Archaeological Mitigation
Sites 01-03 and 05
on March Burn to Little Clyde
Roman Road Scheduled Monument 3348
HOWECLEUCH, CRAWFORD
SOUTH LANARKSHIRE

HC01

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SITE CODE

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ABSTRACT

Fountains Forestry commissioned Alder Archaeology to undertake archaeological mitigation work on the site of the March Burn to Little Clyde Roman Road, Scheduled Monument index number 3348. The road forms part of the Roman road from Carlisle via Annandale into Clydesdale and is partially overlain by an 18th-century road. This programme of archaeological works has been undertaken as part of the mitigation process required by Historic Scotland resulting from disturbance of the Scheduled Ancient Monument. Previously a desk based study and walkover survey had been undertaken by Alder Archaeology. The walkover identified four areas, which had been disturbed during operations involving tree felling (Area 01, centred on NT 0286 1469 and area 02, centred on NT 0257 1400); excavation for the installation of a passing place (Area 03 centred on NT 0118 1479) and the cutting of a bench or log stacking area (Area 05, centred on NT 0053 1478). Based on the walkover results recommendations were made by Historic Scotland for archaeological mitigation on the affected areas in the form of non invasive investigating for archaeological remains by the means of cleaning and recording of disturbed areas. The field work took place intermittently, 8-10 April 2014 (Areas 01 and 02), 17 April 2014 (Area 03) and 30 July 2014 (Area 05). Apart from some evidence of possible Roman or later road metalling recorded in Areas 01 and 02 no significant archaeological remains were encountered.

1 Background

1.1 Introduction

Fountains Forestry commissioned Alder Archaeology to undertake archaeological mitigation work on the site of the March Burn to Little Clyde Roman Road, Scheduled Monument index number 3348. The road forms part of the Roman road from Carlisle via Annandale into Clydesdale and is partially overlain by an 18th-century road. This programme of archaeological works has been undertaken as part of the mitigation process required by Historic Scotland resulting from disturbance of the Scheduled Ancient Monument. Previously a desk based study and walkover survey had been undertaken by Alder Archaeology. The walkover identified four areas, which had been disturbed during operations involving tree felling (Area 01, centred on NT 0286 14069 and area 02, centred on NT 0257 1400); excavation for the installation of a passing place (Area 03 centred on NT 0118 1479) and the cutting of a bench or log stacking area (Area 05, centred on NT 0053 1478). Based on the walkover results recommendations were made by Historic Scotland for archaeological mitigation on the affected areas in the form of non invasive investigating for archaeological remains by the means of cleaning and recording of disturbed areas. The field work took place intermittently, 8-10 April 2014 (Areas 01 and 02), 17 April 2014 (Area 03) and 30 July 2014 (Area 05). Apart from some evidence of possible Roman or later road metalling recorded in Areas 01 and 02 no significant archaeological deposits were encountered.

1.2 Aims and Objectives

The main aim was of the work was to investigate the presence/absence, date, character and quality of any archaeological remains surviving within disturbed areas by non invasive means. The work involved cleaning and recordings at locations damaged by logging and the groundworks required for forming a passing place and a log stacking area. The results will be used to inform the archaeological record relating to the March Burn to Little Clyde Roman Road, Scheduled Monument index number 3348.

1.3 Reporting

The present document has been prepared as the final report on this mitigation work Copies will be sent to Fountains Forestry, Historic Scotland, The Royal Commission on the Ancient and Historical Monuments of Scotland.

1.4 Planning and Curatorial Issues

This programme of archaeological work is required by Historic Scotland in mitigation of disturbance caused by forestry activities at certain locations on the course of March Burn to Little Clyde Roman Road, Scheduled Monument index number 3348.

1.5 Acknowledgements

We wish to thank Douglas Murray and John Proudlock of Fountains Forestry for their assistance and guidance throughout this project. We also wish to thank Martin Brann of Historic Scotland for his assistance and on site advice. The project was fully funded by Fountains Forestry.

2 Details of Work

2.1 The Site (Illus 1)

2.1.1 Area 01 Disturbance from machine access and hinge mounding (Illus2)

Area 01 is centred on NT 0286 14069 and covers an area of 0.74 Ha. It is triangular in shape and lies within the angle of two converging forest roads which form the S side and NW side of the area. The Roman road had remained largely untouched by the planting but had sustained some machine impact damage. There was limited damage to the access track in the form of 3 shallow holes at the SW end of the track which appears to be on the boundary of the Scheduled area. The lower part of this track, to the NE, is on the Roman road; here the turf had sustained damage where a machine had turned tearing the turf and leaving a moderately sized area of waterlogged imprints, 0.10-0.20m in depth. Tree harvesting on the N side of the track within the corridor of the Roman road and on the S side of the corridor had left tree stumps between which are rows of hinge mounding pits (pits for tree planting). The pits measure about 0.70 X 0.60m and are approximately 0.40m deep. Pits for mounding on the S side of the corridor seem to have reached the sub soil revealing small to large stone and gravel in a matrix of light brown silty clay and gravel which may be makeup for the Roman road surface. Five areas of disturbance were subsequently selected for mitigation by further archaeological investigation and recording.

2.1.2 Area 02 Disturbance from machine access and hinge mounding (Illus 2)

Area 02 is located to the W of area 01. The Roman road corridor assessed for damage extends from NT 0243 1400 at the W end to NT 0275 1402 at the E end. The Roman road is a well preserved flat turf embankment averaging 15m wide. It is considered that the Roman road along this stretch has not been overlain by a later road. Planting on both sides of the road had taken place up to the road edge prior to scheduling and the setting up of a buffer zone. Felling had taken place on the S side of the Roman road within the buffer zone.

Damage to the road had been sustained in at least 13 locations along this stretch of the Roman road. The damage was caused by machine access tracking, cutting through the turf on the course of the road itself and by tree felling and hinge mounding along the S edge of the Road within the 20m buffer zone. In some instances gravel and stones were revealed that could represent metalling for the road.

As in area 01 five areas of disturbance were subsequently selected for mitigation by further archaeological investigation and recording.

2.1.3 Area 03 Passing Place (Illus 3, 6)

At this location the forest road comprises an earlier medieval/post medieval road which overlies the course of the Roman road and the passing place is located within the Roman road scheduled area. The passing place had been constructed by levelling at the edge of the existing road and cutting into the slope of the banking. The passing place is 33m in length and the recently laid metalling of fragmented stone is 3.50m wide as measured from the original SW edge of the forest road. The new metalling overlies the original gully at the road edge and a gully has been roughly formed at the edge of the new metalling and the bottom of the newly cut embankment. The slope of the embankment at the side of the passing place had been cut down from the top to form an angle of about 30º to the horizontal.

At 11m to the NW of the SE end of the passing place a 1m wide sample of the bank section was recorded (Illus 13). The slope measured 2.60m from top to bottom. This section showed turf over brown silt below which were two thin humic layers separated by silt. Iron panning was observed at 0.60m below the top of the turf (see Area 03 contexts 0301-0308). Below the iron panning were natural gravels. The section appeared to show that turfs and silt had accumulated at the top of the embankment possibly from the making of the original Roman road or more likely from the later more modern road which overlay it.

2.1.4 Area 05 'bench' cut into bank (Illus 3, 4, 14-15)

Area 05 comprised a large cut into the embankment on the NW side of the road to form a 'bench' which was 122m in length and had a width of 5m. The function of the 'bench' was to hold stacks of cut logs for loading onto transporters. The cut extended from NT 00461 14758, W end, to NT 00583 14785, E end. The 'bench' had been cut within the area of the scheduled Roman road which at this location is overlain with a later road. The lower edge of the 'bench' extends to the shallow roadside gully which measures approximately 2m across the top. The height of the cut into the embankment increases gradually from the W end at 0.50m to the E end at 1.50m. The general stratigraphic sequence for the S facing cut is consistent and comprises peaty topsoil, overlying natural clayey silt which in turn overlies weathered, friable rock. Visual inspection of the S facing section cut into the embankment revealed no archaeological deposits. The horizontal surface of the 'bench' had its outer part levelled with spoil from the initial cutting into the slope. Archaeological mitigation of area 05 was carried out by cleaning machine cutting and the further cleaning and recording of five 1m long sections.

2.2 Archaeological Potential

The March Burn to Little Clyde Roman road, Scheduled Monument Index No 3348, is a monument of exceptional significance. The Roman road is partially overlain by an 18th-century road, and formed part the Roman road from Carlisle via Annandale into Clydesdale. Much of the Roman road today lies beneath the main route through the forestry plantation extending from Nether Howecleuch to Little Clyde which is used by heavy logging vehicles. It was considered that the archaeological mitigation measures put in place by Historic Scotland might well reveal the extent and construction of previous road surfaces, borrow pits for road metalling, and possibly earlier roadside ditches.

