

# **Hunterston Converter and Substation, West Kilbride, North Ayrshire: Archaeological Evaluation**

Data Structure Report: 2<sup>nd</sup> Addendum



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on behalf of RSK Environment Ltd

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## Contents

<b>Introduction .....</b>	<b>4</b>
<b>Historical and Archaeological Background .....</b>	<b>4</b>
<b>Project Works .....</b>	<b>4</b>
<b>Trial Trench Findings .....</b>	<b>5</b>
Conventions .....	5
Natural Sediment .....	7
Features .....	7
Other anthropic features .....	7
Topsoil finds .....	7
<b>Historic Building Recording .....</b>	<b>7</b>
Introduction .....	7
Historical Background .....	7
Landscape Setting .....	9
<b>Discussion .....</b>	<b>19</b>
Evaluation .....	19
HBR Discussion .....	19
Evaluation .....	20
Historic Building Recording .....	20
<b>Acknowledgements .....</b>	<b>20</b>
Documentary .....	21
Cartographic .....	21
<b>Appendix 1: Trench Details .....</b>	<b>22</b>
<b>Appendix 2: Registers .....</b>	<b>25</b>
Context Register .....	25
Finds Register .....	25
Photographic Register .....	25
Drawing Register .....	28
<b>Appendix 3: Discovery &amp; Excavation in Scotland .....</b>	<b>30</b>
<b>Contact Details .....</b>	<b>32</b>

## Figures

Figure 1: Site Location Plan, showing Trial Trenches, with Watching Brief Areas .....	6
Figure 2a: Blaeu's 1654 Map of Cunninghame, showing the Place-name 'Good-berry' in use, and featuring major defensive buildings at Portencross, ?Hunterston and Southannan .....	8
Figure 2b: Extract from Ordnance Survey 1 <sup>st</sup> Edition map of 1843, showing first appearance of Goldenberry Farm.....	8
Figure 3: Annotated plan of Goldenberry Farm (Dotted line shows external stair) .....	10
Figure 4a: View of Goldenberry Farm from north, with cowshed/?dairy 'd' to right and House 'a' to left. ....	11
Figure 4b: Rear, NW, elevation of Farmhouse 'a' with outshot 'b' and structure 'c' (?scullery or wash-house) to fore .....	11
Figure 5a: Cowshed/?dairy 'd' with structure 'c' to left and farmhouse 'a' to rear .....	13
Figure 5b: NE end of cowshed/?dairy 'd' .....	13
Figure 6a: Structure 'e': Detail of quoins on E elevation taken from the W .....	14
Figure 6b: Structure 'e': detail of NE elevation, showing original slot-type window, later ventilator grilles and sliding door. ....	14
Figure 7a: Structure 'f', with return of unnamed wall to left. ....	16
Figure 7b: Remains of structure 'h', comprising concrete apron and one upstanding stud wall (unnamed wall forming external courtyard to rear) .....	16
Figure 8a: NW Elevation, structures 'j' and 'l' .....	17
Figure 8b: NE Elevation, structure 'j' .....	17
Figure 9a: Trench 113 from the North .....	18
Figure 9b: Trench 133a .....	18

## Introduction

1. This report is a further addendum to the Data Structure Report (Gordon 2013b) for the archaeological evaluation in respect to the construction of the Hunterston Converter and Substation, West Kilbride, North Ayrshire and has been prepared for RSK Environment Ltd (RSK) on behalf of their clients. The archaeological works were designed to determine the archaeological potential of the development area and hence inform the specification for mitigation of the impact on the archaeological remains within the development area.
2. North Ayrshire Council required a programme of archaeological works to be undertaken as a requirement of the issued planning consent (N/11/00708/PPPM). The West of Scotland Archaeology Service (WoSAS) who advise North Ayrshire Council on archaeological matters provided guidance on the structure of archaeological works required on site during extraction works. RSK Environment Ltd have acted as the client's archaeological consultants, agreeing a proportionate response to meet the planning authority's concern.
3. Rathmell Archaeology Limited were appointed by RSK Environment Ltd on behalf of their clients to undertake the implementation of archaeological investigative works prior to the development of the site. The project works were specified in the Written Scheme of Investigation (RSK 2013), which was agreed with the West of Scotland Archaeology Service.
4. This report details the findings from the Historic Building Recording (HBR) for Goldenberry Farm as well as additional intrusive evaluation works undertaken. All works were carried out in keeping with the Written Scheme of Investigation and assumes knowledge of the previous Data Structure Report and addendum (Gordon 2013b).

## Historical and Archaeological Background

5. This site has been subject to an archaeological appraisal that informed the Environmental Report by AECOM (2011). We assume within this report the reader's familiarity with this preceding document which is the basis for understanding the known landuse history of the area. This preceding work identified eighteen sites within the study area around the site, representing archaeological activity from the Mesolithic through to the post-medieval period.
6. Archaeological sites within the proposed development boundary recorded in the Environmental Report include the upstanding Goldenberry Farm (Site 18), former Whinstone quarries (Sites 19 & 20), a sub oval mound (Site 26) and a structure (Site 25) identified on historic mapping and a flint scatter (Site 10).
7. The site numbers refer to Figure 9.1 and Table 9-5 in AECOM 2011, with further details available in their Appendix E: Gazetteer.

## Project Works

8. An additional phase of archaeological evaluation was required to be undertaken on ground that had not previously been subject to an evaluation. The additional phase of the archaeological evaluation was undertaken on the 19<sup>th</sup> March and the 31<sup>st</sup> March 2014 on ground to the immediate West and South-West of the proposed converter station. Initially a watching brief was carried out on works in that area but this changed to an evaluation as this was felt to be more efficient. The results from the watching brief are present in another Report (Gorman 2014).
9. The evaluation works were carried out in keeping with the methods detailed in the Written Scheme of Investigation (WSI) (RSK 2013) and the supporting Risk Assessment Method Statement (RAMS) (Gordon 2013a). This phase of the archaeological evaluation maintained a common standard with the preceding works, consisting of the excavation of a series of intrusive trenches to expose an 8% sample of the development area.
10. In total 1418m<sup>2</sup> was excavated during this phase, which when combined with the area involved in the watching brief far exceeded the required 8% sample of the available

ground within the development area. The positions of the trenches as machined in the combined phases are shown on the site plan (Figure 1).

11. The positioning of the trenches was largely in keeping with the agreed trench plan; though minor variations to the position and alignments of some trenches were made due to ground conditions and safety considerations.
12. The Historic Building Recording was carried out on the 3<sup>rd</sup> December 2013. Due to health and safety concerns from the collapsing roof and poor state of repair of the buildings, access into the buildings was not permitted. Therefore the HBR consisted of a photographic survey taken from outwith a safety barrier erected around the farm buildings.
13. All works were conducted in accordance with the West of Scotland Archaeology Service Standard Conditions, the Institute for Archaeologists' Standards and Policy Statements and Code of Conduct and Historic Scotland Policy Statements.

