

Walkover Survey  
Along The Bannock Burn  
Near Muirpark Farm  
Stirling  
ST22

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**ARCHAEOLOGICAL WALKOVER  
SURVEY ALONG THE BANNOCK BURN  
NEAR MUIRPARK FARM  
STIRLING**

**ST22**

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*Illustration 1: Location of Walkover*

*Illustration 2: Detailed Site Location Plan*

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**ABSTRACT**

*Eamonn Wall & Co commissioned Alder Archaeology to undertake a rapid archaeological walkover survey in advance of tree planting at two areas (centred on NS 74416 87687 and NS 75101 87722 respectively) along the Bannock Burn close to Muirpark Farm, SW of Stirling. The two areas investigated lie in an area that was subject to limestone quarrying and lime processing through most of the 18<sup>th</sup> century. The quarry was in operation in 1702 and the workings were abandoned by the end of the 18th century. The walkover (site code ST22) was undertaken on the 27<sup>th</sup> October 2011 in good weather conditions. During the work 25 sites were discovered, including the remains of 20 horse-shoe shaped lime clamps or kilns in the form of simple banks constructed from stones and boulders with central depressions and flat working areas nearby.*

# **1 Background**

## **1.1 Introduction**

Eamonn Wall & Co commissioned Alder Archaeology to undertake a rapid archaeological walkover survey in advance of tree planting at two areas along the Bannock Burn close to Muirpark Farm, SW of Stirling. The centres of the two areas are located at NGR NS 74416 87687 and NS 75101 87722 respectively. The work (site code ST22) was undertaken on the 27<sup>th</sup> October 2011 in good weather conditions. The requirement was to locate and briefly record any structural remains within the areas.

## **1.2 General Background**

The proposed areas of tree planting are located along the Bannock Burn to the SW of the North Third Reservoir. In this area the burn has cut its way through the Lawmuir sedimentary rock formation and the Blackhall limestone group, causing a series of tight meanders and waterfalls.

The two areas shown on Illus 1 are due to be fenced off and planted with trees and it is these areas that were subject to the walkover.

## **1.3 Archaeological Background**

The proposed tree planting is located in an area that was subject to 18<sup>th</sup> century limestone quarrying and lime processing. The remains were noted by Mackay in 1977 and later in 1997 when Headland Archaeology conducted a pre-forestation survey. The following information was extracted from the local SMR.

‘Swallowhaugh Quarry is an extensive area of limestone quarries located along both banks of the Bannock Burn over a distance of 1.5 km. Quarry faces are largely obscured by extensive spoil heaps among which are located a large number of simple circular or horseshoe kilns (SMR No 2725.02) along the Bannock Burn. The quarry was in operation in 1702 and the workings were abandoned by the end of the 18th century. The quarries, spoil heaps and kilns are currently stable and well vegetated except where the Bannock Burn is actively eroding along its banks. There is a recent building, now derelict, among the spoil heaps at the upper end of the workings. This is the only evidence for recent disturbance of the site’.

## **1.4 Objectives**

The main aim of this investigation was to record the locations and create brief descriptions of structural remains surviving within the two areas, with a view to mitigating potential damage to the remains that could be caused by tree planting. As the two areas were located on a complex 18<sup>th</sup> century quarried landscape, attention was focused on easily damaged structural remains such as lime clamps, walls and buildings rather than the more massive remains of spoil heaps, quarry faces and extractive gullies.

## **1.5 Acknowledgements**

We wish to thank Malcolm Young from Eamonn Wall & Co and Murray Cook from Stirling Council Archaeology Service for their assistance and guidance during this project. Eamonn Wall & Co funded this walkover survey.

## 2 Methodology and Approach

Alder Archaeology Ltd abides by the Codes of Conduct and Approved Practice and Standards of the Institute for Archaeologists.

### 2.1 Survey Method

The survey was carried out in a day by two archaeologists. Proposed area boundaries were uploaded to handheld GPS's and both areas walked as systematically as was possible given the topography. All archaeological features encountered were logged using monument record sheets, photographed and planned in sketch, and their map reference numbers located using a GPS system. Modern landmarks and features were also recorded, in order to calibrate the GPS record and tie it securely to the base map.

