Sikakangas

Alternative Names: Tulisilmä, Hoikkamäki 1
Occurence type: occurrence

Commodity	Rank	Total measure	Total production	Total resource	Importance
gold	1	0,22 t	NA	0,22 t	Occurrence

Easting EUREF: 289670
Northing EUREF: 6959520
Easting YKJ: 3289756
Northing YKJ: 6962439

Discovery year: 1989
Discovered by: Geological Survey of Finland
Province: Seinäjoki (Au, Sb)
Comments: Following the indications of gold-rich erratic boulders found by amateur prospectors led to the discovery.
References: 2, 3, 4, 6

Mineral deposit type

Group: Metallogenic deposit
Main type: Orogenic (metamorphic hydrothermal)

Dimension

Expression: exposed
Form: discordant
Shape: NA
Length (m): 700
Width (m): 200
Thickness (m): NA
Depth (m): NA
Area (ha): NA
Dip azim: 115
Dip: NA
Plunge azim: NA
Plunge dip: NA
Orientation method: NA

Holder history

Current holder: Southern Ostrobothnia Minerals Oy
Years: 2018
Holding type: Application for exploration permit

Previous holders:

Company	Years	Holding type	Comments
Geological Survey of Finland	2003	NA	NA
Geological Survey of Finland	1989-1993	NA	NA
Geological Survey of Finland	1975-1982	NA	NA

EXPLORATION ACTIVITY

Mineral Exploration Network (Finland) Limited

Years	Activity type	Geologist	Exploration result	Ref
2016-2016	regional reconnaissance	NA	NA	7
	The MEN assessed the area by using only the existing information. The company itself did apparently not do any exploration in the area.			

Geological Survey of Finland

Years	Activity type	Geologist	Exploration result	Ref
1989-1993	detailed geology	Niilo Kärkkäinen	NA	3, 4, 5, 6, 8
	First indication by gold-rich erratic boulders and outcrop found by an amateur prospector; This lead to the discovery of the deposit in outcrop.			

1989-1993	core drilling	Niilo Kärkkäinen	mineralized zone identified	3, 4
	19 diamond-drill holes, total 658 m; drilled 1-3 holes per profile, distance between the profiles is 50 m.			
	Intersections			
	HoleID	R441		
	From-To	21,5-22,5		
	Length	1m		
	gold	11,8ppm		
	HoleID	NA		
	From-To	NA		
	Length	5m		
	gold	2ppm		

1989-1993	detailed geophysics	Niilo Kärkkäinen	NA	4
	None by IP, others not tested.			

1989-1993	regional geochemistry	Niilo Kärkkäinen	NA	6
	Extensive Au anomalies in the region in till, also a local As anomaly enveloping the mineralisation; the regional Sb and As anomalies in till are, apparently, unrelated to gold mineralisation.			

1989-1993	excavation	Niilo Kärkkäinen	NA	3, 4, 5, 6, 8

1975-1982	regional geochemistry	Paunu Oivanen	NA	6
	Extensive Au anomalies in the region in till, also a local As anomaly enveloping the mineralisation; the regional Sb and As anomalies in till are, apparently, unrelated to gold mineralisation.			

1975-1982	detailed geology	Paunu Oivanen	key geological features	3, 4, 5, 6, 8

1975-1975	regional geophysics	Paunu Oivanen	key geological features	
	Low-altitude airborne magnetic, electromagnetic and radiometric survey			

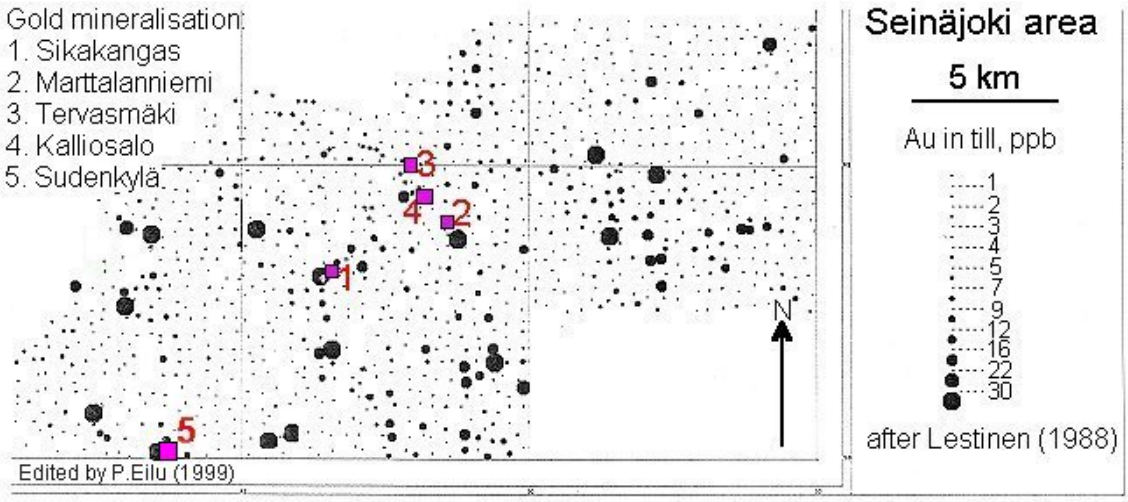
1975-1982	core drilling	Paunu Oivanen	NA	3, 4, 5, 6, 8

