

**Revised NI 43-101 Technical Report
Orex Minerals Inc.
Barsele Gold Project
Storuman, Sweden**



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1.0 SUMMARY

1.1 Project Description

The Barsele Gold Project located near Storuman, Sweden is being acquired by Orex Minerals, a junior resource company based in Vancouver, B.C. that trades on the TSX-Venture Exchange under the trading symbol of REX. The Barsele Project is currently 100% owned by Northland Resources Inc. (TSX:NAU, OSE:NAUR). On October 27, 2010 Orex has signed a binding Letter of Intent (“LOI”) to earn 100% interest in the Project subject to certain terms (Orex news release dated Oct 27, 2010). The Project includes the Central-Avan- Skiråsen gold deposit (CAS) and the Norra VMS deposit (copper, lead, zinc, gold and silver) and 31,844.34ha of mineral claims.



Figure 1
Project Location Map

The Barsele Central Gold Deposit, discovered in 1988, is located west of Lake Skiträsket and consists of the Central, Avan and Skiråsen deposits extending over a strike length of 2.6 kilometres. The Norra VMS Deposit is located to the north of Barsele Central, Avan and Skiråsen mineralized zones.

The authors have been retained by Orex to evaluate the exploration results of the Barsele Gold Project and render independent recommendations for further work in a

technical report in the form required by NI 43-101. The authors have reviewed data provided by Orex and Northland. Vance Thornsberry was the VP exploration for Northland from 2004-2008 during which time visited the project many times. He has conducted a recent site visit on July 13-19, 2010 to confirm the data and mineralization, and reviewed the project site.

1.2 Property Location, Infrastructure and Access

The Barsele Gold Project is located approximately 20 kilometres east-southeast of the town of Storuman in Västerbottens Län, Sweden. Regionally Barsele is situated approximately 210 kilometres from Umeå, population 105,000 and the administrative headquarters of Västerbotten County; and about 800 kilometres north of Stockholm. The geographic coordinates for the Project are about 65°05' north latitude and 17°30' east longitude.

1.3 Property Ownership & Term's of Agreement

On October 27, 2010, Orex Minerals signed a letter of intent with Barsele Guld A.B. (“Barsele Guld”), a wholly owned subsidiary of Northland Resources S.A. (“Northland”) to purchase all of the issued and outstanding shares of two Swedish companies, Gunnarn Mining A.B. (“Gunnarn Mining”) and its wholly owned subsidiary, Gunnarn Exploration A.B. (“Gunnarn Exploration”). The primary assets of Gunnarn Mining are mining claims for the Barsele Central, Avan, Skiråsen and Norra resource areas located in north central Sweden, collectively known as the Barsele property. General requirements of the option are summarized in the following Table with details presented in Section 4.4 of this report:

Time	Cash (US\$)	Orex Stock (US\$ value)	Work Commitment (US\$)
On Signing	\$2,000,000	Minimum \$1,000,000*	
1st Anniversary	\$1,000,000	\$500,000	\$1,000,000
2nd Anniversary	\$2,000,000		\$2,000,000
3rd Anniversary		\$1,000,000	
4rd Anniversary		\$1,000,000	
Total	\$5,000,000	\$3,500,000	\$3,000,000

(* - The greater of 2,000,000 shares or common shares worth US\$ 1,000,000)

Barsele Guld will retain a 2.0% net smelter royalty on the Barsele property which the Company may purchase at any time for US \$2,000,000 per percentage point, or a total of US \$4,000,000.

1.4 Property Geology and Mineralization

The Barsele project-area is overlain with a thin layer of glacial till, and consequently geological interpretations rely heavily on limited outcrop, drill-core data, geophysics and a few trenches excavated in the Central, Avan and Norra zones. The project is situated within the southeast-trending Umeå-River shear zone and parallels this dominant structural fabric, which controls drainage and glacial vectors.

The project area covers a sequence of metasedimentary and metavolcanic rocks of the Proterozoic Svecofennian system. Three main phases of granitoid intrusions in the region are referred to as early, middle and post with respect to the Svecofennian orogeny. An early orogenic granodiorite is the host rock of the Barsele gold mineralization.

The granodiorite exhibits a well developed S2 penetrative foliation which is cut by ductile shear zones, faults, fractures and dilational quartz and quartz-carbonate sulphide veining. The granodiorite is quartz-feldspar phyric and is composed of sericitized plagioclase, quartz, biotite and lesser K-feldspar and in composition is quartz monzodiorite to granodiorite.

Gold mineralization at Barsele is predominantly hosted within a medium-grained, highly fractured granodiorite that ranges in width from 200 to 500 metres with a strike-extent in excess of some 8 kilometres. The intrusion bends from an east-west orientation in the east to a northwest trend in the west where the three major zones of gold mineralization have been identified. The Central and Skiråsen Zones have a combined strike length of 1.35 kilometres by some 350 metres wide while the Avan Zone has a strike length of 1.4 kilometres and a width of 250 metres. A fourth mineralized gold zone, Skirträskbacken, is located approximately three kilometres southeast of the Barsele Central and extends into the Risberget gold prospect.

Two main styles of mineralization are interpreted at the Central, Avan, Skiråsen Zone: (a) low to moderate grade gold mineralization associated with networks of thin tourmaline-quartz and quartz-calcite-arsenopyrite veinlets in granodiorite, and (b) high-grade gold-silver-zinc-lead mineralization in syn-tectonic quartz-sulphide veins. Most exploration in the Central and Avan prospects has focused on the low-grade gold resource and there remains potential for discovery of additional high-grade quartz-sulphide vein mineralization.

Gold occurs as native metal alloyed with silver, and has a general association with arsenopyrite but also occurs with pyrrhotite, calcite, chlorite and biotite. Base metal content of the deposit is typically low. Carbonate, sulphide and quartz-tourmaline veinlets are locally mineralized. The host-granodiorite contains less than two percent disseminated fine-grained sulphides consisting of arsenopyrite, pyrrhotite and pyrite.

The Norra Zone consists of massive sulphide mineralization hosted within a sequence of sheared felsic volcanics, foliated pyritic shales and pelitic sediments with a basal massive-sulphide zone and an upper-zone dominated by andesitic volcanics. The footprint of the main mineralized body at Norra, based on drilling, is some 300 metres in strike-length varying from 5 to 50 metres in width within a broadly anomalous zone some 300 metres in strike length by 50 metres in width.

The sulphide mineralization and associated alteration is likely a volcanic hosted massive sulphide (V-HMS) type. Gold is associated with the basal semi-massive arsenopyrite, pyrrhotite, chalcopyrite, galena, and sphalerite mineralization. Gold is probably remobilized and is likely enriched by a later overprinting epithermal phase of mineralization.

1.5 Deposit Type & Exploration Concept

There are a number of different styles of gold deposits within the Svecofennian Shield, Skellefteå district of northern Sweden such as:

- intrusion related gold systems
- volcanic-hosted massive sulphide,
- high-sulphidation epithermal,
- mesothermal vein-type,

It is probable that a host of different mineral forming systems were active at Barsele and the nearby Skellefteå district including the dominant V-HMS, epithermal and mesothermal systems. Historically the Skellefteå district is known to contain some 80 separate volcanic massive sulphide and lode gold occurrences loosely aligned in an east west orientation. The Barsele Project is located at the intersection of the Skellefteå belt and the Gold Line trend. Exploration potential of the northwest-southeast orientated Gold-Line trend suite of lode gold deposits has only recently been recognized.

There are three broad styles of mineralization at Barsele:

1. Orogenic or mesothermal intrusive-hosted gold related to the Gold-Line Trend,
2. High-grade gold-silver-lead-zinc mineralization hosted by syn-tectonic quartz-sulphide veins.
3. Epithermal gold-rich volcanic-hosted massive sulphide (V-HMS) regionally referred to as Skellefteå-style.

Regional geochemical till sampling followed by detailed base-of-till sampling was successful in identifying anomalous gold concentrations both in surface and basal till at the Barsele CAS and Norra deposits. These anomalies were subsequently drilled, leading to the identification of bedrock gold mineralization. The Barsele area is covered by a thin veneer of glacial till, none of the discoveries were exposed at the surface. Reconnaissance, geochemical till sampling is an exploration technique utilized extensively in Sweden and has resulted in the discovery of a number of deposits including the nearby Björkdal gold mine.

In 1995, Terra Mining (a former owner), contracted Anamet Services to complete a mineralogical and preliminary metallurgical testwork on a one tonne bulk sample of mineralized rock excavated from a trench at the northwestern part of the Barsele Central Zone. The average head-grade of the sample was 5.1g/t gold and 4.3 g/t silver, considerably higher in grade than the historic Barsele Central drill grades where previous drilling programs had indicated a grade of about 1.5-2 g/t gold. No conclusions have been drawn as to why the grades are so different. Coarse gold could be a contributing factor so future exploration must consider the possible influence of free gold in the host rock.

Further exploration by Northland included ground geophysical surveys to augment regional geophysics. The intrusive hosted CAS Zone is associated with a distinct magnetic anomaly low. High resolution airborne geophysics followed by further

ground geophysical surveys will assist in indentifying additional similar targets in areas beyond the historic ground geophysical coverage. The Norra V-HMS target is associated with a coincident magnetic and electromagnetic anomaly and detailed airborne geophysics should identify areas of similar potential.

Drilling of past geochemical and geophysical anomalies has proven successful in previous exploration campaigns and will continue to be an exploration tool utilized in future exploration programs. Detailed geological interpretation including structural geology also must be utilized in the future exploration.

1.6 Status of Exploration Development and Operations

Orex Minerals has completed no exploration on the property. Past work has outlined four deposits by utilizing an integrated exploration approach of geochemistry, geophysics and drilling. During 2005 Northland constructed a modern core handling and logging facility in Storuman with a core-sawing unit. Sample rejects, the master pulps and split core from the 2004, 2005 and 2006 drilling are retained on the project site in a secure and dry facility. Digital photos from all drilling campaigns are retained in the Storuman office and on DVD's in a bank vault in Storuman.

At the same time Northland was completing their most recent drilling program, they retained the Swedish office of Golder Associates, an independent international consulting firm, to complete the application for the conversion of key areas of the property, containing the four known deposits, into Exploitation Concessions. This process consisted of field studies and investigatory work that were performed in order to apply for Exploitation Concession status from the Mining Inspectorate of Sweden. The application with an appended Environmental Impact Assessment (EIA) (Swedish MKB) for Exploitation Concession was submitted Dec 27, 2006 and it was granted by the Swedish Mining Inspector on June 21, 2007. An MKB is the first step in obtaining a permit to open a mine at Barsele.

On February 28, 2011 Orex released the results of an updated NI43-101 resource estimate. The mineral resources were estimated by Gary Giroux, P.Eng., MASc. The Norra volcanic massive sulphide (VMS) zone and the Avan Gold zone were estimated separately, while the Central and Skiråsen zones were combined. The Avan, Central and Skiråsen zones are all considered to be structurally controlled mesothermal gold deposits.

The current mineral resources are summarized below:

Summary of Mineral Resources in the Avan, Central and Skiråsen Gold Zones

Au Cut-off (g/t)	Zone	Resource Category	Tonnes	Au Grade (g/t)	Contained Ounces Au
0.40	Central	Indicated	10,740,000	1.12	387,000
	Central-Skiråsen	Inferred	10,950,000	0.90	317,000
	Avan	Indicated	670,000	0.81	17,000
		Inferred	20,440,000	0.75	494,000
	TOTAL	Indicated	11,410,000	1.10	404,000
		Inferred	31,390,000	0.80	811,000
0.50	Central	Indicated	10,210,000	1.16	381,000
	Central-Skiråsen	Inferred	8,870,000	1.01	288,000
	Avan	Indicated	670,000	0.805	17,000
		Inferred	20,440,000	0.751	494,000
	TOTAL	Indicated	10,880,000	1.14	398,000
		Inferred	29,310,000	0.83	782,000
0.60	Central	Indicated	9,530,000	1.20	368,000
	Central-Skiråsen	Inferred	7,350,000	1.11	262,000
	Avan	Indicated	440,000	0.973	14,000
		Inferred	13,690,000	0.876	386,000
	TOTAL	Indicated	9,970,000	1.19	382,000
		Inferred	21,040,000	0.96	648,000

Summary of Mineral Resources in the Norra VMS Zone

Au Cut-off (g/t)	Tonnes > Cut-off (tonnes)	Grade > Cut-off							
		Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)	Au Oz	Ag Oz	Cu lbs	Zn lbs
INDICATED									
0.40	140,000	2.46	27.26	0.45	0.66	11,000	123,000	1,389,000	2,037,000
0.50	120,000	2.76	28.38	0.48	0.68	11,000	109,000	1,270,000	1,799,000
0.60	110,000	3.13	30.27	0.53	0.72	11,000	107,000	1,286,000	1,746,000
INFERRED									
0.40	330,000	1.55	12.44	0.26	0.41	16,000	132,000	1,892,000	2,983,000
0.50	320,000	1.59	12.56	0.26	0.42	16,000	129,000	1,835,000	2,964,000
0.60	310,000	1.62	12.69	0.26	0.42	16,000	126,000	1,777,000	2,871,000

For the Avan, Central and Skiråsen estimates, the data base consisted of 300 drill holes completed between 1989 and 2006 totaling 34,210m. Gold assays from each zone were capped based on their grade distributions. Downhole composites, 3m in length, were formed for each zone. The Avan zone had a geologic three dimensional solid to constrain the estimation. Variography was completed for gold, indicating an anisotropic structure with longest range NW-SE. For the Central and Skiråsen zones, there was no current constraining three dimensional solid, so an indicator approach was used to determine which blocks were above a gold cut-off. Semivariogram analysis indicated the

longest continuity along azimuth 150°. A block model with blocks 3m x 3m x 3m was superimposed over the three zones and gold grades were estimated by ordinary kriging.

The Norra VMS deposit, measuring 300 m along strike and from 5 to 50m in width, was outlined by 68 diamond drill holes completed from 1990-2006, thirty-nine of which intersected the mineralized zone. Assays for Au, Ag, Cu and Zn were capped and formed into 3m composites. Semivariograms were produced for each variable and all showed the longest range of continuity along azimuth 345°. A 3m x 3m x 3m block model was placed over the mineralized VMS solid, and grades for each variable were estimated by ordinary kriging.

A bulk density of 3.4 for the Norra VMS zone was derived from a 100 tonne bulk-test conducted by Boliden in 1992. Golder established a specific gravity for the Central zone based on 2003 drill core. The results varied from 2.70 to 2.75. Because these tests were completed on crushed material the lower limit of 2.70 was used for this resource estimate. It is recommended that an extensive specific gravity collection program be conducted on any future drill program on these properties.

In general, the classification of blocks into resource categories was made, based on the semivariogram range and the distance of samples from estimated blocks. Blocks within Avan, Central and Norra were classified as indicated if estimated in search ellipses with dimensions up to ½ the semivariogram range. All others were classified as Inferred. All estimated blocks at Skiråsen, which was drilled on wider spaced lines, were classified as Inferred.

1.7 Conclusions and Recommendations

Previous exploration programs undertaken on the Barsele Gold project have outlined four small deposits; three gold deposits: Central, Avan, Skiråsen (CAS), and the Norra V-HMS deposit. High quality regional targets within the licenses have been identified that require further work such as the Skirträskbäcken- Risberget, Nasvattnet, Tattartjärnliden and Stortäsket. In addition, Orex has applied for 22,500ha of new ground that has not been explored in the detail of the original property acquired from Northland and will need to be properly evaluated. It is concluded that further work is warranted over the entire property and the most effective way to test the targets is outlined in the proposed exploration program described in this report and includes:

Phase I

Airborne Geophysics- Complete an airborne geophysical survey over all of the permit area. The last airborne geophysical survey was completed by the Swedish Government in the early 1980's and was flown in one direction. The proposed airborne survey would be flown in a number of different directions to reflect the variety of orientation of the underlying geological units. Geophysics has worked well in the past and a survey using updated equipment may be very beneficial to the advancement of the project by demonstrating the type of signature related to the currently known mineralized bodies that will help us identify new areas where we can focus further exploration. Phase I recommendations are budgeted at US\$3,479,000.

IP and EM ground geophysics- Conduct an induced polarization geophysical survey over the mineralized trend from Risberget through Skiråsen-Central-Avan. Conduct ground electromagnetic and magnetic geophysical surveys as warranted over any new anomalies produced by the airborne survey in areas such as in Skirträskbäcken and Tattartjärnliden. Expand the 2006 geophysical survey in the area of the high-grade gold plus polymetallic quartz-sulphide vein in the Barsele Central.

Diamond drilling- A three pronged 7,500m drilling program;

- 1) vertical holes through the Central Zone to determine the depth of the mineralized body,
- 2) some east-west orientated holes to test the premise that the Au mineralization has a preferred NS orientation,
- 3) deep drilling under all three zones to check for continuity of the known zones at depth.

Other recommended Phase I work programs would include orientation geological mapping on new targets developed from the airborne survey, further specific gravity determinations, upgrading of the 3-D computer model for the CAS and Norra deposits and further environmental studies

Phase II

Detailed Diamond Drilling- 7,500m of detailed diamond drilling

Underground bulk sample- Drill four large diameter (PQ size) core holes +- 100m each in the CAS Zone to:

- 1) provide material for preliminary metallurgical testing criteria and
- 2) determine the location for an underground bulk sample (minimum 100 tonnes) for bench scale metallurgical testing in Phase II.
- 3) 2,500m drilling of outside targets such as Skirträskbäcken and Tattartjärnliden

The Phase I exploration program should take about 12-18 months to complete and is budgeted at US\$3,479,000. The program is not season dependant; much of the work can be done in the winter as easily as the summer.

Phase II recommendations are contingent upon the successful completion of the Phase I work and are budgeted at US\$4,742,000. Exact targets for the recommended 7,500m and 2,500m Phase II drilling programs will be determined at the successful conclusion of the Phase I program.

The company has made an application to the Mining Inspectorate to extend eight exploration permits and an application has been made for nine new exploration permits. Unfortunately, the application process is backlogged and final approval is not expected for several months. If the approval for the permits is unreasonably delayed, the company will complete the proposed airborne survey and ground follow up geophysical program in Phase II and move the regional drilling from Phase II into Phase I. The regional drilling will primarily test the Skirträskbäcken and Tattartjärnliden targets where previous work by Northland has sufficiently advanced the knowledge base so that drilling would be the

logical next exploration step and any information developed from the property wide airborne survey would not change the need to drill test these occurrences.

1.8 Opinion of Merit

In the authors' opinions, the character of the Barsele Gold Project is of sufficient merit to justify the recommended Phase I program.

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2.0 INTRODUCTION AND TERMS OF REFERENCE

2.1 *Terms of Reference and Purpose*

This report has been commissioned by Orex Minerals Inc. to prepare a Canadian National Instrument 43-101 (NI 43-101) compliant Technical Report for the Barsele Gold Project (or the “Project” or “Barsele”), Storuman, Sweden. Orex Minerals is a junior resource company based in Vancouver that trades on the TSX-V exchange under the trading symbol of REX. The Barsele Project is currently 100% owned by Northland Resources Inc. (TSX:NAU, OSE:NAUR). On October 27, 2010 Orex has signed a binding Letter of Intent (“LOI”) to earn 100% interest in the Project subject to certain terms (Orex news release dated Oct 27, 2010). The Project includes the Central-Avan- Skiråsen gold deposit (CAS) and the Norra VMS deposit (copper, lead, zinc, gold and silver) and 31,844.34ha of mineral claims. This document discloses the current resources and reserves for the Project within a Technical Report, prepared according to NI 43-101 guidelines. Form NI 43-101F1 was used as the format for this report. The intent of this Technical Report is to provide the reader with a comprehensive review of the exploration activities and a current resource and reserve estimate based on 398 drillholes totaling 43,609m and to support the acquisition of the project by Orex from Northland.

The Barsele Central Gold Deposit, discovered in 1988, is located near the western shore of Lake Skirträsket and consists of the Central, Avan and Skiråsen deposits extending over a strike length of 2.6 kilometres. The Norra VMS Deposit is located to the north of Barsele Central, Avan and Skiråsen mineralized zones.

This Technical Report is prepared using the industry accepted Canadian Institute of Mining, Metallurgy and Petroleum (CIM) “Best Practices and Reporting Guidelines” for disclosing mineral exploration information, the Canadian Securities Administrators revised regulations in NI 43-101 (Standards of Disclosure For Mineral Projects) and Companion Policy 43-101CP, and CIM Definition Standards for Mineral Resources and Mineral Reserves (December 11, 2005).

2.2 *Source of Information and Data*

Standard professional review procedures were used in the preparation of this report. The authors have reviewed data provided by Orex and Northland. Vance Thornsberry was the VP exploration for Northland with overall responsibility for the Barsele Gold Project from 2004-2008 during which time he visited the project many times. He has conducted a recent site visit on July 13-19, 2010 to confirm the data and mineralization, and reviewed the project site. Most of Northland’s drill core and the pulps and rejects from the various drilling campaigns are stored in a safe and locked storage facility near the site and are organized for easy access. All of the project data is from previous operators, primarily dating from 1988. All exploration data since 2004 has been generated by Northland or their predecessor company North American Gold. The authors have relied on the previously filed Northland NI43-101 technical reports titled:

- “*Technical Report Barsele Project, Northern Sweden*” prepared for Northland Resources Inc. by Barry, Sandefur and Armburst dated April 15, 2005 by CAM (Chlumsky, Armburst and Meyer).

- “*Technical Report Barsele Project, Northern Sweden*” prepared for Northland Resources Inc. by Barry, Sandefur and Armburst dated April 12, 2006 by CAM (Chlumsky, Armburst and Meyer)

Additional sources of information are presented throughout the body of the text and in Section 20.0 References.

2.3 Field Involvement of the Qualified Persons (Authors)

Vance Thornsberry conducted his most recent site visit on July 13-19, 2010 to confirm the data and mineralization and observe any changes to the project site from his numerous site visits from 2004-2008. The site visit included touring the old trenches, outcrops and various access roads to the CAS and Norra deposit locations as well as a review of the core stored in Northland’s nearby core storage facility. Gary Giroux has not been to the site.

2.4 Units of Measure

All units of measure in this report are metric, unless otherwise stated.

3.0 RELIANCE ON OTHER EXPERTS

The Qualified Person (QP) of the resource estimation, Gary Giroux P.Eng, has examined the current data for the Barsele provided by Orex and Northland, and has relied upon that basic data to support the statements and opinions presented in this Technical Report with respect to the resources. In the opinion of this QP, the data is present in sufficient detail, is credible and verifiable in the field, and is an accurate representation of the Barsele Gold Project.

This Technical Report includes technical information, which requires subsequent calculations to derive sub-totals, totals, and weighted averages. Such calculations inherently involve a degree of rounding and consequently can introduce a margin of error. Where these rounding errors occur, the authors do not consider them to be material.

The authors have relied upon the work of others to describe the land tenure and land title, referring specifically to information in Sections 4.3 and 4.4 The information contained in the above mentioned sections, where referenced, was obtained from Orex Minerals who have provided a title opinion from Orex Mineral’s Swedish based lawyers, Mannheimer Swartling dated Feb 22, 2011. The authors rely on this opinion for all matters related to land tenure and land title.

The QP’s of this Technical Report, Vance Thornsberry, CPG and Gary Giroux P.Eng. are not insiders, associates, or affiliates of either Orex Minerals Inc or Northland Resources Inc. The results of this Technical Report are not dependent upon prior agreements concerning conclusions to be reached, nor are there any undisclosed understandings concerning future business dealings between Orex or Northland and the QP’s. The authors will receive a fee for its work in accordance with normal professional consulting practice.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Property Area

The Barsele Gold Project covers approximately 318 km² is situated in the Västerbottens Län (Västerbotten County), a regional District in north central, Sweden (Figure 4.1).



Figure 4.1- Barsele Location Map

4.2 Property Location

The Barsele Gold Project is located approximately 20 kilometres east-southeast of the town of Storuman in Västerbottens Län, Sweden. Barsele is about 40 kilometres north of the Svartliden Gold Mine, which is currently owned and operated by Dragon Mining N.L of Australia. Regionally Barsele is approximately 210 kilometres from Umeå, population 105,000 and the administrative headquarters of Västerbotten County; and about 800 kilometres north of Stockholm. The geographic coordinates for the Project are about 65°05' north latitude and 17°30' east longitude. The location of the Barsele Gold Project is shown in Figures 1.1 and 4.1.

4.3 Description of Permits and Concessions

Gunnarn Mining AB, a subsidiary of Barsele Guld AB, a wholly owned subsidiary of Northland Resources SA, holds title (100% interest) to five Exploration Permits ⁽¹⁾ consisting of 4,403.39 hectares surrounding the CAS and Norra resource areas and two Exploitation Concessions ⁽²⁾, Barsele K nr 1 and Barsele K nr 2 totaling 134.39 hectares covering the CAS and Norra deposits. Application has been made to extend eight exploration permits ⁽³⁾ totaling 4,738.80 hectares and application for nine new exploration permits ⁽⁴⁾ totaling 22,536.03ha has been made under Gunnarn Mining AB. Orex Minerals Inc. has signed a Binding Letter of Intent

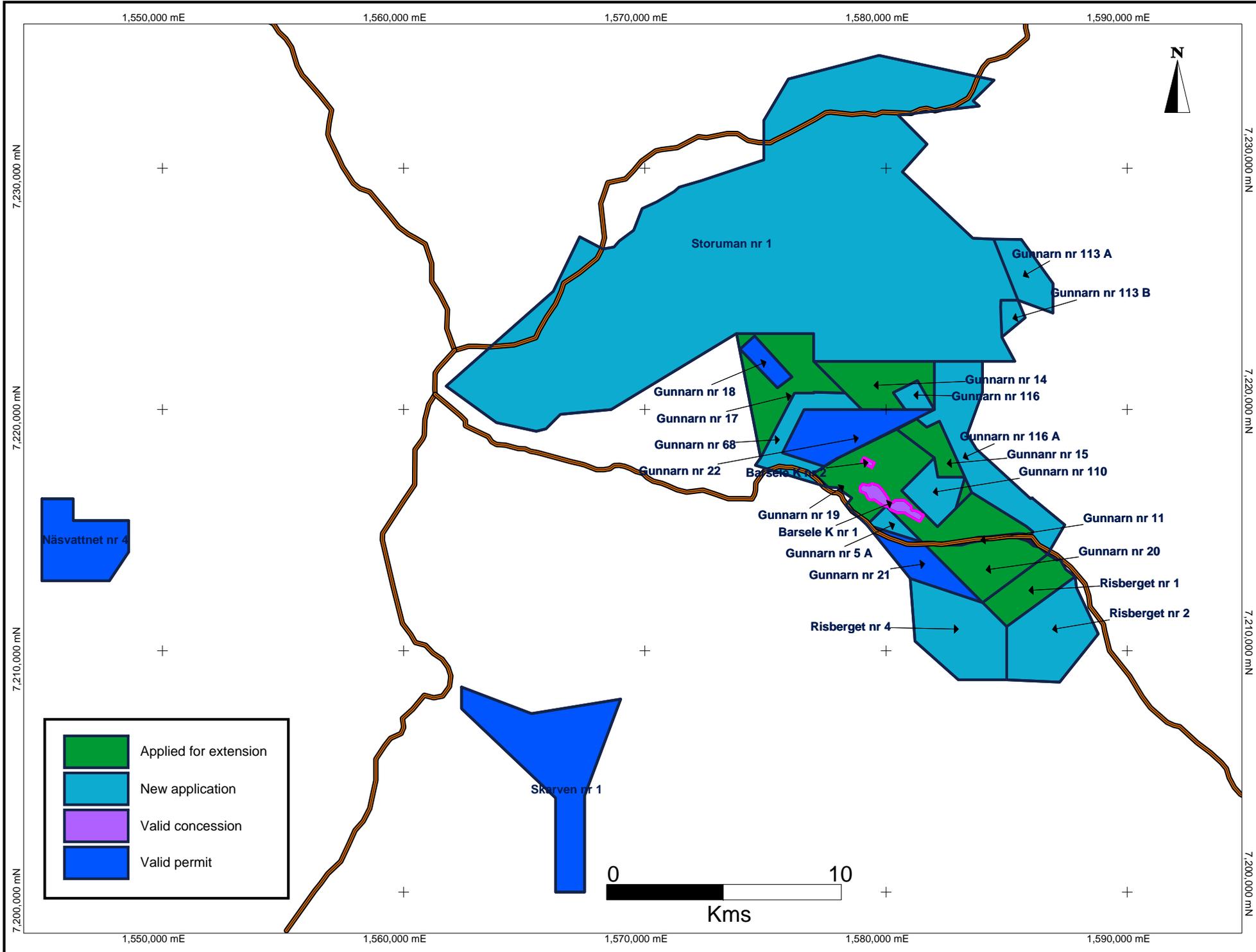


Figure 4.2 - Barsele Permits and Concessions

with Northland Resources SA to acquire 100% interest in the assets Barsele Guld AB which comprise all of the Gunnarn Mining AB Exploitation Concessions and Exploration Permits including all new and extended permits (See Table 4.1 below). Total area for all the concessions, when granted, will be 31,844.34ha (Figure 4.2).

Table 4.1 Barsele Gold Permits and Concessions

Granted Exploration Permits (1)

Name	Date of grant	Area (Hectare)	Valid until and including
Näsvattnet nr 4	18/06/2004	969.00	18/06/2011
Skarven nr 1	22/06/2004	2,012.00	22/06/2011
Gunnarn nr 18	03/08/2007	176.50	03/08/2013
Gunnarn nr 21	13/10/2008	440.50	13/10/2011
Gunnarn nr 22	06/10/2009	805.39	06/10/2012
Total (hectares)		4,403.39	

Granted Exploitation Concessions (2)

Name	Date of grant	Area (Hectare)	Valid until and including
Barsele K nr 1	21/06/2007	123.24	21/06/2032
Barsele K nr 2	21/06/2007	11.25	21/06/2032
Total (hectares)		134.49	

Exploration Permits Extension Applications (3)

Name	Application date	Area (Hectare)	Extension Application Date
Gunnarn nr 5 A	09/02/2004	118.13	09/02/2011
Gunnarn nr 11	14/01/2003	61.23	14/01/2011
Gunnarn nr 14	22/09/2004	680.50	20/09/2010
Gunnarn nr 15	22/09/2004	323.66	20/09/2010
Gunnarn nr 17	20/10/2004	896.48	19/10/2010
Gunnarn nr 19	25/10/2007	1,460.39	19/10/2010
Gunnarn nr 20	25/10/2007	707.83	19/10/2010
Risberget nr 1	07/10/2004	490.58	04/10/2010
Total (hectares)		4,738.80	

New Exploration Permit Applications (4)

Name	Application date	Area (Hectare)	
Gunnarn nr 110	08/12/2010	369.13	
Gunnarn nr 113 A	23/12/2010	412.24	
Gunnarn nr 113 B	23/12/2010	102.86	
Gunnarn nr 116	23/12/2010	119.50	
Gunnarn nr 116 A	08/12/2010	1280.60	
Gunnarn nr 68	08/12/2010	518.94	
Risberget nr 2	07/10/2010	1,066.45	
Risberget nr 4	07/10/2010	1,178.00	
Storuman nr 1	23/12/2010	17,485.31	
Total (hectares)		22,536.03	

Application to the Mining Inspectorate has been made to extend eight exploration permits⁽³⁾ and an application has been made for nine new exploration permits⁽⁴⁾. The application process is fairly straight forward, once an application has been made, it is reviewed by the Mining Inspectorate to determine if it is in order and also to determine if there are any other conflicting permit applications for the same area. If there are no other conflicting applications and the application is in order, then the permit is granted. Based on communication between the Mining Inspectorate and the specialist Swedish based project management consulting company Orex has retained to complete the application process, there are no conflicting applications. Therefore, the application for the extensions and new permits should be approved. Unfortunately, the application process is backlogged and final approval is not expected for several months.

General Statements Regarding Swedish Mining Law

Underling title to mineral resources in Sweden is held by the Crown, administered by the Chief Mining Inspectorate. Sweden introduced a modern minerals policy in July, 1992 (Minerals Act 1991:45) allowing for and governing exploration and extraction of “concession minerals” (base and precious metals, industrial minerals and hydrocarbons). Previous to 1992 exploration and mining was state controlled. The Minerals Act applies to exploration and exploitation on land regardless of surface ownership (surface and minerals are severed). Exploration and mining can only be carried out by the holders of exploration permits and exploitation concessions, respectively (SGU, 2006), as described below. There is no distinction between Swedish residents and non-residents holding exploration permits and exploitation concessions, however work must be carried out through a registered Swedish branch office (Act 1992: 160 and Ordinance 1992:308). An exploration permit or exploitation concession is transferrable with the consent of the Mining Inspectorate.

Swedish mineral policy and subsequent mineral title is considered safe and secure by international standards. In addition the Swedish government offers fiscal incentives to mining and exploration companies. The mining industry is an important job creator in northern Sweden and consequently the Swedish government makes significant contributions towards mine

infrastructure and the salaries and wages of Swedish citizens hired by mining companies. The interest and importance of mining to Sweden has helped ensure that there are plenty of well-trained and experienced people in the mining industry.

Exploration Permit

An exploration permit is granted for a specific area where there is some likelihood of a successful discovery being made. There are no specific restrictions on the area of exploration permits, except that they should be of a suitable shape and size and no larger than can be reasonably explored in an appropriate manner by the permit-holder. An exploration permit is valid for three years from the date of issue. If adequate exploration work has been carried out during the period, an explorer can apply for an extension of up to a maximum of three years. In special cases, a period of validity may be further extended for a maximum of four years, and in exceptional cases, it is possible to extend the permit for an additional maximum of five years. The longest possible period of validity for an exploration permit is 15 years, except in the circumstance where an application for an exploitation concession has been made and filed with the Mining Inspector for lands contained within the exploration permit, in which case the exploration permit will not expire until the application for an exploitation concession has been either approved or denied or otherwise dealt with by the Mining Inspector. When an exploration permit has expired an application will not be considered for the same area or part of it during the first year after the permit was terminated, unless special dispensation is applied for and granted by the Mining Inspectorate.

Exploitation Concession

A concession is valid for a definite area which is decided on the basis of the extent of the deposit, the purpose of the concession and other relevant factors:

- A concession will be granted if an economic mineral deposit has been established;
- The location and nature of the deposit does not make it inappropriate that an applicant is granted the concession requested.
- The Environmental Code (1998:808) shall be applicable in matters concerning granting of an exploitation concession, which means, *inter alia*, that an Environmental Impact Assessment shall be contained in an application for concession and approved by the County Administration Board and the Mining Inspectorate.

An exploitation concession is granted for a period of 25 years. The concession period is extended by 10 years at a time without application if regular exploitation is in progress. A legal proceeding for designation of land (surface) is held at the request and cost of the concession holder. The legal designation determines land within the concession area which the concession-holder may use for exploitation of the mineral deposit. A decision is also taken regarding the land, within or outside the concession area, which the concession-holder may use for activities related to exploitation (plant site, tailing and waste disposal). In this connection, the nature of the activity shall be stated. When an exploitation concession is terminated, the concession holder shall, at that date, forfeit the right to land assigned to him.

Taxes and Fees

Apart from the normal corporate tax, currently 28 percent, there are no additional special tax regulations which apply to mining. When mining, the holder of an exploration concession pays an annual minerals fee of 0.15% of the value of the minerals mined to the landowners of the concession area, and an additional 0.05% to the state (SGU).

Current application and exploration fees are nominal. An application fee of SEK500 (US\$76) and the same amount for every additional two square kilometers is payable when applying for an exploration permit. An exploration fee of SEK 2,000 (US\$303) per square kilometre is charged for the first three-year period, rising to SEK 2,100 (US\$318) per square kilometre, per year, for a second three-year period – and SEK 5,000 (US\$757) per square kilometre, per year, applying to further extensions. Exploration and application fees are paid in advance for the exploration period and extended periods to the Mining Inspectorates Office. The application fee for an exploitation concession is SEK 80,000 (US\$12,115) for each concession area regardless of the number of hectares.

