

# **Brodick Castle, North Ayrshire: Minor Archaeological Works**

Data Structure Report



by Michael Briggs & Louise Turner

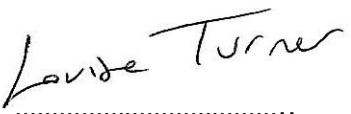
issued 26<sup>th</sup> November 2014

on behalf of National Trust for Scotland

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## Introduction

1. This Data Structure Report has been prepared for the National Trust for Scotland in support of minor archaeological works undertaken in the grounds of Brodick Castle, Arran. These works were in support of two investigations carried out during October and November 2014. The first was related to the upgrading of the lightning protection for Brodick Castle itself, while the second comprised emergency works required to identify and repair a broken water pipe. The archaeological works were designed to mitigate any adverse impact on the archaeological remains within the affected areas.
2. This report covers both programmes of works, each of which were located within the grounds of Brodick Castle. The first – carried out in association with the lightning conductor installation - involved the digging of two shallow pits in close proximity to the castle building: these were located close to the west end of the 1840s Gillespie Graham addition, on the north and south elevations respectively (Figure 1). Works were undertaken on the 27<sup>th</sup> October, 2014.
3. The second involved the monitoring of trenches excavated in order to investigate various sections of an extant water pipe which had failed at an unknown location along its length. These were located to the north and northwest of the castle building itself, with a further trench placed within the courtyard (see Figure 2). These works took place on the 5<sup>th</sup>, 6<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> of November 2014.
4. The findings from these investigations will add to existing knowledge generated by previous archaeological works undertaken in and around Brodick Castle. These include a 1992 excavation undertaken within the courtyard during drainage works, a geophysical survey carried out in 2001 in the vicinity of the castle, and an evaluation carried out by the National Trust for Scotland (NTS) in 2003-4 in order to confirm the presence of an in-filled medieval ditch to the rear (north) of the castle building, in the vicinity of the later courtyard buildings (Addyman Archaeology, 2009). Full details of these works can be found in Addyman and Oram (2009).

## Project Works

5. The first programme of works comprised the monitoring of two shallow pits for the placement of ground electrodes as part of the installation of new lightning conductors on the castle structure. These works were undertaken on the 27<sup>th</sup> October, 2014.
6. For the purposes of continuity, the orientation of the castle will be consistent with that used by Addyman and Oram in their 2009 report (Addyman and Oram, 2009). This simplifies the layout somewhat: the southwest wall becomes the west elevation, the northwest wall, the north elevation, etc.
7. Both pits were located near the west end of the 1840s Gillespie Graham addition to the much earlier castle building. Both were hand-dug: they measured 0.4 by 0.4m in extent, and reached a maximum depth of 0.3m.
8. Pit 1 was situated adjacent to the building's south elevation, within a recessed section of wall approximately 15m east along from the castle's west end (i.e. adjacent to the south elevation of the 'SW tower'), while Pit 2 was located near the northwest corner of the structure, some 2m east along from the west end (the north elevation of 'the entrance') (for precise locations, see Figure 1).
9. The second programme of works involved the monitoring of investigative trenches excavated in order to reveal sections of a water pipe which had burst and was leaking water. This took place on the 5<sup>th</sup> and 6<sup>th</sup>, as well as the 11<sup>th</sup> and 12<sup>th</sup>, of November 2014.
10. The aim of these works was to find and isolate the burst section of the water pipe, in order to repair or replace it. In order to do this, a mini digger was used to establish trenches at various points along the line of the water pipe, and each section of the pipe clamped and tested to identify the faulty area.

