

Dykedale and Dairyman's, *Sheriffmuir, Dunblane*

Metal Detecting Survey

for

Ristol Ltd.

January 2013



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Dykedale and Dairymans
Sheriffmuir, Dunblane

Metal Detecting Survey: January 2013

Data Structure Report

AA 1935

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Dykedale and Dairymans, *Sheriffmuir, Dunblane*

Metal Detecting Survey

Executive Summary

Addyman Archaeology were contacted by Ristol Ltd (contact Mark Richardson) to undertake a metal detecting survey on two plots of land to the E of Dunblane prior to development. Known as Dykedale and Dairymans, both sites are located within the boundary of the Sheriffmuir Battlefield as defined and protected by Historic Scotland and because of this sensitive location an archaeological condition was placed upon the development by Stirling Council.

Although a significant number of metal artefacts were located on each site, on the whole these comprised 19th and 20th century detritus of limited archaeological interest. Of particular note, one pistol ball and a heavily worn metal coin were recovered from Dairymans. Both of these can be tied to the Battle of Sheriffmuir fought in 1715.

A record of the evaluation has been deposited with the Online Access to the Index of Archaeological Investigations (OASIS) website hosted by the Archaeological Data Service (OASIS ID addymana1-139165 and addymana1-140817) and with Discovery and Excavation in Scotland (DES), the annual publication of fieldwork by Archaeology Scotland. A summary of the findings will also be submitted to the Annual Review of Post-Medieval Fieldwork in Britain and Northern Ireland as published by the Society for Post-Medieval Archaeology

1. Introduction

i. General

Addyman Archaeology were contacted by Mark Richardson of Ristol Ltd. on behalf of the Kippendavie Estate to undertake a programme of archaeological investigation prior to the development of two sites located to the E of Dunblane. Through planning application 12/00165/FUL, the developer intends to erect a single dwelling on land 70m N of Dykedale Farm. In addition, planning application 12/00166/FUL regards the development of a plot of land some 70 Metres SW of Dairymans Cottage and adjacent to Kippenross Home Farm. This latter proposal involves the construction of a single detached dwelling, detached garage and new access from the public road as well as a new septic tank and soakaway

The sites lie on an area of known archaeological sensitivity, site of the Battle of Sheriffmuir and within the designated *Battlefield Inventory* boundary as outlined by Historic Scotland. Here, in 1715, the Jacobites under the Earl of Mar fought against the Government forces of the Duke of Argyll. Although the battle proved indecisive, it has been interpreted as the crucial battle of the 1715 Jacobite Rising. The Battle is regarded as of national importance and was thus one of 17 battlefields included in the first publication of Historic Scotland Battlefields Inventory in 2011.

A Desk Based Assessment undertaken as part of the Written Scheme of Investigation (WSI) showed the two sites to lie on the route taken by the Government troops prior to the battle. This applies to Dykedale in particular, with Dairymans on the periphery of the advance. Following the initial engagement, the Jacobite right wing routed the Government left and the pursuit of the fleeing Government soldiers would have taken them across both development sites.

The proposed development at Dairyman's has been referred to as Dairyman's, Dairyman's and Kippenross, but for purpose of continuity, this report uses the name Dairyman's in line with planning application 12/00166/FUL.

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The fieldwork was undertaken by Alastair Hackett and Rolf Whyte overseen by Ross Cameron and Kenneth Macfadyen. The work at Dairyman's was completed on 10/12/12 in glorious winter sunshine, whilst the visit to Dykedale on 14/12/12 was undertaken in frosty conditions with intermittent sleet.

ii. Setting

Both developments lie to the E of the historic burgh of Dunblane within areas of undeveloped farmland, but adjacent to existing archaeological structures.

Centred on NN 79694 01444, the development at Dykedale lies c.70m N of Dykedale Farmhouse within a series of fertile fields bounded by irregular forestry plantations. The plot proposed for development measures around 1350m².

The proposed construction at Dairyman's is located some 70m SE of the existing Dairyman's Cottage centred on NN 79289 00309. In a plot of land measuring c.1500m² Dairyman's is bordered to the SW by Glen Road and to the NW by Sheriffmuir Road. The latter runs up towards the Gathering Stone and across the Sheriffmuir Battlefield. Like Dykedale, the area around Dairyman's is fertile farmland bordered by outcrops of modern forestry plantation.

The underlying geology of the sites is very similar and uncomplicated. Both Dykedale and Dairyman's overlie sedimentary bedrock formed 391 to 417 million years ago in the Devonian Period, in an environment previously dominated by rivers. At Dykedale this is specifically sandstone and mudstone of the Buttergask Flagstone, while at Dairyman's this is solely Sheriffmuir sandstone. The overlying superficial deposits at both sites comprise till of Devensian to Diamictic. These deposits were formed up to 2 million years ago in the present Quaternary Period in a local environment characterised by ice age conditions and glaciers.¹

iii. The Historic Scotland Battlefield Inventory

Both proposals lie within the area designated and protected by Historic Scotland as the site of the Battle of Sheriffmuir. For further detail please refer to Cameron 2011.

