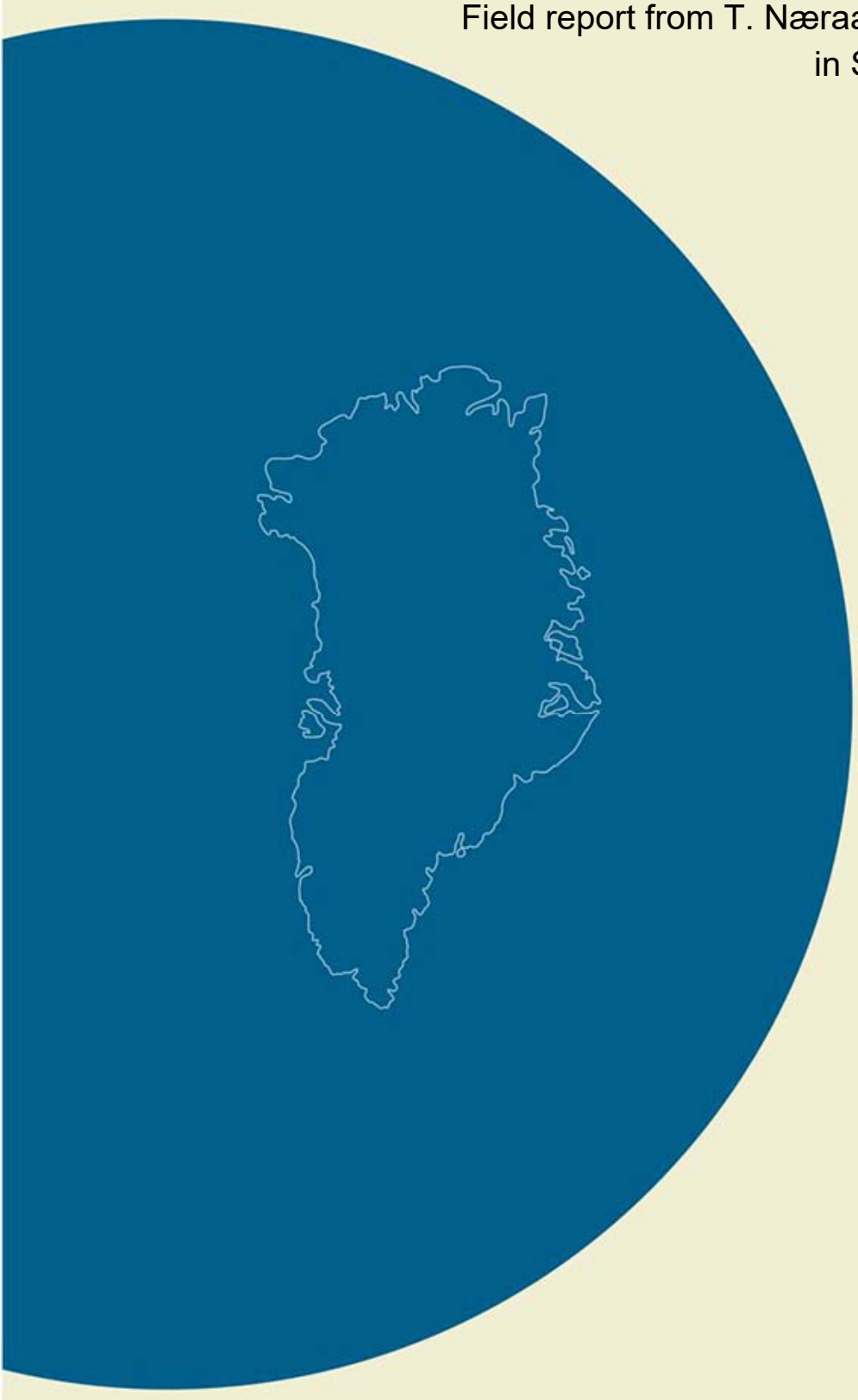
DANMARKS OG GRØNLANDS GEOLOGISKE UNDERSØGELSE RAPPORT 2015/67

South-East Greenland Mineral Endowment Task field report

Field report from T. Næraa – basement investigations in South-East Greenland 2012

Thomas Næraa



GEUS

DANMARKS OG GRØNLANDS GEOLOGISKE UNDERSØGELSE RAPPORT 2015/67

South-East Greenland Mineral Endowment Task field report

Field report from T. Næraa – basement investigations in South-East Greenland 2012

Thomas Næraa

GEOLOGICAL SURVEY OF DENMARK AND GREENLAND
DANISH MINISTRY OF ENERGY, UTILITIES AND CLIMATE

GEUS

Contents

1. Field Report – TOMN

1.1 Introduction

I participated in the field work of SEGMENT between 26th of July to 4th of September 2012. Information about the camps (coordinates, dates and participants) can be seen in Table 1 while initials, names, etc. can be seen in Table 2. Appendix 1 is a samples list with indication of which sample have been analyzed for chemistry.

Table 1. *Team number, coordinates, dates and participants for the field work.*

Location	Purpose	Lat. (N)	Long. (W)	Dates	Participants
Camp 1	Supracrustal belts	63.379864	-41.151567	1.8.-7.8.2012	TOMN, TT, BRE
Camp 2	Felsic basement, border zone between the two structural regions	63.070257	-41.758380	9.7.-17.72012	TOMN, TT, BRE
Camp 3	Agmatitic basement	62.792560	-42.317806	18.7.-21.7.2012	TOMN, TT, BRE
Camp 4	Basement gneisses, carbonatite veins	62.531563	-42.208631	23.7.-31.7.2014	TOMN, TT, BRE

Table 2. *Initials, names and company/university of the participants.*

TOMN	Tomas Næraa	GEUS, Denmark
TT	Tapani Tukiainen	GEUS, Denmark
BRE	Barry L. Reno	GEUS, Denmark

2. Camp 1, Mjølner (1st to 7th of August)

The camp site was positioned on the south western tip of Mjølner peninsula, just south of Hjørne Fjeldet in an abandoned Greenlandic hunting village (Fig. 1). Fieldwork was done by zodiac and the main target was to visit the "supracrustal" units in the area, mainly the north-eastern shore of Helge Halvø and in Jættefjorden. On figure 1 are shown the camp position and the locations that were visited by zodiac. One day was used on a helicopter-reco, mainly following up on mineralisation potentials in Thors Land (Fig. 1, H1a to H5a).

Figure 1. *Position of Camp 1 and locations that was visited from this camp position.*

2.1 Helge Halvø

On the north-eastern shore of Helge Halvø the observed rocks are highly deformed and situated within large regional scale isoclinal folds. The main foliation is steeply (70-80 degrees) dipping toward WSW. The main rock units are: i) Mylonitic gneisses mainly felsic but also intermediate to mafic in composition (Fig. 2A, B and C), ii) deformed garnet-sillimanite (gt-sill) gneisses (2D, E and F) and iii) leucocratic veins (mainly garnet bearing) that intrudes both the mylonites and the gt-sill gneisses. The felsic mylonites apparently ranging from tonalitic to quartzitic or at least to quartz rich compositions, the contained relatively undeformed garnet bearing leucocratic veins are generally intruded along foliation planes (Fig. 2A, B). These garnet bearing leucosomes (might not be partial melts derived from the mylonites) are also present in pressure shadow regions around competent components

within the mylonite (Fig. 2C). Enclaves with mafic of ultramafic composition occur throughout the mylonite, some of these contain internal

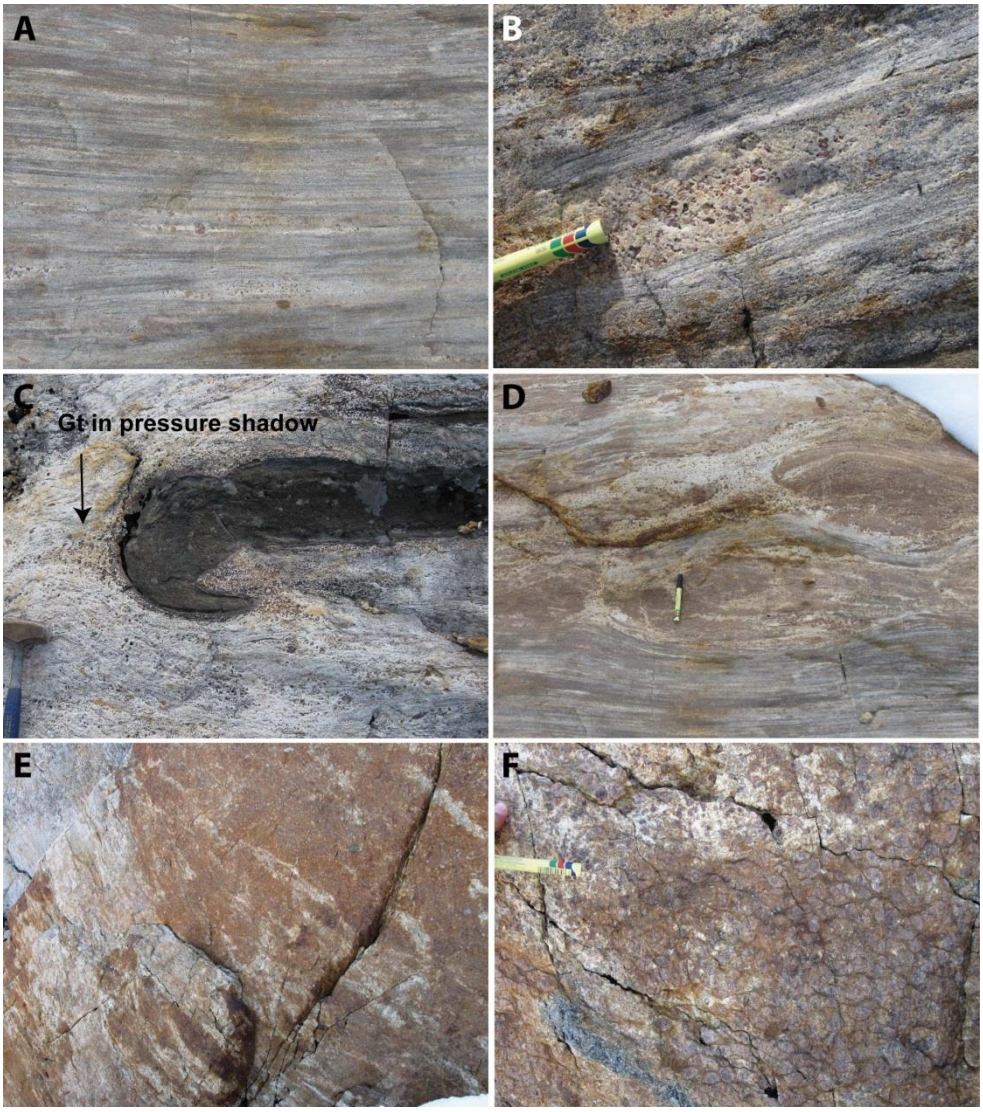


Figure 2. *Rock textures from the north-eastern shore of Helge Halvø. The entire sequence is situated in a strongly sheared isoclinale folded zone and mylonites are observed in all felsic incompetent units, more competent units of mainly garnet-sillimanite are boudinaged and influxed by leucocratic melts. A) Mylonite with foliation parallel garnet bearing leucosome. B) Garnet bearing leucosome in mylonite. C) Mafic enclave in mylonite with garnet bearing leucosome consentrated in pressure shadow region. D) Boudinaged gt-sill gneiss infiltrated by gt bearing leucocratic melts. E) A patches of gt-sill gneiss with gt bearing leucosome. F) Gt-sill gneiss with gt bearing leucocratic melts in pressure shadow region.*

isoclinal folds (Fig. 2C), some are boudinaged and some are folded within the mylonite. The competent units are always encapsulated in garnet bearing leucosome that accumulates in pressure shadow regions (Fig. 2C). The gt-sill gneisses occur as scattered patches and are apparently only weakly deformed and varies in size from large patches up to 20*60 m down to small meter scale patches (Fig. 2D, E, F). These patches of gt-sill gneisses consist of mainly garnet, often of quite large size with diameters up to ca. 1-2 cm (Fig. F). Sillimanite is situated as matrix in between the garnets. The gt-sill gneiss patches are infiltrated

by garnet bearing leucosome that is preserved either as a network of cm thick veins or are related to pressure shadow regions e.g. in boudinaged units (Fig. 2D). The leucosome appear similar to the garnet bearing leucosome within the mylonite and is seems that leucosome melts have infiltrated the more competent units during the deformation event such that melts have migrated into pressure shadow regions during straining of the competent units. This suggests a temporal relation between deformation/mylonitisation and the influx of leucocratic melts. These field observations seemingly imply that the patches of gt-sill gneiss, within the mylonite, have behaved competent during deformation, where strain was mainly taken up by the zones composed of tonalitic or quartzitic compositions. The competences of the gt-sill gneiss have caused a boudination (Fig. 2D) which have caused melt to migrate into the competent layers. The same type of rock association was observed on the Imaersivik Island, with the exception that ultramafic lenses and larger unites of mafic granulite was present on the Imaersivik Island and that the gt-sill gneiss unit was much thinner.