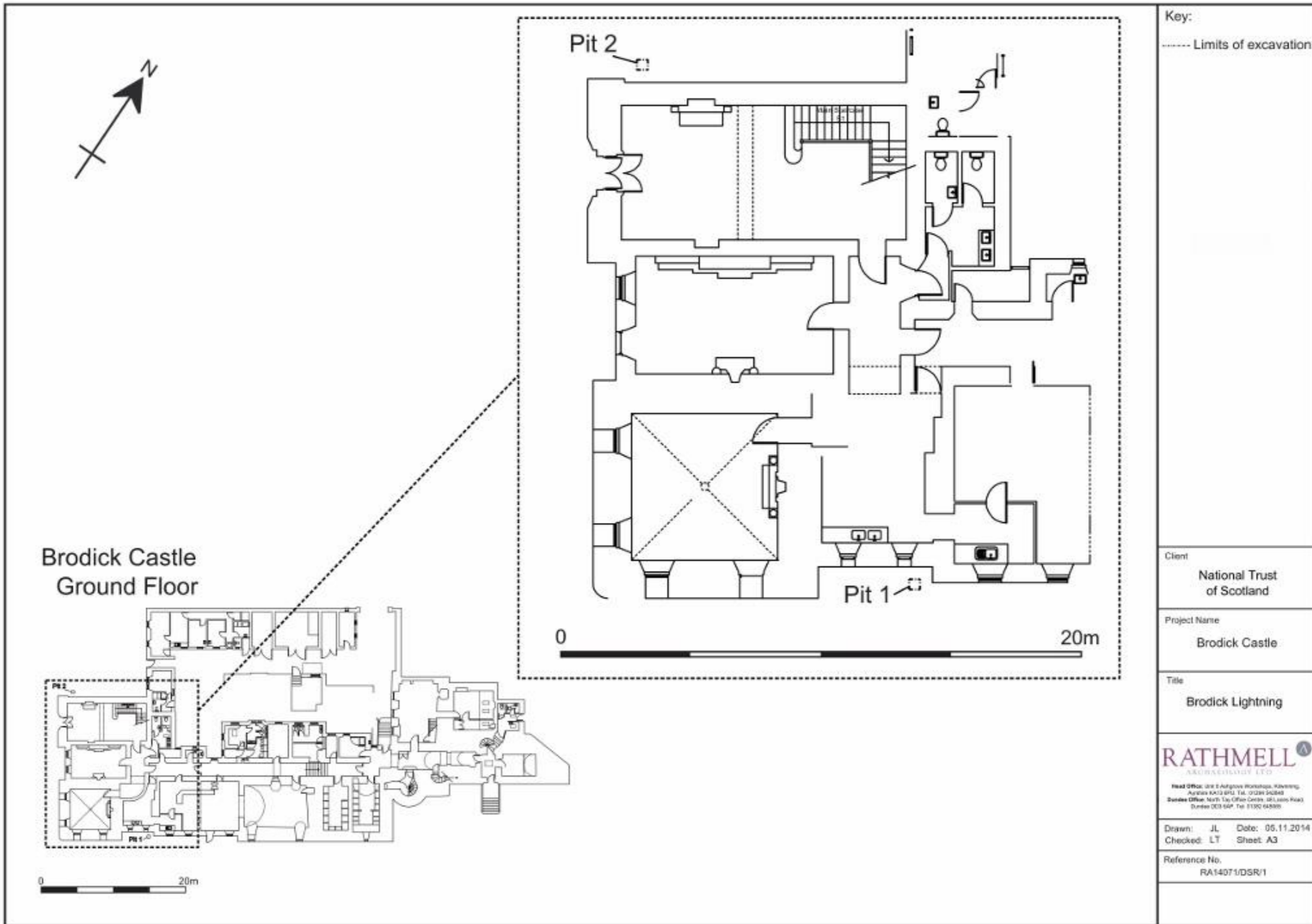


Figure 1: Plan Showing Location of Pits for Installation of Lightning Conductor

11. The location of the affected water pipe was on the north and northwest side of the Brodick Castle courtyard, and ran through a projected area for the ditch suggested by the geophysical survey in 2001 (Addyman and Oram 2009). This ditch was estimated by the NTS evaluation to be at least 20m wide and run from the west side to the north side of Brodick Castle. Following these works, a subsequent second leak was discovered within the courtyard, which then had to be excavated and monitored.
12. Eight trenches were opened in total, two of which (Trenches A and B) were within the projected boundary of this ditch. Four of the trenches (C, D, E and F) were situated within the grounds north of Brodick Castle but outside the suggested ditch area. Trench G was located far from the suggested ditch and within the makeup of the road heading towards the ranger cabin. The last trench (H) was located within the courtyard. The location of these trenches are shown in Figure 2.
13. Trenches A to F were completed during the first day (5<sup>th</sup> November 2014), and Trench G during the second day (6<sup>th</sup> November 2014). Trench G started as a specific trench within the makeup of the road but after reaching the pipe, the trench was then extended along the top of the pipe in order to follow its line. Trench H was then excavated on the 11<sup>th</sup> and 12<sup>th</sup> November 2014.
14. The water pipe itself was located within a cylindrical cast iron sleeve for the entire distance until reaching the cottages. This sleeve was about 200mm in diameter, and probably of an earlier date than the water pipe (19<sup>th</sup>/20<sup>th</sup> century). This required a circular saw in order to cut open the sleeve and clamp the water pipe inside (see Figure 5b).
15. Upon the completion of Trenches A to G, a new water pipe was connected in addition to the existing one, which diverted the water to bypass the breakage. A small amount of further stripping was required to complete the connection of the water pipe, but this stripping continued within the makeup of the road and a small amount within the topsoil immediately adjacent to one of the cottages, and therefore it was agreed with NTS that this did not require monitoring.