¹ <http://mapapps.bgs.ac.uk/geologyofbritain/home> - 22/11/12

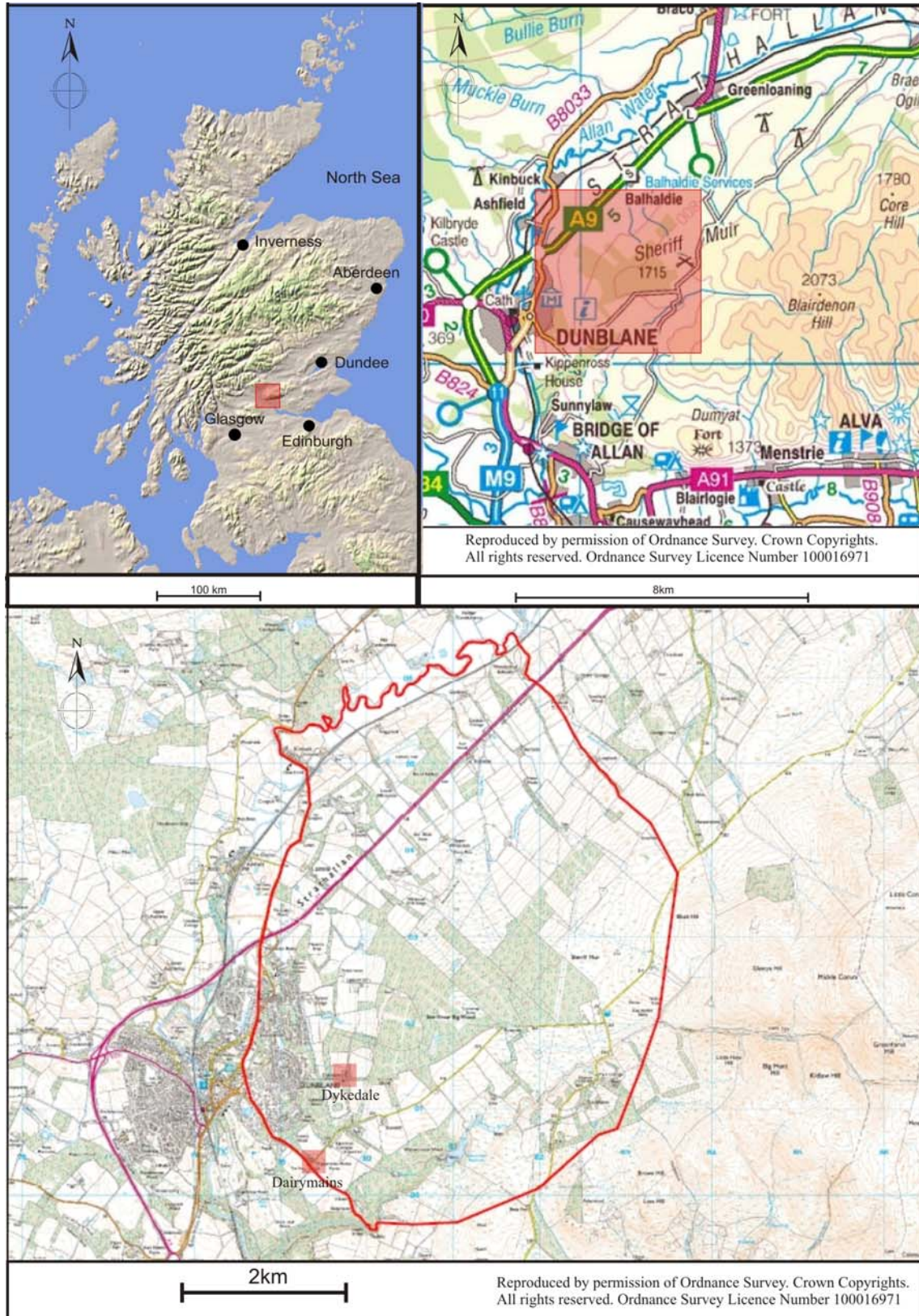


Figure 1 General site location plan showing the locations of the proposed development areas within the Battlefield boundary as established by Historic Scotland in the Battlefield Inventory (Addyman Archaeology after Historic Scotland)



Figure 2 Detailed location of the proposed development site N of Dykedale (courtesy of Ristol Ltd.)



Figure 3 Detailed view of the proposed development site to the SE of Dairyman's Cottage (courtesy of Ristol Ltd.)

2. *Historical Summary*

The archaeological condition was placed upon the proposed developments as a result of their proximity to the Battle of Sheriffmuir and their location within the limits of the battlefield as defined by Historic Scotland in 2011. As a result, the history and location of the Battle of Sheriffmuir will form much of the historical analysis of the site, but it is important that this is not to the detriment of other known historical or archaeological features relevant to the sites. The assessment of the Battle is complimented by a detailed search of both the National Monuments Record of Scotland (NMRS) held by the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) as well as the Sites and Monuments Record (SMR) as held by Stirling Council. In addition a detailed map regression charts the development of both Dykedale and Dairymans.

i. The Battle of Sheriffmuir

Historical Summary

On November 13th, 1715 a bleak upland moor E of Dunblane played host to what would be the decisive battle of the 1715 Jacobite Rising. The Battle of Sheriffmuir was the only major action in Scotland during the conflict and occurred against a background of dynastic struggle between the deposed House of Stuart and the newly crowned Hanoverian King George I.

The Catholic James VII and II had been deposed as King of Scotland, England and Ireland in 1688 although his bloodline initially continued in the person of his daughters Mary, and subsequently Queen Anne. When Anne died childless in 1714, her half brother James Francis Edward Stuart, or ‘The Old Pretender’, was overlooked for the throne due to his Catholicism, despite being her nearest living relative. Instead, the closest living relative of the Protestant faith, The Elector of Hanover, was crowned King, as George I, in 1714. The supporters of ‘The Old Pretender’ seized upon the uncertainty caused by the accession of the House of Hanover and launched a campaign to regain the throne.

The Jacobite cause was championed in Scotland by the Earl of Mar who raised the Jacobite standard at Braemar in September and marched S at the head of a predominantly Highland host. Mar’s army met the Government forces on high ground E of Dunblane. He had numerical superiority, but the Battle of Sheriffmuir did not result in the decisive victory either side had sought. Neither of the opposing armies met on ground neither was fully familiar with, nor prepared for the terrain. In the ensuing action, the Jacobite Right under Mar, routed the Government Left and set off in pursuit. This left the Jacobite Left exposed to the advance of Government dragoons, and subsequently they too were routed and chased from the field. Neither the victorious Jacobite Right wing, nor the Government Left were aware of the fate that had befallen the rest of their army and the site of the initial engagement was essentially abandoned. Upon breaking off their pursuit, the victorious Right wings of both armies returned to Sheriffmuir only than to discover what had befallen their comrades. With evening drawing on, neither side re-engaged and hostilities did not resume.

Whilst the Battle of Sheriffmuir was indecisive and showed no clear outcome, it was perceived as a strategic defeat for the Jacobites. They had failed to overcome a numerically inferior Government force and lost impetus on their march S. The Battle of Sheriffmuir, taken together with the Jacobite defeat at Preston the following day, sounded the death knell for the rising; even the arrival in Scotland of ‘the Old Pretender’ the following month was unable to arrest the decline.

Historic Scotland have identified the battle as being of national significance as it saw one of the largest Jacobite armies to take the field engaged in battle, the only other occasion when so many fought being the Battle of Falkirk in January 1746.

Evaluations of the number of combatants vary, but the Battlefield Inventory documentation by Historic Scotland estimates that 7,000 Jacobites faced over 3,000 Government soldiers. The number of

casualties is also open to much debate, although the same document puts a conservative estimate at 300-400 killed on either side.²

The nature of the Battle of Sheriffmuir

As touched upon in the brief synopsis above, the Battle of Sheriffmuir was not a traditional set-piece battle in the manner many would envisage. The engagement did not take place on ground of either side's choosing and as such could be viewed as an encounter action. Both the Jacobites and the Government forces appear to have misunderstood the other's intentions and seem to have become involved in a race for the high ground. The Jacobites reached this first and the battle appears to have developed organically from this point.

Very quickly the battle of Sheriffmuir developed into a series of running battles with the Jacobite Right pursuing the Government Left from the field while the Dragoons on the Government Right routed the Jacobite Left wing. The resulting fighting retreats, routs and pursuits were far and wide-ranging with the Jacobite troops being pursued as far N as the Allan Water and their comrades in turn pursuing the remnants of the Government southwards, where refugees made it as far as Stirling.

Thus the physical evidence of the battle in the form of the archaeological evidence from the actual engagement, and the flotsam and jetsam of the retreat, will be widely dispersed across a large area. The nature of such a battle makes it very difficult to ascertain where the limits of such an engagement are to be found.

As an encounter action, the Battle of Sheriffmuir will provide no archaeological evidence in the form of breastworks, earthworks or fortifications to pinpoint the location of the initial confrontation. We have to rely on the results of metal detector surveys and an assessment of the documentary resource in conjunction with a landscape assessment.

Previous Archaeological Work on the battlefield

Historic Scotland summarises the archaeological findings in relation to the battlefield as follows:

19th century accounts mention a variety of finds from the moor, including pistols and swords but no artefacts are extant and their provenance is unproven. Local traditions say that bodies were encountered by soldiers digging latrine pits during World War II on the banks of the Wharry Burn to the south of the farm at The Linns.

The 'Gathering Stone' is a prehistoric standing stone located within Sheriffmuir Big Wood. It is said to have marked the spot where the Jacobite army raised its standard prior to commencement of the battle. Following the recent archaeological survey the stone's location may indeed coincide with the approximate position of the Jacobite right. Surrounding the stone are linear trenches and circular depressions which are likely to relate to the military training exercises which took place on Sheriffmuir during WWI and WWII. The linear features have been visually identified from their typical characteristics by archaeologists as practice trenches with possible collapsed dugouts attached and the deep, circular depressions as probable shell holes. The location of the initial encounter is largely obscured by coniferous tree plantations, which in some cases date back to the 19th century. It is uncertain what impact this forestry will have had on buried archaeological remains; other battlefields in Scotland similarly covered with forestry have yielded very few artefacts from modern archaeological survey

The battlefield was subject to a limited archaeological survey in 2006, during which a number of battle related artefacts, including musket balls, horseshoes and other debris, were recovered

² http://data.historic-scotland.gov.uk/data/docs/battlefields/sheriffmuir_full.pdf, P.3

from the fields around The Linns and to the west of the MacRae monument, while more finds were made in the paddocks to the west of the Sheriffmuir Inn.

