

# ASSAYS FROM FIRST DIAMOND DRILLHOLE CONFIRM EXTENSIVE NICKEL SULPHIDE SYSTEM AT PULJU

HOT001 intersects multiple zones of disseminated sulphide mineralisation to 624m downhole, confirming significant scale and resource growth potential at Hotinvaara

# HIGHLIGHTS

- Assays from Nordic's first diamond drillhole HOT001 (total depth: 1,109.5m) at the Pulju Nickel Project in Finland confirm the discovery of an extensive nickel sulphide system at the Hotinvaara Prospect.
- HOT001 targeted EM conductors and lateral and depth extensions of the Hotinvaara JORC (2012) Mineral Resource Estimate<sup>1</sup> of 133.6Mt at 0.21% Ni.
- The hole intersected pervasive disseminated nickel sulphide mineralisation to a downhole depth of 624m.
- Assay highlights include:
  - 94.15m @ 0.20% Ni from 6.4m
  - 38.7m @ 0.26% Ni from 149.3m, incl. 0.65m @ 1.49% Ni, 0.07% Co from 174.7m
  - 38.0m @ 0.18% Ni from 226m, incl. 0.65m @ 1.09% Ni, 0.06% Co from 239.15m
  - 93.3m @ 0.17% Ni from 276m
  - 50.85m @ 0.16% Ni from 395.15m
- Partial leach assay results for HOT001 down to 624m indicate that, on average, 83% of total nickel occurs as nickel-in-sulphide, matching the historical results.
- The results for HOT001 confirm the presence of a very large, potentially districtscale nickel sulphide system at Pulju with significant metal endowment.
- Ongoing drilling continues to target both expansion of the existing Hotinvaara MRE and EM conductors with the potential to host high-grade massive sulphides.
- Sixteen (16) diamond drillholes now completed for a total of 10,966.4m.
- Considerable news flow expected over the coming months as the pace of assay turnaround increases.

Nickel sulphide explorer Nordic Nickel Limited (ASX: **NNL**; **Nordic**, or **the Company**) is pleased to advise that it has received assay results for the first diamond drillhole completed at its flagship Pulju Nickel Project (the **Project**) in the Central Lapland Greenstone Belt (**CLGB**) of northern Finland.

Assays for diamond drillhole HOT001, completed as part of the Company's maiden diamond drilling program at the Hotinvaara Prospect (**Hotinvaara**) at the Project, have confirmed significant scale and endowment within the nickel sulphide system at Pulju.

<sup>&</sup>lt;sup>1</sup> ASX release "Nordic Delivers Maiden 133.6Mt Mineral Resource – 278,520t Ni and 12,560t Co", 7th July 2022.



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Importantly, the hole encountered multiple mineralised zones to 624 metres downhole. The grade of the mineralisation intersected is consistent with the current Mineral Resource Estimate (**MRE**) for Hotinvaara of 133.8Mt @ 0.21% Ni and 0.01% Co, with the mineralised zones extending well beyond the current MRE envelope.

The Phase 1, 22,000m drilling program at Hotinvaara is focused on a dual exploration strategy of targeting geophysical anomalies, including electromagnetic (**EM**) conductor plates interpreted to be zones of massive sulphide accumulation, together with extensions to the previously defined  $MRE^1$  (*Figure 1*).

While Nordic is targeting massive nickel-copper sulphides within the disseminated nickel sulphide mineralisation, of a similar style to the nearby world-class Sakatti Deposit, the ongoing drilling is also increasing confidence in the significant size and district-scale potential of the near-surface disseminated nickel sulphide mineralisation at the Hotinvaara Prospect.