## Findings

### *Lightning Protection*

16. Works were carried out by hand on the morning of 28<sup>th</sup> October in wet and windy conditions. Pit 1 revealed topsoil (101) for a depth of 0.3m – this comprised a dark, grey-brown sandy silt, humic in character, containing a moderate quantity of small stones, most measuring up to 0.02m by 0.02m with some larger examples (up to 0.06m by 0.06m) present. Occasional sherds of white glazed white earthenware were recovered, as were modern plastic pipes.
17. At the base of this pit, traces of an underlying layer (102) were identified (Figure 3a). From the small area revealed and the shallow nature of the excavations, it was hard to fully characterise this layer – it comprised a hard, compact pink layer with inclusions of rounded river pebbles. The nature of this was ambiguous, and it will be discussed in detail later – it was unclear from the current works whether, for instance, its presence was attributable to natural or human agency.
18. The second pit, Pit 2, was located in a modern flower bed and did not, at any point, extend beyond the full depth of topsoil (201), which comprised a dark-brown silty clay which was very humic in character (Figure 3b). No discernible stone content was present, and no finds were recovered, though a modern telecoms cable was present.

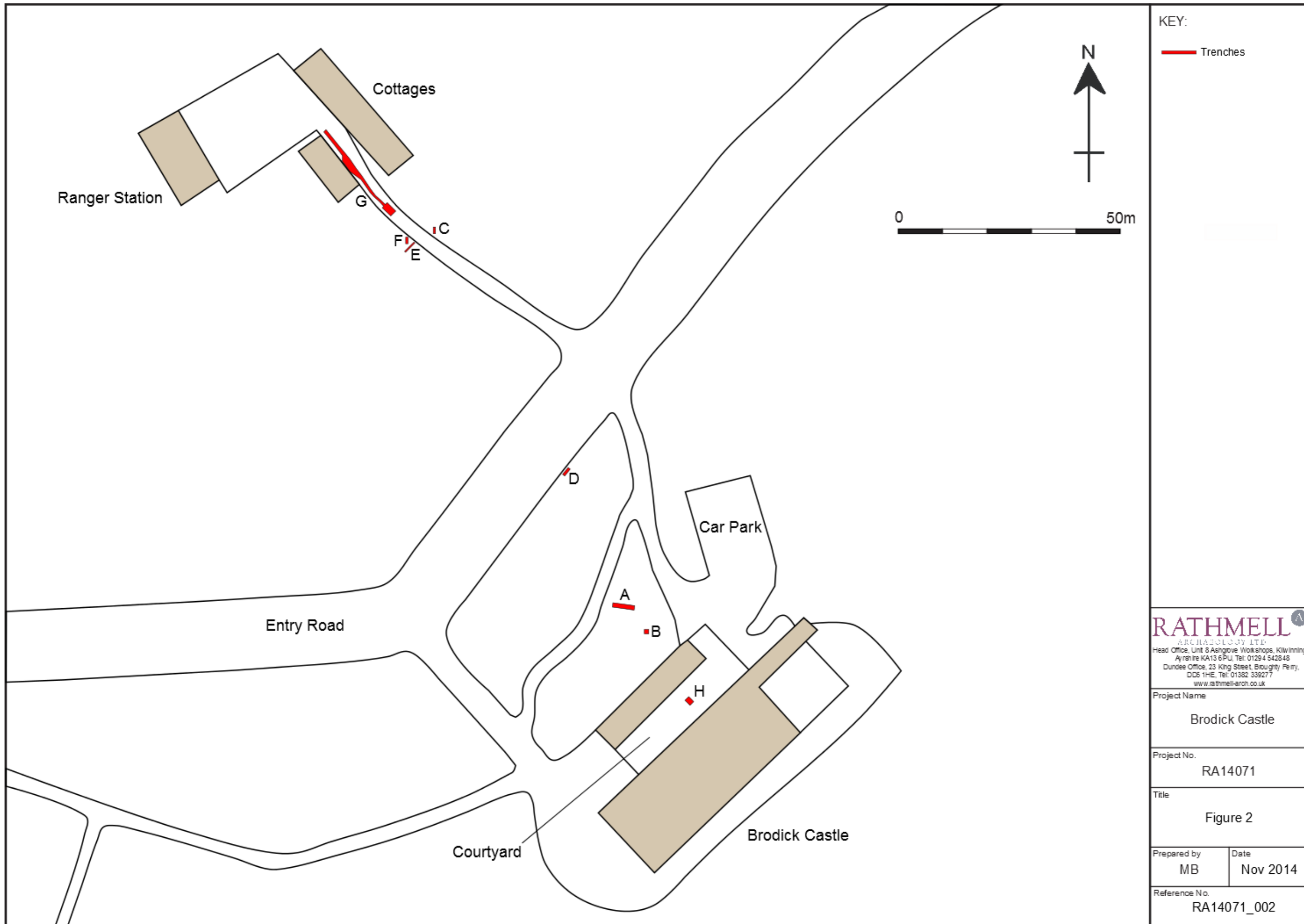


Figure 2: Plan showing location of the eight water pipe trenches





Figure 3a: Lightning Protection Works: Test Pit 1, Post excavation



Figure 3b: Lightning Protection Works: Test Pit 2, Post excavation



*Water Pipe Monitoring*

19. The first seven trenches (A to G) followed the first section of water pipe that was affected, which comprised a stretch of pipeline measuring approximately 150m in length, starting close to the northwest courtyard wall and finishing at the back of the cottages to the northwest (Figure 6a).
20. Trench A (NGR: NS 01546 37903 – NS 01541 37902) measured 5m by 1m in plan, with 0.4m of topsoil (001) overlying 0.8m of rubble deposit (004) which produced larger boulders measuring up to 0.4m by 0.4m in extent at its base. Below this was a brown-orange natural clay (002) (see Figure 4b). It is possible, though unlikely, that deposit (004) represents the fill of ditch cut [003], which previous works have determined exists somewhere in the vicinity of this trench. The water pipe [008], inside the cast iron sleeve, was found at a depth of 0.6m (see Figure 5a).
21. Trench B (NS 01549 37897) measured 1m by 1m in plan, with 0.4m of topsoil (001) overlying rubble deposit (004) that was excavated to a depth of 0.6m, where the water pipe (008) was revealed. Natural subsoil was not reached on this occasion.
