

## NEWS RELEASE

23 October 2009

# INCREASE IN KUHMO NICKEL PROJECT RESOURCES: NOW A SIGNIFICANT EMERGING NICKEL PROVINCE

### Highlights

- **Material increase in grade at the Hietaharju deposit – 1Mt at 0.8% Ni, 0.4% Cu, 1.7 g/t Pd+Pt**
- **Global Resource for three deposits of 9.8Mt at 0.4% Ni, 0.1% Cu, 0.4 g/t Pd+Pt (37,000 tonnes contained nickel)**
- **Deposits remain open below shallow depths (100-150m), are unoxidised and have minimal cover.**
- **Significant geophysical targets along strike from deposits within two nickel belts with a total of 30km of strike**

Vulcan Resources Limited (“Vulcan”) (ASX: VCN, FSE: VUA, WKN: A0HHEF, Norwegian OTC: VCNR) today announced updated Resource estimates for three deposits within the Suomussalmi Greenstone Belt which forms the northern part of the Kuhmo Nickel Project area. The Suomussalmi deposits (Hietaharju, Peura-aho and Vaara, see maps) are now estimated to contain 37,300t of nickel metal, 7,855t of copper metal, 1,964t cobalt and 130,000ozs of palladium plus platinum. Details of the Resource Estimate are appended to this release.

#### *Summary of 2009 Resource Estimate: Suomussalmi Nickel Deposits*

Deposit	Tonnes	Ni (%)	Cu (%)	Co (%)	Pd (g/t)	Pt (g/t)
<b>Vaara</b>	<b>8,241,366</b>	<b>0.32</b>	<b>0.02</b>	<b>0.01</b>	<b>0.14</b>	<b>0.07</b>
<i>incl.</i>	<i>2,764,209</i>	<i>0.49</i>	<i>0.04</i>	<i>0.01</i>	<i>0.27</i>	<i>0.11</i>
<b>Hietaharju</b>	<b>1,082,785</b>	<b>0.80</b>	<b>0.40</b>	<b>0.05</b>	<b>1.17</b>	<b>0.49</b>
<b>Peura-aho</b>	<b>494,909</b>	<b>0.60</b>	<b>0.27</b>	<b>0.04</b>	<b>0.58</b>	<b>0.27</b>
<b>Total</b>	<b>9,819,061</b>	<b>0.38</b>	<b>0.08</b>	<b>0.02</b>	<b>0.28</b>	<b>0.13</b>

Vulcan Managing Director, Alistair Cowden, said “Kuhmo hosts a substantial sulphide nickel Resource and some deposits have material copper and PGE credits. Hietaharju highlights the potential of this belt and we look forward to exploring for repetitions and extensions of such deposits.”

The Kuhmo Nickel Project is 95% owned by Vulcan and comprises a discontinuous holding of tenements over 150 kilometres of north-south strike of the Kuhmo-Suomussalmi greenstone belt in eastern central Finland.

There are 12 drilled or outcropping nickel occurrences within the Kuhmo Project and Resources have been reported for five of these. Three of these are updated in this Release. Exploration has

been sporadic over 40 years and was largely conducted by Outokumpu Oyj and the Geological Survey of Finland (“GTK”). Vulcan has, in the last 18 months, completed an extensive programme of infill and extension drilling, geological compilation and analysis and systematic geophysical surveys over the Project.

At Vaara, a large tonnage low-grade but high nickel tenor deposit is hosted in a thick ultramafic serpentinite (cumulate) unit and thin intersections of stringer type sulphides have been made in talc carbonate altered ultramafic units in the footwall to this mineralisation. Five different drilled nickel sulphide occurrences and numerous nickel anomalies in soil, boulder and shallow till drilling occur elsewhere in this highly prospective 20 kilometre komatiite belt.

Sulphides occur as low grade disseminated nickel mineralisation similar to deposits such as the Perseverance and Mt Keith mines in Australia. GTK and Outokumpu Oyj completed a total of 18,002 metres of diamond drilling in 210 holes in 1994-2001 and Vulcan has subsequently drilled 4,608 metres at Vaara.