## 3 Results

### 3.1 Results of Investigations

All in all 25 sites were identified during the survey, 20 lime kilns/clamps, 2 walls, 1 building and two unidentified structures. Detailed descriptions of these structures are noted in appendix 1.

## 4 Recommendations

Kiln remains (including working areas) should be avoided when tree planting, erecting fences or when driving vehicles across the two areas. We recommend using a handheld GPS to avoid the sites. A safer level of mitigation would be to tape off the sites prior to tree planting.

Care should also be taken to avoid driving over the 4 sites outside the main tree planting areas when erecting fencing, particularly site 23, which may be early in date.

## 5 Bibliography

**Carter, S** (1997m) 'Muirpark (St Ninians parish), pre-afforestation survey', *Discovery Excav Scot*

Page(s): 79

**Mackay, K J H** (1977) 'Limestone working: a forgotten Stirlingshire industry', *Forth Natur Hist, vol.2*

Page(s): 81-105

**BGS, Geology of Britain Viewer (1:50,000)**

## Appendix 1 Site index and descriptions

No:	Description	Within Proposed Planting Areas
01	A short stretch of drystone dyke running diagonally from the burn to a cliff face to the SW; curves steeply at SW end. Wall composed of boulders and smaller stones survives up to 3 courses high at NE end. Measures c 7m long by c 0.5m wide. Interpretation: unknown function. NGS: NS 75286 87739 to NS 75285 87732	Yes
02	A turf covered horse-shoe shaped bank with entrance to E. Composed of medium sub-rounded stones. Overall the structure is circular in plan (c 6m in diameter) with banks rising c 1-1.2m tall from surrounding land. Interpretation: lime kiln/clamp. NGS: NS 75043 87697	Yes
03	A drystone dyke running along the valley bottom on the NW side of the burn for c 90m. Wall (c 0.75m wide) stands to full height (c 0.9m) in places. Interpretation: Boundary wall. NGS: NS 75020 87719 to NS 74970 87648	Yes
04	A curving asymmetrical bank (crook-shaped) composed of turf and soil standing up to c 1.5m above surrounding land. Possible 4m wide entrance at SW end. Measures c 10m by c 11m overall. Interpretation: Possible animal enclosure? Not thought to be a kiln. NGS: NS 74176 87678	No
05	A turf covered horse-shoe shaped bank with entrance to E. Composed of stones and boulders. Overall the structure is circular in plan (c 4.5m in diameter) with banks rising c 0.85m measured from central depression. Stones and boulders visible in central depression. Interpretation: lime kiln/clamp. NGS: NS 74239 87650	Yes
06	A turf covered horse-shoe shaped bank with entrance to N. Composed of stones and boulders. Overall the structure is circular in plan (c 5m in diameter) with banks rising c 0.65m measured from central depression. Interpretation: lime kiln/clamp. NGS: NS 74260 87649	Yes
07	A poorly defined turf covered horse-shoe shaped bank with possible entrance to E. Composed of stones and very large boulders. Overall the structure is circular in plan (c 4.5m in diameter) with banks rising c 0.80m measured from the rather wide central depression. Interpretation: Possible lime kiln/clamp. NGS: NS 74297 87636	Yes
08	The remains of a building measuring c 3.5m x 4m Plywood and thin planks used in construction. Remains of a bed and several chairs noted close by. Interpretation: 20 <sup>th</sup> century building, unknown function. NGS: NS 74374 87631	Yes
09	A large turf covered horse-shoe shaped bank with entrance to E. Composed of stones and boulders. Overall the structure is roughly circular in plan (c 7m by 8m) with banks rising c 1m measured from central depression, but bank much higher if measured from the N. Many stones and boulders noted in central depression and outside entrance. Interpretation: lime kiln/clamp. NGS: NS 74532 87679	Yes
10	A turf covered horse-shoe shaped bank with entrance to N. Seems to be composed of angular stones. Overall the structure is circular in plan (c 6.5m in diameter) with banks rising c 0.5m measured from central depression. Few stones visible on bank but there are many stones in the central depression and outside the entrance. Interpretation: lime kiln/clamp. NGS: NS 74564 87654	Yes
11	A structure comprising a scoop cut into the hillside as well as turf covered bank made of large boulders and stones on the NW (down slope) side. There is an	Yes

