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**ILUA VALLEY, NUNASARNAQ AND KUANNERSUIT ARCHAEOLOGY – A SURVEY** 

Report on archaeological survey conducted by the NKA August 2011 in the Ilua Valley, the Nunasarnaq peninsula and the Kuannersuit mining site on the Narsaq peninsula in relation to the Kuannersuit/Kvanefjeld multi element mining project by Greenland Minerals and Energy Ltd. The survey was conducted on behalf of ORBICON A/S as part of their preparation of an Environmental Impact Assessment report.

#### **Executive summary**

The 2011 survey of the Ilua valley, the Nunasarnaq peninsula and the Kuannersuit mining site is a continuation of the survey conducted on the Narsaq peninsula by the NKA in 2010. In a cultural historical context the findings of the 2011 survey generally corresponds with those made in 2010, except for the wreck of a WWII light bomber in the Ilua valley and the ostensible absence of prehistoric Inuit remains. The open pit mining area did not reveal any physical remains of former or contemporary land use, except for the installations put there in relation to exploration activities.

As for the potential conflicts between cultural heritage and mining project infrastructure, the conclusion of the 2011 survey is identical with the 2010 survey's ditto. Detailed infrastructure description has not yet been made available to the NKA, leaving it pointless at this stage to assess the scope of archaeological excavations necessary should the construction phase of the proposed mining project be initiated. It is evident though that the potential excavations of the Norse farms and the Inuit longhouses implies projects which are relatively labour intensive and time consuming.

#### Introduction

The NKA conducted an archaeological survey in the Narsaq area in 2010 (see 2010 report). However, it was decided by the project holders to extend the 2010 survey area including the Ilua valley and the Nunasarnaq peninsula. This report is thus to be considered an addendum to the 2010 report and therefore aspects concerning the survey area's general cultural historical context can be found in the 2010 report and will not be further elucidated here.

The 2011 survey was conducted by Bo Albrechtsen and Mikkel Myrup (author), both curators at the Greenland National Museum & Archives (NKA), in the period August 11 to August 18, 2011. The NKA team also conducted a survey of the proposed open pit mining area.

The NKA survey team was airlifted to the central part of the Ilua valley and here a base camp was established. The valley was surveyed by foot and for the coastal survey of the Nunasarnaq peninsula the team was assisted by a chartered boat. The proposed Kuannersuit mining site was reached by helicopter and surveyed by foot.

The survey of the Ilua valley and Nunasarnaq peninsula revealed a number of archaeological structures which had not previously been recorded.

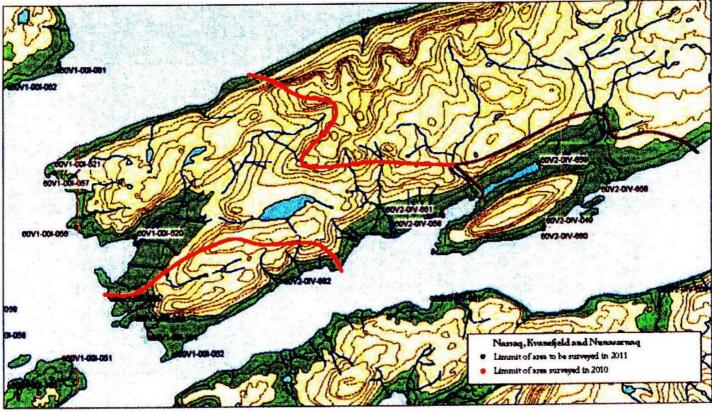


Figure 1. The 2011 archaeological survey was done in the area marked with violet. (Map by ORBICON)

