

Archaeological Watching Brief
Milquhanzie Radio Station Electricity Supply
Crieff, Perth

CF18



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**ARCHAEOLOGICAL WATCHING BRIEF
MILQUHANZIE RADIO STATION
ELECTRICITY SUPPLY
CRIEFF, PERTH**

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ABSTRACT

Alder Archaeology conducted a watching brief (CF18) during excavation of a trench to provide a spur cable from an existing supply for radio station equipment near to Milquhanzie Hill fort (SM7125), 4km Northeast of Crieff. The fort has 3 ramparts which are visible as earthworks forming a pear-shaped enclosure on the Southeast end of the hill summit and there is also a cup-marked stone situated nearby. The watching brief was to monitor work approximately 90m outside the scheduled monument and to document any previously unrecorded features associated with the site. The watching brief found only the modern cable trench running E - W, which was cut into orange/yellow natural clay loam and filled by brown clay loam soil. No artefacts were recovered. The spur trench was left open for cable connection and backfilling by the client (Scottish and Southern Electricity Networks) at a later date.

The watching brief took place on 1st March 2022 and was commissioned by Scottish and Southern Electricity Networks.

1 Background

1.1 Introduction

Scottish and Southern Electricity Networks (SSEN) commissioned Alder Archaeology to undertake an archaeological watching brief on the installation of a 5m length of underground power line at Milquhanzie Radio Station, 4km Northeast of Crieff, Perth and Kinross. The work area is located approximately 90m ENE of Milquhanzie Hillfort (Scheduled Monument SM7125, Perth and Kinross Historic Environment Record MPK858), and 250m WSW of a prehistoric cup-marked stone (Perth and Kinross Historic Environment Record MPK15381), The work is centred on NGR NO 89584 24977.

The work was carried out on 1st March 2022 in dry sunny conditions. The requirement was to carry out a watching brief on excavations required to expose an existing buried low-voltage electricity cable and excavate a new 5m trench running N-S to allow a spur supply to be installed. Special attention was to be paid to potential undocumented Prehistoric features intersected or exposed by the cable trench.

This work was designed to follow the guidance given by Sophie Nicol of Perth and Kinross Heritage Trust, given the proximity to a Scheduled Monument and other known archaeological features.

1.2 Aims and Objectives

The main aim of this investigation was to evaluate the presence/absence, date, character and quality of any archaeological remains surviving within the work area, and to locate and record any archaeological finds or features exposed or disturbed by the works.

1.3 Reporting

The present document has been prepared as the final report on this watching brief. Copies will be sent to the client, The National Record of the Historic Environment at Historic Environment Scotland, and Perth and Kinross Historic Environment Record.

1.4 Acknowledgements

We wish to thank Duncan McLean and Neil Apps of Scottish and Southern Electricity Networks, and Sophie Nicol of Perth and Kinross Heritage Trust for help and guidance. The work has been funded by Scottish and Southern Electricity Networks.

2 Details of Work

2.1 The Site (Illus 1)

Milquhanzie Hill is located in Fowlis Wester Parish, 4 km NE of Crieff, and 1.5 km NE of Gilmerton, overlooking the A 85 from Crieff to Perth and the A 822 from Crieff via Gilmerton to Amulree. At the SE end of the summit is a late prehistoric hill fort, containing a triangulation point at 351 m OD and an existing transmission mast. The scheduled monument extends over a circle of 50 m radius, centred on the triangulation point. A modern access track approaching the summit from the NW, above-ground

transmission masts and related modern structures are situated inside the scheduled area but are excluded from scheduling.

An existing overhead power line runs roughly N – S, about 138 m E of the triangulation point. A buried low-voltage cable, installed in the 1990s, runs roughly E – W, from the overhead line to the transmission mast inside the fort. A new, 5 m spur is to be taken from the existing buried cable at about NN 89584 24980 and will run in a S direction, to supply a new installation about NN 89584 24975, 145 m ENE of the triangulation point, and about 90 m beyond the limits of the scheduled area. The new cable trench was dug to depth of about 0.5 m, and about 0.3 to 0.5m wide with a widened working pit at the S end where the cable connection is to be made.