4.4 Mineral Title

The CAS and Norra deposits are located in the exploitation concessions Barsele K nr 1 and Barsele K nr 2 which currently have an expiry date of June 21, 2032. These concessions are shown on Figure 4.2. All other known mineralized zones are also shown on Figures 7.1 and 7.2.

On October 27, 2010, the Company signed a binding letter of intent with Barsele Guld A.B. (“Barsele Guld”), a wholly owned subsidiary of Northland Resources S.A. (“Northland”) to purchase all of the issued and outstanding shares of two Swedish companies, Gunnarn Mining A.B. (“Gunnarn Mining”) and its wholly owned subsidiary, Gunnarn Exploration A.B. (“Gunnarn Exploration”). The primary assets of Gunnarn Mining are the 100% owned permits and concessions for the Barsele Central, Avan, Skiråsen and Norra resource areas located near Storuman, Sweden, collectively known as the Barsele property.

The Company and Barsele Guld anticipate signing a final agreement in late March 2011, subject to approval by the TSX Venture Exchange. As part of its due diligence prior to signing a final agreement, the Company will obtain a legal opinion on the validity and transferability of the Barsele permits and concessions and obtain assurance from the relevant Swedish authority that the work program the Company proposes to undertake on various expired permits at Barsele will allow the Company to gain ownership of them.

Under the terms of the final agreement, as consideration for all of the issued and outstanding shares of Gunnarn Mining and Gunnarn Exploration, the Company will agree to make the following payments to Barsele Guld, in cash and issuances of common shares of the Company:

- (b) On signing the final agreement, US \$2,000,000 plus the greater of 2,000,000 common shares or the number of common shares worth US \$1,000,000;
- (c) On the 1st anniversary of signing the final agreement, US \$1,000,000 plus common shares worth US \$500,000;
- (d) On the 2nd anniversary of signing the final agreement, US \$2,000,000;
- (e) On the 3rd anniversary of signing the final agreement, the lesser of 2,000,000 common shares or the number of common shares worth US \$1,000,000. If the value of the

- common shares issued is less than US \$1,000,000, the balance shall be paid in cash;
- (f) On the 4th anniversary of signing the final agreement, the lesser of 2,000,000 common shares or the number of common shares worth US \$1,000,000. If the value of the common shares issued is less than US \$1,000,000, the balance shall be paid in cash.

In addition, the Company will agree to make direct exploration expenditures as follows:

- (a) Before the 1st anniversary of signing the final agreement, US \$1,000,000 of exploration expenditures;
- (b) Before the 2nd anniversary of signing the final agreement, an additional US \$2,000,000 of exploration expenditures.

Table 4.2 Requirements of the Option

Time	Cash (US\$)	Orex Stock (US\$ value)	Work Commitment (US\$)
On Signing	\$2,000,000	Minimum \$1,000,000*	
1st Anniversary	\$1,000,000	\$500,000	\$1,000,000
2nd Anniversary	\$2,000,000		\$2,000,000
3rd Anniversary		\$1,000,000	
4rd Anniversary		\$1,000,000	
Total	\$5,000,000	\$3,500,000	\$3,000,000

Barsele Guld will retain a 2.0% net smelter royalty on the Barsele property which the Company may purchase at any time for US \$2,000,000 per percentage point, or a total of US \$4,000,000.

There are no other known royalties, back-in rights, payments or other agreements and encumbrances too the property.

4.5 Mineralized Zones, Historical Plant Sites, Tailings Areas and Waste Areas

Locations of named prospects and mineralized zones relative to the property boundary are shown on Figure 7.1.

4.6 Legal Survey

Swedish mining law requires that exploration permits be established by map staking. Since boundary coordinates are defined, standard GPS units can be used in the field to provide location of permit and concession boundaries within a few metres. The Mines Inspectorates office sets the coordinates and boundaries of both exploitation concessions and exploration permits.

4.7 Environmental Liabilities & Permits

To the extent known, the Barsele Gold Project is in compliance with the Swedish environmental regulations and standards and has no environmental liabilities. All Canadian based mining companies and exploration professional are expected by the public and their professional associations to use best practices to ensure minimal damage to the environment.

Before exploration work begins the permit holder must set up a working plan (plan of operations). The plan shall contain a description of the work planned, a timetable and an assessment of the impact on private rights and public interests. The plan shall be communicated

to the landowners and to the holder of any special right who is affected. The plan shall be concurrently submitted to the Mining Inspector. A working plan will enter into force if there are no objections, or, if the applicant and objecting party can agree on a plan. Objections to the contents of the plan shall be made in writing and shall reach the permit holder within three weeks of the plan being served. If the applicant and objecting party cannot agree, the matter can be tried by the Mining Inspector, who can set up the conditions of the exploration work.

The time period for obtaining a plan of operations is normally less than six weeks. Airborne surveys and other non surface disturbance activities do not require a formal plan or individual landowner contact, but must be posted in a local newspaper or filed with the news service.

The explorer shall submit security for compensation of damage and encroachment from exploration work. Before any work can commence the sum of security must be guaranteed. Such compensation is set by guidelines established by the Mining Inspectorates Office. In the case of Barsele, compensation is generally awarded to the landowners for any timber or seedlings that are damaged or removed during drilling and trenching operations. The amount of compensation is considered nominal.

5.0 ACCESSIBILITY, LOCAL RESOURCES, CLIMATE, AND PHYSIOGRAPHY

5.1 *Access to the Property and Proximity to Population Center(s)*

Access from the town of Storuman (population 2,500) to the village of Barsele is via Highway E-12 (18 km ESE), where a secondary road to the east leads to the project area (2km). Highway E-12 is a principal transnational corridor linking Mo i Rana on the west coast of Norway to Umeå in Sweden on the Gulf of Bothnia whence there is a ferry service to Vasa in Finland. The project area is cross cut by a number of forestry and drill access roads.

There are regularly scheduled flights from Stockholm's Arlanda international airport to the nearby cities of Lycksele (80km to the southeast), Umea (210 km to the southeast and Luleå (315km to the east). Although operational, there are no longer regularly scheduled flights to Storuman's Gunnarn Airport. The town of Storuman is 20km west of the property and the Gunnarn Airport is 20km east of the property.

5.2 *Topography, Elevation and Vegetation*

The local topography at the Barsele Project is subdued, consisting of low rounded hills and ridges interspersed with numerous lakes and streams. Topography and landform are strongly influenced by the most recent episode of Pleistocene glaciation which imparted a dominant southeast drainage pattern to the region. Glacial landform deposits, including glacial till 3 to 20 meters thick (although mostly less than 10 in the area of the known deposits), are common and generally mantle bedrock (Figure 5.1- map credit, Axelsson 2011). Outcrop is less than 10% and is limited to ridges and deeply incised drainage channels.

The overall trend to the low ridges in the project area is NW-SE with peak elevations of about 450m asl. The lakes in and around the property are at 260-290m asl. The area is characterized by a mixed forest of pine, spruce, alder and birch with sporadic clearings of low growing shrubs and bushes. Much of the area has been logged and is actively managed for silviculture (Figure 5.2).

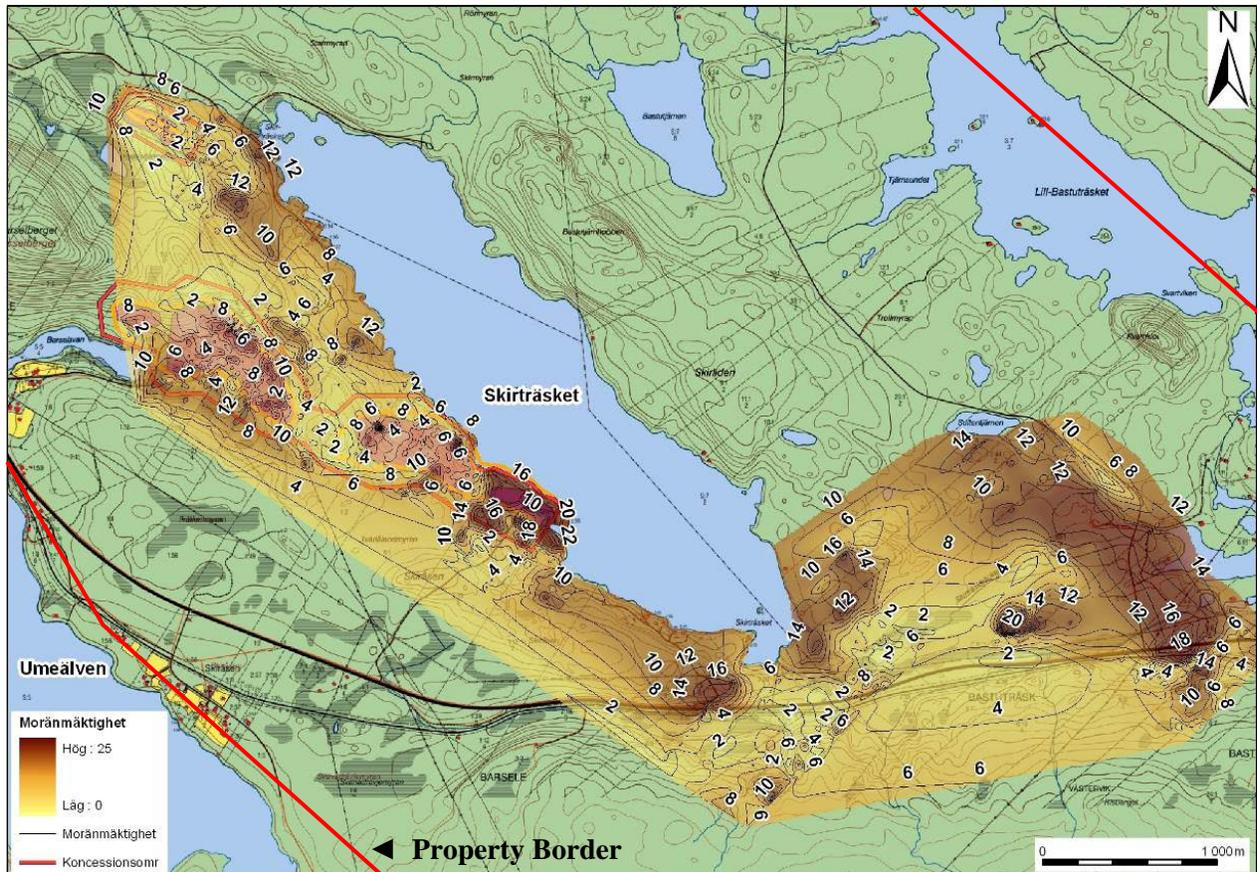


Figure 5.1 - Depth of Glacial Till Cover (in meters)

5.3 Relevant Climate and Length of Operating Season

The Storuman municipal region (Swedish kommun) in North central, Sweden lies within the cold-temperate zone, characterized by relatively short warm summers and long winters. Monthly average maximum temperature in January is -5 degrees Celsius and average minimum temperature is -16 degrees Celsius; the average maximum and minimum temperatures in July are +22 and +9 degrees Celsius with an annual average temperature around +4 degrees. The average annual precipitation is 450 millimetres. Winter conditions prevail from mid November to early April with snow cover normally in the range of 50 to 75 centimeters. Despite the region's northern latitude, the climate is relatively mild compared to other places of similar latitude due to the warming effect of the Gulf Stream.

Exploration work can be performed year around with the exception of breakup during late April. There is some limitation to field work in the winter when daylight hours are diminished but drilling can continue throughout the winter. There are a number of operating mines in the region who maintain full production throughout the year.

5.4 Availability of Power, Water for Mining and Infrastructure

The towns of Storuman and Lycksele (population 8,500) have sufficient services to accommodate mineral exploration and development programs. Storuman is at the crossroads of two major Highways E-12 and E-45 and both towns have regular scheduled freight, bus and rail

service. The town of Storuman has motels, restaurants and other support services and lies only 20km away from the main working area. A major high-voltage electrical transmission line runs through the Avan and Norra project area. Hydroelectric power is generated locally in Storuman and at several additional sites along the Umea River. Hydroelectric power in the region is relatively inexpensive for commercial use. The primary industries in the region are forestry products, mining and light manufacturing. Orex has acquired as part of the property acquisition, an office in Storuman and a core storage facility near the village of Barsele. The Swedish Geological Survey (SGU) is located in the town of Mala approximately 80km east of the Project Area and ALS Chemex operates a commercial sample preparation laboratory in Pitea located about 160 km east of Mala. The region is home to numerous active gold and/or base metal mines and therefore has a ready supply of experienced mine and mill workers.

Water is locally sourced; there is ample supply for all exploration and development purposes from the numerous lakes and rivers in and around the property including Skirträsket Lake that lies along the northeastern border of the known mineral deposits on the Barsele Gold Project (Figures 5.1 and 5.2). There is a mandatory set back of 50m from all lakeshores where no mining can take place. To the extent known, any potential mining of the Central or Avan Zones will not be affected by the lake. The Skiråsen Zone does project under Skirträsket Lake so could only be accessed by underground mining methods if an economic body is outlined. To date, there have been no economic mineral bodies outlined on the Barsele Gold Project.

5.5 *Potential Areas for Tailings Disposal, Heap Leach Pads and Plant Sites*

There are no buildings or ancillary facilities built by the company or any of the previous exploration companies on the property. The Barsele core is stored in a locked and secure Quonset hut approximately eight kilometres by paved highway from the property. All core is easily accessible in the Quonset hut that has full power and proper equipment for moving the core.

There are a four summer cottages along the shore of Skirträsket Lake which may or may not be affected by future mining. Negotiations with the local cabin owners may be required in the future to move the cabins. The presence of the cabins will not affect the proposed exploration work and will likely not become an issue until the company has a positive feasibility study. By granting of the exploitation concessions the Swedish government has deemed the highest use of the land in this area is for mining.

There is plenty of space within the existing claim block to host all required tailings, waste, leach pads or plant sites. Section 6.3 discusses the completion of an Environmental Impact Assessment by Golder Associates that includes a localization study for tailings, waste and potential plant site. The EIA process required the detail data collection and consultation with all the stakeholders including the towns in the region, the Ubmeje Sami first nations group as well as the military and other stakeholders to determine if there would be any surface rights issues that would prevent this property to from successfully achieving production. The following section summarizes that work.

5.6 *Environmental Issues*

At the same time Northland was completing their most recent drilling program, they retained the Swedish office of Golder Associates, an independent international consulting firm, to complete the application for the conversion of the key areas of the property, containing the

four known deposits, into Exploitation Concessions. This process consisted of field studies and investigatory work that were performed in order to apply for the Exploitation Concession from the Mining Inspector at the Mining Inspectorate of Sweden. This is the first step in the process of getting a permit to open a mine at Barsele. The application with an appended Environmental Impact Assessment (EIA) for Exploitation Concession was submitted Dec 27, 2006 and it was granted by the Swedish Mining Inspector on June 21, 2007. There were no appeals from stakeholders. According to Golder:

“The Exploitation Concession is given for 25 years and gives the holder the unique right to carry out investigation work and exploitation of the concession mineral(s) and also other minerals when needed for the work to be carried out in a suitable way.” (Axelsson, 2011).

Figure 5.2 outlines the borders of the two exploitation concessions as well as the general outlines of the four known mineral deposits. Further details concerning this work will be summarized in Section 6.3 of this report.

6.0 HISTORY

Some of following disclosure on the history is from the 2006 CAM report. Direct quotes from the CAM report are italicized.

All mineral exploration in Sweden was State-controlled prior to 1992. Systematic exploration started in 1920 in the valley of the Skellefteå River. The world-class Boliden polymetallic deposit was discovered shortly afterwards in 1924. The Boliden deposit produced some 4 million ounces of gold from ore averaging 15g/t gold. The gold at Boliden is combined with significant quantities of copper, zinc and silver (Sundblad, 2003).

Terra Mining in 1980 and initiated a countywide, reconnaissance, geochemical till sampling programme focused primarily on gold. Svetab, a venture capital company based in Sweden, provided initial seed financing for Terra’s exploration activities. In 1983, Terra’s exploration culminated with the discovery of the Björkdal gold deposit which was subsequently placed into commenced production in 1988.

By 1988, Terra’s regional till sampling programme had also identified anomalous gold concentrations both in surface and basal till at Barsele. In 1989, drilling of till anomalies identified bedrock gold mineralization in what later became known as the Barsele -Central (Mineralized) Zone.

Terra completed increasingly more detailed till-geochemistry surveys culminating in the discovery of an additional six mineralized occurrences established by follow-up drilling. Between 1989 and 1998, Terra collected a total of 10,533 till and base of till samples on ground now covered by the Barsele group of exploration permits and exploitation concessions. In an area extensively mantled with glacial till, none of the new discoveries were exposed at the surface. Terra excavated trenches at the Norra, Avan and Central zones exposing the bedrock and providing valuable information on the style of mineralization and controlling structures.

Terra followed up these encouraging exploration results by drill-testing priority targets within geochemical anomalous zones. Terra contracted the drilling of 319 diamond and reverse circulation (RC) percussion drill-holes for a total of 28,876 metres which led to the partial delineation of the Norra, Avan, Central and Skiråsen deposits and identified the Skirträskbacken and Risberget zones. During this time, Terra also completed preliminary metallurgical testing and resource estimations.

In 1995, Terra contracted Anamet Services to complete a mineralogical and preliminary metallurgical testwork on a one tonne bulk sample of mineralized rock excavated from a trench at the northwestern part of the Barsele Central Zone (Reynolds, 1996). Full details of that work are located in Section 16.1 of this report. The average head-grade of the sample was 5.1 g/t gold and 4.3 g/t silver, considerably higher in grade than the historic Barsele Central drill grades where previous drilling programs had indicated a grade of about 1.5-2 g/t gold. No conclusions have been drawn as to why the grades are so different. The authors have observed visible gold in the core and have noted that the core samples were not systematically analyzed using metallic analyses. Coarse gold could be a contributing factor so future exploration must consider the possible influence of free gold in the host rock.

In 1998 Terra Mining ceased trading after unfavourably reviewing the potential economic viability of mining low-grade gold resources during a sustained and significant lower period of gold prices. In the same year, a British resources company called William Resources Ltd., together with Dormant Properties AB and International Gold Exploration AB, acquired all of Terra's assets. Williams Resources did not carry out any further exploration work before MinMet, during a period of resurgence in the gold price in 2003, acquired all of Terra's former assets, including the Björkdal gold mine and the Barsele gold project.

In 2003 MinMet, although focused on the Björkdal mine, carried out geological mapping, geophysical surveys and drilled seven core holes, four in the Central zone and three in the Norra zone, for a total of 1,045 metres at Barsele. Boliden were contracted by MinMet to carry out a combined total field magnetic and electromagnetic survey (EM) over the Norra zone. The magnetic survey covered an area of 2.5 square kilometres and was completed on 51.6 kilometres of grid lines with a NE-SW orientation, spaced 50 metres apart. The EM survey was conducted within the same grid area on 26.7 kilometres of grid lines spaced 100 metres apart. The surveys generated 1,362 EM and 2,632 magnetic survey points.

On November 3rd, 2004 Northland entered into two option agreements to separately acquire a 60 percent interest in the Barsele and contiguous Norra projects. Working under a "Heads of Agreement", Northland drilled 30 diamond drill-holes totaling 4,957 meters on the Barsele and Norra projects during the 2004 field season. Of the thirty drill-holes: ten, predominantly infill diamond-core, drill holes were drilled in the Central Zone, 17 diamond drill holes targeted the westward strike-extension of mineralization in the Norra Zone, and the final three drill-holes tested the Skiråsen zone. In total 2,279 metres of core were drilled in the Central Zone and Skiråsen Zone and 2,678 metres was drilled in the Norra Zone during 2004.

The primary objective of Northland's 2004 core-drilling program in the Central Zone was to test the continuity and depth potential of mineralization; and to obtain oriented-core to better

understand structural controls on mineralization. Northland's drilling at Norra tested down-dip mineralization to the west and included two step-out "scissor" drill-hole pairs some 700 metres to the northwest of the main mineralized zone to test a gravity anomaly coincident with an EM anomaly. These two holes intersected strong iron sulphides with geochemically anomalous (<1.0%) zinc.

In addition to drilling Northland contracted Boliden to conduct a Misse a la Masse survey (Downhole conductivity/resistivity survey) on four select Norra drill holes, a gravity survey north of the Norra deposit and an IP survey in the Risberget area. Geovista, a Swedish geophysical team, completed a comprehensive geophysical interpretation using regional, private and public geophysical information.

Northland estimated a resource for Barsele based on their drilling as well as the drill-hole database based on drilling by previous explorers. This Northland resource estimate was prepared Dr. Bart Stryhas under the supervision of Robert L. Sandefur, PE, for CAM. The Northland resource estimate was audited by CAM who reported that it was compliant with National Instrument 43-101 standards of disclosure for mineral projects and Companion Policy 43-101 CP. This resource estimate is neither considered a historic resource estimate nor is it considered a current resource estimate under the definitions of NI43-101 so will not be summarized in this report. The resource estimate was filed on SEDAR and can be located in the Northland's SEDAR records on April 15, 2005.

During 2005 Northland completed 21 drill holes on the Barsele Project. Thirteen in-fill holes were drilled in the Barsele Central totaling 2,447 meters, consisting of six, 1400-mm diameter reverse circulation drill holes, and seven 76-mm diameter core holes. Eight additional core holes totaling 861 meters were drilled at Norra testing the westward extension of mineralization. Based upon encouraging results from the 2005 drilling program and increased knowledge of the deposit, Northland estimated an updated resource for the Barsele Project in 2006.

This second Northland resource estimate update was also prepared by Dr. Bart Stryhas. The Northland resource estimate was audited by CAM who reported that it was compliant with National Instrument 43-101 standards of disclosure for mineral projects and Companion Policy 43-101 CP. This resource estimate is neither considered a historic resource estimate nor is it considered a current resource estimate under the definitions of NI43-101 so will not be summarized in this report. The resource estimate was filed on SEDAR and can be located in the Northland's SEDAR records on April 12, 2006.

Northland acquired a 100% interest in the combined Barsele and Norra Projects on May 26, 2006. Golder and Associates completed the Barsele MKB (Swedish Environmental Impact Assessment) and submitted this and other documentation on December 27, 2006 to the Mining Inspectorate and County Administration Board as part of the application process to convert the CAS and Norra resource areas to exploitation concession status. The Barsele K no 1 and Barsele K no 2 concessions were subsequently awarded on June 21, 2007.

Work performed by Northland after completion of CAM's last NI 43-101 technical report includes: drilling of 21 core holes in the Barsele Central Zone and seven exploration core holes outside of the resource area. In addition to drilling Northland conducted trenching and a geophysical downhole conductivity survey of a high-grade gold-polymetallic quartz-sulfide occurrence in the Barsele Central Zone; completed a base of till sampling program consisting of 942 samples on outside resource targets; and performed reconnaissance prospecting and mapping of approximately of approximately 70 square km including collecting 638 rock chip and float samples.

The objectives of 2006 Barsele Central Zone drilling program were to extend the Barsele Central Zone to the south and to upgrade the confidence category of resources on the northern and western fringes of the deposit (See Table 6.1 for assay results). The program was completed in two phases with the first five holes drilled in the spring and the remainder of the program completed in the fall.

The first five holes were completed on the South end of the Barsele Central; however access to the site was affected by spring breakup conditions and availability of suitable drill rigs. This drilling has shown that several good intervals of >2.0 g/t material exist to the south of the Central Zone within a much broader zone of persistent, lower level gold values. However the ore grade material was encountered deeper than anticipated. Interpretation of geologic cross-sections through these five drill holes indicates the mineralization to be trending in a more north-south orientation than previously recognized. Future drilling in this area should be directed east-west to test a potential western drill target.

Drill holes CNTDH06006 and CNTDH06007 were drilled 100m northwest of the first five holes and were considered fill-in holes to expand the resource and convert inferred resources to the indicated category. Drill-hole CNTDH06006 intersected potentially economic intersections of five metres averaging 2.8g/t from 11 metres and seven metres averaging 3.8g/t gold from 150 metres - the latter within a broad interval of 80 metres averaging 1.2 g/t gold. Drill-hole CNTDH06007 was characterized by several low grade intersections above 1g/t gold ranging in width from 6.6 to 13 metres with the deepest intersection from 167 metres averaging 2.3g/t gold over six metres.

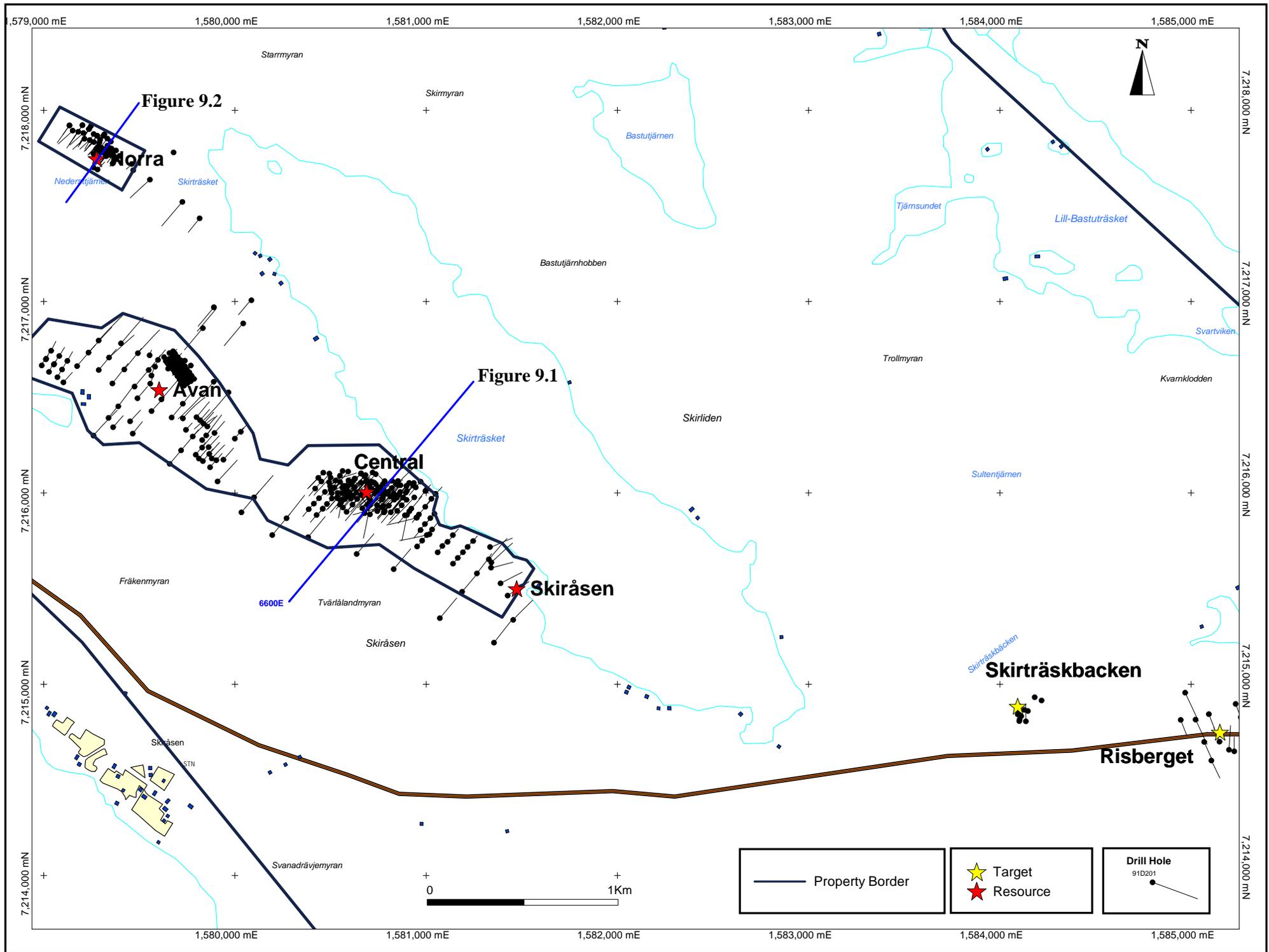
Drill holes CNTDH06008 TO CNTDH06016 were drilled primarily on the northern fringe of the Barsele Central Zone to increase both confidence in the model and the total resource in the inferred category. Holes number CNTDH06008 to CNTDH06011 and CNTDH06013 to CNTDH06014 encountered multiple intercepts ranging from five to 22.7 metres containing 1.0 to 2.4 g/t gold. CNTDH06015 and CNTDH06016 encountered only marginal intercepts of less than 1 g/t gold. Of special interest was CNTDH06012. This hole intersected a high-grade gold-polymetallic quartz-sulfide vein with combined grades over 5 meters averaging: 12.652 g/t Au, 580 g/t Ag, 5.0469% Pb, and 2.8068% Zn which includes a 1 meter interval of 15.75 g/t Au, 1930 g/t Ag, 18.8% Pb, and 0.89% Zn.

In late-November and early-December 2006 five additional diamond drill holes, CNTDH06017 to CNTDH06021, were drilled to test the lateral extension of the geophysical anomaly and mineralization cut by CNTDH06012. With the exception of drill hole

CNTD06021, which was incorrectly spotted in the field, all drill holes intersected the polymetallic vein. These drill holes extend the lateral length of known mineralization to more than 120 meters. The geophysical down-hole conductivity anomaly has not been fully tested and indicates a strike length of 300 metres. In addition, there is significant gold-only mineralization local to the polymetallic vein: CNTD06017 with 10 meters of 2.75 g/t Au, and CNTD06018 with 11 meters of 2.66 g/t. As the CAS deposits are large intrusive bodies, it is difficult to determine if the drill intercepts quoted in this report represent true widths although it would be reasonable to assume that drill intercepts are no less than 75-80% of the true widths.

Figure 6.1 shows all the drilling for the Norra, Avan, Central and Skiråsen zones. Figure 17.1 shows all the drilling for the Avan, Central and Skiråsen zones with hole numbers.

As the CAS deposits are large intrusive bodies, it is difficult to determine if the drill intercepts quoted in this report, including the following table, represent true widths although it would be reasonable to assume that drill intercepts are no less than 75-80% of the true widths.



**Figure 6.1 - Diamond Drill Holes Norra, Avan, Central and Skiråsen
(Map Credit - Northland Resources)**

Table 6.1. Significant drill results for the 2006 drilling program -Central Zone

Hole No.	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	Pb (%)	Zn (%)
CNTDH06001	175	195	20	1.77			
CNTDH06002	165	173	8	1.29			
CNTDH06003				NSA			
CNTDH06004	164	175	11	2.42			
and	203.9	215.2	11.3	2.24			
CNTDH06005	107	126	19	2.97			
CNTDH06006	11	16	5	2.8	0.7		
	89.2	169.6	80.4	1.2	1.23		
incl	150	157	7	3.8	4		
	186	195	9	1.1	0.83		
CNTDH06007	58.3	64.9	6.6	1	0.67		
	89	102	13	1.2	0.1		
	109	119	10	1.1	1.08		
	167	173	6	2.3	1.08		
CNTDH06008	99	109	10	1.6	0.67		
	127	137	10	1.4	3.7		
	145.1	146.4	1.3	25.8	5.85		
CNTDH06009	126	132	6	1.6	0.45		
	149	171.7	22.7	1.8	0.74		
CNTDH06010	151	170	19	1	0.86		
	178	182	4	1.9	0.63		
CNTDHO6011	76	86	10	1	1.04		
	99	111	12	1	0.42		
	129	135	6	1.5	0.85		
	146	155	9	1.9	0.87		
CNTDH06012	24	29	5	12.7	580	5.1	2.8
CNTDH06013*	35.8	36.2	0.4	49.2	308	0.7	5.8
<i>*Hole abandoned in quartz-sulphide mineralization at 36.2m</i>							
CNTDH06013A	57	67	10	2.4	1.01		
	99	112	13	1.8	1		
CNTDH06014	49	61	12	2	0.86		
	98	106	8	1.5	0.74		
	118	126	8	2.1	1.83		
	177	194	17	1.1	0.65		
CNTDH06015				NSA	NSA		
CTNDH06016				NSA	NSA		
CNTDH06017	41	52	11	2.3	1.17		
CNTDH06018	22	31	9	3.8	67.96	0.7	0.4
	80	102.9	22.9	2.9	1.16		
EOH 102.9 incl	102	102.9	0.9	24.6	4.7		
CNTDH06019	22	29	7	2.6	2.99		
	54.5	55.5	1	26.1	90.45	0.3	2.8
CNTDH06020	39	43	4	6.6	3.7		1.8
CNTDH06021				NSA			

During late fall and of winter of 2006/2007, seven exploration drill holes totaling 1,402 meters were drilled targeting coincident magnetic anomalies and EM conductors in an area between the Norra and Avan resource areas. These holes intersected a thick succession of alternating sedimentary rocks, intermediate and felsic volcanic and intermediate intrusions similar to Norra VMS stratigraphy. The sedimentary rocks comprise grey-black mudstones and pelitic sandstone and contain several intervals (up to five meters) of disseminated to semi-massive stratiform pyrrhotite mineralization with variable but generally minor sphalerite (up to 0.2 % Zn). Remobilised massive sulphide veins up to 0.8 m thick are associated with the stratiform pyrrhotite mineralization and generally have more elevated base metal and precious metal contents than the stratiform mineralization. No significant precious or base metal values were encountered in these six holes. Potential does exist along strike and down dip of the stratiform sulphide mineralization for precious metal rich VMS style Norra mineralization.

A brief summary of all the work done on the property is located in the following Table:

Table 6.2 - Historic Work Completed

Work Type	Work Completed
Drilling	-Barsele: 398 Drill Holes, 43,609 meters drilled -Core, reject and pulp storage facility on-site
Geochemistry	-Till Samples – 6,170 -Base of Till – 5,661 samples -Base of Till Rock – 3,134 samples -Rock Chip – 1,367 samples -Drilling samples – Approximately 45,000 samples
Geophysics	-SGU(government) Regional Airborne Magnetic, Electromagnetic and Radiometric Surveys (~1980) -SGU Regional Gravity Surveys (~1980) -Barsele / Norra: Ground Magnetic, -Electromagnetic, Gravity, Slingram and Down-hole Conductivity Surveys -Barsele: Airborne Magnetic, Ground Magnetic, -Enhanced VLF and Down-hole Conductivity Surveys -Gunnarn: Induced Polarization Survey - Nasvattnet: Induced Polarization Survey, Electromagnetic and Slingram
Geology	-Mineralogical Studies -Structural Studies -Trenching – Barsele Central, Avan, Norra, Nasvattnet and Orrtrasket
Mapping	-Local 160 sq km Northland Resources Inc. -Regional SGU Exploration Package
Metallurgy	-Barsele Central Bulk Test (one tonne sample), gravity and cyanide tests (Anamet) - CN Agitation Leach 90% indicated recoveries -Barsele Norra Flotation tests (Boliden) -Barsele Central Bottle Roll and Leachwell cyanide soluble tests
Environmental	-MKB (Environmental Assessment completed) -Baseline Studies Current
Land	-Exploitation Concessions Granted 134.49 ha -Exploration Permits 32,574.84 ha

6.1 *Prior Ownership and Ownership Changes*

On November 3rd, 2004 North American Gold entered into option agreements to acquire 60 percent interests in the Barsele and contiguous Norra gold projects. At the annual general meeting of the North American Gold held on July 12, 2005, the shareholders approved a change of name of the Company to Northland Resources Inc. On May 10th, 2006 Northland Resources Inc. acquired 100 per cent equity control of the Barsele Gold Property. For simplicity, this section of the report will only use the company name Northland when discussing the History of the exploration work completed on the property even if the work took place prior to the July, 2005 name change from North American Gold to Northland Resources. On October 27, 2010 Orex signed a binding Letter of Intent (BLOI) to acquire a 100% interest in the Barsele subject to certain conditions previously described in this report.

