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Report on 2006 AEM Follow-up Program, Ertelien Project

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Råstoffgruppe	**Råstofftype**	
Malm/metall	Ni Ag	

Sammendrag, innholdsfortegnelse eller innholdsbeskrivelse

Report on 2006 AEM Follow-up Program

Ertelien Project, Norway

Doris Fox, M.S.c
Xstrata Nickel
For
Sulfidmalm A/S

September 2006

EXECUTIVE SUMMARY

During the summer of 2006, a one week, four person, AEM ground follow-up program was conducted over the Kongsberg Belt (also known as the Ertelien Belt). The main mandate of the program was to follow-up airborne anomalies and areas of interest identified by the 2005 NGU (Hummingbird EM/Mag) survey and the 2006 Fugro Geophysics (DIGHEM/Mag) survey over the Belt. Field visits were made to 37 EM anomalies and 16 additional targets, the latter of which consisted of interesting mag features, prospective geological units and historical showings recorded in the NGU database. As a result of the follow-up, three prospective targets, two geological areas of interest, and two broad geological domains were identified. An additional 54 preclaims were secured in the Belt over areas of interest.

One of the targets identified is a previously unknown historical nickel-silver mine with a nearby large, heavily stained pile of waste rock containing massive pyrite. The mine is located along the contact of a large elongate gabbro with amphibolite and gneiss. A UTEM survey of the area is recommended to evaluate the lateral and depth potential of the mineralization.

The two remaining targets are also associated with the elongate gabbro. One is focussed over anomaly E-27, 900m south along strike of the historical mine. An assay sample taken from the contact of the gabbro with gneiss returned values of 0.05% Ni, 1.12% Cu, 0.02% Co and 33.2% S. The anomaly also corresponds with a patchy mag high feature. A UTEM survey of the anomaly and surrounding area is recommended.

E-31 is 11km south of the historical mine along strike and within the same gabbro body. The anomaly lies along the contact of the gabbro and surrounding gneiss. Assay results returned elevated values of copper and sulphur. Three historical silver mines lie within a kilometre of the anomaly along the gabbro contact. An irregular patchy mag high feature corresponds with this portion of the gabbro. A UTEM survey over the anomaly and encompassing the three historical mines is recommended to evaluate this prospective gabbro. The three targets are aligned along a NNE trend within the NNE striking gabbro.

The two geological areas of interest are located in the northern portion of the Kongsberg Belt. One area encompasses the region between the Ertelien and Soknadalen deposits. This area consists of paragneiss with ubiquitous staining and small discontinuous mafic intrusions hosting at least 35 known historical deposits and showings. Detailed prospecting of the area to locate the small mafic intrusions and identify possible UTEM targets is recommended.

The second geological area of interest is a large 9km x 4km gabbro surrounded by and overlain by paragneiss with strong staining. The gabbro corresponds with a very high mag feature and is less than 3km east of the Soknadalen deposit. Prospecting along the contact of the gabbro to evaluate its potential is recommended.

The program also identified two broad geological domains, a northern domain and southern domain, based on dominant lithology. The two geological areas of interest and most of the historical nickel mines including the Ertelien and Ullerin deposits are located within the northern domain. This domain is dominated by paragneisses intruded by small isolated mafic intrusions. The southern domain hosts only two historical nickel mines including Grågalten and the recently re-discovered nickel mine, but contains prospective gabbro bodies surrounded by gneiss.

The Kongsberg Belt remains a prospective area for nickel sulphide exploration.

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1.0 LOCATION, TOPOGRAPHY AND ACCESS

The Ertelien project is situated approximately 40 km northwest of Oslo, between Kongsberg and Honefoss in southern Norway.

The topography consists of tree covered hills with gentle slopes to steep-sided cliffs, rolling hills of cultivated farmland and small rural towns. The elevation ranges from sea level to 300m above sea level. Many swamp bottomed streams and cobbled or outcrop bottomed rivers cross the belt and feed the multiple shallow lakes and the Tyristrand Fjord. Low-lying regions are typically swampy while elevated regions are primarily exposed outcrop.

Access to the property is by secondary roads and logging roads which cover most of the property. There is abundant infrastructure across the belt, such as high tension to domestic powerlines, railroads, rural communities and small towns.

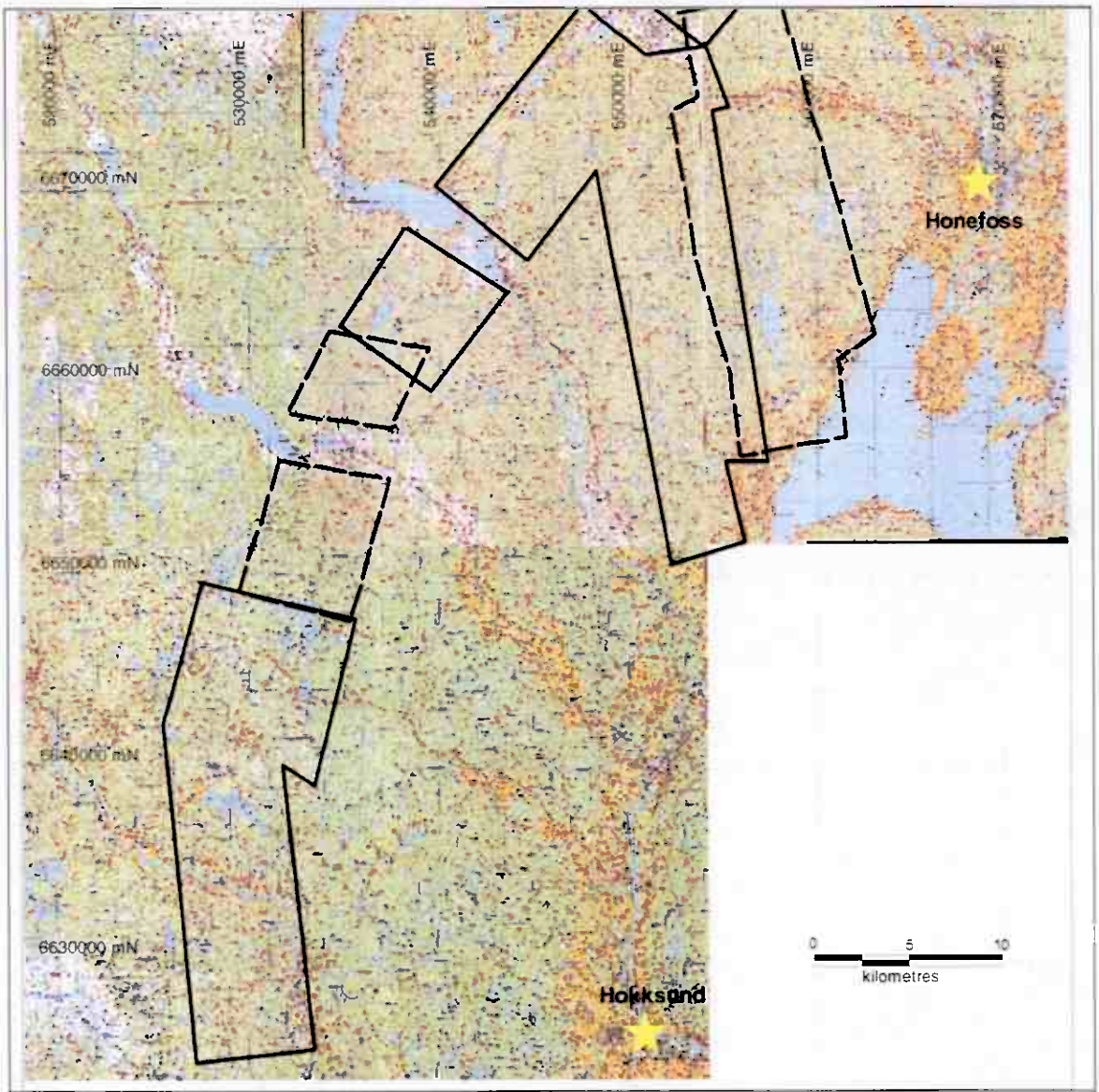

Figure 1. Topographic Map of the Kongsberg Belt. Shows the outline of the 2005 and 2006 AEM survey area.

2.0 PROPERTY AND OWNERSHIP

Sulfidmalm A/S is a Norwegian Exploration Company that is wholly owned subsidiary of Falconbridge Nikkelverk A/S which in turn is wholly owned by Xstrata Nickel (formerly Falconbridge Limited). Preclaims over the project area have been intermittently acquired since 2004 when Sulfidmalm was issued a total of 286 preclaims (10.8 sq km's). As a result of the follow-up program as well as recent drilling at Ertelia, 54 additional preclaims were obtained over the belt for a total of 340.

Figure 2.0a and 2.0b show the distribution of preclaims before and after the AEM follow-up program.

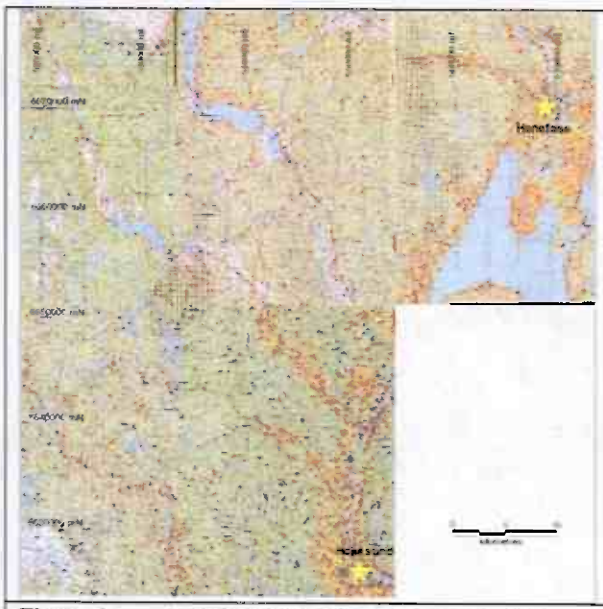

Figure 2a. Map of distribution of preclaims prior to the 2006 AEM follow-up program.

Figure 2b. Map of distribution of preclaims at the conclusion of the 2006 AEM follow-up program.

3.0 REGIONAL GEOLOGICAL SETTING

The project area is located ~ 40 km northwest of Oslo. It is underlain by a geological domain known as the Kongsberg Belt, comprising a 100 x 40 km zone of complexly folded sedimentary and granitic gneisses. The Belt was deposited between 1700 and 1500 Ma and subsequently metamorphosed and deformed during the later stages of the Svecofenian Orogeny (1600 – 1450 Ma).

Mafic intrusions, locally called hyperites, were emplaced over a range of ages including, an early phase of hyperites at 1395 – 1450 Ma, a main phase of hyperites between 1180 and 1250 Ma and a late phase at about 1100 Ma. These hyperites are dominantly comprised of coarse-grained, plagioclase-rich mesocumulates and orthocumulates, however the intrusive series in its entirety comprises lithologies ranging from subordinate ultramafites (including pyroxenite, picrite and peridotite) through troctolitic varieties to olivine-free gabbros and norites, and olivine-ferrogabbros. Nickel sulphides are associated with a number of these mafic intrusions. A second phase of metamorphism occurred during the Sveconorwegian Regeneration between 1200 and 1180 Ma. This was essentially a thermal metamorphism with limited structural deformation.

The above ages for the Kongsberg Belt are very poorly constrained and are almost entirely Rb – Sr ages that should be considered the youngest possible age. Certainly, the similarity in the age between the main hyperites and the Sveconorwegian Regeneration suggests that the radiometric clock has been reset on the hyperites. It is quite conceivable that the hyperites are closer in age to that of the Voisey's Bay intrusion (1330 Ma). The similarity in rock types and the postulated location of southern Norway to the south and east of Nain between 1800 Ma and 1100 Ma gives further credence to this speculation. Brickwood (1986) states: "the intrusive series can be correlated with comparable, broadly contemporaneous magmatism in Eastern North America and Southern Greenland". This widespread magmatic activity is thought to have been initiated by a phase of aborted rifting prior to the ultimately successful breakup of the Proterozoic Supercontinent following the Sveconorwegian (=Grenvillian) Orogeny.

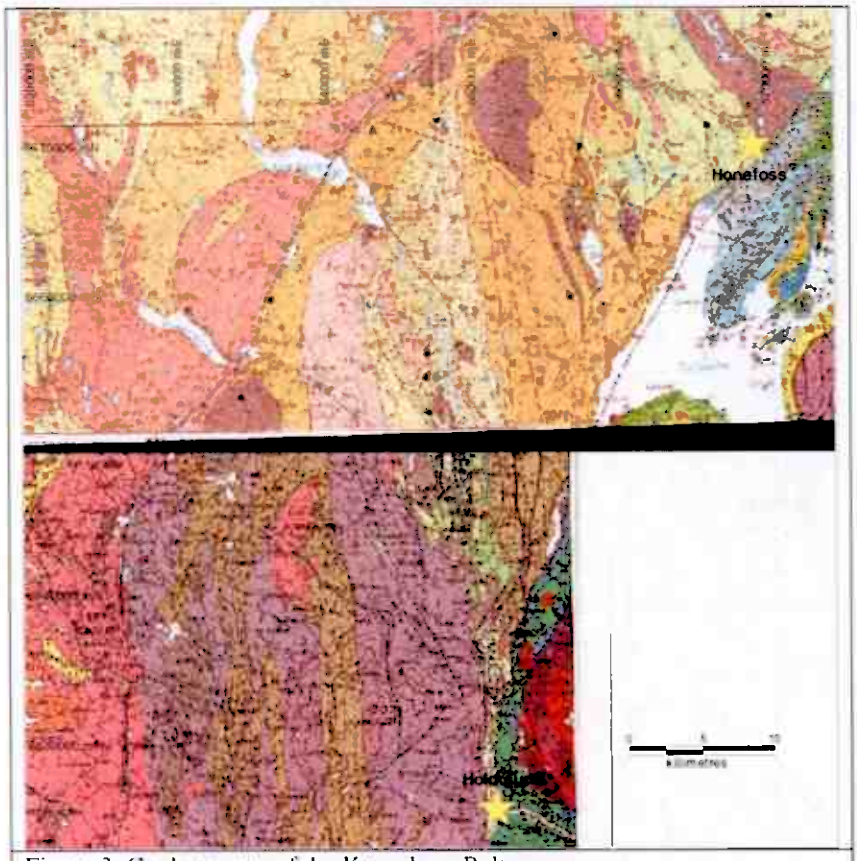

Figure 3. Geology map of the Kongsberg Belt.

4.0 PREVIOUS WORK

Several small mines were in operation in the Ertelein area during the 1800's prior and during WWI. The mines and deposits are hosted in small late gabbro-norite-troctolite bodies that intrude the regionally metamorphosed gneisses. The Ertelien Mine was the largest in the area producing 400,000 tonnes at 1.04% Ni, 0.69% Cu, and 0.17% Co. The NGU records indicate the area hosts 35 deposits and showings (see Figure 4.0). Summaries of the larger historical producing mines can be found in Appendix A.

In 2005, a summer program was aimed at finding new showings and sampling observed mineralization. Samples were collected from historical deposits of the Ertelien Belt and included the following returned values:

Ertelien	1.83% Ni, 0.17% Cu, 0.12% Co, 30.3% S, 0.02 g/t Pt, 0.06 g/t Pd
Skaugs	1.83% Ni, 0.23% Cu, 0.08% Co, 24.6% S, 0.04 g/t Pt, 0.09 g/t Pd
Langdalen	1.11% Ni, 0.29% Cu, 0.05% Co, 13.0% S, 0.01 g/t Pt, 0.02 g/t Pd

The results demonstrate that the mineralizing systems are capable of producing higher nickel grades than the reported average historical production grade of around 1.3% Ni.

The 2005 summer program was followed by an NGU helicopter-borne Hummingbird EM and magnetic survey over two small portions of the Belt covering the Ertelien and Gragalten deposits. As a result of this survey, Tony Watts identified 20 EM anomalies with 3 of the anomalies having a conductivity of >100S. Surface UTEM surveys during the winter of 2006 followed-up 12 of the anomalies. The surveys detected conductors at Ertelien, Langdalen, Grågalten (also known as Sigdal) and Ulleren. The detailed results of the UTEM surveys can be found in a logistical report by Lamontagne Geophysics (2006) and a forthcoming summary report by T.Blair.

More extensive AEM coverage of the Kongsberg Belt was completed in March and April 2006 by Fugro Geophysics using the helicopter-borne DIGHEM (+ mag) system. As a result of this survey, Tony Watts ranked an additional 15 anomalies and identified multiple potentially cultural anomalies.

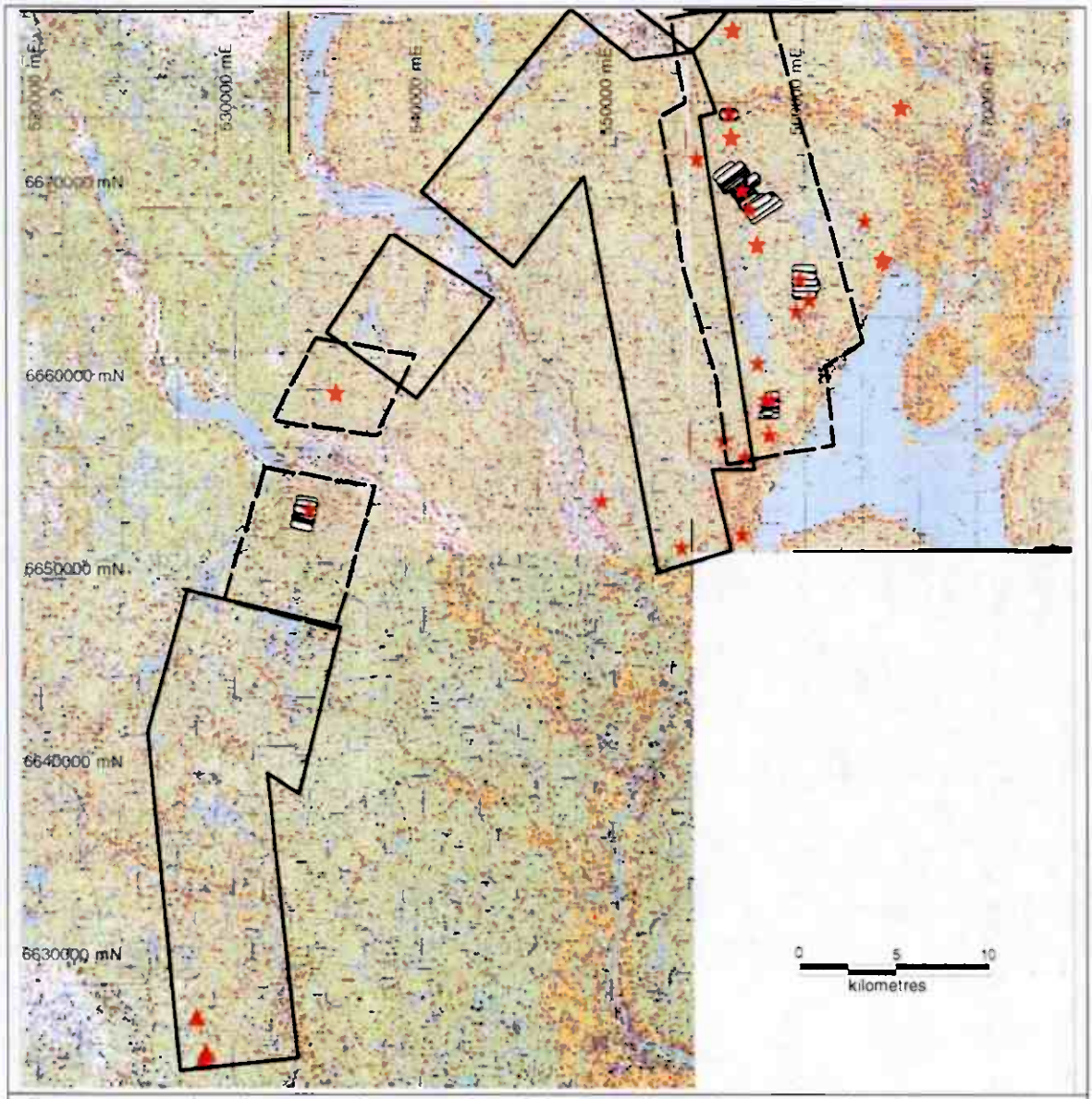

Figure 4. Map of previous work. Shows location of historical Ni workings and showings (red stars), 2005 AEM coverage (dashed black lines) and 2006 AEM coverage (solid black lines). Red triangles represent known historical silver mines. Winter 2006 UTEM surveys shown as white lines.

5.0 2006 AIRBORNE EM FOLLOW-UP PROGRAM

5.1 INTRODUCTION

In May, 2006, a four person crew consisting of two Falconbridge geologists (Doris Fox and Yannick Beaudoin) and two summer students conducted an AEM follow-up program of the Kongsberg Belt. The 35 EM anomalies and 16 additional targets were identified from 2005 and 2006 airborne surveys. Figures 5.1a and 5.1b shows the interpreted results of the airborne surveys. See [redacted] 1 + 2 for larger scale maps

The follow-up program had two main objectives: 1) to visit each target to determine the source of the anomaly and evaluate the general prospectively of each area; and 2) to develop a better understanding of the distribution of geology, mineralization and EM conductors throughout the Belt. As a result of the AEM follow-up program, 54 additional preclaims were secured, three targets for follow-up were identified including one previously unknown historical mine that was re-discovered, two areas of interest were identified and two broad geological domains were interpreted in the Belt.