The summit of the hill is covered in rough grass and heather moorland and drops away into a natural shallow gully to the E, where the excavation is to be situated. Modern timber post and wire fencing divides the site into a number of fields, with one such fence crossing the proposed trench between the buried cable and a new electrical connection box mounted on timber posts to the N. From this box, the remaining cable will be surface laid to its final destination.

2.2 Archaeological Potential

The late Prehistoric hill fort is a Scheduled Monument, (SM7125), located at NN 89446 24939. It has three ramparts, and is roughly pear-shaped, measuring 60 m NE – SW x 45 m. This fort is also recorded in the Perth and Kinross Historic Environment Record as MPK858.

ENE of the fort, about 250 m ENE of the intended work site, is a prehistoric cup marked stone, MPK15381, located at NN 89750 25047.

Although the work will be outwith the scheduled area, it is possible that it will intersect or reveal undocumented ditches, banks and other features associated with the hill fort as outer works. These may appear as visible earthworks, or as infilled cut features seen in excavation. Unstratified finds may also be located in the backfill of the existing 1990s low-voltage cable trench.

Due to the difficulty in getting a mini-excavator to the site, the trench was excavated by hand, allowing the width to be reduced to 0.3m, and reducing the excavation of undisturbed ground further than originally envisaged. The connection pit was almost entirely within previously excavated ground.

The work will not impinge on the cup-marked stone MPK15381, but there could be other undocumented features nearer to the work area.

2.3 Archaeological Method

The area was assessed for visible earthworks before excavation began. There is a gentle slope to the S from the higher ground of the hillfort and natural summit to the E and from a natural summit to the W, but no earthworks were noted.

Work began at the S end of the work area, and proceeded N. The existing underground cable was located using a cable detection tool, and the turf removed by hand.

Excavation of the connection pit was conducted with a hand shovel by SSEN operatives under continuous observation by the archaeologist until a protective yellow plastic warning tape and braided tracer cable were reached. 150mm below this, the main cable was located. The connection pit was confined almost entirely to the backfill of the original modern trench.

Once sufficient working space for the connection was created (approx. 1.5m x 0.8m) the spur trench was excavated by hand by SSEN operatives under continuous observation by the archaeologist. This was excavated from both the North and South ends, and due to the reduced width and location of the modern fence line, could not be excavated entirely in spits. The upcast from excavation was piled along the E and S edges of the excavation and assessed for finds. The trench terminated at the foot of the electrical box on the N side of the wire fence.

All sections of the connection pit and trench were cleaned and assessed for archaeological features. A plan and sample sections of the connection pit and trench were recorded.

The spur cable was not laid or connected during the watching brief, and the connection pit and trench were left open for later works, which it was confirmed would not include any further excavation. As no further excavation was required, the watching brief was ended at this point.

2.4 Results of Investigations

The top layer removed was turf over brown clay-loam topsoil with some sandstone inclusions and heather roots (001). This extended, without clear demarcation, down into a stony brown clay-loam with large, rounded sandstone and gritstone cobbles (002), the fill of the existing cable trench [003]. Other than the cable and protective yellow plastic warning tape, no finds were noted. This trench was known to have been excavated in the late 1990s by the same SSEN operative excavating the current trench. It was only possible to clean or distinguish trench edges where they began to cut natural soil at its base, but the fill was slightly less compact than the surrounding undisturbed clay-loam sub-soil found in the spur trench (004). This sub-soil layer contained large, rounded sandstone and gritstone cobbles and some heather roots, and was virtually indistinguishable from the topsoil layer (001) above. A group of 6 stones were noted directly below the modern post and wire fence line and were removed as part of the excavation. No cut or differing fill could be distinguished in section. The spur trench was too narrow to work in (only 0.3 m), so the section nearest the connection pit was recorded.

At the bottom of the spur trench, cut by the 1990s trench [004], compacted natural orange/yellow clay loam with sandy inclusions was exposed (005) This contained notably smaller rounded sandstone pebbles and was located approximately 450mm down.

The excavation was watched closely, and the spoil heap carefully examined, no artefacts were noted.

3 Interpretation

As the excavation site lies in a gentle natural gully between two summits, deposit (001) is formed of wind and water borne soil erosion from the surrounding inclines as well as decomposing grass and heather. Although there is no clear demarcation, this layer appears to overlay the modern trench fill as well as the surrounding sub-soil. The brown clay-loam deposit (002) was very obviously the fill of the 1990s electrical cable trench [003] cut through brown clay-loam with natural stone inclusions (004) and into the natural orange/yellow clay loam (005) below.