At Peura-aho and Hietaharju, some five kilometres apart, low tenor massive sulphide deposits with associated disseminated mineralisation have been identified. Massive sulphides outcrop at Peura-aho and grade up to 3% nickel, 2% copper and 15 g/t palladium. At Peura-aho, massive sulphides are hosted within footwall felsic rocks. At Hietaharju multiple massive sulphide lenses are inter-layered with disseminated and breccia sulphides within a talc carbonate altered ultramafic unit. The deposits are very similar to the Raglan nickel-copper-platinum group element deposits in northern Quebec, Canada.

Vulcan has completed multiple drilling programmes at Hietaharju and Peura-aho where a total of 108 drill holes for 10,687 metres have been drilled. Drilling by Outokumpu Oyj totalled 10,133 metres.

The GTK metallurgical laboratory in Outokumpu has completed flotation testwork on the Vaara, Hietaharju and Peura-aho deposits. The testwork demonstrated that smelter-grade concentrates with good recoveries can be produced from these deposits.

Vulcan has applied for a Mining Licence at Hietaharju and is advancing permitting with the relevant authorities for an open pit and underground mine. Vulcan’s strategy is to continue exploration for repeats and extensions of the known deposits to reach the critical mass required to achieve stand along development of a central processing plant sourcing feed from multiple mines.

Details of the Resource Estimates are given in the Appendix below.

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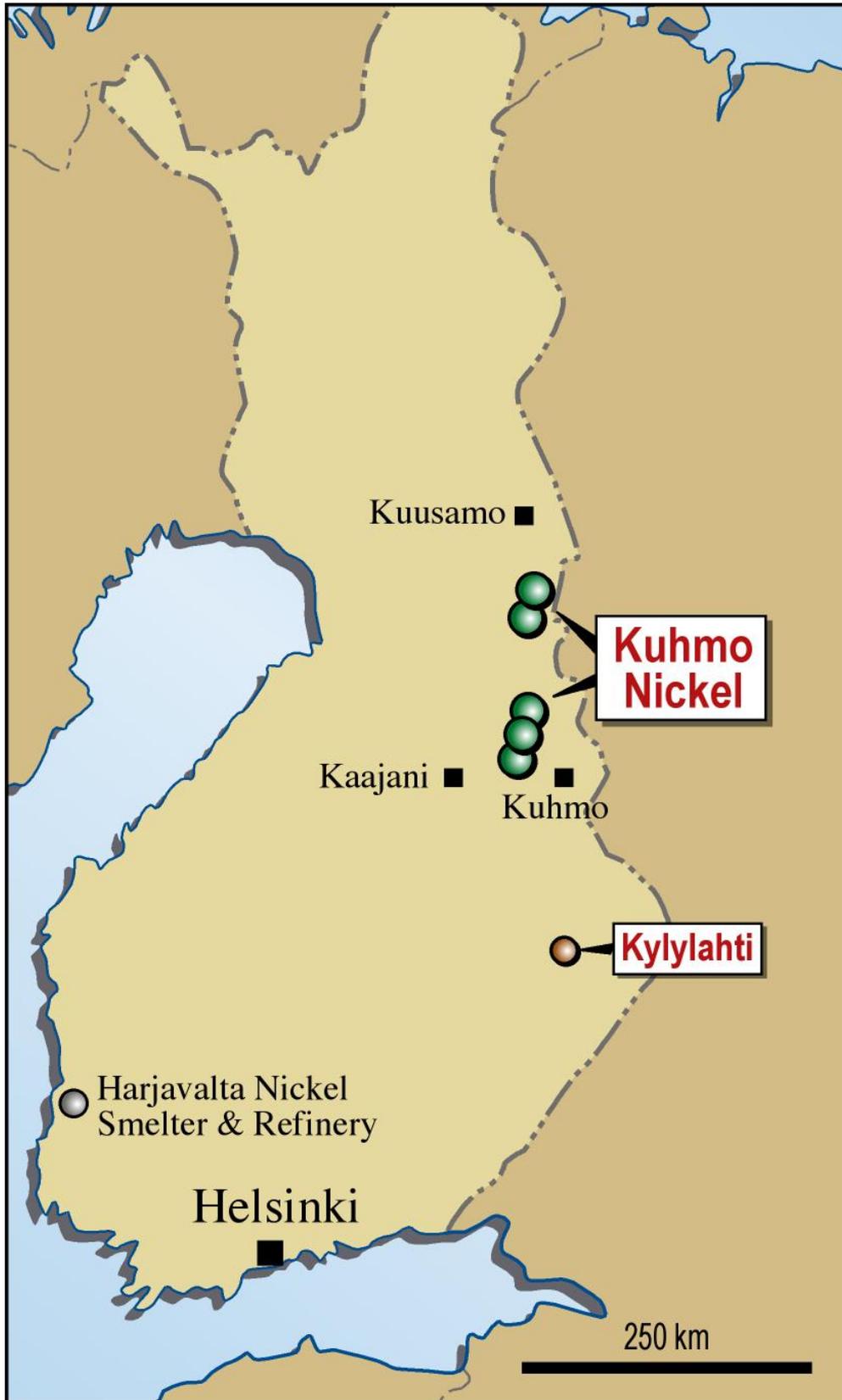