The limited archaeological survey, undertaken in April/May 2006 by Glasgow University Archaeological Research Division (GUARD), was designed to pinpoint the exact location of the battle, this employing in particular, the evidence generated by new metal-detector survey work.³ Prior to the archaeological work commencing on site, a detailed and thorough analysis was undertaken of the contemporary eye-witness accounts of the battle and the cartographic resource which showed the site as it would have appeared in the 18th century. It was concluded that the initial meeting of the armies had taken place immediately E of the MacRae Monument and SE of the 'Gathering Stone' (centred on NN 8190 0200).

This conclusion was then tested by the implementation of a metal detector survey which returned a number of artefacts related to the Battle. Whilst ambiguity remains about the orientation of the armies, the study clearly indicated that the area E of the MacRae monument was the location of the initial hostilities.

With this in mind it is important to note the distance between this area and the Kippendavie Estate on the western edge of the battlefield, towards the area of the proposed development sites. If, as is argued by the GUARD report, the two armies were orientated on a W-E alignment then it is unlikely that the pursuit resulting from the battle would have been directed to any significant degree in a westerly direction towards Dunblane. Rather the Jacobite Left was pursued northwards before arcing somewhat to the NW, towards the Allen Water, and the Government Left was pursued southwards towards Bridge of Allan and Stirling. If the latter is true, then it is unlikely the main body of routed and pursuing troops would have passed through Dykedale or Dairymans.

Archaeological significance of the western edge of the designated battlefield area

From an assessment of the Battle of Sheriffmuir it seems unlikely that on November 13th, 1715, any action of any significance was undertaken to the W of the 'Gathering Stone' (NN 8109 0218).

A surviving early map indicates the dispositions of both the Government and Jacobite forces on the eve of the battle. This confirms the Jacobite army to have been bivouacked to the N of Sheriffmuir, on the low-lying ground adjacent to the Allen Water. The Government forces under the Duke of Argyle, however, were located within Dunblane itself and marched eastwards to the battle site in order to counter what was perceived to be a Jacobite flanking movement.

The only close proximity of troops to the Kippendavie Estate land seems to have been during the initial deployment of Government forces, who marched from Dunblane along a former road whose line skirts the southern boundary of Kippendavie (the present access road to Dykedale Farm), and continuing eastwards up to the 'Sherif Muir' [*sic*] itself.

The actual location of the Government encampment itself would likely lie within the area of what is now the historic core of Dunblane itself, or within the fields once immediately adjacent - now buried under the subsequent expansion the town, including the existing suburbs on its eastern site. The inclusion within the Sheriffmuir battlefield site area of the existing open area to the E of Dunblane and indeed much of the town itself, seems unnecessary, and the archaeological potential of this area is likely to be negligible (either outwith the areas occupied by troops or subsequently redeveloped).

Landscape

As discussed above, the Battle of Sheriffmuir was fought over an upland moor with areas of bog only made passable by the extreme cold weather. In this regard, the field where so many men lost their

³ *Sheriffmuir Battlefield : Data Structure Report : Project 2214*, GUARD 2006.

lives may be likened to Culloden, the battle which ended the 1745 Jacobite Rising 30 years later. Culloden is today a major tourist attraction and much of the battlefield survives in a form akin to how it was in 1745, a form that can be appreciated in its wide extent by the thousands who visit every year.

Although Sheriffmuir can be interpreted as a comparably decisive battle it is today very difficult to achieve a similar landscape appreciation and view lines of the Sheriffmuir Battlefield as compared with Culloden. This is primarily due to the modern forestry plantations within its core area. The characteristic open landscape does survive, in particular to the S of the roads that cross the site, an area which revealed traces of the battle in the metal detecting survey undertaken by GUARD. A terrain arguably more akin to the conditions as encountered in 1715 survives to the E of the forestry plantation, in the area marked on Ordnance Survey maps as being the location of the battle. This landscape is important in facilitating an understanding of how and where the battle was fought. In contrast, the western edge of the Battlefield Inventory boundary comprises rich, improved agricultural land, at odds with the battlefield as encountered in 1715. The agricultural use of the area will have impacted upon any archaeological remains, which are most likely to be surface bound, as due to the nature of the battle no earthfast archaeological remains are to be expected.

ii. General Historical Analysis

From the NMRS and Stirling Council HER sites were assessed within a 1km radius of both Dykedale and Dairymans (*figure 4*). All these sites were numbered and can be viewed in Table 1.

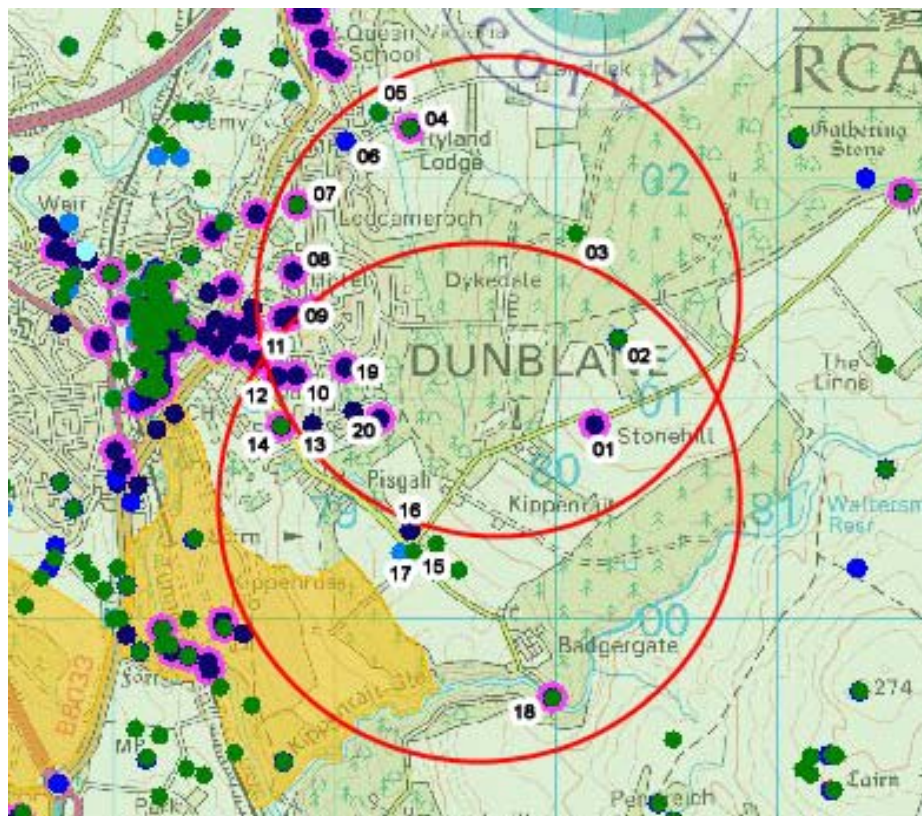


Figure 4 Sites from the SMRS and Stirling Council HER within 1km of Dykedale (upper circle) and Dairymans (lower circle) (after PASTMAP)



Plate 1 View of the Dykedale site (to the back left under the trailer). Photograph courtesy of Ristol Ltd.