The group of 6 sandstone and gritstone cobbles found in subsoil (004) below the modern fence line is almost certainly coincidental, and they are interpreted as a natural feature. Many other similar rounded stones were noted in layers (004) and (002), and on the surface of the ground across surrounding fields. No visible cut was associated with the stones, and they did not extend into the trench sections to the E or W.

No earthworks were noted, no finds were recovered, and the similarity between modern trench fill (002) and undisturbed layers (001) and (004) suggests that the immediate area does not contain any other features, and that the cable 1990s trench was backfilled quickly with clean upcast subsoil.

4 Conclusions and Recommendations

No further excavations are required in connection with present works. The cable connection can be completed, and the trench backfilled with the upcast material. All other cables and connections are expected to be made above ground.

It is likely, however, that outlying features associated with the hill fort survive in the wider area between the fort earthworks to the W and cup-marked stone to the E. It is recommended that works in the area should be investigated or monitored as they arise, depending on the nature of any works affecting them.

Appendix 1 Context Register

<i>No:</i>	<i>Description</i>
(001)	Rough grass and heather turf, with brown loam topsoil containing organic roots and sandstone shale fragments. Approx 80 – 100mm depth.
(002)	Fill of 1990s cable trench. Soft brown clay-loam with natural gritstone and sandstone cobbles. Contains yellow plastic warning marker tape. Existing cable is black plastic coated, 40 mm diameter, with a braided earth cable taped to it and a 10mm tracer cable 150mm above. Approx 250mm depth.
[003]	Square sided 1990s cable trench cut, running E - W. Slightly V shaped base below the modern cable. Filled by (002)
(004)	Brown clay-loam with natural sandstone and gritstone cobbles (approx 100 – 200mm) and smaller sandstone shale inclusions. Some roots. Approx 250mm depth.
(005)	Natural orange/yellow clay-loam with some sand, small pebbles (approx 50 – 100mm) and flakes of sandstone shale. Very compacted.

Appendix 2 Photographic Register

<i>No</i>	<i>Description</i>	<i>View</i>
1	Taken in error – Trench spur under excavation	E
2	[003] during excavation	N
3	Trench spur from electrical box	S
4	Section A through Connection pit showing (001), (004) and (005)	N
5	Section A, corner showing similarity of Trench fill (002) and subsoil layer (004)	N
6	Modern cable trench backfill (002)	W

7	Stone cobbles on spoilheap	E
8	Stone cobbles on spoilheap – from (004)	E
9	Spur trench showing modern fence and electrical box	N
10	Modern cable trench [003] showing cables, (002) and (005)	W
11	Section A through connection pit showing (001, (004) and (005)	NW

Appendix 3 Discovery & Excavation in Scotland Entry

LOCAL AUTHORITY:	Perth and Kinross
PROJECT TITLE/SITE NAME:	Milquhanzie Radio Station Electricity Supply
PROJECT CODE:	CF18
PARISH:	Fowlis Wester Parish
NAME OF CONTRIBUTOR:	David Bowler
NAME OF ORGANISATION:	Alder Archaeology Ltd
TYPE(S) OF PROJECT:	Watching Brief
NMRS NO(S):	NN82SE 37
SITE/MONUMENT TYPE(S):	Hill fort, Cup-marked stone
SIGNIFICANT FINDS:	None
NGR (2 letters, 8 or 10 figures)	NGR NO 89584 24977
START DATE (this season)	1 st March 2022
END DATE (this season)	1 st March 2022
PREVIOUS WORK (incl. DES ref.)	n/a
MAIN (NARRATIVE) DESCRIPTION: (May include information from other fields)	<p>Alder Archaeology conducted a watching brief (CF18) during excavation of a trench to provide a spur cable from an existing supply for radio station equipment near to Milquhanzie Hill fort (SM7125), 4km Northeast of Crieff. The fort has 3 ramparts which are visible as earthworks forming a pear-shaped enclosure on the Southeast end of the hill summit and there is also a cup-marked stone situated nearby. The watching brief was to monitor work approximately 90m outside the scheduled monument and to document any previously unrecorded features associated with the site. The watching brief found only the modern cable trench running E - W, which was cut into orange/yellow natural clay loam and filled by brown clay loam soil. No artefacts were recovered. The spur trench was left open for cable connection and backfilling by the client (Scottish and Southern Electricity Networks) at a later date.</p> <p>The watching brief took place on 1st March 2022 and was commissioned by Scottish and Southern Electricity Networks.</p>
PROPOSED FUTURE WORK:	n/a
CAPTION(S) FOR ILLUSTRS:	
SPONSOR OR FUNDING BODY:	Scottish & Southern Electricity Networks
ADDRESS OF MAIN CONTRIBUTOR:	Alder Archaeology Ltd, 55 South Methven Street, Perth PH1 5NX
EMAIL ADDRESS:	director@alderarchaeology.co.uk
ARCHIVE LOCATION (intended/deposited)	HES (intended)