## Trial Trench Findings

14. In total sixteen evaluation trenches were excavated within the development area, using a tracked 360° mechanical excavator with a toothless 2m ditching bucket. The trenches were located around the periphery of a central area which was mitigated during the phase of archaeological monitoring (Gorman 2014).
15. All putative features identified within the bed of each trench were investigated in accordance with the RAMS and WSI with many consequently being discounted as products of bioturbation or geological anomalies rather than anthropic features. Those that were determined to be anthropic in origin are described below.
16. A standardised description of each trench is contained within the *Appendix 1: Trench Summaries* at the rear of this report; all trenches are also depicted on Figure 1. Appendix 2 contains the registers for context description, photography, drawing, sampling and finds from the project.

### *Conventions*

17. Where significant features are discussed their location will normally be quoted as a distance along the relevant trench (such as +23m). This distance was measured from the end of the trench quoted first for the orientation of the trench in the *Trench Summaries* in Appendix 1.
18. All depths given for features are given from the base of the trench after the removal of topsoil and/or modern overburden unless otherwise stated. The reader should presume a homogenised topsoil was present in all trenches over the upper surface of the drift geology unless an alternative description is provided. Where a number of cut features were identified in close proximity, they have been described together as Feature Groups – while this may reflect an association between them, at the current time the only definite association is physical proximity.
19. The context is the basic archaeological unit of description relating to either a structure, cut or sediment of common characteristics. Structures (such as walls or built surfaces) and cut features (normally identified as they cut the underlying subsoil) are denoted by squared brackets (e.g. [040]). Sediments, including the fills of cut features, are denoted by rounded brackets (e.g. (041)).
20. When discussing broadly circular features in plan our general approach is to consider those features over 500mm in diameter are taken to be pits while those under 500mm are considered postholes. The difference in size is an indication of only a possible function; a posthole only requires being large enough to hold a post and may contain stones for packing around the post. While a pit which is larger may have been dug to extract sand & gravel, to create an obstacle or for the purpose of rubbish disposal. Where clear evidence of function is present, such as packing stones, post-pipes and ramps, then such features will be described by inferred function regardless of size.



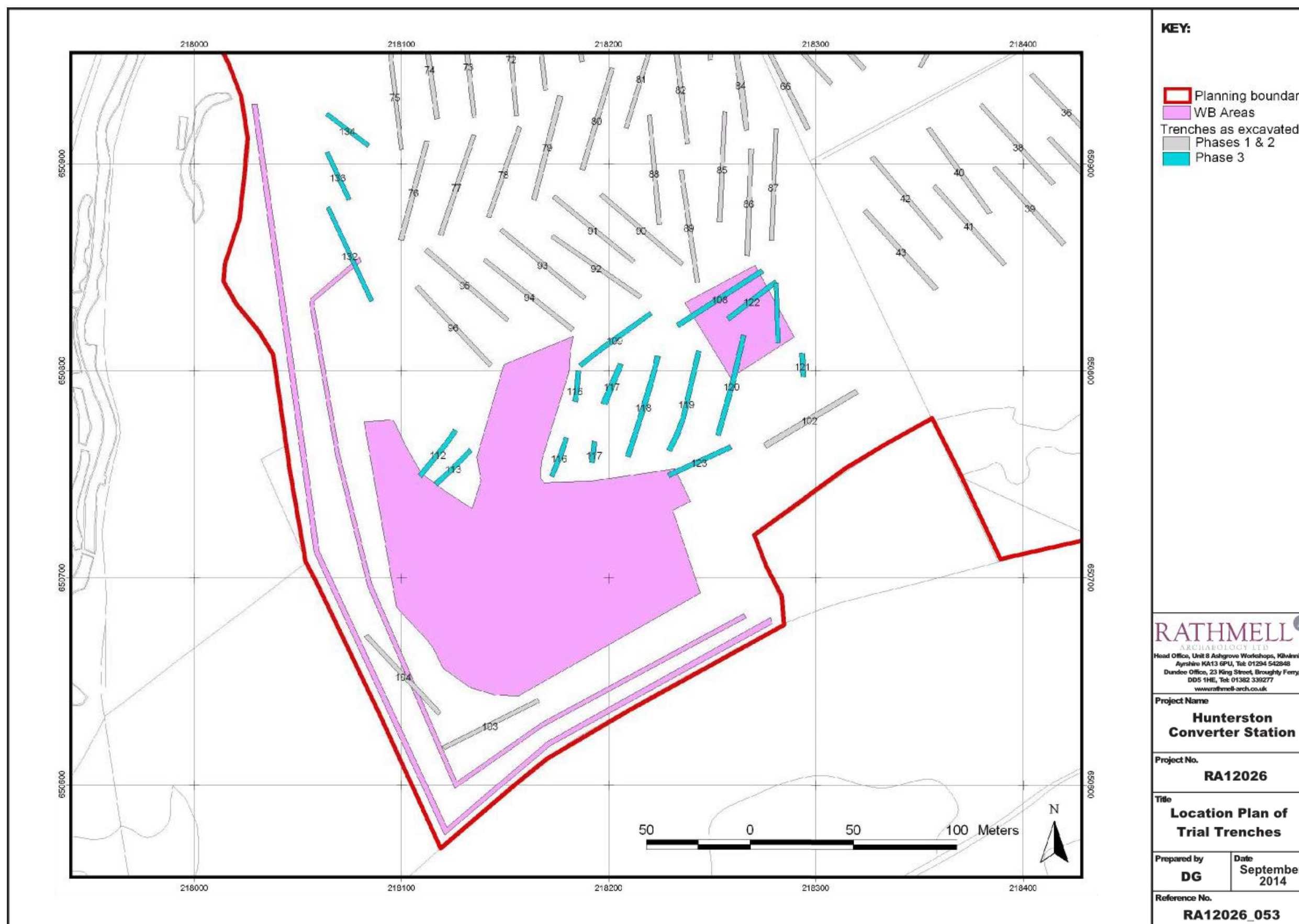


Figure 1: Site Location Plan, showing Trial Trenches, with Watching Brief Areas

### *Natural Sediment*

21. The natural sediments were in keeping with the previous evaluation phases. The topsoil (001) consisted of light brown silty sand with frequent rootlets and rare inclusions of blonde sandstone fragments. In general the topsoil was about 300mm in depth although was up to 680mm in places. The subsoil varied across the site with bedrock (003) being present in the higher portions of the site. In general the main subsoil was sand or sandy gravel of varying colours (094).

### *Features*

22. Within Trenches 111 and 112 (Figure 1) a linear feature [109] was exposed in the base of the trench, it measured 1.7m wide and 300mm deep. Its fill consisted of mottled light and mid brown silt sand, with frequent angular small stones between 20-100mm in size and frequent large stones.
23. One other feature was recorded, Feature [111] was circular in plan approximately 250mm in diameter and up to 140mm in depth with vertical sides and a slight rounded base.

### *Other anthropic features*

24. Field drains were occasionally encountered, which consisted of rubble (007) and clay drains (008). The drain were either aligned NE-SW or NW-SE falling with the predominant slope.

### *Topsoil finds*

25. Several sherds of glazed white earthenware were recovered from the fill of linear [109].

## Historic Building Recording

### *Introduction*

26. This section of the Data Structure Report summarises a programme of Historic Building Recording works undertaken at Goldenberry Farm, a 19<sup>th</sup> century courtyard farm scheduled for demolition as part of the ongoing works.
27. A site visit was undertaken on the 3<sup>rd</sup> December 2012, and a complete photographic record made of the exterior elevations (to Level 1 standard, as set out by RCAHME). Access to the interior of the building and also the courtyard (i.e. the interior elevations) was not possible on safety grounds.