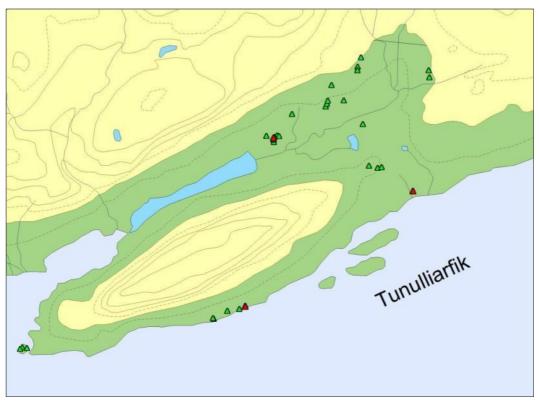
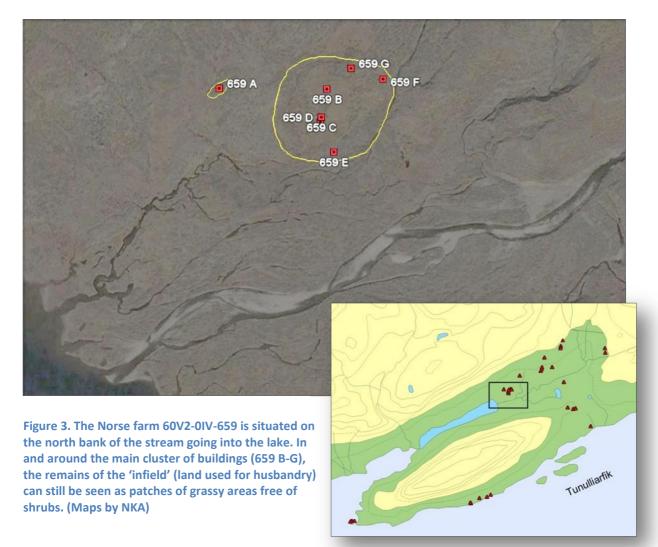


Figure 2. A relative high number of archaeological structures previously unknown to the NKA was discovered in the 2011 survey. The three previously recorded sites of archaeological interest are marked with red triangles. The 'new' sites are marked with green triangles. The lion's share of the newly recorded sites should, though, be viewed as being part of the Norse farms already recorded and/or historical use. (Map by NKA)

#### The Ilua valley

In the Ilua valley previously recorded archaeological sites consists of a single Norse farm (cf. 2010 report for chronological and cultural historical context). The Norse farm is designated as 60V2-0IV-659 in the antiquities database of the NKA. The farm has not been object of the same interest as the other Norse farms found in the survey areas. Apparently no archaeologists have visited the farm since its entry into the archaeological records in 1950 when C. L. Vebæk made a note of the site in his diary. Information about any archaeological excavations taking place prior to 1950 is absent in the records, as is the on-site evidence of such activities. Vebæk (1950) noted the presence of 12 structures. In 2011 the NKA team was only able to discern 7 structures in the immediate vicinity of what were interpreted as the main house (*659 B* in Figure 3).



All the structures of this farm appears severely collapsed and hard to discern except for *659 A* which is a dry stone walled building situated on the bedrock above the farm. This type of building is archaeologically interpreted as being a store house. The dry stone walls and bedrock foundation kept the storage space well ventilated and cool.



Figure 4. Structure 659 A seen from NE. Overall dimensions appr. 4 X 15 metres. It appears as if the dry stone walled building was divided into three or four rooms.



Figure 5. Structure 659 B (main building) seen from the store house (659 A). The remains of this structure are scattered on a surface of appr. 12 X 30 metres. Behind the center ridge in the background lies the modern day farm of Ipiutaq – also the premises of the Norse farm 60V2-0IV-658.

The Ilua valley is geographically situated on a natural route when travelling on foot or on horseback between the Narsaq area, on the western tip of the Narsaq peninsula, and the inner parts of the Tunulliarfik fjord where one find the hamlet of Qassiarsuk. This modern day center of the area's agricultural activities is believed to be the Norse Brattahlið, where the renowned Eric the Red and his entourage settled around A.D. 1000 (cf., 2010 report).

The Ilua valley Norse farm 60V2-0IV-659 lies wedged in between the farms of Tunuamiut, 60V2-0IV-661 (cf., 2010 report) 5 kilometres to the WSW, and Ipiutaq, 60V2-0IV-658, 3 kilometres to the ESE.

The 'new' structures found in the valley is comprised by two main types. Fox traps and cairns. The latter seems to, in some cases, have been modified and also used as a shelter or cache. The architecture of the fox traps found in the valley corresponds rather well with the design of fox traps found in the inner Nuuk fjord complex, also known as the Western Settlement of the Norse (cf., 2010 report). No systematic investigation on this subject has been made in a Greenlandic context as far as this author is informed. Consequently, one cannot with certainty rule out the possibility of these structures being part of the Norse economy in the valley. Most of the traps and cairns have been constructed on the north hill side of the Ilua valley. All these structures will appear in list form in an appendix, examples are shown in the following.



Figure 6. Fox trap from the Ilua valley.



Figure 7. Cairn on the Ilua valley hill side. The structure seems to have been subject to recontruction at some point. Could the original structure have been a small fold or pen used in Norse times? The Norse farm 60V2-0IV-659 is situated above the nearest corner of the lake seen in the background.