### **Management Comment**

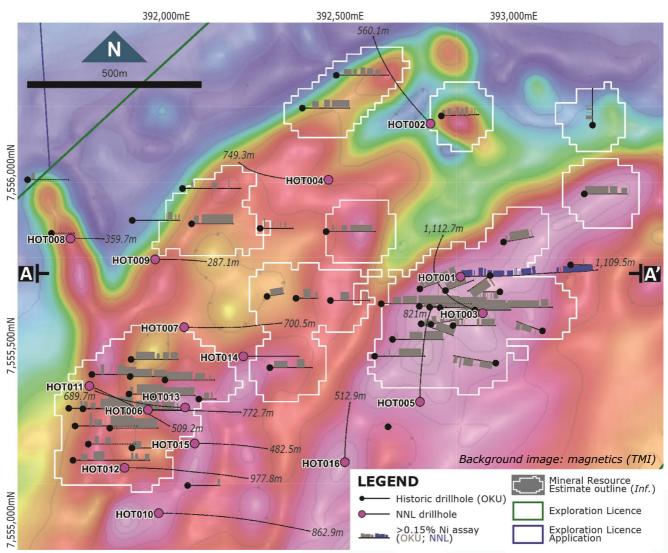
Nordic Nickel Managing Director, Todd Ross, said: "These first assays from our maiden diamond drilling program have added to the excitement around the scale and endowment of the nickel sulphide system at Pulju and its significant growth potential.

"Excitingly, this hole provides our first insight into the potential for mineralisation below the existing Mineral Resource – which was based entirely on historical drilling and extends to a maximum depth of 500 metres with 81% of the MRE in the top 250 metres. HOT001 intersected multiple zones of disseminated nickel sulphide mineralisation to a downhole depth of 624 metres in the prospective ultramafic lithologies, with the system remaining entirely open in several directions.

"The clear implication of this is that the historical drilling has hardly scratched the surface of the Hotinvaara Prospect, which itself makes up just 2% of Nordic's land package at Pulju.

"This is an important first hole for Nordic Nickel which confirms we have a potentially world-class asset at Pulju. It provides clear evidence of the potential to expand the current MRE at Hotinvaara, while also confirming the significant nickel sulphide endowment of the system. It also augurs well for the potential discovery of additional high-grade massive sulphide zones, which remains a key focus of our drilling. We are looking forward to an exciting and productive period for the Company over the coming months as the pace of assay turnaround begins to increase."





**Figure 1**. Collar plan showing Nordic Nickel's drilling (purple dots) and historical drilling (black dots). Assay intersections >0.15% Ni highlighted. HOT001 assays highlighted in blue. Cross-section A – A' see Fig. 3.

### **Drillhole HOT001**

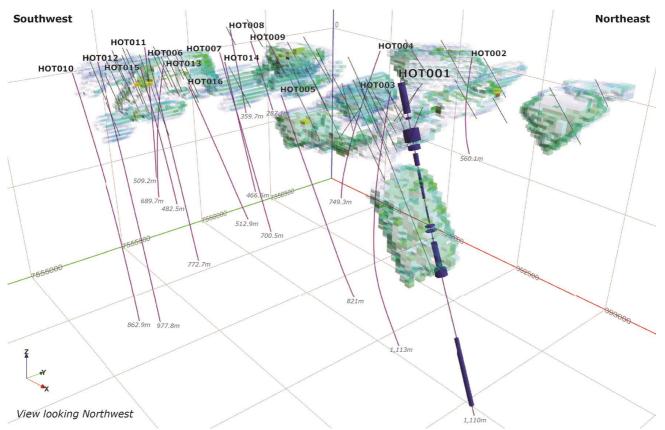
Drillhole HOT001 was positioned to specifically test several geological and geophysical features, including:

- The basal Hotinvaara ultramafic sequences;
- Fixed loop, moving loop and borehole EM conductor plates; and
- The eastern extent of the disseminated mineralisation as defined by the current MRE (*Figure 1 & 2*).

HOT001 intersected prospective ultramafic lithologies to downhole depths as great as 1,073m, which is significantly deeper than the extent of the historical drilling. Importantly, the confidence level in the MRE where the hole was collared has been improved, with the potential to also expand the MRE at depth.

Assays reported in this release are from surface to end-of-hole (1,109.5m) (**Table 1**; **Figure 1, 2 & 3**).





*Figure 2.* 3D oblique view (looking NW) highlighting Nordic Nickel drilling (purple lines) and historical drilling (black lines) in relation to MRE. HOT001 assays >1500ppm Ni-total highlighted by blue histograms.

