

- + Discovery
- + Resource Definition
- + Value Capture

# *Scandinavian Vanadium Projects*

February 2019

**PURSUIT**  
MINERALS

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# Forward Looking Statement

This Presentation contains forward-looking statements which are identified by words such as 'may', 'could', 'believes', 'estimates', 'targets', 'expects', or 'intends' and other similar words that involve risks and uncertainties.

These statements are based on an assessment of present economic and operating conditions, and on a number of assumptions regarding future events and actions that, as at the date of this Presentation, are expected to take place.

Such forward-looking statements are not guarantees of future performance and involve known and unknown risks, uncertainties, assumptions and other important factors, many of which are beyond the control of our Company, the Directors and our management.

We cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this presentation will actually occur and investors are cautioned not to place undue reliance on these forward-looking statements.

We have no intention to update or revise forward-looking statements, or to publish prospective financial information in the future, regardless of whether new information, future events or any other factors affect the information contained in this presentation, except where required by law.

These forward looking statements are subject to various risk factors that could cause our actual results to differ materially from the results expressed or anticipated in these statements.

# Compelling Investor Proposition – Vanadium Projects

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- Vanadium demand rising & supply constrained
  - Low risk, Tier One Project Locations
    - Finland and Sweden
  - Projects show major potential, producing exceptionally high grade vanadium concentrates
  - Management with excellent track record of wealth generation
  - Early stage entry point, Market Cap of just A\$8.4M
  - New JORC Inferred Resource defined for Koitelainen: 116Mt containing 6Mt of magnetite @ 2.3%  $V_2O_5$ <sup>1</sup>
  - Airijoki vanadium mineralisation over 200m thick, high grade and Mineral Resource within weeks
  - Scoping studies completed by April, DFS Decision

<sup>1</sup>See ASX Announcement 6 February 2019. The Company is not aware of any new information or data that materially affects the information contained in that announcement.



Drilling at Airijoki Project, Sweden Nov 2018

# Company Snapshot ASX: PUR

## Quality assets

- Finland & Sweden vanadium
- Favourable mining jurisdictions
- Access to quality infrastructure
- High quality historical data

## Capital Structure<sup>1</sup>

- Shares: 178 million
- Options: 55M (10c, 31 Oct 2021)
- Share price: \$0.047
- Market capitalisation: \$8.4M
- Cash - \$2.5 million

## Capital Structure

- |                     |      |
|---------------------|------|
| • Teck Aust.        | 7.3% |
| • Suburban Holdings | 2.6% |
| • Lowell Resources  | 2.0% |
| • Top 20            | 42%  |
| • Directors         | 5%   |

<sup>1</sup>Capital structure following the issuing of shares and options as per the capital raising detailed in the ASX Announcement of 4 February 2019

## Directors

- Peter Wall - Corporate lawyer, ASX listings, takeovers, reconstructions
- Matt O’Kane - +20 years finance professional, CFO
- Ian Wallace – Business Development, Indigenous Relationships
- Jeremy Read - +30 years mineral exploration and project development

**ASX Listed and Headquartered in Brisbane, Australia**

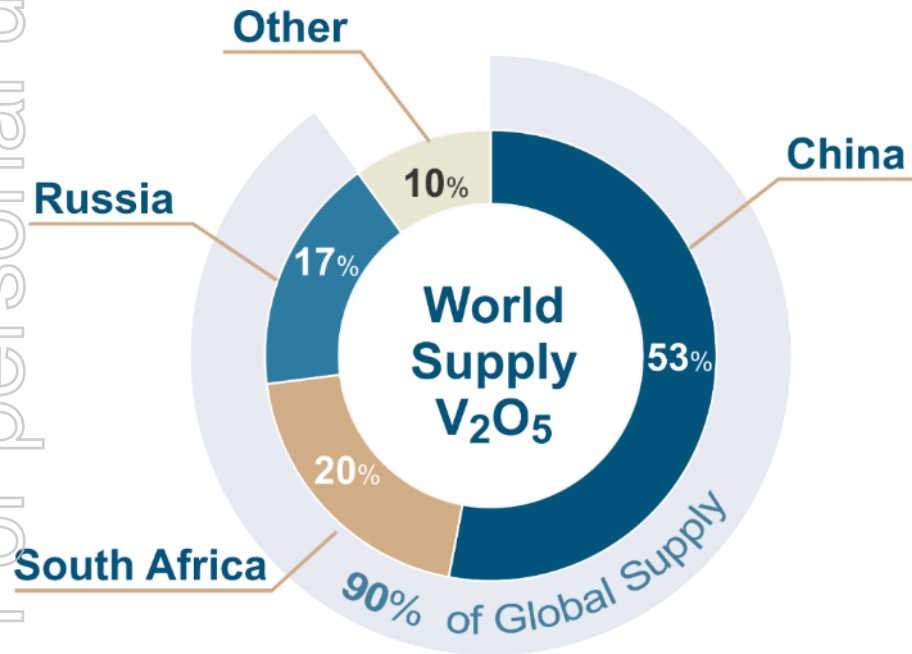
## Share Price Momentum Building



# Vanadium Deficit Forecast

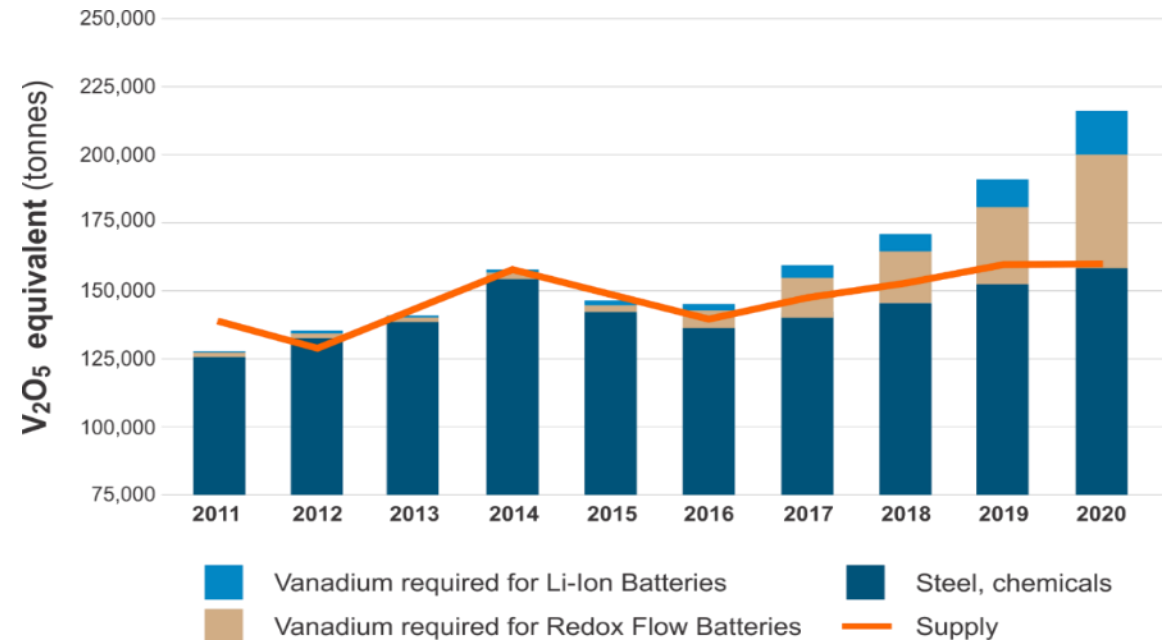
## Supply

- Production peaked in 2014
- Mine closures – Mapochs, Windimurra,
- Decreased vanadium production from slag in China
- Price eased to US\$15/lb, reducing new supply incentive



