

Preliminary Report of the 2023 Field Season: Coring at Hafnir, Skagabyggð in Húnavatnssýsla



By

John M. Steinberg, Guðný Zoëga, Chiara M Torrini, Trace J Podder, Bryndís Zoëga, and
Lísabet Guðmundsdóttir

Photo on front page: Trace Poder, Chiara Torrini and Flo Bugallo Coring.



This work is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-nc-sa/4.0/).

Acknowledgments

The larger Hafnir project is under the direction of Lísabet Guðmundsdóttir's. General permits for the survey of Hegranes and associated excavations were granted by The Cultural Heritage Agency of Iceland (permit # 202106-0097). The National Museum number for any artifacts recovered from this work is 2023-47.

We wish to thank Hólmfríður Sveinsdóttir and Ingibjörg Sigurðardóttir for their intellectual and logistical support. Besides the directors, Flo Bugallo, Trace Podder, Chiara Torrini, and Marisa Patalano worked on the project, and we appreciate their time, energy, and effort. The work was supported by the US National Science Foundation (PLR # 2037737) in a joint project of Hólar University College and UMass Boston.

Structures and other surface features are from (Sigurðarson et al. 2009) and those shapefiles were provided by Bryndís Zoëga. Kathryn Catlin designed the scheme for displaying the coring data for her dissertation work (2019). Unless otherwise noted, the underlying data such as elevation land type are based on data from Landmælingar Íslands (the National Land Survey of Iceland). Images and data are used based on the terms of the License for National Land Survey of Iceland free data (<https://www.lmi.is/is/moya/page/licence-for-national-land-survey-of-iceland-free-data>). Aerial photographs, unless otherwise noted, are from Loftmyndir ehf. and in accordance with the educational license.

Any opinions, findings, conclusions, or recommendations expressed in this material are those of the authors and do not necessarily reflect the views of the individuals and institutions who support this work. Products, data, or instruments mentioned should not be construed as endorsement.

Contents

<i>Acknowledgments</i>	<i>iv</i>
<i>Contents</i>	<i>v</i>
<i>List of Figures</i>	<i>vi</i>
<i>List of Tables</i>	<i>vii</i>
<i>Abstract</i>	<i>viii</i>
<i>Introduction</i>	<i>1</i>
Geology and tephra at Hafnir	<i>1</i>
Geography	<i>4</i>
Coring methodology	<i>7</i>
<i>Piltabúðir</i>	<i>10</i>
Piltabúðir profile	<i>11</i>
233188	<i>14</i>
233189	<i>14</i>
233168	<i>15</i>
233169	<i>16</i>
<i>Kolkunes Peninsula</i>	<i>18</i>
<i>Hjallanes Peninsula</i>	<i>20</i>
<i>Rekavatnsós (Hafnir II)</i>	<i>25</i>
<i>Hafnir Farmstead</i>	<i>29</i>
Farm Mound Size	<i>32</i>
Church Mound	<i>32</i>
<i>Conclusion</i>	<i>32</i>
<i>Bibliography</i>	<i>33</i>
<i>Appendix A: Coring Maps</i>	<i>35</i>
<i>Appendix B: 2022 Coring data</i>	<i>37</i>
<i>Appendix C: 2023 Summarized Coring Data</i>	<i>63</i>

List of Figures

Figure 1. Hafnir and Hafnardudir in relationship to religious institutions and their establishment dates.	2
Figure 2. Map of the Skagi Peninsula showing elevation and lakes. Hafnir and Hafnibudir are labeled, as is Lake Torfdalsvatn.	3
Figure 3. 1989 Map of Hafnir showing different coastal sections. This map mistakenly marks Hafnarbúðir as being west of Kólkunes. That area west of Kólkunes should be labeled Piltabúðir. the entire coastal complex from Kólkunes to Rekavatn is Hafnarbúðir (Guðmundsdóttir et al. 2023).	5
Figure 4. 2017 Aerial Photo of Hafnir site with detailed coastal section names. The Area marked Hafnarbúðir is now called Piltabúðir and the area east of Kólkunes (including Kólkunes) is Hafnarbúðir. Hafnir II is called Rekavatnsós.	6
Figure 5. Aerial photos showing Hafnir farm mound in 1984, 1992, and 2017 showing structures in the western fields.	7
Figure 6. Pre-1104 coring results and structures identified in 2008 surface survey at Piltabúðir.	10
Figure 7. Blender-generated orthophoto of a natural profile at Piltabúðir.	12
Figure 8. Annotated section of profile orthophoto.	13
Figure 9. Section of Piltabúðir profile orthophoto with aligned profile images. Note that the right end of the profile is to the west, and the left end is to the east.	13
Figure 10. 233188 from Piltabúðir profile.	14
Figure 11. 233189 from Piltabúðir profile.	15
Figure 12. 233168 from Hafnarbúðir profile.	16
Figure 13. 233169 from Piltabúðir profile.	17
Figure 14. Pre-1104 coring results and structures identified in 2008 surface survey at Kólkunes.	18
Figure 15. Core 223197 showing pre-1104 turf and a post-1104 floor.	19
Figure 16. Core 223216 showing an undated floor layer.	19
Figure 17. Core 223230 showing pre-1104 LDC.	19
Figure 18. Core 223229 showing an undated midden layer.	20
Figure 19. Pre-1104 coring results and structures identified in 2008 surface survey at Hjallanes.	21
Figure 20. Core 223239 showing pre-1104 LDC.	21
Figure 21. Image of the second barrel of core 233062 showing an undated floor layer.	22
Figure 22. Image of core 233046 showing a pre-1104 floor.	22
Figure 23. Image of core 233067 showing a very small amount of midden under 1104.	23
Figure 24. Hjallanes Peninsula with boat houses showing pre-1104 coring results and 2008 turf structures.	24
Figure 25. Core 233172 showing multiple floors, one at 37-38cm bgs and the other at 45-46cm bgs.	25
Figure 26. Core 233173 showing a floor layer.	25
Figure 27. Core 233082 showing pre-1104 LDC.	25
Figure 28. Map of coring and structures and Rekavatnsós (Hafnir II)	27

Figure 29. Core 233117 showing pre-1104 cultural material.	27
Figure 30. Core 233118 showing pre-1104 cultural material.	28
Figure 31. 233087 showing pre-1104 LDC.	28
Figure 32. 233088 showing pre-1104 LDC.	29
Figure 33. Pre-1104 coring results at Hafnir farmmound with pre-1104 interpolated farmmound.	30
Figure 34. Core 233247, showing pre-1104 midden.	31
Figure 35. Core 233328, showing pre-1104 midden and turf.	32
Figure 36. Map of Hafnir Post 1104 coring results.	35
Figure 37. Overall Pre-1104 coring results.	36
Figure 38. Overall map, with insets, of post-1104 coring.	37
Figure 39. Key for interpreting core results.	65

List of Tables

Table 1. Core locations	37
Table 2. Core stratigraphy	42
Table 3. Core Tephra layers	60
Table 4. Tephra identification counts, depths, and percentages in non-farm mound contexts, farm mound contexts, and the differences between the two for Hafnir 2023 cores. All depths are in cm.	63
Table 5. Coring deposit counts for cultural classes for the three time periods.	63
Table 6. Coring deposit classes for pre-1104 “yes” or “maybe” cores with mean depth of deposit class.	64

Abstract

This progress report outlines the 2023 work at Hafnir. The report also includes the 2022 core information. Hafnir and neighboring sites are important, remarkably extensive, and extraordinarily well-preserved examples of early Icelandic marine resource utilization. While well-preserved, these deposits are rapidly being decimated by the sea.

About 244 cores were retrieved, examined, and recorded during the short 2022 and 2023 seasons. In those cores almost 1000 different stratigraphic layers were recorded. In those stratigraphic layers, 24 floors were recorded along with 84 midden deposits and over 100 potential turf deposits. Additionally, 97 tephra layers were recorded, the majority of which were Hekla AD1104.

There appears to be pre-AD 1104 deposits over much of the area. The two best candidates for sites with Pre-1104 deposits are Rekavatnsós and the farm mound of Hafnir itself. Piltabúðir is also a good candidate for early deposits. The post AD 1104 deposits are even more substantial than the earlier deposits.

Introduction

The report details the results of the 2023 fieldwork at Hafnir and Hafnabúðir in Húnavatnssýsla as part of the Hafnabúðir project, under the direction of . . The goal of this research is to estimate the size of the Hafnir farmstead at different times and to understand the earliest component of the fishing site at Hafnibudir and surrounding sites, many of which are rapidly eroding into the ocean. The project targets two periods: pre-1104 and post-1104. In this phase, the project employed coring to identify midden and other non-structural deposits.

The farm Hafnir and all many of the other nearby locations first appeared on the land register of Þingeyraklaustur (Figure 1) in 1285 and were owned by Þingeyraklaustur (DI II 1893). In AD 1360 there is mention of a chapel (bænhús) at the farm (Sigurðarson et al. 2009). Throughout the middle ages and early modern period, Hafnar and neighboring farms are associated with ships and fishing, both of which deteriorated by the beginning of the 20th century (Guðmundsdóttir et al. 2023).

Geology and tephra at Hafnir

Hafnir is on the northwestern tip of the Skagi peninsula in Húnavatnssýsla, which is bordered by Skagafjörður to the East and Hunafloi to the West. It is generally made up of Neogene and late Pleistocene basaltic rocks (Principato and Johnson 2009). The Skagi peninsula has two different sections with different rock formations (Figure 2). The southern section of the peninsula is mountainous, with peaks up to 1000 meters above sea level and is characterized by older Neogene (Late Miocene) basaltic and intermediate extrusive basaltic flows (Einarsson, 1973;). Interestingly, the northern section of the peninsula characterized by more recent lower Pleistocene basaltic and intermediate extrusive rocks and sedimentary formations (Bender 2020). This means that the northern section is much flatter, with undulating terrain and a thin sediment cover (Alsos et al. 2020). The northern Skagi peninsula also contains many lakes, some lakes are isolation basins (former seabed formations) and other lakes are formed are from glacial erosion (Principato and Johnson 2009).

Several of the nearby lakes have been the subject of considerable research because they contain a continuous sequence from the Younger Dryas period (Björck 1992, Axford et al. 2007, Ingolfsson et al. 1997). Having sediment from this period is unusual for Iceland. Just 1 km south of Hafnir farm is the extensively studied Lake Torfdalsvatn, The oldest sediments in Lake Torfdalsvatn are from about 13 000 cal. yr BP (Rundgren et al. 1997), so the area must have been deglaciated before then. Based on Chenopodiaceae presence, the sea level from approximately post deglaciation was higher and closer to the edge of the lake (Rundgren et al 1995: 411). The edge of the Younger Dryas ice margin was south the Skagi peninsula, so it was most likely ice-free during that period (Ingolfsson et al. 1997). The area investigated is characterized by a series of dramatic raised beach ridges that indicate a complex sequence of isostatic rebound and lowering of sea levels. Most of the area investigated are on these beach ridges.

What little soil and sediment there is around Hafnir was rapidly formed after deglaciation and is intermixed with tephra layers. The soil is a brown andosol that derives

from aeolian sediments of volcanic origin but is not the direct product of eruptions (Arnalds 2004, 2008; Arnalds et al. 1995). The area is today, heavily eroded and scoured.

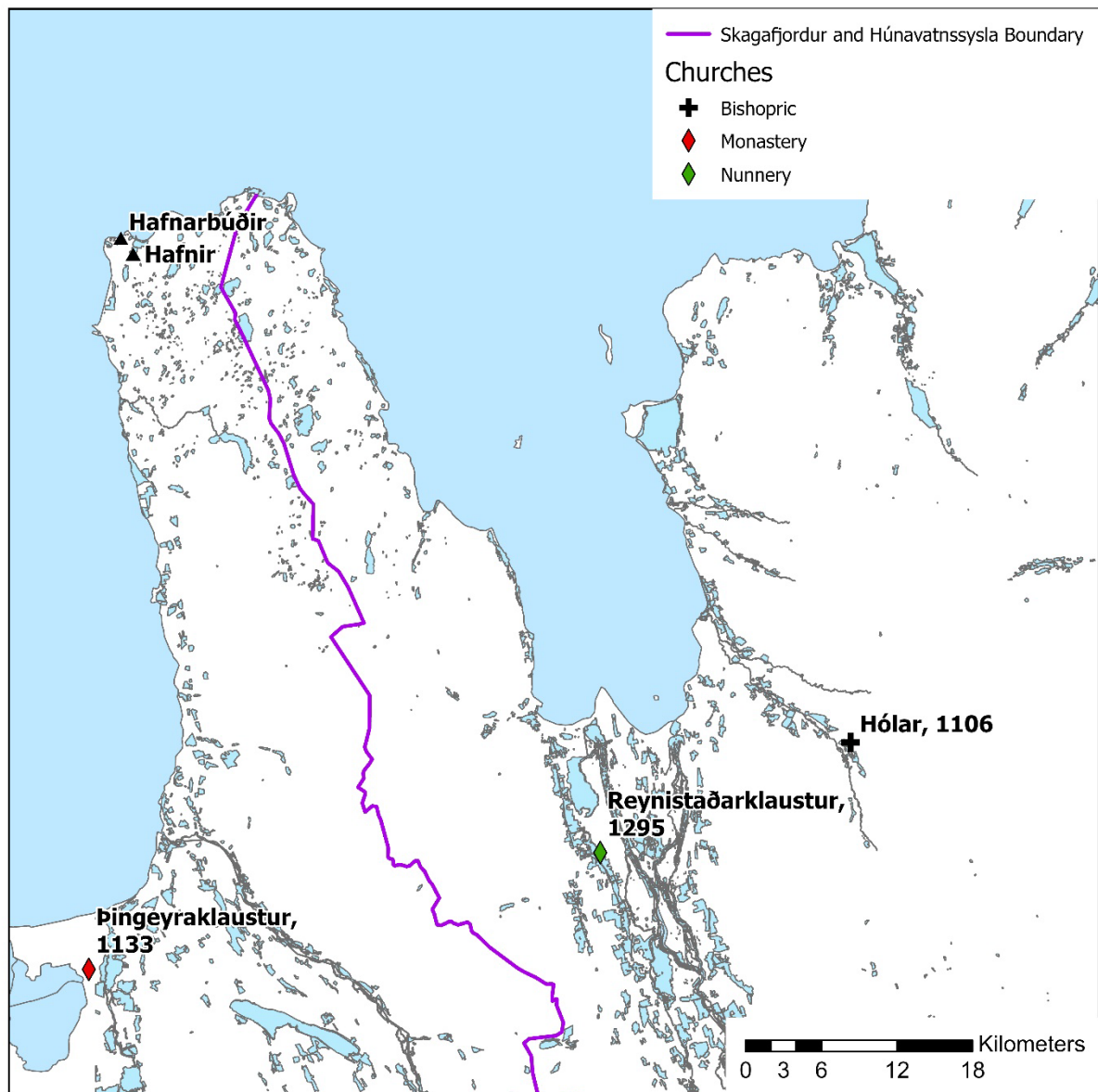


Figure 1. Hafnir and Hafnardudir in relationship to religious institutions and their establishment dates.

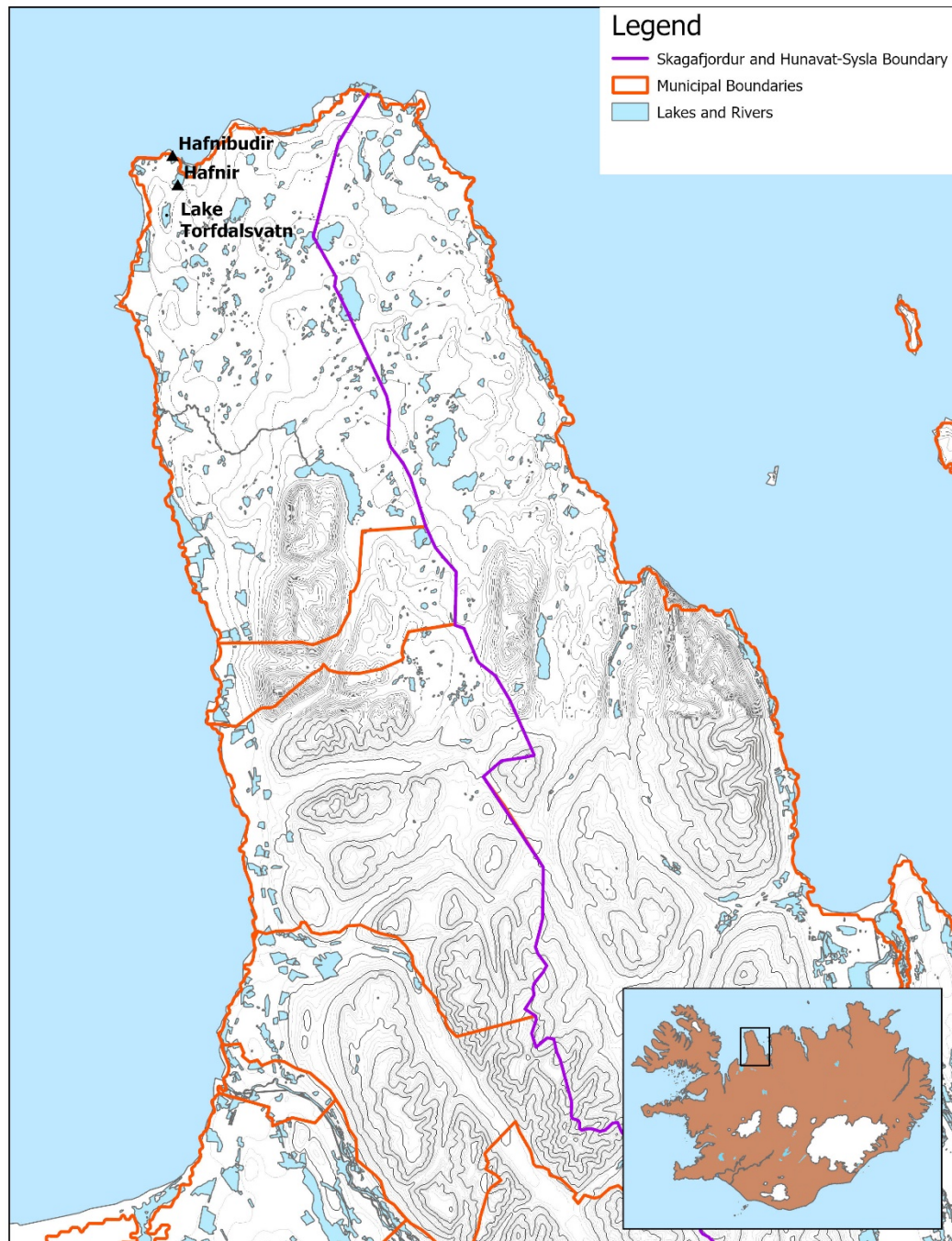


Figure 2. Map of the Skagi Peninsula showing elevation and lakes. Hafnir and Hafnibudir are labeled, as is Lake Torfdalsvatn.

The Hafnir Project relies tephra layers preserved in the soil. Hunavatsysla has a tephra sequence that allows for a chronology of the changes in settlement patterns (Larsen *et al.* 2002). While tephra deposition can vary over small distances (Davies *et al.* 2010) the basic tephra sequence is found throughout Hunavtansysla and allows for a common dating system among farms and farmsteads (Þórarinnsson 1977).

❖ Historic:

- Hekla A.D. 1104 (H1). This white or yellowish-white tephra is the most consistent and readily identified historic layer in Skagafjörður (Eiriksson et al. 2000) and is readily identifiable in both natural and cultural stratigraphic sequences. It is usually the “controlling layer” and allows the rest of the sequence to be ordered.
- Unidentified Katla eruption. A relatively rare tephra that predates 1104, appears to originate from Katla, and has appeared in a lacustrine core from Lake Torfdalsvatn (Bender 2020)
- ❖ Prehistoric:
 - Hekla 3 (H3). A thick (generally 2-3 cm) white or whitish-yellow tephra dating to about 950 B.C. (Dugmore et al. 1995).
 - Hekla 4 (H4). A thick (generally 1-3 cm) white or yellowish-white tephra dating to about 2300 B.C. (Eiriksson et al. 2000).
 - Grímsvötn 10ka series, formerly called Saksunarvatn Ash (G10ka). A thick (approximately 20cm) and coarse grained greyish black to blackish basaltic tephra dating to approximately 8450-7950 B.C. This tephra can appear as repeating black layers, sometimes separated by layers of diatoms (Oladottir et al. 2020).
 - The thickness of this tephra is variable. In marine cores from Lake Torfdalsvatn, it ranges from 16-22cm thick. In terrestrial cores, which are generally from further away, it ranges from 1-30cm thick (Bjorck et al. 1992, Axford et al. 2007, Oladottir et al. 2020).

There has been significant scholarly attention in lake Torfdalsvatn (also spelled Torfadalsvatn) because it contains an uninterrupted record of sediments from the glacial period through the beginning of the Holocene (Bjorck 1992, Axford et al. 2007, Ingolfsson et al. 1997, Bender 2020), but there has been less interest in identifying tephra layers present in the last 3000 years that are relevant to this project.

Geography

This complex of coastal and inland sites is often referred to generally as Hafnarbúðir, but different areas have specific names. Hafnarbúðir is also used to refer generally to sites along the coast from, and including, the Kólkunes Peninsula, the Hjallanes peninsula and the western shore of Rekavatn lake. Hafnir is properly the name of the inland farm (Figure 3). From east to west, the peninsulas around Hafnir are called Kaldrani, Hafnir II (no now called Rekavatnsós), Hjallanes, and Kólkunes. The bays are called Kaldranavík, Sandvík, Skipavík/Kólkuvík, and Hafnarbúðir (Figure 4). Landey is an island approximately 300m from the edge of Rekavatnsós that is currently used by the farm owners to harvest eiderdown from eider ducks.

The farm of Hafnir is inland on an ancient beach ridge (Figure 4). Today, the main remnant of the old farm is church hill (Figure 5). The region to the immediate west of the church hill is listed as being site of the original farm mound. Sigurðarson et al. (2009) list an inventory of the buildings located on the farm mound in both the 18th and 19th century, none of which includes a church. Most of the old buildings were destroyed in the 1990's and the farm mound was bulldozed in 2007.