2.3 Archaeological Method

The methodology required for the archaeological mitigation was non invasive, that is basically cleaning and recording of sections that had been created by the groundworks for harvesting and replanting, forming a passing place and the cutting of a log stacking bench. Standard methods of archaeological recording were used (see below appendix 6.1). The national grid co-ordinates were obtained with a hand held Garmin GPS 60. Test pit locations and other physical features were also recorded with a Leica TCR 307 EDM. Photographic recording used a Nikon D50 digital camera.

2.4 Results of Investigations

2.4.1 Area 01

Five sites that had been disturbed as a result of forestry activity were investigated.

Hinge Mounding Pit 0110

The north edge of a pit on sloping ground nominally measuring 1 X 2.50m aligned NS; the deepest part was 0.70m on the south edge of the pit. The SE facing section and floor were cleaned and recorded:

Area 01 section in hinge mounding pit 0110 at NT 02901 14081
0111: Deposit, layer of recent pine needles 4-5cm thick
0112: Deposit, black organic silt, soil, 0.08m thick merging with 0113
0113: Deposit, grey brown silt subsoil, 0.08m thick
0114: Deposit, natural deposit, yellow, brown orange, silty clay 0.40m thick occasional large stone

Hinge Mounding Pit 0120

Sub-square pit on roughly level ground nominally measuring 1m x 1m, corners aligned diagonally NW-SE and NE-SW; southern edge more irregular than remainder. The SE-facing and NW-facing sections and floor were cleaned and recorded:

Area 01 section in hinge mounding pit 0120 at NT 02884 14091
0121: Deposit, layer of recent pine needles 4-5cm thick
0122: Deposit, black organic silt, soil, 0.1m thick
0123: Deposit, red-brown inorganic silt, 0.1-0.15m thick
0124: Deposit, band of dark grey/black clay silt in NW-facing section, 0.18m thick
0125: Deposit, green-grey clay silt in base of pit, undisturbed subsoil

0126: Deposit, sub-rounded and slab stones within matrix of 0125, up to 0.25m x 0.16m (length-breadth)
0127: Deposit, between 0124/0125 in NW-facing section, 0.02-0.08m thick, mottled grey clay with occasional charcoal flecks

Hinge Mounding Pit 0130

Rectangular pit on crest of sloping ground measuring 1.40m x 0.6m, aligned NE-SW. Located on S edge of Roman road. The S-facing and W-facing sections and floor were cleaned and recorded.

Area 01 section in hinge mounding pit 0130 at NT 02864 14096
0131: Deposit, layer of recent pine needles and turf 0.02-0.05m thick
0132: Deposit, black organic silt, soil, 0.1m thick, merging with 0133
0133: Deposit, grey-brown silt, up to 0.1m thick, tapering to SW and SE
0134: Deposit, yellow clay silt in base of pit, occasional stone, undisturbed natural subsoil

Hinge Mounding Pit 0140

Sub-square pit on uneven ground nominally measuring 1m x 1m, corners aligned diagonally N-S and E-W. Located on S edge of Roman road. The SE-facing and NE-facing sections and floor were cleaned and recorded.

Area 01 section in hinge mounding pit 0140 at NT 02833 14085
0141: Deposit, turf and black loamy topsoil 0.03-0.1m thick
0142: Deposit, black organic silt, soil, high density (c.30%) loose, sub-angular pebbles, loose compaction, 0.15m thick
0143: Deposit, sub-angular stones (0.3m long, 0.1m thick, 0.2m wide, average) in base of pit, within matrix of 0144
0144: Deposit, mid-brown clay, compact silt, in base of pit
0145: Deposit, band of sub-angular pebbles (0.08m diameter) between 0142/0143

Image 1: Pit 0140, view ESE

Scrape 0150

Irregularly-shaped, nominally rectangular scrape measuring 1.10m x 1.60m, aligned NW-SE, with unexcavated area of turf obscuring part of the E edge. Located across Roman road and excavated through sloping ground, with the SW-baulk removed. The SE-facing section and sloping base were cleaned and recorded.

Area 01 section in scrape 0150 at NT 028175 14080
0151: Deposit, turf 0.05m thick
0152: Deposit, black organic silt (peat), 0.3m thick (S end of pit) – 0.5m thick (N end)
0153: Deposit, stones, possible metalling for Roman road
0154: Deposit, wet brown silt

Image 2: Scrape 0150, view NNW

2.4.2 Area 02

A further five disturbed sites were investigated in this area

Hinge Mounding Pit 0210

Rectangular pit measuring 3m x 0.8m, aligned NE-SW, on gently sloping ground. The SW-facing section and floor were cleaned and recorded.

Area 02 section in hinge mounding pit 0210 at NT 02719 14012
0211: Deposit, leaf litter, turf, topsoil 0.05- 0.1m thick
0212: Deposit, loose black organic silt, occasional (c.5%) sub-rounded stones 0.15m diameter (average), 0.2m thick at either end of pit, thickening to 0.34m around the mid-point
0213: Deposit, grey clay subsoil, sub-angular stones (c.10%), c.0.15m across, moderately compact, 0.1m thick (NW end of section) to 0.3m thick (SE end)
0214: Deposit, orange/yellow clay silt, undisturbed natural subsoil in base of pit

Hinge Mounding Pit 0220

Rectangular pit measuring 1.24m x 1.66m, aligned N-S, on steeply sloping ground. The S-facing section and floor were cleaned and recorded.

Area 02 section in hinge mounding pit 0220 at NT 02638 13996
0221: Deposit, turf, topsoil 0.1m thick
0222: Deposit, loose black organic silt, occasional (c.5%) sub-rounded pebbles, 0.1m thick
0223: Deposit, natural subsoil, yellow/light-brown, some root turbation, up to 0.3m thick, undulating profile
0224: Deposit, natural subsoil, grey boulder clay, up to 0.55m thick, undulating profile
0225: Deposit**, u**ndisturbed natural subsoil, yellow-brown compact silt in base of pit

Scrape 0230

Sub-rectangular scrape in turf on sloping ground on the line of the Roman road, measures 3.70m x 1.32m (max), aligned E-W. The floor was cleaned and recorded.

Area 02 section in scrape 0230 at NT 02606 13995
0231: Deposit, turf c.0.1m thick
0232: Deposit, grey silty clay, bottom of turf layer
0233: Deposit, yellow-orange clay, contains numerous large (up to 20cm diameter) flat stones and smaller pebbles (possible metalling)
0234: Deposit, recent pine needles and small cones in disturbed area, c.1m thick
0235: Deposit, grey-orange clay, undisturbed natural subsoil

Image 3: Scrape 0230, view NW

Hinge Mounding Pit 0240

Sub-square (rounded corners) pit measuring 0.8m x 0.75m, aligned N-S across the S bank of the Roman road. The S-facing section and floor were cleaned and recorded.

Area 02 section in pit 0240 at NT 02509 13998
0241: Deposit, turf and topsoil c.0.05m thick, widening to 0.2m thick on W side of pit
0242: Deposit, loose, black soil with frequent (c.20%) sub-angular pebbles, 0.1m thick, not present at extreme W of pit.
0243: Deposit, dark brown subsoil, silty, moderately compact, 0.1m thick (E side of pit)- 0.4m thick (W side)
0244: Deposit, large (0.15m diameter, average), sub-rectangular stones within matrix of 243
0245: Deposit, orange-brown soil in base of pit, compact, possibly re-deposited natural subsoil

Image 4: Pit 0240, view N

Trench 0250

Irregularly-shaped machined trench with curved edges, nominally measuring 2m x 0.7m (max) aligned E-W on sloping ground. The S-facing section and floor were cleaned and recorded.

Area 02 section in trench 0250 at NT 02439 13989
0251: Deposit, turf , 0.1-0.15m thick
0252: Deposit, topsoil, black, humic silt, moderate compaction, 0.3m (W side of trench) – 0.68m (E side) thick
0253: Deposit, orange-brown clay, natural subsoil in base of trench

2.4.3 Area 03 Passing Place

Passing place on the SW side of the Old Road/Roman Road, measuring 33m in length and 3.50m width (to SW of original road line). Following machine-scraping of the embankment forming the SW boundary, the NE-facing section was cleaned and a representative sample area 11m from the NW end of the passing place was recorded.

