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NI 43-101 Technical Report November 2012
Orex Minerals Inc.
Barsele Gold Project
Storuman, Sweden

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PREPARED FOR

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November 30, 2012

Document Control Information

OREX MINERALS INC.	**NI 43-101 Technical Report 2012** **Orex Minerals Inc.** **Barsele Gold Project** **Storuman, Sweden**	REVISION	
		No.	DATE
			Nov 30/12

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 an 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 NI 43-101.

6) This report titled "*NI 43-101 Technical Report November 2012, Orex Minerals Inc., Barsele Gold Project, Storuman, Sweden*" and dated November 30, 2012 ("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 14.0, to the exclusion of all other sections. The work was completed in Vancouver during November 2012. I have not visited the property.

7) I am a co-author of the report entitled "Revised NI 43-101 Technical Report Orex Minerals Inc. Barsele Gold Project Storuman, Sweden" in 2011.

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 1.5 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.

Signed "*G. H. Giroux*"

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

Dated this 30th day of November, 2012

Certificate of Author – Sean Butler P.Geo.

I Sean P. Butler, P.Geo., do hereby certify that:

1. I am currently employed as Senior Geology Consultant by Mining Plus Canada Inc. Suite 440 - 580 Hornby St., Vancouver, BC, V6C 3B6

2. I am a graduate with a Bachelor of Science, in Geology from the University of British Columbia in 1982

3. My professional affiliation is member of the Association of Professional Engineers and Geoscientists of British Columbia, Canada, Member # 19,233, Professional Geoscientist.

4. I have been professionally active in the mining industry for approximately 25 years since graduation from university. I have worked extensively exploring for both base and precious metals from early stage programs up to advanced underground exploration and mining.

5. I have read the definition of "qualified person" set out in National lnstrument 43-101 and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of Nl 43-101.

6. I am responsible for Sections 1 to 13 and 15 to 27, to the exclusion of Section 14 of the technical report titled "*NI 43-101 Technical Report November 2012 Orex Minerals Inc., Barsele Gold Project, Storuman, Sweden*" dated November 30, 2012 (the "Technical Report").

7. That as of the date of the certificate, to the best of the my knowledge, information and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

8. I have not visited the property.

9. I am independent of Orex Minerals Inc., applying all of the tests in section 1.5 of NI 43-101.

10. I have read NI 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.

Dated this 30th day of November, 2012.

Signed "*Sean Butler*"

Sean Butler, P.Geo.

Dated this 30th day of November, 2012

Certificate of Author – John Michael William Collins P.Geo.

I, John Michael William Collins, P.Geo., do hereby certify that:

1. I am currently employed as Vice President North American Operations by:

Mining Plus Canada Inc., 303 - 80 Richmond Street West, Toronto, Ontario, M5H 2A4

2. I am a graduate of the University of Dalhousie and received a Bachelor of Science degree with Honours in Earth Sciences in 1996.

3. I am a Registered Professional Geologist in the province of Ontario (No. 0828)

4. I have worked in exploration geology and project management for 13 years. I have worked as a consulting geologist for companies for 9 years and for Mining Plus Canada Inc. for 11 months.

5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("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 Sections 1 to 13 and 15 to 27, to the exclusion of Section 14 of the technical report titled *"NI 43-101 Technical Report November 2012 Orex Minerals Inc., Barsele Gold Project, Storuman, Sweden*" dated November 30, 2012 (the "Technical Report").

7. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information required to be disclosed to make the report not misleading.

8. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

9. I am independent of Orex Minerals Inc., applying all of the tests in section 1.5 of NI 43-101.

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.

11. I visited the Barsele Property on Nov 6 and 7, 2012.

Dated this 30th day of November, 2012.

Signed "*John Michael William Collins*"

John Michael William Collins P.Geo.

Dated this 30th day of November, 2012

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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 Inc. ("Orex"), a junior resource company based in Vancouver, B.C., which 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 signed a binding Letter of Intent ("LOI") to earn 100 % interest in the Project subject to certain terms. The agreement was approved on April 29, 2011 by the TSX Venture Exchange. The Project includes the Central-Avan-Skiråsen gold deposits (CAS) and the Norra VMS deposit (copper, lead, zinc, gold and silver) and 31,687 ha of mineral claims.

Figure 1.1 Project Location Map

The Barsele Central Gold Deposit, discovered in 1988, is located west of Lake Skirträsket and consists of the Central, Avan and Skiråsen deposits extending over a strike length of 2.6 kilometers. 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. Michael Collins conducted a recent site visit on November 6th and 7th, 2012 to confirm the data and mineralization, and review the project site.

1.2 Property Location, Infrastructure and Access

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

1.3 Property Ownership & Terms of Agreement

On October 27, 2010, Orex 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 Table 1.1 with details presented in Section 4.4 of this report:

Table 1.1 Summary of Option Terms

Time	Cash (US$)	Orex Stock (US$ value)	Work Commitment (US$)
04/29/2011	$2,000,000 (paid)	1,152,997 Shares (delivered)	-
04/29/2012	$1,000,000 (paid)	852,764 Shares (delivered)	$1,000,000 (completed)
2nd Anniversary	$2,000,000	-	$2,000,000 (completed)
3rd Anniversary	-	$1,000,000	-
4th Anniversary	-	$1,000,000	-
TOTAL	$5,000,000	$3,500,000 share value	$3,000,000 (completed)

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 meters with a strike-extent in excess of some 8 kilometers. 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 kilometers by some 350 meters wide while the Avan Zone has a strike length of 1.4 kilometers and a width of 250 meters. A fourth mineralized gold zone, Skirträskbäcken, is located approximately three kilometers southeast of the Barsele Central Zone and extends into the Risberget gold prospect.

Two main styles of mineralization are interpreted at the Central, Avan, and 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 Zones 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 meters in strike-length varying from 5 to 50 meters in width within a broadly anomalous zone some 300 meters in strike length by 50 meters 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 5.1 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. 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. The completed 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. The Norra V-HMS target is associated with a coincident magnetic and electromagnetic anomaly and detailed airborne geophysics has identified 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 initiated and completed an airborne survey and followed up targets from the airborne with ground geophysics on the Barsele project, beginning in May 2011. Orex has also completed a drill campaign in late 2011 and 2012 on the Central and Avan zones.

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 campaigns 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. Orex has managed and stored their core and samples from the 2011 and 2012 drilling 8 km from the project in a cold storage facility.

At the same time Northland was completing their last drill 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 NI 43-101 resource estimate. The mineral resources were estimated by Gary Giroux, P.Eng., M.A.Sc. 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 intrusive hosted gold deposits.

This report is a follow up of the results combining the data from previous work and the sixteen diamond drillholes completed since March 2011 by Orex.

The current mineral resources are summarized in Table 1.2 below:

Table 1.2 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
0.4	Central	Indicated	15,500,000	1.13	563,000
	Central-Skiråsen	Inferred	14,390,000	0.89	413,000
	Avan	Indicated	830,000	0.77	21,000
		Inferred	19,460,000	0.69	433,000
	TOTAL	Indicated	16,470,000	1.12	595,000
		Inferred	34,180,000	0.78	862,000
0.5	Central	Indicated	14,740,000	1.16	552,000
	Central-Skiråsen	Inferred	11,890,000	0.98	376,000
	Avan	Indicated	650,000	0.87	18,000
		Inferred	14,650,000	0.77	363,000
	TOTAL	Indicated	15.390,000	1.15	570,000
		Inferred	26,540,000	0.87	739,000
0.6	Central	Indicated	13,610,000	1.22	532,000
	Central-Skiråsen	Inferred	9.840,000	1.08	340,000
	Avan	Indicated	490,000	0.97	15,000
		Inferred	10.360,000	0.86	287,000
	TOTAL	**Indicated**	**14,100,000**	**1.21**	**547,000**
		Inferred	**20,200,000**	**0.97**	**627,000**

For the Avan, Central and Skiråsen estimates, the data base consisted of 300 drillholes completed between 1989 and 2006 totalling 34,210 m. In 2011 and 2012 an additional 16 drillholes totalling 6,210 meters was added by Orex. Presently 316 diamond drillholes totalling 40,420 m have been drilled and used to develop this 2012 mineral resource. Gold assays from each zone were capped based on their grade distributions. Downhole composites, 3 m 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^{o}. A block model with blocks 3 m x 3 m x 3 m 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 50 m in width, was outlined by 68 diamond drillholes completed from 1990-2006, thirty-nine of which intersected the mineralized zone. Assays for Au, Ag, Cu and Zn were capped and formed into 3 m composites. Semivariograms were produced for each variable and all showed the longest range of continuity along azimuth 345^{o}. A 3 m x 3 m x 3 m 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 has been 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 Storträsket. In addition, Orex has recently acquired 23,425 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 is outlined in the proposed exploration program described in this report and includes:

Phase I

IP, EM and Magnetic 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.

Diamond Drilling- A three pronged 8,850 m drilling program;

1) drilling south-west dipping holes in the Central Zone to a) test the premise that the Au mineralization has a preferred South-East plunging orientation and b) extending these to depth
2) A three hole fence on Line 7200 between the Central and Avan Zones; testing a strong IP anomaly and looking for a connection between the two zones
3) 10 drillholes 200m each dedicated to the regional exploration program which should be able to test 3 discrete targets and prioritized by the local geology team.

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

Phase II

Detailed Diamond Drilling - 8,000 m of detailed diamond drilling

Underground Bulk Sample - Drill four large diameter (PQ size) core holes ± 100 m each in the CAS Zone to:

1) provide material for preliminary metallurgical testing criteria and

2) determine the location for a larger underground bulk sample (minimum 100 tonnes).

Regional Exploratory Diamond Drilling - 2,500 m 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$3,400,000. The sections of this program are not season dependant; much of the work can be done in the winter as easily as in the summer.

Phase II recommendations are contingent upon the successful completion of the Phase I work and are budgeted at US$4,800,000. Exact targets for the recommended 8,000 m and 2,500 m drilling programs will be determined at the successful conclusion of the Phase I program.

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.

2.0 INTRODUCTION AND TERMS OF REFERENCE

2.1 Terms of Reference and Purpose

This report has been commissioned by Orex 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 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 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) and begun to make annual payments and work commitments. The Project includes the Central-Avan-Skiråsen gold deposit (CAS) and the Norra VMS deposit (copper, lead, zinc, gold and silver) and 31,687 ha of mineral claims. This document discloses the current resources 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 estimate based on 416 drillholes totalling 50,078 m 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 kilometers. 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. Mike Collins has conducted a recent site visit on November 6th and 7th, 2012 to confirm the data and mineralization, and review 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 cold storage facility near the site and are organized for easy access. As well the Orex Mineral core and samples are located at the same cold storage facility. Much of the project data is from previous operators, dating from 1988. The exploration data from 2004 to 2006 was generated by Northland or their predecessor company North American Gold. The 2011-2012 drilling was completed by Orex. The authors have relied on the previously filed NI 43-101 technical reports titled:

- *"NI 43-101 Technical Report, Orex Minerals Inc., Barsele Gold Project, Storuman, Sweden*" prepared for Orex Minerals Inc. prepared by G. H. Giroux, P.Eng. and Vance Thornsberry, dated March 18, 2011

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

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

Additional sources of information are presented throughout the body of the text and in Section 27.0 References.

2.3 Field Involvement of the Qualified Persons (Authors)

Michael Collins conducted his site visit on November 6th and 7th, 2012 to confirm the data, visit and review sample processing facilities and sampling process and records. The site visit included touring the old trenches, outcrops, drill collar locations from the recent program as well as historic work. Crossing the Exploitation concessions various access roads to the CAS and Norra deposit locations as well as a review of the relevant core stored in Northland's nearby core storage facility as well as in the office/processing facilities in Storuman. Gary Giroux and Sean Butler have 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 PROFESSIONALS

The Qualified Person (QP) of the resource estimation, Gary Giroux P.Eng., has examined the current data for the Barsele provided by Orex, 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 and Appendix 4. The information contained in the above mentioned sections, where referenced, was obtained from Orex who have provided a Title Opinion from Orex Mineral's Swedish based lawyers, Mannheimer Swartling, dated November 28, 2012. The title on Gunnarn nr 22 had an application for extension when the Title Opinion was prepared. The documentation on grating this extension is included in Appendix 4. The authors rely on this opinion and the extension confirmation for all matters related to land tenure and land title.

The QP's of this Technical Report, Sean Butler, P.Geo., Michael Collins, P.Geo. and Gary Giroux P.Eng. are not insiders, associates, or affiliates of either Orex 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 their work in accordance with normal professional consulting practices.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Property Area

The Barsele Gold Project covers approximately 327 km^2 is situated in the Västerbottens Län (Västerbotten County), a regional District in north central, Sweden (**Figure 4.1**).

Figure 4.1 Barsele Location Map (Map Credit Orex, 2012)

4.2 Property Location

The Barsele Gold Project is located approximately 20 kilometers east-southeast of the town of Storuman in Västerbottens Län, Sweden. Barsele is about 40 kilometers north of the Svartliden Gold Mine, which is currently owned and operated by Dragon Mining N.L of Australia. Regionally Barsele is approximately 210 kilometers from Umeå, population 105,000 and the administrative headquarters of Västerbotten County; and about 800 kilometers 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 totalling 134.49 hectares covering the CAS and Norra deposits. Application was made to extend eight exploration permits [(3)]

totalling 4,738.80 hectares and application for ten new exploration permits [4] of which nine totalling 22,512.14 hectares has been made under Gunnarn Mining AB. Orex signed a Binding Letter of Intent with Northland Resources SA to acquire 100 % interest in the assets of 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 are 31,687.18 ha.

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	18/06/2014
Skarven nr 1	22/06/2004	2,012.00	22/06/2014
Gunnarn nr 18	03/08/2007	176.50	03/08/2013
Gunnarn nr 21	13/10/2008	440.50	13/10/2014
Total (hectares)		**3,598.00**	

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 Extended (3)

Name	Extension Application date	Area (Hectare)	Valid until and including
Gunnarn nr 5 A	09/02/2004	118.13	09/02/2013
Gunnarn nr 11	14/01/2003	61.23	14/01/2015
Gunnarn nr 14	22/09/2004	680.50	22/09/2013
Gunnarn nr 15	22/09/2004	323.66	22/09/2013
Gunnarn nr 17	20/10/2004	896.48	20/10/2013
Gunnarn nr 19	25/10/2007	1,460.39	25/10/2013
Gunnarn nr 20	25/10/2007	707.83	25/10/2013
Risberget nr 1	07/10/2004	490.58	07/10/2013
Gunnarn nr 22	02/10/2012	805.39	06/10/2015
Total (hectares)		**5,544.19**	

Concession Gunnarn nr 5 A expires on February 9, 2013. Orex management is in the process of applying for an extension of the concession title. It has been presented by Orex management that sufficient work was done in 2011 – 2012 to support this application.

Recent Exploration Permit Applications

Name	Application date	Area (Hectare)	Valid until and including
Gunnarn nr 110	08/12/2010	369.13	09/09/2014
Gunnarn nr 113 A	23/12/2010	412.24	15/06/2014
Gunnarn nr 113 B	23/12/2010	102.86	14/07/2014
Gunnarn nr 116	23/12/2010	119.50	05/09/2014
Gunnarn nr 116 A	08/12/2010	1,259.71	07/09/2014
Gunnarn nr 68	08/12/2010	518.94	14/07/2014
Risberget nr 2	07/10/2010	1,066.45	27/06/2014
Risberget nr 4	07/10/2010	1,178.00	27/06/2014
Storuman nr 1	23/12/2010	17,383.67	09/09/2014
Total (hectares)		**22,410.50**	

Appendix 4 includes a Title Opinion provided by the law office of Mannheimer Swartling in Stockholm, Sweden on the Concessions and Permits above. Title on Gunnarn nr 22 had been applied for an extension at the time of the legal opinion and confirmation arrived after the opinion. Documentation of the granting of the extension is also in Appendix 4.

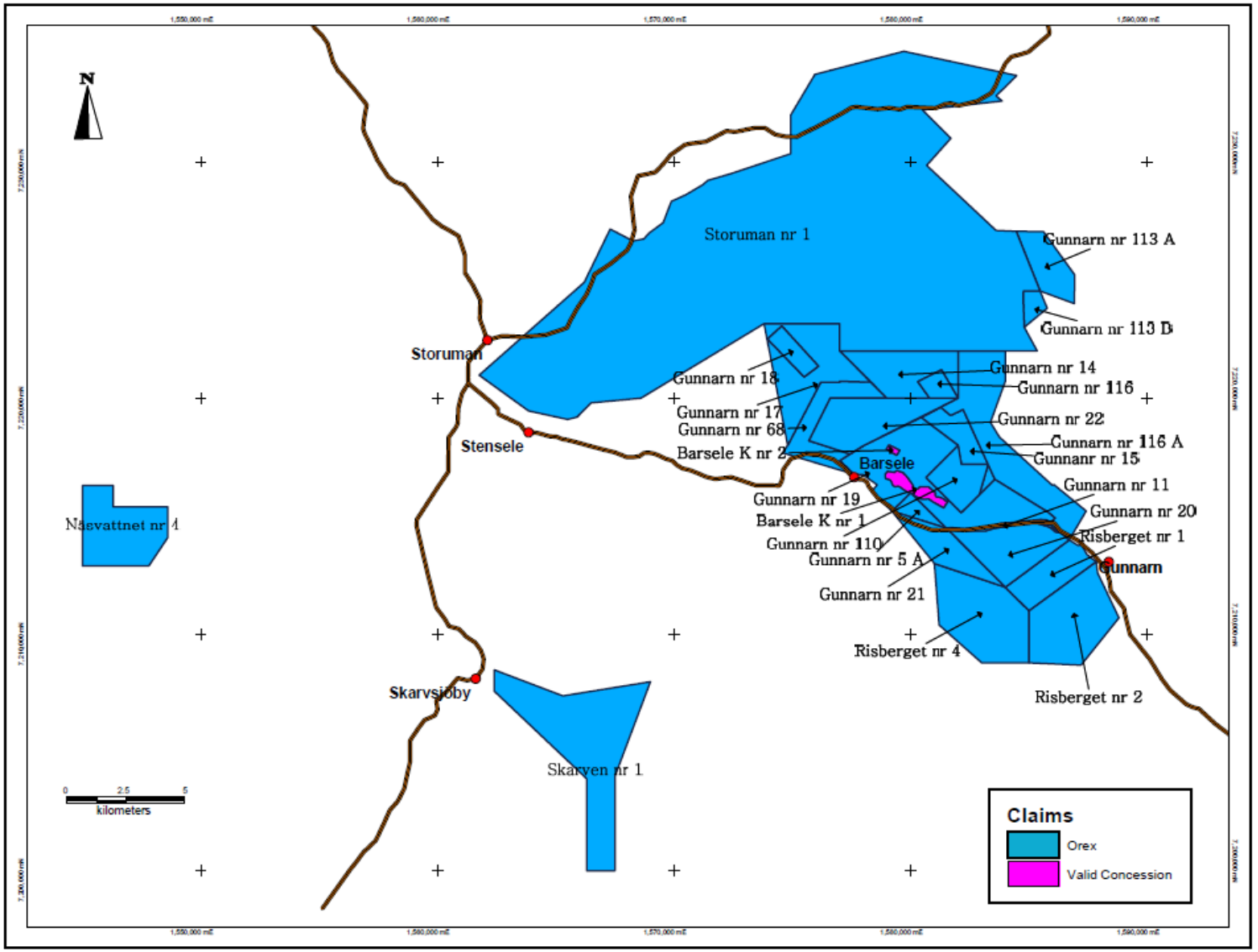


Figure 4.2 Project Permits and Concessions (Map Credit Orex, 2012)

General Statements Regarding Swedish Mining Law

Underlying 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 is active, 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$74) 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$295) per square kilometer is charged for the first three-year period, rising to SEK 2,100 (US$310) per square kilometer, per year, for a second three-year period – and SEK 5,000 (US$738) per square kilometer, 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$11,810) for each concession area regardless of the number of hectares. (exchange rates as of mid November 2012)

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 signed the final agreement and approval was confirmed from the TSX Venture Exchange on April 29, 2011.

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:

(a) On signing the final agreement, US $2,000,000 plus 1,153,997 shares of the Company (equal to a minimum US $1,000,000) (paid and delivered);
(b) On the 1st anniversary of signing the final agreement, US $1,000,000 plus common shares worth US $500,000 (which was 852,764 shares) (paid and delivered);
(c) On the 2nd anniversary of signing the final agreement, US $2,000,000;
(d) 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;
(e) 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 (completed);
(b) Before the 2nd anniversary of signing the final agreement, an additional US $2,000,000 of exploration expenditures. (completed)

Table 4.2 Requirements of the Option and Payments Made to Date

Time	Cash (US$)	Orex Stock (US$ value)	Work Commitment (US$)
04/29/2011	**$2,000,000 (paid)**	**1,152,997 Shares (delivered)**	-
04/29/2012	**$1,000,000 (paid)**	**852,764 Shares (delivered)**	**$1,000,000 (completed)**
2nd Anniversary	**$2,000,000**	-	**$2,000,000 (completed)**
3rd Anniversary	-	**$1,000,000**	-
4th Anniversary	-	**$1,000,000**	-
TOTAL	**$5,000,000**	**$3,500,000 share value**	**$3,000,000 (completed)**

Orex has spent a total of $3.2 million at Barsele. Approximately $1.8 million was spent in 2011 and $1.4 million has been spent so far in 2012. The work commitments for the first and second years have been met.

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 to 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 meters. 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 professionals 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, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE 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 (2 km). 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 (80 km to the southeast), Umea (210 km) to the southeast and Luleå (315 km to the east). Although operational, there are no longer regularly scheduled flights to Storuman's Gunnarn Airport. The town of Storuman is 20 km west of the property and the Gunnarn Airport is 20 km 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 450 m asl. The lakes in and around the property are at 260-290 m 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).

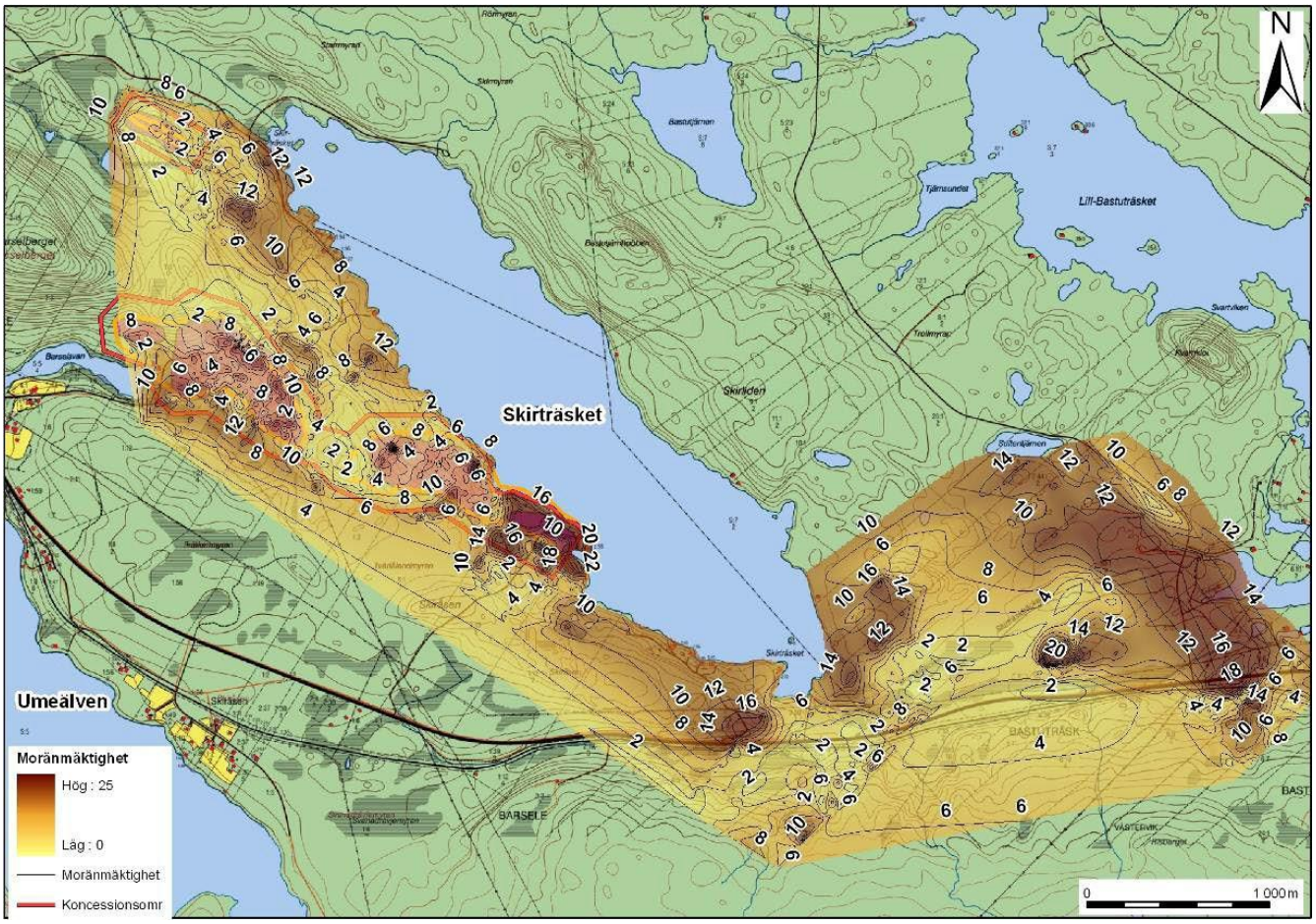


Figure 5.1 Depth of Glacial Till Cover (in meters), Exploitation Concessions (Koncessionsomr) in red (Map Credit Orex, 2012)

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 millimeters. 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 which maintain full production throughout the year.

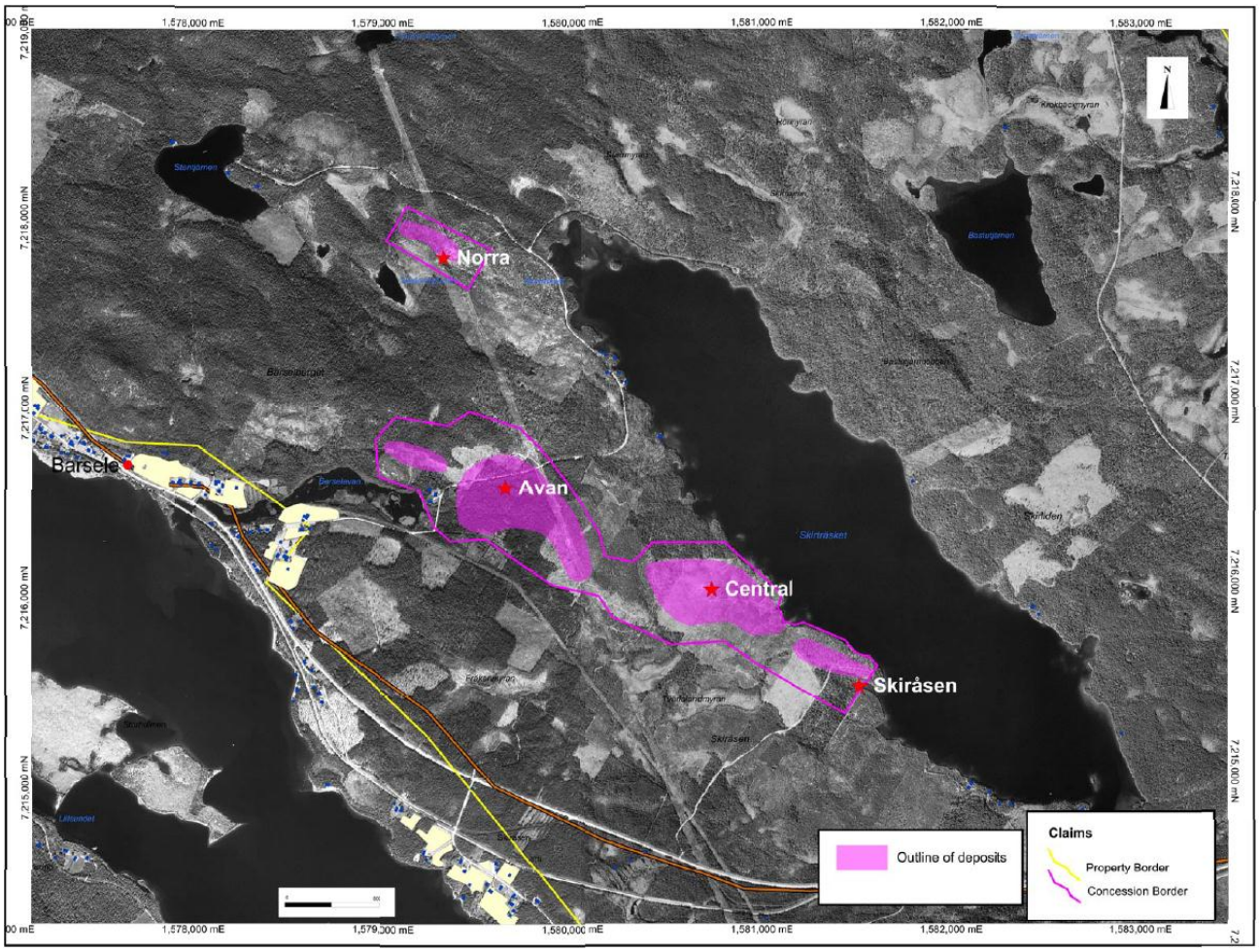


Figure 5.2 Physiography (Map Credit Northland, 2006)

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 hotels, restaurants and other support services and lies only 20 km 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 Malå approximately 80 km east of the Project Area and ALS Chemex operates a commercial sample preparation laboratory in Piteå located about 160 km east of Malå. 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 50 m from all lakeshores where no mining can take place. The Skiråsen Zone does project under Skirträsket Lake. A portion of this zone 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 kilometers 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 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 the Exploitation Concessions the Swedish government has deemed the highest use of the land in this area is mining.

There is plenty of space within the existing claim block to host all required tailings, waste, leach pads and 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 detailed 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 from successfully achieving production. The following section summarizes that work.

5.6 Environmental Issues

At the same time Northland was completing their last 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 the 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 15 g/t gold. The gold at Boliden is combined with significant quantities of copper, zinc and silver (Sundblad, 2003).

Terra Mining in 1980 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.

In 1986 the SGU (Swedish Government) completed two drillholes on the Tattartjärnliden prospect.

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 drill and reverse circulation (RC) percussion drillholes for a total of 28,876 metres which led to the partial delineation of the Norra, Avan, Central and Skiråsen deposits and identified the Skirträskbäcken 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 Sections 11.3 and 13.1 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 analysed 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 drillholes totalling 4,957 meters on the Barsele and Norra projects during the 2004 field season. Of the thirty drillholes: ten, predominantly infill diamond-core, drillholes were drilled in the Central Zone, 17 diamond drillholes targeted the westward strike-extension of mineralization in the Norra Zone, and the final three drillholes 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" drillhole 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 drillholes, 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 drillhole database based on drilling by previous explorers. This Northland resource estimate was prepared by 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 NI 43-101, 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 drillholes on the Barsele Project. Thirteen in-fill holes were drilled in the Barsele Central totalling 2,447 meters, consisting of six, 1400-mm diameter reverse circulation drillholes, and seven 76-mm diameter core holes. Eight additional core holes totalling 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 NI 43-101, 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 70 square km including collecting 638 rock chip and float samples.

The objectives of the 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. 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 better mineral grade material was encountered deeper than anticipated. Interpretation of geologic cross-sections through these five drillholes indicates the mineralization to be trending in a more north-south orientation than previously recognized. Future drilling in this area should be directed in an east-west orientation.

Drillholes CNTDH06006 and CNTDH06007 were drilled 100 m northwest of the first five holes and were considered fill-in holes to expand the resource and convert inferred resources to the indicated category. Drillhole CNDTH06006 intersected potentially economic intersections of five meters averaging 2.8 g/t gold from eleven meters depth and seven meters averaging 3.8 g/t gold from 150 meters depth - the latter within a broad interval of 80 meters averaging 1.2 g/t gold. Drillhole CNDTH06007 was characterized by several low grade intersections above 1 g/t

gold ranging in width from 6.6 to 13 meters with the deepest intersection from 167 meters depth averaging 2.3 g/t gold over six meters.

Drillholes 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 meters containing 1.0 to 2.4 g/t gold. CNTDH06015 and CNTDH0616 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: 12.7 g/t gold, 580 g/t Ag, 5.1 % Pb, and 2.8 % Zn which includes a 1 meter interval of 15.8 g/t Au, 1930 g/t Ag, 18.8 % Pb, and 0.9 % Zn.

In late-November and early-December 2006 five additional diamond drillholes, CNTDH06017 to CNTDH06021, were drilled to test the lateral extension of the geophysical anomaly and mineralization cut by CNTDH06012. With the exception of drillhole CNTD06021, which was incorrectly spotted in the field, all drillholes intersected the polymetallic vein. These drillholes 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 meters. In addition, there is significant gold-only mineralization local to the polymetallic vein: CNTD06017 with10 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 14.1 shows all the drilling for the Avan, Central and Skiråsen zones.

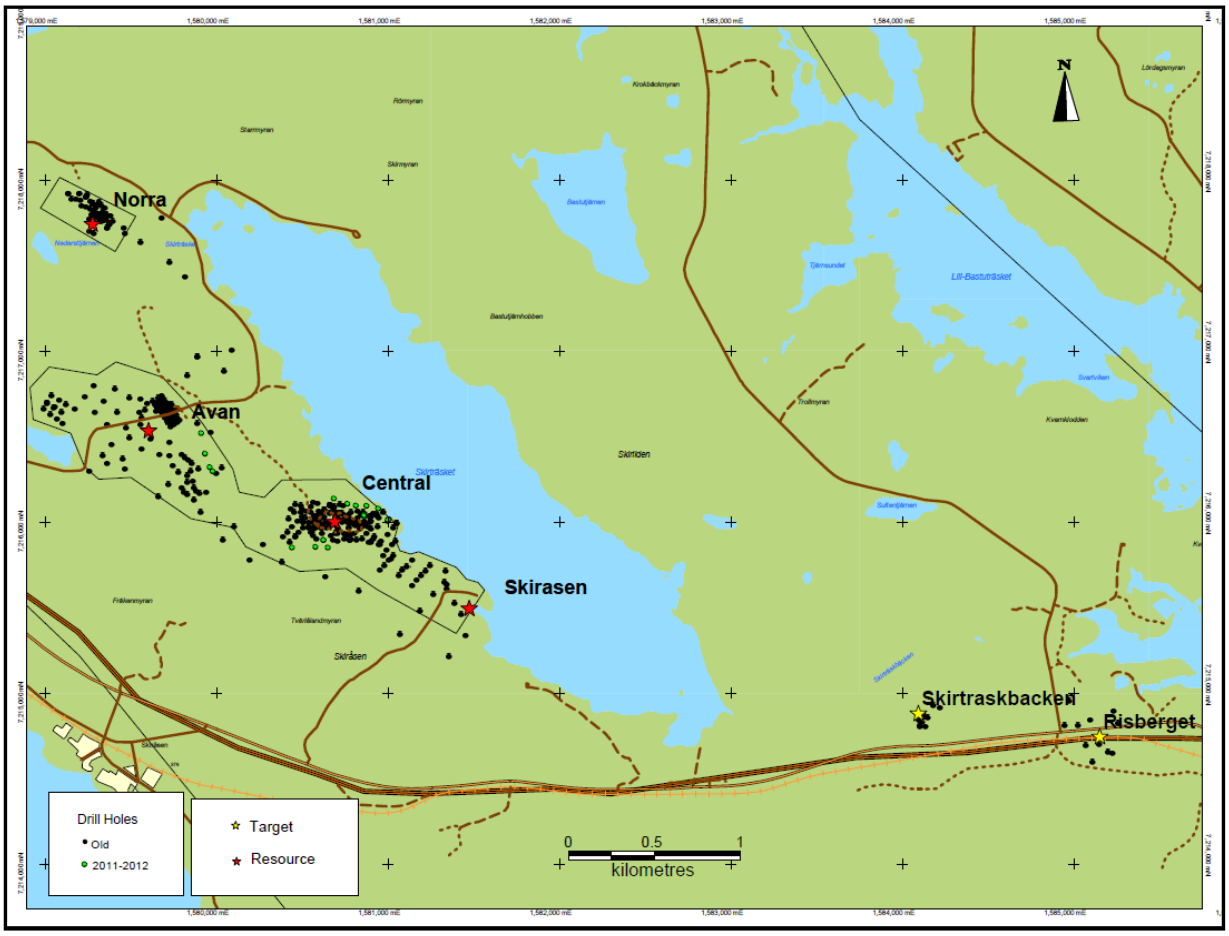


Figure 6.1 Drill Collar Locations (Map Credit Orex, 2012)

During the late fall and winter of 2006, seven exploration drillholes totalling 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 6.1 Historic Work Completed

Work Type	Work Completed to the end of 2006
Drilling	-Barsele: 400 Drillholes totalling 43,868 meters drilled pre 2011(both RC and DDH in all zones) -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, and Nasvattnet
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 31,552.69 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 Project subject to certain conditions previously described in this report. This agreement was approved by the regulators at the TSX Venture Exchange on April 29, 2011.

