



## Akanvaara Project, Finland

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### NI 43-101 Technical Report



#### Prepared for

##### **Strategic Resources Inc.**

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## 1 SUMMARY

This Technical Report provides an updated review of exploration work conducted on Strategic Resources Inc.'s (Strategic) Akanvaara Project, located in northern Finland. This report was prepared by Piotr Lutynski, P.Eng. who is an independent "qualified person" (QP) as defined by Canadian Securities Administrators *National Instrument 43-101 Standards of Disclosure for Mineral Projects* (NI 43-101) and as described in Section 20 (Date and Signature Page) of this Report.

### ***Property Location***

The Akanvaara Project is located in northern Finland, approximately 130 km north-east of Rovaniemi and 780 km north of Helsinki. Access to the property is provided by paved highways and a network of gravel forestry roads. The approximate centre of the property is located at 553,700 E and 7,452,500 N (ETRS-TM35Fin, DMS Long/Lat: 28° 14' 27" E, 67° 11' 4" N).

### ***Ownership***

The Akanvaara Project consists of 2 tenures (one granted and one in application status) totalling 9,826 ha. Strategic is earning a 100% interest in the Akanvaara Project from Magnus Minerals Ltd. (Magnus).

### ***History***

Between 1993 and 1998, the Geological Survey of Finland (GTK) conducted detailed geological mapping, ground magnetometer and max-min surveys over 97.5 km<sup>2</sup>, and a gravity survey over 45 km<sup>2</sup>. A total 17,396 m of diamond drilling in 112 drill holes was executed. In 1994 and 1995, mineral processing and flotation tests were conducted by the Technical Research Centre of Finland for GTK for both ore types. Mineral processing of the Magnetite Gabbro (MTGB) unit yielded a magnetic concentrate containing 1.55 – 1.59 % V and a Cu-sulphide concentrate in preliminary tests showing 8-10 % Cu, 1.4 g/t Au, 53-57 g/t Ag, 0.073 g/t Rh and 0.068 g/t Pt. Flotation of the Upper Chromitite (UC) layer yielded recoveries of 92 % Cr and 88 % V.

All historical core is stored at the Geological Survey of Finland's core storage in Loppi.

Between 2001 and 2003, Outokumpu Mining Oy (Outokumpu) assessed the potential for PGE on the Akanvaara Project and drilled 5 diamond drill holes totalling 704.5 m.

From 2007 to 2008 Kylylahti Copper Oy performed a desktop review of vanadium potential on the Akanvaara Project with no field work.

In 2018 Magnus did another desktop review of vanadium potential on the Akanvaara Project but did not conduct any field work.

On April 10, 2019 Strategic entered into an agreement with Magnus to earn a 100 % interest in the Akanvaara Project.

### ***Status of Exploration***

The Akanvaara Project is an exploration project.

### ***Geology and Mineralization***

The Akanvaara intrusion is classified as a layered intrusion located in the eastern part of the Fennoscandian Shield. Vanadium mineralization of the Akanvaara intrusion is hosted in vanadium-bearing magnetite gabbro and also in chromitite layers within gabbro. The mineralized zones range in thickness from a few centimetres to 13 m and on a basis of magnetic survey, have a strike length of at least 6.5 km. The vanadium-rich zones remain untested at depth and along strike of confirmed mineralization.

### ***Sample Database and Validation***

A review of the historical sample database, core sampling and analytical practices used during the previous drilling campaigns indicates that this work was conducted using generally accepted industry procedures. The geological model provided to the author was found to be reasonable and adequate for use.

It is the author's opinion that the database is sufficiently accurate for exploration purposes and that there is no reason to question the results from the historic drill program.

### ***Conclusions***

Based on the evaluation of the data available from the Akanvaara Project, the author of this Technical Report has drawn the following conclusions:

- At the effective date of this Technical Report (May 3, 2019), Strategic has an option with Magnus to earn a 100 % interest in the Akanvaara Project.
- Vanadium mineralization is hosted within the Akanvaara intrusion in layers of vanadium-bearing magnetite gabbro and in chromitite layers. The mineralized zone is open along strike and at depth.
- The Akanvaara Project sees vanadium mineralization associated with a 6.5 km long aeromagnetic anomaly.
- Historical till sampling has proved to be a useful tool in locating vanadium and may be useful to locate vanadium-rich areas along magnetic highs.

- There are no known factors related to environmental, permitting, legal title, taxation, socio-economic, marketing or political issues which could materially affect the exploration potential of the project.

**Recommendations**

The following two-phase work program is recommended for this project:

**Phase 1:** Conduct additional drilling to test the strike and down-dip extent of presently known vanadium mineralization. The estimated budget for this 1,875 m drill program is \$CDN 750 thousand (Table 1-1).

**Table 1-1: Phase One Exploration Budget**

<b>Phase 1</b>	<b>Cost (\$CDN)</b>
1,875 m diamond drill program	\$ 750,000
Total	\$ 750,000

**Phase 2:** Phase 2 program is contingent on positive results from Phase 1. This phase will conduct basal till geochemical surveys over magnetic anomalies along strike of the known zones and elsewhere on the property. Anomalous areas will be drilled. The estimated budget for the geochemical surveys and a 2,250 m drill program is \$CDN 1.0 million (Table 1-2).

**Table 1-2: Phase Two Exploration Budget**

<b>Phase 2</b>	<b>Cost (\$CDN)</b>
Basal till geochemical surveys	\$ 100,000
2,250 m diamond drill program	\$ 900,000
Total	\$ 1,000,000

## **2 INTRODUCTION**

Strategic is a Vancouver, Canada based exploration and development company focused on vanadium projects.

Strategic commissioned Piotr Lutynski, P.Eng., to provide an updated review of exploration work conducted on its Akanvaara Project. Piotr Lutynski is an independent QP of Strategic and is responsible for the preparation of this Technical Report, which has been prepared in accordance with NI 43-101 and Form 43-101F1 Technical Report.

Piotr Lutynski visited the project between February 19 and February 22, 2019. He visited the property and discussed exploration targets with Magnus geologists.

In preparing this Technical Report, the author relied on geological reports, maps and miscellaneous technical papers listed in Section 19 (References) of this Technical Report.

This Technical Report is based on information known to the author as of February 17, 2019.

All measurement units used in this report are metric. The currency used in Finland is the Euro.



## 2.1 Abbreviations and Acronyms

Abbreviations and acronyms used throughout this report are shown in Table 2-1.

**Table 2-1: Abbreviations and Acronyms**

<b>Description</b>	<b>Abbreviation or Acronym</b>
centimetre	cm
Canadian Dollar	\$CDN
Central Lapland Greenstone Belt	CLGB
chromium	Cr
chromium oxide	Cr <sub>2</sub> O <sub>3</sub>
copper	Cu
degrees centigrade	°C
east	E
Geologic Survey of Finland	GTK
grams per tonne	g/t
gold	Au
hectare	ha
iron	Fe
kilometre	km
metre	m
Magnetite Gabbro	MTGB
Magnus Minerals Ltd.	Magnus
millimetre	mm
million years	Ma
National Instrument 43-101	NI 43-101
north	N
northeast	NE
Net Smelter Return	NSR
Outokumpu Mining Oy	Outokumpu
parts per million	ppm
percent	%
platinum	Pt
platinum-group metals	PGE
Professional Engineer	P.Eng.
Qualified Person	QP
quality assurance/quality control	QA/QC
rhodium	Rh
silver	Ag
south	S
southwest	SW
square kilometres	km <sup>2</sup>
Strategic Resources Inc	Strategic
Titanium	Ti
Upper Chromitite	UC

Description	Abbreviation or Acronym
UTM Coordinate System	ETRS-TM35Fin
vanadium	V
west	W
x-ray fluorescence	XRF

### **3 RELIANCE ON OTHER EXPERTS**

For the purpose of disclosure relating to ownership data and information (mineral, surface and access rights) in this report, the author has relied exclusively on a title opinion provided to Strategic by Kalliola Law Attorneys Ltd. of Helsinki, Finland dated May 2, 2019. The author has not researched the property title or mineral rights for the Akanvaara Project and expresses no legal opinion as to the ownership status of the property.

## 4 PROPERTY DESCRIPTION AND LOCATION

### 4.1 Location

The Akanvaara Project is located in northern Finland, approximately 130 km north-east of Rovaniemi and 780 km north of Helsinki. Access to the property is provided by paved highways and a network of gravel forestry roads. The approximate centre of the property is located at 553,700 E and 7,452,500 N in the Finnish coordinate system of ETRS-TM35Fin (DMS Long/Lat: 28° 14' 27" E, 67° 11' 4" N).

(Figure 4-1). The Finnish coordinate system is a European standard system that has been recently implemented by the mining authorities there.