	entrance on the N side. Overall the structure is oval in plan (c 7m x 5.5m). Some stones are visible on the bank but there are many smaller stones in central depression and a group of large stones outside the entrance. Interpretation: lime kiln/clamp. NGS: NS 74615 87681	
12	A turf covered horse-shoe shaped bank with entrance to SE. Composed of boulders. Overall the structure is circular in plan (c 7.5m in diameter) with banks rising c 1.7m measured from down slope side. There are many stones visible in central depression, around entrance and outside entrance. Interpretation: lime kiln/clamp. NGS: NS 74605 87687	Yes
13	A turf covered horse-shoe shaped bank with entrance to E. Probably composed of stones, but few visible. Overall the structure is circular in plan (c 6.5m in diameter) with banks rising c 0.7m measured from internal depression. There are many stones noted though partly obscured by moss around the entrance. To the E of the entrance is a roughly flat circular area (3.5m diameter). Interpretation: lime kiln/clamp with working area. NGS: NS 74458 87679	Yes
14	A turf covered roughly horse-shoe shaped bank with an entrance to NE. Material of bank is unknown as no stones visible. Overall the structure is roughly circular in plan (c 5m x 6m) with banks rising c 0.3m measured from internal depression. To the NE of the entrance, the banks partly project around a roughly flat oval area (3m x 4m). Interpretation: lime kiln/clamp with working area. NGS: NS 74444 87695	Yes
15	A turf covered horse-shoe shaped bank with entrance to NE. Composed of stones and boulders. Overall the structure is circular in plan (c 6m in diameter) with banks rising c 1m measured outside (SW side). There are many stones visible in the central depression. To the NE of the entrance is a roughly flat oval area (3m x 4m) partly cut into the hillside and partly formed by a projection in the SE bank. Interpretation: lime kiln/clamp with working area. NGS: NS 74434 87694	Yes
16	A turf covered roughly horse-shoe shaped bank with an entrance to SE. Composed of stones and boulders. Overall the structure is roughly oval in plan (c 7m x 6m) with banks rising c 0.7m measured from outside (up slope). There are many stones visible in the central depression and several are highly vitrified. To the NE of the entrance, the banks partly project around a roughly flat oval area (5m x 3m). Interpretation: lime kiln/clamp with working area. NGS: NS 74436 87679	Yes
17	A small turf covered horse-shoe shaped bank with entrance to E. Seems to be composed of stones. Overall the structure is circular in plan (c 5m in diameter) with banks rising c 2m measured outside (down slope). There are many stones visible in and around the entrance. To the E of the entrance is a roughly flat rectangular area (3.5m x 4.5m diameter) partly cut into the hillside and partly formed by a projection in the S bank. Interpretation: lime kiln/clamp with working area. NGS: NS 74416 87687	Yes
18	A very subtle turf covered horse-shoe shaped bank with entrance to N. Seems to be composed of stones and boulders. Overall the structure is oval in plan (c 5m x 6m) with banks rising c 0.6m measured from central depression. There are few stones visible sticking out of the bank. To the NE of the entrance is a roughly flat area. Interpretation: lime kiln/clamp with working area. NGS: NS 74335 87709	Yes
19	A turf covered horse-shoe shaped bank with entrance to NE. Composed of stones. Overall the structure is circular in plan (c 6.5m in diameter) with banks rising c 1.2m measured from central depression. There are many stones visible in the central depression and in the bank on the down slope side. To the NE of the entrance is a roughly flat oval area (5m x 4.5m) partly cut into the hillside and partly formed by a projection in the SW bank. Interpretation: lime kiln/clamp with working area. NGS: NS 74334 87675	Yes