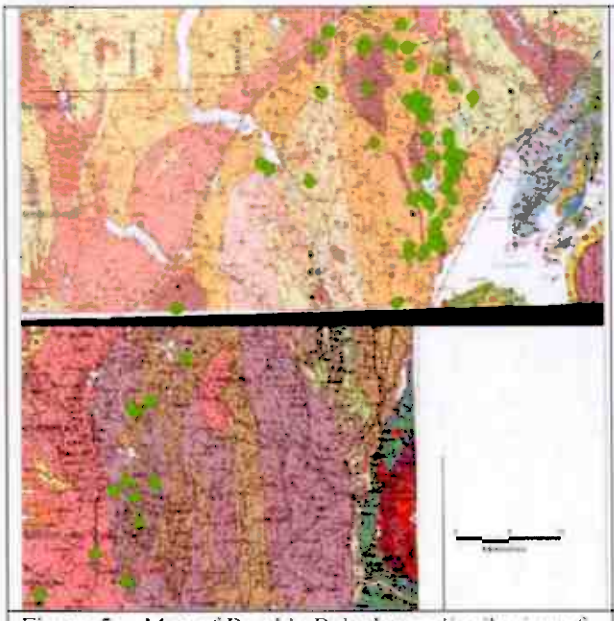

Figure 5a. Map of Bamble Belt shows distribution of AEM anomalies and targets (green dots).

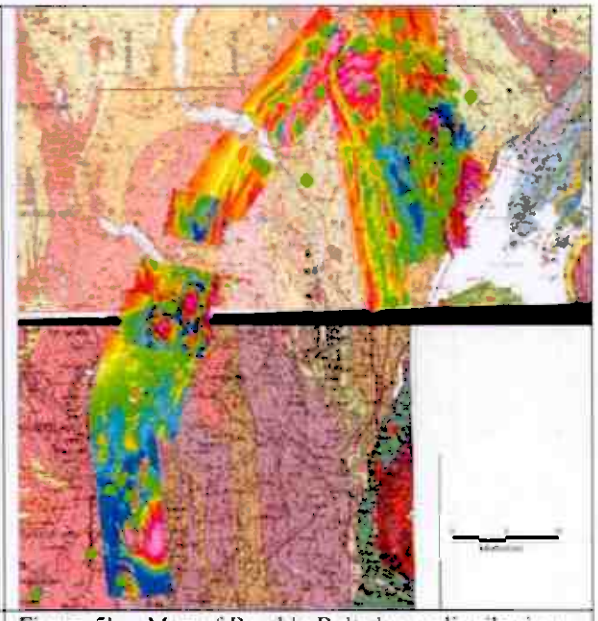

Figure 5b. Map of Bamble Belt shows distribution of AEM anomalies and targets with interpreted 2005 and 2005 total mag.

5.2 2006 AEM FOLLOW-UP PROGRAM METHODOLOGY

The geophysical surveys were carried out by the NGU (Hummingbird System) in 2005 and Fugro Geophysics (DIGHEM) in 2006, both capable of detecting shallow (up to ~60m depth) anomalies. The surveys cover most of the Kongsberg Belt. Anomalies were selected and ranked based on the following criteria:

1- quality of EM response (in-phase vs. quadrature response)
2- conductor intensity (siemens)
3- mag/EM coincidence
4- favourable (hyperitic) geology

The anomalies were assigned a priority ranking from 1 to 3 (1 being the highest priority). A field ranking was then assigned to the high priority anomalies, representing the order in which the anomalies would be followed-up on the ground. All other anomalies were followed-up based on their distribution with respect to the field ranked anomalies.

To assign the priority ranking, the mag data was compared with available 1:250,000 scale geological mapping. Of particular interest were the >100S discreet EM anomalies with coincident magnetic highs within mafic intrusives of the Kongsberg Complex. The mafic bodies, locally referred to as 'hyperites' are the main host units of past producing mines in the area. Also of interest were the discreet mag highs at the contacts of mafic bodies. Orthophotos were used to verify that the anomalies were not the result of obvious cultural products (e.g. power lines, rail tracks).

From the map, it is evident that sediments overlying the intrusive complex are magnetically active. Numerous magnetic highs with >1 km strike lengths are apparent and may represent formational features including VMS-type sulphide mineralization that is known to occur throughout Norway. These anomalies were not given high priority but were visited in the field to verify that they were sedimentary.

Ground follow-up of the anomalies consisted of locating the conductor axes using a GPS and VLF system. A Beep Mat, capable of sensing up to ~1m depth was used to swath each axis. The beep mat swaths ranged from 5-10m in areas of good exposure and strong VLF response, to >50m in poorly exposed poorly constrained areas. The Beep Mat was used to locate potential near surface mineralization. Any response from the Beep Mat was followed by sub-surface prospecting up to 1m. Holes were dug down to bedrock and the rock was sampled for sulphides or visually verified to be graphite bearing metasediments with no sulphides. This general prospecting and mapping around anomalies occurred during ground follow-up to explain the source of each anomaly and develop an understanding of the local and regional geology. Any visible sulphides were sampled and sent for assay.

At each anomaly or target the field geologist completed a systematic checklist and made notes about possible sources of the anomaly (ex. Graphite bearing metasediments, powerlines, sulphide bearing mafics etc.). Anomalies that could not be identified were recorded for possible additional follow-up.

5.3 2006 AEM FOLLOW-UP PROGRAM RESULTS

GENERAL STATEMENTS

During the 2006 AEM follow-up program, 35 EM anomalies (e.g labelled "E-8") and 16 additional targets (e.g. labelled "Etarg-4") consisting of interesting mag features, prospective geological units or unranked EM anomalies were visited. The source or surface expression of the anomalies can be generalized into four categories: sulphides, graphite, culture, and unexplained.

Targets with sulphides listed as their source are divided into formational (VMS type??) sulphides or magmatic sulphides. The sedimentary sulphides were usually coupled with small amounts of graphite and consisted primarily of pyrite. The pyrite bands were usually located through beep mat survey and returned assay values below detection limits for Ni and Cu with moderate sulphur values up to 6.69% S. Magmatic sulphides varied from trace to massive and consisted of pyrite, pyrrhotite and chalcopyrite with low to very strong beep mat responses usually associated with a mafic body. Assay results returned values up to 0.05% Ni, 1.12% Cu and 33.6% S.

Targets with graphite listed as their source indicate metasediments with >1mm to <1cm bands of formational graphite as very fine grains to large cm scale flakes. Graphite bands were easily identified through beep mat survey and consistently had the strong responses. A streak test was performed to verify graphite as the anomaly. If there was doubt that graphite was present the anomaly was listed as unexplained.

Cultural anomalies were typically powerlines, buried cables, railways and grounded fences. Cultural anomalies were visually verified or confirmed through discussions with local landowners. Most anomalies could not be visually identified due to thick overburden or lack of an identifiable conductor at surface.

Targets were listed as unidentified if the source of the EM response could not be explained. The table below summarizes the surface expression or source of the anomalies identified through field visits.

Appendix C summarizes the findings of each anomaly.

SOURCE	NUMBER OF TARGETS
Sulphides (formational)	2
Sulphides (magmatic)	9
Graphite	0
Culture	19
Unexplained	20
TOTAL	**50**

A total of 32 samples were collected from the Kongsberg Belt. The table below shows the result of the assays. The certificates of analysis can be found in Appendix B. Appendix E lists assay results from 2004-2006 with utm locations.

Table 1. Assay results of the 2006 AEM follow-up program.

Lab_ID	Name	Ni_wt%	Cu_wt%	Co_wt%	S_wt%	Pt_ppm	Pd_ppm	Au_g_t	Ag_g_t
PG 08102	Poly 2	< 0.05	< 0.05	< 0.02	0.04	< 0.02	< 0.02	< 0.02	< 0.5
PG 08103	Poly 3	< 0.05	< 0.05	< 0.02	0.58	< 0.02	< 0.02	< 0.02	< 0.5
PG 08104	E-27	< 0.05	0.17	< 0.02	0.91	< 0.02	< 0.02	0.03	3.2
PG 08105	E-27	< 0.05	0.37	< 0.02	4.95	< 0.02	< 0.02	< 0.02	2
PG 08106	E-27	< 0.05	< 0.05	< 0.02	0.08	< 0.02	< 0.02	< 0.02	< 0.5
PG 08107	E-27	< 0.05	1.12	0.02	33.6	0.03	< 0.02	0.02	9
PG 08108	E-27	< 0.05	0.3	0.03	33.9	< 0.02	< 0.02	< 0.02	4.9
PG 08109	E-27	< 0.05	< 0.05	< 0.02	0.75	< 0.02	0.05	< 0.02	< 0.5
PG 08110	E-27	< 0.05	0.24	0.11	46.9	0.04	< 0.02	< 0.02	4.5
PG 08111	SEDGOS	< 0.05	< 0.05	< 0.02	2.33	0.02	< 0.02	< 0.02	< 0.5
PG 08111 dup	SEDGOS	< 0.05	< 0.05	< 0.02	2.3	0.02	< 0.02	< 0.02	< 0.5
PG 08112	E-31	< 0.05	0.14	0.04	5.13	< 0.02	< 0.02	< 0.02	< 0.5
PG 08113	E-31	< 0.05	0.15	0.03	15.7	< 0.02	< 0.02	0.02	0.5
PG 08115	E-22	< 0.05	< 0.05	< 0.02	0.15	< 0.02	< 0.02	< 0.02	< 0.5
PG 08116	E-22	< 0.05	< 0.05	< 0.02	1.11	< 0.02	< 0.02	< 0.02	< 0.5
PG 08117	E-9	< 0.05	< 0.05	< 0.02	0.14	< 0.02	< 0.02	< 0.02	< 0.5
PG 08123	rd samples	< 0.05	< 0.05	< 0.02	0.13	< 0.02	< 0.02	< 0.02	< 0.5
PG 08124	rd samples	< 0.05	< 0.05	< 0.02	0.11	< 0.02	< 0.02	< 0.02	< 0.5
PG 08125	rd samples	< 0.05	< 0.05	< 0.02	0.09	< 0.02	< 0.02	< 0.02	< 0.5
PG 08126	rd samples	< 0.05	< 0.05	< 0.02	0.19	< 0.02	< 0.02	< 0.02	< 0.5
PG 08127	rd samples	< 0.05	< 0.05	< 0.02	0.73	< 0.02	< 0.02	< 0.02	< 0.5
PG 08128	rd samples	< 0.05	0.12	< 0.02	6.31	< 0.02	< 0.02	< 0.02	1.2
PG 08129	rd samples	< 0.05	< 0.05	< 0.02	0.2	< 0.02	< 0.02	< 0.02	< 0.5
PG 08130	rd samples	< 0.05	< 0.05	< 0.02	1.34	< 0.02	< 0.02	< 0.02	< 0.5
PG 08131	rd samples	< 0.05	< 0.05	< 0.02	1.51	< 0.02	< 0.02	< 0.02	0.5
PG 08132	rd samples	< 0.05	< 0.05	< 0.02	1.26	< 0.02	< 0.02	0.04	< 0.5
PG 08133	rd samples	< 0.05	0.07	< 0.02	2.45	< 0.02	< 0.02	0.02	0.9
PG 08134	rd samples	< 0.05	< 0.05	< 0.02	0.25	< 0.02	< 0.02	< 0.02	< 0.5
PG 08135	rd samples	< 0.05	< 0.05	< 0.02	2.65	< 0.02	0.04	0.02	< 0.5
PG 08136	rd samples	< 0.05	< 0.05	< 0.02	6.53	0.07	0.65	0.05	0.6
PG 08137	rd samples	< 0.05	< 0.05	< 0.02	6.69	< 0.02	0.1	0.02	< 0.5
PG 08138	rd samples	< 0.05	< 0.05	< 0.02	0.27	< 0.02	0.07	< 0.02	< 0.5

HIGHLITES

As a result of the AEM follow-up program three targets have been identified including one re-discovered, previously unknown historical nickel mine. The three targets are all located in the southwest portion of the belt within a large elongate 14km long x 3km wide NNE striking gabbroic intrusion (Etarg-24). The elongate gabbro is similar to the gabbro hosting the Grägalten deposit and is moderately prospective. The gabbro displays a discontinuous patchy mag high signature along its length, neighboured to the east by a very strong circular mag high feature corresponding to a large amphibolite body. The surrounding gneisses display broad mag low signatures.

The three targets are as follows:

Historic Ni-Ag Mine:

A previously unknown historic mine was re-discovered 30km north of the town of Kongsberg. The wall rock of the adit was strongly stained and a large pile of waste rock surrounds the adit opening. Grab samples from the waste rock returned values below detection. Samples from the adit wall could not be obtained.

The mine is situated along the eastern contact of the elongate gabbro with surrounding quartz diorite containing bands of paragneiss and amphibolite. The adit appears to plunge steeply along the contact. The surrounding paragneiss is ubiquitously stained with trace sulphides.

No AEM anomaly is associated with the surface expression of the mine. A patchy moderate mag high corresponds to the general mine area. The surrounding gneiss displays a mag low signature.

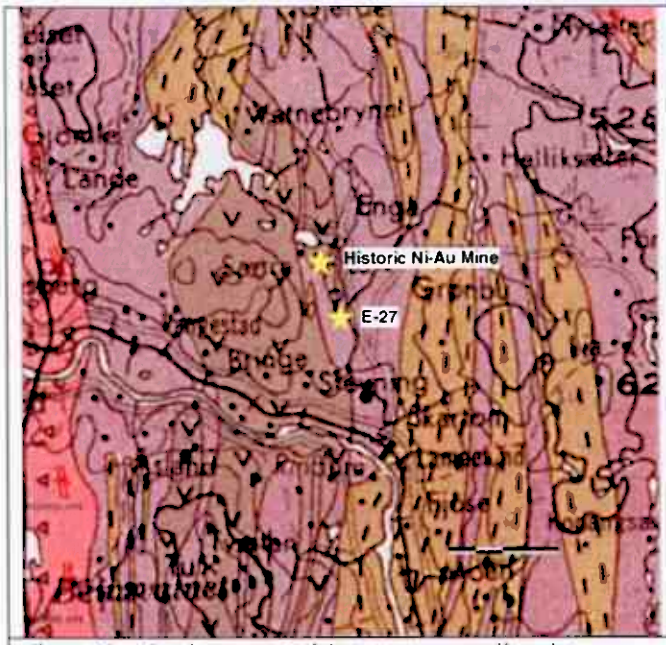

Figure 6a. Geology map of the area surrounding the re-discovered historic mine and E-27. Targets for follow-up. Grey unit is gabbro, purple is quartz gneiss, brown is amphibolite

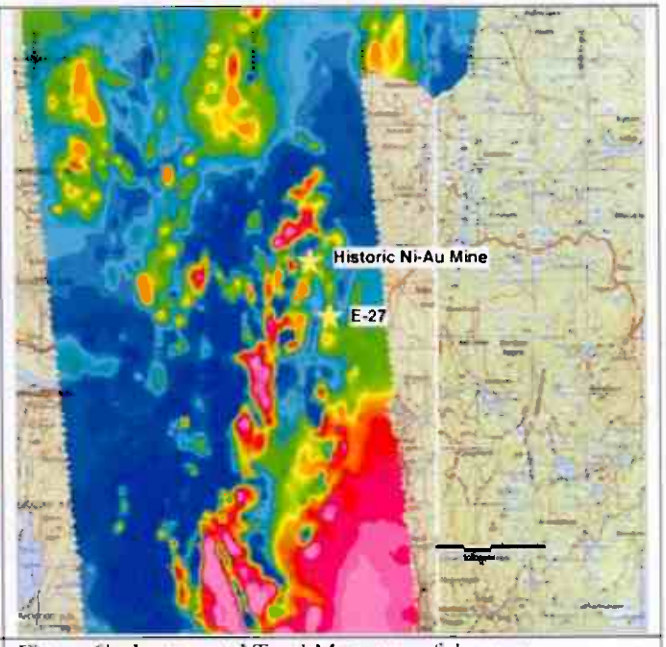

Figure 6b. Interpreted Total Mag map of the area surrounding the re-discovered historic mine and E-27.

Photo 1. Adit of Re-discovered Historic Ni-Ag Mine 30km north of Kongsberg Town.

E-27:

This 10<100s AEM anomaly is hosted in an apophysy of the elongate gabbro that hosts a historic nickel mine 900m to the north. The anomaly corresponds with the best assay of the program with values of 0.05% Ni, 1.12% Cu, 0.02% Co and 33.2% S. The sample was collected as trace chalcopyrite from the contact of paragneiss with the gabbro.

The main body of the gabbro displays a moderate mag high signature which tapers to a moderate mag signature at the anomaly. The surrounding gneiss displays a broad mag low signature.

The regional strike of the Kongsberg Belt is NE-SW, but the geology within the belt strikes approximately North making the historic mine along strike of anomaly E-27.

See maps 5.4a and 5.4b above.

Photo 2. Overview of anomaly E-27 sample location. Outcrop is gneiss. Looking north.

E-31:

This 10<100s AEM anomaly 11km south of the re-discovered mine is situated along the western contact of the elongate gabbro with bands of amphibolite and gneiss. Records indicate three historic silver mines are also located along this contact. No information could be found regarding the production of the mines. Grab samples from the area returned Ni values below detection with slightly elevated Cu values (up to 0.15% Cu) and good sulphur values of over 15% S, indicating sulphur saturation.

The anomaly and surrounding historic silver mines, correspond to a patchy mag high feature within the broad mag signature of the gabbro. The anomaly lies 10km along strike to the SSE of E-27 and the historic nickel mine.

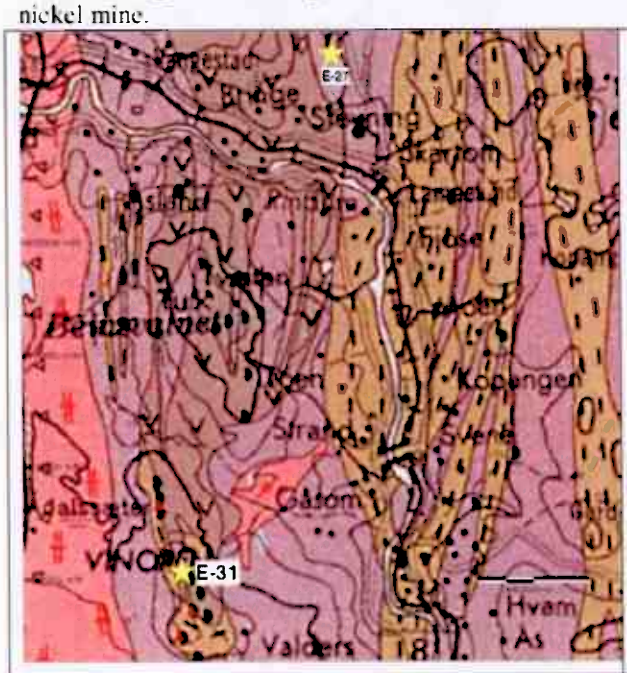

Figure 7a. Geology map of area surrounding E-31(yellow star). Red triangles represent known historical silver mines. Grey unit is gabbro. Brown is amphibolite. Purple is quartz gneiss.

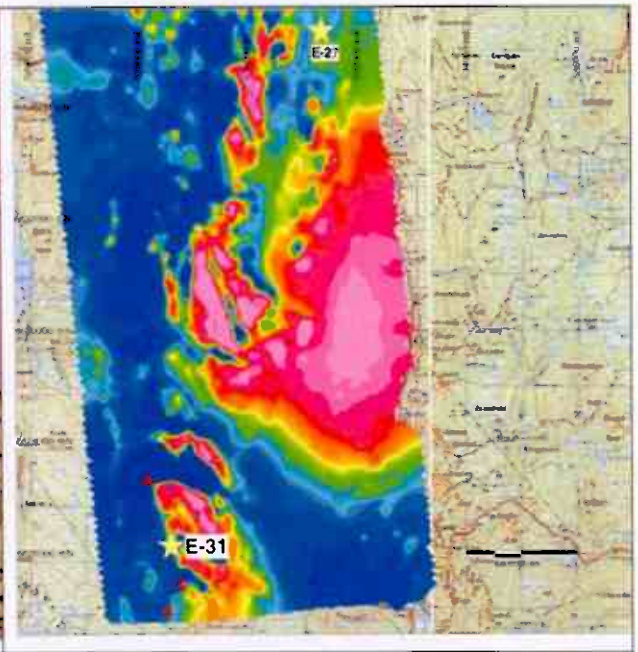

Figure 7b. Interpreted total field mag map of area between E-31 and E-27. Linear discontinuous mag high features correspond to gabbroic unit. Large mag high is neighbouring amphibolite.

Photo 3. Overview of E-31 area.

5.4 2006 GEOLOGY PROGRAM RESULTS

The Kongsberg Belt can be divided into two geological regions, based on dominant lithology, cutting the Belt into northern and southern halves. The division is not obvious in the interpreted mag survey. The change in geology is significant since the northern half of the Belt is known to host at least 35 deposits and showings while the southern half of the belt hosts only two.

To the north, the belt is dominated by metasandstone and quartz rich banded paragneiss with bands of amphibolite, biotite, hornblende. Lesser amounts of quartzite and late mafic intrusions including "hyperites", gabbro, metagabbro and amphibolite dot the region and are highlited in the AEM survey by high mag signatures. Although the Kongsberg Belt is oriented NNE-SSW, the regional strike of units within the belt is N-S. The relationship between the paragneiss and mafic intrusives provides a prospective environment for deposits to occur.

The southern half of the Belt is dominated by quartz diorite and dioritic gneiss containing bands of amphibolite and quartz. A few elongate metagabbros occupy the western side of this portion of the Belt and are highlited in the AEM survey by high mag features. The regional strike in this region is approximately N-S. The limited amount of paragneiss in the southern half of the belt may have influenced the accumulation of sulphides, however both the paragneiss and quartzdioritic gneiss surrounding the mafic intrusions in the south show signs of sulphur saturation. In addition, the existence of the historic nickel mine in the south proves deposits can, and do occur, although they may not be visible at surface.