Ultramafic rocks intersected include high MgO peridotites, pyroxenites and dunites, interlayered with serpentinites and skarn (altered rocks), black schists (sulphidic and graphitic), quartz-mica schists, felsic dykes and veins. The peridotite units intersected at depth (from 783.7m) are texturally distinct from those above and interpreted to represent a more homogenous cumulate sequence, potentially of a different generation to those above. Furthermore, the nickel in the lower ultramafic sequence is predominately hosted by non-sulphide minerals.

A preliminary interpretation is that the rocks intersected by HOT001 reflect a two-component ultramafic stratigraphic sequence, with a volcano-sedimentary, sub-volcanic sill environment and a lower, more plutonic ultramafic cumulate.

Disseminated sulphides – predominantly pyrrhotite with minor pentlandite – were intersected throughout the upper ultramafic rock sequences. Localised zones with net-textured, semi-massive and veined sulphides were also intersected within the graphitic schists and skarns.

**Table 1** summarises the assay highlights from HOT001. The assay results confirm those of the historical drilling and increase the confidence level of the MRE in this area. Significantly, near-surface disseminated nickel mineralisation was intersected consistently at relatively shallow depths.

#### Nickel-in-sulphide assays

To determine the relative proportion of nickel-in-sulphide (**Ni-S**) which is recoverable by conventional mineral processing technologies, partial leach assaying was conducted on all samples that assayed >1,500 ppm total nickel.

Partial leach assay methods are particularly important in nickel mineral systems, as a proportion of nickel reported in full sample digestion methods (e.g. four acid digest) contains nickel that is sourced from non-recoverable silicate minerals.



The Company utilised Eurofins Labtium partial leach assay method 240P (ammonium citrate leach with ICP-OES finish) to determine the approximate proportion of Ni-S. A total of 287 samples were submitted for partial leach assaying, consisting of 195 samples in the upper sequence and 92 samples in the lower sequence. On average, the upper sequence (6.4 - 624.0m) reported 83% of total nickel as Ni-S while the lower sequence (788.15 - 1,072.65m) reported 11% of total nickel as Ni-S.

This supports earlier first-pass mineralogical and chemical test work completed by Metso:Outotec on the project that determined between 83% and 94% of the measured total nickel was Ni-S<sup>2</sup>.

Hole_ID		From (m)	To (m)	Int. (m)	Ni (%)	Co (%)	Cu (%)
HOT001		6.40	100.55	94.15	0.198	0.010	0.008
	incl.	96.50	98.00	1.50	0.583	0.028	0.037
		113.00	119.00	6.00	0.187	0.014	0.018
		149.30	188.00	38.70	0.259	0.017	0.032
	incl.	174.70	175.35	0.65	1.490	0.073	0.030
	and	180.80	183.75	2.95	0.683	0.055	0.133
		199.80	214.00	14.20	0.233	0.011	0.005
	incl.	209.00	210.00	1.00	0.541	0.020	0.009
		226.00	264.00	38.00	0.184	0.010	0.006
	incl.	239.15	239.80	0.65	1.086	0.059	0.040
		276.00	369.30	93.30	0.169	0.008	0.004
		395.15	446.00	50.85	0.162	0.007	0.013
		455.40	460.90	5.50	0.220	0.009	0.004
		471.05	475.90	4.85	0.228	0.014	0.009
		498.55	500.90	2.35	0.167	0.008	0.002
		511.55	591.35	79.80	0.193	0.009	0.007
		598.35	624.00	25.65	0.237	0.012	0.010
	incl.	601.00	602.00	1.00	0.569	0.024	0.026
	and	605.00	606.00	1.00	0.802	0.028	0.020
		788.15	807.00	18.85	0.154*	0.010	0.004
		816.00	819.00	3.00	0.153*	0.011	0.002
		838.00	1,072.65	234.65	0.185*	0.001	0.000

Table 1. Assays highlights from HOT001.

Nickel reported as total nickel.