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 meters of percussion drilling and 11,721 meters of core drilling (Pearson, 1998). The estimated Terra Mining 1998 historic resource estimate is based on a cutoff grade of 0.75 g/t gold and is shown on Table 6.2. This historic resource estimate has been updated four times, first by Northland in 2005 then again in 2006 and by Orex in 2011 and now in this current report.

These 1998 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 resources and 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 longer 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 NI 43-101 so they 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.

Table 6.2 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

In 2011 a 43-101 Resource (Giroux and Thornsberry, 2011) was calculated based on the historic data prior to the 2011 drilling. This report and the resource included, is based on the previous drilling plus the 2011-2012 drilling replaces that estimate.

Table 6.3 Historic 2011 Resource 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**

Table 6.4 Historic 2011 Resource 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

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 performed in order to apply for the Exploitation Concession from the Mining Inspector at the Mining Inspectorate of Sweden. The following is what was completed as summarized by Golder in 2005-2006 (Axelsson 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 Storuman 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 Svärtträsk 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 Svärtträsk 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.

Below is a description of needed information and 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 2002-04-16) 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 archaeological inventories have been performed by Skogsmuseet in Umeå in 2000 and by Västerbotten county museum in 2005 and 2006*

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 potential mining area is mainly located inside the watershed area for Skirträsket Lake. Discussions with the Swedish EPA on November, 6th 2012 indicate that any decision on the allowance for potential impacts to the lake will be made on the basis of the necessity of the impacts proposed and the level of impact versus the economic benefit of the development of a mine at Barsele

The material characterization (Axelsson, 2011) 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 Lake. 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 to capture the gold mineralization at Barsele.

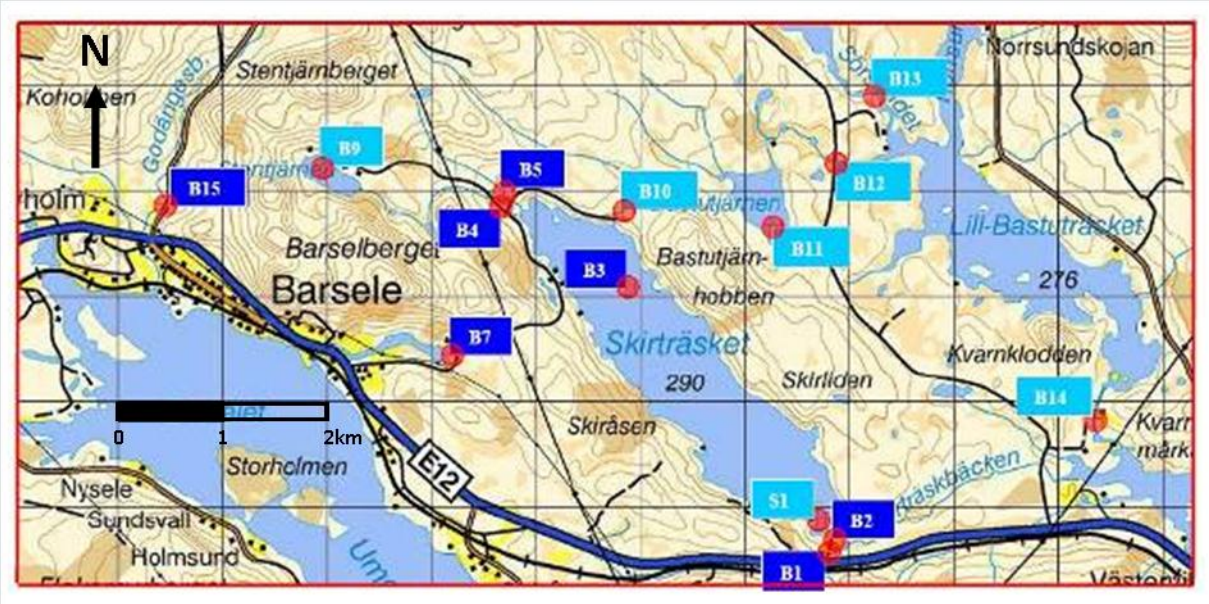


Figure 6.2 Location of Ongoing Water Sampling Sites (map credit , Axelsson 2011)

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 works were performed in order to complete the EIA required to apply for the Exploitation Concession. In addition, the Golder report provided a 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 2012 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 (Section 13).

7.0 GEOLOGICAL SETTING AND MINERALIZATION

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

See Figure 7.1 below for the Regional Geology.

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 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.

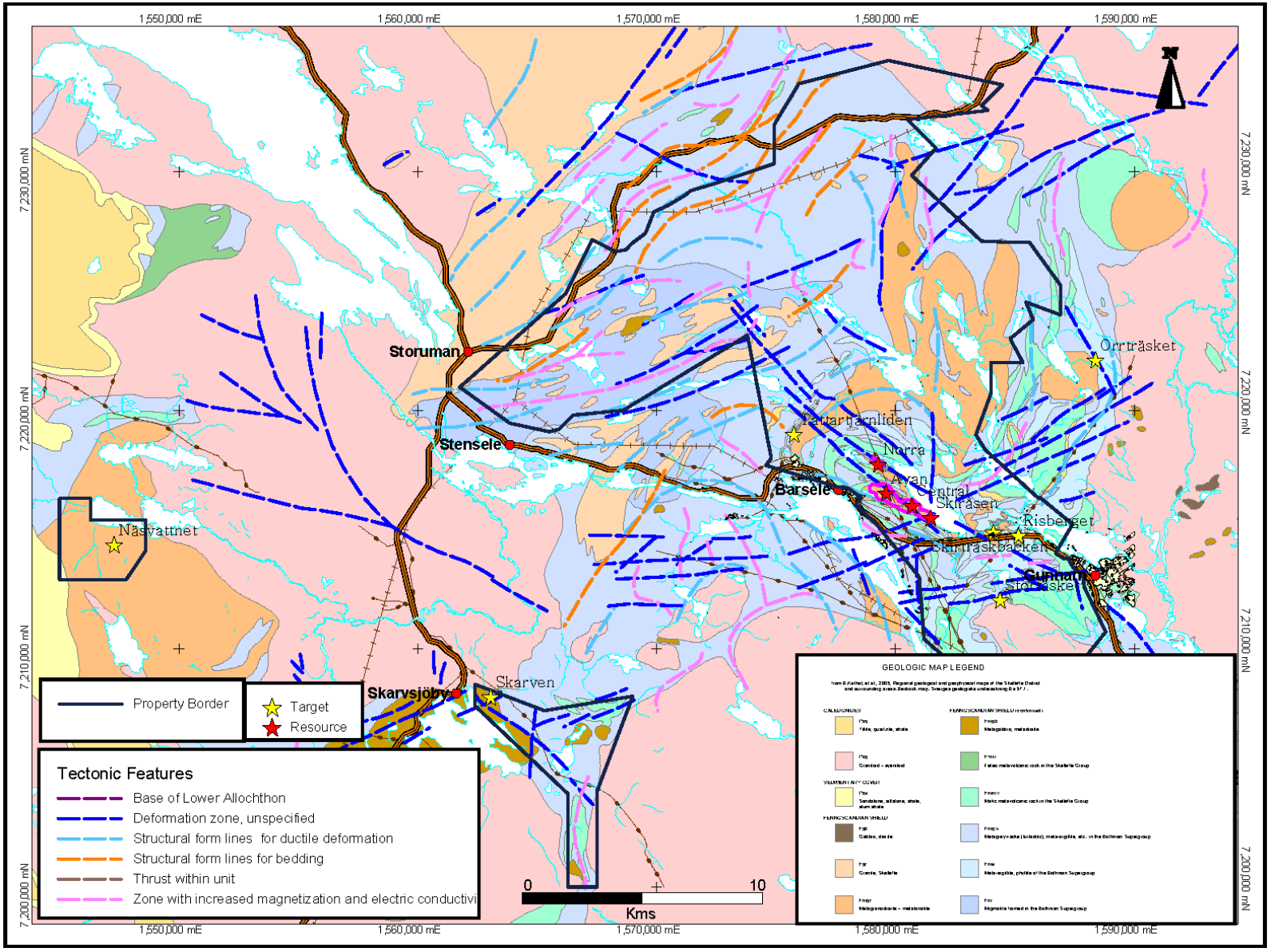


Figure 7.1 Regional Geology (Map Credit Orex, 2012)

7.2 Property and Local Geology

The local geology in the Barsele property area is seen in Figure 7.2 below. 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).

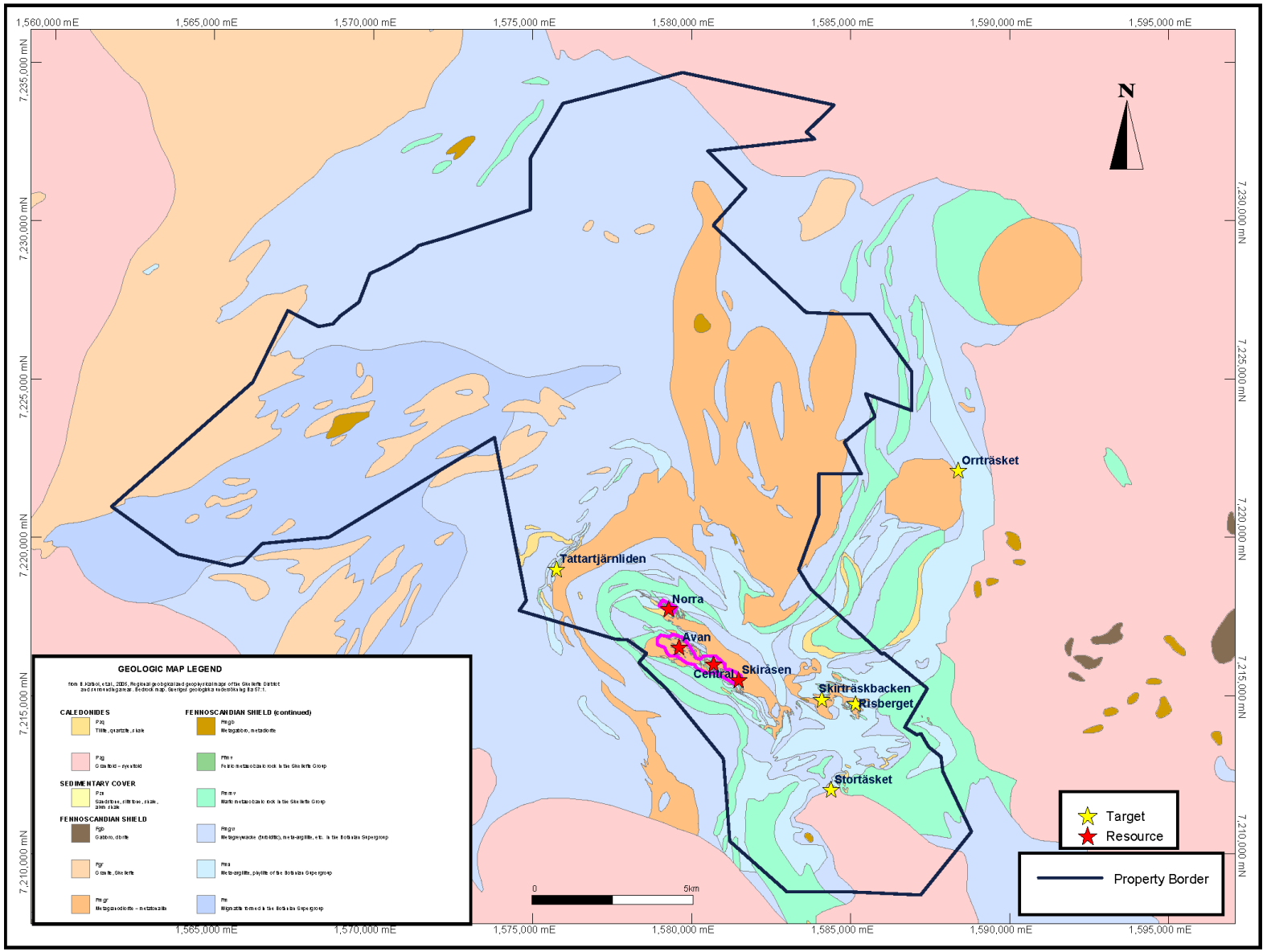


Figure 7.2 Local Geology (Map Credit Orex, 2012)

7.3 Structural Geology

In 1996, Terra Mining initiated 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
- 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 studies, 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 50 m 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.

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

7.4 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 phyric 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 phyllosillicate-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 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. Härnö formation metasediments and metavolcanics are mapped on the northeastern margin of Avan. A relatively thin (meter-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 mélange. 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 mineral 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, basalt/andesite and basalt, and less abundant stratified volcaniclastic 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.

7.4.1 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.

7.5 Description of Mineralized Areas

Two distinct mineralized areas have been explored on the Barsele concessions: the Barsele Central, which includes the Skiråsen, Avan, and Skirträskbäcken Zones, and the Norra Zone.

7.5.1 Barsele Central

Gold mineralization at Barsele is predominantly within a granodiorite that ranges in width from 200 to 500 meters with a strike-extent in excess of some 8 kilometers. 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 kilometers by some 350 meters wide. The Avan Zone has a strike length of 1,400 meters and a width of 250 meters. A fourth mineralized zone at Skirträskbäcken is located approximately three kilometers to the east and extends into the Risberget prospect.

At cross-section scale (Figure 7.3 shows a typical cross section looking NW), 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 phyllosillicate-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 drillholes]. 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.

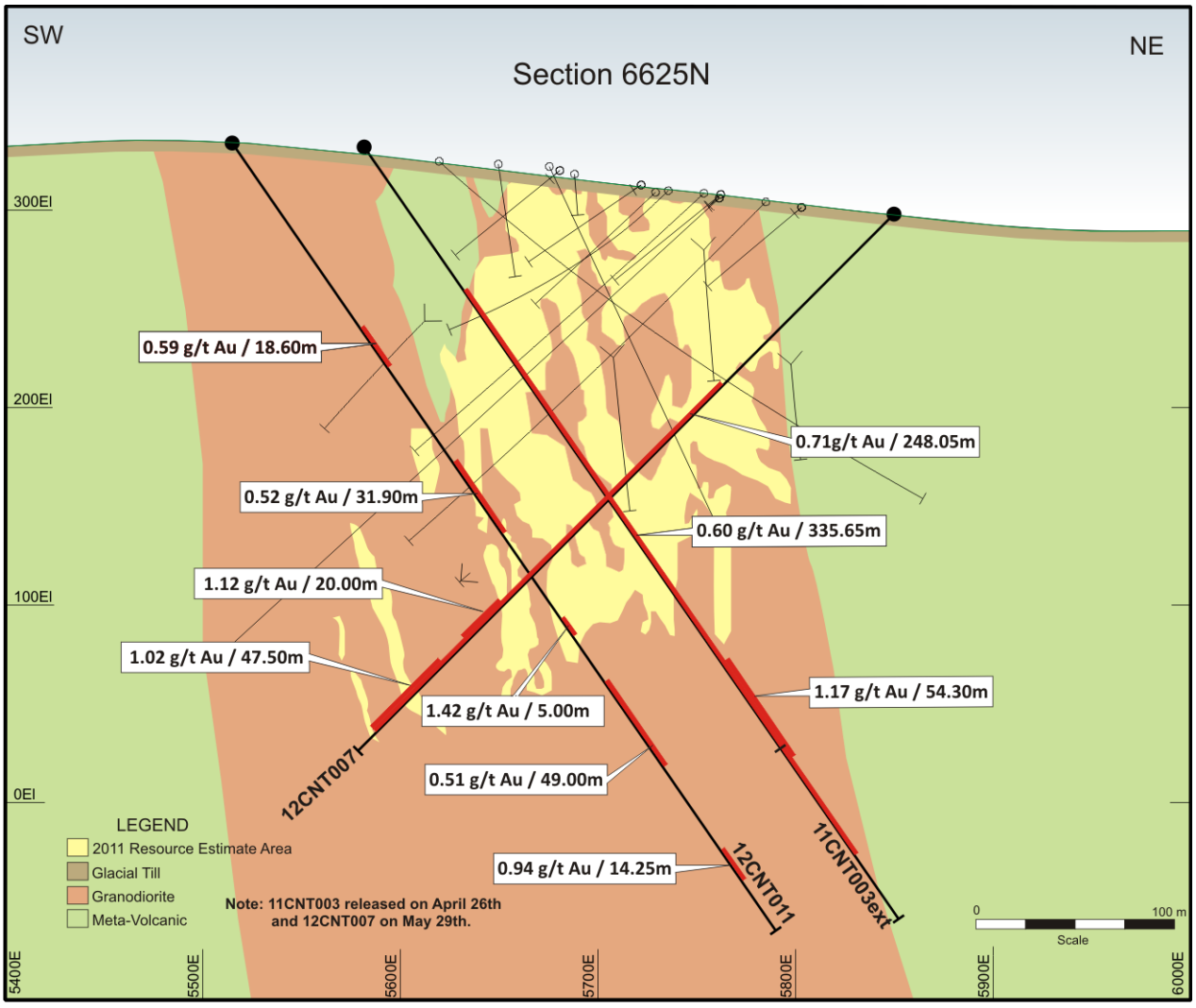


Figure 7.3 Central Zone Section 6625N (Map Credit Orex, 2012)

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° -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.

7.5.2 Norra Zone

Massive sulphide mineralization is exposed in two open trenches (14 meters x 6 meters) in the center of the drilled zone. The footprint of the main mineralized body at Norra, based on drilling, is some 300 meters in strike-length varying from 5 to 50 meters in width (Martin 2003a. within a broadly anomalous zone some 300 meters in strike length by 50 meters in width).

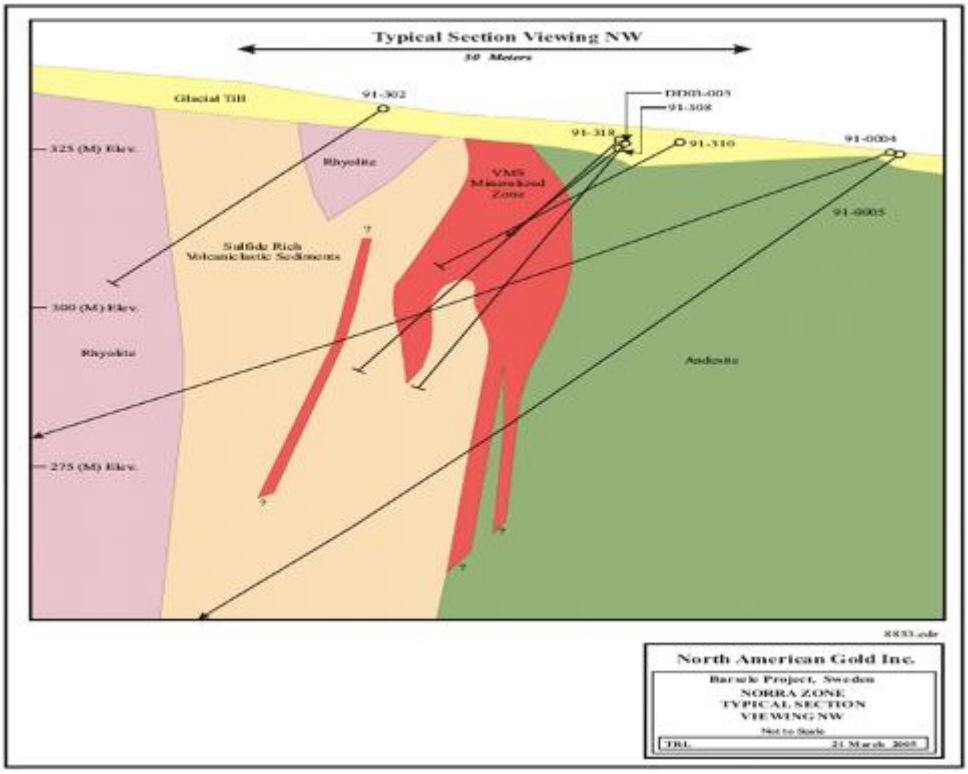


Figure 7.4 Typical Norra Cross Section (Map Credit - Northland Resources, 2006)

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. 7.4). 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).

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).

7.5.3Skirträskbäcken, Risberget, Tattartjärnliden, Näsvattnet, and Storträsket 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 drillholes to early stage geophysical and geochemical anomalies. They are discussed in order of priority. Information on these prospects is derived primarily from reports by Frank van der Stijl, (van der Stijl, 2005 for Northland and van der Stijl 2011 for Orex) 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 7.5) 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 7.5 and 7.6). The two figures (7.5 and 7.6) show the original 2009 Northland property borders, the property holding has been expanded and there are no internal permit holes, see Figure 4.2 for the updated project boundaries.

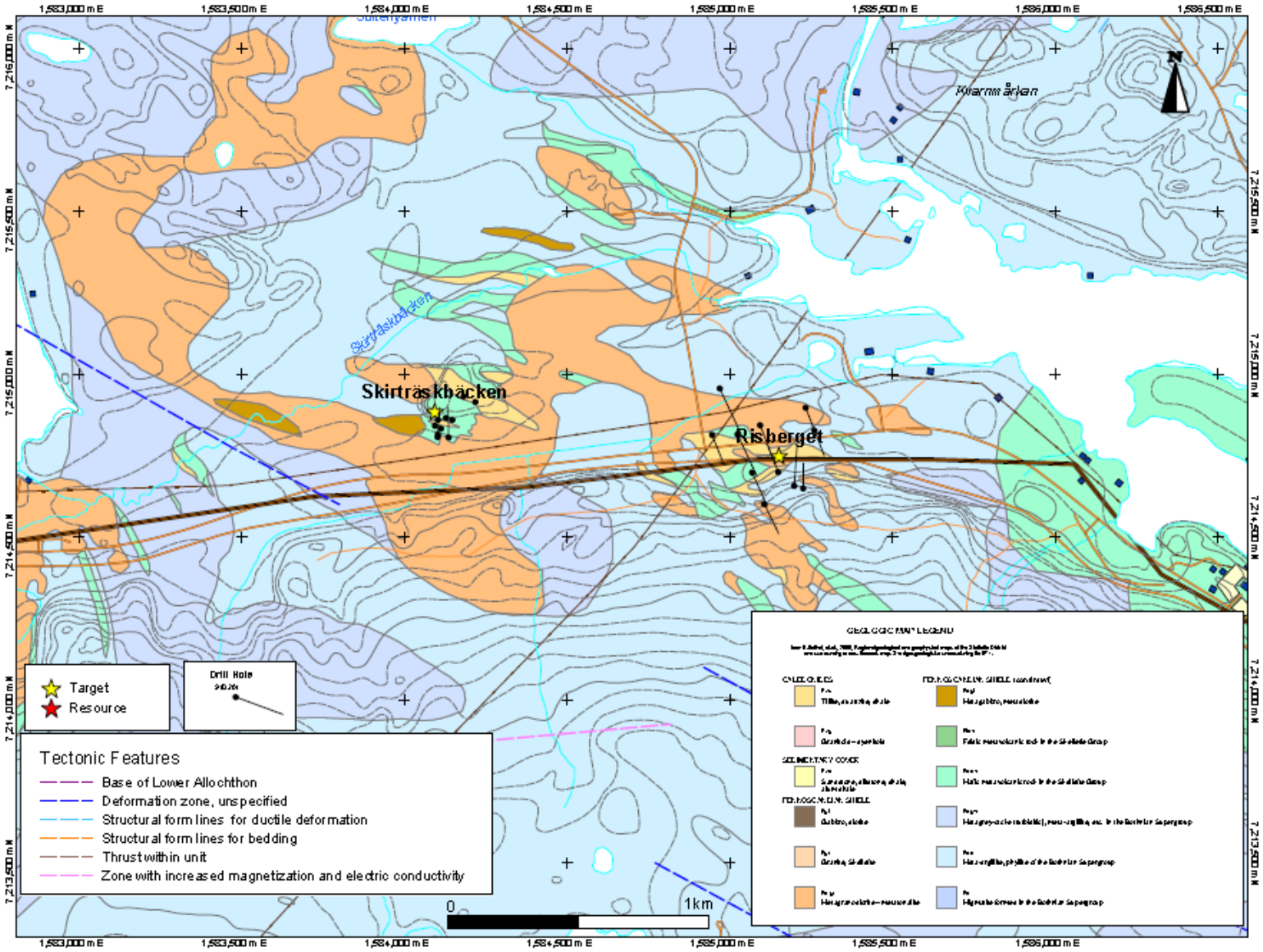


Figure 7.5 Skirträskbäcken Geology (Map Credit – Northlands)

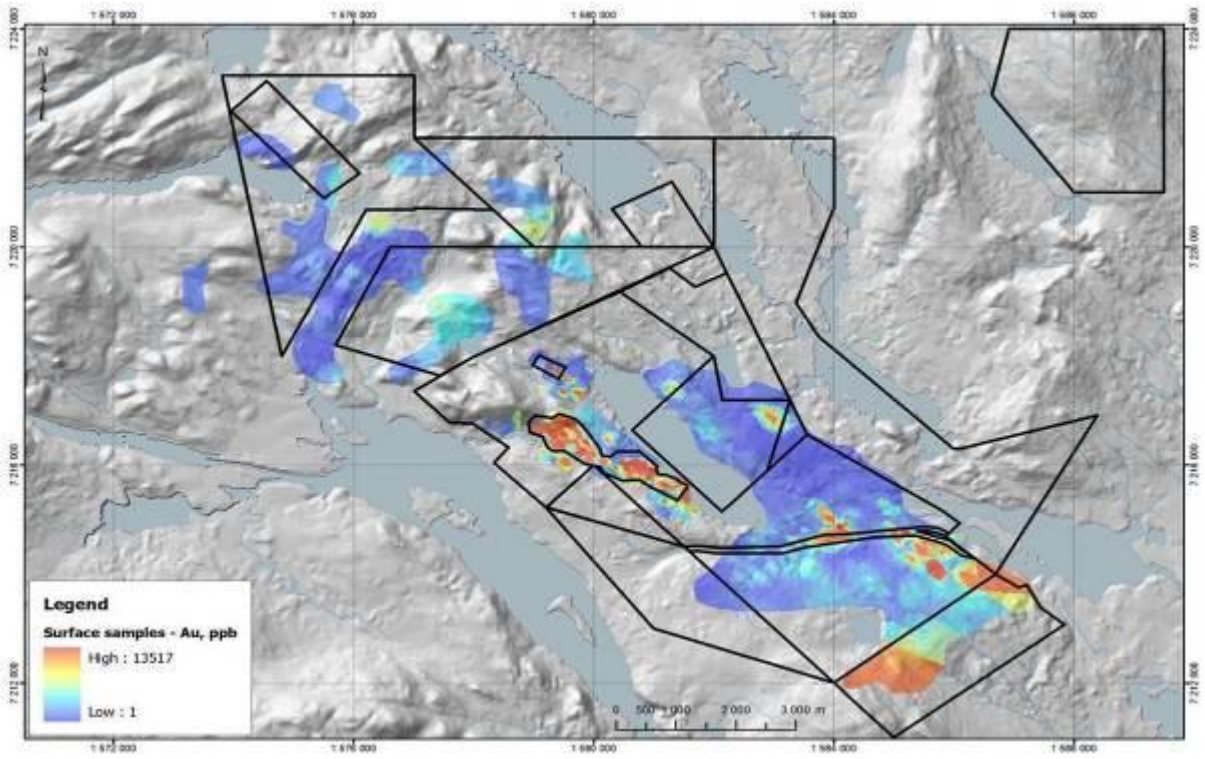


Figure 7.6 Geochemical Gold Till Anomalies (map credit- Northland Resources)

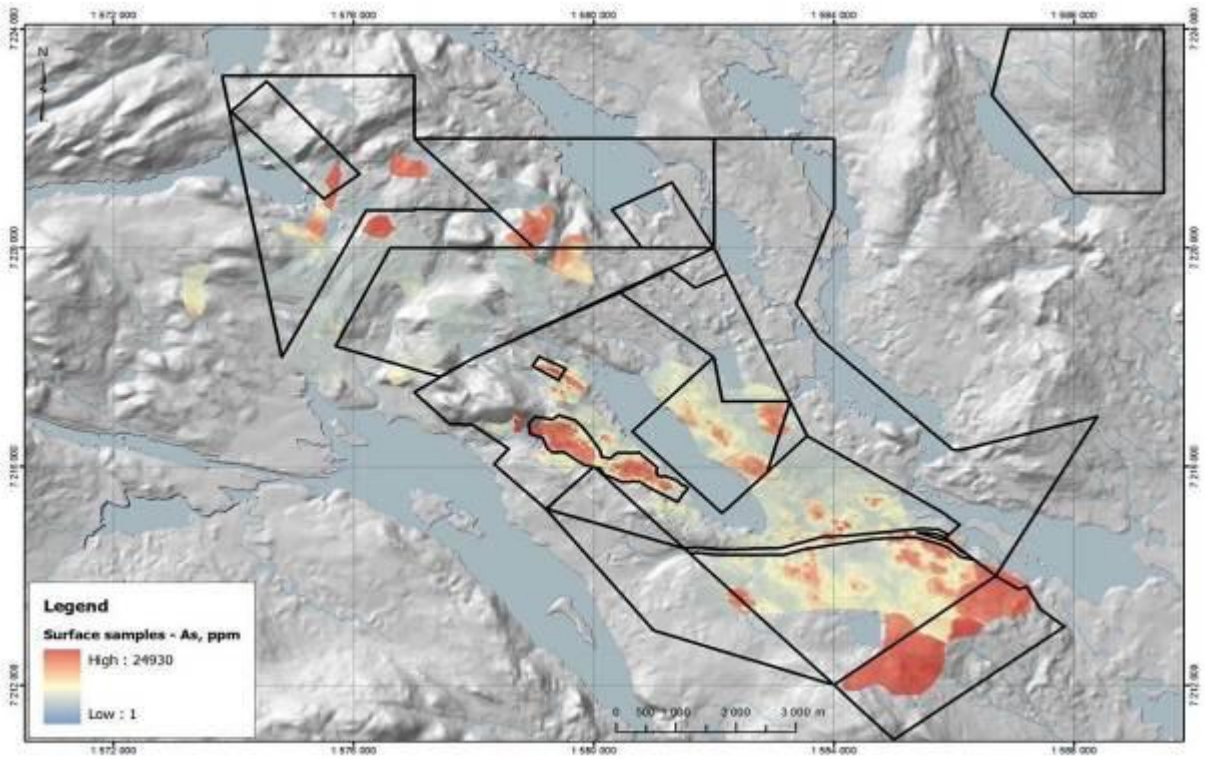


Figure 7.7 Geochemical Arsenic Till Anomalies (map credit- Northland Resources)

The Skirträskbäcken area is a direct continuation of the Au-mineralized Norra-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 7.1). 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 Skirträskbäcken 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 Skirträskbäcken 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 7.5). 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 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 km^2 pattern. Additional base-of-till sampling carried out by Northland (594 samples; E-W lines, 100-200 m apart, 50 m sample stations) in 2006/2007 identified additional clusters of geochemically anomalous Au, As, Cu and Zn outside of the known Terra anomalies. The results from Northland's 2006 basal till sampling program were evaluated and statistically analysed 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 analysed.

Table 7.1- Historic Skirträskbäcken Drilling – Significant Intercepts (true widths unknown)

Risberget Area

Diamond Hole no.	from (m)	to (m)	length (m)	Au (g/t)	Year	Comments
91D201	128	143	15	1.8	1995	includes 2.7 g/t Au/ 6 m
91D202	67	86	19	1.7	1995	includes 4.1 g/t Au/ 3 m
						includes 2.4 g/t Au/ 5 m
94D201			0		1995	low grade
94D202	58	62	4	2.3	1995	
	75	81	6	3.2		
	167	170	3	2.6		
94D203	Few 1-1.5 g/t meter sections occur, otherwise low grade					
94D204	80	81	1	2.9	1995	
95201			0		1995	low grade
95202			0		1995	low grade
95203			0		1995	low grade
95204			0		1995	low grade
95205	77	78	1	2.0	1995	

Skirträskbäcken Area

Diamond Hole no.	from (m)	to (m)	length (m)	Au (g/t)	Year	Comments
91D203			0		1995	low grade
91D204	62	63	1	1.6	1995	
	84	85	1	1.4		
	90	91	1	2.9		

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

RC Hole no.	from (m)	to (m)	length (m)	Au (g/t)	Year	Comments
911946					1995	low grade
911955	5	10	5	1.3	1995	
911956	8	10	2	1.6	1996	
911965			5	1.6	1996	drill log missing
912069					1996	low grade
911972					1996	low grade
911973	9	13	4	1.3	1996	
912071					1996	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 7.8). Structurally these rocks occur within a major NW tending regional fold that is defined by a sharp curvilinear break in the regional magnetics; separating supracrustral rocks from the intrusive rocks. 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 2.5 km along strike. The magnitude of the base-of-till anomaly ranges from 500 ppm to 8,000 ppm Zn; float and outcrop samples individually range up to (16.3 % Zn, 2.1 % Pb and 19 ppm Ag).

Two holes were drilled in 1985 by the SGU and re-assayed in 2003 which intersected narrow intersections of sulphides; primarily pyrrhotite-sphalerite-pyrite rich mineralization in carbonate veined and deformed tuff. A summary of the main observations and conclusions are as follows. While not high grade, the zinc assays do indicate that the system is mineralized and deserves a follow-up program of exploration, (Whiting, 2012a).

The principal lithology observed in drillholes 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 volcaniclastics with clasts rarely exceeding 10 mm. 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 meter 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.