Evidence of a world in war is also found in the Ilua valley. Approximately 150 metres south of the stream running through the central part of the valley, actually in the middle of the valley area (see appendix map), lies the wreck of a World War II light bomber plane. The wreck appears quite disintegrated and almost nothing is left of its fuselage. Different parts of the aircraft, despite being heavily damaged, made it possible to identify the type, and the tail identification number eventually made it possible to identify affiliation, crash circumstances, flight and crew.

Through internet searches the aircraft was identified as being a U.S. twin radial engine Douglas A-20B light bomber with the serial number 41-3013 (marked 13013 on tail) en route from Tunisia to North America. It crashed on April 25 1943 shortly after departure from Narsarsuaq, then known as Bluie West 1. This particular flight consisted of three A-20B's and a C-87 transport plane. According to individuals who read the accident report *"The Douglas A-20B # 41-3013 was part of a three-ship flight of A-20 airplanes that were being ferried back to the US via Goose Bay, Labrador. The airplanes were being escorted by a C-87. The flight took off and circled to gain altitude, joining the C-87 soon after. The subject airplane was seen to go into a spin while trailing the C-87. The airplane continued in a spin until it disappeared into the undercast. The pilot failed to recover and the airplane smashed to the ground and exploded. All three crewmembers were killed.*  1Lt. Harvey A. Crider, pilot SSgt. Joseph B. Quinlivan, gunner SSgt. Lorren L. Noel, gunner The accident report can be found on: USAAF Aircraft Accident Report Microfilm Call # 46194, 25 April 1943, Accident # 501"<sup>1</sup>



Figure 8. This photo was taken in March 1943 in Tunisia. The front A-20 is the 13014, meaning that the airplane behind it could be "our" 13013 just weeks before it started its journey across the Atlantic ending up in the Ilua valley. These bombers were part of the 47th Bomb Group/97th Bomb Squadron which later participated in the liberation of Europe.



Figure 9. The identification number 13013 on the wreck in the Ilua valley.

<sup>&</sup>lt;sup>1</sup> http://www.warbirdinformationexchange.org/phpBB3/viewtopic.php?f=3&t=27865



Figure 10. The aft part of the 13013. The oval-shaped window just above the tear, combined with the 14-cylinder radial engines, provided the first clues determining the aircraft type.



Figure 11. One of the two radial 14-cylinder Wright Cyclone 2600s.

## The Nunasarnaq peninsula

There are two known Norse farms on what is described as the Nunasarnaq peninsula here. 60V2-0IV-658, Ipiutaq, also the premises of a modern sheep farm run by the couple Kalistat Poulsen and Agathe Devisme and 60V2-0IV-660 situated on the south shore of the peninsula approximately 3,5 kilometres west of Ipiutaq. The latter location is also designated as 60V2-0IV-049 because of the Inuit longhouses and graves found here.

## 60V2-0IV-658

The Ipiutaq Norse farm is, as mentioned, also the location of a modern sheep farm. This has resulted in a rough treatment of the Norse ruins. After decades of modern farming several of the ruins of the original farm can no longer be identified without conducting a thourough archaeological investigation including digging test pits etc. In 1970 the farm's Norse remains were sketched out by the Danish archaeologist Sven Erik Albrethsen. The farm was revisited by archaeologists in 1993 and 2009 and here several of the structures were undiscernible.

## 60V2-0IV-070

An Inuit presence at Ipiutaq is manifested through graves built in the Norse ruins and remains of a longhouse. The NKA did not make any new recordings of these in 2011.

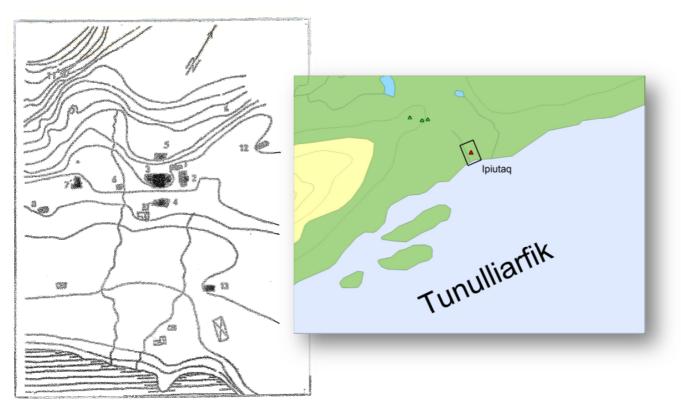


Figure 12. Ipiutaq 60V2-0IV-658. Sketch by archaeologist Sven Erik Albrethsen 1970. The Norse farm structures are depicted in black.