22. Trench C (NS 01497 37986) was a small trench measuring 1.5m by 0.5m which was excavated as a means of quickly investigating other services, in particular a drain that lay on the northeast side of the north road. The trench revealed 0.4m of topsoil (001) overlying 0.3m of loose, mid-brown sandy gravel (005) before stopping at the level of the services. There was no sign of water pipe [008] and natural was not reached.
23. Trench D (NS 01526 37931 – NS 01527 37932) measured 2m by 0.6m, with 0.2m of topsoil (001) overlying 0.4m of sandy gravel (005) which ended at natural clay subsoil (002) at the base of the trench. The water pipe [008] was revealed at a depth of 0.6m (Figure 5b).
24. Trench E (NS 01492 37979 – NS 01494 37981) measured 3m by 0.3m in extent, with 0.2m of topsoil (001) overlying 0.4m of sandy gravel (005), which in turn overlay natural clay subsoil (002) at the base of the trench. The water pipe [008] was revealed at a depth of 0.6m, as well as a BT cable at a depth of 0.2m.
25. Trench F (NS 01493 37982) measured 1.5m by 0.5mm, with 0.2m of topsoil (001) overlying 0.4m of sandy gravel (005) with blue clay inclusions present, resulting from the deposit's direct proximity to the road materials. The water pipe was revealed at a depth of 0.6m. Natural subsoil was not reached on this occasion.
26. Trench G (NS 01489 37993 – NS 01480 38000) measured 12m by 0.5m and comprised a very irregular linear trench which followed the line of the pipe through the road (see Figure 6a). The full depth of the trench did not encroach beyond the road's makeup: 0.1 to 0.2m depth of tarmac overlay between 0.2 and 0.6m sandy gravel (006) (depending on the depth of the trench), which was occasionally mixed with orangey clay inclusions and mortar (see Figure 6b).
27. The water pipe was present throughout this trench at a depth of between 0.2m and 0.6m, terminating in a junction outside the door of the west cottage (NS 01480 38000). Natural was not reached at any point. This trench was subsequently extended approximately 3m northwest beyond this but this stage of the works was not required to be monitored or recorded.
28. An additional trench - Trench H - (NS 01557 37879) was excavated within the extent of the courtyard, and measured 1.6m by 1.2m. This trench revealed a layer of concrete 0.6m deep, overlying a very mixed layer of gravel and rubble (009) 0.8m deep, which was itself above a layer of red sandstone bedrock (Figure 7a). Water pipes were present at a depth of 0.4m, and a small, linear sandstone structure (010), probably representing a drain or culvert, was partly revealed at the south end of the trench at a depth of about 0.5m (Figure 7b).