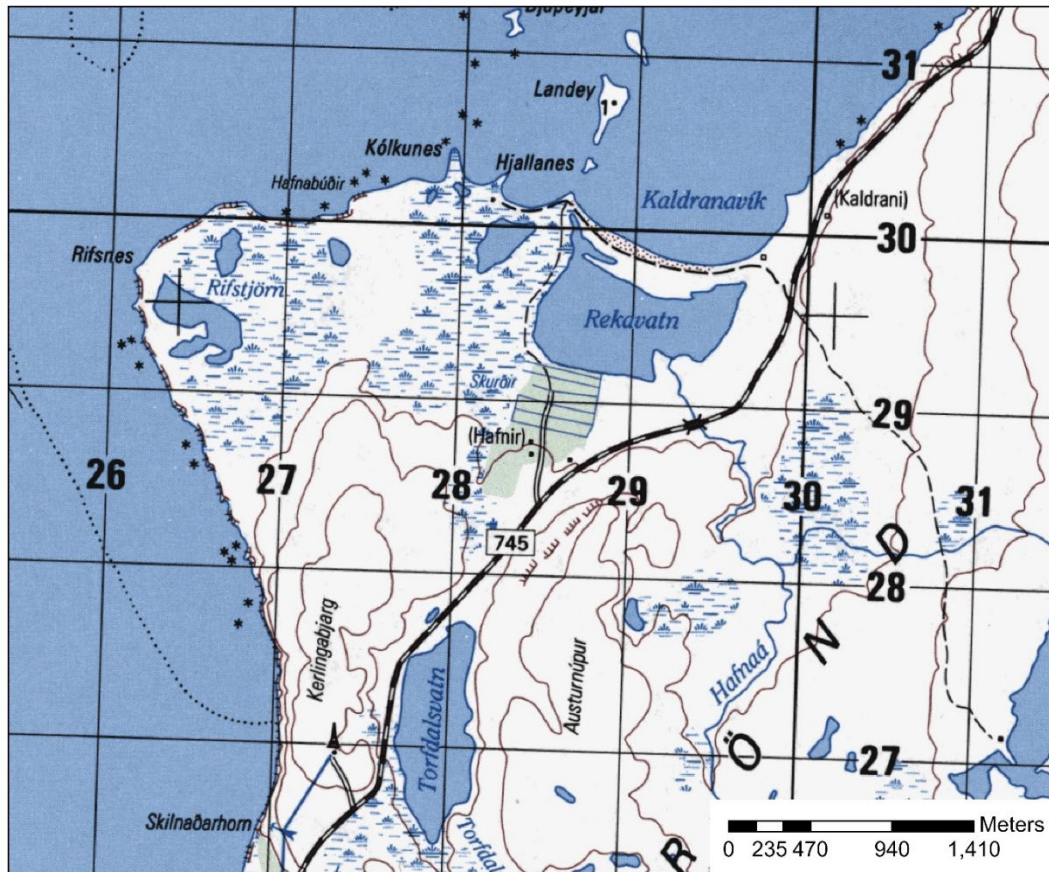


Figure 3. 1989 Map of Hafnir showing different coastal sections. This map mistakenly marks Hafnarbúðir as being west of Kólkunes. That area west of Kólkunes should be labeled Piltabúðir. The entire coastal complex from Kólkunes to Rekavatn is Hafnarbúðir (Guðmundsdóttir et al. 2023).

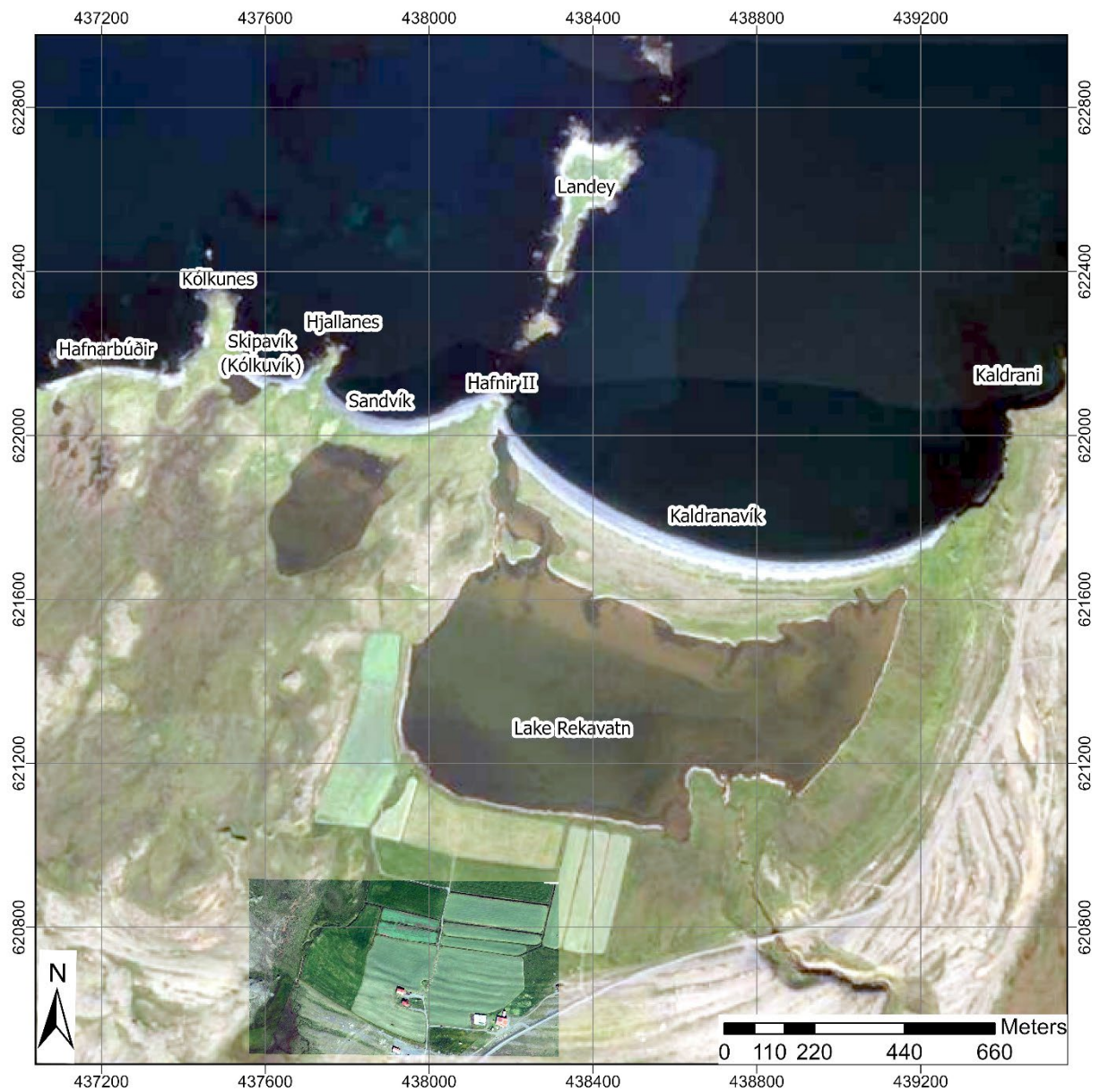


Figure 4. 2017 Aerial Photo of Hafnir site with detailed coastal section names. The Area marked Hafnarbúðir is now called Piltabúðir and the area east of Kólkunes (including Kólkunes) is Hafnarbúðir. Hafnir II is called Rekavatnsós.



Figure 5. Aerial photos showing Hafnir farm mound in 1984, 1992, and 2017 showing structures in the western fields.

Coring methodology

The coring protocol relies on small hand cores that are capable of retrieving intact sediment columns 1 to 6 cm in diameter at depths of 40 cm to 6 m. Upon retrieval, the intact columns are studied, and their stratigraphy is systematically analyzed and documented, after

which the core is cleaned and the sediment returned to the ground. Hand coring is minimally destructive, rapid, and remarkably productive, especially in areas of Iceland that have received aeolian sediment and volcanic tephra. Not only can cultural deposits (charcoal, ash, midden, floor, and turf) be identified in small hand cores, but in some instances, those cultural deposits can be dated based on the tephra layers observed in the soil core. Coring thus allows for a rapid assessment of the location, size, and date of buried farmsteads.

Most of the cores have been taken with the stainless steel JMC Backsaver with a 40 cm long, large diameter (3 cm) sampling tube, which is fast and easy to use. Where there were stones, sand, gravel or at least repeated refusals, the Eijkelkamp 1 m long, 3 cm wide gouge augers that is pounded in with a hammer (rather than foot operated) was employed. Both types of core have a window cut along the length, which when cleaned with a knife allows the stratigraphy to be measured and recorded, and tephra layers to be identified.

Most coring took place in farmers' fields and pastures where the Icelandic grass could be thick. Often the grass in the location of the core sample was cut out and removed with a knife, to make soil core retrieval easier and more reliable. When pressed down through the soil using the foot plate and some body weight, or a mallet in the case of the Eijkelkamp, cores were able to penetrate most Icelandic sediments, wetland accumulation, turf and cultural deposits, and tephra layers. Cores, once they have penetrated the grass surface, could experience refusal. The reasons for refusal were generally not obvious from surface conditions but it was usually assumed that the core had encountered a material that could not be penetrated (e.g., stones, bedrock, gravel, or infrequently tree roots). After refusal, up to two additional cores were attempted within about 50cm of the initial location, and if the core was still unable to penetrate, the stratigraphy was recorded as grass (topsoil) for ~5-15 cm and then rock/gravel as the reason the core ended.

Cores were terminated either when hitting impassible rock or gravel (refusal), after reaching a prehistoric tephra layer (H3 or H4), or at 120 cm below the surface (the maximum depth of the JMC Backsaver cores). If the total extent of the core was reached without the appearance of a prehistoric tephra or an impassible barrier, a "full core" box was checked, and if it was determined that the full sequence needed to be recovered, the location was flagged, and a longer core (usually the 6-cm Eijkelkamp) would be brought in to continue the investigation at that spot. In most cases, full cores happened in bogs and deep middens.

Cores were recorded in a tri-part FileMaker relational database. In the field, most of the recording was done with hardened iPads running FileMaker Go. Each core was assigned a core number, and a unique sample number was then derived based on the core number that was used as a key to link to the other two database tables. The location table contains information about location, farm name, date, core type, core sampling tube (barrel) diameter, and if the full depth was reached, along with personnel doing the sampling (Table 1). Optional information can include photos and other comments. The linked stratigraphic data table contains layer information about each distinct layer, soil horizon, or cultural deposit (Table 2). The linked tephra data table contains information about the tephra present in the sequence (Table 3). This relationship structure means that stratigraphic layers and tephra layers were recorded in separate databases.

Recording a core began by giving it a unique core number and associating it with a place. Then the location of the core was recorded. In most cases the location was originally obtained by using the internal iPad GPS directly into FileMaker, which converted the coordinates to ISN93. At times locations were also recorded on an iPad in ESRI ArcGIS Collector, either via the internal GPS or connected via Bluetooth to a Trimble R1, and occasionally via a Topcon HiPer SR. When using the IceCORS RTK network, the R1/iPad combination was accurate to about 1-2 m and the HiPer SR to about 1cm. The internal GPS of the iPad or iPhone had a variable accuracy of about 5-10 m.

On farm mounds and other areas where core spacing was tight, core locations were flagged (usually with a PVC flag indicating the core number) and then the iPad coordinates were refined by re-surveying the location of the flag with the TopCon GPS using real time correction. As part of the post processing, GPS coordinates replaced the iPad coordinates in the database (although all the iPad data was retained). The flags with core numbers written on them, allowed for on-the-ground visualization of tephra presence, cultural deposit type, depth, and thickness, which facilitated the placement of additional cores and (eventually) test pits. When cores were recorded on preexisting grids (such as those previously established for geophysical survey), the coordinates were entered by hand.

Stratigraphic information was recorded for each core. Categories for deposit strata encompassed a wide variety of descriptions. Cultural deposits included middens, floors, structural turf, and ash spreads less dense than middens. For non-cultural deposits the most common were aeolian deposit and topsoil. Other non-cultural categories included bog, iron pan, sand, and gravel. If a deposit was indistinct, and near to the surface, it was often marked disturbed (ie.e., to indicate potential plowing, digging or other earth movements). For each stratigraphic layer, we also recorded the top and bottom depths below ground surface (measured with a ruler) and any observed organic or inorganic inclusions (charcoal, ash, wood, gravel, etc). Tephra layers identified in structural turf were also recorded as a property of that layer, rather than as an in-situ tephra layer. The depth and thickness of in-situ tephra layers was also recorded, along with the researcher's best estimate of the date, derived from the color and texture of the layer.

Within the relational database structure, core locations, stratigraphy, and tephra were recorded in three different tables, related through the location table via the core sample number. This relational structure allows deposits interrupted by tephra to be recorded as a continuous single layer (as for example 20cm of aeolian deposition with a tephra layer in the middle). However, the relational structure does complicate our ability to associate stratigraphic layers with tephra-derived time periods. To solve this issue we produced an automated script in FileMaker to compare the two tables and output a summary of the dates of cultural deposits observed in the core (e.g., farmstead deposit before 1104). The script output was verified manually for all cores.

Due to soil compression as well as differences between individual researchers, it is understood that stratigraphic measurements derived from cores are not as precise or reliable as those recorded from exposed soil sections and excavations. Tephra and soil depths were

measured from the bottom of each core, which was assigned the depth bgs to which the core was inserted. This means that any compression was assigned at the top of a core sample tube.

Piltabúðir

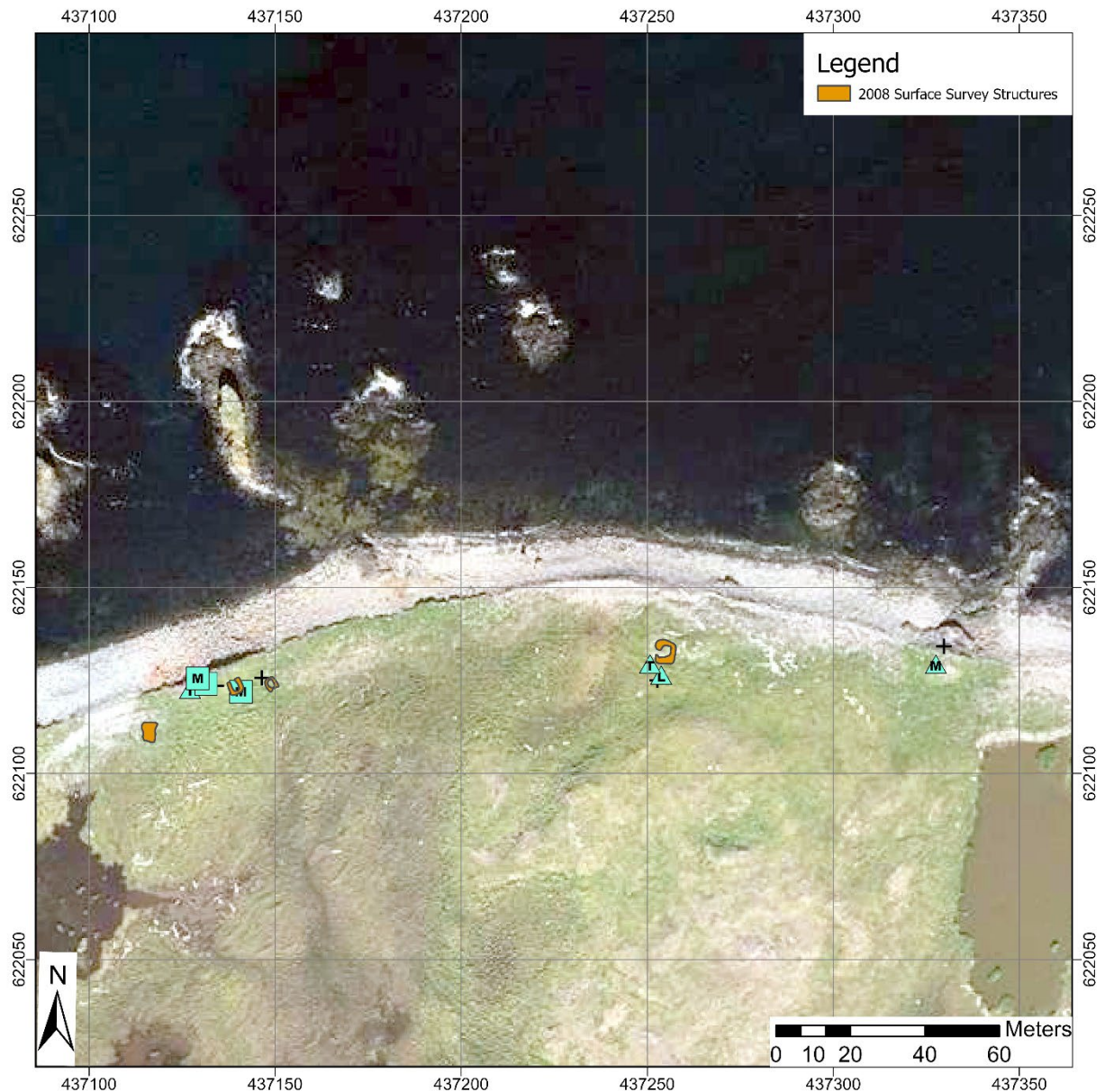


Figure 6. Pre-1104 coring results and structures identified in 2008 surface survey at Piltabúðir.

The westernmost section of the coast surveyed was Piltabúðir bay, a 250 meter stretch of coastline that extends west from the southwest corner of the Kólkunes peninsula (Figure 4). This area was labeled Hafnabúðir in earlier maps (e.g., Figure 3). There are unnamed inland lakes on each end of the bay. The lake on the western edge of Hafnabúðir drains across the beach and leaving some sections of the beach visibly orange. Exploratory cores were placed in and around any turf structures that were encountered. One significant site was located 150 meters west of the Kólkunes peninsula. A rapidly eroding cliff face had exposed what

appeared to be the foundations of a large turf structure, much of which had already been destroyed by coastal erosion. This cliff face is referred to as the Piltabúðir profile and described in depth below.

Piltabúðir profile

This profile was recorded in detail because it is the best evidence of pre-1104 occupation directly along the coast. Polycam was used to create a 3D scan of the profile and an orthophoto was generated using the program Blender (Figure 7). There were four profiles photographed and recorded along the length of the exposed cliff face (Figure 9). Several layers of tephra were visible in these profiles, some of which were likely in turf. Two distinct white tephra layers appeared consistently along the breadth of the cliff face; an upper single-banded one and a lower double-banded layer. The upper tephra layer was treated as an in-situ H1104 whereas the bottom was defined as the H3/H4 sequence (Figure 8). When using this classification, three profiles showed significant layers of both pre- and post-H1104 cultural material.

The material sequence of the cliff face followed the same general pattern: upper layers of LDC and turf mixed in with large stones that likely made up the foundation followed by deeper layers of midden and floor, which extended below the H1104 tephra. Profile 233168 shows what appears to be a floor 2 centimeters below the H1104 layer (Figure 12). Profile 233188 suggests the presence of 15 centimeters of midden below H1104 (Figure 10), whereas profile 233189 suggests the presence of approximately 15 centimeters of midden and 11 centimeters of turf below the same tephra (Figure 11). Profile 233169 did not have an in-situ H1104 to date it, but still contained cultural materials.



Figure 7. Blender-generated orthophoto of a natural profile at Piltabúðir.

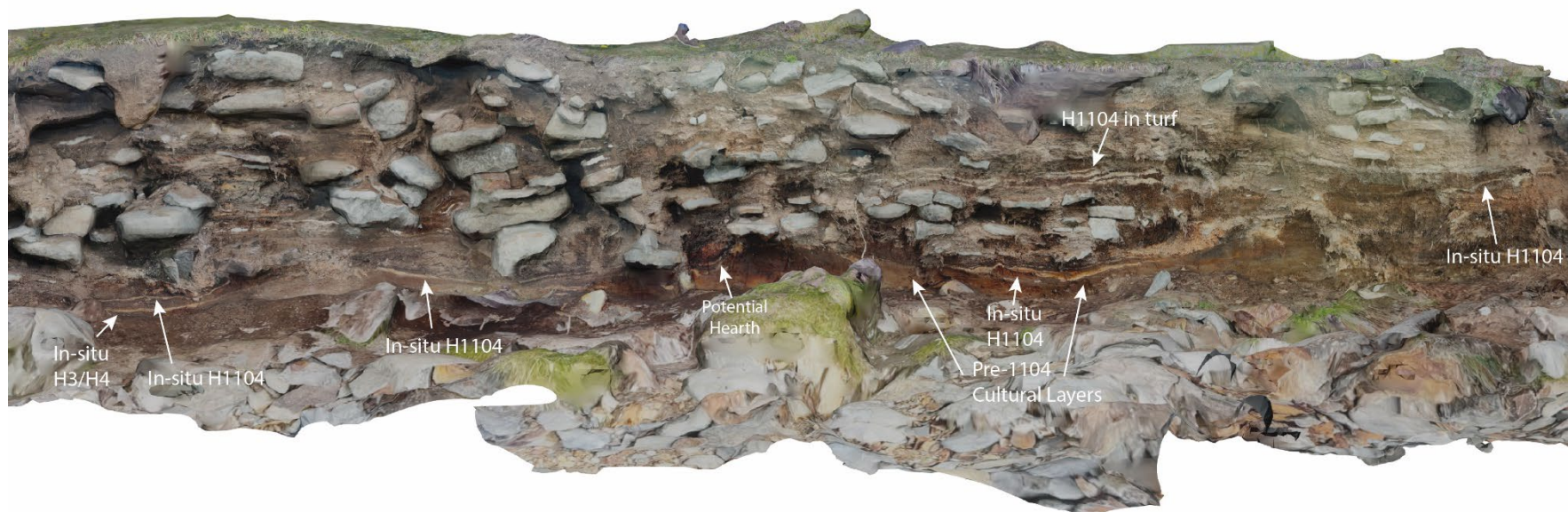


Figure 8. Annotated section of profile orthophoto.