Area 03 section at NT 0118 1479
0301: Deposit, turf and topsoil , 0.20m thick

0302: Deposit, orange-brown silt, 0.06m thick (E side of section) – 0.20m thick (W side)
0303: Deposit, thin (0.02m thick) black humic layer between 0302/0304
0304: Deposit, orange-brown silt/silty clay 0.08-0.1m thick
0305: Deposit, thin (0.02m thick) humic layer between 0304/0306
0306: Deposit, light-brown silty clay, 0.16-0.18m thick
0307: Deposit, thin (0.05m thick) layer of orange-brown silt
0308: Deposit, pea gravel with stone fragments, loose, 0.15-0.30m thick
0309: Deposit, light buff gravel in clay, merging with general gravel deposit 2.4m thick in base of section

2.4.4 Area 05, Bench, log stacking area

Sub-rectangular area along eastern edge of Old Road/Roman Road, 110m in length, aligned E-W between NT 00581 14779 and NT 00485 14758, on brow of hill. After machine scraping, sections at 20m intervals were cleaned and recorded.

Area 05 section 0510 at 20m from E end, NT 00562 14775
0511: Deposit, pine needles, grass tufts and topsoil , 0.10-0.15m thick
0512: Deposit, rust/wine stain-brown peat, moderately compact, frequent root disturbance, occasional pebbles (<5%), 0.16m thick (W end section) – 0.46m thick (E end)
0513: Deposit, light yellow sandy clay, moderately compact, c.5% sub-angular pebbles and stone fragments. Natural subsoil, 0.4m thick
0514: Deposit, orange-brown sand/gravel mix, moderately loose, c.20% sub-angular pebbles and larger stones (up to 0.15m diameter). Natural subsoil, 0.52m thick
0515: Deposit, light orange/yellow sand/gravel mix, c.50% sub-angular stones up to 0.15m diameter, loose. Natural subsoil, 1.10m-1.20m thick

Area 05 section 0520 at 40m from E end, NT 00539 14771
0521: Deposit, moss, grass, roots and turf, 0.15-0.25m thick
0522: Deposit, black, organic silt peat, 0.4-0.6m thick
0523: Deposit, dark brown silt leaching through peat, 0.04-0.06m thick
0524: Deposit, orange-brown silty clay, 0.4m thick
0525: Deposit, friable fragmented rock, to base of slope, 1m thick

Area 05 section 0530 at 60m from E end, NT 00521 14771
0531: Deposit, moss, grass, roots and turf, 0.1m thick
0532: Deposit, black, organic silt peat, abundant roots, 0.4m thick
0533: Deposit, orange-brown silty clay, 0.54m thick
0534: Deposit, friable fragmented stone, to base of slope, 1.7m thick

Area 05 section 0540 at 80m from E end, NT 00504 14762
0541: Deposit, pine needles and turf, 0.1m thick
0542: Deposit, grey-brown sandy clay, moderately compact, c.5% sub-angular pebbles. Natural subsoil, 0.8m thick
0543: Deposit, grey-green gravel/sand mix, c.40% larger (up to 0.2m diameter) sub-angular stones and stone fragments, loose. Natural subsoil, 0.8m-1m thick

Area 05 section 0550 at 100m from E end, NT 00485 14761
0551: Deposit, pine needles and turf, 0.1m thick
0552: Deposit, brown/black peat, frequent root disturbance, moderately loose, 0.14m-0.30m thick
0553: Deposit, grey-green podzolized sandy clay, moderately compact, containing large (up to 0.2m diameter) sub-rounded stones forming loose layer. No evidence of structure, possibly due to natural silting at base of peat. Natural subsoil, 0.14m-0.56m thick
0554: Deposit, orange/brown sand/gravel mix, moderate compaction, containing large (up to 0.2m diameter) sub-angular stones. Natural subsoil, 0.5m thick

3 Interpretation

3.1.1 Area 01

Pits 0110, 0120 and 0130 contained no data suggestive of the Roman road and it may therefore be concluded that they lay outside the line of the road itself, despite being within the SAM area.

Pit 0140 contained large (up to 0.30m long) stones [143] in the south and south-west of the pit base and north-east-facing section. These were closely set and appeared to be structural- they may have represented the kerb of the Roman road. Deposit (145), of sub-angular pebbles partially overlay [143]- this may have represented metalling for the road surface.

Pit 0150 similarly contained a layer (153) of possible metalling in the base and south-east-facing section. Although less close-set than possible kerbing [143], it probably represented part of the Roman road surface.

3.1.2 Area 02

Pits 0210, 0220 and 0250 were devoid of archaeological remains and therefore did not impinge on the Roman road.

Scrape 0230 contained numerous large (up to 0.30m across) stones across much of the exposed area, interspersed with smaller pebbles- this probably represented the remains of metalling.

Pit 0240 contained stones [0244] in the base and south-facing section that may have represented metalling or the remains of a kerb. The stones were close-set in the west of the pit, more dispersed in the east, but this may have been due to differences in preservation or disturbance during the machine excavation of the pit.

3.1.3 Area 03

No archaeological remains were exposed. The bank of the passing place was presumably too far to the south-west from the road line, at too high a level, or both, for remains representing the Roman road to be encountered during machining.

3.1.4 Area 05

No archaeological remains were exposed. The log-stacking "bench" was too far to the north and at too high a level for remains to be encountered.

3.1.5 General

No artefactual finds were recovered from any of the contexts exposed.

4 Conclusions and Recommendations

Remains representing elements of the Roman road were exposed in four of the machined pits examined (pits 0140, 0150, 0230 and 0240), two in each of two areas of damage (Areas 01 and 02). No remains were exposed in either of the remaining two areas.

4.1 Recommendations for Further Work

Alder Archaeology considers the terms of the mitigation work to have been met and does not recommend further work in any of the areas examined at this time. However, the final decision with regard to further work on the scheduled monument ultimately rests with Historic Scotland.

Appendix 1 Context Register

No:	*Description*
	Area 01 section in hinge mounding pit 0110 at
0111	Deposit, layer of recent pine needles 4-5cm thick
0112	Deposit, black organic silt, soil, 0.08m thick merging with 0113
0113	Deposit, grey brown silt subsoil, 0.08m thick
0114	Deposit, natural deposit, yellow, brown orange, silty clay 0.40m thick occ large stone
	Area 01 sections in hinge mounding pit 0120
0121	Deposit, organic, leaf litter mainly needles, 0.03m thick, in SE facing section
0122	Deposit, black, loamy topsoil 0.05m thick, in SE facing section, with root and void
0123	Deposit, red brown silt 0.045m thick, subsoil band, in SE facing section
0124	Deposit, band of dark grey/black silt, subsoil band, in NW facing section below ctx 0123
0125	Deposit, greenish grey, clay silt, presumed undisturbed natural up to 0.25m in depth
0126	Stones in base of pit in natural 0125, largest 0.25 x 0.16m, natural stones
0127	Deposit, layer, 0.03m thick,
	Area 01 section in hinge mounding pit 0130
0131	Deposit, surface layer of needles and turf 0.02m thick
0132	Deposit, layer, black organic silt, 0.95m thick, merging with 0133, topsoil
0133	Deposit, grey brown silt, subsoil below 0132, 0.03-0.10 thick
0134	Deposit, yellow silty clay undisturbed natural, occasional stone, up to 0.25m thick
	Area 01 surface disturbance 0140
0141	Deposit, turf and black loamy topsoil, 0.04m thick
0141	Deposit, turf and black loamy topsoil, 0.04m thick
0142	Deposit, black loam with high density (30%), loose sub angular pebbles, possible road metalling
0143	Stones, large, 0.30 X 0.10 x 0.20m, in base of pit set into 0144
0144	Deposit mid brown clay-compacted silt natural deposit, up to 0.08m thick

0145	Stones, sub angular pebbles, 0.08m wide across deposit, between , below 0142 and above 0143, possible road metalling
	Area 01 surface disturbance 0150
0151	Deposit, turf, 0.05m thick
0152	Deposit, black organic silt (peat) 0.15m thick, over stones of 0153
0153	Deposit, stones small-large in brown silt, considered to be road metalling (not excavated)
0154	Deposit, brown silt, stones of 0153 set into this deposit
	Area 02 disturbance 0210
0211	Turf and topsoil , 0.03m thick
0212	Deposit, loose black loam subsoil , occasional sub rounded stones (c 5%) average 0.15m across, maximum 0.15m thick
0213	Deposit, grey clay subsoil sub angular stone, (c 10%) 0.15m across, moderately compacted
0214	Deposit, orange yellow clay natural
	Area 02 disturbance 0220
0221	Turf and topsoil , 0.05m thick
0222	Deposit, loose black loam subsoil, occasional pebbles, 0.04m thick
0223	Deposit, natural subsoil, yellow-brown, some root disturbance, 0.15m thick
0224	Deposit, grey boulder clay, 0.28m thick
0225	Deposit, yellow brown compacted natural
	Area 02 disturbance 0230
0231	Turf and topsoil, 0.10m thick
0232	Deposit, grey silty clay bottom of turf layer
0233	Deposit, yellow orange clay impacted with stones , small-large, largest is 0.30 X 0.15m most probably road metalling
0234	Deposit, pine needles and cones in recently disturbed area, 0.10m deep
0235	Deposit, grey orange clay natural
	Area 02 disturbance 0240
0241	Turf and topsoil, 0.02-0.10m thick
0242	Deposit, loose black subsoil, 20% sub angular small stone, 0.03m thick
0243	Deposit, sub soil, dark brown contains stones 0244, maximum 0.10m thick