Figure 4a: The line of the water pipe marked by ranging rods, going through the area suggested by the geophysics to be the ditch, taken from northwest



Figure 4b: Base of Trench A with (002) visible, from north





Figure 5a: North-facing section of Trench A with rubble deposit (004) and water pipe (008) revealed, from north



Figure 5b: Southeast-facing section of Trench D, showing topsoil (001), gravel (005) and pipe (008)





Figure 6a: General shot showing excavations along the road, from west-north-west



Figure 6b: Southwest facing section of Trench G, with deposits (006) and (007) underlying the modern road surface, from southwest





Figure 7a: Trench H, general view from east with bedrock at base



Figure 7b: Trench h, view of sandstone drain or culvert (010) from north



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## Discussion

### *Lightning Protection*

29. Data derived from the observation of the lightning conductor works was minimal on account of the extremely limited area exposed during the course of the excavations. However, the findings were valuable at the very least in providing further information regarding the depth of topsoil surviving at various points around the castle's external walls.
30. Pit 1 revealed a shallower topsoil depth of 0.3m – this directly overlay a deposit that was ambiguous in nature. With only a small area exposed, it was hard to establish the character of this deposit, which comprised a compact pink clay (102) with numerous inclusions of rounded pebbles.
31. Three possible explanations can be put forward. Firstly, that it comprises natural subsoil, composed either of a glacial clay or a poor quality sandstone bedrock with stone inclusions present. Secondly, that it represented a concrete or mortared surface perhaps associated with an adjacent grease-trap. Thirdly, that it represented an area of made ground created by the Victorians as part of landscaping works associated with the Gillespie Graham extension. Such redeposition of naturally occurring clays has been evidenced elsewhere on the south terrace (Addyman and Oram, 2009).
32. Comparison with earlier archaeological investigations can help improve our understanding of this deposit. A series of test pits undertaken on behalf of the National Trust for Scotland in 2004 revealed more extensive information relating to the subsurface composition of the wider area, with one of these test pits, located at the base of the crack in the wall at Bobbie's Building (Alexander, 2006) revealing a pinky-orange clay subsoil with numerous stony inclusions which provides an excellent match for the material revealed at the base of Pit 1. A natural origin for this deposit therefore seems a likely - if not indeed an unequivocal - explanation.
33. The excavations for Pit 2 were contained entirely within topsoil. While there is the potential for ground-breaking works carried out in this location to encounter the projected line of the mid- to late 13<sup>th</sup> century curtain wall (as postulated by Addyman – see Addyman and Oram, 2009), the works described here were insufficiently intrusive for this situation to arise. This area does, however, remain archaeologically sensitive and any future works undertaken in this location should address this fact.

### *Water Pipe*

34. The stratigraphy in Trench A, which is the trench most likely to be located within the ditch area suggested by the geophysical survey in 2001, is extremely similar to the stratigraphy described in the trial trenches dug by NTS in 2003-4. The same brown-orange clay natural was reached at the same depth of 1.2m, indicating that this would not have been well within the boundary of the castle ditch, contrary to the suggestion of the 2001 survey data.
35. No finds were recovered from any of the trenches. However, medieval artefacts were recovered from the NTS 2003-4 trial trenches, from a context (denoted 'context (003)' in the NTS evaluation - see Alexander 2006, 8) which exactly matches the description of context (004) from Trench A. This layer was later characterised by Addyman as demolition debris derived from the old castle buildings (Addyman and Oram 2009, 16), potentially used to infill the remains of the ditch during wider landscaping activities which took place in the 19<sup>th</sup> century. The lack of finds encountered during this current phase of works provides an interesting contrast with earlier investigations, but this could simply be owed to the restricted size of this trench.
36. Further to this, it should be noted that deposit (004), within Trench A, was of similar composition to deposit (009) within Trench H, though it lay 26m to the NNW. Both deposits were 0.8m thick and had significant rubble and mixed gravel inclusions. This could therefore mean that these deposits are contemporary and that they both derived from levelling activities taken place during the Victorian period for the creation of the courtyard and other ancillary features which included tennis courts (*ibid.*).
37. Following on from the conclusions drawn following the 2003-4 evaluation works, it can be

surmised that the proposed limits of the castle ditch were located closer to the upstanding courtyard wall than the limits of Trench A (as denoted in the current works). If this is the case, then Trench A was, in all probability, just too far out from the wall to catch any part of the ditch, with deposit (004) forming some of levelling layer as opposed to infill. However, Trench B would then be located well within where this ditch would be. Again, the same levelling layer (004) was present, but since this trench was not taken down to the natural, it is possible that the depth of deposits was far greater here and that excavations were indeed taking place over the line of the ditch.