2.1.1 Helicopter drop-of at Helge Halvø for saw cutting (15th of August)

Saw cutting was done across a profile of gt-sill gneisses and mylonites (both of felsic and intermediate to mafic composition) and besides these includes rock samples of mafic enclaves in the mylonites and gt bearing leucosome from both the mylonites and the gt-sill gneisses. The profile is placed on the north-eastern shore of Helge Halvø (H1b on figure 1).

2.2 Jættefjorden

In Jættefjorden we visited several of the marked “supracrustal” units (Fig. 1). From a distance, the rocks on the southern slopes of Jættefjorden (Rolf Krages Halvø) appear to be situated in large tight to isoclinal folds. The main lithology observed in the “supracrustal” units was mafic granulites (Fig. 3A, B) intruded by tonalitic sheets (Fig. 3A) that can be several tens of meters wide. The mafic granulite often contains a network of leucocratic pyroxene (px) bearing veins, mostly orthopyroxene (opx) but also clinopyroxene (cpx) (Fig. 3B, C, D). From the field observation these leucocratic veins sometimes resemble leucosome melts extracted from the host rock with px as the peritectic phase. The mafic granulites contain a well-developed foliation and in some places isoclinal folds are observed (Fig. 3D). Ultramafic units are found in associated with the mafic granulites and appear as meter scale lenses. The felsic basement in the area have not been investigated in any detail, however the visited part is composed of opx (±hbl, ±cpx) bearing felsic gneisses with an agmatitic texture and the supracrustal units appear as narrow bands within the felsic gneisses (seemingly disintegrated into the felsic agmatites). At two localities, garnet bearing zone was observed within the mafic granulite (marked A1 and A2 on figure 1). At position A1 garnet occurs in ca. 5 m wide zone and appear in three textural settings: i) as a peritectic phase situated in association with leucosome (Fig. 3E), ii) within lenses shaped inclusions within mafic units, with sizes ranging from 20 cm to one meter, in these lense shaped units, garnet is sometimes associated with opx and cpx (Fig. 3F), iii) as gt in leucosome, sometimes related to boudinaged gt-lenses (ii) (Fig. 3F). At position A2 a garnet rich horizon is found within the mafic granulite close to a contact with a larger ultramafic body. In this zone garnet is found in similar lens shaped units as at A1 (ii) or associated with leu-

cosome (like in (iii)) within the mafic granulite. These garnet bearing lens shaped units appear as relict (xenoliths) and could thus represent zones within the mafic units where earlier metamorphic assemblages are preserved (Fig. 3G, H).

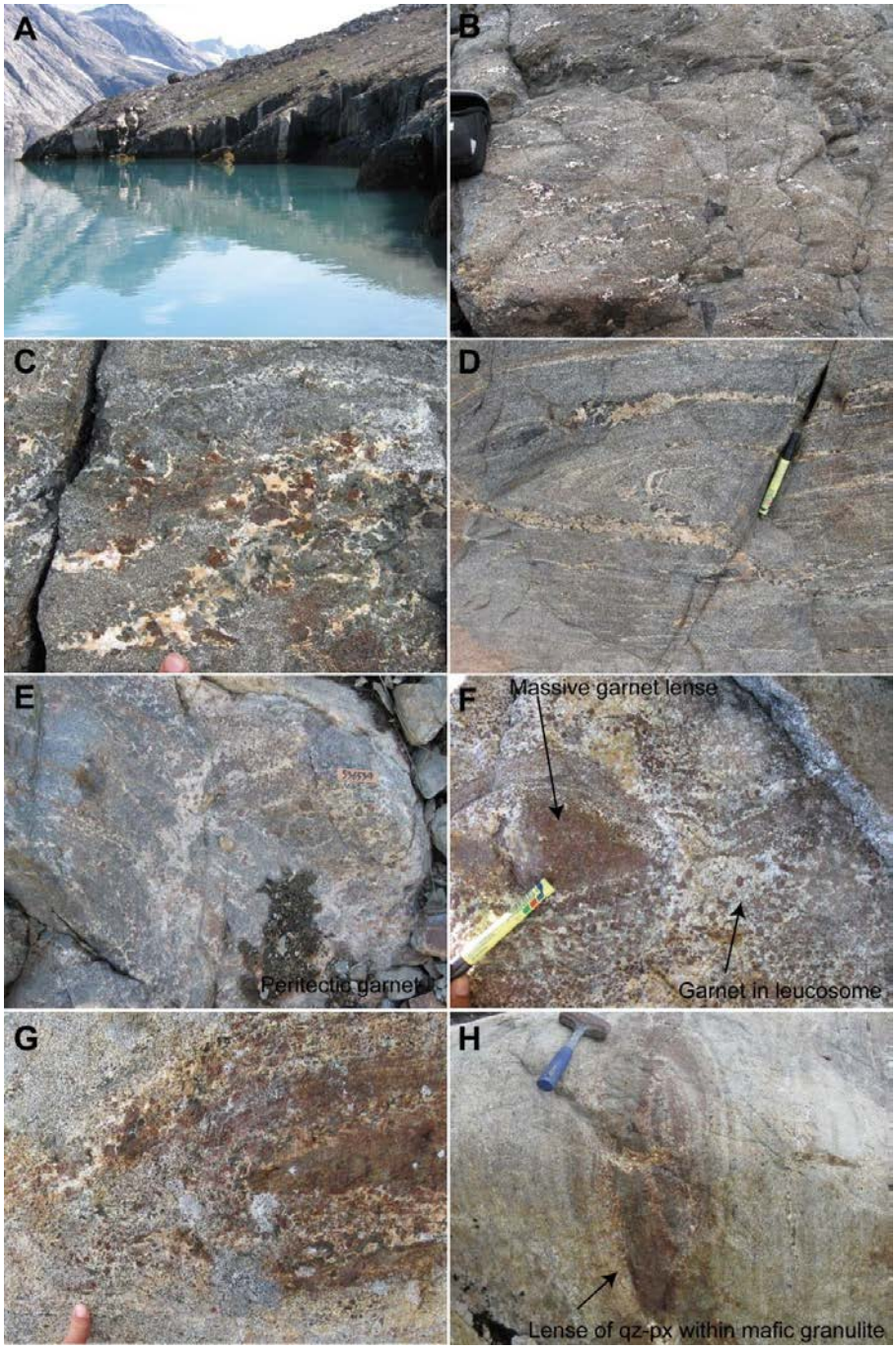


Figure 3. *Rocks of the "supracrustal units" within Jættefjorden. A) Leucocratic sheet intruded into mafic granulite. B) Leucocratic veins sometime associated with opx (±cpx) within mafic granulite. C) Opx and cpx (peritectic?) in leucocratic vein within mafic granulite. D) Isoclinale folds within the mafic granulite. Px bearing leucocratic veins are intruded along the folded foliation planes. E) Leucocratic vein with garnet (peritectic) within mafic gneiss. F-H) Lense shaped garnet bearing units within mafic granulite, containing a high proposition of gt together with px and plg sometimes surrounded by gt bearing leucome.*

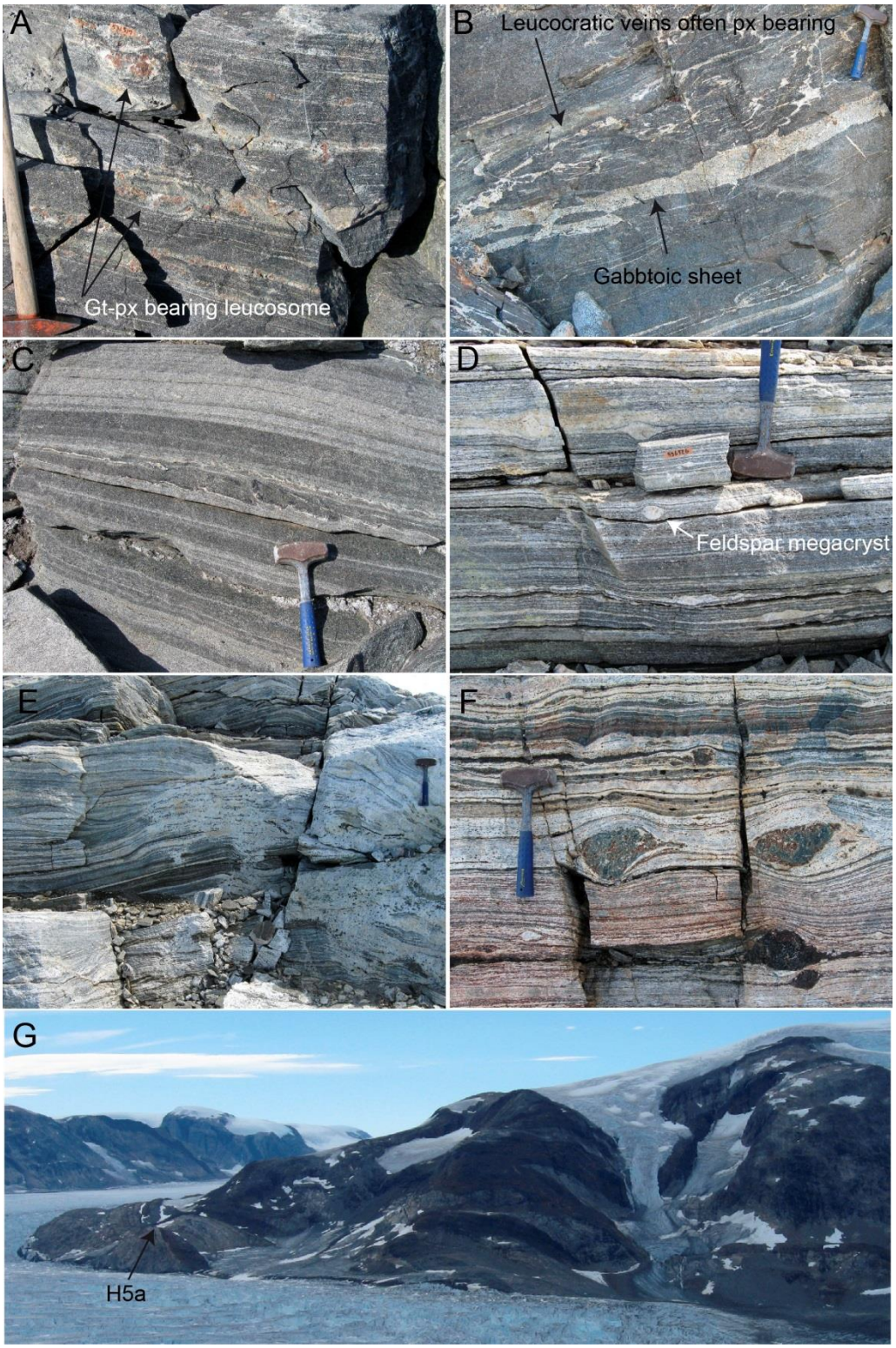


Figure 4. *Rocks observed on helicopter reco (H1 to H5a on figure 1). A) Mafic granulite with gt, cpx and opx bearing leucosome. B) Leucocratic veins and a dyke of leucogabbroic composition within mafic granulite. C) Compositionally layered amphibolite. D) Banded gneiss. E) Leucocratic and undeformed melt patch within banded gneiss. F) Mylonite with deformed enclaves composed of cpx, opx, qz and plg. G) Large scale isoclinal folds.*

2.3 Helicopter reco (3rd of August)

Stop 1 (H1a on figure 1): On a mafic index position (based on spectral analyses by remote sensing done by TT) on the southern shore of Bernstorff's Isfjord. Main observed rock type was mafic granulite with opx, cpx (±gt) bearing leucosome. However the anomaly most likely arises from a large ultramafic unit situated within the mafic units. Structural the unit appears as an open synform where the ultramafic rocks are seemingly situated in within the fold hinge. The mafic granulite contains px (±gt) bearing leucosome (Fig. 4A) that although mainly situated along foliation planes, also often occur in a network cross cutting the main foliation in the mafic granulite (Fig. 4B). Dykes of leuco-gabbroic composition appear in a few places; these are 20-50 cm wide and don't seem to be in structural contact with the px (±gt) bearing leucosome (Fig. 4B). **Stop 2** (H2a on figure 1): Compositionally layered amphibolite unit with qz (±plg) bearing veins (Fig. 4C), samples was taken for geochemistry of mafic and intermediate composition. **Stop 3** (H3a on figure 1): Border zone between banded gneiss (Fig. 4C, D) and amphibolite (possibly the same amphibolite unite as was visited in stop 2). The contact between the two units is sharp and of tectonic character, however thin units (ca. 50 cm wide) of banded felsic gneiss are present within the amphibolite. The main banded gneiss consists of alternating mafic and felsic layers (1-10 cm wide) and contain feldspar megacrysts with the gneissic foliation swept around (Fig. 4D) these feldspar megacrysts are sometimes associated with leucocratic veins and might represent sheared our pegmatites within the gneiss. In some areas the banded gneiss disintegrates into rather undeformed leucocratic zones (Fig. 4E). Stop 4 (H4a on figure 1): On a mafic index position (based on spectral analyses by remote sensing done by TT). We took a sample from a feldspar crystic gneiss. When looking from position H4a across Storebjørn glacier onto the mountains at position H5a it is obvious that the rocks are preserved in large tight to isoclinale folds (Fig. 4G). Stop 5 (H5a on figure 1): Mylonitic zone could have developed during the isoclinale folding (Fig. 4G). The mylonite contain enclaves of various composition, on figure 4F two enclaves with a mineralogy consisting of opx, cpx, qz and plg are observed. However also finer grained amphibolite lenses or layers are observed within the mylonite.