### *Historical Background*

28. The use of the place name 'Goldenberry' in some form dates back to at least the mid-17<sup>th</sup> century, where it is depicted as 'Good-berry' on Blaeu's 1654 map of Cunninghame (Figure 2a). There does not, however, appear to be an association with any building at this time, though substantial dwellings are shown nearby at Ardeil, Portencross and South Iennan (i.e. Southannan). It is assumed that the major dwelling house assumed to be linked with the placename 'Ardneil' is actually Hunterston, for archival records held by the National Archives of Scotland first mention the Hunters of Hunterston in 1527 and it is likely that the family papers go back much further.
29. During this early period, it is likely that the name was given to the landform later marked as 'Goldberry Hill' on Roy's Military Map of 1752-7 (not illustrated). Again, there are no structures occurring at this location, with a similar situation evident on Ainslie's 1810 map of southern Scotland (not illustrated). This suggests that there were no precursors to the modern courtyard farm, which first appears as a roughly 'G' shaped arrangement of roofed structures arranged around a central courtyard, entered from the north-east and featuring a small outshot on the north-east end of the north-west-facing external elevation (Figure 2b).





Figure 2a: Blaeu's 1654 Map of Cuninghame, showing the Place-name 'Good-berry' in use, and featuring major defensive buildings at Portencross, ?Hunterston and Southannan

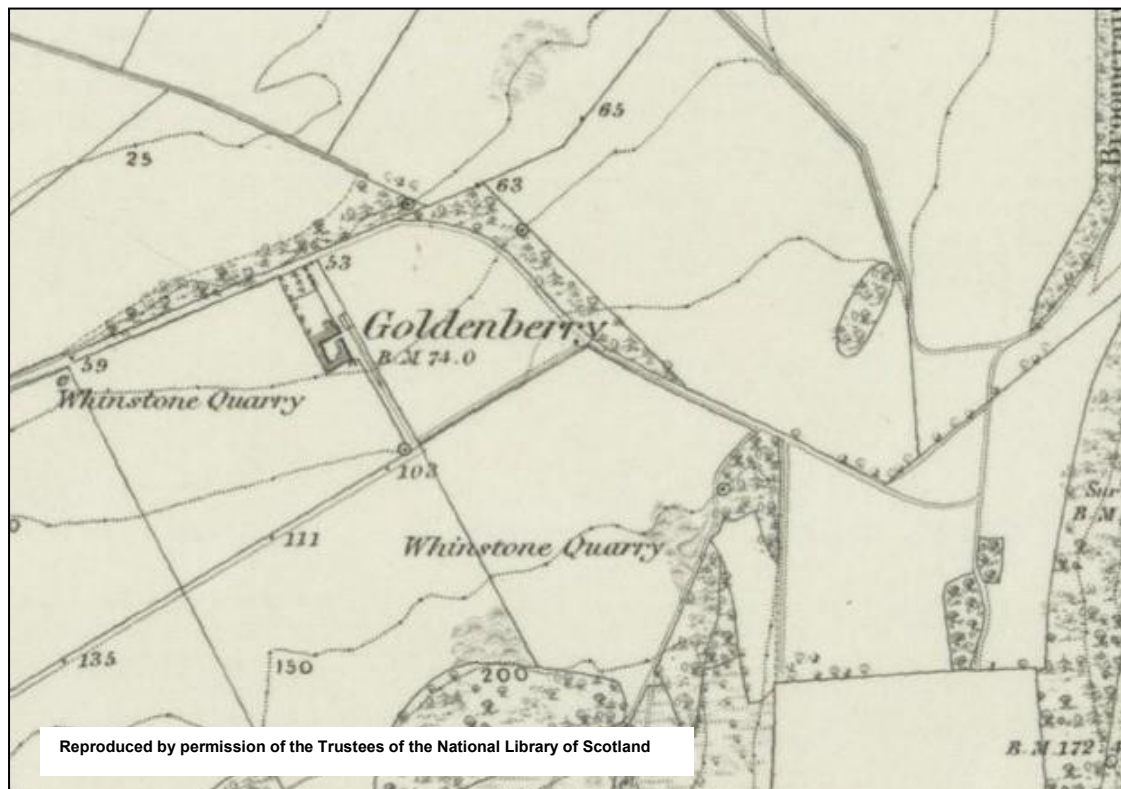


Figure 2b: Extract from Ordnance Survey 1<sup>st</sup> Edition map of 1843, showing first appearance of Goldenberry Farm.

### *Landscape Setting*

30. The farm buildings occupied a landscape setting which in many respects remained broadly similar in its south, east and west aspects to that depicted on the Ordnance Survey 1<sup>st</sup> edition map. The farm sits adjacent to a NNW-SSE aligned track or lane, and comprises a group of buildings which together define an enclosed courtyard with the house at the far side (Figure 3 and 4a). Entry to the courtyard is obtained through an opening which runs perpendicular to the lane.
31. Lying to the south and south-west the ground is largely composed of gently rolling fields, under grass at the same of the visit. The layout of these is broadly similar to that seen on the 1<sup>st</sup> edition map, though Goldenberry Cottage has now been built facing onto the track to the south-east, with the land in between the two buildings now transformed into an area of hardstanding as part of the ongoing works.
32. To the north-east the farm buildings are flanked by the lane, which in turn is defined along its north-east edge by a high wall, now surmounted by a tall fence which forms the perimeter of the adjacent nuclear power station. The nature of the wall cannot be ascertained as it is obscured beneath a coat of roughcast. Views to the north-west are now dominated by the modern buildings of the nuclear power station, though glimpses of the Firth of Clyde beyond suggest that the outlook was once more open. A line of mature trees flanking the north side of the lane where it angles around to the west may, however, represent the remains of a former shelter belt placed to help reduce strong winds blowing in from the north-west.
33. Forming the core of the farm buildings is the farmhouse itself (Figure 4b). Rectangular in plan, farmhouse 'a' measures 3 x 2 bays in extent, and is two storeys high, with a pitched slated roof. A central door with a 2-pane transom light above opens out into the courtyard on the north-east elevation. Windows flank the doorway, with one window per bay in the upper storey on both long elevations. The windows are of original sash-and-case design.
34. On the rear (external) north-west elevation of 'a', the flanking ground floor windows have been displaced slightly to accommodate a one storey outshot or extension ('b'). Outshot 'b' is not shown on the Ordnance Survey 1<sup>st</sup> Edition map, which suggests it may be a recent addition. A later date is further strengthened by the presence of a vent in the south west wall which suggests either construction (or potentially, insertion) at a later date when either gas lighting or gas heating was introduced. The windows are also of different design: they are larger windows, not of traditional sash-and-case construction, indicating a 20<sup>th</sup> century construction date. However, this must be balanced against the presence of the displaced ground floor windows of 'a:' while these represent typical sash-and-case windows contemporary with the original build of the farmhouse, it is possible that the windows were themselves moved at the time 'b' was constructed. Unfortunately, with the whole of the exterior surfaces of both 'a' and 'b' concealed beneath a coat of roughcast, any further information which remains inherent in the masonry could not be identified.
35. Structure 'c' formed an integral part of the courtyard layout, creating an intermediate space between the residential core of the building 'a' and cowshed/dairy 'd' (Figure 4b and 5a). The windows were sash-and-case, the roof hipped, and slated. Upstanding to a height of 1 storey, and with all external surfaces concealed beneath a thick coat of render, it was difficult to establish whether this part of the structure formed an original part of the build or whether it was a later addition to a pre-existing farmhouse building.