6.2 *Historic Estimation of Mineral Resources*

In 1998, Terra Mining estimated a mineral resource for the Central, Norra, Avan and Skiråsen zones based on 6,616 metres of percussion drilling and 11,721 metres of core drilling (Pearson, 1998). The estimated Terra Mining 1998 historic resource estimate is based on a cutoff grade of 0.75g/t gold and is shown on Table 6.3. This historic resource estimate has been updated three times, first by Northland in 2005 then again in 2006 and now in this current report.

Table 6.3 - Historic Barsele Resource Estimates (Terra Mining, 1998)

Resource Category	Zones	Tonnes (millions)	Grade (g/t Au)	Contained Gold (oz)
Indicated	Central, Norra and Avan	3.56	1.8	207,000
Inferred	Central and Skiråsen	5.92	1.8	342,000

These historic resource estimates predate NI 43-101, but the resource was classified according to the resource categories outlined by the Canadian Institute of Metallurgy (CIM) ad hoc Committee on mineral reserves. This resource has not been verified by the authors, and is presented here for disclosure purposes only. The authors feel that this resource estimate is relevant but no long reliable since it has been updated several times since 1998. The authors are not treating these estimates as current and they should not be relied upon. The report provides new updated current resource estimates

Two Northland resource estimates were prepared by Dr. Bart Stryhas in 2005 and 2006. The Northland resource estimates were audited by CAM who reported that they were compliant with National Instrument 43-101 and Companion Policy and published the estimates in two separate 43-101 reports dated April 15, 2005 and April 12, 2006. These resource estimates are neither considered historic resource estimates nor are they considered current resource estimates under the definitions of NI43-101 so will not be summarized in this report. The resource estimates were filed on SEDAR and can be located in the Northland's SEDAR records on April 15, 2005 and April 13, 2006.

6.3 *Environmental Impact Assessment (MKB)*

In 2005 Northland retained the Swedish office of Golder Associates, an independent international consulting firm, to complete the application for the conversion of the key areas, containing the four known deposits, into Exploitation Concessions. Golder was required to complete an Environmental Impact Assessment (EIA) also known in Sweden as a

Miljökonsekvensbeskrivning (MKB). This process consisted of field studies, community consultation and investigatory work that were performed in order to apply for the Exploitation Concession from the Mining Inspector at the Mining Inspectorate of Sweden. The following is a summary of what was completed as summarized by Golder in 2005-2006 (Axelson 2011). Direct quotes from the Golder report are italicized.

An Environmental Impact Assessment is a process with both consultations with stakeholders and the production of a document describing the environmental consequences that may be the result of a future mining operation in the Barsele area. Specific concerns are given to the housekeeping with land and water areas as well as the balance between conflicting interests. It is stated in the Minerals Act (8 chap. 1 § third paragraph) that the Mining Inspector shall have a consultation with the county administrative board concerning the EIA document. According to the Minerals Ordinance (28 §) the county administrative board shall consult the municipality for comments and assess the EIA. Thus it is not required that the company has consultations with the authorities or any other stakeholders. However to ease the process with the application for an Exploitation Concession and a future mining operation, consultations were made with the authorities and the concerned Sami village as follows;

- *August 16th, 2005 – County administrative board*
- *September 8th, 2005 – Municipality of Storuman and Barsele village*
- *October 4th, 2005 – Concerned landowners, neighbouring villagers and others*
- *August 26th, 2006 and March 19th, 2007 – Ubmeje Sami village*
- *September 19th, 2006 – County administrative board and Municipality of Storuman*

Furthermore contact was taken with the Military authorities in December 20th, 2006 and the written answer arrived in January 29th, 2007 stating; “the Military authorities has no objections against a new mining operation within the stated area at Barsele in Storumans municipality, the county of Västerbotten”.

Information of the planned mining operation and the environmental impact it may have on human health and the surroundings were given and discussed at these consultations. Thus the communication with the stakeholders gave input to the writing of the EIA document.

One issue raised by the county administrative board and the municipality was that the company should investigate the possibility to successively fill up the open pits with waste rock and tailings during the operation period to minimize the waste above ground after closure.

Major concerns were forwarded by the Ubmeje Sami village as follows;

- *The reindeer herding is already impacted very much by other activities like hydropower by damming rivers and lakes, forestry and clear-cutting.*
- *The Blaiken and Svärträsk mines, with a planned road in between the two, prevent the reindeer from using the northern and central reindeer paths when moving between summer pasture in the mountains and winter-pasture in the woodlands. The southern reindeer paths will partly be blocked by the planned Barsele mine. However the Barsele mine is a minor impediment compared to the existing Blaiken and Svärträsk mines.*

- *Co-disposal of sand and waste rock along the road E12 is the best solution*
- *The mine area has to be fenced to prevent the reindeer from entering*
- *A mining operation at Barsele will cause more work with reindeer transport past the mining area during springtime and autumn, and it is necessary to give economical compensation for increased work and loss of pasture*
- *The company shall consult the Sami village when the reindeer will pass the mining area*

The EIA document appended to the application for Exploitation Concession was submitted to the Mining Inspector and reviewed by the county administrative board.

The completed EIA document according to the comments from the CAB consists of different parts describing;

- 1. mining operation with the various activities*
- 2. natural conditions before the mining operation starts*
- 3. mitigation and protective measures*
- 4. environmental impact of the mining operation*

To describe the natural conditions in the area, it is necessary to perform various types of field work. Most field work and investigatory work have already been performed, but certain complementary work needs to be done.

In below is a description of needed information, what is already done.

Nature values

- *Nature inventory has been performed by Pelagia Miljökonsult AB in October 10-11-2006 (reported 2002-04-16) and complemented inventory were made in August 27th, 2006 (reported 2006-12-21)*
- *Bottom fauna in lakes and water courses has been surveyed by Pelagia Miljökonsult AB during Autumn 2001 (reported 202-04-16) and complemented Autumn 2006 (reported 2006-12-04)*
- *Inventory of fish and floodpearl mussel has been performed by Pelagia Miljökonsult AB during Autumn 2001 (reported 2002-04-16) and complemented Autumn 2006 (reported 2006-12-04)*
- *Water sampling in ca. 10 points has been performed by Pelagia Miljökonsult AB 4 times per year (2 spring, summer, autumn and winter) from 2006-04-20 and ongoing*

Cultural values;

- *Cultural and archeological inventories have been performed by Skogsmuseet in Umeå in 2000 and by Västerbotten county museum in 2005 and 2006 performed 2000*

Private water wells;

- *An inventory has been performed by SWECO VIAK of dug and drilled private water wells in the area between Skirträsket and Umeälven*

Hydrogeology;

- *Hydrogeological investigation with modeling of groundwater drawdown has been performed by SWECO VIAK (reported 2006-03-20)*

Reindeer herding;

- *Inventory of reindeer pasture has been performed by Pelagia Miljökonsult AB in October 10-11 2001 (reported 2002-04-16)*

Localization study;

- *Localization of alternative places for the tailings storage facility and the waste rock dump has been performed by Golder (reported 2006-08-07)*

Material characterization;

- *Investigation of the weathering and buffering capacity of tailings sand and waste rock has been performed by Golder for accessing protective measures during operation and the need for future decommissioning measures (reported 2006-12-14)*

Technical description;

- *Technical and economical evaluation of the planned mining operation has been made by Northland in 2006 and is included in the EIA.*

Sound waves, vibrations and blast wave;

- *Investigation has been performed by Nitro Consult AB (reported 2001-05-23)*

Moving of power line;

- *Investigation has been performed by Svenska Kraftnät (reported 2005-12-09)*

Socioeconomical study;

- *Investigation has been performed by Storumans Utvecklings AB for the importance of the mining business in the municipality of Storuman complemented (reported 2006-12-13)*

The mineralization and the mining area is mainly located inside the runoff area for Skirträsket, that is of national interest for nature as the lake has a uniquely clean and clear water compared to natural condition in the Swedish woodlands. Therefore the lake shall be protected from human impact.

The material characterization shows that the tailings sand and waste rock from a future mining operation at Barsele are unlikely to generate acid leachate with high metal concentrations. Additionally the tailings storage facility and the waste rock dump is planned to be mainly located outside the runoff area, which will prevent the leachate to enter into Skirträsket. Based on the present knowledge obtained during the EIA work, there are no environmental aspects or conflicts with for instance the reindeer herding that would prevent a mining operation of the gold mineralization at Barsele.



Figure 6.2- Location of Ongoing Water Sampling Sites (map credit, Axelsson 2011)

The application for the Exploitation Concessions with an appended EIA discussing all of the above aspects of the field studies was submitted Dec 27, 2006 and it was granted by the Swedish Mining Inspector on June 21, 2007. There were no appeals from stakeholders.

The Golder report provided a summary of what field studies and investigatory work were performed in order to complete the EIA required to apply for the Exploitation Concession. In addition, the Golder report provided comprehensive list of additional studies needed. These recommended studies will be parts of future development that would be part of a pre-feasibility and feasibility study. These studies, with the exception of the continued ongoing regional water monitoring program, will be part of future programs and are not part of the proposed 2011 work program.

6.4 Historic Production

There has been no recorded production on this property nor is there evidence of any past unrecorded mining activities that would suggest that historic production has taken place. A 100 tonne bulk sample was removed from the site in 1995 for testing purposes and the details of that work will be discussed in the Metallurgical section of this report.

7.0 GEOLOGICAL SETTING

The following disclosure on the regional and local geology is dominantly from the 2006 CAM report. Direct quotes from the CAM report are italicized.

7.1 Regional Geological Setting (Figure 7.1)

Unlike most other shield areas, more deposits have been discovered in Paleo-proterozoic terrains than in the Archean areas of the Fennoscandian shield. The Barsele gold project lies within a boundary-zone between the Bothnian metasedimentary basin to the south and a volcanic province to the north. Both terranes are part of the Proterozoic Svecofennian domain (Barnicoat et al, 1996). The Svecofennian domain consists of juvenile crust produced by the rifting apart of

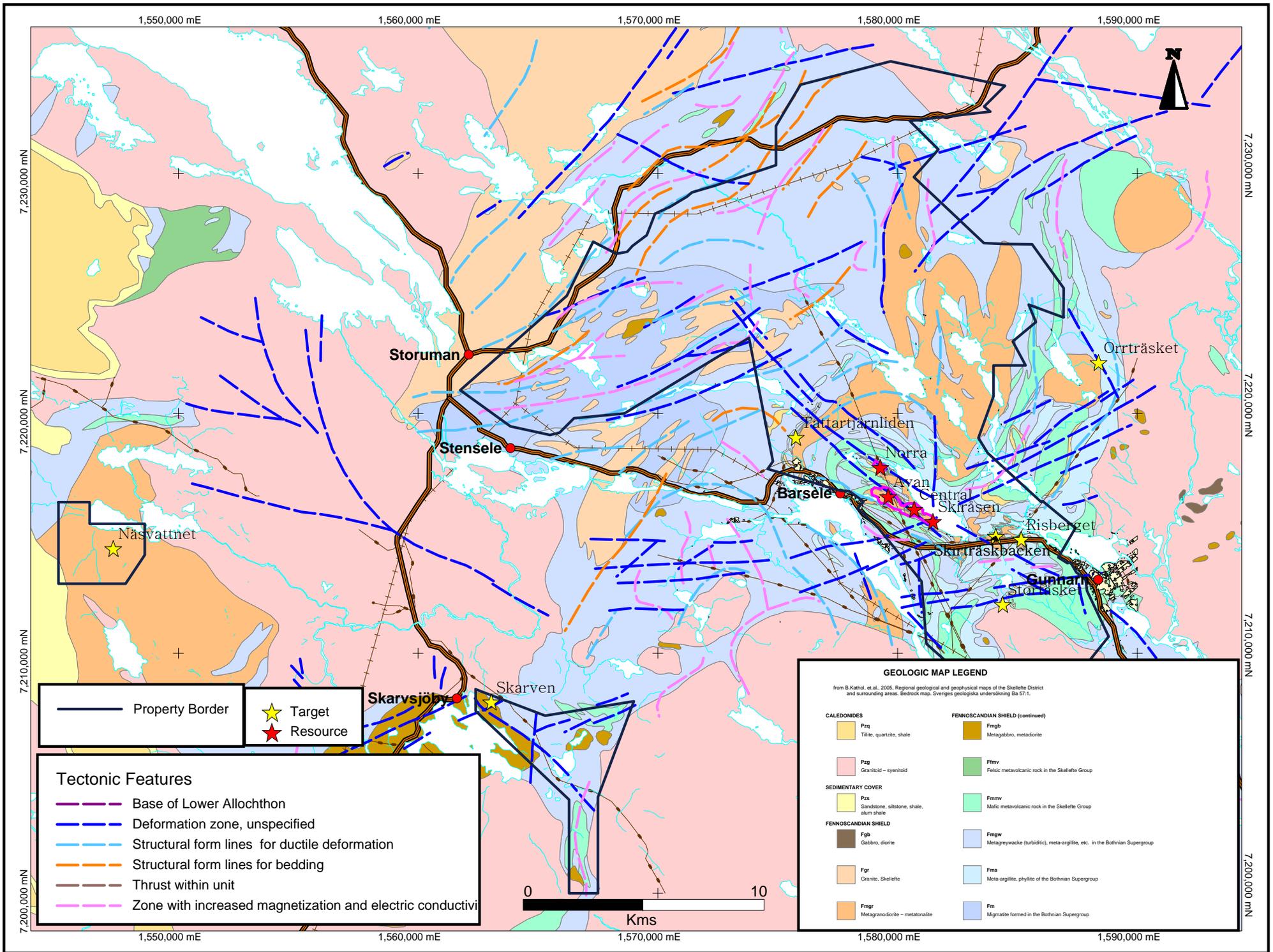


Figure 7.1 - Regional Geology
(Map Credit - Northland Resources)

an Archean craton along an axis which runs from northern Sweden through central Finland to Lake Ladoga, referred to as the Raahe-Ladoga line. The Svecofennian domain is one of three crustal domains which comprise the Fennoscandian or Baltic shield, which is the largest exposed segment of Precambrian crust in Europe (Sundblad, 2003).

The Svecofennian domain is around 1.9 billion-years-old, and includes various remnants of magmatic and sedimentary components of ophiolites, island arcs and active continental margins which were all accreted to the Lopian, Archean craton during the Svecokarelian orogeny (Sundblad, 2003).

Deep to shallow marine volcanism and sedimentation in an island arc environment is preserved in the west-northwest trending Skellefteå district, which contains many volcanic-hosted massive sulphide (V-HMS) deposits. In this context, the term deposit is applied to any natural occurrence of minerals ranging from an uneconomic prospecting target to an economically viable deposit.

7.2 Property and Local Geology (Figure 7.2)

The Barsele project-area is extensively covered with glacial overburden, and consequently bedrock exposure is sporadic and very limited. Geological interpretations rely heavily on drill-core data and a few trenches excavated in the Central, Avan and Norra zones. Outside these areas, geological interpretations are very poorly constrained and heavily reliant on inference from geophysical data. The area straddles the southeast-trending Umeå-River shear zone and parallels this dominant structural fabric, which controls drainage and glacial vectors.

The project area covers a sequence of metasedimentary and metavolcanic rocks of the Proterozoic Svecofennian system. The volcanics are more specifically referred to as the Härnö Formation. The metasedimentary rocks consist of metamorphosed greywackes and pelites and sporadic conglomerates. The volcanic rocks of the Härnö Formation consist of felsic, intermediate and mafic volcanics, including pillow lavas and pyroclastics which were probably deposited in a back-arc setting. Felsic volcanics probably represent a volcanic inlier within the Bothnian Basin, or alternatively, an outlier of the Skellefteå district.

Three main phases of granitoid intrusions in the region are referred to as early, middle and post with respect to the Svecofennian orogeny. The early orogenic granitoids are the most important from a mineralization perspective and comprise a calc-alkaline suite of mostly tonalites with lesser volumes of granodiorite emplaced prior to the main phases of Svecofennian metamorphism and deformation. An early orogenic granodiorite is the host rock of the Central Zone mineralization at Barsele. In detail, at least seven separate intrusive pulses have been identified at the Central and Avan Zones including late and post-mineralization dykes (Keyser 2004).

7.3 Structural Geology

In 1996, Terra Mining instigated a structural review of the gold mineralization at Barsele (1996 Barnicoat et al). The aims of the program were:

- To understand the structural history of the Barsele project area

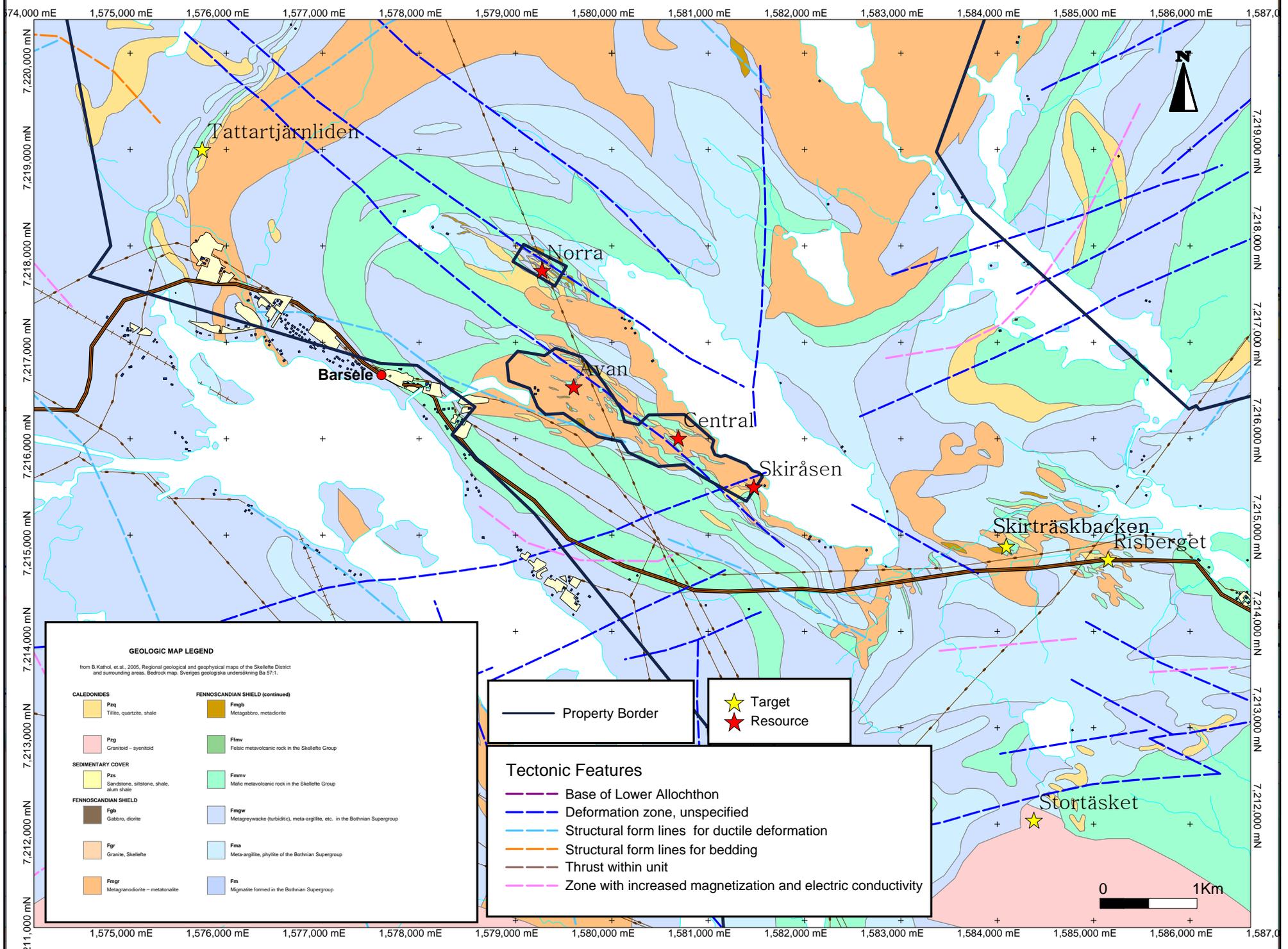


Figure 7.2 - Local Geology
 (Map Credit - Northland Resources)

- To evaluate the deformation events and therefore determine the timing of the gold mineralization
- Assess the structural controls related to the distribution of the gold mineralization in the Barsele project area

After a detailed structural, microstructural and paragenetic study, the report author's determined that:

- gold mineralization is associated with late D2 dilation that is characterized by quartz-carbonate-sulphide fill and
- the subvertical, generally north- south (N-S) trending structures, controlled the gold mineralization to at least 50m depth
- gold mineralization occurs where extensional sites formed in strike-slip structures cutting competent granodiorites.

This study is significant as it was the first detailed review of the structural history and the associated gold mineralization on the project. It was the first study to determine that there was a direct relationship between the N-S structures and gold mineralization. No additional structural studies have been reported but further studies were recommended.

8.0 DEPOSIT TYPES

Some of the following disclosure on the deposit types is from the 2006 CAM report. Direct quotes from the CAM report are italicized.

8.1 *Mineral Deposit Type/Model for the Property*

There are three broad styles of mineralization at Barsele:

1. Orogenic or mesothermal intrusive-hosted gold related to the Gold-Line Trend,
2. High-grade gold-silver-lead-zinc mineralization hosted by syn-tectonic quartz-sulphide veins.
3. Epithermal gold-rich volcanic-hosted massive sulphide (V-HMS) regionally referred to as Skellefteå-style.

The Barsele Gold project, with the Norra V-HMS deposit and the CAS gold deposits are located at the intersection of the Skellefteå and Gold-Line metallogenic trends. The Norra would be more similar to the Skellefteå deposits which are dominantly by shallow syngenetic to epithermal gold rich base-metal deposits. The CAS intrusion-hosted gold deposits and associated high-grade veins would be more similar to the Gold-Line trend deposits which are dominantly deeper mesothermal, structural-controlled gold mineralization (Figure 4.1).

The shallow volcanic-related Skellefteå mineralization would appear to be unrelated to the intrusive-hosted orogenic-style gold mineralization which forms at considerably deeper levels in the earth's crust. However, the spatial coincidence of the three styles of mineralization suggests that they may represent a vertical continuum related to a 1.8 billion-year-old igneous intrusive event.

The intersection of a base-metal rich polymetallic vein associated with higher grades of gold in the western end of the Central Zone during 2006 may provide a clue as to how the V-HMS and orogenic styles of gold mineralization may be related.

Base metals and gold may have been remobilized during deformation after intrusion of the granodiorite. The granodiorite likely intruded into sulphide-rich shales or a massive sulphide horizon resulting from earlier volcanism. Evidence for such an interpretation are sulphide-rich argillites and felsic volcanics oriented parallel to the core axis of drill-hole CNDTH06-012 (Corkery et al, 2007).

Drill-hole logging in the Barsele Central area suggest a corresponding geological break along the geophysical anomaly near CNTDH06-012 with lithologies toward the north dominated by andesite porphyry dikes and felsic volcanics, and the south dominated by granodiorite, quartz veins and sulphide bearing metasedimentary argillites. This interpreted structural break may have acted as the main conduit or one of several major feeders for hydrothermally remobilized gold which formed the enveloping lower grade disseminated gold resource.

The range of gold-deposit styles is diverse within the Svecofennian Shield of northern Sweden. Deposit types cover gold rich:

- *volcanic-hosted massive sulphide,*
- *high-sulphidation epithermal,*
- *mesothermal vein-type,*
- *porphyry Cu-Au-Mo, and*
- *iron-oxide-copper-gold (IOCG) deposits*
- *intrusion related gold systems*

It is probable that a host of different ore forming systems were active in the nearby Skellefteå district including the dominant V-HMS, epithermal and mesothermal systems. Historically the Skellefteå district is known to contain some 80 separate volcanic massive sulphide and lode gold deposits; however the prospectivity of the Gold-Line trend has only recently been recognized. The gold contents in the Skellefteå massive sulphide ores are unusually rich in gold, and it is still uncertain whether the gold is a result of simple volcanic hydrothermal processes or if some massive to semi-massive sulphide deposits were epigenetically enriched in gold. Barsele is located at the intersection of the Gold Line trend and the Skellefteå VMS belt.

A number of gold mines operated in Fennoscandia during the 1980s including Svartlinden, Enäsen, Björkdal and Åkerberg in Sweden, Saattopora in Finland and Bidjovagge in Norway [Figure 4.1]. During the 1990s six new gold deposits went into production or were demonstrated to be economically feasible: Pahtohavare in Kiruna greenstone belt of northern Sweden, Pahtavaara and Suurikuusikko in Lapland greenstone belt of northern Finland), Harnäs in the Mjøsa-Vänern district of southwest Sweden, Kutemajärvi in the Tampere Schist Belt, of southern Finland, and Pampalo in the Huttu Schist Belt of the Ilomantsi area located in eastern Finland (Sundblad, 2003).



Figure 8.1- Mines in Sweden

The first mine in the area, Boliden was discovered in the early part of the 1900's (Figures 4.1 and 8.1). Boliden was a high-grade high-sulphidation epithermal gold deposit that is located at the eastern end of the Skellefteå district (Bergman et al., 1996). The mine was of immense economic importance to the district and resulted in the establishment of the Boliden mining and smelting company in 1924. The Boliden mine was depleted in 1967, but still remains Europe's richest gold mine. The Boliden Area comprises the mineral-rich Skellefteå field, where Boliden has opened about 30 mines since 1924 (Boliden website, March 2011).

Approximately 8.3 million tonnes were mined at the original Boliden mine averaging 15.5 g/t gold, 1.4 percent copper and 0.9 percent zinc. The Boliden deposit is hosted by the same volcanic succession as many of the massive sulphide deposits which occur throughout the Skellefteå district. Initially interpreted as a V-HMS deposit, it was not until recently that the deposit was interpreted as a high-sulphidation epithermal system.

At Björkdal, production is from gold-bearing veins that range from less than one metre about six metres in width and commonly occur as vein swarms. The veins are vertical and the granodiorite host rock is extremely competent. Björkdal is currently producing gold from both underground and open-pit operations at an annual rate of about 40,000 oz/year (Gold –Ore website March, 2011). The Björkdal mine belongs to the class of gold deposits known as intrusion related gold systems; the gold bearing CAS deposits at Barsele would also be in the same class of deposits. This class of deposits includes some new multi-million ounce gold deposits in Alaska such as the Fort Knox, Pogo, Donlin Creek and Dublin Gulch. Gold-Ore acquired 100 percent of the Björkdal mine in December 2007.

Also in the Skellefteå district but at the western end, Boliden's Kristineberg mine is located approximately 40 kilometres east of Barsele, that grade approximately 1g/t gold, 45 g/t silver, 5 percent zinc and 1 percent copper. The mine currently employs approximately 180 people and some 30 contractors, making Boliden the largest private employer in Lycksele municipality. Lundin Mining's Storliden deposit is located 60 km NE of Barsele and was discovered 1998. The mine opened 2002 with the last ore-shipment made in August 2008. Total production was 1.86 Mton with 3.1 % Cu and 8.8 % Zn, which gave a production of 52 kton Cu and 150 kton Zn (Boliden website March, 2011). Both Kristineberg and Storliden are examples of Skellefteå V-HMS deposits similar to the Norra VMS deposit at Barsele.

The Gold-Line Trend in Västerbotten (Figure 4.1) includes a series of gold deposits, mineralized occurrences and gold targets in different geological environments loosely aligned along a regional tectonic zone that stretches from the Caledonian mountains in north-west Västerbotten through the towns of Sorsele, Storuman and Lycksele and onwards towards the Gulf of Bothnia in the south-east. This zone may potentially represent an older rift zone, the age of which could be about 2 billion years. The gold mineralization is primarily associated with arsenopyrite and pyrrhotite.

The gold discoveries were made using classic boulder tracing, regional till sampling and then follow-up geophysical surveys and drilling. A number of gold occurrences and deposits in the Gold Line Trend have been discovered by various companies during the past 15 years of active exploration, including: Svartliden (Dragon Mining ASX), Ersmarksberget and Svartrask

(ScanMinina AB), Knaften, Stortjärnhobben, Sandviksträsk and Fäboliden (Lapland Gold Miners AB) and, Barsele (Orex-Northland). The Björkdal deposit in the Skelleftea V-HMS belt was also discovered by regional till sampling.

On the Gold-Line trend, the Svartliden gold deposit, operated by Dragon Mining (ASX) is located 45 kilometres south of Barsele (Figure 4.1). Svartliden has a small open pit deposit grading 3.5 g/t gold with an additional small in-pit mineralized body grading 2.9 g/t gold. The gold mineralization is hosted in metasediments (Dragon Mining website March, 2011). The Svartliden open pit mine was brought into production in 2005 and to date has produced 243,435 oz of gold and an average cash cost of \$481/oz. Ore is processed through a carbon-in-leach (CIL) processing plant with an average head grade of 4.8 g/t Au. The open pit operation is winding down as the company plans to begin underground operations. A small mineralized body is reported (3 g/t gold cut-off grade) grading 7.1 g/t gold for the western depth extensions was estimated by independent consultants Runge Limited (Dragon Mining website, March 2011).

In 2008, Lapland Goldminers purchased all the assets of ScanMining AB which included the Svärtrräsk deposit 10 km to the north of the Barsele Gold project and the Esmarksberget deposit with processing plant some 35 kilometres to the north-northwest. Scan Mining had outlined a small mineralized body at Svärtrräsk grading 5.2g/t silver and 2.6 percent zinc; at Esmarksberget, the deposit averages 0.7g/t gold, 8g/t silver and 1.5 percent zinc (Lapland website March, 2011). Lapland plans to increase the mineral resources before resuming operations at Esmarksberget.

Fäboliden is situated 50 km southeast of Barsele. The Fäboliden gold deposit is currently the second-largest in Fennoscandia, and one of the largest in Europe. It has proven and probable open pit and underground reserves grading 1.13 g/t gold with 3.22 g/t Ag and as well has measured and indicated resources averaging 1.2 g/t Au and 3.44 g/t Ag with additional inferred resources grading 1.2 g/t Au and 3.49 g/t Ag (Lapland website, March 2011). Lapland is planning to establish a central processing plant at Fäboliden in order to process material from a number of its Gold-Line projects (Lapland website, March 2011).

The authors have been unable to verify the exploration results, mineralization, resources and reserves for the above listed deposits (Boliden, Björkdal, Esmarksberget, Svartliden, Svärtrräsk, and Fäboliden) and that the mineralization is not necessarily indicative of the mineralization on the property that is the subject of this technical report.

8.2 Concepts Used For Exploration of the Property

In 1980, Terra Mining initiated a countywide, reconnaissance, geochemical till sampling program focused primarily on gold which resulted in the discovery of the Björkdal gold deposit that was subsequently placed into commenced production in 1988. Continued utilization of regional till sampling through to 1988 was successful in identifying anomalous gold concentrations both in surface and basal till at Barsele. In 1989, drilling of till anomalies identified bedrock gold mineralization that was subsequently known as the Barsele-Central Zone.

Based on earlier success, Terra completed increasingly more detailed till-geochemistry surveys culminating in the discovery of an additional five mineralized occurrences by 1995,

established by follow-up drilling. Between 1989 and 1998, Terra collected more than 10,000 “top-of-till” and “base-of-till” samples on ground now covered by the current Barsele concessions. In an area extensively mantled with glacial till, none of the new discoveries were exposed at the surface. Terra excavated trenches at the Norra, Avan and Central zones exposing the bedrock and providing valuable information on the style of mineralization and controlling structures.

Terra followed up these encouraging exploration results by drill-testing priority targets within geochemical anomalous zones which led to the partial delineation of the Norra, Avan, Central, Skiråsen, Skirträskbacken and Risberget zones. During this time, Terra also completed preliminary metallurgical testing, structural and mineralogical studies, and resource estimations. Both Terra and Northland made extensive use of the regional, circa 1980, airborne EM, Magnetics and Radiometrics flown by the SGU (Figure 8.2) as well as the regional Gravity surveys.

Northland continued to explore based on Terra’s exploration successes. Further work included ground geophysical surveys. The intrusive hosted CAS Zones is associated with a distinct magnetic anomaly low while the Norra V-HMS target is associated with a coincident magnetic and electromagnetic high anomaly. Low level, high resolution airborne geophysics followed by further ground geophysical surveys will assist in identifying additional similar targets in areas beyond the historic ground geophysical coverage. Geochemical MMI sampling has been proven to be an effective method for sampling till covered areas in Sweden, it is also less expensive and much faster than conventional till and base of till sampling.

Drilling of past geochemical and geophysical anomalies has proven successful in the past and will continue to be an exploration tool utilized in future exploration programs. Detailed geological interpretation including structural geology also must be utilized in the future exploration. The 1996 Barnicoat et al study of the N-S structure and the associated gold mineralization indicated that structural conditions must be a factor in determining future orientations of drilling.

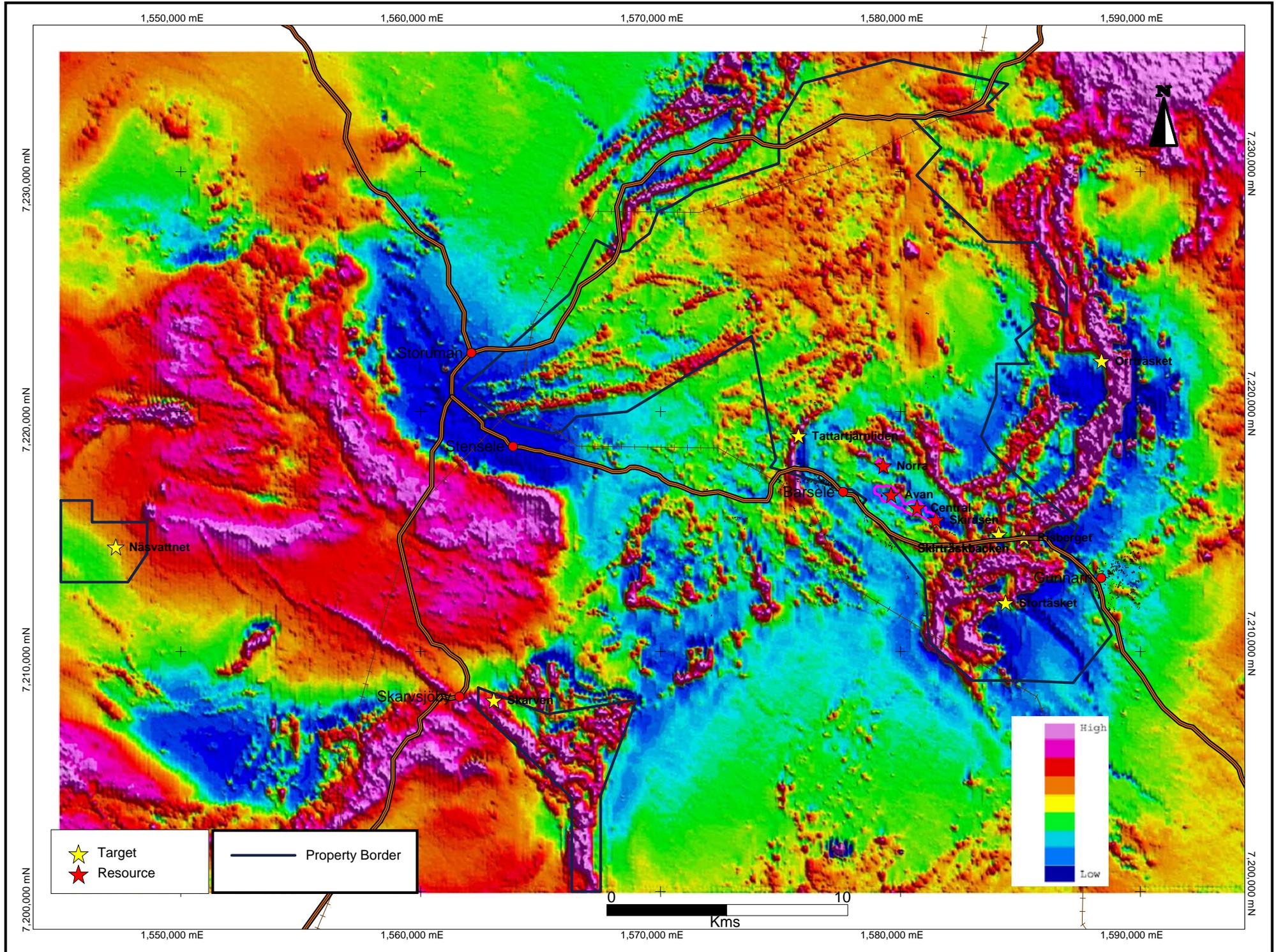
9.0 MINERALIZATION

The following disclosure on the mineralization is dominantly from the 2006 CAM report. Direct quotes from the CAM report are italicized.