3. Camp 2, Mimers Dal (9th to 17th of August)

The camp site was positioned where Mimers Dal meets Blindtarmen. Besides having two days where we walked in the area, we did mapping by boat along the coast covering a relatively large area (se figure 5).

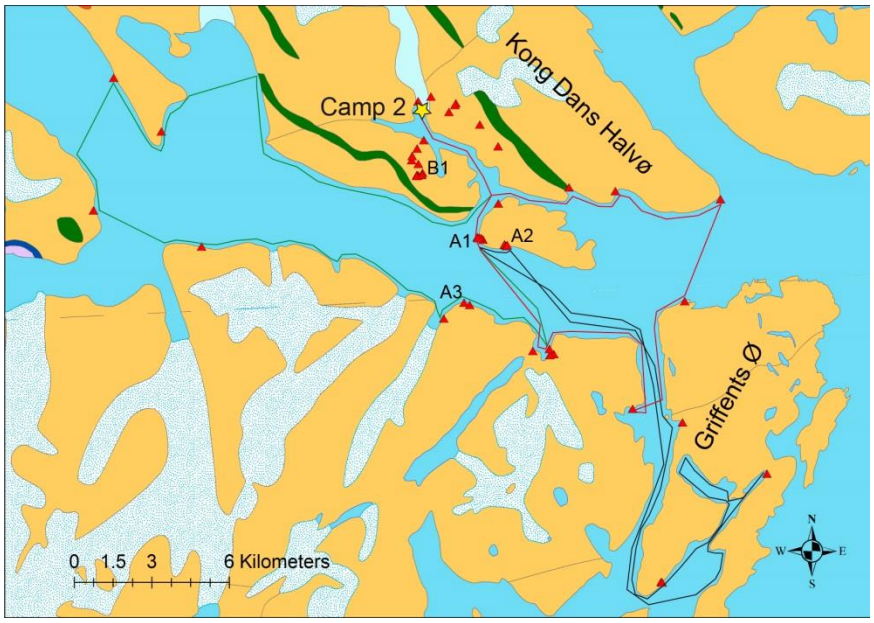


Figure 5. *Position of camp 2 and visited localities. Red, black and green lines show approximate sailing routs that was followed during the boat reco.*

The camp site was positioned where Mimers Dal meets Blindtarmen. Besides having two days where we walked in the area, we did mapping by boat along the coast covering a relatively large area (se figure 5).

3.1 The felsic basement

The main rock types encountered in the area are granites with abundant enclaves and to minor degree granitic gneisses with agmatitic texture. The granites have a tonalitic to granodioritic composition; however some units contain almost no mafic minerals and might be described as leucocratic granites. Most of the granites are pyroxene (opx ±cpx) and/or hornblende bearing (Fig. 6 C,D). The granites are characterised by containing large amounts of enclaves that is mainly mafic but also ultramafic in composition and range in size from cm to several tens of meters (Fig. 6 A,B) and also include very large units, several tens of meters wide and several hundreds of meters long, which appear as defragmented bands (or mafic belts as indicated on figure 5). The mafic enclaves are mostly preserved as opx, hbl, plg (±qz, ±bt, ±cpx) bearing gneisses (mafic granulites). Another often encounter enclave is of ultramafic composition which seems to be two varieties, a highly altered, fine grained and light brown variety and a fresh, courser grained mainly opx and cpx bear-

ing variety. Often the enclaves are influxes by and broken up by felsic veins that, at least in some places, are clearly in textural relation with the granitic host. The enclaves might contain reaction rims composed of mainly hornblende but also these enclaves have reacted with the melts and in some places facilitated a transport of hornblende into the melts (Fig. 6C, D). In these places, it thus seems that the difference in amount of mafic minerals and the difference in mineral species (opx, cpx, hbl, gt) within the granites reflect the melt reaction with the enclaves. Granitic gneisses are observed in some places, however the relations between the undeformed and deformed granitic rocks is not entirely clear and both types may occur at the same locality or at least there seems to be gradual changes from deformed to undeformed units. The strained and unstrained units could belong to the same intrusive complex, where late syn- or post intrusive stress have causes a differentiation of strain within the crust and have left some units undeformed. Moreover, field observations seems to suggest that strained felsic gneisses often occur in spatial relation (close to or in contact with) to large competent enclaves whereas unstrained units often occur either within the larger enclaves or away from larger competent enclaves, however this is not all ways the case.

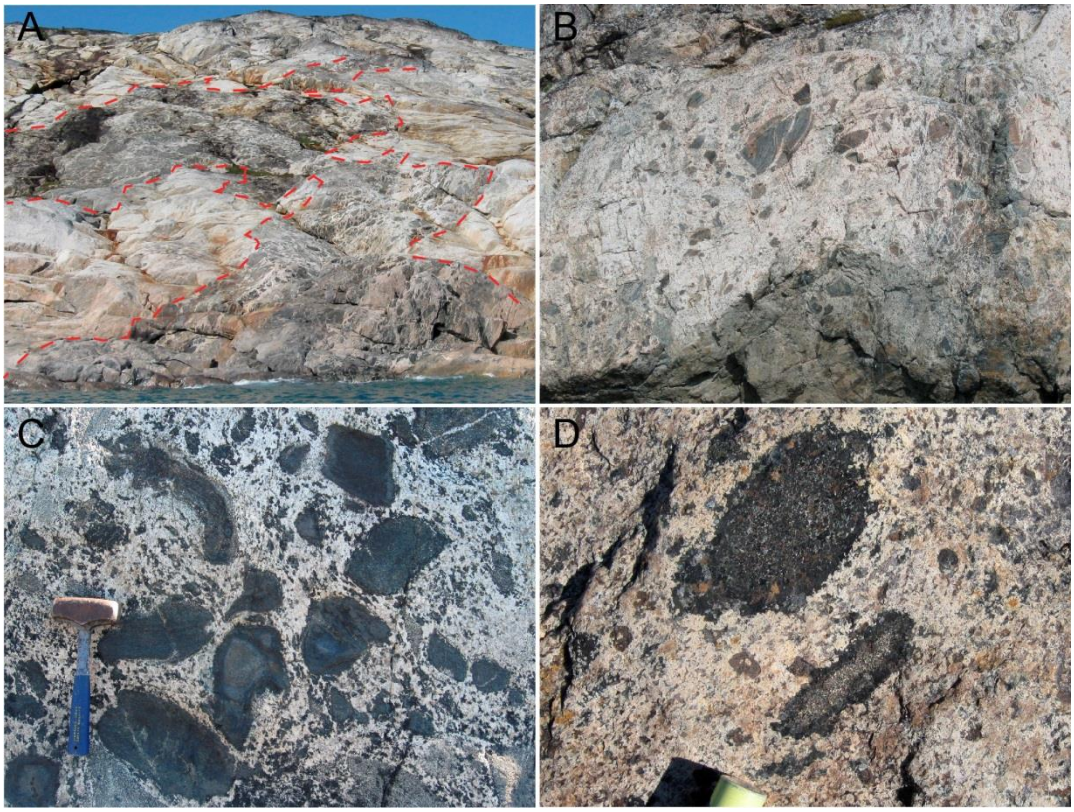


Figure 6. *A) Large mafic xenolith (outlined with red stippled line) with abundant leucocratic veins (influxed melts) within weakly to undeformed granitoid. B) Mafic enclaves in a granitic matrix. C) Mafic/ultramafic enclaves with reaction rims situated in granitic matrix, the granitic matrix are rich in mafic minerals (hbl and opx) that sees to originate from reactions between melt and enclave. D) Enclaves with reaction rims (hbl, opx and cpx) in a granitic matrix, large opx in the matrix.*

3.2 Mafic belt on Kong Dan Halvø

At location B1 on figure 5, basement gneisses in relation to a larger mafic enclave (possibly related to the belt indicated further south on figure 5) occur with unique textures. South of the belt compositionally layered gneisses are situated in open to tight folds, often in relation to minor shear zones (Fig. 7A,B). The deformation of these gneisses seems to have occurred before and during infiltration of felsic (granitic) melts, e.g. some leucocratic veins seems to be folded while at other places melts that have broken up the deformational textures. In some places garnet has grown (seemingly) post-tectonic (Fig. 7A).

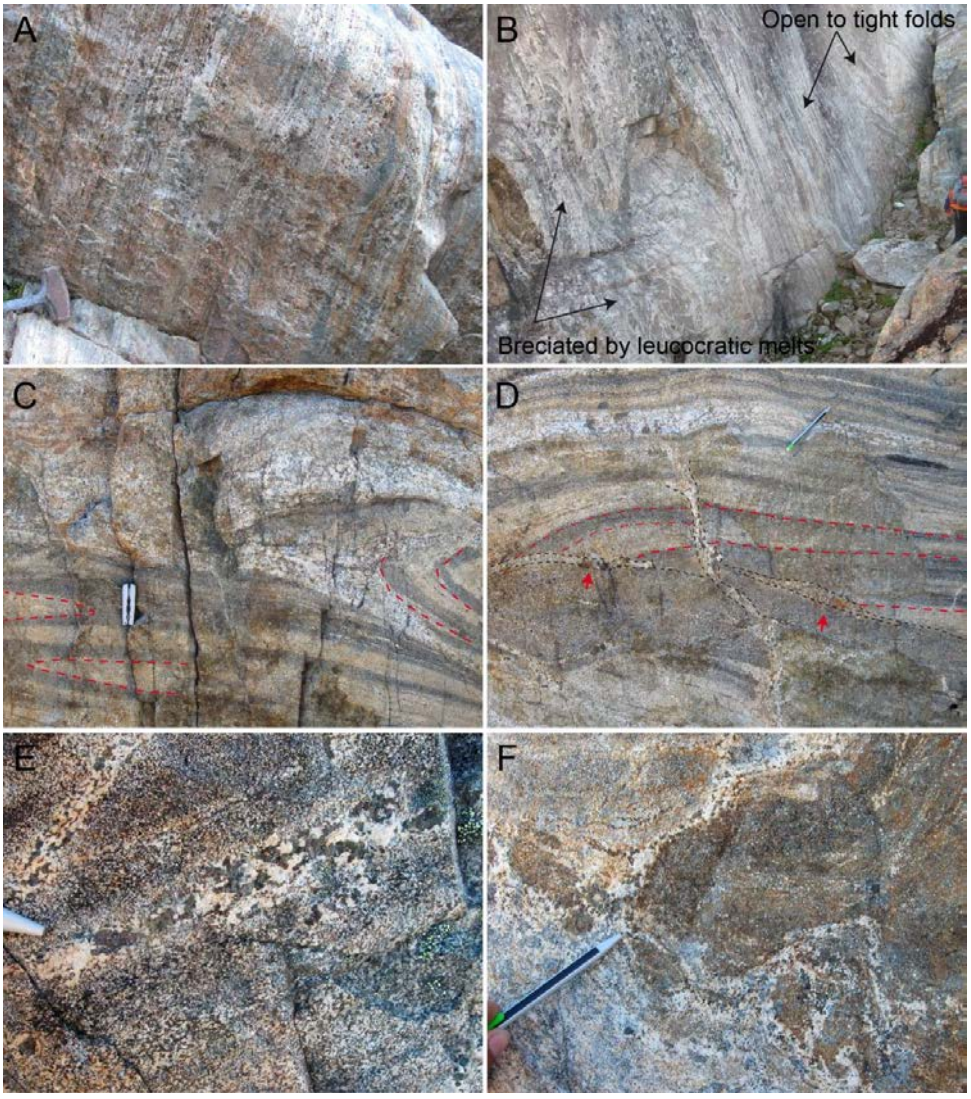


Figure 7. *Mafic belt at Kong Dan Halvø (B1 on figure 5). A) and B) are at the northern contact between the felsic basement and the mafic belt. A) Banded garnet bearing gneisses, garnet likely post-tectonic. C) to F) within the mafic belt. C) Isoclinal folded and compositionally layered mafic gneiss containing undeformed leucosome veins. D) Compositionally layered gneiss, with abundant leucocratic veins, that seems to represent a draining system from smaller to larger veins, truncated layering in the mafic gneiss (indicated by the red arrow and stippled lines) suggest that large amounts of material was removed during partial melting. E) Cpx and opx bearing leucosome in the mafic granulite. G) Compositionally different patch within the layered gneiss, surrounded by pyroxene bearing leucocratic veins.*