**Figure 4-1: Location Map**



Source: Strategic, 2019

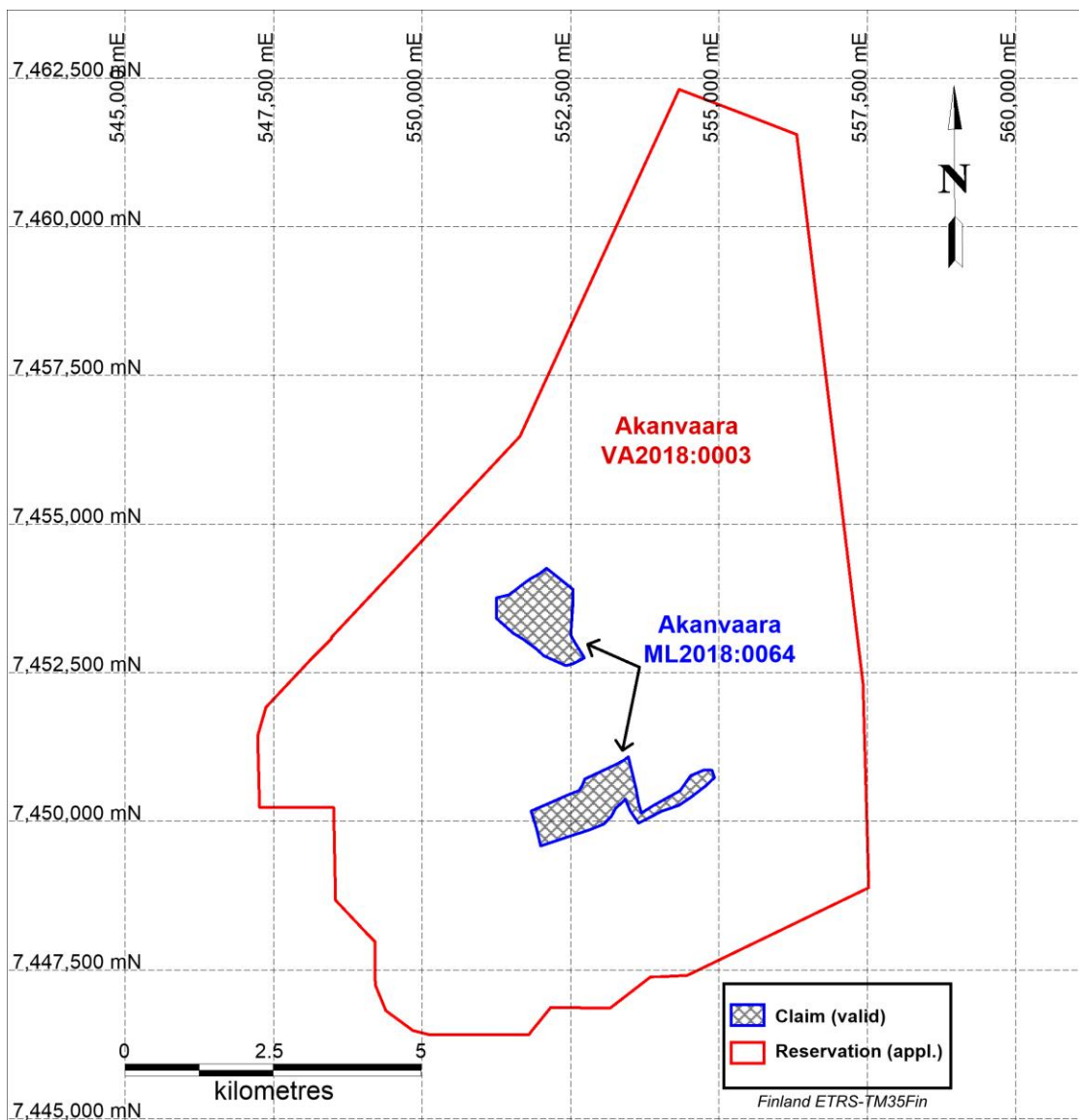
## 4.2 Land Tenure

The Akanvaara Project covers 9,826 ha and consists of 2 tenures (one granted and one in application) as described in Table 4-1 and shown in Figure 4-2.

**Table 4-1: Tenure Table**

Tenure Name	Permit ID	Holder	Type	Status	Date of expiry	Area (Ha)
Akanvaara	VA2018:0003	Magnus Minerals Oy	Reservation	Application	2020-01-14	9,826
Akanvaara	ML2018:0064	Magnus Minerals Oy	Claim	Valid	2022-08-08	298.48
					<b>Total [ha]:</b>	<b>9,826</b>

**Figure 4-2: Tenure Map**



Source: Strategic, 2019

The Akanvaara Project owned by Magnus consists of a valid exploration permit (ML2018-0064) over two areas of land aggregating 298.48 hectares, and a valid reservation surrounding its exploration permit. Magnus does not own any surface rights with respect to any portion of the Akanvaara Project. The author is not aware of any environmental liabilities affecting the Akanvaara Project.

Strategic has an option to earn a 100% interest in the Akanvaara Project from Magnus through the following 2-stage earn-in agreement:

First Earn-In Terms for 70 % Project Stake:

- I. Issue 2.5 million shares and pay 25 % of the value of shares on the date of closing in cash to a maximum of \$CDN 200,000
- II. Have spent \$CDN 750,000 of exploration expenditures before 24 months following the Closing Date
- III. Grant a 0.7 % net smelter royalty (NSR) on the project to Magnus

Second Earn-In Terms for 30 % Project Stake:

- I. Issue 0.7 million shares to Magnus
- II. Have spent \$CDN 1,000,000 of exploration expenditures before 36 months following the Closing Date
- III. Grant an additional 0.3 % NSR on the project, bringing Magnus' total to 1.0 % NSR.

### **4.3 Royalties**

The Akanvaara Project consists of 2 tenures (one granted and one in application status) totalling 9,826 ha. Strategic is earning a 100% interest in the Akanvaara Project from Magnus Minerals Ltd. (Magnus). Strategic has agreed to grant a 0.7 % to 1.0 % NSR royalty to Magnus, should Strategic elect to earn-in a 70 % to 100 % stake in the property.

### **4.4 Mineral Title System in Finland**

In Finland, companies or individuals carrying out mineral activities or non-intrusive assessments of mineral potential have public access to all public or private land. As a result, geological mapping, as well as limited sampling and prospecting, can be carried out everywhere, provided that no damage is done to the landowner's property or to the environment.

- An area not already covered by a valid mineral title, Exploration Licence Application or Reservation may be reserved for a period of up to 24 months.
- A Reservation Notification gives the reserving party priority to apply for an Exploration Permit but does not prevent others from prospecting in the reserved area during the period of the Reservation. Minor non-disturbing exploration surveys are allowed in areas under application and without landholder approval.

- An Exploration Permit is necessary to conduct more extensive work and requires payment of yearly fees to affected landholders, beginning at 20 euros per ha per year, for the first four years, and then increasing to a maximum of 50 euros per ha per year in years 11 through 15. Exploration Permits are valid for 4 years and may be renewed for a maximum of three years at a time to a maximum of 15 years. An Exploration Permit is required in order to obtain a Mining Permit.
- A Mining Permit entitles the holder to mine and utilize a specified area's minerals and by-products and is issued for either a fixed term or until further notice.
- If there is a need to build access roads on private or state-owned land and/or cut trees, compensation must be paid according to the published fee table that lists tree species and diameter of tree trunk. Compensation must be paid to an affected landowner based on an annual excavation fee of 50 euros per hectare and a fee of 0.15% of the calculated value of mining minerals included in the metallic ores produced during the year. Annual compensation for other minerals produced and sold must also be established. Holders of Mining Permits must deposit collateral to cover potential damages and to cover rehabilitation work.
- All Mining Permits holders are required to submit annual reporting on activities performed, resources, production, etc.

#### **4.5 Environmental Regulations and Permitting**

The author understands that when the company obtains an exploration license it also gives the company an environmental permit to operate, respecting environmental regulations of Finland. No additional permits are required to carry out surface exploration programs on the Akanvaara Project. However, it is necessary for the company to establish agreements with landowners where more intrusive work such as road building, trenching or drilling will take place. Environmental risks and liabilities associated with exploration activities at the Akanvaara Project are minimal but will include limited areas of forest clearance for construction of access roads; the construction of drilling pads; noise from traffic, drill rig, and generator operation; potential spills of fuel, lubricants, and drilling mud; and the potential for grass fires in dry conditions.

The author understands that Magnus is in compliance with all environmental regulations required for the Akanvaara Project.

#### **4.6 Other Risk Factors**

The author is not aware of any other significant factors and risks that may affect access, title, or the ability to perform work on the property.

