

# Pampalo NW

**Alternative Names:** Pampalonsärkät, Pampalo North, Pampalonlammit

**Occurrence type:** prospect

Commodity	Rank	Total measure	Total production	Total resource	Importance
gold	1	NA	NA	NA	NA

Easting EUREF: 715385,069

Northing EUREF: 6992089,968

Easting YKJ: 3715644

Northing YKJ: 6995019

**Discovery year:** 1995

**Discovered by:** Geological Survey of Finland

**Province:** Ilomantsi (Au)

**District:** Hattu (Au)

**Comments:** Discovery in 1995, geochemical anomalies in till known prior to the discovery. The locality or target names Pampalonsärkät, Pampalonlammit and Pampalo North seem to be so close to each other that they may form one occurrence, possibly comprising several mineralised zones (potential ore bodies). 0.5-1 km from the Pampalo deposit.

**References:** 1, 3, 5, 7, 8, 9, 10, 11, 16

## Mineral deposit type

**Group:** Metallogenetic deposit

**Main type:** Orogenic (metamorphic hydrothermal)

**Comments:** Precipitation of gold by desulphidation of fluid and, possibly, by decomposition of Au-bisulphide, -thiosulphide and -telluride complexes of fluid due to cooling and/or changes in pH and fO<sub>2</sub>. Probably, gold precipitated just below 500°C with sulphides due to reaction between the mineralising fluid and wall-rock (chiefly by sulphidation). The formation of the present low-temperature Te and Bi minerals probably took place as subsolidus reactions with cooling temperature.

**References:** 15

## Dimension

**Expression:** exposed

**Area (ha):** NA

**Form:** discordant

**Dip azim:** NA

**Shape:** lensoidal

**Dip:** NA

**Length (m):** NA

**Plunge azim:** NA

**Width (m):** NA

**Plunge dip:** NA

**Thickness (m):** NA

**Orientation method:** NA

**Depth (m):** NA

**Dimension comments:** At least three ore bodies (lodes), probably NW to NE-trending, open along strike and at depth. Open at the depth of about 130 m.

## Holder history

**Current holder:** Endomines Oy

**Years:** 2023-2026

**Holding type:** Exploration permit

**Previous holders:**

Company	Years	Holding type	Comments
Geological Survey of Finland	NA	NA	NA
Endomines Oy	2018-2022	Exploration permit	NA
Endomines Oy	2011-2018	Application for exploration permit	NA
Endomines Oy	2003-2010	Claim (old law)	NA

## EXPLORATION ACTIVITY

### Endomines Oy

Years	Activity type	Geologist	Exploration result	Ref
2018-2018	detailed geophysics	Jari Juurela	key geological features	9
	<p><i>Ground gravity survey, comprising five 5 kilometer profiles in the Pampalo area. Survey stations every 20 meters along each profile. The purpose of the survey is get information about the depth extent of the large rock units around Pampalo, including the Korpivaara tonalite intrusion in the north. Survey profiles will provide gravimetric data to the depth of 1km.</i></p>			
2018-2018	detailed geochemistry	Jari Juurela	geochemical anomaly	9
	<p><i>Altogether 1023 base-of-till samples were taken within an approximately five kilometers radius from the Pampalo mine.</i></p>			
2018-2018	core drilling	Jari Juurela	mineral occurrences	9
	<p><i>Two holes at Pampalonlammit, total 249.5 meters, and two at Pampalo North (211.3 m). Above 0.5 ppm Au intersections only at Pampalonlammit detected.</i></p>			
	<p><b>Intersections</b></p>			
	HoleID	P-423		
	From-To	80,4-82		
	Length	1,6m		
	gold	3,8ppm		
	Comments	Pampalonlammit		
2015-2015	detailed geophysics	NA	NA	
	<p><i>Sampling the base of till, campaign started in March 2015</i></p>			
2011-2011	detailed geophysics	Jaakko Liikanen	geophysical anomaly	
	<p><i>Airborne low-altitude [VTEM] geophysical surveys were completed over the entire permit area</i></p>			
2007-2015	core drilling	Jaakko Liikanen, Jyrki Bergström	mineralized zone identified	1, 2, 3, 4, 5, 6, 7, 8
	<p><i>2007: Core drilling (reconnaissance drilling): two diamond-drill holes, total 223 m. 2011: 12 diamond-drill holes, total 895.50 metres. 2015: 12 diamond-drill holes, total 1046 metres.</i></p>			
	<p><b>Intersections</b></p>			
	HoleID	P-161		
	From-To	33,3-34,3		
	Length	1m		
	gold	29,4ppm		
	HoleID	NA		
	From-To	NA		
	Length	5,7m		
	gold	4,7ppm		
	HoleID	NA		
	From-To	NA		
	Length	1,2m		
	gold	3,78ppm		
	HoleID	NA		
	From-To	NA		
	Length	11,5m		
	gold	2,7ppm		