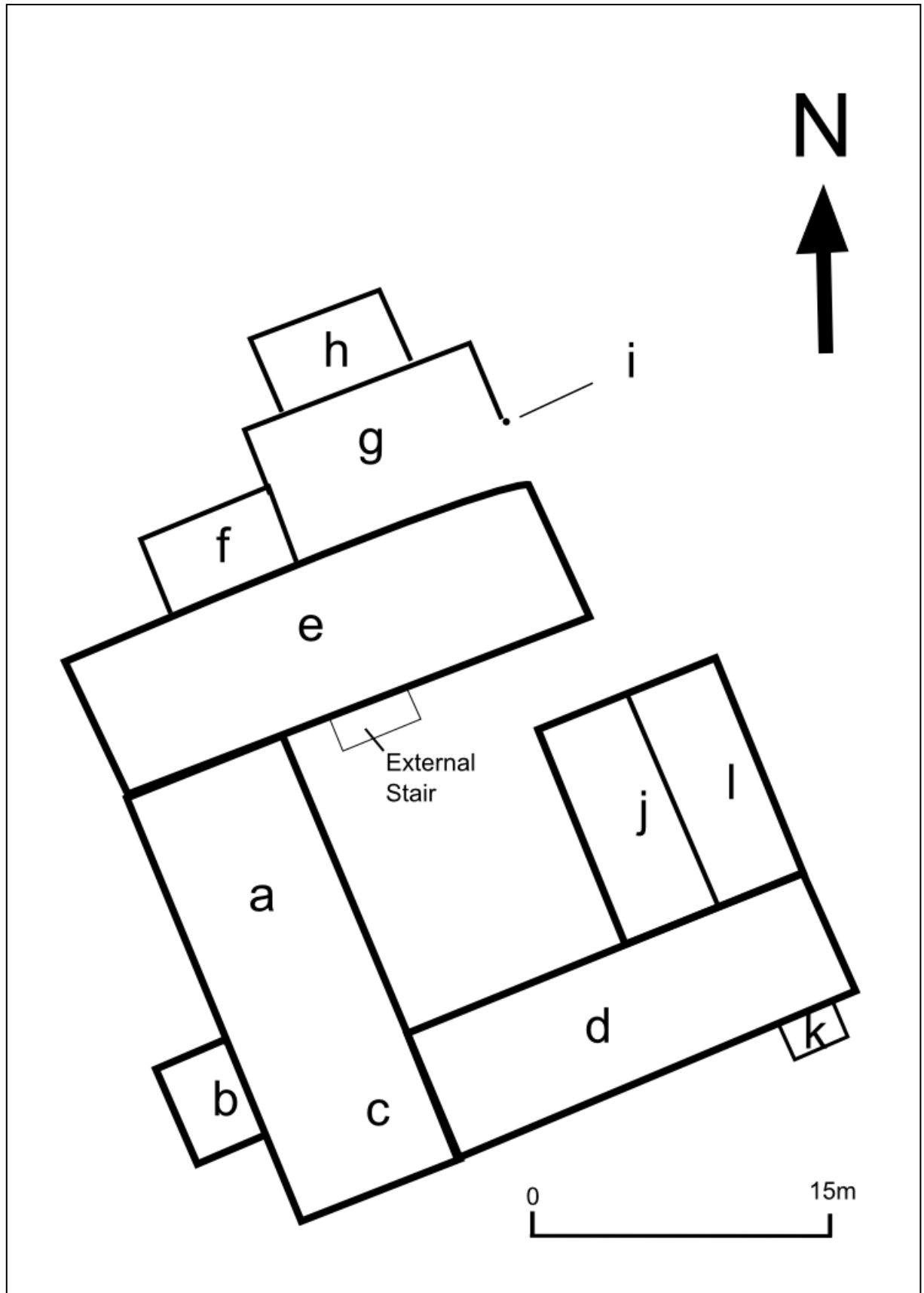


Figure 3: Annotated plan of Goldenberry Farm (Dotted line shows external stair)





Figure 4a: View of Goldenberry Farm from north, with cowshed/?dairy 'd' to right and House 'a' to left.



Figure 4b: Rear, NW, elevation of Farmhouse 'a' with outshot 'b' and structure 'c' (?scullery or wash-house) to fore

36. There were certainly enough consistencies of build between 'a' and 'c' to suggest contemporaneity: red sandstone quoins were revealed on both structures in places, and the wallhead composed of a thin course of red sandstone. Structure 'c' had, however, been subject to later re-modelling. The roof had partially collapsed, revealing two phases of build in the internal cross-wall. This indicated that the roofline had been altered on one occasion.
37. The purpose of 'c' could not be ascertained from an inspection of the external elements alone. Its location – between farmhouse 'a' and dairy/cowshed 'd' – meant it was difficult to establish whether its function was domestic or industrial. The presence of a red brick chimney stack at the south-east end of the south-west elevation indicated the presence of a flue, connected either to a fireplace or a stove, but again this could have denoted either a domestic role or an industrial function associated with dairying, in particular use as a scullery or wash-house (cf. Hay & Stell, 1986, 18).
38. Structure 'd,' which formed the south-east edge of the courtyard farm layout, was rectangular in plan and measured 4 bays in length (Figure 5a). It had recessed small three-pane windows sitting over a sloping sill. These were located at wallhead height, with salt-glazed ceramic pipes built into the thickness of the wall at the midpoint between the two windows. The roof was slated, merging into the roof of structure 'c' at the south-west end and incorporating the timbers of structure 'l' at the north-east end. Two rows of rooflights were evident, an upper rank of five-pane lights set at irregular distances, and a row of smaller two-pane lights set one per bay above the wall-mounted ceramic pipes. Ventilated ceramic ridge tiles had been laid along the apex of the roof.
39. With the emphasis clearly placed on the provision of copious ventilation and with lighting restricted to glazed panes at high level in the walling and also in the roof, it was clear that the structure must have served some function associated with handling or stalling of livestock. No definitive interpretations were possible from an external inspection alone, but it seems from the level of lighting available that structure 'd' probably functioned as a dairy, as opposed to a byre or cowshed.
40. A broad doorway at the north-east end, once covered by a sliding door, appears to have been a later insertion. Beyond this doorway, a small extension 'k' with a central single door in the south-west elevation also appears to be a later addition (Figure 5b). This abuts the junction between structures 'd' and 'l': the exposed timbers suggest that both would originally have been one storey high, the original timbers of the roof now incorporated into the raised roof structure in a manner similar to that observed previously in structure 'c.'
41. Structure 'e' was arguably the most interesting of the structural elements, mainly because much of the external render which originally covered its south-east elevation had fallen away, revealing the fabric (Figure 6a). Rectangular on plan, the structure had begun its life as a single storey building, composed of snecked rubble walls with roughly squared quoins. The fabric appeared to be dominated by sandstone. It is unclear whether the roof was originally hipped or pitched, but at some point it was built up using yellow bricks to create an attic level. The presence of small iron grilles within the walling at regular intervals suggested that this work had taken place in a period when gas lighting or heating was in use, perhaps in the early 1900s. Access to the upper level was via an external stair composed of brick, i.e. contemporary with the raising of the wall height.
42. Access to the interior was via a narrow doorway in the south-west elevation (Figure 6b). Set slightly off-centre, this opening had once been associated with a sliding door, the rail of which survived above. It seems to have been a later insertion: the location of the original doorway is unclear, with no evidence for openings apparent on the south-east elevation. There is an additional narrow doorway at the south-west end of the south-east elevation, located just to the north-east of the brick forestair. The presence of a slot-type window in the north-east elevation might suggest a barn, while the presence of a 'window' in the south-east elevation is more difficult to interpret. Set unusually high, this may be a hatch as opposed to a window, allowing access at attic level for the loading/unloading of hay or straw for animals housed below.