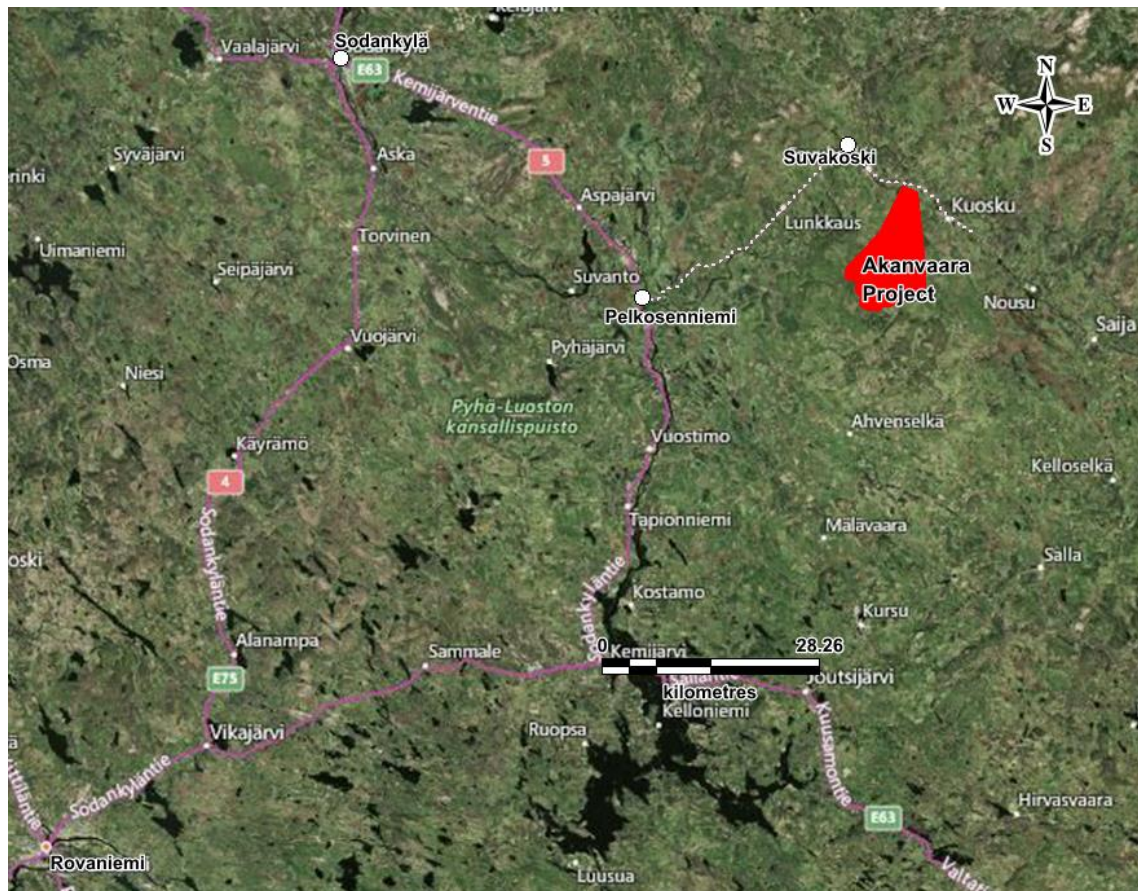


## 5 ACCESSIBILITY, CLIMATE, INFRASTRUCTURE AND PHYSIOGRAPHY

### 5.1 Accessibility

The Akanvaara Project is located in northern Finland. The largest regional centre is the city of Rovaniemi (population 60,900) which is serviced by several daily flights from Helsinki. The property is approximately a 2.5 hour drive from Rovaniemi provided by paved highways and a network of gravel forestry roads. the nearest village to the property is Suvakoski (Figure 5-1).

**Figure 5-1: Access to Akanvaara Project**



Note: Akanvaara Project is outlined in red.

Source: Strategic, 2019



**Figure 5-2: Road Access within Akanvaara Project**



Source: Strategic, 2019

## **5.2 Climate**

The Akanvaara Project is located approximately 70 km north of the Arctic Circle. Climate is subarctic-continental, with short summers, long cold winters and with temperatures that can drop below -20°C. Average annual precipitation varies from 450 to 550 mm. Winter season is better for exploration due to frozen swamps, lakes, and wet-lands that can be easily accessed for drilling and other geological and geophysical campaigns.

## **5.3 Local Resources and Infrastructure**

Local towns (Rovaniemi, Sodankylä and Savotta) provide all needed infrastructure for exploration and mining activity including accommodation, car rental, hiring of local workers, etc. ALS Global has a sample preparation laboratory located to the south of Sodankylä.

The principal industries for the project area are forestry, reindeer husbandry and mining, with a growing tourism focus (i.e. wilderness activities). The Finnish national electrical grid is present in the project area, and there is good road infrastructure.

#### **5.4 Physiography and Fauna**

The project area is characterized by typical boreal forest with spruce, pine and birch trees. Low gradient watershed systems, rolling topography with relief up to 260 m, and elevation above sea level between 250 m to 325 m are typical for the province of Lapland.

Bedrock exposure is poor with most of the property covered by glacial till or swampy areas.

Moose, domesticated reindeer, hares and fox are common. Bears and wolverines are occasionally present in this part of Lapland.

## 6 HISTORY

Exploration work carried out on the Akanvaara Project is summarized in Table 6-1.

**Table 6-1: Previous Work – Akanvaara Project**

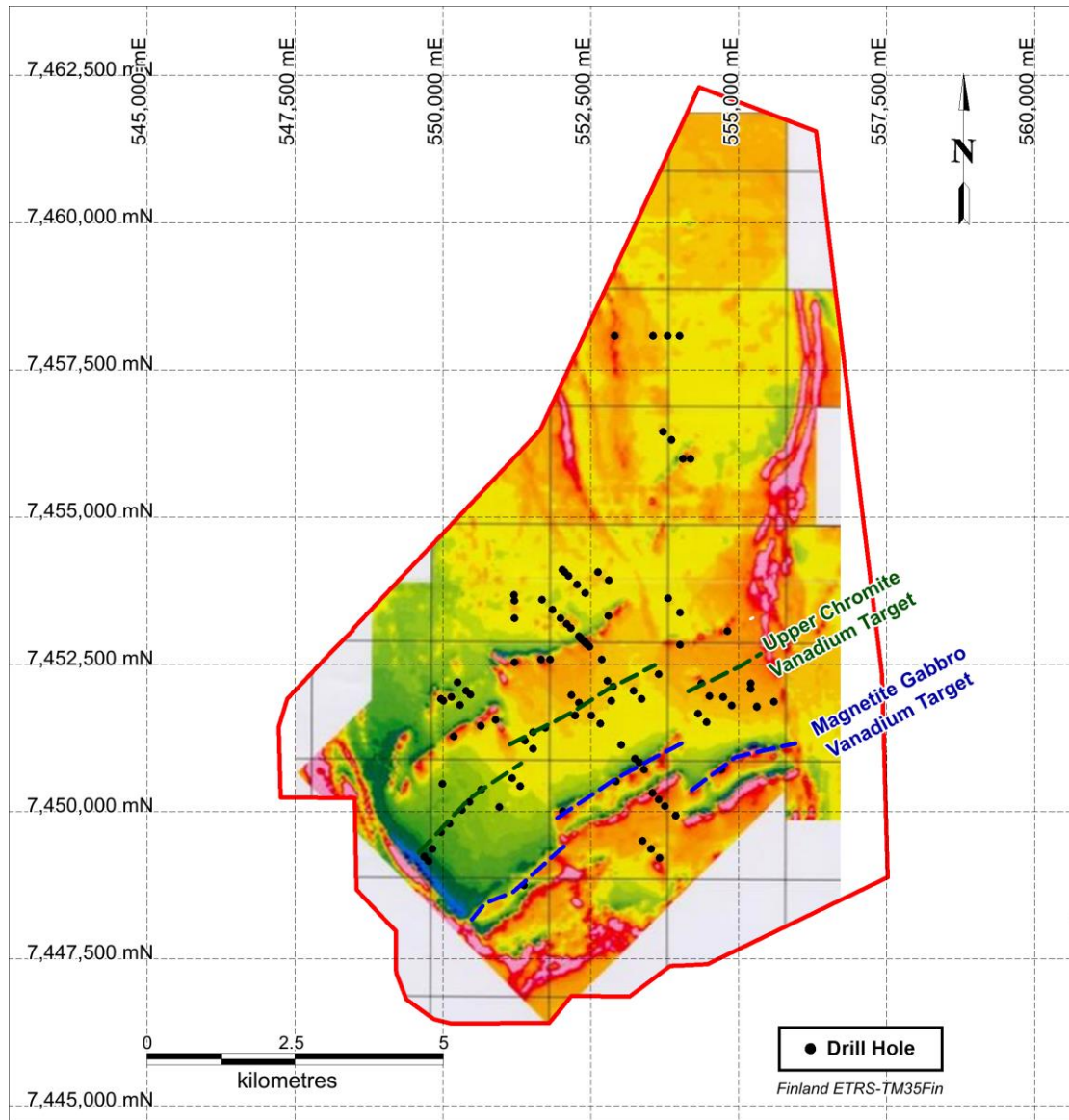
Year	Company	Work Description
1993 – 1998	Geological Survey of Finland	Ground magnetic and electromagnetic surveys, gravity survey, mapping, surface sampling diamond drilling and metallurgical tests; preliminary resource
2001 – 2003	Outokumpu Mining Oy	Diamond drilling
2007 – 2008	Kylylahti Copper Oy	Re-evaluation of data. No fieldwork completed.
2018 -	Magnus Minerals Oy	Re-evaluation of data. No fieldwork completed.

The Akanvaara intrusion was first mapped in 1937. In the early 1970s, GTK conducted a surface and bedrock sampling program and discovered the Akanvaara Project potential with the discover of magmatic intrusion related chromium mineralization. Analysis confirmed a surface anomaly of these metals and also vanadium, hosted in the gabbro (but detailed results of this study have not been published) (Mutanen, 1998). The Akanvaara Project was further identified via airborne survey, followed by ground magnetometer and gravity surveys. Results of this demonstrate linear features interpreted as layering resulting from fractionation in the intrusive. Mapping, silt, basal till and rock surface sampling, trench sampling and drilling were then used to focus exploration and the result was the confirmation by drilling of the chromium and gold deposits described herein. Historically, vanadium was not the main exploration target on the Akanvaara Project. The majority of work on the Akanvaara Project was targeting chromium, but samples were also analyzed for a suite of other elements that included vanadium (Lahtinen, 2003).

Vanadium mineralization on the Akanvaara Project correlates well with several airborne magnetic highs that represent magnetite rich horizons hosted in gabbro and can be traced over a 6.5 km strike (Figure 6-1).

Gravity surveys identified very similar targets as the aeromagnetic survey on the Akanvaara Project. Aeromagnetic and gravity targets that have been intersected with drill holes confirmed the presence of vanadium mineralization.

**Figure 6-1: Total Magnetic Field, Vanadium Exploration Targets**



Note: Akanvaara Project is outlined in red.