Downhole widths are estimated to be 90-100% of true widths.

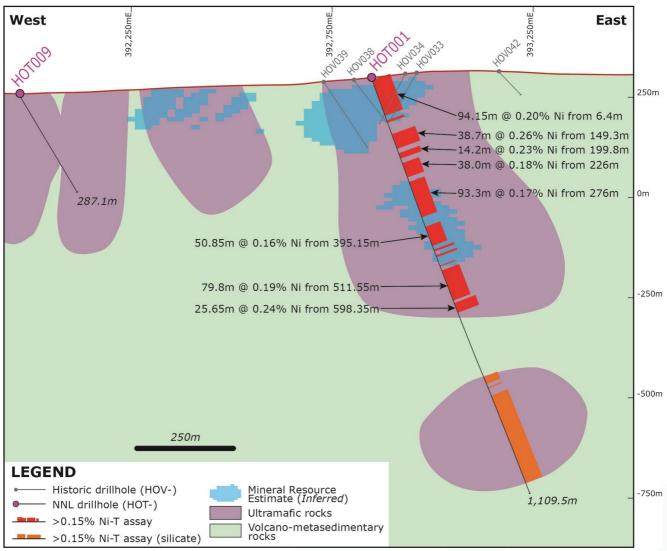
Primary cut-off: 0.15% Ni; max. 6m internal dilution.

Secondary cut-off: 0.5% Ni; max. 1m internal dilution.

\* Nickel predominantly hosted by silicate minerals.

<sup>2</sup> ASX release "Encouraging First Pass Test Work on Hotinvaara Nickel Mineralisation", 22<sup>nd</sup> June 2022.





*Figure 3*. Cross-section 7,555,700mN showing drill trace of HOT001 and assay highlights (0-810m). View looking North.

### **Drilling update**

As of 23 May 2023, sixteen (16) drillholes for 10,966.4m had been completed at Hotinvaara (*Figure* **1**, *Appendix* **2**). All drillholes in the current program are designed to test both geological and geophysical targets (MLEM, BHEM, fixed loop EM, gravity and magnetics).

Batches of samples are being regularly submitted for core cutting and assaying. Assay results are expected to be received every 3-4 weeks.

#### Authorised for release by: Todd Ross - Managing Director

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#### **Competent Person Statement**

The information in this announcement that relates to Exploration Results is based on, and fairly represents, information and supporting documentation compiled under the supervision of Dr Lachlan Rutherford, a consultant to the Company. Dr Rutherford is a Member of the Australasian Institute of Mining and Metallurgy. He has sufficient experience that is relevant to the style of mineralisation and type of deposit under consideration and to the activity being undertaken 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 (JORC Code). Dr Rutherford consents to the inclusion in this announcement of the matters based on his information in the form and context in which it appears.

#### **Forward Looking Statement**

This announcement contains forward-looking statements that involve a number of risks and uncertainties, including reference to the conceptual Exploration Target area which surrounds the maiden Hotinvaara MRE described in this announcement. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this announcement. No obligation is assumed to update forward looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.



## **APPENDIX 1 – Drillhole collar locations.**

Hole ID	Easting	Northing	Elev. (m)	Azi. (°)	Dip (°)	Depth (m)
HOT001	392,847	7,555,700	298.9	90	-70	1,109.50
HOT002	392,760	7,556,140	285.2	315	-60	560.10
HOT003	392,910	7,555,595	301.1	290	-75	1,112.70
HOT004	392,467	7,555,979	278.6	270	-70	749.30
HOT005	392,730	7,555,340	294.1	0	-70	821.00
HOT006	391,948	7,555,317	256.4	90	-70	772.70
HOT007	392,052	7,555,555	259.1	90	-65	700.50
HOT008	391,725	7,555,810	260.1	90	-75	359.70
HOT009	391,969	7,555,750	259.8	90	-60	287.10
HOT010	391,979	7,555,020	254.9	90	-70	862.90
HOT011	391,779	7,555,386	253.5	110	-60	509.20
HOT012	391,881	7,555,150	252.9	90	-70	977.80
HOT013	392,055	7,555,324	261.5	270	-65	689.70
HOT014	392,222	7,555,471	270.0	90	-70	458.80
HOT015	392,082	7,555,220	262.0	90	-65	482.50
HOT016	392,514	7,555,166	304.0	360	-70	512.90

Datum: ETRS89 zone 35.