Appendix 4 Standard Terms of Reference for all Fieldwork

4.1 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.

4.2 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*.

4.3 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.

4.4 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.

4.5 Discovery and Excavation in Scotland

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

4.6 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 £5,000,000. Details of this can be provided on request.

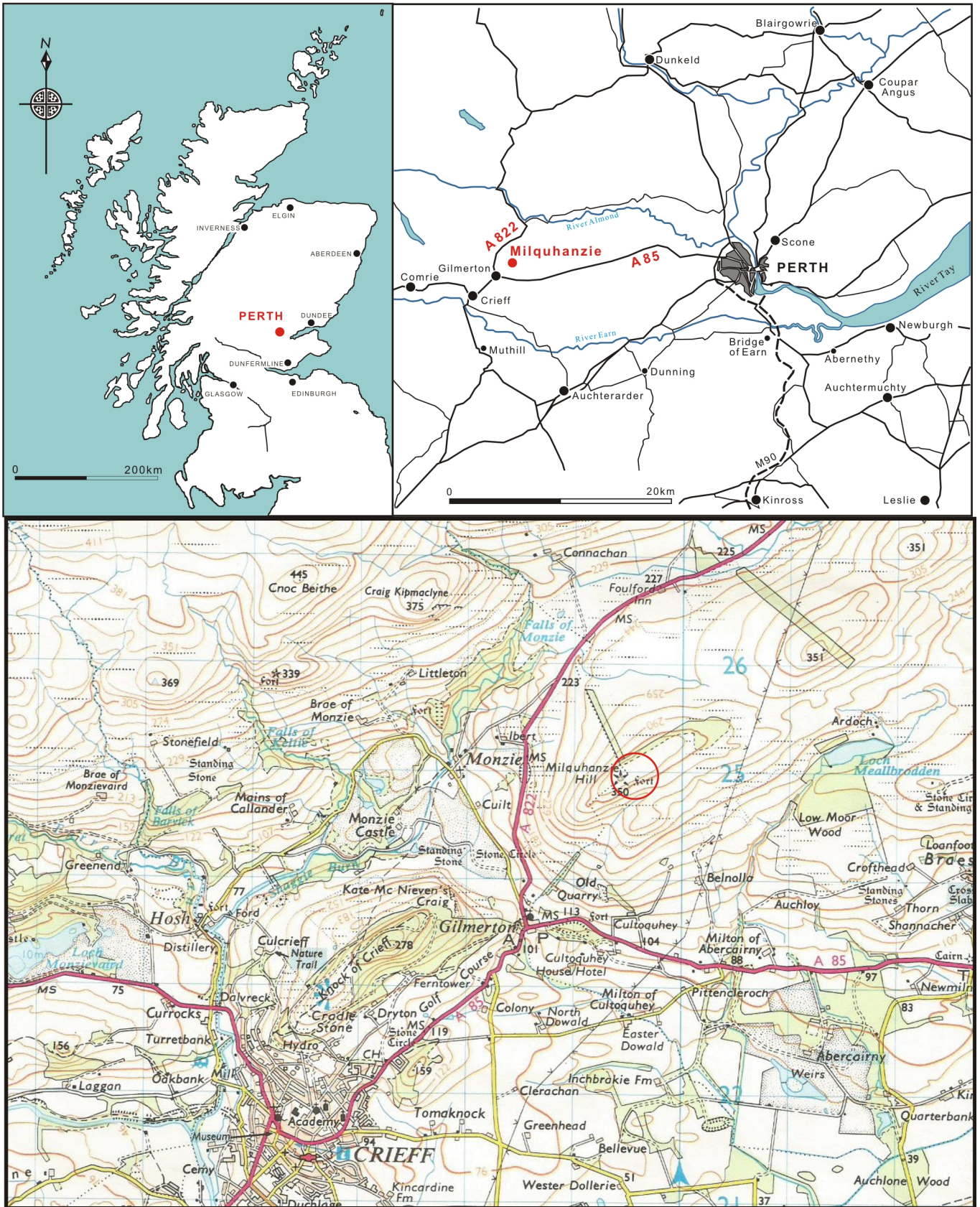
We operate a strict health and safety policy that conforms to the Health and Safety at Work Act. We undertake Risk Assessments on all fieldwork carried out.