1975-1982	detailed geophysics	Paunu Oivanen	NA	4
	None by IP, others not tested.			

1975-1982	excavation	Paunu Oivanen	NA	3, 4, 5, 6, 8

Figures

Secondary anomaly:



Plan view:

Exploration trench at Tulisilmä.

Hammer handle is 60 cm long. From Kärkkäinen and Huuskonen (1993).

RESOURCES AND RESERVES

Most recent

Type:	Company:	Year:	Date:	Calc Method:	Reference:
Resource	Geological Survey of Finland	2010	NA	Non-compliant resource estimate	1
	Category:	**Inferred mineral resource**			
	Tonnage:	**171000 t**			
	gold	1,32 ppm			
	Cutoff:	**gold 0,55 ppm**			

GEOLOGY

Host rock: Quartz vein, Plagioclase porphyrite

Quartz vein (Host rock)

Rock type: Host rock
Proportion: minor
Grain size: NA
Color: NA
References: 4
Comments: Quartz-tourmaline veins, 1-10 cm in width; these tend to contain 1-20 ppm Au

Plagioclase porphyrite (Host rock)

Rock type: Host rock
Proportion: major
Grain size: NA
Color: NA
References: 3, 4, 6, 8
Comments: Intermediate plagioclase and plagioclase-uralite porphyry sills(?).

Ore minerals:

Mineral	Proportion	Mineral texture
Arsenopyrite	major	
Gold	minor	
Pyrite	minor	
Pyrrhotite	minor	

Other minerals:

Mineral	Proportion	Mineral texture
Quartz	present	
Scheelite	present	
Tourmaline	present	

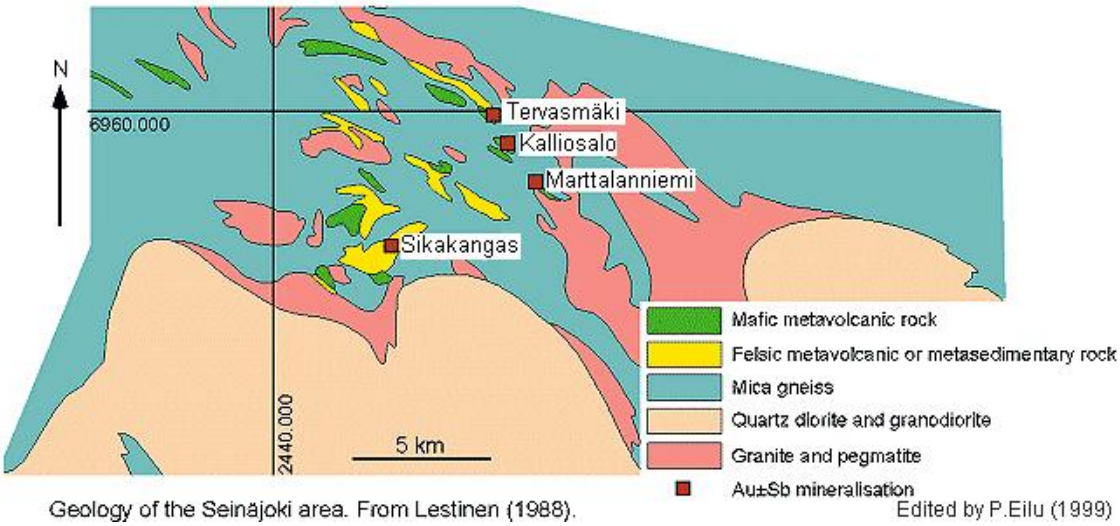
Alteration:	Distribution:	Degree:	Relation to mineralization:
sulphidation	Shearing	Weak	NA
Comments: About 20 m wide zone containing most of the shear zones.			
silicification	Shearing	Moderate	NA
Comments: About 20 m wide zone containing most of the shear zones.			