Figure 1. Location of the Kuhmo Nickel project, major regional towns and the Harjavalta nickel smelter



Figure 2. Nickel sulphide occurrences and nickel provinces of the Kuhmo Project

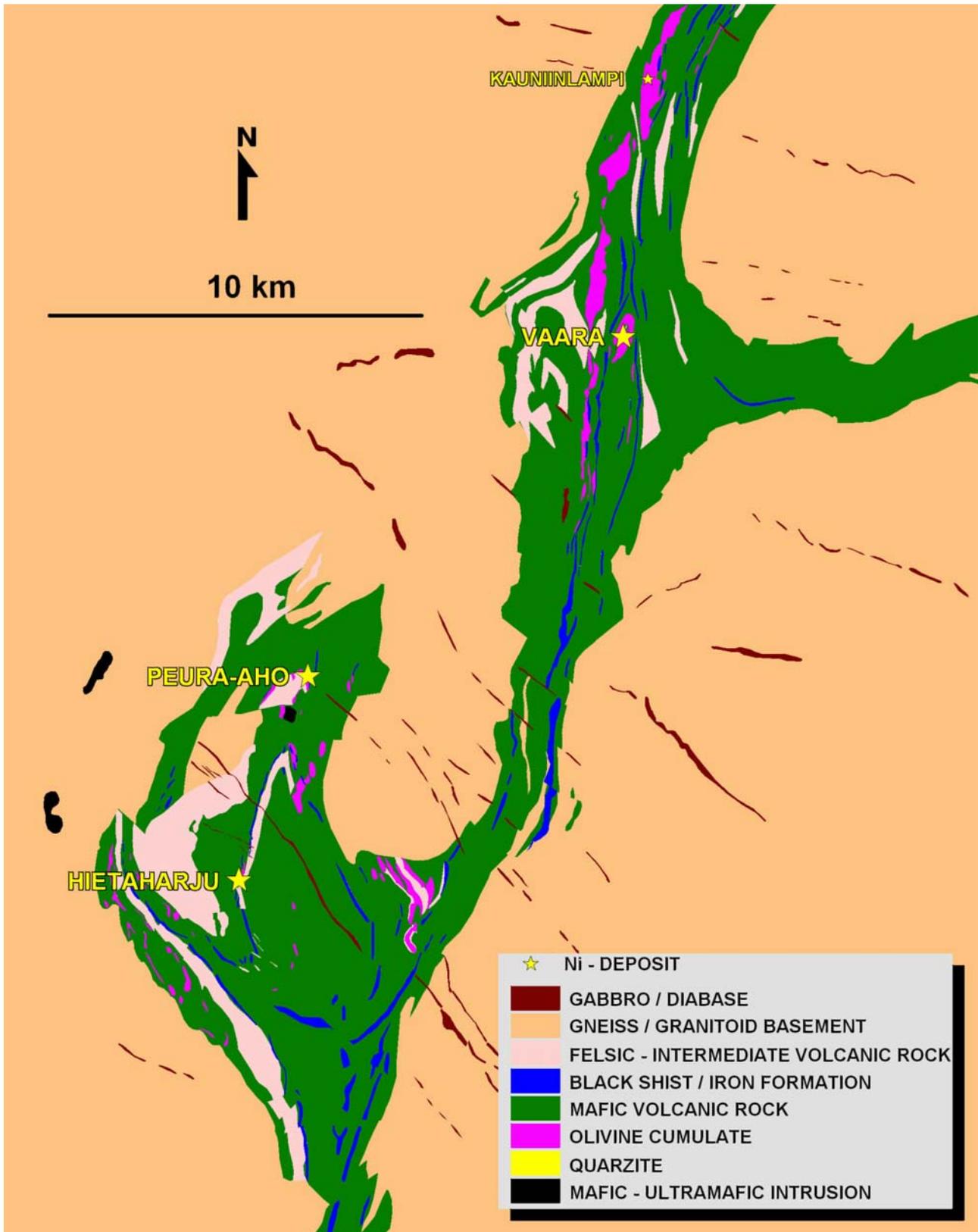


Figure 3. Nickel deposits and occurrences in the Suomussalmi Greenstone Belt

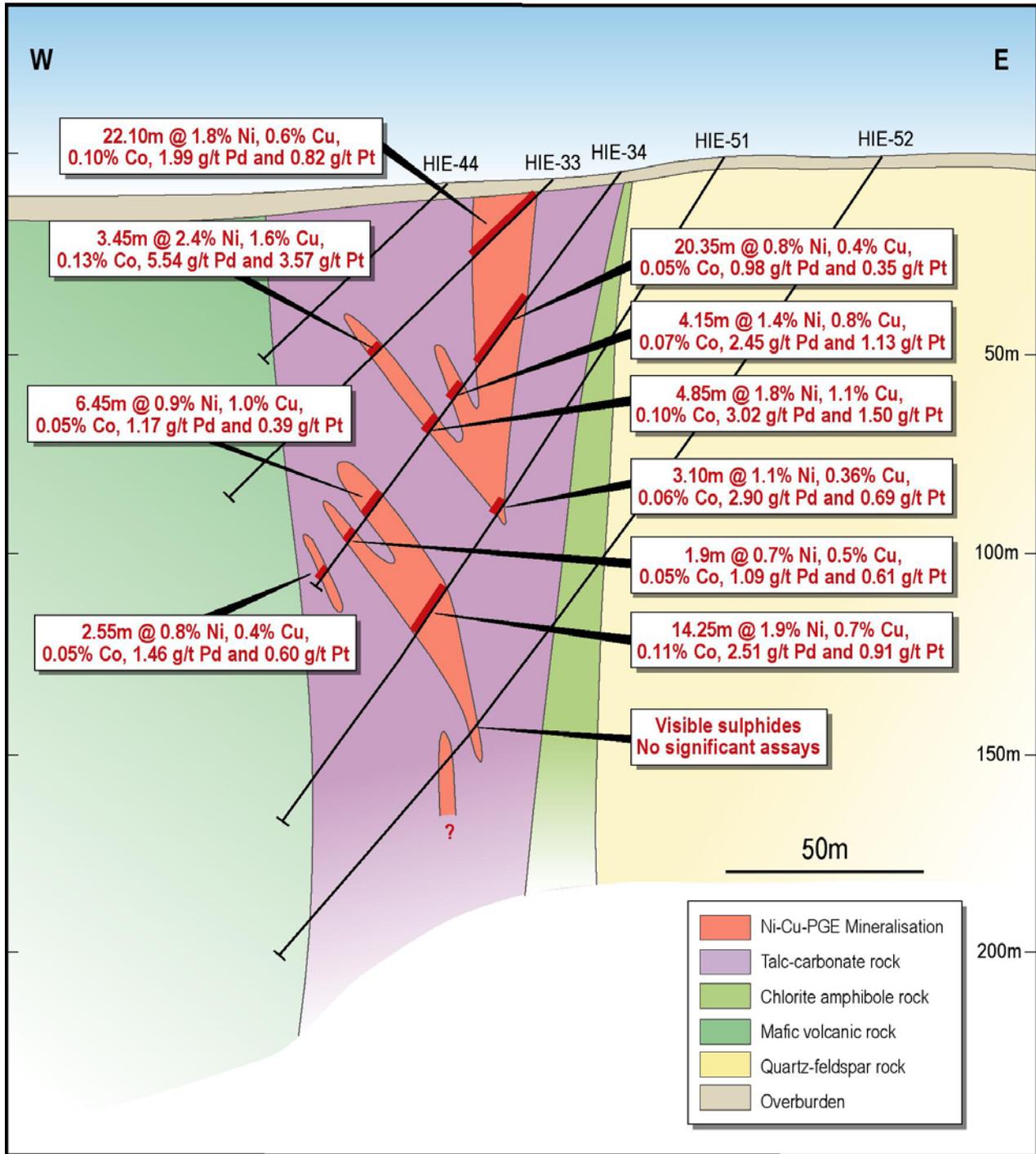


Figure 4. Hietaharju cross section N7228280

## **APPENDIX: DETAILS OF RESOURCE ESTIMATION**

### **Background**

Vulcan has completed a revised geological interpretations and an update of the Resource estimates for the Hietaharju, Peura-aho and Vaara nickel deposits at Suomussalmi in Eastern Finland. Snowden produced the previous estimates of the Resources in 2006 (ASX release 22 August 2006). Since then, Vulcan has undertaken significantly more diamond drilling at each of the three deposits.

The Mineral Resource Estimates incorporate all additional drilling information since the last update in 2006 and has been completed as per the following methodology:

1. Modifying the geological wireframes utilising new drilling information;
2. In-situ estimation of nickel, copper, cobalt, palladium, platinum, sulphur and density by Ordinary Kriging (OK); and