1999-1999	core drilling	Jaakko Liikanen.	NA	10, 12, 15
<i>Core drilling (reconnaissance drilling): a few diamond-drill holes.</i>				
<b>Intersections</b>				
HoleID	NA			
From-To	NA			
Length	10,9m			
gold	3,26ppm			
HoleID	NA			
From-To	NA			
Length	0,5m			
gold	24,4ppm			

1998-1998	detailed geology	Jaakko Liikanen.	NA	1, 10
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## Geological Survey of Finland

Years	Activity type	Geologist	Exploration result	Ref
1993-1993	regional geophysics	Martti Damsten	key geological features	
<i>Low-altitude airborne magnetic, electromagnetic and radiometric survey</i>				

1992-1995	detailed geophysics	Martti Damsten	geophysical anomaly	10, 11, 12, 14
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1992-1995	detailed geochemistry	Martti Damsten	geochemical anomaly	10, 11, 12, 14
<i>Till-bedrock interface sampled, samples collected across the regional Au anomaly along traverses 100 m apart with sampling distance 10-30 m.</i>				

1992-1995	regional geology	Martti Damsten	key geological features	10, 11, 12, 14
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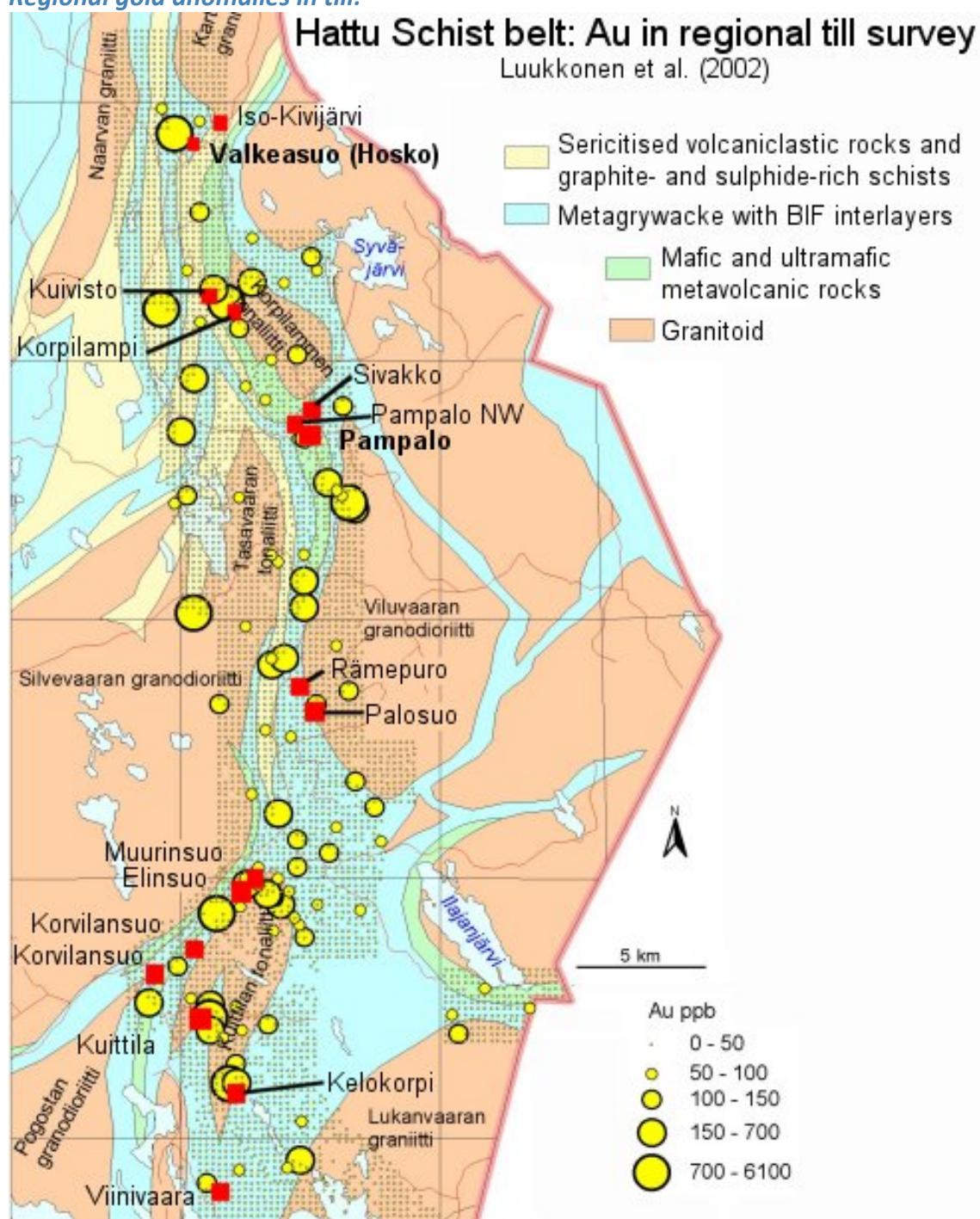
1992-1995	core drilling	Martti Damsten	NA	12
<i>Core drilling (reconnaissance drilling): 11 diamond-drill holes, total 1953 m; Drilling into combined till-geochemical and IP anomaly.</i>				