0244	Stones, sub rectangular, 0.16m diameter, probable metalling, not excavated, at least 0.10m thick
0245	Deposit, orange brown compacted subsoil, possibly red posited natural
	Area 02 disturbance 0250
0251	Turf and topsoil black humic silty loam, maximum 0.38m thick, some large stone
0252	Deposit, orange brown silty clay subsoil, 0.18m thick
0253	Deposit, stony silt sand, clayey, light beige or cream, natural, max 0.25m thick
	Area 03 passing place 030, sample section
0310	Turf moss and grass and topsoil, organic loam, 0.20m thick
0311	Deposit, orange brown peaty silt 0.05-0.08m thick
0312	Deposit, brown sand and grit, 0.12-0.15m thick
0313	Deposit, black organic silty sand 0.03m thick
0314	Deposit, brown silty sand, 0.10- 0.14m thick
0315	Deposit, black organic peaty layer, 0.05m thick
0316	Deposit, mottled dark brown iron panning layer, 0.05m thick
0317	Deposit, brown hard silty sand iron panning, 0.08m thick
0318	Deposit, orange sandy gravel, 0.08m thick
0319	Deposit, black organic peat layer, 0.09m thick
0320	Deposit, major deposit of brown gravelly sand, 0.20m thick
0321	Deposit, major deposit of brown compacted sand abundant inculsions of small angular and subrounded small stone, bottom deposit of section 0.44m thick
	Area 05 log stacking bench sample sections
	Sample Section 0510 at 20m (NGR NT 00563 14775) to the W of the main section E end
0511	Pine forest litter, pine needles, grass tufts, 0.05m thick
0512	Deposit, layer black humic peat, 0.11m thick
0513	Deposit, layer, 0.18m thick, light yellow clay subsoil, 0.20m thick
0514	Deposit, layer, orange brown sandy gravel subsoil 0.25m thick
0515	Light orange yellow sandy gravel, at least 0.25m thick to bottom section
	Sample section 0520 at 40m (NGR NT 00540 14770) to the W of the main section E end
0521	Pine, forest litter, pine needles, grass, roots, turf, 0.10-0.12m thick

0522	Deposit, black organic silt, peat 0.28m thick
0523	Deposit, dark brown-orange silt, bottom of peat layer, leaching , narrow band 0.03m thick
0524	Deposit, orange brown silty clay, subsoil, 0.17m thick merging with 0525
0525	Deposit, natural rock, friable, easily fragmented rock to base of section
	Sample section 0530 at 60m (NGR NT 00521 14771) to the W of the main section E end
0531	Pine forest litter, pine needles, moss, grass turves 0.40m thick
0532	Deposit, black organic silt, peat, 0.04m thick
0533	Deposit, orange brown silty clay, subsoil, 0.38m thick
0534	Deposit, natural rock, friable, easily fragmented rock to base of section
	Sample section 0540 at 80m (NGR NT 00503 14762) to the W of the main section E end
0541	Pine forest litter, pine needles, moss, grass turves, 0.04m thick
0542	Deposit, grey-brown sandy clay natural, 0.40m thick
0543	Deposit, grey green sandy gravel, frequent large-small stone, at least 0.50m thick
	Sample section 0550 at 100m (NGR NT 00484 14761) to the W of the main section E end
0551	Pine forest litter, pine needles, moss, grass, 0.04m thick
0552	Deposit, black organic silt, peat, 0.15m thick
0553	Deposit, natural grey green clayey sand, subsoil, occasional large stone, 0.12-0.26m thick
0554	Deposit, natural, orange brown sandy gravel, natural, abundant inclusions of large to small subangular stone, at least 0.25m thick

Appendix 2 Photographic Register

Image No	*Description*	*View*
249	General setting up EDM at Area 04	NW
	Area01	
250-251	Hinge mounding ctx 0110, disturbance	N
252-253	General view of hinge mounding disturbance in area 01	NW
254-255	Area of disturbance ctx 0120	E
256-258	Ctx 0110 cleaned for recording	N

259-260	Ctx 0120 cleaned for recording	E
261-262	Ctx 0120 cleaned for recording	W
263	Ctx 0130 general view	N
264	Ctx 0130 location	E
265	Recording in area 01 showing recent ditc on N side of Roman Road general view	E
266	Recording in area 01 ditch on N side of Roman Road	NW
267-268	Ctx 0130 cleaned for recording	N
269-270	Ctx 0140 pre recording	SW
271-272	General of area 01 and location of 0140	SW
273	Ctx 0130 being recorded	N
274	Ctx 0130 being recorded	NE
275-276	Ctx 0150 location	N
277-278	General working in area 01	NE and E
279-280	Ctx 0140 cleaned for recording	SE
281-282	Ctx 0140 cleaned for recording, detail	SE
283-286	Ctx 0140 cleaned for recording, detail	N
287-288	Ctx 0140 cleaned for recording, detail	NNW
289-290	Ctx 0141, cleaned for recording, detail	SW
291-292	Ctx 0150, cleaned for recording	N
293-294	Ctx 0150, location	N
	Area 02	
295-296	Ctx 0210 prior to cleaning	NW
297-298	Ctx 0210 location	W
299-300	Ctx 0210 location	E
	Area 01	
301-302	Ctx 0150 being recorded	N and S
303	Ctx 0150 being recorded	W
304	Ctx 0150 being recorded	SE

	Area 02	
305-306	Ctx 0210 cleaned for recording	SW
307-308	Ctx 0210 cleaned for recording	NW
309-310	Ctx 0210 cleaned for recording	NE
311-312	Ctx 0220 pre clening	N
313-314	Ctx 0220 location	E
315-316	Ctx 0230 pre cleaning and location	NW
317	General working	E
318	General working	W
319	General working	SW
320	General working	SE
321-322	Ctx 0220 cleaned for recording	N
323-325	Ctx 0220 cleaned for recording	W
326	Ctx 0230 cleaned for recording	NW
327	Ctx 0230 cleaned for recording	NW
328	Ctx 0230 cleaned for recording	W
329	Ctx 0230 cleaned for recording	NW
330	Ctx 0230 cleaned for recording	SE
331-332	Ctx 0240 pre cleaning	N
333-334	General of Area 02	W
335-337	Ctx 0240 cleaned	N
338	Ctx 0250 pre cleaning	N
339	General of Area 02, location of 0250	SE
340	General of Area 02, location of 0250	NW
241	Ctx 0250 , location	SW
242-243	Ctx 0250, cleaned W end	N
244	Ctx 0250, cleaned W end	W
245	Ctx 0250, cleaned W end	E

246-247	General view of Area 02	SE
	Area 03 passing place section	
459	NE facing section cleaned SE end 0-5 m	SW
460	SE end 5-10m m	SW
461	Mid part 10-15m	SW
462	SE end 0-5m with information board	SW
463	SE end 5-10m with information board	SW
464	Mid part 10-15m	SW
465	Mid part 15-20m	SW
466	SW end 20-25m	SW
467	SW end 25-33m	SW
468	General view of cleaned section	SE
469	General view of cleaned section	NW
470	General view along road	NW
471	General view along section	SE
472	Detail of section drawn	SW
473	Location of section drawn	SW
474	Location of section drawn	SW
	Area 05, bench/log stacking	
500	General of stacking bench E end	W
501-505	General machine working cleaning section E end of bench	W
506	General machine working	NW
507-509	General machine working	NW
508-509	General machine working	E-NE
510	Cleaned E end of section	N
511	Cleaned section 0-5m west from E end	N
512	Cleaned section 5-10m west from E end	N
513	Cleaned section 10-15m west from E end	N