Figure 5a: Cowshed/?dairy 'd' with structure 'c' to left and farmhouse 'a' to rear



Figure 5b: NE end of cowshed/?dairy 'd'





Figure 6a: Structure 'e:' Detail of quoins on E elevation taken from the W



Figure 6b: Structure 'e:' detail of NE elevation, showing original slot-type window, later ventilator grilles and sliding door.



43. It should be noted, however, that a row of windows is present on the external north-west elevation: perhaps what we are seeing, then, is a former stable block with a hay loft above.
44. Structure 'f' was a modern brick structure, constructed adjacent to (and abutting) the external wall of structure 'e.' It had horizontal slot type windows which had once held metal grilles, features consistent with the use of gas heating or lighting (Figure 7a). Its purpose could not be ascertained, but it clearly functioned as some kind of ancillary structure.
45. Structure 'h' was very modern in build (late 20<sup>th</sup> century), surviving only as an area of hard-standing associated with the upstanding remains of timber stud walls. It abutted the exterior of structure 'g', which comprised a low mortared wall which appeared to form a small yard or paddock adjoining the main courtyard farm structure (Figure 7b).
46. Structure 'g' corresponded roughly with a projecting roofed structure depicted on the 1<sup>st</sup> edition map, and it is possible that it represents the remnants of a former structure, partially demolished but retained as an enclosure wall. No traces of any former structural elements such as doorways or windows were, however, noted in this wall, which may suggest that it has been completely demolished and rebuilt. The modern structure 'h' which abutted it appears to have been a field shelter, animal pens or shed.
47. While 'i' was not a structure as such, it was an interesting feature which is worthy of a brief mention. Located at the terminal of structure 'g', it comprised a stone or concrete buttress placed to prevent damage to the wall through vehicular strikes. The final element of the courtyard farm were structures 'j' and 'l,' which together made up the final, south-west side of the range. Once again, the exterior walls (which were largely inaccessible) were rendered over much of their extent, and as a result the relationship between the two elements must remain conjectural.
48. It can be surmised that the external structure 'j' was the earlier of the two. A portion of masonry has been exposed on the south-west elevation, revealing coursed rubble with squared broached sandstone quoins (Figures 8a & b). The roof is hipped and slated (c.f. structures 'b,' 'c,' and 'd') which is consistent with the original elements of the courtyard farm structure. Its slot type windows are unusual features, suggestive of ventilation slots but unusually long in comparison to most examples (c.f. the example on the north-east elevation of structure 'e' – Figure 6b). By contrast, structure 'l' had a pitched roof with a gable wall at the north-west end, which (judging by the patterns identified elsewhere throughout the structure) may indicate that it is a later addition of late 19<sup>th</sup> century date. Structure 'l' was also equipped with a single sash-and-case window located adjacent to the doorway in the north-west elevation, which may suggest a workspace as opposed to livestock accommodation.



Figure 7a: Structure 'f', with return of unnamed wall to left.



Figure 7b: Remains of structure 'h', comprising concrete apron and one upstanding stud wall (unnamed wall forming external courtyard to rear)





Figure 8a: NW Elevation, structures 'j' and 'l'



Figure 8b: NE Elevation, structure 'j'





Figure 9a: Trench 113 from the North



Figure 9b: Trench 133a

## Discussion

### *Evaluation*

49. The results of this phase of evaluation revealed occasional anthropic features which appear to be of fairly recent agricultural origin.
50. The linear feature [109] within Trenches 110 and 111 was interpreted in the field as being a possible wall foundation of probable post medieval or modern date. On the surface there was a noticeable linear mound running WSW to ENE. This linear had previously been identified in the first phase of evaluation (Feature [093]) as a defunct field boundary, which is first depicted on the Ordnance Survey Map of 1855 and continued to be depicted until at least 1960. It appeared to be a continuation of a hedgerow and ditch running ENE-WSW that started to the immediate south of previous position of Goldenberry Cottage.
51. The circular feature [111] recorded within Trench 134, was interpreted as a modern pile driven posthole, due to the very uniform nature of the feature, with vertical sides and being a near perfect circle in plan. There was however no datable material recovered to corroborate this.
52. The majority of the features recorded were rubble [007] and ceramic field drains [008] which had alignments of either NW-SE or SW-NE.

### *HBR Discussion*

53. The upstanding remains of Goldenberry Farm were difficult to interpret fully, in part because the dangerous nature of the buildings prevented close inspection, but also because a large portion of the external walls were concealed beneath a coat of modern cement render which made interpretation of the fabric virtually impossible.
54. From the limited information available, it was apparent that the farm buildings were typical of an early to mid-19<sup>th</sup> century courtyard farm, comprising a two-storey farm house and ancillary structures arranged in a square plan around a central courtyard. This is consistent with the map evidence, which first shows the courtyard farm on the mid-19<sup>th</sup> century 1<sup>st</sup> edition Ordnance Survey map.
55. The ancillary structures would originally have been one storey in height with hipped roofs, but the north-west range has been built up to create an attic level, and the opposing, south-east range has also been remodelled through a change in the angle of the roof pitch, creating a more spacious interior which allowed more light and air into the space through the addition of rooflights and ventilated ceramic ridge tiles. An additional structure was built inside the courtyard, abutting the north-east range. It is postulated that these changes will have taken place in the late 19<sup>th</sup> or early 20<sup>th</sup> century, judging by the presence of iron ventilator grilles in the upper levels of structure 'e.' However, it is possible that these changes took place over an extended period and on a piecemeal basis, rather than representing a single planned episode of remodelling.
56. During the mid- to late-20<sup>th</sup> century, further alterations were made to the structure which resulted in additional changes to the layout of the original courtyard farm. An extension was added to the rear of farmhouse 'a', and a series of outbuildings – structures 'f' and 'h' were created on the north-west side, incorporating an earlier stretch of walling 'g' that appears to have formed part of the original build. This latter feature may represent all that remains of the one element of the courtyard farm which has failed to survive to the present – the roofed outshot on the north-west elevation. Elsewhere, though, many of the original features in the original portion of the farmhouse and steading have been retained, including the doorway with rectangular light above and the sash and case windows.

