

Archaeological Watching Brief
Agricultural Storage Shed
Blackhill
MEIKLEOUR
BW14

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ARCHAEOLOGICAL WATCHING BRIEF
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ABSTRACT

Alder Archaeology Ltd carried out a watching brief on the digging of 14 foundation pits for an extension to an agricultural storage shed at Blackhill, Hallhole Farm, Meikleour. Previous excavation in 2017 had revealed Neolithic and Bronze Age pits, hearths, and ritual deposits. The present watching brief, to the S of the excavation site, revealed only modern hard standing and natural sand and gravel deposits, with a very thin modern topsoil layer in places. The watching brief (BW14) took place on 11 June 2021, and was funded by The Meikleour Trust.

1 Background

1.1 Introduction

The Meikleour Trust commissioned Alder Archaeology to undertake an archaeological watching brief on the site of an extension to an agricultural storage shed at Blackhill, on Hallhole Farm, Meikleour. The proposed development area is directly S of the existing shed at and is centred on NGR NO 1738 3926, about 6 km S of Blairgowrie. The work (site code BW14) was undertaken on 11th June 2021, in generally fine weather conditions.

The requirement was to observe and record the excavation of fourteen foundation pits for the concrete bases of the shed extension. Special attention was to be paid to any traces of prehistoric pits or other features, similar to those excavated in 2017 before the existing shed was built.

The work was designed to satisfy the archaeological condition on development application reference 20/01816/FLL.

1.2 Aims and Objectives

The main aim of monitoring was to observe, investigate and record any archaeological remains which might be revealed by the limited excavations required to extend the present building, especially any prehistoric features related to the ones found under the existing shed.

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 Planning and Curatorial Issues

This Watching Brief is the final part of a programme of archaeological work designed to satisfy the outstanding archaeological condition on the planning consent for this development.

2 Details of Work

2.1 The Site (Illus 1)

Blackhill is part of Hallhole Farm, and is about 2 km ENE of the confluence of the Tay and the Isla. It lies about 2 km E of Meikleour, about 1 km E of the A 93 from Perth to Blairgowrie, 0.5 km S of the A984 from Dunkeld through Meikleour to Coupar Angus, and about 0.5 km W of the Hallhole farm steading. The land is mostly arable with small areas of woodland, founded on sand and gravel beds sloping down gently to the N bank of the Isla, about 0.5 km the S.

The existing agricultural shed is about 80 m long and 30 m wide, aligned roughly N – S, and consisting of three steel portal-framed units. There is a concrete hard standing about 15 m wide along the E side, and a larger area of crushed rubble hard standing all

round the shed, including the extension area to the S. There is an electricity sub-station in a green cabin 30 m S of the existing SW corner.

2.2 Archaeological Potential

The present agricultural storage shed was built in 2017. Prior to its construction, archaeological excavations and watching briefs revealed a complex of Neolithic and Bronze Age pits, post-holes, ceramics and lithics, suggesting prolonged ceremonial use of the site. The Cleaven Dyke, a major Neolithic earthwork, is just 1 km to the N, and other ceremonial sites are nearby. It was therefore possible that the extension of the present shed might reveal more of the same.

There is also a Roman signal station in woods about 0.2 km E, and a cist burial in woods about 0.3 km WSW but these are not affected by the present development.

2.3 Archaeological Method

The extension consists of a fourth portal-framed unit, measuring 30 m E – W and 25 m N – S, added directly to the S of the existing structure. As the ground slopes down gently southwards, and the concrete floor of the S extension was to be at the same level as in the existing shed, the ground inside the extension was to be levelled up on top of the existing hard standing.

Excavation was required only for the concrete bases of the steel structure. Six foundation pits were dug along the S end wall, to support the bases of the six portal frames. The N ends of the portal frames will be supported by the columns of the existing structure. A further four foundation pits were required along the E and W side walls, to support steel columns carrying the side wall sheeting. The six bases carrying the portal frames measured 2.5 x 2 m. The eight bases supporting the side walls were 1.5 x 1.5 m.

The depth of the foundation pits varied from 0.9 m to 0.2 m. This is because the design of the steel frame required the tops of the concrete bases to be all at the same level, whereas there is a marked step down in existing ground level in the SE corner of the work area. Also, the compacted rubble hard standing, and the natural deposits beneath, are both reasonably firm and solid, while the storage shed, being of steel frame construction with sheet metal walls and roof, is relatively light for its size. There was no need to dig deep foundations.

The 14 foundation pits were dug with a small tracked mini-excavator with a ditching bucket, working under direct archaeological supervision. A small toothed bucket was used where deposits were too firmly compacted, and then cleaned with the ditching bucket. Work started in the NW corner of the site, and worked down towards the SE corner, generally in numerical order, but with some exceptions for convenience of access. Each pit was dug in horizontal spits until the required bottom level was reached, as checked with a laser level.