When continuing south, into the mafic enclave one enters mafic rocks with a well-developed foliation and with a clear compositional layering (5-20 cm) (Fig. 7C, D). It is also clear that the banded mafic gneisses are isoclinal folded, as outlined by the red stippled line in figure 7. The layered mafic rock includes undeformed felsic veins that range in size from small mm segregations to m scale sheets (Fig. 7C-F). There seems to be clear evidence that leucocratic veins reflect in-situ partial melts derived from the local amphibolite (Fig. 7C-F). As indicated by the arrows and the stippled lined on figure 7D the foliation of the mafic gneiss has been truncated along some of the felsic veins and it seem that material has been lost and transported away along the leucocratic veins. It is also quite clear that the network of veins feed into larger and larger units (Fig. 7D). Both ortho- and clinopyroxene are abundantly present in the leucocratic melt veins (Fig. 7D-F) the clear evidence for local melting suggest that these pyroxenes are peritectic phased that formed during melt forming reactions. Within these, seemingly partially melted mafic gneisses, occur pods or patches composed of texturally homogeneous mafic/ultramafic compositions (Fig 7D). Garnet is present as a peritectic phase in a few places together with pyroxene.

3.3 Carbonate veins

Carbonate veins or dykes were observed in several places within the granitic basement (marked as A1, A2 and A3 on figure 5). The carbonate veins appear as semi continuous (pinch and swell) units often with very irregular contact toward the hosting gneiss. The carbonate veins occur within zones that can be followed for several tens or hundreds of meters. The carbonate itself are either pinkish or whitish grey and are surrounded by reaction rims composed of px, hbl and opaque minerals. Carbonatite veins at A1 and A2 seems to form a continuous or semi-continuous unit that can be followed for 1.5 km with a strike at around 120 (Fig. 5).

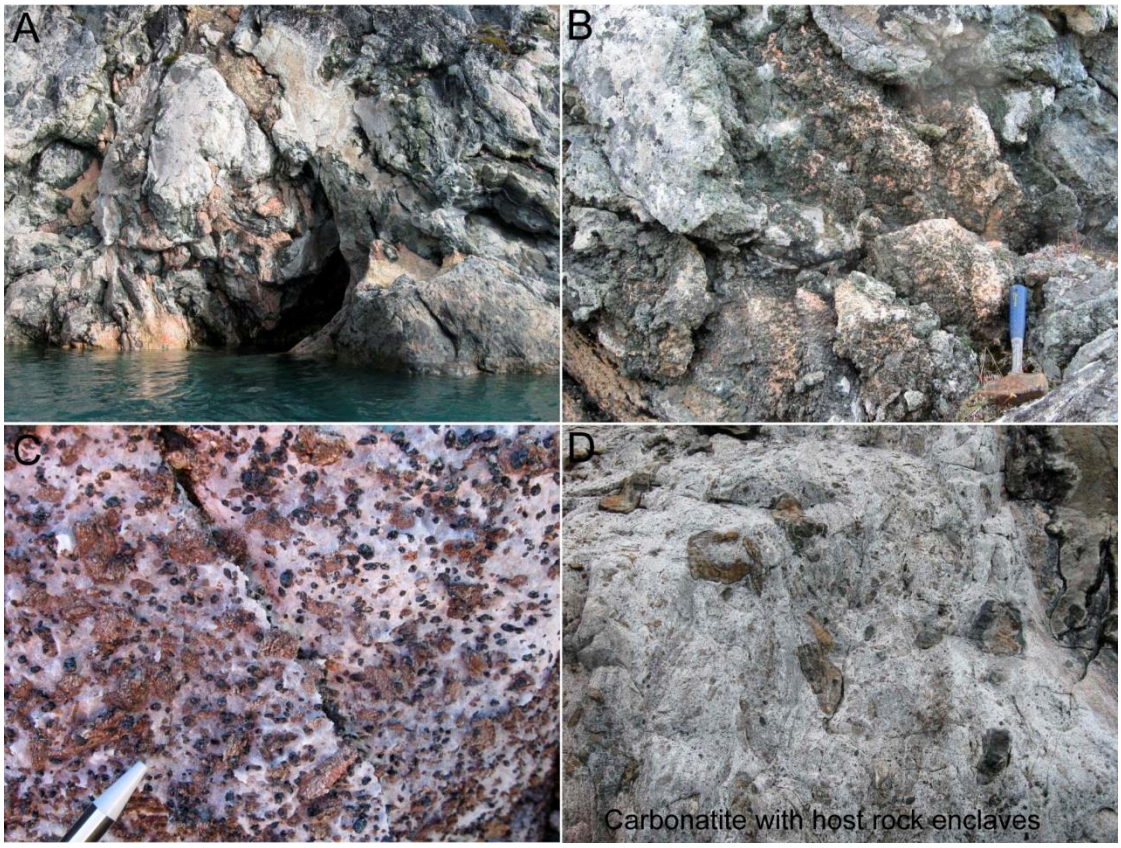


Figure 8. *A) Outcrop pattern of carbonate vein (pinkish). B) Carbonate vein (pinkish) with reaction rim toward the hosting gneiss basement. D) Whitish carbonate with mafic/opaque minerals. D) Whitish carbonate with from the hosting basement.*

3.4 Helicopter reco, Helge Halvø and surroundings (11th of August)

Visiting different mafic units in the surroundings of Helge Halvø (marked H1b-H5b on figure 1), reco joined by Bo Møller Stensgaard and Lars Lund Sørensen.

Whereas there are some similarities between the rocks observed in Helge Halvø (H1b) and on Imaersivik Island (H2b) (e.g. gt-sill gneisses and felsic mylonites) the other visited units are generally composed of mafic granulite (H3b and H4b). The brownish weathering is in these localities surface alterations possibly related to late fracture systems. At H5b on the southern tip of Helge Halvø we found garnet-sillimanite bearing gneisses possibly with similar outcrop patterns as observed on the north eastern side.

4. Camp 3, Tingmiarmit - Bjørnesundet (18th to 21st of August)

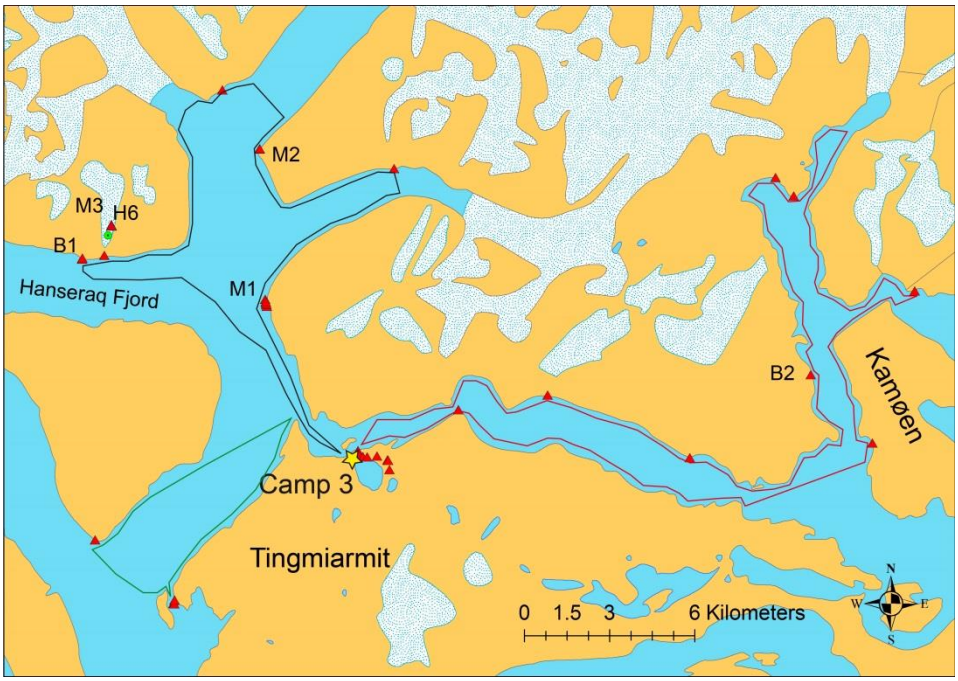


Figure 9. *Position of Camp 3 and visited localities. Red, black and green lines show approximate sailing routs that was followed during the boat reco.*

We did one half day working in the area around the camp, the rest of the time mapping was done with boat (boat routs are indicated on figure 7). Like observed during the mapping in Camp 3, most of the exposed basement rocks are composed of felsic gneisses or granites with agmatitic textures and abundant enclaves. We observe that some enclaves seems to be passively intruded and broken up by felsic melt, other enclaves have reacted with the melts (like described in section 2.1) and the felsic gneiss in proximity of these enclaves are rich in mafic minerals. In many places the mafic minerals within the felsic gneiss and granites are composed of hornblende with a core of orthopyroxene. In several zones thick and more coherent units of mainly mafic composition appear to be present.

4.1 Enclaves

A distinct type of enclave is observed in this region (Fig. 10), which is different from the often encountered mafic or ultramafic enclaves that have been described in the above text. Whether it is unique for this area are uncertain, however this type of enclave has (by the author) not been observed in the region toward the north. We have encountered this special type of enclave in at least two localities (marked B1 and B2 on figure 9). The enclaves are characterised by being orthopyroxene, clinopyroxene and hornblende (± garnet) bearing with small leucocratic veins. Most of these enclaves have an internal foliation that is clearly discordant to the external foliation (Fig. 10B, D). The enclaves resemble residual compositions from partial melting events with trapped melt inclusions. The relation between

these enclaves and the surrounding granitic matrix, are deformational such that the enclaves are observed as ridged (Fig. 10A), sometimes lens formed (Fig. 10C), enclaves within a gneissic matrix.