1984-1984	regional geochemistry	Aimo Hartikainen	geochemical anomaly	
<i>Country-wide till-geochemical survey</i>				

1983-1989	regional geochemistry	Aimo Hartikainen	geochemical anomaly	10, 11, 12, 14
<i>Sampling grid 250x250 m over the greenstone belt covering 400 km<sup>2</sup>. Regional Au, As and B till anomaly, local Au, Te and Bi anomaly. Au content within the till anomaly is from tens of ppb to &gt;1 ppm. Best combination for defining exploration targets: Au + Te + Bi - better than Au alone.</i>				

## Figures

*Regional gold anomalies in till:*



## GEOLOGY

**Host rock:** Quartz feldspar porphyry, Tholeiitic basalt, Intermediate tuff

### Quartz feldspar porphyry (Host rock)

**Rock type:** Host rock

**Proportion:** major

**Grain size:** NA

**Color:** NA

**References:** 1, 5, 9, 10, 13, 15

**Comments:** Main host at Pampalonsärkät and Pampalo North localities/targets. Auriferous quartz-calcite veins.

#### Ore minerals:

Mineral	Proportion	Mineral texture
Gold	minor	
<i>In quartz veins and their immediate wallrocks.</i>		

#### Other minerals:

Mineral	Proportion	Mineral texture
K-Feldspar	present	
Quartz	present	

#### Structures

Homogeneous

*Comments: The deposit is in a duplex formed by the main and secondary shear zones of the Pampalo Shear Zone system*

#### Metamorphic description:

Type:	Facies:	Degree:	Relation to mineralization:	Min P- Max P (kbar)	Min T- Max T (°C)
Regional	epidote amphibolite metamorphic facies	medium metamorphic grade	Post		-550
<i>Comments: Progressive regional metamorphism on ca. 2750-2700 Ma, apparently peaked soon after gold mineralisation, at a temperature of about 550±50°C. Thermal peak was synchronous or outlasted deformation.</i>					

#### Geological age:

Geological era:	Max age - Min age (Ma):	Inferred age (Ma):	Age of mineralization:
Neoarchean (2800-2500 Ma)	2708-2708	2708	N
<i>Comments: Mineralisation either pre-peak metamorphic and formed under greenschist-facies conditions, or syn-peak metamorphic.</i>			
Radiometric age:	Method:	Age:	Error (Ma):
	U-Pb	2708	Titanite 15