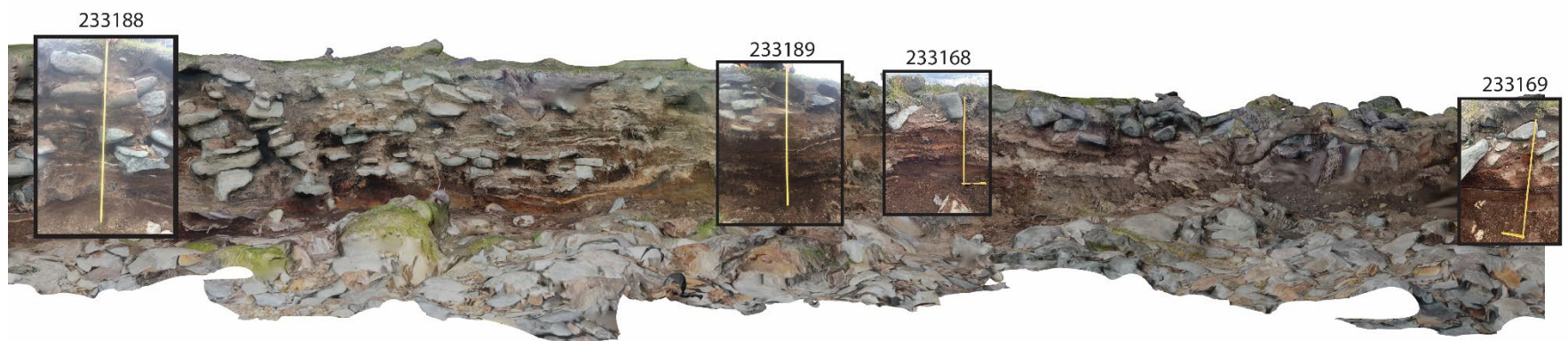


Figure 9. Section of Piltabúðir profile orthophoto with aligned profile images. Note that the right end of the profile is to the west, and the left end is to the east.

233188

This core is interpreted as mostly showing post-1104 cultural layers. The thin layers at 125cm bgs (double on the left, single on the right) are interpreted as in-situ tephra layers. The top layer on the left and the single layer on the right are interpreted as H-1104; the bottom layer on the left is interpreted as H3. While the layers close together could indicate H3 and H4, there appears to be cultural material between the layers, supporting the idea that the upper layer is H1104. There was 15 cm of midden recorded underneath H1104. The midden deposit in the bottom center appears to be dug into the in-situ layers and therefore postdates 1104. The patches of white around 95cm are considered not an in-situ tephra.



Figure 10. 233188 from Piltabúðir profile.

233189

In this section of the profile (Figure 9), the light layer to the right of the ruler is interpreted as an in-situ H1104 at 67cm bgs. This is much shallower than the previous section; in the profile, the deposit is clearly sloping upwards as it goes to the right (Figure 9). The hint of

light tephra in the lower right corner is probably H3. There was midden (66-92cm bgs) and turf (92-103cm bgs) recorded below the 1104, showing evidence for a pre-1104 occupation.

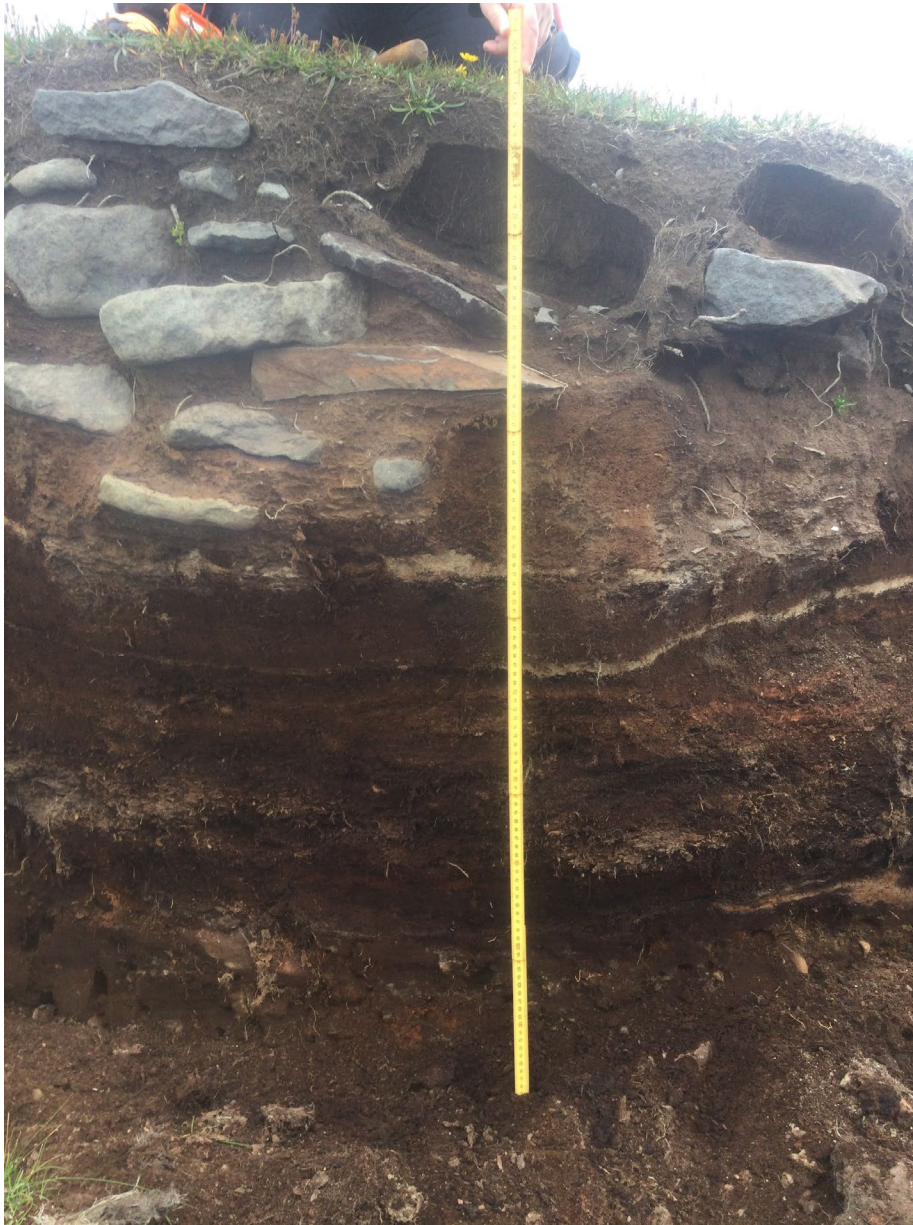


Figure 11. 233189 from Piltabúðir profile.

233168

This profile showed a pre-1104 floor, a very good indication of a pre-1104 structure, and post-1104 materials indicating continued occupation. An in-situ H1104 was identified at 73cm bgs, most visible to the right of the ruler. There was midden and turf above H1104 and a floor (75-77cm bgs) between layers of aeolian soil below H1104. This floor is a very good indication of pre-1104 occupation in this structure.



Figure 12. 233168 from Hafnarbúðir profile.

233169

This profile, at the extreme right of the cliff face (Figure 9), shows an undated occupation. The two pale tephras were interpreted as H3 and H4, with turf (60-80cm bgs) and midden

(50-60cm bgs) above it. While the lack of H1104 means this cannot be confidently dated, it is possible that the turf directly above H1104 still represents an early structure.



Figure 13. 233169 from Piltabúðir profile.

Based on these profiles, it appears that there was a structure occupied at Piltabúðir before 1104 that was also occupied, and potentially rebuilt, after 1104. Site use appears more intense after 1104, but this may be because rebuilding the structure removed pre-1104 cultural materials.

Kólkunes Peninsula

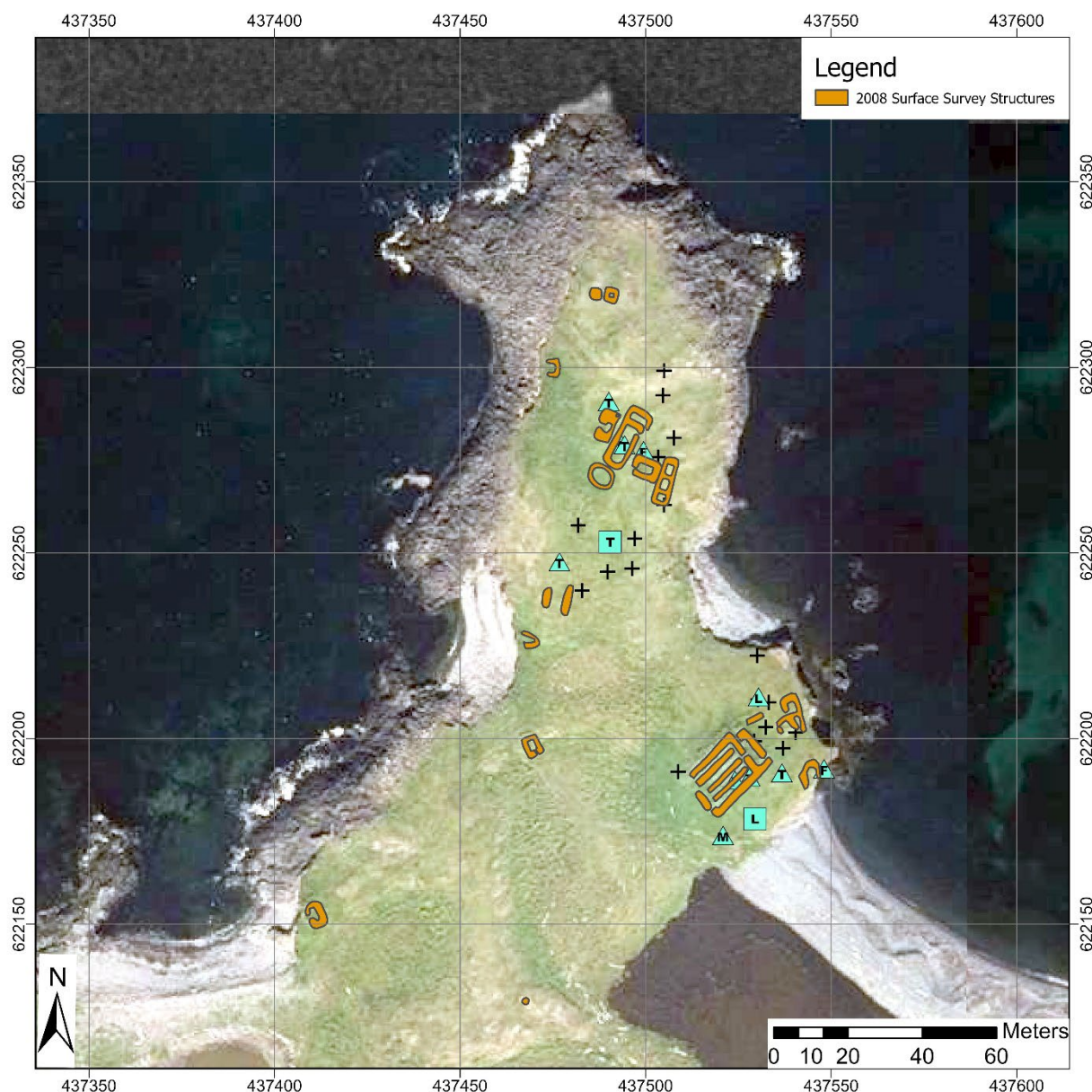


Figure 14. Pre-1104 coring results and structures identified in 2008 surface survey at Kólkunes.

The Kólkunes Peninsula was surveyed in August of 2022. Several turf structures were identified that ran along the length of the peninsula and one significant cluster of cultural material was located on the southeastern side facing the bay. 32 Cores were taken along the Kólkunes Peninsula. In total, 18 of these cores contained cultural material. The cores taken towards the northern tip of Kólkunes coincided with the location of small turf constructions that appear to have been built along an elevated ridge that ran the length of the peninsula. 7 of the cores taken in this area retrieved turf layers, with one of these cores (223197) containing good (“yes”) evidence for a turf layer deposited pre-H1104 (Figure 15). 3 of the cores taken in this area (223195, 223197, 223216) contained undated floor layers. Cores 223195 and

223216 were placed approximately 5 meters from one another and likely contained cultural deposits that were associated with the same structure. Both cores also suggested the presence of LDC material below the floor layer that was identified, however neither of the cores retrieved an intact tephra sequence that could be used for dating.



Figure 15. Core 223197 showing pre-1104 turf and a post-1104 floor.



Figure 16. Core 223216 showing an undated floor layer.

The cores taken within the southern half of the peninsula were placed in and around a set of turf structures overlooking the modern bay formed by Kolkunes and Hjallanes, approximately 50 meters southeast of the previous turf cluster. 10 of the cores taken in this area contained cultural material, with one core taken near the southern extent of this cluster (223230) containing good (“yes”) evidence for a pre-H1104 LDC deposit that extended through the tephra layer (Figure 17). The pre-H1104 depth of the deposit reached 9 centimeters before the core was stopped by a layer of rock. An additional core (223229) placed 10 meters southwest of 223230 contained an undated midden deposit that also extended to the same rock layer (Figure 18). Additional floor deposits were retrieved in cores 223203, 223205, and 223206, however none of these cores contained tephra sequences that could be used to date the deposits. Additional testing may be needed to further understand the bounds and material depth of the deposit indicated by cores 223229 and 223230.



Figure 17. Core 223230 showing pre-1104 LDC.



Figure 18. Core 223229 showing an undated midden layer.

Hjallanes Peninsula

Coring at the Hjallanes peninsula began in 2022 with an investigation of apparent turf structures on an elevated mound along the peninsula's southwest coastline. 25 cores were taken within and around these structures. In total, 17 of these cores contained cultural material. Of these cores, 4 contained good “yes” evidence of cultural deposition pre-H1104 and 4 contained good “yes” evidence of deposition post-H1104. Core 223264 was taken during the initial survey and was unique in that it contained the only recorded layer of H1300 tephra found at Hafnir. The thickness of pre-H1104 material at this part of the site did not exceed 5 centimeters of midden, although one LDC layer (Core 223239) did reach 17 centimeters in depth.

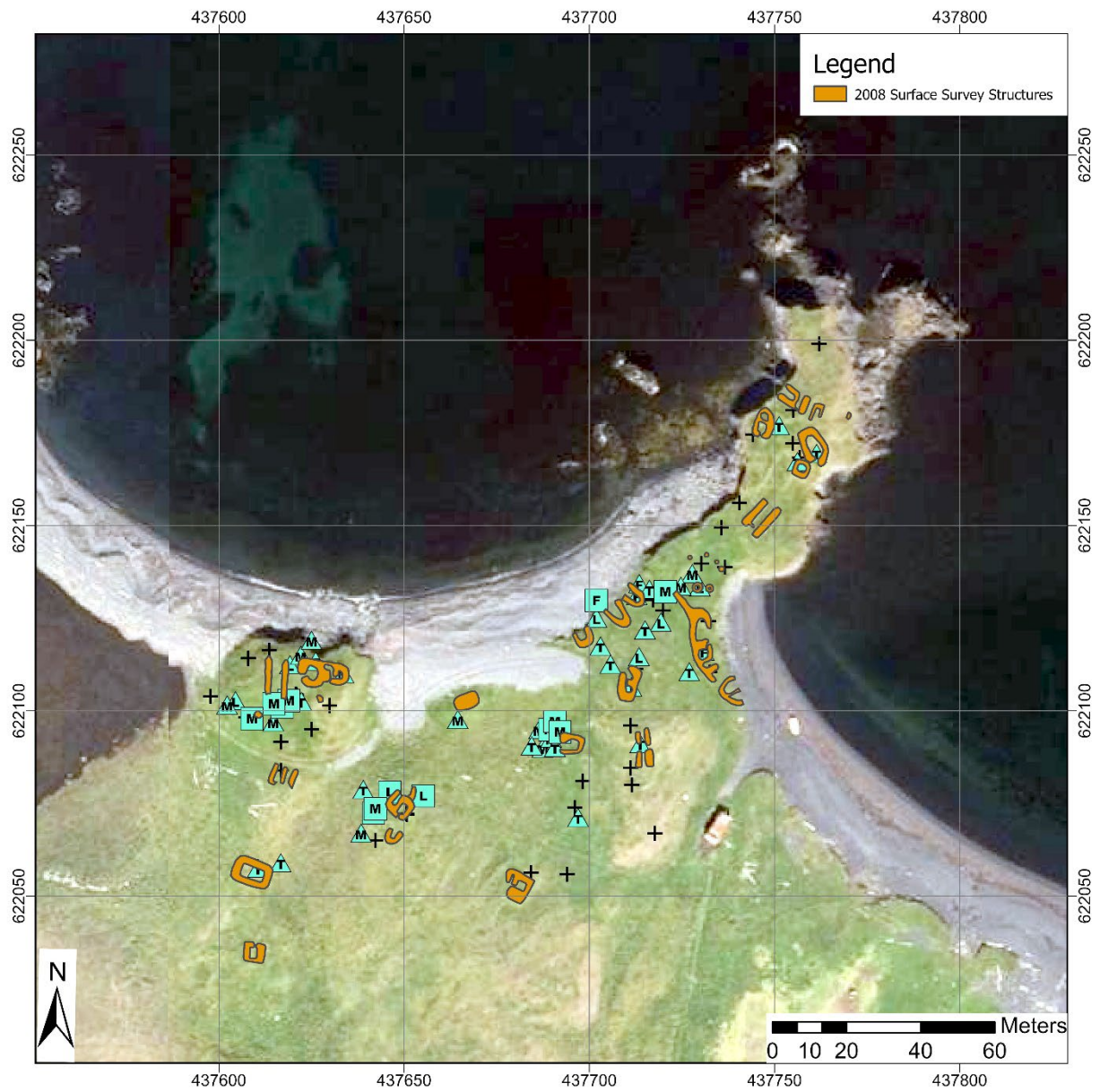


Figure 19. Pre-1104 coring results and structures identified in 2008 surface survey at Hjallanes.



Figure 20. Core 223239 showing pre-1104 LDC.

The Hjallanes peninsula was revisited in August of 2023, during which additional turf structures were identified and tested for cultural material. Surveying transects ran along the north-south spine of the peninsula, beginning at the northernmost tip and ending at the bog that began approximately 170 meters inland. The uppermost layers of root mat and aeolian soil were particularly shallow on the northern end of the peninsula, gradually increasing in depth the further we headed inland. Several turf structures were located along the peninsula's northern extent, and cores (233061, 233062) placed within two of the structures retrieved undated floor layers (Figure 21). A concentration of cultural deposits was encountered near the base of the peninsula, approximately 90 meters south of its northernmost point. 25 cores were taken in an area approximately 25x35 meters square. The location of this material coincided with a clustering of turf structures that likely operated as fishing booths or boat houses and were part of the ongoing excavations at the site. Two cores in particular (233046, 233067) contained good “yes” evidence for pre-H1104 cultural deposition (Figure 22, Figure 23). Core 233067 also contained post-H1104 material.



Figure 21. Image of the second barrel of core 233062 showing an undated floor layer.



Figure 22. Image of core 233046 showing a pre-1104 floor.



Figure 23. Image of core 233067 showing a very small amount of midden under 1104.

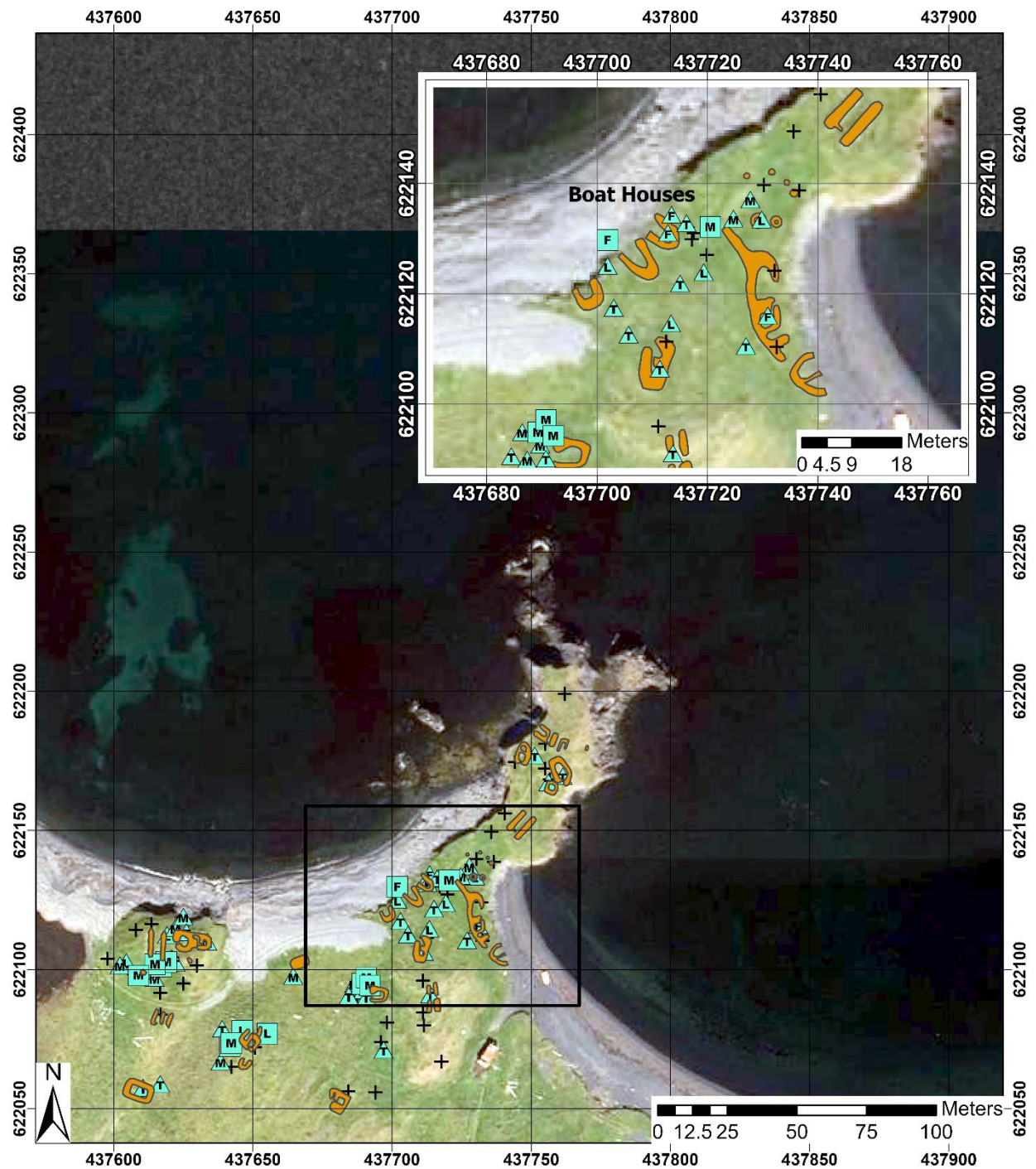


Figure 24. Hjallanes Peninsula with boat houses showing pre-1104 coring results and 2008 turf structures.