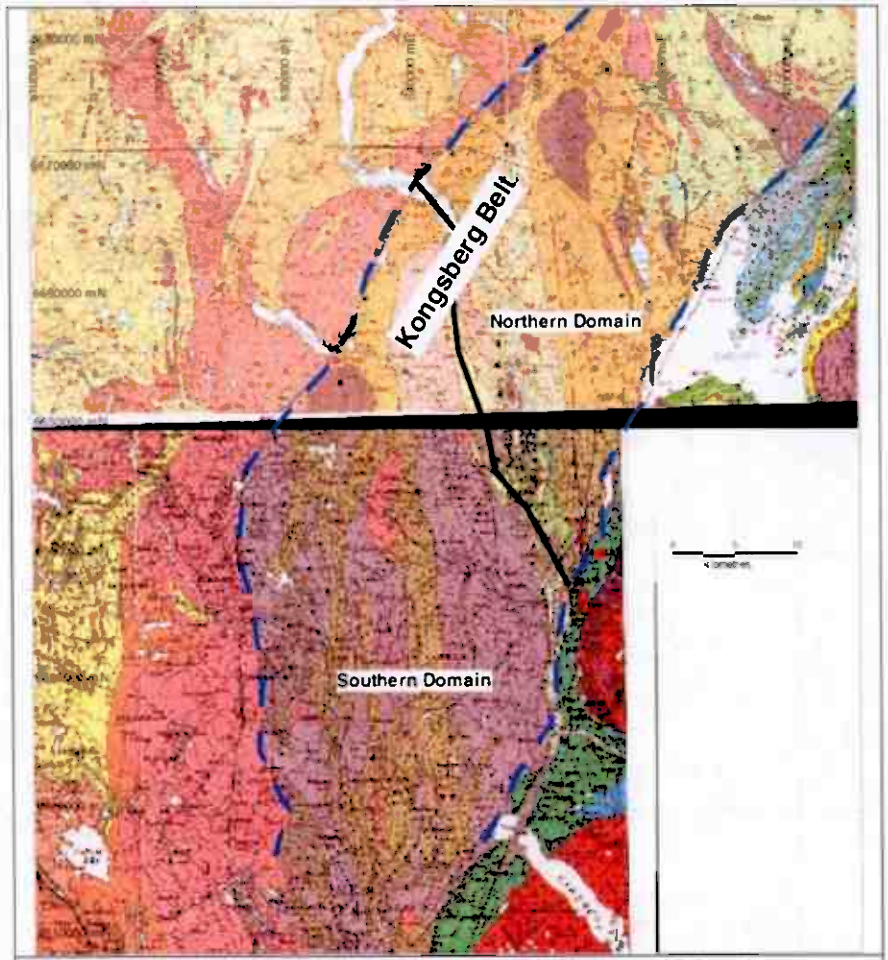

Figure 8. Geology map of the Kongsberg Belt with interpreted domains. Blue dashed lines represent structural Belt boundaries. Solid black line represents interpreted geological domain boundary.

Photo 4. Typical Kongsberg belt banded gneiss

Photo 5. Typical Kongsberg Belt Dioritic Gneiss

Photo 6. Typical Kongsberg Belt Gabbro

Photo 7. Typical Kongsberg Belt Paragneiss

HIGHLITES

Two geological areas of interest have been identified during the 2006 program as follows:

Area between Ertelien and Soknadalen deposits:

The broad 21km long x 5km wide area between these two deposits contains the most prospective geology of the Kongsberg Belt. The dominant paragneiss with hyperitic intrusions hosts at least 35 known deposits and shows and is ubiquitously stained. UTEM surveys of several of these the historic deposits indicate the possible presence of small subsurface sulphide accumulations as evidenced by the modelling of small UTEM plates. The area was covered by the 2005 AEM survey and although the AEM anomalies did not locate prospective geology at surface, 19 EM anomalies were identified within the trend indicating more prospective geology may lie beneath the surface. Attempts to locate several historic showings failed due to overburden and erosion.

The mag signature of this area consists of kilometre scale, linear mag high features which correlate with magnetite bearing amphibolite bands and isolated circular mag high features which correlate with small isolated mafic intrusions. The remainder of this portion of the belt is a mag low.

Holleia Gabbro (Etarg-18)

This large gabbro is found in the northern portion of the Kongsberg Belt less than 3km from the Soknadalen deposit. A large irregularly shaped, semi-circular mag high feature corresponds with the gabbro body. No AEM anomalies are associated with the gabbro.

Grab samples collected from the surrounding and overlying paragneiss were ubiquitously stained and contained semi-massive to massive pyrite. Assays returned values below detection for nickel and copper with values of up to 2.5% S confirming the presence of sulphur in the system.

A large portion of the southern end of the gabbro is occupied by a land protection park, but the remaining portion of the gabbro is easily accessed via logging roads which also transect the surrounding paragneiss.

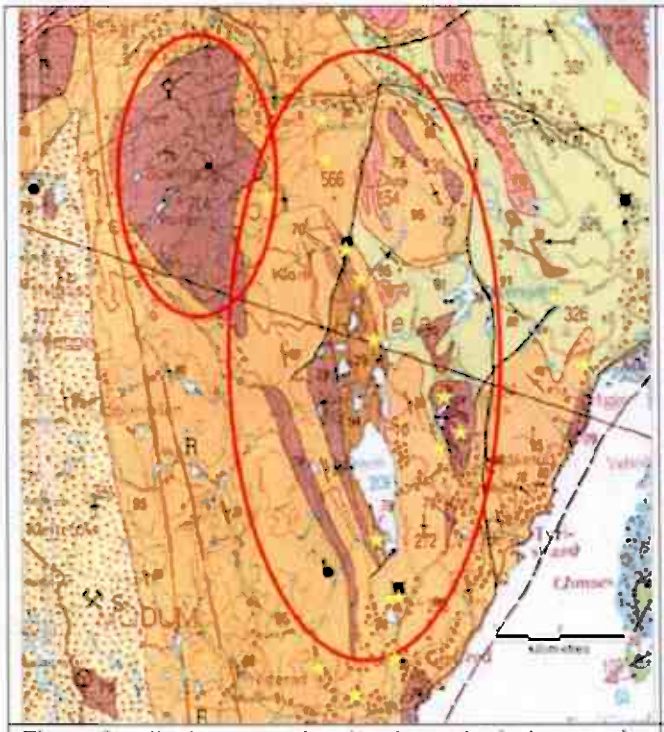

Figure 9a. Geology map showing the geological areas of interest (circled in red). Yellow stars represent known historical nickel deposits and showings.

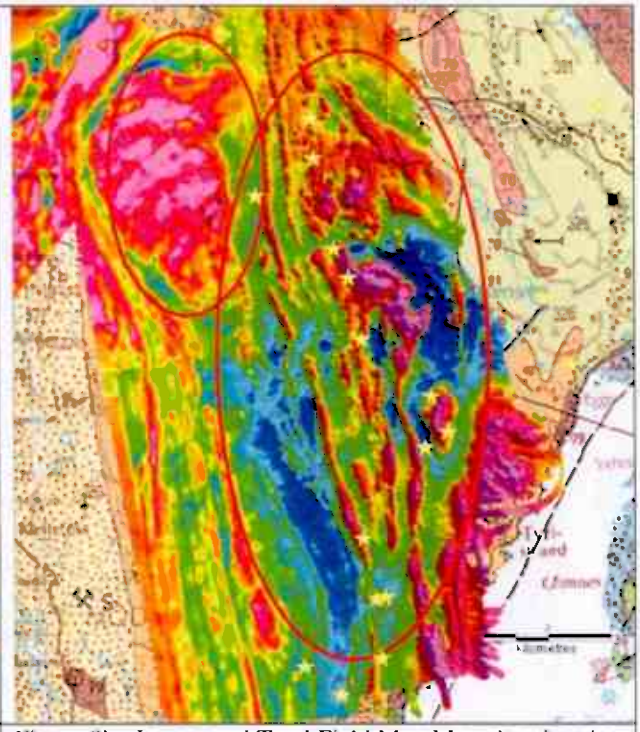

Figure 9b. Interpreted Total Field Mag Map showing the magnetic signature associated with the geological areas of interest (red circles). Yellow stars represent known historical nickel deposits and showings.

6.0 DISCUSSION AND RECOMMENDATIONS

As a direct result of the 2006 AEM follow-up program, three targets for further follow-up have been identified including one re-discovered historical mine. In addition, two geological areas of interest have been identified and a better understanding of the distribution of geology and mineralization was gained. Preclaims have been secured over all areas of interest to ensure follow-up exploration is possible.

The re-discovered historical mine was located in a portion of the belt that was previously unknown to host nickel deposits. The surrounding geology consisting of gneiss and amphibolite are not the typical host lithologies for the Kongsberg Belt, however the presence of the mine suggests the Belt may be more fertile than originally thought, similar to the Sigdal Gabbro which hosts the Grågalten deposit. In addition, the gabbro hosts three historic silver mines re-iterating the complexity and fertility of the mineralized system. Three targets for follow-up have been identified within the gabbro based on AEM conductors, geology and assay results. The targets are present at both the northern and southern ends of the 13km long gabbro suggesting that the entire gabbro may be prospective. This gabbro represents a new prospective target in the Belt for exploration.

The northern portion of the Kongsberg Belt remains a prospective region for Ni-Cu exploration. Less than half of the historical showings between Ertelien and Soknadalen have been located, in part due to changes in topography and overburden. The area is known to contain several small mafic intrusives (hyperites) that may host subsurface economic deposits. Detailed prospecting and mapping of this area would helpt to focus possible future UTEM surveys.

Recommendations for Kongsberg Belt follow-up are as follows:

Historical Ni-Au mine:

A UTEM survey of the area is recommended to evaluate the lateral and depth potential around the historical workings. The survey should focus along the contact of the gabbro with the gneisses.

E-27:

A UTEM survey over this anomaly and the surrounding area is recommended. The survey should extend to cover the entire apophysy as well as onto the main gabbro body.

E-31:

A UTEM survey of this anomaly that also encompasses at least the two closest historical mines is recommended.

Area between Ertelien and Soknadalen Deposits:

This prospective region deserves additional prospecting and mapping to fully evaluate near surface and possible subsurface mineralization.

Hollica Gabbro (Etarg-18):

Additional prospecting of this gabbro, particularly along the contact is recommended. The prospective geology and strong staining in this area suggests it has potential to host a nickel sulphide deposit.

7.0 REFERENCES

Atkin B.P. and Brewer.T.S..
The tectonic setting of the basaltic magmatism in the Kongsberg, Bamble and Telemark sectors, southern Norway. in Gower, C.F., Rivers, T., and Ryan, B., eds., Mid-Proterozoic Laurentia-Baltica: Geological Association of Canada, Special Paper 38, p.471-483.

Blair, Trevor, 2006
2006 Winter Geophysical Program, Ertelien Projects, Buskerud Fylke, Norway, Falconbridge Limited for A/S Sulfidmalm, October 2006.

Blair, Trevor, 2006
2006 Summer Geophysical Program, Ertelien and Bamble Projects, Buskerud and Telemark Fylkes, Norway, Falconbridge Limited for A/S Sulfidmalm, October 2006.

Blair, Trevor, 2006
2006 Summer Drill Program, Ertelien Projects, Buskerud Fylke, Norway, Falconbridge Limited for A/S Sulfidmalm, October 2006.

Brickwood, John D,
The Geology and Mineralogy of some Fe-Cu-Ni sulphide deposits in the Bamble Area, Norway, Norsk Geolisk Tidsskrift,vol 66 pp 189-208, Oslo 1986,

Brickwood,J.D., and Craig, J.W, 1987
Primary and re-equilibrated mineral assemblages from the Sveconorwegian mafic intrusions of the Kongsberg and Bamble areas, Norway. Nor. Geol. Unders. Null. 410, 1 -23.

Fox, Doris, 2006
2006 Bamble and Ertelien - Proposed Summer Follow-up Program, September 2006.

Goodman R. and Slowey E., 2002
Global Nickel- Competent Person's Report on Nickel Projects, Norway.

Paget, P. 2004
Metasedimentary rocks, associated intrusions and tectonic features of the Precambrian in eastern Bamble, South Norway: an interpretative study. Norges geologiske undersokelse Bulletin 442.39-51.

Padget, P. and Brekke, H., 1996
Geologisk kart over Norge berggerunskart Bamble 1 1:250000 Norges geologiske undersokelse

Padget, P. and Brekke, H., 1996
Geologisk kart over Norge berggerunskart Skein 1:250000 Norges geologiske undersokelse

Starmer, I.C.
Mid-Proterozoic evolution of the Kongsberg – Bamble belt and adjacent areas, southern Norway. in Gower, C.F., Rivers, T., and Ryan, B., eds., Mid-Proterozoic Laurentia-Baltica: Geological Association of Canada, Special paper 38, P. 279 – 305.

APPENDIX A

SUMMARY OF HISTORICAL WORKINGS

Ertelien Deposit (Ertelien)

The Ertelien deposit proper, is hosted by a small noritic intrusion that produced 400,000 tonnes grading 1.04% Ni, 0.69% Cu, 0.17% Co from 1849 to 1920. Mineralization was mainly massive and breccia ore that graded between 2 and 4% Ni. The deposit has only been tested by two holes to a vertical depth of 60-80 m that intersect weak mineralization at the contact. DDH1 intersected 0.78%Ni, 0.67%Cu, 14.8%S over 1.25 m and DDH2 intersected 0.35%Ni, 1.99%Cu, 7.6%S over 1.60m but may not have hit contact. A third hole, DDH3 essentially collared in basement.

Langdalen, Skaugs and Tyskland Deposits (Ertelien)

The Langdalen deposit is the second largest in the Ertelien area. Past production was 250, 000 tonnes grading 2.5 – 3.5% Ni. It is a dike-like feature that trends roughly 320° with a near vertical plunge. Little or no intrusion is exposed. Similarly, the Skaugs and Tyskland deposits are also dike-like and are obviously folded with steep vertical plunges. Previous mining has very selectively removed the sulphides and host intrusions.

Ulleren (Ertelein)

Ulleren is the largest mafic / ultramafic body in the area (2.5 km x 1.0 km) and contains a fairly large proportion of ultramafic rocks.

Jolinatten (Ertelein)

Additional preclaims have been acquired over the Jolinatten occurrence. The deposit is shown on the regional geological map as a nickel occurrence, however, no information has been found.

APPENDIX B

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Wednesday, July 26, 2006

Date Rec. : 19 July 2006
LR Report : **CA03133-JUL06**
Client Ref : PO#302

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
1: PG 08001	0.22	0.07	0.04	5.20	0.03	< 0.02	0.02	< 0.5
2: PG 08071	0.30	0.35	0.08	8.81	0.02	< 0.02	< 0.02	< 0.5
3: PG 08072	< 0.05	8.61	0.05	31.4	0.02	0.02	1.58	65.3
4: PG 08073	< 0.05	< 0.05	< 0.02	6.68	< 0.02	< 0.02	0.18	0.7
5: PG 08074	1.66	20.9	0.02	24.4	0.02	0.03	0.08	126
6: PG 08075	1.09	0.16	0.03	8.01	0.04	0.02	0.02	1.2
7: PG 08076	0.42	1.30	< 0.02	3.67	< 0.02	< 0.02	< 0.02	8.8
8: PG 08077	0.26	0.28	0.39	37.3	0.04	< 0.02	0.05	1.9
9: PG 08078	0.05	0.15	0.06	29.5	0.03	< 0.02	< 0.02	3.0
10: PG 08079	0.54	0.50	0.03	6.48	0.04	< 0.02	0.02	1.7
11: PG 08080	1.80	0.84	0.09	23.0	< 0.02	0.03	0.17	1.7
12: PG 08081	0.49	0.60	0.03	5.52	0.02	< 0.02	0.04	2.2
13: PG 08082	1.46	0.74	0.08	14.5	0.02	0.02	0.05	2.5
14: PG 08083	< 0.05	0.05	< 0.02	0.84	< 0.02	< 0.02	0.10	< 0.5
15: PG 08084	< 0.05	6.39	0.06	17.9	0.02	0.14	11.8	38.6
16: PG 08085	< 0.05	8.31	< 0.02	14.3	0.02	0.13	11.3	66.0
17: PG 08086	< 0.05	0.62	0.06	28.9	0.02	< 0.02	0.17	6.6
18: PG 08087	< 0.05	1.17	0.05	20.1	< 0.02	0.03	0.18	5.9
19: PG 08088	0.25	0.45	0.14	24.1	< 0.02	< 0.02	0.06	< 0.5
20: PG 08089	< 0.05	2.08	< 0.02	5.95	< 0.02	< 0.02	0.13	16.5
21: PG 08090	< 0.05	< 0.05	< 0.02	3.15	< 0.02	< 0.02	0.02	< 0.5
22: PG 08091	< 0.05	< 0.05	< 0.02	1.44	< 0.02	< 0.02	< 0.02	< 0.5
23: PG 08119	0.80	0.37	0.03	4.84	0.15	0.09	0.21	1.8
24-DUP; PG 08089	< 0.05	2.06	< 0.02	6.02	< 0.02	< 0.02	0.12	17.1
25-STD; PTC-1A XRF	9.91	13.7	0.29	---	---	---	---	---
29-STD: nbm-1	---	---	---	0.28	---	---	---	---
30-STD: RTS-1	---	---	---	1.58	---	---	---	---

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Sample ID	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
31-STD: RTS-2	---	---	---	18.2	---	---	---	---
32-STD: CZN-3	---	---	---	30.3	---	---	---	43.0
33-STD: WMS_1	---	---	---	---	1.90	1.21	0.27	---

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Date Rec. : 25 July 2006
LR Report : **CA03186-JUL06**
Client Ref : PO# 301

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
28: PG 08120	< 0.05	< 0.05	< 0.02	0.25	< 0.02	< 0.02	< 0.02	< 0.5
29: PG 08121	< 0.05	< 0.05	< 0.02	1.69	< 0.02	< 0.02	< 0.02	< 0.5
30: PG 08122	< 0.05	< 0.05	< 0.02	0.32	< 0.02	< 0.02	< 0.02	< 0.5
31: PG 08123	< 0.05	< 0.05	< 0.02	0.13	< 0.02	< 0.02	< 0.02	< 0.5
32: PG 08124	< 0.05	< 0.05	< 0.02	0.11	< 0.02	< 0.02	< 0.02	< 0.5
33: PG 08125	< 0.05	< 0.05	< 0.02	0.09	< 0.02	< 0.02	< 0.02	< 0.5
34: PG 08126	< 0.05	< 0.05	< 0.02	0.19	< 0.02	< 0.02	< 0.02	< 0.5
35: PG 08127	< 0.05	< 0.05	< 0.02	0.73	< 0.02	< 0.02	< 0.02	< 0.5
36: PG 08128	< 0.05	0.12	< 0.02	6.31	< 0.02	< 0.02	< 0.02	1.2
37: PG 08129	< 0.05	< 0.05	< 0.02	0.20	< 0.02	< 0.02	< 0.02	< 0.5
38: PG 08130	< 0.05	< 0.05	< 0.02	1.34	< 0.02	< 0.02	< 0.02	< 0.5
39: PG 08131	< 0.05	< 0.05	< 0.02	1.51	< 0.02	< 0.02	< 0.02	0.5
40: PG 08132	< 0.05	< 0.05	< 0.02	1.26	< 0.02	< 0.02	0.04	< 0.5
41: PG 08133	< 0.05	0.07	< 0.02	2.45	< 0.02	< 0.02	0.02	0.9
42: PG 08134	< 0.05	< 0.05	< 0.02	0.25	< 0.02	< 0.02	< 0.02	< 0.5
43: PG 08135	< 0.05	< 0.05	< 0.02	2.65	< 0.02	0.04	0.02	< 0.5
44: PG 08136	< 0.05	< 0.05	< 0.02	6.53	0.07	0.65	0.05	0.6
45: PG 08137	< 0.05	< 0.05	< 0.02	6.69	< 0.02	0.10	0.02	< 0.5
46: PG 08138	< 0.05	< 0.05	< 0.02	0.27	< 0.02	0.07	< 0.02	< 0.5
47: PG 08139	1.76	0.38	0.06	10.0	0.06	0.18	< 0.02	< 0.5
63-DUP: PG 08132	< 0.05	< 0.05	< 0.02	1.29	< 0.02	< 0.02	0.03	< 0.5
66-STD: PTC-1A XRF	10.2	13.4	0.29	---	---	---	---	---
67-STD: SU1a XRF	1.27	0.98	0.04	---	---	---	---	---
68-STD: Ni1 XRF	1.02	0.30	0.04	---	---	---	---	---
70-STD: nbm-1	---	---	---	0.31	---	---	---	---
71-STD: RTS-1	---	---	---	1.66	---	---	---	---
72-STD: RTS-2	---	---	---	18.7	---	---	---	---

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Sample ID	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
73-STD: CZN-3	---	---	---	30.8	---	---	---	44.7
74-STD: WMS_1	---	---	---	---	1.88	1.23	0.23	---