### Tholeiitic basalt (Host rock)

**Rock type:** Host rock  
**Proportion:** major  
**References:** 9  
**Comments:** Main host at the Pampalonlammit target

#### Metamorphic description:

Type:	Facies:	Degree:	Relation to mineralization:	Min P- Max P (kbar)	Min T- Max T (°C)
Regional	epidote amphibolite metamorphic facies				

### Intermediate tuff (Host rock)

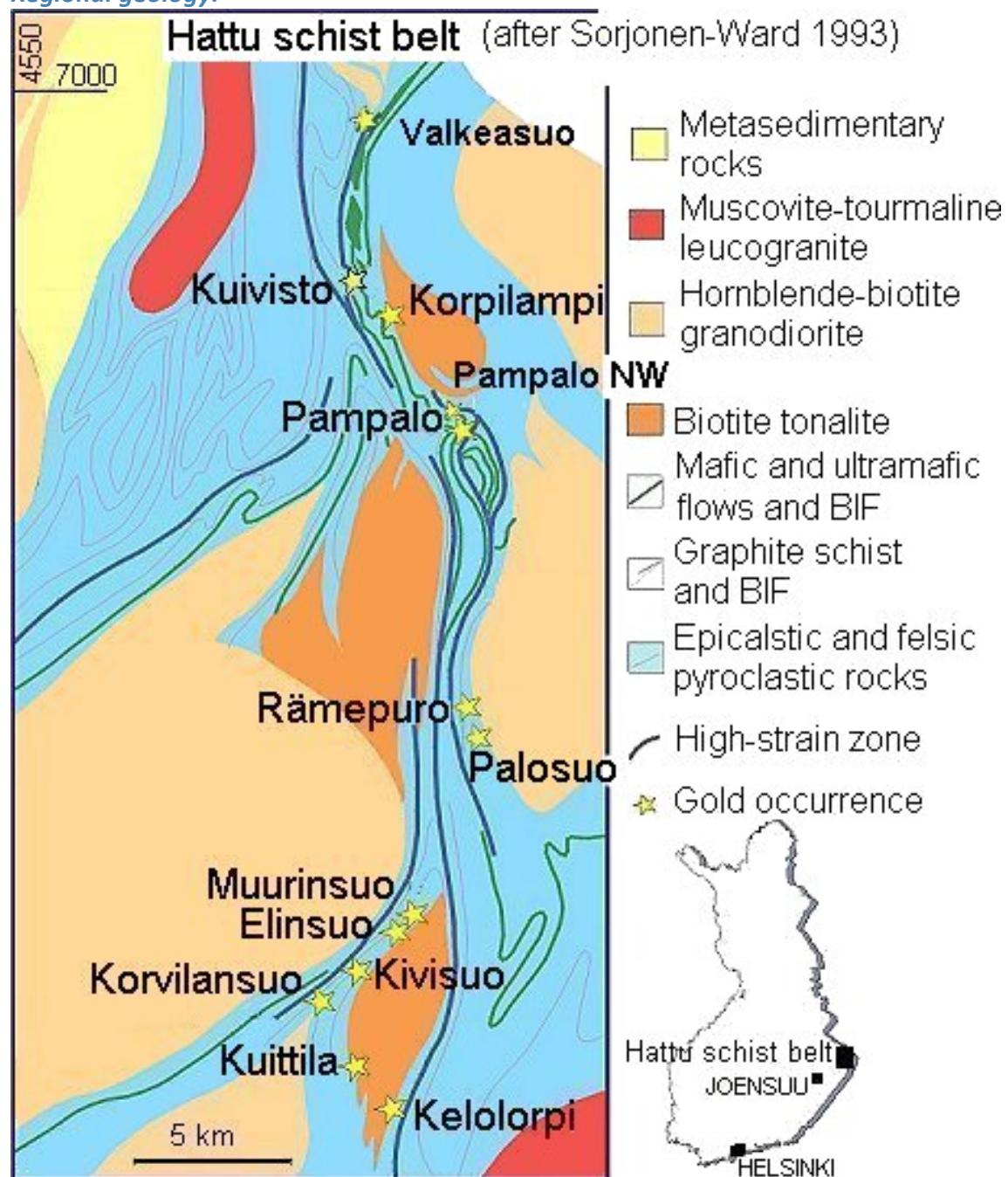
**Rock type:** Host rock  
**Comments:** Also called 'mica schist'