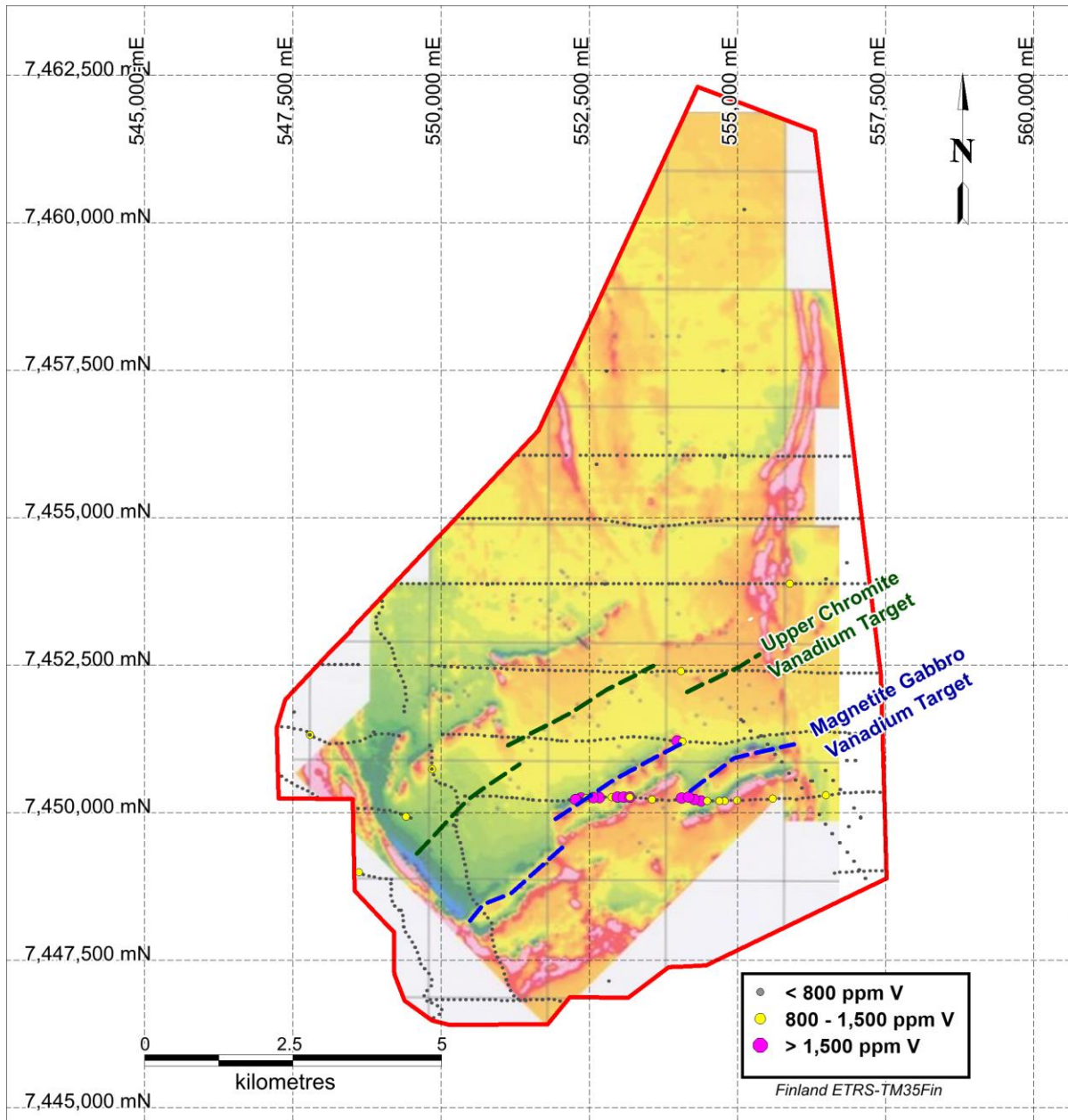
Source: Mutanen, 2005; Strategic, 2019

Due to extensive ground cover masking the bedrock, the geology and the relationships between the various lithologies on the project area are not completely understood. The latest geology map has been principally reconstructed based on bolder mapping, geophysical survey interpretations and geologic modeling based on drill holes.

Basal till sampling identified anomalous vanadium values associated with the magnetic highs and have confirmed vanadium enriched zones with drill hole intersections (Figure 6-2). This type of sampling may be a useful technique to locate vanadium-rich areas associated with the magnetic anomalies. Basal till sampling is also effective for identifying other economic minerals such as Cr, Au and PGE associated with the deposit (Sarala, 2014).



**Figure 6-2: Basal Till Sampling, Total Magnetic Field**



Note: Akanvaara Project is outlined in red.

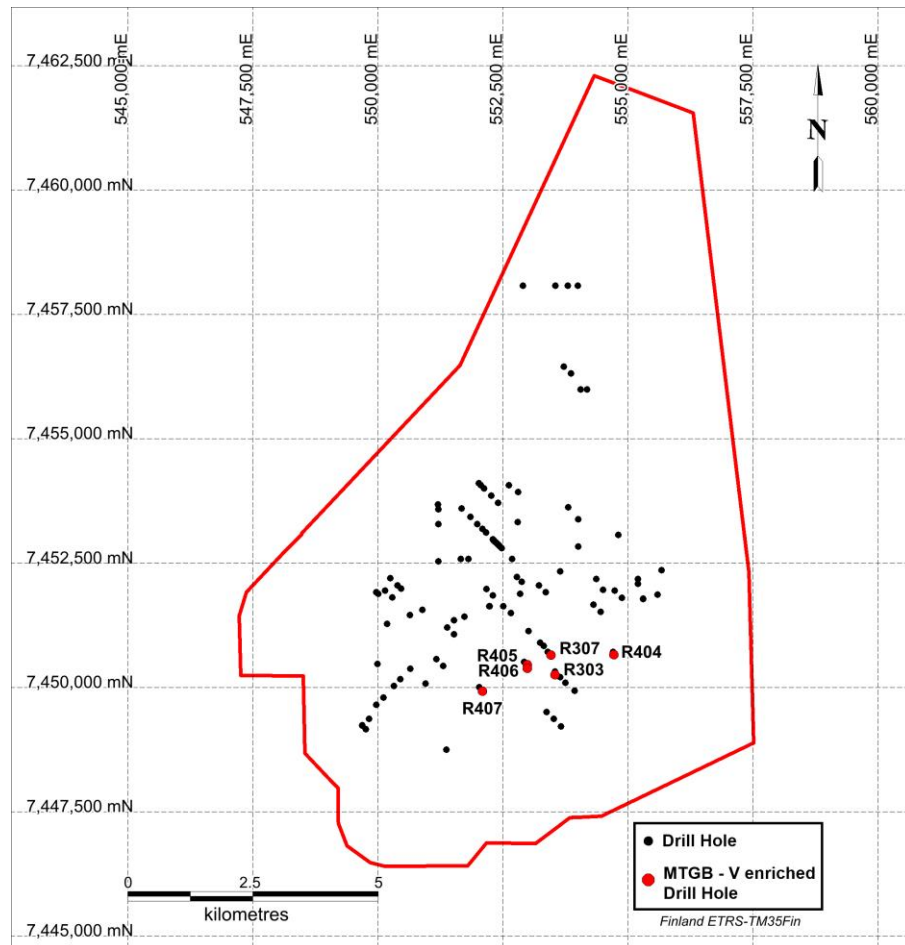
Source: Mutanen, 2005; Sarala, 2014; Strategic, 2019

Between 1993 and 2003, 117 holes were drilled on the Akanvaara Project. Most of the drilling was targeting chromium mineralization and vanadium was not the main drill target during this drill campaign. High grade vanadium mineralization within the MTGB was intersected in six holes: R303, R307, R404, R405, R406, R407 (Figure 7-4, 7-5, 7-6). Drilling on the Akanvaara Project is summarized in Table 6-2 and shown in Figure 6-3.

**Table 6-2: Drilling by Company – Akanvaara Project**

Company	Years	# of Drill Holes	Meterage
GTK*	1993 - 1997	112	17,396
Outokumpu Mining Oy	2001 - 2003	5	704.5
<b>Total</b>		<b>117</b>	<b>18,100.5</b>

\*Geological Survey of Finland

**Figure 6-3: Drill Hole Location Map**


Note: Akanvaara Project is outlined in red.

Source: Strategic, 2019

All available historic drill core from the project is stored at GTK's core facility in Loppi, southern Finland.

There was no drilling conducted by the author.

There has been no drilling done on the Akanvaara Project since 2003.

There has been no commercial mineral production from the Akanvaara Project.

## 6.1 Historical Metallurgy

There have been minimal metallurgical studies completed by GTK and exact metallurgical protocols or sample locations for the composites are not available.

### 6.1.1 Upper Chromitite

In 1994 - 1995, GTK commissioned exploitation and economic studies on samples from the UC unit. Flotation tests carried out by the Technical Research Centre of Finland yielded a chromite concentrate of 33.8 %  $\text{Cr}_2\text{O}_3$  and 0.55 % V. Recoveries for the flotation tests resulted in an average of 92 % Cr and 88 % V (Hintikka et al., 1995).

### 6.1.2 Magnetite Gabbro

In 1996, GTK tested the processing properties of the magnetite gabbro through the Technical Research Centre of Finland. A magnetite concentrate was created resulting in 10 - 12 % of the original feed and contained 1.55 - 1.59 % V (Hintikka et al., 1996).