## Demand

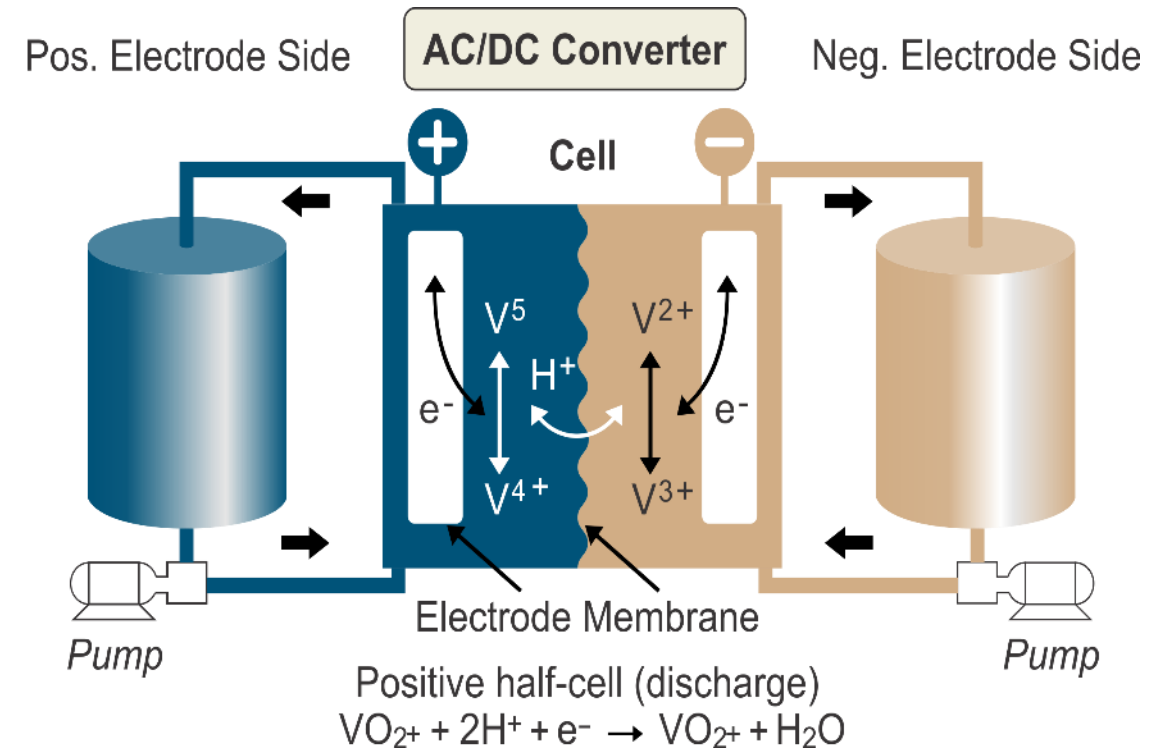
- New Chinese rebar standards increase consumption 30%
- Battery demand grew 34% in 2017, 60% CAGR 2018-2022
- Vanadium CAGR until 2027 is 3.2% up from 0.9%
- Potential Electric Vehicle Li-V-Phosphate Batteries



Source: Camelot Ferroalloys Inc, Vanitec

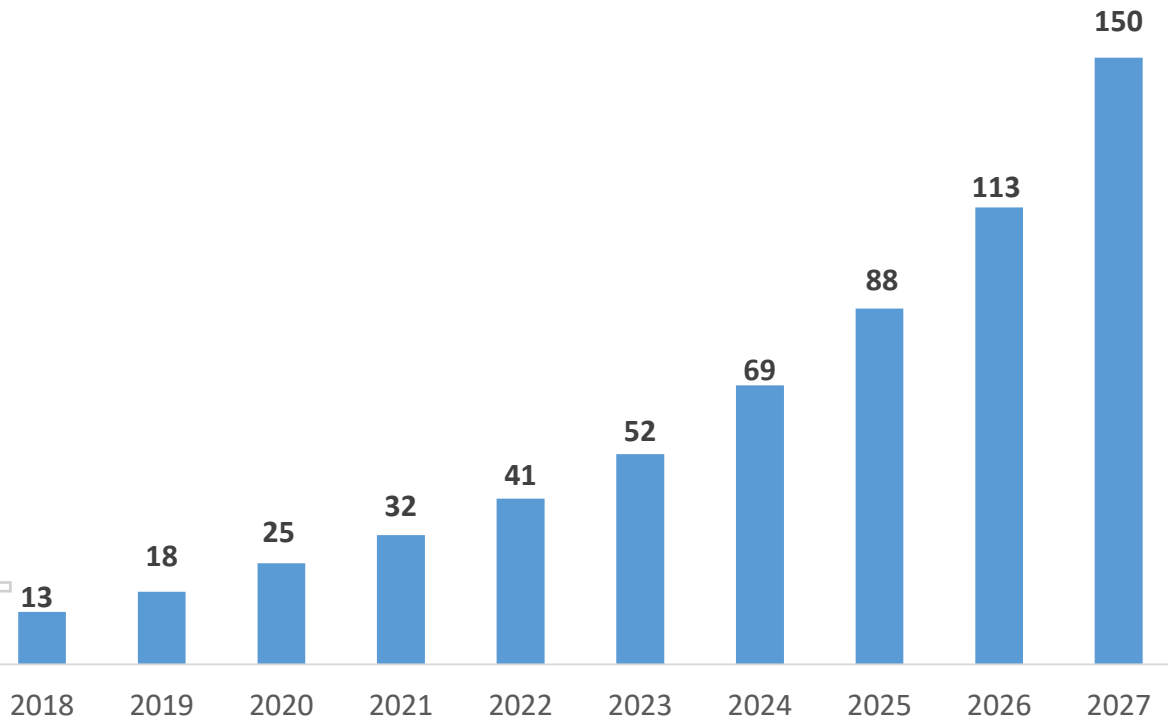
# Vanadium Redox Flow Batteries

- Suitable for large scale energy storage (wind farms, solar)
- Non-flammable
- Excellent re-chargeability
- Up to 10,000 cycles vs max 1,000 cycles for Li-Ion
- Maintain 90% of their storage capacity over 20 years
- Batteries suitable for single houses now commercially available
- Costs have reduced 50% in the last three years to approx. \$300/kWh (Li-Ion batteries approx. \$150-200/kWh)
- On a per cycle basis VFRB's are now price competitive with Li-Ion batteries



# Drivers for Demand Growth – Energy Storage

Global cumulative storage deployments  
(GWh)



Source: BNEF

- VRFB market is expected to grow from US\$230 Million in 2018 to US\$946 Million by 2023 (ASDR)
- Over the period from 2018 to 2022, the VRFB market is anticipated to expand at a CAGR of 60% (Orbis Research - June 15, 2018)
- Germany to phase out coal power by 2038, increasing need for energy storage
- Europe currently imports all its vanadium

# Vanadium Project Portfolio

- High grade vanadium magnetite concentrate projects in historical mining regions
- Mining friendly, well established regulatory regimes – Finland ranked #1 mining location, Sweden #16 (Fraser Institute 2017)
- Pursuit holds 100% interest
- Historical data and core available for analysis, providing major head start in exploration and project development