No archaeological features have been recorded in the immediate vicinity of Dykedale, although to the E an enclosure (Site 2) was recorded during aerial photography. Recorded as Stonehill, this is now located beneath a conifer plantation and is presumed to be prehistoric. The proximity of a prehistoric enclosure might suggest that associated features or remains of prehistoric activity survive in the area, that are not recognisable through cropmark evidence.

Another site within relative proximity to Dykedale, (Site 3) was recorded on the HER and located to the NE of the site. However, no information was available other than the term 'indeterminate remains'.

Dairymans



Plate 2 View of the Dairymans site. Courtesy of Ristol Ltd.

A number of sites have been recorded in the immediate vicinity of the proposed development at Dairymans. Both the NMRS and Stirling Council HER had records associated with this area, but on the whole these proved to be of little archaeological significance with regards to the development.

Kippenross Home Farm to the immediate NW of the proposed development site is recorded on the NMRS. Although no information is supplied this is presumably in relation to its existence prior to the production of the 1st edition OS maps and Kippenross Home Farm is recorded as Site 16 in Table 1. Directly adjacent to the farm, three records record the existence of cultivation remains, all recorded together as Site 15.

Site 17 relates to an early 20th century guidepost recorded on the HER at the junction between Glen Road and Sheriffmuir Road. First noted on the 1915 OS map, this guidepost has two arms, one marked Sheriffmuir and the other Bridge of Allan.

Other sites within the 1km assessment areas are primarily listed buildings of 18th century or later date.

Site 5, marks the find spot of the Kippendavie coin hoard, which apparently "...consisted of Spanish and German dollars, coins of Philip and Mary, Elizabeth, James I, James VI and Charles I." The recovery of such a hoard might suggest that similar artefacts might survive in the area, identifiable through metal detecting.

Table 1:

Site No.	Name, feature	OS Grid Reference (CANMORE)	NMRS / HER No.	SMR No.	Desk-Based Assessment	Designation	Period
01	Stonehill, farmhouse	NN 80174 00882	NN80SW 9		Upstanding remains	Listed Building Category C	18 th century
02	Stonehill, enclosure	NN 8028 0127	NN80SW 11	2862	Presumed visual remains		Pre-historic
03	Dykedale, indeterminate remains			2205	Presumed visual remains		
04	Ryland (formerly Kippendavie) Lodge	NN 79340 02230	NN70SE 72	367	Upstanding remains	Listed Building Category C	1617 datestone on porch, c.1820 current house
05	Kippendavie, coin hoard (artefact findspot)	NN70SE 72	NN70SE 25	394	No visual remains		“...consisted of Spanish and German dollars, coins of Philip and Mary, Elizabeth, James I, James VI and Charles I.”
06	Kippendavie, housing scheme	NN 7905 0217	NN70SE 144		Not built		N/A
07	Perth Road, Ledcameroch including stables, stable yard, wall and walled garden	NN 78832 01880	NN70SE 177	5202	Upstanding remains	Listed Building Category C	1858, extended 1888
08	Perth Road, Dunblane Hydro Hotel including Hydro Lodge, Newton Cottage, gatepiers and boundary wall	NN 78814 01577 NN 78897 01402	NN70SE 98 NN70SE 98.01		Upstanding remains	Listed Building Category B	1875-6 with later additions
09	The Crescent, Elmswood, including stables and boundary wall	NN 78766 01365	NN70SE 164		Upstanding remains	Listed Building Category C	1874

10	The Crescent, Glenluss, including boundary walls and gatepiers	NN 78826 01104	NN70SE 148		Upstanding remains	Listed Building Category B	1890-8
11	Glen Road, Tomdoran	NN 78649 01178	NN70SE 143		Upstanding remains	Listed Building Category C	1865
12	The Crescent, Glenacres including summer house	NN 78741 01102	NN70SE 147		Upstanding remains	Listed Building Category B	1865
13	Leewood Road, Wolfrest	NN 78899 00884	NN70SE 160		Upstanding remains		
14	Glen Road, Doocot Cottage, dovecot	NN 78758 00875	NN70SE 122	1833	Upstanding remains	Listed Building Category B	Early 19 th century, dovecot moved to present position in 1842
15	Kippenross, cultivation remains	NN 793 003	NN70SE 59	1488	Visual remains		
16	Kippenross Home Farm, farmstead	NN 79342 00400	NN70SE 100		Upstanding remains		
17	Sherrifmuir, guidepost			6270	Upstanding remains		Early 20 th century
18	Wharry Bridge, Kippenrait Glen	NS 79983 99643	NS79NE 53		Upstanding remains	Listed Building Category C	Early 19 th century
19	Newton Crescent, Provan including boundary wall	NN 79047 01142	NN70SE 194		Upstanding remains	Listed Building Category B	1906
20	Leewood Road, Ault Wharrie, Masonic home and associated buildings	NN 79205 00909	NN70SE 115		Upstanding remains	Listed Building Category A	1900

iii. *Map regression*

The proposed developments at Dykedale and Dairymans are small and do not clearly show up on any of the early cartographic depictions of the Dunblane area. The first map which can be considered as providing a close to accurate depiction of the area around Dunblane is William Roy's Military Survey of Scotland, produced between 1747 and 1750.

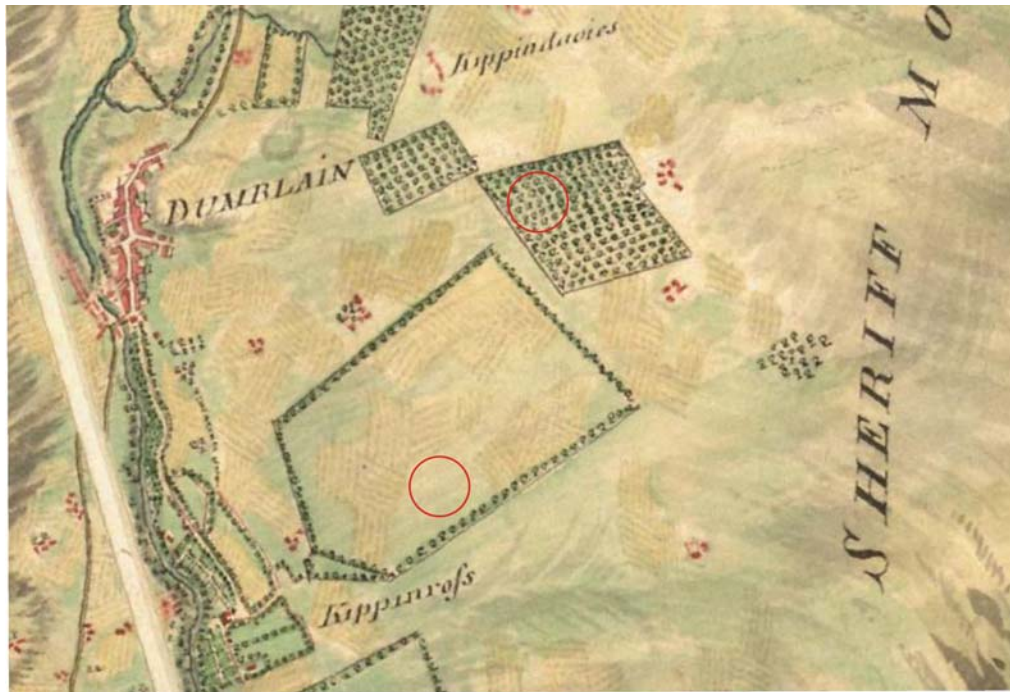


Figure 5 General Roy's military map of 1747 showing the locations of Dykedale (top) and Dairymans (bottom) as indicated red © The British Library Board. All Rights Reserved (Roy Military Survey of Scotland)

Although there are limitations to Roy's map, if placed on the modern OS data it is clear that neither Kippenross Home Farm and thus Dairymans Cottage, nor Dykedale Farm are built on sites occupied by structures c.1750 (*figure 5*). Although a number of small collections of structures are shown to the immediate E of the location of Dykedale, the site itself sits within an organised woodland or forestry plantation. Conversely, Kippenross Home Farm and the proposed development at Dairymans Cottage are located within a series of ploughed agricultural fields, within an area bordered by lines of trees.

