

**Bigbreck Cottage  
Birsay  
Orkney**



**Watching Brief Data Structure Report**

January 2018

**Bigbreck Cottage**

**Birsay**

**Orkney**

**KW17 2LZ**

## **Watching Brief Data Structure Report**

**Project No: 735**

**ORCA**

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## Executive Summary

*This report sets out the results of a watching brief undertaken by Orkney Research Centre for Archaeology (ORCA) during groundworks at Bigbreck Cottage, Birsay, Orkney (NGR HY 26722 25042) as outlined in the relevant planning application (Planning Ref: 16/489/PP).*

*Following consultation with the Local Authority Archaeologist and in line with best practice, all ground-breaking works associated with the project were monitored. These works consisted of topsoil stripping by machine in the locations of a new soakaway and septic tank, and the extension to the domestic building and the creation of a temporary access road and working area.*

*During the groundworks a number of archaeologically significant features were identified close to the northeast corner of the Site. These features were a series of four sub-circular cuts; a sub-rectangular cut of similar size; and a group of four small sub-circular cuts forming a sub-rectangular pattern. The larger sub-circular features and the sub-rectangular feature were seen to contain burnt deposits including cremated human remains and were interpreted as a group of burials. The smaller sub-circular features were interpreted as post-holes forming the outline of a sub-rectangular structure. Though the function of the structure could not be identified on the basis of the evidence, it was clearly related to the burials. No cultural material was recovered from the deposits filling any of the features, but it is highly likely that the burials were related to the Bronze Age barrows and cists present in the landscape around and adjacent to the Site.*

*Following the exposure and hand-excavation of these features, the area was backfilled and all machine-excavation in the vicinity of the burials ceased. The new soakaway and septic tank were relocated closer to the standing building to mitigate any further impact on potential buried remains. It is recommended that archaeological mitigation measures should be employed prior to, or during, any groundworks on the Site as part of this, or any subsequent, development works.*

## Contents

|     |   |    |
|-----|---|----|
| 1   | Introduction .....                          | 6  |
| 2   | Site Location, Topography and Geology ..... | 6  |
| 3   | Archaeological Background .....             | 6  |
| 4   | Fieldwork Aims and Objectives .....         | 7  |
| 5   | Fieldwork Methodology .....                 | 8  |
| 6   | Fieldwork Results.....                      | 8  |
| 6.1 | Temporary Access Road.....                  | 8  |
| 6.2 | Building Extension and Foundations .....    | 9  |
| 6.3 | Soakaway and Septic Tank.....               | 9  |
| 6.4 | Revised Soakaway and Septic Tank.....       | 10 |
| 7   | Discussion .....                            | 11 |
| 7.1 | Original Research Aims .....                | 11 |
| 7.2 | Interpretative Issues.....                  | 12 |
| 8   | Conclusions and Recommendations.....        | 12 |
| 9   | Publication and Archiving.....              | 13 |
| 10  | Acknowledgements .....                      | 13 |
| 11  | Bibliography .....                          | 14 |
| 12  | NMRS OASIS Form.....                        | 15 |
|     | <b>Figures</b> .....                        | 17 |
|     | <b>Plates</b> .....                         | 23 |
|     | <b>Appendices</b> .....                     | 27 |

## Figures

*Front cover: Working shot showing excavation of archaeological features.*

|                  |   |    |
|------------------|---|----|
| <b>Figure 1:</b> | Site Location .....   | 17 |
| <b>Figure 2:</b> | Site Plan .....   | 18 |
| <b>Figure 3:</b> | Plan of Soakaway/Septic Tank Trench.....  | 19 |
| <b>Figure 4:</b> | Plan and west-facing section of burial cut <b>102</b> .....                                 | 20 |
| <b>Figure 5:</b> | Plan of feature <b>105</b> following removal of fill <b>106</b> ; and fully excavated. .... | 21 |
| <b>Figure 6:</b> | East-facing sections of postholes <b>117, 119, 121, 123</b> .....                           | 22 |

## Plates

|  |    |
|--|----|
| <b>Plate 1:</b> Machine stripping of topsoil <b>100</b> in the area of the temporary access, looking east.<br>.....  | 23 |
| <b>Plate 2:</b> General view, looking west, of the temporary access road, working area and former patio following completion of the topsoil strip. ....                  | 23 |
| <b>Plate 3:</b> General view, looking north, of archaeological features in northeast corner of the Site prior to hand-excavation.....                                    | 24 |
| <b>Plate 4:</b> West-facing section of burial cut <b>102</b> showing cremation material <b>103</b> and fill <b>104</b> .<br>.....  | 24 |
| <b>Plate 5:</b> Plan view, looking west, showing sub-rectangular cut <b>105</b> prior to hand-excavation.<br>.....   | 25 |
| <b>Plate 6:</b> East-facing section of posthole <b>123</b> with fill <b>124</b> .....  | 25 |
| <b>Plate 7:</b> Plan view, looking northwest, of possible four-post structure showing postholes <b>117</b> , <b>119</b> , <b>121</b> and <b>123</b> half-sectioned. .... | 26 |
| <b>Plate 8:</b> General view, looking west, of the machine-stripped areas for the soakaway and septic tank.....  | 26 |

## 1 Introduction

This report was commissioned by Gavin Barr and forms the Data Structure Report (DSR) for an archaeological watching brief carried out on land at Bigbreck Cottage, Birsay (hereafter referred to as 'the Site') on groundworks associated with an extension to the property, and the installation of additional waste water services. The development extends the domestic curtilage of the property into existing agricultural land to the north and east of the current Site.

The works monitored comprised the excavation of foundation trenches for the construction of an extension to the north and east sides of the domestic property; the installation of a new septic tank and soakaway to the east of the property; the installation of buried services linking the property and the new septic tank; and the removal of topsoil to create a temporary access road to the north of the property. The fieldwork was carried out between 29 September and 10 October 2017.

The work was undertaken in order to discharge the archaeological Planning Condition placed on the development (Planning Ref: 16/489/PP). All works were carried out in accordance with the previous Written Scheme of Investigation (WSI) for the works (ORCA 2017), which sets out the legislation framework and planning background in detail, and the ORCA Standard operating procedures as set out in the ORCA Field Manual (2013).

This report has been prepared in accordance with the standards and guidance specified by the Chartered Institute of Archaeologists (CIfA 2014).

## 2 Site Location, Topography and Geology

The Site comprises a single-storey domestic with front and rear garden situated adjacent to the A967 highway at National Grid reference (NGR) HY 26722 25042 (**Figure 1**), and lies within agricultural land at approximately 36m above Ordnance Datum (mAOD).

The Site is bounded to the north, east and south by agricultural land used for grazing, and to the west by the A967 highway. A series of prehistoric barrows, including a number designated as a Scheduled Ancient Monument (SM1357), are located in close proximity to the north and northeast of the Site. It is likely that the fields to the east and southeast also contained barrows, now ploughed out<sup>1</sup>.

The solid geology is siltstone, mudstone and sandstone of the Upper Stromness Flagstone Formation with an overlying superficial geology of Devensian glacial till (<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>).

## 3 Archaeological Background

The following provides a brief summary of archaeological records for the area covered by the watching brief.

Orkney is in possession of an exceptionally rich prehistoric archaeological landscape with numerous sites dating from the Mesolithic through to the Iron Age present across the islands,

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<sup>1</sup> J Downes, pers comm

including the 'Heart of Prehistoric Orkney' designated UNESCO World Heritage site (Historic Scotland 2014). A number of prehistoric sites lie in close proximity to the Site.

A Bronze Age barrow cemetery, Ravie Hill (Canmore ID 1792), is located immediately to the north and east of the Site, and is designated as a Scheduled Ancient Monument (SM1357). There are at least ten known barrows, probably more, within the cemetery, measuring from between 4m and 12m, and up to 1.25m in height. A number of these mounds contained cists.

A possible barrow, Strathyre (Canmore ID 1778), lies approximately 190m to the northwest of the Site, though this is now surmounted by farm buildings. A further barrow, Queenafield (Canmore ID 1869), is located approximately 250m to the southwest of the Site.

There is a high density of known archaeological sites (mainly mounds) in the vicinity that cluster around the south and east flanks of Ravie Hill and it is probable that the known sites may be part of a larger, and more extensive barrow cemetery across much of Ravie Hill.

## 4 Fieldwork Aims and Objectives

In consultation with the Local Authority Planning Archaeologist an archaeological watching brief was undertaken on the site in order to record any archaeologically significant deposits or features which may indicate the presence of sites of archaeological significance. The works were designed to mitigate the impact of the groundworks on any potential archaeological deposits.