## Recommendations

38. While the works involved in the excavations for the lightning protection scheme revealed only limited insight into the nature of the buried soil horizons which underlie the castle, even these basic observations can help inform further works.
39. The findings from Test Pit 1 suggest that the underlying subsoil is present at shallow depth, so care should be taken during future ground-breaking works in order to avoid damage to any earlier features cut into the surface of this subsoil. That the natural has already been compromised through the earlier construction works for the Gillespie Graham additions cannot be fully discounted, though this should not be assumed without a more extensive examination –and hence a greater understanding – of the underlying soil horizons.
40. By contrast, the trenches along the water pipe north of the main building have added to our understanding of the stratigraphy at various points throughout the castle grounds. In particular, those findings derived from the trenches situated closest to the castle itself (i.e. Trenches A and B) have helped narrow down the possible area where the original medieval ditch would have been located. It therefore becomes even more likely that the significant cracks in the gatehouse buildings correspond with the southeast edge of the moat, as this possibility is supported by the data gathered from these works.
41. No new significant archaeological features were uncovered during the monitoring, and as such, no further archaeological works are recommended as a direct consequence of the works discussed in this report.
42. The appropriateness and acceptability of our recommendations rest with North Ayrshire Council and their advisors, the West of Scotland Archaeology Service.

## Conclusion

43. This Data Structure Report has been prepared for the National Trust for Scotland in support of minor archaeological works undertaken in the grounds of Brodick Castle, Arran. These works were in support of two separate investigations: the first was related to the upgrading of the lightning protection of Brodick Castle itself, while the second was required to identify and repair a broken water pipe that was leaking. The archaeological works were designed to mitigate any adverse impact on the archaeological remains within the affected areas.
44. In total, two small test pits were monitored as part of the lightning protection works, with a further eight larger trenches monitored during the water pipe repairs.
45. While potentially useful data regarding the location and extent of the castle's medieval ditch was gathered, no previously unknown significant archaeological features were uncovered.

## Acknowledgements

46. We are grateful to the staff of the National Trust for Scotland for their support during the site works, and also to the West of Scotland Archaeology Service who gave guidance throughout.

## References

Alexander, D 2006. Brodick Castle Ditch: Trial Trenching 2003-4. (National Trust for Scotland, unpublished 'grey literature' report).

Addyman, T and Oram, R, 2009. *Historic Building Survey and Analytical Assessment: 2006-8. Volume 1: General Report* (Addyman Archaeology, for the National Trust for Scotland).

## Appendix 1: Registers

Within this appendix are all registers pertaining to works on-site during the excavation.

### *Context Register*

Context	Area/ Trench	Type	Description	Interpretation
001	Grounds	Deposit	Loose, mid to dark brown silt, approximately 200-400mm depth.	Topsoil
002	Grounds	Deposit	Compact light brown-orange clay with medium stone inclusions and some reddish patches.	Natural Subsoil
003	Grounds	Cut	Possible edge of ditch/moat, no dimensions visible. Possibly not visible within trenches at all.	Possibly edge of ditch/moat
004	Grounds	Deposit	Rubble with loose, mid brown sandy silt and some mortar. Possible fill of ditch [003] but possible construction debris without any cut.	Rubble, possible infill of ditch [003]
005	Grounds	Deposit	Loose, mid brown sandy gravel with small stone inclusions.	Layer under (001), above pipe
006	Grounds	Deposit	Same as (005) but directly under road tarmac.	Base of road
007	Grounds	Deposit	Medium compaction, light orange sandy clay, no inclusions.	Natural subsoil
008	Grounds	Structure	Cylindrical cast iron sleeve with water pipe inside. 200mm diameter, at least 150m in length.	Cast iron sleeve with water pipe
009	Courtyard	Deposit	Medium compaction, very mixed sandy gravel with yellow, mid-brown and red patches.	Mixed modern deposit under courtyard
010	Courtyard	Structure	Sandstone drain structure, 400mm depth. Unknown extents, runs east-west	Possible drain system
101	TP1	Deposit	Loose, dark-brown clay silt, very humic. Occasional sherds of white glazed white earthenware, with plastic pipes located within deposit.	Topsoil.