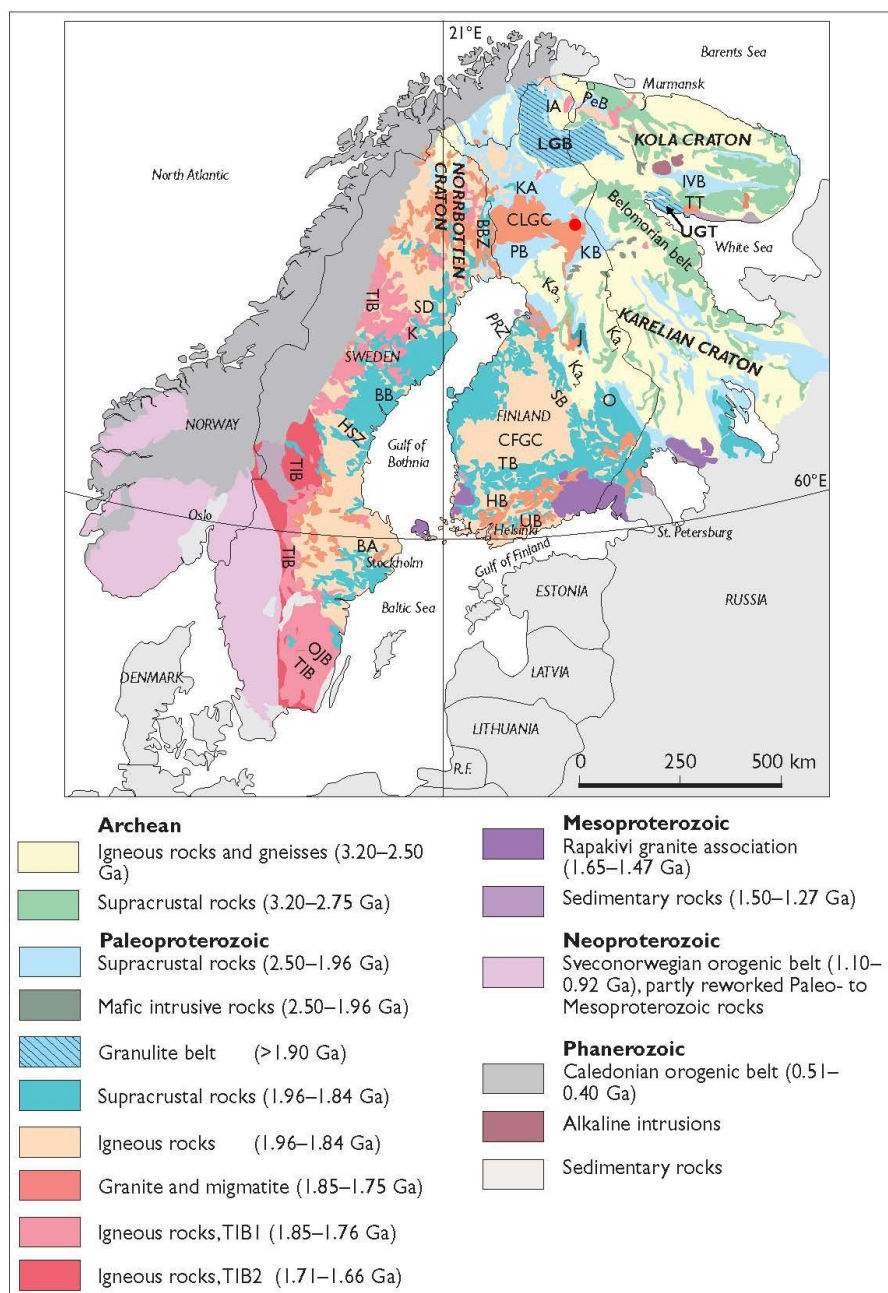
Strategic has not carried out any mineral processing and metallurgical testing. It is the author's opinion that further testing be conducted to confirm these results.

## 7 GEOLOGICAL SETTING

### 7.1 Regional Geology

The Akanvaara Project is located on the eastern part of the Fennoscandian Shield, in the Central Lapland Greenstone Belt (CLGB) which is part of the Archean Karelian craton (Koistinen et al., 2001) (Figure 7-1).

**Figure 7-1: Regional Geology**



Source: Koistinen et al., 2001; Juhani et al., 2008; Akanvaara Project as red dot.



The formations of the CLGB are Archean (2830–2680 Ma). The eastern part of the CLGB consists of tonalitic and granodioritic igneous complexes, paragneisses, granitic gneisses and zones of metavolcanics (Hanski et al., 2001). Amphibolites, komatiitic ultramafics and locally developed silicate facies iron formations are common in the volcanic successions. The central part of the CLGB contains Archean granitoids and migmatites surrounded by Paleoproterozoic formations. The western part of the CLGB is comprised of granodioritic and tonalitic gneisses (~2600 Ma) (Eilu et al., 2007).

Archaean basement sequences in the CLGB are overlain by the following Paleoproterozoic supracrustal lithologies:

- The Vuojärvi Group contains quartzite and mica gneisses which are possibly of volcanic origin.
- The Salla Group (2520–2440 Ma) contains intermediate to felsic metavolcanic rocks.
- The Onkamo Group (2440–2400 Ma) contains tholeiitic and komatiitic metavolcanic rocks.
- The Sodankylä Group (2400–2200 Ma) contains metasedimentary schists, mica gneisses and locally albitized mafic to felsic metavolcanic rocks.
- The Savukoski Group (2200–2050 Ma) contains phyllite, graphitic schist, dolomite, tuff and mafic to ultramafic metavolcanic rocks.
- The Kittilä Group (2050–2000 Ma) contains Fe-tholeiitic metavolcanic rocks, iron sulphide, iron carbonate and banded iron formations, Mg-tholeiitic metavolcanics, mica schists and meta-greywackes.
- The Lainio and Kumpu groups (1930–1850 Ma) are the youngest formations in the CLGB and contain intermediate to felsic metavolcanics as well as quartzite, metaconglomerate and mica schist (Lainio Group) and quartzite, metasilstone and metaconglomerate (Kumpu Group) (Korkalo, 2006).

Younger, post-orogenic granite intrusions (1920–1800 Ma) associated with a NE-SW-trending deformation zone intrude the CLGB. Older felsic and mafic dikes cut the older Proterozoic rocks. Three layered mafic intrusions (Koitelainen, Kevitsa and Akanvaara) occur in the eastern part of the CLGB.

Vanadium mineralization on the Akanvaara Project is hosted in the Salla Group within the Akanvaara layered mafic intrusion.

Host rocks on the Akanvaara Project exhibit amphibolite facies metamorphic grade (Mutanen, 1998).

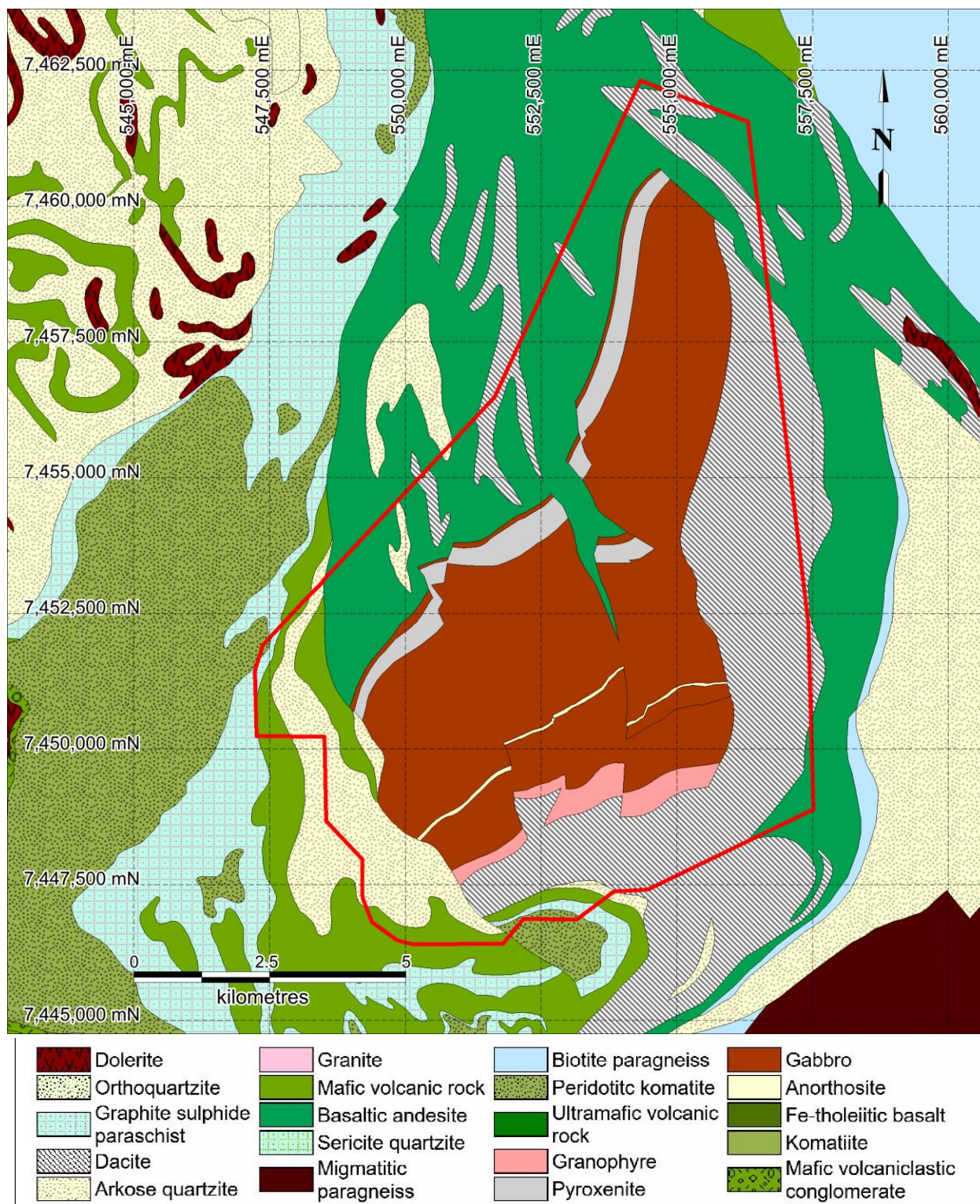
## 7.2 Property Geology

The main lithologic unit on the property is the Akanvaara layered intrusion (2440 Ma). The intrusion is a block-faulted monocline that dips to the south-east (Figure 7-2, 7-6, 7-7) and is the main and the most important lithological unit on the Akanvaara Project (Mutanen, 1997). The contact formations, dykes and the rocks of the intrusion have undergone amphibolite facies regional metamorphism resulting in variable degrees of hydration and recrystallisation of cumulates (Mutanen, 1998).