2.4 Results of Investigations

The sequence of deposits in each pit is shown in the Context Register (Appendix 1 below).

Most pits began with a layer of crushed concrete mixed with a small amount of very dry topsoil, eg 201, 301, 401, 501, 601, 701, 801, 901, 1201, 1301, typically around 0.4 m deep. This was obviously a modern deposit used to level up the hard standing.

In most pits this was followed by a layer of tan or brown sandy gravel, probably natural, eg 202, 302, 402, 502, 602, 702, 802, 1302, typically 0.1 – 0.3 m deep. In some pits the gravel had been truncated to a very thin skin, eg 502, 602, 702, 1302. In some pits the gravel was exposed at the surface, eg 101, 1001, 1101, 1401, where levelling up with crushed concrete rubble had not been required.

In all but one pit, the gravel overlay clean yellow sand deposits, sometimes with stones, apparently natural, for example 102, 203, 303, 503, 603, 703, 804, 903, 1003, 1102, 1203, 1303, 1404. Excavation stopped within these layers. The only exception was pit 04, where the brown sandy gravel 402 continued to the bottom of the pit, and any underlying sand was never exposed.

In some pits, there was a thin soil layer over the yellow sand, for example 502, 803, 902, 1002, 1402. In the case of pit 05, the very thin layer of gravel 502 was probably repositied. Similarly in the case of pit 08, where the thin soil layer 803 still contained roots, and was obviously relatively recent. In pit 09, the soil 902 was directly under crushed concrete 901, obviously modern. In pit 10, the thin soil layer 1002 was under a tan gravel layer 1001, probably natural redeposited to form the modern surface. Similarly in pit 14, where the gravel 1401 forms the top surface, and the sand soil layer 1402 and the sand, soil and gravel layer 1403 may both have been disturbed and mixed in forming the hard standing over the clean yellow-grey sand 1404.

3 Conclusions

None of the pits produced any apparent archaeological features, neither in the very thin soil layers, nor cut into the sand gravel natural layers. No archaeological artefacts were found either. The foundation pits were mostly dug through modern hard standing layers, reaching soil and natural sand deposits only near the bottom.

The survival of the soil layers in some pits may suggest that any previous activity to create the hard standing in this area had not completely truncated the soil profile. This is not too surprising, as this is the low end of the site, and modern works in this area would have been more concerned with levelling up than scraping down. Earlier cut features could still survive under the hard standing, but will not be disturbed by the levelling up required to raise the hard standing to the required floor level of the new building.

4 Bibliography

Bowler, D P 2021 Agricultural Storage Shed, Blackhill, Meikleour, Archaeological Monitoring. Written Scheme of Investigation. Unpublished report, Alder Archaeology Ltd, Perth.

Fyles, C, Ballin, T, Hastie, M, Mac Sween, A 2019 A Neolithic Site at Meikleour, Blairgowrie, East Perthshire. Unpublished report, Alder Archaeology Ltd, Perth.

Appendix 1 Context Register

<i>No</i>	<i>Description</i>
	Foundation Pit 01
101	Brown sandy gravel down to 0.8 m.
102	Clean yellow sand. Excavation stopped at 0.85 m down.
	Foundation Pit 02
201	Top fill. Crushed concrete and dry soil, to 0.4 m down.
202	As 101. Brown sandy gravel. Down to 0.7 m.
203	As 102. Clean yellow sand. Excavation stopped at 0.8 m down.
	Foundation Pit 03
301	As 201. Crushed concrete and dry soil. To 0.55 m down.
302	As 202. Brown sandy gravel. To 0.6 m down.
303	As 203. Clean yellow sand. To 0.7 m down. Excavation stopped.
	Foundation Pit 04
401	As 201. Crushed concrete and dry soil. To 0.6 m down.
402	As 202. Brown sandy gravel. Excavation stopped at 0.75 m down.
	Foundation Pit 05. 2.5 m x 2 m.
501	As 201. Crushed concrete and dry soil. To 0.7 m down.
502	As 202. Brown sandy gravel. Very thin. To 0.7 m down.
503	As 102. Clean yellow sand. Excavation stopped at 0.75 m down
504	Thin skin of topsoil over yellow sand 503, under sandy gravel 502.
	Foundation Pit 06

<i>No</i>	<i>Description</i>
601	As 201. Crushed concrete and dry soil. To 0.7 m down.
602	As 101. Brown sandy gravel. Thin skin.
603	As 102. Clean yellow sand. Stop at 0.7
	Foundation Pit 07
701	As 201. Crushed concrete and dry soil. To 0.7 m down
702	As 101. Brown sandy gravel. Thin skin.
703	As 102. Clean yellow sand. To 0.9 m down.
	Foundation Pit 08
801	As 201. Crushed concrete and dry soil. To 0.4 m down.
802	As 101. Brown sandy gravel.
803	Thin skin of topsoil at 0.7 m down. Tree roots.
804	As 102. Clean yellow sand. To 0.8 m down.
	Foundation Pit 09
901	As 201. Crushed concrete and dry soil. To 0.5 m down.
902	Grey-brown soil layer to 0.55 m down.
903	Clean yellow sand. To 0.8 m down.
	Foundation Pit 10
1001	As 1101. Tan gravel sand.
1002	Dark brown topsoil. Thin skin.
1003	Yellow stony sand. To 0.2 m down.
	Foundation Pit 11
1101	Tan gravel sand. To 0.1 m down.
1102	Clean yellow sand and stones. To 0.2 m down.