Context	Area/ Trench	Type	Description	Interpretation
102	TP1	Deposit	Very compact, pinkish sandy clay with frequent inclusions of rounded pebbles.	Probably natural – either degraded bedrock or boulder clay. Slight possibility that it comprises a layer of concrete/ mortar from a modern structure, but this could not be confidently established.
201	TP1		Loose, dark-brown clay silt, very humic. No artefacts recovered, but contained live telecoms cable.	Topsoil.

### Photographic Register

Image No.	Print		Slide		Digital	Description	From	Date
	Film No.	Neg. No.	Film No.	Neg. No.				
1	-	-	-	-	15	Pre-excavation shot – Test Pit 2	W	27/10/14
2	-	-	-	-	16	As above	W	27/10/14
3	-	-	-	-	17	Test Pit 2 – NW-facing section	NW	27/10/14
4	-	-	-	-	18	As above	NW	27/10/14
5	-	-	-	-	19	As above	NW	27/10/14
6	-	-	-	-	20	Pre-excavation shot, Test Pit 1	ENE	27/10/2014
7	-	-	-	-	21	Working shot – Test Pit 1	ENE	27/10/2014
8	-	-	-	-	22	Test Pit 1 – Post-Excavation, on plan	SE/vert	27/10/2014
9	-	-	-	-	23	Test Pit 1 – works completed	ENE	27/10/2014
10	-	-	-	-	24	Test Pit 1 – works completed	ENE	27/10/2014
11	-	-	-	-	25	Test Pit 1 – works completed	ENE	27/10/2014



Image No.	Print		Slide		Digital	Description	From	Date
	Film No.	Neg. No.	Film No.	Neg. No.				
12	-	-	-	-	26	Test Pit 2 – works completed	WSW	27/10/2014
13	-	-	-	-	27	Test Pit 2 – works completed, shown in wider context	WSW	27/10/2014
14	-	-	-	-	28	Working shot	W	27/10/2014
15	-	-	-	-	-	Void	-	-
16	-	-	-	-	-	Void	-	-
17	-	-	-	-	-	Void	-	-
18	-	-	-	-	-	Void	-	-
19	-	-	-	-	-	Void	-	-
20	-	-	-	-	-	Void	-	-
21	-	-	-	-	1135	Base of trench A rubble (004)	N	05/11/14
22	-	-	-	-	1136	Base of trench A rubble (004)	N	05/11/14
23	-	-	-	-	1137	Base of trench A rubble (004), out of focus	N	05/11/14
24	-	-	-	-	1138	Base of trench A, where (002) visible, out of focus	N	05/11/14
25	-	-	-	-	1139	Base of trench A, where (002) visible, in focus	N	05/11/14
26	-	-	-	-	1140	Working shot	N	05/11/14
27	-	-	-	-	1141	Working shot	N	05/11/14
28	-	-	-	-	1142	Working shot	N	05/11/14
29	-	-	-	-	1143	Working shot	N	05/11/14
30	-	-	-	-	1144	Working shot	ENE	05/11/14

Image No.	Print		Slide		Digital	Description	From	Date
	Film No.	Neg. No.	Film No.	Neg. No.				
31	-	-	-	-	1145	North facing section of trench A and pipe revealed in trench A	N	05/11/14
32	-	-	-	-	1146	North facing section of trench B, topsoil 600mm deep onto pipe	N	05/11/14
33	-	-	-	-	1147	Line of water pipe marked by ranging rods	NW	05/11/14
34	-	-	-	-	1148	Line of water pipe marked by ranging rods	NW	05/11/14
35	-	-	-	-	1149	Working shot with Goatfell in background	SE	05/11/14
36	-	-	-	-	1150	(005) removed from trench D	SW	05/11/14
37	-	-	-	-	1151	Cracks in SW gatehouse	NE	05/11/14
38	-	-	-	-	1152	Cracks in NE gatehouse	W	05/11/14
39	-	-	-	-	1153	Southeast facing section of trench D – (001)(005) and water pipe	SE	05/11/14
40	-	-	-	-	1154	South facing section of trench E – (002) in base	S	05/11/14
41	-	-	-	-	1155	Base of trench E and drain, BT line and pipe	S	05/11/14
42	-	-	-	-	1156	Base (002) of trench C and drain	SW	05/11/14
43	-	-	-	-	1157	Northwest facing section of trench F, (001) about 300mm deep	NW	05/11/14
44	-	-	-	-	1158	Southwest facing section of trench G, road and (006)(007), out of focus	SW	06/11/14
45	-	-	-	-	1159	Southwest facing section of trench G, road and (006)(007), in focus	SW	06/11/14
46	-	-	-	-	1160	Working shot – machine and cottages	E	06/11/14
47	-	-	-	-	1161	Base of trench G with pipe	SE	06/11/14