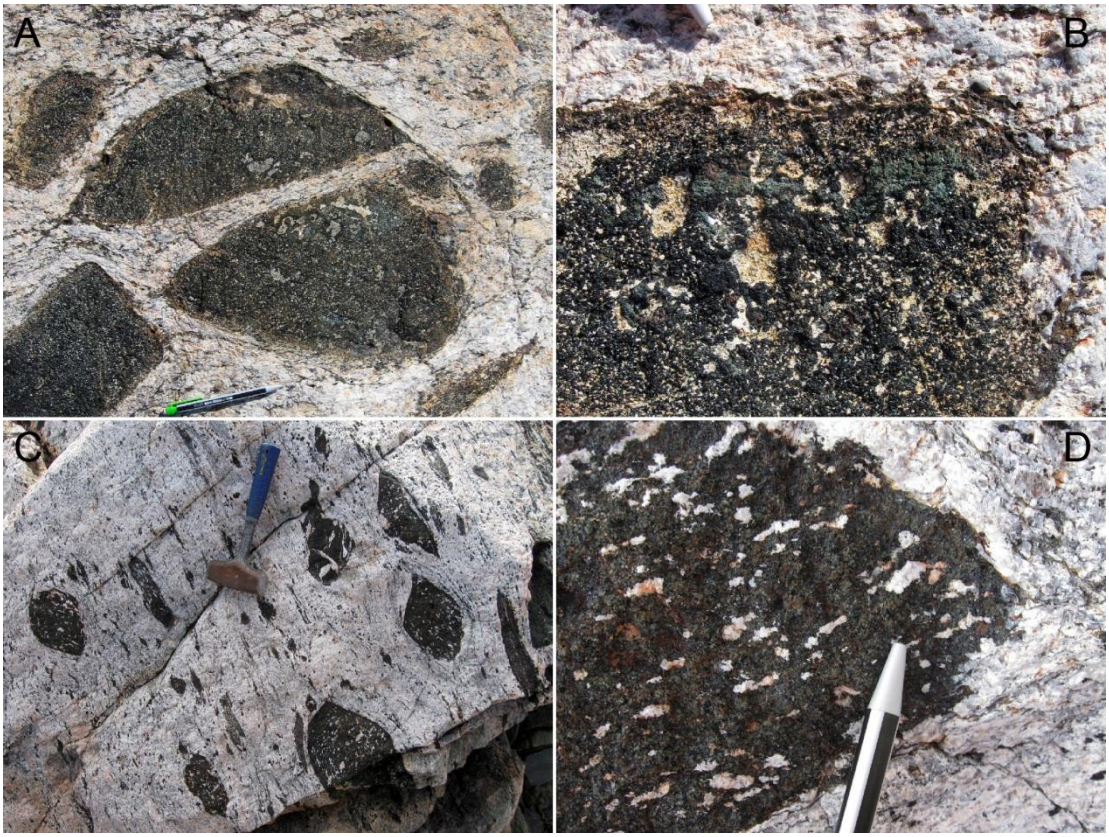


Figure 10. *Enclaves characterised by being opx, cpx og hbl (±gt) bearing with interstitial leucocratic "melt" veins are observed in the area that was covered from Camp 3. A) Enclaves with relatively strait boundaries suggesting that they broke up at a relatively ridged condition, deformed and almost mylonitic shear zones surround the enclaves. B) Internal fabric of an enclave, pyroxene and hornblende together with leucocratic "melt" veins. C) Deformed enclaves, where internal foliation in the enclaves is clearly discordance to the external foliation. D) Internal fabric of deformed enclave.*

4.2 Early mafic dykes (Archaean)

In several places (including the weather station area of Camp 4) apparently homogeneous mafic units are found (Marked M1-3 on figure 9 and M1 on figure 12). Compared to the majorities of enclaves and to the mafic rocks of the main mafic belts, further north, where foliations are obvious these units lack obvious foliation. At some places these units appear as dykes (Fig. 11A and C) although this is not always true, as seen on figure 11B where the homogeneous mafic units are included as enclaves in a granitic matrix. At some places the dykes are infiltrated by granitic melts. Also the dykes range from being almost undeformed to being strongly deformed in a ductile regime. Most obvious example is the units close to the weather station (Fig. 12) where strong shearing is observed on the boundary toward felsic gneisses (Fig. 11C).

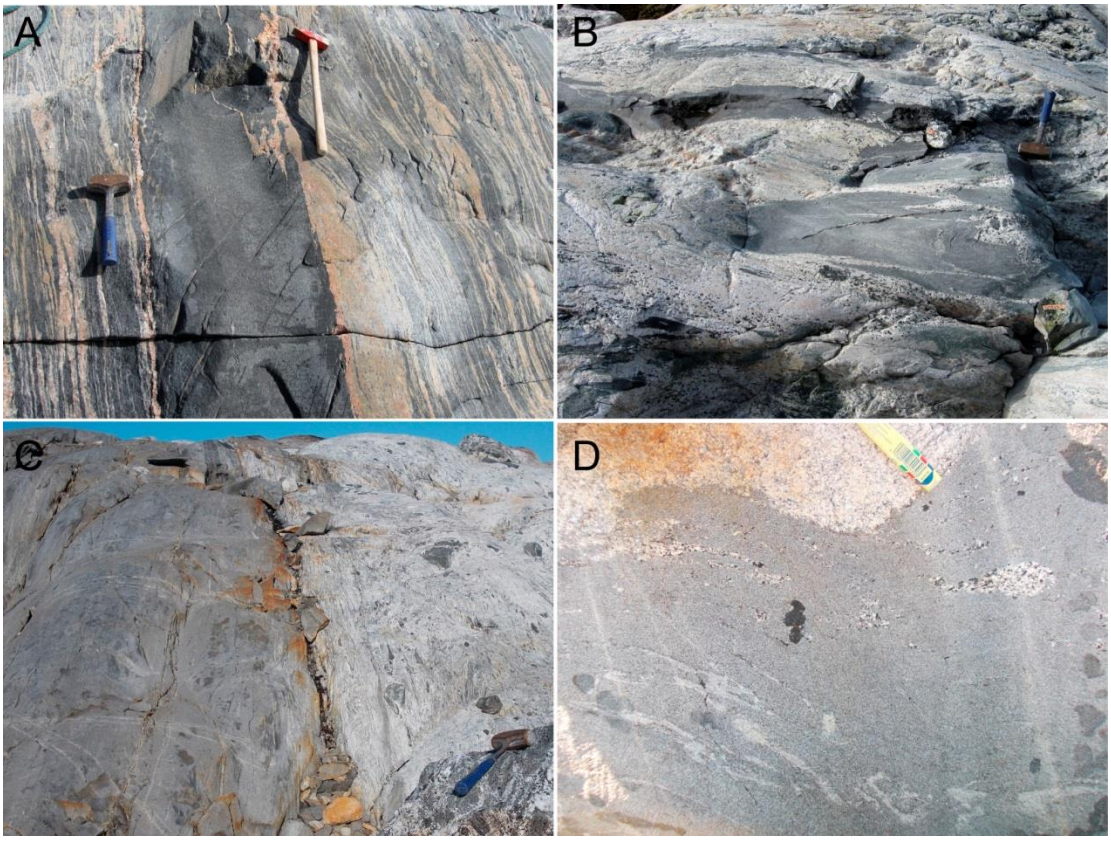


Figure 11. *Mafic dykes. A) Mafic dyke, crosscutting migmatitic gneisses, the dyke are infiltrated by leucocratic melts. B) Dykes sometimes appear as enclaves in granitic rocks. C and D from ca. 2 km northeast of Tingmiarmiut weather station. C) Massive mafic dyke unit, several tens of meters wide, with a strongly sheared contact toward felsic gneises. D) Mafic melt infiltrated into foliated felsic gneisses.*

5. Camp 4, Tingmiarmiut weather station (23rd to 31st of August)

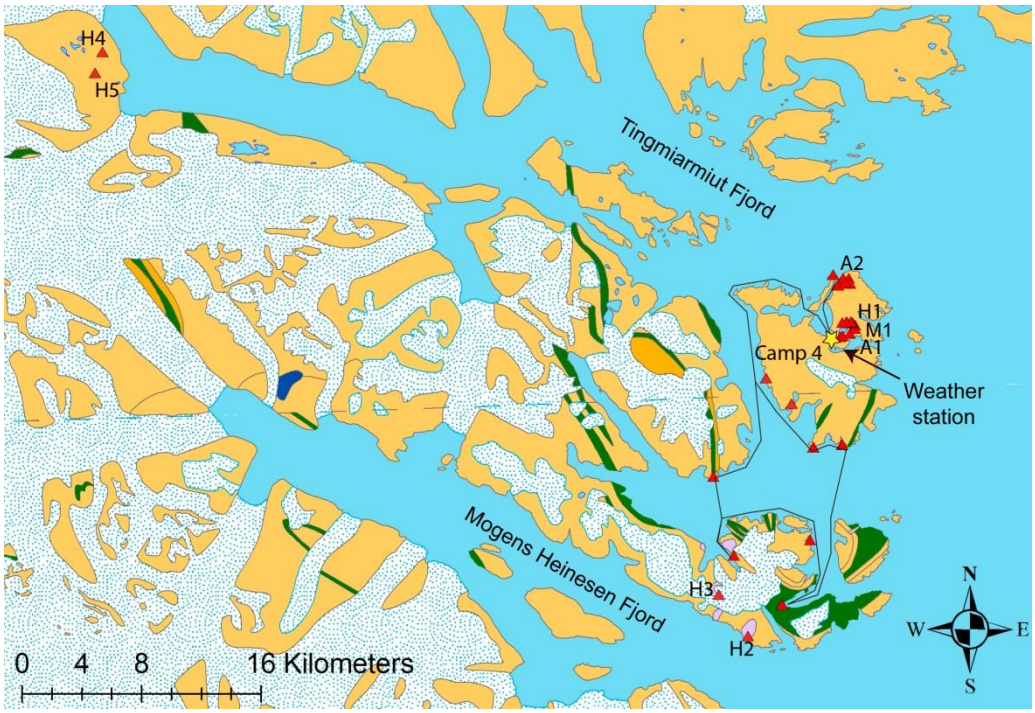


Figure 12. *Position of Camp 4 and visited localities. Black lines show approximate sailing routs that was followed during the boat reco. H1 to H5 are helicopter stops during one reco-day.*

Work was done in the area around the camp site and with boat (boat routs are indicated on figure 7). The sea in this area, due to the open fjords toward the ocean, was rough. During our visit coming in and out from the quiet waters of the weather station into the Tingmiarmiut fjord and crossing the straight south of the Tingmiarmiut Island was done only with some difficulty.

5.1 Migmatites

The gneiss basement in the area around Tingmiarmiut weather station and on the southern shore of the Tingmiarmiut island have a complex migmatitic texture unlike the enclave riche granite and agmatitic gneisses described for the basement in the areas covered from camp 2 and 3. As exemplified on figure 13 the migmatites contain complex fold and ductile deformation textures and there is a large difference in the amount of strain that have been taken up by rocks in different zone (Fig. 13).

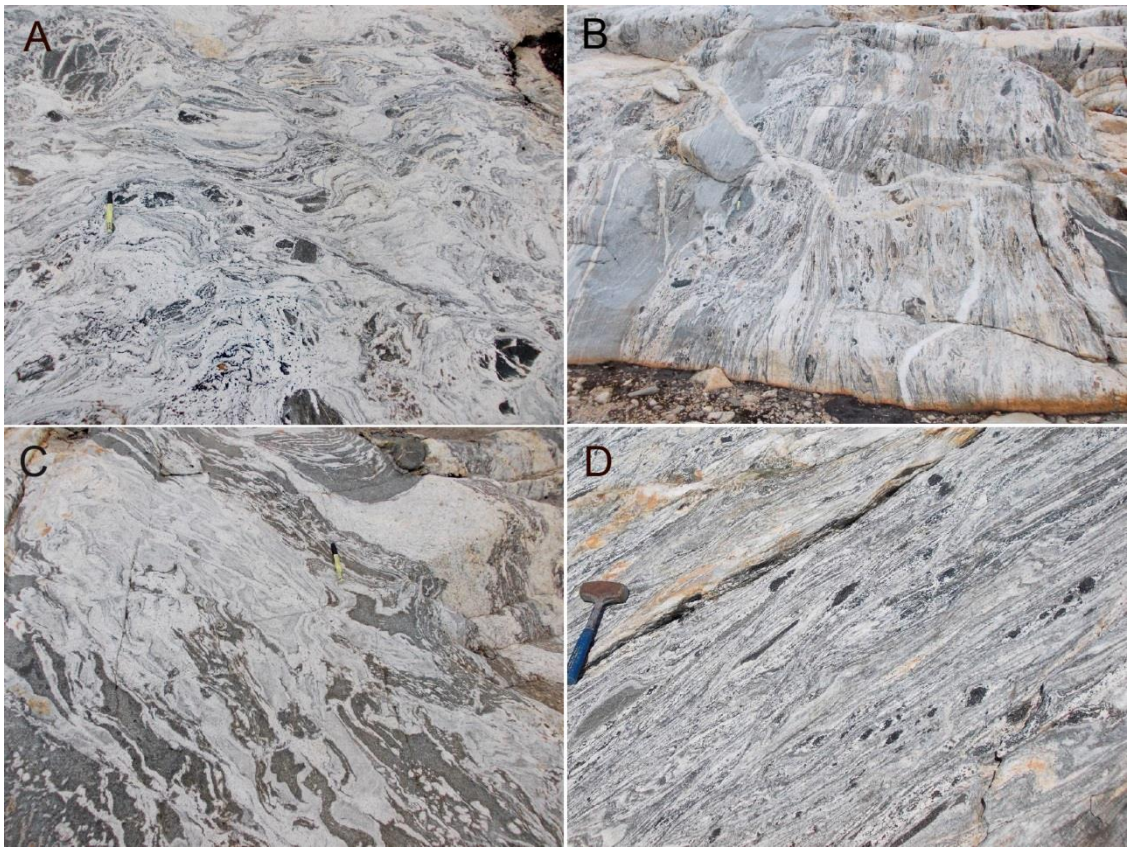


Figure 13. *Migmatites from the area around the Weather station. A) Relatively little strained migmatite, two minor shear zones are seen running from top left to lower right in the picture. B) Strongly deformed migmatite, that includes an also deformed mafic dyke. Both these units have been cut by late leucocratic veins. C) Migmatitie infiltrated into mafic rocks. D) Strongly sheared migmatite.*

5.2 Carbonate veins and fluid infiltrations

Carbonate veins or dykes were observed in several places within the agmatitic gneisses (marked A1 and A2 on figure 12). The carbonatites have similar appearance as described from the Camp 2 area. They appear as veins that can be followed semi continuous for several hundreds of meters.