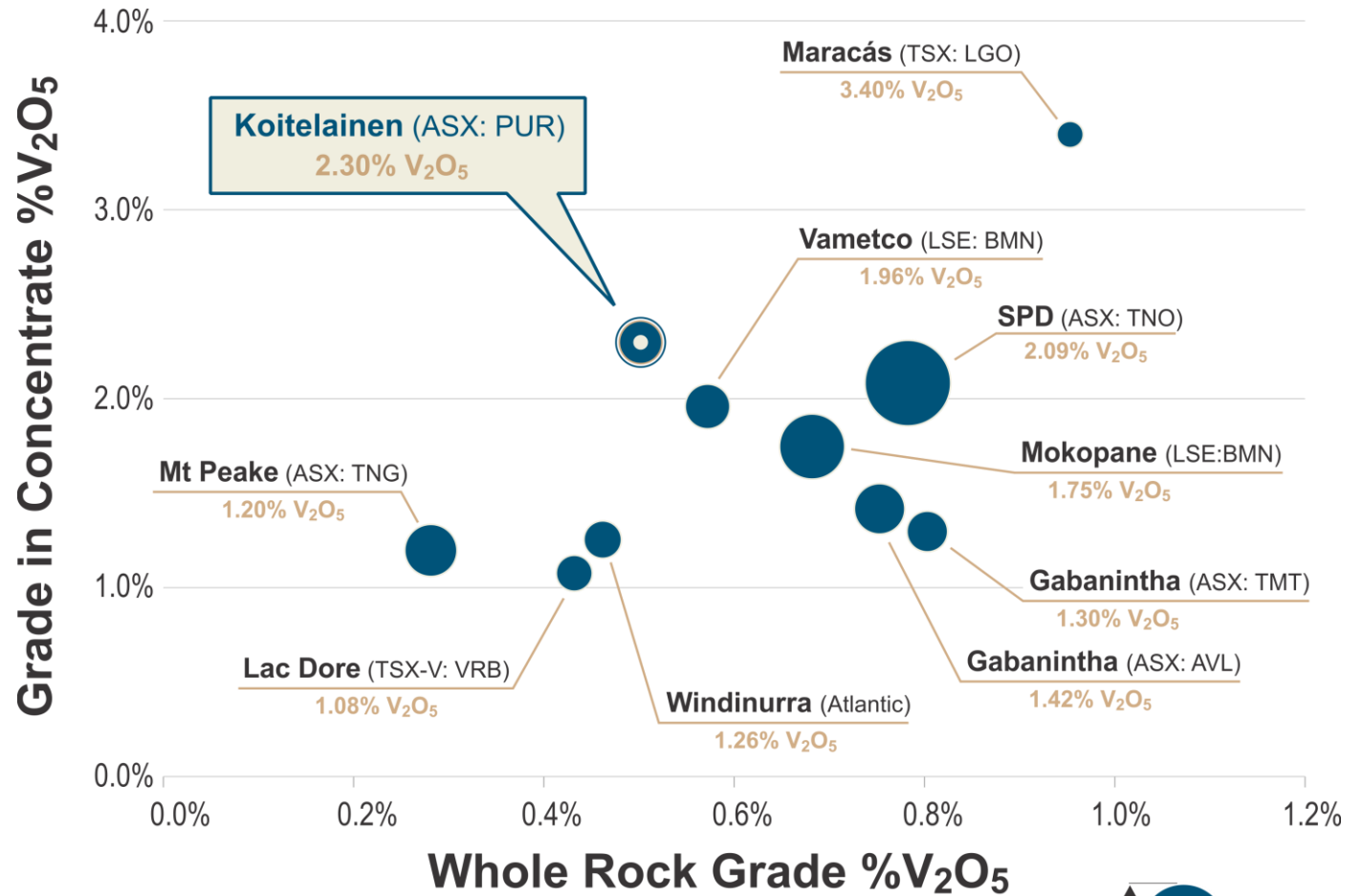


# World Class Vanadium Magnetite Concentrate Grades

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Koitelainen Vosa project generated magnetite concentrates with grades of up to 3.4% with Inferred Mineral Resource Grade of 2.3%  $V_2O_5$ <sup>1</sup>

Airijoki project generated magnetite concentrates with grades of up to 2.3%  $V_2O_5$  and averaging 2.0%  $V_2O_5$ <sup>2</sup>



250Mt Deposit Size

<sup>1</sup>See ASX Announcement 6 February August 2019. The Company is not aware of any new information or data that materially affects the information contained in that announcement.

<sup>2</sup>See ASX Announcement 5 February August 2019. The Company is not aware of any new information or data that materially affects the information contained in that announcement.

The above graph compares projects at different stages of development and resource reported under different codes. See the Appendix for details.

# Sweden Vanadium Projects

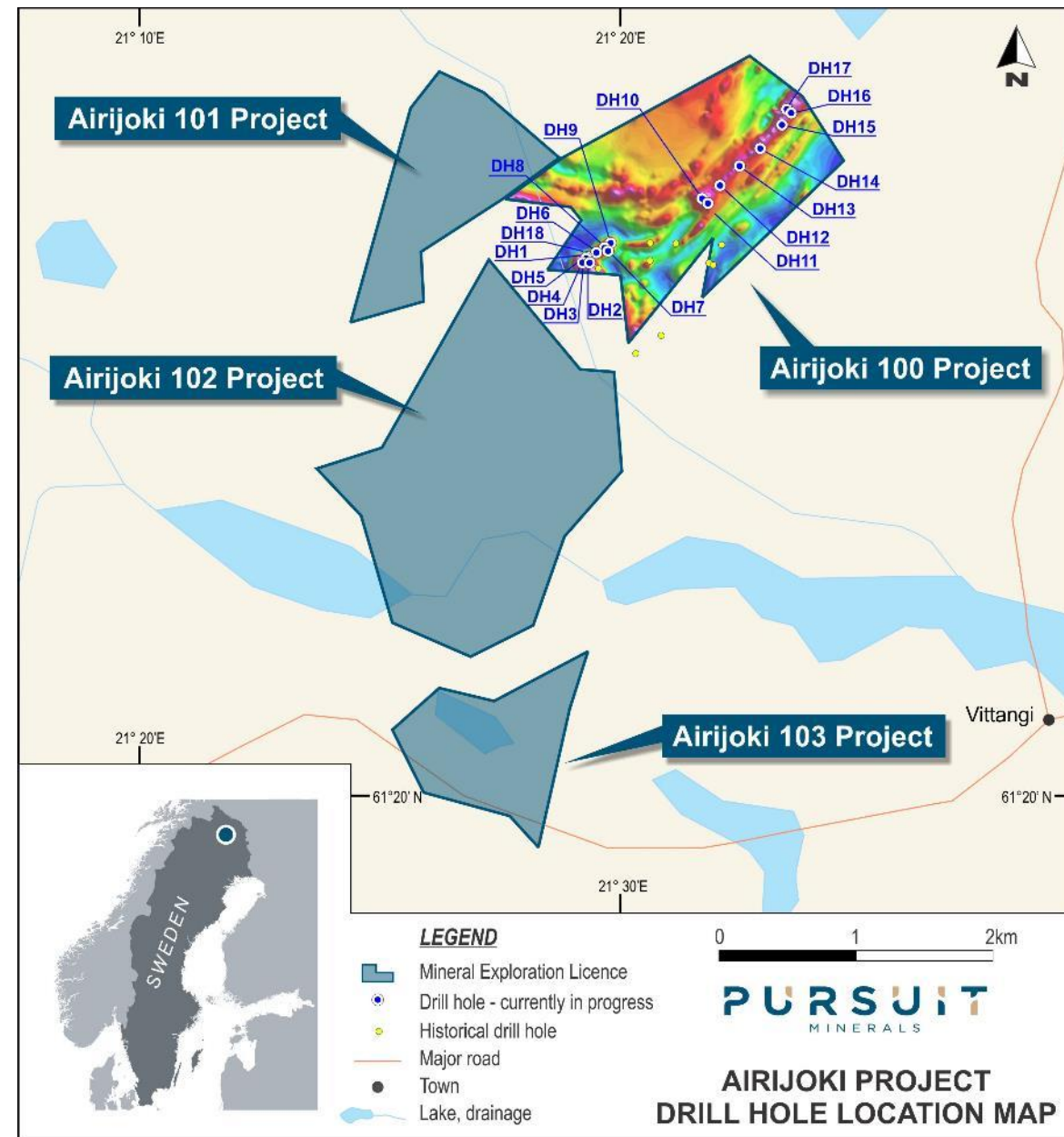
- Exploration Licences covering five project areas in Sweden, granted in August 2018
  - Sumåssjön, Kramsta, Simesvallen and Kullberget in Central Sweden
  - Airijoki in northern Sweden
- Exploration Licences allow geophysical surveys, mapping, sampling and drilling, subject to County Administration Board approval
- Completed a variety of exploration activities focussed on reviewing historical data, confirming historical drilling, mapping and sampling outcropping vanadium mineralisation
- Recent activity focused on Airijoki, where a maiden drilling campaign was conducted in Nov-Dec 2018