Image No.	Print		Slide		Digital	Description	From	Date
	Film No.	Neg. No.	Film No.	Neg. No.				
48	-	-	-	-	1162	Shot of pipe junction	E	06/11/14
49	-	-	-	-	1163	Affected pipe under road, in (006)	E	06/11/14
50	-	-	-	-	1164	Working shot – machine and pipe diversion	SE	06/11/14
51	-	-	-	-	1165	Working shot – machine and pipe diversion	SE	06/11/14
52	-	-	-	-	1166	General shot – road dug up with affected pipe revealed	WNW	06/11/14
53	-	-	-	-	1167	General shot – courtyard	NE	11/11/14
54	-	-	-	-	1168	General shot – courtyard entrance	N	11/11/14
55	-	-	-	-	1169	Shot of cracks in SW wall	NE	11/11/14
56	-	-	-	-	1170	Shot of cracks in NE wall	W	11/11/14
57	-	-	-	-	1171	General shot – courtyard	SW	11/11/14
58	-	-	-	-	1172	Shot of walled garden and Brodick Bay	NW	11/11/14
59	-	-	-	-	1173	Shot of walled garden and Brodick Bay	NW	11/11/14
60	-	-	-	-	1174	Shot of walled garden and Brodick Bay	NW	11/11/14
61	-	-	-	-	1175	Outline of infilled NTS trench from 2003	N	11/11/14
62	-	-	-	-	1176	Trench H – mixed modern deposit 009	E	11/11/14
63	-	-	-	-	1177	Trench H with bedrock at base	E	11/11/14
64	-	-	-	-	1178	Possible drain structure 010 in trench H	N	12/11/14

## Appendix 2: Discovery & Excavation in Scotland

<b>LOCAL AUTHORITY:</b>	North Ayrshire
<b>PROJECT TITLE/SITE NAME:</b>	Brodick Castle
<b>PROJECT CODE:</b>	RA14071
<b>PARISH:</b>	Kilbride
<b>NAME OF CONTRIBUTOR:</b>	Michael Briggs and Louise Turner
<b>NAME OF ORGANISATION:</b>	Rathmell Archaeology Limited
<b>TYPE(S) OF PROJECT:</b>	Watching brief
<b>NMRS NO(S):</b>	NS03NW2.0
<b>SITE/MONUMENT TYPE(S):</b>	Castle (14 <sup>th</sup> century), Artillery Fortification (17 <sup>th</sup> century), Country House (19 <sup>th</sup> century)
<b>SIGNIFICANT FINDS:</b>	None
<b>NGR</b> (2 letters, 8 or 10 figures)	NS 01558 37866
<b>START DATE</b> (this season)	27 <sup>th</sup> October, 2014
<b>END DATE</b> (this season)	12 <sup>th</sup> November, 2014
<b>PREVIOUS WORK</b> (incl. <i>DES</i> ref.)	Trial trenching and test pitting ( <i>DES</i> 2006, volume 7, pp.113-114)
<b>MAIN (NARRATIVE) DESCRIPTION:</b> (may include information from other fields)	<p>Archaeological monitoring work was carried out for the National Trust for Scotland in the grounds of Brodick Castle, Arran. These works comprised the digging of two small test pits for the installation of lightning protection at the castle building itself, and the monitoring of eight trenches placed along the line of an existing water pipe in order to locate and repair a breakage.</p> <p>19<sup>th</sup> century levelling deposits which incorporated material derived from the medieval castle were uncovered in two trenches located north of the courtyard buildings, and it is likely that one of these trenches was located on the line of the medieval ditch known to survive in this location. No previously unknown significant archaeological features were, however, identified, and no artefacts recovered during the course of the works.</p>
<b>PROPOSED FUTURE WORK:</b>	None
<b>CAPTION(S) FOR ILLUSTRS:</b>	None
<b>SPONSOR OR FUNDING BODY:</b>	National Trust for Scotland
<b>ADDRESS OF MAIN CONTRIBUTOR:</b>	Unit 8 Ashgrove Workshops, Kilwinning, Ayrshire KA13 6PU
<b>E MAIL:</b>	contact@rathmell-arch.co.uk
<b>ARCHIVE LOCATION</b> (intended/deposited)	Report to West of Scotland Archaeology Service and archive to RCAHMS Collections

## Contact Details

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