9.1 *Surrounding Rock Types*

Gold mineralization at the Central Zone is hosted by a medium-grained, highly fractured granodiorite. The granodiorite exhibits a well developed S2 penetrative foliation which is cut by ductile shear zones, faults, fractures and dilational quartz-carbonate- sulphide veining. The granodiorite is quartz-feldspar phyrlic and is composed of sericitized plagioclase, quartz, biotite and lesser K-feldspar and in composition is quartz monzodiorite to granodiorite.

The S2 shear fabric trends north-northwest and dips steeply to the northeast at 80 to 85 degrees. Sericite clots are observed in the core which merge into phyllosilicate-rich “shearlets” referred to as phyllite lined fractures (PLFs) defining an S2 fabric. PLFs and quartz-tourmaline veinlets appear to be associated with gold (Bart Stryhas, personal communication). North-south



**Figure 8.2 - Regional Airborne Geophysical Survey
(Map Credit Northland Resources)**

trending sub-vertical quartz veins with or without sulphide are evident in the Central Zone drill-core. The Central-Zone granodiorite also locally contains trace amounts of Ti-magnetite, arsenopyrite, pyrrhotite, ilmenite, apatite, zircon, monazite, tourmaline and allanite.

Bedrock exposure in the Avan zone is mostly limited to exploration trenches where four different igneous intrusions can be clearly distinguished. Harno formation metasediments and metavolcanics are mapped on the northeastern margin of Avan. A relatively thin (metre-scale) lens of sub-vertical foliated dark sulphidic (disseminated pyrite/pyrrhotite) shales is also exposed in these trenches. The metasediments are intruded by olivine-pyroxene porphyritic basalt dykes, which are strongly deformed. The metasediments and dikes appear to form discontinuous lenses similar to a tectonic mélangé. It is reasonable to interpret the sulphidic shales/argillites as distally related to the V-HMS-style mineralization at the Norra Zone (see below).

A strong shear fabric observed at the Avan Zone has a south-east S2 orientation. Less sheared dykes and trachytic fabric of the diorite intrusions are northeast trending, suggesting that the primary fabric may have been refracted to the southeast by shearing. Inspection of drill-core and cross-referencing with gold assays clearly indicates that gold mineralization is preferentially hosted by granodiorite, and furthermore, higher-grade intersections correlate with small-scale shear zones, fractures and quartz veinlets. The contact between the granodiorite and mafic volcanic unit to the north appears to be semi-vertical. To date significant mineralized drill intersections have not been observed within mafic metavolcanic units.

Several samples of drill core from Norra (e.g. ND04-014) suggest that a massive quartz-porphyritic rhyolite unit occurs in the stratigraphic footwall to the mineralization and that a peperitic (Allen, 2006) basalt/andesite unit occurs stratigraphically above the mineralization. This pattern, comprising a rhyolite intrusion or lava in the footwall and basalt/andesite lava or intrusions in the hanging-wall is one of the most common volcanic settings for VMS ore deposits (Allen et al., 2002). In other parts of the Norra prospect, however, the peperitic basalt/andesite is intercalated with mineralized mudstones and there are rhyolitic rocks both structurally above and below the mineralization. More work is required in order to interpret whether these changes reflect changes in the volcanic stratigraphy along strike or whether they are due to stratigraphic repetitions related to faults and folds.

As discussed by Allen (2006), there are several different volcanic rock units at the Norra prospect. These include massive to brecciated rhyolite, dacite/andesite and basalt, and less abundant stratified volcanoclastic rocks. Most of the massive to brecciated volcanic rocks display intrusive contacts against the adjacent mudstone-sandstone, which indicates that they are intrusions and consequently are probably not confined to specific stratigraphic horizons. Geological cross sections suggest that the andesite intrusions post-date and cut the mineralization.

9.1.1 Relevant Geological Controls

At Barsele, deformation of Svecofennian age can be divided into early ductile and late brittle events. The earliest D1 deformation is evident as a steeply dipping, weak S1 foliation

defined by the alignment of micas parallel to the shear fabric. Generally, the deformation is sub-parallel to the northeast trending stratigraphy and axial planar to F1 folds. Subsequent D2 deformation, during greenschist facies metamorphism, consists of open to tight variably plunging F2 folds with steeply dipping axial planar fabrics. The D2 event contains a shear fabric (S2), and as a consequence, concordant with the Umeå River shear zone which appears to be the dominant structural control on gold mineralization at Barsele (B. Stryhas, personal communication).

The gold-rich volcanic-hosted, semi massive to massive sulphide style of mineralization at the Norra Zone is quite distinct from the mesothermal intrusive-hosted gold mineralization of the Central and Avan Zones. There is evidence that gold concentration may be independent of sulphide intensity within the VMS mineralizing system. Local lenses of dark mudstones, slates and mafic hyaloclastites probably indicate a sub- marine, volcanically active, depositional environment. Late stage faulting and post mineral intrusives introduce further complexity to the deposit geology.

9.2 Description of Mineralized Areas

Two distinct mineralized areas have been explored on the Barsele concessions: the Barsele Central, which includes the Skiråsen, Avan, and Skirträskbacken Zones, and the Norra Zone. The location of all mineral showings can be seen on Figures 7.1 and 7.2.

9.2.1 Barsele Central

Gold mineralization at Barsele is predominantly within a granodiorite that ranges in width from 200 to 500 metres with a strike-extent in excess of some 8 kilometres. The intrusion doglegs from an east-west orientation in the east to a northwest trend in the west where four major zones of higher-grade gold mineralization have been identified. The Central and Skiråsen Zones have a combined strike length of 1.35 kilometres by some 350 metres wide. The Avan Zone has a strike length of 1,400 metres and a width of 250 metres. A fourth mineralized zone at Skirträskbacken is located approximately three kilometres to the east and extends into the Risberget prospect.

At cross-section scale [Figure 9.1 shows a typical cross section looking NW: map credit-Northland Resources, formerly North American Gold], gold mineralization appears to be confined to steeply dipping envelopes or zones striking northwest and dipping steeply to the northeast, and at drill-core scale, mineralization is more specifically related to two principal structures. One mesoscopic controlling structure is related to S2 phyllosilicate-lined-fractures (PLFs) and quartz-tourmaline veinlets, and the second, to brittle dilational sites filled with reactivated quartz-carbonate-sulphide veins. The PLFs particularly are now recognized as an important control on mineralization, and reactivation of these fractures has resulted in the precipitation of arsenopyrite, calcite, chlorite and biotite. The dilational sites probably occurred by the reactivation of pre-existing veins during late, D2, brittle strike-slip translation.

Gold occurs as native metal alloyed with silver, and demonstrates a general association with arsenopyrite also occurring with pyrrhotite, calcite, chlorite and biotite. Base metal content of the deposit is typically low. Sulphide, carbonate and quartz-tourmaline veinlets are locally mineralized. The host-granodiorite contains probably less than two percent disseminated fine-grained sulphides occurring as arsenopyrite, pyrrhotite and pyrite.

Gold mineralization appears to be largely confined to the granodiorite with an abrupt drop in gold concentrations across a contact with a thick felsic dyke [generally mapped as metavolcanics in the drill holes]. In addition to gold, the mineralized zone is anomalous in silver, zinc, arsenic, antimony and bismuth. It is not possible at this stage to visually identify the gold bearing intrusive within the barren intrusive phases as to date there appears to be no unambiguous correlation between gold concentrations and either the intensity of the stockwork veining and/or hydrothermal alteration.

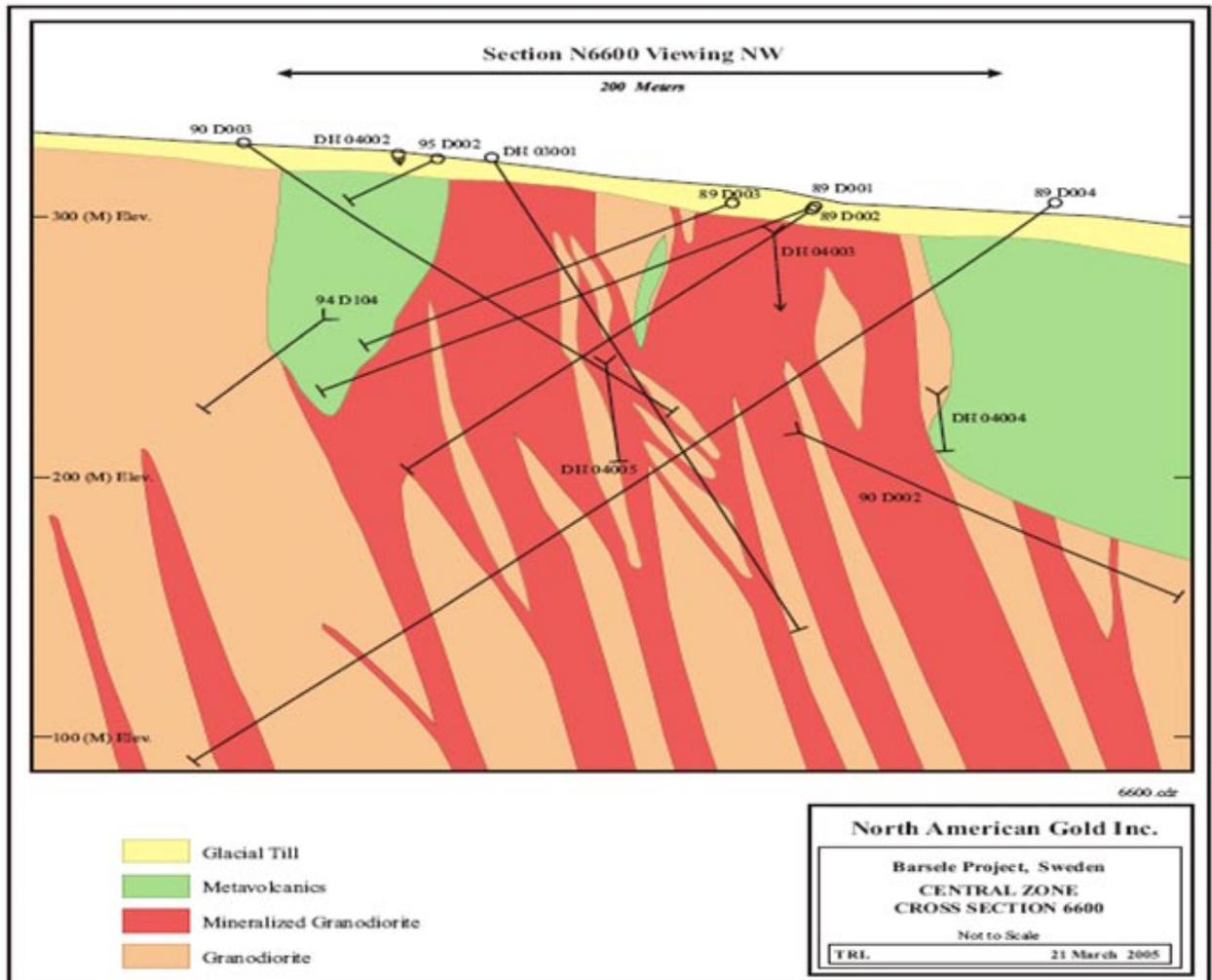


Figure 9.1 - Central Zone Cross Section L6600N

A second style of gold mineralization was recognized in the Central Zone in 2006/2007. Thick (up to 5 m) quartz-pyrrhotite-galena-sphalerite-arsenopyrite veins containing up to 50 g/t or more Au over 1 m sample widths were intersected in drilling. Based on overprinting relationships the following vein paragenesis can be interpreted (from earliest to latest):

- (1) Tourmaline-quartz±arsenopyrite veinlets containing 0.5 to 2.5 g/t Au.
- (2) Quartz±calcite-pyrrhotite-galena-sphalerite-arsenopyrite veins, commonly with high gold contents. These veins cut the tourmaline-quartz-arsenopyrite veins and S1 cleavage, but are locally brecciated and folded (?S2/S3).

(3) Barren quartz veinlets.

Pyrrhotite-galena-sphalerite assemblages within the quartz-sulphide veins generally display the characteristic matrix-supported breccia texture of tectonically remobilized sulphide veins. In this case the mineralizing source could be a local VMS horizon intruded by the granodiorite. Preliminary structural interpretation for the geometry of the high-grade vein(s) indicates a several meter thick anticlinal formation trending 220 deg -45 to the SW.

Most exploration in the Central and Avan prospects has focused on the low-grade gold resource and there remains potential for discovery of additional high-grade quartz-sulphide vein mineralization.

9.2.2 Norra Zone

Massive sulphide mineralization is exposed in two open trenches (14 meters x 6 meters) in the centre of the drilled zone. The footprint of the main mineralized body at Norra, based on drilling, is some 300 metres in strike-length varying from 5 to 50 metres in width (Martin 2003a. within a broadly anomalous zone some 300 metres in strike length by 50 metres in width). Figure 9.2 shows a typical cross section looking NW (map credit- Northland Resources, formerly North American Gold)

The Norra prospect contains a complex stratigraphy that comprises a range of different volcanic rock units intercalated within a succession of grey-black mudstone and thin sandstone beds (greywacke). The mudstone-sandstone succession that occurs between the volcanic units is interpreted to be marine hemipelagic mudstone with abundant, generally thin, sandstone turbidite beds. These sedimentary rocks were most likely deposited in a deep sea environment. At the Norra prospect, the mudstone-sandstone succession contains one or more 3-30 m thick intervals with disseminated, semi-massive and locally massive pyrrhotite-sphalerite mineralization (Fig. 9.2). This mineralization is fine grained, diffusely stratified and is variably overprinted by coarser grained recrystallized pyrrhotite-sphalerite patches and veins. The fine-grained, massive to diffusely stratified sulphide is interpreted to be stratiform mineralization that was originally deposited at, or just below, the sea floor in a deep water, volcanically active basin. The coarser grained sulphide patches and veins are interpreted to be younger generations of sulphide that were formed by recrystallization and remobilization of the earlier stratiform sulphides during metamorphism and deformation (Allen, 2007).

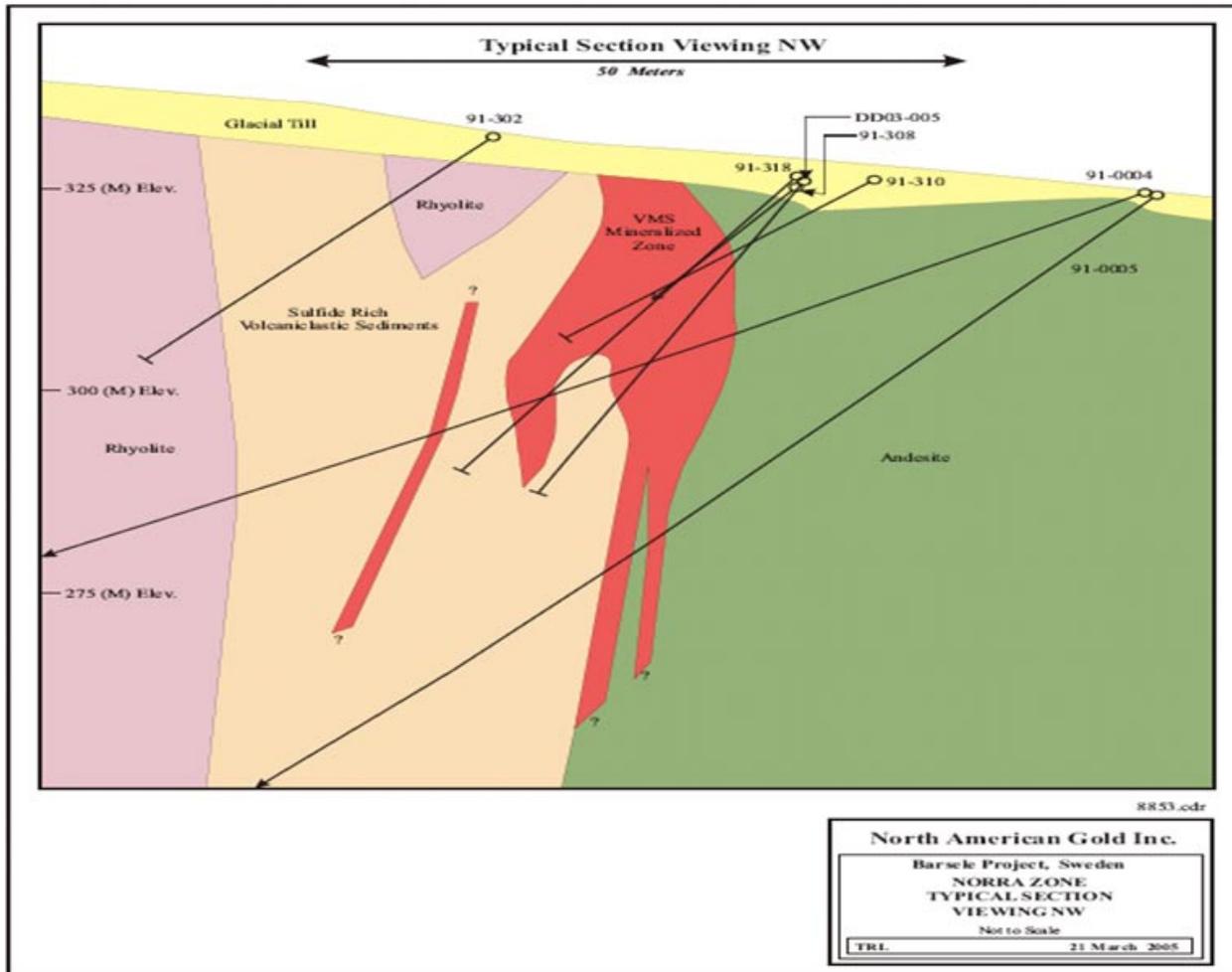


Figure 9.2- Typical Norra Cross Section

In addition to this pyrrhotite-sphalerite mineralization, the Norra prospect also contains relics of fine-grained massive arsenopyrite with disseminated to veinlet chalcopyrite. These arsenopyrite-rich patches correspond to some of the highest gold values encountered in the Norra prospect. Furthermore, they are virtually indistinguishable from similar fine-grained arsenopyrite patches and lenses that occur in several of the massive sulphide (VMS) deposits in the nearby Skellefteå mining district (for example the Boliden, Holmtjärn and Maurliden deposits). In both the Skellefteå district and at Barsele, the patches of fine-grained arsenopyrite are overprinted by subsequent stages of mineralization and consequently appear to represent an early stage of syn-volcanic mineralization (Allen, 2007).

9.2.3 Skirträskbäcken- Risberget, Tattartjärnliden, Näsvattnet and Stortäsket Zones

The following discussion relates to five high quality regional exploration targets within the land package that are considered prospects of merit that justify additional exploration. The location of all these zones can be seen on Figures 7.1 and 7.2. These targets range from prospects with discovery drill holes to early stage geophysical and geochemical anomalies. They are discussed in order of priority. Information on these prospects are derived primarily from reports by Frank van der Stijl, (van der Stijl, 2005 for Northland and van der Stijl 2011 for Ores) who

was project manager for the Barsele Project 2004 and consultant to Northland 2005. The author has included relevant comments from other Northland internal memos and personal observations.

Skirträskbäcken- Risberget

The following information is summarized from reports by (van der Stijl, 2005 updated 2011) and other internal Northland reports.

The Skirträskbäcken Au-prospect (Figure 7.2) is located in the central and SE part of the Gunnarn nr. 11 and Gunnarn nr. 20 permit application areas. The prospect is characterized by a large scale composite (till plus base-of-till) geochemical Au plus base-metal anomaly. It was previously called the Skirträskbäcken/Risberget prospect on the basis of two more or less separate clusters of (till) geochemical Au and As anomalies, of which the easternmost anomaly is situated immediately north of the Risberget hill (Figures 9.3 and 9.4). The following two figures show the original 2009 Northland property borders, the property holding have been expanded and there are no internal permit holes, see Figure 5.1 for the updated project boundaries.

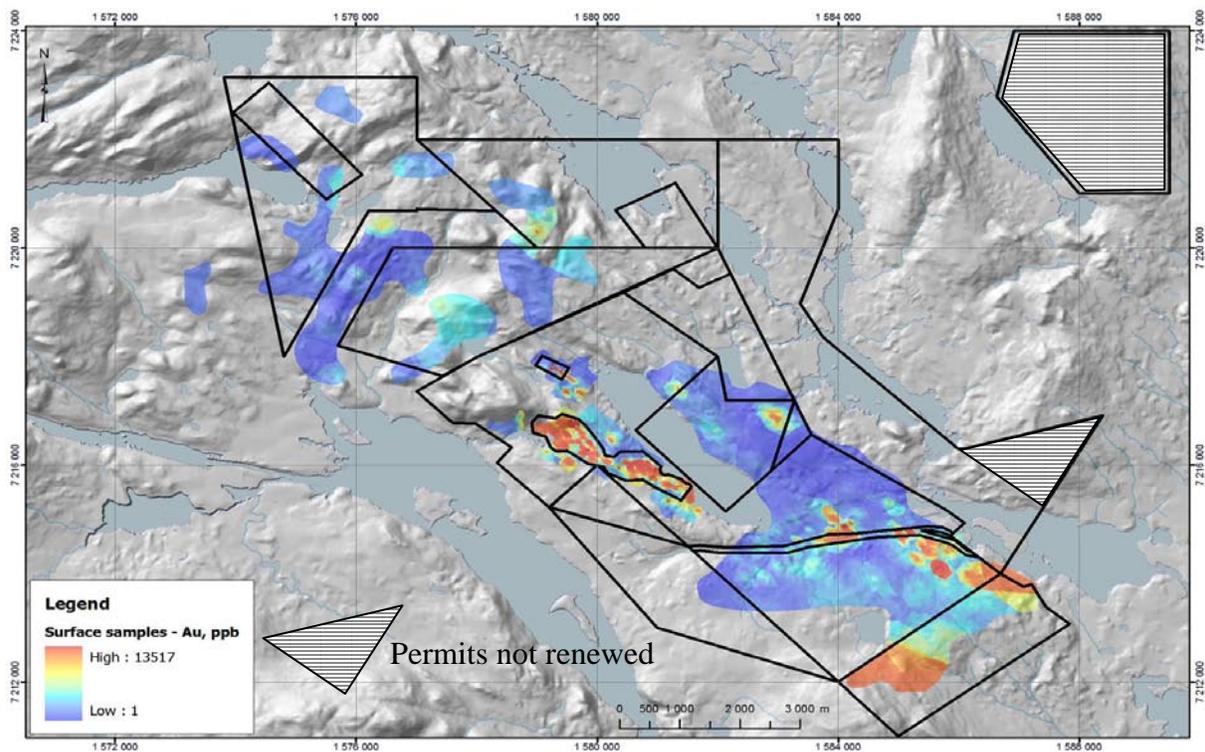


Figure 9.3- Geochemical Gold Till Anomalies (map credit- Northland Resources)

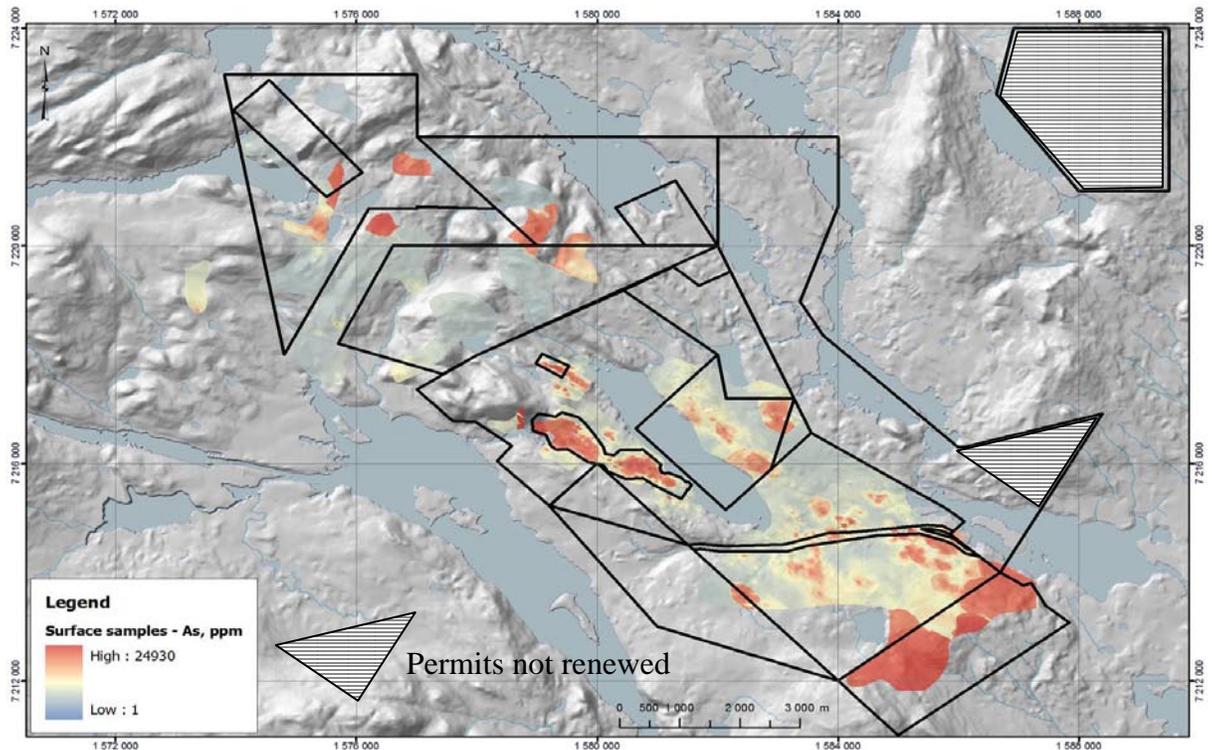


Figure 9.4- Geochemical Arsenic Till Anomalies (map credit- Northland Resources)

The Skiträskbäcken area is a direct continuation of the Au-mineralized Nora -Avan-Barsele Central-Skiråsen trend. The area is underlain by a zone of structural and lithological complexity with clustered to scattered geochemical Au anomalies occurring widespread both in C-horizon till and basal till. Diamond and RC drilling of a few reconnaissance holes (targeting on basal till and bedrock Au anomalies) returned up to 19 m grading 1.7 g/t Au (Table 9.1). Total meterage of combined RC and core drilling amounts to 1720 meters. The gold is hosted in hydrothermally altered zones of silicified, brecciated crystal tuffs and metavolcanics with associated arsenopyrite. The Skiträskbäcken mineralized trend carries on further ESE into the Risberget prospect where up to 6.8 g/t Au was reported from samples of exposed quartz veins at a contact zone between supracrustals and a late granitic intrusive.

The published 1:50,000 scale geological map indicates that the Skiträskbäcken area is underlain by a lithological package of graphitic and pyrrhotite-bearing meta-argillites to meta-greywackes with scattered interbedded syn-sedimentary slide breccias, belonging to the Bothnian Group of Svecofennian supracrustals. Intercalations of meta-volcanics are common (Figure 9.5). Significantly more intrusive rock similar to the Barsele Central granodiorite is present than indicated (van der Stijl, personal communication). A late cross-cutting WNW-ESE striking dolerite dyke occurs as well. According to this map, the steeply dipping lithological package strikes NW-SE, which is in agreement with the regional airborne magnetic trend map from which most of the geological interpretation is inferred (rock exposure in the area is poor). The setting of the doleritic dyke seems to accentuate a major WNW-ESE trending structural break that is visible on the air-magnetic map. Irrespective of the geo-tectonic interpretation of the

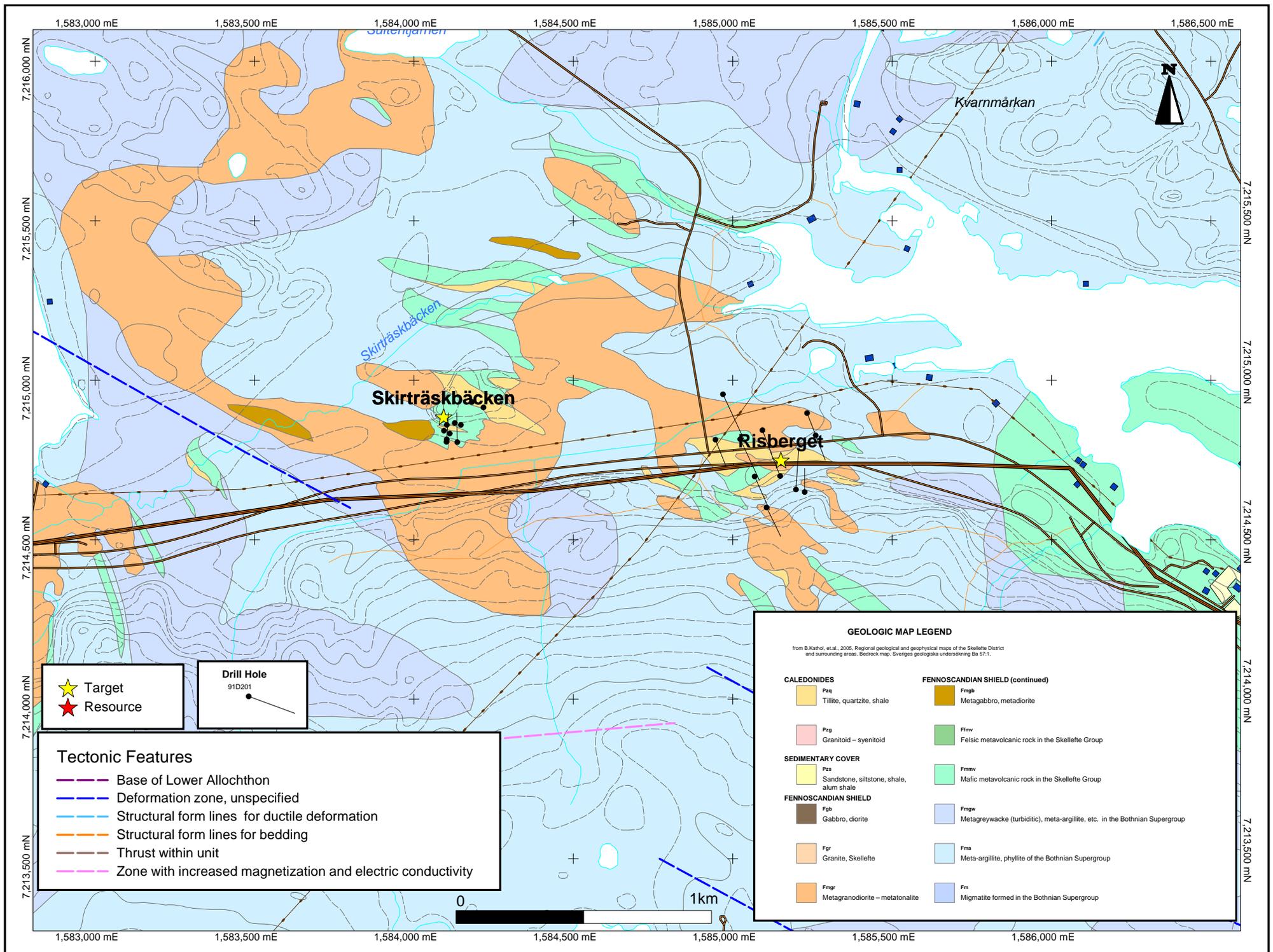


Figure 9.5 - Skirträskbäcken Geology
(Map Credit - Northland Resources)

available geophysical and geological data, it is obvious that the Skirträskbäcken area is underlain by a zone of structural and lithological complexity.

This area has been systematically covered by till and base-of-till geochemical surveys first by Terra and later augmented by Northland over a six km² pattern. Additional base-of-till sampling carried out by Northland (594 samples; E-W lines, 100-200 m apart, 50m sample stations) in 2006/2007 identified additional clusters of geochemically anomalous Au, As, Cu and Zn outside of the know Terra anomalies. The results from Northland's 2006 basal till sampling program were evaluated and statistically analyzed by (Shonk, 2007) including a recommendation for further work in the area.

The area is covered by a regional airborne geophysical survey (SGU data; mag total field and VLF circa 1980). A pole-dipole IP survey was planned in 2004 to cover all three sub-areas. Due to geo-technical problems, only the Central sub-area was surveyed, albeit interruptedly. Although a broad, very low resistivity lithology (most probably a graphitic shale of which boulders commonly are found in the area) affected seriously the efficiency of the survey, a discrete IP anomaly correlating with a narrow high resistivity zone was detected on the Central grid area. It was assumed that sulphide-related Au-mineralization in a possibly silicified host rock might be related to this narrow IP anomaly (Williams, 2004). Northland conducted detailed and reconnaissance style geologic mapping and sampling during 2005; approximately 25 rock-chip samples were collected and analyzed.

Table 9.1- Historic Skirträskbäcken Drilling – Significant Intercepts (true widths unknown)

Risberget Area

Diamond Hole no.	from (m)	to (m)	length (m)	Au (g/t)	Comments
91201	128	143	15	1.8	includes 2.7 g/t Au/ 6m
91202	67	86	19	1.7	includes 4.1 g/t Au/ 3m
					includes 2.4 g/t Au/ 5m
94201			0		low grade
94202	58	62	4	2.3	
	75	81	6	3.2	
	167	170	3	2.6	
94203	Few 1-1.5 g/t meter sections occur, otherwise low grade				
94204	80	81	1	2.9	
95201			0		low grade
95202			0		low grade
95203			0		low grade
95204			0		low grade
95205	77	78	1	2.0	

Skirträskbäcken Area

Diamond Hole no.	from (m)	to (m)	length (m)	Au (g/t)	Comments
91203			0		low grade
91204	62	63	1	1.6	
	84	85	1	1.4	
	90	91	1	2.9	

Skirträskbäcken Area (all RC holes were vertical and only 5m into bedrock)

RC Hole no.	from (m)	to (m)	length (m)	Au (g/t)	Comments
911946					low grade
911955	5	10	5	1.3	
911956	8	10	2	1.6	
911965			5	1.6	drill log missing
911972					low grade
911973	9	13	4	1.3	
912096					low grade
912071					low grade

Tattartjärnliden

The Tattartjärnliden prospect is located approximately three km northwest of the Norra Concession area within the new exploration permit Gunnarn nr 68 (Figure 7.2). Previous exploration has outlined a strongly anomalous zone of zinc-lead +/- silver mineralization over a strike length of approximately 2.5 km. Mineralization appears to be localized along the contact zone of a brecciated/ tectonically disturbed package of meta-argillite, graphitic schist and metavolcanic rocks with a granodiorite intrusive. This prospect is considered drill-ready.

Tattartjärnliden is underlain by a package of meta-argillites, graphitic schists and metavolcanics of varying composition (Bothnian Group) in contact with a granodiorite intrusive (Figure 9.6). Structurally these rocks occur within a major NW trending regional fold that is defined by a sharp curvilinear break in the regional magnetics; separating supracrustal rocks from the intrusive. The metasediment/volcanic package is intensely deformed and brecciated around the nose of the fold which appears to be the major mineralizing control. Sulphide mineralization (pyrrhotite, pyrite, arsenopyrite, chalcopyrite, galena and sphalerite) occurs as fracture and breccia-infill associated with late stage calcite veining and calcite breccia matrix.