The first truly accurate map of the area E of Dunblane comes with the publication of the 1st Edition 25 inch to 1 mile series by the Ordnance Survey in 1866. These maps show both sites to be free from development, with Dykedale Farm in place (*figure 6*), but Kippenross Home Farm and Dairymans Cottage yet to be constructed (*see figure 7*).

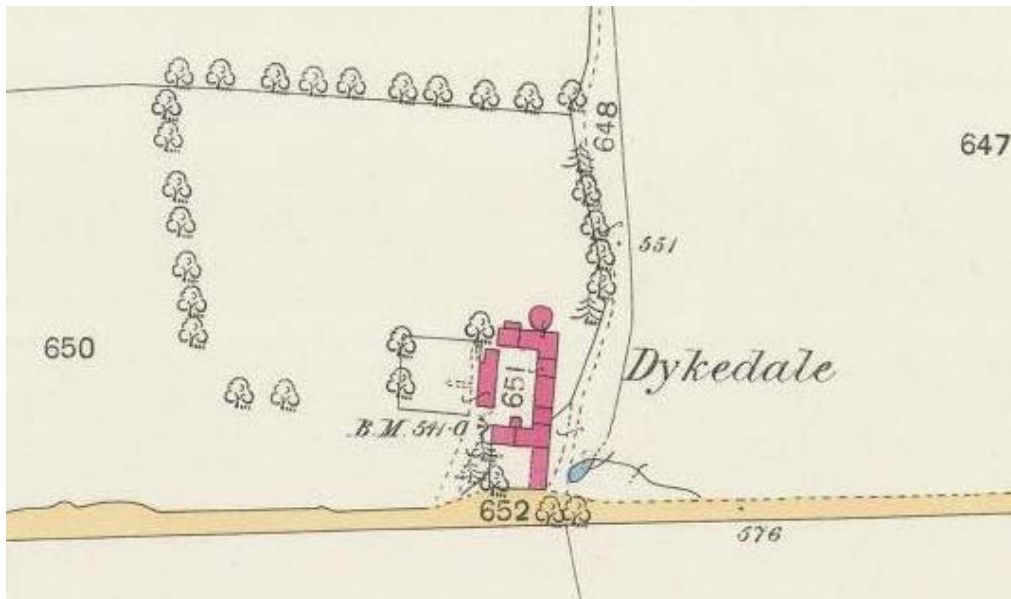


Figure 6 Dykedale Farm on the 1st Edition OS Perth and Clackmannan Perthshire Sheet CXXV.16 (Combined) Survey date: 1862. Publication date: 1866. NLS

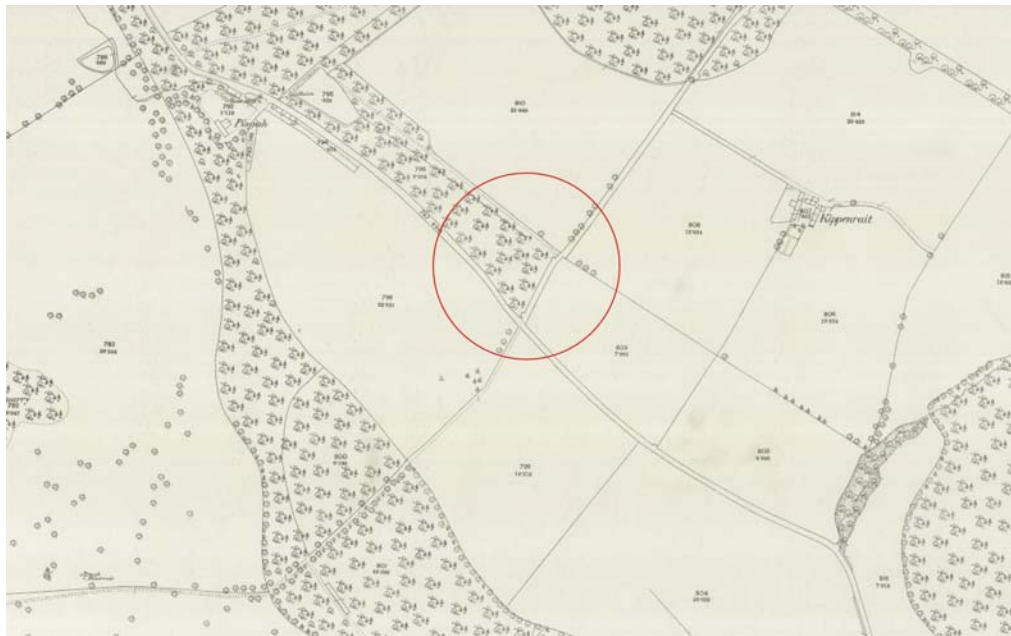


Figure 7 Location of the proposed development at Dairymans Cottage on the 1st Edition OS Perth and Clackmannan Perthshire Sheet CXXXII.4 (Combined) Survey date: 1863. Publication date: 1866. NLS

By the production of the OS 2nd edition in 1900, Kipperross Home Farm and Dairymans Cottage have both been built, but there is no evidence of any structural features on the site of the proposed development (figure 8).



Figure 8 Kippenross Home Farm and the location of the proposed development at Dairymans Cottage on the 2nd Edition OS Perth and Clackmannan Perthshire Sheet 132.04 (Combined) Survey date: c.1899. Publication date: 1900. NLS

Further assessment for the area around Dykedale does not indicate that this has ever had any structures upon the proposed development area.

3. Methodology

The purpose of an archaeological evaluation is to gain information about the archaeological potential of a site in order to meet the requirements of the planning consent. With regards to the proposed developments at Dykedale and Dairymans, the particular concern was the location of these developments within the landscape of the Battle of Sheriffmuir and the potential for artefacts relating to the Battle to survive on site. As such survival is likely to be in the form of discarded and abandoned objects, predominantly metallic, the planning condition stipulated that a metal detecting survey was undertaken. The results of the survey will inform the planning authorities in their decision as to whether further archaeological mitigation is required.

The results of this phase of works will allow the Stirling Council Archaeology Officer to make an informed decision as to whether the site should be investigated further, or whether the archaeological condition can be discharged. The present Data Structure Report (DSR) provides recommendations relating to any future archaeological mitigation, but the decision for any further archaeological intervention ultimately rests with Stirling Council.

Metal detecting surveys will not successfully source all metal objects across a site, but instead provide an indication of what *can* be recovered. As bioturbation and human interference such as ploughing alter the locations of objects in the soil, artefacts are brought closer to the surface and become more readily detected by any survey. The development will remove this area of the battlefield from any further assessment and as such it is important to retrieve as much archaeological information as possible prior to development.

The first site to be surveyed was Dairymans. A measured grid was established across the site, with each grid square of 10m² scanned in narrow transects by two metal detecting machines with different capabilities searching for both ferrous and non-ferrous metals. Each signal received was marked with a flag and only excavated once the entire grid square has been scanned in order to give as much context to the find as possible.