Mutanen (1997) proposed a stratigraphic sequence of the Akanvaara intrusion from the basal chill margin as follows (Figure 7-3):

- The Lower Marginal Zone composed of fine-grained microgabbros and non-laminated gabbros.
- The Lower Zone (LZ) consists of lowermost pyroxene cumulate layers. This zone hosts numerous PGE-bearing chromitite layers of interlayering pyroxene-chromite Lower Chromitite (LC) layers with euhedral olivines and orthopyroxenes and olivine poor Lowermost Lower Chromitite (LLC) layers.
- The Main Zone (MZ) begins with cumulates from the Uppermost Lower Chromitite (ULC) which is overlain by an ultramafic peridotitic unit, followed by pyroxenitic cumulates and for the rest of the zone, gabbroic rocks with occasional plagioclase-rich cumulate layers.
- The Upper Zone (UZ) consists of the Upper Chromitite (UC) succession which is associated with anorthositic and gabbroic cumulates and microgabbros. Vanadium enrichment is notable in this zone. Monotonous gabbros fill in most of the interval after UC.
- The Magnetite Gabbro (MTGB) unit consists of two magnetite-rich layers (with greater than 0.1 % V) separated by a layer poor in magnetite. A layer of rich Au and PGE mineralization has been encountered in the lower gabbro. The lowermost 6 – 13 m of the magnetite gabbro unit contains the richest vanadium reserves.

Figure 7-2: Project Geology

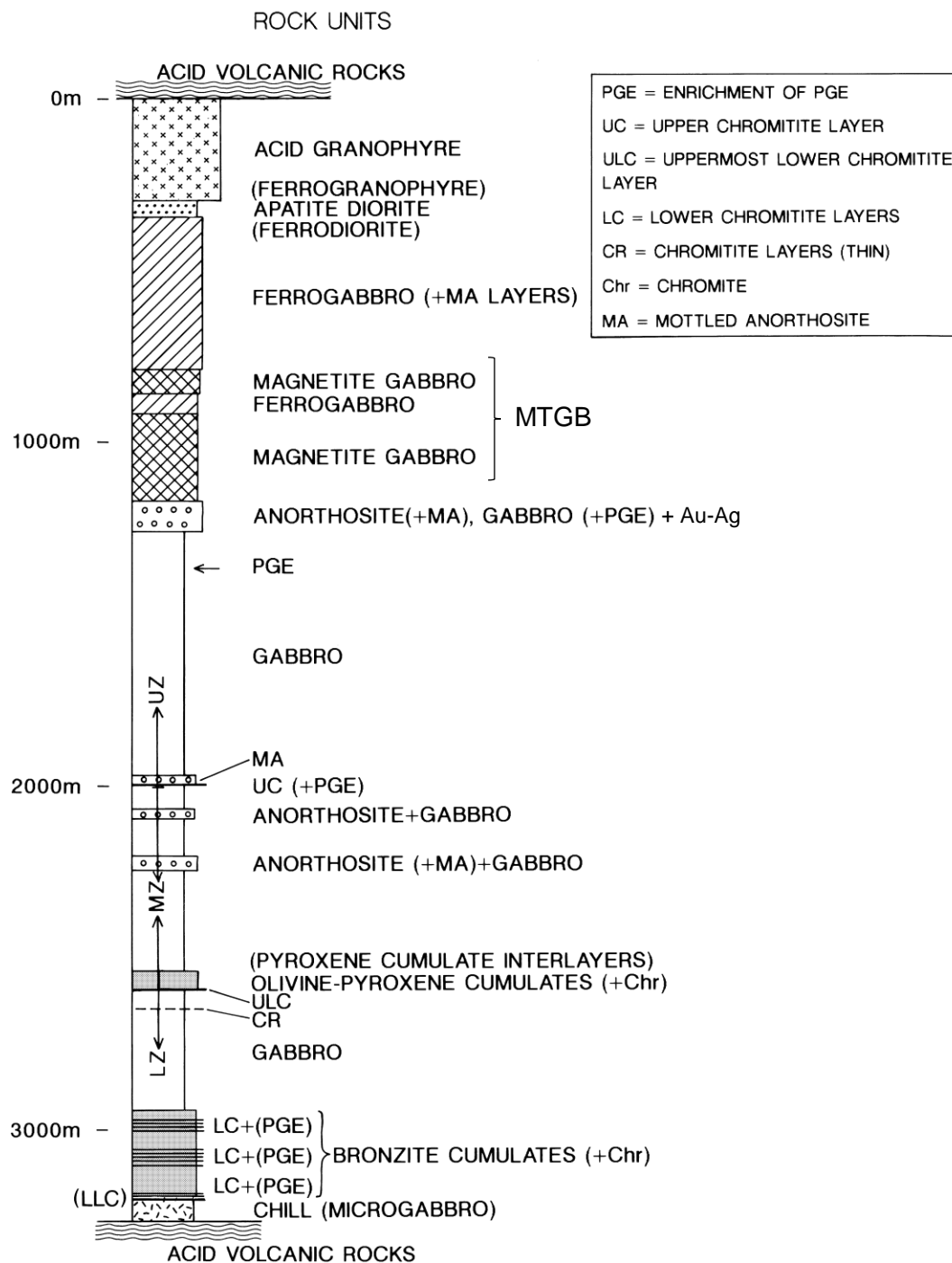


Note: Akanvaara Project is outlined in red.

Source: Mutanen, 2005; Strategic, 2019



**Figure 7-3: Stratigraphy of the Akanvaara intrusion**



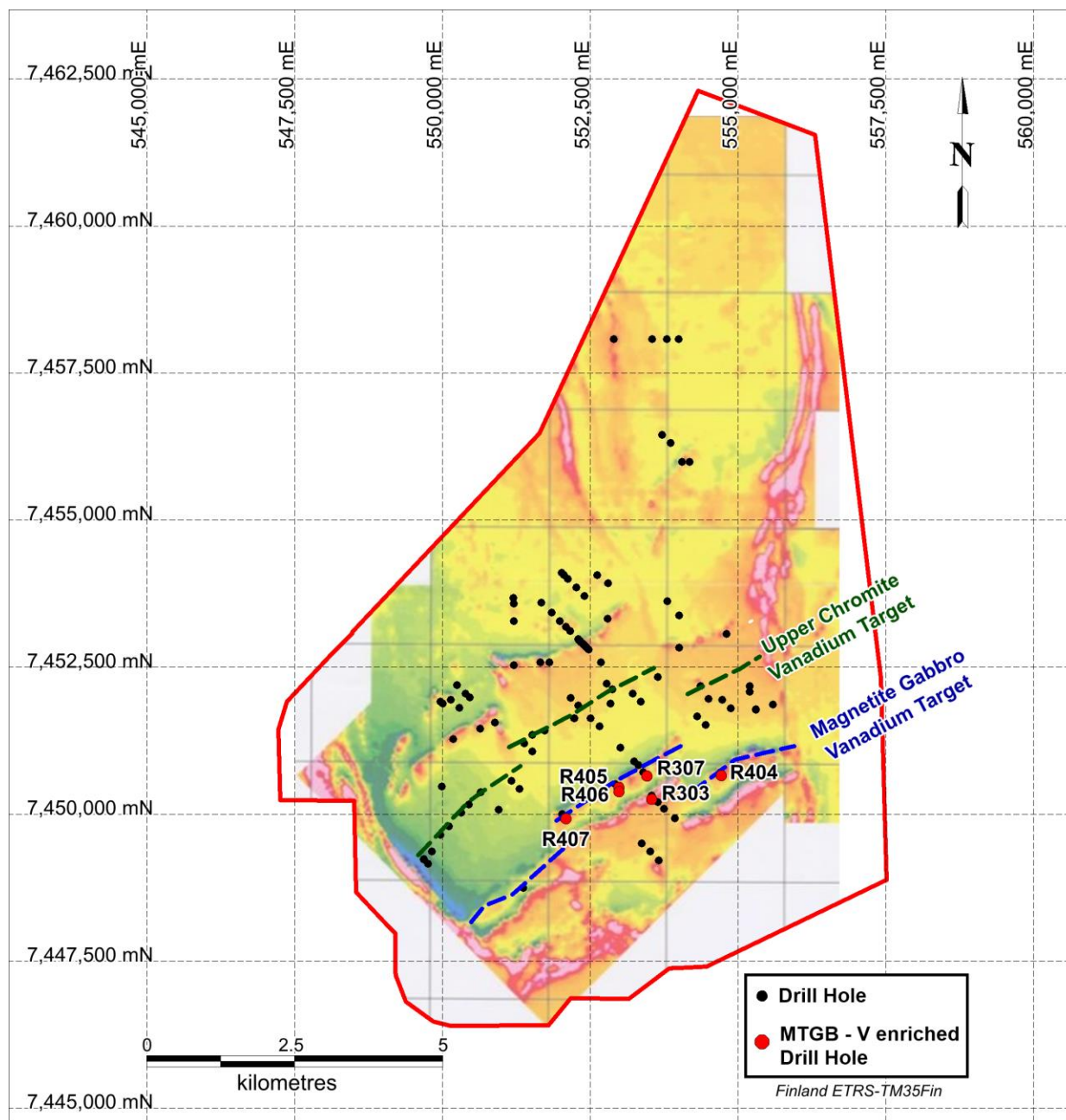
Source: Mutanen, 1998; Strategic, 2019

### 7.3 Mineralization

Two main vanadium bearing stratigraphic units have been defined through drilling (Figure 7-4, 7-5, 7-6, 7-7). The main mineralization of the Akanvaara intrusion is hosted in the vanadium