## Conclusion

57. A programme of archaeological investigative works was required by RSK Environment Ltd on behalf of their clients in respect to the construction of the Hunterston Converter and Substation, West Kilbride, North Ayrshire (N/11/00708/PPPM). The archaeological works were designed to determine the archaeological potential of the development area and hence inform the specification for mitigation of the impact on the archaeological remains within the development area.

### *Evaluation*

58. The archaeological investigative works consisted of the completion of an intrusive evaluation which was designed to assess an 8% sample of the proposed development area. The works were carried out from the 19<sup>th</sup> – 20<sup>th</sup> & 31<sup>st</sup> March 2014, seven full trenches and the continuation of two older, first phase trenches were excavated.
59. Several Anthropic features were recorded that were recent and agricultural in origin. As such no further works are recommended for this portion of the works.

### *Historic Building Recording*

60. The building was in a poor and unsafe condition: as a result, close inspection of the exteriors was impossible on health and safety grounds, with the interiors also inaccessible. However, it was possible to establish that the core of the surviving structure was consistent with the courtyard farm shown on historic mapping and that there was no evidence of earlier structures on the site, something which was already alluded to by the map evidence.
61. The farm had been remodelled on at least two occasions. The first episode took place in the late 19<sup>th</sup> or early 20<sup>th</sup> century, and included the creation of an attic space in the north-west range (structure 'e'), the raising of the roofline through the alteration of the roof pitch in the south-east range (structure 'd') and the insertion of an additional structure within the angle of the courtyard between the south-east and the north-east ranges (structure 'j'). A stretch of mortared rubble wall on the north-west side of the courtyard farm (unnamed) may represent the surviving remnants – or at the very least mark the line of – an outshot shown as roofed on the north-west elevation as depicted on historic mapping of mid-19<sup>th</sup> century date.
62. During the mid- to late 20<sup>th</sup> century, additional structures were built against the exterior elevation of the north-west range (structures 'f' and 'h'), and a one-storey extension added to the rear, external south-west elevation of the farmhouse. Though it was not possible to examine the interior of the farm buildings, it is likely that use remained consistent throughout the farm's occupation, with a reliance on the raising of livestock (in particular cattle) and, potentially, dairying.
63. Though these various alterations and additions can clearly be seen to fall roughly into two different date ranges, it is not, however, clear that these represent two clearly defined periods of remodelling. Instead, it seems more likely that the original structure was remodelled and augmented as part of an ongoing process of change and expansion (reflecting, presumably, a successful agricultural concern which was able to invest in new structures and technologies as required) which stretched from the earliest days of occupation right through to the recent period.

## Acknowledgements

64. The authors would like to thank the Siemens site team for their help and guidance during the on-site archaeological works as well as Joe Somerville from RSK. We would also like to thank Thomas Rees for his edits of this report, as well to Diane Gorman, Stuart Paterson, Stuart Gillies and Steve Thomson for their help on site.

## References

### *Documentary*

AECOM	2011	<i>Western HVDC Link Environment Report; Northern Point of Connection: Hunterston Converter and Substation</i> . Unpublished commercial report by AECOM.
Gordon, D	2013a	<i>Hunterston Converter Station and Substation, North Ayrshire: Archaeological Evaluation Risk Assessment Method Statement (RAMS)</i> Unpublished commercial document by Rathmell Archaeology Ltd.
Gordon, D	2013b	<i>Hunterston Converter Station and Substation, North Ayrshire: Archaeological Mitigation</i> Unpublished commercial document by Rathmell Archaeology Ltd.
Hay, G D & Stell, G	1986	<i>Monuments of Industry: An Illustrated Historical Record</i> . RACHMS
Somerville, J	2013	<i>Hunterston Converter and Substation: Written Scheme of Investigation</i> . Unpublished commercial report by RSK.
Gorman, D	2014	<i>Hunterston Converter and Substation, West Kilbride, North Ayrshire: Archaeological Monitoring Data Structure Report</i> . Unpublished commercial report by RSK.

### *Cartographic*

1747-55	Roy	Military Survey of Scotland
1855	Ordnance Survey	1 <sup>st</sup> edition Ordnance Survey
1960	Ordnance Survey	7 <sup>th</sup> edition Ordnance Survey
20 <sup>th</sup> Century	Ordnance Survey (with annotations)	Hunterston Estate Map



## Appendix 1: Trench Details

Within this appendix a standardised set of data pertaining to the evaluation trenches from the second phase is presented.

All measurement distances quoted along the trench measure based on the quoted orientation of the trench.

Trench	Orientation	Size	Topsoil Depth	Subsoil Character	Modern Features	Significant Features	Artefacts
108	WSW –ESE	50.1m x 2m 100.2m <sup>2</sup>	280 to 300mm	Light mid orange mottled dark grey slightly clayey sand [011]	Rubble Drains [007] at +3 5m, +7 9m6 13.2 20.3 21.9 39.9	None	None
109	WSW –ESE	50m x 2m 100m <sup>2</sup>	400 to 440mm	Light mid orange mottled dark grey slightly clayey sand [011]	Field Drains [008] at +9.4m, +11.6m, +16.1m, +19.4m, +22.6m, 29.4m, +33m	None	None
110	NW-SE	48m x 2m 96m <sup>2</sup>	320 to 400mm	Light mid orange mottled dark grey slightly clayey sand [011]	Rubble Drains [007] at +4.8m, +10.3m, +18.9m, +23.2m, +36.2m Wall [108] t +24.8m	None	None
111	NW-SE	34.6m x 2m 69.2m <sup>2</sup>	360 to 390mm	Light mid orange mottled dark grey slightly clayey sand [011]	Rubble Drains [007] at +7.3m, +15.6m, +18.7m, +20.7m. Wall [108] +25.1m	None	None
112	SW-NE	16m x 2m 32m <sup>2</sup>	290 to 330mm	Light mid orange mottled dark grey slightly clayey sand [011]	Rubble Drains at +4m, +9m	None	None
113	S-N	27.8m x 2m 55.6m <sup>2</sup>	320 to 390mm	Light mid orange mottled dark grey slightly clayey sand [011]	Rubble Drains at +2.9m, +8.2m, +12.2m, +17.3m	None	None
114	SW-NE	21m x 2m 42m <sup>2</sup>	250 to 370mm	Light mid orange mottled dark grey slightly clayey sand [011]	Rubble Drains at +2m, +5m, +8.8m, 12.3m	None	None