Plate 3 Working shot showing finds as located, looking W (Photograph 005)

At Dairymans each findspot was located using a hand held GPS, but also measured and located within the main grid established prior to work commencing. At Dykedale, the undulating nature of the topography made the establishment of a grid problematic. A large area of the site clearly consisted of a significant build-up of made ground and any finds discovered at Dykedale were only recorded with GPS. Once removed from the soil, each artefact was individually bagged and assigned a unique find number and recorded on Addyman Archaeology *pro forma* Finds Sheets. The bag was marked with a reference number relating to the survey grid square in which it was recovered. Those objects which were clearly modern (tin foil, aluminium cans, bottle tops etc.) were discarded on site. All other artefacts uncovered were returned to the Addyman Archaeology offices to allow assessment by a specialist in battlefield assemblages.

The metal detecting work was accompanied by a general photographic survey to document the landscape setting of the sites and the distribution of detected finds across the area.

The metal detecting survey was completed by a competent metal detecting team of two experienced detectorists from the Scottish Detector Club, both familiar with working alongside archaeologists. Both Alastair Hackett and Rolf Whyte are proficient in the use of metal detecting equipment and recommended by Stirling Council Archaeology Officer Murray Cook. Alastair undertook the survey using a Fisher F70 metal detector, while Rolf uses a Whites XLT. Both detectorists dug all clear two way signals received.



Plate 4 Detecting at Dairymans (Photograph 008)

4. Results

i. General

Both sites revealed a large quantity of metallic artefacts, with the majority being recovered from Dairymans, where 56 metal artefacts were recovered. A further 13 metal objects were retrieved from Dykedale. The entire assemblage was assessed by a specialist in battlefield assemblages who confirmed the findings of Addyman Archaeology that all the objects were modern debris, with the exception of SF054 and SF056, as discussed below.

The development site at Dykedale has clearly undergone significant landscaping, with large volumes of earth and soil built out from the roadway to the E to form a large man-made platform with a steep drop to the W and N. A small perimeter of land around the built up area contained some potential for revealing battlefield artefacts as it lay outwith the worked farmland around the site, however no artefacts of any antiquity or archaeological significance were recovered across Dykedale. All artefacts clearly comprised 20th century farming detritus.



Plate 5 Detecting at Dykedale at the base of the made ground (Photograph 027)

The artefacts recovered at Dairymans varied in date and function, but on the whole can be categorised as 19th and 20th century domestic and farming detritus. The density of finds was particularly high along the western and southern edges of the site adjacent to the road. The location of the site at a crossroads and adjacent to Kippenross Home Farm indicates a significant volume of traffic passing through in modern times, with metallic objects being abandoned or lost at the roadside. A total of 6 coins with clear dates were recovered, ranging from 1884 to the early 21st century, perhaps indicating when the area was most in use from the local population and coinciding with the construction of Kippenross Home Farm and Dairymans Cottage in the late 19th century.

Two finds recovered at Dairymans may be tentatively tied to the Battle of Sheriffmuir.

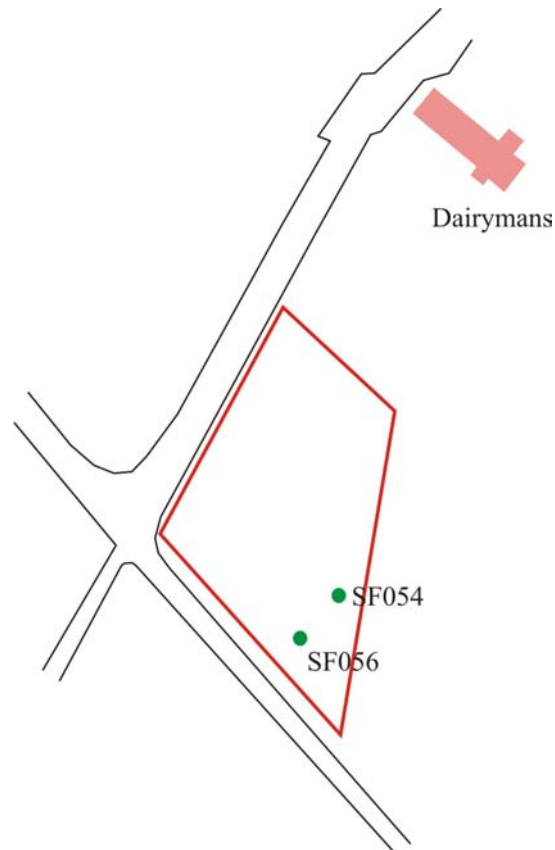


Figure 9 Locations of SF054 and SF056

ii. *SF054 – Heavily worn coin – with Nick Holmes*

Of the coins discovered across the site only one can be considered of any potential historical significance, although due to its heavily worn condition, this is uncertain. Careful examination revealed that neither the obverse nor reverse of the coin showed any visible signs of inscription or markings. However, as the coin has a diameter of around 22mm, it has been assessed as likely to be a turner or bodle dateable to the mid to late 17th century (Nick Holmes *pers. comm.*).

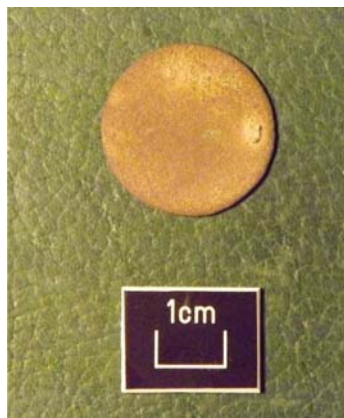


Plate 6 Heavily worn coin SF054 (shown to scale)

Although this cannot be said with absolute certainty, such coins continued to circulate unofficially well into the 18th century owing to an insufficient supply of British small change in Scotland. As a result the heavily worn nature of the coin may well indicate that it was nearing the end of its long life when dropped during the Battle of Sheriffmuir in 1715.

iii. SF056 – Pistol ball – with Natasha Ferguson (see Appendix D)



Plate 7 SF056 (shown to scale)



Plate 78 SF056 (shown to scale)

The pistol ball was the last artefact to be recovered from Dairymans. Recovered from the SE corner of the site, the ball is cast from lead and is a 55 calibre pistol ball consistent with use in the late 17th – 18th centuries. The slight deformation of the ball suggests it was fired and has some impact damage, although the nature of this does not suggest it hit a surface at high velocity.

The function of the prominent hole visible in the surface of SF056 is uncertain and may be the result of an attempt to remove the ball from the barrel of a pistol after it had become jammed.

As with SF054 the discovery of the pistol ball does not tie it categorically to the Battle of Sheriffmuir, but given the proposed date of the artefact and the location on the periphery of the Battlefield this seems very likely.

5. Summary and Recommendations

Both sites revealed a large number of metallic artefacts, but only the pistol ball (SF057) and heavily worn coin (SF054) found at Dairymans can be regarded as historically significant or possibly related to the Battle of Sheriffmuir. The paucity of battlefield artefacts recovered may indicate that neither of the two development sites formed a significant part of the landscape of the battle and lie on the periphery of the battlefield site. Such a conclusion is in keeping with the current thinking on the battle and findings as outlined in the Desk Based Assessment.

Addyman Archaeology do not recommend any further archaeological mitigation prior to development at Dykedale or Dairymans. The limited archaeological significance and potential of the metallic artefacts recovered (with the exception of SF054 and SF057) leads Addyman Archaeology to further recommend that these are discarded and not submitted to Treasure Trove. SF054 and SF057 will be submitted to Treasure Trove in keeping with normal standards and procedures.