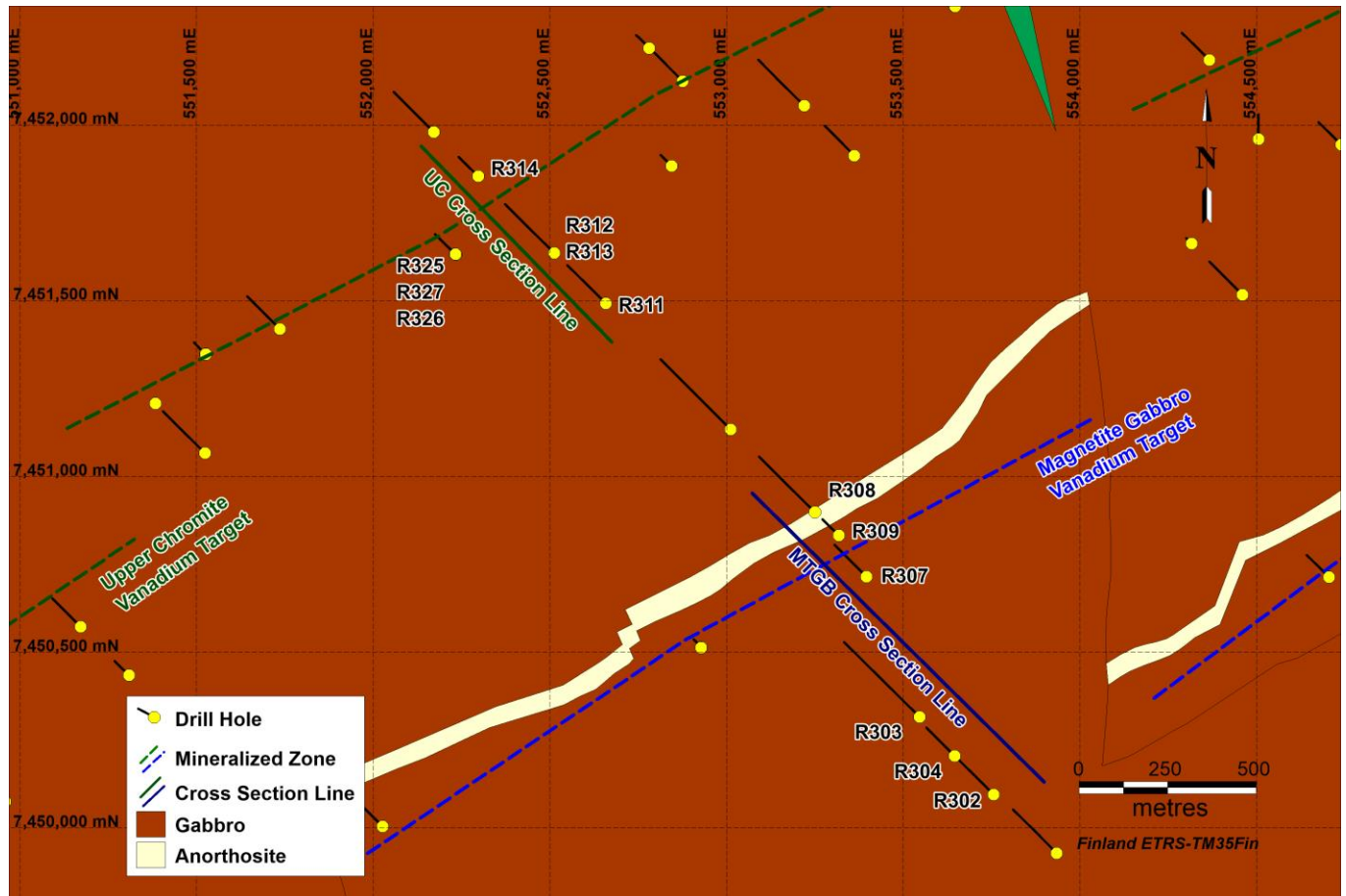
bearing Magnetite Gabbro (MTGB) layer rich in V, Cu, Au, Ag, Rh and Pt and in the Upper Chromitite (UC) layer rich in  $\text{Cr}_2\text{O}_3$ , V and PGE (Mutanen, 1998). Mineralization occurs as massive, semi-massive and disseminated magnetite, pyrite, chalcopyrite and chromite in the MTGB and UC. The MTGB varies in true thickness from 11 to 198m and two mineralized layers hosting over 0.1% V were identified. The UC units has average true thickness of approximately 1 to 2 m. At present continuity can only be assessed from drill holes separated by hundreds of metres and airborne magnetic trends. However, evaluation of these indicates that it is continuous over approximately two kilometres and possibly several more (See Figure 7-4).

**Figure 7-4: Drilling, Mineralized Targets, Total Magnetic Field**



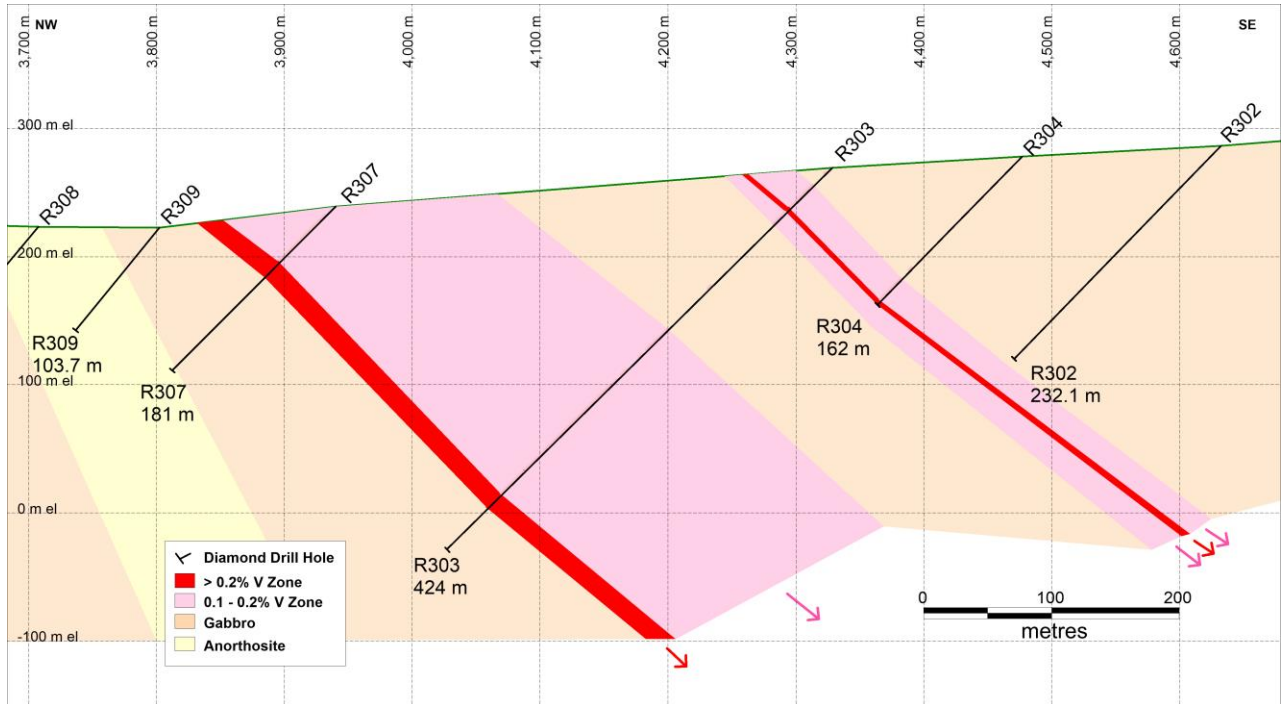
Note: Akanvaara Project is outlined in red.  
Source: Mutanen, 1998; Strategic, 2019