This area was first discovered in the 1950's when rich boulders of sphalerite (up to 19% Zn) with galena were reported. A regional airborne geophysical survey (SGU data; mag total field and VLF circa 1980) covers the area. In addition the SGU also conducted a regional till sampling and boulder tracing survey in the early 1980's and drilled two core holes in 1985 totalling 259 meters. Terra Mining completed regional and detailed surface till sampling over the area (1988-1995) outlining a multi-cluster Zn, Pb, Cu, As, Ag anomaly. Northland further delineated the Tattartjärnliden zone with a base-of-till survey (300 samples), boulder and outcrop sampling (125 samples, exceeding the boundaries of Gunnarn nr 68 permit area) and mapping. Results of Northland's work indicate that the mineralized horizon can be traced approximately

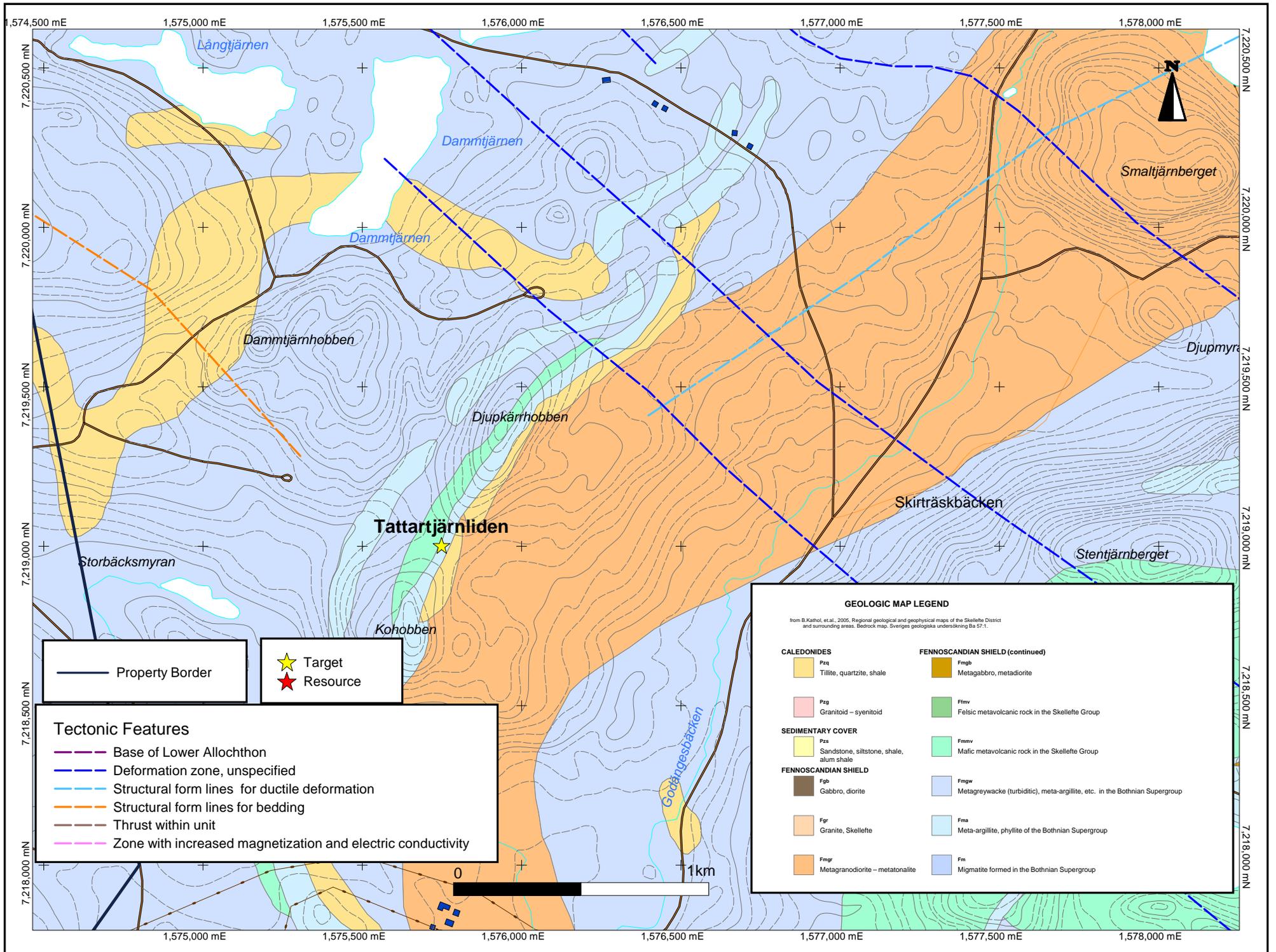


Figure 9.6 - Tattartjärnliden Geology
(Map Credit - Northland Resources)

2.5 km along strike. The magnitude of the base-of-till anomaly ranges from 500ppm to 8,000ppm Zn; float and outcrop samples individually range up to (16.3% Zn, 2.1% Pb and 19 ppm Ag).

Assays are not available for the two SGU holes; however they were relogged from split and quarter core by Minmet (memo by Jeremy Martin, August, 2003). A summary of the main observations and conclusions are as follows.

The principal lithology observed in drill holes BH-85001 and BH-85002 is a dark grey to black, very fine grained unit. The unit has a granular texture dominated by lithic fragments and quartz eyes. Grain size variations occur, ranging from very fine grained tuff to coarse grained volcanoclastics with clasts rarely exceeding 10mm. It is typically interbedded with fine grained mudstone or siltstone horizons, which are often deformed displaying microfolds. The unit has a well developed foliation, which increases in intensity towards the base of the section. Alteration occurs in the form of patchy silicification. The unit is cross cut by medium grained quartz-feldspar dykes, and numerous quartz and calcite veins.

Mineralisation comprises sphalerite, pyrrhotite, pyrite and minor chalcopyrite. These occur as veinlets and blebs associated with veining. A direct relationship is observed between sphalerite and calcite veinlets. The calcite veinlets are late stage and cross cut everything. There is also a relationship between pyrrhotite, pyrite and chalcopyrite mineralisation and calcite veins.

Areas of brecciation and deformation are readily apparent in the core. These contain graphitic shale clasts, which are surrounded by carbonate. Mineralisation is intense and has been focused in these deformed areas, most likely relating to calcite infill. BH-85002 also contains two, metre wide horizons of marble within the principal tuffaceous unit. The marble is green in colour with patches of pink calcite and displays intense silicification with cross-cutting calcite veinlets which are pre-silicification.

Conclusions

- 1. There is a direct relationship between mineralisation and late stage calcite, evident in both the boulders and the core.*
- 2. The principal lithology in the core is a fine grained dark grey unit, and the boulders are composed of black shale. These are likely to be the same lithology.*
- 3. Mineralisation increases in intensity in areas of brecciation.*
- 4. Comparisons suggest the boulders are local. Sphalerite boulders are easily broken therefore were not transported far.*
- 5. Work was not continued at the time of discovery due to low lead and zinc prices. The boulders have been sent off for re-assay by MinMet and if similar zinc values are returned, further exploration work is recommended.*

Näsvattnet

The following information is summarized from reports by Frank van der Stijl (van der Stijl, 2005 updated van der Stijl, 2011).

The Näsivattnet prospect is situated in the Näsivattnet nr. 4 exploration permit (Figure 7.1) granted to Northland Resources AB on June 18, 2004 covering 969 ha. The prospect was discovered in 1974 by SGAB, a predecessor to the Swedish Geological Survey, during a regional tungsten evaluation program. A boulder trail of tungsten (W) mineralized rock was found returning values up to 1.3% W. Further boulder tracing in 1979 resulted in the localization of three new boulder trails of sulphide-bearing rock returning highest values of 3.0% Cu, 9.2% Zn, 2.0% Pb and 680 g/t Ag in samples from semi- to massive sulphide-bearing dioritic rock.

The majority of the prospect area is interpreted to be underlain by an early orogenic Svecokarelian granodiorite (1.90 – 1.86 Ga; comparable to the Barsele Central host rock). A contact with a late orogenic (1.81 – 1.77 Ga), coarse grained granite intrusion is inferred to occur immediately south of Lake Näsivattnet. In the western part of the area, greywackes, limestones and shales belonging to the Caledonian Blaik Nappe Complex are inferred to overlay discordantly the Svecokarelian intrusive suite.

During the period 1974 – 1985 the SGU conducted several exploration programs in the area consisting of additional bolder tracing, trenching, peat geochemical surveys, very limited base-of-till sampling, extensive geophysical surveys and drilled three diamond drill holes totalling 709 metres in the area of the massive sulphide boulders. The majority of this work was directed in the inferred “up-ice” direction from the mineralized boulders. Assay results from rock/float samples collected by Northland in 2007 confirm the occurrence of strongly mineralized boulders in the area. Out of approximately 74 samples collected, 18 samples returned up to 17% Zn, 4% Cu, 4% Pb and up to 1,070 ppm Ag (all < 0.3 ppm Au). The registered coordinates of the sample locations indicate that all 18 samples were collected in a 100 x 130 m large area, assumingly the central area for the old trenches from the early 1980’s.

Previous exploration focused to a large extent on finding the source of the mineralized boulder trails that were discovered in the period 1974 – 1982. Much effort has been spent especially on the boulder trail which returned high Cu/Zn/Ag values in (locally) massive sulphide boulders. The source of these boulders was never defined despite the concentrated exploration efforts by the SGU. One conclusion is that the interpreted ice flow direction was wrong, leaving the possibility of a more remote source for the boulders.

Storträsket - Tolvmanmyran

The following information is summarized from internal Northland reports (van der Stijl, 2005 and others, updated 2011 for Orex)

The Storträsket and Tolvmanmyran prospects are located in a 491 ha area covered by the Risberget nr. 1 permit application extension (Figure 7.2). Two geologically related (W-Au-Mo-Cu) mineral prospects are known in the area: the Storträsket prospect and the Tolvmanmyran prospect, both situated along the northern rim of a granite dome and within the SW part of the concession area. Wolframite / scheelite mineralized quartz veins (often with elevated Au/Ag values) occur in the contact area between the granite and surrounding argillite metasediments and metavolcanics.

A third target area of primary interest is located in the NNE parts of the Risberget licences. Regional surface till sampling carried out by Terra Mining shows anomalous Au/As

values in the NNE parts of the Risberget licence area unrelated to the tungsten mineralization (Figures 9.3 and 9.4). These anomalies are aligned along strike and appear to be a continuation of the strongly Au/As anomalous Barsele (Central) – Skiråsen – Skirträskbäcken (surface till) trend. This prospect area is directly connected to known Au anomalies in surface till and in reconnaissance drill holes on either side of Skirträskbäcken.

The geological framework of the area covered by the Risberget nr. 1 permit application includes the (locally W-Au-Mo-Cu mineralized) contact between a porphyritic granite dome and surrounding supracrustals. The major part of the license area is made up by the tectonically disturbed package of meta-argillites, graphitic schists and metavolcanics of varying composition (Bothnian Group). Sulphide mineralization (pyrrhotite, pyrite, arsenopyrite, chalcopyrite, galena and sphalerite) is relatively common as fracture infill in the supracrustals (up to 65 ppm Ag is reported from an outcropping felsic metavolcanics at Risberget Hill). Lenses of massive pyrrhotite occur in a few places within the graphitic schists.

The Storträsket and Tolvmanmyran (W-Au-Mo-Cu) prospects were discovered in the 1970's through boulder tracing and further investigated by the SGU through geophysical and geochemical surveying, trenching and diamond drilling (2,024m). Both prospects contain NNE trending quartz-vein (10-70cm) swarms approximately 100m wide. Disseminated scheelite occurs in the quartz veins which are locally Au-anomalous: reported Au values from sampled veins in the trenches vary between 0.1 – 6.8 ppm Au (and up to 40 ppm Ag). There were no anomalous Au values reported from the SGU drill core analyses, however only select intervals containing scheelite mineralization was analyzed and there were few Mo analyses. An internal Northland report (Shonk 2006) highlights the potential for economic grade Mo-W-(Sn) mineralization in the marginal greisenized leucogranite phase of the Storträsket granite dome within the areas of the occurring quartz-wolframite-scheelite vein clusters. This area was not a priority target for either Northland or Terra and subsequently has not been adequately explored.

10.0 EXPLORATION

Orex Minerals has completed no exploration on the property. All previous exploration completed on the property is summarized in the History section of this report.

11.0 DRILLING

Orex Minerals has completed no drilling on the property. All previous exploration completed on the property is summarized in the History section of this report. The historic drilling is summarized in the History section 6.0 of this report. Co-author Thornsberry was involved in all aspect of the previous drill programs from 2004-2008 and has viewed the stored historical core and cuttings.

There has been a total of 398 holes drilled to date on the property, 337 diamond and 61 reverse circulation (RC) drill holes. The majority of the drilling was in the CAS gold zones followed by drilling at the Norra Zone. Regional drilling at Skirträskbacken-Risberget only accounted for 9 holes (1,157m). Terra Mining drilled 61 RC holes in the Avan and Norra zones at depths between 6-24m to test the depth of till and estimate the rock type beneath the till layer (Table 11.3). The following tables summarize the historic drilling.

Table 11.1 - Historic Diamond Drilling (Totals)

Company	Years drilled	All drilling	
		holes	(meters)
Terra Mining	1989-97	250	27,821.0
MinMet	2003	7	1,045.1
Northland	2004-2006	80	13,789.3
Totals		337	42,655.4

Table 11.2 - Historic Diamond Drilling (by Zone)

Company	Central drilling		Avan drilling		Skiråsen drilling		Norra drilling		Risberget drilling	
	holes	(meters)	holes	(meters)	holes	(meters)	holes	(meters)	holes	(meters)
Terra Mining	116	12,727.0	59	8,118.0	23	2,623.0	43	3,196.0	9	1,157.0
MinMet	4	799.6					3	245.5		
Northland	45	8,240.7	5	1,063.6	3	607.5	27	3,877.5		
Totals	165	21,767.3	64	9,181.6	26	3,230.5	73	7,319.0	9	1,157.0

Table 11.3- Historic RC Drilling

Company	Years drilled	All drilling		Avan drilling		Norra drilling	
		holes	(meters)	holes	(meters)	holes	(meters)
Terra Mining	1989-97	61	954.0	40	667.0	21	287.0

12.0 SAMPLING METHOD AND APPROACH

Orex Minerals has completed no exploration on the property. All previous exploration completed on the property is summarized in the History section of this report. The following is a general summary of the past work.

12.1 Historic Work

Table 6.2 summarizes the work done. Geochemical surveys and geological mapping covered the entire 11,000ha property; government flown airborne geophysics (1980 survey) also covered the entire property. Since Orex acquired the property, it has expanded the property to 32,709ha. Ground geophysics covered the main zones of Avan, Central, Skiråsen (CAS), and Norra as well as some of the other exploration targets such as Gunnarn, Nasvattnet and Skiträskbacken. Trenching was completed at CAS, Norra and Nasvattnet. Drilling was concentrated at Avan, Central, Skiråsen (CAS), and Norra as well as at Skiträskbacken. The baseline water testing program includes samples sites throughout the property but also covering the drainages surrounding the property several kilometers away.

12.2 Areas of Concern

In 1995, Terra contracted Anamet Services to complete a mineralogical and preliminary metallurgical testwork on a one tonne bulk sample of mineralized rock excavated from a trench at the northwestern part of the Barsele Central Zone (Reynolds, 1996). Full details of that work are located in Section 16.1 of this report. The average head-grade of the sample was 5.1 g/t gold and 4.3 g/t silver, considerably higher in grade than the historic Barsele Central drill grades where previous drilling programs had indicated a grade of about 1.5-2 g/t gold. No conclusions have been drawn as to why the grades are so different. The authors have observed visible gold in the core and the core samples were not routinely analyzed using metallic analyses. Coarse gold could be a contributing factor so future exploration must consider the possible influence of free gold in the host rock.

12.3 Sample Quality

The authors have reviewed much of the historic data and in addition, co-author Thornsberry was VP Exploration for Northland (North American Gold) from 2004-2008 and therefore was directly involved in all sampling taken place on the property during that period. The authors have concluded that there have been no sampling biases and that the sampling was done in a thorough and professional manner.

12.4 True Widths

As the CAS deposits are large intrusive bodies, it is difficult to determine if the drill intercepts quoted in this report represent true widths although it would be reasonable to assume that drill intercepts are no less than 75-80% of the true widths.

13.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

Orex Minerals has completed no exploration on the property. All previous exploration completed on the property is summarized in the History section of this report. The following is a general summary of the last work program completed on the property, the 2006 Northland drilling program which was completed under the direct supervision of co-author Thornsberry.

13.1 Sampling Personnel and Security

All sampling from 2004-2007 was done by Northland's personnel with the exception of the samples collected by Golder used for the completion of the MKB environmental assessment. During 2005 Northland constructed a modern core handling and logging facility in Storuman and in 2006 added a core-sawing unit. Core from 2006 was entirely handled and sawed at this facility by highly trained Northland personnel.

13.2 Sample Preparation and Analytical Procedures

Drill-core from Northland 2006 drilling campaign at Barsele, with the exception of drill-holes CNTDH06001 to CNTDH06005 was cut with a diamond saw with one half of the core submitted for analysis and the other half retained in indexed wooden core-boxes. Samples were collected to provide one-meter sample intervals, using index markers for reference inserted in the core boxes by the drilling contractor for control. Prior to sawing, the core was measured for recovery, geologically logged and then marked for sampling with a unique sample identification number appropriately labeled and the corresponding pre-printed sample number (sample tag) inserted in the core box. The core was then photographed providing a back-up visual record for

reference. Plastic bags were marked with the sample identification number and the pre-printed number removed from the core box was inserted in a plastic sample bag with the one half split core. Drill holes (CNTDH06001 to CNTDH06005) were HQ size core and the entire core was shipped and samples prepared for analysis as a test to compare larger sample size with the gold values in nearest neighbor drill holes from the Terra drilling. This series of Northland core holes was also subjected to the same pre-sampling procedure as described above with the exception of sawing and retention of the split core.

During 2005 Northland constructed a modern core handling and logging facility in Storuman and in 2006 added a core-sawing unit. Core from 2006 was entirely handled and sawed at this facility by highly trained Northland personnel. Half-core samples were wrapped in plastic sample bags, secured with nylon cable ties, put in containers and shipped via commercial carrier to the ALS Chemex core-sample prep facility in Pitea. Sample rejects, the master pulps and split core from the 2004, 2005 and 2006 drilling are retained on the project site in a secure and dry facility. Digital photos from all drilling campaigns are retained in the Storuman office and on DVD's in a bank vault in Storuman. During and after the drilling program, the samples were locked in the secure Northland storage facility.

In 2005 the SGEA laboratory facility in Pitea, previously operated by Hokan Backman, was acquired by ALS Chemex International and became ALS Sweden AB referred to as ALS Chemex Pitea. The laboratory was upgraded and the sample preparation facility modernized, fully conforming to ALS Chemex standard international practices. Northland samples were trucked directly to the lab at Pitea located approximately 300km to the east on the coast.

ALS Chemex Sweden AB, of Pitea, Sweden was responsible for sample preparation and shipment of sample pulps to ALS Chemex Vancouver for analysis. At the ALS Chemex Pitea facility, the core was crushed to produce a crush product with 70% of material less than 2mm diameter, pulverized to better than 85% passing 75 microns and weighed. Equipment consisted of a small jaw crusher, bowl pulverizer, ring and puck pulverizer and scale. Rejects were preserved on Northland's request. Air guns were regularly used for cleaning the equipment. Blank gravel material was available at the station to clean out the equipment. ALS Chemex of Vancouver, Canada, using international standards ISO 9001:2000 and ISO 17025:1999 completed and certified all of Northland's analytical work for the 2005-6 drilling at the Barsele Project Sweden. Gold analysis was performed using fire assay with an atomic absorption finish Au-AA26, high grade Au using a 50g FA-AA finish and a 34-element analysis by aqua regia and ICP-AES.

13.3 Quality Control and Quality Assurance

In addition to ALS Chemex internal sample preparation and assay QC protocol, Northland maintained a rigorous quality control program consisting of inserting blanks, duplicates and certified standards to the analytical process. Certified standards and blanks were inserted into the sample train at the rate of one per every 20 samples analyzed on a random blank and standard selection. In addition, during the latter portion of the 2006 drilling, the first three samples from each sample batch began with the insertion of two blanks and one standard to check for batch contamination and calibration.

In total Northland inserted 188 blank samples, 43 duplicates and 109 standards into the 2006 drilling sample train. Analyses for all blank samples showed concentrations of less than the detection limit at 0.005ppm.

During 2006, ALS Chemex Pitea split 150g from a 3kg master pulp representing all the half-core of the drill sample. The 150g pulp was sent to ALS Vancouver for analysis and Northland requested duplicate pulps to be sent to Vancouver to check reproducibility of results. Of the 43 duplicate samples submitted by Northland four samples above a threshold of 0.2g/t gold which were considered of potential economic significance showed a variance of greater than 10 percent from the reference sample. The author considers that no more than 10 percent of the samples falling outside a 15 percent variance is acceptable. Two duplicate samples for samples #20965 and #21378 initially assayed 0.43 and 0.28ppm gold respectively with duplicates assaying 0.35ppm and 0.22ppm showed a variance of greater than 15 percent at 18.6 and 21.4 percent respectively. In this case the absolute variance is small and more important than the percent variance which would be significant for much higher concentrations of gold and the results of the duplicate analyses are considered acceptable.

ALS Chemex in Vancouver ran duplicate analyses on 169 samples with again four samples showing a variance outside the 10 per cent limit. One sample #280605 initially assayed 2.47 with a repeat of 2.16ppm showing a variance of 12.6% another sample #282717 initially assayed 12.8ppm with a repeat of 10.8 showing a variance of 15.6% and both of these results are considered as reasonably acceptable as less than 10 percent of the samples showing a variance of no more than 15 percent. Two samples #280905 and #282715 showed variances of 16% and 20% but with low absolute variances of 0.15 and 0.06ppm they are considered acceptable.

13.4 Interpretation

The sample preparation, analytical methods and security for the work done by Northland were of very high standards and the authors have no reason to doubt the results based on this work.

14.0 DATA VERIFICATION

14.1 Quality Control and Data Verification

The last field exploration work done on the project was the Northland drilling in 2006. The QA/QC protocol for Northland's 2006 drilling campaign is discussed in Section 13.2 of this report. This work and all previous work on the project from 2004-2007 was under the direct supervision of Vance Thornsberry in his capacity of Vice President of Exploration for Northland so there is no need for any independent data verification or independent sampling.

In January 2011, Orex Minerals, under the direction of Vance Thornsberry, have completed detailed database verification. All drill hole data was checked against the various generations of databases provided by Northland and a final verified database was utilized by co-author Giroux for his resource estimate.

14.2 Limitations

There were no limitations put on the authors that would have restricted the data verification.

15.0 ADJACENT PROPERTIES

15.1 *Relevant Data on Adjacent Properties*

There are no known mineral deposits on properties directly adjacent to the Barsele Gold project although there are numerous mineral occurrences, deposits and mines in the region of the Barsele Gold project area that bear geological similarities to the Norra and CAS zones which have been summarized in Section 8.1 of this report. The closest defined mineral deposit is Lappland Goldminers' Svärträsk deposit located 10 km to the north of the Barsele Gold project that contains outlined a small mineralized body grading 5.2g/t silver and 2.6 percent zinc.

16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

16.1 *Mineral Processing and Metallurgical Testing*

Orex Minerals has completed no mineral processing or metallurgical testing on the property. The following disclosure on the mineral processing and metallurgical testing is from the 2006 CAM report. Direct quotes from the CAM report are italicized.

In 1995, Anamet Services in Bristol, England carried out mineralogical and preliminary metallurgical testwork on a 1,000 kilogram split of a 100 ton bulk sample of mineralized rock excavated from a trench at the northwestern part of the Barsele Central Zone (Reynolds, 1996). [The sample was collected by Terra Mining personnel].

The gold mineralization predominantly consists of particles of electrum (natural alloy of gold and silver), approximately 850 fine, ranging up to 160 microns but rarely exceeding 15 microns. Most of the electrum is present along grain boundaries within phyllosilicate-rich concentrations consisting of chlorite, biotite and sericite, and along fractures and associated quartz tourmaline veinlets.

Refractory gold content was about 8 percent by weight, mostly consisting of tiny inclusions of electrum encapsulated in arsenopyrite. Knelson gravity concentrator tests were not successful in generating satisfactory recoveries to produce commercially viable gold-concentrates. Energy requirements for grinding the mineralized material are predicted to be high - the Bond work index (Wi) determination carried out on minus 3.35-millimetre (mm) material yielded a Wi value of 14.5 kilowatt-hour/tonne.

Direct cyanidation of samples wet ground to 80 percent passing 170 microns and 62 microns (after leaching for 24 hours) yielded gold dissolutions of 85.9 percent and 92.9 percent, respectively. Calculated cyanide consumptions were 0.84 kilograms/tonne (kg/t) and 1.41kg/t, respectively.

Direct cyanidation of samples crushed to pass 5.56mm, 3.35mm and 2.00mm yielded gold dissolutions of 52.9 percent, 66.1 percent and 72 percent after 72 hours; calculated cyanide consumptions were 0.55kg/t, 0.69kg/t and 1.42kg/t.

The average head-grade of the sample was 5.1g/t gold and 4.3 g/t silver, and therefore significantly higher in grade and may not be representative of the Barsele Central Zone as a whole. Drilling in the area of the trench had previously indicated a grade of about 2 g/t gold.

As part of their QA/QC, Northland in 2004 submitted 21 drill core pulp samples from the Barsele Central ranging in value from 1.12 g/t gold to 6.49 g/t gold to ALS Chemex Vancouver for accelerated cyanide leach determination. The results indicate an average cyanide soluble recovery of 93.5%. An additional 11 pulp samples from the Barsele Central ranging in value from 1.1 to 14.08 g/t gold were analyzed by a similar method in 2005 by Omac Laboratories of Galway, Ireland. Results were similar indicating 92% cyanide soluble recovery. Three bottle roll tests were conducted on prepared core by Kappes Cassidy in 2004 with an indicated average recovery of 87%. Seven Specific Gravity determinations were completed by Golder and Associates on whole core from the Barsele Central in 2004. The results ranged from 2.71 to 2.75 with an arithmetic average of 2.73.

It is believed that the 2004 Northland sampling for cyanide leach determination was representative of the Central deposit. It is not known if the 1995 Terra Mining one tonne bulk sample was representative. As indicated elsewhere in this report, the difference between the grade from the one tonne surface bulk sample and the average drilled resource grade in an area of concern and will be addressed in the proposed Orex exploration program.

In 1992, Terra Mining completed a number of copper and zinc flotation tests from a large bulk sample of Norra mineralization (sample size unknown) at the Boliden plant. The specific gravity used in the Norra model was derived from this bulk-test conducted by Boliden for Terra Mining in 1992. The following are the conclusions derived from this test (Noren and Bolin 1992) and were not included in the CAM reports:

- *A copper concentrate with 16.5% Cu grade at a copper recovery of 78% is possible to produce. The gold recovery to this concentrate is low (32%) and at the same time there is a selectivity problem towards arsenopyrite. The selectivity copper-arsenopyrite is improved when dextrin is added in the flotation.*
- *A zinc concentrate with 50% Zn grade at a recovery of 75% is possible. The low zinc grade is caused by co-floating arsenopyrite.*
- *The results for gold indicate that a high percentage of gold content is included in arsenopyrite and thereby difficult to recover with good economy.*

The Norra V-HMS style of mineralization is not the primary focus of future Orex exploration programs. Some work will be done to attempt to expand the dimensions of the known mineralized body and with success will trigger new metallurgical studies.

17.0 MINERAL-RESOURCE AND MINERAL-RESERVE ESTIMATES

17.1 Introduction

At the request of Orex Minerals, Giroux Consultants Ltd. was contracted to complete resource estimates on the Norra VMS and the Avan, Central and Skiråsen gold zones that make up the Barsele Project located near Storuman, in northern Sweden. The resources were estimated by Gary Giroux, P.Eng., MASc. who is a qualified person and independent of the both the issuer and the title holder, based on the tests outlined in NI 43-101. The Norra volcanic massive sulphide (VMS) zone and the Avan Gold zone were estimated separately while the Central and Skiråsen were combined (see Figure 17.1). The Avan, Central and Skiråsen zones are all considered to be structurally controlled mesothermal gold deposits. The data bases for each deposit were provided by Orex Minerals and have been independently verified by QP Bart

Stryhas, now with SRK. This estimate represents an update to the resource produced for North American Gold Inc. by Chlumsky, Armbrust and Meyer in April 2006 (Barry, et. al., 2006). Since 2006 an additional 21 diamond drill holes have been completed on the Central and Skiråsen zones.

17.2 Avan, Central and Skiråsen Deposits

For estimation purposes the three zones were broken up into two: the Avan zone and the combined Central and Skiråsen (see Figure 17.1). There were a total of 300 drill holes provided for these three mineralized zones totaling a combined 34,210 m.

17.2.1 Data Analysis

Avan

Gold assay data was available for a total of 110 diamond drill holes within the Avan zone. The gap in data between the Avan and Central zones and the different strike of the zones led to the Avan being estimated on its own (see Figure 17.1). A three dimensional solid was constructed originally by North American Gold geologists using geologic criteria and a rough 0.3 g/t Au cut-off (Barry, et. al. , 2006). The interpretation was completed on sections and bench plans and outlines structurally controlled mineralized lenses within a granodiorite surrounded by metavolcanics. The Avan zone has a north-south strike length of 1,400 m and a width of about 250 m.

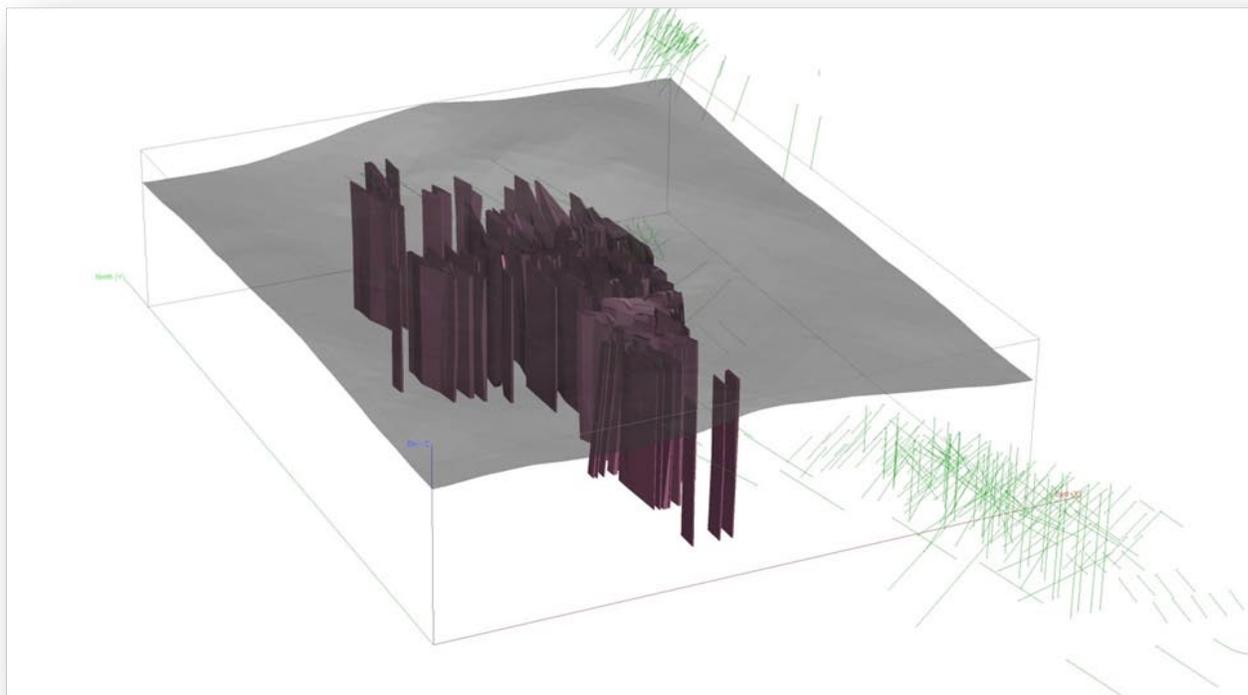


Figure 17.2: Isometric view looking NE showing Avan Solid, surface topography and drill hole traces

Table 17.1

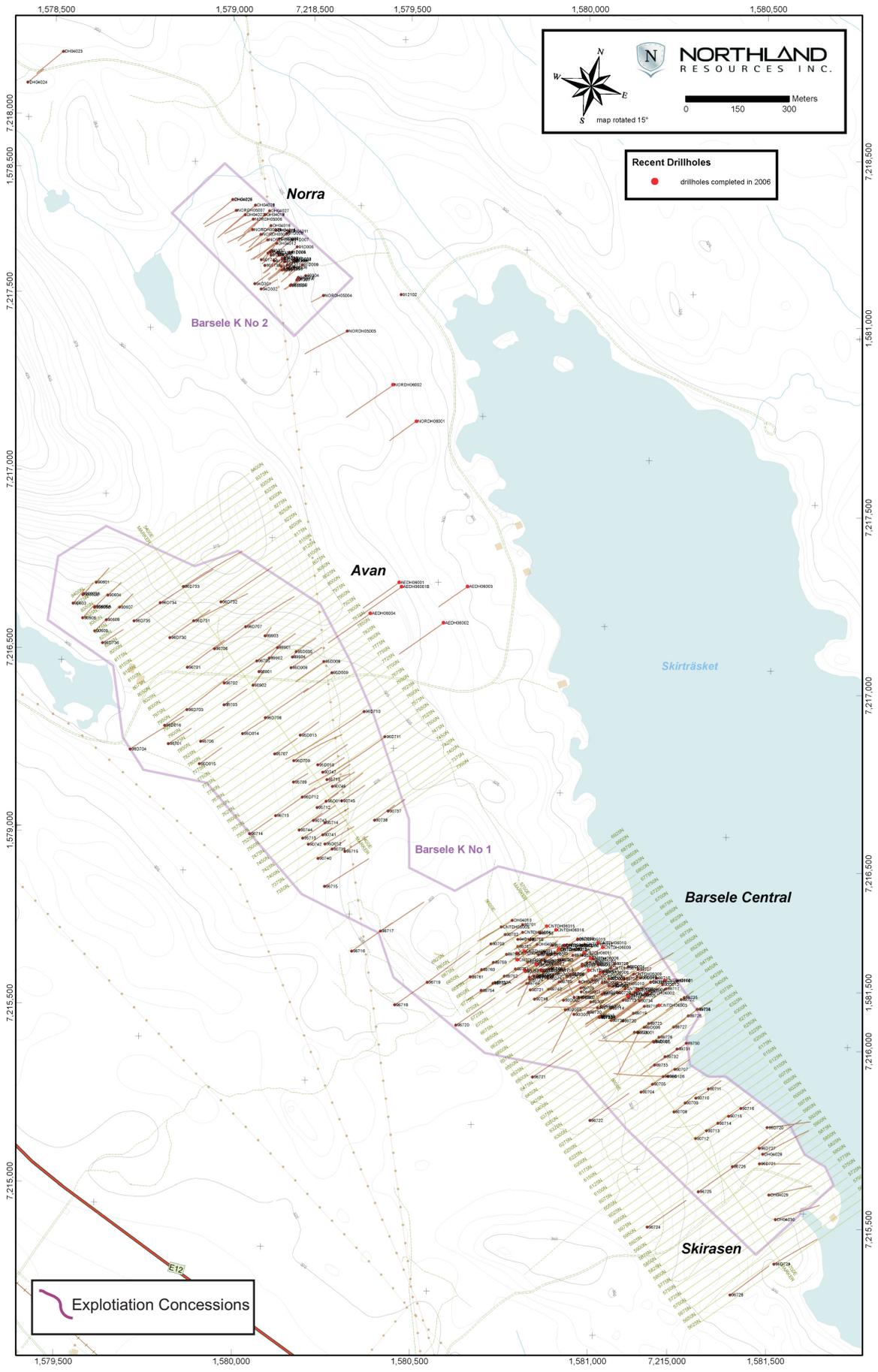


Figure 17.1 Diamond Drill Holes; Norra, Avan, Central and Skiråsen

Statistics for Au in Avan Assays

	Inside Mineralized Solid Au (g/t)	Outside Mineralized Solid Au (g/t)
Number	1,542	7,422
Mean Value	0.69	0.06
Standard Deviation	1.37	0.22
Minimum Value	0.001	0.001
Maximum Value	28.05	17.40
Coefficient of Variation	1.98	3.73

While there are a few high gold assays outside of the mineralized solid, they are isolated high grades too far away from the main mineralized solid to be included.