Two hypothesized boat houses (Figure 24) were revisited later with a 3-centimeter Eijkelkamp core to identify cultural deposits below the thick layers of sand and gravel that characterized the site's stratigraphy. Two of the cores placed in the boat houses successfully retrieved floor layers. Core 233172 contained a sequence of floor layers that may suggest a seasonal occupation of the site (Figure 25). Core 233173 only contained one floor layer (Figure 26). Neither core had tephra that could be used to date the floors.



Figure 25. Core 233172 showing multiple floors, one at 37-38cm bgs and the other at 45-46cm bgs.



Figure 26. Core 233173 showing a floor layer.

Directly to the south of this cluster rose a large mound approximately 50 meters in length, one that was likely natural, but which had been repurposed by the site's inhabitants and may have been incorporated as part of several turf constructions that surrounded its base. The top of the mound was tested for cultural material, but no definitive layers aside from turf were found. A small cluster of material was located on the western side of the mound. This cluster was noticeable for the three cores taken within it that contained good “yes” evidence of pre-H1104 material, with one of the cores additionally containing good “yes” evidence of post-H1104 material. However, none of the cores taken definitively suggested the presence of thick cultural layers below 1104. Another cluster of material was identified approximately 35 meters southeast of the material identified during the 2022 field season. Of the 9 cores placed here, 4 contained good “yes” evidence for pre-H1104 cultural material. 2 cores also contained good “yes” evidence for post-H1104 material. Two cores in particular (233081, 233082) suggested the presence of thick cultural layers below H1104 and could indicate an area that might be suited for further excavation (Figure 27).



Figure 27. Core 233082 showing pre-1104 LDC.

Rekavatnsós (Hafnir II)

The peninsula to the west and near the northwestern tip of lake Rekavatn and overlooking Kaldranavik bay, was cored during the 2023 field season. Unlike the other deposits encountered along the coast, the material retrieved during systematic coring of this location

closely matched the general sequence one would expect to find when excavating a farm mound. This area was originally called Hafnir II and is now called Rekavatnsós. Coring of the mound began with several walking transects running east-west across its length, followed by a series of additional exploratory cores in areas of interest along its western side. Of the 40 cores and profiles recorded on and within the vicinity of the mound, 27 contained cultural deposits. Two cores (233117, 233118) contained good “yes” evidence for post-H1104 midden deposits (Figure 29, Figure 30). Additionally, core 233117 and 4 other cores taken along the western extent of the mound contained good “yes” evidence for pre-H1104 midden and LDC deposits. The majority of cultural material found at the mound was concentrated along its western side, away from lake Rekavatn. At the southern end of this concentration, core 233118 contained approximately 14 centimeters of midden and turf below H1104 while core 233119 contained alternating layers of sand, LDC, and midden deposits for 45 centimeters below the same tephra. At the northern end of this concentration, cores 233087 and 233088, taken along an eroding embankment, contained thick layers of LDC below H1104 (Figure 31, Figure 32). Two additional cores (233091, 233092) that were placed 70 meters south of the mound also retrieved good “yes” evidence for pre-H1104 material in the form of an LDC and a midden deposit. The high concentration and sequence of midden and LDC deposits in this area may suggest the presence of an additional coastal farm mound that could have been contemporary with the Hafnabúðir fishing site. Additional excavations at this location would be needed to further assess the nature of this deposit.

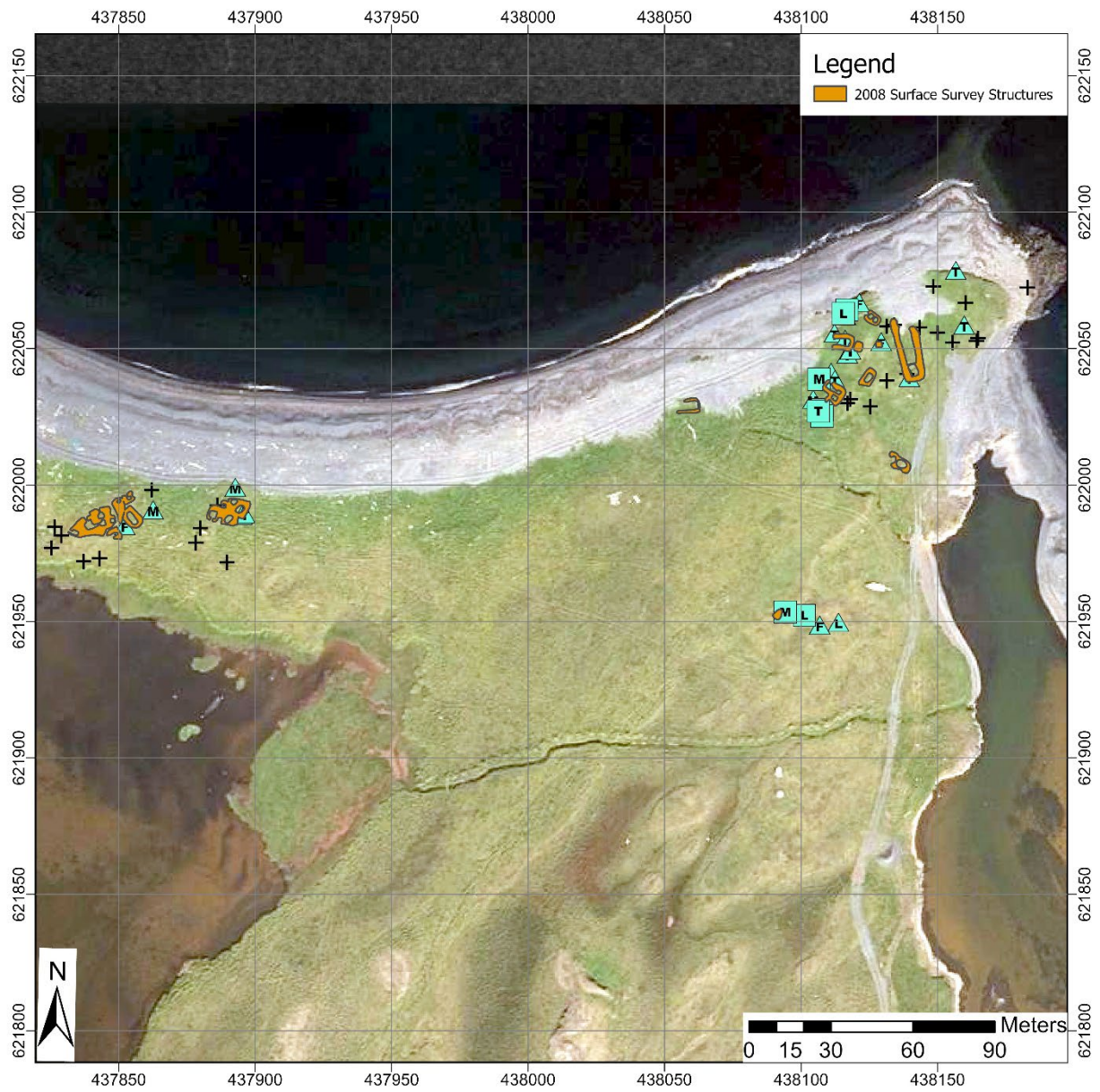


Figure 28. Map of coring and structures and Rekavatnsós (Hafnir II)



Figure 29. Core 233117 showing pre-1104 cultural material.



Figure 30. Core 233118 showing pre-1104 cultural material.



Figure 31. 233087 showing pre-1104 LDC.



Figure 32. 233088 showing pre-1104 LDC.

Hafnir Farmstead

Located approximately 1.5 km inland from the coast, the Hafnir farmstead is situated between the southern coast of lake Rekavatn to the North and the modern Skagavegur road to the South. In 2023, coring was conducted within the innermost fields adjacent to the modern building complex located on the southern end of the farmstead. 48 cores were placed in transects running north-south away from the modern buildings, parallel to the dirt road that cut through the middle of the farmstead. The results of coring suggest the presence of a large traditional farm mound containing both pre- and post-H1104 cultural material.

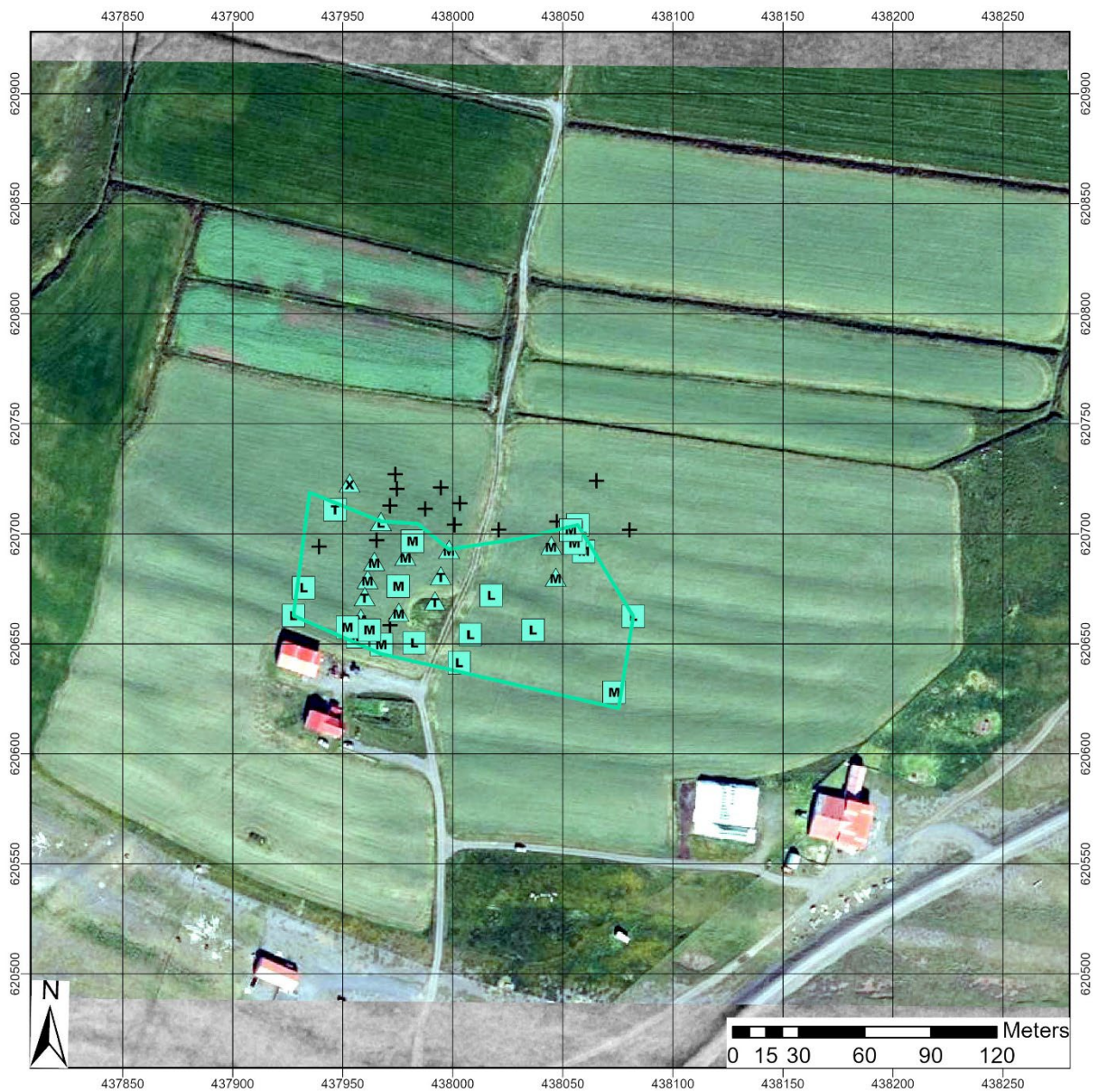


Figure 33. Pre-1104 coring results at Hafnir farm mound with pre-1104 interpolated farm mound.

Coring began with two transects running north from the vehicle parking lot towards the coast, covering a larger field on the western side of the farm road. The purpose of the coring was to confirm the presence of a farm mound and its boundaries. Cores were placed approximately every 10 meters for 80 meters. There is a mound visible in the aerial photo that was avoided because it might have been the remains of a church. Cultural deposits were identified almost immediately in the first two cores that were taken (233247, 233267), both of which contained good “yes” evidence for pre and post-H1104 cultural material (Figure 34). The majority of cores taken in these first two transects also contained cultural material, suggesting the presence of a large midden almost 50 meters in length. Additional cores were placed in transects to the east and west, running parallel to the first series of cores. Cores in

the westernmost transect were placed every 20 meters, while cores in the easternmost transect followed the same procedure used for the first series of cores. Material retrieval in these cores was comparable to that which was found in the earlier ones. 3 out of the 5 westernmost cores contained good “yes” evidence for turf and LDC deposits both below and above H1104, while one of the cores taken in the easternmost transect contained good “yes” evidence for a pre-H1104 LDC deposit. The positioning of the easternmost transect is also notable because it crosses over what has previously been identified as the old “church mound”. An undated turf layer was retrieved in core 233261 that coincided with the hypothesized location of the church. In total, 10 of the cores placed in the field on the western side of the farm road contained confirmed pre- and post-H1104 cultural deposits, with the highest concentration of dateable material occurring near the northern edge of the modern parking lot.



Figure 34. Core 233247, showing pre-1104 midden.

Additional coring was conducted in the field to the east of the modern farm road. Cores were placed in three transects running north-south, parallel to the farm road and the cores taken in the western field. Cores in this section were placed approximately 20-30 meters apart, extending over an area 80 meters long. Additionally, cores were placed to confirm the extent of any possible midden deposits that were encountered. Of the 17 cores taken, 10 provided good “yes” evidence for pre-H1104 cultural deposits while 6 contained good “yes” evidence for post-H1104 cultural deposits. The consistent tephra depth and material thickness that characterized the southern half of this area may indicate the presence of a large sheet midden of low density cultural deposits. This southern half is also notable for the lack of post-H1104 cultural material, particularly in the area closest to the modern farm road. It is possible that this apparent lack of material may relate to bulldozing or other such land-clearing practices that could have been employed in the building of the road or the maintenance of the fields. A concentration of cores containing midden deposits was identified in the northernmost section of this survey area. Clustering around core 233284, the cores in this area retrieved midden deposits that had a greater thickness than the deposits recovered in the western field. Cores 233327 and 233328 were especially notable in this regard (Figure 35). Core 233327 contained approximately 38 centimeters of pre-H1104 cultural material, while core 233328 contained 18 centimeters. It was difficult to replicate these results in subsequent cores that were taken nearby, largely due to the presence of rock and gravel layers that prevented the cores from reaching greater depths. This could indicate that the deposit is not as uniform as it initially seemed.



Figure 35. Core 233328, showing pre-1104 midden and turf.

Two areas of heavy material concentration were identified in the cores that were taken at the Hafnir farm mound for the 2023 field season. The material recovered in the western field is likely associated with the location of the old farm mound and church, while the material recovered in the eastern field might relate to a separate structure that has yet to be identified. While the thickness of the material recovered in cores 233327 and 233328 may suggest the presence of a significant pre-H1104 deposit, the inability to replicate those results in subsequent coring poses a potential problem for future excavators wishing to place a test pit. The coring conducted in 2023 also established the northern limits of the hypothesized farm mound, however additional testing is needed to determine its eastern and western extent.

Farm Mound Size

The size of this farm mound is relatively large when calculated according to procedures outlined in Steinberg et al. (2016), measuring 9,288 square meters . However, this may be because the ash that makes up the midden was dispersed by the strong winds

Church Mound

Historical aerial images show that the mound currently visible and avoided during coring was not the only structure in the western Hafnir fields. In aerial photos from 1984 and 1992, there is another structure further west in the field that is not visible in 2017 or when the field was surveyed in 2023 (Figure 5). In the 1992 image, the structure appears potentially partially collapsed. The mound that is currently visible appears in both 1984 and 1992, seemingly in similar condition. Further investigation is needed to determine what the western building was, and if it was related to the potential church mound.

Conclusion

The cultural areas around Hafnabúðir, especially Piltabúðir, Kolkunes, Hjallanes, Rekavatnsós, and the farm mound of Hafnir seem to be important, remarkably extensive, and extraordinarily well-preserved examples of early Icelandic marine resource utilization. While well-preserved, these deposits are rapidly being destroyed by the sea.

The extensive use of stone by the inhabitants, along with substantial gravel and sand deposits make coring difficult in this environment. However, by repeated testing, along with utilizing sturdy and slightly smaller hammer-in-cores, the method proved efficacious for rapidly assessing these remarkable deposits.

Dating these deposits is difficult because the main historic tephra present is the white Hekla 1104 layer without many others to easily control the dates of the cultural deposits. While there appears to be pre 1104 deposits over much of the utilized area (Figure 37) most of the cores are ambiguous (e.g., Figure 38) for either time period. The two best candidates for sites with pre-1104 deposits are Rekavatnsós and the farm mound of Hafnir. Piltabúðir is also a good candidate for early deposits.

Bibliography

Arnalds, Ólafur

2004 Volcanic soils of Iceland. *Catena* 56(1-3):3-20.

2008 Soils of Iceland. *Jokull* 58:409-421.

Arnalds, Ólafur, C. T. Hallmark, and L. P. Wilding

1995 Andisols from 4 Different Regions of Iceland. *Soil Science Society of America Journal* 59(1):161-169.

Bender, Emma Marie

2020 Late Quaternary tephra stratigraphy and paleoenvironmental reconstruction based on lake sediments from North and Northeast Iceland<thesis.pdf>. MS, Department of Geosciences, The Arctic University of Norway, Tromsø.

Catlin, Kathryn A.

2019 Sustainability and the Domestication of Inequality: Archaeology of Long-Term Human-Environment Interactions in Hegranes, North Iceland PhD Dissertation, Anthropology, Northwestern, Evanston.

DI II

1893 *Diplomatarium Islandicum: 1269-1415*. Íslenzkt fornbréfasafn, Hið íslenska bókmenntafjelag. Möllers, Kaupmannahöfn.

Dugmore, Andrew J., G. T. Cook, J. S. Shore, A. J. Newton, K. J. Edwards, and Gudrún Larsen

1995 Radiocarbon Dating Tephra Layers in Britain and Iceland. *Radiocarbon* 37(2):10.

Eiriksson, J., K. L. Knudsen, H. Haflidason, and J. Heinemeier

2000 Chronology of late Holocene climatic events in the northern North Atlantic based on AMS C-14 dates and tephra markers from the volcano Hekla, Iceland. *Journal of Quaternary Science* 15(6):573-580.

Guðmundsdóttir, Lísabet, Bryndís Zoëga, and Lilja Laufey Davíðsdóttir

2023 Sjórinna gefur og sjórinna tekur: Verbúðalíf á Höfnum á Skaga. *Árbók* 111:141-170.

Rundgren, Mats, Ólafur Ingólfsson, Svante Björck, H. U. I. Jiang, and Haflidi Haflidason

1997 Dynamic sea-level change during the last deglaciation of northern Iceland. *Boreas* 26(3):201-215.

Sigurðarson, Guðmundur St., Bryndís Zoëga, and Guðný Zoëga

2009 *Fornleifaskráning Skagabyggðar: Tjörn, Hafnir og Kaldrani*. Submitted to Bygðasafn Skagfirðinga, Sauðárkrúkur.

Steinberg, John M., Douglas J. Bolender, and Brian N. Damiata

2016 The Viking Age settlement pattern of Langholt, North Iceland: Results of the Skagafjörður Archaeological Settlement Survey. *Journal of Field Archaeology* 41(4):389-412.