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Friday, July 28, 2006

Date Rec. : 19 July 2006
LR Report : **CA03132-JUL06**
Client Ref : PO#302

CERTIFICATE OF ANALYSIS

Final Report

Sample ID	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
1: PG 08092	0.17	0.13	0.09	32.3	0.02	0.02	0.03	< 0.5
2: PG 08093	< 0.05	< 0.05	< 0.02	2.50	0.02	< 0.02	< 0.02	< 0.5
3: PG 08094	< 0.05	< 0.05	< 0.02	0.12	< 0.02	< 0.02	< 0.02	< 0.5
4: PG 08095	< 0.05	< 0.05	< 0.02	0.13	< 0.02	< 0.02	< 0.02	< 0.5
5: PG 08096	< 0.05	< 0.05	< 0.02	6.82	< 0.02	< 0.02	0.02	0.8
6: PG 08097	< 0.05	< 0.05	< 0.02	6.83	0.02	< 0.02	0.02	< 0.5
7: PG 08098	< 0.05	< 0.05	< 0.02	0.26	< 0.02	< 0.02	< 0.02	< 0.5
8: PG 08099	< 0.05	< 0.05	< 0.02	0.05	< 0.02	< 0.02	< 0.02	< 0.5
9: PG 08100	< 0.05	< 0.05	< 0.02	0.13	< 0.02	< 0.02	< 0.02	< 0.5
10: PG 08101	< 0.05	< 0.05	< 0.02	0.13	< 0.02	< 0.02	< 0.02	< 0.5
11: PG 08102	< 0.05	< 0.05	< 0.02	0.04	< 0.02	< 0.02	< 0.02	< 0.5
12: PG 08103	< 0.05	< 0.05	< 0.02	0.58	< 0.02	< 0.02	< 0.02	< 0.5
13: PG 08104	< 0.05	0.17	< 0.02	0.91	< 0.02	< 0.02	0.03	3.2
14: PG 08105	< 0.05	0.37	< 0.02	4.95	< 0.02	< 0.02	< 0.02	2.0
15: PG 08106	< 0.05	< 0.05	< 0.02	0.08	< 0.02	< 0.02	< 0.02	< 0.5
16: PG 08107	< 0.05	1.12	0.02	33.6	0.03	< 0.02	0.02	9.0
17: PG 08108	< 0.05	0.30	0.03	33.9	< 0.02	< 0.02	< 0.02	4.9
18: PG 08109	< 0.05	< 0.05	< 0.02	0.75	< 0.02	0.05	< 0.02	< 0.5
19: PG 08110	< 0.05	0.24	0.11	46.9	0.04	< 0.02	< 0.02	4.5
20: PG 08111	< 0.05	< 0.05	< 0.02	2.33	0.02	< 0.02	< 0.02	< 0.5
21: PG 08112	< 0.05	0.14	0.04	5.13	< 0.02	< 0.02	< 0.02	< 0.5
22: PG 08113	< 0.05	0.15	0.03	15.7	< 0.02	< 0.02	0.02	0.5
23: PG 08114	< 0.05	< 0.05	< 0.02	1.45	0.02	0.02	< 0.02	< 0.5
24: PG 08115	< 0.05	< 0.05	< 0.02	0.15	< 0.02	< 0.02	< 0.02	< 0.5
25: PG 08116	< 0.05	< 0.05	< 0.02	1.11	< 0.02	< 0.02	< 0.02	< 0.5

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LR Report : CA03132-JUL06

Sample ID	Ni %	Cu %	Co %	S %	Pt g/t	Pd g/t	Au g/t	Ag g/t
26: PG 08117	< 0.05	< 0.05	< 0.02	0.14	< 0.02	< 0.02	< 0.02	< 0.5
27: PG 08118	1.76	0.37	0.06	10.5	0.08	0.15	< 0.02	< 0.5
28-DUP: PG 08111	< 0.05	< 0.05	< 0.02	2.30	0.02	< 0.02	< 0.02	< 0.5
29-STD: PTC-1A XRF	9.93	13.4	0.30	---	---	---	---	---
30-STD: SU1a XRF	1.25	0.96	0.05	---	---	---	---	---
33-STD: nbm-1	---	---	---	0.29	---	---	---	---
34-STD: RTS-1	---	---	---	1.65	---	---	---	---
35-STD: RTS-2	---	---	---	18.5	---	---	---	---
36-STD: CZN-3	---	---	---	32.4	---	---	---	43.0
37-STD: WMS_1	---	---	---	---	1.86	1.21	0.27	---

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APPENDIX C

AEM FOLLOW-UP SUMMARY RESULTS TABLE

Anomaly ID	Map_X	Map_Y	Target Type	Target Explained	Summary Observations	Field Conclusions	Recommendation	Comments
E-1	558723	6657608	AEM	Y	Buried Cable. Marking on pole and on road.	Cultural	none	powerlines; see 900, 901
E-2	558505	6657677	AEM	Y	Abundant culture--powerlines, houses, transformer boxes, fences.	Cultural	none	abundant culture; powerlines, fences, vehicles, buildings
E-3	558461	6657496	AEM	Y	powerline following road.	Cultural	none	powerline
E-4	558204	6658049	AEM	Y	Buried cables and metal post grounded barbed wire fences	Cultural	none	grounded fencing
E-5	558448	6658410	AEM	Y	large satelite dish (see airphoto)	Cultural	none	
E-6	557982	6658340	AEM	Y	combination buried cable and house lighting. Spoke to landowner.	Cultural	none	two sets of powerlines
E-7	558062	6658928	AEM	Y	Pump house coneected to powerline with steele pipes into lake	Cultural	none	powerline or metal water pipe
E-8	558264	6659688	AEM	Y	Ertelien Mine	Historical mine	drill	
E-9	557289	6664311	AEM	N	Anom in lake. Projected extension onto northern shore is mafic gneiss most likely metabasalt. Well banded an foliated parallel to anom (N-S) vertical. One tiny Py cube observed. No staining.	Anom is unexplained. Low potential prospectivity unless youger intrusive can be located.	Possible mapping	

E-10	558117	6665819	AEM	N	Mafic gneiss (metasediments) with good foliation and Bt+garnet+qtz bands with lots of amph. Varies from granular dirty metased to crystalline fine grained ressembling metabasalts at E-9. Weak to no staining. no vis sulphides. No bmat response. Localized irregular mag (up to -1000) over amph bands.	Anom is unexplained. Non-prospective geology.	none	
E-11	559548	6665885	AEM	Y	Ulleren	Historical mine	See UTEM results	
E-12	560024	6665920	AEM	Y	Ulleren	Historical mine	See UTEM results	
E-13	557342	6669844	AEM	N	Intermediate Gneiss (possible metased?) Qtz+Amph+Plag+Gt+Bt with trace sulp and moderate fol. Proximal to old workings. No bmat, no staining.	Anom Unexplained. Prospective geology due to proximity toold workings.	See UTEM results.	
E-14	556915	6670067	AEM	Y	pervaisive sulphide staining along axis. Anom is 15-20m west of Skaug workings.. Good VLF (may be fencing). Banded qtz+bt minor gt gneiss (metaseds) with diorite and qtzdiorite bands	Anom may be sulphides related to workings. Good prospectivity.	See UTEM results.	good VLF respone...maybe related to old mine fencing; ~25 m west of old mine (Tyskland?); unstained granite and metased outcrop

E-15	556534	6670393	AEM	Y	nom paralllel to road, near old cabin, old waste pile, road possibly contains waste-rock. Geology is IGN (metased??) with no staining.	Anom combination of culture, old workings. Possible prospective geology due to proximity toold workings	See UTEM results.	blue pick may be cultural (shack); green pick...conductor in sed gneiss? see previously completed UTEM results; proximal to mine workings; road could be made of mine waste?
E-16	557234	6670943	AEM	N	NW pick corresponds to O/c gneissic gabbro with no staining. Two SE anoms no o/c but good bmat HFR 3000 RT%81. Cable in area (not parallel to anom) hanging through trees.	Anom unexplained. Immediate geology non-prospective but proximity to existing mines good prospectivity	See UTEM results	NW pick good o/c mafic gneiss (metagab?) with thin packages ressembling metaseds. no staining, no bmat. 2 SE picks scarce o/c small patched metaseds with mod-strong stainung. bt + gt dirty. bmat responses but no rocks observed. note cable in trees throu

E-17	556053	6670762	AEM	N	O/C poor area, minor mag (-600) no HFR. Only o/c is banded diorite with minor qtz. No staining.	Anom unexplained.	Gridded for UTEM	well banded diorite. boring rocks. no staining no vis sulp.
E-18	556558	6671260	AEM	N	Banded gneiss with strong seggregation and qtz bands. Granular to crystalline texture with grainy garnets. Mapped as dioritic gneiss - in places ressembles Paragneiss. Trace sulph (Py). No HFR, no staining.	Anom unexplained. Poss-prospective geology	Gridded for UTEM	
E-19	555487	6671097	AEM	N	Banded Gneiss -diorite and amph with minor qtz bands. Good VLF, no HFR, variable mag u to -1000. no staingin no vis sulph	Anom is unexplained. Non-prospective geology but proximal to old workings (Langdalen).	Gridded for UTEM	non prospective surface geology. good vlf. unit consistent. no sulph observed. no staining. anoj unexplained.
E-20	555844	6674350	AEM	Y	Soknadalen	Historical mine	See UTEM results	
E-21	555672	6676016	AEM	Y	Storbraten	Historical mine	See UTEM results	
E-22	552331	6667165	AEM	N	Anom follows edge of ridge. Well banded with patches good staining. One small cm band with very trace sulphides (diss Py) observed. Thin bands FF graphite observed. No bmat response. Localized mag response up to -1000.	Anom unexplained but possibly very minor sed. sulph.with graphite. Non-prospective geology.	wait for assay but non-prospective	bt, gt bearing; very trace py; low prospectivity; trace mineralition in confined bands; graphite seen
E-23	555576	6656783	AEM	Y	Anom follows newly installed high-mod tension powerline grounded at each end along farmer's field.	Cultural	none	

E-24	541538	6665285	AEM	Y	Anom is in cultivated strawberry field behind a new barn. Powerline in area. Watering truck with large pump generator. No o/c in area.	Anom is cultural. Area is non-prospective	none	middle of agricultural field; proximal to barn and powerlines
E-25	534188	6647100	AEM	Y	Anom corresponds to conjuction of several powerlines, a large industral tractor graveyard and several electric fences in farmers fields. Local geology amphibolite band no staining no vis sulphides.	Anom is Cultural. Non prospective area, non-prospective geology	none	confluence of power lines, electric fences, mechanics shop, industrial junk; pic 882
E-26a	529495	6642226	AEM	Y	Anoms correspond to various powerlines and buried cables. Abundant culture in area. Local geology is granodiorite.	Anoms are Cultural	none	street lights and low tension line
E-26b	529301	6642143	AEM	Y	Anoms correspond to various powerlines and buried cables. Abundant culture in area. Local geology is granodiorite.	Anoms are Cultural	none	underground powerline
E-26c	529044	6642536	AEM	Y	Anoms correspond to various powerlines and buried cables. Abundant culture in area. Local geology is granodiorite.	Anoms are Cultural	none	no beep mat response

E-27	531236	6635484	AEM	Y	Anomaly follows contact between metseds (amph + qtz rich) and granodiorite. Best O/c slightly off axis--leucogabbro with trace Cpy and metseds hosting trace-5% Py +cpy. Bmat response 3400HFR 1100LFR RT% 56 over metseds, none over gabbro.Axis at this location is in a gully, no staining on surrounding O/c near axis. --- 200-300m NNE of anom is an old Ni mine hosted in gabbro. o/c surrounding mine are all well behaved gabbros. ~1lm along road to the N along trend weak metased gossan.	Area is Prospective. Anom most likley sulphides--possibly related to mine.	Secure pre-claims. UTEM	
E-28	528428	6635604	AEM	Y	Buried Cable. Houses in area.Powerline with cable to ground observed.Middle of farm, No o/c observed	Cultural	none	
E-29	527428	6634718	AEM	Y	Thick overburden. Axis follows overgrown trail lined with buried cable markers. NE end of anom corresponds to end of surface powerline entering ground. Absolutely void of o/c no bmat response except for near markers (3000HFR, RT%92).	Cultural	none	axis follows buried cables under overgrown trail lined with metal markers. NE end of anom can see powerline going into ground
E-30	529334	6634178	AEM	Y	Medium tension powerline crossing road with ground transformer beside highway.	Cultural	none	

E-31	528482	6626276	AEM	Y	Anom follows contact of gabbro and metaseds near area with historic silver mines. Lots of staining and small amounts (trace-3%) of sulphides observed in both units. Bmat responses variable up to 5000HFR and variable mag in the gabbro up to 3000 mag sus. Samples taken for assay.	Anom follows prospective contact with sulphides (gabbro metaseds).	possible UTEM	
E-32	556469	6671552	AEM	N	No O/C. one Bmat response (2000HFR 82%RT)--60cm below surface weathered qtz+bt+plag +amph--possible metased with very trace sulphides. Unable to sample.	Anom unexplained but poss sulphides. Unknown geology	Gridded for UTEM	bmat located buried o/c with response 1800. dug, unable to remove decent sample but chips ressemble o/c observed at E-18 (metadeds?). tr cpy.
E-33	559746	6666286	AEM	N	o/c poor but some boulders of gabbro. No staining. No bmat response.	Anom Unexplained. Proximity to other anoms poss prospective.	see UTEM results	
E-34	551334	6675985	AEM	Y	Powerlines parallel to axis	Cultural	none	high tension powelines on axis
E-35	551415	6676571	AEM	Y	Powerlines parallel to axis	Cultural	none	highbtension powerlines para axis of anom.

Etarg-1	556802	6662307	Mag	Y	mafic gniess (metagabbro?) with leuco and melanosomes but overall poorly developed banding. Magnetic near eastern contact with metaseds. No staining no vis sulp. Diorite observed to the west (coarse grained n o sulp). N-S strinking fol.	magnetite in gneiss. Non prospective geology	none	
Etarg-2	559421	6667969	Mag	Y	Banded gneisses ressembling qtz+bt+gt bearing metaseds. Highly magnetic, visible magnetite on fracture planes. No staining. No vis sulph. F-m grained-crystalline to slighty granular.	Magnetite in gneiss.	low priority.	good potential for cultural; unexplained; no observed prospective units
Etarg-3	559163	6660503	AEM	N	Sparce o/c with pegmatite and highly stained metaseds to the north. Local boulders of coarse to fine grained gabbro. No staining. No bmat response	Anom Unexplained. Prosective geology in area.	see UTEM results	
Etarg-4	560488	6665879	AEM	N	area is o/c poor with local boulders of granular metased gneisses with very weak patchy stains, no vis sulphides.	Immediate geology is non-prospective.	none	small gossan under ~40cm of overburden; prospective for Cu; trace po...Ni potential?
Etarg-5	554351	6652238	AEM	Y	Powerline parallel to axis	Culture	none	mid tenson powerline. photo 986.
Etarg-6	555933	6661950	Geology	Y	Visited in 2005			
Etarg-7	556478	6664276	Geology	Y	SEE Etarg-1			

Etarg-8	557536	6661668	Geology	N	See-Etarg-29			good potential for cultural; unexplained; no observed prospective units
Etarg-9	559808	6661915	Geology	N	Farmers fields, o/c poor. Where found crystalline unlayered weakly to non- foliated. No staining.	Possibly prosepctive	additional prospecting surrounding area	
Etarg-10	559884	6664907	Geology	N	SEE-Etarg-4			good potential for cultural; unexplained; no observed prospective units
Etarg-11	559425	6667471	Geology	Y	Banded gneiss ressembles metaseds with good by and bt developed. Patchy staining within bands (sed sulp?). Elsewhere very crystalline with no staining, no sulp.	Metagabbro?? Not prospective but indicative of sulphides present in system	additional prospecting in area	
Etarg-12	561846	6671332	Geology	N	not visited			
Etarg-13	559948	6672382	Geology	N	not visited			sparse outcrops; no prospective geology observed; conductor not observed; low prospectivity

Etarg-14	558575	6673901	Geology	Y	Banded Mafic Gneiss/metagabbro with magnetite. Visible sed sulph surrounding unit	metagabbro. Assayed surrounding staining	none	no observed prospective geology; conductor unexplained; low prospectivity
Etarg-15	555028	6678212	Geology	Y	Visited in 2005			gabbro or metaseds? silicified; consistent grain size; bt, minor qtz bearing; plag amph matrix; no EM; moderate prospectivity
Etarg-16	555157	6681590	Geology	N	not visited			powerline to house
Etarg-17	547050	6675972	Geology	N	not visited			see pic 855, 856
Etarg-18	551685	6672163	Geology	Y	Well banded gneisses alternating from bt+gt rich bands (metaseds?) to granitic and dioritic bands(orthogneiss) with m scale intervals of gossan stains in metaseds. Samples of tr-3% sulph taken for assay.	Mostly Sed sulp but indicative of sulph system in area.	additional prospecting	prospective geology...contact of sulphide bearing metaseds and magnetic gabbro; historical silver mines nearby;

Etarg-19	547509	6671787	Geology	N	not visited			gt bt schist, qtz bands, gneissic well banded, no staining, no vis sulph, no bmat response, no vlf, anom unexplained
Etarg-20	546199	6663543	Geology	N	not visited			
Etarg-21	542299	6664700	Geology	N	not visited			
Etarg-22	533390	6651683	Geology	Y	Sigdal gabbro	Host Historical mine	see UTEM results	
Etarg-23	530907	6642965	Geology	N	not visited			
Etarg-24	529718	6631792	Geology	Y	Variable differenciated diorite to gabbro with trace sulph throughout. Believe this is the same gabbro hosting old mine. Lots of magnetite. Mag low corresponds to metaseds / (poss granodioritic gneiss)	prospective area	UTEM secure preclaims	
Etarg-25	525517	6628799	Geology	N	not visited			
Etarg-26	520391	6624897	Geology	N	not visited			
Etarg-27	557420	6667600	AEM	N	Qtz+bt+gt bearing gneisses with cm scale pervaisive banding (N-S). No staining, no mag. Showing not located. Granodioritic intrusive to the east (no staining).	Showing not located. Geology observed is non-prospective but on trend of identified mineralization.	Low-priority: possible additional prospecting in area.	
Etarg-28	557870	6665813	AEM	N	Qtz+bt+gt bearing gneisses with cm scale pervaisive banding (N-S). No staining, no mag. Showing no located.	Showing not located. Geology observed is non-prospective but on trend of identified mineralization.	Low-priority: possible additional prospecting in area.	
Etarg-29	557666	6661358	AEM	N	granodorite to granite. Non-magnetic. No staining. (an unsuccessful attempt was made to locate this showing in 2005)	Showing not located. Geology observed is non-prospective but on trend of identified mineralization.	Low-priority: possible additional prospecting in area.	

DASHED	557200	6657200	AEM	Y	ALL dashed axis were visually verified to be powerlines- either mid to high tension or underground cables with markings.	Culture	none	
Etarg-30	559100	6662900	Mag	Y	Paul Negral request. Banded gneiss see report	cannot use mag to map units in Ertelien	none	
Vaeleraug et	557518	6661492	NGU showing	N	Field visit to area unable to locate showing	Overgrown	Very low priority possible UTEM	
Pjakerud	559468	6664291	NGU showing	N	Field visit to area unable to locate showing	Overgrown	Very low priority possible UTEM	
Hejern	560168	6664792	NGU showing	N	Field visit to area unable to locate showing	Overgrown	Very low priority possible UTEM	
Skaug	557069	6669529	NGU showing	N	Field visit to area unable to locate showing	Overgrown	Very low priority possible UTEM	
Ølytjern	557469	6667640	NGU showing	N	Field visit to area unable to locate showing	Overgrown	Very low priority possible UTEM	
Solum	556818	6656692	NGU showing	N	field visit to area, unable to locate showing due to too much overlying culture (fields, houses etc)	Overgrown	Very low priority possible UTEM	
Bergarden	555668	6657542	NGU showing	N	field visit to area, unable to locate showing due to too much overlying culture (fields, houses etc)	Buried	none	
Mastekrog	558079	6657799	NGU showing	N	field visit to area, unable to locate showing due to too much overlying culture (fields, houses etc)	Buried	none	

APPENDIX D

FOR SULFIDMALM A/S

PROJECT 201

Report of field work in the Ertelien area, southeastern Norway: summer 2005.

Report prepared by

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HIGHLIGHTS

- A total of 56 samples were collected and submitted for analysis (SGS Lakefield Research)

- Langsdalen mines: additional samples were collected with best result 2.23wt% Ni for 42.1wt% S (SA68016).

- Previously unvisited (by Falconbridge) small workings north of the Langsdalen area: samples collected with highest values at 1.43wt% Ni for 24.1wt% S (SA67811).

- Samples recovered from the Sigdal North area returned up to 1.04wt% Ni (see samples SA68070-SA68077 in Table 1).

- A sample recovered from the Sigdal South (Uriain workings) returned 1.26wt% Ni for 35.5wt% S (SA68031)

- Regional foliation and gneissic layering in the Ertelien area generally trends NNW-SSE.

- Regional foliation in the Sigdal area generally trends N-S.

INTRODUCTION

Geological Setting

The Ertelien project is situated approximately 40 km northwest of Oslo. The area is underlain by a geological domain known as the Kongsberg Belt, a 100 x 40 km zone of complexly folded sedimentary and granitic gneisses that were deposited between 1700 and 1500 Ma and subsequently metamorphosed and deformed during the later stages of the Svecofenian Orogeny (1600 – 1450 Ma). Mafic intrusions, locally called hyperites, were emplaced over a range of ages including, an early phase of hyperites at 1395 – 1450 Ma, a main phase of hyperites between 1180 and 1250 Ma and a late phase at about 1100 Ma. These intrusions are dominantly comprised of coarse-grained, plagioclase-rich mesocumulates and orthocumulates. However, the intrusive series in its entirety comprises lithologies ranging from subordinate ultramafics (including pyroxenite, picrite and peridotite) through troctolitic varieties to olivine-free gabbros and norites, and olivine-ferrogabbros. Nickel sulphides are associated with a number of these mafic intrusions. A second phase of metamorphism occurred during the Sveconorwegian Regeneration between 1200 and 1180 Ma. This was essentially a thermal metamorphism with limited structural deformation.

The above ages are very poorly constrained and are almost entirely Rb – Sr ages that should be considered to be the youngest possible age. Certainly, the similarity in the age between the main hyperites and the Sveconorwegian Regeneration suggests that the radiometric clock has been reset on the hyperites. It is quite conceivable that the hyperites are closer in age to that of the Voisey's Bay intrusion (1330 Ma). The similarity in rock types and the postulated location of southern Norway to the south and east of Nain between 1800 Ma and 1100 Ma gives further credence to this speculation. Brickwood (1986) states: "the intrusive series can be correlated with comparable, broadly contemporaneous magmatism in Eastern and Southern Greenland. This widespread magmatic activity is thought to have been initiated by a phase of aborted rifting prior to the ultimately successful breakup of the Proterozoic Supercontinent following the Sveconorwegian (=Grenvillian) Orogeny.