Table 7.2 Tattartjärnliden drill intersections

Hole	Intercept	From(m)	To (m)	Core Length (m)	Zinc (%)
BH-85001		64	67	3	0.73
	Includes	65	66	1	**1.55**
and		104	110	6	0.67
	Includes	107	110	3	**1.26**
	Includes	109	110	1	**3.17**
BH-85002		9.5	11	1.5	**2.62**
	Includes	9.5	10	0.5	**6.55**
and		81.55	85.7	4.15	0.54
	Includes	81.55	84	2.45	0.78
	Includes	81.55	82	0.45	**1.54**

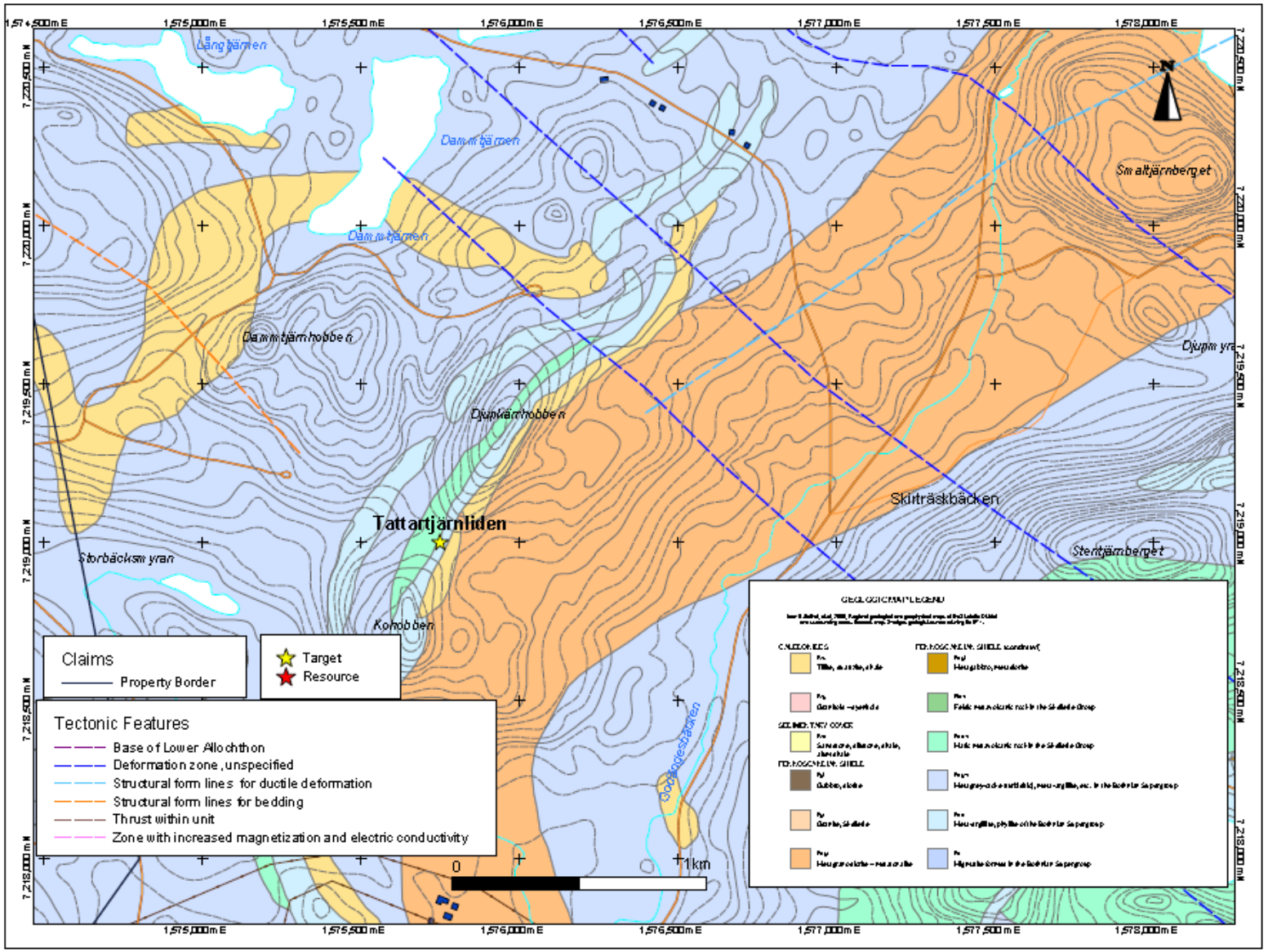


Figure 7.8 Tattartjärnliden Geology

Näsvattnet

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

The Näsvattnet prospect is situated in the Näsvattnet 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 Näsvattnet. 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 boulder tracing, trenching, peat geochemical surveys, very limited base-of-till sampling, extensive geophysical surveys and drilled three diamond drillholes totalling 709 meters 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 (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 7.6 and 7.7). 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 drillholes 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 (2,024 m). Both prospects contain NNE trending quartz-vein (10-70 cm) swarms approximately 100 m 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 gold values reported from the SGU drill core analyses, however only select intervals containing scheelite mineralization were analysed and there were a 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.

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 more commonly 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, structurally-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 drillhole CNDTH06-012 (Corkery et al, 2007).

Drillhole logging in the Barsele Central area suggests 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 mineral 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 (Map Credit Orex, 2012)

The first mine in the area, Boliden was discovered in the early part of the 1900's (Figure 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.

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 meter to about six meters 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. 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. In 2012, Elgin Mining acquired the Bjorkdal gold deposit.

Also in the Skellefteå district, but at the western end, Boliden's Kristineberg mine is located approximately 40 kilometers east of Barsele and contains reserves and resources that grade approximately 1 g/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. 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 Svarttrask (ScanMinina AB), Knaften, Stortjärnhobben, Sandviksträsk and Fäboliden (Lappland Goldminers AB) and, Barsele (Orex-Northland). The Björkdal deposit in the Skellefteå 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 kilometers south of Barsele (Figure 4.1). Svartliden has proven and probable open pit reserves of 492,000 tonnes grading 3.5 g/t gold and additional in-pit measured and indicated resources of approximately 990,000 tonnes averaging 2.9 g/t gold. The gold mineralization is hosted in metasediments. 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. Mine feed is being 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 and the company has begun underground operations from the base of the pit. A small Indicated and Inferred Mineral Resource is reported (3 g/t gold cut-off grade) grading 7.1 g/t gold for the western depth extensions. This was estimated by independent consultants Runge Limited (Dragon Mining website).

In 2008, Lappland Goldminers purchased all the assets of ScanMining AB which included the Svärtträsk deposit10 km to the north of the Barsele Gold project and the Esmarksberget deposit with processing plant some 35 kilometers to the north-northwest. Scan Mining had established a small resource at Svarttrask grading 5.2 g/t silver and 2.6 percent zinc; at Esmarksberget, the deposit averages 0.7 g/t gold, 8 g/t silver and 1.5 percent zinc. Lappland 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 of 53 million tonnes grading 1.13 g/t gold with 3.22 g/t Ag and as well has measured and indicated resources of approximately 61 million tonnes averaging 1.2 g/t Au and 3.44 g/t Ag with additional inferred resources of 9.5 million tonnes grading 1.2 g/t Au and 3.49 g/t Ag. Lappland is planning to establish a central processing plant at Fäboliden in order to process material from a number of its Gold-Line projects (Lappland website).

The authors have been unable to verify the exploration results, mineralization, resources and reserves for the above listed deposits (Boliden, Björkdal, Esmarksberget, Svartliden, Svärtträsk, 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 commercial 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.

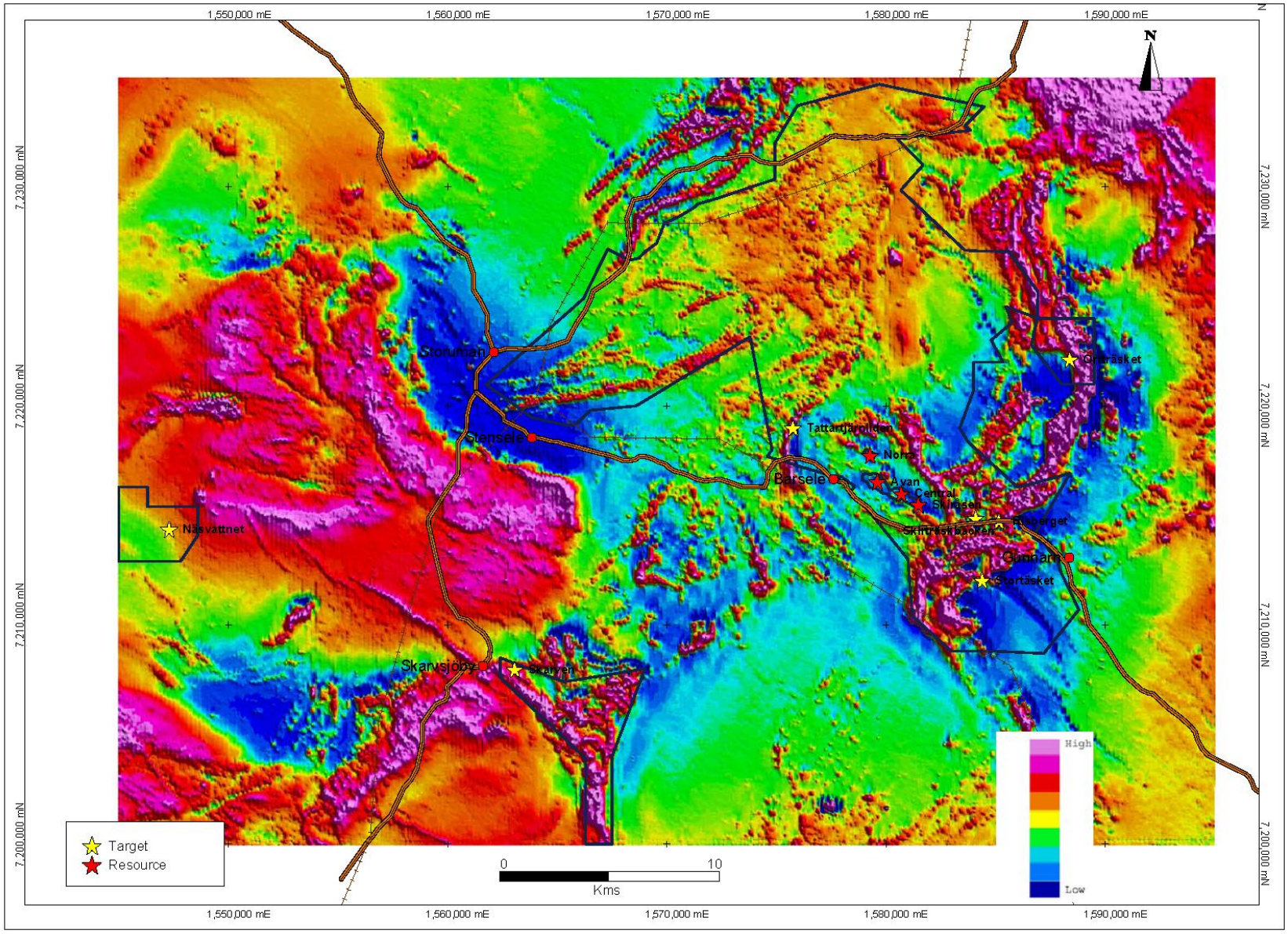


Figure 8.2 - Regional Airborne Geophysical Survey (Map Credit Orex, 2012)

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 geochemically anomalous zones which led to the partial delineation of the Norra, Avan, Central, Skiråsen, Skirträskbäcken 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. The completed 2011 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 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 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 EXPLORATION

Table 6.1 summarizes the historic work done prior to Orex getting the project, with the exception of the described Exploration Permits issued following the Orex takeover. Geochemical surveys and geological mapping covered the entire 11,000 ha property; government flown airborne geophysics (1980 survey) also covered the entire property. Since Orex acquired the property, it has expanded the property to 31,687 ha. An airborne electromagnetic/magnetic survey flown by SkyTEM covered the entire property. 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 Skirträskbäcken. Drilling was concentrated at Avan, Central, Skiråsen (CAS), and Norra as well as at Skirträskbäcken. As well prospecting and core relogging of several other zones was undertaken. The baseline water testing program includes samples sites throughout the property but also covering the drainages surrounding the property several kilometers away.

9.1 Airborne Geophysics

Orex has completed an airborne and ground geophysical survey of the area in 2011. The 2,500 line kilometer airborne survey was helicopter supported with a deep penetrating Time-Domain Electromagnetic (TDEM) System. Magnetics were flown at the same time. Line spacing varied between 100 and 200 meters. It was completed by SkyTEM Surveys ApS of Denmark.

The survey was done using a Eurocopter Astar 350 B3, operated by Westhelicopter AB. This was flown at a nominal clearance of 30-40 m. There were 2,159 line kilometers flown. It was flown from May 8 to May 24, 2011. The planned line separation was 100 or 200 meters apart. The line direction chosen was optimized to the known underlying geology.

Altitude is determined with independent laser units mounted on either side of the unit.

Magnetometer equipment is a GEM Overhauser as a ground base station. A Geometrics G822A sensor and Kroum KMAG4 counter is used as the magnetometer in the field. The system is synchronized to close the magnetometer counter when the TDEM is signal is on. The magnetometer base station and a differential GPS base station were located in ideal areas near the landing site.

The TDEM system consists of a 495 square meter boom suspended below the helicopter with a transmitter loop around the outside. There are several receivers in the X and Y axis recording the signal decay after the transmission. The instrumentation involves a time domain electromagnetic system, two inclinometers, two altimeters and two DGPSs. There is a rudder to control the direction of the frame (SkyTEM, 2011).

The following italicized text from Lebel, 2012 summarizes the survey directions and line spacing:

The AEM/magnetic survey was flown in 7 subareas that respect the 3 blocks and the 3 different line directions and 2 different flight line spacing on the Barsele block as follows:

1 – Nasvattnet (north/south flight lines at 100 m intervals)
2 – Skarven (northeast/southwest flight lines at 200 m intervals)
3 – Barsele (northwest/southeast flight lines at 200 m intervals)

4 – Barsele (sub-block of 3 flight lines at 100 m intervals)
5 - Barsele (sub-block of 7 flight lines at 100 m intervals)
6 - Barsele (east/west flight lines at 200 m intervals)
7 – Barsele (northeast/southwest flight lines at 200 m intervals)

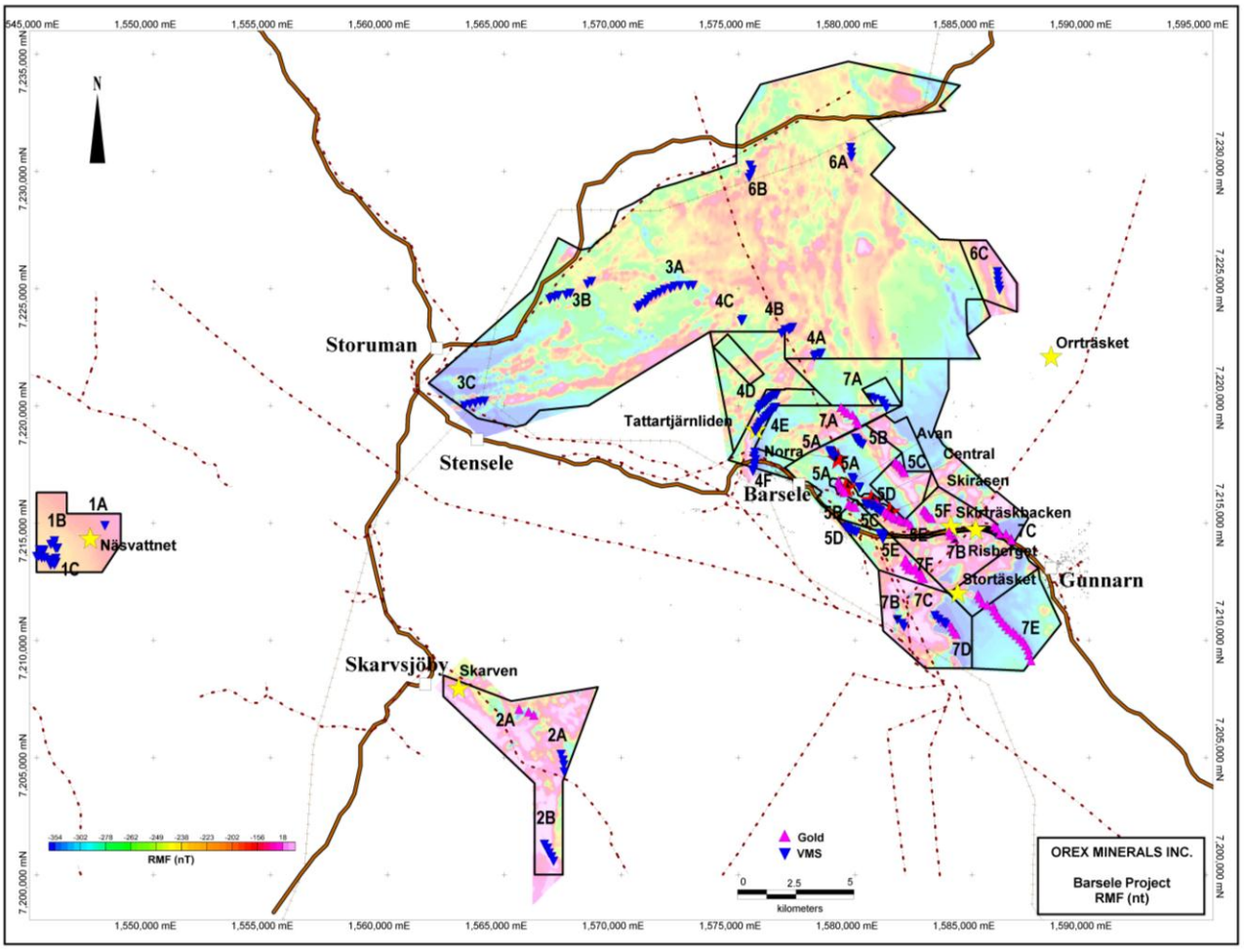


Figure 9.1 Residual Magnetic Field (nT) of Airborne Survey 2011 (Map Credit Orex, 2012)

This survey generated 9 gold targets and 29 VMS targets that warrant follow-up. The gold targets chosen were magnetic lows as seen at the Avan and Central zones. They occur due to the low magnetite content of the intrusives that host many of the nearby gold zones.

The VMS targets were short length TDEM highs with a coincident magnetic high. There are no defined VMS targets on the property, since the Norra zone is under power lines, are identified in this survey. The nearby Hemberget deposit occurs on a multiple conductor multiple magnetic high horizons in an airborne survey for RTZ between 1994 and 1997 (LeBel, 2012). Based on this signature, it was suggested as the best target style to follow up. The results of this 2011 survey are summarized in Figure 9.2.

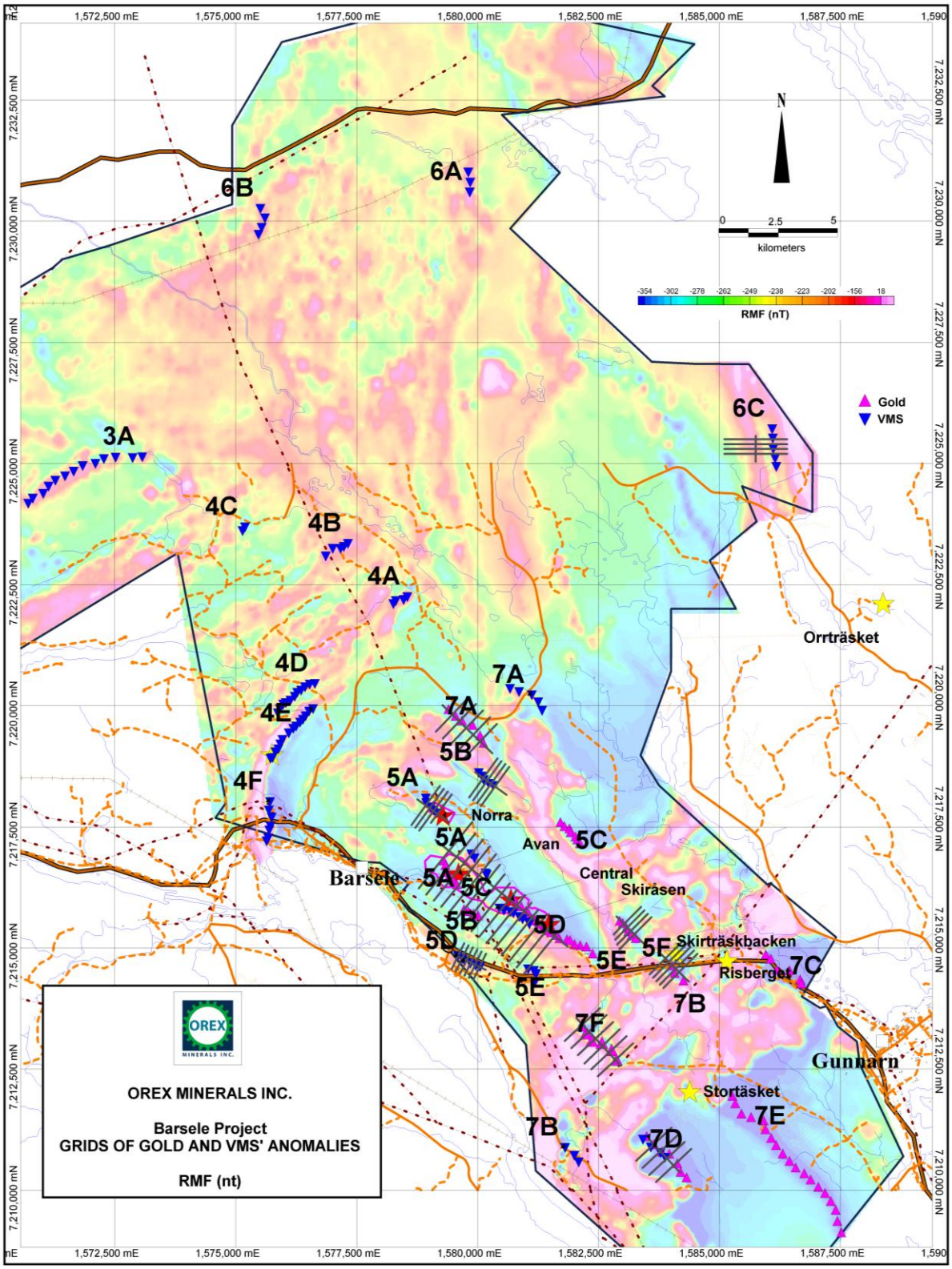


Figure 9.2 Residual Magnetic Field (nT) of Airborne Survey Barsele 2011 with interpreted gold and VMS targets included as triangles and IP grid locations (Map Credit Orex, 2012)

The targets were denoted by a number and letter combination as seen on Figure 9.2. Many were followed up in the field to determine what was generating the signatures found (LeBel, 2012) or a description of what the likely source is, such as an offset zone to be tested later in drilling.

9.2 Ground Geophysics

Finland-based Suomen Malmi Oy (SMOY) and LeBel Geophysics of Vancouver, Canada were involved with ground follow-up surveys resultant from the airborne geophysical survey. The majority of the new anomalous targets lie outside of the known mineralized zones.

SMOY carried out the Induced Polarization (IP) surveying, toward detection of the disseminated-style of mineralization associated with the Central, Avan and Skriasen Zones at Barsele, wherein, gold mineralization is associated with non-magnetic dioritic intrusive rocks, indicated by magnetic lows. LeBel, 2012 indicates that the known gold zones at CAS have 1 to 2 % disseminated sulfides and do charge up in an IP survey. This signature was the basis of the suggestion of IP to detect other gold targets. The grid locations are shown in Figure 9.2.

The Induced Polarization field work was accomplished from August 17 to November 10, 2011 with a field crew consisting of four employees from SMOY. The IP survey parameters were n = 6 and a = 25 meters. The frequency used for the time-domain induced polarization survey was 0.125 Hz with a square wave IP pulse. As well they did a ground magnetic survey on the grid.

The IP equipment used for the IP survey consisted of a Scintrex IPR-12 receiver, an Iris VIP-5000 transmitter and stainless steel electrodes used for the receiver dipoles. Similar steel electrodes were used for current input. The stations and electrode positions were positioned with a standard handheld GPS device with accuracy better than 5 meters.

The magnetic survey was accomplished in the same period with 5 meter station spacing with two magnetometers, one as a mobile magnetometer and other as a base station to record the diurnal variation. The equipment used for the magnetic survey consisted of two GEM GSM-19W Overhauser magnetometers.

As well the VMS targets have been surveyed by LeBel Geophysics, utilizing a very low frequency electromagnetic (VLF- EM or EM) method, which proved efficient and successful in characterizing the airborne TDEM generated VMS targets. The VMS deposit types respond well to the VLF method. The ground survey preliminary analysis of the LeBel VLF-EM data indicated that there may be an extension of the Norra base metal / precious metal VMS zone. The ground VLF-EM/magnetic survey was done with a GEM Systems GSM19V magnetometer/VLF-EM system for the survey and a GSM19 magnetometer for the magnetic base station.

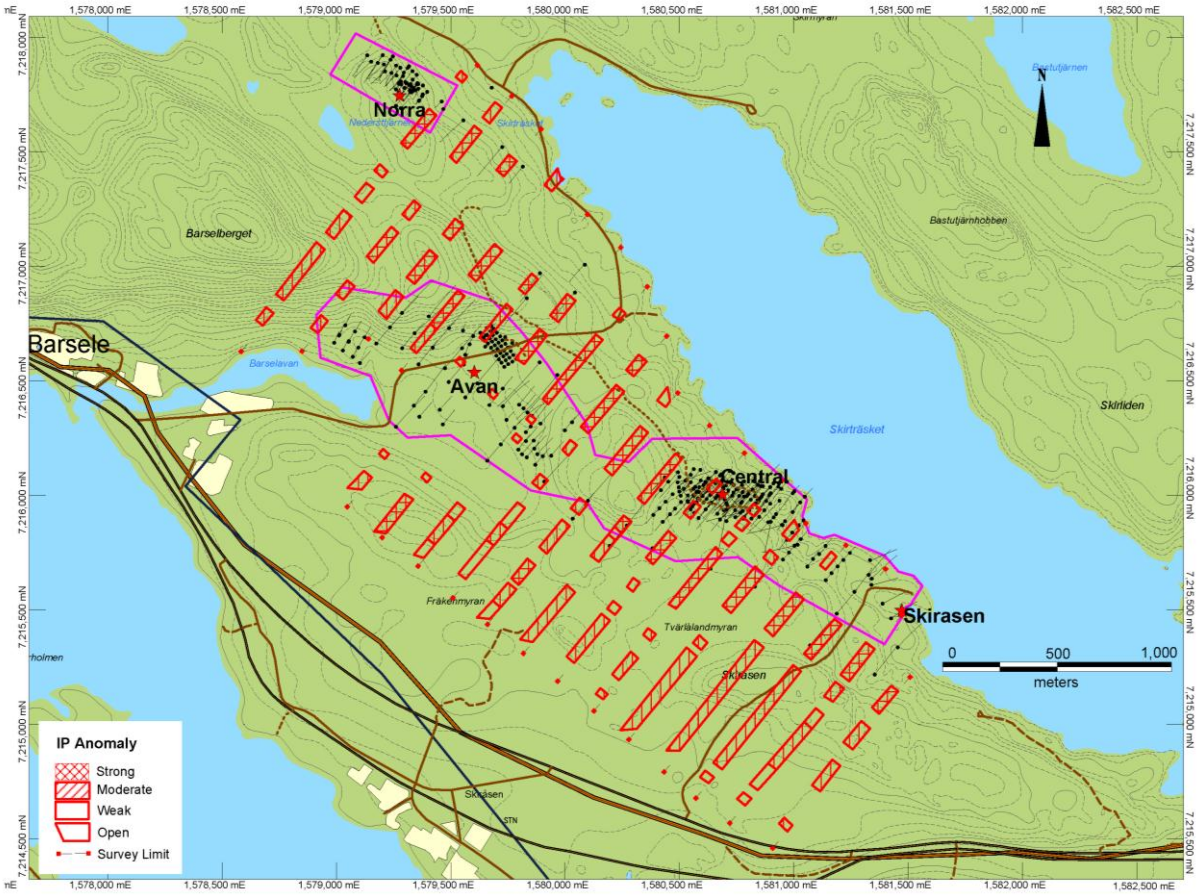


Figure 9.3 2011 Induced Polarization Survey plan over Central and Avan zones (Map Credit Orex, 2012)

The survey was done on flagged lines put in using a Garmin GPS with labeled flagged stations every 25 m. Parts of grids VMS5A and VMS5B were put in by the IP contractor whose practice was to not to label the stations. It is possible (likely) that some stations are mislabelled so they should be considered with caution and in most cases bio-degradable flagging was used. Readings were taken at 5 m intervals by pacing between the 25 m stations. The UTM coordinates of the stations are determined by computer extrapolation between end points of the lines and sometimes the middle point of the lines. Normally the lines and stations are within a few meters of the ideal locations but in dense bush and near cliffs locations could be out by up to 10 m. The datum used for the coordinates is Swedish system RT90.

The transmitter at Lauderfehn, Germany at frequency 23.4 kHz was used for the VLF-EM survey. Although not located in the best direction from the area it was the only station transmitting consistently.

9.2.1 Conclusions

Airborne TDEM and Magnetometer Surveys demonstrated coincident anomalies with known mineralization zones. The Induced Polarization surveys that followed up the airborne surveys reinforce the northwest trend to the regional geology. Although there is a weak relationship between the known mineralized zones and the IP, there is a clear trend between the Avan and

Central zones that should be followed up with drillholes. The Norra zone was not covered by the survey, but there is trend across several lines that suggest an extension to the southeast of the known zone. As the 2011-2012 drill program focused on the know mineral resources, a number of significant geophysical anomalies remain to be tested.

9.3 Prospecting, Mapping and Core Relogging

A recent program of mapping rock exposures using prospecting methods, finding and attempting to trace mineralized boulders, sampling rocks and relogging of drill core was done in 2012. The Tattartjärnliden, Näsvattnet and two other new target areas generated in the airborne geophysical survey were the focus areas. A geologist and two summer students did the field work (Alain, et. al., 2012). Descriptions of samples were provided without analysis or interpretation in the report available.

10.0 DRILLING

There have been a total of 416 holes drilled to date on the property, 355 diamond drillholes and 61 reverse circulation (RC) drillholes. The majority of the drilling was in the CAS gold zones followed by drilling at the Norra Zone. Regional drilling at Skirträskbäcken-Risberget only accounted for 9 holes (1,157 m). Terra Mining drilled 61 RC holes in the Avan and Norra zones at depths between 6-24 m to test the depth of till and estimate the rock type beneath the till layer (Table 10.3). The historic diamond drilling including Orex work is summarized below in Tables 10.1-10.2 and the historic RC drilling in Table 10.3.

Table 10.1 Historic Diamond Drilling (Totals by Company)

Company	Years drilled	Total # Holes	Drilling (metres)
SGU	1985	2	258.7
Terra Mining	1989-97	250	27,821.0
MinMet	2003	7	1,045.1
Northland	2004-2006	80	13,789.3
Orex Minerals	2011-2012	16	6,210.1
Totals		355	49,124.2

Table 10.2 Historic Diamond Drilling (Totals by Zone)

	Central Drilling		Avan Drilling		Skiråsen Drilling		Norra Drilling		Tattartjärnliden Drilling		Risberget Drilling	
Company	holes	(meters)	holes	(meters)	holes	(meters)	holes	(meters)	holes	(meters)	holes	(meters)
SGU									2	258.7		
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				
Orex	12	5,074.8	4	1,135.3								
Totals	177	26,842.1	68	10,316.9	26	3,230.5	73	7,319.0	2	258.7	9	1,157.0
						Total Drilling					**355**	**49,124.2**

Table 10.3 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

10.1 2011 -2012 Drill Program

In November of 2011 Protek Norr AB of Skellefteå Sweden was retained to carry out a diamond drill program at Barsele**.** The drilling by Orex is 16 diamond drillholes completed in 2011 and 2012. The drill core size is NQ2. These holes were spread between the Central zone with twelve holes and four holes in the Avan zone. The results are summarized below in table 10.4 below:

Table 10.4 Summary of 2011-2012 Drilling

Hole No.	Easting	Northing	Depth	Azimuth	Dip
11CNT001	1580858	7216040	292.3	215.03	-49.44
11CNT002	1580859	7216041	370.6	216.91	-63.18
11CNT003	1580623	7215898	376.5	48.86	-53.74
11CNT003 Ext	As Above	As Above	487.35	As Above	As Above
11CNT004	1580649	7215853	412	51.57	-48.31
11CNT005	1580762	7216109	424.8	221.13	-59.19
12CNT006	1580684	7216140	426.4	213.83	-57.08
12CNT007	1580812	7216098	379.8	212.56	-45.43
12CNT008	1580942	7216081	379.35	225.39	-43.98
12CNT009	1580874	7216098	472.9	213.98	-64.51
12CNT010	1580999	7216015	357.8	220.44	-50.76
12CNT011	1580576	7215857	493.6	45.01	-53.21
12CNT012	1580439	7215853	577.85	48.68	-54.6
12AVA001	1579977	7216299	316.6	220.34	-56.62
12AVA002	1579959	7216323	334.7	219.1	-54.05
12AVA003	1579932	7216402	305	222.5	-61.8
12AVA004	1579910	7216522	179	215	-60.54

This drilling totalled 5,074.75 meters in twelve holes in the Central area and 1,135.3 meters in four holes in the Avan zone for a total of 6,210 m to date by Orex.