#### 60V2-0IV-049 and 60V2-660

Following the coast line from Ipiutaq a few kilometres west will lead one to the Norse and Inuit site of Saneraa. It has two designations, a Norse, 60V2-0IV-660, and an Inuit, 60V2-0IV-049. The location has been known for long, but has not spurred any further interest from archaeologists. One reason for this can be that the Inuit longhouses apparently have been constructed partly on top of and partly by material deriving from the Norse structure(s).

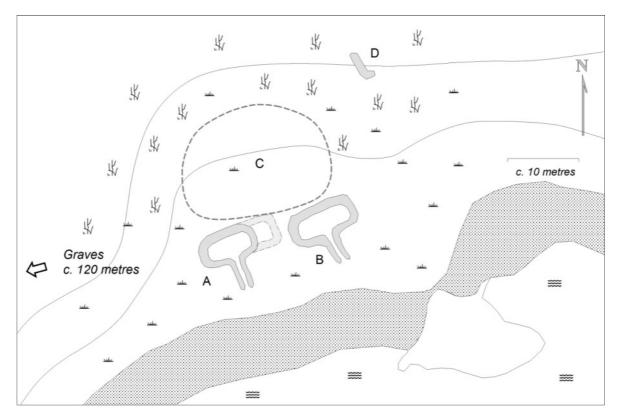


Figure 13. Saneraa, 60V2-0IV-049 (structures A+B) and 60V2-0IV-660 (area C+structure D). The longhouses are appr. 7 X 4 metres, with an almost 7 metre-entrance (house A) and 11 X 4 metres, with a 5 metre-entrance (B). Apparently house A was shortened from an appr. width of 12 metres at some point in time. Area C contains the collapsed remains of the Norse structure. The structure is very diffuse and hardly discernible. Appr. 10 metres to the NE the remains of a wall was found.

#### 60V2-0IV-078

About 120 metres further out by the coast, two large Inuit slab built graves are found. It is not possible to see inside the graves, hence the number of individuals in each grave is unknown. Large graves are common in the vicinity of the settlements and especially so in the Narsap Ikerasaa area.



Figure 14. The two graves, 60V2-0IV-078, are situated directly by the fjord on a bedrock protrusion. The graves have an appr. overall extension of 8 X 4 metres.

## 60V2-0IV-077

Approximately 200 metres further west from the graves a large collapsed fox trap was observed (see Figure 15).



Figure 15. Fox trap, 60V2-0IV-077.

#### 60V2-0IV-670

Still following the coast line, about 250 metres further to the west, two structures that were interpreted as being of Norse origin were found. The structures does not resemble any Inuit structures found in this area. They have been designated as 60V2-0IV-670.



Figure 16. 60V2-0IV-670. Structure A is interpreted as being of Norse origin. It is situated against the bedrock wall and is constructed of relatively large stones. The proximity to the Saneraa farm could suggest that it functioned as an animal pen. Dimensions appr. 3 X 4 metres.



Figure 16. 60V2-0IV-670. Structure B, appr. 2 X 3 metres appears to have been floored with stones.

#### 60V2-0IV-072

On the western tip of the Nunasarnaq peninsula a settlement with two longhouses were found and has been given the designation 60V2-0IV-072. The houses are situated on a narrow tongue of land connecting the extreme point of Nunasarnaq with the 'mainland' of the peninsula. The arrows illustrates how the structures are severely threatened by erosion and the only part remaining of house B is its northern wall.



Figure 17. House A is appr. 7 X 3 metres and exposed to erosion from two sides. House B's northern wall is appr. 8 metres, with appr. 1 metre left of its eastern wall. The rest of house B has been lost to erosion. Structures D-F are tent rings of a more recent use. Structure C is situated against the bedrock wall and could have functioned as a cache. One grave was observed appr. 50 metres to the west as well as a fox trap appr. 30 metres further out.



Figure 18. 60V2-0IV-072 just inside the western tip of Nunasarnaq. The two houses are marked with *Nuna C* on the image.

#### Kuannersuit

The NKA team was during its stay in Narsaq given the possibility to visit the proposed mining site at the Kuannersuit plateau to assess the presence of archaeological structures here. The proximity of the Narsap Ilua/Dyrnes and Narsaq Norse farms certainly presented a possibility that the Kuannersuit and adjacent mountains were used as summer mountain pastures. The survey of the Kuannersuit proposed mining site revealed no physical remains suggesting any kind of former land use.



Figure 19. View from Kuannersuit towards the peaks of Talut and Qaqqarsuaq. Narsaq town is covered by a low layer of clouds.

