

Botnia Exploration & the Vindelgransele area Achievements in gold exploration

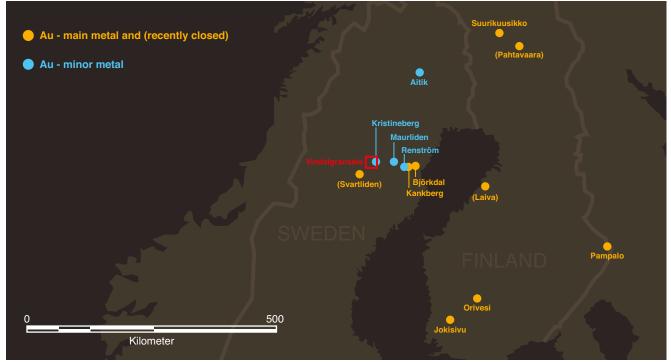


Botnia Exploration & the Vindelgransele area

Achievements in gold exploration

The Vindelgransele area makes up the western most portion of the Skellefte Mining District and lies 15km north-west of the Kristineberg Mine (Boliden). The area spans over approximately 30 sqkm of the Västerbotten Region in the north of Sweden. Botnia Exploration AB have concentrated their exploration efforts to this part of Sweden for the past 5 years.

While Botnia have achieved a lot in those few years gold exploration in the area has been ongoing with varied intensity for almost a century. With the discovery of the Middagsberget mineralisation in the 1980's and of the Vargbäcken deposit in the 1990's the Vindelgransele area ranks among the most prospective for gold in Scandinavia.



Gold producing mines in Scandinavia. Mines with gold as main or minor metal. In parenthesis recently closed gold mines.

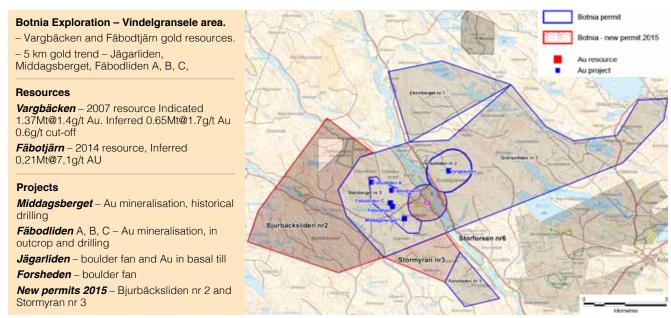
Milestones in gold exploration, Västerbotten, Sweden.				
1918: Kristineberg, discovery of VHMS mineralisation				
1923: Exploration for massive sulphide mineralisation started in <i>Vindelgransele</i>				
1924: <i>Boliden</i> discovery, (mined out) 8Mt @ 15g/t (LOM 123t) Au.				
1983: <i>Björkdal</i> discovery. Au in till.				
1984: Middagsberget mineralisation.				
1994: Svartliden discovery.				
1997: <i>Vargbäcken</i> discovery. Veins in sub-crop in new forest road.				
2011: <i>Fäbodtjärn</i> , Botnia intersections.				

MINE	COUNTRY	RESOURCES (M+Ind.+Inf.) (Mt)	APPROIXMATE GRADE AU (PPM)
JOKISIVU	Finland		5
ORIVESI	Finland		5
(SVARTLIDEN)	Sweden		3,5
PAMPALO	Finland		
(PAHTAVAARA)	Finland		
KANKBERG	Sweden	3,5	
(LAIVA)	Finland	18	
BJÖRKDAL	Sweden	29	
KITTILÄ	Finland	30+	

Milestones in gold exploration in Västerbotten Sweden and overview of resources at gold mines in Scandinavia. Approximation of resource tonnes and grades include all resource categories. For detailed resource reports see the respective mine owner's resource report.

In Vindelgransele Botnia Exploration are building a portfolio of projects by going back to early stage exploration. The Middagsberget and Vargbäcken discoveries quickly focussed exploration to the two deposits while Botnia since acquiring the projects renewed boulder prospecting, till sampling and drilling outside of the already discovered mineralisations.

A major achievement was the definition of gold mineralisation at Fäbodtjärn in 2011–2012. One gold bearing quartz vein averaging 2m thickness, 150m long and defined to a down-dip length of 300m. All intersections within the resource have visual gold and grades ranging from 4–100 g/t Au. Using a 20g/t Au top-cut an inferred resource has been estimated to 210kt at 7.1 g/t Au.



The Vindelgransele area, Västerbotten, Sweden. Botnia Exploration's exploration permits, Vargbäcken Mine Lease and surrounding exploration project locations.

The coarse gold at Fäbodtjärn occurs in the vein together with silver and minor amounts of copper, zinc and lead. The quartz vein is adjacent to a mafic sill encompassed by meta-sediments of the Vargfors group (~1.9Ga). The Fäbodtjärn quartz-gold vein is parallel to and near to the Fäbodliden C diorite hosted gold mineralisation.

The setting, geometry and chemistry of gold mineralisation at Fäbodtjärn is different from gold mineralisation at Fäbodliden C, Middagsberget and at Vargbäcken. The 1.2 Mt indicated resource at 1.4g/t Au at Vargbäcken is made up by swarms of parallel gold bearing quartz veins hosted by diorite.



Drill core with gold bearing vein. Fäbodtjärn. Gold bearing quartz vein (red), drilling pattern and footwall diorite (pink).

Gold at Fäbodliden C and at Middagsberget occurs together with arsenopyrite as a stockwork of quartz-arsenopyrite-carbonate veins in a more strongly altered diorite. These three settings of gold mineralisation together with the nearby polymetallic and gold bearing VMS deposit at Kristineberg leave the setting and style of gold mineralisation quite variable within the Vindelgransele area. What has not been encountered yet is a shear zone hosted gold mineralisation like at Svartliden, Fäboliden (Lycksele) or at Suurikuusikko (Kittilä, Finland).

Botnia continues the development at Fäbodtjärn with test pitting and drilling, the immediate goal here is a modern, small scale, small footprint, and minimum impact, underground mine. At Vargbäcken Botnia revaluates the potential for developing portions of

the estimated resource while extending exploration to adjacent and analogous host rocks and structural settings. The potential of new discoveries is what drives exploration by boulder prospecting, basal till sampling, mapping and drilling. The area of Jägarliden, where till sampling is encouraging, is high up on the list together with the newly acquired permits adjacent to Fäbodtjärn and south of Middagsberget. There are 75 boulder finds with gold grades between 1 and 118ppm Au within the Fäbodtjärn-Middagsberget-Jägarliden area and the search is now expanded to the Vargbäcken area and to the newly acquired permits. Boots on the ground and experienced prospectors is still paying off and the results are continuously followed up by geochemical sampling, geophysics and drilling.



One of the gold bearing quartz boulders transported down-ice from the Fäbodtjärn deposit. More boulder trains are yet to be followed up.