514	Cleaned section 15-20m west from E end	N
515	Cleaned section 20-25m west from E end	N
516	Cleaned section 25-30m west from E end	N
517	Cleaned section 30-35m west from E end	N
518	Cleaned section 35-40m west from E end	N
519	Cleaned section 40-45m west from E end	N
520	Cleaned section 45-50m west from E end	N
521	Cleaned section 50-55m west from E end	N
522	Cleaned section 55-60m west from E end	N
523	Cleaned section 60-65m west from E end	N
524	Cleaned section 65-70m west from E end	N
525	Cleaned section 70-75m west from E end	N
526	Cleaned section 80-85m west from E end	N
527	Cleaned section 85-90m west from E end	N
528	Cleaned section 90-95m west from E end	N
529	Cleaned section 95-100m west from E end	N
530	Cleaned section 100-105m west from E end	N
531	Cleaned section 105-110m west from E end	N
532	Cleaned section 110-115m west from E end	N
533	Cleaned section at W end	N
534	General of cleaned section at E end	NE
535	Hand cleaning of section, mid section	NW
536	General of section	NW
537	General of section	NE
538-542	Section 0510 for recording, at 20m to W from E end of section	N
543-544	Section 0540 for recording, at 80m to W from E end of section	N
545-54	Section 0520 for recording, at 40m to W from E end of section	N
548-549	Section 0550 for recording, at 100m to W from E end of section	N

550-551	Section 0530 for recording, at 60m to W from E end of section	N

Appendix 3 Drawing Register

Sheet No.	*Description*	*Scale*
1	Area 01, Sections, plans of pits 0110, 0130 & 0150	1:10, 1:20
2	Site notes	-
3	Area 01, Sections, plans of pits 0120, 0140, 0210 and 0220	1:10, 1:20
4	Area 02, Plans, section of trench 0250 and scrape 0230	1:20, 1:10
5	Area 02, Plan, section of pit 0240	1:20, 1:10
6	Walkover survey notes	-
7	Notes, sites 03 and 04, section of 03	1:20
8	Area 05, Sections 0510, 0540, 0550	1:10
9	Area 05, Sections 0520, 0530	1:10
10	Map overlay, site location Area 05	1:3063

Appendix 4 Discovery & Excavation in Scotland Entry

LOCAL AUTHORITY:	South Lanarkshire
PROJECT TITLE/SITE NAME:	Howecleuch
PROJECT CODE:	HC01
PARISH:	Crawford
NAME OF CONTRIBUTOR(S):	R.Cachart, C.Fyles
NAME OF ORGANISATION:	Alder Archaeology Ltd
TYPE(S) OF PROJECT:	Mitigation work
RCAHMS NO(S):	SAM 3348
SITE/MONUMENT TYPE(S):	Roman road
SIGNIFICANT FINDS:	None
NGR (2 letters, 8 or 10 figures)	Sites centred on NT 0286 1469/ NT 0257 1400/NT 0118 1479/ NT 0053 1478).
START DATE	8th April 2014
END DATE	30th July 2014
PREVIOUS WORK (incl. *DES* ref.)	None
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	Alder Archaeology undertook archaeological mitigation work on the site of the March Burn to Little Clyde Roman Road, Scheduled Monument index number 3348. The road forms part of the Roman road from Carlisle via Annandale into Clydesdale and is partially overlain by an 18th-century road. This programme of archaeological works was undertaken as part of the mitigation process required by Historic Scotland resulting from disturbance of the Scheduled Ancient Monument. Previously a desk based study and walkover survey had been undertaken by Alder Archaeology. The walkover identified four areas, which had been disturbed during operations involving tree felling (Area 01, centred on NT 0286 14069 and area 02, centred on NT 0257 1400); excavation for the installation of a passing place (Area 03 centred on NT 0118 1479) and the cutting of a bench or log stacking area (Area 05, centred on NT 0053 1478). Based on the walkover results recommendations were made by Historic Scotland for archaeological mitigation on the affected areas in the form of non invasive investigating for archaeological remains by the means of cleaning and recording of disturbed areas. The field work took place intermittently, 8-10 April 2014 (Areas 01 and 02), 17 April 2014 (Area 03) and 30 July 2014 (Area 05). Apart from some evidence of possible Roman or later road metalling recorded in Areas 01 and 02 no significant archaeological remains were encountered.
PROPOSED FUTURE WORK:	None

SPONSOR OR FUNDING BODY:	Fountains Forestry
CAPTIONS FOR ILLUSTRS	-
ADDRESS OF MAIN CONTRIBUTOR:	Alder Archaeology Ltd, 55 South Methven Street, Perth PH1 5NX
ARCHIVE LOCATION (intended)	RCAHMS (intended)
EMAIL ADDRESS:	director@alderarchaeology.co.uk

Appendix 5 Standard Terms of Reference for all Fieldwork

5.1 Recording Methodology

Alder Archaeology employs a Single Context Recording System that allows full cross-referencing of stratigraphy, finds and environmental samples, as well as site-wide phasing. All features will be planned at scale 1:20, and sections drawn at scale 1:10. Sections and profiles will be drawn and all features will be photographed with metric scale included. Environmental samples will be taken from archaeologically significant contexts, if the analysis of these samples would aid significantly in the interpretation of any features identified.

5.2 Human Remains

If human remains are encountered they will be left in situ and the local police will be informed. If removal is required this will take place in compliance with Historic Scotland's Policy Paper *The Treatment of Human Remains in Archaeology*.

5.3 Products and Reporting

A Data Structure Report will normally be prepared within a period agreed within the Written Scheme of Investigation/ Project Design, after the completion of the fieldwork. This forms the basic level of reporting. Further reporting may be required on the basis of discoveries made during excavations.

A copy of the report and the project archive will be deposited in the NMRS. Further copies will be sent to the client, LAAO and others, as appropriate.

5.4 Artefacts

Finds of objects will be subject to the Scots Laws of Treasure Trove and *Bona Vacantia*. We will report such finds, if recovered, with supporting documentation to the Secretariat of the Treasure Trove Panel for disposal to the appropriate museum.

5.5 Discovery and Excavation in Scotland

A brief summary of the results will be submitted to *Discovery and Excavation in Scotland.*

5.6 General Conditions and Health and Safety

We adhere to the Code of Conduct of the Institute for Archaeologists.

Alder Archaeology Ltd has public liability insurance of £2,000,000. Details of this can be provided on request.

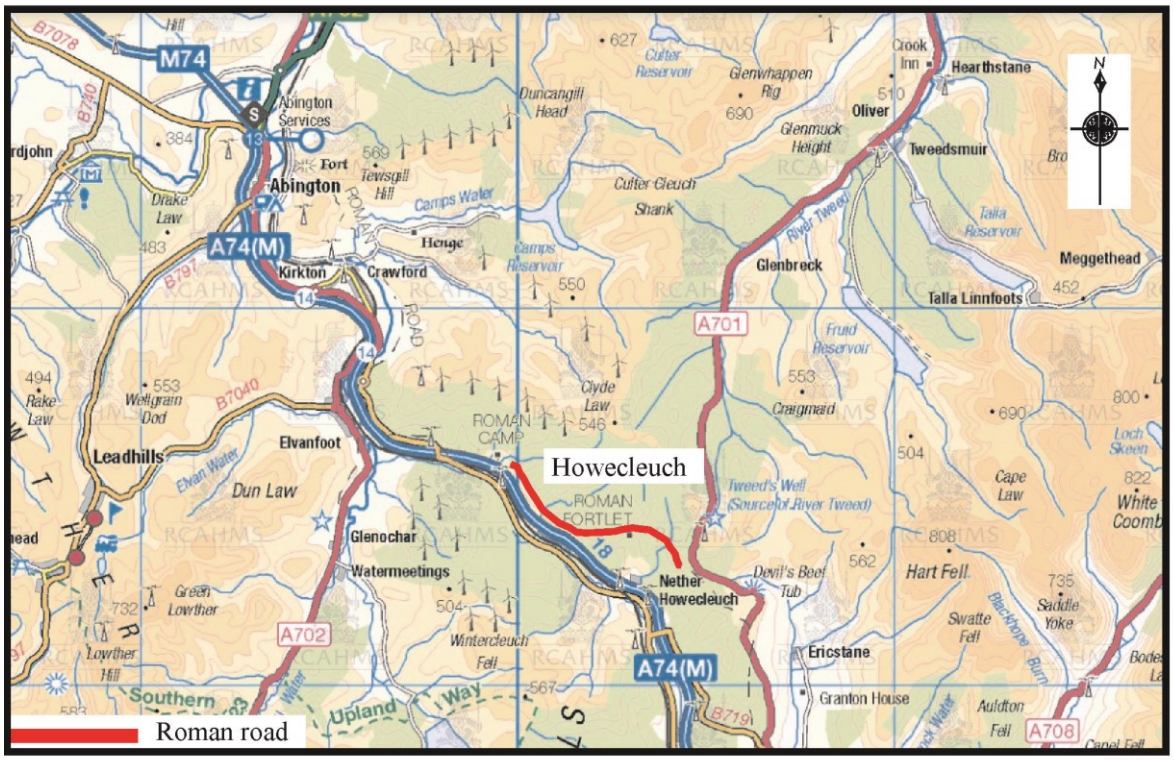
We operate a strict health and safety policy and conforms to the Health and Safety at Work Act. We undertakes Risk Assessments on all fieldwork carried out.