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

Milquhanzie Hill, Crieff, Location



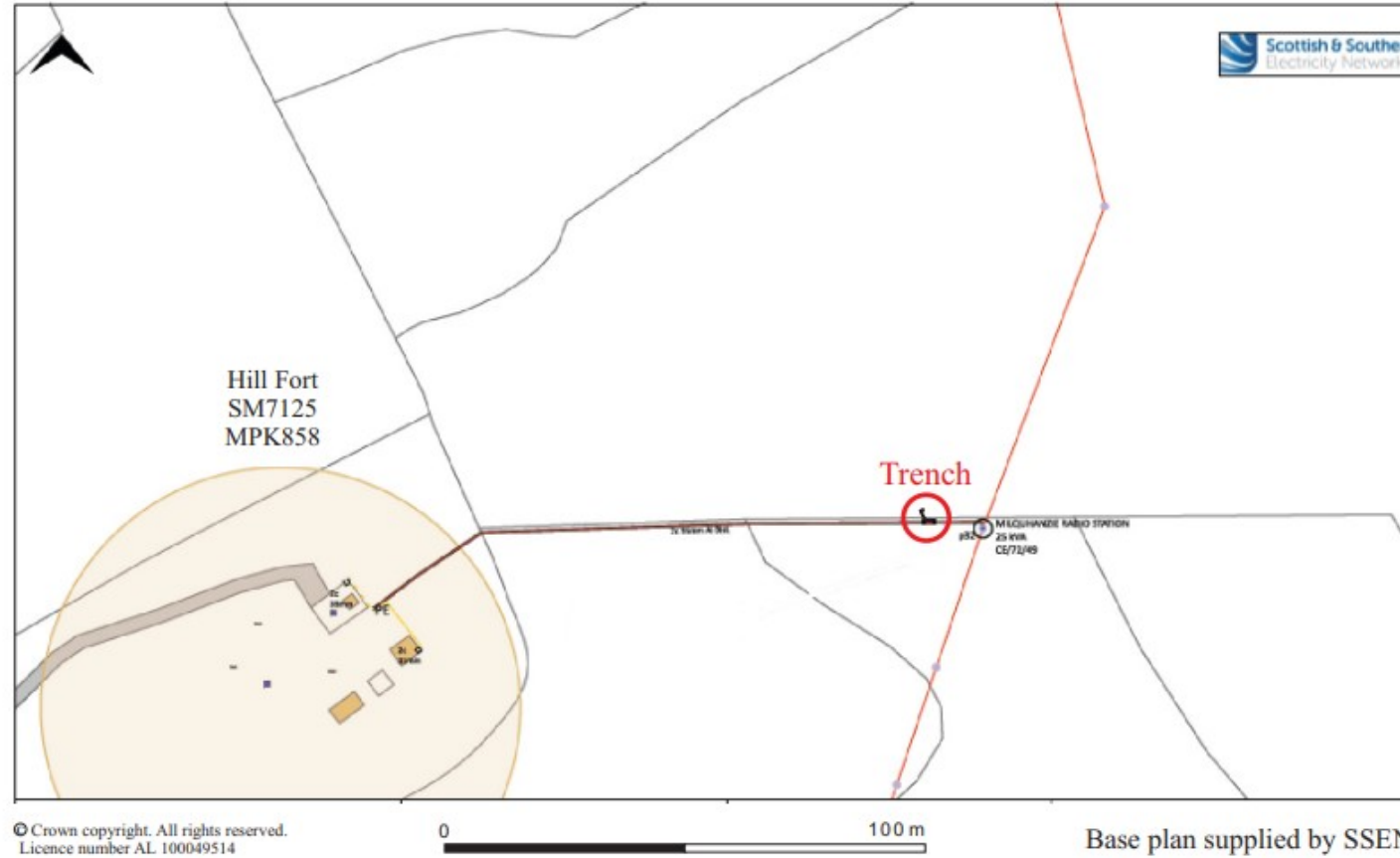
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Illus 2