# Airijoki Project

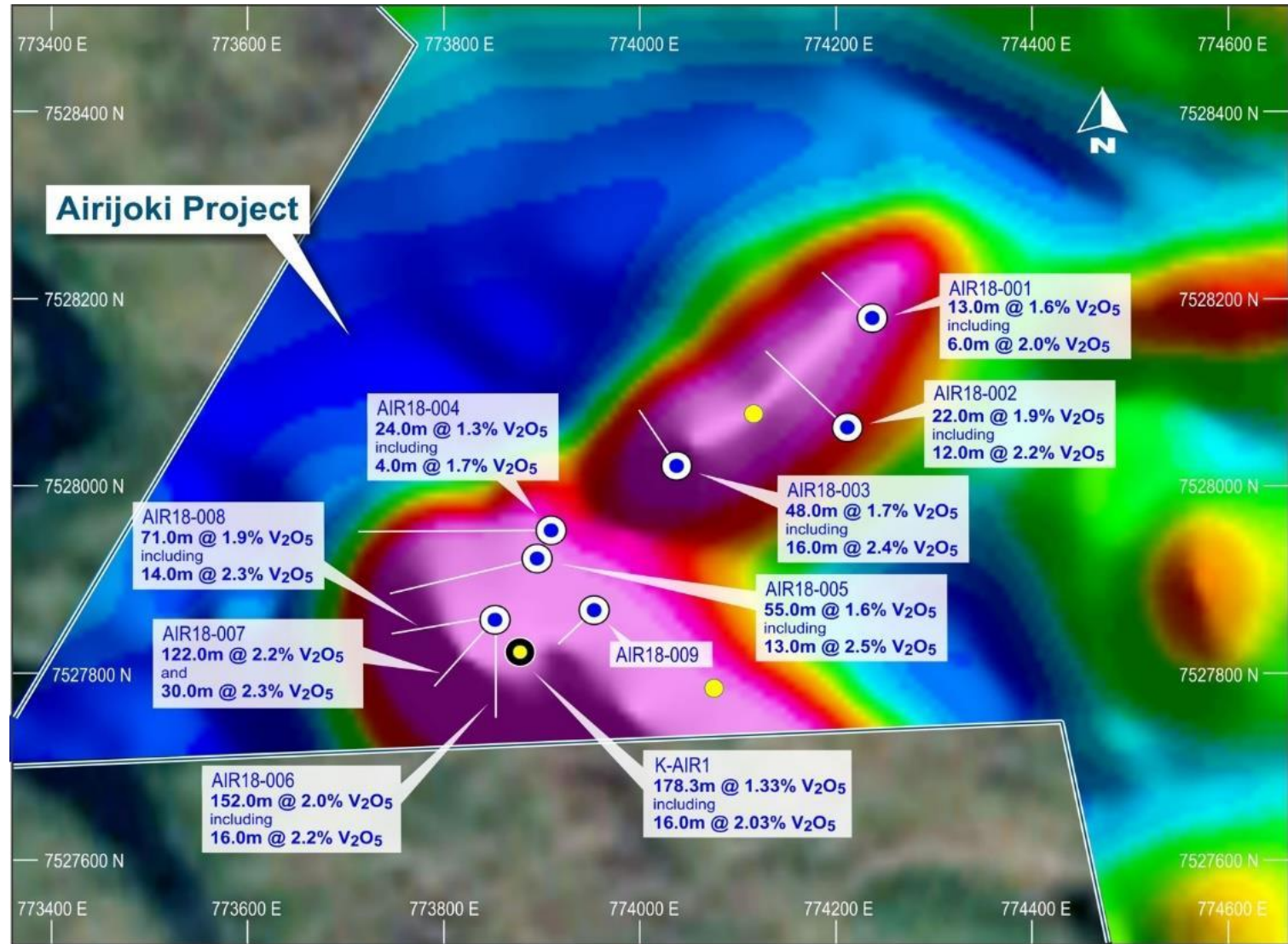
- Four Exploration Licences covering 32km<sup>2</sup>
- 3.5km magnetic anomaly
- Historical drill holes resampled in August 2018<sup>1</sup>
  - 178.3m @ 1.33% V<sub>2</sub>O<sub>5</sub>, (magnetite concentrate)
  - 16m @ 2.05% V<sub>2</sub>O<sub>5</sub>, (magnetite concentrate)
  - 10m @ 2.01% V<sub>2</sub>O<sub>5</sub> (magnetite concentrate)
- Mineralisation is open to the north
- Diamond drilling completed Nov-Dec 2018
  - 18 holes for 2876m test 2.5 - 3.0km of outcropping vanadium mineralisation

<sup>1</sup>See ASX Announcement 27 August 2018. The Company is not aware of any new information or data that materially affects the information contained in that announcement.



# Airijoki Project: SW Mag Zone Exceptionally High Grade Mag Con

- 9 new drill holes<sup>1</sup>
- Exceptionally thick and high grade vanadium magnetite concentrates from Southwest Magnetic Zone
  - 178.0m @ 1.9% V<sub>2</sub>O<sub>5</sub> including;
    - 122.0m @ 2.2% V<sub>2</sub>O<sub>5</sub> and;
    - 30.0m @ 2.3% V<sub>2</sub>O<sub>5</sub>
  - 213.2m @ 1.8% V<sub>2</sub>O<sub>5</sub> including;
    - 152.2m @ 2.0% and;
    - 16.0m @ 2.2% V<sub>2</sub>O<sub>5</sub>
  - 112.0m @ 1.6% V<sub>2</sub>O<sub>5</sub>, including;
    - 71.0m @ 1.9% V<sub>2</sub>O<sub>5</sub> and;
    - 14.0m @ 2.3% V<sub>2</sub>O<sub>5</sub>



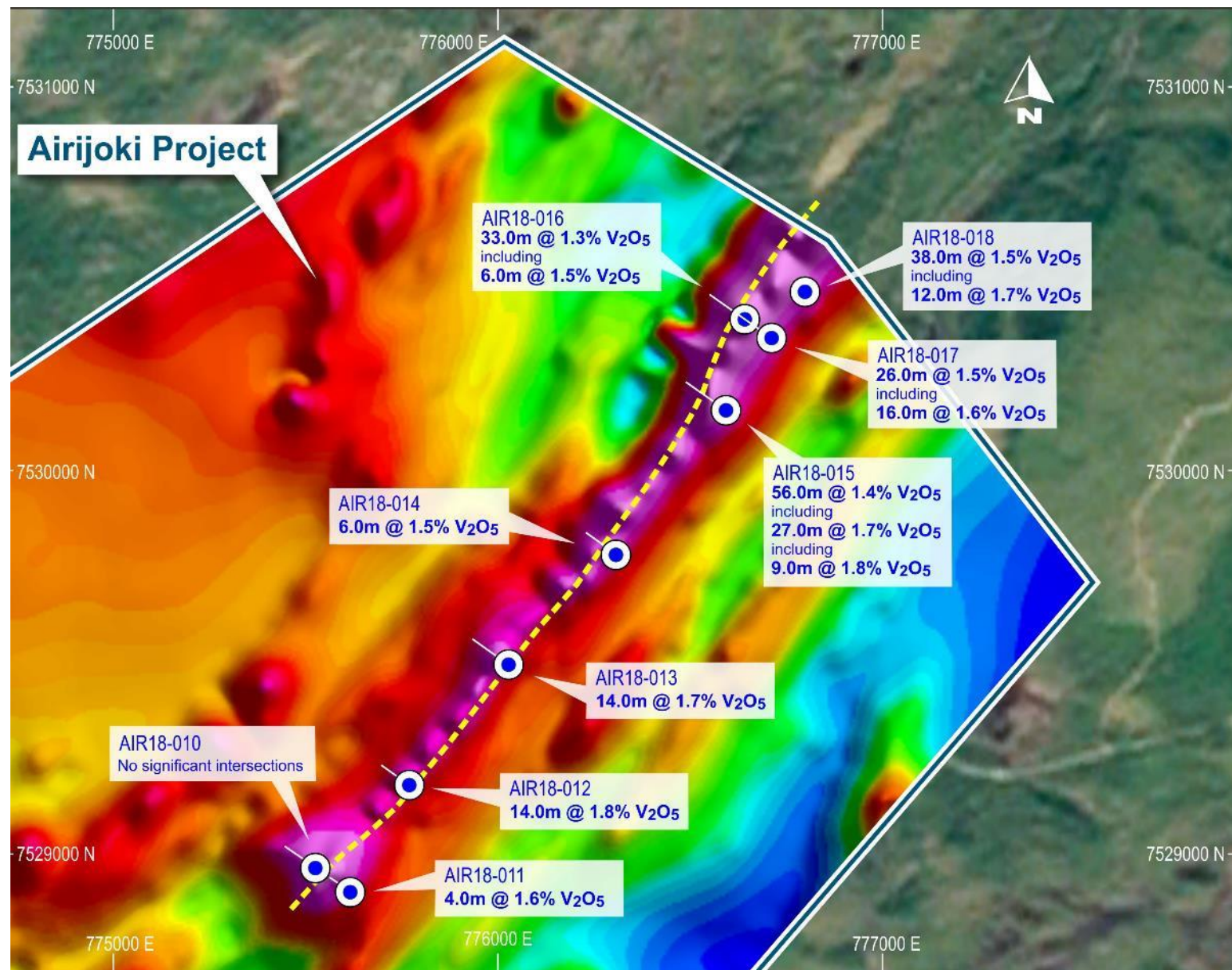
<sup>1</sup>See ASX Announcement 22 January 2019. The Company is not aware of any new information or data that materially affects the information contained in that announcement.