20	A turf covered horse-shoe shaped bank with entrance to NE. Composed of stones. Overall the structure is oval in plan (c 6m x 5m) with banks rising c 1.2m measured from central depression. Interpretation: lime kiln/clamp with working area. NGS: NS 74307 87669	Yes
21	A partly turf covered horse-shoe shaped bank with entrance to S. Composed of stones and boulders. Overall the structure is circular in plan (c 4.5m in diameter) with banks rising c 0.8m measured from central depression. There are many stones visible in the central depression, around the entrance and all over the banks. Interpretation: lime kiln/clamp with working area. NGS: NS 74301 87666	Yes
22	A turf covered horse-shoe shaped bank with entrance to E. Composed of stones and large boulders. Overall the structure is circular in plan (c 6m in diameter) with banks rising c 0.3m measured from central depression, >2m measured from down slope side. There are many stones visible in the central depression, around the entrance and outside the entrance. Interpretation: lime kiln/clamp with working area. NGS: NS 74281 87690	Yes
23	Structure comprises a semicircular low earth bank (c 0.4m high) enclosing a flattish area with a wide gap or entrance to the W. There is also small depression or gap to the SE which might be an entrance. Overall the structure measures 6m by 8m. The structure sits on a prominent knoll with good views in all directions. Interpretation: Possibly the damaged remains of a small prehistoric roundhouse or later medieval / post-medieval building or more simple enclosure. NGS: NS 74523 87764	No
24	A turf covered horse-shoe shaped bank with entrance to E. Composed of stones. Overall the structure is circular in plan (c 6m in diameter) with banks rising c 1-1.2m measured from central depression and outside (up slope). Interpretation: lime kiln/clamp with working area. NGS: NS 74859 87657	No
25	A turf covered horse-shoe shaped bank with entrance to E. The S bank has partly tumbled down the slope towards the burn. Composed of stones. Overall the structure is oval in plan (c 6m x 5m) with banks rising c 1m measured from outside (up slope). There are many stones visible where the S bank has tumbled. Interpretation: lime kiln/clamp with working area. NGS: NS 74913 87645	No

## Appendix 2 Photographic Register

<i>Image No</i>	<i>Description</i>	<i>View</i>
DSC_0001-2	View of site 01, wall	SW
DSC_0003	General shot looking W from W end of E area	W
DSC_0004	General shot in E area	SE
DSC_0005-6	View of site 02, limekiln/clamp	W
DSC_0007-9	View of site 03, wall	SW
DSC_0010	View of site 03, wall	NE
DSC_0011	General shot looking up at bank from end of site 03, wall	SW