Milquhanzie Hill, Crieff, Work Area

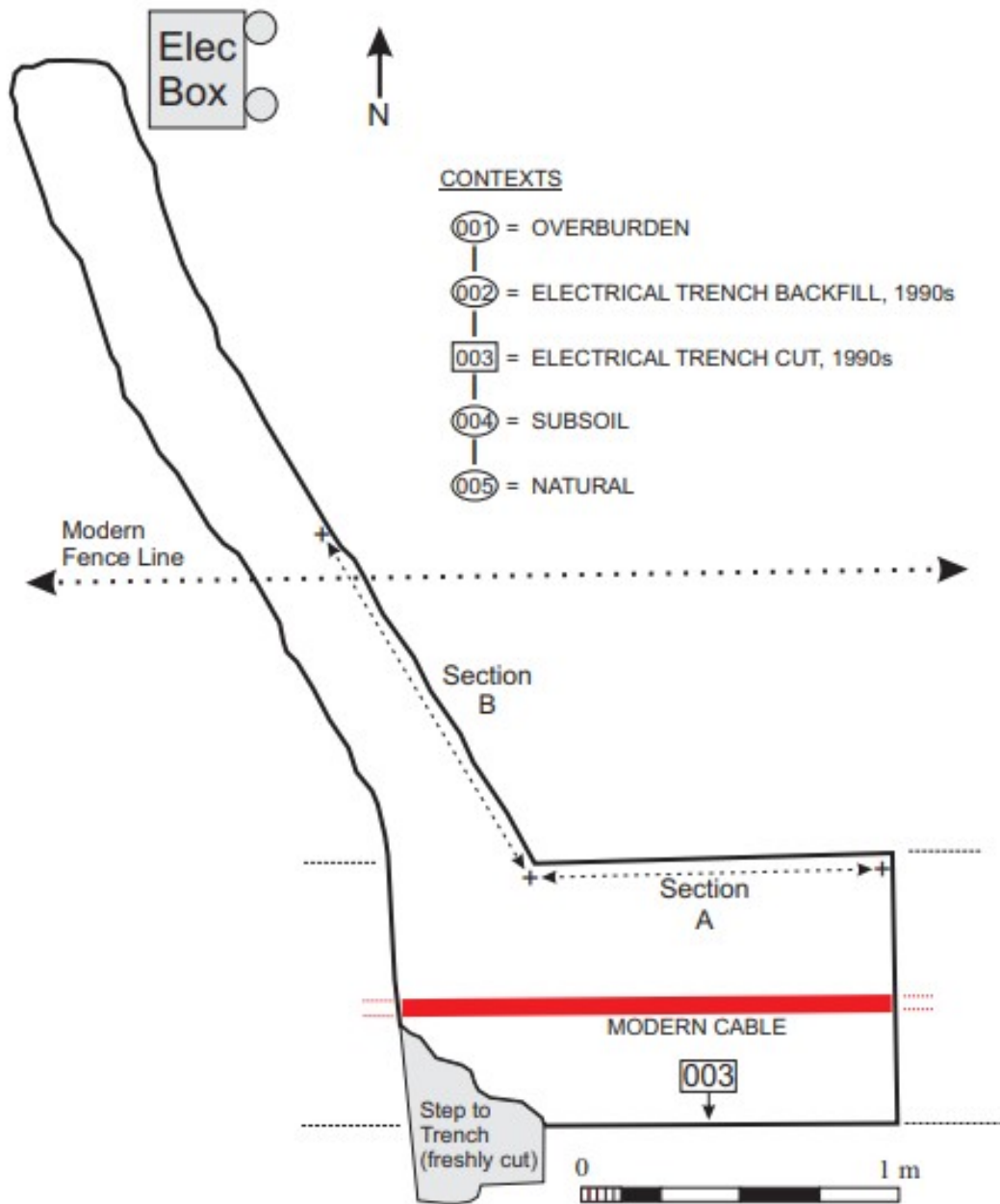


Cup Marked
Stone
MPK15381

CF18

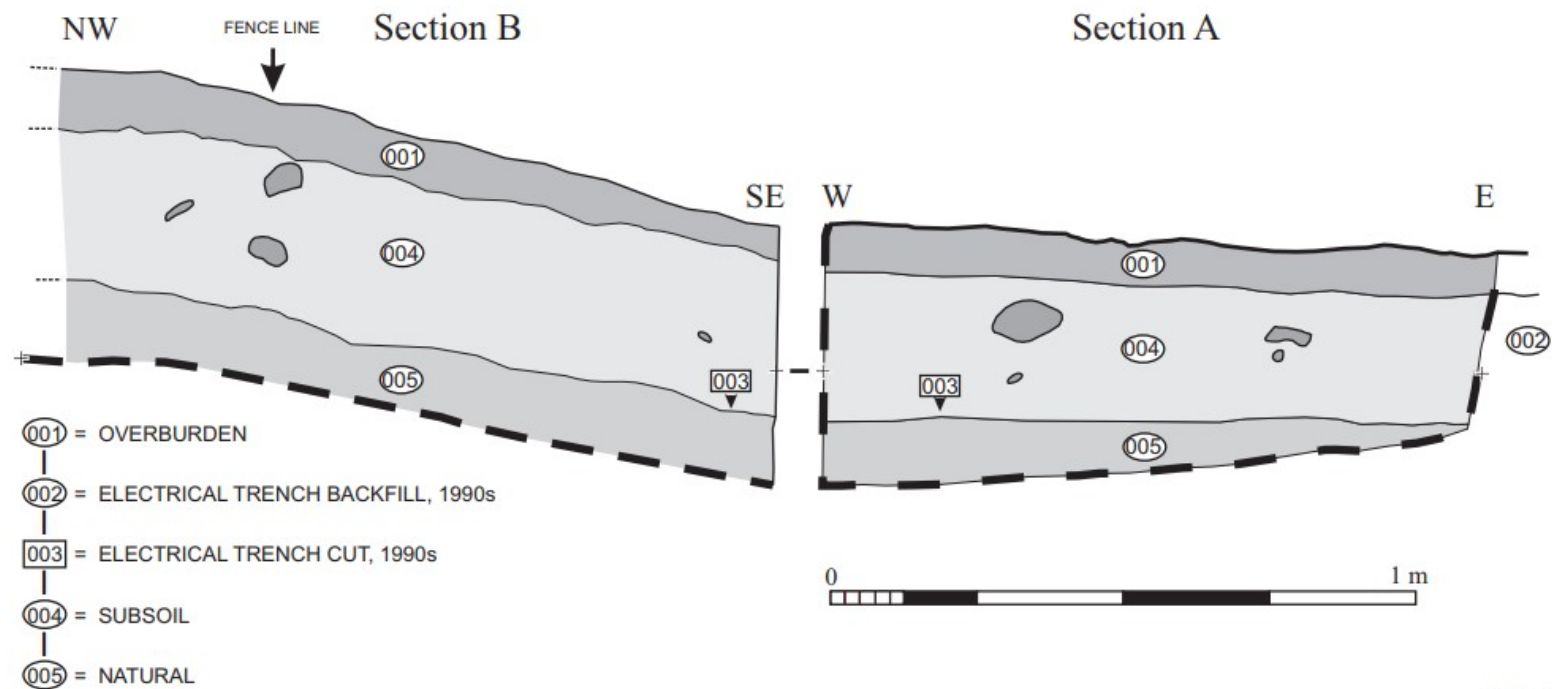
Illustration 3

Milquhanzie Hill, Crieff, Trench Plan



Illus 4

Milquhanzie Hill, Crieff, Sections



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Illustration 5 Milquhanzie Hill, Crieff, Trench Spur from Electrical Box



Illustration 6 Milquhanzie Hill, Crieff, Section A looking North



Illustration 7 Milquhanzie Hill, Crieff, Stone Cobbles from (004)



Illustration 8 Milquhanzie Hill, Crieff, Modern Cable Trench [003] showing Cables, (002) and (005)