Appendix A: Coring Maps

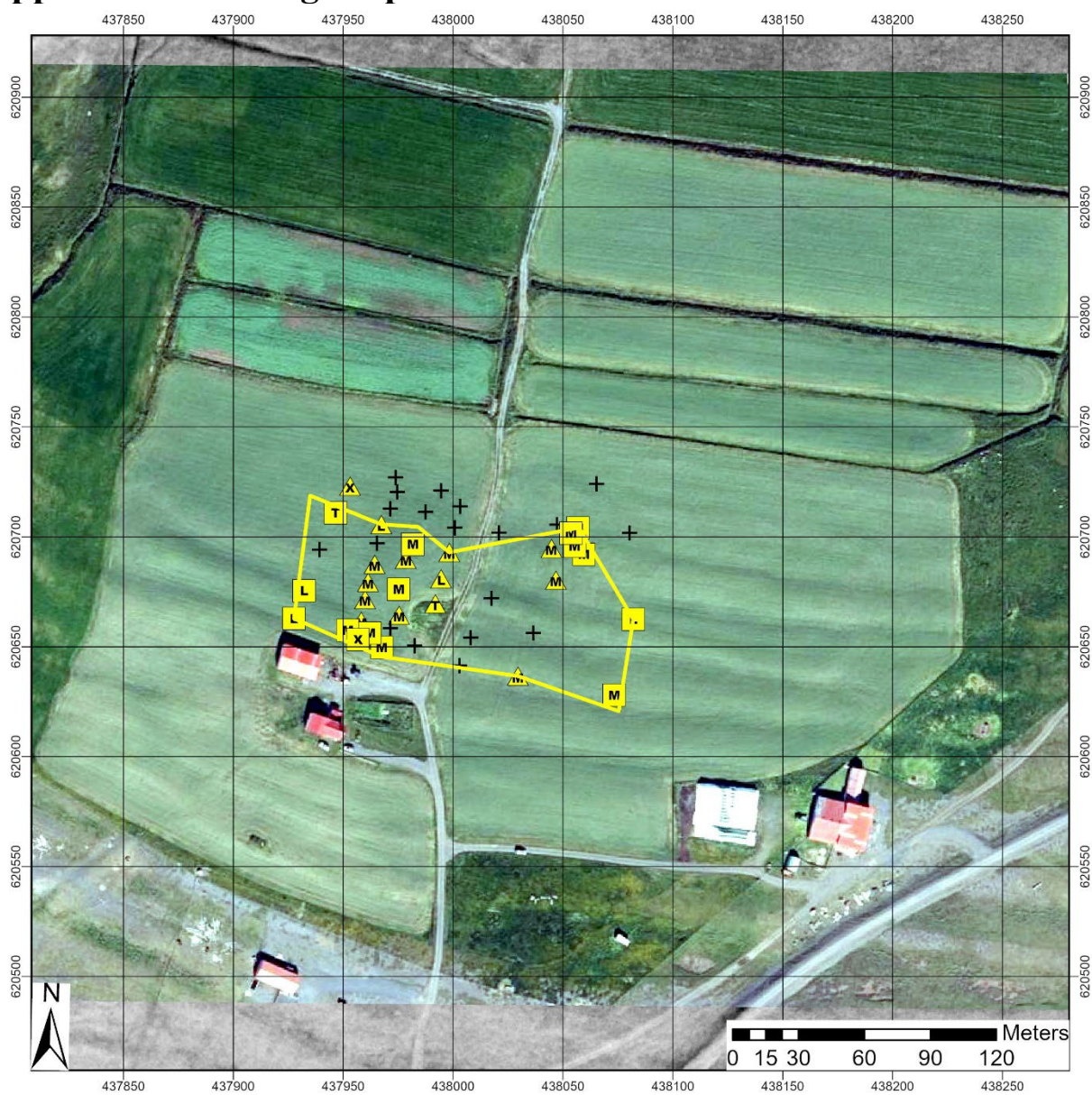


Figure 36. Map of Hafnir Post 1104 coring results.

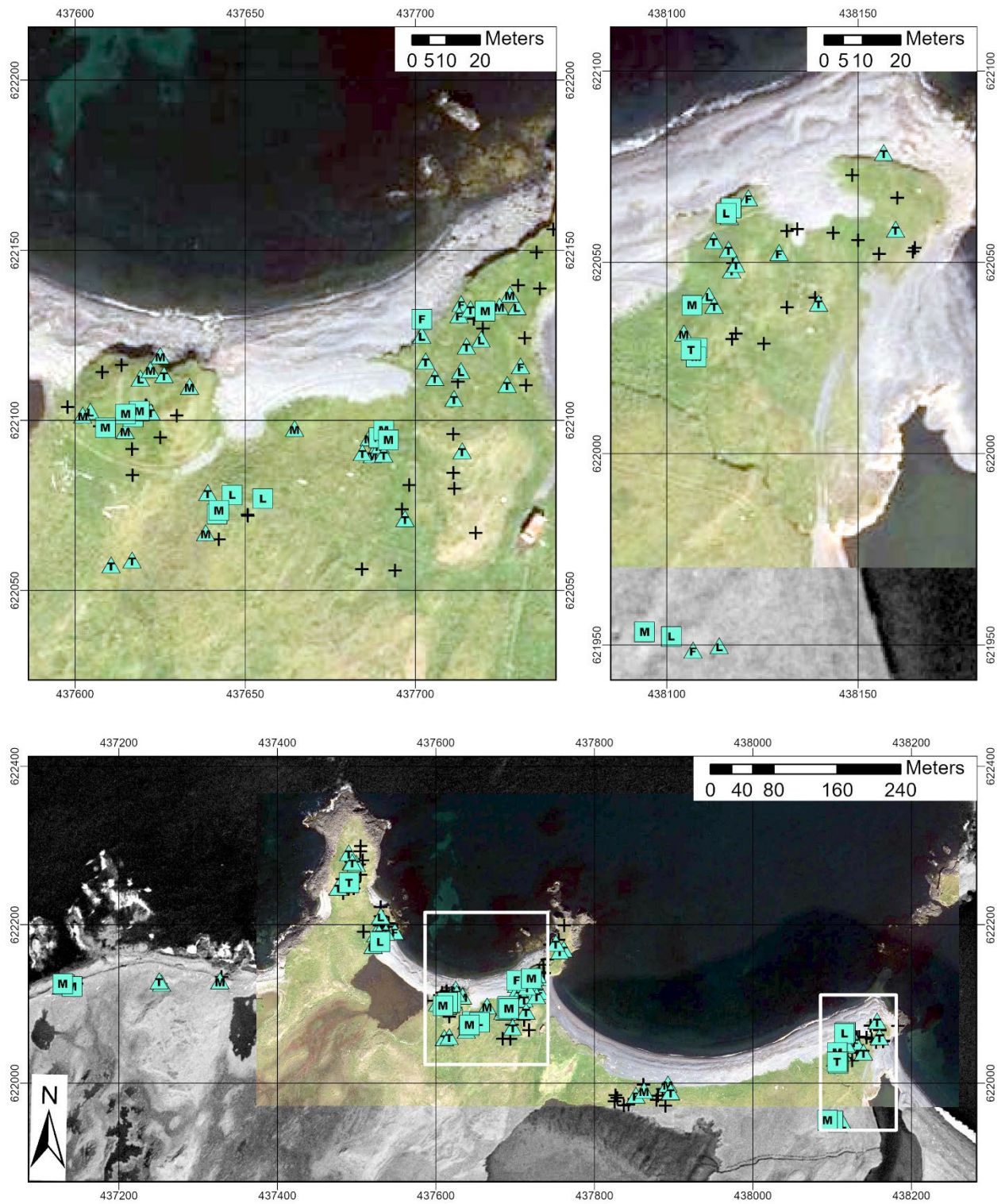


Figure 37. Overall Pre-1104 coring results

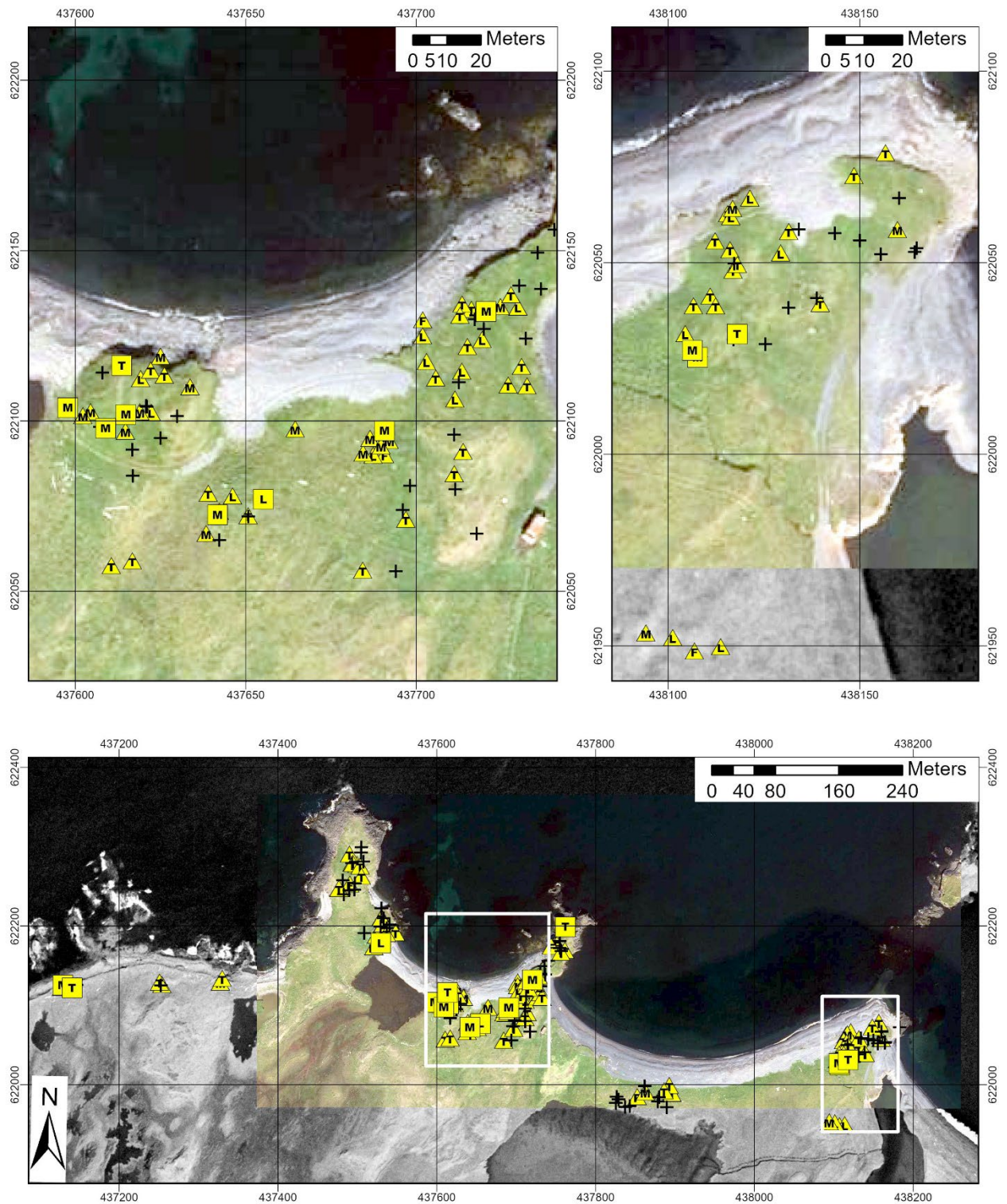


Figure 38. Overall map, with insets, of post-1104 coring.

Appendix B: 2022 Coring data

Table 1. Core locations

Core	Site	Place	ISN93_East	ISN93_North	Elevation	CreationTimestamp
223193	2001	1	437490.06	622290.88	8.35	13. ágúst 2022
223213	2001	1	437505.00	622299.14	8.14	13. ágúst 2022
223194	2001	1	437494.33	622279.18	14.42	13. ágúst 2022
223214	2001	1	437504.67	622292.45	13.90	13. ágúst 2022
223215	2001	1	437507.68	622281.01	2.01	13. ágúst 2022
223195	2001	1	437493.39	622279.43	16.73	13. ágúst 2022
223216	2001	1	437499.41	622277.62	9.20	13. ágúst 2022
223217	2001	1	437503.40	622275.75	7.00	13. ágúst 2022
223196	2001	1	437481.82	622257.48	18.61	13. ágúst 2022
223218	2001	1	437504.97	622262.89	10.12	13. ágúst 2022
223197	2001	1	437490.46	622252.94	1.76	13. ágúst 2022
223219	2001	1	437493.20	622279.32	42.86	13. ágúst 2022
223220	2001	1	437497.04	622253.91	15.95	13. ágúst 2022
223221	2001	1	437496.36	622245.79	15.43	13. ágúst 2022
223198	2001	1	437482.88	622239.83	13.29	13. ágúst 2022
223199	2001	1	437476.76	622247.66	22.42	13. ágúst 2022
223222	2001	1	437489.78	622244.93	21.61	13. ágúst 2022
223200	2001	1	437533.14	622209.73	13.96	13. ágúst 2022
223223	2001	1	437530.11	622222.40	24.65	13. ágúst 2022
223224	2001	1	437530.41	622211.24	12.10	13. ágúst 2022
223201	2001	1	437540.43	622201.65	22.47	13. ágúst 2022
223202	2001	1	437536.99	622197.38	10.62	13. ágúst 2022
223225	2001	1	437532.36	622203.06	3.79	13. ágúst 2022
223203	2001	1	437548.05	622191.89	11.88	13. ágúst 2022
223226	2001	1	437529.29	622199.33	9.45	13. ágúst 2022
223204	2001	1	437536.71	622190.80	-2.21	13. ágúst 2022
223205	2001	1	437528.04	622189.65	20.14	13. ágúst 2022
223227	2001	1	437530.26	622210.58	9.88	13. ágúst 2022
223228	2001	1	437508.79	622191.08	18.83	13. ágúst 2022
223229	2001	1	437520.86	622173.97	10.19	13. ágúst 2022
223206	2001	1	437524.04	622188.85	-1.64	13. ágúst 2022
223230	2001	1	437529.47	622178.36	5.59	13. ágúst 2022
223207	2001	1	437622.09	622114.99	8.13	13. ágúst 2022
223231	2001	1	437597.77	622103.92	12.34	13. ágúst 2022
223208	2001	1	437619.14	622112.48	15.42	13. ágúst 2022
223209	2001	1	437626.13	622113.45	17.92	13. ágúst 2022
223232	2001	1	437610.52	622057.57	26.79	13. ágúst 2022
223233	2001	1	437616.71	622059.00	24.68	13. ágúst 2022
223210	2001	1	437622.23	622102.58	20.31	13. ágúst 2022
223234	2001	1				13. ágúst 2022
223235	2001	1	437616.74	622091.57	78.95	13. ágúst 2022
223236	2001	1	437616.84	622083.87	17.16	13. ágúst 2022
223237	2001	1	437620.73	622104.42	38.18	13. ágúst 2022
223238	2001	1	437625.00	622094.96	-2.72	13. ágúst 2022
223239	2001	1	437617.01	622101.03	9.27	13. ágúst 2022
223211	2001	1	437618.88	622102.71	19.67	13. ágúst 2022
223240	2001	1	437614.69	622097.00	16.77	13. ágúst 2022
223212	2001	1	437614.82	622101.90	12.97	13. ágúst 2022
223241	2001	1	437607.24	622098.24	16.94	13. ágúst 2022
223242	2001	1	437608.91	622097.87	20.35	13. ágúst 2022
223262	2001	1	437604.45	622102.77	24.92	13. ágúst 2022
223263	2001	1	437607.95	622114.18	28.74	13. ágúst 2022

Core	Site	Place	ISN93_East	ISN93_North	Elevation	CreationTimestamp
223264	2001	1	437613.61	622116.29	21.42	13. ágúst 2022
223243	2001	1	437602.20	622101.59	8.14	13. ágúst 2022
223244	2001	1	437624.99	622119.05	17.07	13. ágúst 2022
223245	2001	1	437633.62	622110.05	13.43	13. ágúst 2022
223265	2001	1	437629.85	622101.43	19.55	13. ágúst 2022
223266	2001	1	437620.95	622104.19	22.59	13. ágúst 2022
233040	2001	1	437755.02	622181.14	14.51	15. ágúst 2023
233060	2001	1	437762.01	622199.05	15.78	15. ágúst 2023
233041	2001	1	437754.96	622172.21	16.38	15. ágúst 2023
233042	2001	1	437761.33	622169.51	14.29	15. ágúst 2023
233043	2001	1	437756.16	622167.28	17.82	15. ágúst 2023
233061	2001	1	437751.21	622176.98	11.48	15. ágúst 2023
233044	2001	1	437756.73	622168.27	14.49	15. ágúst 2023
233062	2001	1	437744.19	622174.57	8.75	15. ágúst 2023
233045	2001	1	437740.53	622156.13	25.43	15. ágúst 2023
233046	2001	1	437701.89	622129.75	17.32	15. ágúst 2023
233047	2001	1	437701.88	622125.07	13.14	15. ágúst 2023
233048	2001	1	437717.53	622130.98	21.05	15. ágúst 2023
233063	2001	1	437735.63	622149.43	20.53	15. ágúst 2023
233049	2001	1	437719.89	622127.02	9.60	15. ágúst 2023
233050	2001	1	437719.30	622123.95	3.14	15. ágúst 2023
233051	2001	1	437702.99	622117.49	3.66	15. ágúst 2023
233064	2001	1	437730.25	622139.70	3.48	15. ágúst 2023
233052	2001	1	437705.70	622112.62	3.67	15. ágúst 2023
233065	2001	1	437727.77	622137.08	3.52	15. ágúst 2023
233066	2001	1	437724.69	622133.65	3.54	15. ágúst 2023
233067	2001	1	437720.51	622132.11	3.51	15. ágúst 2023
233053	2001	1	437713.38	622114.67	25.59	15. ágúst 2023
233054	2001	1	437711.34	622106.46	14.51	15. ágúst 2023
233068	2001	1	437717.17	622129.86	3.47	15. ágúst 2023
233069	2001	1	437729.81	622133.50	3.00	15. ágúst 2023
233070	2001	1	437736.61	622138.76	2.88	15. ágúst 2023
233055	2001	1	437712.54	622111.34	38.72	15. ágúst 2023
233056	2001	1	437711.11	622095.98	18.18	15. ágúst 2023
233071	2001	1	437732.14	622124.19	3.73	15. ágúst 2023
233072	2001	1	437726.96	622110.58	3.45	15. ágúst 2023
233057	2001	1	437713.72	622091.13	17.88	15. ágúst 2023
233073	2001	1	437730.92	622116.07	16.16	15. ágúst 2023
233058	2001	1	437711.16	622084.56	5.67	15. ágúst 2023
233059	2001	1	437711.46	622079.97	6.01	15. ágúst 2023
233074	2001	1	437732.52	622110.35	11.33	15. ágúst 2023
233093	2001	1	437717.72	622066.94	23.53	15. ágúst 2023
233094	2001	1	437684.30	622056.25	4.19	15. ágúst 2023
233075	2001	1	437690.71	622090.14	3.69	15. ágúst 2023
233076	2001	1	437684.42	622090.58	3.31	15. ágúst 2023
233095	2001	1	437694.04	622055.86	14.52	15. ágúst 2023
233096	2001	1	437696.95	622071.19	17.95	15. ágúst 2023
233097	2001	1	437696.06	622073.89	9.41	15. ágúst 2023
233077	2001	1	437687.32	622089.97	3.42	15. ágúst 2023
233098	2001	1	437698.21	622080.98	10.60	15. ágúst 2023
233078	2001	1	437689.31	622094.89	3.56	15. ágúst 2023
233099	2001	1	437686.41	622094.94	3.29	15. ágúst 2023
233079	2001	1	437690.72	622097.15	3.42	15. ágúst 2023

Core	Site	Place	ISN93_East	ISN93_North	Elevation	CreationTimestamp
233100	2001	1	437692.07	622094.26	3.88	15. ágúst 2023
233080	2001	1	437664.47	622097.68	3.68	15. ágúst 2023
233101	2001	1	437638.37	622067.00	3.66	15. ágúst 2023
233081	2001	1	437641.72	622072.43	4.15	15. ágúst 2023
233102	2001	1	437642.28	622065.02	12.92	15. ágúst 2023
233082	2001	1	437646.13	622078.06	3.83	15. ágúst 2023
233103	2001	1	437650.76	622071.97	14.32	15. ágúst 2023
233104	2001	1	437638.96	622078.81	17.84	15. ágúst 2023
233105	2001	1	437655.17	622077.01	17.41	15. ágúst 2023
233083	2001	1	437650.69	622072.23	17.58	15. ágúst 2023
233125	2001	3	438182.95	622072.36	7.53	16. ágúst 2023
233084	2001	3	438156.66	622078.72	8.15	16. ágúst 2023
233106	2001	3	438164.29	622052.79	15.70	16. ágúst 2023
233126	2001	3	438160.25	622066.82	17.75	16. ágúst 2023
233127	2001	3	438159.75	622058.69	22.03	16. ágúst 2023
233107	2001	3	438164.81	622053.79	16.91	16. ágúst 2023
233108	2001	3	438155.50	622052.20	12.93	16. ágúst 2023
233109	2001	3				16. ágúst 2023
233128	2001	3	438149.96	622055.78	25.39	16. ágúst 2023
233110	2001	3				16. ágúst 2023
233085	2001	3	438148.47	622072.77	18.48	16. ágúst 2023
233129	2001	3	438143.48	622057.70	23.70	16. ágúst 2023
233130	2001	3	438134.09	622058.69	18.38	16. ágúst 2023
233111	2001	3	438139.65	622039.38	13.48	16. ágúst 2023
233131	2001	3	438131.41	622058.19	1.44	16. ágúst 2023
233112	2001	3	438138.77	622040.74	23.96	16. ágúst 2023
233132	2001	3	438129.32	622052.55	3.24	16. ágúst 2023
233113	2001	3	438131.43	622038.22	14.81	16. ágúst 2023
233114	2001	3	438125.34	622028.76	25.85	16. ágúst 2023
233115	2001	3	438117.04	622029.94	20.59	16. ágúst 2023
233116	2001	3	438118.02	622031.37	15.39	16. ágúst 2023
233133	2001	3	438117.24	622049.79	22.96	16. ágúst 2023
233134	2001	3	438116.92	622048.07	4.10	16. ágúst 2023
233086	2001	3	438121.30	622066.89	2.68	16. ágúst 2023
233135	2001	3	438112.21	622055.70	47.31	16. ágúst 2023
233117	2001	3	438107.65	622025.27	3.44	16. ágúst 2023
233087	2001	3	438116.78	622064.19	15.26	16. ágúst 2023
233136	2001	3	438116.12	622053.40	3.71	16. ágúst 2023
233118	2001	3	438106.33	622027.10	2.95	16. ágúst 2023
233088	2001	3	438115.50	622062.80	2.75	16. ágúst 2023
233089	2001	3	438113.68	621949.82	20.64	16. ágúst 2023
233119	2001	3	438107.86	622027.59	3.31	16. ágúst 2023
233137	2001	3	438118.05	622049.55	27.65	16. ágúst 2023
233138	2001	3	438110.95	622041.34	21.98	16. ágúst 2023
233139	2001	3	438112.37	622038.75	3.61	16. ágúst 2023
233090	2001	3	438106.82	621948.71	3.29	16. ágúst 2023
233140	2001	3	438116.32	622062.02	3.27	16. ágúst 2023
233091	2001	3	438101.16	621952.24	3.66	16. ágúst 2023
233141	2001	3	438106.61	622038.78	3.27	16. ágúst 2023
233120	2001	3	438106.69	622027.22	3.05	16. ágúst 2023
233092	2001	3	438094.18	621953.44	4.26	16. ágúst 2023
233161	2001	3	438104.43	622031.53	2.85	16. ágúst 2023
233142	2001	1	437896.18	621989.44	8.07	16. ágúst 2023