# Airijoki Project: NE Mag Zone

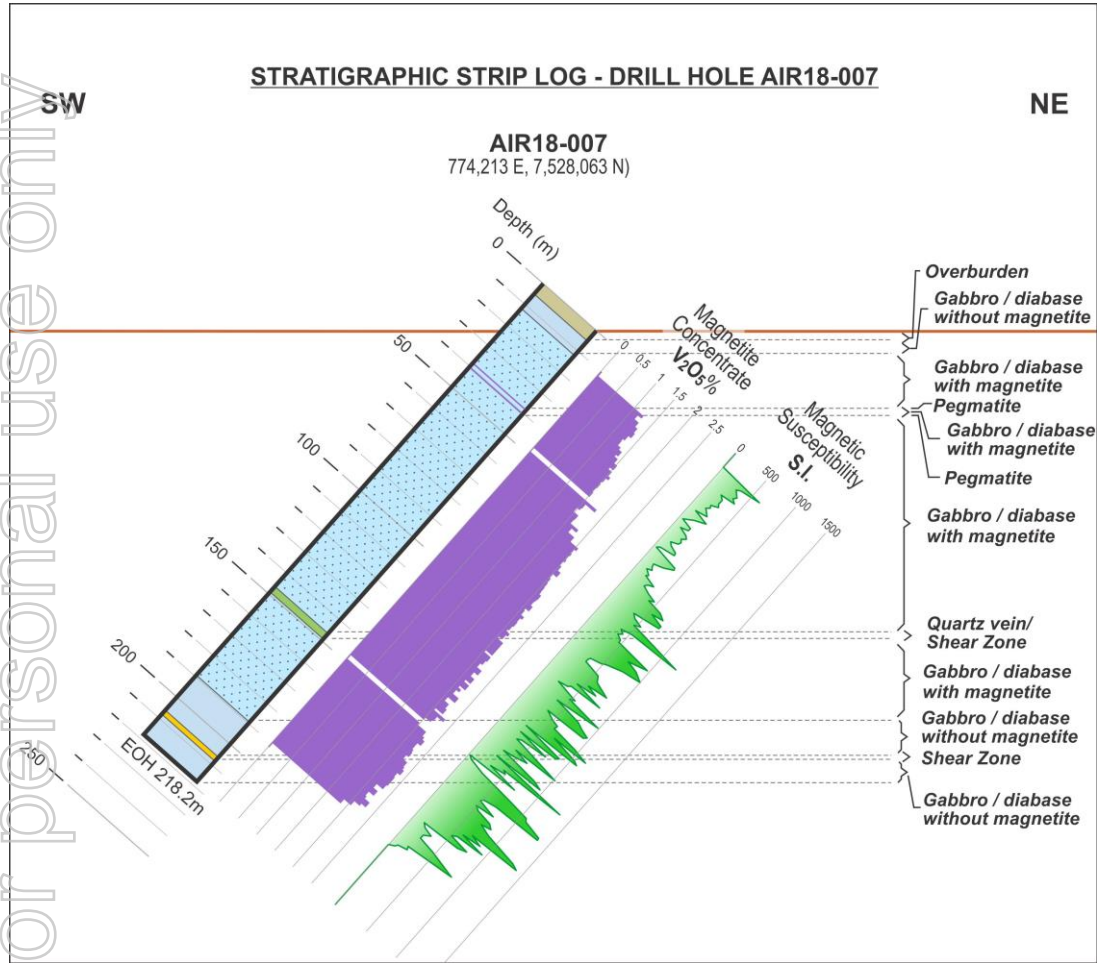
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- Entirely new zone of vanadium mineralisation over 1.9km strike length<sup>1</sup>
- Average magnetite concentrate grade is 1.6% V<sub>2</sub>O<sub>5</sub>
- Maximum magnetite concentrate grade is 1.8% V<sub>2</sub>O<sub>5</sub>
- Mineralisation is 6.0 – 56.0m down hole width
- Average width of mineralisation is 32.7m down hole width
- Initial Inferred Mineral Resource to be announced in March 2019

<sup>1</sup>See ASX Announcement 5 February 2019. The Company is not aware of any new information or data that materially affects the information contained in that announcement.

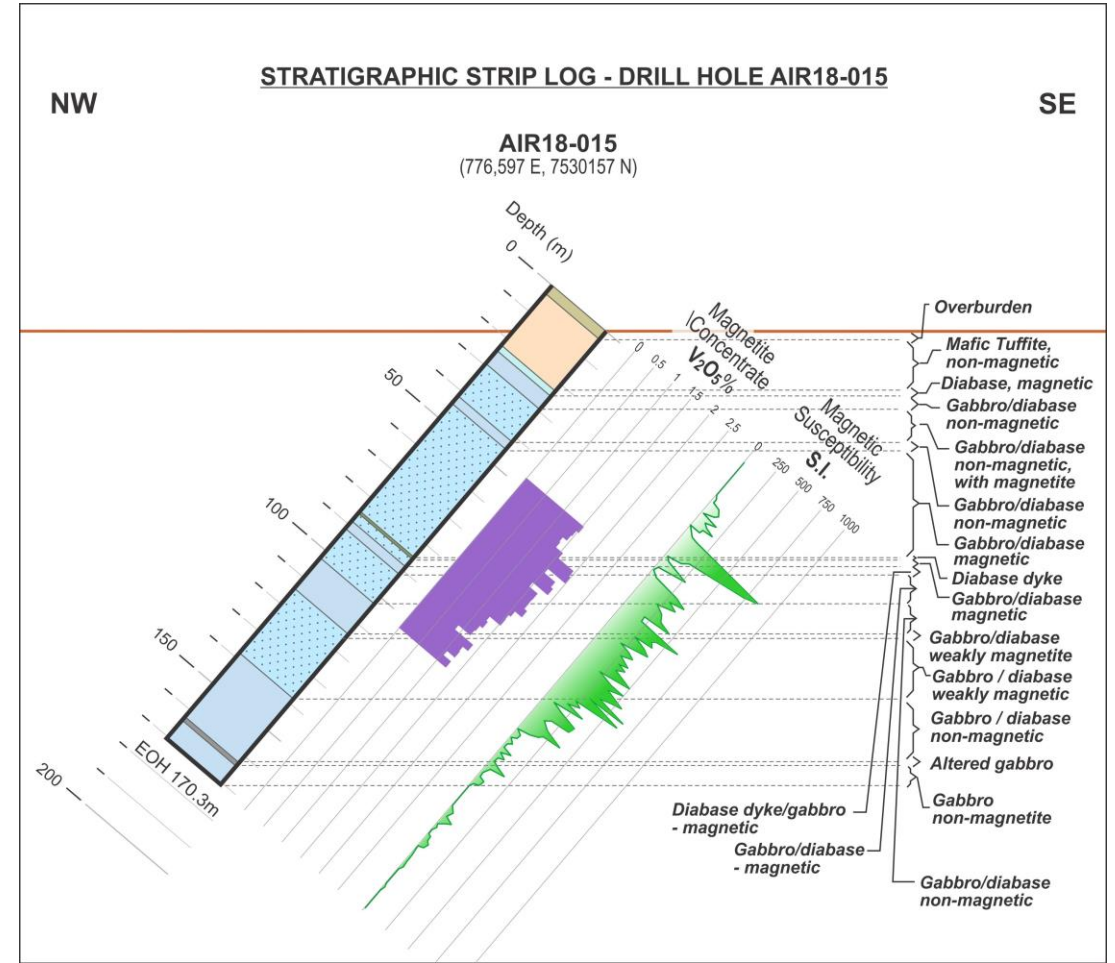


# Airijoki Project: SW Mag Zone



- 71.0m @ 1.9%  $V_2O_5$  including;
- 14.0m @ 2.3%  $V_2O_5$

# Airijoki Project: NE Mag Zone



- 27.0m @ 1.7%  $V_2O_5$  including;
- 9.0m @ 1.8%  $V_2O_5$

# Airijoki Project – Next Steps

Event	Timing
Final drill results	February 2019 ✓
Initial Inferred Mineral Resource	March 2019
Scoping Study	April 2019
Commence Feasibility Study	June 2019
Infill Drilling to define Indicated Resources	July 2019
Completion of Feasibility Study	Mid 2020