Trench	Orientation	Size	Topsoil Depth	Subsoil Character	Modern Features	Significant Features	Artefacts
116	SE –NE	50m x 2m 100m <sup>2</sup>	270 to 360mm	Light mid orange mottled dark grey slightly clayey sand [011]	Field Drain [008] at +4m, +7.6m, +14.3m, +37.2m, +42.8m	None	None
117	S-N	50m x 2m 100m <sup>2</sup>	320 to 370mm	Light mid orange mottled dark grey slightly clayey sand [011]	Field Drain [008] at +4.3m, +23.1m, +34.7m, +39.8m	None	None
118	S-N	50m x 2m 100m <sup>2</sup>	300 to 360mm	Light mid orange mottled dark grey slightly clayey sand [011]	Field Drain [008] at +6.2m, +9.4m, +14.2m, +16m, +23m, +28.9m, +37m, +39m, +44m	None	None
119	SSE-NNW	50m x 2m 100m <sup>2</sup>	260 to 340mm	Light mid orange mottled dark grey slightly clayey sand [011]	Rubble Drains [007] at +0m, +30m, +40m	None	None
120	SSE-NNW	50m x 2m 100m <sup>2</sup>	280 to 340mm	Light mid orange mottled dark grey slightly clayey sand [011]	Rubble Drains [007] at 6.4m, +6.8m, +27.6m, +38.9m,	None	None
121	S-N	11.5m x 2m 23m <sup>2</sup>	300 to 320mm	Light mid orange mottled dark grey slightly clayey sand [011]	None	None	None
122	W-E 0-25.4m S-N 25.4m - 50m	50m x 2m 100m <sup>2</sup>	290 to 300mm	Light mid orange mottled dark grey slightly clayey sand [011]	Field Drain [008] at +11.3m, +19.8m,	None	None
123	SW-NE	50m x 2m 100m <sup>2</sup>	260 to 340mm	Light mid orange mottled dark grey slightly clayey sand [011]	Rubble Drain [007] at +2.8m, +9m, +16.9m, +22.7m, +24.6m,	None	None
132	SE-NW	50m x 2m	300 to 320mm	Light mid orange mottled dark grey slightly clayey	Rubble Drains [007] at +1.3m, +3.7m, +9.8m,	None	None

Trench	Orientation	Size	Topsoil Depth	Subsoil Character	Modern Features	Significant Features	Artefacts
		100m <sup>2</sup>		sand [011]	+12.2m, +21.7m, +29.7m, +35m, +45m		
133	SE-NW	25m x 2m 50m <sup>2</sup>	290 to 300mm	Light mid orange mottled dark grey slightly clayey sand [011]	Rubble Drains [007] at +1m, +7.8m	None	None
134	NW-SE	25m x 2m 50m <sup>2</sup>	380 to 430mm	Light mid orange mottled dark grey slightly clayey sand [011] and bedrock (003) at +11m to +22m	None	None	None

## Appendix 2: Registers

Within this appendix are all registers pertaining to the second phase works on-site during the evaluation. Numbering within each registers continues the number sequences from the first phase of evaluation.

### *Context Register*

Context No.	Area/Trench	Type	Description	Interpretation
108	111	Deposit	Firm mottled mid and light brown silty sand. Contains freq angular small stones 20 – 100mm freq large stones. 300mm deep to limit of excavation	Possible stone wall foundation
109	111	Cut	Linear in plan, 1.7m wide 300mm deep to limit of excavation, >30m long. Also visible in trench 110.	Possible cut for boundary wall foundation. Probably post medieval, modern.
110	132	Deposit	Mid reddish brown slightly silty sand homogenous deposit 250mm diameter, 140mm depth maximum. Colour discolouration possibly due to iron panning	Fill for [111] possible post hole
111	132	Cut	Circular in plan, 250mm diameter, 140mm deep maximum, sharp break of slope to very steep sided with a slightly concave base. Machine and plough truncated.	Possible driven post hole.

### *Finds Register*

Find No.	Area/Trench	Context no.	Material Type	Description	Excavation	Date
061	111	108	Ceramic	Pottery Sherds	SGT	20/03/2014

### *Photographic Register*

Image	Print		DSLR		Digital	Description	From	Date
	Film No	Neg No	Card No	Image No				
398					52	General Shot	S	19/03/14
399					53	General Shot	S	19/03/14

Image	Print		DSLR		Digital	Description	From	Date
	Film No	Neg No	Card No	Image No				
400					54	Working shot of excavators	N	19/03/14
401					55	Trench 111	W	19/03/14
402					56	Trench 111	E	19/03/14
403					57	Trench 110	W	19/03/14
404					58	Trench 110	W	19/03/14
405					59	Trench 110	E	19/03/14
406					60	Trench 112	N	19/03/14
407					61	Trench 112	S	19/03/14
408					62	Trench 113	S	19/03/14
409					63	Trench 113	N	19/03/14
410					64	Trench 114	N	19/03/14
411					65	Trench 114	S	19/03/14
412					66	Trench 116	S	19/03/14
413					67	Trench 116	S	19/03/14
414					68	Trench 116	S	19/03/14
415					69	Trench 116	N	19/03/14
416					70	Trench 116	S	19/03/14
417					71	Trench 116	N	20/03/14
418					72	Trench 117	S	20/03/14
419					73	Trench 117	S	20/03/14
420					74	Trench 117	S	20/03/14

Image	Print		DSLR		Digital	Description	From	Date
	Film No	Neg No	Card No	Image No				
421					75	Trench 117	N	20/03/14
422					76	Trench 118	S	20/03/14
423					77	Trench 118	N	20/03/14
424					78	Trench 119	N	20/03/14
425					79	Trench 119	S	20/03/14
426					80	Trench 123	W	20/03/14
427					81	Trench 123	E	20/03/14
428					82	Trench 120	S	20/03/14
429					83	Trench 120	N	20/03/14
430					84	Trench 121	S	20/03/14
431					85	Trench 122	N	20/03/14
432					86	Trench 122	S	20/03/14
434					87	Trench 122	E	20/03/14
435					88	Trench 122	W	20/03/14
436					89	Trench 108	E	20/03/14
437					90	Trench 108	W	20/03/14
438					91	Feature [109]	E	20/03/14
439					92	Feature [109]	N	20/03/14
440					93	Feature [109]	S	20/03/14
441					94	Feature [109]	n/a	20/03/14

Image	Print		DSLR		Digital	Description	From	Date
	Film No	Neg No	Card No	Image No				
442					95	Feature [109]	E	20/03/14
443					96	Feature [109]	S	20/03/14
444					97	General Shot	SE	31/03/14
445					98	Trench 132	NW	31/03/14
446					99	Trench 132	SE	31/03/14
447					100	Trench 133b	NNW	31/03/14
448					101	Trench 133b	SSE	31/03/14
449					102	Trench 133a	NNW	31/03/14
450					103	Trench 133a	SSE	31/03/14
451					104	Posthole [111]	SSW	31/03/14

### *Drawing Register*

Drawing No.	Sheet No.	Area/ Trench	Drawing Type	Scale	Description	Drawer	Date
144	15	111	Plan	1:100	Trench 111 Post Ex	SP	21/08/2013
145	15	110	Plan	1:100	Trench 110 Post Ex	SP	26/08/2013
146	15	120	Plan	1:100	Trench 112 Post Ex	SP	27/08/2013
147	15	114	Plan	1:100	Trench 114 Post Ex	SP	27/08/2013
148	15	113	Plan	1:100	Trench 113 Post Ex	SP	27/08/2013
149	15	116	Plan	1:100	Trench 116 Post Ex	SP	27/08/2013
150	15	117	Plan	1:100	Trench 117 Post Ex	SP	27/08/2013