### **APPENDIX 2 - JORC Code, 2012 Edition – Table 1 Report**

### Section 1 Sampling Techniques and Data

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

Criteria	JORC Code explanation	Commentary
<i>Sampling</i> <i>techniques</i>	<ul> <li>Nature and quality of sampling (eg 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.</li> <li>In cases where 'industry standard' work has been done this would be relatively simple (eg '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 (eg submarine nodules) may warrant disclosure of detailed information.</li> </ul>	<ul> <li>Main sampling method has been diamond coring. 51 historic drillholes were completed by Outokumpu Oy. In total, 9,621.45m of drilling was completed by Outokumpu Oy. As of 23<sup>rd</sup> April 2023, 16 drillholes have been completed by NNL for a total of 10,966.4m</li> <li>Drill collar locations have been provided by Outokumpu Oy. Collar locations were re-checked by NNL in June 2021 and surveyed using a SatLab SLC6 RTK-Receiver DGPS. It was noted that there was a consistent 95m NW shift in true collar locations relative to the Outokumpu collar table. Corrections were made to account for this shift. Collar locations for the NNL drilling were determined using a SatLab SLC6 RTK-Receiver DGPS and elevations by DEM.</li> <li>Mineralisation was determined using lithological changes. All core has been logged in detail and assayed by NNL. The 41 historic drillholes that exists in the Finnish National drill core archive in Loppi have been relogged by NNL. Measurements were also made with a pXRF, Susceptibility and density measurements taken for each lithology.</li> </ul>
Drilling techniques	<ul> <li>Drill type (eg core, reverse circulation, open-hole hammer, rotary air blast, auger, Bangka, sonic, etc) and details (eg 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>	<ul> <li>Historic diamond drilling contractors: Maa ja Vesi Oy (HOV001-HOV008); Rautaruukki Oy (HOV009-HOV027); contractor unknown for remaining holes (HOV028-HOV051).</li> <li>Historic diamond drill core is 32mm in diameter.</li> <li>Historic core is not oriented.</li> <li>All historic drilling in Hotinvaara was commissioned and managed by Outokumpu Oy.</li> <li>Diamond drilling contractors for NNL drilling are Kati Oy.</li> <li>NNL diamond drill core is NQ sized (32mm diameter).</li> <li>NNL diamond core is oriented.</li> <li>NNL drilling was commissioned and managed by NNL.</li> </ul>



<b>Criteria</b> Drill sample recovery	<ul> <li>JORC Code explanation</li> <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>	<ul> <li>Commentary</li> <li>Core loss was measured for each drilling run and recorded.</li> <li>Recoveries were determined to be very good.</li> <li>There was no evidence of sample bias or any relationship between sample recovery and grade.</li> </ul>
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>	<ul> <li>The core was logged to a level consistent with industry standards and appropriate to support Mineral Resource Estimation.</li> <li>Logging is both qualitative and quantitative.</li> <li>100% of the drill core sampled by the NNL drilling has been logged.</li> </ul>
<i>Sub-sampling techniques and sample preparation</i>	<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 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>	<ul> <li>Samples were selected by NNL geologists for assaying.</li> <li>Core is logged in Kittilä and taken to Sodankylä for cutting and sampling at Palsatech Oy.</li> <li>Half core samples were selected for composite sampling and assaying. Sample sizes range between 0.3 – 4.0m (average 2.09m).</li> <li>Control samples (duplicates, blanks and standards) were submitted with the NNL samples to industry standards.</li> <li>Samples sizes are considered appropriate for the grain size and style of the mineralisation and host lithologies.</li> </ul>
<i>Quality of assay data and laboratory tests</i>	<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 (eg standards, blanks, duplicates, external laboratory checks) and whether</li> </ul>	<ul> <li>Assays are being completed at Eurofins in Sodankylä. Assay methods employed include: <ul> <li>Four acid digestion to determine total Ni (Eurofins code ICP-MS, 304M or ICP-OES, 304P), Au, Pd, Pt (Eurofins code 703P) and occasionally XRF (175-Xa).</li> <li>Partial leach (Ni-in-sulphide; Eurofins code 240P) completed on any samples &gt;1,500ppm Ni (total).</li> </ul> </li> <li>Instruments and techniques used: <ul> <li>Handheld XRF measurements were done with Thermo</li> </ul> </li> </ul>