Alder Archaeology representatives will at all times wear protective footwear, high visibility clothing and other appropriate clothing. Hard hats will be worn if there is active plant on site or at all times if the site is deemed a hard hat area.

If lightly contaminated deposits are uncovered disposable boiler suits and gloves will be worn. A source of clean water will be made available for staff to clean hands with. If the health risk posed by site contamination is felt to be too high all further archaeological work will stop in that area.

Illus 1

Howecleuch Location Plan

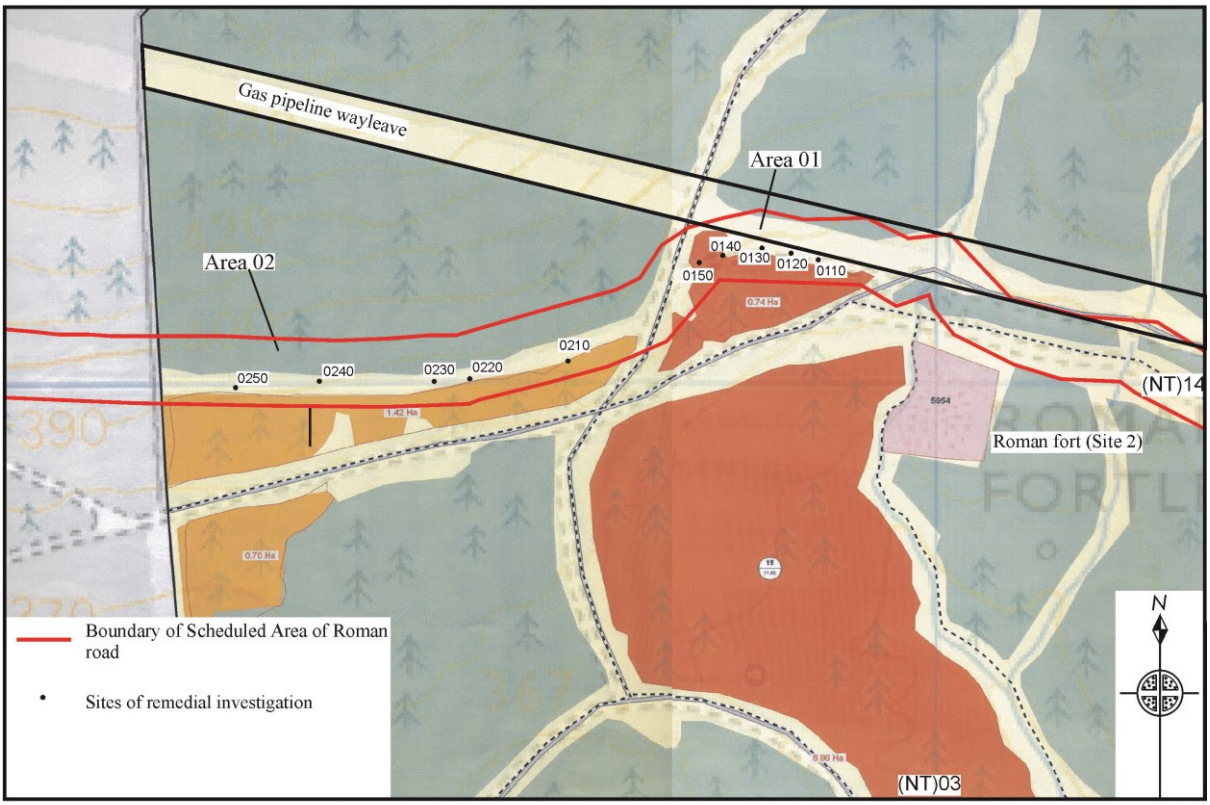


Based on Ordnance Survey, Crown copyright.
Licence number AL 100049514

HC01

0 10k 20k

Illus 2 Location of Areas 01 and 02



Based on Ordnance Survey, Crown copyright.
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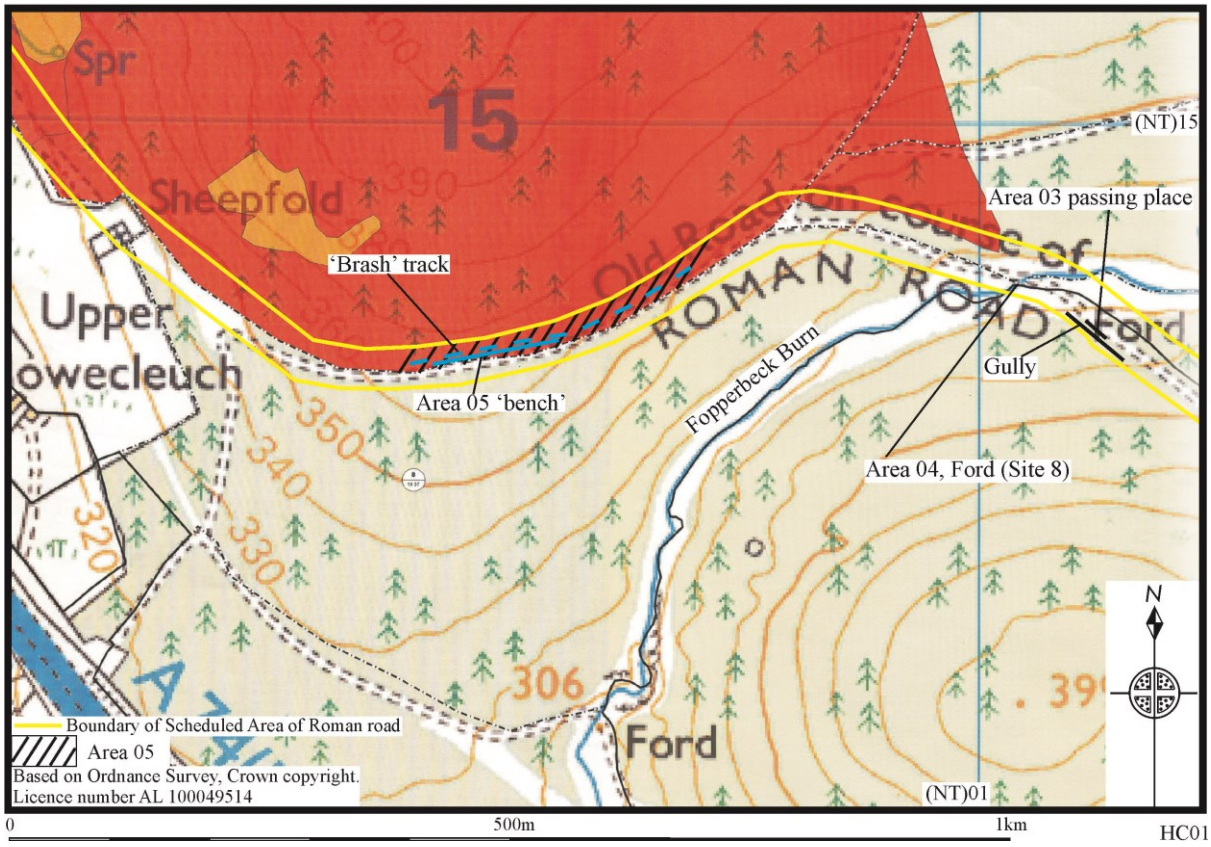
0 250 500m HC01