Historical Workings and Previous Work

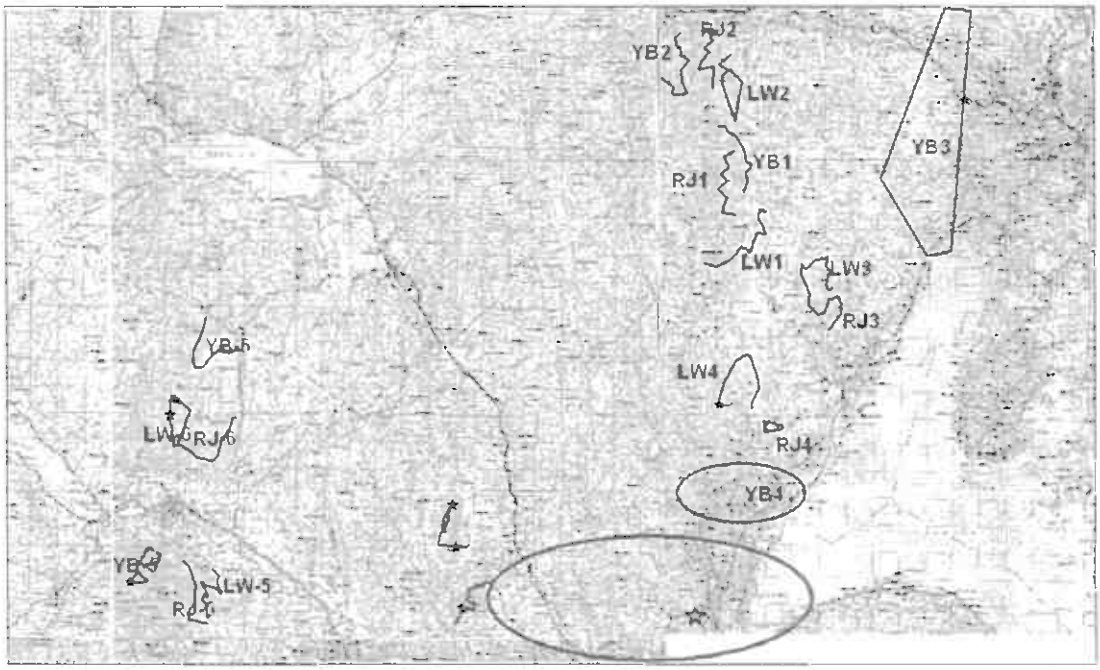
As mentioned above, a number of the hyperite bodies contain known accumulations of nickel sulphides. These sulphides were mined mainly in the late 1800's prior to the discovery of the vast nickel laterite deposits of New Caledonia. This discovery subsequently caused a collapse in the price of nickel, rendering the Ertelien deposits uneconomic except for a brief period during World War 1.

2005 FIELD WORK PHASE 1:

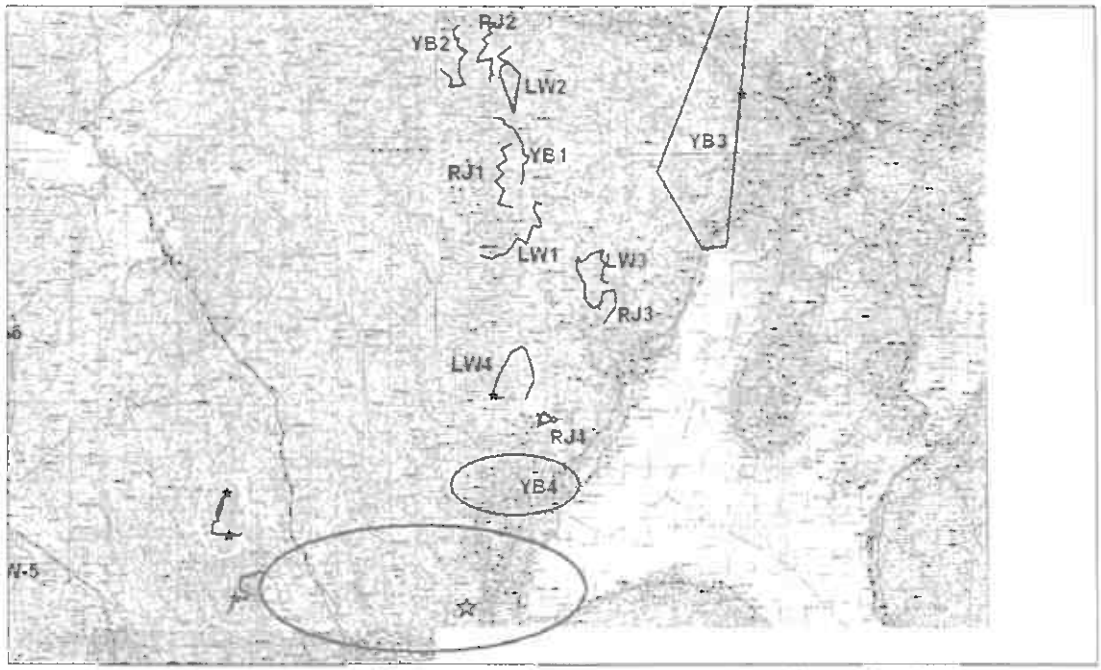
From June 3rd to 17th, 2005, a three person crew composed of Yannick Beaudoin (FL International), Rob Jones (FL International) and Lars Weiershäuser (Sulfidmalm A/S) completed geological reconnaissance (pre-airborne geophysics) throughout the Ertelien

project area. Maps 1, 2 and 3 indicate locations of completed field work. Sites of interest included old mine sites, minor workings and NGU indicated showings. Field work consisted of a series of traverses and road side geology with the goals of: 1-finding previously unknown showings, 2-sampling any observed mineralization and 3-getting familiar with the local geology and area.

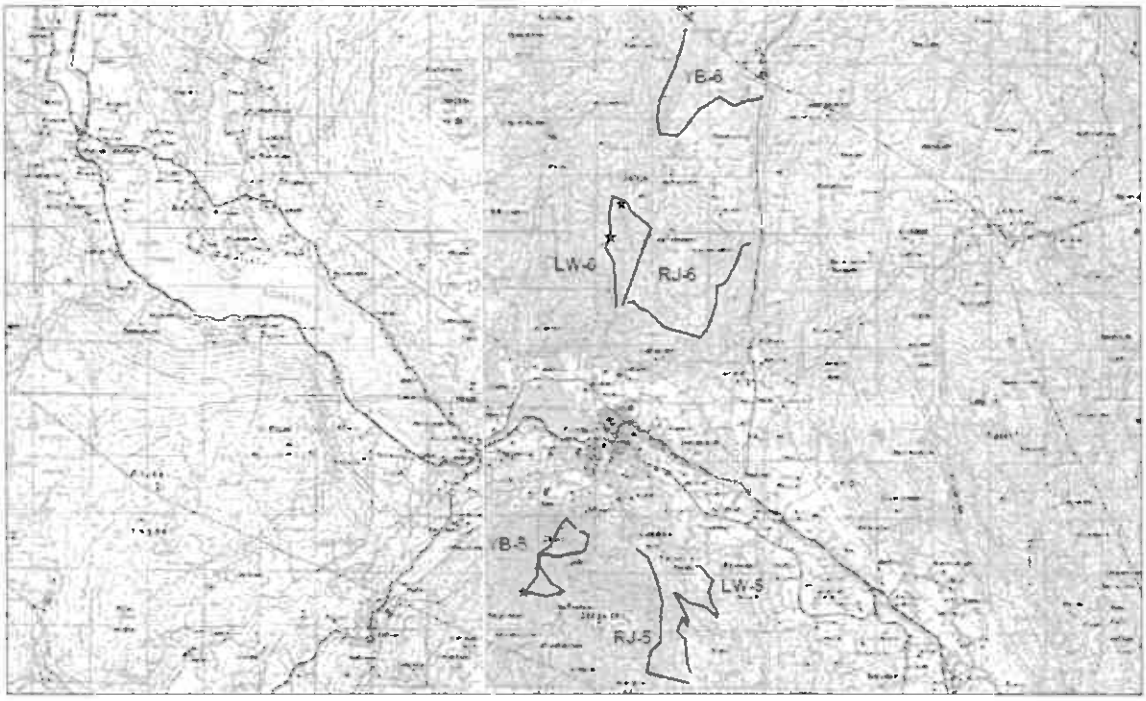
Location



Map 1: Location map of entire Ertelien project area including completed traverses.



Map 2: Ertelien east area (*blue star indicates quarry west of Droslum*)



Map 3: Sigdal area (west Ertelien)

GEOLOGICAL SUMMARY

- Unit 95 on the NGU 1:250 000 Hamar geology map, described as a banded gneiss with amphibolite and horndblende gneiss, is interpreted by current work as a paragneiss sequence for the Ertelien area. Gabbroic and amphibolitic (ultramafics?) bands occur within the sequence but the overall primary lithology appears to be sedimentary in origin (garnet-bearing, sugary texture, pelitic to semi-pelitic composition). In the Sigdal area, unit 95 is more likely an orthogneiss with a plagioclase porphyritic unit dominating the sequence.

- It is difficult to discriminate between the gabbro and ultramafics (units 79 and 80 on Hamar map) in the area southeast of the Langsdalen group of workings. Ultramafic units, if present, coincide with topographical lows with no outcropping.

- Granitic gneisses, unit 70 on Hamar map, cut the paragneiss sequence.

- In general, no lithological unit in the Ertelien project area is significantly magnetic. Only mineralization (old workings and showings) exhibits moderate to strong magnetism.

MINERALIZATION SUMMARY

- Additional samples from the Langsdalen mines returned up to 2.23wt% Ni (SA68065, SA68014-SA68016).

Lab ID	Description	Ni wt%	Cu wt%	Co wt%	S wt%	Pt g/t	Pd g/t	Au g/t	Ag g/t
SA68014		1.19	1.4	0.07	21.1	0.02	0.08	0.07	7.6
SA68015	in situ	0.53	0.76	< 0.02	8.76	0.03	0.03	0.24	7.8
SA68016	waste pile	2.23	0.59	0.1	42.1	0.02	< 0.02	0.91	9.9
SA68065	Langsdalen; 30-40% sulphides; po, py	0.92	0.54	0.06	15.8	0.06	0.1	0.14	4.6

- Samples (SA67808-SA67811) recovered from old workings north of the Langsdalen area (see RJ2 on map 2) returned up to 1.43wt% Ni.

Lab ID	Description	Ni wt%	Cu wt%	Co wt%	S wt%	Pt g/t	Pd g/t	Au g/t	Ag g/t
SA67808	30% sulphides	0.11	6.5	< 0.02	7.28	0.03	0.05	0.09	27.5
SA67809	30% sulphides	0.77	0.43	0.05	17.7	0.03	0.05	0.07	14
SA67810	30% sulphides	0.13	3.27	0.16	12.8	0.03	0.04	0.15	14
SA67811	massive rusty,highly magnetic	1.43	0.87	0.08	24.1	0.09	0.55	0.09	3.6

- Samples recovered from the Sigdal North area (see traverse LW-6 on map 3) returned up to 1.04wt% Ni (see samples SA68070-SA68077 in Table 1).

Lab ID	Description	Ni wt%	Cu wt%	Co wt%	S wt%	Pt g/t	Pd g/t	Au g/t	Ag g/t
SA68070	Sigdal north; showing	0.15	0.72	< 0.02	3.03	0.02	0.03	< 0.02	5.8
SA68071	Sigdal north; showing	0.32	0.51	< 0.02	3.77	0.02	0.07	< 0.02	5.4
SA68072	Sigdal north; showing	0.68	0.13	0.05	10.3	0.13	0.1	< 0.02	2
SA68073	Sigdal north; showing	1.02	0.08	0.08	15.1	0.02	0.04	0.02	2.2
SA68074	Sigdal north; workings; west of Holmenatten; in gabbro?	0.3	0.71	< 0.02	5.4	0.02	0.04	0.03	2.5
SA68075	Sigdal north; workings; west of Holmenatten; in gabbro?	0.28	0.65	0.02	5.09	0.02	0.05	< 0.02	2.2
SA68076	Sigdal north; workings; west of Holmenatten; in gabbro?	0.84	0.15	0.07	13.7	< 0.02	0.16	< 0.02	0.5
SA68077	Sigdal north; workings; west of Holmenatten; in gabbro?	0.42	1.04	0.02	6.98	0.04	0.07	< 0.02	3.6

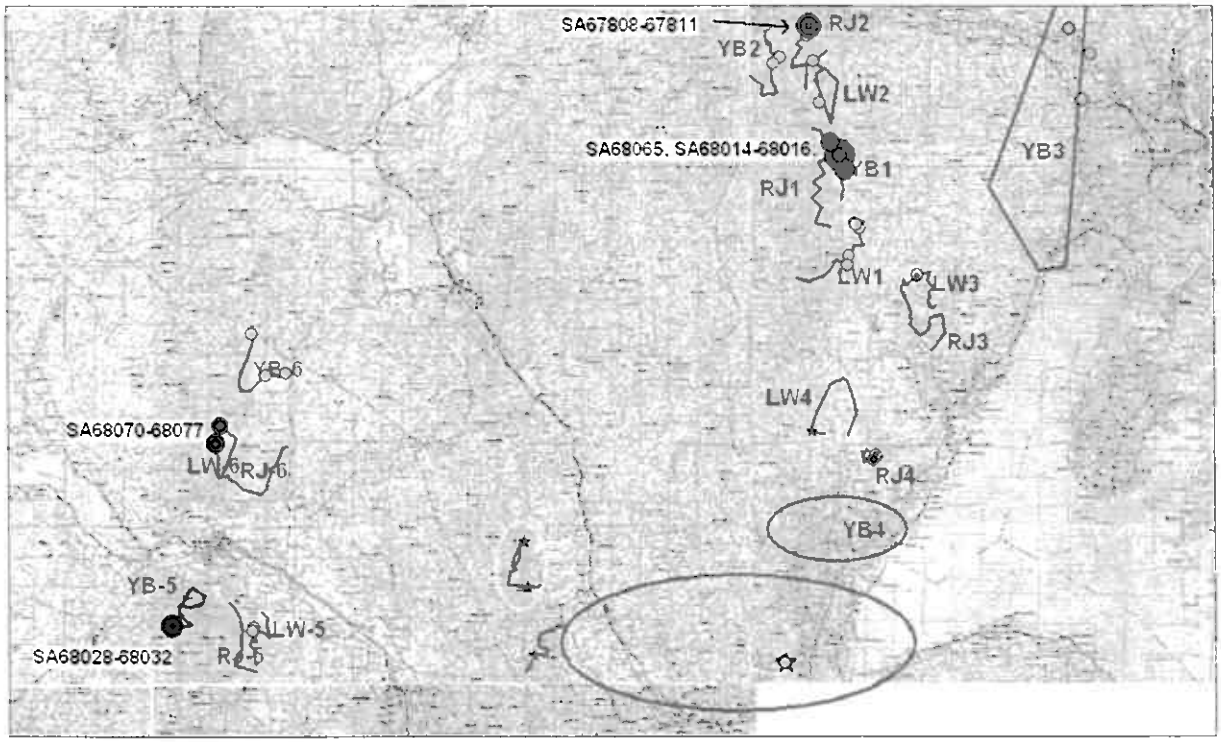
- The general trend of observed mineralization (old workings and showings) follows that of the regional structure with a slight exception at Sigdal (Uriain working, major working within large gabbro intrusive south of Prestfoss…see YB-5 on map 3) where mineralization may be 40 degrees off the foliation trend. In the Sigdal north area, an old working (west of Holmenatten) has an average N-S mineralization trend. Samples (SA68028-SA68032) recovered from the old workings returned up to 1.26wt% Ni.

Lab ID	Description	Ni wt%	Cu wt%	Co wt%	S wt%	Pt g/t	Pd g/t	Au g/t	Ag g/t
SA68028	Sigdal area; 1% sulfides; melanogabbro; waste pile	< 0.05	0.11	< 0.02	0.51	< 0.02	0.02	0.35	1
SA68029	Sigdal area; 3-5% sulfides; melanogabbro; waste pile	0.06	0.1	< 0.02	1.5	0.02	< 0.02	0.02	< 0.5
SA68030	Sigdal area; 25-30% sulfides; po and py?; trace ccp; waste pile	0.75	0.5	0.08	20.7	0.05	0.02	0.07	1.8
SA68031	Sigdal area; massive; po with minor ccp; waste pile	1.26	0.09	0.14	35.5	0.02	0.07	0.03	< 0.5
SA68032	Sigdal area; massive; po with minor ccp; waste pile	1.23	0.14	0.13	35	0.14	0.21	0.04	< 0.5

- One previously unknown showing was located in this phase of fieldwork. It is located in an active industrial quarry approximately 1 km west of Droslum (off highway 35). 1-3% py, po and minor ccp was observed and sampled (LW010-011, and YB027-029) in the southwest corner of the quarry. **Assay results indicate no nickel values for this site.**

- Mineralized (trace to 1-3% sulfide; po, trace ccp) gabbros were found in the Sigdal north area. **No anomalous Ni values reported.**

- NGU indicated showings are for the most part of minor interest and in general have been difficult to locate. The use of "showing" to describe most of these sites is not an appropriate use of the term.



Map 4: Assay results: anomalous Ni values indicated as graded red dots. See Table 1 below for complete assay results.

STRUCTURAL GEOLOGY SUMMARY

- Regional foliation and gneissic layering in the Ertelien area generally trends NNW-SSE.

- Regional foliation in the Sigdal area generally trends N-S.

CULTURE SUMMARY

The entire project area lies within some form or other of developed land. Cottages and towns are common. High and medium tension lines feeding Oslo cross the project area in many locations and will be an important factor in planning geophysics. Electric train lines also link many of the communities.
All areas of interest for possible UTEM ground geophysics would require a base station for grid preparation.

LOGISTICS

Four locations with cabins for rent and one hotel were found in the greater Ertelien project area (there are more likely a few more hotels).

1- Large (for 6 person +) clean, spacious, 2 floor cabin (renovated old barn) can be found approximately 12 kilometers north of Hokksund off highway 35. This is by far the best accommodation located that could be used for a geophysics crew and a possible future field house. Cabin is located on a farmstead with other barns and smaller cabins. Cabin comes with full kitchen (stove with oven and fridge) and large bathroom. Plenty of space for an office corner. Price: 600kr per night plus 150kr per person above 4 people staying. Contact: Håvard Knivestoen, tlf: 32 75 63 02; mobil 97 54 89 77; email: festuss@start.no
2- Hokksund Camping in Hokksund offers a number of medium sized cabins good for at most 3-4 people with little room for equipment. For a geophysics crew, more than one cabin would have to be rented. 800kr/night for cabins with full bath. Not open year round. Tel: 32 75 42 42; Internet: www.hokksund-camping.no
3- Small campground near Vikkersund. Run down with small cabins only.
4- Elvega Campground on highway 7 west of Honefoss. Medium sized cabins available in the same style as at Hokksund Camping.

Option 1 is recommended.