Drawing No.	Sheet No.	Area/ Trench	Drawing Type	Scale	Description	Drawer	Date
151	15	109	Plan	1:100	Trench 109 Post Ex	SP	27/08/2013
152	16	118	Plan	1:100	Trench 118 Post Ex	SP	28/08/2013
153	16	123	Plan	1:100	Trench 123 Post Ex	SP	28/08/2013
154	16	119	Plan	1:100	Trench 119 Post Ex	SP	28/08/2013
155	16	120	Plan	1:100	Trench 120 Post Ex	SP	28/08/2013
156	16	108	Plan	1:100	Trench 108 Post Ex	SP	28/08/2013
157	16	122	Plan	1:100	Trench 120 Post Ex	SP	29/08/2013
158	16	121	Plan	1:100	Trench 121 Post Ex	SP	29/08/2013
159	17	132	Plan	1:100	Trench 132 Post Ex	SG	29/08/2013
160	17	133	Plan	1:100	Trench 133 Post Ex	SG	29/08/2013
161	17	134	Plan	1:100	Evaluation plan of trench 134	SG	29/08/2013
162	17	132	Plan	1:100	SE facing section of posthole [111] (110)	SGT	29/08/2013

## Appendix 3: Discovery & Excavation in Scotland

<b>LOCAL AUTHORITY:</b>	North Ayrshire
<b>PROJECT TITLE/SITE NAME:</b>	Hunterston Converter and Substation
<b>PROJECT CODE:</b>	RA12026
<b>PARISH:</b>	West Kilbride
<b>NAME OF CONTRIBUTOR:</b>	Douglas Gordon
<b>NAME OF ORGANISATION:</b>	Rathmell Archaeology Limited
<b>TYPE(S) OF PROJECT:</b>	Evaluation and Historic Building Recording
<b>NMRS NO(S):</b>	
<b>SITE/MONUMENT TYPE(S):</b>	19 <sup>th</sup> Century Farmhouse
<b>SIGNIFICANT FINDS:</b>	Flint
<b>NGR</b> (2 letters, 8 or 10 figures)	NS 1847 5101
<b>START DATE</b> (this season)	19 <sup>th</sup> March 2014
<b>END DATE</b> (this season)	31 <sup>st</sup> March 2014
<b>PREVIOUS WORK</b> (incl. DES ref.)	<p>This is part of a series of reports detailing works carried out in conjunction with this evaluation and Historic Building Survey. These reports are as follows;</p> <p>Gordon 2013 <i>Hunterston Converter &amp; Substation, West Kilbride, North Ayrshire: Archaeological Mitigation Data Structure Report</i> unpublished commercial document by Rathmell Archaeology Ltd;</p> <p>Gordon 2013 <i>Hunterston Converter &amp; Substation, West Kilbride, North Ayrshire: Archaeological Evaluation Data Structure Report: Addendum</i> unpublished commercial document by Rathmell Archaeology Ltd;</p> <p>Gordon 2014 <i>Hunterston Converter &amp; Substation, West Kilbride, North Ayrshire: Archaeological Mitigation Area A Data Structure Report</i> unpublished commercial report by Rathmell Archaeology Ltd;</p> <p>Gorman &amp; Sludden 2014 <i>Hunterston Converter &amp; Substation, West Kilbride, North Ayrshire: Archaeological Mitigation Area D Data Structure Report</i> unpublished commercial report by Rathmell Archaeology Ltd;</p> <p>Gorman 2014 <i>Hunterston Converter &amp; Substation, West Kilbride, North Ayrshire: Archaeological Monitoring Data Structure Report</i> unpublished commercial report by Rathmell Archaeology Ltd;</p> <p>Gorman &amp; Sludden 2014 <i>Hunterston Converter &amp; Substation, West Kilbride, North Ayrshire: Strip Map Sample Data Structure Report</i> unpublished commercial report by Rathmell Archaeology Ltd;</p> <p>Gorman &amp; Gordon 2014 <i>Hunterston Converter and Substation, West Kilbride, North Ayrshire: Area B Data Structure Report</i> unpublished commercial report by Rathmell Archaeology Ltd.</p>
<b>MAIN (NARRATIVE) DESCRIPTION:</b> (may include information from other fields)	<p>A programme of archaeological mitigation works was required by RSK Environment Ltd on behalf of their clients in respect to the construction of the Hunterston Converter and Substation, West Kilbride, North Ayrshire (N/11/00708/PPPM). The archaeological works consisted of an intrusive evaluation and a Historic Building Recording of Goldenberry Farm.</p> <p>From the initial investigation works four areas of interest (A-D) were identified for further works. These works consisted of Strip, Map and Sample exercises, monitoring and a further stage of evaluation.</p> <p>This later stage of stage of evaluation was carried out from the 19<sup>th</sup> – 20<sup>th</sup> &amp; 31<sup>st</sup> March 2014, seven full trenches and the continuation of two older, first phase trenches were excavated. This later stage of the evaluation was carried out within the</p>

	<p>same field as Area A, but does not actually encompass this area.</p> <p>Several Anthropic features were recorded that were recent and agricultural in origin. The majority of these features consisted of rubble and red clay field drains. A larger linear feature investigated during the evaluation is likely to be the remains of a defunct agricultural boundary, once consisting of an intact hedgerow. One circular feature found looked to be a modern pile driven post-hole. As such no further works are recommended for this portion of the works.</p> <p>The Historic Building Recording was carried out on the 3<sup>rd</sup> December 2013, due to the unsafe state of the buildings the survey was carried out at a safe distance. The HBR observed that it was possible to establish that the core of the surviving structure was consistent with the courtyard farm shown on historic mapping and that there was no evidence of earlier structures on the site, something which was already alluded to by the map evidence.</p> <p>The farm had been remodelled on at least two occasions. The first episode took place in the late 19<sup>th</sup> or early 20<sup>th</sup> century, and included the creation of an attic space in the NW range, the raising of the roofline through the alteration of the roof pitch in the SE range and the insertion of an additional structure within the angle of the courtyard between the SE and the NE ranges. A stretch of mortared rubble wall on the NW side of the courtyard farm may represent the surviving remnants – or at the very least mark the line of – an outshot shown as roofed on the NW elevation as depicted on historic mapping of mid-19<sup>th</sup> century date.</p> <p>During the mid- to late 20<sup>th</sup> century, additional structures were built against the exterior elevation of the NW range, and a one-storey extension added to the rear, external SW elevation of the farmhouse. Though it was not possible to examine the interior of the farm buildings, it is likely that use remained consistent throughout the farm's occupation, with a reliance on the raising of livestock (in particular cattle) and, potentially, dairying.</p> <p>Though these various alterations and additions can clearly be seen to fall roughly into two different date ranges, it is not, however, clear that these represent two clearly defined periods of remodelling. Instead, it seems more likely that the original structure was remodelled and augmented as part of an ongoing process of change and expansion (reflecting, presumably, a successful agricultural concern which was able to invest in new structures and technologies as required) which stretched from the earliest days of occupation right through to the recent period.</p>
<b>PROPOSED FUTURE WORK:</b>	None
<b>CAPTION(S) FOR ILLUSTRS:</b>	None
<b>SPONSOR OR FUNDING BODY:</b>	RSK Environment Ltd
<b>ADDRESS OF MAIN CONTRIBUTOR:</b>	Unit 8 Ashgrove Workshops, Kilwinning, Ayrshire KA13 6PU
<b>EMAIL ADDRESS:</b>	contact@rathmell-arch.co.uk
<b>ARCHIVE LOCATION (intended/deposited)</b>	Report to West of Scotland Archaeology Service and archive to RCAHMS Collections.

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End of Document