The individual gold assays were evaluated for the Avan mineralized zone. Gold showed a skewed distribution and was converted to a lognormal cumulative frequency plot. The procedure used is explained in a paper by Dr. A.J. Sinclair titled Applications of probability graphs in mineral exploration (Sinclair, 1976). In short the cumulative distribution of a single normal distribution will plot as a straight line on probability paper while a single lognormal distribution will plot as a straight line on lognormal probability paper. Overlapping populations will plot as curves separated by inflection points. Sinclair proposed a method of separating out these overlapping populations using a technique called partitioning. In 1993 a computer program called P-RES was made available to partition probability plots interactively on a computer (Bentzen and Sinclair, 1993). A screen dump from this program is shown below as Figure 17.3. In this Figure the actual data distribution is shown as black dots. The inflection points that separate the populations are shown as vertical lines and each population is shown by the straight lines of open circles. The interpretation is tested by recombining the data in the proportions selected and the test is shown as triangles compared to the original distribution.

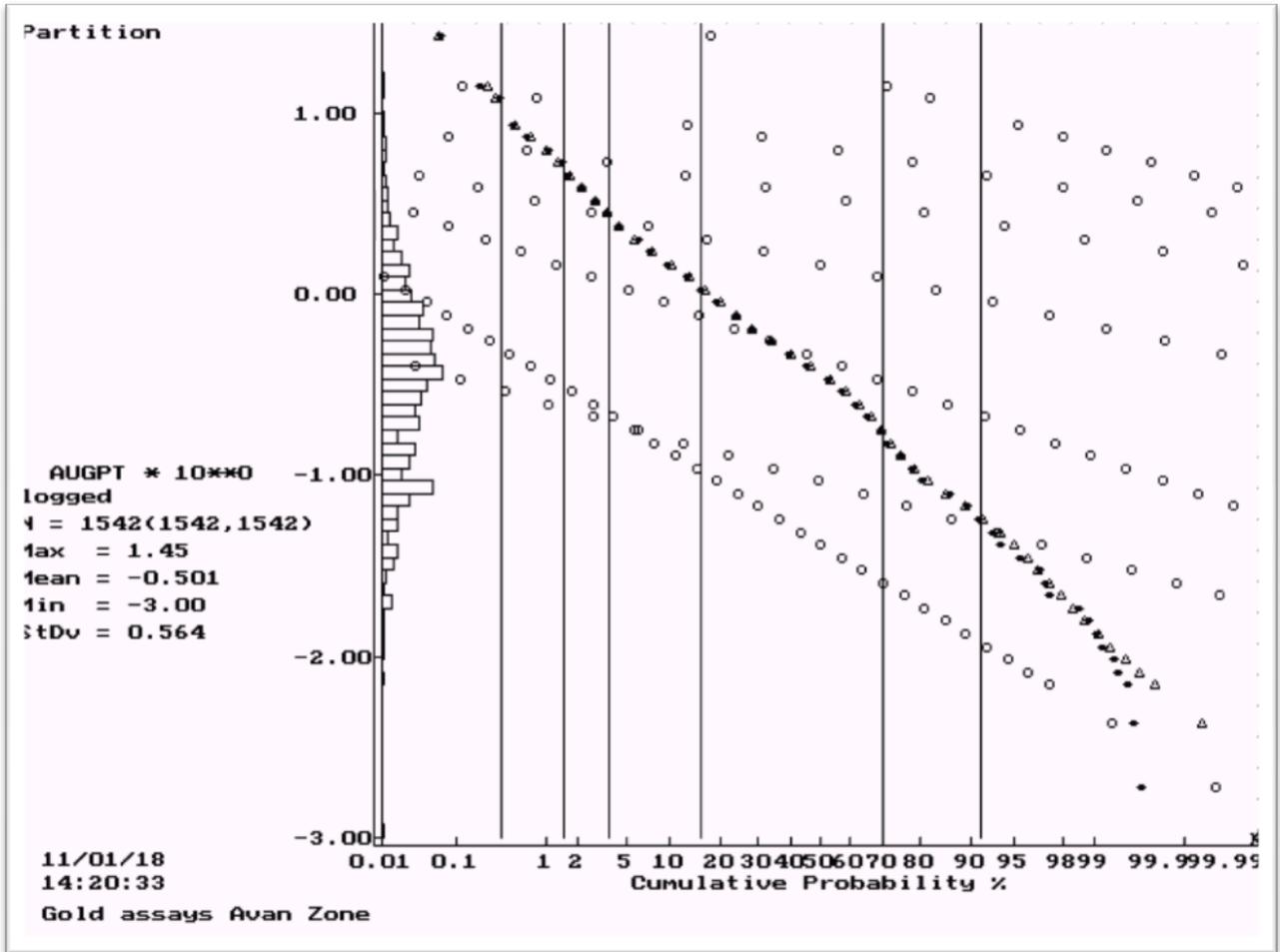


Figure 17.3: Lognormal cumulative frequency plot for Au in the Avan Mineralized Zone

A total of seven overlapping lognormal populations are identified and tabulated below. Population 1 representing 0.34% of the data is clearly erratic high grade and when examined spatially these 5 samples are widely spaced through the zone. A cap level of two standard deviations above the mean of population 2 would effectively cap 5 assays at 11 g/t Au.

Table 17.2
Gold Populations within the Avan Mineralized Zone

Population	Mean Au (g/t)	Percentage of Total Data	Number of Samples
1	18.34	0.34 %	5
2	6.61	1.14 %	18
3	3.50	2.17 %	34
4	1.48	11.91 %	184
5	0.44	54.68 %	843
6	0.09	21.09 %	325
7	0.04	8.67 %	133

The effects of capping the high grade population are shown below.

Table 17.3
Statistics for Au in Avan Capped Assays

	Inside Mineralized Solid Au (g/t)
Number	1,542
Mean Value	0.67
Standard Deviation	1.13
Minimum Value	0.001
Maximum Value	11.00
Coefficient of Variation	1.68

Central-Skiråsen

No current geologic solid model was available for the Central and Skiråsen zones. All assays for gold within these two zones were combined for preliminary statistics.

Table 17.4
Statistics for Au in Central and Skiråsen Assays

	Au (g/t)
Number	22,760
Mean Value	0.39
Standard Deviation	1.47
Minimum Value	0.001
Maximum Value	81.30
Coefficient of Variation	3.75

A lognormal cumulative frequency plot, as described above for the Avan Zone was used to determine the grade distribution for gold in the Central and Skiråsen Zones. The plot, shown below, showed 4 overlapping lognormal populations.

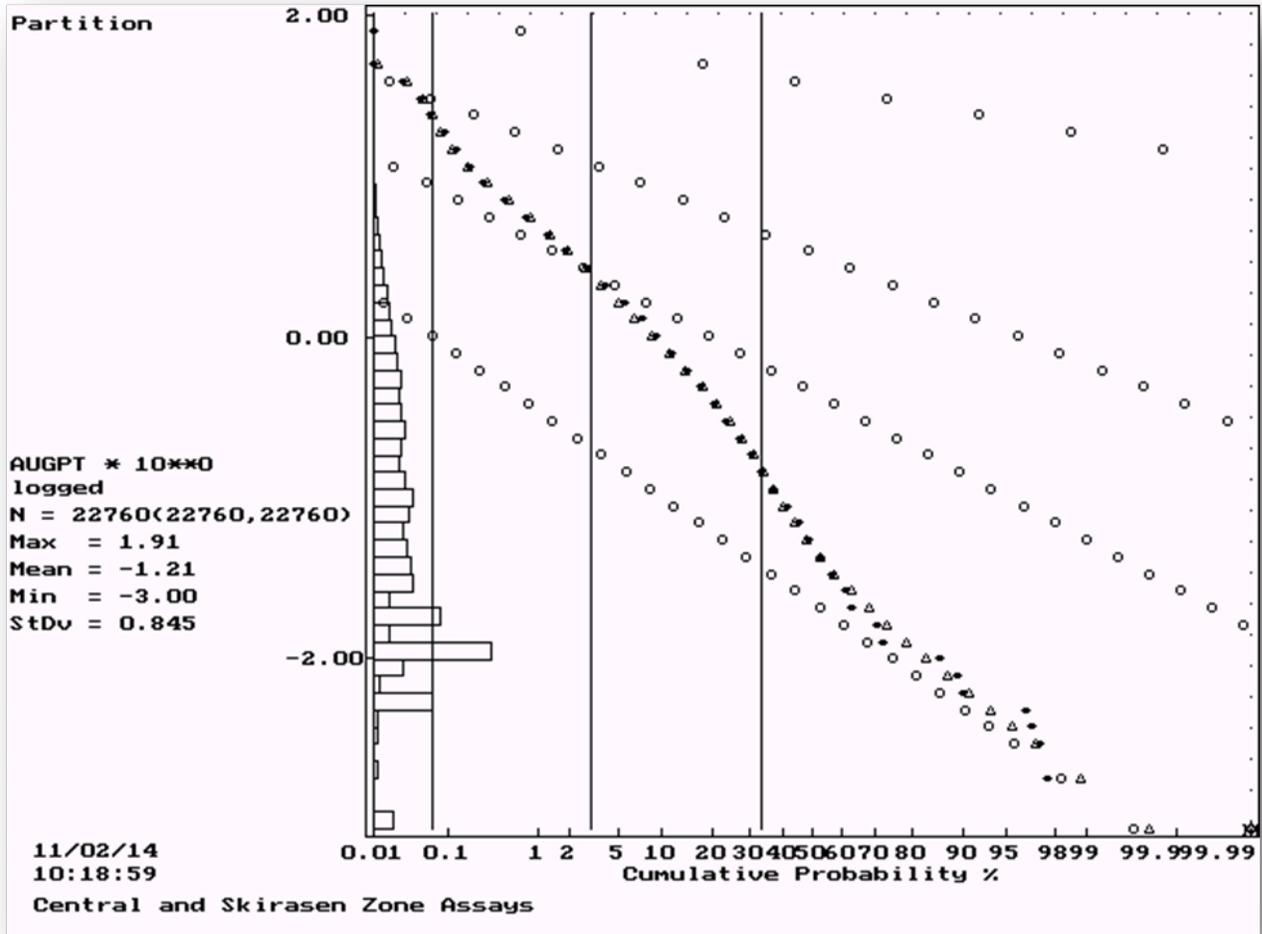


Figure 17.4: Lognormal cumulative frequency plot for Au in the Central & Skiråsen Zones

Table 17.5
Gold Populations within the Central and Skiråsen Zones

Population	Mean Au (g/t)	Percentage of Total Data	Number of Samples
1	37.27	0.06 %	14
2	3.34	2.97 %	676
3	0.45	30.27 %	6,889
4	0.02	66.70 %	15,181

Population 1 represents 0.06% of the total data and is considered erratic outlier assays. A cap of 2 standard deviations below the mean of population 1, a value of 20 g/t was used to cap 18 gold assays. Populations 2 and 3 represent the mineralized event while population 4 represents background waste. The statistics for the capped gold assays are tabulated below.

Table 17.6
Statistics for Au in Central and Skiråsen Capped Assays

	Au (g/t)
Number	22,760
Mean Value	0.38
Standard Deviation	1.13
Minimum Value	0.001
Maximum Value	20.00
Coefficient of Variation	2.97

17.2.2 Composites

Avan

Drill holes within the Avan zone were compared to the geologic 3D solid with the point each hole entered and left the solid recorded. Down hole composites, 3 m in length, were produced that honoured the boundaries of this solid. Intervals at the solid boundaries less than 1.5 m were combined with adjoining samples to produce a composite file of uniform support 3 ± 1.5 m in length. The composite statistics are tabulated below.

Table 17-7
Statistics for Au in Avan 3m Composites

	Inside Mineralized Solid Au (g/t)
Number	545
Mean Value	0.67
Standard Deviation	0.72
Minimum Value	0.001
Maximum Value	5.17
Coefficient of Variation	1.08

Central-Skiråsen

For these zones no current geologic solid was available to constrain the mineralization. As a result down hole composites 3 m in length were formed from capped gold assays in all drill holes within the Central and Skiråsen zones. The composite statistics for each zone are tabulated below.

Table 17.8
Statistics for Au in Central & Skiråsen 3m Composites

	CENTRAL ZONE Au (g/t)	SKIRÅSEN ZONE Au (g/t)
Number	6,349	1,073
Mean Value	0.40	0.17
Standard Deviation	0.89	0.55
Minimum Value	0.001	0.001
Maximum Value	20.00	10.90
Coefficient of Variation	2.21	3.25

Lognormal cumulative frequency plots were then produced for gold in 3 m composites within each of the Central and Skiråsen zones. In each case a threshold was determined to separate mineralized from background material. In the case of the Central zone the threshold was 0.24 g/t Au while in the less mineralized Skiråsen zone the threshold was 0.10 g/t Au. An indicator approach was used to determine which blocks were mineralized or above the particular threshold value.

Central Zone: INDICATOR = 1 if Au Composite \geq 0.24 g/t.
 = 0 if Au Composite < 0.24 g/t
 Skiråsen Zone INDICATOR = 1 if Au Composite \geq 0.10 g/t.
 = 0 if Au Composite < 0.10 g/t

17.2.3 Variography

Avan

Pairwise relative semivariograms were used to determine the special continuity of gold data. A geometric anisotropy was determined with longest range of 80 m along Azimuth 135° Dip 0°. The down dip direction of Azimuth 45° Dip -65° had a range of 60 m while the across dip direction of Azimuth 225° Dip -25°. Nested spherical models were fit to all directions. The semivariogram parameters are tabulated below and the models are shown in Appendix 3.

Table 17.9
Semivariogram Parameters for Au in the Avan Mineralized Zone

Variable	Az / Dip	C ₀	C ₁	C ₂	Short Range (m)	Long Range (m)
Au	135 / 0	0.20	0.20	0.24	30.0	80.0
	45 / -65	0.20	0.20	0.24	20.0	60.0
	225 / -25	0.20	0.20	0.24	15.0	25.0

Central-Skiråsen

For the Central and Skiråsen zones an indicator approach was used to replace a 3D geologic solid and to determine the blocks that would contain mineralized material. Composite grades were replaced by 0's or 1's based on the composite being above or below a particular threshold. The 0 and 1 values were then modeled using pairwise relative semivariograms to determine the continuity of the mineralization. A geometric anisotropy was determined with longest ranges of 120m along Azimuth 150° Dip 0° and 90 m along Azimuth 60° Dip -80°. Nested spherical models were fit to the data.

Table 17.10
Semivariogram Parameters for Au Indicator variable in the Central & Skiråsen Zones

Variable	Az / Dip	C ₀	C ₁	C ₂	Short Range (m)	Long Range (m)
Au	150 / 0	0.70	0.50	0.30	20.0	120.0
	60 / -80	0.70	0.50	0.30	15.0	90.0
	240 / -10	0.70	0.50	0.30	8.0	30.0

17.2.4 Block Models

Block models with blocks 3 m in all dimensions were superimposed over the various solids within the Avan, Central and Skiråsen deposits. The block model origins are listed below:

Avan Block Model Origin

Lower Left Corner

5000 E Column size = 3 m 234 columns
7000 N Row size = 3 m 500 rows

Top of Model

402 Elevation Level size = 3 m 134 levels

No Rotation

Central and Skiråsen Block Model Origin

Lower Left Corner

5300 E Column size = 3 m 267 columns
5600 N Row size = 3 m 467 rows

Top of Model

402 Elevation Level size = 3 m 134 levels

No Rotation

17.2.5 Grade Interpolation

Avan

Grades for gold were interpolated into blocks, with some percentage within the Avan mineralized solids, by Ordinary Kriging. The kriging exercise was completed in a series of 4 passes with the search ellipse for each pass a function of the semivariogram ranges in each of the three principal directions. The first pass used a search ellipse with dimensions equal to ¼ of the semivariogram range. A minimum of 4 composites were required with a maximum of 3 allowed from any one drill hole. In this manner for a block to be estimated a minimum of two drill holes were required within the search ellipse. For blocks not estimated during pass 1 a second pass was completed using a search ellipse with dimensions equal to ½ the semivariogram range. A third pass at the full range and a fourth pass at twice the range completed the kriging exercise. In all cases if more than 12 composites were found the closest 12 were used to prevent over smoothing. The kriging parameters for each pass are tabulated below.

Table 17.11

Kriging Parameters used to Estimate Avan Resource

Pass	Number of Blocks Estimated	Az / Dip	Dist. (m)	Az / Dip	Dist. (m)	Az / Dip	Dist. (m)
1	834	135 / 0	20.0	45 / -65	15.0	225 / -25	6.25
2	16,880	135 / 0	40.0	45 / -65	30.0	225 / -25	12.5
3	122,652	135 / 0	80.0	45 / -65	60.0	225 / -25	25.0
4	355,986	135 / 0	160.0	45 / -65	120.0	225 / -25	50.0

Central & Skiråsen

Due to the lack of a constraining geologic solid for these zones a different approach was used. An indicator kriging estimate was first used to determine the probability that any given block in the model would contain material greater than 0.24 g/t in Central and 0.10 g/t in Skiråsen. Values between 0 and 1 were estimated for each block in the model with some proportion below surface topography. Blocks with a greater than 0.50 probability were flagged for grade estimation. Gold grades were then kriged into these blocks using Ordinary Kriging in a manner explained above for Avan. A series of 3 passes were used with the search dimensions a function of the semivariogram ranges. The search parameters for the Indicator Kriging (IK) and the Ordinary Kriging (OK) runs are tabulated below.

Table 17.12
Kriging Parameters used to Estimate Central & Skiråsen Resource

Method	Pass	Number of Blocks Estimated	Az / Dip	Dist. (m)	Az / Dip	Dist. (m)	Az / Dip	Dist. (m)
IK	1	242,840	150 / 0	30.0	60 / -80	22.5	240 / -10	7.5
	2	459,688	150 / 0	60.0	60 / -80	45.0	240 / -10	15.0
	3	1,311,504	150 / 0	120.0	60 / -80	90.0	240 / -10	30.0
	4	3,679,016	150 / 0	240.0	60 / -80	180.0	240 / -10	60.0
OK	1	73,134	150 / 0	30.0	60 / -80	22.5	240 / -10	7.5
	2	93,598	150 / 0	60.0	60 / -80	45.0	240 / -10	15.0
	3	228,648	150 / 0	120.0	60 / -80	90.0	240 / -10	30.0

17.3 Norra V-HMS Deposit

The Norra deposit has been exposed in two open trenches and 68 diamond drill holes that have delineated a VMS mineralized zone measuring some 300 m along strike and from 5 to 50 m in width (See Appendix 2 for the list of drill holes used). The mineralization is hosted by sheared felsic volcanics. Northland geologists have built a three dimensional geologic solid, in Vulcan software, to constrain the V-HMS mineralization.

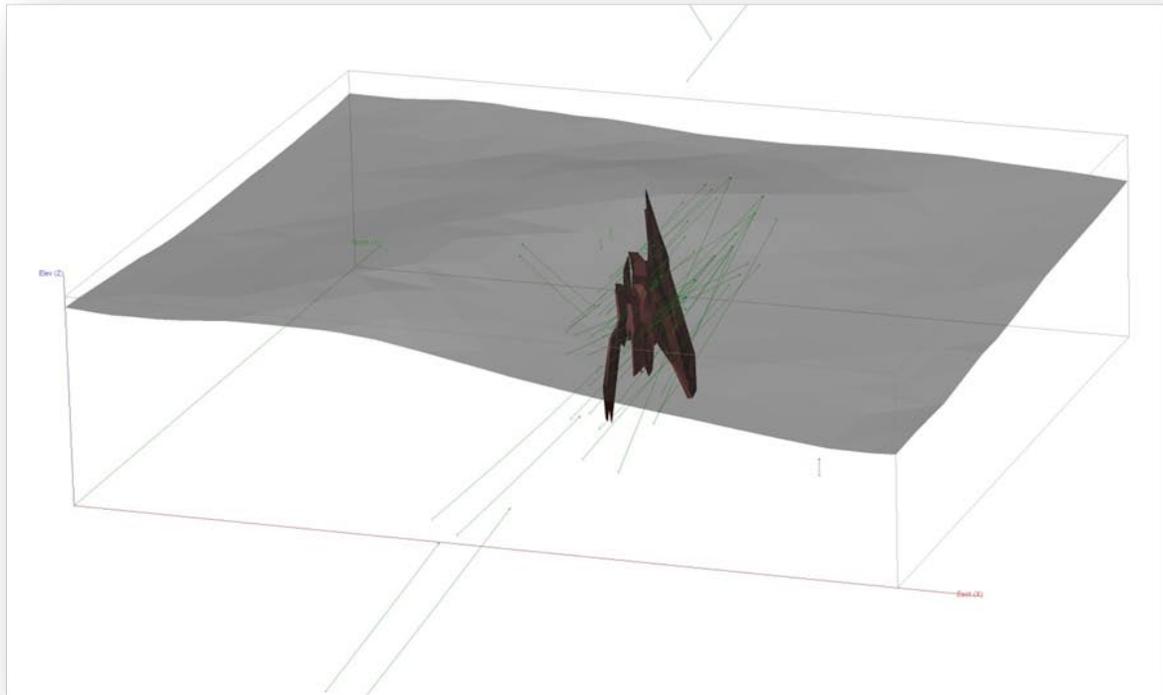


Figure 17.5: Isometric view looking NNW of the Norra VMS Zone with surface topography and drill hole traces

17.3.1 Data Analysis

The drill holes in the Norra zone were “passed through” the VMS mineralized solid with the points of entry and exit recorded. All assays with the Norra zone were then tagged in inside or outside the mineralized solid. The statistics for Au, Ag, Cu and Zn are tabulated below.

**Table 17.13
Statistics for Au, Ag, Cu and Zn Norra Assays**

	Inside VMS solid				Outside VMS Solid			
	Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)	Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)
Number	377	377	355	355	3,244	3,244	2,651	2,651
Mean Value	2.15	24.14	0.52	0.77	0.04	0.82	0.02	0.02
Standard Deviation	4.64	46.46	1.34	1.75	0.17	3.36	0.05	0.05
Minimum Value	0.001	0.001	0.0001	0.0001	0.001	0.001	0.0001	0.0001
Maximum Value	36.20	282.0	10.80	17.95	6.56	100.0	1.49	1.00
Coefficient of Variation	2.15	1.92	2.59	2.27	4.89	4.08	2.83	2.48

High values outside the VMS solid were isolated intersections that could not be joined to the mineralized envelope. For assays within the VMS solid grade distributions were evaluated using lognormal cumulative frequency plots as explained in Section 17.21. For each variable, skewed overlapping populations were found. In each case the upper population was considered erratic outlier mineralization and a cap level of 2 standard deviations above the mean of population 2 was selected. Table 17.7 below lists the cap levels for each variable and the number of assays capped.

Table 17.14
Capping levels for Norra VMS Zone

Variable	Cap Level	Number Capped
Au	28.0 g/t	3
Ag	237 g/t	2
Cu	11.2 %	0
Zn	10.0 %	1

The effects of capping are shown in the following Table.

Table 17.15
Statistics for Au, Ag, Cu and Zn in Norra Assays within the VMS Solid

	Inside VMS solid			
	Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)
Number	377	377	355	355
Mean Value	2.12	23.92	0.52	0.75
Standard Deviation	4.44	45.31	1.34	1.58
Minimum Value	0.001	0.001	0.0001	0.0001
Maximum Value	28.00	237.0	10.80	10.00
Coefficient of Variation	2.09	1.89	2.59	2.10

17.3.2 Composites

Uniform 3m down hole composites were produced for Norra drill holes that penetrated the mineralized VMS solid. The composites honoured the mineralized solid in that small intervals at the solid boundaries were combined with adjoining samples if less than 1.5m. In this manner a uniform support of 3 ± 1.5 m was achieved. The composite statistics are tabulated below.

Table 17.16
Statistics for Au, Ag, Cu and Zn in Norra 3 m Composites within the VMS Solid

	Inside VMS solid			
	Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)
Number	129	129	119	119
Mean Value	2.02	22.21	0.50	0.68
Standard Deviation	3.54	39.24	1.24	1.23
Minimum Value	0.001	0.001	0.0007	0.0001
Maximum Value	18.68	233.15	8.87	6.01
Coefficient of Variation	1.75	1.77	2.51	1.81

17.3.3 Variography

Pairwise relative semivariograms were produced in the three principal directions of the Norra VMS mineralized lens: along strike (Az 345° Dip 0°), down dip (Az 75° Dip -75°) and across dip (Az 255° Dip -15°). A geometric anisotropy was demonstrated with longest range

along strike for each variable. Nested spherical models were fit to each direction. The model parameters are tabulated below.

Table 17.17
Semivariograms for Norra Au, Ag, Cu and Zn

Variable	Az / Dip	C ₀	C ₁	C ₂	Short Range (m)	Long Range (m)
Au	345° / 0°	0.40	0.30	0.45	15.0	80.0
	75° / -75°	0.40	0.30	0.45	5.0	12.0
	255° / 15°	0.40	0.30	0.45	5.0	30.0
Ag	345° / 0°	0.40	0.39	0.40	12.0	80.0
	75° / -75°	0.40	0.39	0.40	10.0	58.0
	255° / 15°	0.40	0.39	0.40	5.0	12.0
Cu	345° / 0°	0.40	0.40	0.30	5.0	80.0
	75° / -75°	0.40	0.40	0.30	5.0	15.0
	255° / 15°	0.40	0.40	0.30	5.0	12.0
Zn	345° / 0°	0.50	0.40	0.20	25.0	100.0
	75° / -75°	0.50	0.40	0.20	10.0	60.0
	255° / 15°	0.50	0.40	0.20	10.0	20.0

17.3.4 Block Model

A block model with blocks 3m in all dimensions was superimposed over the Norra solid. This model matched previous models created for this deposit. The block model origin is listed below:

Norra Block Model Origin

Lower Left Corner

6075 E

Column size = 3m

126 columns

8775 N

Row size = 3m

109 rows

Top of Model

352 Elevation

Level size = 3m

59 levels

No Rotation

17.3.5 Grade Interpolation

Grade was interpolated, for the Norra VMS zone, by Ordinary Kriging into all blocks with some proportion within the mineralized solid. The methodology was similar to that described for Avan. A series of 4 passes were completed for each of the 4 variables: Au, Ag, Cu and Zn. The search ellipses for each variable were a function of the semivariogram range. The only difference being for the final pass 4 where Ag, Cu and Zn variables were estimated with a combination of Au and Ag maximum distances to insure all four variables were estimated into all blocks. The search parameters are tabulated below.

Table 17.18
Kriging Parameters used to Estimate Norra Resource

Variable	Pass	Number of Blocks Estimated	Az / Dip	Dist. (m)	Az / Dip	Dist. (m)	Az / Dip	Dist. (m)
Au	1	414	345 / 0	20.0	75 / -75	3.0	255 / -15	7.5
	2	2,621	345 / 0	40.0	75 / -75	6.0	255 / -15	15.0
	3	5,490	345 / 0	80.0	75 / -75	12.0	255 / -15	30.0
	4	3,158	345 / 0	160.0	75 / -75	24.0	255 / -15	60.0
Ag	1	1,047	345 / 0	20.0	75 / -75	14.5	255 / -15	3.0
	2	4,326	345 / 0	40.0	75 / -75	29.0	255 / -15	6.0
	3	4,748	345 / 0	80.0	75 / -75	58.0	255 / -15	12.0
	4	1,562	345 / 0	160.0	75 / -75	116.0	255 / -15	60.0
Cu	1	171	345 / 0	20.0	75 / -75	3.75	255 / -15	3.0
	2	1,699	345 / 0	40.0	75 / -75	7.5	255 / -15	6.0
	3	5,104	345 / 0	80.0	75 / -75	15.0	255 / -15	12.0
	4	4,709	345 / 0	160.0	75 / -75	116.0	255 / -15	60.0
Zn	1	1,922	345 / 0	25.0	75 / -75	15.0	255 / -15	5.0
	2	4,865	345 / 0	50.0	75 / -75	30.0	255 / -15	10.0
	3	4,380	345 / 0	100.0	75 / -75	60.0	255 / -15	20.0
	4	516	345 / 0	160.0	75 / -75	116.0	255 / -15	60.0

17.4 Bulk Density (from Barry, et. al. 2006)

“The specific gravity used in the Norra model (3.40) was derived from a 100 tonne bulk-test conducted by Boliden for Terra Mining in 1992. The specific gravity used in the Avan, Central and Skiråsen models was derived from a technical report by Golder Associates (Golder) written in 1993.

Golder carried out some specific gravity tests in 2004 on core from MinMet’s 2003 drill program. All the samples were taken only from Central-Zone drill core. The results varied between 2.70 and 2.75. This was a standard test method for specific gravity and adsorption of coarse aggregate. Seven different samples were used from seven different intervals in two 2003 drill holes. The following parameters were calculated: percent adsorption of water by the sample, apparent specific gravity and bulk specific gravity. This method used by Golder to measure the specific gravity is more appropriate for determinations on road-aggregate material, and not on in-situ rocks for resource estimation, as the method does not account for the effect of fractures or joints in the rocks. CAM recommends that specific gravity determinations be done on sealed core samples (about 20 centimeter lengths) using the water displacement method. Due to the fact that the rocks at Barsele are very competent and have few open fractures, the method used by Golder should not be very different from the method proposed by CAM, and the difference should not have a significant effect on the resource estimated prepared by North American.”

It is recommended that proper water displacement measurements be taken on core, particularly from the VMS mineralization on the Norra, as copper grades in this deposit range up

to 10.8 % (SG for chalcopyrite=4.2) and zinc grades up to 18% (SG for sphalerite=4.1). In addition there is significant massive pyrite and arsenopyrite present within the VMS zone. By taking a number of SG determinations from various grade ranges within the VMS zone a better understanding of the range in density values and relationships between grades and bulk density will be obtained.

For this resource estimate a value of 2.74 was used for Avan, Central and Skiråsen while a value of 3.4 was used for the Norra VMS zone.

17.5 Classification

Based on the study herein reported, delineated mineralization of the Barsele Deposit is classified as a resource according to the following definitions from National Instrument 43-101 and from CIM (2005):

“In this Instrument, the terms "mineral resource", "inferred mineral resource", "indicated mineral resource" and "measured mineral resource" have the meanings ascribed to those terms by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council, as those definitions may be amended.”

The terms Measured, Indicated and Inferred are defined by CIM (2005) as follows:

“A Mineral Resource is a concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal and industrial minerals in or on the Earth’s crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.”

“The term Mineral Resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which Mineral Reserves may subsequently be defined by the consideration and application of technical, economic, legal, environmental, socio-economic and governmental factors. The phrase ‘reasonable prospects for economic extraction’ implies a judgement by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. A Mineral Resource is an inventory of mineralization that under realistically assumed and justifiable technical and economic conditions might become economically extractable. These assumptions must be presented explicitly in both public and technical reports.”

Inferred Mineral Resource

“An ‘Inferred Mineral Resource’ is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, workings and drill holes.”

“Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic

parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.”

Indicated Mineral Resource

“An ‘Indicated Mineral Resource’ is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed.”

“Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Preliminary Feasibility Study which can serve as the basis for major development decisions.”

Measured Mineral Resource

“A ‘Measured Mineral Resource’ is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.”

“Mineralization or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such that the tonnage and grade of the mineralization can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit.”

Geologic continuity has been established through diamond drilling over a number of drill campaigns and surface mapping. Grade continuity can be quantified by semivariogram analysis for each variable. For this estimate blocks estimated for Avan, Norra and Central in pass 1 or 2, with search ellipse dimensions equal to a maximum of ½ the semivariogram range in each direction, are classified as Indicated. All other blocks are classified as Inferred. At this time, the lack of a geologic model and the wide spaced lines of data at Skiråsen have made all of this resource Inferred.

The results are tabulated by zone below and summarized in Table 17-25. At this time no economic analysis has been completed for this project. A cut-off of 0.4 g/t Au has been highlighted as a possible open pit cut-off for these deposits.