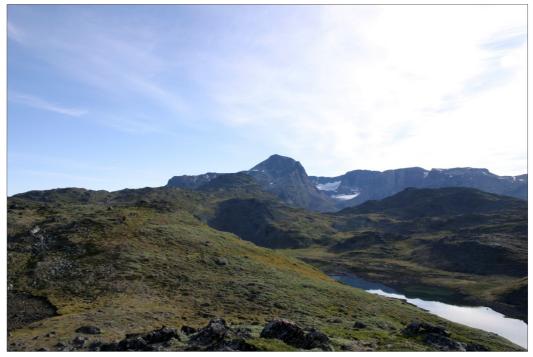


Figure 20. View towards the Ilimmaasaq peak.

## Epilogue

The 2010 and 2011 archaeological surveys on the Narsaq peninsula have demonstrated that this area's cultural history spans over approximately four millennia of human habitation – from Stone Age to Aluminium Age. From the Palaeoinuit evidence of stone implement maintenance at the Nuummiut site to the aluminium built A-20B bomber from WWII in the Ilua valley.

The surveys have resulted in a widening of our knowledge of this specific area's cultural history as well as were we can find the physical remains representing it. They have provided us with a knowledge which will be important in a probable future assessment of the scope of archaeological efforts that will be necessary to initiate if the multi element mining project in the Narsaq area is launched.

Ilua and Nunasarnaq - archaeological survey 2011 Datum: WGS84, utm zone 23 northern hemisphere				
Id_final	Latitude	Longitude	GPS_id	Reg_date
TrapInUse	60,9792	-45,7217	BoTrapInUse	16-08-2011 11:42
60V2-0IV-087	60,979	-45,7186	BoBoulderDepot	16-08-2011 11:36
60V2-0IV-086	60,9792	-45,7173	BoTrap	16-08-2011 11:31
A-20B 13013	60,986	-45,7252	US plane Ilua	16-08-2011 11:02
60V2-0IV-085	60,9919	-45,7372	Ilua cairn 4	16-08-2011 10:35
60V2-0IV-084	60,996	-45,7047	Ilua shelter?2	15-08-2011 14:30
60V2-0IV-083	60,9948	-45,7042	Ilua shelter?	15-08-2011 14:18
60V2-0IV-082	60,997	-45,7282	llua ca/sh/tra	15-08-2011 12:20
60V2-0IV-081	60,9954	-45,7289	Ilua cairn 3	15-08-2011 12:08
60V2-0IV-080	60,9948	-45,7289	Ilua cairn 2	15-08-2011 12:06
60V2-0IV-079	60,9896	-45,7325	llua cairn 1	15-08-2011 11:32
60V2-0IV-072	60,9432	-45,8331	Nuna grave 2	13-08-2011 13:07
60V2-0IV-072	60,943	-45,8337	Nuna trap 2	13-08-2011 13:05
60V2-0IV-072	60,9432	-45,8314	Nuna C	13-08-2011 12:58
60V2-0IV-660	60,954	-45,7588	Nuna farm	13-08-2011 12:14
60V2-0IV-078	60,9533	-45,7607	Nuna graves	13-08-2011 11:51
60V2-0IV-077	60,9528	-45,7647	Nuna trap 1	13-08-2011 11:41
60V2-0IV-670	60,9512	-45,7691	Nuna B	13-08-2011 11:31
60V2-0IV-670	60,9514	-45,7693	Nuna A	13-08-2011 11:23
60V2-0IV-076	60,9883	-45,7384	llua trap 4	12-08-2011 13:56
60V2-0IV-075	60,9888	-45,7381	llua trap 3	12-08-2011 13:49
60V2-0IV-074	60,9893	-45,738	llua trap 2	12-08-2011 13:43
60V2-0IV-073	60,9865	-45,7497	llua trap 1	12-08-2011 13:09
60V2-0IV-659 G	60,9827	-45,7539	Ilua G	12-08-2011 12:25
60V2-0IV-659 F	60,9826	-45,7533	Ilua F	12-08-2011 12:16
60V2-0IV-659 E	60,9815	-45,7548	Ilua E	12-08-2011 12:07
60V2-0IV-659 D	60,9819	-45,755	Ilua D	12-08-2011 12:03
60V2-0IV-659 C	60,982	-45,755	Ilua C	12-08-2011 11:56
60V2-0IV-659 B	60,9824	-45,7548	Ilua B	12-08-2011 11:33
60V2-0IV-659 A	60,9824	-45,7576	Ilua A	12-08-2011 11:22
60V2-0IV-070	60,974	-45,7073	Ipiutaq longhouse	15-05-2009 00:00
60V2-0IV-658	60,9746	-45,7074	lpiutaq farm	21-02-2001 00:00