Table 1: sample descriptions and assay results

Area	Field ID	Lab ID	Sample Type	Sample_comments	Map_X	Map_Y	Ni wt%	Cu wt%	Co wt%	S wt%	Pt g/t	Pd g/t	Au g/t	Ag g/t
Ertelien	RJ007	SA67807	assay		555792	6674092	< 0.05	< 0.05	< 0.02	2.38	< 0.02	< 0.02	< 0.02	< 0.5
Ertelien	RJ008	SA67808	assay	30% sulphides	555880	6674419	0.11	6.5	< 0.02	7.28	0.03	0.05	0.09	27.5
Ertelien	RJ009	SA67809	assay	30% sulphides	555880	6674419	0.77	0.43	0.05	17.7	0.03	0.05	0.07	14
Ertelien	RJ010	SA67810	assay	30% sulphides	555879	6674418	0.13	3.27	0.16	12.8	0.03	0.04	0.15	14
Ertelien	RJ011	SA67811	assay	massive rusty,highly magnetic	555879	6674418	1.43	0.87	0.08	24.1	0.09	0.55	0.09	3.6
Ertelien	RJ012	SA67812	assay	1-3% sulphide	565355	6671980	< 0.05	< 0.05	< 0.02	10.7	0.02	< 0.02	0.02	< 0.5
Ertelien	RJ013	SA67813	assay	0.5% sulphide	558142	6659522	0.14	0.08	< 0.02	1.3	< 0.02	< 0.02	0.02	0.5
Ertelien	YB015	SA68014	assay		557095	6669506	1.19	1.4	0.07	21.1	0.02	0.08	0.07	7.6
Ertelien	YB016	SA68015	assay	in situ	556922	6669996	0.53	0.76	< 0.02	8.76	0.03	0.03	0.24	7.8
Ertelien	YB017	SA68016	assay	waste pile	556922	6669996	2.23	0.59	0.1	42.1	0.02	< 0.02	0.91	9.9
Ertelien	YB019	SA68017	assay	trace pyrite	554862	6673321	< 0.05	0.08	< 0.02	0.89	< 0.02	< 0.02	0.04	1
Ertelien	YB020	SA68018	assay	magnetite; trace sulphide	554624	6673121	< 0.05	< 0.05	< 0.02	1.17	< 0.02	< 0.02	< 0.02	< 0.5
Ertelien	YB021	SA68019	assay	sulfur veins? hydrothermally altered	564906	6674396	< 0.05	< 0.05	< 0.02	0.53	< 0.02	< 0.02	< 0.02	< 0.5
Ertelien	YB022	SA68020	assay	py-bearing qtz vein	565652	6673543	< 0.05	< 0.05	< 0.02	1.61	< 0.02	< 0.02	< 0.02	< 0.5
Ertelien	YB023	SA68021	assay	1% sulphides: po, ccp	555287	6677865	0.14	0.21	< 0.02	1.33	< 0.02	0.02	0.05	0.6
Ertelien	YB024	SA68022	assay	1% sulphides: po, ccp	555287	6677865	0.1	0.13	< 0.02	0.82	< 0.02	0.02	0.04	< 0.5
Ertelien	YB025	SA68023	assay	trace sulphide	556098	6678705	< 0.05	< 0.05	< 0.02	0.04	< 0.02	< 0.02	< 0.02	< 0.5
Ertelien	YB026	SA68024	assay	trace sulphide	556098	6678705	< 0.05	< 0.05	< 0.02	0.14	0.02	< 0.02	< 0.02	< 0.5
Ertelien	YB027	SA68025	assay	Droslum quarry; 2-3% sulfides	555020	6652566	< 0.05	< 0.05	< 0.02	5.5	0.02	< 0.02	0.02	< 0.5
Ertelien	YB028	SA68026	assay	Droslum quarry; 3-5% sulfides	555020	6652566	< 0.05	< 0.05	< 0.02	5.5	0.02	< 0.02	< 0.02	< 0.5
Ertelien	YB029	SA68027	assay	Droslum quarry; 2% sulfides	555020	6652566	< 0.05	< 0.05	< 0.02	4.89	< 0.02	< 0.02	< 0.02	< 0.5
Sigdal	YB030	SA68028	assay	Sigdal area; 1% sulfides; melanogabbro; waste pile	533766	6653612	< 0.05	0.11	< 0.02	0.51	< 0.02	0.02	0.35	1
Sigdal	YB031	SA68029	assay	Sigdal area; 3-5% sulfides; melanogabbro; waste pile	533766	6653612	0.06	0.1	< 0.02	1.5	0.02	< 0.02	0.02	< 0.5
Sigdal	YB032	SA68030	assay	Sigdal area; 25-30% sulfides; po and py?; trace ccp; waste pile	533766	6653612	0.75	0.5	0.08	20.7	0.05	0.02	0.07	1.8
Sigdal	YB033	SA68031	assay	Sigdal area; massive; po with minor ccp; waste pile	533766	6653612	1.26	0.09	0.14	35.5	0.02	0.07	0.03	< 0.5
Sigdal	YB034	SA68032	assay	Sigdal area; massive; po with minor ccp; waste pile	533766	6653612	1.23	0.14	0.13	35	0.14	0.21	0.04	< 0.5
Sigdal	YB035	SA68033	assay	trace sulfide; gabbro	536587	6653573	< 0.05	< 0.05	< 0.02	0.19	0.02	< 0.02	< 0.02	< 0.5
Sigdal	YB036	SA68034	assay	minor sulfides; fluorite; qtz vein in monzonite	536498	6663673	< 0.05	< 0.05	< 0.02	0.42	< 0.02	< 0.02	0.02	< 0.5
Sigdal	YB037	SA68035	assay	trace sulfides in diabase	537003	6662258	< 0.05	< 0.05	< 0.02	0.15	< 0.02	< 0.02	< 0.02	< 0.5
Sigdal	YB038	SA68036	assay	1-3% sulfides in gabbro; po,	537683	6662346	< 0.05	0.08	< 0.02	1.01	< 0.02	< 0.02	< 0.02	5.7

				trace ccp										
Ertelien	LW001	SA68051	assay	minor sulphides	557600	6667470	< 0.05	< 0.05	< 0.02	0.15	< 0.02	< 0.02	< 0.02	< 0.5
Ertelien	LW002	SA68052	assay	minor sulphides	557454	6667645	< 0.05	< 0.05	< 0.02	2.92	< 0.02	< 0.02	0.03	1
Ertelien	LW003	SA68053	assay	minor sulphides	557509	6667585	< 0.05	< 0.05	< 0.02	2.03	0.02	< 0.02	0.02	1
Ertelien	LW004	SA68054	assay	minor sulphides	557245	6666511	< 0.05	< 0.05	< 0.02	0.13	< 0.02	< 0.02	< 0.02	< 0.5
Ertelien	LW005	SA68055	assay	3%sulphides	557220	6666197	< 0.05	< 0.05	< 0.02	0.19	0.02	< 0.02	< 0.02	< 0.5
Ertelien	LW006	SA68056	assay		555988	6673210	< 0.05	0.07	< 0.02	4.23	0.03	< 0.02	0.02	< 0.5
Ertelien	LW007	SA68057	assay		555988	6673210	< 0.05	0.09	< 0.02	5.67	0.02	< 0.02	0.02	< 0.5
Ertelien	LW008	SA68058	assay	minor sulphides	556228	6671774	< 0.05	< 0.05	< 0.02	0.61	< 0.02	< 0.02	0.02	< 0.5
	CRG-B	SA68059					1.74	0.36	0.06	10.2	0.06	0.15	0.02	< 0.5
Ertelien	LW009	SA68060	assay	1-3% sulphide; py, ccp	559657	6665866	0.09	0.05	0.04	8.7	0.11	< 0.02	0.08	< 0.5
Ertelien	LW010	SA68061	assay	no sulfides observed	559648	6665874	< 0.05	0.06	< 0.02	1.67	< 0.02	< 0.02	< 0.02	< 0.5
Ertelien	LW011	SA68062	assay	3% sulphides	555077	6652531	< 0.05	0.06	< 0.02	3.85	< 0.02	< 0.02	< 0.02	< 0.5
Ertelien	LW012	SA68063	assay	3% sulphides	555077	6652531	< 0.05	< 0.05	< 0.02	3.7	< 0.02	< 0.02	< 0.02	< 0.5
Bamble		SA68064	assay	Messle mine; 80% massive sulfide; po	477968	6481741	0.64	0.18	0.14	27.6	0.02	0.02	0.02	< 0.5
Ertelien		SA68065	assay	Langsdalen; 30-40% sulphides; po, py	556619	6670429	0.92	0.54	0.06	15.8	0.06	0.1	0.14	4.6
Evje		SA68066	assay	Kjelevatnet; 60% semi massive; po, cc	436418	6485592	2.71	0.46	0.08	15.8	0.02	0.09	0.08	0.7
Ertelien		SA68067	assay	Ertelien; slag	558199	6659700	0.08	0.08	0.07	1.18	< 0.02	< 0.02	0.02	< 0.5
Bamble		SA68068	assay	Nystein; 80% sulphides; py, po	534418	6539091	1.44	0.34	0.21	26.7	0.02	0.05	0.03	< 0.5
Sigdal	LW11b	SA68069	assay	trace sulfides	536532	6653448	< 0.05	< 0.05	< 0.02	0.4	< 0.02	< 0.02	0.05	< 0.5
Sigdal	LW12b	SA68070	assay	Sigdal north; showing	535243	6659882	0.15	0.72	< 0.02	3.03	0.02	0.03	< 0.02	5.8
Sigdal	LW013	SA68071	assay	Sigdal north; showing	535243	6659882	0.32	0.51	< 0.02	3.77	0.02	0.07	< 0.02	5.4
Sigdal	LW014	SA68072	assay	Sigdal north; showing	535243	6659882	0.68	0.13	0.05	10.3	0.13	0.1	< 0.02	2
Sigdal	LW015	SA68073	assay	Sigdal north; showing	535243	6659882	1.02	0.08	0.08	15.1	0.02	0.04	0.02	2.2
Sigdal	LW016	SA68074	assay	Sigdal north; workings; west of Holmenatten; in gabbro?	535410	6660511	0.3	0.71	< 0.02	5.4	0.02	0.04	0.03	2.5
Sigdal	LW017	SA68075	assay	Sigdal north; workings; west of Holmenatten; in gabbro?	535410	6660511	0.28	0.65	0.02	5.09	0.02	0.05	< 0.02	2.2
Sigdal	LW018	SA68076	assay	Sigdal north; workings; west of Holmenatten; in gabbro?	535410	6660511	0.84	0.15	0.07	13.7	< 0.02	0.16	< 0.02	0.5
Sigdal	LW019	SA68077	assay	Sigdal north; workings; west of Holmenatten; in gabbro?	535410	6660511	0.42	1.04	0.02	6.98	0.04	0.07	< 0.02	3.6
Sigdal S		SA67858	assay	Sigdal south; main workings; waste pile; massive po, ccp	533775	6653658								
Sigdal S		SA67859	assay	Sigdal south: 75m SW of main workings; 30% po, ccp stringers	533711	6653551								
Sigdal N		SA67860	assay	Sigdal N: southern site: 70-75% po, ccp	535238	6659938								
Sigdal N		SA67861	assay	Sigdal N; southern site: 70-75% po, ccp	535238	6659938								

Sigdal N	SA67862	assay	Sigdal N; northern site: 20% po, ccp	535398	6660525
Sigdal N	SA67863	assay	Sigdal N; northern site: 10% po, ccp	535348	6660375
Langsdalen N	SA67864	assay	North of Langsdalen; massive po	555877	6674419

APPENDIX:

DAILY REPORT SUMMARIES BY: Yannick Beaudoin, Rob Jones and Lars Weiershäuser

A) Reports by Yannick Beaudoin:

1-Langsdalen area (see YB1 traverse on 2005 traverse map)

This traverse crossed over the 3 main workings in the Langsdalen area: Skaugs, Tyskland and Langsdalen.

Geology:

Main units encountered included paragneiss, gabbro (previously identified as amphibolite) and granitic gneiss.

The paragneiss is generally composed of a relatively leucrocratic metasedimentary, quartz, biotite and garnet bearing unit and a melanocratic, mafic volcanic or intrusive unit. Trace sulfides were observed though very rarely.

The gabbro (identified as amphibolite on the Hamar 1:250K NGU geology map) appears relatively homogenous. It is biotite and plagioclase bearing and is also locally garnet bearing. It is generally medium grained though can be locally coarse. **One hand sample contained a fragment of ultramafic (pyroxenite) which may indicate that nickel enrichment in the gabbro could be the result of assimilation of ultramafic material.** Nowhere was the unit observed to be magnetic.

Granitic gneisses occur as dyke-like formations cutting through all the other units. It is homogeneous and strongly foliated. It is unclear if it is pre or post the folding that affects the gneisses and gabbro.

The relationship between the various units and the mineralization at the 3 main workings is not clear. In general, at each showing, mineralization is hosted in a gabbroic unit as most clearly evident at the Tyskland working where a sizeable portion of gossan remains. At the Skaugs working, a medium grained metasediment unit (quartz and biotite rich and garnet bearing) is in very close proximity to the mined out ore zone. These sediments (part of the paragneiss sequence) are a likely sulfur source for the mineralization.

A possible sequence of events would be:

1-Emplacement of sediment and volcanic/intrusive package.
2-Syn to late emplacement of gabbro unit associated with mineralization (intrusion through ultramafic body as indicated by presence of ultramafic fragment in hand specimen)
3-sulfide deposition along gabbro – sediment boundary (source of volatiles and sulfur)
4-metamorphism and deformation

Picture PICT0078 shows the typical paragneiss. Pictures PICT0081-0082 show thegabbro/gossan in contact with the paragneiss at the Skaugs working.

Access:

Access is through the main Langsdalen gate. The landowner with the access key is Anne Lavenskjald (residence in Ask tel: 321 41204).

2-North Langsdalen area (see YB2 traverse on 2005 traverse map)

Geology:

Main lithological unit encountered was the paragneiss. Deformation is intense with tight and steeply plunging folds. Leucosomes are almost all garnet bearing.
Mineralized horizons were observed in the more mafic component of the paragneiss sequence. Mineralized zones tend to be no greater than 15 cm in width.
Towards the southern end of the traverse, the gneissic sequence becomes more dominated by mafic units like gabbros and/or mafic volcanics.

NGU showings:

Sesserud showing: No showing found within 150 meters of indicated location. Thick forest and heavy moss cover characterize the immediate area. This showing was described as "deposit of minor interest" in the NGU database with no further information available.

Access:

Road access from north to south, within a few kilometers of the Langsdalen working, is excellent. No culture components were observed along the traverse that could interfere with geophysics.

Local landowner informed me that there is no road access to Langsdalen from the north.

3-Follow up of a number of NGU showings (see area marked YB3 on 2005Traverse layer).

NGU showings:

Halsteinrud: No mineralization found within 100 meters of NGU indicated location.

Geology: Sandstone was the dominant lithology of the area. Some zones withing the sandstone have been affected by hydrothermal alteration (mainly silicification). Sulfur (sulfate) veinlets were also present. A small boulder (locally derived) of hydrothermally altered sandstone with trace pyrite was sampled.

Access: Good access via old tractor path now a wide footpath. High tension powerlines run parallel to the footpath.

Aklanger: No mineralization seen in immediate vicinity of NGU location. Rusty patched on outcrops throughout area. No sulfides observed.

Geology: Sandstone dominated geology.

Access: Gated road (key obtained from Petter Kopstad 321 41262) runs to showings area.

Non-NGU showing:

A 200 meter long road cut on the Ovre Veme paved road contains a number of pyrite-bearing quartz veins. It was sampled for VMS-type mineralization.

4-Follow up of a number of NGU showings (see area marked YB4 on 2005Traverse layer).

NGU showings:

Jolinatten: No mineralization seen in immediate vicinity of NGU indicated location.

Geology: Gabbro unit found in area of showing. Dominant lithology is sandstone.

Approximately 400 meters southeast of the NGU indicated showing (under a series of high tension powerlines), a 15 meter by 2 m (wide) by 2 m (deep) trench was located and samples. 1-3% sulfides (po and ccp) are hosted in a medium to locally coarse gabbro.

Access: Gated road (key obtained from Mr Kultima 391 40520) network accesses a large area.

Mastekrog (near Ertelien mine): Local homeowner indicated that her house was built upon two filled in drifts. The house location coincides with the NGU indicated location for the showing.

Berrgarden: Located in cultivated field. Fieldowner indicated that land was cleared and transformed into agricultural land between 10 and 15 years ago. Outcrops were removed or covered by topsoil.

Solum: Rusty rock seen in creek bed by roadside. No sulfides seen.

5-Road geology

NGU showings:

Jaren: No mineralization was found in the vicinity of the indicated showing.

Geology: The area is dominated by paragneisses with biotite-pegmatites intruding locally. Minor rusty patches were located but no sulfides were found.

Industrial mineral quarry west of Droslum (off highway 35 north to Honefoss):

An active industrial mineral quarry was investigated. Fresh blasting into paragneisses has uncovered a mineralized (py, po) layer within the paragneiss. Pyrite- (trace chalcopyrite) bearing biotite pegmatites are present in the vicinity of the mineralized paragneiss layer. The mineralized band is moderately magnetic. 2 samples were collected for assay. **This is the first showing found that was not in the NGU database or in any other record.**

Assay results indicate no nickel in the quarry samples.

6-Further investigation of new showing in quarry west of Droslum

Further work was done at the Pukk Produktion quarry west of Droslum on a week day when the owner was present.

Owner details: Vidar Finsrud (Pukk Produktion) tel: 32 78 24 87 cell: 90 06 89 04

Mr Finsrud operates and owns the quarry but leases the land.

Geology:

Paragneiss is the only lithology seen at the site. Banding trends approximately 180 in south west portion of the quarry with a steep 87 degree dip. Individual band widths vary from a few

centimeters to 10's of centimeters. Almost all units are garnet bearing with some units having garnets as big as 5 cm in diameter.

Biotite-bearing pegmatites intrude the paragneiss and contain up to 5% py and minor ccp. Pyrrhotite is mainly within the paragneiss itself and occurs as disseminated sulphide. Pyrite and chalcopyrite mineralization are clearly associated with the pegmatites while any association with the pyrrhotite is unclear. Paragneiss units are moderately magnetite where pyrrhotite occurs.

PICT0091-0092 show the southwest portion of the quarry where mineralization is most prevalent.

Access is easy along a paved side road going west from highway 35. Medium tension powerlines run immediately parallel to the paved side road, approximately 150 meters from the mineralized paragneiss.

Assay results indicate no nickel in the quarry samples.

7-Sigdal area gabbro unit: YB-5 on the 2005 Ertelien traverse layer

Geology: The dominant lithology of the area was a medium grained gabbro, locally melanogabbro. The unit was never observed to be magnetic unless mineralized (old workings). Large wraths of mafic gneiss (paragneiss?) were observed within the gabbro indicating a younger age relationship to the gneisses. The unit is generally homogenous and is foliated (average N-S trend).

Mineralization: The old mine workings (Uriain?) by Sigdal Nikkelverk consist of an approximately 50 meter long by 5 meter wide by 15 meter (visible) deep drift trending 046 and dipping approximately 75. Pictures PICT0093-104 show the area of the old workings. 5 samples (YB030 to YB034) ranging in sulfide content from 1% to massive were collected.

8-Sigdal north area: YB-6 on the 2005 Ertelien traverse layer

Geology: There were three lithologies in the area: 1- monzonite felsic intrusive (granite gneiss on 1:250 000 Hamar map) . 2- intermediate gneiss dominated by plagioclase porphyritic unit and 3- gabbroic dykes/sills intruding parallel to foliation in gneisses. No garnet-bearing, biotite rich units were encountered in the intermediate gneiss suggesting that this is a different package from the paragneiss sequence observed in the Ertelien area (both sequences are identified as unit 95 on the Hamar 1: 250 000 geology map).

The gabbroic units were mineralized in all three instances where encountered. Sulfide content ranged from trace to 1-3%. Pyrrhotite was the main sulfide with trace ccp in one of the sampled gabbros.

No magnetic units were encountered with the exception of magnetic pyrrhotite in the mineralized gabbros.

Foliation(gneissic banding) averaged N-S (020 – 350) with local variation caused by folding.

Mineralized samples are: YB035-YB038

B) Reports by Rob Jones:

1-Location: Langsdalen eastern side of lake, opposite river.

Purpose: investigate the contact between gabbro and gneiss
Culture:
Sulfides found: only trace amounts
Samples: None taken for assay, three hand samples taken
Rock types: P*aragneiss*-med grain, non magnetic, no sulfides, composition banding, banding strikes approximately 340 and dips 70. Garnets found replacing mafic minerals locally.
Mafic gneiss- med grain, non magnetic, no sulfides, composition banding, banding strikes approximately 340 and dips 70. Garnets found locally. Parent rock was likely gabbro.
Gabbro-med grained, non magnetic, no sulphides, spectacularly normal. Boundary with Mafic gneiss often difficult to determine, gabbro grades into mafic gneiss.
Granite- med-grained, non-magnetic, sugary texture, pink/orange in color is distinguishing feature, appears to cut both mafic gneiss and gabbro.

Note: in field there was a weathering difference where portions of the gabbro had a different pattern than others. This was not noticed until late in the day, there are possibily two different gabbros.

2-Location: Langsdalen area; approach from the north (see RJ2 on Map 2).

Purpose: investigate the central portion of paragneiss, locate and sample Stoverntangen showing from NGU database.
Culture: Two very large power lines run east west in bottom of the valley close to within 200m of Stoverntangen showing.
Sulfides found: Up to 50% sulfide found at Stoverntangen, samples contain po, chal and py. Highly magnetic
Samples: Samples RJ008-11 are taken from Stoverntangen showing.
Rock types: P*aragneiss*-med grain, non magnetic, no significant sulfides except at showing, composition banding, banding strikes approximately 340 and dips 70. Garnets found replacing mafic minerals locally. A subgroup is fine grain, pink and strongly foliated but still thought to have originated from a sediment.
Monzenite- Quartz and plag with megacrysts of plag up to 12cm in diameter. Not magnetic, mappable and does not contain significant sulfides.

3-Location: Langsdalen area approach from the South.

Purpose: investigate ultramafic bodies hosted in paragneiss. No ultramafics found.
Culture: Large powerlines, many farms over map area.
Sulfides found: Trace to nill
Samples: No samples taken.
Rock types: P*aragneiss*-med grain, non magnetic, no significant sulfides. Garnets found replacing mafic minerals locally.
Gabbro- med grain, non-magnetic, no significant sulfides found.

4-Location: Ertelien Workings.

Purpose: investigating determining rough extents of gabbro. It is close to proportions on regional NGU map.
Culture: Large powerlines, cottages to the south and east.
Sulfides found: Trace to 3% in gabbros and trace in paragneiss
Samples: ONE SAMPLE FIND OUT WHAT IT IS. Most rock cuts are at 140 degrees but minor cut in northern portion are east west.

Rock types: *Paragneiss*-med grain, non magnetic, no significant sulfides. Garnets found replacing mafic minerals locally.
Gabbro- med grain, non-magnetic, it hosts mined out workings.

**Some small workings were observed to trend nearly east-west.

C) Reports by Lars Weiershäuser:

1-Ertelien area - Langdalen NE-SW Traverse
1:50.000 Topo map sheet: Honefoss
Geologist: Lars Weiershäuser

Goals
The traverse was laid out in a general NE-SW direction and was designed to 1) exactly locate a known showing in the area, 2) find any unknown mineral showings, if possible, 3) locate contacts between rock types shown on the geological map of the area, 4) to determine foliation and other structural attitudes important in the design of the planned airborne survey of the area, and 5) determine the suitability of the area for use of the DGPS without base station.

Mineral Showing
The known *mineral showing* (stations 6 and 7) was located between 557454E, 6667644N and 557509E, 6667585N. The showing consists of a slightly rusty outcrop ~50 m in length. Mineralization consists of py, up to ~25%. A very small testpit (1 x1 m in diameter, shallow) indicates minimal historic interest.
No other showings were discovered.

Main Rock Types
The main rock types encountered along this traverse were 1) banded gneiss and 2) gabbro.
The NE contact of the gneissic country rock with the gabbro was found to be gradational with intercalating (multiply folded?) bands of gabbroic and gneissic rock. The main foliation strikes *340 to 350; the dip is (sub)vertical to the E.* The gneiss is commonly garnetiferous and non-magnetic. However, rocks at stations 1 (557610E, 6667310N) and 9 (557717E, 6667017N) were locally weakly magnetic. The rocks at station 4 (557573E, 6667770N) were moderately magnetic. A relatively high garnet (and mica) content suggests that the gneiss has a sedimentary precursor.
The existence of the amphibolite, shown on the geological map (1:250.000), cold not be confirmed. Rocks along the traverse in that area were massive, homogeneous, fine grained, non-magnetic gabbros.
The contact with the gneissic rock to the W was not found. It is likely that the contact is gradational as well and possibly more westerly than shown on the map.

DGPS
The area along the traverse is completely forested with coniferous as well as deciduous trees. The topography is hilly, in places steep but never extreme. The size of the trees suggests that the forest has been logged at least once.
Due to the locally dense and "shrubby" nature of the vegetation it is suggested that a DGPS with base station be used.

