



## **CLASS 1 NICKEL ANNOUNCES FILING OF TECHNICAL REPORT ON HIGH-GRADE ALEXO SOUTH NICKEL SULPHIDE DEPOSIT**

**Toronto, Ontario (11 June 2024)** – Class 1 Nickel and Technologies Ltd. (CSE: NICO | OTCQB: NICLF) ("Class 1 Nickel" or the "Company") reports that further to its news release dated 24 April 2024, it has filed the National Instrument 43-101 ("NI 43-101") Technical Report in support of an updated mineral resource estimate ("MRE") for its Alexo South Nickel Sulphide Deposit ("A-S Deposit") dated 7 June 2024, with an effective date of 19 April 2024, is available on SEDAR+ ([www.sedarplus.ca](http://www.sedarplus.ca)) and on the Company's website (<https://class1nickel.com/alexo-dundonald-project/>).

The A-S Deposit, located about 45 km northeast of the mining City of Timmins, Ontario, is one of four high-grade nickel deposits within the extensive Alexo-Dundonald Nickel Sulphide Project (the "Project" or "Property"), which covers approximately 2,078 hectares (20.78 km<sup>2</sup>). The updated Mineral Resource Estimate for the Alexo North Deposit was announced 22 May 2024 and updates to the remaining two nickel sulphide mineral resources contained within the Project, Dundonald South and North, will be completed over the coming months.

David Fitch, CEO of Class 1 Nickel, commented: "With the filing of the technical report and mineral resource estimate for the Alexo South nickel sulphide deposit, we look forward to the filing of the same for the Alexo North nickel sulphide deposit in the coming weeks. We have begun work on updating the next deposit, Dundonald South, with that result expected in the next 6 weeks, followed by the Dundonald North nickel sulphide deposit. Having all four nickel sulphide deposits updated, we are planning a second phase of diamond drilling to expand the high-grade nickel resources and then move the Project through a Preliminary Economic Assessment study to start before the end of 2024."

### **Alexo South MRE Highlights:**

- Indicated Resources (open pit and underground\*) of 572 kt at 0.61% Ni (7.7M lbs Ni) – 44% increase in Indicated tonnes and 10% increase in nickel pounds.
- Inferred Resources (open pit and underground\*) of 125 kt at 0.54% Ni (1.5M lbs Ni) – 693% increase in Inferred tonnes and 419% increase in nickel pounds.
- 84% of the nickel pounds and 82% of the tonnes in Alexo South Deposit Mineral Resource Estimate are in the Indicated category with drilling planned to update to Measured.
- With only 18% of the Alexo South Deposit tonnes in the Inferred category there is excellent exploration upside to expand and upgrade resources through additional drilling.
- Alexo South Deposit, one of 4 deposits on the Alexo-Dundonald Property, is open along strike and at depth, with the new geological model and interpretation providing ample targets for next-stage drilling.

- Updated Mineral Resource Estimate work continuing on the remaining 3 deposits of the Alexo-Dundonald Nickel Project (Alexo North Deposit – see Class 1 Nickel news release dated 22 May 2024).

\*C\$52.5/t NSR open pit and C\$96.0/t NSR underground cut-offs applied in current 2024 mineral resource estimate whereas a C\$30.0/t NSR open pit and C\$90.0/t NSR underground cut-offs were applied in the 2020 mineral resource estimate.

Table 1. Mineral Resource Statement for the estimated 2024 Alexo South Indicated and Inferred Resources.