Criteria	JORC Code explanation	Commentary
	acceptable levels of accuracy (ie lack of bias) and precision have been established.	<ul> <li>Scientific Niton Xlt3 XRF analyser, Mining Cu/Zn mode, in 38 holes; a total of 378 measurements were taken. Measurements were done separately for rock matrix (duration 60s) and sulphides (duration 10-20s).</li> <li>Susceptibility measurements were made with GF instruments SM20 from 41 holes with 1 or 2m intervals.</li> <li>Density measurements are made periodically using Archimedes' principle (measuring dry and wet weight (g) of drill core in air and water). Density measurements were done with whole core with intervals and depths recorded.</li> </ul>
<i>Verification of sampling and assaying</i>	<ul> <li>The verification of significant intersections by either independent or alternative company personnel.</li> <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 external verification done.</li> <li>No specific twin holes were drilled.</li> <li>Drill logging data is entered in Excel spreadsheet templates.</li> <li>Logging is completed in-line with industry standards</li> <li>No adjustments have been made to the assay data.</li> </ul>
<i>Location of data points</i>	<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>Drill hole collar locations were determined by DGPS (SatLab SLC6 RTK-Receiver accurate to +/- 2 cm (using correction service Leica Geosystems HxGN SmartNet).</li> <li>Elevations were determined from GTK's LiDAR digital terrain model (DEM).</li> <li>All collar locations are in ETRS89 Zone 35, Northern Hemisphere.</li> <li>Downhole surveys are made following completion of drilling using a DeviGyro instrument.</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>	<ul> <li>Historic drill traverses were completed on nominally 50m spacing. NNL drilling is either infill or extensional to historic drilling.</li> <li>Historic individual drill holes spaced nominally 100m apart within each traverse. NNL drilling is either infill or extensional to historic drilling.</li> <li>It is considered that the spacing of samples used is sufficient for the evaluation of a MRE (JORC, 2012).</li> <li>No sample compositing has occureed.</li> </ul>
Orientation of data in	• Whether the orientation of sampling achieves unbiased sampling of possible structures and the extent to which this	<ul> <li>Historic drillholes were predominantly oriented 90° (E) with dips of -45° to -60° to get as near perpendicular to the lode</li> </ul>



Criteria	JORC Code explanation	Commentary
<i>relation to geological structure</i>	<ul> <li>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>	<ul> <li>orientation as possible and collect meaningful structural data.</li> <li>NNL drilling orientations and dips provided in Appendix 1.</li> <li>The mineralisation is generally dipping at 30°-40° to the northwest.</li> <li>True thicknesses are an average 86% that of the downhole thickness.</li> <li>Drilling orientations have not introduced any sampling bias.</li> </ul>
<i>Sample</i> <i>security</i>	• The measures taken to ensure sample security.	<ul> <li>Core is couriered to Palsatec Oy in Sodankylä for core cutting.</li> <li>The samples were bagged with hard plastic bags and then tied off with zip ties and then shipped to Eurofins Labtium lab in containers by courier.</li> <li>Sample security of blanks and standards was managed by the Company, by bagging them in zip lock bags and taking them directly to the laboratory in Sodankylä.</li> </ul>
Audits or reviews	• The results of any audits or reviews of sampling techniques and data.	No external audits or reviews have been conducted.