Access etc.
Access to the area is very good via a number of well-maintained semi-private dirt roads. There are no power and/or telephone lines in the area that could interfere with a geophysical survey. A

number of cottages (see map for locations) could potentially require modified ground geophysical traverses. Water for any drilling is abundant (lakes and streams) and never more than ~500 m away.

2-Ertelien area – N-S traverse S of Gardhammar
1:50.000 Topo map sheet: Honefoss
Geologist: Lars Weiershäuser

Goals
The traverse was laid out in a general circular pattern and was designed to 1) exactly locate the known showing in the area, 2) find any unknown mineral showings, if possible, 3) to determine foliation and other structural attitudes important in the design of the planned airborne survey of the area, and 4) determine the suitability of the area for use of the DGPS without base station.

Mineral Showing
The known *mineral* showing was located at 555988E, 6673210N (Samples LW 006 and LW 007). The showing consisted of a ca. 7 m deep trench/adit into the hillside. The outcrop is about 30 m in diameter. No sulfides were seen at this location; however, the rocks (gabbro, magnetic, medium-grained) were gossaneous, indicating the presence of Fe-sulfides. A second, previously unrecorded minor showing was located 556228E, 6671774N (Sample LW 008). This showing consisted gossaneous gneiss.
No further showings were discovered.

Main Rock Types
The main rock type encountered along this traverse was banded, non-magnetic, on outcrop scale homogenous gneiss. Grain size varies between fine and medium-grained. Locally, the gneiss is garnet-bearing. At least two outcrops (556377E, 6673230N and 556109E, 6672295N) consisted of massive very coarse, pegmetitic quartz feldspar with feldspar megacrysts up to ~15 cm in length. Along the northern part of the traverse, the dominant foliation strikes 340-350/vertical to subvertical. aAlong the southern part of the traverse the strike of the foliation strikes becomes more and more E-W-erly. At the last station (556467E, 6671427N) the foliation strikes 130, dips 80.

DGPS
The area along the traverse is completely forested with coniferous as well as deciduous trees. The topography is hilly, in places steep but never extreme, except along the N-S fault E of the traverse where a small creek follows a deeply incised valley.
The size of the trees suggests that the forest has been logged at least once. Due to the locally dense and "shrubby" nature of the vegetation it is suggested that a DGPS with base station be used.

Access etc.
Access to the area is very good via a number of well-maintained semi-private and private dirt roads as well as logging roads. There are no power lines in the area that could interfere with a geophysical survey. A number of cottages (see map for locations) could potentially require modified ground geophysical traverses. Access to water is sparse, except for the creek to the E; however, water would have to be pumped out of the valley.

3-Ertelien area – S of Langdalen deposits
1:50.000 Topo map sheet: Honefoss
Geologist: Lars Weiershäuser

Goals

The traverse was laid out in a general circular pattern and was designed to 1) locate two known showings in the area, 2) find any unknown mineral showings, if possible, 3) locate contacts between rock types shown on the geological map of the area, 4) to determine foliation and other structural attitudes important in the design of the planned airborne survey of the area, and 5) determine the suitability of the area for use of the DGPS without base station.

Mineral Showing

The first known *mineral showing* (NGU coordinates 560168E, 6664792N) could not be located. The second known *mineral* showing was located at 559647E, 6665873N (Sample LW 010). The showing consisted of a ca. 3 m deep trench/adit into the hillside. No sulfides were seen at this location; however, the rocks (gabbro) were gossaneous, indicating the presence of Fe-sulfides. A third, previously unrecorded showing was located 559647E, 6665877N (Sample LW 009). This showing consisted of a small dig, ca. 1 m in diameter, with gossaneous gabbro. The rock contained ca. 3% py and cpy.
No further showings were discovered.

Main Rock Types

The main rock types encountered along this traverse were 1) gabbro, 2) melano gabbro, and 3) meta-sandstone. The gabbro is homogeneous throughout the area, medium-grained, non-foliated, and non-magnetic. No foliation attitudes were recorded.
The ultramafic unit shown on the geological map of the area consists of amphiboles and minor feldspar; the rock is weakly magnetic. Due to the feldspar content of ~5% this rock is referred to as melano gabbro. It is generally medium grained, except for amphibole megacrysts (up to ~1 cm in length), homogeneous, and massive. No foliation attitudes were recorded.
The meta-sandstone is medium-grained, has a sugary texture and contains feldspar and minor biotite.

DGPS

The area along the traverse is completely forested with coniferous as well as deciduous trees. The topography is hilly, in places steep but never extreme. Locally, slopes are covered by blocky talus. The size of the trees suggests that the forest has been logged at least once.
Due to the locally dense and "shrubby" nature of the vegetation it is suggested that a DGPS with base station be used.

Access etc.

Access to the area is very good via a number of well-maintained semi-private and private dirt roads. There is one high tension power line (shown on the topographical map of the area) in the area that could interfere with a geophysical survey. A number of cottages (see map for locations) could potentially require modified ground geophysical traverses. Access to water is sparse, except for a lake in the center of the area.

4-Ertelien area – NW of Grefsrud
1:50.000 Topo map sheet: Honefoss
Geologist: Lars Weiershäuser

Goals

The traverse was laid out in a general circular pattern and was designed to 1) exactly locate two known showings in the area, 2) find any unknown mineral showings, if possible, 3) locate contacts between rock types shown on the geological map of the area, 4) to determine foliation and other structural attitudes important in the design of the planned airborne survey of the area, and 5) determine the suitability of the area for use of the DGPS without base station.

Mineral Showing

Both *mineral showings* (NGU coordinates Ringerike: 557918E, 6659642N and Vaelerauget: 557518E, 6661492N) could not be located. A clear-cut area covers the location of the the Ringerike showing; hence, it is unlikely that the showing was "overlooked". The Vaelerauget coordinates are within an area with very little outcrop. No further showings were discovered.

Main Rock Types

The main rock type encountered along this traverse was banded gneiss. The geological map (sheet "Hamar", 1:250 000) shows roughly N-S trending areas of gabbro interfingering with the gneiss. Based on this day in the field area, no clear distinction between the two rock units can be made. Some outcrops were found to contain a higher percentage of melanocratic bands, but all outcrops were found to be gneiss.
All rocks were non-magnetic, except at one outcrop just S of the Ringerike "showing" were the gneiss was locally weakly magnetic. Foliation strikes between 320 and 10 degrees; the majority strikes 340 degrees. The foliation generally dips vertically to subvertically to the E.

DGPS

The area along the traverse is completely forested with coniferous as well as deciduous trees. The topography is hilly, in places somewhat steep but never extreme. Locally, slopes are covered by blocky talus. The size of the trees suggests that the forest has been logged at least once. Locally, trees are far apart, but generally the vegetation is dense and "shrubby"; Hence, it is recommended that a DGPS with base station be used.

Access etc.

Access to the area is very good via two of well-maintained semi-private and private dirt roads. No power lines or phone lines that could interfere with ground geophysical surveys cross the area. A small number of cottages (see map for locations) could potentially require modified ground geophysical traverses. Most cottages are located along the shore of a lake just E of the traversed area. Access to water is sparse, except for a lake E of the area.

5-Sigdal area
1:50 000 Topo map sheet: Kroderen
Geologist: Lars Weiershäuser

Goals

- exactly locate two known showings in the area
- find any unknown mineral showings, if possible
- determine foliation and other structural attitudes important in the design of the planned airborne survey of the area
- determine the suitability of the area for use of the DGPS without base station.

Mineral Showing

Two *mineral showings* (not in NGU database) were located at: 535243E, 6659882N and: 535410E, 6660511N. The former consists of a small pit (~2 by 2 m); the depth is unknown since it was water-filled. Samples LW 012 – LW 015 were taken. Pictures dscn 2092 - 2098A show the pit and the samples in sequence. The samples contain up to ~50% sulfide, mainly po, cpy is very common. The sulfides are hosted in a well-foliated and banded gneiss. The latter mineral occurrence (named "Holmenatten", 535410E, 6660511N) consists of a main N-S trending trench (~10 - 15 m) long and two smaller E-W trenches ~5 m long further up the hill. See pictures dscn 2200 – 2106. Mineralization is disseminated to blebby and consists of po with trace to minor cpy. The mineralization is hosted in a gabbroic rock. The immediate wall rock is a light-colored gneiss. At

this point it is not clear whether the gabbroic rock is a thick mafic band in the gneiss or a separate unit. Samples LW 016 – 019 were taken here.

Main Rock Types

The main rock types encountered along these traverses were various gneisses. They are commonly well-foliated and banded.

The gneisses along the southern traverse (June 15) are more massive and the bands are thicker and better defined. Here, mafic bands seem to dominate. The northern area (June 16) is dominated by light-colored, more felsic gneisses, locally with feldspar "mega"crysts. The foliation generally strikes N-S; it dips vertically to subvertically in the southern area and ~60 degrees in the northern area.

DGPS

The area along the traverse is completely forested with coniferous as well as deciduous trees. The topography is hilly, in places somewhat steep, sometimes extreme. Locally, slopes are covered by blocky talus. The southern area is densely wooded with young trees – the use of a base station seems to be absolutely necessary. The northern area has larger trees that are spaced wider apart; at least in western part a base station might not be necessary.

Access etc.

Access to the area is very good via well-maintained semi-private and private dirt roads. No power lines or phone lines that could interfere with ground geophysical surveys cross the area. A small number of cottages (see map for locations) could potentially require modified ground geophysical traverses. Access to water is sparse, in the southern part of the area; a small creek could be used in the northern area.

APPENDIX E

2004-2006 FALCONBRIDGE ASSAY RESULTS AND DATA TABLE

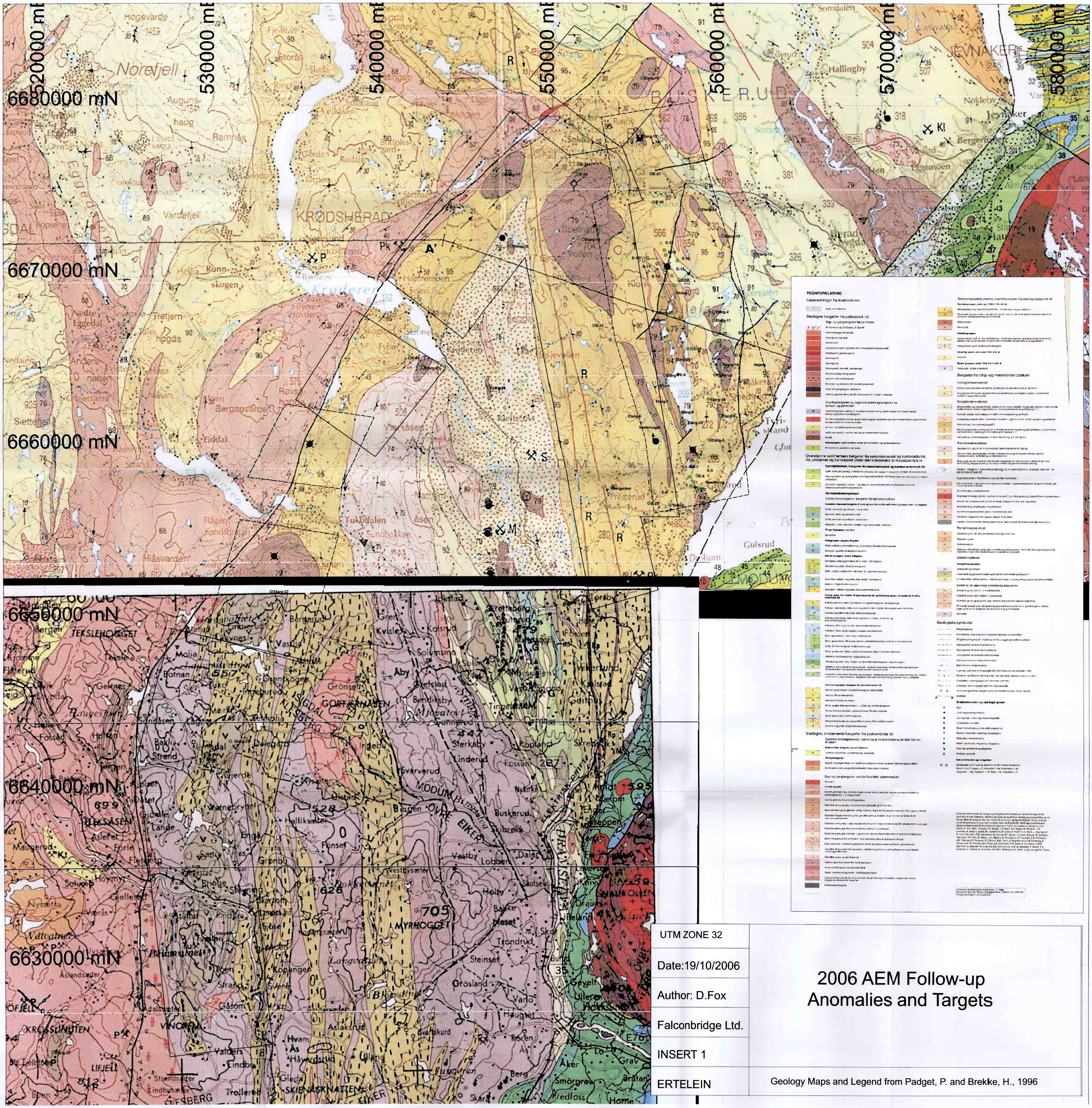
Lab_ID	Map_X	Map_Y	Area	Topo_sheet	Name	Ni_wt%	Cu_wt%	Co_wt%	S_wt%	Pt_ppm	Pd_ppm	Au_g_t	Ag_g_t	Sample_comments	Year
SA67807	555792	6674092	Ertelien	Honefoss	Sokndalen	<0.05	<0.05	<0.02	2.38	<0.02	<0.02	<0.02	<0.5		2005
SA67808	555880	6674419	Ertelien	Honefoss	Stovemtangen	0.11	6.9	<0.02	7.28	0.03	0.05	0.09	27.5	30% sulphides	2005
SA67809	555880	6674419	Ertelien	Honefoss	Stovemtangen	0.77	0.43	0.05	17.7	0.03	0.09	0.07	14	30% sulphides	2005
SA67810	555879	6674418	Ertelien	Honefoss	Stovemtangen	0.13	3.27	0.16	12.8	0.03	0.04	0.15	14	30% sulphides	2005
SA67811	555879	6674418	Ertelien	Honefoss	Stovemtangen	1.43	0.87	0.08	24.1	0.09	0.55	0.09	3.6	massive rusty highly magnetic	2005
SA67812	565355	6671980	Ertelien	Honefoss	Heiem	<0.05	<0.05	<0.02	10.7	0.02	<0.02	0.02	<0.5	1-3% sulphide	2005
SA67813	558142	6659522	Ertelien	Honefoss	Ertelien	0.14	0.08	<0.02	1.3	<0.02	<0.02	0.02	0.5	0.5% sulphide	2005
SA68014	557095	6669506	Ertelien	Honefoss	Skaug	1.19	1.4	0.07	21.1	0.02	0.08	0.07	7.6		2005
SA68015	556922	6669906	Ertelien	Honefoss	Tyskland Gruve	0.53	0.76	<0.02	8.76	0.03	0.03	0.24	7.8	in situ	2005
SA68016	556922	6669906	Ertelien	Honefoss	Tyskland Gruve	2.23	0.59	0.1	42.1	0.02	<0.02	0.91	9.9	waste pile	2005
SA68017	554862	6673321	Ertelien	Honefoss	Flaene	<0.05	0.08	<0.02	0.89	<0.02	<0.02	0.04	1	trace pyrite	2005
SA68018	554624	6673121	Ertelien	Honefoss	Flaene	<0.05	<0.05	<0.02	1.17	<0.02	<0.02	<0.02	<0.5	magnetite; trace sulphide	2005
SA68019	564906	6674398	Ertelien	Honefoss	Moen	<0.05	<0.05	<0.02	0.53	<0.02	<0.02	<0.02	<0.5	sulfur veins? hydrothermally altered	2005
SA68020	565652	6673543	Ertelien	Honefoss	Vagard	<0.05	<0.05	<0.02	1.61	<0.02	<0.02	<0.02	<0.5	py-bearing qtz vein	2005
SA68021	555287	6677865	Ertelien	Honefoss	Jolinatten	0.14	0.21	<0.02	1.33	<0.02	0.02	0.05	0.6	1% sulphides; po, ccp	2005
SA68022	555287	6677865	Ertelien	Honefoss	Jolinatten	0.1	0.13	<0.02	0.82	<0.02	0.02	0.04	<0.5	1% sulphides; po, ccp	2005
SA68023	556098	6678705	Ertelien	Honefoss	Jolinatten	<0.05	<0.05	<0.02	0.04	<0.02	<0.02	<0.02	<0.5	trace sulphide	2005
SA68024	556098	6678705	Ertelien	Honefoss	Jolinatten	<0.05	<0.05	<0.02	0.14	0.02	<0.02	<0.02	<0.5	trace sulphide	2005
SA68025	555020	6652566	Ertelien	Honefoss	Langsrud Quarry	<0.05	<0.05	<0.02	5.5	0.02	<0.02	0.02	<0.5	Droslum quarry; 2-3% sulfides	2005
SA68026	555020	6652566	Ertelien	Honefoss	Langsrud Quarry	<0.05	<0.05	<0.02	5.5	0.02	<0.02	<0.02	<0.5	Droslum quarry; 3-5% sulfides	2005
SA68027	555020	6652566	Ertelien	Honefoss	Langsrud Quarry	<0.05	<0.05	<0.02	4.89	<0.02	<0.02	<0.02	<0.5	Droslum quarry; 2% sulfides	2005
SA68028	533766	6653612	Sigdal	Kroderen	Gragalten	<0.05	0.11	<0.02	0.51	<0.02	0.02	0.35	1	Sigdal area; 1% sulfides; melanogabbro; waste pile	2005
SA68029	533766	6653612	Sigdal	Kroderen	Gragalten	0.06	0.1	<0.02	1.5	0.02	<0.02	0.02	<0.5	Sigdal area; 3-5% sulfides; melanogabbro; waste pile	2005
SA68030	533766	6653612	Sigdal	Kroderen	Gragalten	0.75	0.5	0.08	20.7	0.05	0.02	0.07	1.8	Sigdal area; 25-30% sulfides; po and py?; trace ccp; waste pile	2005
SA68031	533766	6653612	Sigdal	Kroderen	Gragalten	1.26	0.09	0.14	35.5	0.02	0.07	0.03	<0.5	Sigdal area; massive; po with minor ccp; waste pile	2005
SA68032	533766	6653612	Sigdal	Kroderen	Gragalten	1.23	0.14	0.13	35	0.14	0.21	0.04	<0.5	Sigdal area; massive; po with minor ccp; waste pile	2005
SA68033	536587	6653573	Sigdal	Kroderen	Ravnas	<0.05	<0.05	<0.02	0.19	0.02	<0.02	<0.02	<0.5	trace sulfide; gabbro	2005
SA68034	536498	6653673	Sigdal	Kroderen	Glessjoen	<0.05	<0.05	<0.02	0.42	<0.02	<0.02	0.02	<0.5	minor sulfides; fluorite; qtz vein in monzonite	2005
SA68035	537003	6662258	Sigdal	Kroderen	Fyranvatnet	<0.05	<0.05	<0.02	0.15	<0.02	<0.02	<0.02	<0.5	trace sulfides in diabase	2005
SA68036	537683	6662346	Sigdal	Kroderen	Fyranvatnet	<0.05	0.08	<0.02	1.01	<0.02	<0.02	<0.02	5.7	1-3% sulfides in gabbro; po, trace ccp	2005
SA68051	557600	6667470	Ertelien	Honefoss	Olytjern	<0.05	<0.05	<0.02	0.15	<0.02	<0.02	<0.02	<0.5	minor sulphides	2005
SA68052	557484	6667645	Ertelien	Honefoss	Olytjern	<0.05	<0.05	<0.02	2.92	<0.02	<0.02	0.03	1	minor sulphides	2005
SA68053	557509	6667585	Ertelien	Honefoss	Olytjern	<0.05	<0.05	<0.02	2.03	0.02	<0.02	0.02	1	minor sulphides	2005
SA68054	557245	6666511	Ertelien	Honefoss	Grytngen	<0.05	<0.05	<0.02	0.13	<0.02	<0.02	<0.02	<0.5	minor sulphides	2005
SA68055	557220	6666197	Ertelien	Honefoss	Lysingen	<0.05	<0.05	<0.02	0.19	0.02	<0.02	<0.02	<0.5	3%sulphides	2005
SA68056	555988	6673210	Ertelien	Honefoss	Gulstoveren	<0.05	0.07	<0.02	4.23	0.03	<0.02	0.02	<0.5		2005
SA68057	555988	6673210	Ertelien	Honefoss	Gulstoveren	<0.05	0.09	<0.02	5.67	0.02	<0.02	0.02	<0.5		2005
SA68058	556228	6671774	Ertelien	Honefoss	Hogas	<0.05	<0.05	<0.02	0.61	<0.02	<0.02	0.02	<0.5	minor sulphides	2005
SA68059	0	0				1.74	0.36	0.08	10.2	0.06	0.15	0.02	<0.5		2005
SA68060	559657	6665806	Ertelien	Honefoss	Ullerentjorn skjerp	0.09	0.05	0.04	8.7	0.11	<0.02	0.08	<0.5	1-3% sulphide; py, ccp	2005
SA68061	559648	6665874	Ertelien	Honefoss	Ullerentjorn Skjerp	<0.05	0.06	<0.02	1.67	<0.02	<0.02	<0.02	<0.5	no sulfides observed	2005
SA68062	555077	6652531	Ertelien	Honefoss	Langsrud Quarry	<0.05	0.06	<0.02	3.85	<0.02	<0.02	<0.02	<0.5	3% sulphides	2005
SA68063	555077	6652531	Ertelien	Honefoss	Langsrud Quarry	<0.05	<0.05	<0.02	3.7	<0.02	<0.02	<0.02	<0.5	3% sulphides	2005
SA68064	477968	6481741	Bamble	Kragero	Mesel	0.64	0.18	0.14	27.6	0.02	0.02	0.02	<0.5	Messle mine; 80% massive sulfide; po	2005
SA68065	556619	6670429	Ertelien	Honefoss	Langsdalen Gruve	0.92	0.54	0.06	15.8	0.06	0.1	0.14	4.6	Langsdalen; 30-40% sulphides; po, py	2005
SA68066	436418	6485592	Evje	Evje	Kjelevatnet	2.71	0.46	0.08	15.8	0.02	0.09	0.08	0.7	Kjelevatnet; 60% semi massive; po, cc	2005
SA68067	558199	6659700	Ertelien	Honefoss	Ertelien Tysklands Gru	0.08	0.08	0.07	1.18	<0.02	<0.02	0.02	<0.5	Ertelien; slag	2005
SA68068	534418	6539091	Bamble	Kragero	Nystein	1.44	0.34	0.21	26.7	0.02	0.05	0.03	<0.5	Nystein; 80% sulphides; py, po	2005
SA68069	536532	6653448	Sigdal	Honefoss	Ravnas	<0.05	<0.05	<0.02	0.4	<0.02	<0.02	0.05	<0.5	trace sulfides	2005
SA68070	535243	6659882	Sigdal	Kroderen	Ramstad	0.15	0.72	<0.02	3.03	0.02	0.03	<0.02	5.8	Sigdal north; showing	2005
SA68071	535243	6659882	Sigdal	Kroderen	Ramstad	0.32	0.51	<0.02	3.77	0.02	0.07	<0.02	5.4	Sigdal north; showing	2005
SA68072	535243	6659882	Sigdal	Kroderen	Ramstad	0.68	0.13	0.05	10.3	0.13	0.1	<0.02	2	Sigdal north; showing	2005
SA68073	535243	6659882	Sigdal	Kroderen	Ramstad	1.02	0.08	0.08	15.1	0.02	0.04	0.02	2.2	Sigdal north; showing	2005
SA68074	535410	6660511	Sigdal	Kroderen	Ramstad	0.3	0.71	<0.02	5.4	0.02	0.04	0.03	2.5	Sigdal north; workings; west of Holmenatten; in gabbro?	2005
SA68075	535410	6660511	Sigdal	Kroderen	Ramstad	0.28	0.65	0.02	5.09	0.02	0.05	<0.02	2.2	Sigdal north; workings; west of Holmenatten; in gabbro?	2005
SA68076	535410	6660511	Sigdal	Kroderen	Ramstad	0.84	0.15	0.07	13.7	<0.02	0.16	<0.02	0.5	Sigdal north; workings; west of Holmenatten; in gabbro?	2005
SA68077	535410	6660511	Sigdal	Kroderen	Ramstad	0.42	1.04	0.02	6.98	0.04	0.07	<0.02	3.6	Sigdal north; workings; west of Holmenatten; in gabbro?	2005
SA67858	533775	6653658	Sigdal S	Kroderen	Gragalten	0.35	2.13	0.04	12	< 0.02	0.1	0.13	8.4	Sigdal south; main workings; waste pile; massive po, ccp	2005
SA67859	533711	6653551	Sigdal S	Kroderen	Gragalten	0.32	1.37	0.04	9.97	0.04	0.03	0.04	5.8	Sigdal south; 75m SW of main workings; 30% po, ccp stringers	2005
SA67860	535238	6659938	Sigdal N	Kroderen	Ramstad	1.5	0.11	0.14	21.9	0.03	0.21	0.02	2.4	Sigdal N; southern site; 70-75% po, ccp	2005
SA67861	535238	6659938	Sigdal N	Kroderen	Ramstad	1.87	< 0.05	0.11	26.4	0.05	0.28	0.09	2.3	Sigdal N; southern site; 70-75% po, ccp	2005