Alexo South Resource Category	Tonnage (t)	Grade					Contained Metal		
		Ni (%)	Cu (%)	Co (%)	NiEq (%)	NSR (C\$/t)	Ni (klbs)	Cu (klbs)	Co (klbs)
<b>Constrained Open Pit (\$52.5/t NSR COG)</b>									
Indicated	275,000	0.58	0.02	0.02	0.62	123	3,490	133	133
<b>Total Pit Constrained Indicated:</b>	<b>275,047</b>	<b>0.58</b>	<b>0.02</b>	<b>0.02</b>	<b>0.62</b>	<b>123</b>	<b>3,490</b>	<b>133</b>	<b>133</b>
<b>Out-of-Pit/Underground (C\$96.0/t NSR COG)</b>									
Indicated	297,000	0.65	0.03	0.02	0.69	139	4,240	190	157
Inferred	130,000	0.54	0.03	0.02	0.58	116	1,500	75	52
<b>Total Open Pit and Underground Resources</b>									
<b>Indicated</b>	<b>572,000</b>	<b>0.61</b>	<b>0.03</b>	<b>0.02</b>	<b>0.66</b>	<b>131</b>	<b>7,730</b>	<b>323</b>	<b>290</b>
Inferred	130,000	0.54	0.03	0.02	0.58	116	1,500	75	52

**Notes to Table 1:**

- The independent Qualified Person for the MRE, as defined by NI 43-101, is Mr. Simon Mortimer (FAIG #4083) of Atticus Geoscience Consulting S.A.C., working with Caracle Creek International Consulting Inc. The effective date of the MRE is 19 April 2024.
- Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
- The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
- The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.
- The Mineral Resources were estimated following the 2019 CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines prepared by the CIM Mineral Resource & Mineral Reserve Committee and the 2014 CIM Definition Standards for Mineral Resources & Mineral Reserves prepared by the CIM Standing Committee on Reserve Definitions.
- Geological and block models for the MRE used core assays (2,254 samples from 2021 drilling and 178 samples from 2024 in-fill core sampling) and data and information from 181 surface diamond drill holes (29 from Class 1 Nickel and 152 historical). The drill hole database was validated prior to resource estimation and QA/QC checks were made using industry-standard control charts for blanks, core duplicates and commercial certified reference material inserted into assay batches by Class 1 Nickel.
- The block model was prepared using Micromine 2020. A 6 m x 6 m x 6 m block model was created, with sub blocks to 0.5 m x 0.5 m x 0.5 m. Drill composites of 1.0 m intervals were generated within the estimation domains, and subsequent grade estimation was carried out for Ni, Cu and Co using Ordinary Kriging interpolation method.
- Grade estimation was validated by comparison of input and output statistics (Nearest Neighbour and Inverse Interpolation methods), swath plot analysis, and by visual inspection of the assay data, block model, and grade shells in cross-sections.
- As a reference, the average estimated density value (specific gravity) within the mineralised domain is 2.89 g/cm<sup>3</sup> (t/m<sup>3</sup>).
- Estimates have been rounded to 3 significant figures for Indicated resources and 2 significant figures for Inferred resources.
- The historical open pit mined areas were removed from the MRE and the MRE considers a geological dilution of 5% and a mining recovery of 95%.
- US\$ metal prices of \$8.00/lb Ni, \$3.25/lb Cu, \$13.00/lb Co were used in the NSR calculation with respective process recoveries of 85%, 70%, and 80%; gold, platinum and palladium are not considered in the current NSR calculation.

(13) Pit constrained Mineral Resource NSR cut-off considers processing, and G&A costs, applying a factor of 5% for mining dilution, that respectively combine for a total of  $((\$45.00 + \$5.00) * (1 + 5\%)) = \text{C}\$52.5/\text{tonne}$  processed.

(14) Out-of-pit Mineral Resource (underground) NSR cut-off considers ore mining, processing, and G&A costs that respectively combine for a total of  $(\$46.00 + \$45.00 + \$5.00) = \text{C}\$96.0/\text{tonne}$  processed.

(15) The out-of-pit Mineral Resource grade blocks were quantified above the  $\$96.0/\text{t}$  cut-off, below the constraining pit shell and within the constraining mineralized wireframes. Additionally, only groups of blocks that exhibited continuity and reasonable potential stope geometry were included. All orphaned blocks and narrow strings of blocks were excluded. The long-hole stoping with backfill mining method was assumed for the out-of-pit (underground) MRE calculation.