Core	Site	Place	ISN93_East	ISN93_North	Elevation	CreationTimestamp
233143	2001	1	437892.68	621999.22	9.32	16. ágúst 2023
233162	2001	1	437895.10	621988.96	3.69	16. ágúst 2023
233144	2001	1	437878.30	621978.79	16.18	16. ágúst 2023
233182	2001	1	437889.69	621971.63	5.24	16. ágúst 2023
233163	2001	1				16. ágúst 2023
233145	2001	1	437879.96	621984.22	20.64	16. ágúst 2023
233164	2001	1	437862.07	621998.22	15.14	16. ágúst 2023
233202	2001	1	437886.11	621992.56	9.93	16. ágúst 2023
233146	2001	1	437843.01	621973.09	15.92	16. ágúst 2023
233165	2001	1	437862.59	621990.95	16.01	16. ágúst 2023
233203	2001	1				16. ágúst 2023
233147	2001	1	437837.14	621971.99	13.14	16. ágúst 2023
233183	2001	1	437828.98	621981.42	14.89	16. ágúst 2023
233148	2001	1	437825.44	621976.93	18.42	16. ágúst 2023
233166	2001	1	437852.23	621985.16	17.40	16. ágúst 2023
233149	2001	1	437826.60	621984.71	13.61	16. ágúst 2023
233204	2001	1				16. ágúst 2023
233205	2001	1	437146.49	622125.73	14.09	16. ágúst 2023
233184	2001	1	437329.72	622134.21	1.47	16. ágúst 2023
233185	2001	1	437327.53	622129.46	17.56	16. ágúst 2023
233167	2001	1	437134.23	622123.55	13.28	16. ágúst 2023
233186	2001	1	437253.74	622126.50	21.19	16. ágúst 2023
233187	2001	1	437252.71	622125.07	8.80	16. ágúst 2023
233225	2001	1	437250.72	622129.47	18.15	16. ágúst 2023
233188	2001	1	437140.80	622121.95	10.53	16. ágúst 2023
233168	2001	1	437131.43	622124.06	14.35	16. ágúst 2023
233169	2001	1	437127.15	622122.70	11.29	16. ágúst 2023
233189	2001	1	437129.20	622125.56	13.52	16. ágúst 2023
233170	2001	1	437715.03	622121.88	12.78	16. ágúst 2023
233171	2001	1	437716.19	622132.83	0.41	16. ágúst 2023
233172	2001	1	437713.46	622134.36	15.01	16. ágúst 2023
233173	2001	1	437712.81	622131.06	-6.47	16. ágúst 2023
233226	2001	1	437689.68	622092.68	3.77	17. ágúst 2023
233227	2001	1	437642.25	622073.55	4.04	17. ágúst 2023
233247	2001	0	437956.71	620653.21	24.29	17. ágúst 2023
233267	2001	0	437967.54	620649.69	24.21	17. ágúst 2023
233248	2001	0	437958.19	620661.62	23.76	17. ágúst 2023
233268	2001	0	437971.53	620658.41	34.74	17. ágúst 2023
233249	2001	0	437959.90	620671.58	23.53	17. ágúst 2023
233269	2001	0	437975.46	620664.35	30.69	17. ágúst 2023
233270	2001	0	437975.27	620676.18	23.36	17. ágúst 2023
233250	2001	0	437961.25	620679.33	23.25	17. ágúst 2023
233251	2001	0	437964.29	620687.51	22.89	17. ágúst 2023
233252	2001	0	437965.42	620696.99	22.18	17. ágúst 2023
233253	2001	0	437967.32	620705.65	21.40	17. ágúst 2023
233271	2001	0	437978.46	620689.83	38.29	17. ágúst 2023
233272	2001	0	437981.65	620696.59	22.09	17. ágúst 2023
233273	2001	0				17. ágúst 2023
233254	2001	0	437971.43	620712.76	20.58	17. ágúst 2023
233255	2001	0	437974.59	620720.41	19.75	17. ágúst 2023
233274	2001	0	437987.43	620711.27	33.81	17. ágúst 2023
233275	2001	0	437994.53	620721.05	29.55	17. ágúst 2023
233256	2001	0	437973.87	620727.07	26.00	17. ágúst 2023

Core	Site	Place	ISN93_East	ISN93_North	Elevation	CreationTimestamp
233276	2001	0	437953.09	620723.06	40.83	17. ágúst 2023
233257	2001	0	438003.25	620713.82	19.25	17. ágúst 2023
233277	2001	0	437946.54	620710.93	24.71	17. ágúst 2023
233258	2001	0	438000.75	620704.17	20.22	17. ágúst 2023
233259	2001	0	437998.27	620692.94	21.35	17. ágúst 2023
233260	2001	0	437994.56	620681.02	22.19	17. ágúst 2023
233278	2001	0	437939.24	620694.14	30.73	17. ágúst 2023
233279	2001	0	437932.24	620675.47	22.51	17. ágúst 2023
233261	2001	0	437991.89	620669.59	22.97	17. ágúst 2023
233262	2001	0	437982.54	620650.49	24.02	17. ágúst 2023
233280	2001	0	437927.63	620662.82	24.01	17. ágúst 2023
233281	2001	0	438029.49	620636.68	24.20	17. ágúst 2023
233263	2001	0	438002.91	620641.42	24.10	17. ágúst 2023
233282	2001	0	438036.51	620656.21	22.73	17. ágúst 2023
233264	2001	0	438007.98	620654.16	28.46	17. ágúst 2023
233265	2001	0	438017.42	620672.03	26.65	17. ágúst 2023
233283	2001	0	438046.72	620680.39	21.19	17. ágúst 2023
233266	2001	0	438020.92	620701.85	35.39	17. ágúst 2023
233302	2001	0	438080.29	620701.79	19.03	17. ágúst 2023
233303	2001	0	438082.02	620662.49	16.45	17. ágúst 2023
233284	2001	0	438056.81	620704.02	19.82	17. ágúst 2023
233304	2001	0	438073.30	620627.99	37.19	17. ágúst 2023
233305	2001	0				17. ágúst 2023
233285	2001	0	438065.33	620724.09	19.82	17. ágúst 2023
233325	2001	0	438059.50	620692.00	20.92	17. ágúst 2023
233286	2001	0	438047.26	620705.52	25.70	17. ágúst 2023
233326	2001	0	437952.12	620657.54	24.23	17. ágúst 2023
233287	2001	0	438044.70	620694.72	20.35	17. ágúst 2023
233288	2001	0	437962.19	620656.29	24.05	17. ágúst 2023
233327	2001	0	438055.31	620695.74	20.46	17. ágúst 2023
233328	2001	0	438053.60	620701.73	19.88	17. ágúst 2023
233329	2001	0	438057.24	620704.17	19.85	17. ágúst 2023

Table 2. Core stratigraphy

Core	CreationTimestamp	Category	Description	top depth	bottom depth
223193	13. ágúst 2022	Root Mat		0	5
223213	13. ágúst 2022	Root Mat		0	10
223213	13. ágúst 2022	Sand		10	50
223193	13. ágúst 2022	Turf		5	30
223193	13. ágúst 2022	Aeolian Deposit		30	35
223213	13. ágúst 2022	Rock		50	50
223193	13. ágúst 2022	Sand		35	36
223193	13. ágúst 2022	Rock		36	36
223214	13. ágúst 2022	Root Mat		0	5
223194	13. ágúst 2022	Root Mat		0	5
223214	13. ágúst 2022	Sand		5	40
223194	13. ágúst 2022	Turf		5	20
223214	13. ágúst 2022	Rock		40	40
223194	13. ágúst 2022	Sand		20	40
223215	13. ágúst 2022	Root Mat		0	5

223194	13. ágúst 2022	Rock		40	40
223215	13. ágúst 2022	Aeolian Deposit		5	40
223215	13. ágúst 2022	Sand		40	60
223215	13. ágúst 2022	Rock		60	60
223216	13. ágúst 2022	Root Mat		0	7
223216	13. ágúst 2022	Aeolian Deposit		7	19
223216	13. ágúst 2022	Floor		19	31
223216	13. ágúst 2022	Low Density Cultural		31	34
223216	13. ágúst 2022	Sand		34	50
223216	13. ágúst 2022	Rock		50	50
223195	13. ágúst 2022	Root Mat		0	10
223217	13. ágúst 2022	Root Mat		0	10
223217	13. ágúst 2022	Turf	Sandy	10	40
223195	13. ágúst 2022	Turf		10	30
223195	13. ágúst 2022	Floor		30	31
223195	13. ágúst 2022	Low Density Cultural		31	40
223217	13. ágúst 2022	Sand		40	60
223217	13. ágúst 2022	Aeolian Deposit		6	70
223195	13. ágúst 2022	Rock		40	40
223217	13. ágúst 2022	Rock		70	70
223196	13. ágúst 2022	Root Mat		0	10
223218	13. ágúst 2022	Root Mat		0	5
223218	13. ágúst 2022	Turf		5	70
223196	13. ágúst 2022	Aeolian Deposit		10	40
223218	13. ágúst 2022	Sand		70	75
223218	13. ágúst 2022	Rock		75	75
223219	13. ágúst 2022	Root Mat		0	10
223197	13. ágúst 2022	Root Mat		0	5
223197	13. ágúst 2022	Turf		5	15
223197	13. ágúst 2022	Floor		15	23
223197	13. ágúst 2022	Aeolian Deposit		23	32
223219	13. ágúst 2022	Rock		10	10
223220	13. ágúst 2022	Root Mat		0	10
223197	13. ágúst 2022	Turf		32	40
223220	13. ágúst 2022	Sand		10	50
223197	13. ágúst 2022	Rock		40	40
223220	13. ágúst 2022	Rock		50	50
223221	13. ágúst 2022	Root Mat		0	10
223198	13. ágúst 2022	Root Mat		0	10
223221	13. ágúst 2022	Sand		10	60
223198	13. ágúst 2022	Aeolian Deposit		10	40
223198	13. ágúst 2022	Rock		40	40
223221	13. ágúst 2022	Iron Pan		60	70
223199	13. ágúst 2022	Root Mat		0	17
223221	13. ágúst 2022	Rock		70	70
223222	13. ágúst 2022	Root Mat		0	10
223222	13. ágúst 2022	Aeolian Deposit		10	45
223199	13. ágúst 2022	Turf		17	28
223199	13. ágúst 2022	Aeolian Deposit		28	40
223199	13. ágúst 2022	Rock		40	40
223222	13. ágúst 2022	Rock		45	45
223200	13. ágúst 2022	Root Mat		0	10
223223	13. ágúst 2022	Root Mat		0	10
223223	13. ágúst 2022	Rock		10	10

223200	13. ágúst 2022	Aeolian Deposit	10	20
223200	13. ágúst 2022	Rock	20	20
223224	13. ágúst 2022	Root Mat	0	10
223201	13. ágúst 2022	Root Mat	0	7
223201	13. ágúst 2022	Aeolian Deposit	7	15
223224	13. ágúst 2022	Aeolian Deposit	10	15
223201	13. ágúst 2022	Rock	15	15
223224	13. ágúst 2022	Low Density Cultural	15	30
223202	13. ágúst 2022	Root Mat	0	10
223224	13. ágúst 2022	Rock	30	30
223225	13. ágúst 2022	Root Mat	0	10
223202	13. ágúst 2022	Aeolian Deposit	10	18
223202	13. ágúst 2022	Rock	18	18
223225	13. ágúst 2022	Turf	10	30
223225	13. ágúst 2022	Aeolian Deposit	30	50
223203	13. ágúst 2022	Root Mat	0	10
223203	13. ágúst 2022	Aeolian Deposit	10	24
223225	13. ágúst 2022	Gravel	50	50
223203	13. ágúst 2022	Turf	24	30
223226	13. ágúst 2022	Root Mat	0	10
223203	13. ágúst 2022	Aeolian Deposit	30	39
223203	13. ágúst 2022	Floor	39	40
223203	13. ágúst 2022	Rock	40	40
223204	13. ágúst 2022	Root Mat	0	10
223226	13. ágúst 2022	Turf	10	50
223226	13. ágúst 2022	Rock	50	50
223204	13. ágúst 2022	Turf	10	22
223204	13. ágúst 2022	Rock	22	22
223227	13. ágúst 2022	Root Mat	0	10
223227	13. ágúst 2022	Turf	10	40
223227	13. ágúst 2022	Rock	40	40
223205	13. ágúst 2022	Root Mat	0	5
223205	13. ágúst 2022	Turf	5	15
223228	13. ágúst 2022	Root Mat	0	15
223228	13. ágúst 2022	Rock	15	15
223205	13. ágúst 2022	Floor	15	16
223205	13. ágúst 2022	Turf	16	23
223205	13. ágúst 2022	Rock	23	23
223229	13. ágúst 2022	Root Mat	0	10
223206	13. ágúst 2022	Root Mat	0	5
223206	13. ágúst 2022	Turf	5	40
223229	13. ágúst 2022	Turf	10	25
223229	13. ágúst 2022	Midden	25	40
223206	13. ágúst 2022	Low Density Cultural	40	45
223206	13. ágúst 2022	Floor	45	47
223229	13. ágúst 2022	Rock	40	40
223206	13. ágúst 2022	Aeolian Deposit	47	65
223206	13. ágúst 2022	Turf	65	80
223230	13. ágúst 2022	Root Mat	0	10
223206	13. ágúst 2022	Rock	80	80
223230	13. ágúst 2022	Turf	10	20
223230	13. ágúst 2022	Low Density Cultural	20	40
223230	13. ágúst 2022	Rock	40	40
223207	13. ágúst 2022	Root Mat	0	5

223207	13. ágúst 2022	Aeolian Deposit	5	26
223207	13. ágúst 2022	Midden	26	60
223207	13. ágúst 2022	Rock	60	60
223208	13. ágúst 2022	Root Mat	0	10
223231	13. ágúst 2022	Root Mat	0	10
223231	13. ágúst 2022	Midden	10	30
223231	13. ágúst 2022	Aeolian Deposit	30	50
223231	13. ágúst 2022	Rock	50	50
223208	13. ágúst 2022	Low Density Cultural	10	20
223208	13. ágúst 2022	Rock	20	20
223209	13. ágúst 2022	Root Mat	0	7
223209	13. ágúst 2022	Aeolian Deposit	7	18
223209	13. ágúst 2022	Turf	18	40
223232	13. ágúst 2022	Root Mat	0	10
223232	13. ágúst 2022	Turf	10	30
223232	13. ágúst 2022	Sand	30	40
223232	13. ágúst 2022	Rock	40	40
223209	13. ágúst 2022	Aeolian Deposit	40	50
223209	13. ágúst 2022	Rock	50	50
223233	13. ágúst 2022	Root Mat	0	5
223210	13. ágúst 2022	Root Mat	0	13
223233	13. ágúst 2022	Turf	5	20
223233	13. ágúst 2022	Rock	20	20
223234	13. ágúst 2022	Root Mat	0	10
223234	13. ágúst 2022	Sand	10	20
223234	13. ágúst 2022	Rock	20	20
223235	13. ágúst 2022	Root Mat	0	10
223235	13. ágúst 2022	Rock	10	10
223236	13. ágúst 2022	Root Mat	0	10
223236	13. ágúst 2022	Rock	10	10
223237	13. ágúst 2022	Root Mat	0	10
223237	13. ágúst 2022	Rock	10	10
223210	13. ágúst 2022	Low Density Cultural	13	18
223238	13. ágúst 2022	Root Mat	0	10
223238	13. ágúst 2022	Aeolian Deposit	10	40
223210	13. ágúst 2022	Aeolian Deposit	18	26
223210	13. ágúst 2022	Turf	26	30
223238	13. ágúst 2022	Rock	40	40
223210	13. ágúst 2022	Midden	30	40
223239	13. ágúst 2022	Root Mat	0	15
223210	13. ágúst 2022	Turf	40	48
223210	13. ágúst 2022	Midden	48	50
223210	13. ágúst 2022	Floor	50	52
223210	13. ágúst 2022	Sand	52	55
223210	13. ágúst 2022	Rock	55	55
223239	13. ágúst 2022	Aeolian Deposit	15	23
223239	13. ágúst 2022	Low Density Cultural	23	40
223211	13. ágúst 2022	Root Mat	0	5
223239	13. ágúst 2022	Rock	40	40
223211	13. ágúst 2022	Aeolian Deposit	5	15
223211	13. ágúst 2022	Midden	15	20
223240	13. ágúst 2022	Root Mat	0	10
223240	13. ágúst 2022	Low Density Cultural	10	32
223211	13. ágúst 2022	Aeolian Deposit	20	35

223211	13. ágúst 2022	Midden	35	38
223211	13. ágúst 2022	Rock	38	38
223212	13. ágúst 2022	Root Mat	0	10
223240	13. ágúst 2022	Midden	32	42
223240	13. ágúst 2022	Aeolian Deposit	42	47
223240	13. ágúst 2022	Rock	47	47
223212	13. ágúst 2022	Low Density Cultural	10	20
223212	13. ágúst 2022	Turf	20	30
223212	13. ágúst 2022	Midden	30	40
223241	13. ágúst 2022	Root Mat	0	10
223241	13. ágúst 2022	Aeolian Deposit	10	30
223241	13. ágúst 2022	Rock	30	30
223212	13. ágúst 2022	Rock	40	40
223242	13. ágúst 2022	Root Mat	0	10
223242	13. ágúst 2022	Aeolian Deposit	10	15
223242	13. ágúst 2022	Midden	15	25
223242	13. ágúst 2022	Low Density Cultural	25	35
223242	13. ágúst 2022	Midden	35	70
223262	13. ágúst 2022	Root Mat	0	10
223262	13. ágúst 2022	Aeolian Deposit	10	20
223262	13. ágúst 2022	Midden	20	25
223262	13. ágúst 2022	Low Density Cultural	25	45
223262	13. ágúst 2022	Rock	45	45
223242	13. ágúst 2022	Aeolian Deposit	70	80
223263	13. ágúst 2022	Root Mat	0	5
223263	13. ágúst 2022	Rock	5	5
223242	13. ágúst 2022	Rock	80	80
223264	13. ágúst 2022	Root Mat	0	10
223243	13. ágúst 2022	Root Mat	0	10
223243	13. ágúst 2022	Midden	10	20
223243	13. ágúst 2022	Rock	20	20
223264	13. ágúst 2022	Low Density Cultural	10	40
223244	13. ágúst 2022	Root Mat	0	10
223244	13. ágúst 2022	Turf	10	40
223244	13. ágúst 2022	Midden	40	50
223244	13. ágúst 2022	Rock	50	50
223264	13. ágúst 2022	Turf	40	60
223264	13. ágúst 2022	Rock	60	60
223245	13. ágúst 2022	Root Mat	0	10
223265	13. ágúst 2022	Root Mat	0	15
223245	13. ágúst 2022	Turf	10	35
223245	13. ágúst 2022	Midden	35	40
223265	13. ágúst 2022	Rock	15	15
223266	13. ágúst 2022	Root Mat	0	15
223266	13. ágúst 2022	Rock	15	15
223245	13. ágúst 2022	Rock	40	40
233040	15. ágúst 2023	Root Mat	0	5
233040	15. ágúst 2023	Sand	5	35
233040	15. ágúst 2023	Rock	35	35
233041	15. ágúst 2023	Root Mat	0	8
233060	15. ágúst 2023	Turf	0	20
233041	15. ágúst 2023	Sand	8	45
233060	15. ágúst 2023	Sand	20	40
233041	15. ágúst 2023	Aeolian Deposit	45	60

233041	15. ágúst 2023	Rock		60	60
233042	15. ágúst 2023	Root Mat		0	8
233042	15. ágúst 2023	Turf		8	20
233042	15. ágúst 2023	Rock		20	20
233043	15. ágúst 2023	Root Mat		0	6
233061	15. ágúst 2023	Root Mat		0	5
233061	15. ágúst 2023	Turf		5	15
233061	15. ágúst 2023	Floor		15	20
233061	15. ágúst 2023	Turf		20	25
233061	15. ágúst 2023	Sand		25	40
233043	15. ágúst 2023	Sand		6	11
233043	15. ágúst 2023	Turf	Sandy	11	30
233043	15. ágúst 2023	Rock		30	30
233044	15. ágúst 2023	Root Mat		0	6
233044	15. ágúst 2023	Sand		6	54
233044	15. ágúst 2023	Aeolian Deposit		54	85
233062	15. ágúst 2023	Root Mat		0	5
233062	15. ágúst 2023	Turf		5	30
233062	15. ágúst 2023	Floor		30	45
233044	15. ágúst 2023	Rock		85	85
233062	15. ágúst 2023	Sand		45	50
233045	15. ágúst 2023	Root Mat		0	5
233045	15. ágúst 2023	Sand		5	35
233045	15. ágúst 2023	Rock		35	35
233046	15. ágúst 2023	Sand		0	9
233046	15. ágúst 2023	Floor		9	13
233046	15. ágúst 2023	Sand		13	30
233046	15. ágúst 2023	Rock		30	30
233047	15. ágúst 2023	Root Mat		0	5
233047	15. ágúst 2023	Turf		5	12
233047	15. ágúst 2023	Low Density Cultural		12	30
233047	15. ágúst 2023	Rock		30	30
233048	15. ágúst 2023	Root Mat		0	5
233063	15. ágúst 2023	Root Mat		0	5
233063	15. ágúst 2023	Sand		5	107
233063	15. ágúst 2023	Aeolian Deposit		107	120
233048	15. ágúst 2023	Disturbed		5	20
233048	15. ágúst 2023	Rock		20	20
233049	15. ágúst 2023	Root Mat		0	6
233049	15. ágúst 2023	Disturbed		6	20
233049	15. ágúst 2023	Rock		20	20
233050	15. ágúst 2023	Root Mat		0	4
233050	15. ágúst 2023	Gravel		4	9
233050	15. ágúst 2023	Floor		9	12
233050	15. ágúst 2023	Low Density Cultural		12	30
233050	15. ágúst 2023	Rock		30	30
233064	15. ágúst 2023	Root Mat		0	5
233064	15. ágúst 2023	Sand		5	90
233064	15. ágúst 2023	Rock		90	90
233051	15. ágúst 2023	Root Mat		0	5
233051	15. ágúst 2023	Midden		5	54
233051	15. ágúst 2023	Floor		54	56
233051	15. ágúst 2023	Low Density Cultural		56	63
233051	15. ágúst 2023	Turf		63	71