6. Acknowledgements

Addyman Archaeology were contacted by Mark Richardson and Niall Macalister Hall of Ristol Ltd. on behalf of the Kippendavie Estate to undertake archaeological mitigation in order to satisfy the planning conditions placed on development at Dykedale and Dairymans. Both organisations deserve our gratitude for their commitment to establishing the archaeological potential of the sites and their flexibility in ensuring the metal detecting survey was completed quickly and efficiently.

Stirling Council Archaeology Officer Murray Cook was approachable and forthcoming with his advice regarding the methodology for the survey. The project was managed for Addyman Archaeology by Tanja Romankiewicz.

The surveys themselves were completed by Alastair Hackett and Rolf Whyte. Alastair and Rolf were punctual, enthusiastic and knowledgeable in completing their work and their advice was greatly appreciated over the course of the project.

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Websites

http://my.stirling.gov.uk/archaeology_maps

www.bgs.ac.uk

www.nls.uk

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Appendix A:
Finds Register; Dykedale and Dairymans – Metal Detector Survey

No.	Context	NGR - NN	Material	Description	Comments	Date	Initial
001	Topsoil	79385 00353	Metal	Cylindrical object	Discarded	10/12/12	RC
002	Topsoil	79387 00356	Fe	Metal rod	Discarded	10/12/12	RC
003	Topsoil	79386 00354	Fe	Screw	Discarded	10/12/12	RC
004	Topsoil	79387 00354	Fe	Rod	Discarded	10/12/12	RC
005	Topsoil	79388 00353	Metal	Fragment	Discarded	10/12/12	RC
006	Topsoil	79389 00351	Fe	Fe 'plate'	Discarded	10/12/12	RC
007	Topsoil	79384 00350	Metal	Coin	Discarded - 1928 Halfpenny	10/12/12	RC
008				VOID	Discarded		
009	Topsoil	79385 00352	Metal	Metal fragment	Discarded	10/12/12	RC
010	Topsoil	79381 00347	Fe	Fe wire	Discarded	10/12/12	RC
011	Topsoil	79386 00346	Metal	Coin	Discarded - 1884 Penny	10/12/12	RC
012	Topsoil	79397 00346	Metal	Coin	Discarded - 1941 Halfpenny	10/12/12	RC
013	Topsoil	79379 00344	Metal	Metal 'base'	Discarded	10/12/12	RC
014	Topsoil	79378 00343	Metal	Metal 'cuboid'	Discarded - Modern	10/12/12	RC
015	Topsoil	79377 00342	Metal	Metal 'cuboid'	Discarded - Modern	10/12/12	RC
016	Topsoil	79378 00337	Coke	Lump of coke	Discarded	10/12/12	RC
017	Topsoil	79376 00339	Fe	Chain	Discarded	10/12/12	RC
018	Topsoil	79375 00336	Fe	Metallic ring/washer	Discarded	10/12/12	RC
019	Topsoil	79375 00335	Fe	Fe 'plate'	Discarded	10/12/12	RC
020	Topsoil	79374 00334	Metal	Metallic fragment	Discarded	10/12/12	RC
021	Topsoil	79373 00334	Metal	Modern brooch	Discarded	10/12/12	RC
022	Topsoil	79379 00331	Fe	Fe fragment	Discarded	10/12/12	RC
023	Topsoil	79378 00330	Fe	Chain	Discarded	10/12/12	RC
024	Topsoil	79378 00329	Metal	Nail	Discarded	10/12/12	RC
025	Topsoil	79379 00328	Fe	Bolt	Discarded	10/12/12	RC
026	Topsoil	79374 00329	Metal	Small token	Discarded - Marked with a horse - modern	10/12/12	RC
027	Topsoil	79377 00327	Fe	Bolt	Discarded	10/12/12	RC
028	Topsoil	79373 00322	Metal	Coin	Discarded - 1912 Penny	10/12/12	RC
029	Topsoil	79367 00322	Metal	Tin	Discarded	10/12/12	RC
030	Topsoil	79369 00328	Metal	Chain/Horse harness	Discarded	10/12/12	RC
031	Topsoil	79367 00320	Fe	Fe rod	Discarded	10/12/12	RC
032	Topsoil	79367 00313	Fe	Half horseshoe	Discarded	10/12/12	RC
033	Topsoil	79362 00312	Fe	'Lump'	Discarded	10/12/12	RC

No.	Context	NGR - NN	Material	Description	Comments	Date	Initial
034	Topsoil	79369 00308	Pb	Scrap of Pb	Discarded	10/12/12	RC
035	Topsoil	79374 00307	Pb	Pb	Discarded	10/12/12	RC
036	Topsoil	79379 00327	Metal and wood	Corroded metal pipe filled by wood	Discarded	10/12/12	RC
037	Topsoil	79384 00328	Fe	Half horseshoe	Discarded	10/12/12	RC
038	Topsoil	79386 00327	Metal	Coin	Discarded - 1919 Penny	10/12/12	RC
039	Topsoil	79389 00342	Metal	Pen knife	Discarded	10/12/12	RC
040	Topsoil	79390 00343	Fe	Fe 'rod'	Discarded	10/12/12	RC
041	Topsoil	79385 00337	Fe	Fe	Discarded	10/12/12	RC
042	Topsoil	79392 00349	Pb	Pb scrap	Discarded	10/12/12	RC
043	Topsoil	79393 00349	Metal	'Stud'	Discarded	10/12/12	RC
044	Topsoil	79398 00350	Pb	Pb	Discarded	10/12/12	RC
045	Topsoil	79407 00344	Fe	Fe 'plate'	Discarded	10/12/12	RC
046	Topsoil	79400 00340	Metal	Tea spoon	Discarded	10/12/12	RC
047	Topsoil	-	Metal	Window catch	Discarded - Brass? Part of SF 051	10/12/12	RC
048	Topsoil	79392 00328	Metal	Small 'splatter' of metal	Discarded	10/12/12	RC
049	Topsoil	79406 00333	Fe	Tool head/adze	Discarded	10/12/12	RC
050	Topsoil	79411 00328	Metal	Shotgun cartridge base	Discarded	10/12/12	RC
051	Topsoil	79401 00332	Metal	Window catch	Discarded - Brass? Part of SF047	10/12/12	RC
052	Topsoil	79397 00326	Fe	Pipe fragment	Discarded	10/12/12	RC
053	Topsoil	79387 00307	Pb	Large Pb fragment	Discarded	10/12/12	RC
054	Topsoil	79390 00300	Metal	Heavily worn coin	Possibly a mid 17 th century turner or bodle.	10/12/12	RC
055	Topsoil	79381 00302	Pb	Pb	Discarded	10/12/12	RC
056	Topsoil	79383 00292	Metal	Pistol ball	'Pistol' ball. Likely to be Jacobite.	10/12/12	RC
057	Topsoil	79763 01449	Fe	Fe ring	Discarded	14/12/12	KM
058	Topsoil	79762 01449	Fe	Fe ring and attachment	Discarded	14/12/12	KM
059	Topsoil	79763 01451	Fe	Fe sheet	Discarded	14/12/12	KM
060	Topsoil	79766 01462	Aluminium	Aluminium lump	Discarded	14/12/12	KM
061	Topsoil	79765 01465	Fe	Fe 'cramp' object	Discarded	14/12/12	KM
062	Topsoil	79767 01466	Fe	Scaffold pipe	Discarded	14/12/12	KM
063	Topsoil	79772 01472	Fe	Fe plate/strap	Discarded	14/12/12	KM
064	Topsoil	79778 01467	Fe	Fe hinge	Discarded	14/12/12	KM
065	Topsoil	79781 01468	Fe	Lock bolt	Discarded	14/12/12	KM
066	Topsoil	79788 01469	Fe	Hinge	Discarded	14/12/12	KM
067	Topsoil	79786 01468	Fe	Horseshoe	Discarded	14/12/12	KM
068	Topsoil	79767 01446	Fe	Fe plate	Discarded	14/12/12	KM