Figure 7-5: Plan View – Akanvaara Vanadium Mineralization



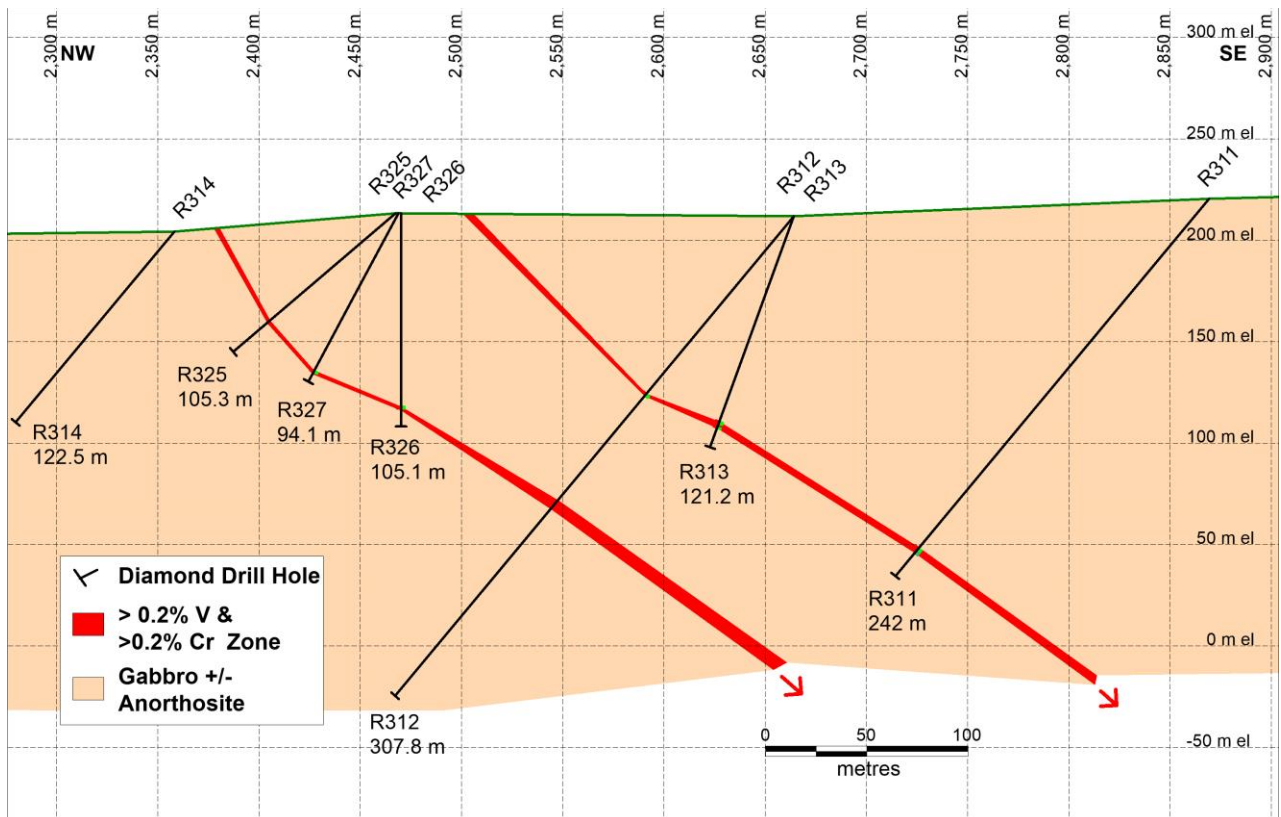
Source: Mutanen, 2005; Strategic, 2019

Figure 7-6: Cross Section – Akanvaara MTGB Target



Source: Mutanen, 2005; Strategic, 2019

Figure 7-7: Cross Section – Akanvaara UC Target



Source: Mutanen, 2005; Strategic, 2019



## 8 DEPOSIT TYPE

The vanadium mineralization on the Akanvaara Project can be classified as intrusion-related orthomagmatic. (Gross et al., 1997; Groves et al., 1998; Kerr et al., 2013).

Orthomagmatic iron-titanium-vanadium deposits are the most important primary vanadium sources in the world and are typically associated with layered mafic intrusions or anorthosite complexes. Examples include the Rhovan deposit of the Bushveld Complex in South Africa, the Mustavaara deposit in Finland, the Lac Doré deposit in Canada, the Maracas deposit in Brazil, and the Mindimurra deposit in Australia (Kerr et al., 2013).

Individual oxide-rich layers range in thickness from a few centimetres to 13 m or more and often show substantial lateral extent. The Fe-Ti-V rich oxides are concentrated by gravity within the host intrusion and commonly reach economic level. Remobilization of such cumulate material may also take place and provide a mechanism by which local zones of massive oxide or dyke-like intrusive oxide bodies are developed (Cawthorn, 1996). Vanadium grade is often directly related to the amount of magnetite present.

## **9 EXPLORATION**

No exploration work has been completed by either Magnus or Strategic on the Akanvaara Project.

## **10 DRILLING**

No drilling has been completed by either Magnus or Strategic on the Akanvaara Project.

## **11 SAMPLING PREPARATION, ANALYSES AND SECURITY**

### **11.1 Historical Sampling**

There is no record of sample preparation or procedures that GTK and Outokumpu used to sample the historic drill core on the Akanvaara Project.

## 12 DATA VERIFICATION

### 12.1 Database Validation

#### 12.1.1 Collar Coordinate Validation

The author attempted to locate selected drill hole collars in the field but was unable to locate any due to the abundance of snow.

#### 12.1.2 Assay Verification

The review of the historical sample database, core sampling and analytical practices used during the previous drilling campaigns indicates that this work was conducted using generally accepted industry procedures.

All drill collars, down-hole surveys, geology and assays were exported from Excel® files into MapInfo/Discover software for validation and plotting. No identical sample identifications exist; all FROM\_TO data are zero or a positive value, and no interval exceeds the total depth of its hole.

To the author's knowledge, there were no check assays done on historical drill core.

### 12.2 Geological Data Verification and Interpretation

The geological data verification consisted of a review of historical drill logs, geological and geophysical maps, and confirmation of historical sampling intervals.

The geological data was verified by confirming that the geological designations were correct in each sample interval. This process included the following:

- examining FROM\_TO intervals for gaps, overlaps and duplicated intervals
- looking for collar and sample identification mismatches
- verifying correct geological codes.

A geological legend was provided, and it was used to compare the values logged in the database. The geological model was found to be reasonable and adequate for use.

### 12.3 QA/QC Protocol

There is no record of QA/QC sampling during the previous drill campaigns, and there was no QA/QC sampling conducted by the author on the historical core.

### 12.4 Assay Database Verification

Based on the author's validation of historical assay data, it is the author's opinion that the assay database is sufficiently accurate as a basis for further exploration work on the property.

### 12.5 Conclusion

Validation of the assay data indicate that the drill data is adequate for interpretation.

In the authors' opinion, the database is acceptable for use in this report.

## **13 MINERAL PROCESSING AND METALLURGICAL TESTING**

Strategic has not completed any mineral processing or metallurgical testing programs for the Akanvaara Project.

## 14 MINERAL RESOURCES

Strategic has not estimated a mineral resource for the Akanvaara Project.

## 15 ADJACENT PROPERTIES

There are no known vanadium projects adjacent to the Akanvaara Project.



## 16 OTHER RELEVANT DATA

There is no other relevant data or information.

## 17 CONCLUSIONS

Based on the evaluation of the data available from the Akanvaara Project, the author of this Technical Report has drawn the following conclusions:

- At the effective date of this Technical Report (May 3, 2019), Strategic has an option with Magnus to earn a 100 % interest in the Akanvaara Project.
- Vanadium mineralization is hosted within the Akanvaara intrusion in layers of vanadium-bearing magnetite gabbro and in chromitite layers. The mineralized zone is open along strike and at depth.
- The Akanvaara Project sees vanadium mineralization associated with a 6.5 km long aeromagnetic anomaly.
- Historical till sampling has proved to be a useful tool in locating vanadium and may be useful to locate vanadium-rich areas along magnetic highs.
- There are no known factors related to environmental, permitting, legal title, taxation, socio-economic, marketing or political issues which could materially affect the exploration potential of the project.

## 18 RECOMMENDATIONS

The following two-phase work program is recommended for this project:

**Phase 1:** Conduct additional drilling to test the strike and down-dip extent of presently known vanadium mineralization. The estimated budget for this 1,875 m drill program is \$CDN 750 thousand (Table 18-1).

**Table 18-1: Phase One Exploration Budget**

<b>Phase 1</b>	<b>Cost (\$CDN)</b>
1875 m diamond drill program	\$ 750,000
Total	\$ 750,000

**Phase 2:** Phase 2 program is contingent on positive results from Phase 1. This phase will conduct basal till geochemical surveys over magnetic anomalies along strike of the known zones and elsewhere on the property. Anomalous areas will be drilled. The estimated budget for the geochemical surveys and a 2,250 m drill program is \$CDN 1.0 million (Table 18-2).

**Table 18-2: Phase Two Exploration Budget**

<b>Phase 2</b>	<b>Cost (\$CDN)</b>
Basal till geochemical surveys	\$ 100,000
2,250 m diamond drill program	\$ 900,000
Total	\$ 1,000,000

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## 20 DATE AND SIGNATURE PAGES

### CERTIFICATE OF QUALIFIED PERSON

**Piotr Lutynski, P. Eng.**

I, Piotr Lutynski, P. Eng., do hereby certify that:

1. I am an independent consulting geologist with an office at 5285 Sherbrooke Street, Vancouver, B.C., V5W 3M3, Telephone: 604-765-9373, Email: Piotr\_Lutynski@hotmail.com
2. I graduated with a M.Sc. degree in geology from the University of Mining and Metallurgy (AGH) in Krakow in 1980.
3. I am a registered Professional Engineer of the Province of British Columbia; license number 20229.
4. I have practised my profession continuously for over 38 years and I have gained experience performing geological work in South, Central and North American countries as well as Europe. I grew up and gained my degree in Geology in Poland and I have worked and managed European drill programs in Poland and Sweden. I have worked on magmatic related mineral projects in Canada and Sweden.
5. I have read the definition of "qualified person" set out in National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
6. I am responsible for the preparation of and for all of the items contained in this NI 43-101 Technical Report titled "Akanvaara Project, Finland NI 43-101 Technical Report" dated June 10, 2019, with an effective date of May 3, 2019 (the "Technical Report").
7. I visited the Akanvaara Project between February 18 and 22, 2019.
8. I am independent of Magnus Minerals Oy, Strategic Resources Inc., and the Property, applying all the tests in Section 1.5 of NI 43-101.
9. I have had no prior involvement with the property that is the subject of the Technical Report. I have read NI 43-101, Form 43-101F1 Technical Report ("Form 43-101F1") and the Technical Report and confirm the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
10. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 10<sup>th</sup> day of June, 2019.

"original signed and sealed"

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Piotr Lutynski, E. Eng.