Metamorphic description:

Type:	Facies:	Degree:	Relation to mineralization:	Min P- Max P (kbar)	MIn T- Max T (°C)
Regional	amphibolite metamorphic facies	medium metamorphic grade	NA		
Comments: Plagioclase - hornblende - quartz - biotite ± cummingtonite.					

Figures

Regional geology:



Geology of the Seinäjoki area. From Lestinen (1988). Edited by P.Eilu (1999)

Structure:

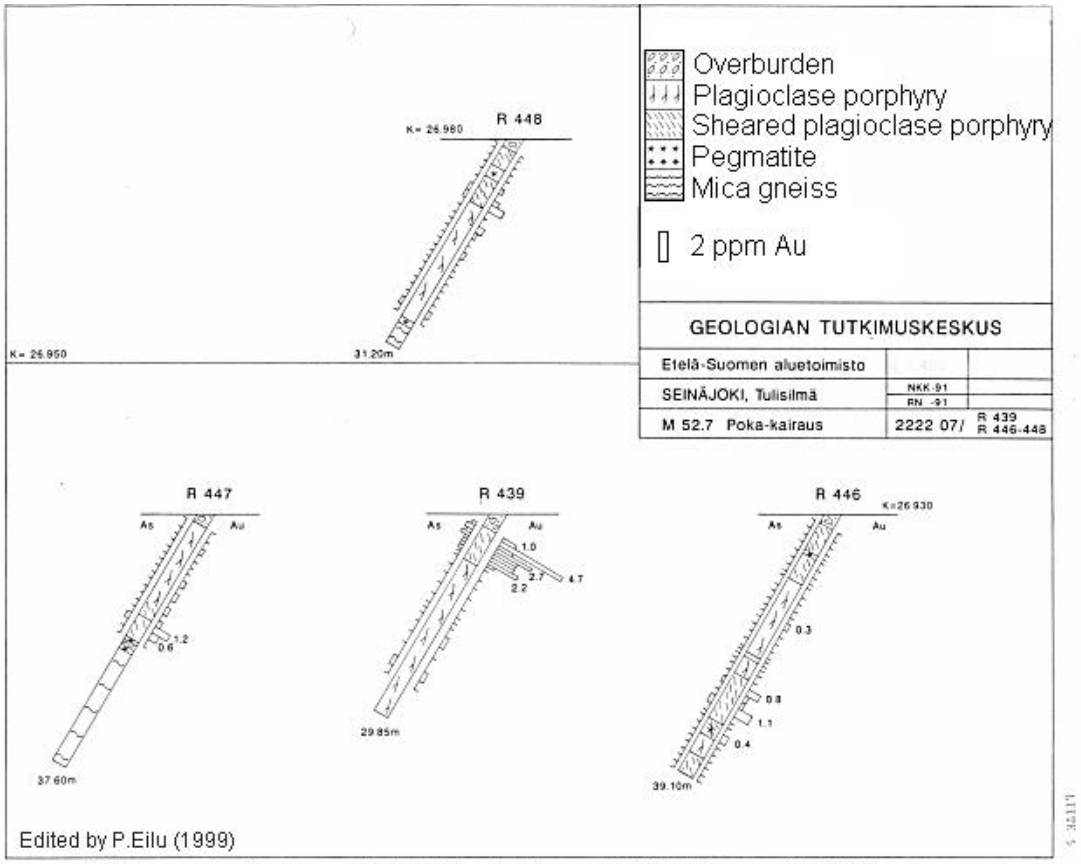
Sikakangas, mineralised, shared feldspar porphyry with auriferous arsenopyrite-rich quartz veins. Northing = 6962.293; Easting = 3289.679. Photo Pasi Eilu, 6 June 2005.

Vein:

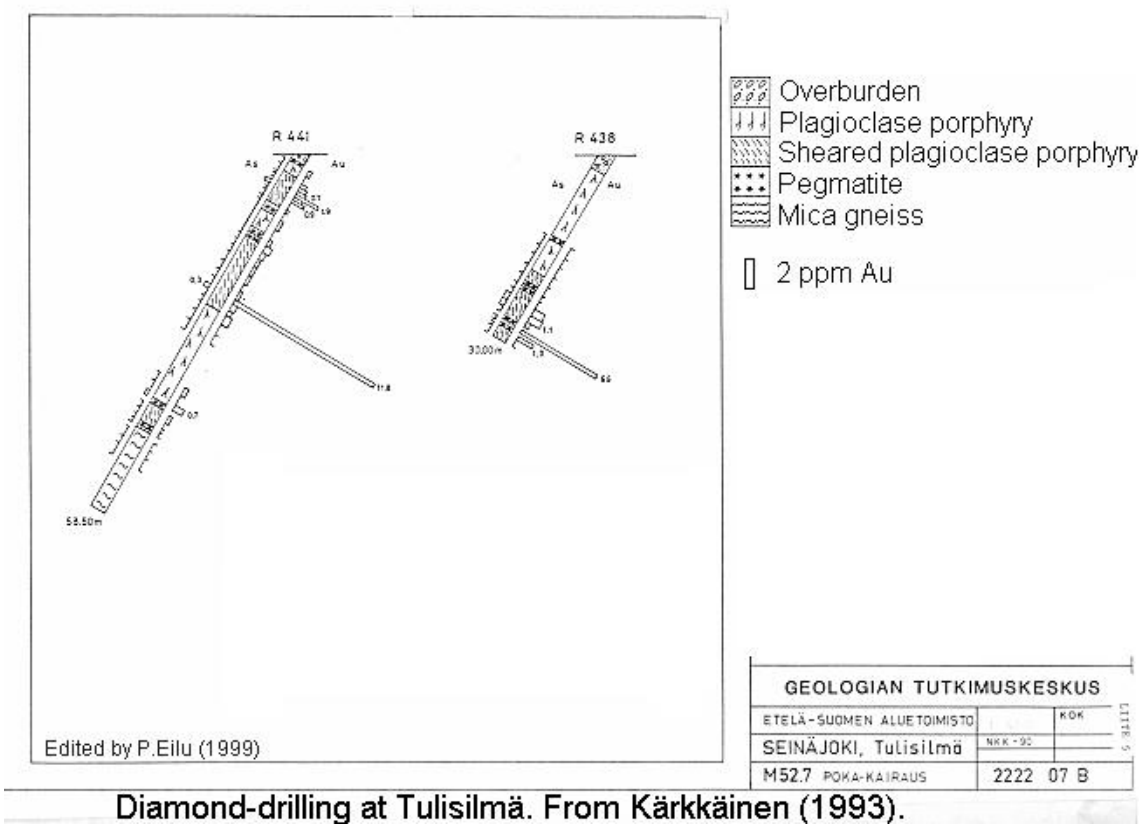
Sikakangas, mineralised, shared feldspar porphyry with auriferous arsenopyrite-rich quartz veins. Northing = 6962.293; Easting = 3289.679. Photo Pasi Eilu, 6 June 2005.

Vein:

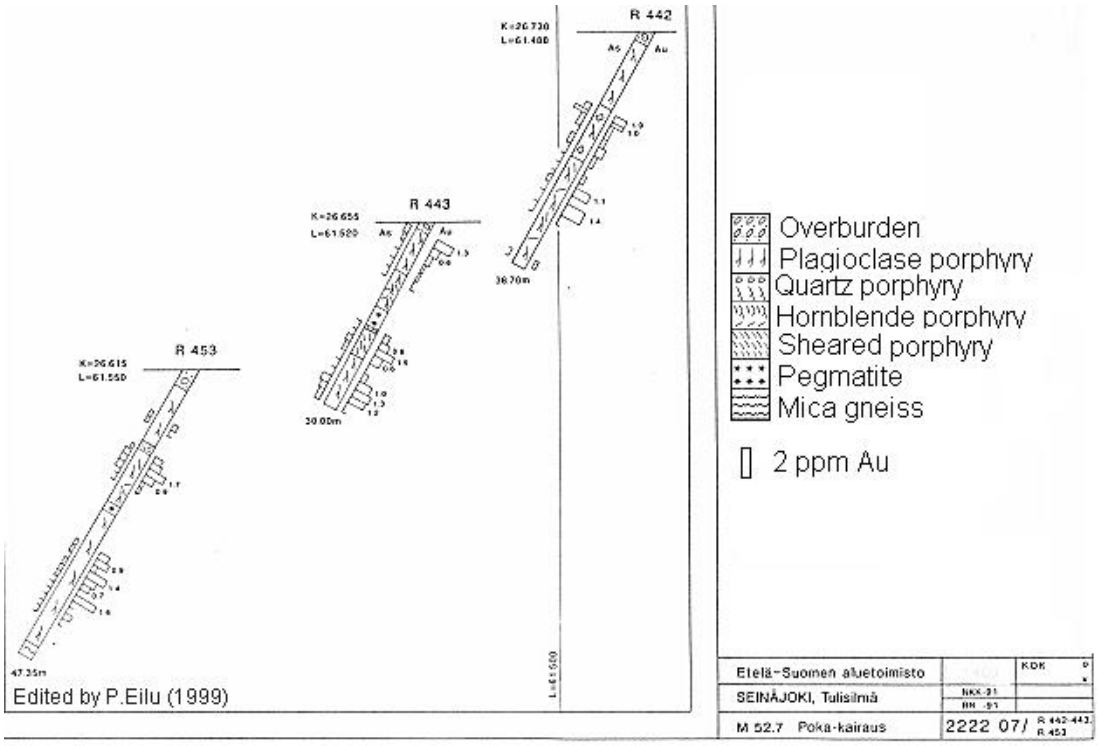
Sikakangas, mineralised, shared feldspar porphyry with auriferous arsenopyrite-rich quartz veins. Northing = 6962.293; Easting = 3289.679. Photo Pasi Eilu, 6 June 2005.