(16) The NSR calculation is as follows:  $\text{NSR C}\$/\text{t} = ((\text{Ni}\% \times 199.89) + (\text{Cu}\% \times 66.87) + (\text{Co}\% \times 305.71)) \times 95\%$ .

(17) The NiEq% calculation is as follows:  $\text{NiEq}\% = (\text{Ni}\% \times 1) + (\text{Cu}\% \times 0.33) + (\text{Co}\% \times 1.53)$ .

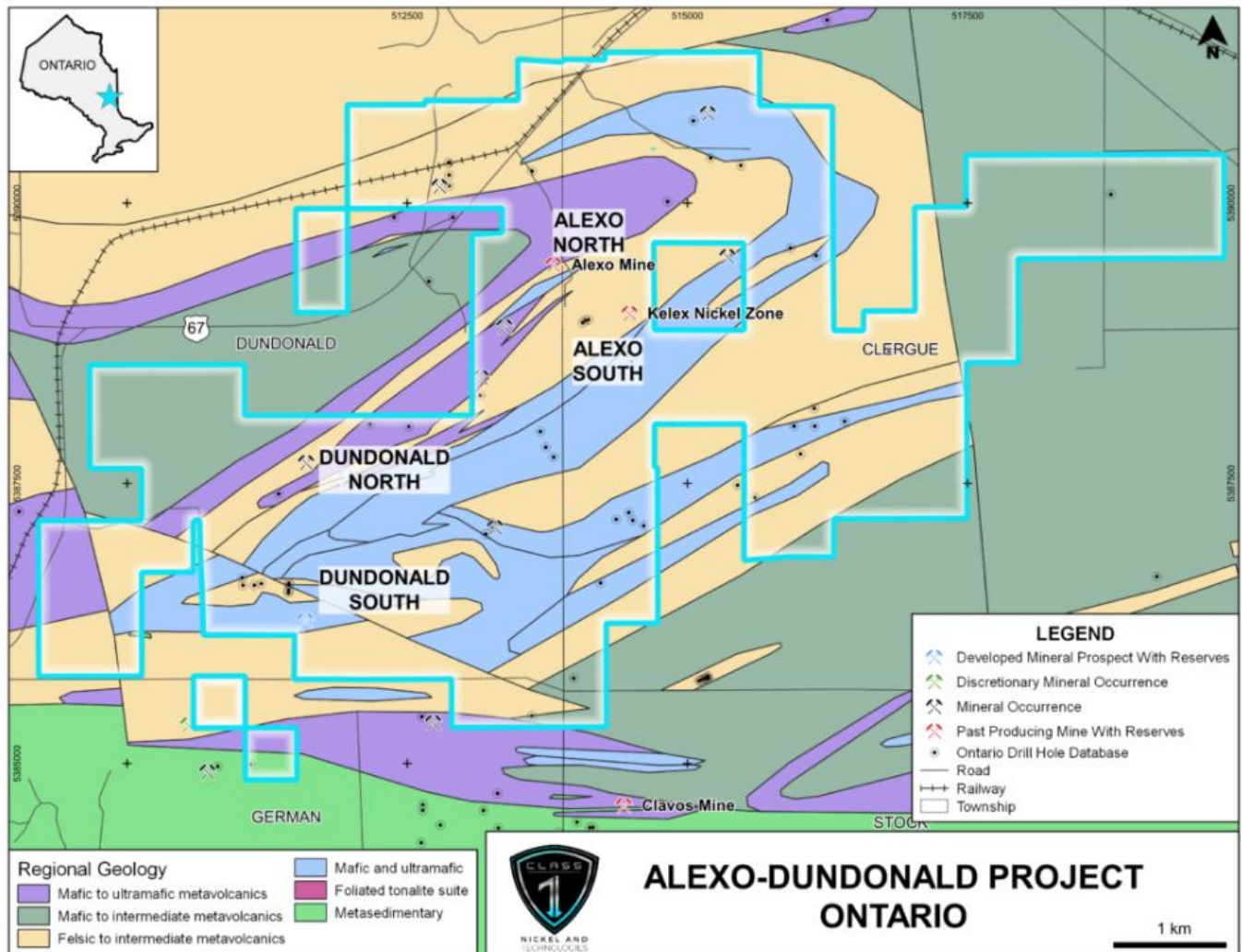


Figure 1. Location of the four known nickel sulphide deposits within the Alexo-Dundonald Nickel Sulphide Project, Timmins Mining Camp, Ontario, Canada.