233051	15. ágúst 2023	Sand	71	74
233051	15. ágúst 2023	Turf	74	81
233051	15. ágúst 2023	Sand	81	100
233052	15. ágúst 2023	Root Mat	0	15
233065	15. ágúst 2023	Root Mat	0	5
233065	15. ágúst 2023	Turf	5	35
233065	15. ágúst 2023	Midden	34	50
233065	15. ágúst 2023	Sand	50	90
233065	15. ágúst 2023	Rock	90	90
233066	15. ágúst 2023	Root Mat	0	5
233066	15. ágúst 2023	Midden	5	50
233066	15. ágúst 2023	Sand	50	90
233066	15. ágúst 2023	Rock	90	90
233052	15. ágúst 2023	Disturbed	15	20
233052	15. ágúst 2023	Turf	20	55
233052	15. ágúst 2023	Sand	55	68
233052	15. ágúst 2023	Turf	68	70
233052	15. ágúst 2023	Sand	70	100
233067	15. ágúst 2023	Root Mat	0	5
233067	15. ágúst 2023	Midden	5	34
233067	15. ágúst 2023	Sand	34	70
233053	15. ágúst 2023	Root Mat	0	8
233053	15. ágúst 2023	Low Density Cultural	8	33
233053	15. ágúst 2023	Rock	33	33
233067	15. ágúst 2023	Rock	70	70
233054	15. ágúst 2023	Root Mat	0	8
233068	15. ágúst 2023	Root Mat	0	5
233068	15. ágúst 2023	Disturbed	5	30
233068	15. ágúst 2023	Rock	30	30
233069	15. ágúst 2023	Root Mat	0	5
233054	15. ágúst 2023	Floor	8	15
233069	15. ágúst 2023	Low Density Cultural	5	10
233069	15. ágúst 2023	Rock	10	10
233054	15. ágúst 2023	Low Density Cultural	15	25
233054	15. ágúst 2023	Turf	25	30
233070	15. ágúst 2023	Root Mat	0	5
233070	15. ágúst 2023	Aeolian Deposit	5	15
233070	15. ágúst 2023	Rock	15	15
233055	15. ágúst 2023	Root Mat	0	10
233055	15. ágúst 2023	Sand	10	40
233071	15. ágúst 2023	Root Mat	0	5
233056	15. ágúst 2023	Root Mat	0	10
233071	15. ágúst 2023	Rock	5	5
233056	15. ágúst 2023	Sand	10	39
233072	15. ágúst 2023	Root Mat	0	5
233056	15. ágúst 2023	Aeolian Deposit	39	40
233072	15. ágúst 2023	Turf	5	15
233072	15. ágúst 2023	Aeolian Deposit	15	30
233056	15. ágúst 2023	Rock	40	40
233072	15. ágúst 2023	Sand	30	40
233072	15. ágúst 2023	Rock	40	40
233073	15. ágúst 2023	Root Mat	0	5
233057	15. ágúst 2023	Root Mat	0	10
233057	15. ágúst 2023	Turf	10	15

233073	15. ágúst 2023	Turf	5	10
233073	15. ágúst 2023	Sand	10	12
233073	15. ágúst 2023	Turf	12	20
233058	15. ágúst 2023	Root Mat	0	8
233073	15. ágúst 2023	Floor	20	22
233073	15. ágúst 2023	Sand	22	40
233058	15. ágúst 2023	Turf	8	18
233058	15. ágúst 2023	Aeolian Deposit	18	25
233058	15. ágúst 2023	Sand	25	29
233058	15. ágúst 2023	Aeolian Deposit	29	30
233058	15. ágúst 2023	Rock	30	30
233059	15. ágúst 2023	Root Mat	0	8
233059	15. ágúst 2023	Sand	8	70
233059	15. ágúst 2023	Rock	70	70
233074	15. ágúst 2023	Root Mat	0	5
233074	15. ágúst 2023	Turf	5	7
233074	15. ágúst 2023	Sand	7	30
233093	15. ágúst 2023	Root Mat	0	10
233093	15. ágúst 2023	Sand	10	39
233093	15. ágúst 2023	Aeolian Deposit	39	40
233093	15. ágúst 2023	Rock	40	40
233094	15. ágúst 2023	Root Mat	0	6
233075	15. ágúst 2023	Root Mat	0	5
233094	15. ágúst 2023	Sand	6	20
233094	15. ágúst 2023	Turf	20	36
233075	15. ágúst 2023	Turf	5	22
233075	15. ágúst 2023	Sand	22	30
233075	15. ágúst 2023	Floor	30	37
233075	15. ágúst 2023	Turf	37	40
233075	15. ágúst 2023	Rock	40	40
233094	15. ágúst 2023	Sand	36	80
233076	15. ágúst 2023	Root Mat	0	5
233095	15. ágúst 2023	Root Mat	0	3
233095	15. ágúst 2023	Bog	3	10
233095	15. ágúst 2023	Sand	10	20
233095	15. ágúst 2023	Rock	20	20
233096	15. ágúst 2023	Root Mat	0	8
233076	15. ágúst 2023	Bog	5	30
233076	15. ágúst 2023	Midden	30	34
233076	15. ágúst 2023	Sand	34	40
233096	15. ágúst 2023	Sand	8	32
233096	15. ágúst 2023	Turf	32	36
233096	15. ágúst 2023	Sand	36	40
233096	15. ágúst 2023	Rock	40	40
233097	15. ágúst 2023	Root Mat	0	8
233077	15. ágúst 2023	Root Mat	0	5
233097	15. ágúst 2023	Sand	8	15
233097	15. ágúst 2023	Bog	15	19
233097	15. ágúst 2023	Sand	19	22
233077	15. ágúst 2023	Bog	5	10
233097	15. ágúst 2023	Rock	22	22
233077	15. ágúst 2023	Low Density Cultural	10	30
233077	15. ágúst 2023	Bog	30	38
233077	15. ágúst 2023	Midden	38	40

233077	15. ágúst 2023	Iron Pan		40	40
233098	15. ágúst 2023	Root Mat		0	8
233098	15. ágúst 2023	Sand	Silty	8	12
233098	15. ágúst 2023	Sand		12	80
233078	15. ágúst 2023	Root Mat		0	5
233078	15. ágúst 2023	Bog		5	10
233078	15. ágúst 2023	Sand		10	20
233078	15. ágúst 2023	Midden		20	21
233078	15. ágúst 2023	Sand		21	23
233078	15. ágúst 2023	Midden		23	24
233078	15. ágúst 2023	Sand		24	28
233078	15. ágúst 2023	Midden		28	54
233099	15. ágúst 2023	Root Mat		0	10
233099	15. ágúst 2023	Bog		10	37
233099	15. ágúst 2023	Midden		37	40
233078	15. ágúst 2023	Sand		54	58
233078	15. ágúst 2023	Midden		58	59
233078	15. ágúst 2023	Sand		59	60
233078	15. ágúst 2023	Diatoms		60	61
233078	15. ágúst 2023	Sand		61	80
233099	15. ágúst 2023	Sand		40	80
233079	15. ágúst 2023	Root Mat		0	5
233079	15. ágúst 2023	Bog		5	25
233100	15. ágúst 2023	Root Mat		0	10
233079	15. ágúst 2023	Turf		25	35
233079	15. ágúst 2023	Midden		35	45
233100	15. ágúst 2023	Sand		10	36
233079	15. ágúst 2023	Sand		45	80
233100	15. ágúst 2023	Bog		36	59
233100	15. ágúst 2023	Sand		59	63
233100	15. ágúst 2023	Midden		63	66
233100	15. ágúst 2023	Sand		66	71
233100	15. ágúst 2023	Midden		71	75
233100	15. ágúst 2023	Sand		75	77
233100	15. ágúst 2023	Midden		77	79
233100	15. ágúst 2023	Sand		79	80
233080	15. ágúst 2023	Root Mat		0	5
233080	15. ágúst 2023	Low Density Cultural		5	35
233100	15. ágúst 2023	Rock		80	80
233080	15. ágúst 2023	Midden		35	40
233080	15. ágúst 2023	Sand		40	80
233081	15. ágúst 2023	Root Mat		0	10
233081	15. ágúst 2023	Subsoil		12	22
233081	15. ágúst 2023	Midden		22	40
233101	15. ágúst 2023	Root Mat		0	7
233101	15. ágúst 2023	Bog		7	25
233101	15. ágúst 2023	Midden		25	30
233101	15. ágúst 2023	Rock		30	30
233081	15. ágúst 2023	Midden		40	65
233081	15. ágúst 2023	Sand		65	80
233102	15. ágúst 2023	Root Mat		0	6
233102	15. ágúst 2023	Bog		6	30
233102	15. ágúst 2023	Rock		30	30
233103	15. ágúst 2023	Root Mat		0	7

233103	15. ágúst 2023	Bog	7	25
233103	15. ágúst 2023	Rock	25	25
233082	15. ágúst 2023	Root Mat	0	5
233082	15. ágúst 2023	Aeolian Deposit	5	26
233104	15. ágúst 2023	Root Mat	0	6
233082	15. ágúst 2023	Low Density Cultural	26	60
233104	15. ágúst 2023	Bog	6	17
233104	15. ágúst 2023	Turf	17	20
233104	15. ágúst 2023	Sand	20	44
233082	15. ágúst 2023	Sand	60	80
233104	15. ágúst 2023	Bog	44	60
233104	15. ágúst 2023	Sand	60	120
233104	15. ágúst 2023			
233105	15. ágúst 2023	Root Mat	0	10
233105	15. ágúst 2023	Sand	10	35
233105	15. ágúst 2023	Turf	35	40
233083	15. ágúst 2023	Root Mat	0	5
233083	15. ágúst 2023	Aeolian Deposit	5	20
233083	15. ágúst 2023	Turf	20	45
233083	15. ágúst 2023	Sand	45	80
233105	15. ágúst 2023	Low Density Cultural	40	73
233105	15. ágúst 2023	Sand	73	80
233105	15. ágúst 2023	Rock	80	80
233125	16. ágúst 2023	Root Mat	0	10
233125	16. ágúst 2023	Rock	10	10
233126	16. ágúst 2023	Root Mat	0	3
233126	16. ágúst 2023	Rock	3	3
233106	16. ágúst 2023	Root Mat	0	5
233106	16. ágúst 2023	Rock	5	5
233107	16. ágúst 2023	Root Mat	0	10
233107	16. ágúst 2023	Rock	10	10
233127	16. ágúst 2023	Root Mat	0	5
233108	16. ágúst 2023	Root Mat	0	8
233108	16. ágúst 2023	Rock	8	8
233127	16. ágúst 2023	Turf	5	12
233127	16. ágúst 2023	Sand	12	15
233084	16. ágúst 2023	Turf	0	70
233127	16. ágúst 2023	Rock	15	15
233084	16. ágúst 2023	Sand	70	80
233109	16. ágúst 2023	Root Mat	0	10
233084	16. ágúst 2023	Gravel	80	80
233109	16. ágúst 2023	Rock	10	10
233110	16. ágúst 2023	Root Mat	0	9
233085	16. ágúst 2023	Turf	0	50
233085	16. ágúst 2023	Sand	50	65
233085	16. ágúst 2023	Aeolian Deposit	65	75
233128	16. ágúst 2023	Root Mat	0	10
233128	16. ágúst 2023	Sand	10	35
233128	16. ágúst 2023	Aeolian Deposit	35	38
233128	16. ágúst 2023	Sand	38	50
233110	16. ágúst 2023	Sand	9	21
233110	16. ágúst 2023	Floor	21	23
233110	16. ágúst 2023	Sand	23	27
233110	16. ágúst 2023	Turf	27	28

233110	16. ágúst 2023	Sand		28	55
233129	16. ágúst 2023	Root Mat		0	8
233129	16. ágúst 2023	Aeolian Deposit		8	14
233129	16. ágúst 2023	Sand		14	19
233129	16. ágúst 2023	Rock		19	19
233130	16. ágúst 2023	Root Mat		0	3
233130	16. ágúst 2023	Rock		3	3
233111	16. ágúst 2023	Root Mat		0	6
233111	16. ágúst 2023	Sand		6	11
233111	16. ágúst 2023	Turf		11	21
233111	16. ágúst 2023	Sand		21	65
233131	16. ágúst 2023	Root Mat		0	11
233131	16. ágúst 2023	Turf	Striated	11	37
233112	16. ágúst 2023	Root Mat		0	8
233132	16. ágúst 2023	Root Mat		0	7
233112	16. ágúst 2023	Sand		8	15
233112	16. ágúst 2023	Bog		15	30
233112	16. ágúst 2023	Sand		30	35
233113	16. ágúst 2023	Root Mat		0	10
233113	16. ágúst 2023	Aeolian Deposit		10	15
233113	16. ágúst 2023	Rock		15	15
233132	16. ágúst 2023	Disturbed		7	12
233132	16. ágúst 2023	Charcoal		12	15
233114	16. ágúst 2023	Root Mat		0	10
233114	16. ágúst 2023	Rock		10	10
233115	16. ágúst 2023	Root Mat		0	10
233115	16. ágúst 2023	Rock		10	10
233132	16. ágúst 2023	Low Density Cultural		15	21
233132	16. ágúst 2023	Floor		21	29
233132	16. ágúst 2023	Sand		29	40
233116	16. ágúst 2023	Root Mat		0	8
233132	16. ágúst 2023	Rock		40	40
233133	16. ágúst 2023	Root Mat		0	5
233133	16. ágúst 2023	Disturbed		5	16
233116	16. ágúst 2023	Turf		8	22
233133	16. ágúst 2023	Rock		16	16
233116	16. ágúst 2023	Sand		22	23
233116	16. ágúst 2023	Turf		22	26
233134	16. ágúst 2023	Root Mat		0	8
233116	16. ágúst 2023	Sand		26	28
233116	16. ágúst 2023	Turf		28	29
233116	16. ágúst 2023	Sand		29	65
233134	16. ágúst 2023	Disturbed		8	15
233134	16. ágúst 2023	Turf		15	26
233134	16. ágúst 2023	Rock		26	26
233086	16. ágúst 2023	Turf		0	40
233086	16. ágúst 2023	Low Density Cultural		40	50
233086	16. ágúst 2023	Sand		50	75
233086	16. ágúst 2023	Floor		75	95
233086	16. ágúst 2023	Sand		95	100
233135	16. ágúst 2023	Root Mat		0	4
233135	16. ágúst 2023	Turf		4	15
233135	16. ágúst 2023	Rock		15	15
233117	16. ágúst 2023	Root Mat		0	10

233117	16. ágúst 2023	Midden	10	29
233117	16. ágúst 2023	Sand	29	40
233087	16. ágúst 2023	Aeolian Deposit	0	20
233087	16. ágúst 2023	Midden	20	30
233087	16. ágúst 2023	Sand	30	35
233087	16. ágúst 2023	Low Density Cultural	35	70
233136	16. ágúst 2023	Root Mat	0	5
233136	16. ágúst 2023	Low Density Cultural	5	10
233136	16. ágúst 2023	Turf	10	40
233118	16. ágúst 2023	Root Mat	0	8
233118	16. ágúst 2023	Low Density Cultural	8	17
233118	16. ágúst 2023	Midden	17	33
233088	16. ágúst 2023	Aeolian Deposit	0	30
233118	16. ágúst 2023	Turf	33	40
233088	16. ágúst 2023	Sand	30	40
233088	16. ágúst 2023	Low Density Cultural	40	66
233136	16. ágúst 2023	Rock	40	40
233119	16. ágúst 2023	Root Mat	0	10
233119	16. ágúst 2023	Low Density Cultural	10	26
233137	16. ágúst 2023	Root Mat	0	5
233119	16. ágúst 2023	Midden	26	34
233119	16. ágúst 2023	Sand	34	40
233137	16. ágúst 2023	Disturbed	5	10
233137	16. ágúst 2023	Turf	10	40
233137	16. ágúst 2023	Rock	40	40
233138	16. ágúst 2023	Root Mat	0	6
233119	16. ágúst 2023	Low Density Cultural	40	60
233119	16. ágúst 2023	Midden	60	66
233119	16. ágúst 2023	Sand	66	70
233119	16. ágúst 2023	Low Density Cultural	70	80
233138	16. ágúst 2023	Turf	6	18
233138	16. ágúst 2023	Low Density Cultural	18	38
233138	16. ágúst 2023	Gravel	38	40
233089	16. ágúst 2023	Root Mat	0	10
233139	16. ágúst 2023	Root Mat	0	5
233139	16. ágúst 2023	Turf	5	20
233089	16. ágúst 2023	Low Density Cultural	10	15
233089	16. ágúst 2023	Sand	15	45
233139	16. ágúst 2023	Floor	20	34
233139	16. ágúst 2023	Midden	34	40
233089	16. ágúst 2023	Low Density Cultural	45	46
233089	16. ágúst 2023	Sand	46	60
233139	16. ágúst 2023	Turf	40	50
233090	16. ágúst 2023	Root Mat	0	10
233090	16. ágúst 2023	Low Density Cultural	10	30
233090	16. ágúst 2023	Floor	30	40
233090	16. ágúst 2023	Sand	40	41
233140	16. ágúst 2023	Root Mat	0	6
233140	16. ágúst 2023	Sand	6	10
233140	16. ágúst 2023	Low Density Cultural	10	25
233140	16. ágúst 2023	Floor	25	30
233140	16. ágúst 2023	Sand	30	34
233090	16. ágúst 2023	Floor	41	43
233090	16. ágúst 2023	Sand	43	60

233140	16. ágúst 2023	Midden	34	40
233140	16. ágúst 2023	Low Density Cultural	40	70
233140	16. ágúst 2023	Sand	70	80
233140	16. ágúst 2023	Turf	80	120
233091	16. ágúst 2023	Root Mat	0	10
233091	16. ágúst 2023	Aeolian Deposit	10	13
233141	16. ágúst 2023	Root Mat	0	5
233141	16. ágúst 2023	Midden	5	50
233091	16. ágúst 2023	Low Density Cultural	13	16
233091	16. ágúst 2023	Sand	13	40
233120	16. ágúst 2023	Root Mat	0	11
233120	16. ágúst 2023	Low Density Cultural	11	17
233120	16. ágúst 2023	Turf	17	41
233120	16. ágúst 2023	Midden	41	48
233120	16. ágúst 2023	Turf	48	75
233120	16. ágúst 2023	Sand	75	100
233092	16. ágúst 2023	Root Mat	0	10
233092	16. ágúst 2023	Midden	10	11
233092	16. ágúst 2023	Sand	11	40
233141	16. ágúst 2023	Turf	50	55
233141	16. ágúst 2023	Sand	55	64
233141	16. ágúst 2023	Midden	64	66
233141	16. ágúst 2023	Sand	66	71
233141	16. ágúst 2023	Midden	71	74
233141	16. ágúst 2023	Sand	74	80
233141	16. ágúst 2023	Bog	80	90
233141	16. ágúst 2023	Sand	90	110
233161	16. ágúst 2023	Root Mat	0	10
233161	16. ágúst 2023	Low Density Cultural	10	20
233161	16. ágúst 2023	Midden	20	26
233161	16. ágúst 2023	Rock	26	26
233142	16. ágúst 2023	Root Mat	0	8
233142	16. ágúst 2023	Turf	8	20
233142	16. ágúst 2023	Rock	20	20
233143	16. ágúst 2023	Root Mat	0	5
233143	16. ágúst 2023	Turf	5	10
233143	16. ágúst 2023	Sand	10	12
233143	16. ágúst 2023	Midden	12	13
233162	16. ágúst 2023	Root Mat	0	5
233143	16. ágúst 2023	Sand	13	15
233143	16. ágúst 2023	Rock	15	15
233162	16. ágúst 2023	Aeolian Deposit	5	14
233162	16. ágúst 2023	Low Density Cultural	14	22
233162	16. ágúst 2023	Sand	22	50
233162	16. ágúst 2023	Rock	50	50
233182	16. ágúst 2023	Root Mat	0	5
233182	16. ágúst 2023	Aeolian Deposit	5	40
233182	16. ágúst 2023	Sand	40	50
233182	16. ágúst 2023	Bog	50	55
233182	16. ágúst 2023	Sand	55	60
233144	16. ágúst 2023	Root Mat	0	5
233182	16. ágúst 2023	Rock	60	60
233144	16. ágúst 2023	Bog	5	18
233144	16. ágúst 2023	Sand	18	20