The drill intercepts in the Central Zone are summarized below in Table 10.5. True thickness of the mineralized bodies are unknown, the relationship between drilled thickness and approximate true thickness is illustrated in Figures 10.2-10.4 and 10.6-10.7 and discussed in section 11.5

Table 10.5 Central Zone 2011-2012 Drill Intercepts

Hole	From	To	Core Length	Analytical Method (g/t Au)
	(m)	(m)	(m)	FA (Au-AA26)
11CNT001	**16.75**	**292.3**	**275.55**	**0.81**
Includes	35.4	234.3	198.9	1.07
Includes	133.45	152.75	19.3	2.25
Includes	185.75	234.3	48.55	1.87
11CNT002	**29.65**	**320.4**	**290.75**	**0.92**
Includes	67.6	135.6	68.0	1.14
Includes	165.3	234.4	69.1	1.81
Includes	191.3	234.4	43.1	2.19
11CNT003	**102.4**	**376.5**	**274.1**	**0.64**
Includes	102.4	140.95	38.55	1.81
Includes	333.3	376.5	43.2	1.19
11CNT004	**41.0**	**393.35**	**352.35**	**1.25**
Includes	157.05	338.1	181.05	2.09
Includes	187.85	290.2	102.35	2.43
11CNT005	**171.2**	**424.8**	**253.6**	**0.65**
Includes	317.05	424.8	107.75	1.02
Includes	336.95	394.35	57.4	1.38
12CNT006	**234.05**	**298.7**	**64.65**	**0.49**
Includes	234.05	251.7	17.65	0.97
Includes	241.7	251.7	10.0	1.13
12CNT007	**120.5**	**368.55**	**248.05**	**0.71**
Includes	279.05	299.05	20.0	1.12
Includes	321.05	368.55	47.5	1.02
12CNT008	**73.7**	**377.35**	**303.65**	**1.34**
Includes	115.35	302.7	187.35	1.95
Includes	218.95	302.7	83.75	2.45
11CNT003 Ext	**102.4**	**438.05**	**335.65**	**0.60**
includes	333.3	387.6	54.3	1.17
12CNT009	**154.45**	**471.7**	**317.25**	**0.49**
Includes	154.45	207.35	52.9	1.12
Includes	361.15	471.7	110.55	0.60
12CNT010	**50.9**	**55.5**	**4.6**	**1.53**

	150.1	153.1	3.0	0.97
	170.1	174.1	4.0	0.80
	185.1	200.1	15.0	0.67
	281.3	286.3	5.0	1.20
12CNT011	**120.8**	**139.4**	**18.6**	**0.59**
	199.1	231.0	31.9	0.52
	311.9	316.9	5.0	1.42
	345.8	394.8	49.0	0.51
	456.35	470.6	14.25	0.94
12CNT012	**55.4**	**73.75**	**18.35**	**0.59**
	89.2	104.2	15.0	0.72
	156.2	168.2	12.0	0.59
	310.85	395.95	85.1	0.52
Includes	310.85	341.89	31.04	1.15
	557.8	574.9	17.1	0.94

A summary of the drill intercepts in the Avan zone is below in Table 10.6:

Table 10.6 Avan Zone 2012 Drill Intercepts

Hole	From	To	Core Length	Analytical Method (g/t Au)
	(m)	(m)	(m)	FA (Au-AA26)
12AVA001	**75.9**	**91.65**	**15.75**	**0.65**
	139.35	160.75	21.4	0.75
	191.65	201.65	10.0	0.64
	211.7	216.7	5.0	0.50
	241.4	245.4	4.0	0.77
12AVA002	**21.85**	**23.15**	**1.3**	**0.91**
	117.4	124.3	6.9	0.44
	134.4	137.9	3.5	0.51
	169.5	172.5	3.0	1.73
	195.05	198.05	3.0	0.82
	224.15	237.4	13.25	0.70
12AVA003	**31.4**	**39.4**	**8.0**	**0.48**
	76.5	80.0	3.5	1.24
	123.4	124.4	1.0	0.74
	280.3	281.3	1.0	0.89
12AVA004	**107.0**	**118.0**	**11.0**	**0.40**
	137.0	139.0	2.0	1.45
	153.0	163.3	10.3	0.60
	169.3	171.3	2.0	0.92

10.2 Central Zone 2011 - 2012 Drilling Results

A plan of the drilling including the collars of the 2011 - 2012 diamond drilling at the Central zone of Barsele (indicated in green below) is illustrated in Figure 10.1. Drilling at the Central Zone was oriented to the South-West and North-East. Sections 6675, 6625 and 6575 (Figures 10.2 to 10.4) show the drilling successfully intersected mineralization projected in the 2011 resource model as well as defining additional resources laterally and to depth.

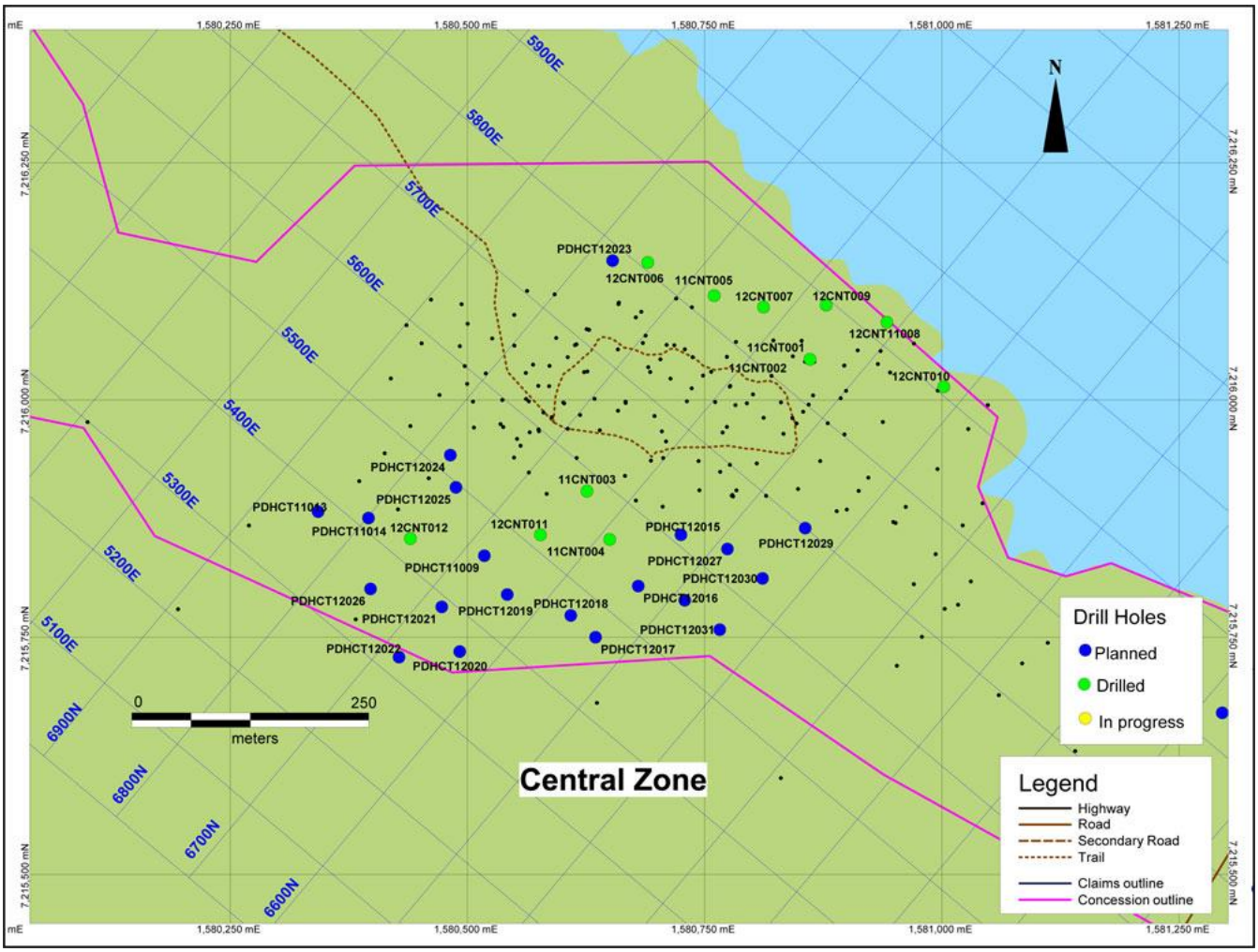


Figure 10.1 Plan View of Drill Collars – Central Zone (Map Credit Orex, 2012)

The Sections presented below (Figures 10.2 – 10.4) are organized by sections beginning in the southeast and progressing northwest. Each section represents a best fit 50 meter thick compilation of all existing geological, drill and projected resource data.

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.

Cross Section 6575N

Hole 11CNT001 was drilled as a twin of historic hole DH03002 (MinMet 2003). The hole yielded a total mineralized length of 275.55 m @ 0.87 g/t Au with FMS, and 0.81 g/t Au with FA, and includes a higher-grade section of 198.9 m @ 1.15 g/t Au with FMS, and 1.07 g/t Au with FA and including highlight intercepts of 19.3 m @ 2.53 g/t Au with FMS and 2.25 g/t Au with FA, plus 48.55 m @ 2.01 g/t Au with FMS and 1.87 g/t Au with FA.

Hole 11CNT002 passes below hole 11CNT001. Hole 11CNT002 yielded a total length of 290.75 metres grading 1.01 g/t gold by FMS and 0.92 g/t gold by FA. Intervals include 68.00 metres grading 1.21 g/t gold by FMS and 1.14 g/t gold by FA from 67.60 m to 135.60 m, plus 69.10 metres grading 2.06 g/t gold by FMS and 1.81 g/t gold by FA.

Hole 11CNT004 Hole 4 yielded a length of 352.35 metres grading 1.33 g/t gold by FMS and 1.25 g/t gold by FA, starting 20 metres vertically below surface. Higher-grade intervals present in this hole, include 181.05 metres grading 2.24 g/t gold by FMS and 2.09 g/t gold by FA.

Hole 12CNT009. Hole 9 yielded a total length of 317.25 m grading 0.49 g/t Au, starting 155 m vertically below surface. Higher-grade intervals are present in Hole 9, including 52.9 m grading 1.12 g/t Au and 110.55 m grading 0.60 g/t Au.

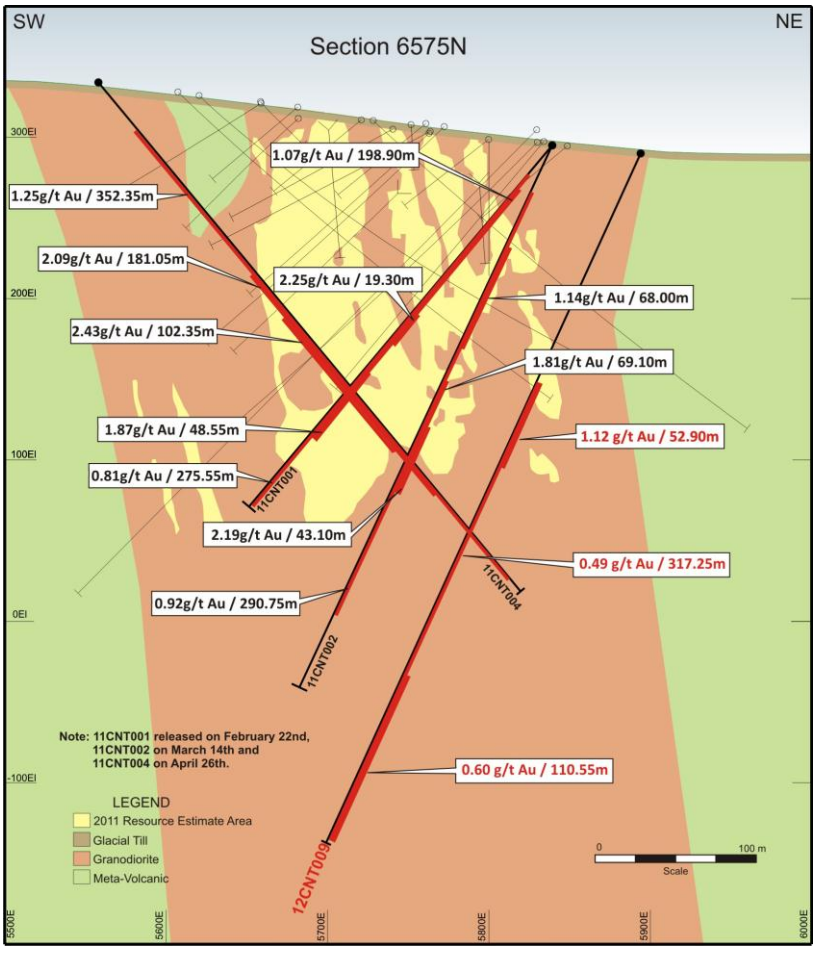


Figure 10.2 Section 6575N (Map Credit Orex, 2012)

Cross Section 6625N

Hole 11CNT003 Extension was drilled on Cross Section 6625N. Hole 11CNT003 bottomed in mineralization. Subsequently a decision was made to re-enter and extend this drillhole. An additional 97.9 m was drilled, taking the ultimate depth to 474.4 m. In Hole 3, mineralized intercept is from 102.4 m to 438.05 m for a length of 335.65 m grading 0.60 g/t Au. This includes 330.3 m to 387.6 m, for a length of 54.3 m grading 1.17 g/t Au.

Hole 12CNT007. Hole 7 yielded a total length of 248.05 m grading 0.71 g/t gold, starting 95 m vertically below surface. Higher-grade intervals are present in Hole 7, including 20.0 m grading 1.12 g/t gold and 47.5 m @ 1.02 g/t gold.

Hole 12CNT011. Hole 11 yielded five discrete intercepts with gold mineralization, including 18.6 m grading 0.59 g/t Au (120.80 – 139.40 m), 31.9 m grading 0.52 g/t Au (199.10 – 231.00 m), 5.0 m grading 1.42 g/t Au (311.90 – 316.90 m), 49.0 m grading 0.51 g/t Au (345.80 – 394.80 m), and 14.25 m grading 0.94 g/t Au (456.35 – 470.60 m).

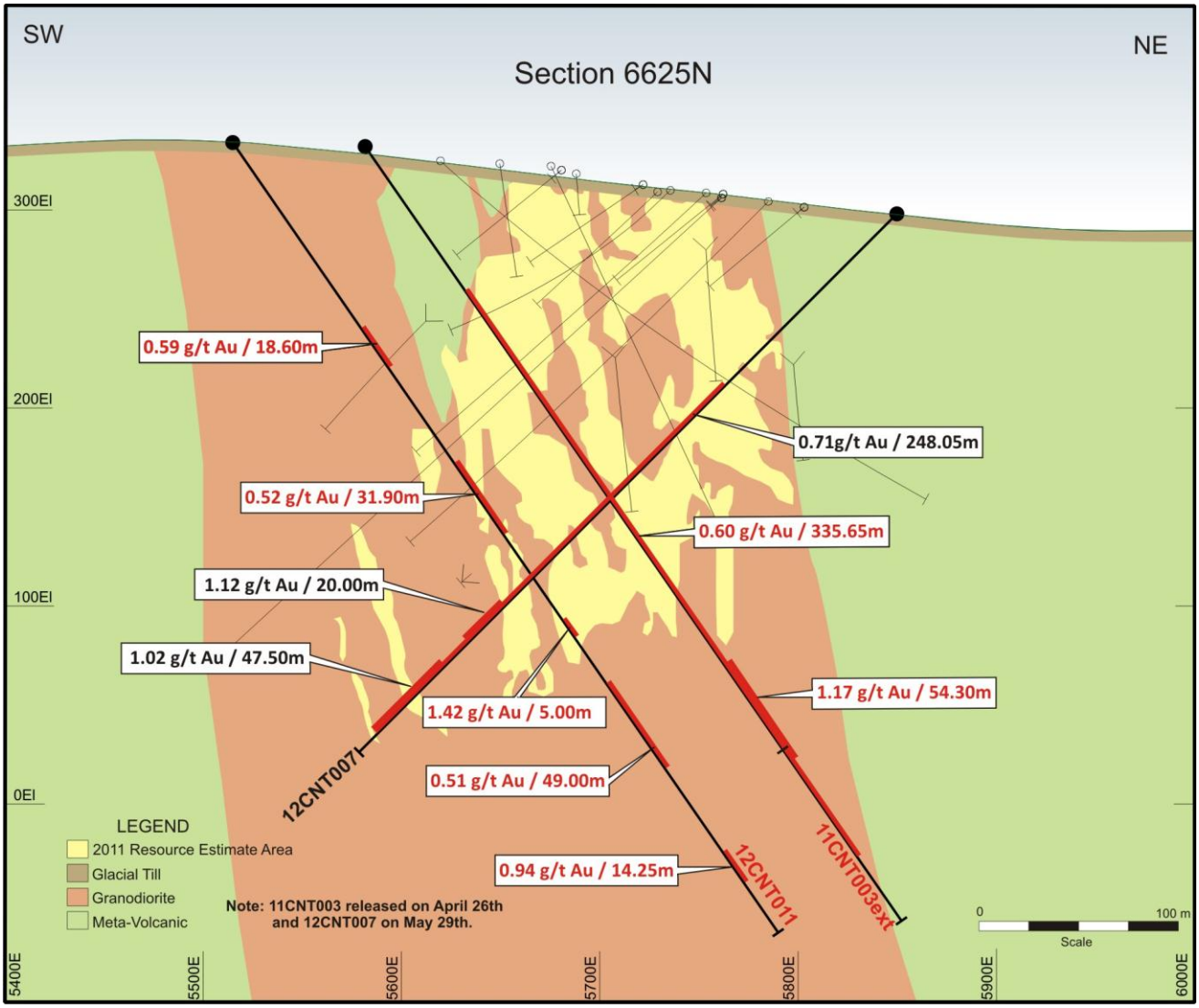


Figure 10.3 Section 6625N (Map Credit Orex, 2012)

Cross Section 6675N

Hole 11CNT005 was drilled on the cross-section 6675N. Hole 5 yielded a total length of 253.6 m grading 0.65 g/t gold, starting 160 m vertically below surface. Higher-grade intervals are present in this hole, including 57.4 m grading 1.38 g/t gold.

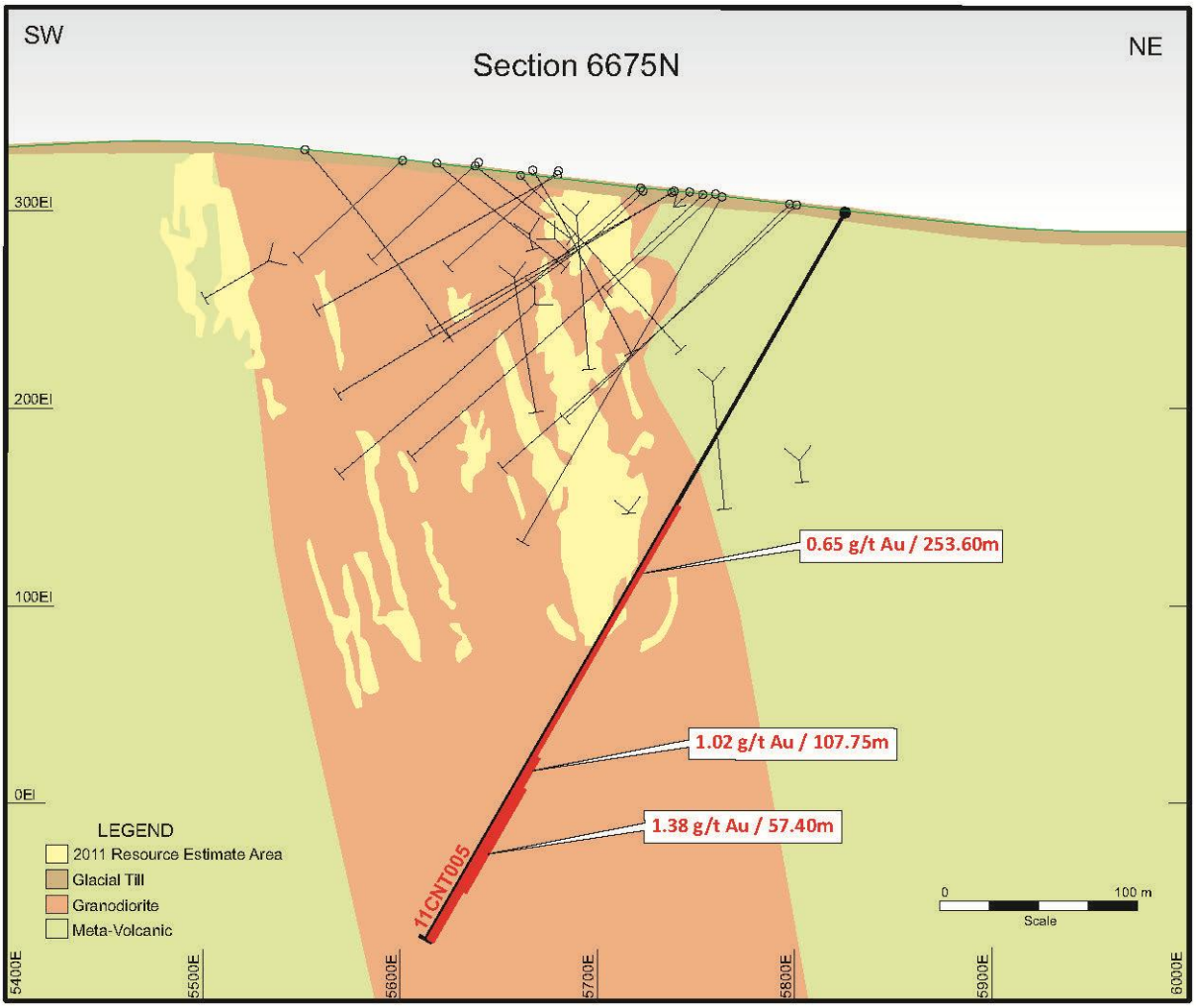


Figure 10.4 Section 6675N (Map Credit Orex, 2012)

10.3 Avan Zone 2012 Drilling Results

A plan view of the drill collars on the 2012 drill program at the Avan zone are shown in Figure 10.5 below(indicated in green): The drilling focused on the South-Eastern portion of the mineralization. In all cases the drilling was oriented in a southwesterly direction. Drill sections on Lines 7375N (Figure 10.6) and Line 7425N (Figure 10.7) intersect both historic mineralized zones as well as outlining new areas of mineralization.

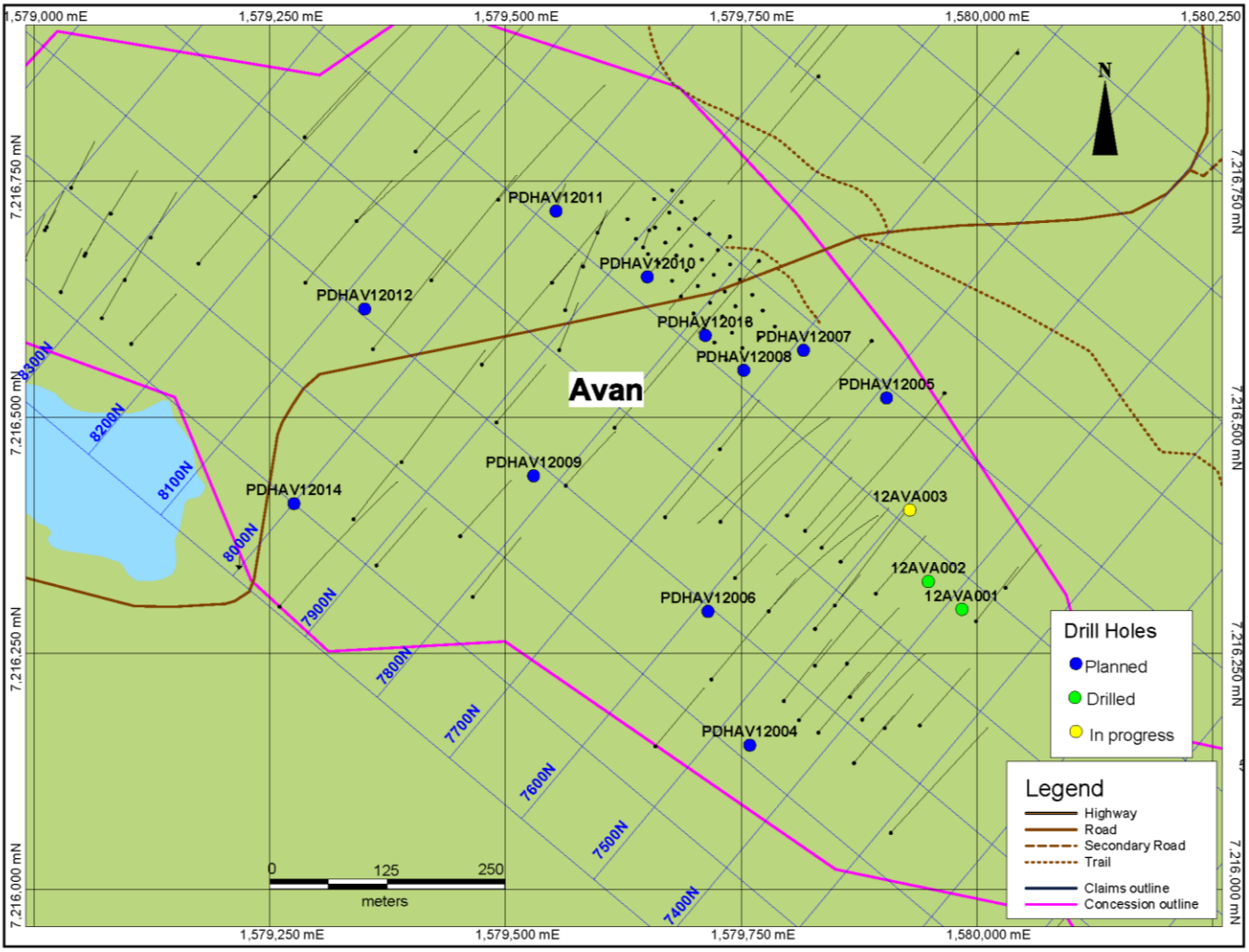


Figure 10.5 Plan View of Drilling Collars – Avan Zone (Map Credit Orex, 2012)

Cross Section 7375N

Hole 12AVA001 was drilled on Cross Section 7375N. Hole 1 yielded five discrete intercepts with gold mineralization, including 15.75 m grading 0.65 g/t Au (75.90 – 91.65 m), 21.4 m grading 0.75 g/t Au (139.35 – 160.75 m), 10.0 m grading 0.64 g/t Au (191.65 – 201.65 m), 5.0 m grading 0.50 g/t Au (211.70 – 216.70 m), and 4.0 m grading 0.77 g/t Au (241.40 – 245.40 m).

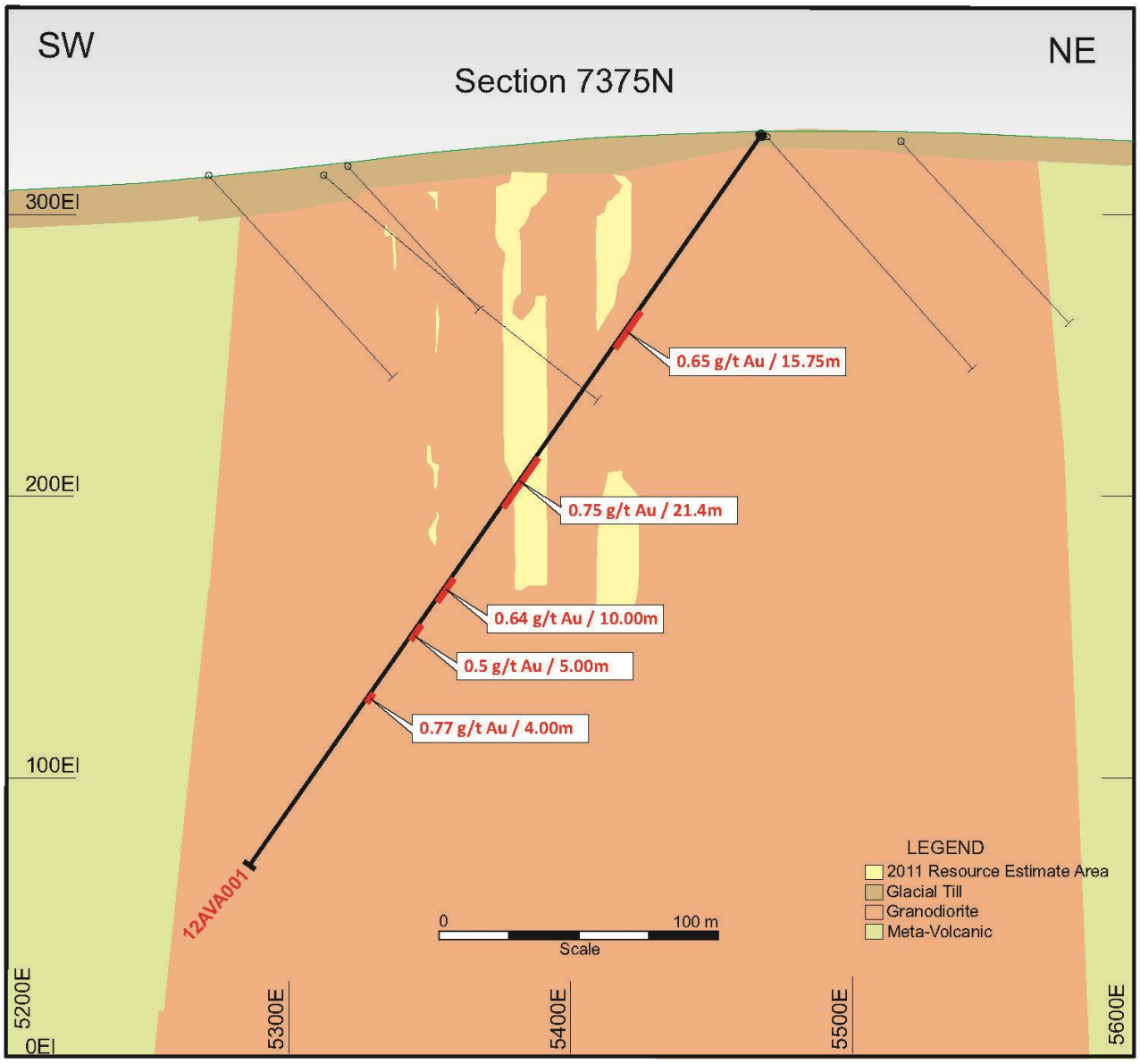


Figure 10.6 Section 7375N (Map Credit Orex, 2012)

Cross Section 7425N

Hole 12AVA002 was drilled on Cross Section 7425N. Hole 2 yielded six discrete intercepts with gold mineralization, including: 1.3 m grading 0.91 g/t Au (21.85 – 23.15 m), 6.9 m grading 0.44 g/t Au (117.40 – 124.30 m), 3.5 m grading 0.51 g/t Au (134.40 – 137.90 m), 3.0 m grading 1.73 g/t Au (169.50 – 172.50 m), and 3.0 m grading 0.82 g/t Au (195.05 – 198.05 m), and 13.25 m grading 0.70 g/t Au (224.15 – 237.40 m).

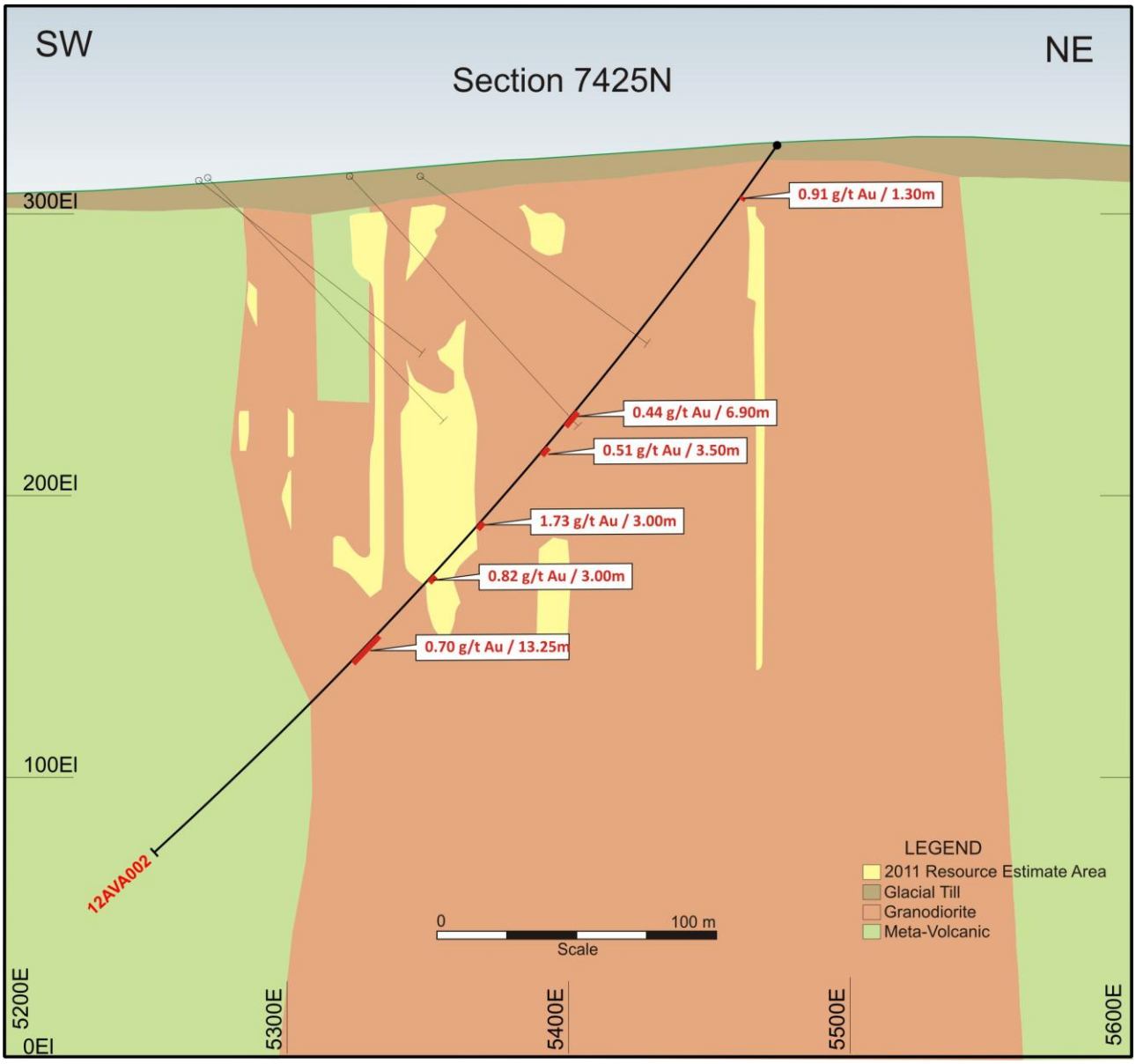


Figure 10.7 Section 7425N (Map Credit Orex, 2012)

11.0 SAMPLE PEPARATION, ANALYSES AND SECURITY

11.1 Sample Preparation and Data Management by Orex Minerals

While there was not any active core processing during the site visit by Michael Collins in Nov 2012, this process was reviewed with the site geologist at that time:

Drill-core from Orex's 2011-12 drilling campaign at Barsele, 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.

During 2011-12 drill campaign core was logged in the Storuman facility and then shipped to the Barsele facility for cutting. 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 Piteå. Sample rejects, the master pulps and split core from the 2004, 2005, 2006, 2011 and 2012 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.

ALS Chemex Sweden AB, of Piteå, Sweden was responsible for sample preparation and shipment of sample pulps to ALS Chemex Vancouver for analysis. ALS Chemex of Vancouver, Canada, using international standards ISO 9001:2000 and ISO 17025:1999 completed and certified all of Orex's analytical work for the 2011-12 drilling at the Barsele Project Sweden. Gold analysis was performed using fire assay with an atomic absorption finish Au-AA26, pulp splits for high grade gold were rerun using a 50 g FA-AA finish. Samples were also analysed by 34-element analysis by aqua regia and ICP-AES. In addition five drillholes were analysed using Full Metallic Screen (FMS) methodology.

11.2 Sampling Personnel and Security

All sampling from 2011-2012 was done by Orex's personnel at their facilities in Barsele, and Storuman.

11.3 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). The average head-grade of the sample was 5.1 g/t gold, 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. Previous

workers had observed visible gold in the core and historically the core samples were not routinely analysed using Full Metallic Screen method analyses. Coarse gold could be a contributing factor but a 2011-12 study of drill core from five drillholes, utilizing both Fire Assay (FA) and Full Metallic Screen (FMS) assays, in the Central and Avan Zones, did not demonstrate a large variance in grade. The program returned FA values of 93.6 % and 96.2 % of FMS for the Central and Avan Zones respectively. There is further discussion in section 12.2 Quality Control Quality Assurance.

11.4 Sample Quality

The authors have reviewed a representative cross section of the historic data and data from the 2011-12 drill program. The authors have concluded that there have been no sampling biases and that the sampling was done in a thorough and professional manner.

12.0 DATA VERIFICATION

12.1 Quality Control and Data Verification

The last field exploration work done on the project was the Orex drilling in 2012. The QA/QC protocol for Orex drilling in 2012 drilling campaign is discussed in Section 11.0 of this report. 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 the author of the previous 43-101 report.