# Finland Projects

## • Koitelainen

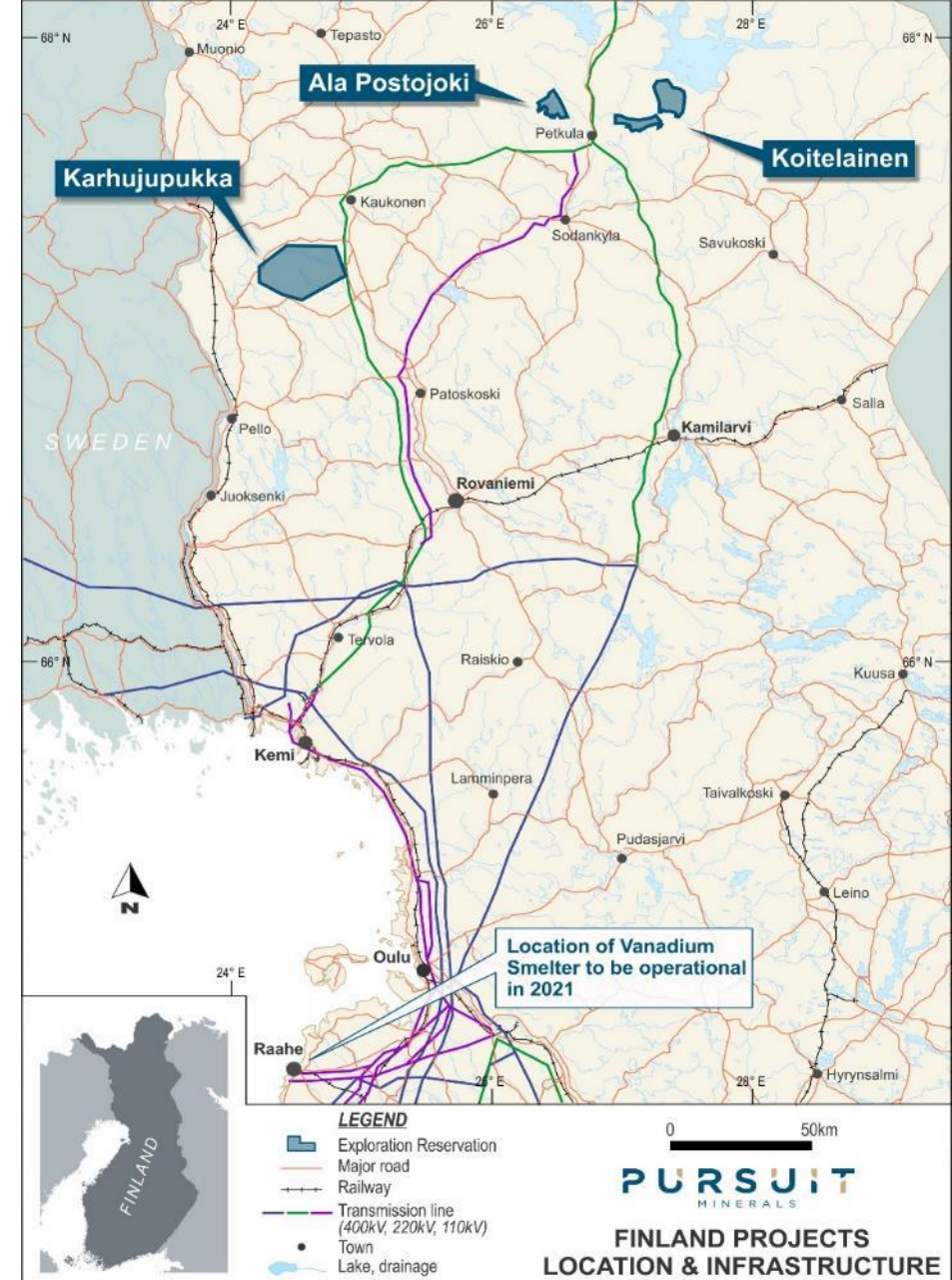
- Resampled historic drill holes confirmed high grade vanadium magnetite concentrate
- Vosa Prospect - **Inferred Mineral Resource of 116Mt containing 5.8Mt of magnetite @ 2.3% V<sub>2</sub>O<sub>5</sub> at 5% mass recovery<sup>1</sup>**

## • Karhujupukka

- Vanadium discovered by the Geological Survey of Finland in 1988
- Historical mineral resource estimate based on 30 drill holes
  - 5.2Mt @ 0.43% V<sub>2</sub>O<sub>5</sub>, 32% Fe, 6.2% Ti, 0.02% Co<sup>2</sup>
- Strike length over 5km and remains open
- Drilling campaign has just been completed and results awaited

## • Ferrovan to build a Vanadium smelter at port of Raahе

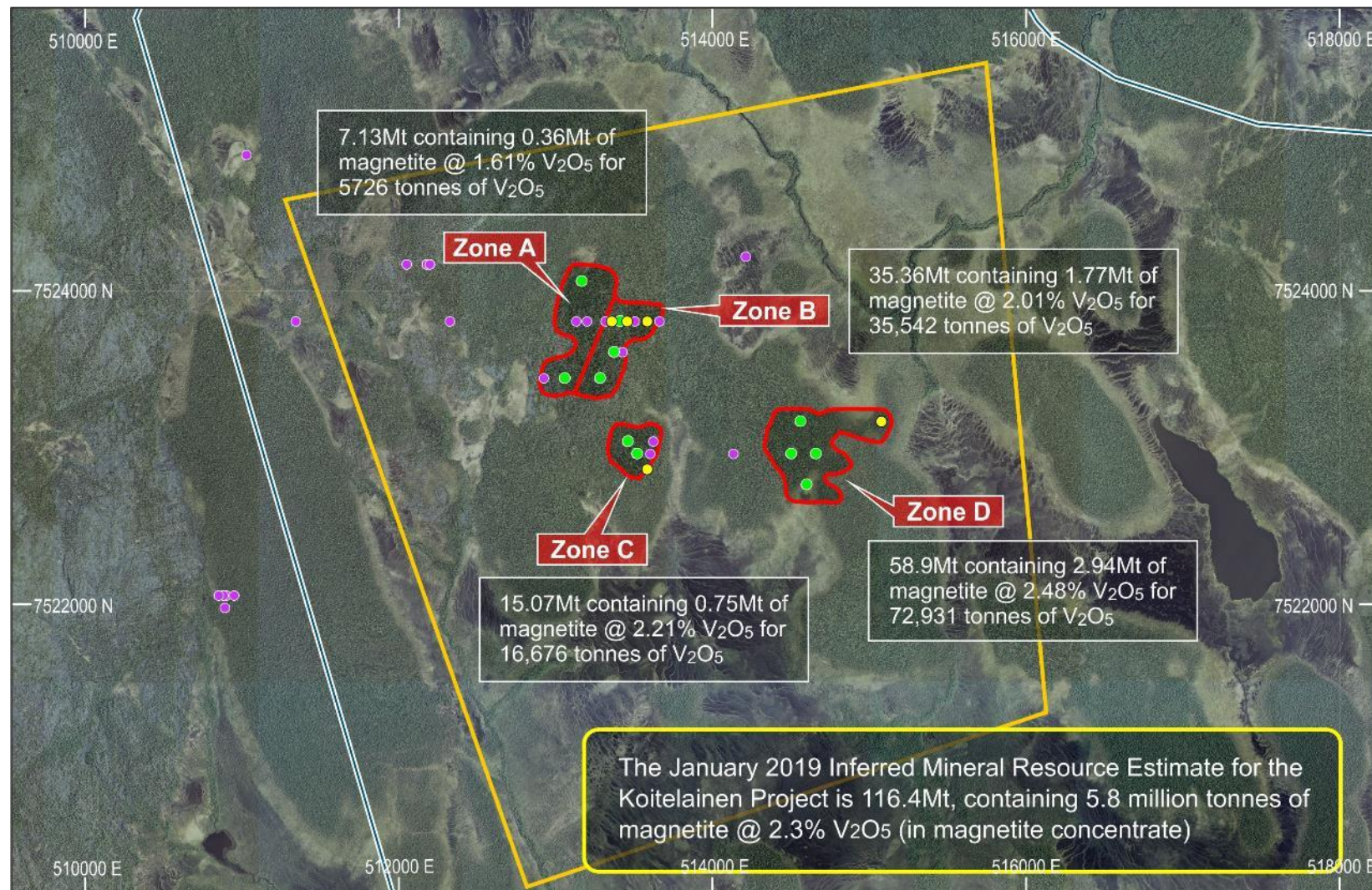
<sup>1</sup> See Pursuit Minerals ASX Announcement 6 February 2019. The Company is not aware of any new information or data that materially affects the information contained in that announcement.