**Section 2 Reporting of Exploration Results** (Criteria listed in the preceding section also apply to this section.)

Criteria	JORC Code explanation	Commentar	·У							
Mineral	• Type, reference name/number, location and	Name	Area Code	Tenement type	Status	Applic ant	Application date	Grant date	Expiry date	Area km²
tenement and	ownership including agreements or material issues	Tepasto		Reservation	Valid	PMO	31/10/2022			245.89
land tenure	with third parties such as joint ventures,	Holtinvaara	ML2013:0090	Exploration	Application	PMO	04/11/2013			14.99
		Mertavaara1	ML2013:0091		Application	PMO	04/11/2013			11.88
status	partnerships, overriding royalties, native title	Aihkiselki	ML2013:0092		Application	PMO	04/11/2013			15.75
	interests, historical sites, wilderness or national	Kiimatievat		Exploration	Application	PMO	11/11/2019			24.21
		Hotinvaara	ML2019:0101	Exploration	Valid	PMO	11/11/2019	24/01/2020	24/01/2024	4.92
	park and environmental settings.	Rööni-Holtti	ML2022:0009	Exploration	Application	PMO	09/03/2022			18.65
		Saalamaselkä	ML2022:0010	Exploration	Application	PMO	09/03/2022			6.02
	<ul> <li>The security of the tenure held at the time of</li> </ul>	Kaunismaa	ML2022:0011	Exploration	Application	PMO	09/03/2022			1.68
	reporting along with any known impediments to	Juoksuvuoma			Application	PMO	31/10/2022			26.53
		Kermasaajo		Exploration	Application	PMO	31/10/2022			11.37
	obtaining a licence to operate in the area.	Kolmenoravanmaa		Exploration	Application	PMO	31/10/2022			15.49
		Koppelojänkä		Exploration	Application	PMO	31/10/2022			19.42
		Kuusselkä		Exploration	Application	PMO	31/10/2022			17.63
		Lutsokuru		Exploration	Application	PMO	31/10/2022			11.33
		Marjantieva		Exploration	Application	PMO	31/10/2022			11.86
		Salmistonvaara		Exploration	Application	PMO	31/10/2022			18.23
		Vitsaselkä		Exploration	Application	PMO	31/10/2022			9.28



Criteria	JORC Code explanation	Commentary
		<ul> <li>All results reported herein are from the Hotinvaara EL, owned 100% subsidiary of NNL, Puljun Malminetsintä Oy (PMO).</li> </ul>
<i>Exploration done by other parties</i>	<ul> <li>Acknowledgment and appraisal of exploration by other parties.</li> </ul>	<ul> <li>Outokumpu Oy did regional exploration in the area which was followed by drilling in the 1980s and 1990s (51 drillholes completed).</li> <li>The Hotinvaara area was later held by Anglo American (2003 - 2007) who completed 6 diamond drillholes and regional bottom-of-till sampling.</li> </ul>
Geology	<ul> <li>Deposit type, geological setting and style of mineralisation.</li> </ul>	<ul> <li>The main commodity of economic interest at Hotinvaara is nickel. Minor copper has also been intersected. The main economic minerals are pentlandite and chalcopyrite. The bulk of the mineralisation occurs as disseminated sulphides but there is also semi-massive to massive sulphide veins with high nickel grades.</li> <li>The main mineralised rock types are komatiites, dunites, serpentinites and metaperidotites (ultramafic cumulates). Also, some mineralisation is hosted by ultramafic skarn.</li> <li>The Pulju greenstone Belt is located in the western part of the Central Lapland greenstone Belt. The Pulju Belt covers an area of ~10km x 20km.</li> </ul>
Drill hole Information	<ul> <li>A summary of all information material to the understanding of the exploration results including a tabulation of the following information for all Material drill holes: <ul> <li>easting and northing of the drill hole collar</li> <li>elevation or RL (Reduced Level – elevation above sea level in metres) of the drill hole collar</li> <li>dip and azimuth of the hole</li> <li>down hole length and interception depth</li> <li>hole length.</li> </ul> </li> <li>If the exclusion of this information is justified on the basis that the information is not Material and this exclusion does not detract from the understanding of the report, the Competent Person should clearly explain why this is the case.</li> </ul>	<ul> <li>Holes reported on this release are detailed above and in <i>Appendix 1</i>.</li> <li>All drill holes were diamond cored.</li> <li>No information has been excluded.</li> </ul>
Data aggregation methods	<ul> <li>In reporting Exploration Results, weighting averaging techniques, maximum and/or minimum grade truncations (eg cutting of high grades) and cut-off grades are usually Material and should be stated.</li> </ul>	<ul> <li>Weighted average grades determined by the following rules:</li> <li>Primary cut-off: 0.15% Ni; max. 6m internal dilution.</li> <li>Secondary cut-off: 0.5% Ni; max. 1m internal dilution.</li> <li>No metal equivalent grades are reported.</li> </ul>