The purpose of an archaeological watching brief as defined by the ClfA is

*to allow, within the resources available, the preservation by record of archaeological deposits, the presence and nature of which could not be established (or established with sufficient accuracy) in advance of development or other potentially disruptive works*

A watching brief is further defined as (ClfA 2014a):

*a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is the possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.*

*This definition and Standard do not cover chance observations, which should lead to an appropriate archaeological project being designed and implemented, nor do they apply to monitoring for preservation of remains in situ.*

In all cases, a watching brief will be intended:

*to provide an opportunity, if needed, for the watching archaeologist to signal to all interested parties, before the destruction of the material in question, that an archaeological find has been made for which the*

*resources allocated to the watching brief itself are not sufficient to support treatment to a satisfactory and proper standard.*

*A watching brief is not intended to reduce the requirement for excavation or preservation of known or inferred deposits, and it is intended to guide, not replace, any requirement for contingent excavation or preservation of possible deposits.*

*The objective of a watching brief will be intended to establish and make available information about the archaeological resource existing on a site.*

Given the limited nature of the current scheme and the attendant watching brief, it was unreasonable to establish any specific archaeological research objectives. The archaeological brief was essentially limited to establishing where, if at all, archaeological deposits survived (presence/ absence), recording where necessary, and ensuring that the groundworks did not involve the destruction of any archaeological deposits of national significance. Nevertheless, in addition, a few research questions were outlined:

- *What was the nature and level (mAOD) of the natural topography?*
- *What is the character, nature and depth of the earliest deposits identified?*
- *Are there any archaeological features present which can be related to known prehistoric remains and sites within the vicinity of the Site?*
- *What is the character and nature of the latest deposits identified?*
- *What is the extent (depth) of modern truncation?*

## 5 Fieldwork Methodology

All works were carried out in accordance with the WSI for the works (ORCA 2017) and the ORCA standard operating procedures as set out in the ORCA Fieldwork Manual (2013), with the guidelines as set out by the Chartered Institute for Archaeologists (2014a) and in line with industry current best practice.

In all excavated areas, the stratigraphic sequence was recorded on pro forma ORCA daily record sheets, detailing the deposits observed (**Appendix 1**) and photographs were taken throughout the monitoring works (**Appendix 2**).

## 6 Fieldwork Results

All context numbers are given in **bold** following their description.

### 6.1 Temporary Access Road

The temporary access road covered a sub-rectangular area to the north of the cottage measuring approximately 24m by 3.5m running from a gated entrance which provided access to the agricultural field from the metalled highway (**Figure 2**). The area was covered by a turf

and topsoil layer **100**, 0.1m to 0.25m thick directly overlaying the sandy clay glacial till **101** (**Plate 1**).

The glacial till **101** had been disturbed at its west end as a result of the road construction and the use of the gated entrance. A small, amorphous, periglacial feature, approximately 1.0m in diameter was noted at the south edge of the stripped area, approximately 4.5m east from the gated entrance.

No features or deposits of archaeological significance were identified in the stripped area.

## 6.2 Building Extension and Foundations

An irregular-shaped area adjacent to the southeast edge of the temporary access road was stripped, measuring approximately 6m by 4.5m. Much of this area was covered by turf and topsoil **100**, though an area immediately adjacent to the east wall of the cottage had been covered by a former patio surface (**Plate 2**). A manhole was also present in this area.

No features or deposits of archaeological significance were identified in the stripped area.

## 6.3 Soakaway and Septic Tank

The soakaway was to be located in the northeast corner of the Site. Machine excavation removed the topsoil **100** from an area measuring 7m by 2m, orientated approximately north-south, exposing a number of archaeological features (**Plate 3**). These were subsequently hand-excavated.

The glacial till **101**, a mottled yellow and brown sandy clay, was exposed throughout the trench. A series of archaeological features were seen to be cut into **101**, generally located towards the south end of the trench (**Figure 3**). These were all sealed by a layer of light grey-brown silty clay **109**, between 0.1 and 0.15m thick, which marked the interface between the topsoil and the archaeologically significant deposits.

A series of sub-circular features (**102**, **107**, **125**, and **128**) were interpreted as cremation burials. At the north edge of the spread of burial was cut **102**. This measured between 0.62 and 0.67m in diameter, and 0.13m in depth with a wide U-shape profile (**Figure 4**). Cut **102** was filled with a mottled grey-brown and orange silty clay **104** around a sub-circular deposit of very dark greyish brown silty clay **103** which contained burnt bone (c.10%), 2-20mm in length, and flecks of charcoal (c.10%) up to 2mm in length (**Plate 4**). Deposit **103** was interpreted as cremated material with **104** being interpreted as a mix of topsoil and glacial till used to backfill the cut once the cremated material had been placed within it.

Approximately 0.75m south of **102** was cut **107**, measuring between 0.45 and 0.51m in diameter, and 0.14m in depth with a flat base. Cut **107** was filled with a charcoal-rich, dark grey-coloured silty clay **108**. Deposit **108** contained lenses of redeposited till and no burnt material was identified within the matrix. The texture of the material indicates, however, that deposit **108** contains pyre material and is clearly related to the surrounding cremation burials.

Cut **107** truncated an earlier feature, **114**. This was a sub-circular feature measuring between 0.14 and 0.22m in diameter, and 0.08m in depth. The primary fill of **114** was a charcoal-rich, dark grey-coloured silty clay **115**, very similar to deposit **108** filling **107**, and interpreted as a pyre-related deposit. This was partially overlain by deposit **116**, a light grey-brown silty clay which was very similar to the overlying **109**.

Approximately 0.25m southwest of **107** was cut **125**, measuring up to 0.45m in diameter. The feature remained unexcavated but fragments of burnt bone were visible in the exposed surface of the dark grey brown silty clay **126** filling **125**. A stone, **127**, appeared to have been placed in the northeast edge of cut **125**. Stone **127** was 0.21m in length, 0.12m wide with an exposed height of 0.03m.

The remaining sub-circular feature, cut **128**, was only partially exposed, lying on the west-edge of the exposed area. Cut **128** was at least 0.4m in diameter and was filled with a dark red-brown silty clay **129** with pyre-material and burnt bone visible in the exposed surface. Cut **128** remained unexcavated.

Lying between burial cuts **102** and **107** was feature **105** (**Plate 5**), which was also cut into the glacial till **101**. Cut **105** was rectangular in plan, with rounded corners, measuring 0.68m by 0.54m, orientated northeast-southwest, (see **Figure 3**). The edges of the feature were packed with a dark brownish-grey clayey silt **113** (**Figure 5**) which appeared to act as packing material around a series of orthostats **111**. These orthostats were present on the northwest, southwest and southeast sides of **107** measuring, on average, 0.36m by 0.2m by 0.1m, though the northwest orthostat was heavily degraded. Butting against the interior faces of **111**'s constituents was a mid-grey silty clay **110**, up to 0.09m wide at its base. **110** was present in the northeast corner, where it was mixed with other deposits from within **105** probably indicating that an orthostat, as part of **111**, had originally been present and subsequently removed. The central area of **105**, bounded by **110**, measured 0.55m by 0.29m and was filled with a very dark reddish brown clayey silt **106**, 0.14m thick. Deposit **106** contained burnt bone fragments (c.7%), burnt sand (5%), and burnt clay (2%), interpreted as a mixed bone and pyre debris deposit.

To the northeast of **102** and **105** was a series of four smaller, sub-circular features **117**, **119**, **121** and **123** cut into the till **101**. These measured between 0.25 and 0.35m in diameter with a depth of between 0.06m and 0.08m (**Figure 6**). All the features were filled with a grey-brown silty clay (**118**, **120**, **122** and **124**) with some charcoal flecks (<1%). Fills **118** (of cut **117**) and **124** (of cut **123**) were very similar and homogenous (**Plate 6**). Fill **120** (of cut **119**) also had burnt clay inclusions (<1%) and a sub-rectangular flagstone fragment measuring 0.16m by 0.08m by 0.05m. Fill **120** appeared to have a slightly darker hue to the north-side of this stone, which was interpreted as a displaced packing stone. Fill **122** (of cut **121**) also had burnt clay inclusions along with a single fragment of burnt bone. Features **117**, **119**, **121** and **123** were interpreted as postholes forming a four-post structure with a footprint measuring approximately 0.52m by 0.48m (**Plate 7**). This structure was probably related to the cremated burials to the south.

The edge of a modern geotechnical investigation pit was visible in the exposed area, 0.12m to the northwest of the possible four-post structure.

Following completion of the hand-excavations, orange netlon fencing was laid across the base of the trench which was then backfilled with the excavated material. A second layer of netlon was added after 0.05m of backfill had been deposited.

#### **6.4 Revised Soakaway and Septic Tank**

Due to the presence of archaeologically significant material in the northeast corner of the Site, it was decided to revise the location of the new soakaway and septic tank to avoid the known location of the archaeological features. The soakaway and the septic tank were now to be

located to the west of their original intended location, with the soakaway to the north of the now-redundant septic tank.

An area measuring 7m by 4.5m was excavated for the soakaway with a smaller area to the east measuring 2.9m by 2.2m for the septic tank. These areas were linked by a trench measuring 1.9m by 1.7m (**Plate 8**).

Throughout the stripped areas the turf and topsoil layer **100** was seen to directly overlay the glacial till **101**. No features or material of archaeological significance were identified in the stripped areas. A modern geotechnical investigation pit was present in the area of the septic tank.

## 7 Discussion

### 7.1 Original Research Aims

The archaeological brief was essentially limited to establishing where, if at all, archaeological deposits survived, recording where necessary, and ensuring that the groundworks did not involve the destruction of any archaeological deposits of national significance. Nevertheless, in addition, a few research questions were outlined.