# Koitelainen Vosa Prospect – Initial JORC Inferred Resource

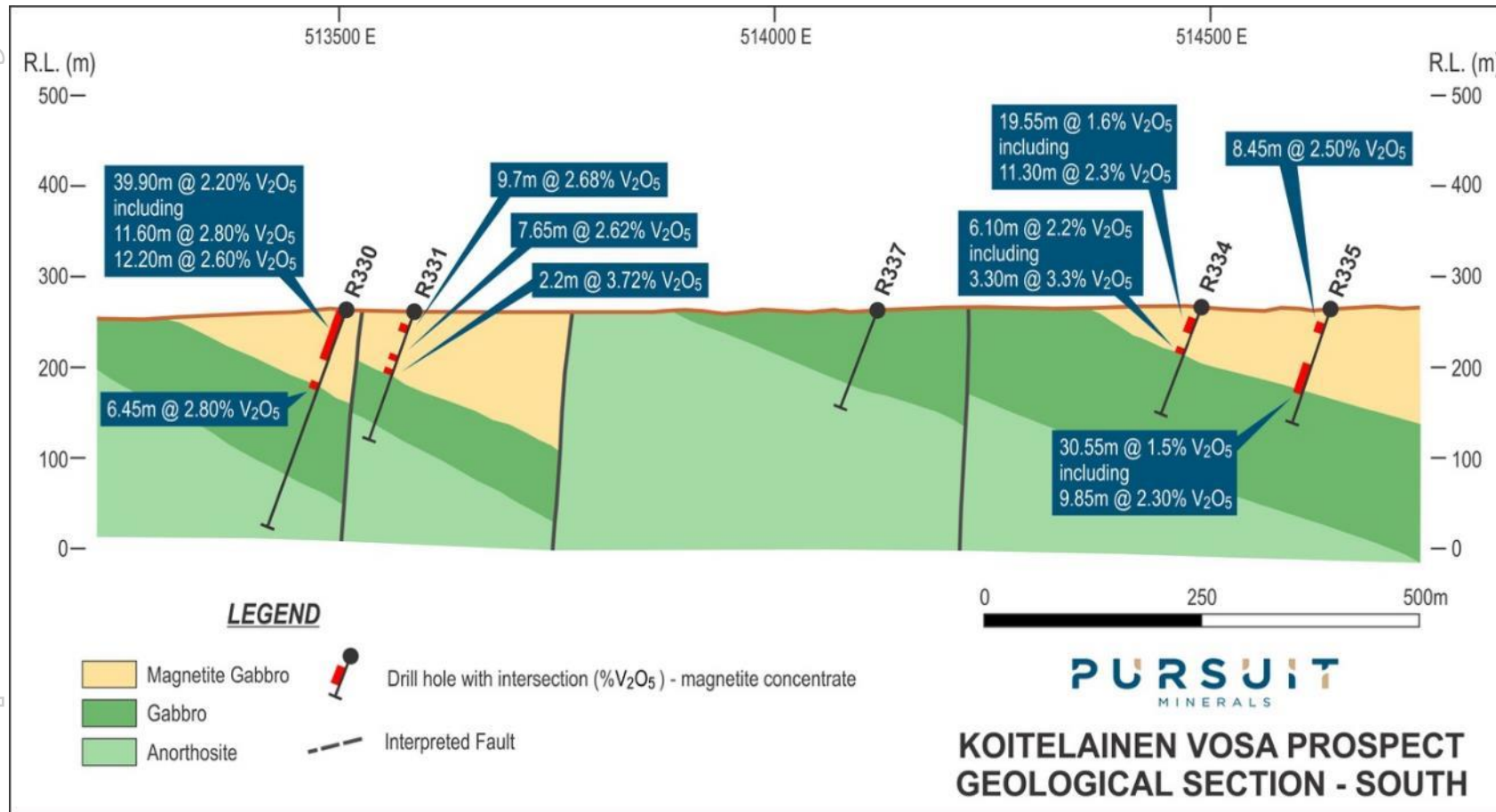
- 16 holes drilled in 1970s and 1980s were resampled<sup>1</sup>
- Most holes produced vanadium magnetite concentrates exceeding 2.0% V<sub>2</sub>O<sub>5</sub>
- Magnetite concentrates with exceptional vanadium grades
  - 38.2m @ 2.6% V<sub>2</sub>O<sub>5</sub>
  - 6.2m @ 3.3% V<sub>2</sub>O<sub>5</sub>
  - 9.85m @ 2.9% V<sub>2</sub>O<sub>5</sub>
  - 4.05m @ 3.0% V<sub>2</sub>O<sub>5</sub>
  - 2.8m @ 3.4% V<sub>2</sub>O<sub>5</sub>
- Initial JORC Inferred Mineral Resource Defined 6 February 2019<sup>1</sup>



<sup>1</sup>See ASX Announcements of 9 Jan, 29 Jan and 6 Feb 2019. The Company is not aware of any new information or data that materially affects the information contained in those announcements

# Koitelainen Vosa Prospect

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- Extremely high grade of 2.3% V<sub>2</sub>O<sub>5</sub> in magnetite concentrate, in the top echelon globally<sup>1</sup>
- Only 2 mines produce V<sub>2</sub>O<sub>5</sub> magnetite concentrate above 2%<sup>1</sup>
- Mineralisation is open, north, south and east<sup>2</sup>
- Simple geology
- Mineralisation comes to surface

<sup>1</sup>See ASX Announcement 9 and 29 January 2019. The Company is not aware of any new information or data that materially affects the information contained in that announcement.

<sup>2</sup>See ASX Announcement 12 September 2018. The Company is not aware of any new information or data that materially affects the information contained in that announcement.

# Koitelainen Vosa Prospect – Major Progress Imminent

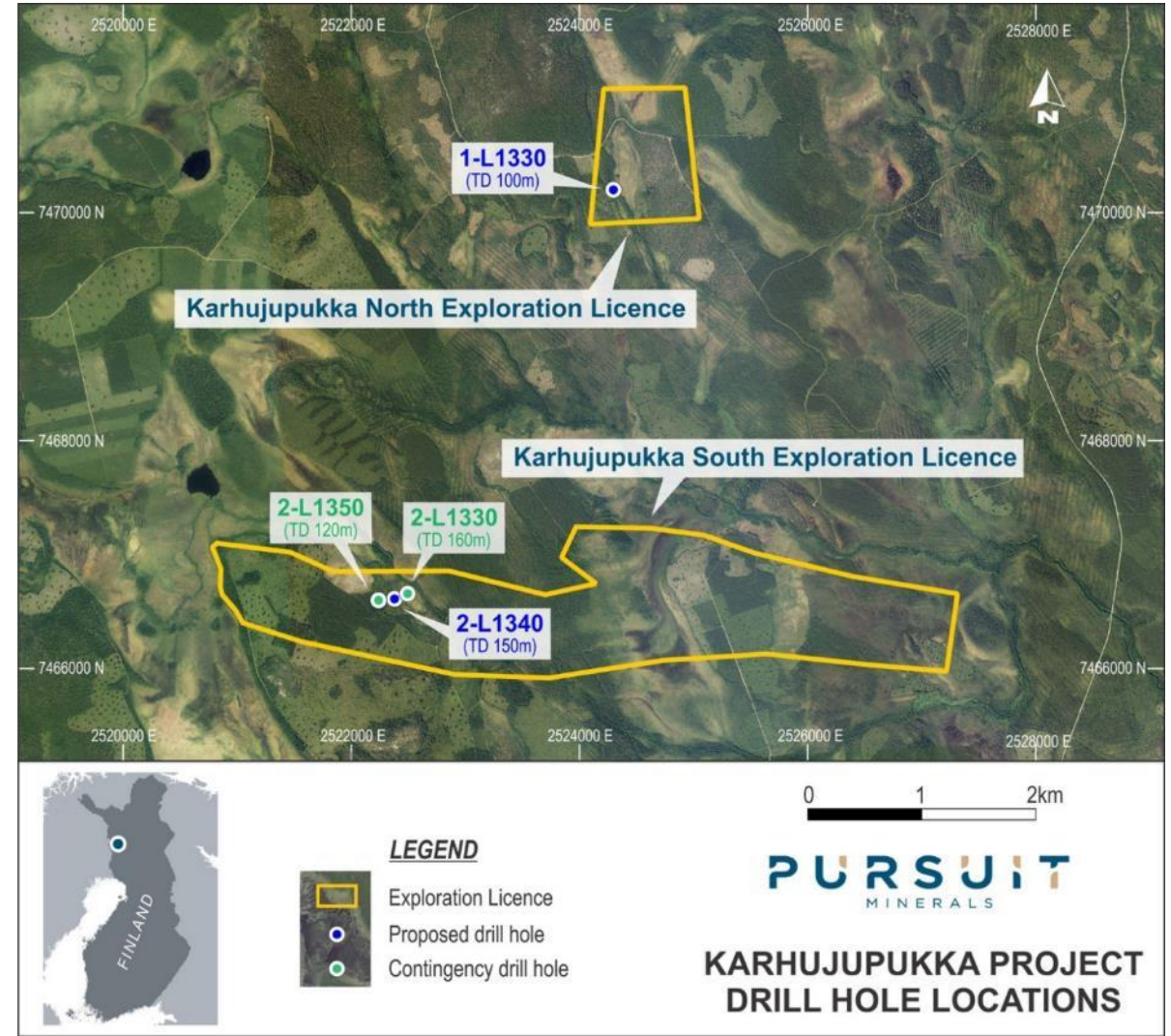
Event	Timing
Inferred Resource Statement	February 2019 ✓
Scoping Study	April 2019
Feasibility Study Decision	April 2019
Commencement of Feasibility Study	June 2019
First Drilling of Feasibility Study	December 2019
Completion of Feasibility Study	Mid 2020



# Karhujupukka Project Drilling Completed

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- Pursuit holds two Exploration Licences within Karhujupukka Reservation:
  - Karhujupukka North covers 1km<sup>2</sup>
  - Karhujupukka South covers 5.5km<sup>2</sup>
- Two-hole drill program completed
- Program tested a +350m long conductor identified from an historical airborne electromagnetic survey as a high priority Ni-Cu target
- Results expected March 2019



# Project Development Concept<sup>1</sup>

## • Stage 1 - DSO Operation

- Mine, crush, floatation, magnetic separation
- Produce high-grade vanadium magnetite concentrate (>2% V<sub>2</sub>O<sub>5</sub>)
- Sell to Global Markets

## Advantages

- Simplifies Feasibility Study
- Lowers pre-production capital expenditure
- Minimises time to production
- Simplifies government approvals processes

## ▪ Stage 2 – Downstream Processing

- Centralised processing plant
- Process vanadium magnetite concentrate from multiple projects
- Produce V<sub>2</sub>O<sub>5</sub> flake

<sup>1</sup>See ASX Announcement 19 November 2018. The Company is not aware of any new information or data that materially affects the information contained in that announcement.