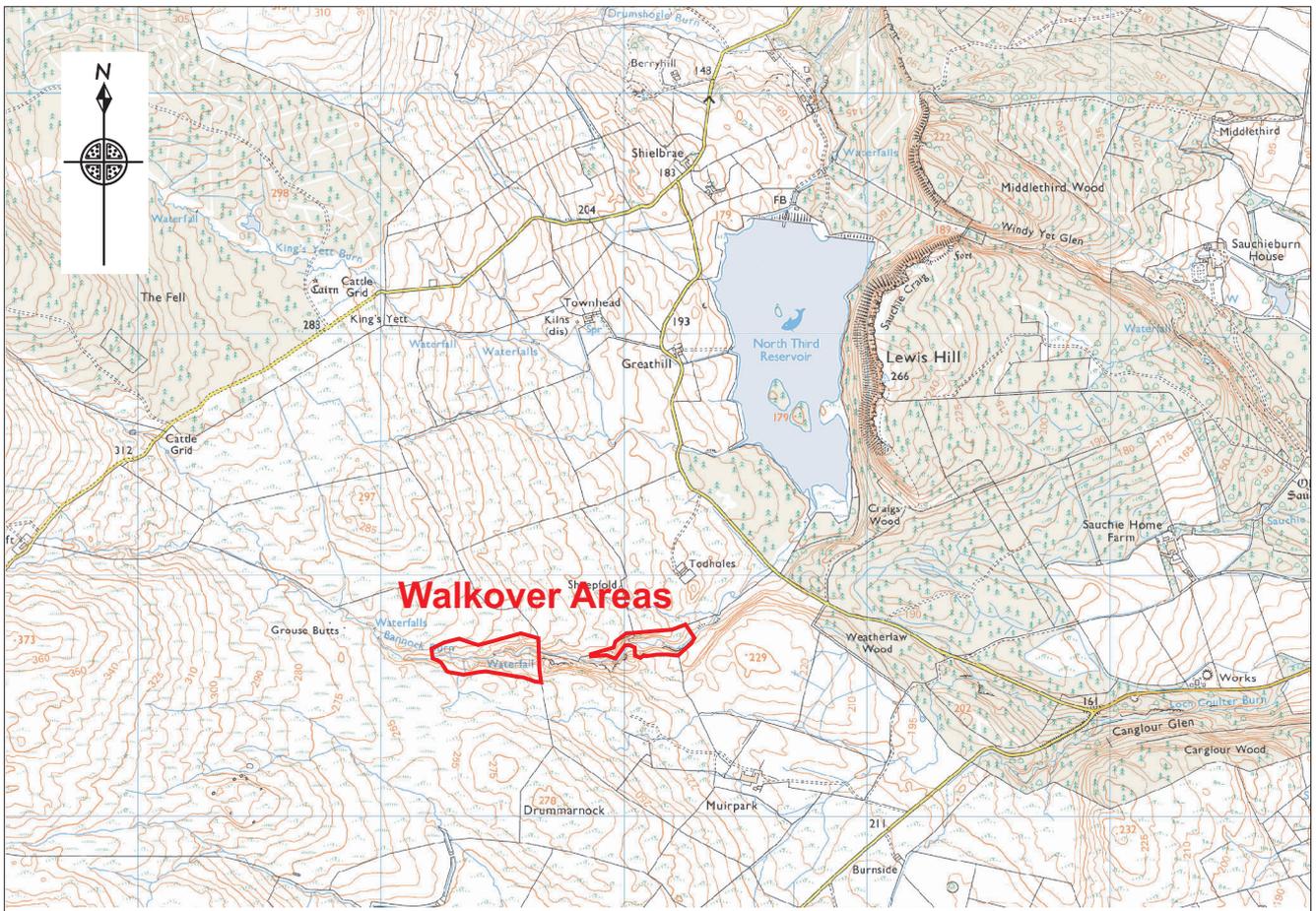
DSC_0012	Shot looking down at site 03, wall	E
DSC_0014	General shot looking at the E end of the E area	E
DSC_0015	General shot looking at the W end of the E area	W
DSC_0016-18	Shot looking down at site 03, wall	W, NW
DSC_0019-20	General shot looking at the middle of the E area	E
DSC_0021-23	General shot of quarries to S of E area	SE
DSC_0024	General shot looking from W end of the E area	E
DSC_0025	Shot of kilns above the N bank of the burn in the W area	N
DSC_0026	General shot looking at E end of W area	E
DSC_0027-8	Shot looking at W end of W area	W, NW
DSC_0029	View of windfarm	SW
DSC_0030-33	Shot looking at W end of W area	E
DSC_0034-35	View of site 04, unknown structure	NW
DSC_0036-37	View of site 05, limekiln/clamp	W
DSC_0038-39	View of site 06, limekiln/clamp	S, SE
DSC_0040-41	View of site 07, limekiln/clamp	SW, W
DSC_0042-43	View of site 08, collapsed building	S, SE
DSC_0044-46	View of site 09, limekiln/clamp	W, NE
DSC_0047-48	View of site 10, limekiln/clamp	S, SW
DSC_0049	Shot looking across at site 09, limekiln/clamp	NW
DSC_0050-52	View of site 11, limekiln/clamp	S, SW, NE
DSC_0053-55	View of site 12, limekiln/clamp	SW, NE
DSC_0056-57	View of site 13, limekiln/clamp	SW
DSC_0058-59	Shot of waterfall in W area	SE
DSC_0060	General shot looking E in W area	E
DSC_0061-64	View of site 14, limekiln/clamp	SW
DSC_0065-67	View of site 15, limekiln/clamp	S
DSC_0068-69	View of site 16, limekiln/clamp	W