*What was the nature and level (mAOD) of the natural topography?*

The underlying natural deposits were identified as glacial till, the surface of which uniformly followed the sloping nature of the current ground surface down from the A967 highway to the Loch of Boardhouse. The glacial till was encountered at 36.99mAOD at the Site boundary with the highway, and at between 35.07m and 34.58mAOD at the revised location for the soakaway and septic tank. Along the east edge of the Site, in proximity to the archaeological features, the glacial till was encountered at between 34.51m and 34.55mAOD.

*What is the character, nature and depth of the earliest deposits identified? Are there any archaeological features present which can be related to known prehistoric remains and sites within the vicinity of the Site?*

The archaeological features identified were all located within the stripped area in the northeast corner of the Site. With the exception of sub-rectangular cut **105**, the features were all sub-circular cuts in to the glacial till and represented the earliest surviving anthropogenic deposits on the Site. The nature of the fills of these features, consisting of material containing burnt bone fragments and other burnt deposits and soils indicate that these features were related to the burial of cremated human remains. Though no cultural material was recovered from any of the features, it is highly probable that the burial features are of a similar date to the barrows in close proximity to the Site and form part of a wider, Bronze Age cemetery. There was no surviving evidence for the presence of a mound over the burial cuts, though deposit **109** which was interpreted as a possible capping material over the features may be the remnant of material used to form a mound.

It was not possible to identify the function of the four-post structure **117/ 119/ 121/ 123** on the basis of the current evidence. The nature of the material filling the post-hole cuts, however, indicate that the features are related to the adjacent burials investigated.

*What is the character and nature of the latest deposits identified? What is the extent (depth) of modern truncation?*

No archaeological features were identified which post-dated the burial deposits. The archaeologically significant features were all directly below the modern topsoil which had a maximum thickness of 0.25m.

## **7.2 Interpretative Issues**

The archaeological watching brief allowed the presence of archaeological material to be established. These were identified as buried, cremated material probably forming part of a larger cemetery. The current scheme of works only exposed a limited area, and the identification of archaeological features resulted in a revision of the scheme to prevent the exposure of further archaeological features. The limited extent of the groundworks did not allow for the identified features to be directly related to the known archaeological resource and also limited the evidence available for placing the features in a wider context. The full extent of the archaeological features on the Site was not confirmed. If the features represent a small, distinct grouping of burials, its boundaries were not identified due to the limited extent to which the features were exposed during the current scheme of works.

## **8 Conclusions and Recommendations**

The archaeological mitigation measures employed during the current scheme of works were successful in identifying the presence of archaeological features on the Site. The measures also allowed the features to be characterised and a number of conclusions to be proposed regarding their function and date.

By identifying the presence and location of a number of archaeological features, the mitigation measures were successful in allowing the development to be suitably revised to avoid the disturbance of further archaeological features and for these to be preserved *in-situ*.

It is highly likely that the features exposed were related to the burial of cremated human remains and date from the Bronze Age, and are associated with the nearby barrows, SM1357, probably as part of an extensive area of cremation burials between and around the barrows. The full extent of surviving archaeological material on the Site was not established and it is highly likely that further features exist on the Site to the west, east and south to the area of topsoil stripping in the northeast corner of the Site. These features are also likely to be cut into, or be present on the upper surface of, the glacial till and underlying approximately 0.1m to 0.25m thickness of topsoil.

It is recommended that any further groundworks, both within the Site itself or in close proximity, are subject to archaeological mitigation. This would preferably be in the form of archaeological fieldwork prior to the commencement of groundworks. This recommendation applies to any further works in the current scheme or any subsequent proposals for the Site and the immediate area outwith the Site.

Further work is also recommended on the material retrieved during this project, comprising

Processing of soil samples

Analysis of artefacts and ecofacts from the samples

Dating of suitable material from the samples. At the time of writing four dating samples are proposed, see table below. These have been chosen to provide two dates for the cremations (**103** and **115**); a date for the four-post structure (**122**) and a date for the anomalous sub-rectangular feature (**106**).

Table 1 Proposed radiocarbon dating samples

| <b>Context number</b> | <b>Context type</b>                             | <b>Material</b>            |
|-----------------------|---|----------------------------|
| <b>103</b>            | Fill of cremation feature                       | Burnt bone and/or charcoal |
| <b>106</b>            | Fill of sub-rectangular feature                 | Burnt bone and/or charcoal |
| <b>115</b>            | Fill of cremation feature cut by later feature  | Charcoal                   |
| <b>122</b>            | Fill of one of the four-post structure features | Burnt bone                 |

The final decision as to the requirement for further work on the site rests with the Orkney Islands Council designated Planning Archaeologist.

## 9 Publication and Archiving

A short report to Discovery and Excavation Scotland will be generated by the OASIS form once this report is uploaded. Further publication may be considered appropriate once the results of the work on samples and dating material are complete.

Archive preparation and deposition will be undertaken with reference to the appropriate ClfA standards and guidance (ClfA 2014b), repository guidelines and standards, and, where necessary, the Museums and Galleries Commission (MGC) and the United Kingdom Institute for Conservation (UKIC) standards and guidelines. The project archive containing the original site records will be submitted to the RCAHMS or the Orkney SMR, as appropriate.

Materials recovered during the investigation will be subject to the standard disposal procedures operated under the Treasure Trove and Bona Vacantia laws and reported to the Scottish Treasure Trove Unit or the Queens and Lord Treasurer's Remembrancer as appropriate, for disposal to an appropriate museum.

Findings have been submitted to the national record via the OASIS system (see **Section 12**), and a short report for Discovery and Excavation Scotland will be generated.

Information on the results of the report will be made public in digital form so as to be included in any further research into the archaeology, history and development of Orkney.

## 10 Acknowledgements

The author would like to thank Gavin Barr for commissioning the work, and the on-site contractors. Thank you also to Julie Gibson, the Local Authority Planning Archaeologist.

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## 12 NMRS OASIS Form

**OASIS ID: orkneyre1-303169**

### Project Details

|  |   |
|--|---|
| Project name                           | Bigbreck Cottage, Birsay  |
| Short description of the project       | An archaeological watching brief was undertaken during the installation of a new soakaway and septic tank, along with a small extension to the cottage. The works also required the topsoil stripping of a temporary access road and work area. |
| Project dates                          | Start: 29-09-2017 End: 10-10-2017   |
| Previous/future work                   | No / No   |
| Any associated project reference codes | 735 - Contracting Unit No.  |
| Type of project                        | Recording project   |
| Site status                            | None  |
| Current Land use                       | Rough Grazing   |
| Monument type                          | CREMATION Prehistoric   |
| Monument type                          | POSTHOLE Prehistoric  |
| Significant Finds                      | None  |
| Investigation type                     | Watching Brief  |
| Prompt                                 | Planning condition  |

### Project Location

|                   |   |
|-------------------|---|
| Country           | Scotland  |
| Site location     | ORKNEY ISLANDS BIRSAY AND HARRAY Bigbreck Cottage                           |
| Postcode          | KW17 2LZ  |
| Study area        | 2885 Square metres  |
| Site coordinates  | HY 26722 25042 59.106351656965 -3.279580639613 59 06 22 N 003 16 46 W Point |
| Height OD / Depth | Min: 34.51m Max: 36.99m   |

### Project Creators

|                           |   |
|---------------------------|---|
| Name of Organisation      | Orkney Research Centre for Archaeology                                |
| Project brief originator  | Local Authority Archaeologist and/or Planning Authority/advisory body |
| Project design originator | Orkney Research Centre for Archaeology                                |

|                              |              |
|------------------------------|--------------|
| Project director/manager     | Pete Higgins |
| Project supervisor           | Dave Reay    |
| Type of sponsor/funding body | Developer    |
| Name of sponsor/funding body | Gavin Barr   |