An updated Mineral Resource Estimate for the Alexo North Deposit (Table 2) was announced by Class 1 Nickel on 22 May 2024 and its supportive Technical Report is forthcoming. The remaining two mineral resource estimates within the Project, Dundonald South and Dundonald North, remain current under the mineral resource estimations and technical report completed by P&E Mining Consultants Inc. (Stone et al., 2020).

## Alexo North MRE Highlights:

- Indicated Resources (open pit and underground\*) of 42,600 t at 0.92% Ni (864k lbs Ni) – 63% increase in Indicated tonnes and 8% increase in nickel pounds.
- Inferred Resources (open pit and underground\*) of 500 t at 0.32% Ni (3k lbs Ni) – 100% increase in Inferred tonnes and 100% increase in nickel pounds.
- 99.6% of the nickel pounds and 99% of the tonnes in Alexo North Deposit Mineral Resource Estimate are in the Indicated category with drilling planned to update to Measured.
- With only 1% of the Alexo North Deposit tonnes in the Inferred category there is excellent exploration upside to expand and upgrade resources through additional drilling.
- Alexo North Deposit, one of the 4 deposits on the Alexo-Dundonald Property, is open along strike, with the new geological model and interpretation providing ample targets for next-stage drilling.
- Updated Mineral Resource Estimate work continuing on the remaining 2 deposits (Dundonald South and North) of the Alexo-Dundonald Nickel Project.

\*C\$52.5/t NSR open pit and C\$96.0/t NSR underground cut-offs applied in current 2024 mineral resource estimate whereas a C\$30.0/t NSR open pit and C\$90.0/t NSR underground cut-offs were applied in the 2020 mineral resource estimate.

Table 2. Mineral Resource Statement for the estimated 2024 Alexo North Indicated and Inferred Resources.

Alexo North Resource Category	Tonnage (t)	Grade					Contained Metal		
		Ni (%)	Cu (%)	Co (%)	NIeq (%)	NSR (C\$/t)	Ni (klbs)	Cu (klbs)	Co (klbs)
<b>Open Pit (\$52.5/t NSR COG)</b>									
Indicated	35,100	0.98	0.11	0.04	1.08	205.87	759	83	33
Inferred	500	0.32	0.04	0.02	0.36	68.04	3	0	0
<b>Underground (C\$96/t NSR COG)</b>									
Indicated	7,500	0.63	0.08	0.03	0.70	133.71	105	12	5
<b>Total Open Pit and Underground</b>									
Indicated	42,600	0.92	0.10	0.04	1.02	193.09	864	95	38
Inferred	500	0.32	0.04	0.02	0.36	68.04	3	0	0

### Notes to Table 2:

(1) The independent Qualified Person for the MRE, as defined by NI 43-101, is Mr. Simon Mortimer (FAIG #4083) of Atticus Geoscience Consulting S.A.C., working with Caracle Creek International Consulting Inc. The effective date of the MRE is 21 May 2024.

(2) Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.

(3) The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.

(4) The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could be upgraded to an Indicated Mineral Resource with continued exploration.

(5) The Mineral Resources were estimated following the 2019 CIM Estimation of Mineral Resources & Mineral Reserves Best Practice Guidelines prepared by the CIM Mineral Resource & Mineral Reserve Committee and the 2014 CIM Definition Standards for Mineral Resources & Mineral Reserves prepared by the CIM Standing Committee on Reserve Definitions.