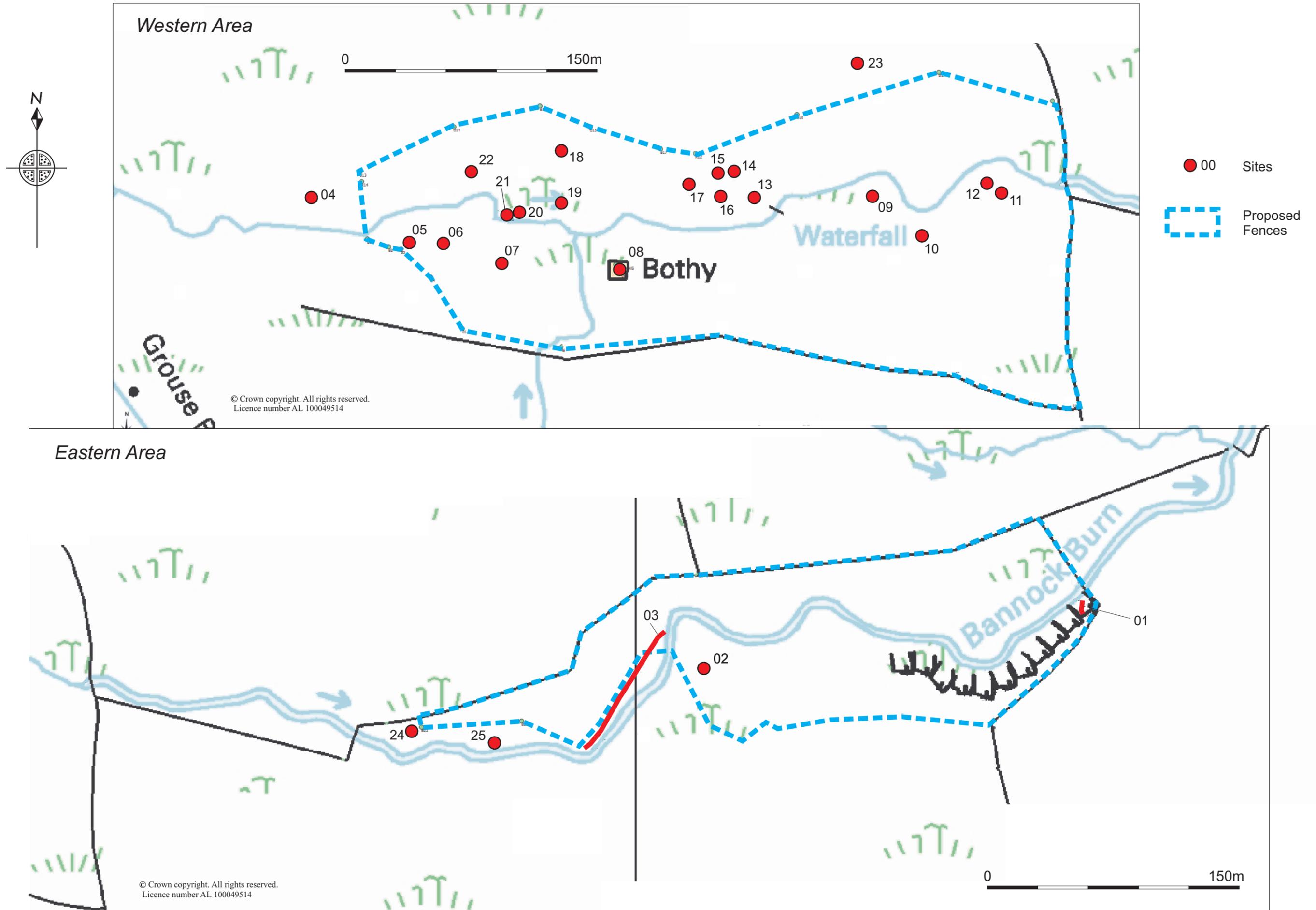
DSC_0070	View of vitrified stones at site 16, limekiln/clamp	-
DSC_0071-72	View of site 17, limekiln/clamp	SW
DSC_0073-74	View of site 18, limekiln/clamp	SW
DSC_0075-76	View of site 19, limekiln/clamp	W
DSC_0077	General shot looking E in W area	E
DSC_0078-79	View of site 20, limekiln/clamp	W
DSC_0080	View of site 21, limekiln/clamp	NW
DSC_0081-82	View of site 22, limekiln/clamp	NW, W
DSC_0082	General shot across to site 8, building	S
DSC_0083-87	General shots of limekilns on N bank of burn in W area	S
DSC_0103-6	View of site 23, banked structure	E
DSC_0130-31	View of site 24, limekiln/clamp	W
DSC_0132-34	View of site 25, limekiln/clamp	E, SE
DSC_0135-36	Shot of drystone dyke outside study area	N
DSC4871-2	General shot looking W in W end of E area	W
DSC4873-4	General shot looking E in W end of E area	E
DSC4875-6	Quarries on S side of E area	SE