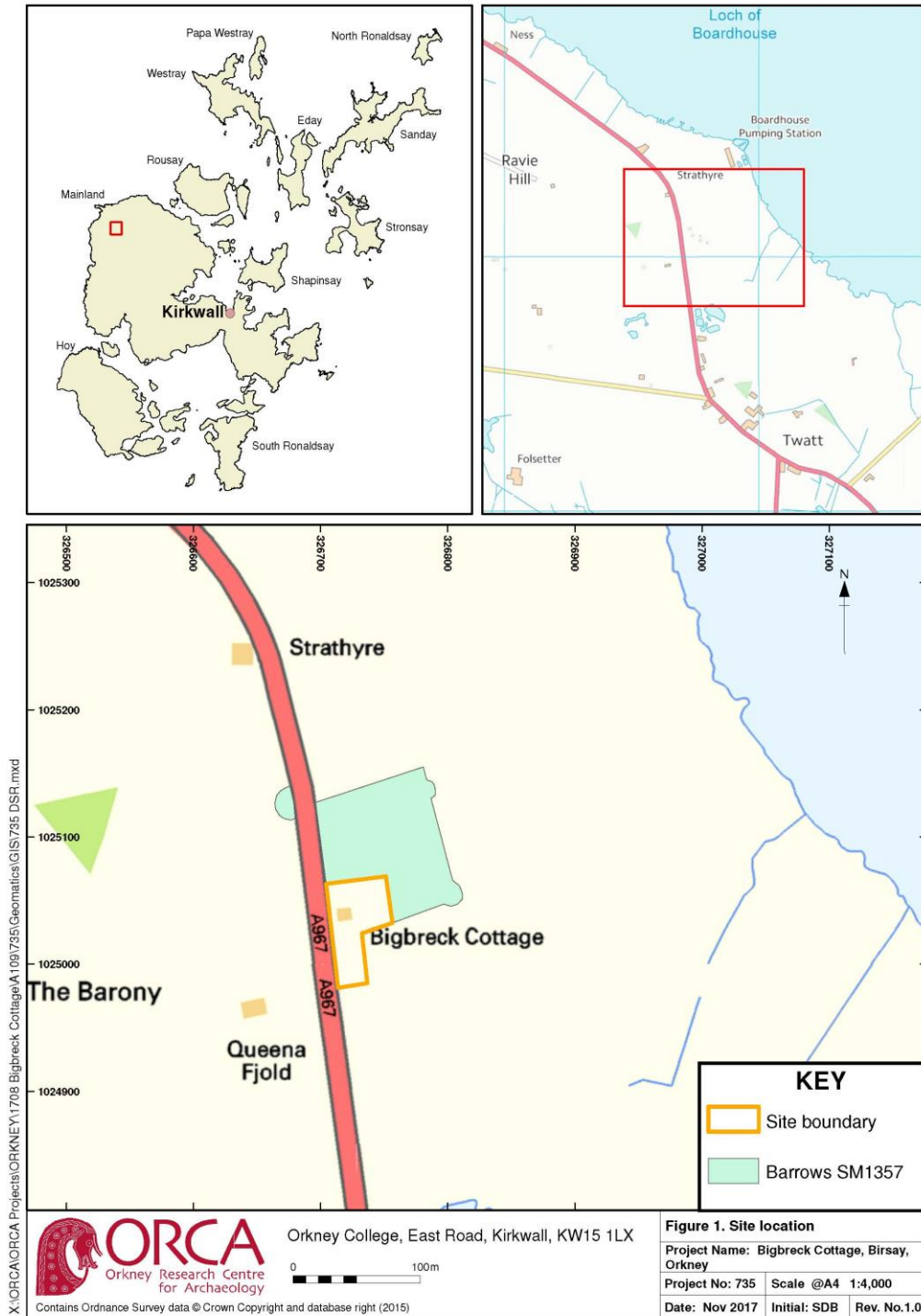
### Project Archives

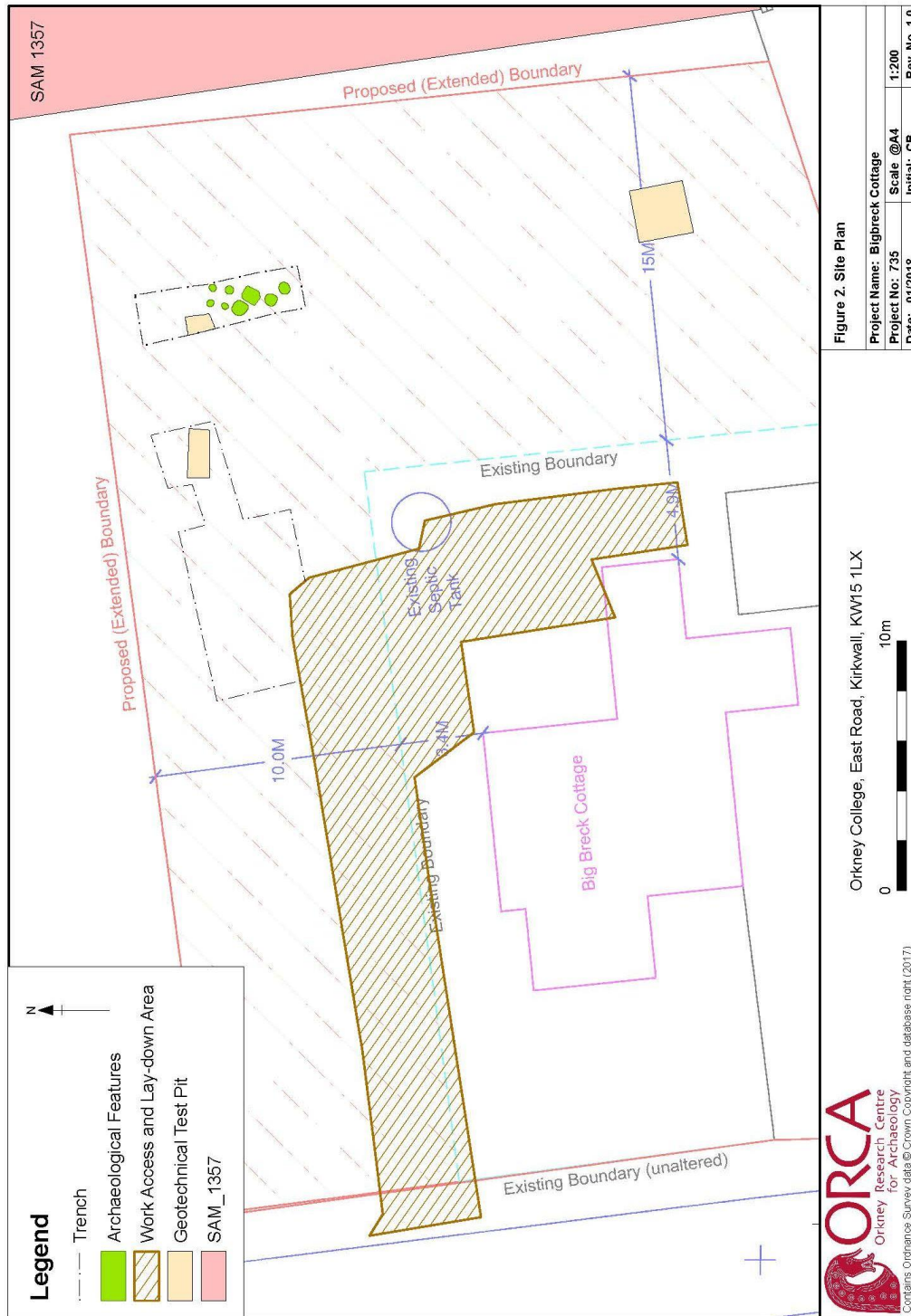
|                            |   |
|----------------------------|---|
| Physical Archive recipient | Orkney Museum                                     |
| Physical Contents          | Human remains                                     |
| Digital Archive recipient  | RCAHMS  |
| Digital Contents           | None  |
| Digital Media available    | Images raster / digital photography; Survey; Text |
| Paper Archive recipient    | RCAHMS  |
| Paper Contents             | None  |
| Paper Media available      | Context sheet; Drawing; General Notes; Report     |