3. Classification of the resource according to the Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves JORC (2004) Code.

### **Geological Domaining**

Geological domain criteria are defined by geological observations aided with data analysis. Deposits were divided into domains controlled by lithological characteristics, type of sulphide mineralisation and nickel grade. In general 0.3% Ni grade was used as a lower cut-off grade for domaining.

The Vaara Global Resource includes domains :

- >0.3% Ni = disseminated sulphides (0.3 – 1.99% Ni) within serpentinised olivine cumulate
- <0.3% Ni = low grade disseminated sulphides in between higher grade zones

The Hietaharju domains are:

- Four main and three minor spatially separate domains composed of both massive high-grade (2-3% Ni), sulphides and disseminated low to medium grade sulphides (>0.3% Ni). Hosted by ultramafic cumulate body and minor parallel ultramafic rocks. Locally characterised by elevated copper and PGE grades.

The Peura-aho main domains are:

- Low grade, ~0.5% Ni disseminated sulphides hosted by serpentinised olivine cumulate
- High grade, 2 – 3% Ni, massive sulphides hosted by felsic footwall rocks
- Medium grade, 0.7 – 1.0% Ni, mainly disseminated sulphides situated at the contact to footwall felsic volcanic rock

The domain wireframes have been created to minimise the inclusion of material below the cut-off grade. Domain boundaries are treated as 'hard' for estimation purposes.

### **Compositing and Top-cutting**

Drillhole samples were composited to 1 metres down-hole intervals, controlled by the domain boundaries. Top-cuts were applied to palladium at Hietaharju and Peura-aho to control the influence of high grades on the local estimates. No top-cuts were applied to nickel, copper, cobalt, platinum, sulphur or density.

## Variography

Variography for each variable : nickel, copper, cobalt, palladium, platinum, sulphur and density, were calculated separately. At Vaara individual variogram models were created to total of four domains to represent differences in strike orientations and nickel grades. In addition two variogram models were needed for each individual variable at Peura-aho to minimise the influence of unique strike orientations along both limbs of the fold structure.