Diamond-drilling at Tulisilmä. From Kärkkäinen (1993).

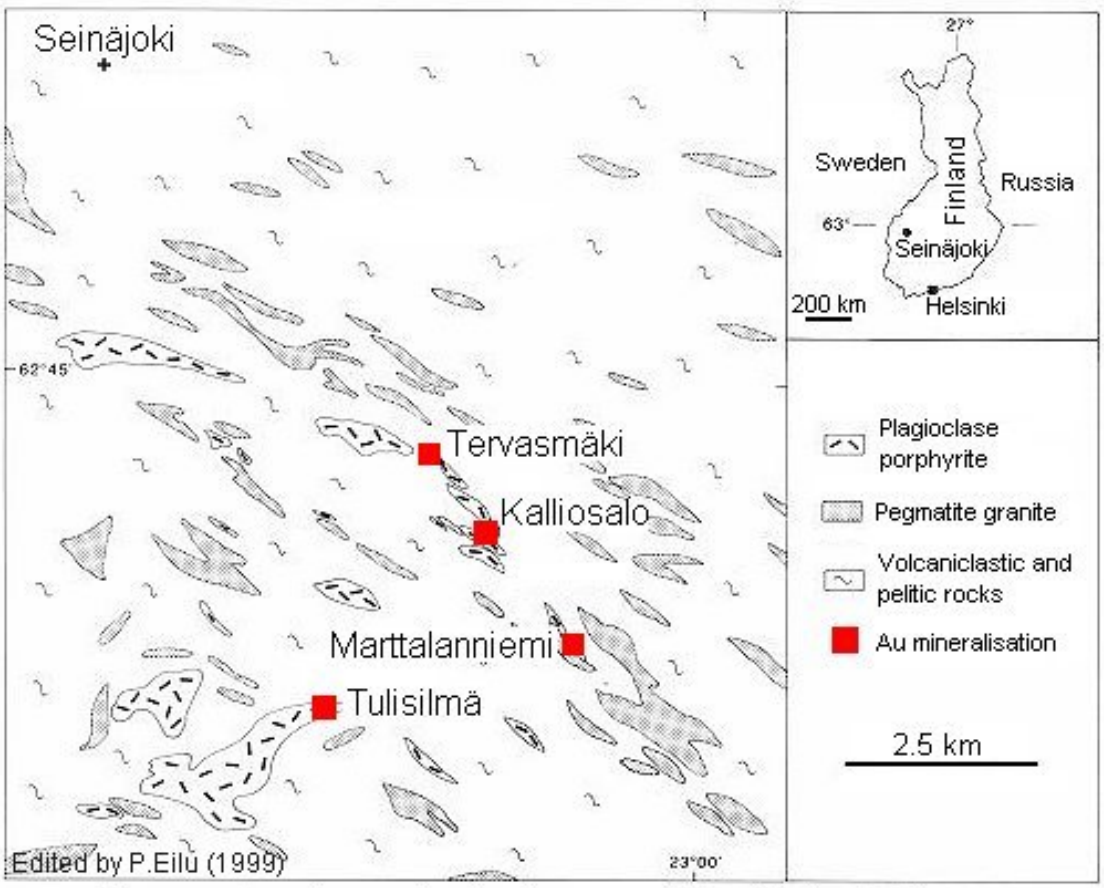


Diamond-drilling at Tulisilmä. From Kärkkäinen (1993).



Diamond-drilling at Tulisilmä. From Kärkkäinen (1993).

Regional geology:



Generalised geological map of the Seinäjoki area. From Appelqvist (1993).

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