5.3 Helicopter reco (27th of August)

The reco was joined by Karen Hanghøj, Troels Nielsen, Leon Bagas. Stop 1 (H1): Visiting carbonatite close to the Weather Station, close to the above described intrusive complex. Stop 2 and 3 (H2, H3): Apenite intrusion (hbl, plg gabbro). Stop 4 and 5 (H4, H5): Basement gneisses and shear zone in the inner Tingmiarmiut Fjord. Stop 6: Sampling gneisses at the 3.6 Ga stream sediment locality.

locId	Camp	Locality notes	GeusNo	Sampes notes	Earth material note	RockName	Latitude	Longitude	Photo from to		Description	InsertDate	Whr chemistry
									NumberFrom	NumberTo			
8	1	Coarse grained felsic gneiss	536501		Granodiorite, seems to be intrusive into and indcorporate a ca 5 m wide amphibolite lense	granodiorite >20 Qtz;10-35 Kfs	63.3798715	-41.15153275	431	435	Granodiorite, rock textures	01-08-2012	X
14		Garnet bearing felsic gneiss	536502	Garnet bearing gneiss	extremly tectonised. Garnet occur	gneiss (schist>1cm)	63.27027534	-41.16113065	436	438	Amphibolite band	01-08-2012	X
14			536503	minerals	extremly tectonised. Garnet occur	gneiss (schist>1cm)	63.27027534	-41.16113065	443	443	Rock texture	01-08-2012	
15		Melt veins and garnet	536504	Melt veins, garnets	Melt veins, garnet bearing	gneiss (schist>1cm)	63.27005705	-41.1617825	444	446	Syndeformational melt veining	01-08-2012	
16		bearing felsic gneiss and mafic	536505	Gt-opx bearing mafic granulite	Gt or opx bearing mafic granulite	gneiss (schist>1cm)	63.2698582	-41.16178329	449	452	Garnet bearing gneiss	02-08-2012	
17		felsic gneiss with mafic granulite.	536506	Gt bearing felsic gneiss	Garnet bearing felsic gneiss	gneiss (schist>1cm)	63.27026677	-41.16029739	453	454	Sample 536503, from loose boulder	02-08-2012	X
17			536507	Mafic granulite	veins and zones rich in garnet	mafic granulite	63.27026677	-41.16029739	455	457	Sample 536504	02-08-2012	X
17			536508	Rusty gneiss felsic	Rusty border zone felsic part	gneiss (schist>1cm)	63.27026677	-41.16029739	458	461	Sample 536505 and textures	02-08-2012	
17			536509	Rusty gneiss mafic	Rusty border zone mafic part	gneiss (schist>1cm)	63.27026677	-41.16029739	462	464	granulite	02-08-2012	
18		granulite	536510	Granite	Intrusive granite	tonalite >20 Qtz;<10 Kfs	63.2706438	-41.15838391	456	467	granulite, concentration of opx	02-08-2012	X
19		within felsic gneis. Felsic magmas	536511	Hbl spotted mafic gneiss	intruding felsic melts. Hbl spotted	mafic granulite	63.27128357	-41.16109083	468	470	Textures in gt bearing felsic gneiss	02-08-2012	X
20		Within felsic gneiss, partly agmatitic	536512	Mafic fragment, xenoliths	Fragment in agmatitic gneiss	mafic granulite	63.2712459	-41.16022448	471	473	gaenet occur aling foliation aligned	02-08-2012	X
21		melts	536513	Mafic granulite	Mafic granulite	mafic granulite	63.27078205	-41.16044039	474	476	Samples	02-08-2012	X
22		Mafic granulite	536514	Mafic granulite	Mafic granulite	mafic granulite	63.27059769	-41.16035904	480	482	Sample 536510 + textures	02-08-2012	X
23		Mafic granulite at the shore	536515	Homogeneous mafic granulite	Mafic granulite	mafic granulite	63.270127	-41.15734952	483	487	Rock textures im agmatitic zone	02-08-2012	X
26		mafic granulite. Large open fold	536516	Coarse grained granit	intruded into sequece of mafic	granite >20 Qtz;65-90 Kfs	63.63486738	-40.79231426	488	489	Sample 536511	02-08-2012	X
27		bearing felsic sheets	536517	Gabbro	sheets 20-50 cm wide	gabbro <Qtz;< 10 Kfs;An>50	63.63464539	-40.79404944	492	495	Sample 536512	02-08-2012	
27			536518	Mafic granulite	Mafic granulite	mafic granulite	63.63464539	-40.79404944	498	506	Textures in mafic granulite	02-08-2012	X
27			536519	containing gt, px and fs	Mafic granulite	mafic granulite	63.63464539	-40.79404944	507	508	Sample 536513	02-08-2012	X
27			536520	veins	Mafic granulite	mafic granulite	63.63464539	-40.79404944	509	510	Sample 536414	02-08-2012	X
27			536521	Leucome	Leucosome within mafic granulite	leucocratic dyke	63.63464539	-40.79404944	511	513	Sample 536515	02-08-2012	
28		Compositionally layered. Infiltratrd	536522	Qz, fs vein or melt	Qz fs veins	vein	63.5834186	-41.00682795	517	518	Sample 536516	03-08-2012	
28			536523	Felsic part	Hbl, bt schist	amphibolite	63.5834186	-41.00682795	519	520	Textures	03-08-2012	X
28			536524	Mafic part	Hbl, bt schist	amphibolite	63.5834186	-41.00682795	526	529	Gabbro sample 536517	03-08-2012	X
29		leucocratic melts, contact zone to	536525	Leucocratic melts	Leucocratic imtruding melts	leucocratic dyke	63.60655702	-40.99989401	530	531	Sample 536518	03-08-2012	X
29			536526	Banded gneiss	Banded gneiss	granodiorite >20 Qtz;10-35 Kfs	63.60655702	-40.99989401	532	533	Sample 536519	03-08-2012	X
29			536527	mafic gneiss	Banded gneiss	granodiorite >20 Qtz;10-35 Kfs	63.60655702	-40.99989401	534	536	Sample 536520,521	03-08-2012	
30		Augen gneiss	536528	Augen gneiss	enclaves	tonalite >20 Qtz;<10 Kfs	63.68115722	-41.59119595	537	538	Boudinaged gt w mafic melts	03-08-2012	
31		Dyke	536529	Dyke 3-5 m	Dyke	dolerite	63.68118987	-41.59193283	539	540	Sample 536522	03-08-2012	
33		leucocratic melts	536530	Gt-sill schist	Garnet sillimanite schist	metamorphic	63.26425364	-41.15211881	541	542	Sample 536523, 524	03-08-2012	
33			536531	Gt holding leucome	Leucome, garnet holding	metamorphic	63.26425364	-41.15211881	542	543	Texture	03-08-2012	
34		schists patches	536532	Mylonite	bearing leucome	mylonite 50-90 matrix	63.26435566	-41.15199924	546	549	intruding a banded gneiss	03-08-2012	X
37		Mylonitic gneiss w many leucomes	536533	Gt bearing leucome	Leucome layers in mylonite	leucosome	63.26441851	-41.15078001	550	551	Sample 536525	03-08-2012	
38		Mafic enclave in mylonitic gneiss	536534	Mafic enclave	Mafic enclave	mafic granulite	63.2645595	-41.15072626	552	553	Banded gneiss	03-08-2012	X
39		gneiss and mylonitic gneiss w	536535	Gt-sill schist	mylonite	metamorphic	63.26474392	-41.15046323	555	556	Sample 536527	03-08-2012	
39			536536	Leucome	schist	leucosome	63.26474392	-41.15046323	562	564	Textures in augen gneiss	03-08-2012	
42		Tonalitic sheet	536537	Tonalite	granulite. Weakly foliated,	tonalite >20 Qtz;<10 Kfs	63.50893793	-41.38610709	566	567	Sample 536528	03-08-2012	X
43		Tonalitic sheets in mafic granulite	536538	Foliated mafic granulite	Foliated mafic granulite	mafic granulite	63.50837968	-41.38561375	583	592	Mylonitic textures	03-08-2012	X
45		granulite	536539	Peritectic garnets	Peritectic garnets	melanosome	63.50899094	-41.38253105	611	623	Gt-sill schist w leucosomes	04-08-2012	
45			536540	Peretectic garnets	Peritectic garnets	melanosome	63.50899094	-41.38253105	624	626	Sample 536532	04-08-2012	X
45			536541	Gt bearing leucosome	Gt bearing leucosome	leucosome	63.50899094	-41.38253105	527	629	within mylonitic gneiss	04-08-2012	X
45			536542	Gt bearing leucosome	Gt bearing leucosome	leucosome	63.50899094	-41.38253105	640	634	leucome	04-08-2012	X
48		mafic and felsic gneisses	536543	Medium grained tonalite	isoclinally folded	tonalite >20 Qtz;<10 Kfs	63.50282255	-41.37325696	631	633	Mafic enclaves	04-08-2012	X
48			536544	Pyroxenite	Pyroxenite as lenses	metamorphic, plutonic	63.50282255	-41.37325696	638	639	Sample 536533	04-08-2012	X
52		textural evidence for partial melting	536545	Mafic granulite	leucosome	mafic granulite	63.38747494	-41.18801784	640	643	bearimg pressure shadows	04-08-2012	X
52			536546	Gt bearing mafic granulite	leucosome	mafic granulite	63.38747494	-41.18801784	644	646	Mafic enclave	04-08-2012	X
52			536547	rock)	leucosome	mafic granulite	63.38747494	-41.18801784	647	648	Sample 536535, Gt-sill schist	04-08-2012	X
53		Mafic garnulite w garnet	536548	Gt bearimg mafic granulite	Gt bearing mafic granulite	mafic granulite	63.3869889	-41.18748674	649	650	schist	04-08-2012	X
54		Gt bearing lense in mafic granulite	536549	granulite	granulitw	mafic granulite	63.38651624	-41.18733195	651	655	mylonitic gneiss	04-08-2012	
54			536550	Ultramafic	zoned and isoclinal folded	metamorphic	63.38651624	-41.18733195	693	694	Mafic granulite w felsic sheets	06-08-2012	X
55		some times gt bearing leucocratic	536551	Mafic granulite	Mafic granulite	mafic granulite	63.36886227	-41.12466738	697	698	Sample 536537	06-08-2012	X
57		bearing leucosome, as a 20-30 m	536552	Gt-sill gneiss	Garnet silimanite gneiss	metamorphic	63.35252316	-41.10585198	699	700	Tonalitic sheets	06-08-2012	
60		Tonalitic mylonite	536553	Tonalitic mylonite	Tonalitic mylonite	mylonite 50-90 matrix	63.35315868	-41.10506184	701	702	Sample 536538	06-08-2012	X
61		mylonite	536554	Mafic granulite	Mafic gtanulite	mafic granulite	63.35308812	-41.10606344	703	704	Garnet bearing leucosome	06-08-2012	X
69		Garnet bearing mafic granulite	536555	Gt bearing mafic granulite	Gt bearing mafic granulite	mafic granulite	63.06702475	-41.74039836	705	712	Garnet bearing leucusome	06-08-2012	X
74		gt rich zone	536556	Tonalitic sheet	Tonalitic sheet	trondhjemite: leucocratic tonalite	63.26752459	-41.15449712	713	722	Peritrctic gt	06-08-2012	X
75		50 cm in gt-sill unit	536557	Intermediate dyke	Intermediate dyke	dyke	63.26645239	-41.15025669	724	727	veins	06-08-2012	
76		mylonite	536558	Mylonised tonalite	Mylonised tonalite	tonalite >20 Qtz;<10 Kfs	63.28330739	-41.10583969	728	734	Leucocratic sheet, leucosome	06-08-2012	X
76			536559	Mafic granulite	leucocratic veins (undeformed)	mafic granulite	63.28330739	-41.10583969	740	742	Sample 536543	06-08-2012	X
78		sheared gt-sill-qz gneiss	536560	Gt-sill-qz gneiss	and sheared	gneiss (schist>1cm)	63.20533938	-41.13638521	740	741	Pyroxenite	06-08-2012	