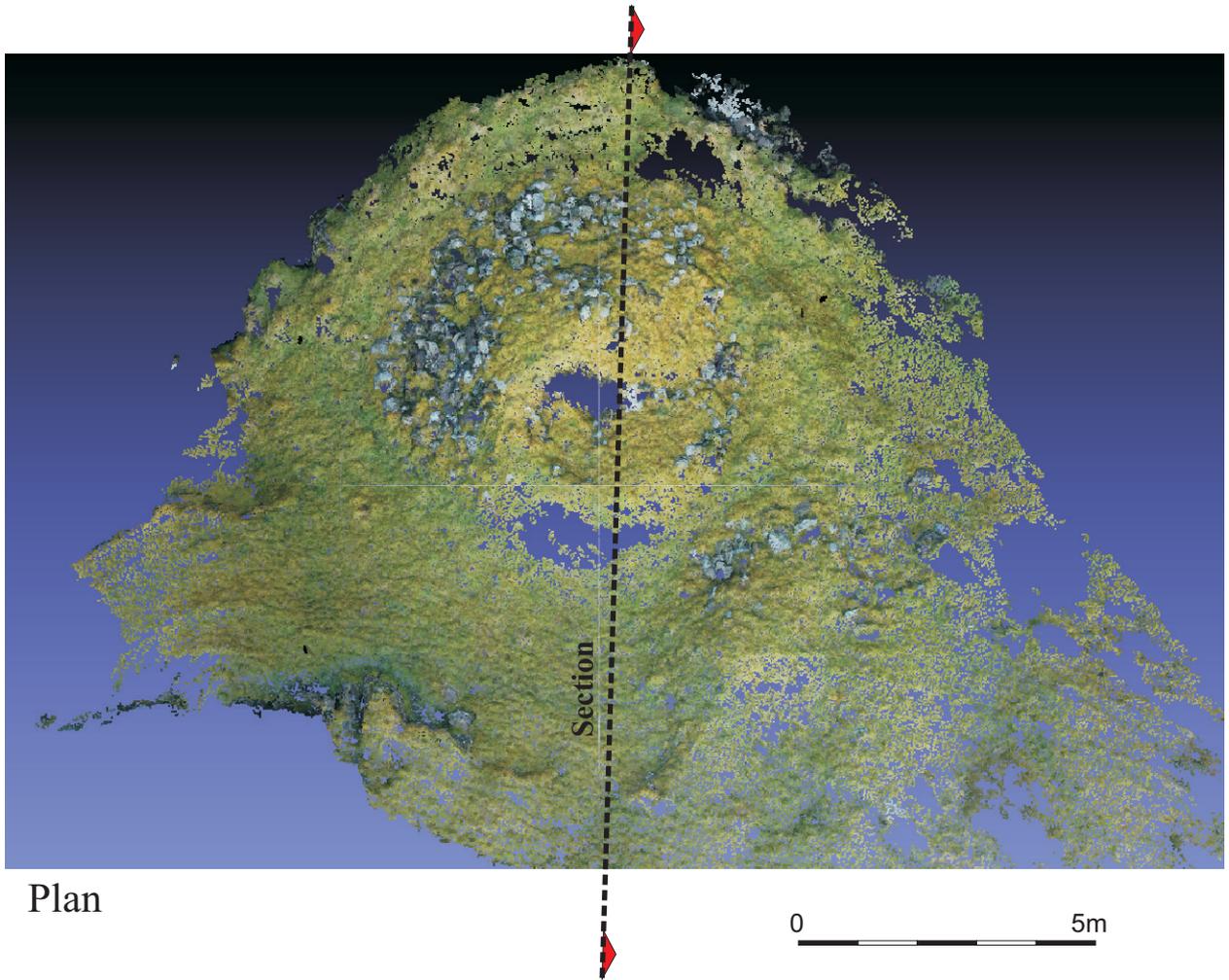
## Discovery & Excavation in Scotland Entry