(6) Geological and block models for the MRE used core assays (559 samples from 2021 drilling) and data and information from 181 surface diamond drill holes (29 from Class 1 Nickel and 152 historical). The drill hole database was validated prior to resource estimation and QA/QC checks were made using industry-standard control charts for blanks, core duplicates and commercial certified reference material inserted into assay batches by Class 1 Nickel.

- (7) The block model was prepared using Micromine 2020. A 6 m x 6 m x 6 m block model was created, with sub blocks to 0.5 m x 0.5 m x 0.5 m. Drill composites of 1.0 m intervals were generated within the estimation domains, and subsequent grade estimation was carried out for Ni, Cu and Co using Ordinary Kriging interpolation method.
- (8) Grade estimation was validated by comparison of input and output statistics (Nearest Neighbour and Inverse Interpolation methods), swath plot analysis, and by visual inspection of the assay data, block model, and grade shells in cross-sections.
- (9) As a reference, the average estimated density value (specific gravity) within the mineralised domain is 2.91 g/cm<sup>3</sup> (t/m<sup>3</sup>).
- (10) Estimates have been rounded to 3 significant figures for Indicated resources and 2 significant figures for Inferred resources.
- (11) The historical open pit mined areas were removed from the MRE and the MRE considers a geological dilution of 5% and a mining recovery of 95%.
- (12) US\$ metal prices of \$8.00/lb Ni, \$3.25/lb Cu, \$13.00/lb Co were used in the NSR calculation with respective process recoveries of 85%, 70%, and 80%; gold, platinum and palladium are not considered in the current NSR calculation.
- (13) Pit constrained Mineral Resource NSR cut-off considers processing, and G&A costs, applying a factor of 5% for mining dilution, that respectively combine for a total of  $((\$45.00 + \$5.00) * (1 + 5\%)) = \text{C}\$52.5/\text{tonne}$  processed.
- (14) Out-of-pit Mineral Resource (underground) NSR cut-off considers ore mining, processing, and G&A costs that respectively combine for a total of  $(\$46.00 + \$45.00 + \$5.00) = \text{C}\$96.0/\text{tonne}$  processed.
- (15) The out-of-pit Mineral Resource grade blocks were quantified above the \$96.0/t cut-off, below the constraining pit shell and within the constraining mineralized wireframes. Additionally, only groups of blocks that exhibited continuity and reasonable potential stope geometry were included. All orphaned blocks and narrow strings of blocks were excluded. The long-hole stoping with backfill mining method was assumed for the out-of-pit (underground) MRE calculation.
- (16) The NSR calculation is as follows:  $\text{NSR C}\$/\text{t} = ((\text{Ni}\% \times 199.89) + (\text{Cu}\% \times 66.87) + (\text{Co}\% \times 305.71)) \times 95\%$ .
- (17) The NiEq% calculation is as follows:  $\text{NiEq}\% = (\text{Ni}\% \times 1) + (\text{Cu}\% \times 0.33) + (\text{Co}\% \times 1.53)$ .

The updated mineral resource estimates for Alexo South and Alexo North were completed by Caracle Creek Chile SpA (“Caracle”) and their strategic partner Atticus Geoscience Consulting Ltd. (“Atticus”) (together the “Consultants”), replacing the 2020 mineral resource estimates completed by P&E Mining Consultants Inc. (Stone et al., 2020), which is filed on SEDAR+. The current MREs were completed in accordance with National Instrument 43-10 (“NI-43-101”).

### **Alexo-Dundonald Nickel Sulphide Project**

The Alexo-Dundonald Nickel Sulphide Project (“A-D Project”) is located about 45 km northeast of the mining centre of the City of Timmins, Ontario, covers an area of approximately 2,078 ha (20.78 km<sup>2</sup>), and was acquired by the Company in September 2018. The A-D Project includes four foundation nickel deposits (Alexo North and South and Dundonald North and South) of which the Alexo North (aka Alexo) and Alexo South (aka Kelex) were small-scale past producers of relatively high-grade nickel (*i.e.*, 1957; 2004-2005). The deposits are located on a near-continuous folded komatiite-ultramafic rock sequence that extends for at least 14 km within the Property and which has never been systematically explored. The four mineral resources are open at depth and along strike and could increase in size with additional drilling (*see* Company news release dated 18 April 2024).