In October and November, 2012, Mining Plus, under the direction of Michael Collins, has completed a database verification. The drillhole data was checked against a representative selection of certificates selected by Mining Plus and supplied directly by the laboratory. There were no differences between the database supplied by Orex and the certificates from ALS laboratory. This included samples from prior to the 2011-2012 drilling.

12.2 Quality Control and Quality Assurance

In addition to the ALS Chemex internal sample preparation and assay QC protocol, Orex 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.

A total of 6,449 samples were sent for assay during the 2011-12 drill program. In total Orex inserted 159 blank samples, 49 duplicates and 487 commercial standards into the 2011-12 drilling sample train. A total of 10 % of samples were standards or blanks, 7.5 % being standards. In future programs the insertion of standards and blanks should be more equal at 5 % each of the totals sample stream. Duplicates are slightly less than 1 % of the sample stream which optimally should be around 5 %.

Standards

Sixteen of 487 standards assayed outside of the mean plus two standard deviations. Six of these are one standard that appears to be erratic in nature. Three appear to be other standards that were being used during the same time period that were mis-labeled. Examination of associated duplicates, blanks and associated laboratory QAQC data indicated that assay data associated with six of the remaining seven standards were within overall acceptable range. Sample reruns were called in relation to the one remaining assay and there was no significant variation in assay values and the original assay values were accepted.

Blanks

A total of 159 blank standards were entered into the assay stream. The blank material was a combination of locally derived barren rock and commercial blank standards. Four blanks assayed trace amounts of Au. One blank which at 0.18 g/t Au is marginally a significant value with respect to the tenor of the deposit. A bracket of 20 samples was rerun with respect to this anomalous blank and came back with no significant issues and so the original assays were

accepted. The related standards and laboratory standard material with the sample batch returned acceptable values and as such, no samples were required to be rerun.

Duplicates

Forty nine duplicate core samples were assayed. In six cases the assay values exceeded a difference of greater than 0.2 g/t Au and in two of these the difference exceeded a difference of greater than 1 g/t. Given that there is coarse gold with the deposit, the variation is reasonable at the higher grades it is occurring at. As a whole the data set plots well as show in Figure 11.1 below.

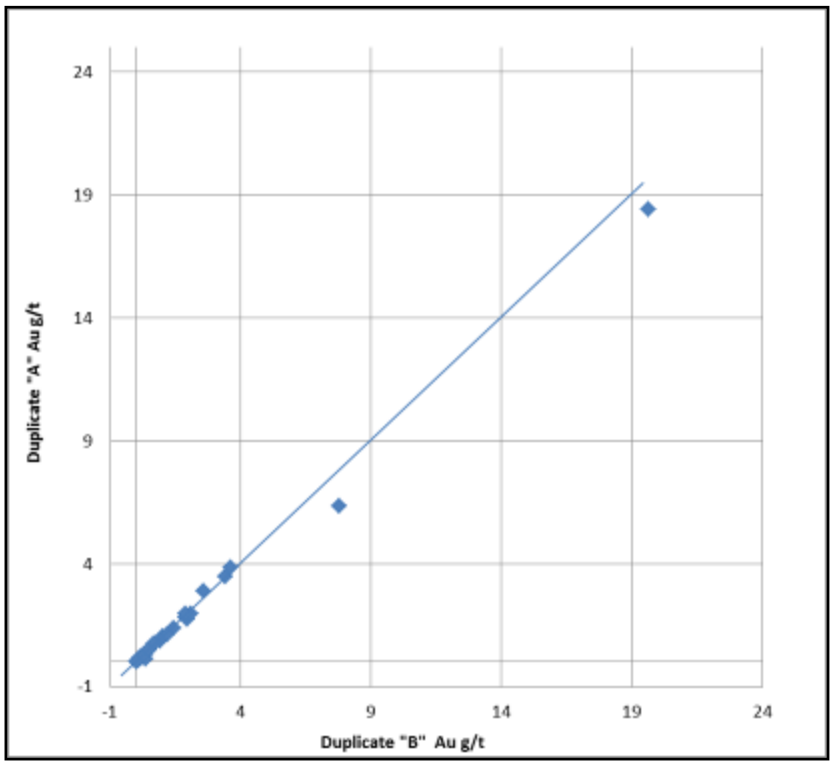


Figure 11.1 Duplicate Assay Analyses

Fire Assay vs. Full Metallic Screen Assays

Four drillholes in the Central Zone and one drillhole in the Avan Zone were assayed by both Fire Assay (FA) and Full Metallic Screen (FMS). The purpose of this test was to see what effect sample size (both weight and grain size) has on the resultant gold assay value. FA being a discrete fine fraction sample whereas FMS incorporates the different size fractions of the grind to insure the inclusion of “coarse particulate gold” or “nugget gold”. The results found that FA reported values 93.6 % and 96.2 % for FMS for the Central and Avan zones. FMS is significantly more time consuming and expensive to complete compared to FA. While these variances are significant it was not considered a big enough change to consistently run FMS on all assays (Whiting, 2012b). The authors reviewed the data from one hole that was considered representative of the test.

12.3 Interpretation

The sample preparation, analytical methods and security for the work done by Orex were of very high standards. There were some errors in the identification of the correct blank or standard material but this was not considered to be a significant problem but should be followed more closely in further programs. A subset of gold assays which reported below detection limits are carried in the data base as a value of the detection limit. Under best practices assays below detection limits should be carried as half the value of the detection limit. With due consideration of these errors, the authors have no reason to doubt the results based on this work.

12.4 Limitations

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

12.5 Data adequacy

It is the opinion of the qualified person responsible for the preparation of this Report that the dataset can be used to support a Mineral Resource estimation.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

This section is material extracted from the March 2011 NI 43-101 report, "Revised NI 43-101 Technical Report Orex Minerals Inc. Barsele Gold Project Storuman, Sweden"

13.1 Mineral Processing and Metallurgical Testing

Orex 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 phyllosillicate-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 1.41 kg/t, respectively.

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

The average head-grade of the sample was 5.1 g/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 Zone 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 Zone ranging in value from 1.1 to 14.08 g/t gold were analysed 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 Zone 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 Zone 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 is 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.

14.0 MINERAL RESOURCE ESTIMATE

14.1 Introduction

At the request of Orex, Giroux Consultants Ltd. was contracted to complete an update of the mineral resource on the Avan and Central Gold zones that are within the Barsele Project located near Storuman, in northern Sweden. There was no new drilling on the Norra Massive Sulphide zone so this resource estimate remains as reported in Giroux and Thornsberry, March 2011.

The resources were estimated by Gary Giroux, P.Eng., M.A.Sc. who is a qualified person and independent of the both the issuer and the title holder, based on the tests outlined in National Instrument 43-101. This resource update is based on 2011-2012 drill results with 12 diamond drillholes completed on the Central Zone totalling 5,075 m and 4 diamond drillholes on Avan totalling 1,135 m (see Figure 14.1 for drillholes completed in 2011-2912 that are shown in red). This estimate represents an update to the resource produced for Orex by Giroux and Thornsberry in March 2011 (Giroux & Thornsberry, 2011).

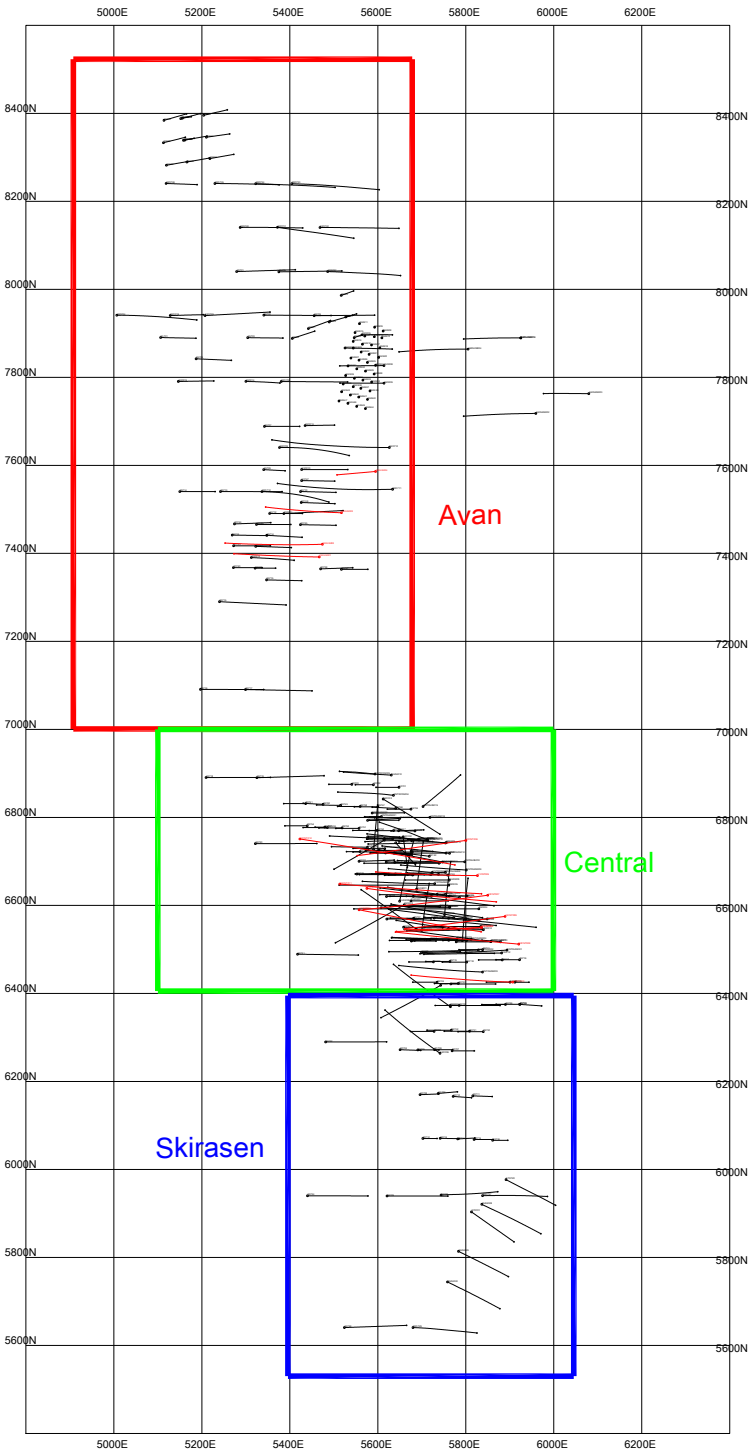


Figure 14.1 2011-12 Drilling Relative to the Barsele Mineralized Zones. New drillholes shown in red in the Central and Avan Zones.

14.2 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 14.1). There were a total of 114 drillholes on the Avan Zone and 176 on the Central Zone provided. The holes used for this estimate are listed in Appendix 1.

14.2.1 Data Analysis

Avan

Gold assay data was available for a total of 114 diamond drillholes 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 14.1). 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. This solid was adjusted in 2012 to account for the 4 new holes drilled in 2012.

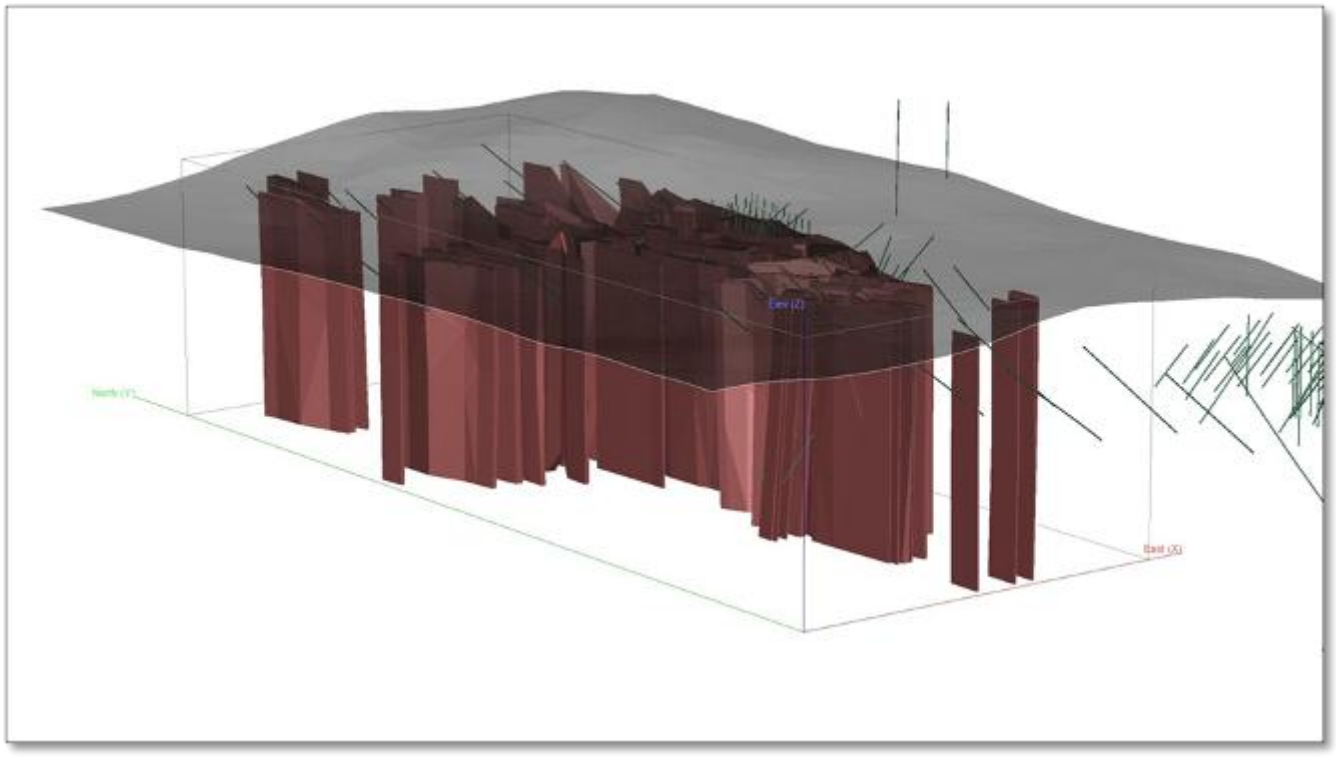


Figure 14.2 Isometric view looking NE showing Avan Solid, surface topography and drillhole traces

Table 14.1
Statistics for Au in Avan Assays

	Inside Mineralized Solid Au (g/t)	Outside Mineralized Solid Au (g/t)
Number	1,839	8,067
Mean Value	0.63	0.06
Standard Deviation	1.29	0.22
Minimum Value	0.001	0.001
Maximum Value	28.05	17.40
Coefficient of Variation	2.04	3.68

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 Figures 14 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.

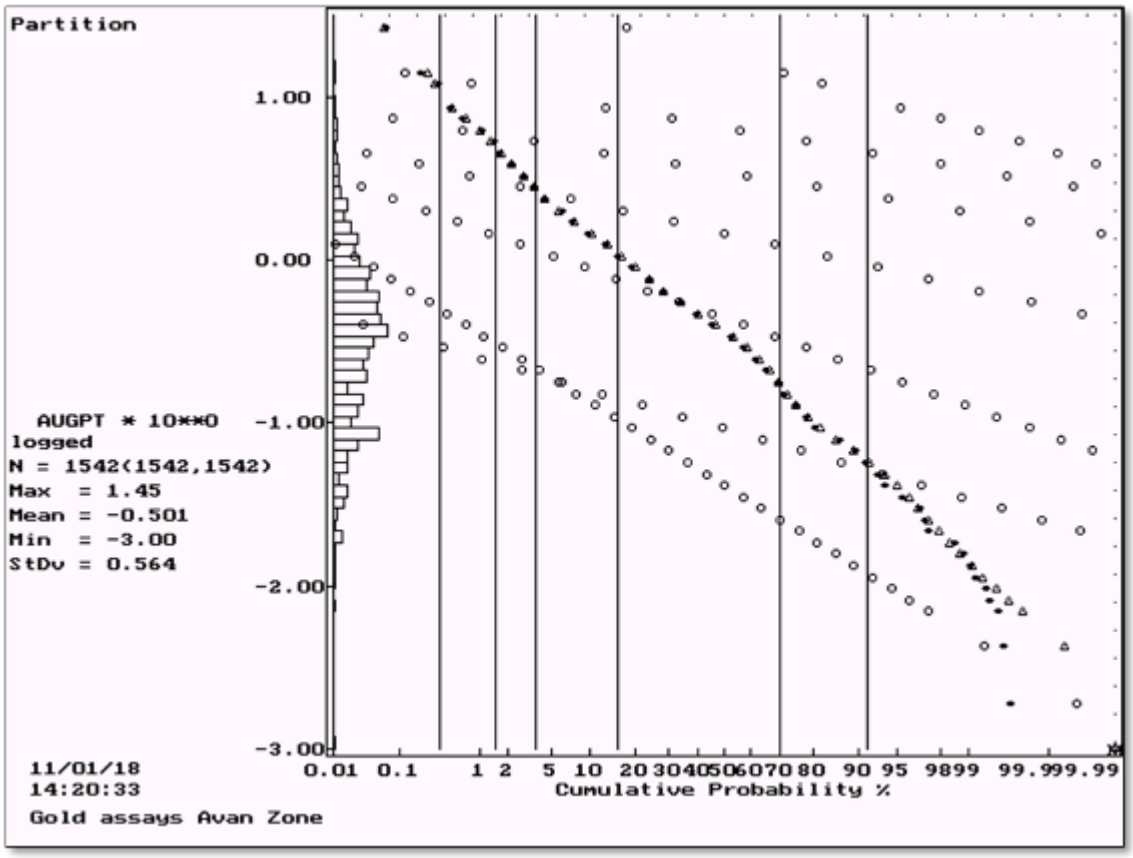


Figure 14.3 Lognormal cumulative frequency plot for Au in the Avan Mineralized Zone

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. Within the 4 drillholes completed in 2012, there were no samples that required capping.

Table 14.2
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 14.3
Statistics for Au in Avan Capped Assays

	Inside Mineralized Solid Au (g/t)
Number	1,839
Mean Value	0.62
Standard Deviation	1.08
Minimum Value	0.001
Maximum Value	11.00
Coefficient of Variation	1.75

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 14.4
Statistics for Au in Central and Skiråsen Assays

	Au (g/t)
Number	27,270
Mean Value	0.42
Standard Deviation	1.53
Minimum Value	0.001
Maximum Value	81.30
Coefficient of Variation	3.65

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.

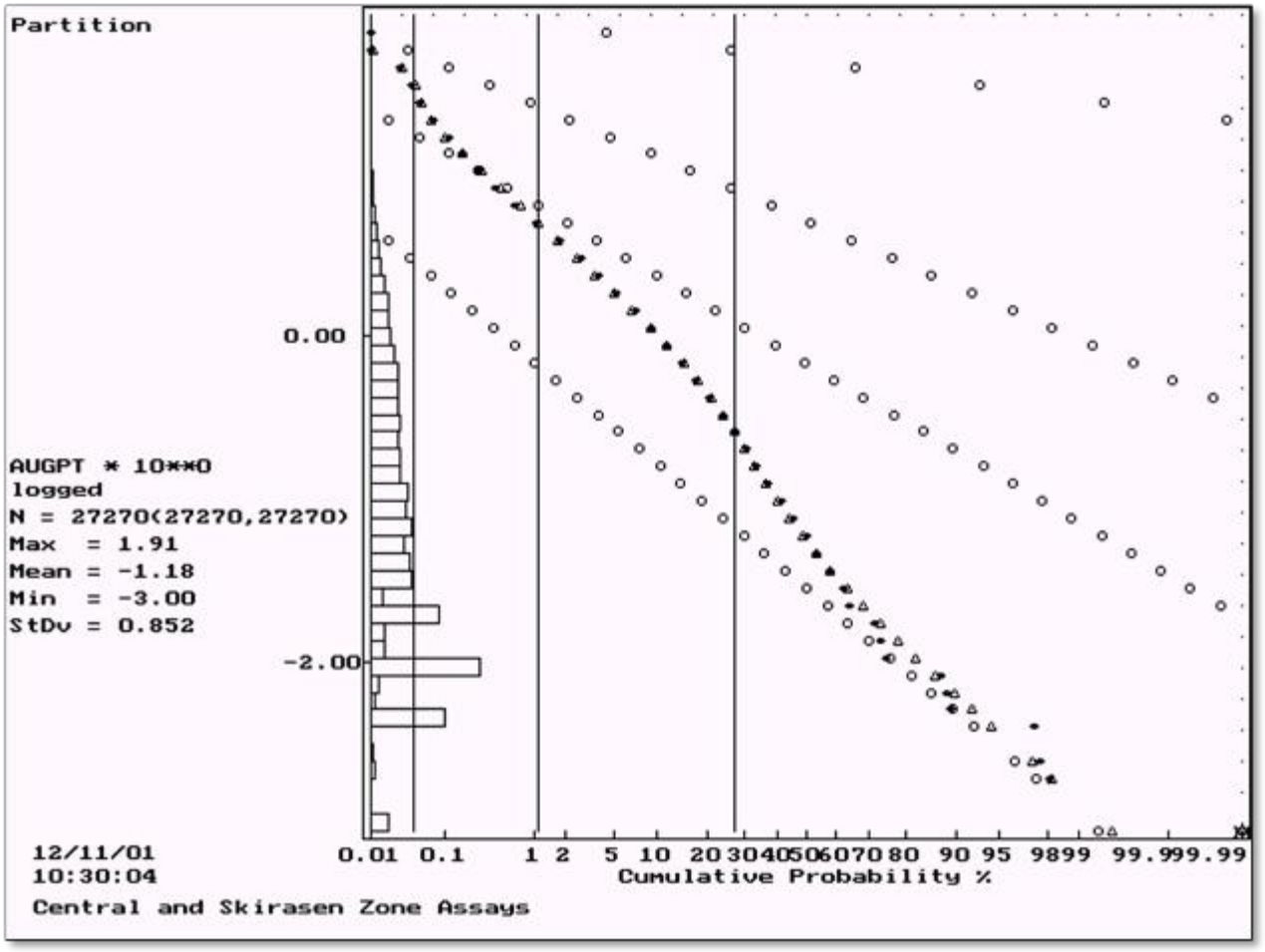


Figure 14.4 Lognormal cumulative frequency plot for Au in the Central & Skiråsen Zones

Table 14.5
Gold Populations within the Central and Skiråsen Zones

Population	Mean Au (g/t)	Percentage of Total Data	Number of Samples
1	48.46	0.04 %	11
2	4.98	1.06 %	289
3	0.67	25.85 %	7,049
4	0.02	73.05 %	19,921

Population 1 represents 0.04 % of the total data and is considered erratic outlier assays. A cap of 2 standard deviations above the mean of population 2, a value of 20 g/t was used to cap 22 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 14.6
Statistics for Au in Central & Skiråsen Capped Assays

	Au (g/t)
Number	27,270
Mean Value	0.40
Standard Deviation	1.16
Minimum Value	0.001
Maximum Value	20.00
Coefficient of Variation	2.88

14.2.2 Composites

Avan

Drillholes 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 14.7
Statistics for Au in Avan 3 m Composites

	Inside Mineralized Solid Au (g/t)
Number	651
Mean Value	0.59
Standard Deviation	0.68
Minimum Value	0.001
Maximum Value	5.17
Coefficient of Variation	1.16

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 drillholes within the Central and Skiråsen zones. Since there were no drillholes completed in the Skiråsen Zone in 2012 the composites and statistics for this zone remain the same as shown in the 2011 Report. The composite statistics for each zone are tabulated below.

Table 14.8
Statistics for Au in CENTRAL & SKIRÅSEN 3 m Composites

	CENTRAL ZONE Au (g/t)	SKIRÅSEN ZONE Au (g/t)
Number	8,675	1,073
Mean Value	0.40	0.17
Standard Deviation	0.87	0.55
Minimum Value	0.001	0.001
Maximum Value	20.00	10.90
Coefficient of Variation	2.19	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

14.2.3 Variography

Avan

Pairwise relative semivariograms were used to determine the 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 14.9
Semivariogram Parameters for Au in the Avan Mineralized Zone

Variable	Az / Dip	C_o	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 use 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

120 m along Azimuth 150° Dip 0° and 90 m along Azimuth 60° Dip -80°. Nested spherical models were fit to the data. The semivariogram parameters are tabulated below with the models shown in Appendix 3.

Table 14.10
Semivariogram Parameters for Au Indicator variable in the Central & Skiråsen Zones

Variable	Az / Dip	C_o	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

14.2.4 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

14.2.5 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 drillhole. In this manner for a block to be estimated a minimum of two drillholes 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 14.11

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	1,385	135 / 0	20.0	45 / -65	15.0	225 / -25	6.25
2	24,404	135 / 0	40.0	45 / -65	30.0	225 / -25	12.5
3	148,962	135 / 0	80.0	45 / -65	60.0	225 / -25	25.0
4	390,783	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 The Central Zone 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 14.12

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	308,051	150 / 0	30.0	60 / -80	22.5	240 / -10	7.5
	2	698,062	150 / 0	60.0	60 / -80	45.0	240 / -10	15.0
	3	1,520,547	150 / 0	120.0	60 / -80	90.0	240 / -10	30.0
	4	3,461,528	150 / 0	240.0	60 / -80	180.0	240 / -10	60.0
OK	1	95,717	150 / 0	30.0	60 / -80	22.5	240 / -10	7.5
	2	138,045	150 / 0	60.0	60 / -80	45.0	240 / -10	15.0
	3	252,673	150 / 0	120.0	60 / -80	90.0	240 / -10	30.0

14.3 Norra VMS Deposit (from Giroux & Thornsberry, 2011)

There was no additional drilling since the 2011 estimate, so this section is reproduced from the Giroux and Thornsberry 2011 Report.

The Norra deposit has been exposed in two open trenches and 68 diamond drillholes 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 drillholes used). The mineralization is hosted by sheared

felsic volcanics. Orex geologists have built a three dimensional geologic solid, in Vulcan software, to constrain the VMS mineralization.

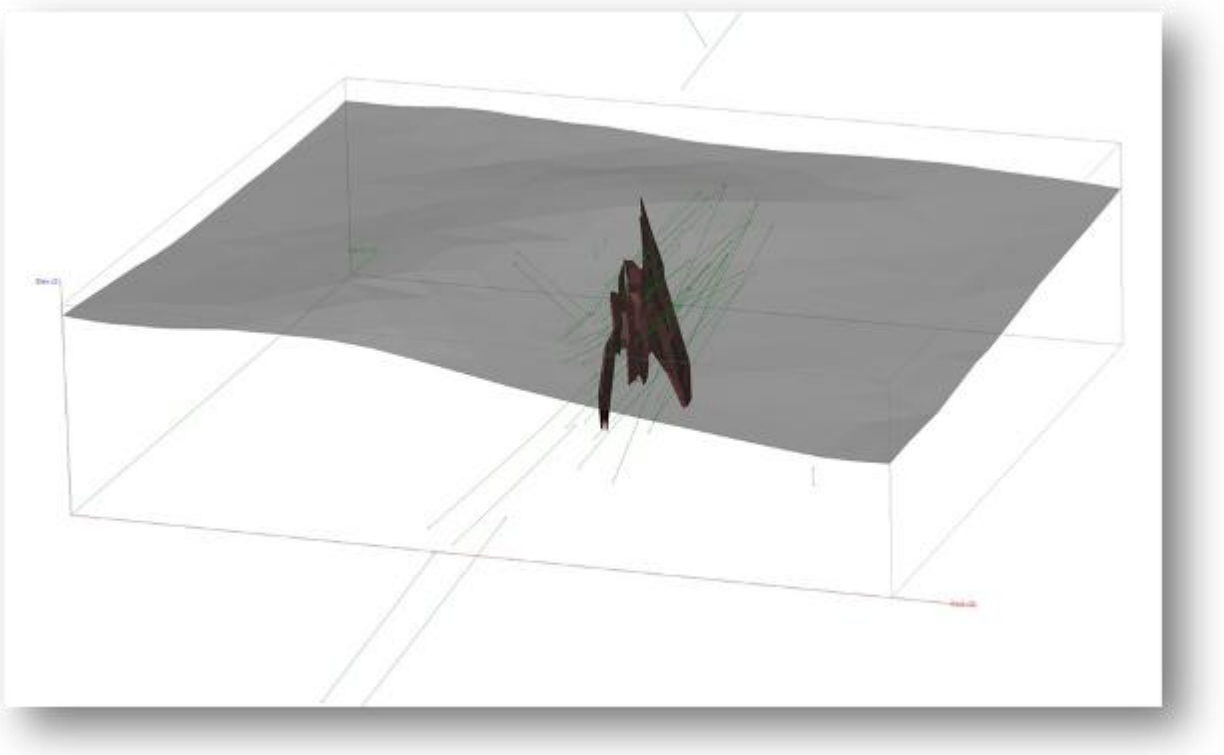


Figure 14.5 Isometric view looking NNW of the Norra VMS Zone with surface topography and drillhole traces

14.3.1 Data Analysis

The drillholes 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 14.13
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 14.2.1. 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 14.14 below lists the cap levels for each variable and the number of assays capped.

Table 14.14
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 14.15
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

14.3.2 Composites

Uniform 3 m down hole composites were produced for Norra drillholes 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 1.5 m. In this manner a uniform support of 3±1.5 m was achieved. The composite statistics are tabulated below.

Table 14.16
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

14.3.3 Variography

Pairwise relative semivariograms were produced in the three principal directions of the Norra VMS mineralized lens: along strike (Az 345^{o} Dip 0^{o}), down dip (Az 75^{o} Dip -75^{o}) 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 14.17
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

14.3.4 Block Model

A block model with blocks 3 m 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 = 3 m	126 columns
8775 N	Row size = 3 m	109 rows

Top of Model

352 Elevation	Level size = 3 m	59 levels

No Rotation

14.2.5 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 14.18
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

14.4 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 drillholes. 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.

14.5 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 drillholes."

"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 drillholes 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 drillholes 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 Zones 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 14-25. At this time no economic analysis has been completed for this project. A cut-off of 0.6 g/t Au has been highlighted as a possible open pit cut-off for these deposits.

Table 14-19
AVAN INDICATED RESOURCE

Au Cut-off (g/t)	Tonnes> Cut-off (tonnes)	Grade > Cut-off		
		Au (g/t)	Au (grams)	Au Ounces
0.20	1,260,000	0.61	800,000	25,000
0.30	1,060,000	0.68	700,000	23,000
0.40	830,000	0.77	600,000	21,000
0.50	650,000	0.87	600,000	18,000
0.60	**490,000**	**0.97**	**500,000**	**15,000**
0.70	390,000	1.05	400,000	13,000
0.80	300,000	1.14	300,000	11,000
0.90	230,000	1.22	300,000	9,000
1.00	180,000	1.32	200,000	8,000

Table 14.20
AVAN INFERRED RESOURCE

Au Cut-off (g/t)	Tonnes> Cut-off (tonnes)	Grade > Cut-off		
		Au (g/t)	Au (grams)	Au Ounces
0.20	25,450,000	0.60	15,300,000	493,000
0.30	23,020,000	0.64	14,700,000	473,000
0.40	19,460,000	0.69	13,500,000	433,000
0.50	14,650,000	0.77	11,300,000	363,000
0.60	**10,360,000**	**0.86**	**8,900,000**	**287,000**
0.70	7,390,000	0.95	7,000,000	226,000
0.80	5,230,000	1.03	5,400,000	174,000
0.90	3,460,000	1.13	3,900,000	125,000
1.00	2,320,000	1.22	2,800,000	91,000

Table 14.21
CENTRAL INDICATED RESOURCE

Au Cut-off (g/t)	Tonnes> Cut-off (tonnes)	Grade > Cut-off		
		Au (g/t)	Au (grams)	Au Ounces
0.30	15,980,000	1.11	17,700,000	568,000
0.40	15,500,000	1.13	17,500,000	563,000
0.50	14,740,000	1.16	17,200,000	552,000
0.60	**13,610,000**	**1.22**	**16,500,000**	**532,000**
0.70	12,140,000	1.28	15,600,000	501,000
0.80	10,600,000	1.36	14,400,000	463,000
0.90	9,040,000	1.45	13,100,000	421,000
1.00	7,710,000	1.53	11,800,000	380,000

Table 14.22
CENTRAL & SKIRÅSEN INFERRED RESOURCE

Au Cut-off (g/t)	Tonnes> Cut-off (tonnes)	Grade > Cut-off		
		Au (g/t)	Au (grams)	Au Ounces
0.30	17,450,000	0.80	13,900,000	447,000
0.40	14,390,000	0.89	12,800,000	413,000
0.50	11,890,000	0.98	11,700,000	376,000
0.60	**9,840,000**	**1.08**	**10,600,000**	**340,000**
0.70	8,010,000	1.17	9,400,000	302,000
0.80	6,620,000	1.26	8,400,000	269,000
0.90	5,410,000	1.36	7,300,000	236,000
1.00	4,510,000	1.44	6,500,000	208,000

Table 14.23
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 14.24
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 14-25
Summary of Barsele Resources

Au Cut-off (g/t)	Zone	Resource Category	Tonnes	Au Grade (g/t)	Contained Ounces Au
0.4	Central	Indicated	15,500,000	1.13	563,000
	Central-Skiråsen	Inferred	14,390,000	0.89	413,000
	Avan	Indicated	830,000	0.77	21,000
		Inferred	19,460,000	0.69	433,000
	TOTAL	Indicated	16,470,000	1.12	595,000
		Inferred	34,180,000	0.78	862,000
0.5	Central	Indicated	14,740,000	1.16	552,000
	Central-Skiråsen	Inferred	11,890,000	0.98	376,000
	Avan	Indicated	650,000	0.87	18,000
		Inferred	14,650,000	0.77	363,000
	TOTAL	Indicated	15.390,000	1.15	570,000
		Inferred	26,540,000	0.87	739,000
0.6	Central	Indicated	13,610,000	1.22	532,000
	Central-Skiråsen	Inferred	9.840,000	1.08	340,000
	Avan	Indicated	490,000	0.97	15,000
		Inferred	10.360,000	0.86	287,000
	TOTAL	**Indicated**	**14,100,000**	**1.21**	**547,000**
		Inferred	**20,200,000**	**0.97**	**627,000**

14.6 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 14.6 and 14.7 show two east-west sections through the Avan Deposit. Figures 14.8 and 14.9 show two east-west cross sections through the Central Zone. Figure 14.10 shows an east-west cross section through the Skiråsen zone and Figures 14.11 and 14.12 show two east west cross sections through the Norra VMS zone. Blocks represent one 3 x 3 x 3 m 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 14.13) 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 14.15)