Table 17.19
AVAN INDICATED RESOURCE

Au Cut-off (g/t)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		
		Au (g/t)	Au (grams)	Au Ounces
0.10	920,000	0.666	600,000	20,000
0.20	890,000	0.684	600,000	20,000
0.30	810,000	0.728	600,000	19,000
0.40	670,000	0.805	500,000	17,000
0.50	540,000	0.889	500,000	15,000
0.60	440,000	0.973	400,000	14,000
0.70	360,000	1.047	400,000	12,000
0.80	280,000	1.126	300,000	10,000
0.90	220,000	1.208	300,000	9,000
1.00	160,000	1.308	200,000	7,000

Table 17.20
AVAN INFERRED RESOURCE

Au Cut-off (g/t)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		
		Au (g/t)	Au (grams)	Au Ounces
0.10	24,180,000	0.686	16,600,000	533,000
0.20	24,100,000	0.687	16,600,000	532,000
0.30	23,110,000	0.705	16,300,000	524,000
0.40	20,440,000	0.751	15,400,000	494,000
0.50	17,000,000	0.812	13,800,000	444,000
0.60	13,690,000	0.876	12,000,000	386,000
0.70	10,130,000	0.956	9,700,000	311,000
0.80	7,230,000	1.039	7,500,000	242,000
0.90	5,130,000	1.118	5,700,000	184,000
1.00	3,340,000	1.211	4,000,000	130,000

Table 17.21
CENTRAL INDICATED RESOURCE

Au Cut-off (g/t)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		
		Au (g/t)	Au (grams)	Au Ounces
0.10	11,010,000	1.10	12,100,000	389,000
0.20	11,010,000	1.11	12,200,000	393,000
0.30	10,980,000	1.11	12,200,000	392,000
0.40	10,740,000	1.12	12,000,000	387,000
0.50	10,210,000	1.16	11,800,000	381,000
0.60	9,530,000	1.20	11,400,000	368,000
0.70	8,650,000	1.26	10,900,000	350,000
0.80	7,640,000	1.33	10,200,000	327,000
0.90	6,520,000	1.41	9,200,000	296,000
1.00	5,460,000	1.50	8,200,000	263,000

**Table 17.22
CENTRAL & SKIRÅSEN INFERRED RESOURCE**

Au Cut-off (g/t)	Tonnes > Cut-off (tonnes)	Grade > Cut-off		
		Au (g/t)	Au (grams)	Au Ounces
0.10	18,190,000	0.66	12,000,000	386,000
0.20	17,790,000	0.68	12,100,000	389,000
0.30	14,980,000	0.75	11,200,000	361,000
0.40	10,950,000	0.90	9,900,000	317,000
0.50	8,870,000	1.01	9,000,000	288,000
0.60	7,350,000	1.11	8,200,000	262,000
0.70	6,180,000	1.20	7,400,000	238,000
0.80	5,140,000	1.29	6,600,000	213,000
0.90	4,240,000	1.38	5,900,000	188,000
1.00	3,510,000	1.47	5,200,000	166,000

**Table 17.23
NORRA INDICATED RESOURCE**

Au Cut-off (g/t)	Tonnes > Cut-off (tonnes)	Grade > Cut-off							
		Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)	Au Oz	Ag Oz	Cu lbs	Zn lbs
0.10	170,000	2.11	24.95	0.43	0.61	12,000	136,000	1,612,000	2,287,000
0.20	160,000	2.17	25.54	0.44	0.63	11,000	131,000	1,552,000	2,223,000
0.30	150,000	2.31	26.73	0.45	0.65	11,000	129,000	1,488,000	2,150,000
0.40	140,000	2.46	27.26	0.45	0.66	11,000	123,000	1,389,000	2,037,000
0.50	120,000	2.76	28.38	0.48	0.68	11,000	109,000	1,270,000	1,799,000
0.60	110,000	3.13	30.27	0.53	0.72	11,000	107,000	1,286,000	1,746,000
0.70	100,000	3.35	31.20	0.56	0.75	11,000	100,000	1,235,000	1,654,000
0.80	90,000	3.47	31.53	0.56	0.76	10,000	91,000	1,111,000	1,508,000
0.90	90,000	3.60	31.94	0.58	0.77	10,000	92,000	1,151,000	1,528,000
1.00	80,000	3.69	32.29	0.59	0.77	9,000	83,000	1,041,000	1,358,000

Table 17.24
NORRA INFERRED RESOURCE

Au Cut-off (g/t)	Tonnes > Cut-off (tonnes)	Grade > Cut-off							
		Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)	Au Oz	Ag Oz	Cu lbs	Zn lbs
0.10	370,000	1.42	11.72	0.25	0.39	17,000	139,000	2,040,000	3,182,000
0.20	360,000	1.45	11.86	0.25	0.39	17,000	137,000	1,985,000	3,096,000
0.30	350,000	1.49	12.09	0.25	0.40	17,000	136,000	1,929,000	3,087,000
0.40	330,000	1.55	12.44	0.26	0.41	16,000	132,000	1,892,000	2,983,000
0.50	320,000	1.59	12.56	0.26	0.42	16,000	129,000	1,835,000	2,964,000
0.60	310,000	1.62	12.69	0.26	0.42	16,000	126,000	1,777,000	2,871,000
0.70	300,000	1.67	12.93	0.26	0.43	16,000	125,000	1,720,000	2,844,000
0.80	280,000	1.72	13.34	0.26	0.45	15,000	120,000	1,605,000	2,778,000
0.90	250,000	1.83	14.38	0.27	0.48	15,000	116,000	1,488,000	2,646,000
1.00	230,000	1.90	14.97	0.28	0.50	14,000	111,000	1,420,000	2,536,000

Table 17.25
Summary of Barsele Resources

Au Cut-off (g/t)	Zone	Resource Category	Tonnes	Au Grade (g/t)	Contained Ounces Au
0.40	Central	Indicated	10,740,000	1.12	387,000
	Central-Skiråsen	Inferred	10,950,000	0.90	317,000
	Avan	Indicated	670,000	0.81	17,000
		Inferred	20,440,000	0.75	494,000
	Norra	Indicated	140,000	2.46	11,000
		Inferred	330,000	1.55	16,000
	TOTAL	Indicated	11,550,000	1.12	415,000
		Inferred	31,720,000	0.81	827,000

17.6 Model Verification

The various block models were verified in several ways. Cross sections through the deposits were produced and estimated grades were compared to composite grades. Figures 17.6 and 17.7 show two east-west sections through the Avan Deposit. Figures 17.8 and 17.9 show two east-west cross sections through the Central Zone. Figure 17.10 shows an east-west cross section through the Skiråsen zone and Figures 17.11 and 17.12 show two east west cross sections through the Norra VMS zone. Blocks represent one 3 x 3 x 3m block while composites are projected from 20 m on either side of section line. The kriged results matched the composites well.

Another method for verifying estimation models is by using swath plots. These plots are a graphical way of comparing estimated grades with original composite grades in swaths or slices through the deposit. Grades for blocks in different parts of the deposit should be roughly similar to the grades used to estimate them.

Swath plots for the Avan zone showing east-west slices (see Figure 17.13) through the mineralized zone show very good agreement between the average estimated block grades and the average composite grades within each slice. Slices from bottom to top through the zone also show good agreement except for both extremes where there are very few composite samples.

Swath plots through the Norra VMS zone also show excellent agreement both in east-west slices and elevation slices (see Figure 17.15).

At this stage of the development program, the authors are not aware of any environmental, permitting, legal, title, socio-economic, marketing, and political or other known relevant issues that might affect this resource estimate.

To the extent of the information derived from the exploration programs completed to date, there are no additional known mining, metallurgical, infrastructure or other known relevant factors that have not already previously been discussed elsewhere in this report, which might affect this resource estimate.

18.0 OTHER RELEVANT DATA AND INFORMATION

The authors are not aware of any data not included in this report that would make the report misleading or would influence the authors' opinion

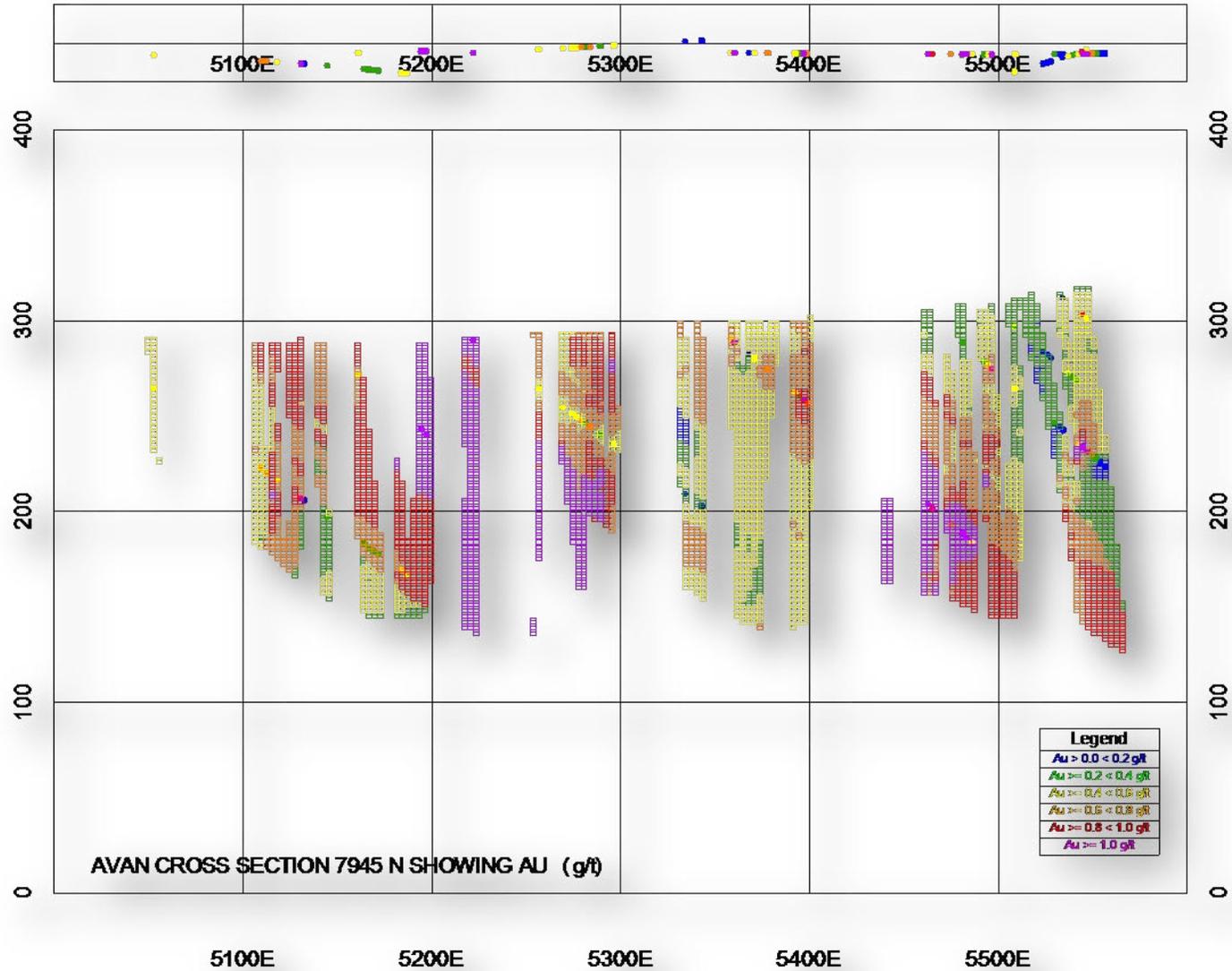


Figure 17.6: Avan Cross Section 7945N Showing Au in Blocks and Composites

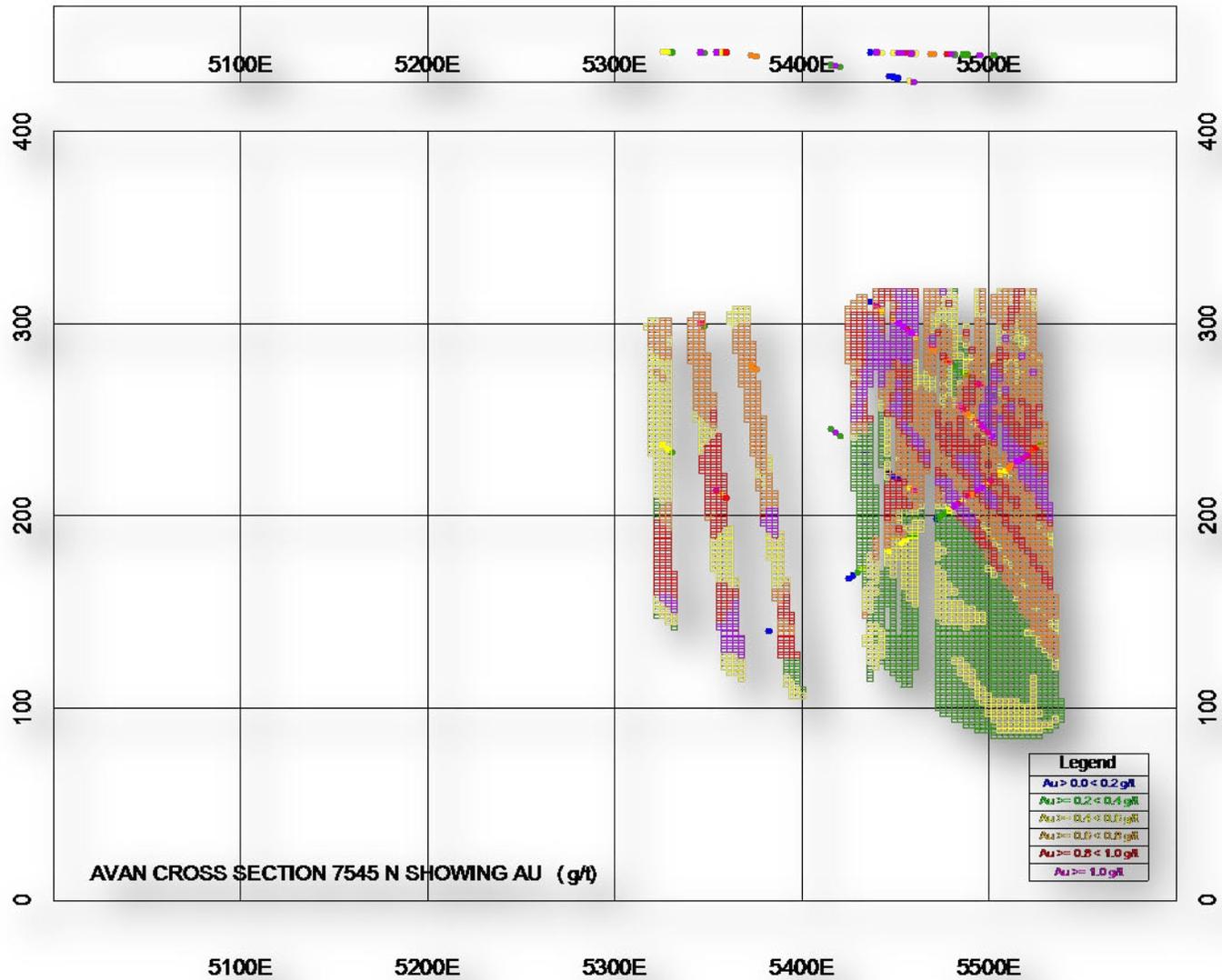


Figure 17.7: Avian Cross Section 7545N Showing Au in Blocks and Composites

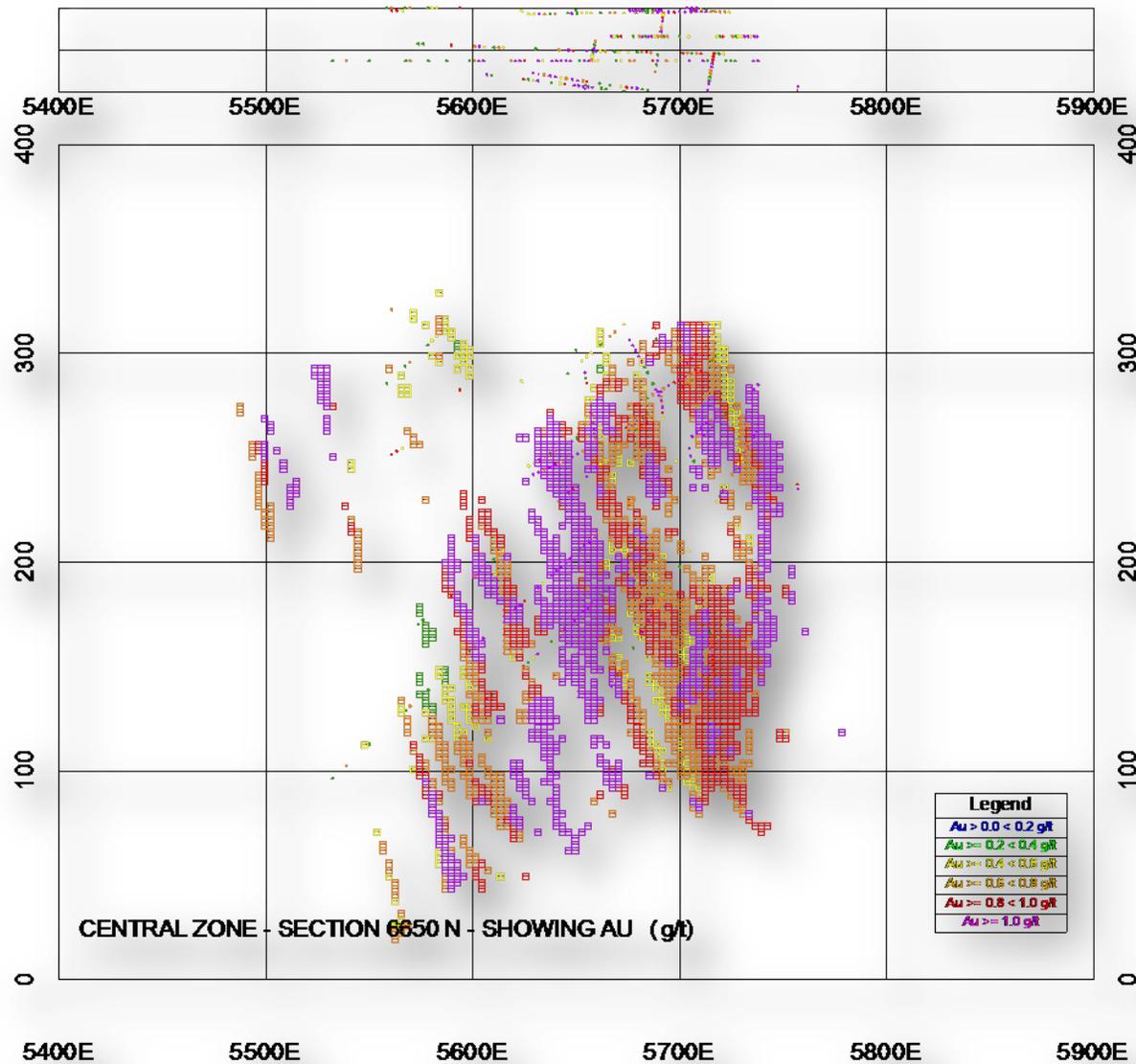


Figure 17.8: Central Zone Cross Section 6650N Showing Au in Blocks and Composites

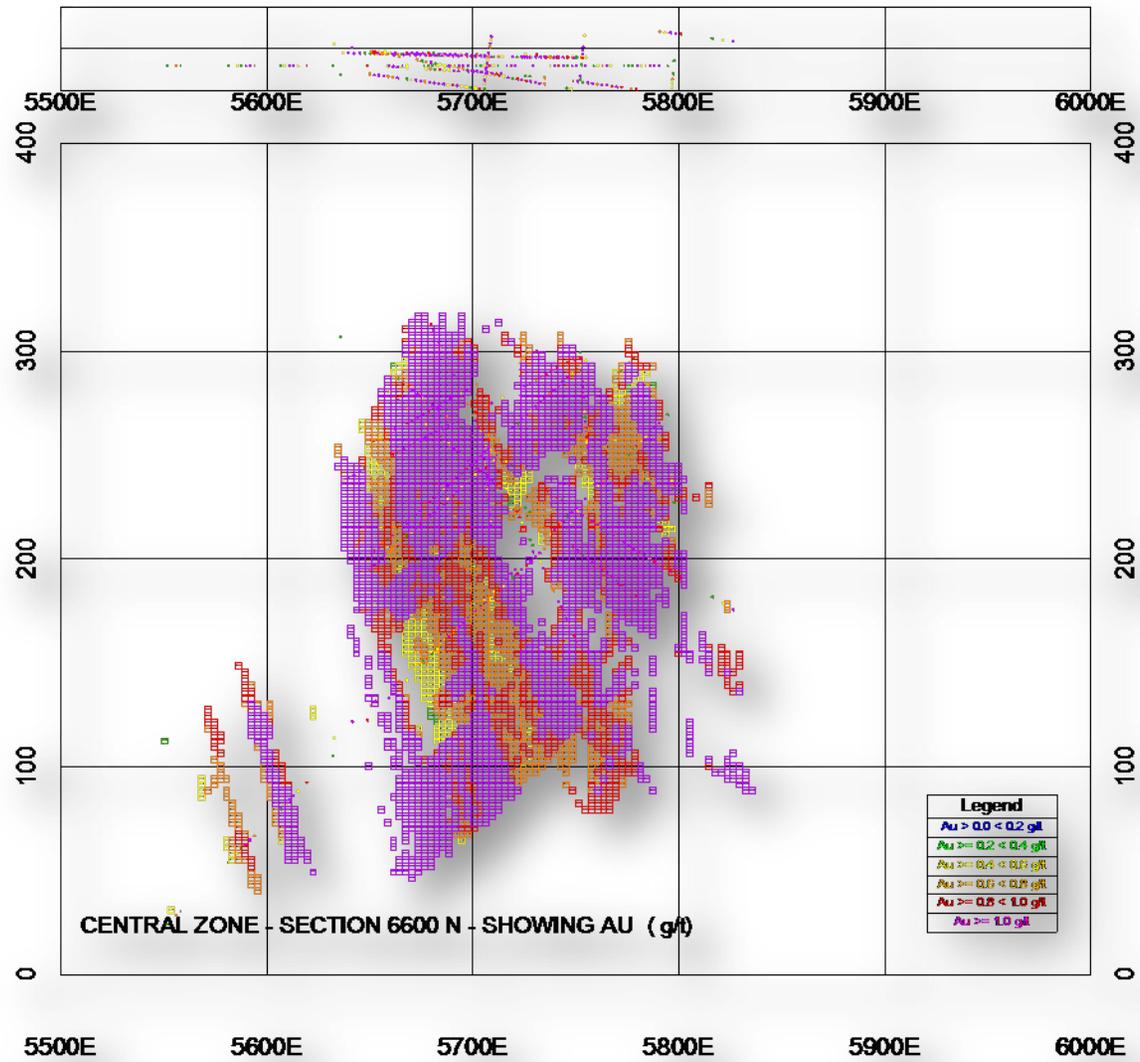


Figure 17.9: Central Zone Cross Section 6600N Showing Au in Blocks and Composites

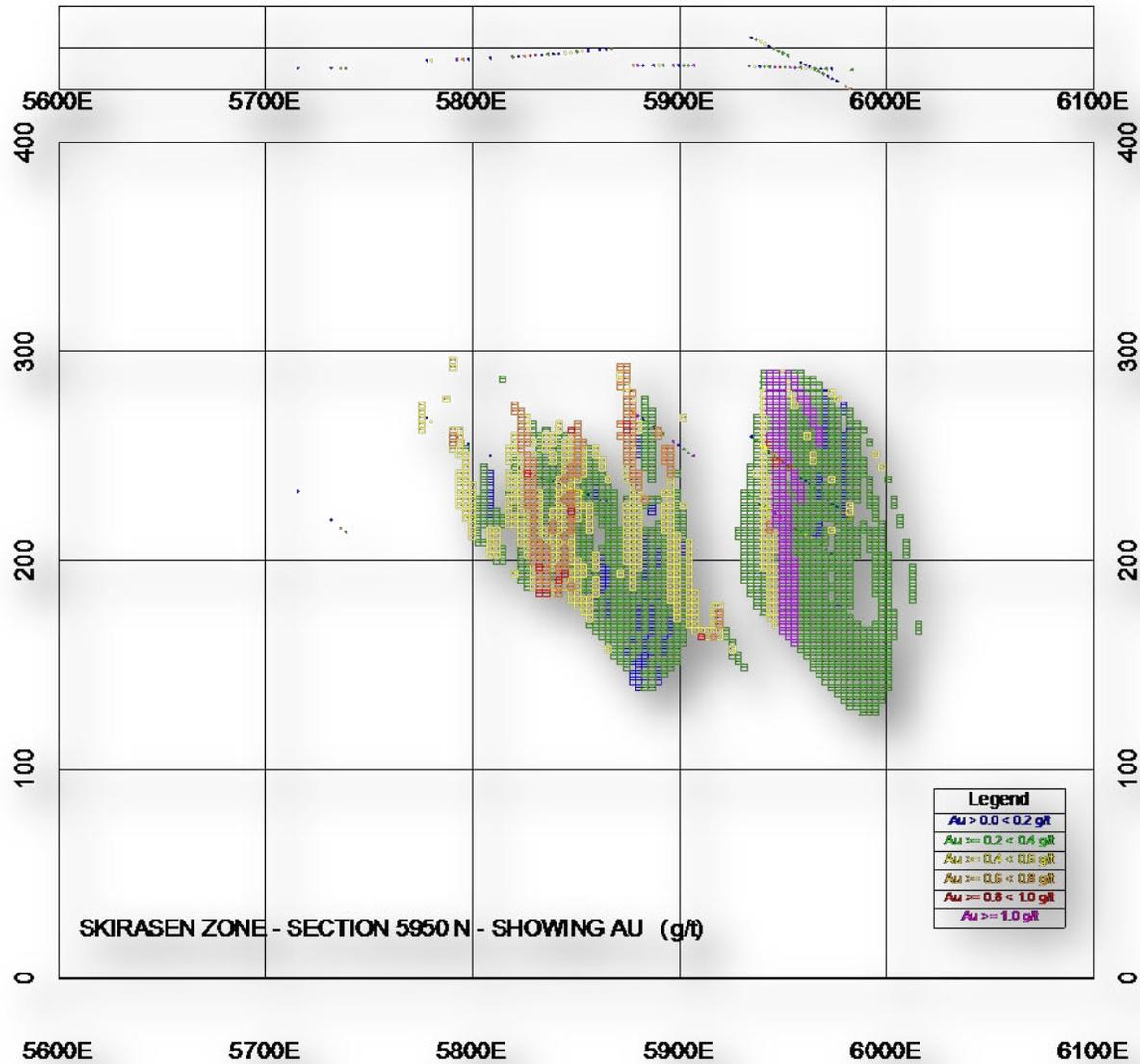


Figure 17.10: Skiråsen CrossSection 5950N Showing Au in Blocks & Composites

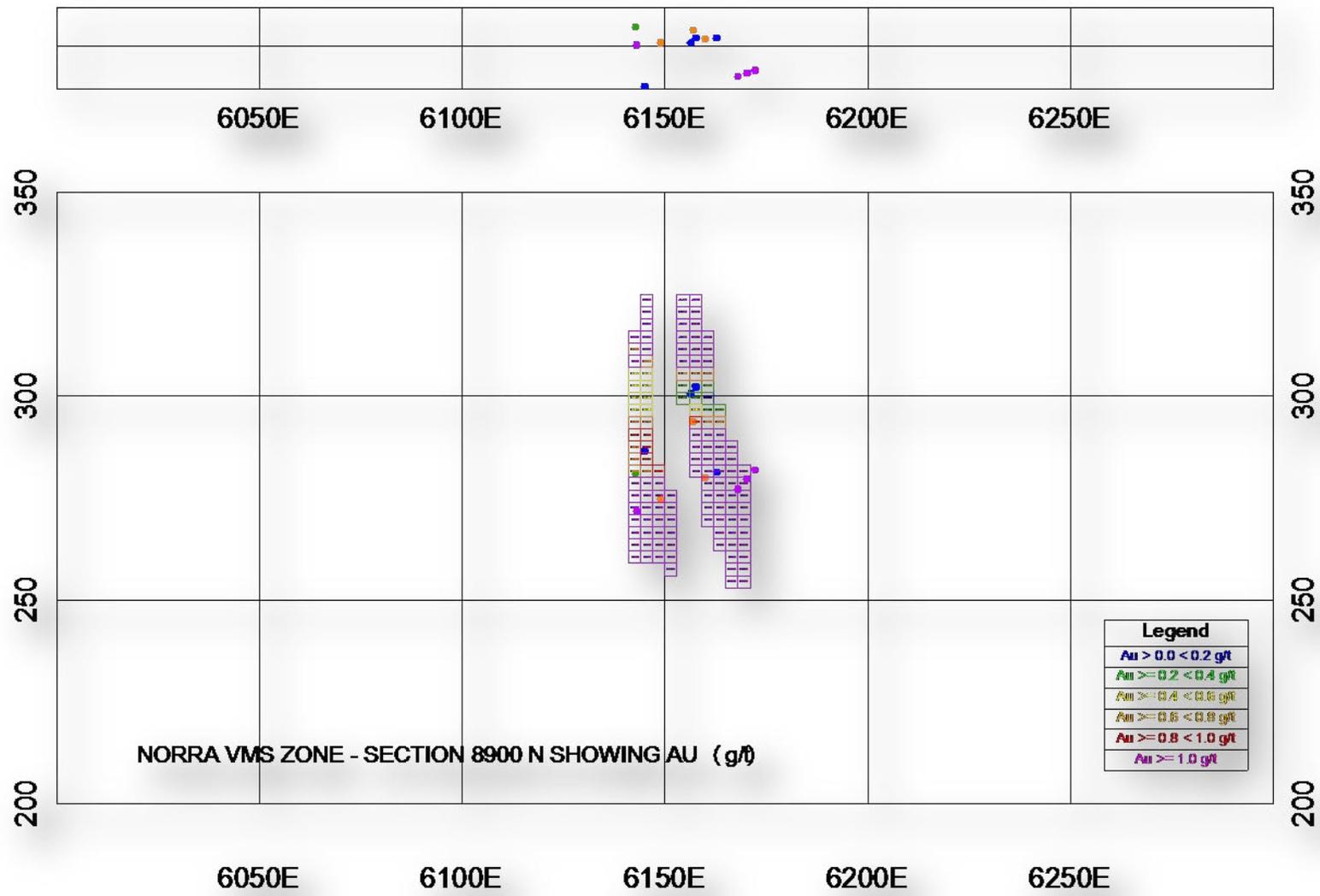


Figure 17.11: Norra Cross Section 8900N Showing Au in Blocks & Composites

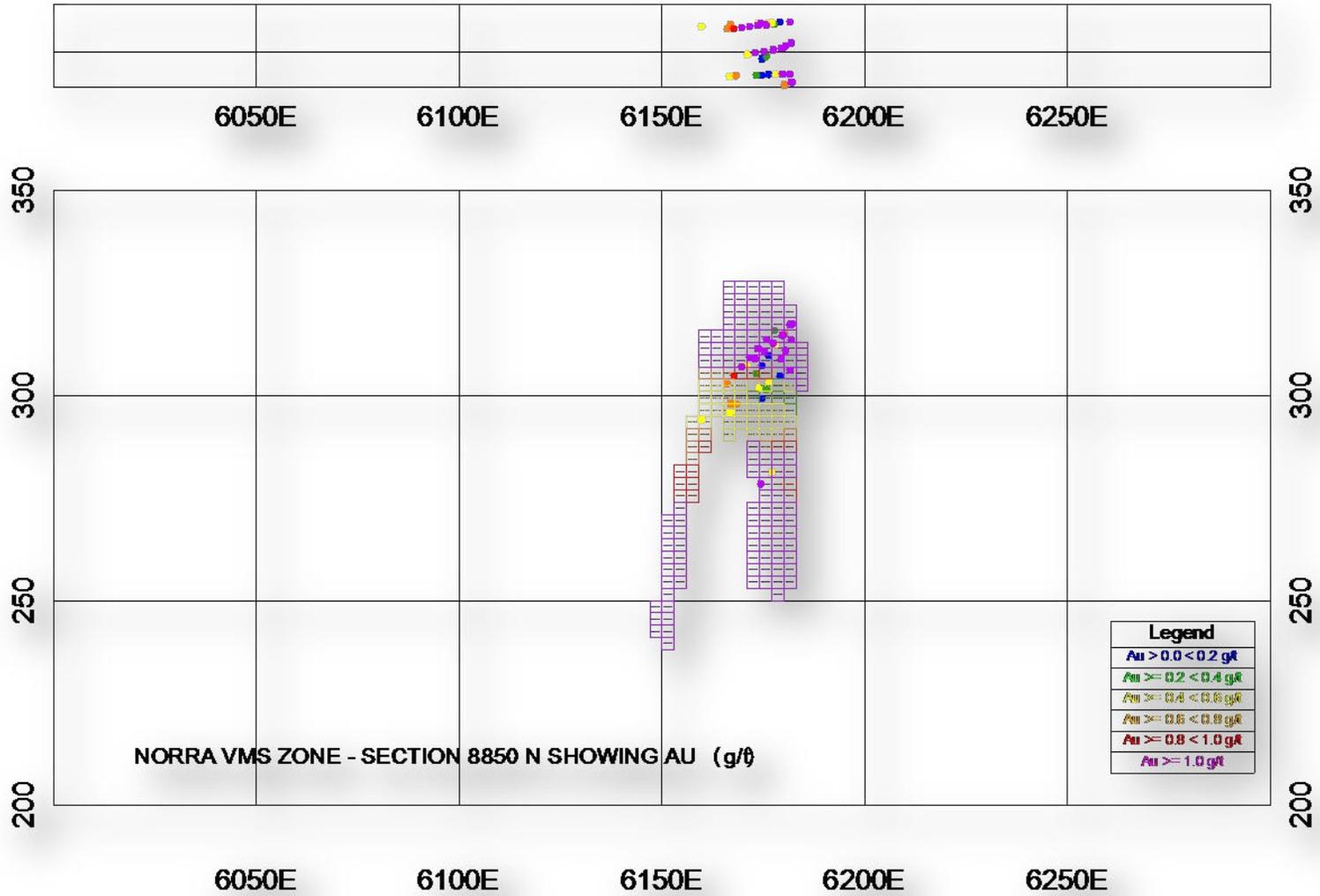


Figure 17.12: Norra Cross Section 8850N Showing Au in Blocks & Composites

AVAN ZONE

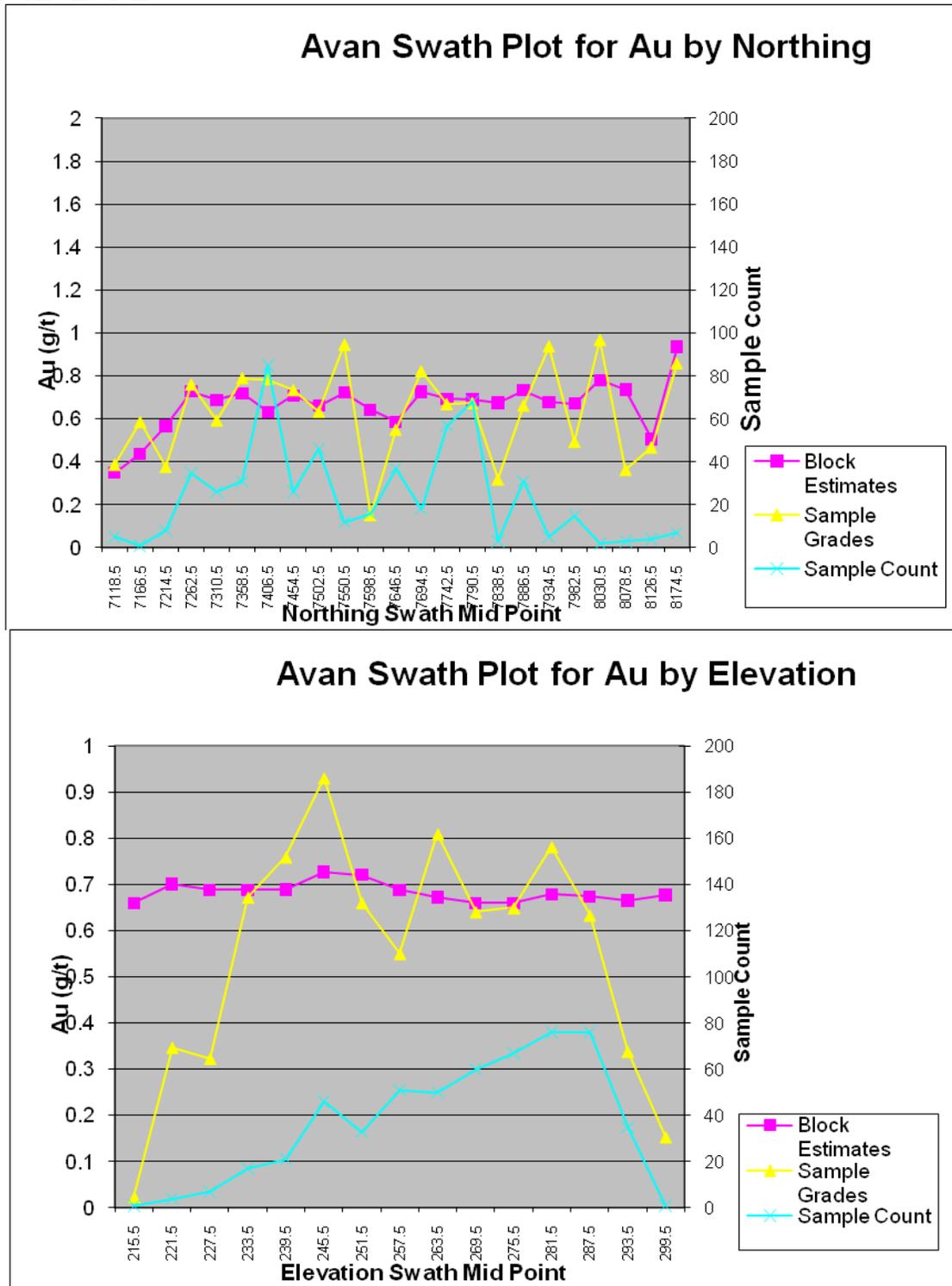


Figure 17.13: Swath plots for Avan Zone

CENTRAL & SKIRÅSEN ZONES

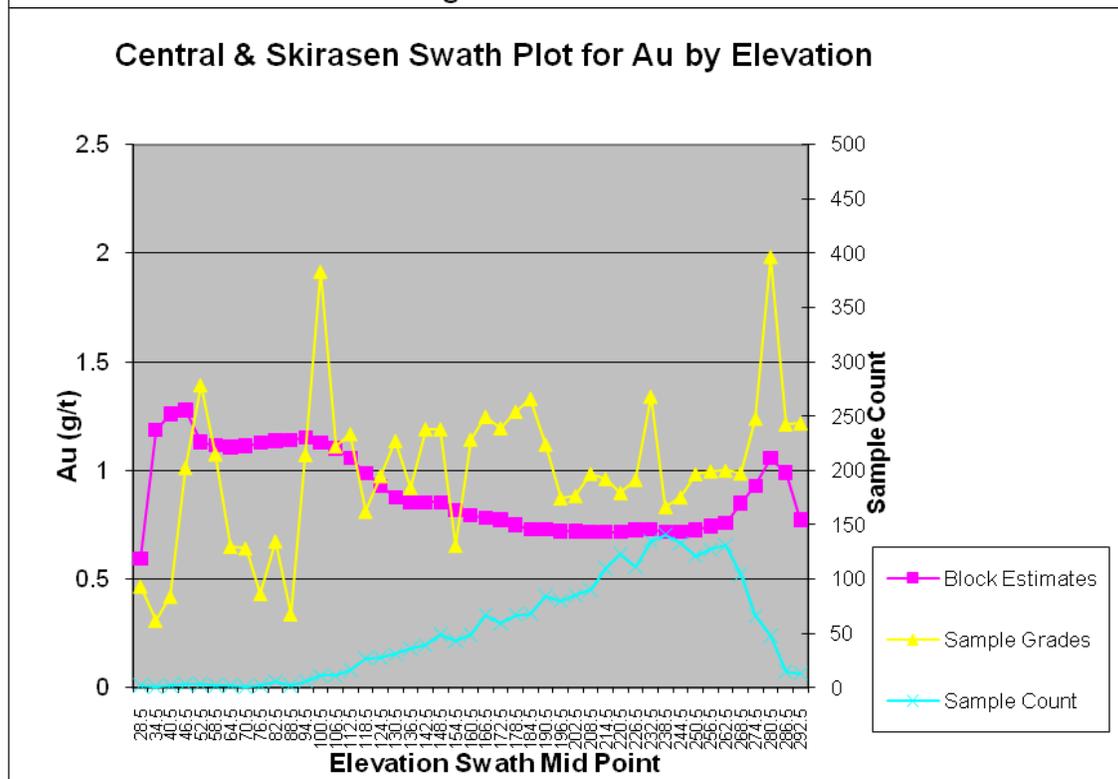
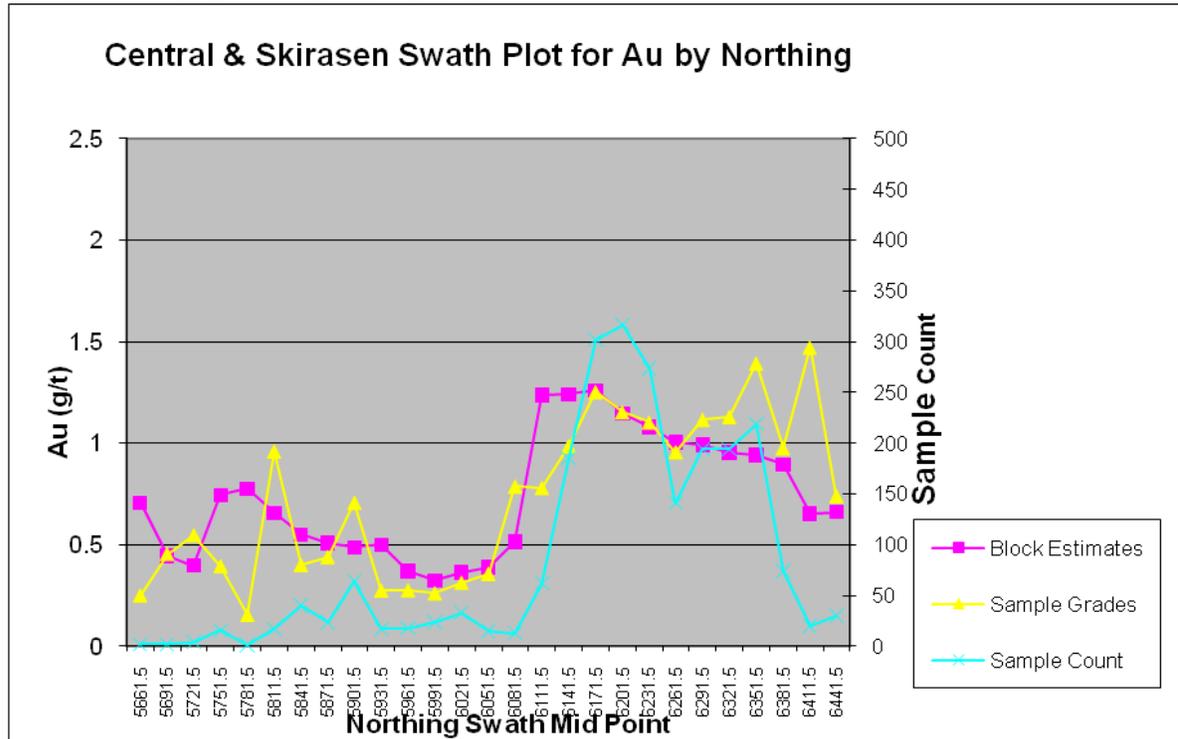