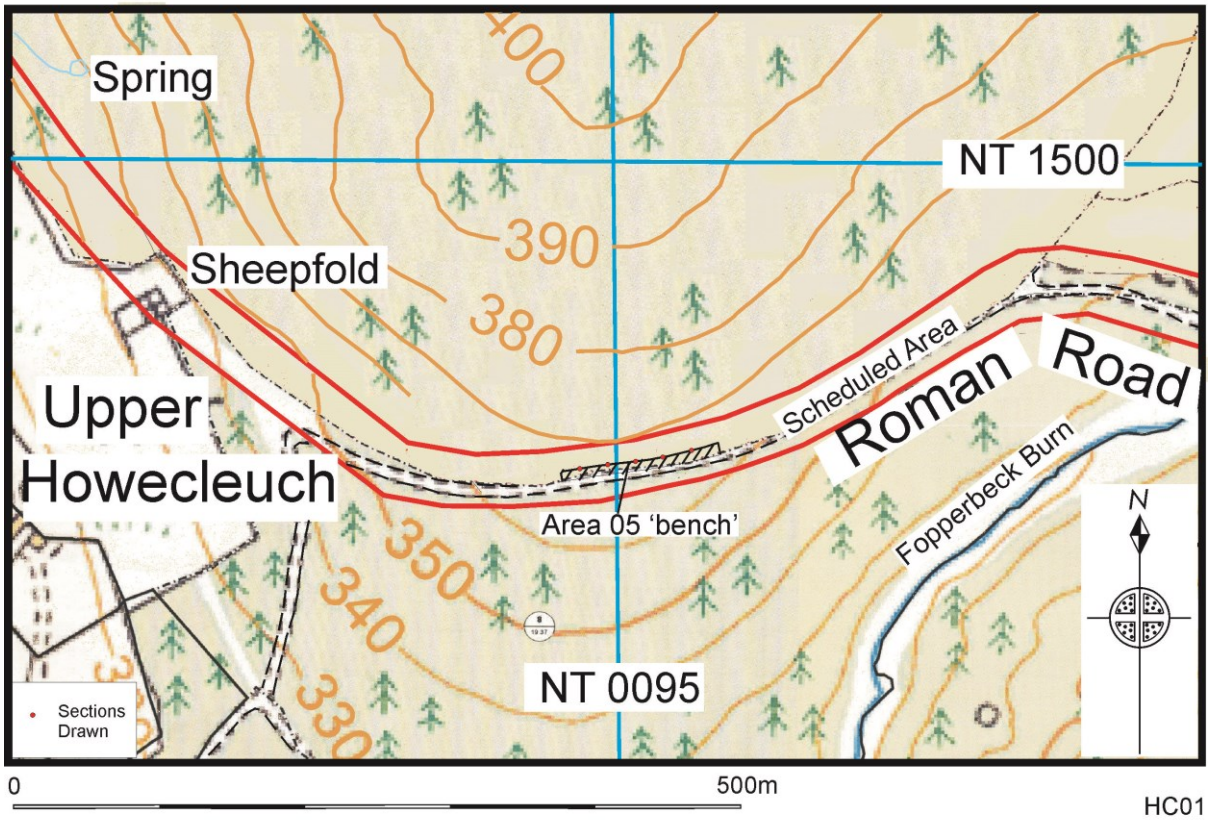
Illus 3 Location of Areas 03 and 05



Based on Ordnance Survey, Crown copyright.
Licence number AL 100049514

0 500m 1km HC01

Illus4 Location of Area 05 log-stacking "bench"



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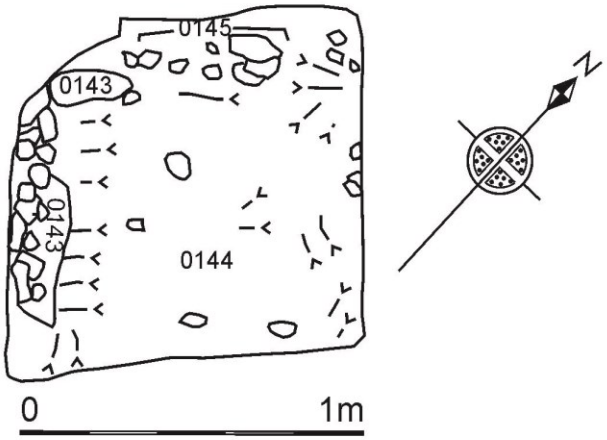
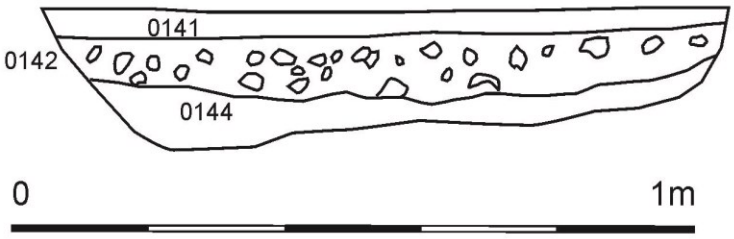
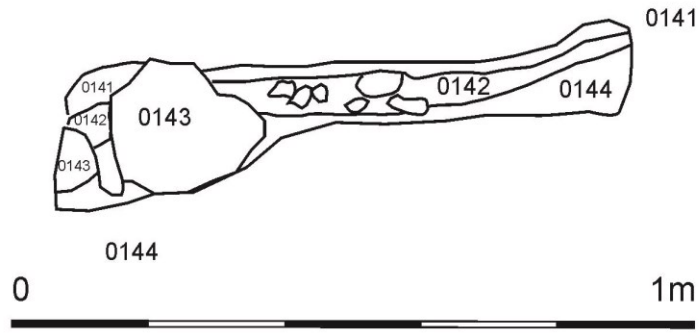
Illus5 Pit 0140, showing stones 0143