locId	Camp	Locality notes	GeusNo	Sampes notes	Earth material note	RockName	Latitude	Longitude	Photo from to		Description	InsertDate	Whr chemistry
									NumberFrom	NumberTo			
80		melts. Some melts contain some px	536561	Mafic granulite w leucosome	the mafic granulite	tonalite >20 Qtz;<10 Kfs	63.04329542	-41.77115789	748	753	Mafic granulite	06-08-2012	X
80			536562	granulite, very few px in the	the mafic granulite	tonalite >20 Qtz;<10 Kfs	63.04329542	-41.77115789	754	766	Gt bearing mafig granulite	07-08-2012	X
82		leucosome	536563	leucosome	leucosome	mafic granulite	63.04314796	-41.77224939	745	747	leucosome	07-08-2012	X
83		homogeneous granodioritic gneiss	536564	Px,hbl bearing granodioritic gneiss	Px,hbl bearing granodiorite	granodiorite >20 Qtz;10-35 Kfs	63.04325077	-41.76837624	791	792	Sample 536548	07-08-2012	X
91		Agmatitic gneiss, frokost pause	536565	Sample536565	matrix part	tonalite >20 Qtz;<10 Kfs	63.0343124	-41.62114109	785	786	Sample 536545	07-08-2012	X
93		Agmatitic gneiss	536566	Opx bearing tonalite in agmatite	Opx bearing tonalite, agmatitic	tonalite >20 Qtz;<10 Kfs	62.99486037	-41.57237255	787	788	Sample 536546	07-08-2012	X
93			536567	Dyke ca 10 m wide	Dyke	dolerite	62.99486037	-41.57237255	789	790	Sample 536547	07-08-2012	
94		agmatitic gneiss. The mafic enclave	536568	Laminated mafic enclave	Laminated mafic enclave	amphibolite	62.95858791	-41.61648169	793	795	Sample 536549	07-08-2012	X
96		gneiss	536577	Carbonatite	irregular body within agmatitic	calc-silicate rock	63.02080017	-41.72832769	796	707	Sample 536550	08-08-2012	
101		strike. Looks more whiteish, skarn	536570	dyke	dyke	tonalite >20 Qtz;<10 Kfs	63.01776981	-41.70764292	799	801	Mafic granulite	08-08-2012	
102		agmatitic texture, mafic and ultra	536569	Opx bearing tonalitic gneiss	Tonalitic gneiss, opx bearing	tonalite >20 Qtz;<10 Kfs	63.01772733	-41.70797634	802	803	Sample 536551	08-08-2012	
103		leucocratic veins	536571	Mafic granulite	Mafic enclave	mafic granulite	63.01723589	-41.70655767	805	807	parts w ultramafic composition	08-08-2012	X
104		Mylonite zone w pseudotacalite	536572	Mylonite w pseusotakylite	Mylonite	mylonite 50-90 matrix	63.01760965	-41.70578022	815	816	Leucosome in gt-sill gneiss	08-08-2012	
105		red taining or kfs	536573	Kfs bearing granite fron fault zone	fs in tonalite	granodiorite >20 Qtz;10-35 Kfs	62.8980578	-41.60184041	812	814	Sample 536552	08-08-2012	X
105			536574	Hbl bearing tonalite	zone	tonalite >20 Qtz;<10 Kfs	62.8980578	-41.60184041	817	818	Ultramafic lense	08-08-2012	X
106		Dyke, slightly felsic, + 50 m wide	536575	DykeLIP	Dyke	dolerite	62.89789105	-41.6010062	819	821	shadow region	08-08-2012	
108		Agmatitic gneiss	536576	Tonalitic gneiss w agmatitic texture	Tonalitic gneiss w agmatitic texture	tonalite >20 Qtz;<10 Kfs	62.95291844	-41.5792398	822	824	granulite and gt beating leucosome	08-08-2012	X
109		bearing mafc granulte w gt bearing	536578	Gt bearing leucosome	Gt bearing leucosome	leucosome	63.26586763	-41.15432466	825	826	Sample 536553	08-08-2012	
109			536579	Strained gt bearing leucosome	Strained gt bearing leucosome	leucosome	63.26586763	-41.15432466	827	829	Sample 536554	08-08-2012	
109			536580	Mafic granulite	Mafic granulite	mafic granulite	63.26586763	-41.15432466	830	831	Melt intruded mafic granulite	08-08-2012	X
109			536581	Mafic granulite	Mafic granulite	mafic granulite	63.26586763	-41.15432466	832	833	Granite w mafic enclaves	08-08-2012	X
109			536582	crystals	Gt bearing leucosome	leucosome	63.26586763	-41.15432466	834	835	Granite w mafic enclave	08-08-2012	
110		leucosome + mafic enclave w	536583	Mafic enclave w gt reaction fim	gneiss	mafic granulite	63.26426862	-41.15230608	839	840	Agmatitic gneiss	10-08-2012	X
110			536584	Gt bearing leucosome	Leucosome w gt	leucosome	63.26426862	-41.15230608	841	844	Strongly sheared gt bearing gneiss	10-08-2012	X
110			536585	Gt-sill gneiss w leucosome	Gt-sill gneiss	metamorphic	63.26426862	-41.15230608	846	847	Agmatitic gneiss	10-08-2012	X
110			536586	Gt - sill gneiss, no leucosome	Gt-sill gneiss	metamorphic	63.26426862	-41.15230608	848	849	Fault zone	10-08-2012	X
110			536587	Gt-sill gneis w leucosome	Gt-sill gneiss	metamorphic	63.26426862	-41.15230608	851	852	Sample 536555	10-08-2012	X
110			536588	gneiss	Leucosome w gt	leucosome	63.26426862	-41.15230608	856	858	View toward the south	10-08-2012	X
110			536589	leucosome	Mylonite w gt bearing leucosome	mylonite 50-90 matrix	63.26426862	-41.15230608	863	864	Gt bearing mafic enclve	11-08-2012	X
111		Mylonite w gt bearing leucosome	536590	Mylonite w few leucosome veins	Mylonite	mylonite 50-90 matrix	63.26439867	-41.15123629	865	866	leucosome	11-08-2012	X
111			536591	Mylonite w gt bearing leucosome	Mylonite	mylonite 50-90 matrix	63.26439867	-41.15123629	867	870	Gt, opx bearing leucosome	11-08-2012	
111			536592	bearing leucosome in pressure	Mafic enclave in mylonite	mafic granulite	63.26439867	-41.15123629	876	877	Sample 536556	11-08-2012	X
111			536594	Mylonite w gt bearing leucosome	Mylonite	mylonite 50-90 matrix	63.26439867	-41.15123629	874	875	Tonalitic sheet	11-08-2012	X
112		Mylonite w gt bearing leucosome	536593	Leucosome, gt bearing in mylonite	Mylonite w gt bearing leucosome	mylonite 50-90 matrix	63.26469415	-41.15061039	878	879	Sample 536557	11-08-2012	
113		Gt-sill gneiss patches	536595	Gt bearing leucosome	Gt bearing leucosome	leucosome	63.26479384	-41.15049446	880	881	Intermediate (hydrothermal?)	11-08-2012	X
113			536596	leucosome	Gt-sill gneiss	metamorphic	63.26479384	-41.15049446	882	885	Rock textures	11-08-2012	X
113			536597	mafic enclave	Gt-sill gneiss	metamorphic	63.26479384	-41.15049446	886	887	Sample 536558	11-08-2012	X
114		Mylonite w gt patches	536598	Mylonite w gt lense	mafic	mylonite 50-90 matrix	63.26503256	-41.14987458	888	889	Sample 536559	11-08-2012	X
115		felsic veins	536599	Mafic granulite w leucosome	Mafic granulite	mafic granulite	62.97894702	-41.67452766	890	893	Laminated, sheared gt-sill-qz gneiss	11-08-2012	X
115			523920	Mafic granulite	Mafic granulite	mafic granulite	62.97894702	-41.67452766	894	895	Gt-sill gneiss	11-08-2012	X
115			523921	leucosome	Mafic granulite	mafic granulite	62.97894702	-41.67452766	898	899	Px, hbl granite w fold structures	12-08-2012	X
121		intruded by mafic fine grained	523922	Pegmatite	Pegmatitic dyke	pegmatite	63.02226875	-41.93939908	900	904	granodiorite	12-08-2012	X
121			523923	Mafic intruding unit	Intruding mafic unit	amphibolite	63.02226875	-41.93939908	905	906	Sample 536561	12-08-2012	X
121			523924	Mafic unit + pegmatite	Intruding mafic unit	amphibolite	63.02226875	-41.93939908	914	915	Sample 536562	12-08-2012	
121			523925	Ultramafic	Ultrmafic	metamorphic	63.02226875	-41.93939908	916	919	There seems to be a difference in composition of leucosome, one	12-08-2012	X
122		Felsic gneiss w ultramafic enclaves	523926	Tonalitic gneis	Tonalitic gneiss	tonalite >20 Qtz;<10 Kfs	63.03661924	-42.020735	920	925	leucosome in contact w felsic gneiss	12-08-2012	X
124		leucocratic gneisses	523927	Intermediate gneiss	Intermediate gneissic	metamorphic, plutonic	63.06282365	-41.96599123	931	933	Sample 536564	12-08-2012	X
124			523928	Leucocratic tonalitic gneiss	Tonalitic few mafic mineralsw	granodiorite >20 Qtz;10-35 Kfs	63.06282365	-41.96599123	934	936	Agmatitic gneiss	12-08-2012	X
127		leucosomein agmatitic gneiss	523929	Mafic granulite	Mafic granulite	mafic granulite	62.79063214	-42.31469648	937	938	Agmatitic gneiss	12-08-2012	X
127			523930	Leucosome	Px, hbl bearing leucosome	leucosome	62.79063214	-42.31469648	939	941	Mafic enclave	12-08-2012	
128		agmatitic texture	523931	Leucosome	Leucosome, strongly sheared	metamorphic	62.79047535	-42.31160599	942	943	enclaves	12-08-2012	
128			523932	Ultramafic	Ultramafic	metamorphic	62.79047535	-42.31160599	944	945	Agmatitic gneiss	12-08-2012	
134		w agmatitic texture	523933	textures	Felsic gneiss w agmatitic texture	tonalite >20 Qtz;<10 Kfs	62.78577755	-42.08912683	947	950	Along the coast from last location	13-08-2012	X
134			523934	Mafic enclave w reactionrim	Felsic gneiss w agmatitic texture	tonalite >20 Qtz;<10 Kfs	62.78577755	-42.08912683	953	966	Along the coast from last location	13-08-2012	
137		felsic gneiss w agmatitic texture	523938	Tonalitic sheet	Tonalitic sheet within amphibolite	tonalite >20 Qtz;<10 Kfs	62.86697923	-42.00892261	967	971	Sample??? And textures	13-08-2012	X
137			523939	leucisome	bearing leococratic veins	amphibolite	62.86697923	-42.00892261	976	999	fjord, from last loc.	13-08-2012	X
137			523940	Mafic to ultramafic	bearing leococratic veins	amphibolite	62.86697923	-42.00892261	1000	1006	gneiss	13-08-2012	X
138		texture	523941	Tomalite w few mafic minerals	zone w disintergrated mafic	tonalite >20 Qtz;<10 Kfs	62.8351828	-41.9284325	1007	1011	Carbonate dyke	14-08-2012	X
138			523942	Tonalite w no mafic minerals	Tomalite w no mafic minerals,	tonalite >20 Qtz;<10 Kfs	62.8351828	-41.9284325	1012	1014	Carbonate dyke	14-08-2012	X
138			523943	Mafic granulite w leucosome	Mafic granulite	mafic granulite	62.8351828	-41.9284325	1015	1016	Carbonate dyke	14-08-2012	
138			523944	Massice mafic granilire	Mafic granulite	mafic granulite	62.8351828	-41.9284325	1018	1022	Carbonatite	14-08-2012	X