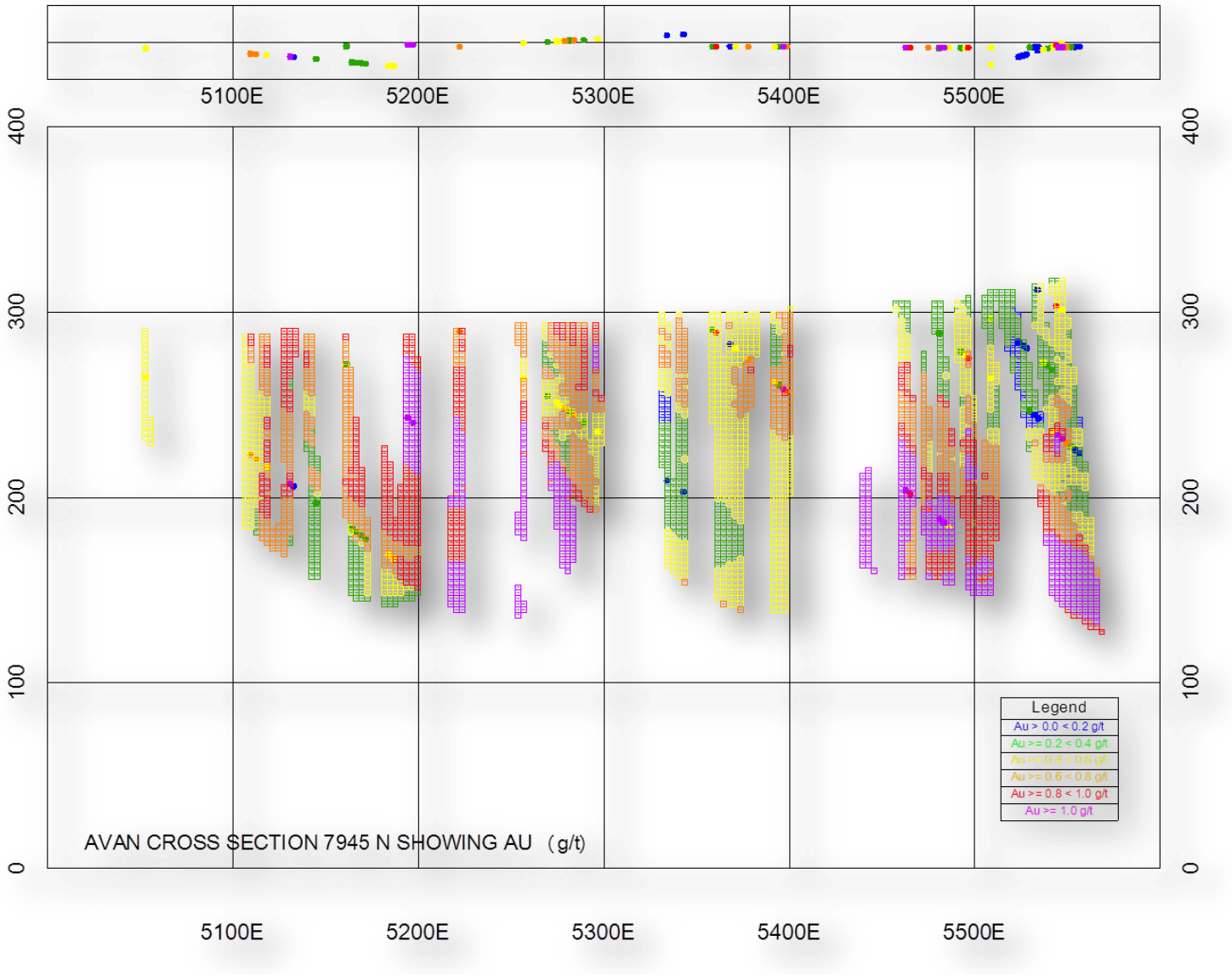


Figure 14.6 Avan Cross Section 7945 N Showing Au in Blocks and Composites

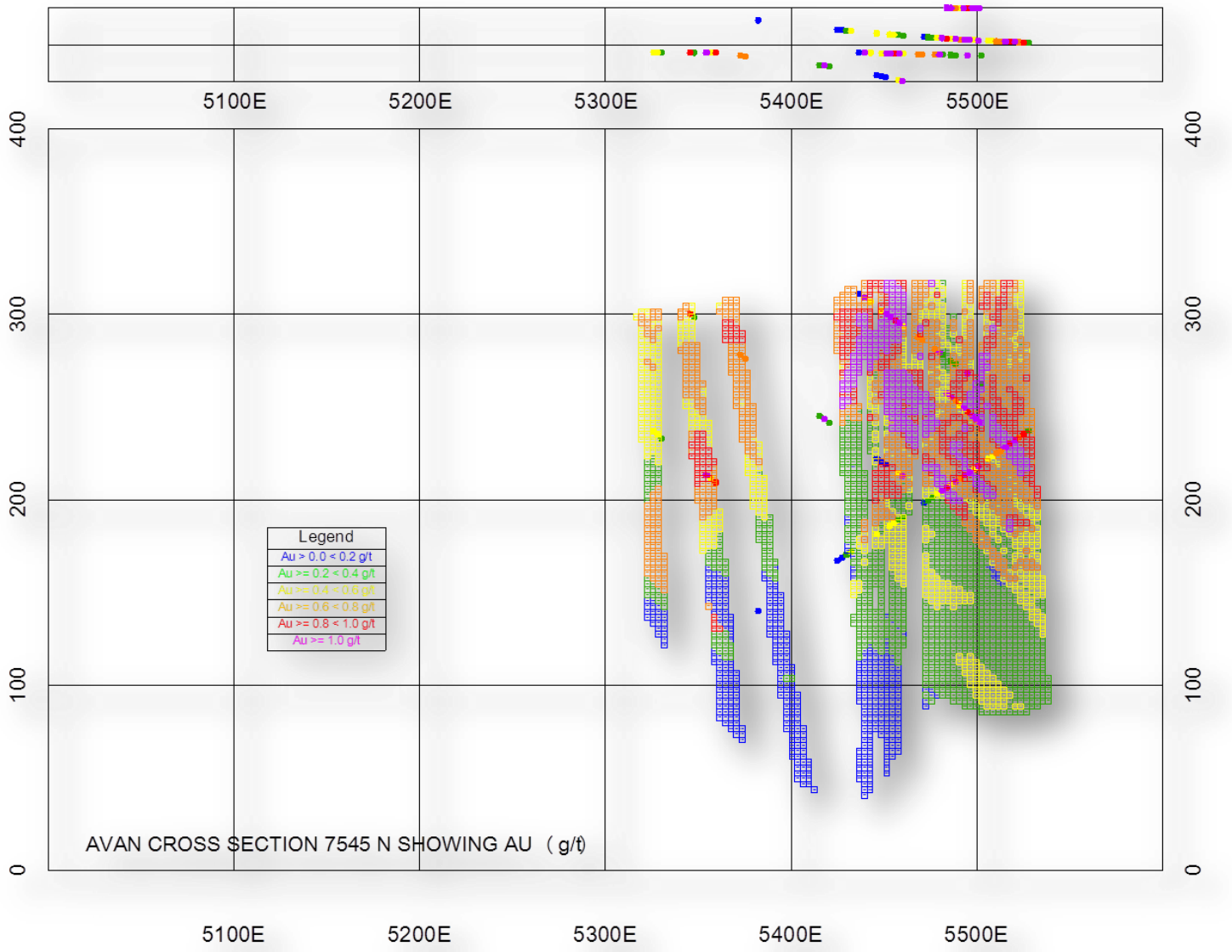


Figure 14.7 Avan Cross Section 7545 N Showing Au in Blocks and Composites

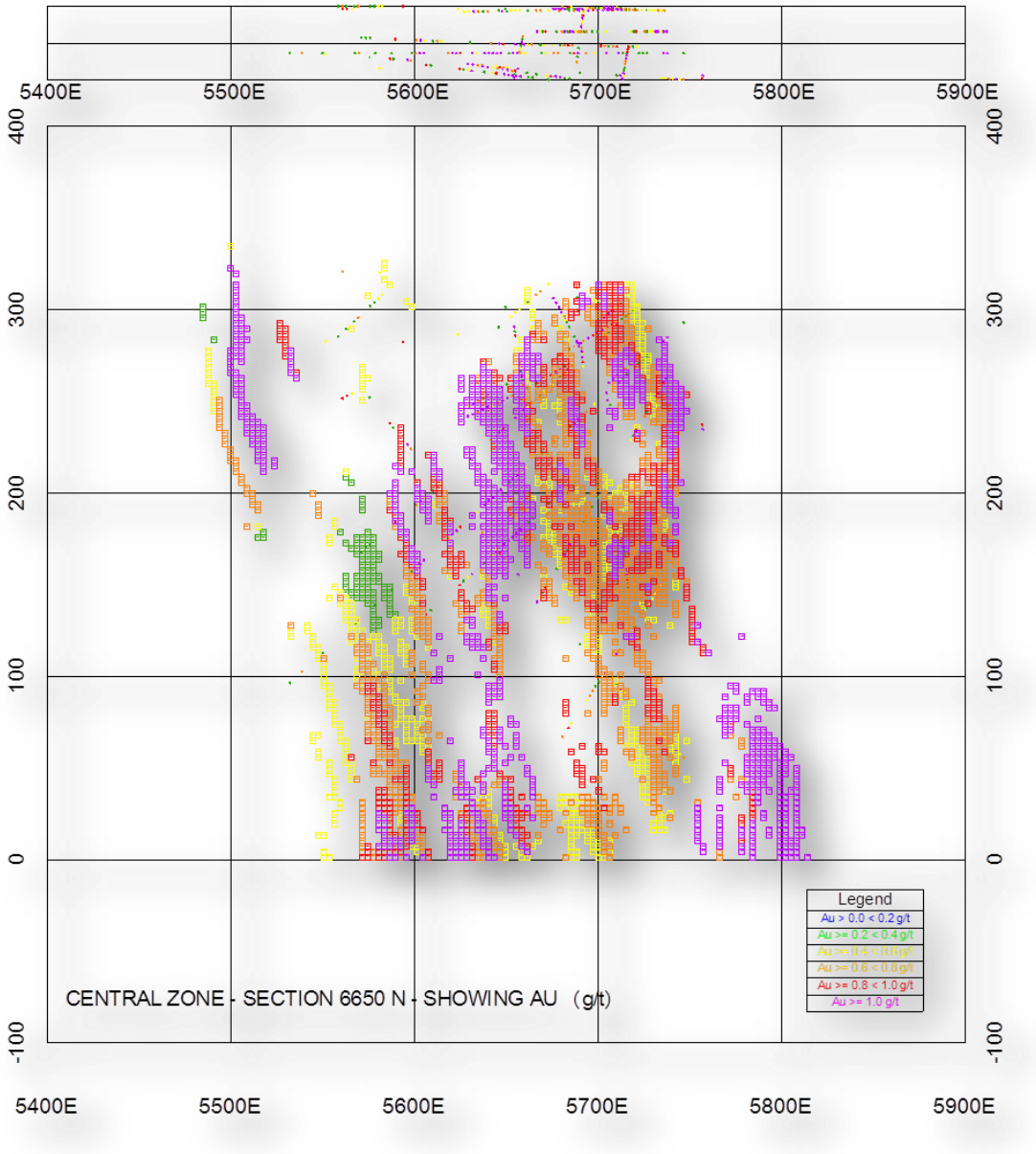


Figure 14.8 Central Zone Cross Section 6650 N Showing Au in Blocks and Composites

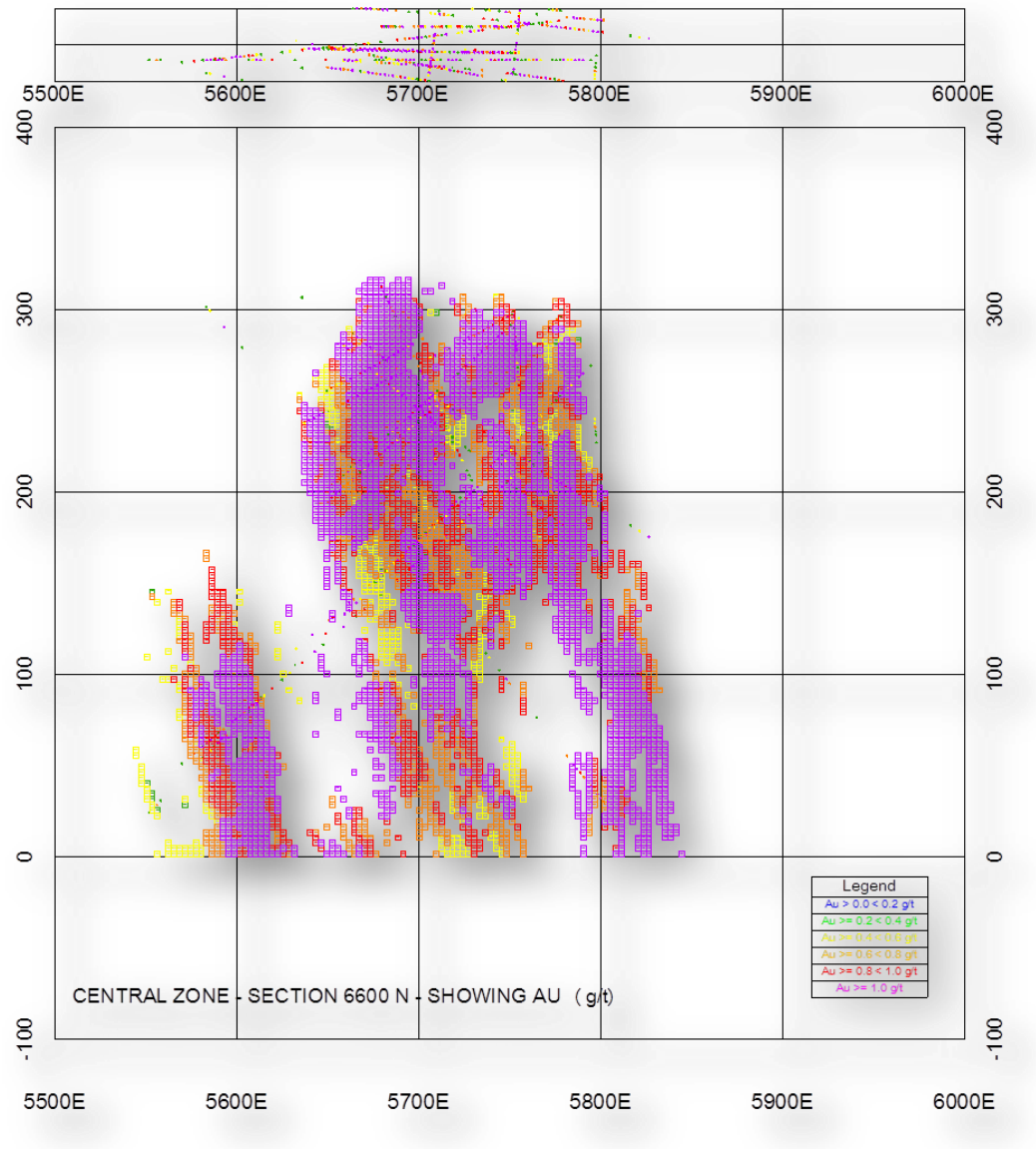


Figure 14.9 Central Zone Cross Section 6600 N Showing Au in Blocks and Composites

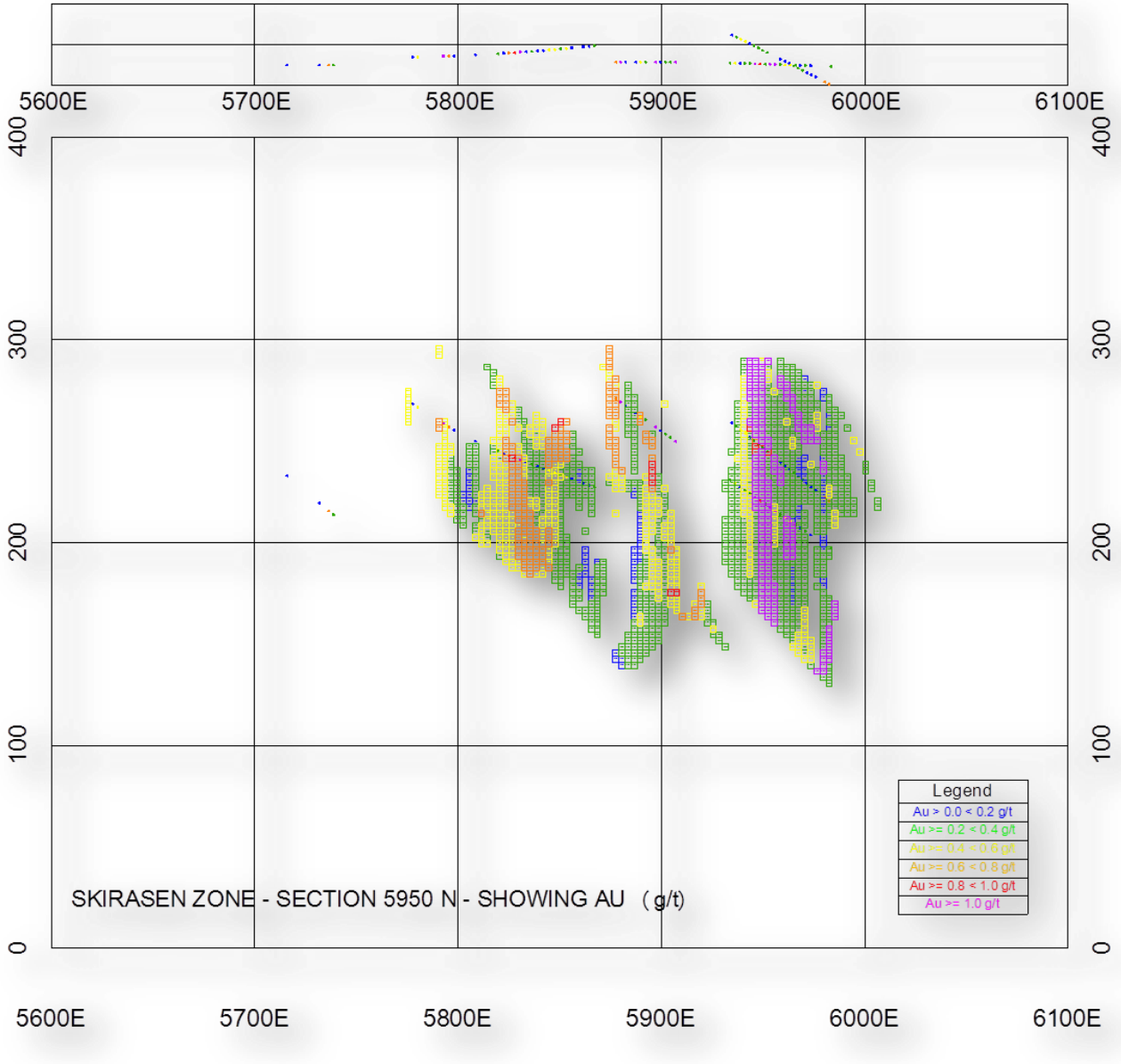


Figure 14.10 Skiråsen Cross Section 5950 N Showing Au in Blocks and Composites

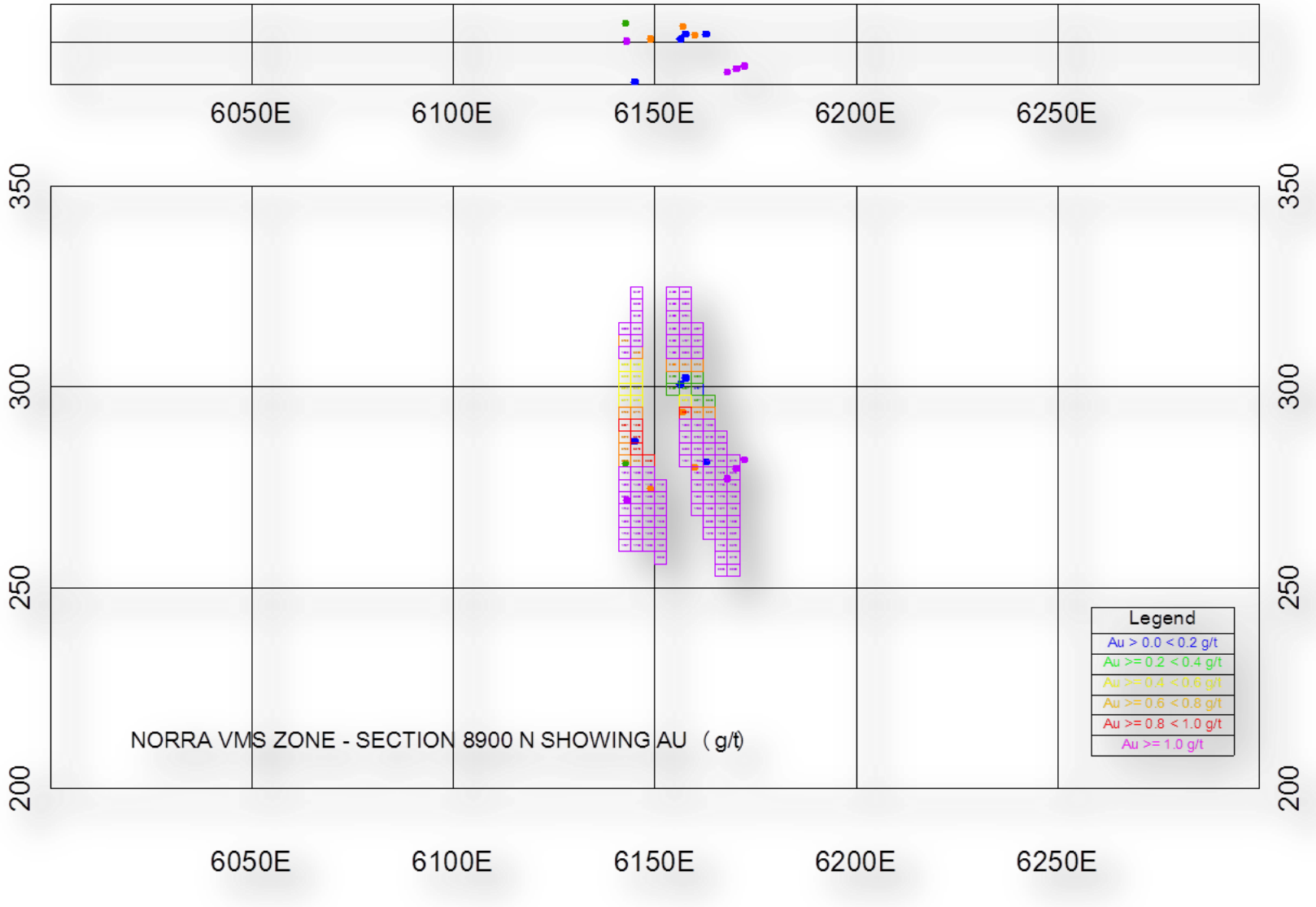


Figure 14.11 Norra Cross Section 8900 N Showing Au in Blocks and Composites

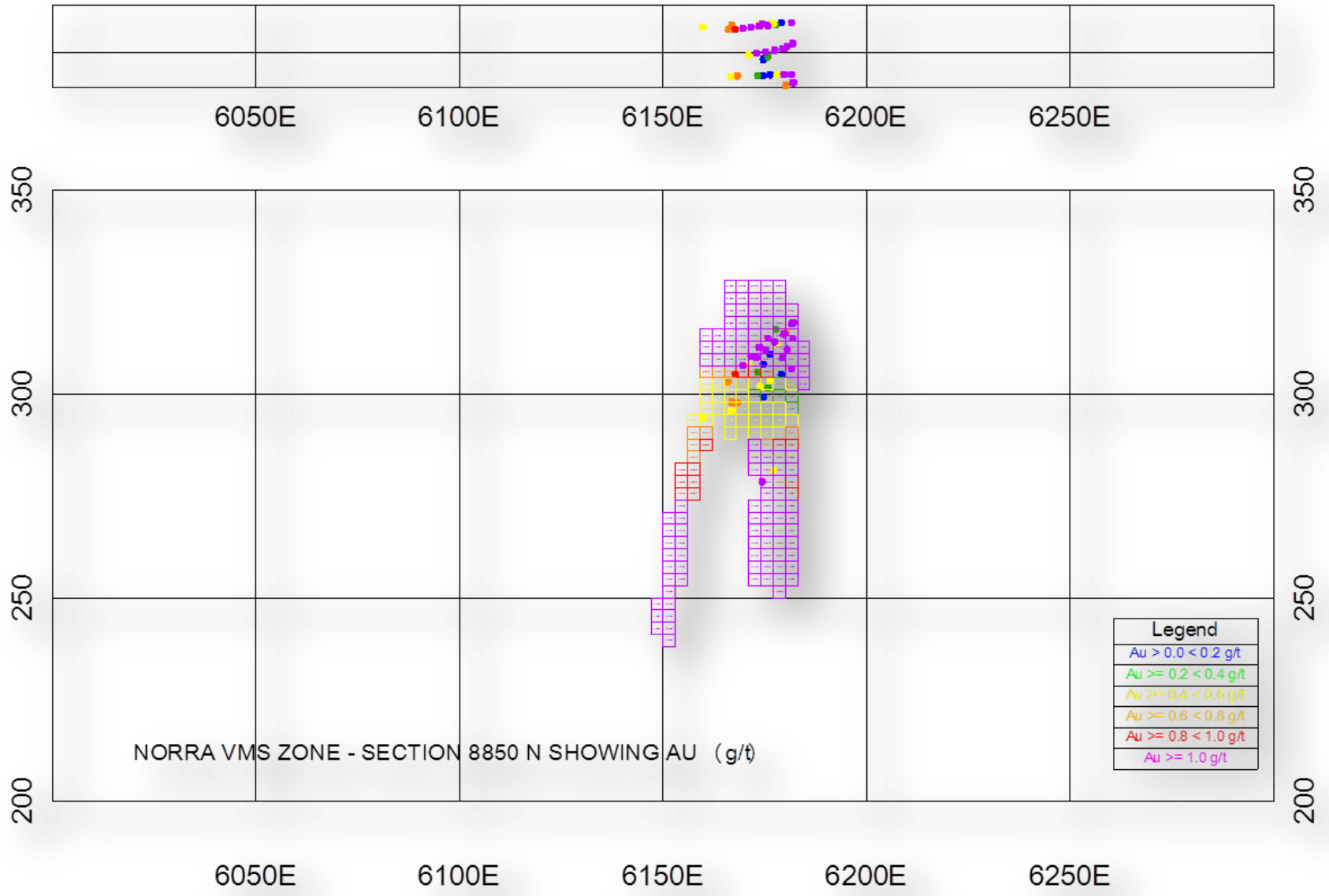
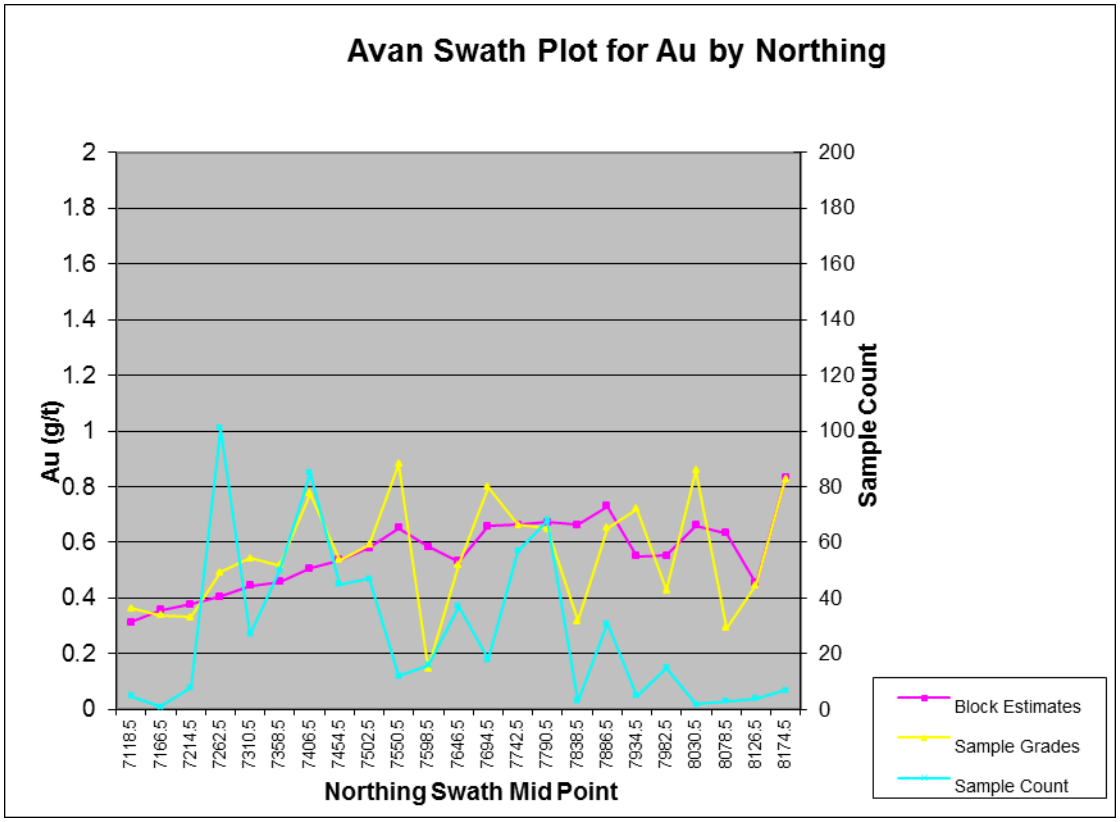


Figure 14.12 Norra Cross Section 8850 N Showing Au in Blocks and Composites

AVAN ZONE



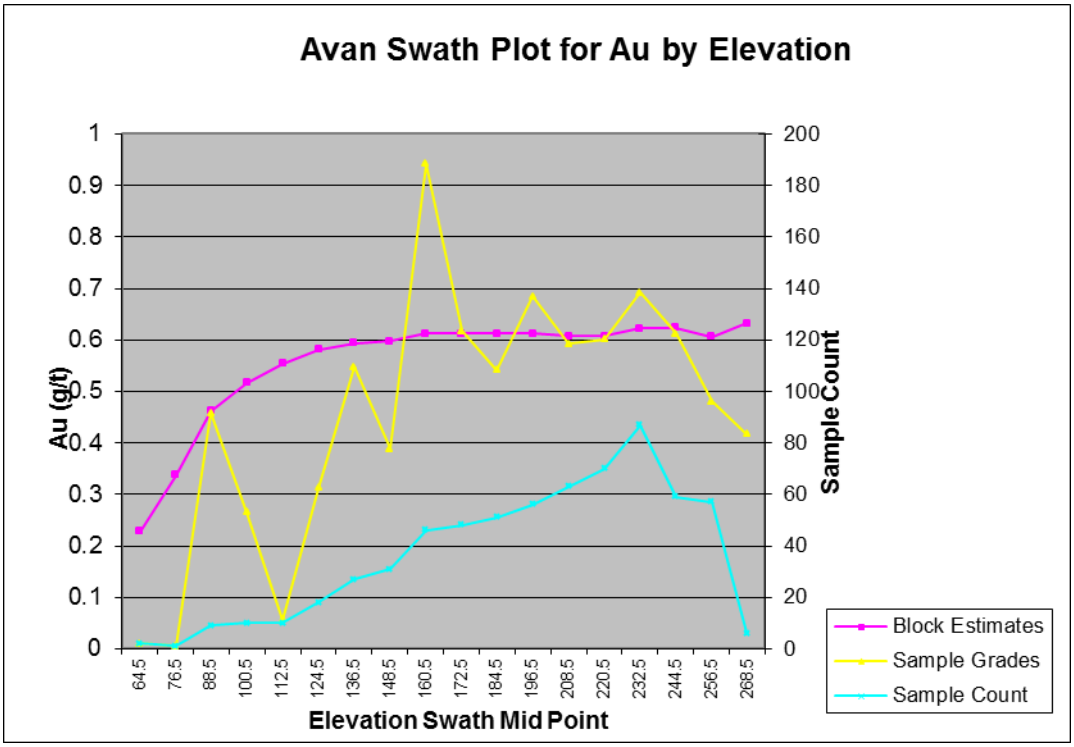
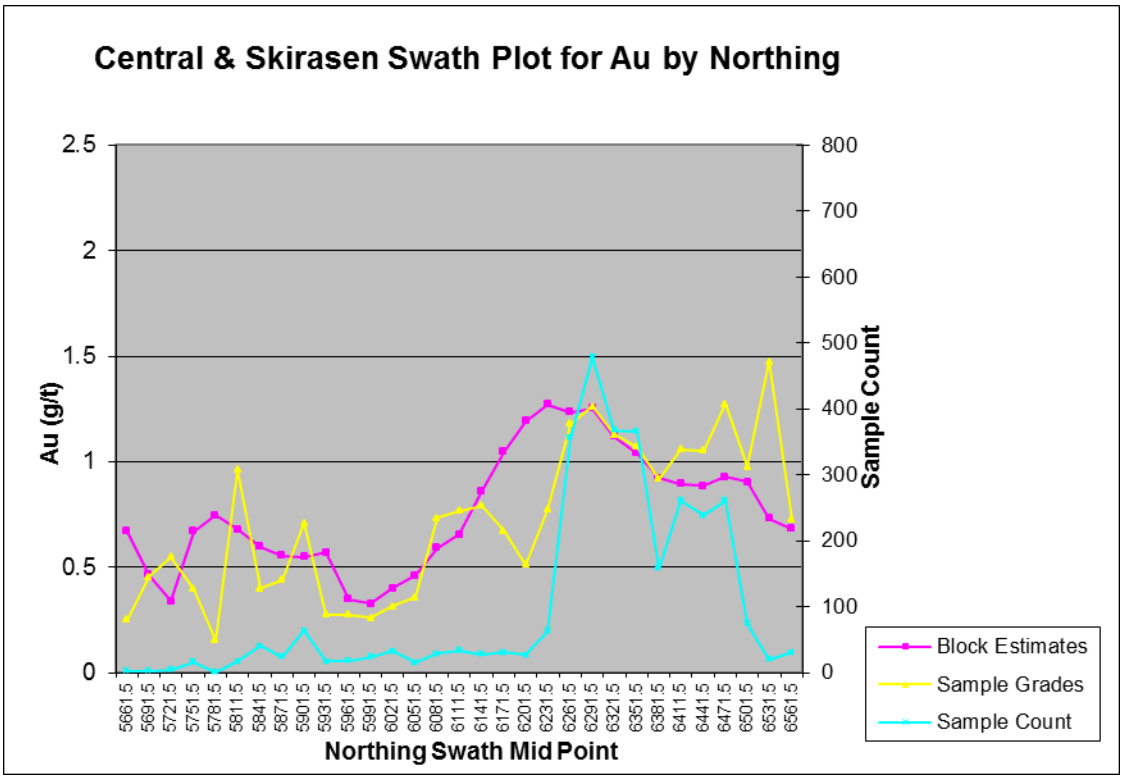