## Ordinary Kriging Estimation

A three-dimensional block model has been created with a parent block size of 5 metres (X) x 25 metres (Y) x 5 metres (Z) for Vaara and 5 metres (X) x 12.5 metres (Y) x 5 metres (Z) for Hietaharju and Peura-aho with a minimum sub cell size of down to 1.25 metres (X) x 1.5 metres (Y) x 1.25 metres (Z) to allow for adequate volume representation of wireframes in the block model.

Grades have been estimated for nickel, copper, cobalt, palladium, platinum, sulphur and density using Ordinary Kriging (OK). Individual domains were estimated separately using hard boundaries.

The estimates were validated by the use of graphing statistics for the samples and estimates by 25 metre spaced strike slices and 25 metre spaced RL slices for each domain. The model estimates were also assessed against the drillhole sample data visually.

The result for the estimate (with 0.2% Ni lower cut-off grade for Vaara and no lower cut-off grade applied for Hietaharju and Peura-aho) is:

### 2009 Resource Estimate: Suomussalmi Nickel Deposits

Deposit	Classification	Tonnes	Ni (%)	Cu (%)	Co (%)	Pd (g/t)	Pt (g/t)
Vaara	Indicated	7,502,483	0.32	0.02	0.01	0.15	0.07
	Inferred	738,883	0.27	0.02	0.01	0.11	0.07
	<b>Total</b>	<b>8,241,366</b>	<b>0.32</b>	<b>0.02</b>	<b>0.01</b>	<b>0.14</b>	<b>0.07</b>
Hietaharju	Indicated	847,748	0.85	0.44	0.06	1.25	0.53
	Inferred	235,037	0.59	0.27	0.04	0.89	0.34
	<b>Total</b>	<b>1,082,785</b>	<b>0.80</b>	<b>0.40</b>	<b>0.05</b>	<b>1.17</b>	<b>0.49</b>
Peura-aho	Indicated	404,954	0.63	0.29	0.04	0.62	0.28
	Inferred	89,956	0.48	0.23	0.03	0.42	0.21
	<b>Total</b>	<b>494,909</b>	<b>0.60</b>	<b>0.27</b>	<b>0.04</b>	<b>0.58</b>	<b>0.27</b>
TOTAL	Indicated	8,755,185	0.39	0.08	0.02	0.27	0.13
	Inferred	1,063,876	0.36	0.09	0.02	0.31	0.14
	<b>Total</b>	<b>9,819,061</b>	<b>0.38</b>	<b>0.08</b>	<b>0.02</b>	<b>0.28</b>	<b>0.13</b>

Vaara Global Resource includes a higher grade domain comprising of multiple lenses of higher grade nickel mineralisation totalling 2.8 Mt @ 0.5% nickel (below).

### 2009 Vaara Estimate: Higher Grade Domain

Resource	Tonnes	Ni (%)	Cu (%)	Co (%)	Pd (g/t)	Pt (g/t)
Indicated	2,623,284	0.494	0.042	0.013	0.276	0.107
Inferred	140,925	0.448	0.035	0.014	0.243	0.104
<b>Total</b>	<b>2,764,209</b>	<b>0.491</b>	<b>0.042</b>	<b>0.013</b>	<b>0.274</b>	<b>0.107</b>

Resource categories were based on data quality and quantity, confidence in geological interpretation and domaining, and quality of the estimates. The classification is consistent with the guidelines presented in Australian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (2004).

### Comparison to 2006 Estimate

In a previous estimate completed by Snowden in 2006 all three deposit were modelled and reported using nickel equivalent values based on metal prices at that time. Snowden`s resource estimate summary is presented below using 0.3% NiEq lower cut-off grade (see ASX release 22 August 2006).