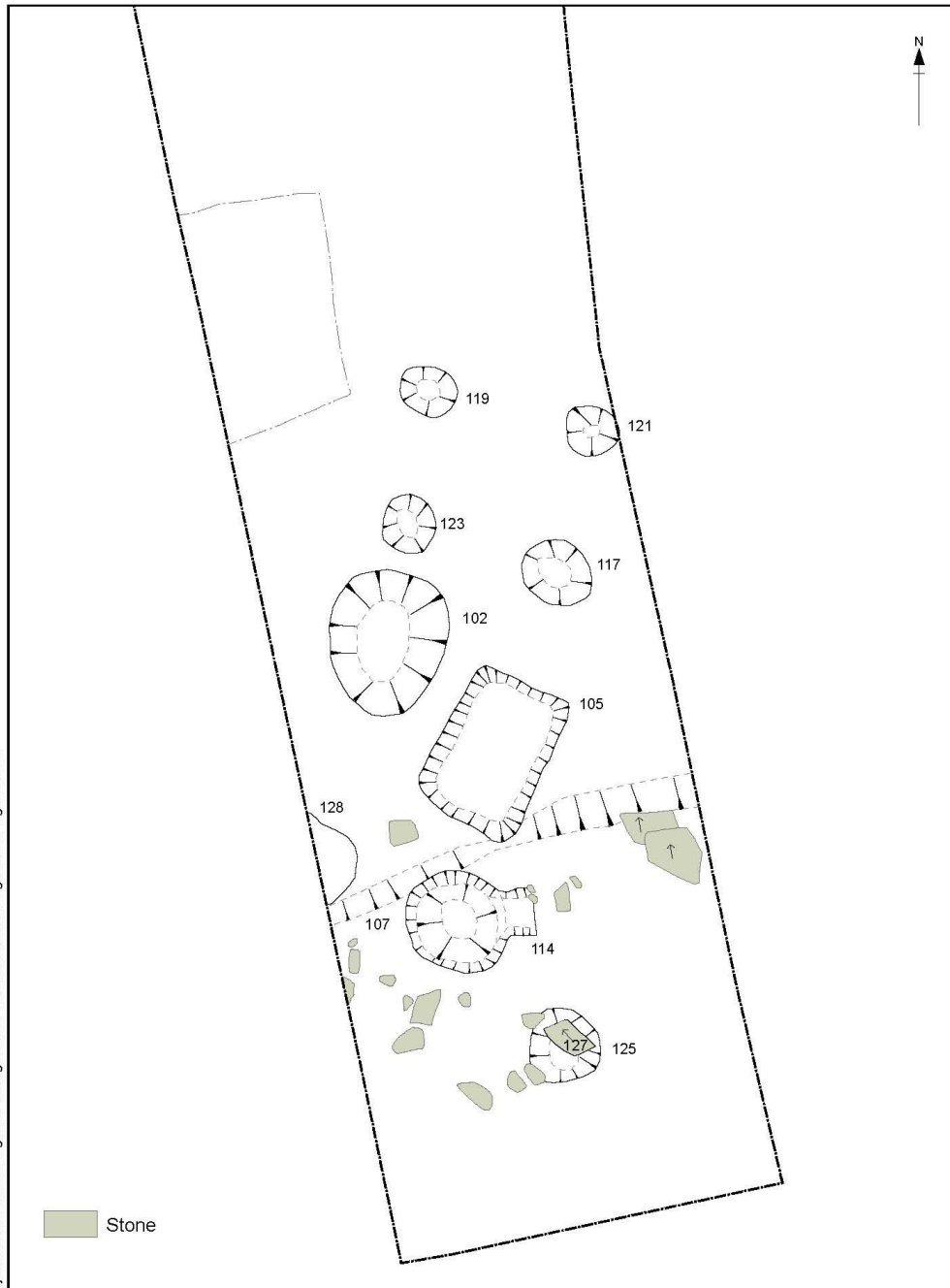
### Project Bibliography

|                               |   |
|-------------------------------|---|
| Publication type              | Grey literature (unpublished document/manuscript)                       |
| Title                         | Bigbreck Cottage, Birsay, Orkney - Watching Brief Data Structure Report |
| Author(s)/Editor(s)           | Bell, S.  |
| Date                          | 2017  |
| Issuer or publisher           | Orkney Research Centre for Archaeology                                  |
| Place of issue or publication | Kirkwall  |
| Description                   | Unpublished client report   |

# Figures







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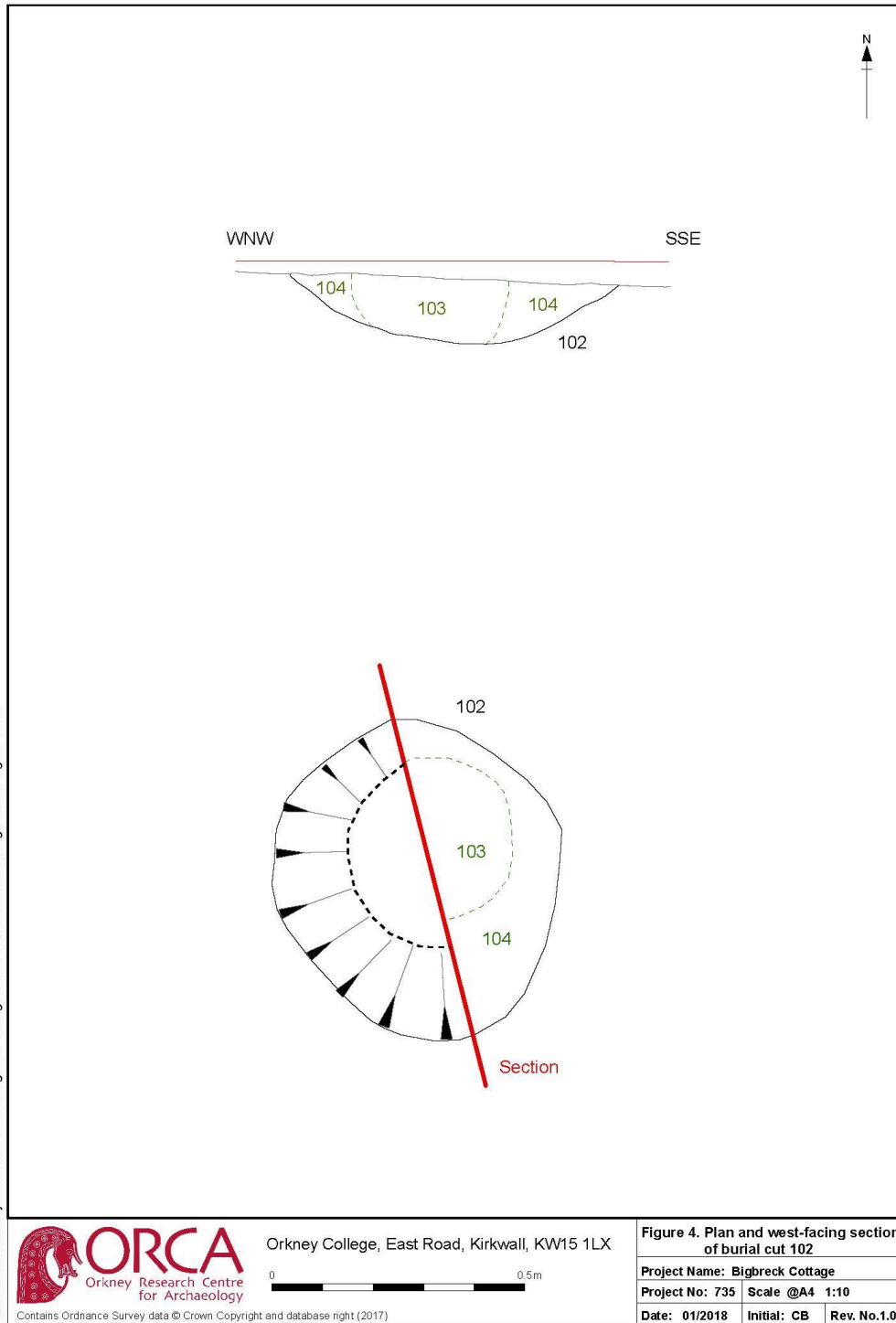
Orkney College, East Road, Kirkwall, KW15 1LX

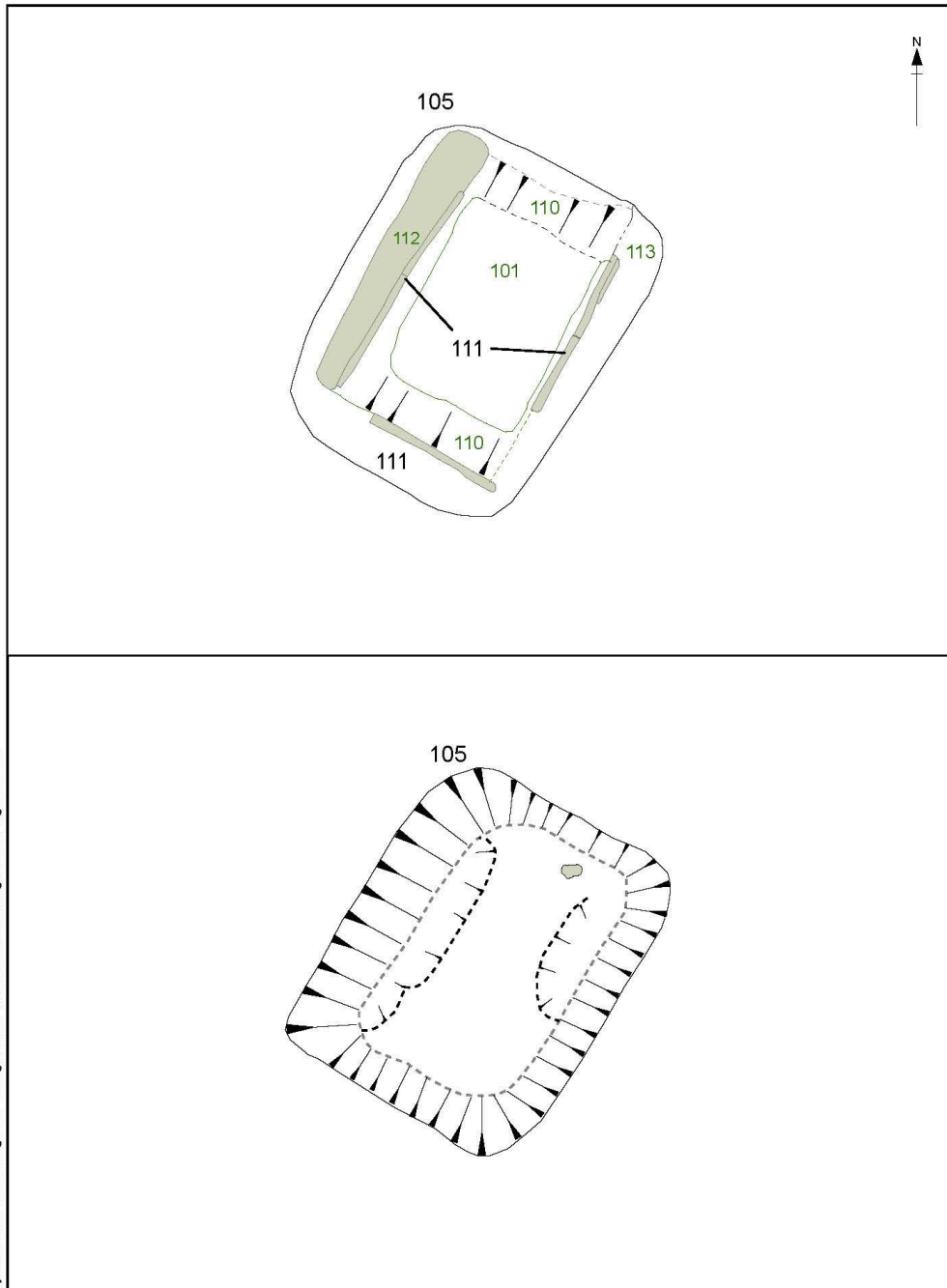
0 0.8m

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Figure 3. Plan of Soakaway/Septic Tank Trench

|                                       |             |             |
|---------------------------------------|-------------|-------------|
| Project Name: <b>Bigbreck Cottage</b> |             |             |
| Project No: 735                       | Scale @A4   | 1:25        |
| Date: 01/2018                         | Initial: CB | Rev. No.1.0 |





