sample is representative and no bias is introduced. • Repeat check assays were completed at an independent laboratory
	• Aspects of the determination of mineralisation that are material to the Public Report.	• Mineralisation was determined based on geological logging and by visual sulphide estimates mineralised intervals. Samples were selected for assay analysis and dispatched to an accredited laboratory for multi-element analysis.
	• 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	• Diamond Core drilling was used to obtain 3m length samples from the barrel which are then marked in one meter intervals based on the drillers core block measurement. • Samples were selected and cut based on geological observation of sulphide mineralisation boundaries. • Collected samples weigh a nominal 2-3 kg (depending on sample length). • The selected core trays were dispatched to MSALabs in Sweden, an accredited laboratory, where the selected intervals were cut, sampled and prepped.
Drilling techniques	• 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).	• Drilling was undertaken by Allroc AB using NQ2 sized drill core. • Hole was collared with mud rotary from surface (~4m) and cored with NQ2 sized cored to EOH.
Drill sample recovery	• Method of recording and assessing core and chip sample recoveries and results assessed. • Measures taken to maximise sample recovery and ensure representative nature of the samples. • 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.	• Core recovery was recorded by the drill crew and verified by the geologist. • RQD measurements will be digitally recorded to ensure recovery details are captured. • Sample recovery in all holes was high with negligible loss of recovery observed. • Diamond core drilling is the highest standard and no relationship has been established between sample recovery and reported grade as the core is in very good condition.

Criteria	JORC Code explanation	Commentary
Logging	• 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. • Whether logging is qualitative or quantitative in nature. Core (or costean, channel, etc) photography. • The total length and percentage of the relevant intersections logged.	• Detailed industry standard of collecting core in wooden core trays, marking meter intervals and logging will be undertaken • Core trays were photographed prior to logging. • Drill hole logs are recorded in Excel spread sheets and validated in Micromine and Surpac Software. • All core trays were photographed and validated against the drill logs. • The entire length of all holes is logged.
Sub-sampling techniques and sample preparation	• If core, whether cut or sawn and whether quarter, half or all core taken. • If non-core, whether riffled, tube sampled, rotary split, etc and whether sampled wet or dry. • For all sample types, the nature, quality and appropriateness of the sample preparation technique. • Quality control procedures adopted for all sub-sampling stages to maximise representivity of samples. • 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. • Whether sample sizes are appropriate to the grain size of the material being sampled.	• Core is cut in half using a core saw, with half being used for assay analysis and the other half remaining in the core boxes. • Sample preparation technique is appropriate for diamond core sampling. • Core was consistently cut on the same side as the orientation line to reduce sampling bias. • Check samples from 21DDTS002 were sent to an independent laboratory ALS in Sweden for QAQC duplicate checks. • Sample lengths and volume sampled are appropriate for coarse sulphide mineralisation.
Quality of assay data and laboratory tests	• 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. • 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.	• No geophysical results are being reported at this stage. • QAQC procedures included Certified Reference Material source from Accredited Australian Standards supplier • This were inserted into the sample stream • Duplicate samples were completed on the homogenised samples pulps
Verification of sampling and assaying	• The verification of significant intersections by either independent or alternative company personnel.	• Intersection have been verified by GeoVista in Sweden and Geolithic in Australia
	• The use of twinned holes.	• No twinned holes have been completed
	• Documentation of primary data, data entry procedures, data verification, data storage (physical and electronic) protocols.	• The data was collected and logged using Excel spreadsheets and validated using Micromine Software. The data is loaded into a Dropbox database for sharing between consultants
	• Discuss any adjustment to assay data.	• No adjustments have been made to the assay data other than length weighted averaging.
Location of data points	• 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.	• The holes were pegged by GeoVista consultants using a handheld GPS ± 3m. The rig was setup over the nominated hole position and final RTK-GPS pickup occurred at the completion of the hole.
	• Specification of the grid system used.	• SWEREF99TM
	• Quality and adequacy of topographic control.	• Collar RLs are determine by Swedish state $1m^2$ LIDAR surface topography data from Lantmäteriet to within 0.5m accuracy
	• Data spacing for reporting of Exploration	• Refer to Maps and Sections in report body

Criteria	JORC Code explanation	Commentary
Data spacing and distribution	Results.	
	• 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.	• No Mineral Resource is being stated.
	• Whether sample compositing has been applied	• No post sample composting has been applied and is presented as length-weighted averages.
Orientation of data in relation to geological structure	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this is known, considering the deposit type. • 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.	• Drilling is aimed for the azimuth to be close to right angles to the target zones. Dip angles are not always at right angle due to collar positioning and distance from the target. • Best orientation is still being determined during this early stage of the drilling works.
Sample security	• The measures taken to ensure sample security.	• Samples are in the possession of GeoVista personnel from field collection to laboratory submission.
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.)