LOCAL AUTHORITY:	STIRLING
PROJECT TITLE/SITE NAME:	Walkover survey along the Bannock Burn near Muirpark Farm
PROJECT CODE:	ST22
PARISH:	ST NINIANS
NAME OF CONTRIBUTOR(S):	Barton, T, Cachart, R
NAME OF ORGANISATION:	Alder Archaeology Ltd
TYPE(S) OF PROJECT:	Walkover Survey
NMRS NO(S):	NS78NW 14
SITE/MONUMENT TYPE(S):	Lime Kilns, Quarries, Buildings, Walls
SIGNIFICANT FINDS:	-
NGR (2 letters, 8 or 10 figures)	Site centred on NS 74681 87686
START DATE	27-10-2011
END DATE	27-10-2011
PREVIOUS WORK (incl. <i>DES</i> ref.)	<p><b>Carter, S</b> (1997m) 'Muirpark (St Ninians parish), pre-afforestation survey', <i>Discovery Excav Scot</i> Page(s): 79</p> <p><b>Mackay, K J H</b> (1977) 'Limestone working: a forgotten Stirlingshire industry', <i>Forth Natur Hist, vol.2</i> Page(s): 81-105</p>
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>Eamonn Wall &amp; Co commissioned Alder Archaeology to undertake a rapid archaeological walkover survey in advance of tree planting at two areas (centred on NS 74416 87687 and NS 75101 87722 respectively) along the Bannock Burn close to Muirpark Farm, SW of Stirling. The two areas investigated lie in an area that was subject to limestone quarrying and lime processing through most of the 18<sup>th</sup> century. The quarry was in operation in 1702 and the workings were abandoned by the end of the 18th century. The walkover (site code ST22) was undertaken on the 27<sup>th</sup> October 2011 in good weather conditions. During the work 25 sites were discovered, including the remains of 20 horse-shoe shaped lime clamps or kilns in the form of simple banks constructed from stones and boulders with central depressions and flat working areas nearby.</p>
PROPOSED FUTURE WORK:	None
SPONSOR OR FUNDING BODY:	Eamonn Wall & Co

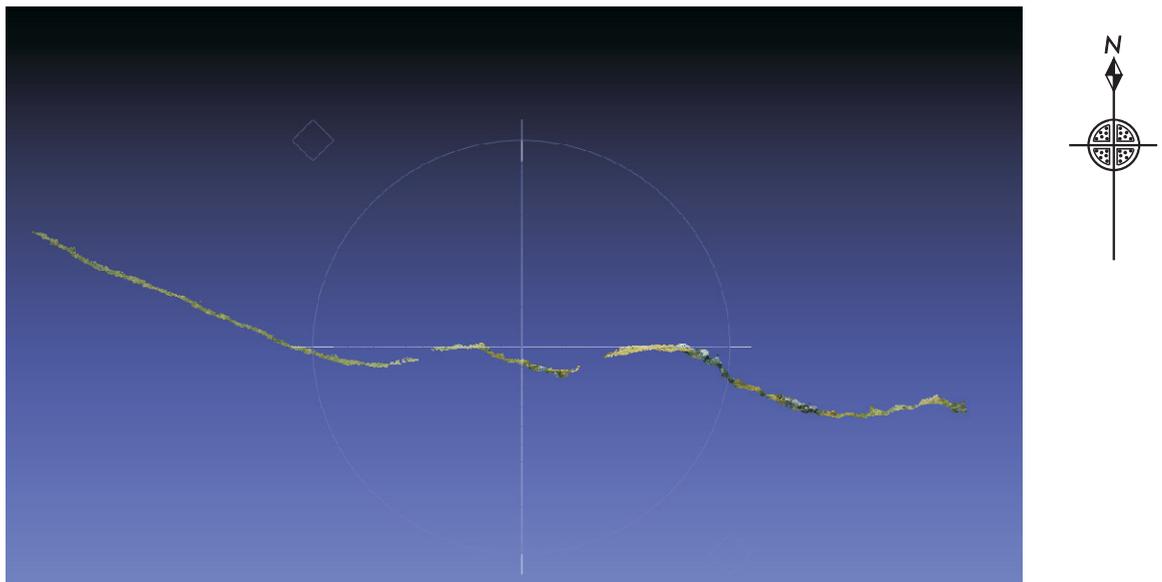
CAPTIONS FOR ILLUSTRS	-
ADDRESS OF MAIN CONTRIBUTOR:	Alder Archaeology Ltd, 55 South Methven Street, Perth PH1 5NX
ARCHIVE LOCATION (intended)	NMRS
EMAIL ADDRESS:	<a href="mailto:Director@AlderArchaeology.co.uk">Director@AlderArchaeology.co.uk</a>







Plan



Section



Sites 13, 14, 15, 16, 17



Site 04



Site 23



Site 08



Site 02



Site 09



Site 03



Site 13