locId	Camp	Locality notes	GeusNo	Sampes notes	Earth material note	RockName	Latitude	Longitude	Photo from to		Description	InsertDate	Whr chemistry
									NumberFrom	NumberTo			
139		gneiss w agmatitic texture. Mafic	523945	Mafic granulite w leucosome	Mafic granulite	mafic granulite	62.78784321	-41.96252164	1023	1025	Carbonatite dyke	14-08-2012	X
139			532956	Mafic granulite w leucosome	Mafic granulite	mafic granulite	62.78784321	-41.96252164	1026	1027	Sample 536569	14-08-2012	
139			523947	Tonalite w mafic fragments	Mafic granulite	mafic granulite	62.78784321	-41.96252164	1028	1029	Textures	14-08-2012	X
139			523948	minerals	Tonalitic sheet	tonalite >20 Qtz;<10 Kfs	62.78784321	-41.96252164	1030	1032	Sample 536570	14-08-2012	X
140		mafic enclaves, seems to be	523949	Leucocratic granite w hbl	Tonalite w large hbl	tonalite >20 Qtz;<10 Kfs	62.80423	-42.24727328	1033	1034	Sample 536571	14-08-2012	X
140			523950	Tonalite	Tonalite	tonalite >20 Qtz;<10 Kfs	62.80423	-42.24727328	1035	1037	Mylonite	14-08-2012	X
141		leucicratic veins, southern limit	523951	Homogeneous amphibolite	medium grained. Infiltrated by hbl	amphibolite	62.83944279	-42.3766475	1038	1039	Sample536573	14-08-2012	X
141			523952	leucosome	medium grained. Infiltrated by hbl	amphibolite	62.83944279	-42.3766475	1040	1041	Sample 536574	14-08-2012	
142		wide) within the finer grained	523953	Gabbro	Gabbro	gabbro <Qtz;< 10 Kfs;An>50	62.83998145	-42.37698952	1042	1044	Sample 536575	14-08-2012	X
142			536600	Amphibolite	Amphibolite	amphibolite	62.83998145	-42.37698952	1045	1046	Thrusts zones	14-08-2012	
143		Felsic sheet within amphibolite unit	523955	Felsic sheet	Felsic sheet	tonalite >20 Qtz;<10 Kfs	62.84040496	-42.37710444	1055	1056	Sample 536576	14-08-2012	X
143			523957	Amphibolitenw leucosome	Amphibolitr w leucosome	amphibolite	62.84040496	-42.37710444	1057	1058	Agmatitic texture	14-08-2012	
143			523958	Amphibokite w few leucosome	Amphibolite	amphibolite	62.84040496	-42.37710444	1061	1067	Sample 536578 to 582	15-08-2012	X
143			523959	Amphibolite	Amphibolite	amphibolite	62.84040496	-42.37710444	1069	1071	Sample 536578	15-08-2012	X
143			523961	Amphibolite w leucome	Amphibolitr w leucosome	amphibolite	62.84040496	-42.37710444	1072	1074	Sample 536579	15-08-2012	
145		together w leucosome	523960	Mafic dyke	Mafic dyke	mafic dyke	62.84086966	-42.37728022	1075	1077	Sample 536580	15-08-2012	X
147		agmatitic texture	523962	Tonalitic gneiss	Tonalitic gneiss	tonalite >20 Qtz;<10 Kfs	62.88918799	-42.37742976	1078	1080	Sample 536581	15-08-2012	X
147			523963	Amphibolite	beating leucocratic veins	amphibolite	62.88918799	-42.37742976	1081	1083	Sample 536582	15-08-2012	X
147			523964	Amphibolite w leucosome	beating leucocratic veins	amphibolite	62.88918799	-42.37742976	1084	1095	Sample 536583 to 589	15-08-2012	
148		Mafic and intermediate rocks	523965	Mafic tonalite	Mafic tonalite	tonalite >20 Qtz;<10 Kfs	62.88931485	-42.37709886	1099	1102	Sample 536583	15-08-2012	X
148			523966	Amphibolite	Amphibolite	amphibolite	62.88931485	-42.37709886	1103	1105	Sample 536584	15-08-2012	X
150		Felsic gneiss w agmatitic texture	523967	leucosome	leucosome	migmatite	62.85659547	-42.5031093	1106	1107	Sample 536585	15-08-2012	
150			523968	Tonalite in contact w mafic enclave	Tonalite w agmatitic texture	tonalite >20 Qtz;<10 Kfs	62.85659547	-42.5031093	1108	1109	Sample 536586	15-08-2012	
150			523969	Tonalite	Tonalite w agmatitic texture	tonalite >20 Qtz;<10 Kfs	62.85659547	-42.5031093	1110	1112	Sample 536587	15-08-2012	X
151		Enclaves	523970	Enclave1	Enclave	metamorphic	62.85700146	-42.50286319	1113	1114	Sample 536588	15-08-2012	
151			523971	Enclave2	Enclave	metamorphic	62.85700146	-42.50286319	1115	1116	Sample 536589	15-08-2012	
151			523972	Enclave3	Enclave	metamorphic	62.85700146	-42.50286319	1117	1123	Sample 536590 to 536592	15-08-2012	
151			523973	Enclave 4	Enclave	metamorphic	62.85700146	-42.50286319	1126	1128	Sample 536590	15-08-2012	
151			523974	Enclave 5	Enclave	metamorphic	62.85700146	-42.50286319	1129	1131	Sample 536591	15-08-2012	
151			523975	Enclave6	Enclave	metamorphic	62.85700146	-42.50286319	1132	1134	Sample 536592	15-08-2012	
151			523977	Enclave8	Enclave	metamorphic	62.85700146	-42.50286319	1135	1136	Sample 536594	15-08-2012	
151			523976	Enclave7	Enclave	metamorphic	62.85700146	-42.50286319	1137	1139	Sample 536593	15-08-2012	
151			523978	Enclave9	Enclave	metamorphic	62.85700146	-42.50286319	1147	1148	Sample 536595	15-08-2012	
151			523979	Enclave9	Enclave	metamorphic	62.85700146	-42.50286319	1149	1150	Sample 536596	15-08-2012	
152		Gabbroic gneiss	523981	Gabbroic gneiss	Gabbroic gneiss	gabbro <Qtz;< 10 Kfs;An>50	62.85759089	-42.48770642	1151	1152	Sample 536597	15-08-2012	
152			523982	Grey gneiss	Grey gneiss	tonalite >20 Qtz;<10 Kfs	62.85759089	-42.48770642	1153	1155	Sample 536598	15-08-2012	
154		agmatitic texture, enclaves mainly	523983	Tonalite	Tonalite, opx bearing	tonalite >20 Qtz;<10 Kfs	62.7465074	-42.44880399	1161	1163	Mafic granulite	16-08-2012	X
154			523984	Amphibolite	Amphibolite	amphibolite	62.7465074	-42.44880399	1164	1165	Sample 536599 and 523920	16-08-2012	X
155		gneiss	523085	Ultramafic	Ultramafic	metamorphic	62.74770907	-42.44848711	1166	1167	Sample 523921	16-08-2012	X
156		enclaves that are folded together	523986	Leucocratic tonalite	Leucocratic tonalite	trondhjemite: leucocratic tonalite	62.76765587	-42.50177804	1168	1170	Agmatitic gneiss	16-08-2012	X
156			523987	Enclave	Amphiblite enclave	amphibolite	62.76765587	-42.50177804	1171	1172	Mafic granulite	16-08-2012	
158		Mafic units of different composition	523988	Leucocratic tonalite sheet	Leucocratic tonalite sheet	trondhjemite: leucocratic tonalite	62.46767342	-42.23767054	1173	1174	Carbonatite	16-08-2012	X
158			523989	Amphibolite fine grained	grained	amphibolite	62.46767342	-42.23767054	1175	1180	Carbonatite	16-08-2012	X
158			523990	Amphibolite w px	Amphibolite, course grained w px	amphibolite	62.46767342	-42.23767054	1188	1191	Sample 523922	16-08-2012	X
160		gneiss, agmatitic texture, mafic and	523991	Opx bearing tonalite	Opx, (gt?) bearing tonalite	tonalite >20 Qtz;<10 Kfs	62.46868198	-42.19948786	1192	1195	Intruding mafic, sample 523923	16-08-2012	X
162		Quartz vein in agmatitic gneiss	523992	Quartz vein	Quartz vein	quartz	62.37408049	-42.28639149	1196	1197	Sample 523924	16-08-2012	
162			523993	Amphibolite	Amphibolite	amphibolite	62.37408049	-42.28639149	1198	1199	Sample 523925	16-08-2012	
162			523994	Leucocratic tonalite	Leucocratic tonalite	trondhjemite: leucocratic tonalite	62.37408049	-42.28639149	1205	1206	Sample 523926	16-08-2012	
170		gneiss, contain melt influxed mafic	523999	Bt bearing tonalite	Bt bearing tonalite	tonalite >20 Qtz;<10 Kfs	62.5400062	-42.17608641	1207	1208	Texture	16-08-2012	
171		gneiss. The mafic dyke is deformed	537001	Amphibolite dyke	deformed	mafic dyke	62.54128111	-42.17950934	1209	1210	Mafic granulite	16-08-2012	X
171			537002	Quarz (carbonate?) vein	mafic dyke	quartz-carbonate	62.54128111	-42.17950934	1211	1217	Intermediate and leucocratic rocks	16-08-2012	
175		infiltrated by leucocraric veins	537003	Mafic undeformed unit	Mafic undeformed unit	diorite <Qtz;<10 Kfs;An<50	62.54192373	-42.18649571	1218	1220	Sample 523927	16-08-2012	X
178		pyroxene(?)	537004	Dyke	Dyke	dolerite	62.35584588	-42.33095841	1221	1222	Sample 523928	16-08-2012	
178			537005	Granodiorite	Granodiorite	granodiorite >20 Qtz;10-35 Kfs	62.35584588	-42.33095841	1223	1224	Sample 523929, 523930	18-08-2012	
178			537006	Syenite	granodiorite, north side of dyke	syenite <5 Qtz;65-90 Kfs	62.35584588	-42.33095841	1225	1226	Agmariric texture	18-08-2012	
178			537007	Chilled margien	Dyke	dolerite	62.35584588	-42.33095841	1227	1228	Fracture zone	18-08-2012	
179		intruded by leucocratic veins	537008	leucocraric veins	Grey gneiss	tonalite >20 Qtz;<10 Kfs	62.7179973	-43.14034182	1229	1230	Zone w ultramafic enclaves	18-08-2012	
180		Ultramafic w pegmatitic veins	537009	Ultramafic 1	Ultramafic isoclinal folded	metamorphic	62.71794626	-43.13954431	1241	1242	Mafic bands	19-08-2012	
180			537010	Ultramafic 2	Ultramafic isoclinal folded	metamorphic	62.71794626	-43.13954431	1243	1244	Sample 523933	19-08-2012	
180			537011	Pegmatitic vein in ultramafic	Pegmatitic veining in ultramafic	pegmatite	62.71794626	-43.13954431	1245	1251	rims around mafic enclaves	19-08-2012	
181		Mylonite	537012	Rer kfs in thrust	overprinting the mylonitic rocks	fault rock	62.70984748	-43.15016007	1252	1253	Sample 523934	19-08-2012	
181			537013	Mylonite	Mylonite	mylonite 50-90 matrix	62.70984748	-43.15016007	1254	1265	mafic enclaves	19-08-2012	

locId	Camp	Locality notes	GeusNo	Sampes notes	Earth material note	RockName	Latitude	Longitude	Photo from to		Description	InsertDate	Whr chemistry
									NumberFrom	NumberTo			
182		Old zircons	537014	Grey gneiss w some leucosome	Metamorphic gneiss	metamorphic, plutonic	62.86813861	-42.48109233	1266	1269	Sample 523938	19-08-2012	
182			537015	Grey gneiss w no leucosome	Metamorphic gneiss	metamorphic, plutonic	62.86813861	-42.48109233	1270	1271	Sample 523939-940	19-08-2012	
182			537016	Ultramafic w leucosome	Enclave	metamorphic	62.86813861	-42.48109233	1281	1283	Sample 523941	19-08-2012	
182			537017	Gneiss w mafic enclave	Enclave	metamorphic	62.86813861	-42.48109233	1284	1286	Sample 523942	19-08-2012	
182			537018	Ultramafic	Enclave	metamorphic	62.86813861	-42.48109233	1284	1285	Photo	19-08-2012	
190		Agmatite w uncommen enclaves	537019	Gneissic enclave	Gneissic enclave	metamorphic	62.5632728	-42.19653616	1293	1294	Sample 523950	19-08-2012	