#### Metamorphic description:

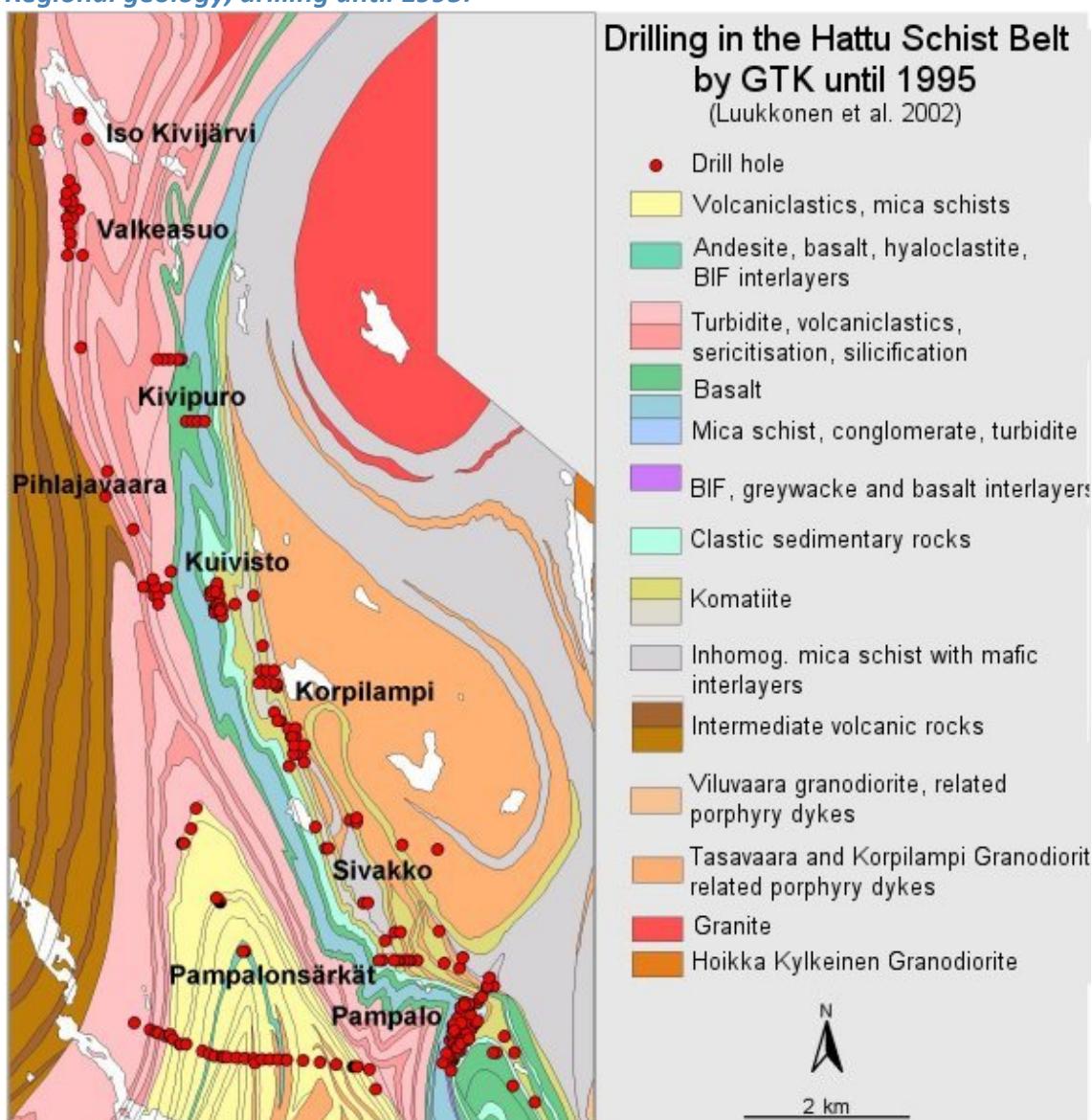
Type:	Facies:	Degree:	Relation to mineralization:	Min P- Max P (kbar)	Min T- Max T (°C)
Regional	epidote amphibolite metamorphic facies				