Criteria	JORC Code explanation	Commentary
	<ul> <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> <li>The assumptions used for any reporting of metal equivalent values should be clearly stated.</li> </ul>	
<i>Relationship between mineralisation widths and intercept lengths</i>	<ul> <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 (eg 'down hole length, true width not known').</li> </ul>	<ul> <li>Holes are predominantly inclined to get as near to perpendicular intersections as possible.</li> <li>During MRE modelling, the mineralised drillhole intersections were modelled in 3D in Datamine to interpret the spatial nature and distribution of the mineralisation.</li> <li>In the historical drilling by Outokumpu, true thicknesses of mineralisation average ~86% that of the downhole thickness.</li> <li>The true thickness of mineralisation intersected by NNL is currently being evaluated. For HOT001, true thickness is estimated to be 90-100% of downhole thickness.</li> </ul>
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.	<ul> <li>Figures 1, 2 &amp; 3 in this release shows the relative position and trajectory of the drillholes reported in this release.</li> </ul>
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.	All available relevant information is reported.
<i>Other substantive exploration data</i>	<ul> <li>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</li> </ul>	<ul> <li>Historical gravity data measured by Outokumpu was purchased from GTK in 2020.</li> <li>Ground magnetics was done by Magnus Minerals in 2019 with GEM's GSM-19 (Overhauser) magnetometer and data was processed by GRM-services Oy.</li> <li>BHEM was completed by GRM-Services in 2021 with EMIT's DigiAtlantis</li> </ul>



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	and rock characteristics; potential deleterious or contaminating substances.	<ul> <li>survey equipment and data was modelled by NNL. Modelling indicates two target conductors in the vicinity of HOV040.</li> <li>FLEM was completed by Geovisor in December 2021 and January 2022 with EMIT's SMART Fluxgate survey equipment and data was modelled by NNL. Modelling indicates deep-seated conductors at about 400m, 800m and 1500m depths. The conductor at 400m correlates with the deeper plate identified from BHEM.</li> <li>A petrology, geochemical and mineral liberation study was undertaken by Metso:Outotec. Full details of this study are provided in NNL ASX release "Encouraging First Pass Test Work on Hotinvaara Nickel Mineralisation", 22 June, 2022.</li> <li>Ground magnetics was completed by Nordic Nickel Limited in 2023 with GEM's GSM-19 (Overhauser) magnetometer and data was processed by Nordic Nickel Limited.</li> <li>BHEM was completed by Astrock and Magnus Minerals in 2023 with EMIT's DigiAtlantis survey equipment and data was modelled by NNL.</li> <li>UAV magnetic survey completed by Radai Oy over 269km<sup>2</sup>; survey consisted of 846 lines at 40m line spacing for a total of 7,430 line kilometres; flight speed 13-30 m/s; fluxgate sensor – 3 orthogonal components, noise level ±0.5 µT, dynamic range ±100 µT, sampling freq. up to 137 Hz; base station – 3 component fluxgate magnetometer and barometer, resolution ±0.5 µT, sampling frequency 1 Hz; data processing utilised equivalent layer modelling (ELM).</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>	<ul> <li>A ~22,000m drill program is progressing as planned to test the source of the modelled conductors and expand the JORC (2012) Mineral Resource Estimate.</li> <li>Mineralisation appears to be open along strike and at depth.</li> </ul>