X:\ORCA\ORCA Projects\ORKNEY\1708 Bigbreck Cottage\A109\735\Geomatics\GIS\Figures\735 Figures 5.mxd



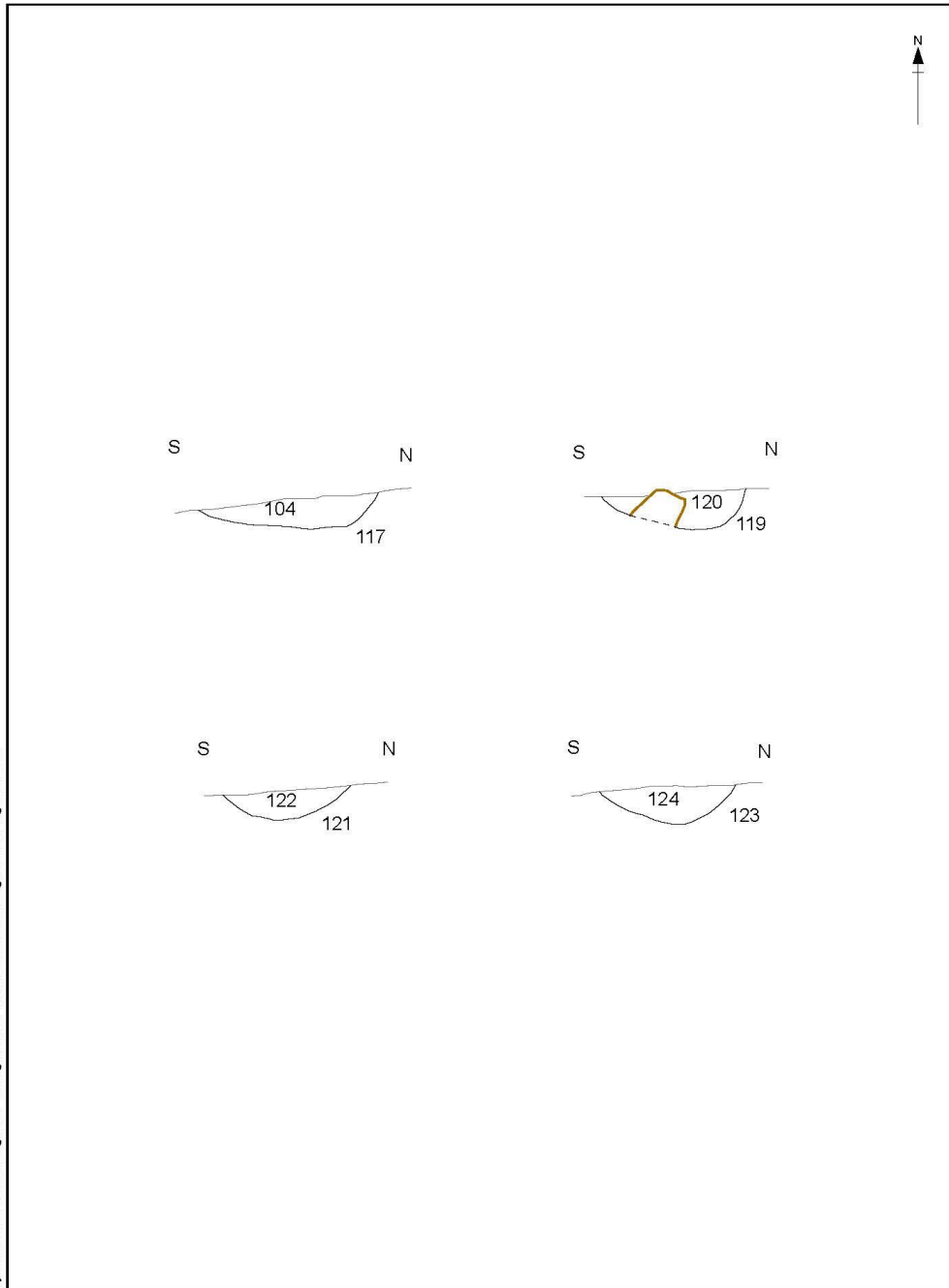
Orkney College, East Road, Kirkwall, KW15 1LX



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**Figure 5. Plan of feature 105 following removal of fill 106; and fully excavated**

|                                |             |             |
|--------------------------------|-------------|-------------|
| Project Name: Bigbreck Cottage |             |             |
| Project No: 735                | Scale @A4   | 1:10        |
| Date: 01/2018                  | Initial: CB | Rev. No.1.0 |



X:\ORCA\ORCA Projects\ORKNEY\1708 Bigbreck Cottage\A109\735\Geomatics\GIS\Figures\735 Figure 6.mxd



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|  |                    |                     |
|--|--------------------|---------------------|
| <b>Figure 6. East-facing sections of postholes 117, 119, 121 and 123</b> |                    |                     |
| Project Name: <b>Bigbreck Cottage</b>                                    |                    |                     |
| Project No: <b>735</b>   | Scale <b>@A4</b>   | <b>1:10</b>         |
| Date: <b>01/2018</b>   | Initial: <b>CB</b> | Rev. No. <b>1.0</b> |

## Plates



**Plate 1:** Machine-stripping of topsoil 100 in the area of the temporary access, looking east.



**Plate 2:** General view, looking west, of the temporary access road, working area and former patio following completion of the topsoil strip.



**Plate 3:** General view, looking north, of archaeological features in northeast corner of the Site prior to hand-excavation.



**Plate 4:** West-facing session of burial cut **102** showing cremation material **103** and fill **104**.



**Plate 5:** Plan view, looking west, showing sub-rectangular cut **105** prior to hand-excavation.



**Plate 6:** East-facing section of posthole **123** with fill **124**.



**Plate 7:** Plan view, looking northwest, of possible four-post structure showing postholes 117, 119, 121 and 123 half-sectioned.



**Plate 8:** General view, looking west, of the machine-stripped areas for the soakaway and septic tank.

## Appendices

### Appendix 1 Context Register

| Context | Type      | Description  |
|---------|-----------|--|
| 100     | Layer     | Topsoil  |
| 101     | Layer     | Glacial till   |
| 102     | Cut       | Cut of pit for cremation burial                              |
| 103     | Fill      | Cremation burial within <b>102</b>                           |
| 104     | Fill      | Backfill within <b>102</b>                                   |
| 105     | Cut       | Cut of rectangular feature containing cremation burial       |
| 106     | Fill      | Cremation burial within <b>105</b>                           |
| 107     | Cut       | Cut of sub-circular pit                                      |
| 108     | Fill      | Fill of pit <b>107</b> containing cremation related material |
| 109     | Layer     | Possible capping material over cremation features            |
| 110     | Fill      | Possible clay lining in <b>105</b>                           |
| 111     | Structure | Two small possible orthostats in <b>105</b>                  |
| 112     | Fill      | Redeposited glacial till occupying west side of <b>105</b>   |
| 113     | Fill      | Backfill deposit around sides of <b>105</b>                  |
| 114     | Cut       | Cut of small sub-circular pit, truncated by <b>107</b>       |
| 115     | Fill      | Black fill of pit <b>114</b>                                 |
| 116     | Fill      | Upper fill of pit <b>114</b>                                 |
| 117     | Cut       | Cut of post-hole, part of 4 post structure                   |
| 118     | Fill      | Fill of <b>117</b>   |
| 119     | Cut       | Cut of post-hole, part of 4 post structure                   |
| 120     | Fill      | Fill of <b>119</b>   |
| 121     | Cut       | Cut of post-hole, part of 4 post structure                   |
| 122     | Fill      | Fill of <b>121</b>   |
| 123     | Cut       | Cut of post-hole, part of 4 post structure                   |
| 124     | Fill      | Fill of <b>123</b>   |
| 125     | Cut       | Cut of sub-circular pit for probable cremation burial        |
| 126     | Fill      | Unexcavated cremation burial                                 |
| 127     | Structure | Possible orthostat within <b>125</b>                         |
| 128     | Cut       | Cut of pit for probable cremation burial                     |
| 129     | Fill      | Probable cremation burial within <b>128</b>                  |