Figure 14.13 Swath plots for Avan Zone

CENTRAL & SKIRÅSEN ZONES



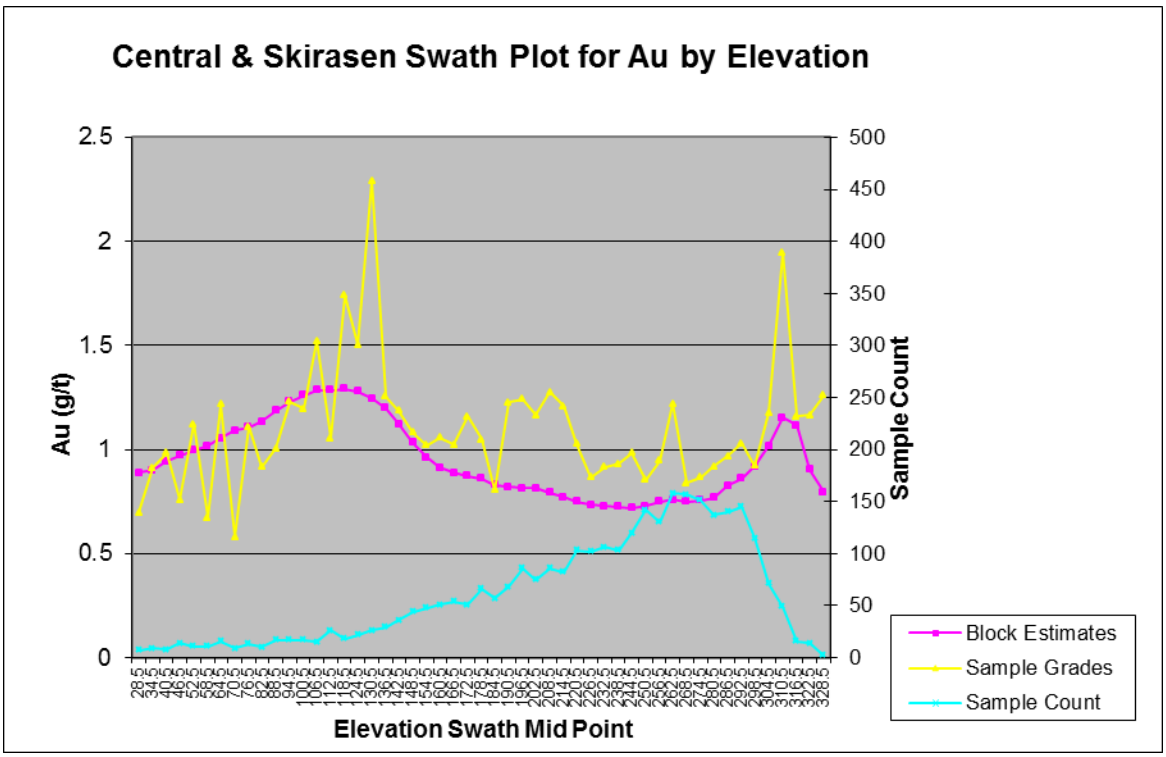
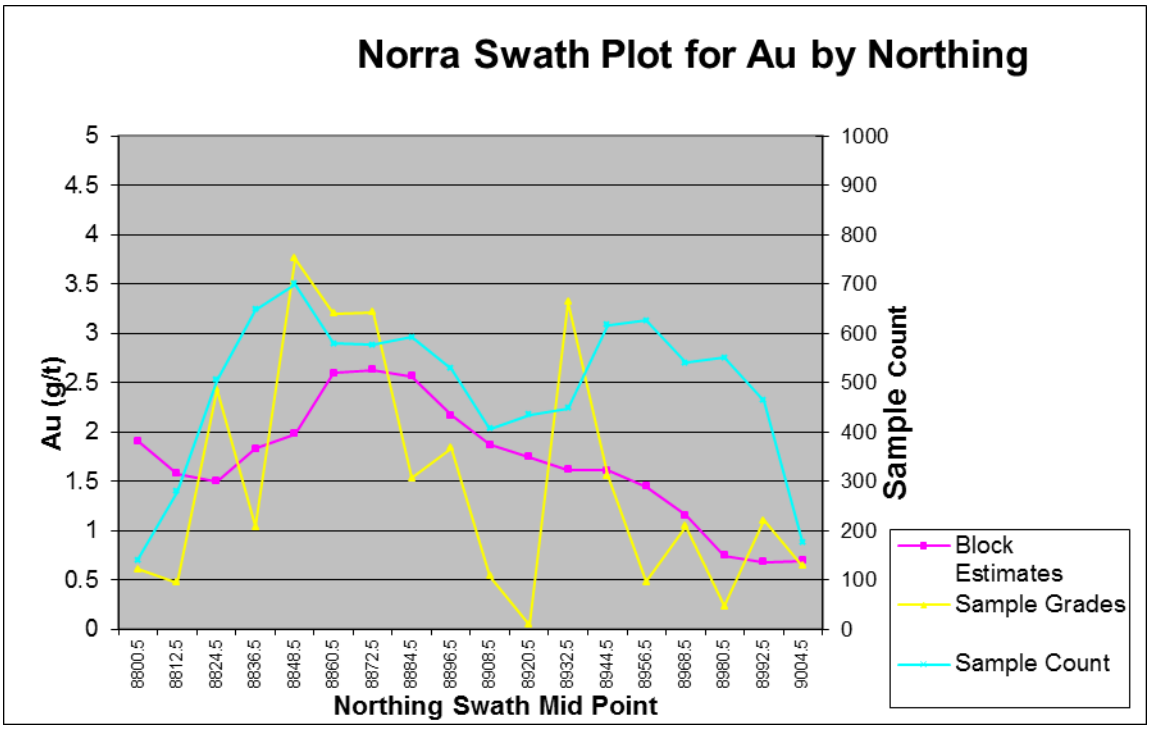


Figure 14.14 Swath plots for Central & Skiråsen Zones

NORRA ZONE



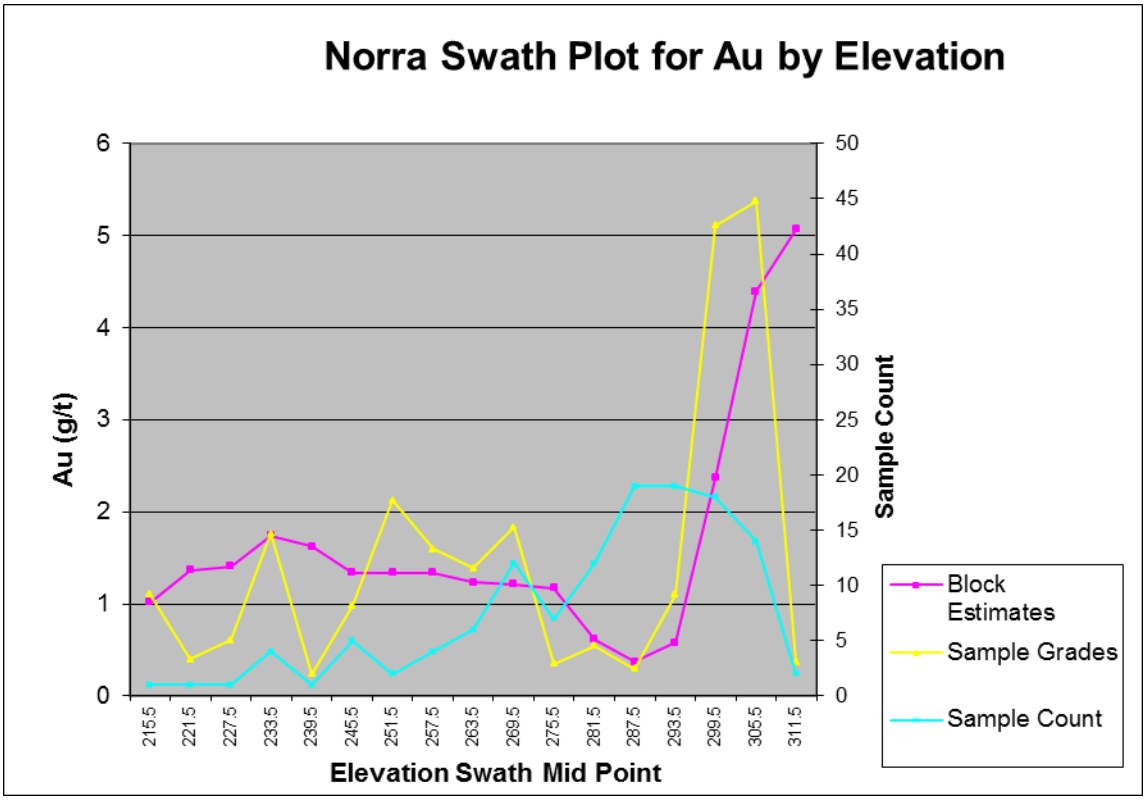


Figure 14.15 Swath plots for Norra VMS Zone

15.0 to 22.0 ADVANCED STAGE HEADINGS (omitted)

This is not an advanced stage project and no economic studies have been done. Items 15 to 22 of 43-101F1 format have been omitted.

23.0 ADJACENT PROPERTIES

23.1 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.

24.0 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

25. INTERPRETATIONS and CONCLUSIONS

25. 1 Interpretation

Past work has outlined four deposits by utilizing an integrated exploration approach of prospecting, mapping, geochemistry, geophysics, trenching and drilling. Table 6.1 (Section 6.0) summarizes the work done to date on the project. The work done by Terra Mining, Northland Orex and others covered the original 11,000 ha sized property. The property has now been expanded to 31,687 ha.

Government airborne surveys flown in the early 1980's were useful in identifying geological units covered by a 2-20 m layer of glacial till. Follow-up soil and till geochemistry was successful in locating areas of interest that in a number of areas, subsequent drilling identified 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 mapping, sampling and ground-based geophysical 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 and Orex 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 and Orex 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 5.1 g/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 in previous campaigns the core samples were not systematically analysed using Full Metallic Screen analyses.

Coarse gold was thought to be a contributing factor but a 2011-12 study of drill core from five drillholes, utilizing both Fire Assay (FA) and Full Metallic Screen (FMS) assays, in the Central and Avan Zones, did not demonstrate a significant variance in grade and returned FA 93.6 % and 96.2 % of FMS respectively. The question of the variance in the 1995 Bulk sample remains unresolved at this point.

The previous exploration programs undertaken on the Barsele Gold project have outlined four mineralized 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 meters with a strike-extent in excess of some 8 kilometers. 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 kilometers by some 350 meters wide, while the Avan Zone has a strike length of 1.4 kilometers and a width of 250 meters. A fourth mineralized gold zone, Skirträskbäcken, is located approximately three kilometers 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.

The geophysics program in 2011 has outlined a total of 38 target areas. The 2011 – 2012 diamond drilling program has increased the depth of known mineralization at the Central Zone compared to previous programs and the Central Zone remains open to depth.

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 meters in strike-length varying from 5 to 50 meters in width within a broadly anomalous zone some 300 meters in strike length by 50 meters 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.

25.2 Conclusions

The previous exploration programs undertaken on the Barsele Gold project have outlined four mineralized 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, Storträsket/ and Tolvmanmyran. In addition, Orex has applied for 23,400 ha of new ground. There was 22,512 ha of land issued. This area 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.

In this report Orex released the results of the updated NI 43-101 resource estimate. The Central and Skiråsen zones were combined while the Avan Gold zone was estimated separately. The Norra volcanic massive sulphide (VMS) zone remains unchanged from the February 28, 2011 NI43-101 resource estimate. The Avan, Central and Skiråsen zones are all considered to be structurally controlled mesothermal gold deposits. The current mineral resources are summarized below:

Table 25.1 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
0.4	Central	Indicated	15,500,000	1.13	563,000
	Central-Skiråsen	Inferred	14,390,000	0.89	413,000
	Avan	Indicated	830,000	0.77	21,000
		Inferred	19,460,000	0.69	433,000
	TOTAL	Indicated	16,470,000	1.12	595,000
		Inferred	34,180,000	0.78	862,000
0.5	Central	Indicated	14,740,000	1.16	552,000
	Central-Skiråsen	Inferred	11,890,000	0.98	376,000
	Avan	Indicated	650,000	0.87	18,000
		Inferred	14,650,000	0.77	363,000
	TOTAL	Indicated	15.390,000	1.15	570,000
		Inferred	26,540,000	0.87	739,000
0.6	Central	Indicated	13,610,000	1.22	532,000
	Central-Skiråsen	Inferred	9.840,000	1.08	340,000
	Avan	Indicated	490,000	0.97	15,000
		Inferred	10.360,000	0.86	287,000
	TOTAL	**Indicated**	**14,100,000**	**1.21**	**547,000**
		Inferred	**20,200,000**	**0.97**	**627,000**

Table 25.2 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									
0.4	140,000	2.46	27.26	0.45	0.66	11,000	123,000	1,389,000	2,037,000
0.5	120,000	2.76	28.38	0.48	0.68	11,000	109,000	1,270,000	1,799,000
0.6	110,000	3.13	30.27	0.53	0.72	11,000	107,000	1,286,000	1,746,000
INFERRED									
0.4	330,000	1.55	12.44	0.26	0.41	16,000	132,000	1,892,000	2,983,000
0.5	320,000	1.59	12.56	0.26	0.42	16,000	129,000	1,835,000	2,964,000
0.6	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 in the 2011-2012 exploration season and the new mineral resource estimate

based on 316 drillholes totalling 40,420 meters. These 316 drillholes are summarized in Appendix 1. This report has met the objectives of the intent.

26.0 RECOMMENDATIONS

- 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. Similar measurements should be taken from both mineralized and unmineralized core in the other three structurally controlled zones.
- It is recommended that for future resource updates a proper geologic 3D solid model be produced for the Central & Skiråsen zones from geologic interpretation of cross sections and level plans.

26.1 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$3,400,000. Detailed cost expenditures are summarized in Table 26.1

Specific Recommendations are as follows:

- **Geologic Model** – Design an updated geologic 3D solid model for the CAS Zones and then integrate model tests into the drilling recommended below. Drillhole density in portions of the Central Zone 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, (through targeted drilling high grade extensions as well as the large diameter core drilling recommended for metallurgical work below).
- **Trenching** - on the Avan Zone to map and sample the mineralized structures which will help refine the geological model
- **Drilling** – A minimum 10,000 meter drilling program is recommended during Phase I. This program should consist of a series of deep angle holes on the North-East side of the Central and Avan Zones to expand on the depth and continuity of mineralization as well as looking to cross projected South-East plunging structures. 1,000m of drilling on Line 7200N is recommended to investigate the strong IP anomaly identified there as well as look for a potential connection between the Central and Avan Zones. Additional drilling is warranted to test the extent of the high-grade gold plus poly-metallic base-metal vein in The Central Zone. 2,000m of drilling is budgeted for drilling targets selected by the local geological team as the most promising of the regional targets discussed in Section 7.5.3

and any other targets generated by the 2011 airborne survey and, or historic geochemical surveys. Specific Gravity Determinations (using the water displacement method) and RQD measurements should be taken as a matter of course in all drill programs.

- **Geotechnical** – Geotechnical studies including VLF geophysical surveys and oriented core drilling should be conducted as recommended by the Golder Report to provide data for future open pit planning and environmental studies. Optimally this should be integrated with further drilling in the Central and Avan Zones
- **Engineering** - scoping level studies should be started to begin to get a sense of the potential for development of the Avan-Central-Skiråsen zones.
- **Metallurgy** – Drill four large diameter (PQ size) core holes ± 100 m 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.
- **Environmental** – Environmental studies as recommended by Golder should be on-going during Phase I in order to maintain the time-line for scoping and prefeasibility studies contemplated during Phase II.
- **Ground Geophysics** – Conduct ground electromagnetic and magnetic geophysical surveys as warranted over new anomalies produced by the 2011 airborne survey in areas such as in Skirträskbäcken and Tattartjärnliden. The total ground geophysics program is projected to be 100 line kilometers.
- **Geological** - Geologically map and sample any new areas of interest generated from the 2011 airborne survey. Further compilation of all the old data for all the outside targets areas is recommended. While historic pulps and rejects from early program s are stored with the core in Barsele, the location of some historic core is not known and should be tracked down. All of the old core in storage with the SGU from the outside target areas should be relogged.

Table 26.1 Program and Budget for Phase I

Cost Center	Unit Cost US$	Units	Total (US$)
Drilling, Sampling, Assaying	$200/m	8,850m	1,770,000
Geophysics - Ground	$900/line km	50km	45,000
Geology & Consultants			275,000
Avan trenching program	$35/m	300m	10,500
Metallurgy			175,000
Engineering Studies			175,000
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%		310,450
Total			3,414,950

26.2 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 10,000 meter program; exact drillhole 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 26.2 and are expected to be approximately US$4,800,000.

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

Table 26.2 Program and Budget for Phase II

Cost Center	Unit Cost US$	Units	Total (US$)
Drilling, Sampling, Assaying	$200/m	8,000m	1,600,000
Regional Drilling (all incl.)	$200/m	2,500m	500,000
Geochemistry	$75/sample	1,000	75,000
Geology & Consultants			375,000
Metallurgy-Bulk Sample			405,000
Metallurgy-Bench Scale Tests			175,000
Comprehensive Prefeasibility Study			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%		434,800
Total			4,782,800

26.3 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 30th day of November, 2012.

"/s/Gary Giroux"

Gary Giroux, P.Eng.

"/s/Sean Butler"

Sean Butler, P.Geo.

"/s/Michael Collins"

Michael Collins, P.Geo.

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APPENDIX 1 - LIST OF DRILLHOLES WITHIN AVAN, CENTRAL AND SKIRÅSEN USED FOR ESTIMATE

HOLE	EASTING	NORTHING	ELEVATION	HOLE LENGTH (m)	ZONE
11CNT001	5835.23	6549.90	297.20	292.30	Central
11CNT002	5836.06	6549.99	297.01	370.60	Central
11CNT003	5575.23	6638.73	328.75	487.35	Central
11CNT004	5557.51	6590.11	332.14	412.00	Central
11CNT005	5826.57	6667.87	299.42	424.80	Central
12AVA001	5466.97	7391.92	325.82	316.60	Avan
12AVA002	5474.11	7420.75	323.35	334.70	Avan
12AVA003	5517.38	7492.39	318.40	305.00	Avan
12AVA004	5594.86	7586.17	316.18	179.00	Avan
12CNT006	5800.00	6747.68	310.96	426.40	Central
12CNT007	5849.85	6623.14	300.47	379.80	Central
12CNT008	5920.31	6512.05	292.81	379.35	Central
12CNT009	5889.36	6574.96	290.92	472.90	Central
12CNT010	5906.60	6425.72	291.63	357.80	Central
12CNT011	5513.56	6648.62	334.50	493.60	Central
12CNT012	5422.82	6750.93	334.48	577.85	Central
89701	5762.19	6621.16	307.98	69.00	Central
89702	5721.86	6620.77	312.76	69.00	Central
89703	5680.67	6620.65	320.09	68.00	Central
89704	5799.79	6569.62	298.65	66.00	Central
89705	5760.93	6571.02	308.52	70.00	Central
89706	5721.00	6570.79	310.80	70.00	Central
89707	5681.56	6570.87	318.68	69.00	Central
89708	5848.56	6569.16	294.64	70.00	Central
89709	5803.04	6621.38	301.39	62.00	Central
89710	5878.77	6517.38	290.88	55.00	Central
89711	5838.26	6499.42	293.14	70.00	Central
89712	5801.75	6520.21	303.16	70.00	Central
89713	5761.13	6520.84	304.58	70.00	Central
89714	5719.10	6522.24	314.58	74.00	Central
89715	5683.49	6520.44	317.80	72.00	Central
89716	5922.22	6476.62	292.36	70.00	Central
89717	5882.79	6476.20	290.61	70.00	Central
89718	5801.86	6471.17	301.12	72.00	Central
89719	5763.98	6472.62	306.70	70.00	Central
89720	5726.39	6471.66	313.07	71.00	Central
89722	5900.48	6425.56	292.02	72.00	Central

89723	5783.16	6422.59	302.94	72.00	Central
89724	5734.67	6425.48	311.25	72.00	Central
89725	5922.64	6375.31	291.03	70.00	Central
89726	5890.11	6374.86	293.84	70.00	Central
89728	5784.99	6372.65	301.59	71.00	Central
89730	5839.74	6313.12	289.82	75.00	Central
89731	5808.53	6314.19	295.06	75.00	Central
89732	5767.06	6316.48	297.34	72.00	Central
89733	5727.95	6313.69	303.62	70.00	Central
89734	5922.73	6375.19	290.99	65.00	Central
89735	5911.57	6425.40	290.86	42.00	Central
89736	5758.74	6668.91	307.18	72.00	Central
89737	5720.77	6670.21	310.24	72.00	Central
89738	5679.05	6669.20	318.86	72.00	Central
89739	5639.42	6671.46	323.78	72.00	Central
89740	5601.52	6671.48	325.33	72.00	Central
89742	5717.05	6711.69	312.25	70.00	Central
89743	5678.51	6721.46	316.56	70.00	Central
89744	5637.23	6719.77	322.95	70.00	Central
89745	5598.70	6721.55	326.49	72.00	Central
89746	5559.44	6722.30	331.78	40.00	Central
89747	5647.28	6769.75	321.85	78.00	Central
89748	5684.41	6769.26	326.03	71.00	Central
89749	5635.75	6770.08	323.23	72.00	Central
89750	5598.26	6770.45	327.96	72.00	Central
89751	5557.23	6774.96	331.20	72.00	Central
89752	5518.80	6776.14	333.78	70.00	Central
89753	5479.57	6777.97	334.00	29.00	Central
89753A	5485.33	6776.95	333.83	72.00	Central
89754	5439.67	6780.92	333.42	72.00	Central
89755	5675.39	6818.73	323.33	70.00	Central
89756	5640.73	6820.47	327.40	72.00	Central
89757	5600.08	6824.19	329.38	72.00	Central
89758	5559.91	6824.85	332.16	68.00	Central
89759	5515.29	6827.31	333.30	72.00	Central
89760	5475.52	6829.67	333.24	65.00	Central
89761	5435.96	6831.34	333.14	66.00	Central
89901	5527.06	7937.19	317.67	33.00	Avan
89902	5489.55	7925.89	312.82	71.00	Avan
89903	5516.88	7986.24	323.28	39.00	Avan
89904	5546.28	7890.23	312.70	24.00	Avan
89D001	5763.66	6596.10	303.64	153.00	Central
89D002	5762.86	6596.13	302.51	149.00	Central

89D003	5740.47	6597.48	304.99	114.00	Central
89D004	5829.61	6592.26	304.66	404.00	Central
89D005	5761.42	6646.10	306.08	338.00	Central
89D006	5765.92	6421.45	305.16	133.00	Central
89D007	5764.32	6372.52	303.84	148.00	Central
90601	5204.17	8395.61	314.73	72.00	Avan
90602A	5155.59	8388.88	314.14	27.00	Avan
90602B	5151.88	8388.10	313.63	60.00	Avan
90603	5113.79	8384.07	316.55	70.00	Avan
90604	5210.24	8345.72	312.26	72.00	Avan
90605A	5160.99	8339.11	310.45	29.00	Avan
90605B	5158.09	8338.73	310.48	72.00	Avan
90606	5112.61	8333.11	314.65	68.00	Avan
90607	5218.20	8297.14	310.96	72.00	Avan
90608	5165.91	8289.35	308.55	72.00	Avan
90609	5119.38	8282.00	311.58	64.00	Avan
90701	5648.14	6868.40	322.15	70.00	Central
90702	5590.00	6874.33	333.43	55.00	Central
90703	5540.85	6875.23	334.43	70.00	Central
90704	5650.55	6272.13	316.61	70.00	Skiråsen
90705	5690.99	6271.63	309.16	70.00	Skiråsen
90706	5729.07	6272.13	302.52	60.00	Skiråsen
90707	5768.88	6269.57	296.21	71.00	Skiråsen
90708	5696.00	6170.00	308.79	72.00	Skiråsen
90709	5737.42	6172.71	303.11	68.00	Skiråsen
90710	5771.33	6165.92	301.60	70.00	Skiråsen
90711	5815.95	6167.20	299.83	70.00	Skiråsen
90712	5702.49	6070.47	310.17	57.00	Skiråsen
90713	5741.77	6070.74	308.70	70.00	Skiråsen
90714	5781.59	6069.40	305.58	67.00	Skiråsen
90715	5818.97	6068.07	301.81	70.00	Skiråsen
90716	5861.07	6066.25	298.89	58.00	Skiråsen
90717	5667.59	6670.13	320.46	105.00	Central
90718	5552.20	6671.26	330.85	120.00	Central
90719	5661.30	6697.14	317.74	120.00	Central
90721	5557.35	6700.17	330.80	120.00	Central
90722	5675.86	6723.60	316.96	75.00	Central
90724	5573.30	6725.02	330.47	115.00	Central
90725	5676.82	6746.93	321.40	75.00	Central
90727	5576.44	6751.63	329.38	120.00	Central
90728	5760.53	6547.71	308.71	120.00	Central
90730	5658.49	6550.47	322.08	120.00	Central
90731	5778.30	6517.21	303.90	120.00	Central

90733	5676.35	6519.08	317.99	81.00	Central
90733A	5676.04	6520.63	317.98	43.00	Central
90733B	5677.09	6520.66	317.85	64.00	Central
90734	5799.58	6492.13	298.46	90.00	Central
90736	5699.26	6492.77	314.88	120.00	Central
90737	5517.32	7363.76	325.90	88.00	Avan
90738	5469.90	7364.82	327.48	110.00	Avan
90739	5321.04	7366.31	317.06	69.00	Avan
90740	5271.64	7367.62	313.76	97.00	Avan
90741	5322.49	7416.02	312.65	120.00	Avan
90742	5272.17	7417.33	312.19	120.00	Avan
90743	5324.12	7465.71	310.98	120.00	Avan
90744	5274.11	7466.97	310.18	120.00	Avan
90745	5424.06	7465.23	316.80	120.00	Avan
90746	5425.90	7515.59	318.69	105.00	Avan
90747	5426.79	7565.49	318.53	108.00	Avan
90901	5442.09	7910.85	309.09	71.00	Avan
90902	5405.57	7888.41	306.62	72.00	Avan
90D001	5620.46	6568.99	325.89	301.00	Central
90D002	5619.66	6620.28	324.76	300.00	Central
90D003	5607.31	6594.75	328.07	300.00	Central
90D004	5728.29	6571.11	310.36	301.00	Central
90D005	5737.89	6670.58	309.17	141.00	Central
90D006	5680.09	6670.11	318.15	140.00	Central
90D007	5739.17	6695.84	309.87	199.00	Central
90D008	5755.07	6718.92	307.64	199.00	Central
90D009	5755.60	6742.68	312.94	201.00	Central
90D010	5839.98	6544.76	297.04	200.00	Central
90D011	5857.33	6518.06	291.39	200.00	Central
90D012	5881.37	6491.95	290.07	200.00	Central
94D101	5640.73	6742.25	321.81	80.00	Central
94D102	5657.40	6755.76	320.54	81.00	Central
94D103	5612.31	6841.72	327.76	200.00	Central
94D104	5687.50	6546.05	316.76	200.00	Central
94D105	5765.05	6369.86	303.39	201.00	Central
94D106	5741.36	6264.07	301.63	200.00	Skiråsen
952608	5612.08	7905.28	323.63	14.00	Avan
952609	5592.67	7913.95	321.08	15.00	Avan
952611	5558.31	7922.01	315.79	11.00	Avan
952612	5609.23	7889.89	321.06	11.00	Avan
952613	5592.09	7892.46	319.48	13.00	Avan
952614	5570.35	7893.95	315.22	13.00	Avan
952615	5548.19	7901.69	312.78	12.00	Avan

952616	5604.56	7867.18	320.65	11.00	Avan
952617	5585.63	7873.64	317.12	14.00	Avan
952618	5565.11	7875.31	314.73	14.00	Avan
952619	5544.06	7881.72	312.36	17.00	Avan
952620	5601.95	7845.40	318.66	11.00	Avan
952621	5580.15	7852.30	315.21	16.00	Avan
952622	5562.15	7857.53	313.85	17.00	Avan
952623	5544.23	7866.55	313.75	17.00	Avan
952624	5594.94	7827.51	319.32	11.00	Avan
952625	5576.28	7833.94	314.99	18.00	Avan
952626	5557.20	7839.04	314.25	19.00	Avan
952627	5538.73	7843.89	315.24	18.00	Avan
952628	5591.72	7807.61	318.78	11.00	Avan
952629	5572.06	7814.14	314.69	18.00	Avan
952630	5552.16	7819.40	313.70	18.00	Avan
952631	5532.17	7825.99	313.27	20.00	Avan
952632	5585.88	7789.40	315.99	11.00	Avan
952633	5566.03	7793.65	314.94	17.00	Avan
952634	5546.68	7797.89	313.01	21.00	Avan
952635	5526.90	7804.16	312.12	20.00	Avan
952636	5582.10	7769.14	316.55	11.00	Avan
952637	5561.40	7774.98	315.36	20.00	Avan
952638	5544.15	7778.72	313.46	21.00	Avan
952639	5521.34	7784.89	311.88	21.00	Avan
952640	5576.46	7749.84	317.29	15.00	Avan
952641	5556.70	7755.20	315.18	21.00	Avan
952642	5537.58	7759.84	313.21	21.00	Avan
952643	5517.72	7767.34	312.20	22.00	Avan
952644	5571.81	7729.04	317.78	16.00	Avan
952645	5551.97	7734.07	315.29	22.00	Avan
952646	5532.09	7740.96	313.27	23.00	Avan
952647	5511.64	7746.20	312.83	22.00	Avan
95701	5106.22	7890.47	301.75	100.00	Avan
95703	5304.26	7890.18	302.93	100.00	Avan
95705	5187.06	7842.20	300.55	100.00	Avan
95707	5342.32	7688.64	305.96	100.00	Avan
95709	5340.63	7590.33	309.49	61.00	Avan
95710	5424.35	7540.53	320.38	100.00	Avan
95712	5354.00	7490.62	311.47	100.00	Avan
95713	5269.00	7441.64	311.20	100.00	Avan
95714	5347.55	7441.10	312.58	100.00	Avan
95715	5347.04	7339.75	322.27	100.00	Avan
95D001	5742.78	6418.37	310.29	180.00	Central

95D002	5660.04	6601.49	321.97	201.00	Central
95D003	5614.84	6748.33	325.24	149.40	Central
95D005	5564.22	7896.71	313.98	91.00	Avan
95D006	5525.59	7866.74	313.23	133.00	Avan
95D008	5614.04	7826.76	319.78	116.00	Avan
95D009	5614.13	7786.72	319.41	116.00	Avan
95D010	5426.79	7590.49	317.54	136.00	Avan
95D011	5386.37	7490.50	312.57	175.00	Avan
95D012	5312.50	7390.47	313.84	126.00	Avan
95D013	5434.69	7690.45	312.28	86.00	Avan
95D014	5300.04	7790.82	305.98	100.00	Avan
95D015	5146.52	7790.71	301.68	102.00	Avan
95D016	5128.08	7940.52	301.04	100.00	Avan
96701	5279.06	8040.40	304.03	181.00	Avan
96702	5340.93	7941.38	305.30	199.00	Avan
96705	5455.30	7940.14	310.49	181.00	Avan
96706	5374.95	8039.84	321.24	187.00	Avan
96713	5242.29	7540.52	305.36	181.00	Avan
96714	5149.88	7540.45	304.24	106.00	Avan
96715	5240.10	7290.27	316.41	178.00	Avan
96716	5196.78	7090.87	320.15	180.00	Central
96717	5299.25	7090.54	336.80	199.00	Central
96718	5209.53	6890.66	323.48	181.00	Central
96719	5325.03	6890.23	335.13	199.00	Central
96720	5321.61	6740.46	330.61	181.00	Central
96721	5417.51	6489.14	334.48	181.00	Central
96722	5481.34	6289.70	329.23	181.00	Skiråsen
96724	5440.12	5940.14	330.44	181.00	Skiråsen
96725	5620.92	5939.74	313.31	181.00	Skiråsen
96726	5743.82	5941.92	295.21	148.00	Skiråsen
96728	5524.06	5640.75	310.78	181.00	Skiråsen
96D703	5207.23	7940.39	300.43	182.00	Avan
96D704	5006.55	7941.18	300.93	227.00	Avan
96D707	5485.98	8040.37	330.16	210.00	Avan
96D708	5380.38	7790.57	307.13	182.00	Avan
96D709	5376.44	7640.59	309.91	198.00	Avan
96D710	5626.23	7640.61	321.35	303.00	Avan
96D711	5633.59	7545.76	319.73	322.00	Avan
96D712	5336.62	7540.39	307.98	193.00	Avan
96D727	5838.09	5940.46	300.45	181.00	Skiråsen
96D729	5679.93	5640.75	297.79	187.00	Skiråsen
96D730	5287.09	8140.69	311.98	182.00	Avan
96D731	5371.81	8141.06	330.94	221.00	Avan

96D732	5468.53	8140.55	347.17	224.00	Avan
96D733	5404.49	8240.15	361.89	248.00	Avan
96D734	5322.41	8240.12	335.22	230.00	Avan
96D735	5229.61	8240.58	307.34	187.00	Avan
96D736	5118.63	8240.61	301.89	91.00	Avan
96D737	5637.08	6718.50	323.42	52.00	Central
96D738	5617.60	6719.15	324.68	76.00	Central
96D739	5597.53	6719.95	326.60	97.00	Central
96D740	5638.48	6697.79	322.61	61.00	Central
96D741	5619.01	6698.34	323.98	84.00	Central
97D720	5891.48	5976.93	296.18	157.00	Skiråsen
97D721	5812.89	5903.52	296.60	153.00	Skiråsen
CNTDH05007	5856.99	6517.79	291.00	275.00	Central
CNTDH05008	5784.81	6544.69	306.00	200.00	Central
CNTDH05009	5829.94	6565.59	297.00	275.00	Central
CNTDH05010	5772.30	6572.05	307.00	200.00	Central
CNTDH05011	5785.59	6618.44	304.00	250.00	Central
CNTDH05012	5763.10	6718.37	308.00	225.00	Central
CNTDH05013	5753.80	6741.89	313.00	200.00	Central
CNTDH06001	5893.70	6498.47	293.60	273.00	Central
CNTDH06002	5828.49	6498.71	293.90	276.85	Central
CNTDH06003	5838.02	6448.61	310.80	255.70	Central
CNTDH06004	5812.22	6522.92	302.80	250.00	Central
CNTDH06005	5779.84	6524.33	303.50	204.50	Central
CNTDH06006	5753.61	6625.15	308.58	196.10	Central
CNTDH06007	5729.17	6649.33	309.10	213.90	Central
CNTDH06008	5753.68	6675.30	308.14	198.30	Central
CNTDH06009	5801.17	6680.40	302.94	200.00	Central
CNTDH06010	5797.56	6699.05	303.29	202.70	Central
CNTDH06011	5746.92	6698.60	309.39	196.30	Central
CNTDH06012	5614.83	6752.21	325.52	170.00	Central
CNTDH06013	5693.99	6749.62	323.60	40.00	Central
CNTDH06013A	5693.06	6748.65	323.61	205.70	Central
CNTDH06014	5713.27	6748.18	322.39	194.20	Central
CNTDH06015	5702.73	6824.67	321.25	153.10	Central
CNTDH06016	5718.61	6800.06	318.89	172.70	Central
CNTDH06017	5615.70	6729.00	325.05	100.70	Central
CNTDH06018	5577.21	6755.83	330.09	102.90	Central
CNTDH06019	5576.73	6793.29	331.18	100.10	Central
CNTDH06020	5587.14	6809.94	331.12	102.10	Central
CNTDH06021	5608.15	6802.04	330.29	103.60	Central
CNTRC05001	5723.81	6674.96	310.00	123.00	Central
CNTRC05002	5691.29	6749.49	324.00	160.00	Central

CNTRC05003	5712.55	6749.05	323.00	158.00	Central
CNTRC05004	5635.51	6850.20	324.00	148.00	Central
CNTRC05005	5593.60	6898.58	335.00	100.00	Central
CNTRC05006	5735.11	6625.70	310.00	133.00	Central
DH03001	5675.40	6610.38	322.11	199.80	Central
DH03002	5833.99	6552.19	297.35	200.10	Central
DH03003	5762.45	6657.68	305.36	200.00	Central
DH03004	5712.26	6750.75	323.38	200.00	Central
DH04001	5688.15	6636.97	318.28	200.00	Central
DH04002	5649.58	6609.58	323.37	240.00	Central
DH04003	5751.74	6579.05	307.84	200.00	Central
DH04004	5792.25	6519.81	302.85	200.00	Central
DH04005	5699.73	6542.99	315.63	200.00	Central
DH04006	5590.43	6726.80	327.61	147.85	Central
DH04007	5633.65	6751.24	323.08	90.00	Central
DH04008	5649.94	6797.76	325.53	106.20	Central
DH04009	5576.48	6732.42	330.20	123.90	Central
DH04010	5630.63	6896.22	332.74	163.55	Central
DH04028	5836.44	5920.79	300.49	220.70	Skiråsen
DH04029	5783.35	5813.99	292.89	183.55	Skiråsen
DH04030	5758.33	5744.33	298.89	203.20	Skiråsen