### **Qualified Persons**

The Qualified Person for the Alexo South Mineral Resource Estimate reported herein and as defined by NI 43-101, is Mr. Simon Mortimer (FAIG #4083), Principal Geoscientist at Atticus Geoscience Consulting, working with Caracle Creek International Consulting Inc. All other technical information and data in this news release has been reviewed and approved by Dr. Scott Jobin-Bevans (P.Geo., PGO #0183), a geological consultant to the Company, Managing Director and Principal Geologist with Caracle Creek Chile SpA, and a Qualified Person under the definitions established by NI 43-101.

## About Class 1 Nickel

Class 1 Nickel and Technologies Limited (CSE: NICO | OTCQB: NICLF) is a Mineral Resources Company focused on the exploration and development of its 100% owned komatiite-hosted nickel sulphide projects: the Alexo-Dundonald Nickel Sulphide Project, near Timmins, Ontario (4 nickel sulphide deposits) and the Somanike Nickel Sulphide Project, near Val-d'Or, Quebec (includes the historical Marbridge Ni-Cu Mine). Both projects comprise extensive property packages covering past-producing nickel mines, offering near-term production opportunity and excellent exploration upside.

Class 1 Nickel's current focus is to advance the A-D Project back into production and at the same time continue brownfield and greenfield exploration on its large property package to aggregate additional nickel resources. The A-D Project sits on a 14+ km strike-length, folded komatiite unit containing several nickel-copper-cobalt and PGE mineral resources plus numerous underexplored sulphide occurrences. Decades of successful capital expenditure and investment into the Project has resulted in the discovery and delineation of four main nickel Mineral Resources that occur along the folded komatiite unit. The A-D Project was previously mined via a direct-shipping model, and the Company will soon commence a Preliminary Economic Assessment (PEA) study to determine the best path forward.

In addition, the Company also holds 100% interest in its River Valley PGE Project located about 65 km northeast of the City of Sudbury, the world's largest and longest operating nickel-copper-cobalt-PGE mining camp (see Company's 13 December 2023 new release for additional information).

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For additional information please visit our website at [www.class1nickel.com](http://www.class1nickel.com) and our Twitter feed: [@Class1Nickel](https://twitter.com/Class1Nickel).

*Neither the Canadian Securities Exchange nor its regulation services provider has reviewed or accepted responsibility for the adequacy or accuracy of this press release.*

*This news release contains forward-looking information which is not comprised of historical facts. Forward-looking information is characterized by words such as "plan", "expect", "project", "intend", "believe", "anticipate", "estimate" and other similar words, or statements that certain events or conditions "may" or "will" occur. Forward-looking information involves risks, uncertainties and other factors that could cause actual events, results, and opportunities to differ materially from those expressed or implied by such forward-looking information. Factors that could cause actual results to differ materially from such forward-looking information include, but are not limited to, changes in the state of equity and debt markets, fluctuations in commodity prices, delays in obtaining required regulatory or governmental approvals, and other risks involved in the mineral exploration and development industry, including those risks set out in the Company's management's discussion and analysis as filed under the Company's profile at [www.sedarplus.ca](http://www.sedarplus.ca). Forward-looking information in this news release is based on the opinions and assumptions of management considered reasonable as of the date hereof, including that all necessary governmental and regulatory approvals will be received as and when expected. Although the Company believes that the assumptions and factors used in preparing the forward-looking information in this news release are reasonable, undue reliance should not be placed on such information. The Company disclaims any intention or obligation to update or revise any forward-looking information, other than as required by applicable securities laws.*