Lab_ID	Map_X	Map_Y	Area	Topo_sheet	Name	Ni_wt%	Cu_wt%	Co_wt%	S_wt%	Pt_ppm	Pd_ppm	Au_g_t	Ag_g_t	Sample_comments	Year
SA67862	535398	6660525	Sigdal N	Kroderen	Ramstad	0.38	0.35	0.05	7.16	0.02	0.05	0.03	1.1	Sigdal N, northern site: 20% po, ccp	2005
SA67863	535348	6660375	Sigdal N	Kroderen	Ramstad	0.32	2.8	0.04	7.97	< 0.02	0.03	0.06	9.4	Sigdal N, northern site: 10% po, ccp	2005
SA67864	555877	6674419	Langsdalen	Kroderen	Steverntangen	1.82	0.44	0.09	32.3	< 0.02	0.11	0.06	11.9	North of Langsdalen, massive po	2005
PG01774	558043	6659496	Ertelien	Honefoss		1.83	0.17	0.12	30.3	0.02	0.06	0.05		Ertelien - Massive Ore	2004
PG01776	556998	6660618	Ertelien	Honefoss		0.1	0.06	0.01	0.97	0.01	0.01	0.06		Skaugs ore	2004
PG01775	558060	6659523	Ertelien	Honefoss		1.83	0.23	0.08	24.6	0.04	0.09	0.02		Ertelien gabbro	2004
PG01777	556520	6670398	Ertelien	Honefoss		1.11	0.29	0.05	13	<0.02	0.02	0.03		Langsdalen gabbro	2004
PG01778	556608	6670102	Ertelien	Honefoss		0.37	0.3	0.01	5.5	<0.02	<0.02	0.08		Langsdalen host gneiss	2004
PG01779	556520	6670398	Ertelien	Honefoss		5.05	0.15	0.15	34.2	0.02	0.13	0.02		Langsdalen - mineralized gabbro	2004
PG01780	556920	6670001	Ertelien	Honefoss		1.68	0.18	0.07	14.8	0.02	0.09	0.02		Tyskeland - mineralized gabbro	2004
PG01792	558157	6659758	Ertelien	Honefoss		0.79	1.56	0.06	1.6	<0.02	0.02	0.98		Ertelien copper ore	2004
PG01793	558052	6659498	Ertelien	Honefoss		0.86	1.11	0.06	13.8	<0.02	0.03	1.44		Ertelien slag	2004
PG01794	558055	6659505	Ertelien	Honefoss		0.78	0.81	0.23	25.9	0.03	0.04	0.36		Ertelien ore	2004
PG01795	556874	6670019	Ertelien	Honefoss		0.82	0.53	0.05	10.5	0.1	0.12	0.15		Tyskeland ore	2004
PG01796	556611	6670438	Ertelien	Honefoss		1.95	0.43	0.17	25.3	<0.02	0.07	0.04		Langsdalen - semi-massive sulphide	2004
PG01797	557070	6669498	Ertelien	Honefoss		1.82	0.13	0.05	13.7	<0.02	0.08	0.03		Skaugs ore	2004
PG 08102	534423	6535093	Ertelien	Langesud	Poly 2	< 0.05	< 0.05	< 0.02	0.04	< 0.02	< 0.02	< 0.02	< 0.5	tr diss in peg hosted in Amph	2006
PG 08103	534410	6535747	Ertelien	Langesud	Poly 3	< 0.05	< 0.05	< 0.02	0.58	< 0.02	< 0.02	< 0.02	< 0.5	tr sulph Amph and metased hosted	2006
PG 08104	531283	6635448	Ertelien	Flesburg	E-27	< 0.05	0.17	< 0.02	0.91	< 0.02	< 0.02	0.03	3.2	tr sulph in metaseds	2006
PG 08105	531185	6635418	Ertelien	Flesburg	E-27	< 0.05	0.37	< 0.02	4.95	< 0.02	< 0.02	< 0.02	2	cpy vonlet in qtzlin	2006
PG 08106	531179	6635742	Ertelien	Flesburg	E-27	< 0.05	< 0.05	< 0.02	0.08	< 0.02	< 0.02	< 0.02	< 0.5	tr sulph in gab	2006
PG 08107	531287	6635753	Ertelien	Flesburg	E-27	< 0.05	1.12	0.02	33.8	0.03	< 0.02	0.02	9	massive po + cpy	2006
PG 08108	531287	6635753	Ertelien	Flesburg	E-27	< 0.05	0.3	0.03	33.9	< 0.02	< 0.02	< 0.02	4.9	massive po	2006
PG 08109	531286	6635745	Ertelien	Flesburg	E-27	< 0.05	< 0.05	< 0.02	0.75	< 0.02	0.05	< 0.02	< 0.5	minor sulph in gab	2006
PG 08110	531286	6635745	Ertelien	Flesburg	E-27	< 0.05	0.24	0.11	46.9	0.04	< 0.02	< 0.02	4.5	massive sulph	2006
PG 08111	532080	6644740	Ertelien		SED-GOS ERT	< 0.05	< 0.05	< 0.02	2.33	0.02	< 0.02	< 0.02	< 0.5	1% sulph in gabbro	2006
PG 08111 d	532080	6644740	Ertelien			< 0.05	< 0.05	< 0.02	2.3	0.02	< 0.02	< 0.02	< 0.5		2006
PG 08112	528528	6626207	Ertelien	Flesburg	E-31	< 0.05	0.14	0.04	5.13	< 0.02	< 0.02	< 0.02	< 0.5	1-3% sulph metaseds	2006
PG 08113	528436	6626354	Ertelien	Flesburg	E-31	< 0.05	0.19	0.03	15.7	< 0.02	< 0.02	0.02	0.5	fract fill, tr sulph in metaseds	2006
PG 08115	552410	667009	Ertelien	Kroderen	E-22	< 0.05	< 0.05	< 0.02	0.15	< 0.02	< 0.02	< 0.02	< 0.5	very tr py metaseds	2006
PG 08116	552270	6667400	Ertelien	Kroderen	E-22	< 0.05	< 0.05	< 0.02	1.11	< 0.02	< 0.02	< 0.02	< 0.5	tr py on fract planes	2006
PG 08117	557326	6665191	Ertelien	Honefoss	E-9	< 0.05	< 0.05	< 0.02	0.14	< 0.02	< 0.02	< 0.02	< 0.5	tr py	2006
PG 08123	530800	6636400	Ertelien	Flesburg	roadside samples	< 0.05	< 0.05	< 0.02	0.13	< 0.02	< 0.02	< 0.02	< 0.5	DF/YB	2006
PG 08124	530660	6635360	Ertelien	Flesburg	roadside samples	< 0.05	< 0.05	< 0.02	0.11	< 0.02	< 0.02	< 0.02	< 0.5	DF/YB	2006
PG 08125	530700	6635400	Ertelien	Flesburg	roadside samples	< 0.05	< 0.05	< 0.02	0.09	< 0.02	< 0.02	< 0.02	< 0.5	DF/YB	2006
PG 08126	531020	6636650	Ertelien	Flesburg	roadside samples	< 0.05	< 0.05	< 0.02	0.19	< 0.02	< 0.02	< 0.02	< 0.5	DF/YB	2006
PG 08127	531020	6636650	Ertelien	Flesburg	roadside samples	< 0.05	< 0.05	< 0.02	0.73	< 0.02	< 0.02	< 0.02	< 0.5	DF/YB	2006
PG 08128	530993	6633871	Ertelien	Flesburg	roadside samples	< 0.05	0.12	< 0.02	6.31	< 0.02	< 0.02	< 0.02	1.2	DF/YB	2006
PG 08129	530060	6633738	Ertelien	Flesburg	roadside samples	< 0.05	< 0.05	< 0.02	0.2	< 0.02	< 0.02	< 0.02	< 0.5	DF/YB	2006
PG 08130	556590	6671230	Ertelien	Flesburg	roadside samples	< 0.05	< 0.05	< 0.02	1.34	< 0.02	< 0.02	< 0.02	< 0.5	DF/YB	2006
PG 08131	551350	6675830	Ertelien	Honefoss	roadside samples	< 0.05	< 0.05	< 0.02	1.51	< 0.02	< 0.02	< 0.02	0.5	DF/YB	2006
PG 08132	552740	6674540	Ertelien	Honefoss	roadside samples	< 0.05	< 0.05	< 0.02	1.26	< 0.02	< 0.02	0.04	< 0.5	DF/YB	2006
PG 08133	552670	6674080	Ertelien	Honefoss	roadside samples	< 0.05	0.07	< 0.02	2.45	< 0.02	< 0.02	0.02	0.9	DF/YB	2006
PG 08134	557800	6673900	Ertelien	Honefoss	roadside samples	< 0.05	< 0.05	< 0.02	0.25	< 0.02	< 0.02	< 0.02	< 0.5	DF/YB	2006
PG 08135	557800	6673900	Ertelien	Honefoss	roadside samples	< 0.05	< 0.05	< 0.02	2.65	< 0.02	0.04	0.02	< 0.5	DF/YB	2006
PG 08136	557900	6673600	Ertelien	Honefoss	roadside samples	< 0.05	< 0.05	< 0.02	0.53	0.07	0.65	0.05	0.6	DF/YB	2006
PG 08137	557900	6673600	Ertelien	Honefoss	roadside samples	< 0.05	< 0.05	< 0.02	6.69	< 0.02	0.1	0.02	< 0.5	DF/YB	
PG 08138	559790	6666640	Ertelien	Honefoss	roadside samples	< 0.05	< 0.05	< 0.02	0.27	< 0.02	0.07	< 0.02	< 0.5	DF/YB	

NGU SURFACE SAMPLES

Name	Field Area	Easting	Northing	Map	Sample	Au ppb	Pt ppb	Pd_ppb	Cr ppm	Ni ppm	Cu ppm	Co ppm	Zn ppm	Pb ppm	Ag ppm	S_%
Ringerike	Ertelien	557918	6659642	Honefoss 1815-3	no additional info	0	0	0	0	0	0	0	0	0	0	0
Pjakerud	Ertelien	559468	6664291	Honefoss 1815-3	no additional info	0	0	0	0	0	0	0	0	0	0	0
Heiern	Ertelien	560168	6664792	Honefoss 1815-3	no additional info	0	0	0	0	0	0	0	0	0	0	0
Hjelle	Ertelien	564018	6666891	Honefoss 1815-3	no additional info	0	0	0	0	0	0	0	0	0	0	0
Aklangen	Ertelien	563068	6668942	Honefoss 1815-3	no additional info	0	0	0	0	0	0	0	0	0	0	0
Berggarden	Ertelien	555668	6657542	Honefoss 1815-3	no additional info	0	0	0	0	0	0	0	0	0	0	0
Solum	Ertelien	556818	6656692	Honefoss 1815-3	no additional info	0	0	0	0	0	0	0	0	0	0	0
Ertelien	Ertelien	558199	6659700	Honefoss 1815-3	Dump 1	137	84	41	30	7502	6058	632	111	8	5.7	14.4
Ertelien	Ertelien	558199	6659700	Honefoss 1815-3	Bedrock 1	45	1	23	94	8840	5187	732	47	12	3.5	15.7
Ertelien	Ertelien	558199	6659700	Honefoss 1815-3	Bedrock 2	171	1	1	212	6666	22426	553	116	19	28	14.5
Tysklands Gruve	Ertelien	558199	6659700	Honefoss 1815-3	Dump 1	79	5	26	137	6022	4858	344	124	54	4.3	8.74
Tysklands Gruve	Ertelien	558199	6659700	Honefoss 1815-3	Dump 2	55	1	9	47	3291	4714	235	183	46	2.6	4.89
Skaug Gruve	Ertelien	557069	6669529	Honefoss 1815-3	Dump 1	1855	6	28	19	9806	53256	441	991	2	60.1	19.6
Skaug Gruve	Ertelien	557069	6669529	Honefoss 1815-3	Dump 2	55	2	17	82	4822	3392	245	88	6	3.9	6.54
Skaug Gruve	Ertelien	557069	6669529	Honefoss 1815-3	Dump 3	28	9	74	16	11308	3329	627	156	2	1.2	21.6
Skaug Gruve	Ertelien	557069	6669529	Honefoss 1815-3	Dump 4	225	4	12	62	6155	9632	1717	144	6	6.5	23.1
Skaug Gruve	Ertelien	557069	6669529	Honefoss 1815-3	Dump 5	24	20	15	20	2399	1741	89	89	6	1.3	3.43
Langedals Grube	Ertelien	556619	6670429	Honefoss 1815-3	Dump 1	30	1	6	72	4082	2270	158	119	113	2	6.14
Langedals Grube	Ertelien	556619	6670429	Honefoss 1815-3	Dump 2	49	2	3	137	3875	10242	303	121	147	12	7.92
Langedals Grube	Ertelien	556619	6670429	Honefoss 1815-3	Dump 3	36	7	1	43	3793	2766	212	78	66	3	5.49
Langedals Grube	Ertelien	556619	6670429	Honefoss 1815-3	Dump 4	485	1	3	155	6815	15584	343	355	53	16.2	13.7
Langedals Grube	Ertelien	556619	6670429	Honefoss 1815-3	Dump 5	30	1	3	115	4992	3299	245	210	217	2.9	8.17
Langedals Grube	Ertelien	556619	6670429	Honefoss 1815-3	Dump 6	46	3	5	83	8554	9964	454	216	35	12.5	16.3
Gulstøveren	Ertelien	555989	6673189	Honefoss 1815-3	Dump 1	47	3	1	89	75	365	30	817	3	0.4	1.78
Gulstøveren	Ertelien	555989	6673189	Honefoss 1815-3	Dump 2	19	1	1	90	130	830	59	31	4	0.7	6.58
Sesserud	Ertelien	554168	6672041	Honefoss 1815-3	no additional info	0	0	0	0	0	0	0	0	0	0	0
Stoverntangen	Ertelien	555879	6674420	Honefoss 1815-3	Bedrock 1	12	74	94	6	11414	4187	670	32	4	2.6	26
Stoverntangen	Ertelien	555879	6674420	Honefoss 1815-3	Bedrock 2	132	154	68	30	9307	35968	509	446	67	25.3	26.6
Stoverntangen	Ertelien	555879	6674420	Honefoss 1815-3	Bedrock 3	11	1	366	13	12896	2259	624	358	78	4.2	26.2
Stoverntangen	Ertelien	555879	6674420	Honefoss 1815-3	Dump	8	3	15	58	1246	2566	60	92	21	1.1	2.14
Halsteinrud	Ertelien	564918	6674792	Honefoss 1815-3	no additional info	0	0	0	0	0	0	0	0	0	0	0
Mastekrog	Ertelien	558079	6657799	Honefoss 1815-3	Dump	19	4	3	65	33	53	10	276	11	0.3	0
Vaelerauget	Ertelien	557518	6661492	Honefoss 1815-3	no additional info	0	0	0	0	0	0	0	0	0	0	0
Skjerpevika	Ertelien	558118	5553542	Honefoss 1815-3	no additional info	0	0	0	0	0	0	0	0	0	0	0
Ullerentjern skjerp	Ertelien	559650	6665874	Honefoss 1815-3	Dump	5	3	37	60	2974	1156	652	11	2	0.2	23.1
Ølytjern	Ertelien	557469	6667640	Honefoss 1815-3	no additional info	0	0	0	0	0	0	0	0	0	0	0
Jolinatten	Ertelien	556118	6678692	Honefoss 1815-3	no additional info	0	0	0	0	0	0	0	0	0	0	0
Ramstad	Ertelien	535318	6659842	Krøderen 1715-2	no additional info	0	0	0	0	0	0	0	0	0	0	0

Gragalten	Ertelien	534468	6654941	Krøderen 1715-2	no additional info	0	0	0	0	0	0	0	0	0	0	0
Oksøykollen	Ertelien	549318	6654342	Krøderen 1715-2	no additional info	0	0	0	0	0	0	0	0	0	0	0
Hjerpedokka	Ertelien	553468	6651942	Krøderen 1715-2	no additional info	0	0	0	0	0	0	0	0	0	0	0
Jaren	Ertelien	556668	6652692	Honefoss 1815-3	no additional info	0	0	0	0	0	0	0	0	0	0	0
Skogen	Ertelien/ Bamble	531218	6543541	Kilebygd 1713-3	no additional info	0	0	0	0	0	0	0	0	0	0	0
Nystein	Ertelien/ Bamble	534418	6539091	Langesund 1712-1	no additional info	0	0	0	0	0	0	0	0	0	0	0
Vissestad	Ertelien/ Bamble	533668	6537891	Kragerø 1712-4	no additional info	0	0	0	0	0	0	0	0	0	0	0
Meinkjaer	Ertelien/ Bamble	530318	6535141	Kragerø 1712-4	no additional info	0	0	0	0	0	0	0	0	0	0	0
Smørvik	Ertelien/ Bamble	517118	6523991	Kragerø 1712-4	no additional info	0	0	0	0	0	0	0	0	0	0	0
Roslandsdalen	Ertelien/ Bamble	531568	6537891	Kragerø 1712-4	no additional info	0	0	0	0	0	0	0	0	0	0	0
Holmefjellhaugen	Ertelien/ Bamble	480068	6567391	Nissedal 1613-3	no additional info	0	0	0	0	0	0	0	0	0	0	0
Søyldalen	Ertelien/ Bamble	482518	6565541	Nissedal 1613-3	no additional info	0	0	0	0	0	0	0	0	0	0	0
kaldevassdalen	Ertelien/ Bamble	422068	6581941	Urdenosi 1413-1	no additional info	0	0	0	0	0	0	0	0	0	0	0



UTM ZONE 32	
Date:19/10/2006	2006 AEM Follow-up Anomalies and Targets
Author: D.Fox	
Falconbridge Ltd.	
INSERT 1	
ERTELEIN	Geology Maps and Legend from Padget, P. and Brekke, H., 1996

520000 mE
530000 mE
540000 mE
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6660000 mN
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E-31
Etarg-25
Etarg-26
0 kilometres
UTM ZONE 32
Date:19/10/2006
Author: D.Fox
Falconbridge Ltd.
INSERT 2
ERTELEIN
2006 AEM Follow-up
Interpreted Total Magnetic Field
Geology Maps From Padget, P. and Brekke, H., 1996