#### 2006 Resource Estimate: Suomussalmi Nickel Deposits

Deposit	Classification	Tonnes	Ni (%)	Cu (%)	Co (%)	Pd (g/t)	Pt (g/t)
Vaara	Indicated	2,431,778	0.37	0.03	0.01	0.16	0.10
	Inferred	3,694,350	0.33	0.02	0.01	0.14	0.10
	<b>Total</b>	<b>6,126,128</b>	<b>0.35</b>	<b>0.03</b>	<b>0.01</b>	<b>0.15</b>	<b>0.10</b>
Hietaharju	Indicated	413,393	0.64	0.36	0.04	0.49	0.22
	Inferred	590,357	0.45	0.22	0.03	0.53	0.11
	<b>Total</b>	<b>1,003,749</b>	<b>0.53</b>	<b>0.28</b>	<b>0.04</b>	<b>0.52</b>	<b>0.16</b>
Peura-aho	Indicated	379,027	0.50	0.21	0.03	0.35	0.16
	Inferred	171,273	0.53	0.26	0.03	0.38	0.17
	<b>Total</b>	<b>550,300</b>	<b>0.51</b>	<b>0.23</b>	<b>0.03</b>	<b>0.36</b>	<b>0.16</b>
TOTAL	Indicated	3,224,198	0.42	0.09	0.02	0.22	0.12
	Inferred	4,455,980	0.35	0.06	0.01	0.20	0.10
	<b>Total</b>	<b>7,680,178</b>	<b>0.38</b>	<b>0.07</b>	<b>0.01</b>	<b>0.21</b>	<b>0.11</b>

Changes in the estimates for each deposit can be summarised as follows:

- Vaara** Significant increase in tonnes and most significantly in Resource classification confidence in indicated resource due to infill and deep drilling at the northern part of the deposit.
- Hietaharju** Very significant increase in nickel, copper, palladium and platinum contents due to larger portion of high grade massive sulphides intersected in post 2006 drillings. Infill and deep drilling extended and confirmed the main mineralisation increasing confidence in Resource classification doubling the indicated resource.
- Peura-aho** Significant increase in nickel and PGE contents due to larger portion of high grade massive sulphides intersected in post 2006 drillings. Increase in Resource confidence and therefore in indicated resources due to infill drilling. Small decrease in total resource due to different modelling method of nickel grade vs. nickel equivalent grade resulting significant decrease in low grade disseminated resource. In contrast the amounts of massive and contact type mineralisation increased.

A summary of the changes is presented below.

	Indicated %	Tonnes	Contained Ni tonnes	Contained Cu tonnes	Contained Co tonnes	Contained Pd oz	Contained Pt oz
Snowden 2006	42	7,680,178	29,294	5,497	1,120	52,074	27,597
2009 Update	89	9,819,061	37,312	7,855	1,964	88,403	41,044
<b>Change (%)</b>	<b>+112</b>	<b>+28</b>	<b>+27</b>	<b>+43</b>	<b>+75</b>	<b>+70</b>	<b>+49</b>

### **Competent Person Statement**

The information in this report that relates to Exploration Results, Mineral Resources or Ore Reserves is based on information compiled and reviewed by Dr Alistair Cowden BSc (Hons), PhD, MAusIMM, MAIG, Mr Jarmo Vesanto, MSc (Geology), MAusIMM and Mr Jani Impola, MSc (Geology), MAusIMM, who are full time employees of the Company and have sufficient experience which is relevant to the style of mineralisation and type of deposit under consideration and to the activity which they are undertaking to qualify as Competent Persons as defined in the 2004 Edition of the 'Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves' (the JORC Code). Dr Alistair Cowden Mr Jarmo Vesanto and Mr Jani Impola consent to the inclusion in the report of the matters based on their information in the form and context in which it appears.

The Resource Estimates were made by Mr Impola with peer review by Mr Vesanto and Dr Cowden.

### **Cautionary Statement**

No stock exchange, securities commission or other regulatory authority accepts responsibility for the adequacy or accuracy of this release or has approved or disapproved the information contained herein.

Statements regarding Vulcan's plans with respect to its mineral properties are forward-looking statements. There can be no assurance that Vulcan's plans for development of its mineral properties will proceed as currently expected. There can also be no assurance that Vulcan will be able to confirm the presence of additional mineral deposits, that any mineralisation will prove to be economic or that a mine will successfully be developed on any of Vulcan's mineral properties. Circumstances or management's estimates or opinions could change. The reader is cautioned not to place undue reliance on forward-looking statements.