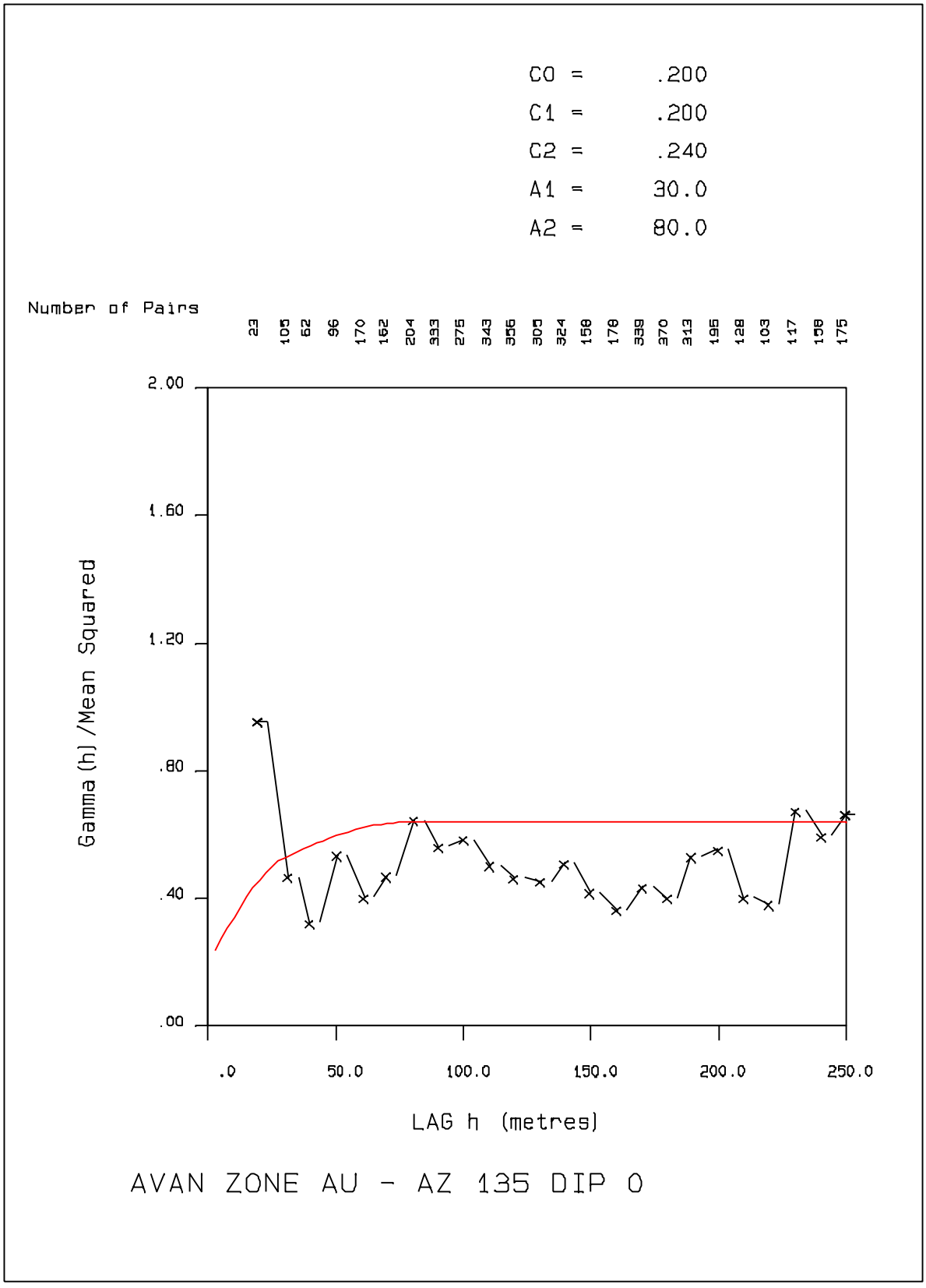
APPENDIX 2 – LISTING OF DRILLHOLES IN NORRA ZONE

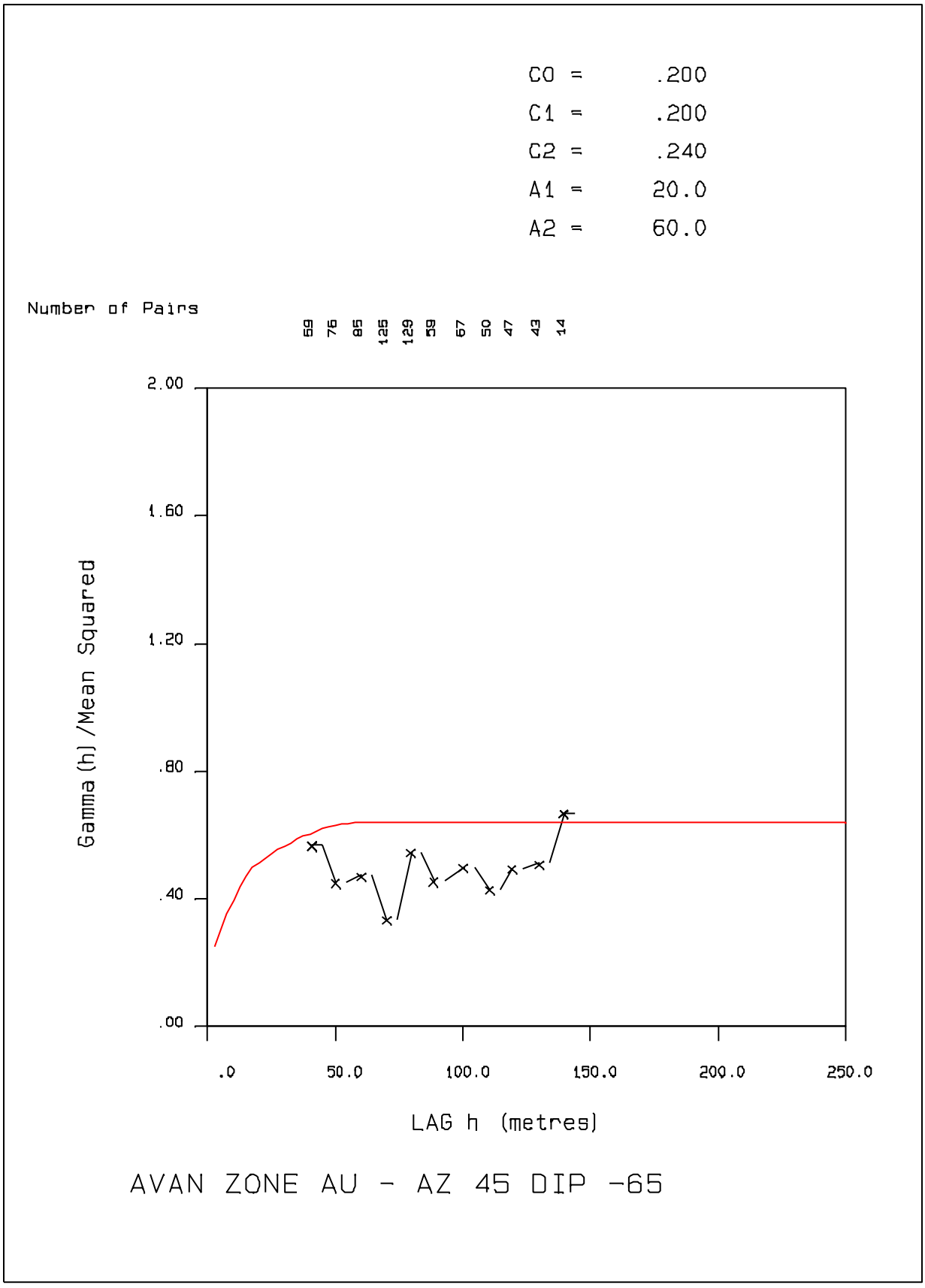
Holes with intersection inside VMS Solid

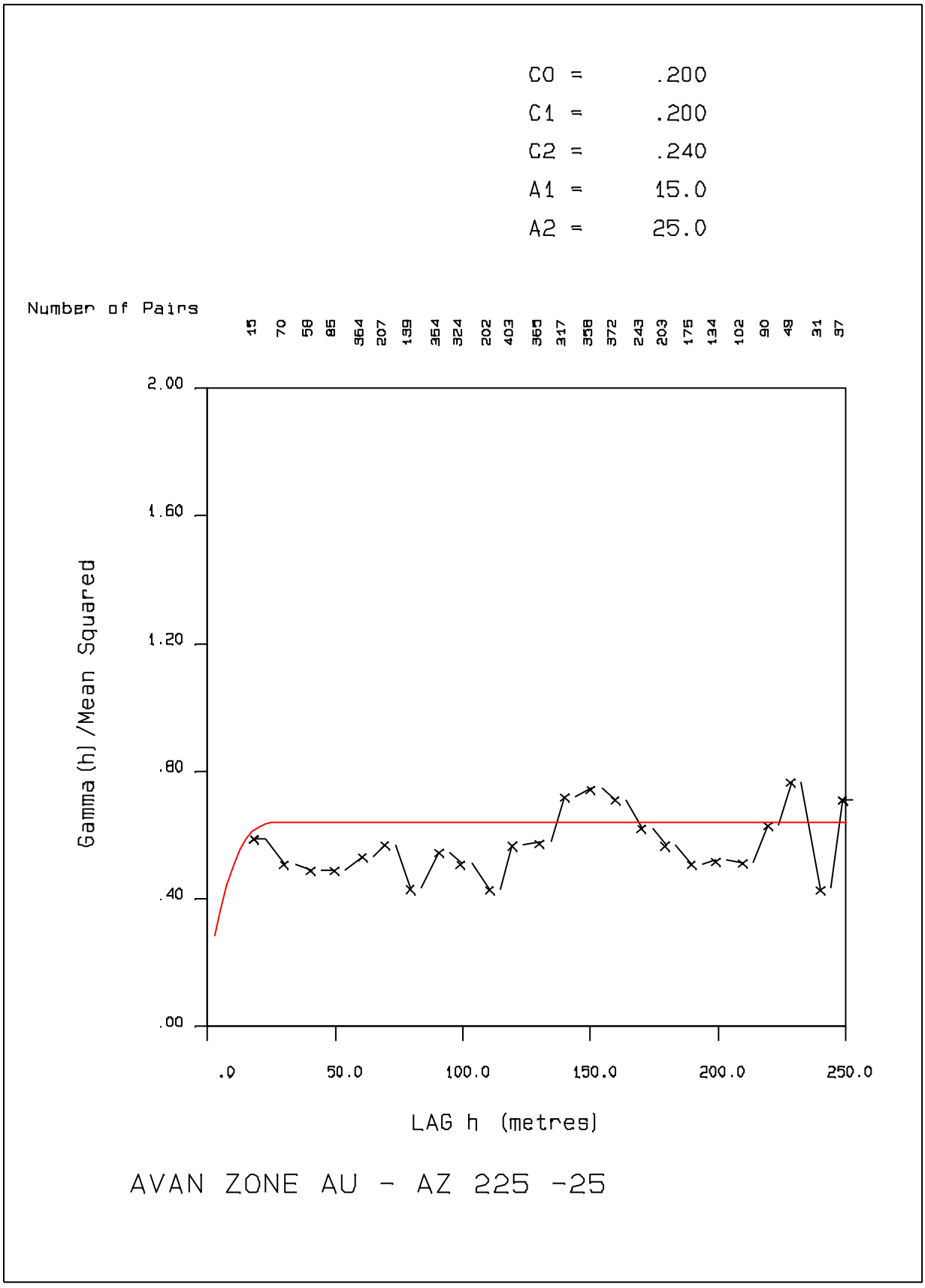
HOLE	EASTING	NORTHING	ELEVATION	HLENGTH	ZONE
901726	6174.11	8828.16	325.00	9.00	Norra
901736	6134.40	8869.25	347.00	7.00	Norra
901742	6135.36	8888.33	349.00	6.00	Norra
90301	6167.18	8829.39	327.18	65.00	Norra
90302	6215.28	8828.18	319.92	66.00	Norra
90303A	6160.79	8778.96	325.77	24.00	Norra
90303B	6164.30	8778.82	325.80	32.00	Norra
90304	6214.62	8776.53	319.11	70.00	Norra
91301	6162.13	8893.31	339.07	40.00	Norra
91302	6164.01	8863.51	331.75	39.00	Norra
91303	6187.30	8857.80	326.77	33.00	Norra
91304	6171.93	8838.91	327.42	35.00	Norra
91305	6184.45	8824.24	323.98	39.00	Norra
91306	6200.08	8815.19	322.62	45.00	Norra
91307	6185.93	8781.19	323.23	20.00	Norra
91307A	6188.83	8781.97	323.20	11.00	Norra
91307B	6193.49	8784.63	323.11	7.00	Norra
91308	6188.20	8844.53	325.50	29.00	Norra
91309	6210.52	8831.65	320.41	48.00	Norra
91310	6193.73	8853.39	326.44	31.00	Norra
91311	6185.52	8872.45	332.08	12.00	Norra
91311A	6186.06	8877.71	332.46	5.00	Norra
91312	6175.49	8893.56	337.47	24.00	Norra
91313	6168.95	8893.38	338.29	12.00	Norra
91314	6166.18	8883.34	338.67	10.00	Norra
91315	6186.41	8869.06	330.99	45.00	Norra
91317	6188.96	8833.20	324.24	44.00	Norra
91318	6188.26	8844.86	326.94	45.00	Norra
91319	6186.73	8819.46	324.78	24.00	Norra
91D001	6215.22	8832.83	319.42	110.00	Norra
91D002	6216.20	8833.88	319.06	160.00	Norra
91D003	6215.86	8833.77	318.99	145.00	Norra
91D004	6214.19	8859.11	324.88	111.00	Norra
91D005	6215.06	8859.13	324.51	128.00	Norra
91D006	6242.41	8859.12	323.40	196.00	Norra

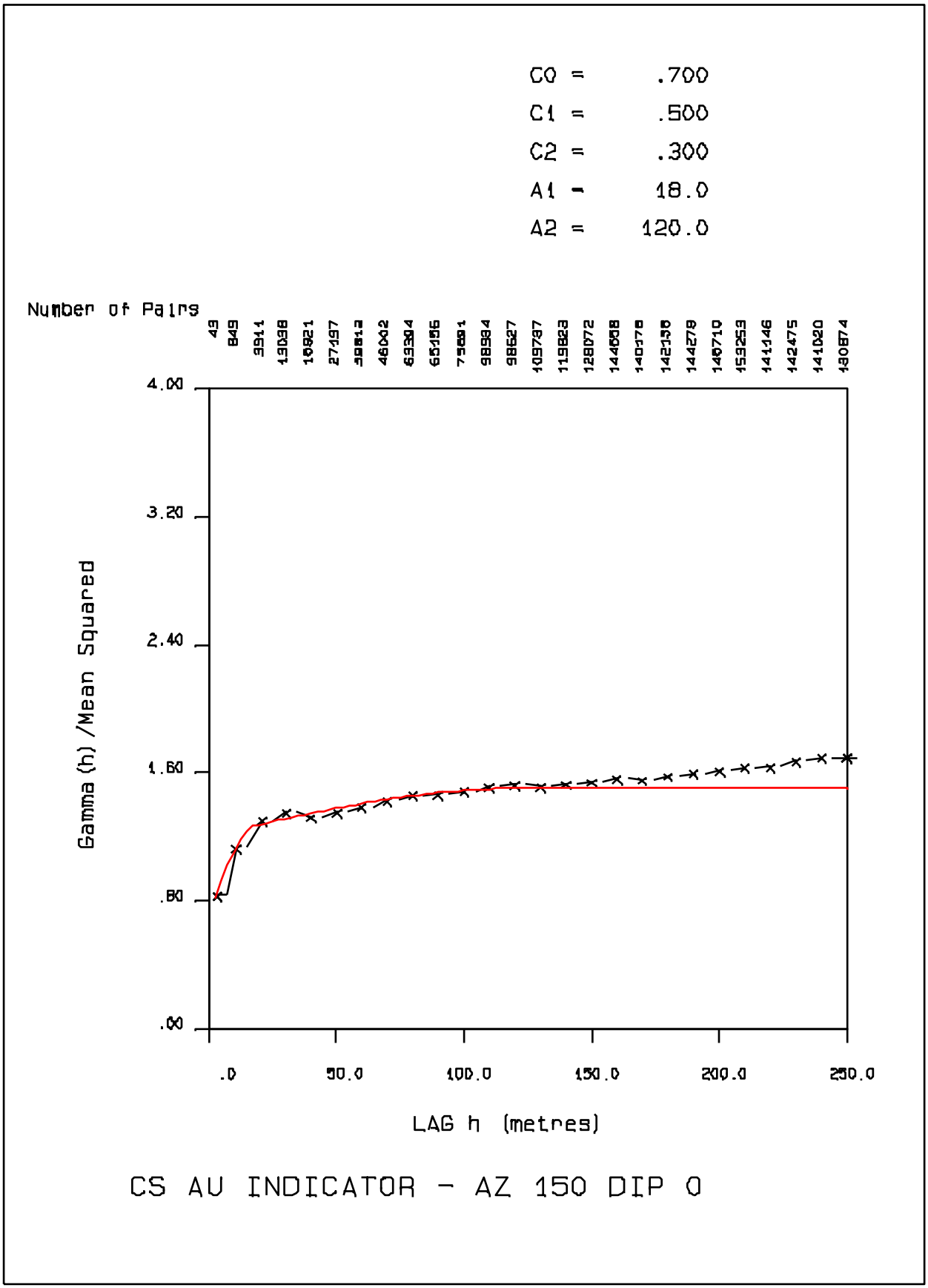
91D007	6242.57	8883.96	323.65	127.00	Norra
91D008	6224.15	8808.50	318.50	90.00	Norra
91D009	6240.73	8908.78	324.49	128.00	Norra
94D301	6079.88	8841.81	347.69	70.00	Norra
94D302	6085.93	8818.88	345.96	70.00	Norra
DH03005	6188.31	8855.58	326.20	45.00	Norra
DH03006	6212.94	8908.82	328.33	100.00	Norra
DH03007	6212.94	8908.82	328.33	100.50	Norra
DH04011	6249.73	8909.55	323.90	197.70	Norra
DH04012	6199.21	8901.72	332.60	118.70	Norra
DH04013	6219.38	8933.99	328.56	153.25	Norra
DH04014	6219.82	8934.04	328.63	167.10	Norra
DH04015	6219.91	8934.01	328.59	167.20	Norra
DH04016	6215.18	8953.73	332.59	136.70	Norra
DH04017	6219.56	8989.45	338.56	142.90	Norra
DH04018	6219.21	8989.44	338.60	135.05	Norra
DH04019	6219.80	8989.48	338.41	164.00	Norra
DH04020	6212.29	9028.36	339.43	176.20	Norra
DH04021	6212.70	9028.42	339.34	191.20	Norra
DH04022	6172.23	9022.73	343.29	150.00	Norra
DH04025	6167.79	9079.56	334.81	151.30	Norra
DH04026	6168.46	9079.64	334.68	146.10	Norra
DH04027	6236.85	8991.14	334.25	194.30	Norra
NORDH05001	6183.43	8925.27	336.03	97.80	Norra
NORDH05002	6177.53	8949.21	340.48	94.80	Norra
NORDH05003	6164.89	8974.79	347.30	76.70	Norra
NORDH05004	6223.26	8700.21	314.58	55.60	Norra
NORDH05005	6202.88	8673.78	314.70	172.40	Norra
NORDH05006	6221.26	8575.07	309.43	127.30	Norra
NORDH05007	6184.61	8998.30	345.06	130.70	Norra
NORDH05008	6157.97	9048.73	338.00	105.95	Norra
NORDH06001	6233.18	8245.91	326.08	133.50	Norra
NORDH06002	6241.21	8369.89	309.86	205.20	Norra

APPENDIX 3 – SEMIVARIOGRAMS




C0 = .200
C1 = .200
C2 = .240
A1 = 20.0
A2 = 60.0
Number of Pairs
59 76 85 125 129 59 67 50 47 43 14
2.00
1.60
1.20
.80
.40
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
AVAN ZONE AU - AZ 45 DIP -65


C0 = .200
C1 = .200
C2 = .240
A1 = 15.0
A2 = 25.0
Number of Pairs
15 70 58 85 364 207 139 364 324 202 403 365 317 358 372 243 203 175 134 102 90 49 31 37
2.00
1.60
1.20
.80
.40
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
AVAN ZONE AU - AZ 225 -25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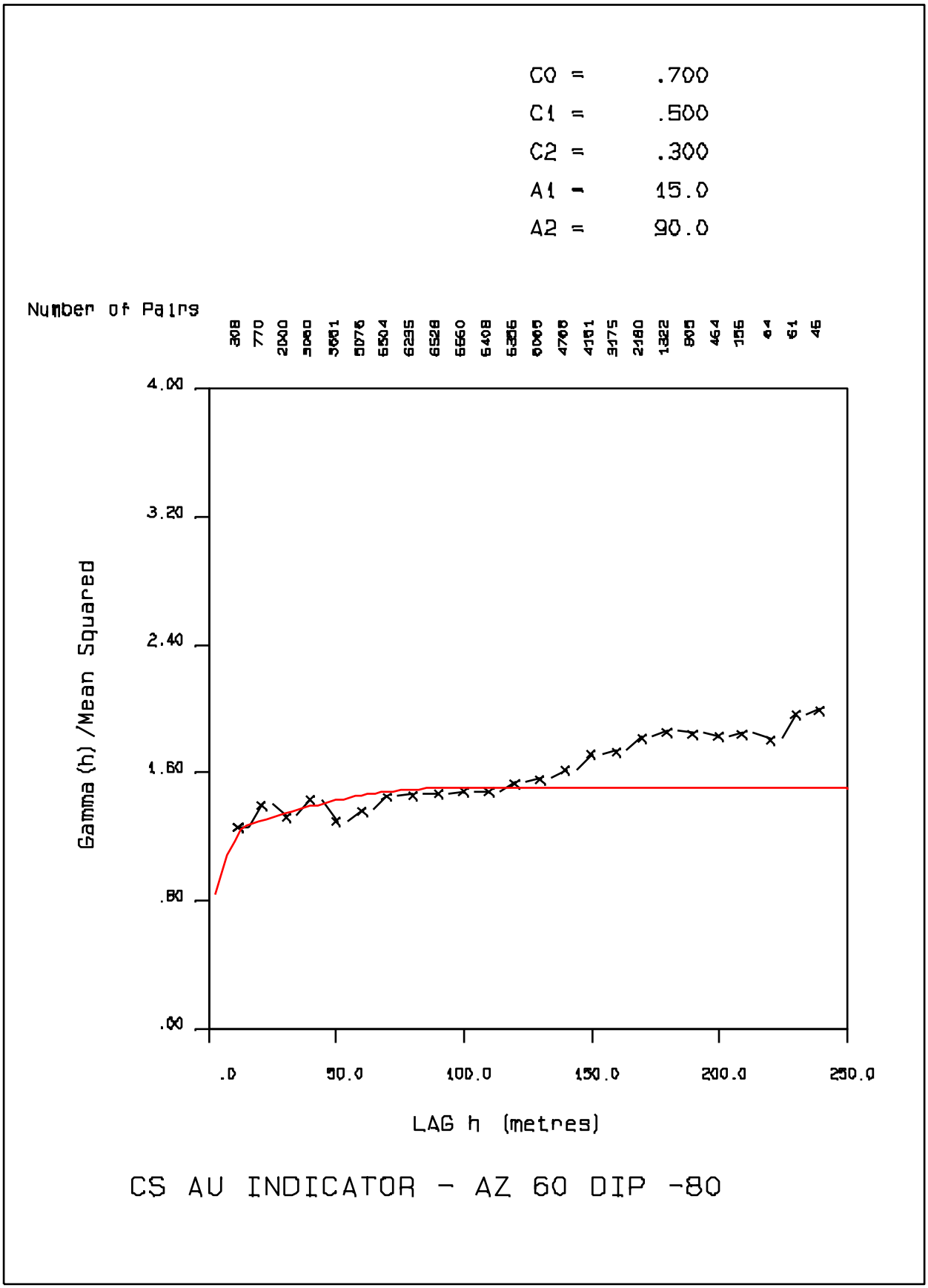
C1 = .500
C2 = .300
A1 = 18.0
A2 = 120.0
Number of Pairs
43 849 3911 13038 18821 27197 39813 46042 63394 65156 75691 98984 98627 109737 119823 128072 144658 140178 142156 144279 146710 153253 141146 142475 141020 130874
4.00
3.20
2.40
1.60
.80
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
CS AU INDICATOR - AZ 150 DIP 0


C0 = .700
C1 = .500
C2 = .300
A1 = 15.0
A2 = 90.0
Number of Pairs
308 770 2000 3060 3661 5075 6504 6295 6528 6660 6408 6356 6065 4705 4161 3175 2180 1322 805 464 156 64 61 46
4.00
3.20
2.40
1.60
.80
.00
Gamma (h) /Mean Squared
.0
50.0
100.0
150.0
200.0
250.0
LAG h (metres)
CS AU INDICATOR - AZ 60 DIP -80

APPENDIX 4 TITLE RELATED DOCUMENTATION

MANNHEIMER SWARTLING

Orex Minerals Inc.

Stockholm, 28 November 2012

Dear Sirs,

Gunnarn Mining AB

We have acted as legal counsel in Sweden for Orex Minerals Inc. in connection with a review of certain mineral titles located in Sweden (the "**Project**"). This letter contains our opinion to you pertaining to these mineral titles as set out in Schedule A (the "**Barsele Claims**"), all held by Gunnarn Mining AB (the "**Company**") under the Swedish Minerals Act (1991:45).

1. Information

Our examination has been based on information from the Mining Inspectorate of Sweden regarding status of the Barsele Claims as of 15 November 2012.

Our examination has been limited to a review of the above information and we have made no inquiry of any other documents or certificates.

2. Assumptions

For the purpose of this legal opinion, we have, with your permission and without independent investigation, made the following assumption's and reliance's.

(a) We have assumed that the genuineness of all signatures, the legal capacity of all individuals, the authenticity and completeness of all documents submitted to us as originals, the conformity to authentic originals of all documents submitted to us as certified, telecopy, photo static copies, facsimiles or electronic

LEGAL#9008241v4

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STOCKHOLM GÖTEBORG MALMÖ HELSINGBORG FRANKFURT BERLIN MOSCOW ST. PETERSBURG SHANGHAI HONG KONG BRUSSELS NEW YORK

copies of original documents thereof and the authenticity of the originals of such copies of facsimiles.

(b) We have assumed the identity and capacity of all individuals acting or purporting to act as public officials.

(c) We have assumed the accuracy and completeness of all information, indices and filing systems maintained at all offices of public records in which we have conducted searches or caused inquiries to be made in connection with this opinion whether accessed physically, via telephone or through electronic services delivered over the Internet.

(d) There are no provisions of the laws, including but not limited to, public policy or mandatory rules, of any jurisdiction other than Sweden, which would have any implications on the opinion we express.

(e) The copies of the documents examined are in fact, true copies of documents in existence and that the originals of such documents were properly executed.

(f) We have assumed that the documents and information examined by us remain in full force and effect and have not been amended or affected by any subsequent action not disclosed to us.

3. Legal Opinion

On the basis of the foregoing and subject to the qualifications and reservations hereinafter set forth, we are of the following opinion:

3.1 The Barsele Claims

3.1.1 Gunnarn Mining AB is the registered holder of the Barsele Claims, comprising the Exploitation Concessions and Exploration Permits listed in Schedule A.

3.1.2 The Exploitation Concessions and Exploration Permits held by Gunnarn Mining AB are in force and have the issue dates and expiry dates described in Schedule A.

3.1.3 Gunnarn Mining AB has submitted an application for extension of one of the Exploration Permits as described in Schedule A.

3.2 Other liens and encumbrances

There are no registered liens or encumbrances registered by the Mining Inspectorate of Sweden to which the Barsele Claims are subject.

4. The foregoing opinion is subject to the following qualifications and reservations

a) This opinion is based on the information as per the date set out in Section 1 above.

b) This opinion is subject to statutory priorities and preferences and to any liens, encumbrances or other charges which are extant and still within time for registration or which are valid without registration or filing in the office of the Mining Inspectorate of Sweden.

c) We express no opinion on possible restrictions to carry out exploration work or exploitation on the areas covered by the Barsele Claims with respect to the interests of landowners and other stakeholders, protected areas or other restrictions to exploration work and exploitation that may follow from Swedish law or other applicable regulations.

d) We express no opinion on any interest, registered or not, in respect of the areas covered by the Barsele Claims that may be held or claimed by or for any aboriginal people in their capacity as an aboriginal people.

e) Anything contained in this opinion is subject to all limitations resulting from bankruptcy, insolvency (including, but not limited to, the effects of Council Regulation (EC) No. 1346/2000 of 29 May 2000 on Insolvency Proceedings), liquidation, reorganisation (including, but not limited to, stay, pre-emption rights and delays) and similar laws affecting the rights of creditors generally.

f) The instigation of proceedings in other jurisdictions may preclude the instigation of proceedings in Sweden, if the claims and the parties in both sets of proceedings are substantially the same.

g) On the basis of the International Monetary Fund Agreement, as interpreted and applied by Swedish courts, an obligation which is contrary to the exchange control regulations of another member state of the International Monetary Fund may not be enforceable in Sweden.

h) Any transfer of rights, or payment in respect of, or other performance of, an obligation under any agreement involving the government of any country, which is currently the subject of United Nations or European Union sanctions, any person or body resident in, incorporated in or constituted under the laws of any such country or exercising public functions in any such country or any person or body controlled by any of the foregoing or by any person acting on behalf of any of the foregoing may be subject to restrictions pursuant to such sanctions as implemented under Swedish law.

i) This opinion is limited to matters of Swedish law as presently in force and as enacted by Swedish legislative authorities and no opinion is expressed as to the laws of any other jurisdiction. We do not hold ourselves out as being

MANNHEIMER SWARTLING

November 15, 2012

Gunnarn Mining AB – Mineral Rights

Granted Exploitation Concessions[1]

Name		Date of grant	Owner	Area (Hectare)	Valid until and including
Barsele K nr 1		2007-06-21	Gunnarn Mining AB (100%)	123,2428	2032-06-21
Barsele K nr 2		2007-06-21	Gunnarn Mining AB (100%)	11,2473	2032-06-21

Granted Exploration Permits[2]

Name	Id.no[3]	Date of grant	Applicant	Area (Hectare)	Valid until and including
Gunnarn nr 5 A	2004:16	2004-02-09	Gunnarn Mining AB (100%)	118,13	2013-02-09
Gunnarn nr 11	2003:3	2003-01-14	Gunnarn Mining AB (100%)	61,23	2015-01-14
Gunnarn nr 14	2004:97	2004-09-22	Gunnarn Mining AB (100%)	680,50	2013-09-22
Gunnarn nr 15	2004:98	2004-09-22	Gunnarn Mining AB (100%)	323,66	2013-09-22
Gunnarn nr 17	2004:120	2004-10-20	Gunnarn Mining AB (100%)	896,48	2013-10-20
Gunnarn nr 18	2007:212	2007-08-03	Gunnarn Mining AB (100%)	176,50	2013-08-03
Gunnarn nr 19	2007:298	2007-10-25	Gunnarn Mining AB (100%)	1460,39	2013-10-25
Gunnarn nr 20	2007:299	2007-10-25	Gunnarn Mining AB (100%)	707,83	2013-10-25
Gunnarn nr 21	2008:240	2008-10-13	Gunnarn Mining AB (100%)	440,50	2014-10-13
Gunnarn nr 22*	2009:165	2009-10-06	Gunnarn Mining AB (100%)	805,39	2012-10-06
Gunnarn nr 68	2011:128	2011-07-14	Gunnarn Mining AB (100%)	518,94	2014-07-14
Gunnarn nr 110	2011:163	2011-09-09	Gunnarn Mining AB (100%)	369,13	2014-09-09
Gunnarn nr 113A	2011:94	2011-06-15	Gunnarn Mining AB (100%)	412,24	2014-06-15
Gunnarn nr 113B	2011:129	2011-07-14	Gunnarn Mining AB (100%)	102,86	2014-07-14
Gunnarn nr 116	2011:158	2011-09-05	Gunnarn Mining AB (100%)	119,5	2014-09-05
Gunnarn nr 116A	2011:160	2011-09-07	Gunnarn Mining AB (100%)	1259,71	2014-09-07
Risberget nr 1	2004:108	2004-10-07	Gunnarn Mining AB (100%)	490,58	2013-10-07
Risberget nr 2	2011:102	2011-06-27	Gunnarn Mining AB (100%)	1066,45	2014-06-27
Risberget nr 4	2011:103	2011-06-27	Gunnarn Mining AB (100%)	1178,00	2014-06-27
Skarven nr 1	2004:67	2004-06-22	Gunnarn Mining AB (100%)	2012,00	2014-06-22
Näsvattnet nr 4	2004:66	2004-06-18	Gunnarn Mining AB (100%)	969,00	2014-06-18
Storuman nr 1	2011:167	2011-09-19	Gunnarn Mining AB (100%)	17383,67	2014-09-09

* An application for extension (Sw. *Ansökan om förlängning av undersökningstillstånd*) was received by the Mining Inspectorate before the expiration date and accordingly, the exploration permit Gunnarn nr. 22 is still valid on November 15th, 2012.

[1] (Sw. *Bearbetningskoncessioner*)
[2] (Sw. *Undersökningstillstånd*)
[3] (Sw. *Diarienummer*)

BERGSSTATEN

KOPIA

BESLUT 1(2)

2012-11-21 Dnr BS 201-1126-2012

Gunnarn Mining AB
Box 1685
103 25 STOCKHOLM

Förlängning av giltighetstiden för undersökningstillståndet Gunnarn nr 22 i Storumans kommun, Västerbottens län

Beslut

Bergmästaren beviljar förlängning av giltighetstiden till och med den 6 oktober 2015 för undersökningstillståndet Gunnarn nr 22, tillstånd nr 165 av den 6 oktober 2009. Förlängningen avser hela undersökningsområdet.

Undersökningsavgift enligt 14 kap. 2 § minerallagen är 50 778 kronor. Avgiften har erlagts.

Ärendet

Ansökan om tre års förlängning kom in den 2 oktober 2012.

Motivering

När ett undersökningstillstånd varit gällande i tre år ska det enligt 2 kap. 6 § minerallagen; på ansökan av tillståndshavaren förlängas med sammanlagt högst tre år om ändamålsenlig undersökning har utförts inom området.

I ansökan har tillståndshavaren uppgett att undersökningsarbeten i form av magnetisk och elektromagnetisk flygmätning samt blockprovtagning och kartering av hällar utförts inom undersökningsområdet.

De utförda arbetena bedöms av bergmästaren vara ändamålsenliga så som stadgas i 2 kap. 6 § minerallagen. Undersökningstillståndets giltighetstid ska därför förlängas.

Hur man överklagar

Detta beslut kan överklagas hos Förvaltningsrätten i Luleå, se bilaga.

Åsa Persson

Johan Morin

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