Criteria	JORC Code explanation	Commentary
Mineral tenement and land tenure status	• Type, reference name/number, location and ownership including agreements or material issues with third parties such as joint 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.	• Exploration Permit Berga nr1 (2018:48:00) and Tullsta nr8 (2020:45) is owned 100% by Ragnar Metals. The tenures are located in Bergslagen District within the Municipality of Sala on Map page 11G. The Permits are valid until 28/03/2026 & 7/05/2025 respectively. • All regulatory and heritage approvals have been met and work permits approved. There are no known impediments to operate in the area.
Exploration done by other parties	• Acknowledgment and appraisal of exploration by other parties.	Granmuren is Ragnar's greenfield nickel, copper, cobalt discovery in the Bergslagen district of Sweden, which has a very long and significant mining history dating back more than 1,000 years and contains over 6,000 known mineral deposits and prospects. Bergslagen was more recently recognized as a prospective region resulting in interest from mining and exploration companies over the last 10 years. The Tullsta Project contains the Granmuren Nickel Deposit which was discovered in 2012 by drilling of a VTEM survey anomaly. In 2018, Geolithic and GeoVista commenced re-evaluation and field work on the Granmuren mineralisation, recognising the sulphides had been remobilised from a distal source. Ragnar commissioned GeoVista to complete an IP-Resistivity survey over the area in late 2019, and 3D modelling of the data defined a large NW plunging anomaly below the Granmuren mineralisation. The geological and geophysical model was similar to that of the Sakatti Ni-Cu-PGE deposit to the NE across the border in Finland, which was discovered in 2009. The 3D IP model

Criteria	JORC Code explanation	Commentary
		defined a continuous body that extends from below the level of historical drilling and open to the northwest. Magnetic and gravity modelling also indicated a western to north-western plunging body trending through the Tullsta Nr8 permit area, which abuts the Berga Nr1 permit.
Geology	• Deposit type, geological setting and style of mineralisation.	Scandinavia and the adjoining Karelia Province in north-west Russia is one of the major nickel-copper provinces of the world. It includes the giant Pechenga deposit in Karelia, as well as recent discoveries at the Sakatti and Kevitsa Projects, both in Finland. Granmuren is an extension of the Svecofennian province which has played a long significant part of Finland's smelting and refining success. Scandinavian operations are both open pit and underground with typical grades of 0.25% to 1.0% nickel. Cobalt is locally present and has only been mined as an economic by-product from nickel-copper-rich sulphide deposits in the Bergslagen region. Nickel-copper sulphides hosted have been mined historically in the Bergslagen region from gabbroic rocks since the middle of the 18th Century. The small but significant Slättberg and Kuså deposits in the northern part of the Bergslagen region were important producers in the context of their time. Other deposits of this type are the Frustuna deposit in southern Bergslagen as well as the Ekedal and Gaddebo deposits in the central part of the region. Initially exploited for Cu alone, their Ni component was obtained as a smelter by-product in the 1850-1880 period, before a drop in the Ni price caused by production from New Caledonia (where export of Ni began in 1875) effectively made them uneconomic. World production of Ni metal at this time was on the order of 1000 tpa. The Bergslagen Ni-Cu deposits received renewed interest during the two World Wars, owing to the strategic value of Ni and Cu in arms and ammunition production. Total production is estimated to be approximately 700-800 tonnes of Ni metal, which to put into context, amounts to approximately one week's production at BHPs Mount Keith Ni mine in Western Australia. In contrast to other base-metal deposit styles, sulphidic Ni-Cu had not been a focus for modern exploration companies in the region, possibly because the known deposits have been small in comparison with other Ni camps around the World. The blind, greenfields discovery of sulphidic Ni-Cu sulphides at Granmuren by Ragnar in 2012 stands a modern milestone in Bergslagen exploration history. The discovery validates the modern strategy of applying 21st century technologies such as electrical geophysics to historic mining belts and warrants further evaluation and exploration.
Data aggregation methods	• 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.	• All reported drill results have been length-weighted averaged at a nominal 2%visual sulphide cutoff for the upper and lower sulphide boundaries. • No maximum cutoff has been applied.

Criteria	JORC Code explanation	Commentary
	• 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.	• Internal dilution of <2% visual sulphide is included within the overall mineralised sulphide zone for continuity.
	• The assumptions used for any reporting of metal equivalent values should be clearly stated.	• No metal equivalents are reported.
Relationship between mineralisation widths and intercept lengths	• These relationships are particularly important in the reporting of Exploration Results. • If the geometry of the mineralisation with respect to the 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 length, true width not known').	• The two combined models from the geophysical survey form a continuous body that extends from surface to below the boreholes and open to the west and to the north. Magnetic and gravity modelling also indicates a western to north-westerly plunging body which is supported by the results of this recent geophysical survey. Mineralisation is interpreted to follow this trend. • Sulphide mineralisation contacts appear to be perpendicular to the core however, true width cannot be determined at this stage as the dip of the mineralised contact is yet to be accurately determined.
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.	• Appropriate maps, sections and tables are included in the body of the Report.
Balanced reporting	• Where comprehensive reporting of all 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.	• The Company has previously reported visual estimates of sulphide mineralisation in respect of drillholes referred to in the body of this report. Assay results in respect of a limited sample covering a length at the base of drillhole 21DDTS010 only have been received. These assay results verify the presence of Ni-Cu-Co mineralisation at the base of the hole corresponding to the previously reported visual estimates at that depth. All relevant assay results that are available have been included in this report. • The report appropriately discloses the reason for reporting a limited assay sample and that assay results in respect of the remainder of the hole have not yet been received and that laboratory assay resolute are required to determine width and grade of mineralisation.
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.	• Everything meaningful and material is disclosed in the body of the report. • Geological observations are included in the report. • No bulk samples, metallurgical, bulk density, groundwater, geotechnical and/or rock characteristics test were carried out. • There are no known potentially deleterious or contaminating substances.
Further work	• The nature and scale of planned further work (e.g. tests for lateral extensions or depth extensions or large-scale step-out drilling). • Diagrams clearly highlighting the areas of possible extensions, including the main	• Await assay result • Completed DHIP-R modelling • DHEM surveying of key drillholes • Interpretation and targeting • Plan drilling for 2023

Criteria	JORC Code explanation	Commentary
	geological interpretations and future drilling areas, provided this information is not commercially sensitive.	