### Figures

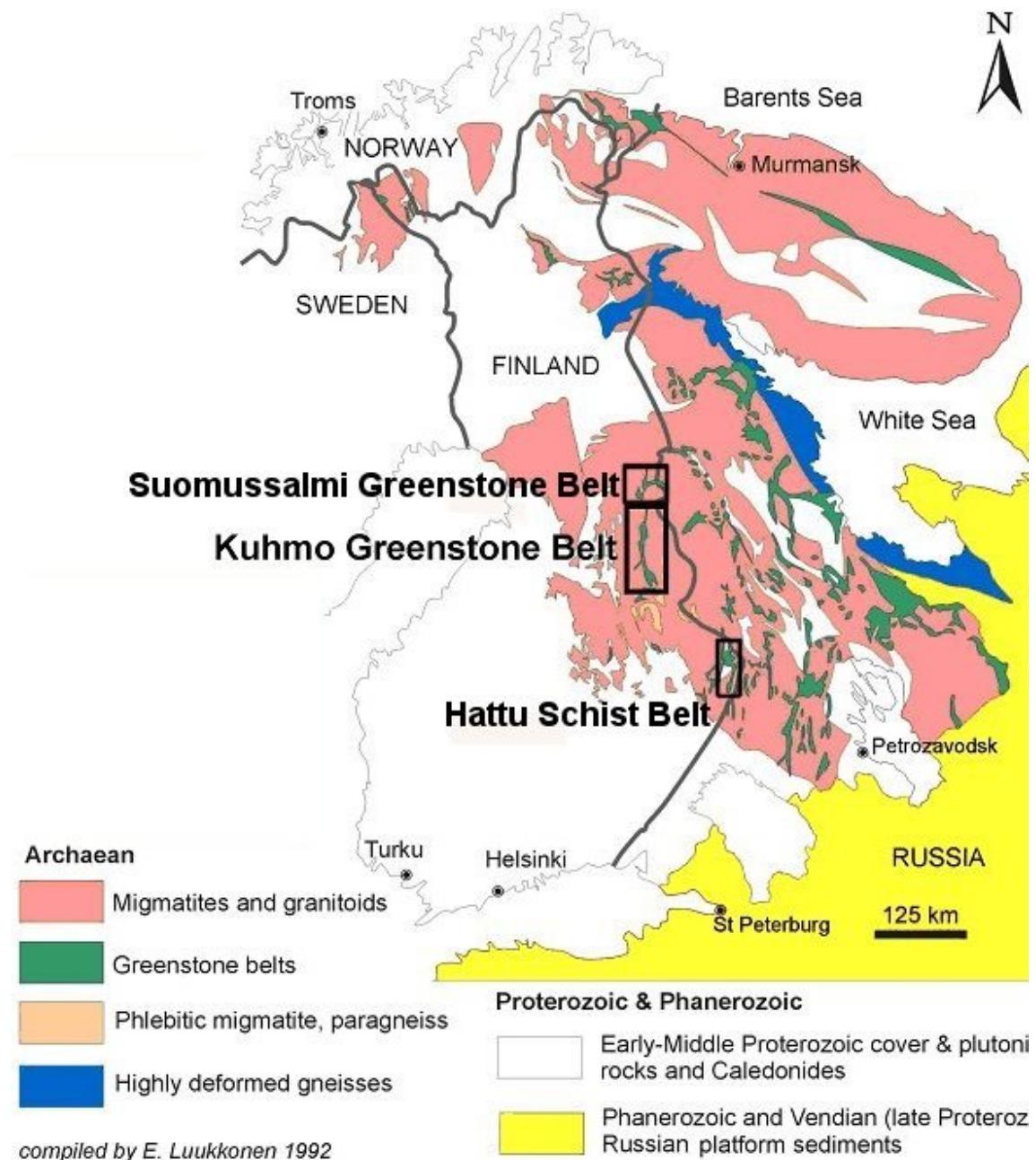
*Regional geology:*



*Regional geology, drilling until 1995:*

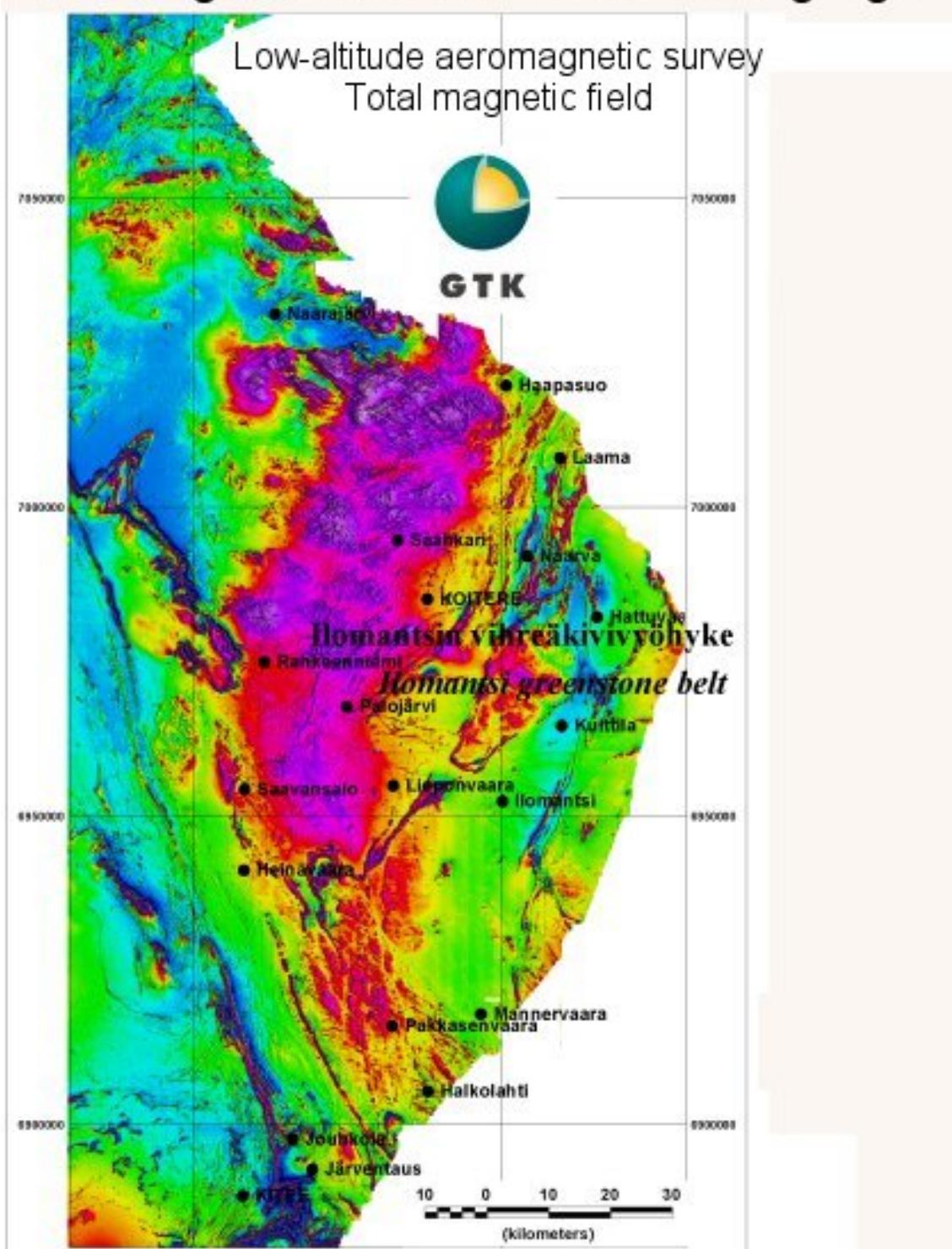


**Location in the Carelian craton:**



## *Regional low-altitude airborne magnetic image:*

## **Ilomantsi greenstone belt and surrounding region**



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