



Bergvesenet

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Rapportarkivet

Åpen

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Tittel
Bleka Gold Mine in Seljord, Telemark, summary report 1998

Forfatter	Dato År March 1998	Bedrift (Oppdragsgiver og/eller oppdragstaker) Mindex ASA
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Kommune Seljord	Fylke Telemark	Bergdistrikt	1: 50 000 kartblad 16143	1: 250 000 kartblad Skien
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Fagområde Geologi Geofysikk Geokjemi	Dokument type	Forekomster (forekomst, gruvefelt, undersøkelsesfelt) Bleka
Råstoffgruppe Malm/metall	Råstofftype Au	

Sammendrag, innholdsfortegnelse eller innholdsbeskrivelse
Summary reporten viser til BV 4655 og BV 4656 for detaljer.

Bleka Gold Mine in Seljord, Telemark.

Summary report March 1998.

Background.

Bleka Gold Mines were reported found around 1880 and mined until 1916 and from 1936 to 1940. The gold mineralization occur in quartz-ankerite-tourmaline veins associated with bismuthinite, chalcopyrite and pyrite. Bleka Main Vein, which is poorly exposed has an average thickness of 0,35m and can be followed along strike for about one kilometre.

In the vicinity of the main vein several veins with gold are found. The gold bearing veins are hosted in the Bleka amphibolite, which is a major metagabbroic sill complex in the lower part of the Seljord Group, Telemark.

It is assumed that the volume of the stopes from the Bleka main vein, which represents the extracted ore, amounts to about 1800m³. Consequently the average tenor can be calculated at about 36g Au/t, 67gAg/t, 0,55%Bi and 1,78%Cu based on the yielded lifetime production of 165 kg Au, 300 kg Ag, 25t Bi and 80t Cu.

Recent Exploration work.

Nordic Minerals AS claimed the area 1996 after significant new discoveries were made in the area with the Department of Earth Sciences, University of Aarhus, who carried out detailed investigations in the area since 1987. August 1997 Nordic Minerals AS merged with Mindex ASA, and a magnetic ground survey covering 22,39 profilekilometres in 20 profiles over the Bleka area was carried out. The Bisminuten area which hosts similar gold bearing veins located about 7 km NE of Bleka was also covered with a ground magnetic survey totalling 10,35 profilekilometres in 10 profiles.

Reconnaissance geological mapping and sampling of quartz veins was also carried out the summer of 1997.

Results.

The recent years work has made important new discoveries regarding the gold mineralization. Three different phases of mineralization may be distinguished in the shearzones at Bleka:

- A. **The first phase with a high temperature forming Albite, Cericite and abundant Pyrite. No Gold is found in the first phase of mineralization.**
- B. **The second phase with an intermediate temperature forming Quartz, Ankerite, Tourmaline, Chalcopyrite, Bismuthinite ±Gold and metallic Bi.** It is believed that the gold deposited in this phase has a «high temperature» signature.
- C. **The third phase with a low temperature forming Quartz, Gold ±Magnetite.** The last phase of deposition is the most important with the main deposition of gold with or without magnetite. In areas where the third phase shearzones coincides with first phase shearzones rich in pyrite, magnetite is formed by oxidation of the sulphides.

Magnetite is therefore believed to be a guide to ore in the areas where the third and first phase (\pm second phase) of mineralized shearzones coincides. In areas where only the third and second phase of mineralized shearzones coincides, no magnetite is formed.

It is also seen that the old miners several places underground has followed the visible and well mineralized pyrite rich first phase shearzones and therefore lost the gold bearing structures in the far more discrete third phase of mineralized shear zones (\pm second phase).

Magnetic Ground Survey.

The magnetic ground survey has revealed a high number of distinct magnetic anomalies in the Bleka area. Profile spacing is 100 and 200m, and the anomalies can several places be interpreted to be continuous along a NNE-SSW strike which is cutting the general strike of the rocks. Distinct magnetic anomalies can also be detected along the main Bleka vein which is generally parallel to the other magnetic anomalies and also in its continuation over a total length of about 1,6km. A closer spacing of the survey lines may be necessary before digging takes place.

At Bisminuten where the profile lines have an interval of 250m, distinct magnetic anomalies are also occurring. Some of the anomalies are believed to be caused by lithologic boundaries between rhyolite and amphibolite. The spacing of the lines at 250m are concluded to be too wide for reliable interpretation with correlation of the anomalies between the individual profiles. It is, however, located interesting anomalies in the amphibolite which may be related to quartz-gold-magnetite bearing veins.

Geological reconnaissance survey.

In total 75 samples, including grab and chip samples of quartz veins and wall rocks, were collected for chemical analysis in the two concession areas Bleka and Bisminuten. Only four of the samples were anomalous in gold.

Quartz veins carrying gold are found to strike more or less parallel to the profile lines in a NW-SE direction. This is almost at right angle to the Bleka Main Vein. Some veins carrying gold located close to The Bleka Main Vein during operation of the mine are also having the same NW-SE-direction.

Orientation of the quartz veins vary greatly. It seems, however, that the orientation clusters around two overall directions: NNE-SSW and WNW-ESE.

Enclosed reports:

- March 1998 : Gold Exploration in the Seljord and Hjartdal area of Telemark, Southern Norway.
Søren Gamst and Tonny B. Thomsen Univ. Of Aarhus.
- November 1997 : Geophysical Groundsurvey in the Telemark district.
Kristian S. Jensen.