# Key Advantages of Pursuit's Scandinavian Vanadium Projects

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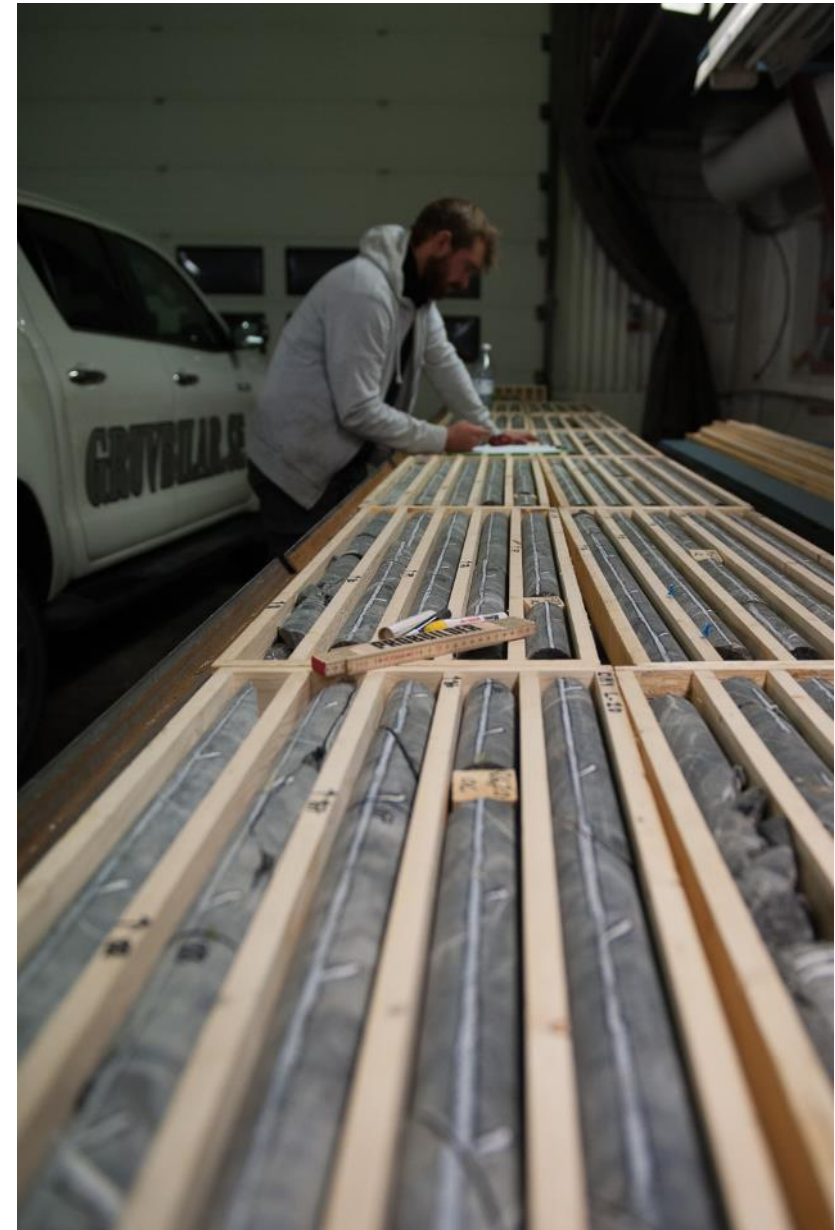
	Scandinavian Vanadium Projects	
Access to infrastructure	10-15 km	✓
Power Costs	Approx. 10c/kwh	✓
Proximity to markets	German Markets across the Baltic	✓
Vanadium Smelter access	Smelter planned for Raahe (Finland)	✓
V <sub>2</sub> O <sub>5</sub> Magnetite Grade	>2% V <sub>2</sub> O <sub>5</sub> (Koitelainen Inferred Resource)	✓
Oxide & Transition Zones	None – straight into ore	✓
Processing Flow Sheet	Simple (no oxides to process)	✓
Processing	Lower power costs, simple metallurgy	✓
Market Capitalisation	\$8M (Scoping and FS to be completed within 12 months)	✓

# Positioned for the Battery Revolution

- Vanadium demand for batteries predicted to grow at 60% CAGR 2018-2022
- World leading mining destinations, with cheap power, excellent access to infrastructure
- Koitelainen Vosa Prospect and Airijoki Project confirmed as producing extremely high grade  $V_2O_5$  in magnetite concentrate

## VALUE CREATION STEPS

- JORC Inferred Resources defined at Koitelainen - Inferred Mineral Resource of 116Mt containing 5.8Mt of magnetite @ 2.3%  $V_2O_5$  at 5% mass recovery
- JORC Inferred Resources to be defined Airijoki
- Scoping Studies to examine project economics (Koitelainen and Airijoki)
- Feasibility Studies Planned
- Drilling to be conducted in due course to increase resource base



# Competent Person's Statement

Statements contained in this presentation relating to exploration results, historical exploration results, historical estimates of mineralisation and Exploration targets are based on, and fairly represents, information and supporting documentation prepared by Mr. Jeremy Read, who is a member of the Australian Institute of Mining & Metallurgy (AusIMM), Member No 224610. The historical mineral estimate for Koitelainen magnetite-ilmenite-vanadium mineralisation, is an historical estimate and is not reported in accordance with the JORC Code. The Competent Person has not done sufficient work to classify the historical estimate as a Mineral Resource in accordance with the JORC Code, due to the unavailability of sufficient data. The historical mineral estimate for the Koitelainen magnetite-ilmenite-vanadium mineralisation have been widely reported in the geological literature and hence are easily accessible by members of the public. However, it is uncertain that following evaluation and/or further valuation work if the historical estimate will be able to be reported as a Mineral Resource in accordance with the JORC code. Mr Read is a full-time employee of the Company and has sufficient relevant experience in relation to the mineralisation styles being reported on to qualify as a Competent Person as defined in the *Australian Code for Reporting of Identified Mineral Resources and Ore Reserves (JORC) Code 2012*. Mr Read consents to the use of this information in this announcement in the form and context in which it appears.

Statements contained in this announcement relating to the Koitelainen Inferred Mineral Resource, are based on, and fairly represents, information and supporting documentation prepared by Mr. Chris Grove, who is a member of the Australian Institute of Mining & Metallurgy (AusIMM), Member No 310106. Mr Grove is a full-time employee of the mineral resource consulting company "Measured Group", who were contracted by Pursuit Minerals Limited to prepare an estimate of the Inferred Mineral Resource at Koitelainen. Mr Grove has sufficient relevant experience in relation to the mineralisation styles being reported on to qualify as a Competent Person as defined in the *Australian Code for Reporting of Identified Mineral Resources and Ore Reserves (JORC) Code 2012*. Mr Grove consents to the use of this information in this announcement in the form and context in which it appears.



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# Appendix – Data For Slide 8

Company	Code	Project	Project Stage	Resources Classification	Resource (Mt)	In-Situ Grade (V2O5%)	Magnetic Concentrate Grade (V2O5%)	Information Source
Pursuit Minerals	ASX:PUR	Koitelainen	Scoping Study	Inferred	116.4	0.4	2.3	ASX Announcement 6 Feb 2019
Tando Resources	ASX:TNO	SPD	Scoping Study	Inferred	588	0.78	2.09	ASX Announcement 4 Feb 2019
Technology Metals	ASX:TMT	Gabanintha	Feasibility Study	Indicated & Inferred	120	0.8	1.39-1.53	ASX Announcement 21 June 2018
Australian Vanadium	ASX:AVL	Gabanintha	Feasibility Study	Measured, Indicated & Inferred	176	0.77	1.39	ASX Announcement 26 September 2018
TNG	ASX:TNG	Mt Peake	Feasibility Study	Measured, Indicated & Inferred	160	0.28	1.2	ASX Announcement 26 March 2013
Bushveld	LSE:BMN	Vametco	Production	Indicated & Inferred	142	0.57	1.96	Bushveldminerals.com/bushveld-vametco/presentations
Bushveld	LSE:BMN	Mokopane	Development	Indicated & Inferred	285	0.68	1.75	Mokopane PFS Study Report Jan 2016
Largo	TSX:LGO	Maracas	Production	Measured, Indicated & Inferred (NI43-101)	49.25	0.99	3.1	43-101 Technical Report dated 26 October 2017