Figure 17-14: Swath plots for Central & Skiråsen Zones

NORRA ZONE

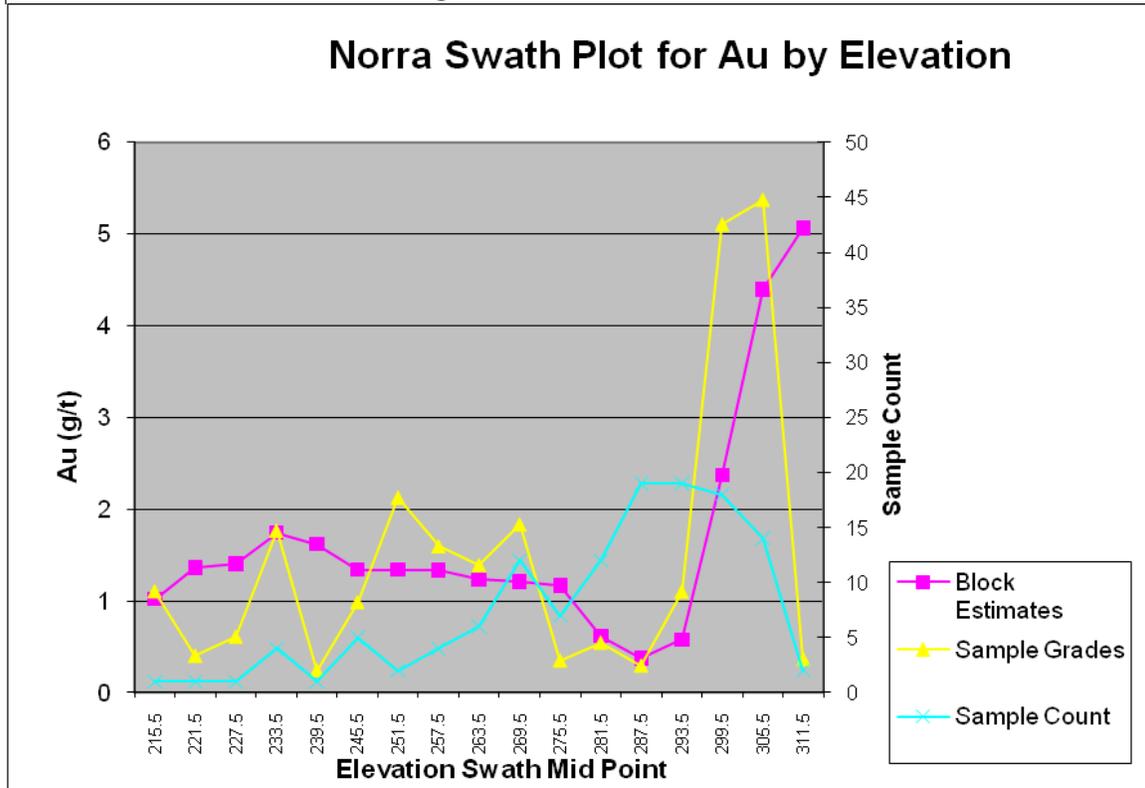
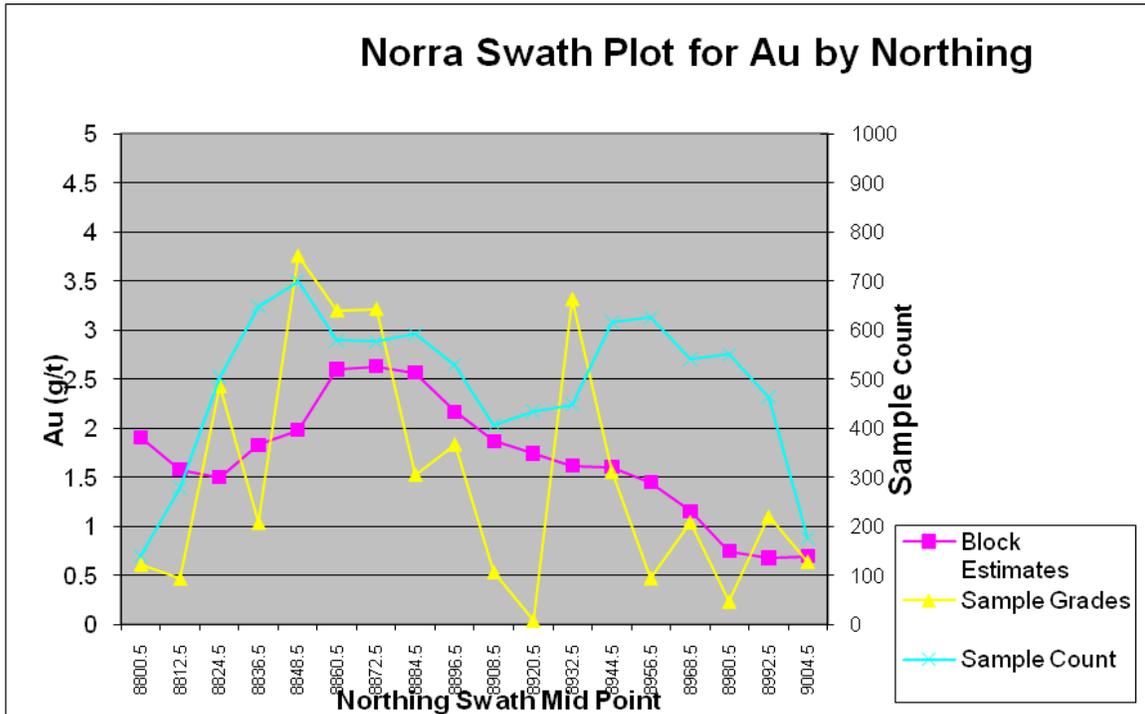


Figure 17-15: Swath plots for Norra VMS Zone

19.0 INTERPRETATION AND CONCLUSIONS

19.1 Interpretation

Past work has outlined four deposits by utilizing an integrated exploration approach of geochemistry, geophysics and drilling, Table 6.2 (Section 6.0) summarizes the work done to date on the project. The work done by Terra Mining, Northland and others covered the original 11,000ha sized property. The property has now been expanded to 32,733ha.

Government airborne surveys flown in the early 1980's was useful in identifying geological units covered by a 2-20m layer of glacial material. Follow-up soil and till geochemistry was successful in locating areas of interest that in a number of areas, subsequent drilling indentified gold or multi-element mineralization such as at Central, Avan, Skiråsen, Norra, Skirträskbäcken-Risberget, and Tattartjärnliden. Further drilling is required in these locations. Further focused airborne surveys and additional geochemical surveys will be needed in the new areas of the property beyond the borders of the original permits.

In addition to individual laboratory's internal sample preparation and assay QC protocol, Northland maintained a rigorous quality control program consisting of inserting blanks, duplicates and certified standards to the analytical process. The sample preparation, analytical methods, QC/QA protocols and security for the work done by Northland were of very high standards and the authors have no reason to doubt the results based on this work.

In 1995, Terra contracted Anamet Services to complete a mineralogical and preliminary metallurgical testwork on a one tonne bulk sample of mineralized rock excavated from a trench at the northwestern part of the Barsele Central Zone. The average head-grade of the sample was 5.1g/t gold and 4.3 g/t silver, considerably higher in grade than the historic Barsele Central drill grades. No conclusions have been drawn as to why the grades are so different. The authors have observed visible gold in the core and have noted that the core samples were not systematically analyzed using metallic analyses. Coarse gold could be a contributing factor so future exploration must consider the possible influence of free gold in the host rock.

The previous exploration programs undertaken on the Barsele Gold project have outlined four small deposits; three gold deposits: Central, Avan, Skiråsen (CAS), and the Norra V-HMS deposit. Gold mineralization at Barsele is predominantly hosted within a medium-grained, highly fractured granodiorite that ranges in width from 200 to 500 metres with a strike-extent in excess of some 8 kilometres. The intrusion bends from an east-west orientation in the east to a northwest trend in the west where the three major zones of gold mineralization have been identified. The Central and Skiråsen Zones have a

combined strike length of 1.35 kilometres by some 350 metres wide while the Avan Zone has a strike length of 1.4 kilometres and a width of 250 metres. A fourth mineralized gold zone, Skirträskbacken, is located approximately three kilometres southeast of the Barsele Central and extends into the Risberget gold prospect.

Two main styles of mineralization are interpreted at the Central, Avan, Skiråsen Zone: (a) low to moderate grade gold mineralization associated with networks of thin tourmaline-quartz and quartz-calcite-arsenopyrite veinlets in granodiorite, and (b) high-grade gold-silver-zinc-lead mineralization in syn-tectonic quartz-sulphide veins. Most exploration in the Central and Avan prospects has focused on the low-grade gold resource and there remains potential for discovery of additional high-grade quartz-sulphide vein mineralization.

Gold occurs as native metal alloyed with silver, and has a general association with arsenopyrite but also occurs with pyrrhotite, calcite, chlorite and biotite. Base metal content of the deposit is typically low. Carbonate, sulphide and quartz-tourmaline veinlets are locally mineralized. The host-granodiorite contains less than two percent disseminated fine-grained sulphides consisting of arsenopyrite, pyrrhotite and pyrite.

The Norra Zone consists of massive sulphide mineralization hosted within a sequence of sheared felsic volcanics, foliated pyritic shales and pelitic sediments with a basal massive-sulphide zone and an upper-zone dominated by andesitic volcanics. The footprint of the main mineralized body at Norra, based on drilling, is some 300 metres in strike-length varying from 5 to 50 metres in width within a broadly anomalous zone some 300 metres in strike length by 50 metres in width. The sulphide mineralization and associated alteration is likely a volcanic hosted massive sulphide (V-HMS) type. Gold is associated with the basal semi-massive arsenopyrite, pyrrhotite, chalcopyrite, galena, and sphalerite mineralization. Gold is probably remobilized and is likely enriched by a later overprinting epithermal phase of mineralization.

Northland retained Golder Associates to complete the application for the conversion of key areas of the property, containing the four known deposits, into Exploitation Concessions. This process consisted of field studies, community consultation and investigatory work that were performed in order to apply for the Exploitation Concession from the Mining Inspector at the Mining Inspectorate of Sweden. This is the first step in the process of getting a permit to open a mine at Barsele. The application with an appended Environmental Impact Assessment (EIA) for Exploitation Concession was submitted Dec 27, 2006 and it was granted by the Swedish Mining Inspector on June 21, 2007. The success of this permit conversion and EIA is positive as it indicates that the community is supportive of mining in the area.

19.2 Conclusions

The previous exploration programs undertaken on the Barsele Gold project have outlined four small deposits; three gold deposits: Central, Avan, Skiråsen (CAS), and the Norra V-HMS deposit. High quality regional targets within the licences have been identified that require further work such as the Skirträskbäcken-Risberget, Nasvattnet,

Tattartjärnliden and Storträsket/ Tolvmanmyran. In addition, Orex has applied for 22,500 ha of new ground that has not been explored in the detail of the original property acquired from Northland and will need to be properly evaluated. It is concluded that further work is warranted over the entire property and the most effective way to test the targets outlined in the proposed exploration program described in this report.

On February 28, 2011 Orex released the results of the updated NI43-101 resource estimate. The Norra volcanic massive sulphide (VMS) zone and the Avan Gold zone were estimated separately, while the Central and Skiråsen zones were combined. The Avan, Central and Skiråsen zones are all considered to be structurally controlled mesothermal gold deposits.

The current mineral resources are summarized below:

Summary of Mineral Resources in the Avan, Central and Skiråsen Gold Zones

Au Cut-off (g/t)	Zone	Resource Category	Tonnes	Au Grade (g/t)	Contained Ounces Au
0.40	<i>Central</i>	<i>Indicated</i>	<i>10,740,000</i>	<i>1.12</i>	<i>387,000</i>
	<i>Central-Skiråsen</i>	<i>Inferred</i>	<i>10,950,000</i>	<i>0.90</i>	<i>317,000</i>
	<i>Avan</i>	<i>Indicated</i>	<i>670,000</i>	<i>0.81</i>	<i>17,000</i>
		<i>Inferred</i>	<i>20,440,000</i>	<i>0.75</i>	<i>494,000</i>
	TOTAL	Indicated	11,410,000	1.10	404,000
Inferred		31,390,000	0.80	811,000	
0.50	Central	Indicated	10,210,000	1.16	381,000
	Central-Skiråsen	Inferred	8,870,000	1.01	288,000
	Avan	Indicated	670,000	0.805	17,000
		Inferred	20,440,000	0.751	494,000
	TOTAL	Indicated	10,880,000	1.14	398,000
Inferred		29,310,000	0.83	782,000	
0.60	Central	Indicated	9,530,000	1.20	368,000
	Central-Skiråsen	Inferred	7,350,000	1.11	262,000
	Avan	Indicated	440,000	0.973	14,000
		Inferred	13,690,000	0.876	386,000
	TOTAL	Indicated	9,970,000	1.19	382,000
Inferred		21,040,000	0.96	648,000	

Summary of Mineral Resources in the Norra VMS Zone

Au Cut-off (g/t)	Tonnes > Cut-off (tonnes)	Grade > Cut-off							
		Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)	Au Oz	Ag Oz	Cu lbs	Zn lbs
INDICATED									
0.40	140,000	2.46	27.26	0.45	0.66	11,000	123,000	1,389,000	2,037,000
0.50	120,000	2.76	28.38	0.48	0.68	11,000	109,000	1,270,000	1,799,000
0.60	110,000	3.13	30.27	0.53	0.72	11,000	107,000	1,286,000	1,746,000
INFERRED									
0.40	330,000	1.55	12.44	0.26	0.41	16,000	132,000	1,892,000	2,983,000
0.50	320,000	1.59	12.56	0.26	0.42	16,000	129,000	1,835,000	2,964,000
0.60	310,000	1.62	12.69	0.26	0.42	16,000	126,000	1,777,000	2,871,000

The intent of this Technical Report is to provide the reader with a comprehensive review of the exploration activities and a current mineral resource estimate based on 300 drillholes totaling 34,210m and to support the acquisition of the project by Ores from Northland. This report has met those objectives.

20.0 WORK RECOMMENDATIONS

20.1 Summary Recommendation Phase I Work

This recommended Phase I work program is designed to further evaluate the overall exploration potential of the Barsele Project; and to enhance the known resource areas prior to further Phase II resource estimates, scoping and prefeasibility. Previous work by Northland was concentrated on confirmation and resource expansion of the Avan-Central-Skiråsen and Norra resource. Although their work has moved the project from early to advanced stage exploration, very little work was dedicated to new target generation or evaluation or known regional exploration targets. It is anticipated that this program can be completed 12-18 months at an approximate cost of US\$3,479,000. Detailed cost expenditures are summarized in Table 20.1

Specific Recommendations are as follows:

- Drilling – A minimum 7,500 meter drilling program is recommended during Phase I. This program should consist of a series of vertical and angle holes in the Central and Avan Zones to determine depth and continuity of mineralization. East-West directed angle holes in the southern portion of the Central Zone to test for the potential of a North-South component of the mineralized trend. Additional drilling is warranted to test the extent of the high-grade gold plus poly-metallic base-metal vein in Central. Test the most promising of the regional targets discussed in Section 9.2.3 and any new targets generated by the proposed airborne survey and, or historic geochemical surveys. Additional shallow in-fill drilling at Central and Avan.
- Airborne Geophysics – Complete a low level, high resolution TEM +Magnetics airborne geophysical survey over the entire land package. The proposed airborne survey would be flown in a number of different directions to reflect the variety of

orientation of the underlying geological units. Geophysics has worked well in the past and a survey using updated equipment may be very beneficial to the advancement of the project by demonstrating the type of signature related to the currently known mineralized bodies that will help us identify new areas where we can focus further exploration. It is recommended that the lines be flown East-West on 200m line spacing reduced to 100m line spacings over the main project area. This program will consist of approximately 2,400 line kilometers.

- Ground Geophysics – Conduct an induced polarization geophysical survey over the mineralized trend from Risberget through Skiråsen-Central-Avan. Conduct ground electromagnetic and magnetic geophysical surveys as warranted over any new anomalies produced by the airborne survey in areas such as in Skiträskbäcken and Tattartjärnliden. Expand the 2006 geophysical survey in the area of the high-grade gold plus polymetallic quartz-sulphide vein in the Barsele Central. The total ground geophysics program is projected to be 200 line kilometers – to be scheduled upon completion of the airborne.
- Geological- Geological map and sample any new areas of interest generated from the airborne survey. Further compilation of all the old data for all the outside targets areas. Any old core in storage with the SGU from the outside target areas should be relogged.
- Geochemistry – Conduct an MMI orientation geochemical survey over areas of known mineralization that have been previously tested by base-of-till geochemical surveys, approximately 200 samples. Use MMI to further refine geophysical anomalies and prioritize exploration targets prior to drilling – to be determined 1,500 samples estimated.
- Geotechnical – Geotechnical studies including VLF geophysical surveys and oriented core should be conducted as recommended by the Golder Report to provide data for future open pit planning and environmental studies.
- Specific Gravity Determinations – Additional specific gravity determinations should be conducted as a matter of course on various rock and ore types, both ore and waste, using the water displacement method on sealed 20 cm length of core.
- Metallurgy – Drill four large diameter (PQ size) core holes +/- 100m each in the CAS Zone to (1) provide material for preliminary metallurgical testing criteria and (2) determine the location for an underground bulk sample (minimum 100 tonnes) for bench scale metallurgical testing in Phase II.
- Assaying – Design and implement a systematic “metallic screen analyses” assay procedure to augment the current QA/QC procedure testing for “nugget effect”
- Geologic Model – Design and drill test an updated geologic 3D solid model for the CAS Zones. Drill hole density in portions of the Central deposit may be

sufficient to convert a significant portion of the resource to measured plus indicated if the model is verified. The effect of capping higher grade intercepts should be reviewed if continuity of higher grade mineralization can be established.

- Environmental – Environmental studies as recommended by Golder should be ongoing during Phase I in order to maintain the time-line for scoping and prefeasibility studies contemplated during Phase II.

20.2 Summary Recommendation of Phase II Work

Phase II recommendations are contingent upon the successful completion of the Phase I work. It is anticipated that the Phase II work program will include: further definition drilling of the CAS resource; bench scale metallurgical testing of material collected from an underground bulk sample; final environmental studies; scoping and prefeasibility studies; final feasibility; application to the Environmental Court for a mining license pending successful feasibility and continued exploration on regional targets. Previous studies indicate that the recommended Phase II drilling can be completed with a 7,500 meter program; exact drill hole spacings, locations and meterage will be determined at the successful conclusion of the Phase 1 program. In addition, it is recommended that a minimum 2,500 meter drilling program to test outside targets such as Skirträskbäcken and Tattartjärnliden, exact drill targets to be determined upon the successful completion of Phase I.

It is anticipated that Phase II can be completed 12-18 months after completion of Phase I. Estimated costs are summarized in Table 20.2 and are expected to be approximately US\$4,742,000.

The program is not season dependant; much of the work can be done in the winter as easily as the summer.

The company has made an application to the Mining Inspectorate to extend eight exploration permits and an application has been made for nine new exploration permits. The application process is fairly straight forward, once an application has been made, it is reviewed by the Mining Inspectorate to determine if it is in order and also to determine if there are any other conflicting permit applications for the same area. If there are no other conflicting applications and the application is in order, then the permit is granted. Unfortunately, the application process is backlogged and final approval is not expected for several months. Based on communication between the Mining Inspectorate and the specialist Swedish based project management consulting company Orex has retained to complete the application process, there are no conflicting applications. Therefore, the application for the extensions and new permits should be approved.

There are no restrictions that would prevent Orex from completing the proposed airborne geophysical survey while waiting for formal approval of the permit applications. If the permit process is unreasonably delayed, the company will complete the proposed

airborne survey but may delay the ground follow up ground geophysical program into the later part of Phase I.

20.3 *Opinion that Property is of Sufficient Merit to Justify Work Recommended*

In the authors' opinions, the character of the drill targets developed on the property is of sufficient merit to justify the recommended Phase I exploration program.

Dated at Vancouver, British Columbia, this 18th day of March, 2011.

“/s/Gary Giroux”

Gary Giroux, P.Eng.

“/s/Vance Thornsberry”

Vance Thornsberry, C.P.G.

TABLE 20.1. PROGRAM AND BUDGET FOR PHASE I

Cost Centre	Unit Cost US\$	Units	Total (US\$)
Drilling, Sampling, Assaying	\$165/m	7,500m	1,237,500
Geophysics - Airborne	\$162/line km	2,250km	364,000
Geophysics - Ground	\$900/line km	2,000km	180,000
Geochemistry	\$75/sample	1,700	127,500
Geology & Consultants			275,000
Metallurgy			175,000
Engineering Studies			150,000
Environmental			120,000
Office & Vehicles	7,500/mo	18 mo	135,000
Supplies & Equipment			75,000
Technical Support			100,000
Land & Legal			45,000
Accommodations & Travel			70,000
Administration			109,000
Contingency	@10%		305,000
Total			3,479,000

TABLE 20.2. PROGRAM AND BUDGET FOR PHASE II

Cost Centre	Unit Cost US\$	Units	Total (US\$)
Drilling, Sampling, Assaying	\$165/m	10,000m	1,650,000
Regional Drilling (all incl.)	\$165/m	2,500m	412,500
Geochemistry	\$75/sample	1,000	75,000
Geology & Consultants			375,000
Metallurgy-Bulk Sample			405,000
Metallurgy-Bench Scale Tests			175,000
Scoping & Feasibility			350,000
Environmental & Permitting			185,000
Office & Vehicles	\$8,500/mo		153,000
Supplies & Equipment			75,000
Technical Support			100,000
Land & Legal			45,000
Accommodations & Travel			125,000
Admin			185,000
Contingency	@10%		431,500
Total			4,742,000

21.0 REFERENCES

Allen, R., 2003. Review of Geology and Exploration Potential at the Barsele Project, Sweden. Unpublished Report to MinMet plc., August 20, 2003.

Allen, R., 2007. Review of Geology and Exploration Potential at the Barsele Project, Sweden. Unpublished Report to Northland Exploration Sweden, March 19, 2007.

Axelsson, C. L., 2011. Exploitation Concession for the Barsele Gold Ore Deposit, Environmental Status. Unpublished Report to Orex Minerals Inc., February 8, 2011.

Barry, J, 2006. Technical Report, Barsele Project, Sweden, prepared for Northland Resources Inc. by Chlumsky Armbrust & Meyer, Denver, CAM Rpt 041172a, April 15, 2005.

Barry, J, 2006. Technical Report, Barsele Project, Sweden, prepared for Northland Resources Inc. by Chlumsky Armbrust & Meyer, Denver, CAM Rpt 041172, April 12, 2006.

Barnicoat, A.C., et al, 1996. Structural Controls on Gold Mineralisation in the Barsele Prospect. Report No: 1996.37, University of Leeds Innovations Ltd.

Bergman W., Bergstrom, U., Billstrom, K., and Weihed, P., 1996: Geology, tectonic setting and origin of the paleoproterozoic Boliden Au-Cu-As deposit, Skellefteå District, Northern Sweden. *Economic Geology*, vol. 91, p. 1073-1097.

Carlson, L., 2002. Assessment of the Actual Ore Potential of Upper Norrland, Sweden Swedish Geological Survey (SGU) December, 2002.

Corkery, J et al, 2007. Drilling Report for the central High-Grade Polymetallic Zone. Internal Northland Report authored by John Corkery, Project Manager, Barsele Gold Project.

Corkery, J and Lindholm, 2008. Exploration program proposal for Gunnarn Exploration AB, a unpublished powerpoint presentation dated January 2008.

Davidson, G et al., 1998. Proterozoic copper-gold deposits – Exploration Model: Tennant Creek type. *AGSO Journal of Australian Geology & Geophysics*, 17(4), 105-113,

Gaál, G and Sundbland, K., 1990. Metallogeny of gold in the Fennoscandian Shield, publication in *Mineralium Deposita*, 1990.

Geological Survey of Sweden (SGU), February 2002. Guide to Mineral Legislation and Regulations in Sweden –website of the Geological Survey of Sweden: www.sgu.se

Keyser, H.J., 2004. Geological Report on the Barsele Property. Unpublished Report for North American Gold inc. March 19, 2004; revised April 24, 2004.

Lahti, M., 2004. IP Surveys in Barsele, Northern Sweden. SMOY Report for North American Gold Incorporated, October 2004.

Martin, J., 2003a, Barsele Project Norra Zone. MinMet plc Exploration and Discovery (Sweden) internal undated memo.

Martin, J. 2003b, Translation of draft document between Terra Mining and the Environmental department (1990) in Appendix 3 of Summary of Environmental Requirements for Exploration Drilling. MinMet plc Exploration and Discovery (Sweden) internal undated memo.

MinMet plc, November 2004. A Natural Resource Company Involved in Exploration and Gold Mining. Davy Stockbrokers Irish Small & Mid Cap Conference.

Norén P. and Boiln, N., 1992. Barsele Norra- Indicative beneficiation tests- Terra Mining unpublished memo dated Sept 16, 1992.

Pantze, R., 2004. Barsele Downhole EM survey. Boliden Unpublished Report for North American Gold Corporation. October 2004.

Pearson, W., 1998: Summary Report, Barsele Property. Private report for William Resources. January 28, 1998.

Reynolds, I.M., 1996. Mineralogy and Preliminary Metallurgical Testwork on a Gold Bearing Ore Sample from the Barsele Deposit, Sweden. Private Report for Terra Mining AB by Anamet Services, May 1, 1996.

Shonk, K., 2007. Exploration Update and Review of Prior Work and Proposed Exploration Program for 2007 in the Skirträskbacken Area, Barsele Project, Västerbotten Sweden, unpublished report for Northland dated March 1, 2007.

Stryhas. B.A., et al 2005. Mineral Resource Estimate for Barsele-Norra Project, Vasterbotten, Sweden. Report prepared for North American Gold Inc. and reviewed by CAM, Lakewood, Co., March 2005.

Sundblad, K., 2003: Metallogeny of Gold in the Precambrian of Northern Europe. Economic Geology, vol. 98, p. 1271-1290.

Sunden, H., 2004. Barsele Gravity Survey & Second Gravity Survey. Boliden Unpublished Reports for North American Gold Corporation. June, 2004.

Tangwa, Elvis., 2009. Geochemical Baseline Study of Gold Mineralization in the Barsele Area, Northern Sweden, Unpublished Master's Thesis for Luleå University of Technology.

Van der Stijl, F., 2005 Internal unpublished Northland project summaries
Van der Stijl, F., 2011 Internal unpublished Orex Minerals project summaries

Williams, B., 2004. IP Surveys in the Barsele and Risberget Areas. Williams Geophysics
Unpublished Report for North American Gold Corporation, November 2004.

Websites;

www.boliden.com

www.dragon-mining.com.au

www.goldoreresources.com

www.hansaresources.com

www.lapplandgoldminers.se

www.lundinmining.com

22.0 CERTIFICATES OF AUTHORS

22.1 Certificate of Author – Gary Giroux P.Eng.

I, G.H. Giroux, of 982 Broadview Drive, North Vancouver, British Columbia, do hereby certify that:

- 1) I am a consulting geological engineer with an office at #1215 - 675 West Hastings Street, Vancouver, British Columbia.
- 2) I am a graduate of the University of British Columbia in 1970 with a B.A.Sc. and in 1984 with a M.A.Sc. both in Geological Engineering.
- 3) I have practiced my profession continuously since 1970. I have completed resource estimation studies for over 30 years on a wide variety of base and precious metal deposits. In particular I have completed resource estimations on many gold deposits worldwide.
- 4) I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
- 5) I have read the definition of “qualified person” set out in National Instrument 43-101 and certify that by reason of education, experience, independence and affiliation with a professional association, I meet the requirements of an Independent Qualified Person as defined in NI43-101.
- 6) This report titled “*NI43-101 Technical Report, Orex Mineral Inc., Barsele Gold Project, Storuman Sweden*” and dated March 18, 2011 (“Technical Report”) is based on a study of the available data and literature on the Barsele Gold Project. I am responsible for the resource estimation section of this report, Section 17.0, to the exclusion of all other sections. The work was completed in Vancouver during January to February 2011. I have not visited the property.
- 7) I have not previously worked on this property.
- 8) As of the date of this certificate, 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.
- 9) I am independent of the issuer and the vendor applying all of the tests in section 1.4 of National Instrument 43-101.
- 10) I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.
- 11) I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

GIROUX CONSULTANTS LTD.

Per: “/s/ Gary Giroux”

G. H. Giroux, P.Eng., M.A.Sc.

Dated this 18th day of March, 2011

22.2 Certificate of Author – Vance Thornsberry P.Geo.

I, Vance Thornsberry, of 5701 W. Shawnee Ave, Spokane, Washington, USA, hereby certify:

1. I am a graduate of the University of Missouri (Missouri School of Mines) (1970) and hold a B.Sc. degree in geology.
2. I am presently employed as an independent consulting geologist with offices at 5701 W. Shawnee Ave, Spokane, WA, USA.
3. I have been employed in my profession by various mining companies since graduation, 1970. Since 1982, I have completed exploration on gold deposits worldwide involving all aspects of exploration including the completion of first-stage exploration mapping and sampling and target identification. In addition further worldwide gold exploration has included conducting and supervising surface mapping and sampling, data compilation and preparation of plans and sections, underground and surface core drilling, RC development drilling, development of geologic models for reserve and resource modeling and the supervision of underground exploration programs.
4. I am a Registered Professional Geologist in the State of Wyoming, USA #597WY and have been since 1992, and I am a Licensed Geologist State of Washington, USA #1603WA and have been since 2002.
5. I have read the definitions of “Qualified Person” set out in 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 all sections of this Technical Report titled “*NI43-101 Technical Report, Orex Mineral Inc., Barsele Gold Project, Storuman Sweden*” and dated March 18, 2011 utilizing personal knowledge and data summarized in the References and Sources of Information section of this report, except for Section 17.0.
7. I conducted a recent site visit dated July 13-19, 2010 and have previously worked on and visited the property many times in my capacity as former VP Exploration for Northland Resources (2004-2008). I personally directed the exploration of the Barsele Gold Project during that time.
8. As of the date of this report, to the best of my knowledge, information and belief, this technical report contains all the scientific and technical information that is required to be disclosed to make this technical report not misleading.
9. I am independent of Orex Minerals Inc. and Northland Resources, applying all the tests in Section 1.4 of NI 43-101. I have read NI 43-101 and NI 43-101F1 and the Technical Report has been prepared in compliance with that instrument and form.
10. I consent to the filing of the Technical Report with any stock exchange and other regulatory authority and any publication by them for regulatory purposes, including electronic publication in the public company files on their websites accessible by the public, of the Technical Report.

“/s/Vance Thornsberry”

Vance Thornsberry, P.Geo.

DATED this 18th day of March, 2011.