233144	16. ágúst 2023	Rock	20	20
233163	16. ágúst 2023	Root Mat	0	15
233163	16. ágúst 2023	Rock	15	15
233145	16. ágúst 2023	Root Mat	0	5
233145	16. ágúst 2023	Bog	5	25
233145	16. ágúst 2023	Sand	25	2
233202	16. ágúst 2023	Root Mat	0	10
233202	16. ágúst 2023	Sand	10	12
233202	16. ágúst 2023	Midden	12	18
233202	16. ágúst 2023	Turf	18	20
233164	16. ágúst 2023	Top Soil	0	5
233202	16. ágúst 2023	Sand	20	23
233202	16. ágúst 2023	Rock	23	23
233146	16. ágúst 2023	Root Mat	0	5
233146	16. ágúst 2023	Bog	5	30
233164	16. ágúst 2023	Bog	5	20
233164	16. ágúst 2023	Rock	20	20
233146	16. ágúst 2023	Sand	30	35
233165	16. ágúst 2023	Root Mat	0	9
233203	16. ágúst 2023	Root Mat	0	10
233147	16. ágúst 2023	Root Mat	0	5
233203	16. ágúst 2023	Low Density Cultural	10	40
233165	16. ágúst 2023	Sand	9	24
233147	16. ágúst 2023	Aeolian Deposit	5	10
233147	16. ágúst 2023	Sand	10	40
233165	16. ágúst 2023	Sand	24	30
233165	16. ágúst 2023	Midden	30	31
233165	16. ágúst 2023	Sand	31	45
233183	16. ágúst 2023	Root Mat	0	5
233183	16. ágúst 2023	Aeolian Deposit	5	30
233183	16. ágúst 2023	Sand	30	40
233148	16. ágúst 2023	Root Mat	0	10
233148	16. ágúst 2023	Iron Pan	10	14
233204	16. ágúst 2023	Root Mat	0	10
233149	16. ágúst 2023	Root Mat	0	5
233166	16. ágúst 2023	Root Mat	0	10
233149	16. ágúst 2023	Bog	5	20
233204	16. ágúst 2023	Low Density Cultural	10	20
233204	16. ágúst 2023	Sand	20	30
233204	16. ágúst 2023	Turf	30	31
233204	16. ágúst 2023	Tephra	31	40
233166	16. ágúst 2023	Bog	10	18
233166	16. ágúst 2023	Sand	18	29
233166	16. ágúst 2023	Floor	29	31
233166	16. ágúst 2023	Sand	31	40
233184	16. ágúst 2023	Turf	0	40
233184	16. ágúst 2023	Midden	40	50
233184	16. ágúst 2023	Turf	50	70
233185	16. ágúst 2023	Root Mat	0	10
233185	16. ágúst 2023	Midden	10	30
233185	16. ágúst 2023	Rock	30	30
233186	16. ágúst 2023	Root Mat	0	5
233186	16. ágúst 2023	Turf	5	10
233186	16. ágúst 2023	Low Density Cultural	10	15

233186	16. ágúst 2023	Rock		15	15
233225	16. ágúst 2023	Root Mat		0	5
233187	16. ágúst 2023	Root Mat		0	10
233225	16. ágúst 2023	Turf		5	30
233187	16. ágúst 2023	Bog		10	20
233225	16. ágúst 2023	Rock		30	30
233187	16. ágúst 2023	Rock		20	20
233205	16. ágúst 2023	Root Mat		0	0
233188	16. ágúst 2023	Root Mat		0	16
233188	16. ágúst 2023	Low Density Cultural		16	40
233188	16. ágúst 2023	Turf		40	110
233188	16. ágúst 2023	Midden		110	130
233167	16. ágúst 2023	Root Mat		0	10
233167	16. ágúst 2023	Turf		10	130
233167	16. ágúst 2023	Iron Pan		130	135
233167	16. ágúst 2023	Sand		135	140
233167	16. ágúst 2023	Iron Pan		140	145
233168	16. ágúst 2023	Midden		0	60
233168	16. ágúst 2023	Turf		60	70
233168	16. ágúst 2023	Aeolian Deposit		70	75
233168	16. ágúst 2023	Floor		75	77
233168	16. ágúst 2023	Aeolian Deposit		77	85
233189	16. ágúst 2023	Root Mat		0	10
233189	16. ágúst 2023	Low Density Cultural		10	30
233189	16. ágúst 2023	Turf		30	66
233189	16. ágúst 2023	Midden		66	92
233189	16. ágúst 2023	Turf		92	103
233189	16. ágúst 2023	Iron Pan		103	120
233169	16. ágúst 2023	Root Mat		0	5
233169	16. ágúst 2023	Turf		5	50
233169	16. ágúst 2023	Midden		50	60
233169	16. ágúst 2023	Turf		60	80
233169	16. ágúst 2023	Aeolian Deposit		80	100
233170	16. ágúst 2023	Root Mat		0	5
233170	16. ágúst 2023	Gravel		5	7
233170	16. ágúst 2023	Aeolian Deposit		7	9
233170	16. ágúst 2023	Gravel		9	11
233170	16. ágúst 2023	Turf		11	12
233170	16. ágúst 2023	Gravel		12	18
233171	16. ágúst 2023	Root Mat		0	8
233171	16. ágúst 2023	Disturbed		8	30
233171	16. ágúst 2023	Aeolian Deposit	Sandy	30	44
233171	16. ágúst 2023	Low Density Cultural		44	49
233171	16. ágúst 2023	Turf		49	55
233171	16. ágúst 2023	Sand		55	60
233171	16. ágúst 2023	Rock		60	60
233172	16. ágúst 2023	Root Mat		0	7
233172	16. ágúst 2023	Disturbed		7	25
233172	16. ágúst 2023	Low Density Cultural		25	30
233172	16. ágúst 2023	Turf		30	37
233172	16. ágúst 2023	Floor		37	38
233172	16. ágúst 2023	Sand		38	45
233172	16. ágúst 2023	Floor		45	46
233172	16. ágúst 2023	Rock		46	46

233173	16. ágúst 2023	Root Mat		0	8
233173	16. ágúst 2023	Disturbed		8	39
233173	16. ágúst 2023	Turf		39	43
233173	16. ágúst 2023	Sand		43	48
233173	16. ágúst 2023	Floor		48	49
233173	16. ágúst 2023	Sand		49	52
233173	16. ágúst 2023	Low Density Cultural		52	55
233173	16. ágúst 2023	Sand		55	57
233173	16. ágúst 2023	Rock		57	57
233203	17. ágúst 2023	Rock		40	40
233226	17. ágúst 2023	Root Mat		0	5
233226	17. ágúst 2023	Sand		5	56
233226	17. ágúst 2023	Midden		56	75
233226	17. ágúst 2023	Sand	Irony	75	96
233227	17. ágúst 2023	Root Mat		0	5
233227	17. ágúst 2023	Sand		5	50
233227	17. ágúst 2023	Midden		50	71
233227	17. ágúst 2023	Sand		71	77
233227	17. ágúst 2023	Midden		77	84
233227	17. ágúst 2023	Sand		84	95
233267	17. ágúst 2023	Root Mat		0	5
233247	17. ágúst 2023	Root Mat		0	10
233267	17. ágúst 2023	Midden		5	26
233247	17. ágúst 2023	Low Density Cultural		10	28
233267	17. ágúst 2023	Aeolian Deposit		26	40
233247	17. ágúst 2023	Midden		28	40
233247	17. ágúst 2023	Rock		40	40
233267	17. ágúst 2023	Rock		40	40
233248	17. ágúst 2023	Root Mat		0	10
233248	17. ágúst 2023	Disturbed		10	40
233268	17. ágúst 2023	Root Mat		0	5
233248	17. ágúst 2023	Midden		40	50
233248	17. ágúst 2023	Rock		50	50
233268	17. ágúst 2023	Rock		5	5
233269	17. ágúst 2023	Root Mat		0	5
233249	17. ágúst 2023	Root Mat		0	5
233249	17. ágúst 2023	Disturbed		5	25
233249	17. ágúst 2023	Midden		25	35
233249	17. ágúst 2023	Turf		35	55
233269	17. ágúst 2023	Midden		5	8
233249	17. ágúst 2023	Rock		55	55
233250	17. ágúst 2023	Root Mat		0	5
233270	17. ágúst 2023	Root Mat		0	6
233270	17. ágúst 2023	Turf		6	24
233270	17. ágúst 2023	Midden		24	37
233250	17. ágúst 2023	Turf		5	55
233250	17. ágúst 2023	Midden	Wet	55	60
233250	17. ágúst 2023	Rock		60	60
233270	17. ágúst 2023	Floor		37	56
233251	17. ágúst 2023	Root Mat		0	5
233251	17. ágúst 2023	Turf		5	60
233270	17. ágúst 2023	Midden		57	67
233270	17. ágúst 2023	Bog		67	71
233251	17. ágúst 2023	Midden		60	65

233251	17. ágúst 2023	Rock	65	65
233270	17. ágúst 2023	Midden	71	80
233252	17. ágúst 2023	Root Mat	0	10
233252	17. ágúst 2023	Rock	10	10
233270	17. ágúst 2023	Rock	80	80
233253	17. ágúst 2023	Root Mat	0	5
233253	17. ágúst 2023	Disturbed	5	40
233271	17. ágúst 2023	Root Mat	0	9
233271	17. ágúst 2023	Midden	9	32
233271	17. ágúst 2023	Rock	32	32
233272	17. ágúst 2023	Root Mat	0	10
233253	17. ágúst 2023	Turf	40	46
233253	17. ágúst 2023	Low Density Cultural	46	54
233253	17. ágúst 2023	Aeolian Deposit	54	60
233253	17. ágúst 2023	Rock	60	60
233272	17. ágúst 2023	Midden	10	33
233254	17. ágúst 2023	Root Mat	0	5
233273	17. ágúst 2023	Root Mat	0	10
233254	17. ágúst 2023	Aeolian Deposit	5	15
233273	17. ágúst 2023	Disturbed	10	21
233273	17. ágúst 2023	Midden	21	28
233273	17. ágúst 2023	Rock	28	28
233254	17. ágúst 2023	Rock	15	15
233255	17. ágúst 2023	Root Mat	0	5
233274	17. ágúst 2023	Root Mat	0	10
233255	17. ágúst 2023	Aeolian Deposit	5	15
233255	17. ágúst 2023	Gravel	15	15
233274	17. ágúst 2023	Disturbed	10	24
233274	17. ágúst 2023	Rock	24	24
233256	17. ágúst 2023	Root Mat	0	5
233275	17. ágúst 2023	Root Mat	0	10
233256	17. ágúst 2023	Bog	5	15
233256	17. ágúst 2023	Gravel	15	15
233275	17. ágúst 2023	Rock	10	10
233276	17. ágúst 2023	Root Mat	0	8
233276	17. ágúst 2023	Low Density Cultural	8	25
233276	17. ágúst 2023	Rock	25	25
233257	17. ágúst 2023	Root Mat	0	5
233257	17. ágúst 2023	Aeolian Deposit	5	15
233257	17. ágúst 2023	Gravel	15	15
233277	17. ágúst 2023	Root Mat	0	10
233277	17. ágúst 2023	Turf	10	40
233258	17. ágúst 2023	Root Mat	0	5
233258	17. ágúst 2023	Aeolian Deposit	5	10
233258	17. ágúst 2023	Rock	10	10
233277	17. ágúst 2023	Aeolian Deposit	40	50
233259	17. ágúst 2023	Root Mat	0	5
233259	17. ágúst 2023	Disturbed	5	40
233259	17. ágúst 2023	Turf	40	46
233259	17. ágúst 2023	Midden	46	65
233260	17. ágúst 2023	Root Mat	0	5
233260	17. ágúst 2023	Disturbed	5	20
233277	17. ágúst 2023	Rock	50	50
233260	17. ágúst 2023	Low Density Cultural	20	36

233260	17. ágúst 2023	Turf	36	38
233278	17. ágúst 2023	Root Mat	0	5
233278	17. ágúst 2023	Rock	5	5
233260	17. ágúst 2023	Aeolian Deposit	38	40
233260	17. ágúst 2023	Rock	40	40
233279	17. ágúst 2023	Root Mat	0	8
233261	17. ágúst 2023	Root Mat	0	10
233279	17. ágúst 2023	Low Density Cultural	8	18
233279	17. ágúst 2023	Aeolian Deposit	18	33
233261	17. ágúst 2023	Disturbed	10	30
233279	17. ágúst 2023	Rock	33	33
233261	17. ágúst 2023	Turf	30	40
233261	17. ágúst 2023	Rock	40	40
233280	17. ágúst 2023	Root Mat	0	9
233280	17. ágúst 2023	Low Density Cultural	9	22
233262	17. ágúst 2023	Root Mat	0	5
233280	17. ágúst 2023	Aeolian Deposit	22	33
233280	17. ágúst 2023	Rock	33	33
233262	17. ágúst 2023	Disturbed	5	20
233262	17. ágúst 2023	Low Density Cultural	20	35
233262	17. ágúst 2023	Aeolian Deposit	35	40
233281	17. ágúst 2023	Root Mat	0	10
233263	17. ágúst 2023	Root Mat	0	10
233263	17. ágúst 2023	Aeolian Deposit	10	35
233281	17. ágúst 2023	Midden	10	20
233281	17. ágúst 2023	Aeolian Deposit	20	24
233263	17. ágúst 2023	Low Density Cultural	35	40
233263	17. ágúst 2023	Rock	40	40
233282	17. ágúst 2023	Root Mat	0	10
233264	17. ágúst 2023	Root Mat	0	10
233264	17. ágúst 2023	Aeolian Deposit	10	20
233264	17. ágúst 2023	Low Density Cultural	20	25
233282	17. ágúst 2023	Disturbed	10	16
233264	17. ágúst 2023	Rock	25	25
233282	17. ágúst 2023	Low Density Cultural	17	25
233265	17. ágúst 2023	Root Mat	0	10
233282	17. ágúst 2023	Rock	25	25
233265	17. ágúst 2023	Aeolian Deposit	10	15
233265	17. ágúst 2023	Low Density Cultural	15	20
233265	17. ágúst 2023	Aeolian Deposit	20	25
233265	17. ágúst 2023	Rock	25	25
233283	17. ágúst 2023	Root Mat	0	8
233266	17. ágúst 2023	Root Mat	0	10
233266	17. ágúst 2023	Aeolian Deposit	10	20
233266	17. ágúst 2023	Rock	20	20
233283	17. ágúst 2023	Disturbed	8	20
233283	17. ágúst 2023	Charcoal	20	21
233302	17. ágúst 2023	Root Mat	0	10
233283	17. ágúst 2023	Midden	21	33
233302	17. ágúst 2023	Aeolian Deposit	10	40
233302	17. ágúst 2023	Rock	40	40
233283	17. ágúst 2023	Aeolian Deposit	33	35
233283	17. ágúst 2023	Rock	35	35
233303	17. ágúst 2023	Root Mat	0	10

233303	17. ágúst 2023	Low Density Cultural	10	30
233303	17. ágúst 2023	Rock	30	30
233284	17. ágúst 2023	Root Mat	0	10
233284	17. ágúst 2023	Midden	10	36
233304	17. ágúst 2023	Root Mat	0	5
233304	17. ágúst 2023	Midden	5	25
233304	17. ágúst 2023	Rock	25	25
233284	17. ágúst 2023	Bog	36	43
233284	17. ágúst 2023	Rock	43	43
233285	17. ágúst 2023	Root Mat	0	5
233285	17. ágúst 2023	Bog	5	40
233285	17. ágúst 2023	Rock	40	40
233325	17. ágúst 2023	Root Mat	0	10
233325	17. ágúst 2023	Low Density Cultural	10	20
233286	17. ágúst 2023	Root Mat	0	10
233325	17. ágúst 2023	Midden	20	40
233325	17. ágúst 2023	Rock	40	40
233286	17. ágúst 2023	Disturbed	10	20
233286	17. ágúst 2023	Rock	20	20
233287	17. ágúst 2023	Root Mat	0	10
233287	17. ágúst 2023	Low Density Cultural	10	20
233287	17. ágúst 2023	Midden	20	25
233287	17. ágúst 2023	Aeolian Deposit	25	35
233287	17. ágúst 2023	Rock	35	35
233326	17. ágúst 2023	Root Mat	0	10
233288	17. ágúst 2023	Root Mat	0	8
233326	17. ágúst 2023	Midden	10	30
233326	17. ágúst 2023	Rock	30	30
233288	17. ágúst 2023	Disturbed	8	20
233288	17. ágúst 2023	Midden	20	30
233288	17. ágúst 2023	Rock	30	30
233327	17. ágúst 2023	Root Mat	0	5
233327	17. ágúst 2023	Low Density Cultural	5	20
233327	17. ágúst 2023	Midden	20	60
233327	17. ágúst 2023	Gravel	60	60
233328	17. ágúst 2023	Root Mat	0	18
233328	17. ágúst 2023	Midden	18	48
233328	17. ágúst 2023	Turf	48	64
233328	17. ágúst 2023	Aeolian Deposit	64	80
233328	17. ágúst 2023	Gravel	80	80
233329	17. ágúst 2023	Root Mat	0	12
233329	17. ágúst 2023	Midden	12	35
233329	17. ágúst 2023	Aeolian Deposit	35	57

Table 3. Core Tephra layers

Core	Tephra Layer	Depth	Thickness
223215	H1	17	10
223215	H3	35	10
223215	H4	37	10
223217	H1	50	15
223218			
223196	H3	15	20

Core	Tephra Layer	Depth	Thickness
223196	H4	20	20
223197	H1	28	3
223220	H1	23	15
223221	H3	50	10
223198	H3	25	5
223222	H1	28	5
223225	H1	39	2
223230	H1	31	2
223231	H1	30	
223239	H1	21	10
223211	H1	23	10
223212	H1	37	1
223241	H1	25	5
223242	H1	65	20
223242	LNS	72	30
223264	1300	32	1
233041	H1	23	1
233060	H1	20	10
233044	H1	54	10
233044	LNL	55	2
233062	H1	49	8
233046	H1	5	25
233063	LNS	108	
233067	H1	33	7
233053			
233058	H1	20	3
233059	H1	30	20
233074	H1	22	2
233094	H1	50	30
233078	H1	26	1
233079	H1	39	12
233100	H1	68	2
233081	H1	40	3
233082	H1	25	4
233083	H1	52	42
233105	H1	72	5
233085	H1	55	10
233132	1766	6	
233134	1766	8	2
233116	H1	26	20
233135	1766	9	2
233117	H1	23	2
233087	H1	34	1
233088	H1	35	15
233118	H1	26	10
233119	H1	35	30
233119			
233091	H1	10	3
233092	H1	10	
233141	H1	63	35
233145	H1	25	2
233202	H1	30	10

Core	Tephra Layer	Depth	Thickness
233146	H1	25	15
233147	H1	8	20
233183	H1	30	10
233188	H1	125	20
233168	H1	73	2
233189	H1	67	20
233169	H3	90	10
233169	H4	95	15
233227	H1	77	6
233227	H3	89	30
233247	H1	26	10
233267	H1	18	20
233270	H1	77	2
233253	LNS	55	10
233272	H1	14	10
233277	H1	28	2
233279	H1	11	10
233279	LNL	19	30
233280	H1	18	10
233280	LNL	28	20
233262	H1	20	8
233281	H1	21	20
233263	H1	33	20
233282	H1	16	15
233264	H1	20	10
233265	H1	14	10
233283	H3	30	30
233302	H1	30	3
233303	H1	22	30
233284	H1	28	2
233284	LNL	36	15
233304	H1	24	10
233325	H1	31	3
233326	H1	25	5
233288	H1	24	2
233327	H1	22	2
233328	H3	70	40
233328	H1	30	5

Appendix C: 2023 Summarized Coring Data

Eighty two cores from 2022 and 2023 field seasons had tephra recorded. During the 2023 field season, excavators noticed no H-1300 tephra, which is consistent with previous literature that the eruption's ash did not reach Hafnir.

Table 4. Tephra identification counts, depths, and percentages in non-farm mound contexts, farm mound contexts, and the differences between the two for Hafnir 2023 cores. All depths are in cm.

Non-farm mound cores																				
H3/H4						LNL			1000			1104			1300			1766		
Place Name	Count	Average End Depth	Count	Mean Depth	%	Count	Mean Depth	%	Count	Mean Depth	%	Count	Mean Depth	%	Count	Mean Depth	%	Count	Mean Depth	%
Hafnir	84	27.96	4	31.25	0.05	2	81.5	0.02	0			12	26.5	0.14	0					
Farm mound cores																				
H3/H4						LNL			1000			1104			1300			1766		
Place Name	Count	Average End Depth	Count	Mean Depth	%	Count	Mean Depth	%	Count	Mean Depth	%	Count	Mean Depth	%	Count	Mean Depth	%	Count	Mean Depth	%
Hafnir	159	50.90	4	69.75	0.03	5	42	0.03				59	34.85	0.37	1	32	0.01	3	7.67	0.02
Difference between farm mound and non-farm mound cores																				
H3/H4						LNL			1000			1104			1300			1766		
Place Name	Total Cores	End Depth Difference	Total Cores	Mean Difference in Depth	% Difference in count	Total Cores	Mean Difference in Depth	% Difference in count	Total Cores	Mean Difference in Depth	% Difference in count	Total Cores	Mean Difference in Depth	% Difference in count	Total Cores	Mean Difference in Depth	% Difference in count	Total Cores	Mean Difference in Depth	% Difference in count
Hafnir	243	22.94	8	38.5	-0.02	3	123.5	0.01	0			47	8.35	0.23	1	32	0.01	3	7.67	0.02

Table 5. Coring deposit counts for cultural classes for the three time periods.

Place	Pre-1104			1104-1300			Post-1300		
	Maybe	No	Yes	Maybe	No	Yes	Maybe	No	Yes
Hafnir	93	104	46	122	91	30	143	95	5

Table 6. Coring deposit classes for pre-1104 “yes” or “maybe” cores with mean depth of deposit class.

Place	LDC		Midden		Turf		Floor	
	n	Mean Depth	n	Mean Depth	n	Mean Depth	n	Mean Depth
Hafnir	29	37	53	45.71698	43	35.7907	14	51.78571

Cores: Pre-1104

Cultural material

+	No cultural material		Maybe, Turf
	Yes, Cultural Layer		Yes, Cultural L
	Yes, Floor		Yes, Floor
	Yes, LDC		Yes, LDC
	Yes, Midden		Yes, Midden
	Yes, Mixed		Yes, Mixed
	Yes, Other		Yes, Other
	Yes, Turf		Yes, Turf

Cores: 1104-1300

Cultural material

+	No cultural material		Maybe, Turf
	Yes, Cultural Layer		Yes, Cultural Layer
	Yes, Floor		Yes, Floor
	Yes, LDC		Yes, LDC
	Yes, Midden		Yes, Midden
	Yes, Mixed		Yes, Mixed
	Yes, Turf		Yes, Turf

Figure 39. Key for interpreting core results.