Illus6 SE-facing profile pit 0140

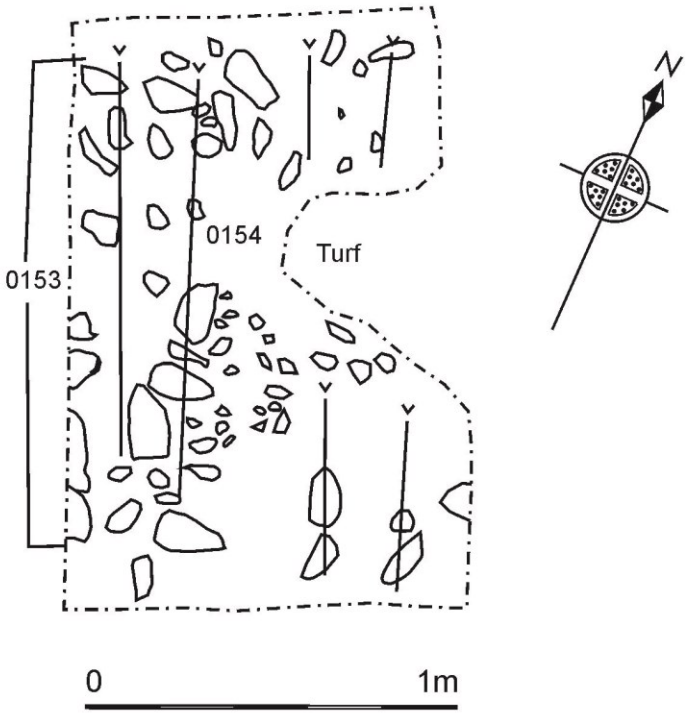


Illus7 NE-facing profile pit 0140

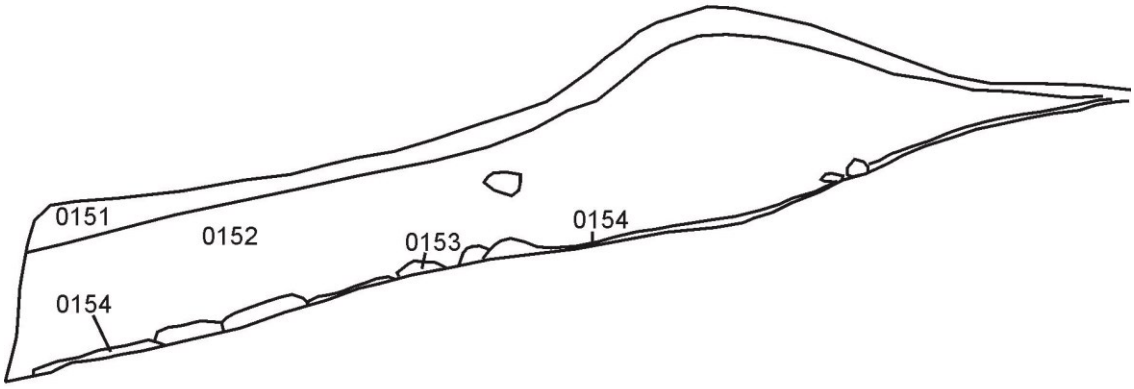


HC01

Illus8 Pit 0150, showing possible metalling 0153

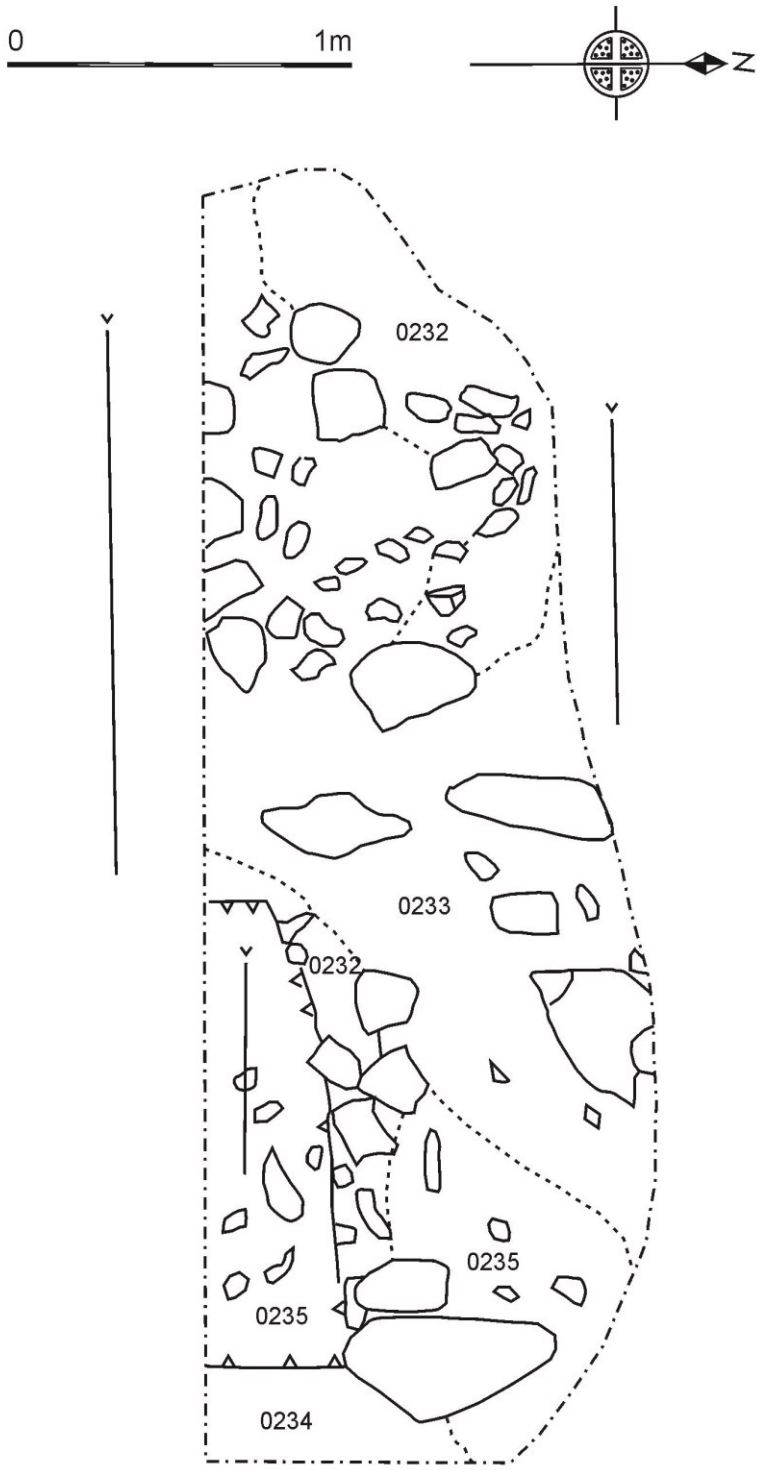


Illus9 SE-facing section 0150



HC01

Illus10 Scrape 0230, showing possible metalling of Roman road



HC01

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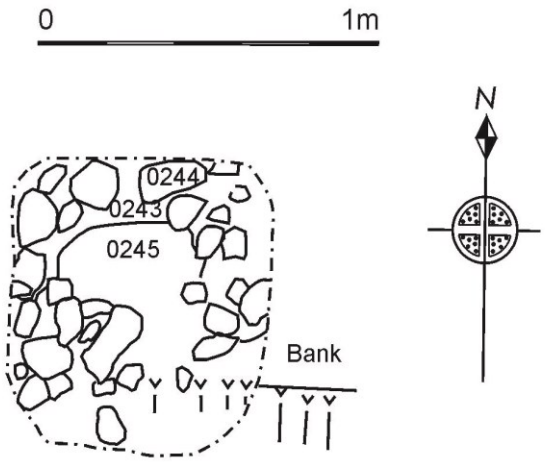
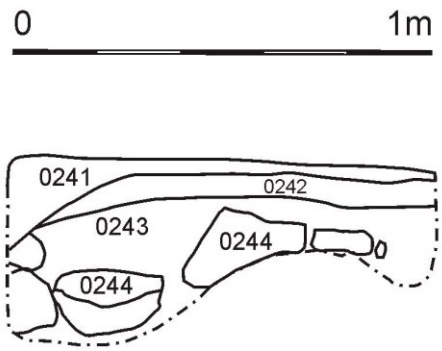
Illus11 Pit 0240



Illus12 South-facing profile of pit 0240



HC01

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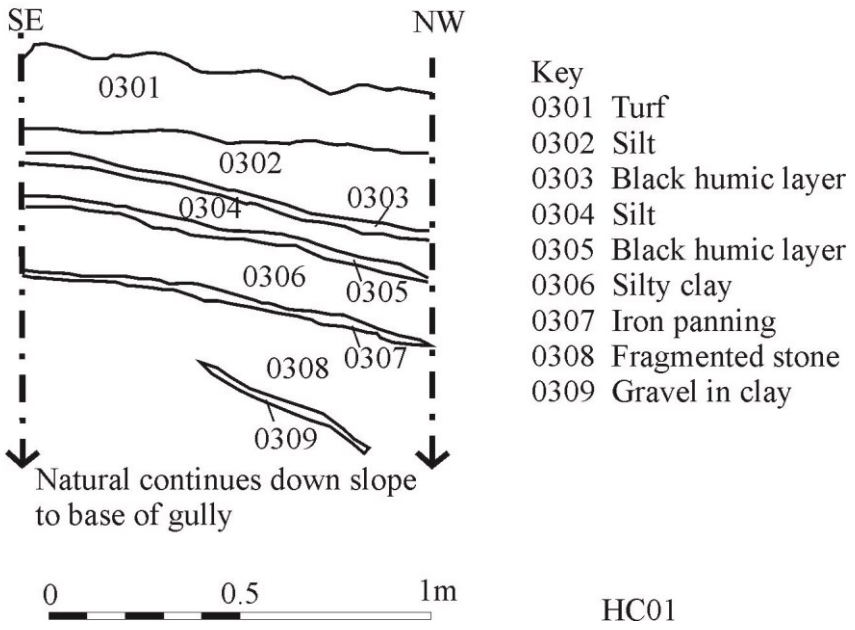
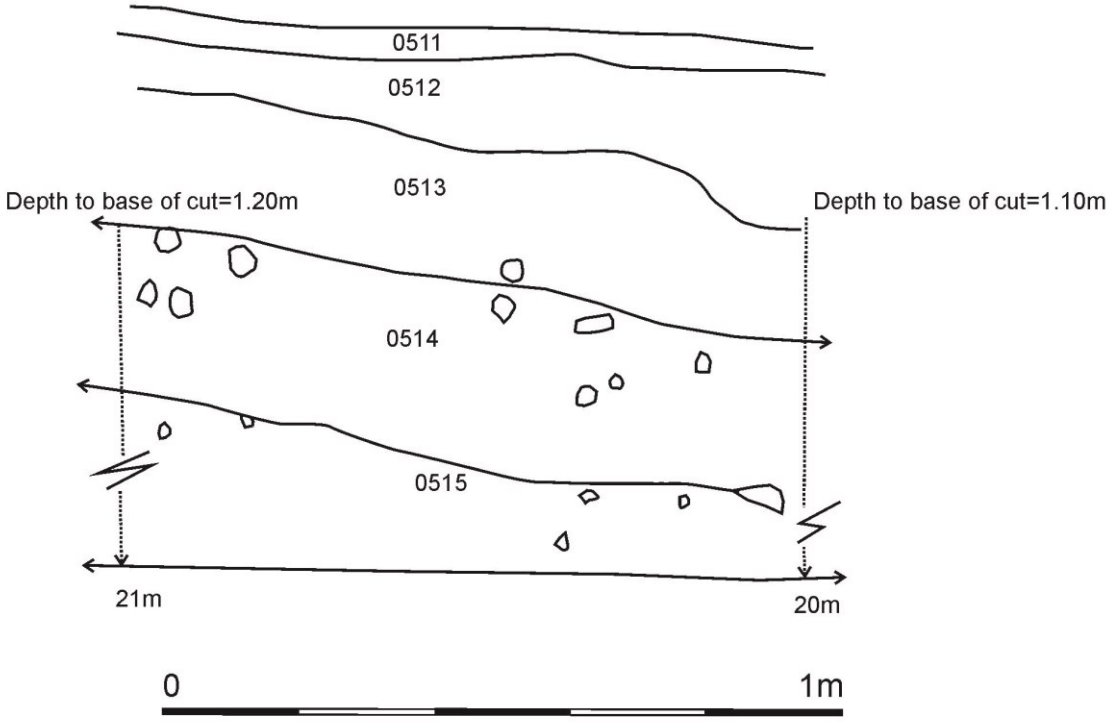
Illus13

Area 03, NE-facing section sample of machine cut into banking



HC01

Illus14 Sample section 0510 (South-facing) at 20m from East end of "bench"



Illus15 Sample section 0540 (South-facing) at 80m from East end of "bench"