No.	Context	NGR - NN	Material	Description	Comments	Date	Initial
069	Topsoil		Fe	Square nail	Discarded	14/12/12	KM

Appendix B:
Photographic Register; Dykedale and Dairymans – Metal Detector Survey

Shot Num.	Direction facing	Description	Site	Date	Initial
001	S	Pre-excavation view	Dairyman	10/12/12	RC
002	SW	Pre-excavation view	Dairyman	10/12/12	RC
003	SE	Working shot – Detecting on site	Dairyman	10/12/12	RC
004	SW	Working shot – Finds marked	Dairyman	10/12/12	RC
005	W	Working shot – Finds marked	Dairyman	10/12/12	RC
006	NW	Working shot – Finds marked	Dairyman	10/12/12	RC
007	S	Working shot – Detecting on site	Dairyman	10/12/12	RC
008	WSW	Working shot – Detecting on site	Dairyman	10/12/12	RC
009	E	Working shot – Detecting on site	Dairyman	10/12/12	RC
010	SW	Working shot – Detecting on site	Dairyman	10/12/12	RC
011	SE	Working shot – Detecting on site	Dairyman	10/12/12	RC
012	NE	Working shot – Detecting on site	Dairyman	10/12/12	RC
013	SW	Working shot – Detecting on site	Dairyman	10/12/12	RC
014	S	Working shot – Detecting on site	Dairyman	10/12/12	RC
015	S	Pre-excavation view	Dykedale	14/12/12	KM
016	W	Pre-excavation view	Dykedale	14/12/12	KM
017	WNW	Pre-excavation view	Dykedale	14/12/12	KM
018	NW	Pre-excavation view	Dykedale	14/12/12	KM
019	W	Pre-excavation view	Dykedale	14/12/12	KM
020	S	Working shot – Detecting on site	Dykedale	14/12/12	KM
021	W	Working shot – Detritus on site	Dykedale	14/12/12	KM
022	E	Pre-excavation view	Dykedale	14/12/12	KM
023	SE	Working shot – Detecting on site	Dykedale	14/12/12	KM
024	S	Working shot – Detecting on site	Dykedale	14/12/12	KM
025	E	Pre-excavation view	Dykedale	14/12/12	KM
026	S	Working shot – Detecting on site	Dykedale	14/12/12	KM
027	N	Working shot – Detecting on site	Dykedale	14/12/12	KM
028	NNE	Working shot – Detecting on site	Dykedale	14/12/12	KM
029	NE	Working shot – Detecting on site	Dykedale	14/12/12	KM
030	NW	Working shot – Detecting on site	Dykedale	14/12/12	KM
031	SE	Working shot – Detritus on site	Dykedale	14/12/12	KM

Appendix C:
Photographic Thumbnails; Dykedale and Dairymans – Metal Detector Survey



(001).JPG

(002).JPG

(003).JPG

(004).JPG



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(030).JPG



(031).JPG

Appendix D:
Specialist Finds Report for SF056 – Natasha Ferguson

Find No.: 056
Artefact type: Pistol ball

Dimensions: 11.93mm/0.46in

Weight: 8.95g/0.31oz

Condition:

Oxidised patina formed with patches of surface corrosion. There is a significant area of deep corrosion near in proximity to the sprue with deep pitting and some surface loss. This may be due to the use of a poorer quality lead containing impurities.

Casting:

Trace of seam as dark grey line. The seam line corresponds with a depression feature that may represent the sprue.

Description:

There is slight deformation of the spherical structure with one small flat area towards the southern pole and another larger flat area defined by severe pitting (a), which may have also caused the slight depression. The most significant feature is the deep cone shaped depression defined on the surface by a prominent oblong ridge or rim (b). The internal sloping sides appear smooth and there is no indication of any kinks or other smaller holes.



Detailed view of SF056 showing pitting (a) and cone shaped depression with prominent rim (b)

Interpretation:

The size and shape indicates that this lead projectile is a pistol ball of approximately 55 bore, which is consistent with pistol calibres of the late 17th – 18th century (Ferguson 2011: 15; Foard 2009: 20; Pollard 2006; Witt Bailey 1997: 18). Pistols are typically a cavalry weapon used to optimum effect during close quarter engagement (Hughes 1997: 13). The deformation features on the projectile does suggest impact damage. Therefore the pistol ball has been fired but does not appear to have hit a surface at high velocity as the impact areas are relatively small.

The most interesting feature is the hole which is difficult to interpret as a diagnostic feature. Its correspondence with the casting seam suggests it may be a casting sprue which has collapsed during the casting process. This may happen if an air-hole forms if the lead is too hot or poured too quickly. However, the feature appears too regular and therefore may be a deliberate action, for example, pushing a metal rod or bar into the projectile to create the hole. This action may create a ridge around the hole where the lead is pushed outwards. This may have been done to either modify the ball to reduce its stability when fired, therefore creating a kind of dum-dum to increase damage to the target. Or, another option is it became jammed in the barrel and an attempt was made to remove it using a type of specialised worm. The latter option, deliberate action, is more likely, however, it is not possible to be certain for what purpose.

References:

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Appendix E:
Provisional Discovery and Excavation Scotland (DES) entry; Dykedale and Dairymans – Metal Detector Survey

LOCAL AUTHORITY:	Stirling Council
PROJECT TITLE/SITE NAME:	Dykedale and Dairymans
PROJECT CODE:	AA 1935
PARISH:	Dunblane and Lecropt
NAME OF CONTRIBUTOR:	Ross Cameron
NAME OF ORGANISATION:	Addyman Archaeology
TYPE(S) OF PROJECT:	Metal detecting survey
NMRS NO(S):	NN80SW 1
SITE/MONUMENT TYPE(S):	Battlefield
SIGNIFICANT FINDS:	Pistol ball, worn coin
NGR (2 letters, 8 or 10 figures)	NN 79694 01444 and NN 79289 00309
START DATE (this season)	10/12/12
END DATE (this season)	14/12/12
PREVIOUS WORK (incl. DES ref.)	N/A
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>In December 2012 Addyman Archaeology undertook a metal detecting survey on two plots of land to the E of Dunblane prior to development. Known as Dykedale and Dairymans, both sites are located within the boundary of the Sheriffmuir Battlefield as defined and protected by Historic Scotland and because of this sensitive location an archaeological condition was placed upon the development by Stirling Council.</p> <p>Only 19th and 20th century metal detritus of limited archaeological interest was found, apart from, one pistol ball and a heavily worn metal coin, both recovered at Dairymans. These two artefacts, may be tied to the Battle of Sheriffmuir, fought in 1715.</p>
PROPOSED FUTURE WORK:	None
CAPTION(S) FOR ILLUSTRS:	-
SPONSOR OR FUNDING BODY:	Ristol Ltd.
ADDRESS OF MAIN CONTRIBUTOR:	St. Ninian's Manse, Quayside Street, Edinburgh, EH6 6EJ
EMAIL ADDRESS:	admin@addyman-archaeology.co.uk
ARCHIVE LOCATION (intended/deposited)	RCAHMS (intended)