## Appendix 2 Photographic Register

| Batch | Frame | Site Subdivision       | Description                                    | Direction of shot |
|-------|-------|------------------------|--|-------------------|
| 1     | 1     |                        | Pre-excavation shot of site and exclusion zone | N                 |
| 1     | 2     |                        | Pre-excavation shot of site and exclusion zone | NE                |
| 1     | 3     |                        | Pre-excavation shot of site and exclusion zone | E                 |
| 1     | 4     |                        | Pre-excavation shot of site and exclusion zone | E                 |
| 1     | 5     |                        | Pre-excavation shot of site and exclusion zone | SE                |
| 1     | 6     |                        | Pre-excavation shot of site and exclusion zone | S                 |
| 1     | 7     |                        | Pre-excavation shot of site and exclusion zone | N                 |
| 1     | 8     |                        | Pre-excavation shot of site and exclusion zone | W                 |
| 1     | 9     |                        | Pre-excavation shot of site and exclusion zone | NW                |
| 1     | 10    |                        | Pre-excavation shot of site and exclusion zone | W                 |
| 1     | 11    |                        | Pre-excavation shot of site and exclusion zone | NW                |
| 1     | 12    |                        | Pre-excavation shot of site and exclusion zone | N                 |
| 1     | 13    |                        | Pre-excavation shot of site and exclusion zone | N                 |
| 1     | 14    |                        | Pre-excavation shot of site and exclusion zone | E                 |
| 1     | 15    | Access / working areas | Access road strip                              | E                 |
| 1     | 16    | Access / working areas | Access road strip                              | E                 |
| 1     | 17    | Access / working areas | Access road strip                              | E                 |
| 1     | 18    | Access / working areas | Access road, possible features excavated       | E                 |
| 1     | 19    | Access / working areas | Access road, possible features excavated       | E                 |
| 1     | 20    | Access / working areas | Access road, wheel rut excavated               | S                 |
| 1     | 21    | Access / working areas | Access road, "cut" in entrance                 | S                 |
| 1     | 22    | Access / working areas | Access road, periglacial feature               | E                 |
| 1     | 23    | Access / working areas | Access road, periglacial feature               | S                 |
| 1     | 24    | Access / working areas | Access road, periglacial feature, location     | W                 |
| 1     | 25    | Access / working areas | Strip of working area                          | E                 |
| 1     | 26    | Access / working areas | Strip of working area                          | E                 |
| 1     | 27    | Northeast corner       | Septic tank strip                              | E                 |
| 1     | 28    | Northeast corner       | Septic tank strip                              | E                 |
| 1     | 29    | Northeast corner       | View of stripped area                          | W                 |
| 1     | 30    | Northeast corner       | Septic tank strip                              | W                 |
| 1     | 31    | Northeast corner       | Probable cremations, as exposed                | S                 |
| 1     | 32    | Northeast corner       | Probable cremations, as exposed                | S                 |
| 1     | 33    | Northeast corner       | Probable cremations, as exposed                | E                 |
| 1     | 34    | Northeast corner       | Probable cremations, after cleaning            | N                 |

| Batch | Frame | Site Subdivision | Description  | Direction of shot |
|-------|-------|------------------|--|-------------------|
| 1     | 35    | Northeast corner | Probable cremations, after cleaning  | N                 |
| 1     | 36    | Northeast corner | Probable cremations, after cleaning  | E                 |
| 1     | 37    | Northeast corner | Probable cremations, after cleaning  | E                 |
| 1     | 38    | Northeast corner | Probable cremations, and capping material  | E                 |
| 1     | 39    | Northeast corner | Probable cremations, and capping material  | E                 |
| 1     | 40    | Northeast corner | West-facing section of cut <b>102</b> showing cremation <b>103</b>                     | E                 |
| 1     | 41    | Northeast corner | West-facing section of cut <b>102</b> showing cremation <b>103</b> and fill <b>104</b> | E                 |
| 1     | 42    | Northeast corner | West-facing section of cut <b>102</b> showing cremation <b>103</b> and fill <b>104</b> | E                 |
| 1     | 43    | Northeast corner | West-facing section of cut <b>102</b> showing cremation <b>103</b> and fill <b>104</b> | E                 |
| 1     | 44    | Northeast corner | Working shot of <b>104</b> after removal of <b>103</b>                                 | E                 |
| 1     | 45    | Northeast corner | Working shot of <b>104</b> after removal of <b>103</b>                                 | E                 |
| 1     | 46    | Northeast corner | Cut <b>102</b> fully excavated   | W                 |
| 1     | 47    | Northeast corner | Cut <b>102</b> fully excavated   | W                 |
| 1     | 48    | Northeast corner | Cut <b>102</b> fully excavated, location   | S                 |
| 1     | 49    | Northeast corner | Cut <b>102</b> and pre-excavation shot of cut <b>105</b>                               | W                 |
| 1     | 50    | Northeast corner | Cut <b>102</b> and pre-excavation shot of cut <b>105</b>                               | W                 |
| 1     | 51    | Northeast corner | Pre-excavation shot of cut <b>105</b>  | W                 |
| 1     | 52    | Northeast corner | Pre-excavation shot of cut <b>105</b>  | W                 |
| 1     | 53    | Northeast corner | Pre-excavation shot of cut <b>105</b>  | NW                |
| 1     | 54    | Northeast corner | Pre-excavation shot of cut <b>105</b>  | NW                |
| 1     | 55    | Northeast corner | Articulated animal bone in modern feature  | W                 |
| 1     | 56    | Northeast corner | Articulated animal bone in modern feature  | W                 |
| 1     | 57    | Northeast corner | Articulated animal bone in modern feature  | W                 |
| 1     | 58    | Northeast corner | Cremation fill <b>106</b> quadranted in cut <b>105</b>                                 | SE                |
| 1     | 59    | Northeast corner | Cremation fill <b>106</b> quadranted in cut <b>105</b>                                 | SE                |
| 1     | 60    | Northeast corner | Cremation fill <b>106</b> quadranted in cut <b>105</b>                                 | NW                |
| 1     | 61    | Northeast corner | Cremation fill <b>106</b> quadranted in cut <b>105</b>                                 | NW                |
| 1     | 62    | Northeast corner | Cremation fill <b>106</b> , east quadrant, southeast-facing section                    | NW                |
| 1     | 63    | Northeast corner | Cremation fill <b>106</b> , east quadrant, southeast-facing section                    | NW                |
| 1     | 64    | Northeast corner | Cremation fill <b>106</b> , east quadrant, northeast-facing section                    | SW                |
| 1     | 65    | Northeast corner | Cremation fill <b>106</b> , east quadrant, northeast-facing section                    | SW                |

| Batch | Frame | Site Subdivision | Description  | Direction of shot |
|-------|-------|------------------|--|-------------------|
| 1     | 66    | Northeast corner | Cremation fill <b>106</b> , west quadrant, southwest-facing section              | SE                |
| 1     | 67    | Northeast corner | Cremation fill <b>106</b> , west quadrant, southwest-facing section              | SE                |
| 1     | 68    | Northeast corner | Cremation fill <b>106</b> , east quadrant, southwest-facing section              | NE                |
| 1     | 69    | Northeast corner | General shot - area of archaeological features                                   | E                 |
| 1     | 70    | Northeast corner | General shot - area of archaeological features                                   | E                 |
| 1     | 71    | Northeast corner | General shot - area of archaeological features                                   | N                 |
| 1     | 72    | Northeast corner | Pre-excavation shot of cut <b>107</b> with fill <b>108</b>                       | S                 |
| 1     | 73    | Northeast corner | Pre-excavation shot of cut <b>107</b> with fill <b>108</b>                       | S                 |
| 1     | 74    | Northeast corner | Pre-excavation shot of cut <b>107</b> with fill <b>108</b>                       | E                 |
| 1     | 75    | Northeast corner | Working shot   |                   |
| 1     | 76    | Northeast corner | Working shot   |                   |
| 1     | 77    | Northeast corner | Excavation of cut <b>107</b> prior to removal of stones on south edge            | S                 |
| 1     | 78    | Northeast corner | Excavation of cut <b>107</b> prior to removal of stones on south edge            | E                 |
| 1     | 79    | Northeast corner | West-facing section of cut <b>107</b>  | E                 |
| 1     | 80    | Northeast corner | West-facing section of cut <b>107</b>  | E                 |
| 1     | 81    | Northeast corner | Plan view of cut <b>107</b>  | E                 |
| 1     | 82    | Northeast corner | General shot of cuts <b>102</b> , <b>105</b> and <b>107</b>                      | W                 |
| 1     | 83    | Northeast corner | General shot of cuts <b>102</b> , <b>105</b> and <b>107</b>                      | W                 |
| 1     | 84    | Northeast corner | General shot of cuts <b>102</b> , <b>105</b> and <b>107</b>                      | W                 |
| 1     | 85    | Northeast corner | General shot of cuts <b>102</b> , <b>105</b> and <b>107</b>                      | E                 |
| 1     | 86    | Northeast corner | General shot of cuts <b>102</b> , <b>105</b> and <b>107</b>                      | E                 |
| 1     | 87    | Northeast corner | General shot of cuts <b>102</b> , <b>105</b> and <b>107</b>                      | E                 |
| 1     | 88    | Northeast corner | General shot of cuts <b>102</b> , <b>105</b> and <b>107</b>                      | E                 |
| 1     | 89    | Northeast corner | Cut <b>105</b> following removal of <b>106</b> showing <b>110</b> and <b>111</b> | NW                |
| 1     | 90    | Northeast corner | Cut <b>105</b> following removal of <b>106</b> showing <b>110</b> and <b>111</b> | NW                |
| 1     | 91    | Northeast corner | Cut <b>105</b> following removal of <b>106</b> showing <b>110</b> and <b>111</b> | NW                |
| 1     | 92    | Northeast corner | Cut <b>105</b> following removal of <b>106</b> showing <b>110</b> and <b>111</b> | SE                |
| 1     | 93    | Northeast corner | Cut <b>105</b> following removal of <b>106</b> showing <b>110</b> and <b>111</b> | SE                |
| 1     | 94    | Northeast corner | Cut <b>105</b> following removal of <b>106</b> showing <b>110</b> and <b>111</b> | SE                |
| 1     | 95    | Northeast corner | Cut <b>105</b> following removal of <b>106</b> showing <b>110</b> and <b>111</b> | SE                |

| Batch | Frame | Site Subdivision | Description  | Direction of shot |
|-------|-------|------------------|--|-------------------|
| 1     | 96    | Northeast corner | Cut <b>105</b> following removal of <b>110</b> showing <b>111</b>                | NW                |
| 1     | 97    | Northeast corner | Cut <b>105</b> following removal of <b>110</b> showing <b>111</b>                | NW                |
| 1     | 98    | Northeast corner | Cut <b>105</b> following removal of <b>110</b> showing <b>111</b>                | NW                |
| 1     | 99    | Northeast corner | Cut <b>105</b> following removal of <b>110</b> showing <b>111</b>                | SE                |
| 1     | 100   | Northeast corner | Cut <b>105</b> following removal of <b>110</b> showing <b>111</b>                | SE                |
| 1     | 101   | Northeast corner | Cut <b>105</b> following removal of <b>111</b> and <b>112</b> showing <b>113</b> | NW                |
| 1     | 102   | Northeast corner | Cut <b>105</b> following removal of <b>111</b> and <b>112</b> showing <b>113</b> | NW                |
| 1     | 103   | Northeast corner | Cuts <b>102</b> and <b>105</b> , fully excavated                                 | SW                |
| 1     | 104   | Northeast corner | Cuts <b>102</b> and <b>105</b> , fully excavated                                 | SW                |
| 1     | 105   | Northeast corner | Cuts <b>102</b> and <b>105</b> , fully excavated                                 | SW                |
| 1     | 106   | Northeast corner | Cuts <b>102</b> and <b>105</b> , fully excavated                                 | SW                |
| 1     | 107   | Northeast corner | Cut <b>105</b> , fully excavated   | NW                |
| 1     | 108   | Northeast corner | Cut <b>105</b> , fully excavated   | NW                |
| 1     | 109   | Northeast corner | Cut <b>105</b> , fully excavated   | NW                |
| 1     | 110   | Northeast corner | Working shot   | S                 |
| 1     | 111   | Northeast corner | Working shot   | S                 |
| 1     | 112   | Northeast corner | Working shot   | S                 |
| 1     | 113   | Northeast corner | West-facing section of cut <b>114</b>  | E                 |
| 1     | 114   | Northeast corner | North-facing section of cuts <b>107</b> and <b>114</b>                           | S                 |
| 1     | 115   | Northeast corner | General view of soakaway trench  | N                 |
| 1     | 116   | Northeast corner | General view of soakaway trench  | N                 |
| 1     | 117   | Northeast corner | General view of soakaway trench  | N                 |
| 1     | 118   | Northeast corner | General view of soakaway trench  | N                 |
| 1     | 119   | Northeast corner | General view of soakaway trench  | N                 |
| 1     | 120   | Northeast corner | General view of soakaway trench  | N                 |
| 1     | 121   | Northeast corner | General view of soakaway trench  | N                 |
| 1     | 122   | Northeast corner | Possible four-post structure   | NW                |
| 1     | 123   | Northeast corner | Possible four-post structure   | NW                |
| 1     | 124   | Northeast corner | Modern geotechnical pit  | W                 |
| 1     | 125   | Northeast corner | Possible four-post structure, with half-sectioned features                       | NW                |
| 1     | 126   | Northeast corner | Possible four-post structure, with half-sectioned features                       | NW                |
| 1     | 127   | Northeast corner | Possible four-post structure, with half-sectioned features                       | W                 |
| 1     | 128   | Northeast corner | Possible four-post structure, with half-sectioned features                       | W                 |

| Batch | Frame | Site Subdivision | Description   | Direction of shot |
|-------|-------|------------------|---|-------------------|
| 1     | 129   | Northeast corner | East-facing section of posthole <b>117</b>                          | W                 |
| 1     | 130   | Northeast corner | East-facing section of posthole <b>117</b>                          | W                 |
| 1     | 131   | Northeast corner | East-facing section of posthole <b>119</b>                          | W                 |
| 1     | 132   | Northeast corner | East-facing section of posthole <b>121</b>                          | W                 |
| 1     | 133   | Northeast corner | East-facing section of posthole <b>121</b>                          | W                 |
| 1     | 134   | Northeast corner | East-facing section of posthole <b>123</b>                          | W                 |
| 1     | 135   | Northeast corner | East-facing section of posthole <b>123</b>                          | W                 |
| 1     | 136   | Northeast corner | East-facing section of posthole <b>123</b>                          | W                 |
| 1     | 137   | Northeast corner | Pre-excavation shot of cremation burial <b>125 / 126 / 127</b>      | N                 |
| 1     | 138   | Northeast corner | Pre-excavation shot of cremation burial <b>128 / 129</b>            | W                 |
| 1     | 139   | Northeast corner | Pre-excavation shot of cremation burial <b>128 / 129</b>            | W                 |
| 1     | 140   | Northeast corner | Plan view of cut <b>107</b> excavated and <b>114</b> half-sectioned | E                 |
| 1     | 141   | Northeast corner | Possible four-post structure, fully excavated                       | NW                |
| 1     | 142   | Northeast corner | Possible four-post structure, fully excavated                       | NW                |
| 1     | 143   | Northeast corner | Possible four-post structure, fully excavated                       | NW                |
| 2     | 1     | Revised location | Pre-excavation shot or relocated soakaway area                      | W                 |
| 2     | 2     | Revised location | Pre-excavation shot or relocated soakaway area                      | W                 |
| 2     | 3     | Revised location | Pre-excavation shot or relocated soakaway area                      | W                 |
| 2     | 4     | Revised location | Working shot - machine stripping relocated soakaway area            | W                 |
| 2     | 5     | Revised location | Working shot - machine stripping relocated soakaway area            | W                 |
| 2     | 6     | Revised location | Working shot - machine stripping relocated soakaway area            | W                 |
| 2     | 7     | Revised location | Working shot - machine stripping relocated soakaway area            | W                 |
| 2     | 8     | Revised location | Working shot - machine stripping relocated soakaway area            | W                 |
| 2     | 9     | Revised location | Working shot - machine stripping relocated soakaway area            | S                 |
| 2     | 10    | Revised location | Working shot - machine stripping relocated soakaway area            | E                 |
| 2     | 11    | Revised location | Working shot - machine stripping relocated soakaway area            | E                 |
| 2     | 12    | Revised location | Working shot - machine stripping relocated soakaway area            | SE                |
| 2     | 13    | Revised location | Working shot - machine stripping relocated soakaway area            | SE                |

| Batch | Frame | Site Subdivision | Description  | Direction of shot |
|-------|-------|------------------|--|-------------------|
| 2     | 14    | Revised location | South-facing section of stripped area showing soil profile | N                 |
| 2     | 15    | Revised location | Stripped area showing geotechnical pit                     | E                 |
| 2     | 16    | Revised location | Stripped area showing geotechnical pit                     | W                 |
| 2     | 17    | Revised location | Stripped area showing geotechnical pit                     | W                 |
| 2     | 18    | Revised location | East-facing section of stripped area                       | W                 |
| 2     | 19    | Revised location | East-facing section of stripped area                       | W                 |
| 2     | 20    | Revised location | General shot - new septic tank and soakaway areas          | W                 |
| 2     | 21    | Revised location | General shot - new septic tank and soakaway areas          | W                 |
| 2     | 22    | Revised location | General shot - trench linking stripped areas               | N                 |
| 2     | 23    | Revised location | General shot - new septic tank and soakaway areas          | W                 |
| 2     | 24    | Northeast corner | Trench prior to backfilling                                | NE                |
| 2     | 25    | Northeast corner | Trench prior to backfilling                                | NE                |
| 2     | 26    | Northeast corner | Trench following bailing out of water                      | S                 |
| 2     | 27    | Northeast corner | Trench following bailing out of water                      | S                 |
| 2     | 28    | Northeast corner | Trench during backfilling                                  | NW                |
| 2     | 29    | Northeast corner | Trench during backfilling                                  | NW                |
| 2     | 30    | Northeast corner | Trench during backfilling                                  | S                 |
| 2     | 31    | Northeast corner | Trench during backfilling                                  | S                 |
| 2     | 32    | Northeast corner | Trench during backfilling                                  | S                 |
| 2     | 33    | Northeast corner | Trench re-instated   | N                 |
| 2     | 34    | Northeast corner | Trench re-instated   | N                 |
| 2     | 35    | Northeast corner | Trench re-instated   | NW                |
| 2     | 36    | Northeast corner | Trench re-instated   | W                 |
| 2     | 37    | Northeast corner | Trench re-instated   | SW                |
| 2     | 38    | Northeast corner | Trench re-instated   | SW                |
| 2     | 39    | Northeast corner | Trench re-instated   | S                 |
| 2     | 40    | Northeast corner | Trench re-instated   | S                 |
| 2     | 41    | Revised location | Completed strip  | E                 |