<i>No</i>	<i>Description</i>
	Foundation Pit 12
1201	Crushed concrete rubble. To 0.6 m down.
1202	Tan sand. Thin spread.
1203	Yellow-green sand with gravel. To 0.7 m down.
	Foundation Pit 13
1301	Crushed concrete fill. To 0.4 m down.
1302	Thin layer of brown or tan gravel.
1303	Clean yellow sand, stony in places. To 0.7 m down.
	Foundation Pit 14
1401	Gravel as 101.
1402	Sand and dark soil. Thin skin.
1403	Clean yellow sand with dark patches. Also gravel patches. To 0.7 m down.
1404	Clean yellow-grey sand. Becoming stony lower down. To 0.8 m down.

Appendix 2 Photographic Register

<i>No</i>	<i>View</i>	<i>Description</i>
01 - 2	N	Pre-start. General view of existing shed and extension area.
		Foundation Pit 01
03 - 4	N	Stony gravel and fill 101.
05 - 7	N	Brown sandy gravel 101 down to 0.8 m.
08	N	Clean yellow sand 102.
09 - 10	N	Excavation of sand 102 stopped at 0.85 m down.

<i>No</i>	<i>View</i>	<i>Description</i>
		Foundation Pit 02
11 - 12	N	Top fill. Crushed concrete and dry soil 201, to 0.4 m down.
13 - 14	N	Brown sandy gravel 202 down to 0.7 m.
15 - 16	N	Clean yellow sand 203. Excavation stops at 0.8 m down.
		Foundation Pit 03
17 - 18	N	Crushed concrete and dry soil 301. To 0.55 m down.
19 - 20	N	Brown sandy gravel 302. To 0.6 m down.
21	N	Clean yellow sand 303. To 0.7 m down. Excavation stops.
		Foundation Pit 04
22	N	As 201. To 0.6 m down.
23 - 4	N	As 202.
25 - 6	N	Stop at 0.75 m down.
		Foundation Pit 05. 2.5 m x 2 m.
27 - 8	N	Crushed concrete and dry soil 501 to 0.7 m down.
29 - 30	N	Very thin brown sandy gravel 502. To 0.7 m down.
31 - 2	N	Thin skin of topsoil 504 over clean yellow sand 503. Excavation stops at 0.75 m down.
		Foundation Pit 06
33 - 4	N	Start of pit 06.
35-7	N	Crushed concrete and dry soil 601. To 0.7 m down. Over very thin skin of brown sandy gravel 602, and clean yellow sand 603.
35 - 7	N	Clean yellow sand 603. Stop at 0.7
		Foundation Pit 07

<i>No</i>	<i>View</i>	<i>Description</i>
38 - 9	N	Crushed concrete and dry soil 701, to 0.7 m down. Pit 07 about to begin.
40 - 41	N	Clean yellow sand 703. Excavated to 0.9 m down.
		Foundation Pit 08
42	N	Crushed concrete and dry soil 801. To 0.4 m down.
43 - 4	N	Brown sandy gravel 802.
45	N	Thin skin of topsoil 803 at 0.7 m down. Tree roots.
46	N	Clean yellow sand 804. To 0.8 m down.
		Foundation Pit 09
47 - 8	N	Crushed concrete and dry soil 901. To 0.5 m down.
49 - 50	N	Grey-brown soil layer 902, to 0.55 m down.
51 - 4	N	Clean yellow sand 903. To 0.8 m down.
		Foundation Pit 14
55 - 6	N	Brown sandy gravel gravel 1401.
57 - 8	E	Sand and dark soil 1402. Thin skin.
59	E	Clean yellow sand 1403 with dark patches. Also gravel patches. To 0.7 m down.
60 - 1	E	Clean yellow-grey sand 1404. Becoming stony lower down. To 0.8 m down.
		Foundation Pit 13
62 - 3	N	Crushed concrete fill 1301.
64	E	Fill 1301 to 0.4 m down.
65 - 6	E	Clean yellow sand 1303, stony in places. To 0.7 m down.
		Thin layer of brown or tan gravel 1302.
		Foundation Pit 12
67 - 8		Crushed concrete rubble 1201.

No	View	Description
69	E	Concrete 1201 to 0.6 m down.
70 - 1	E	Tan sand 1202. Thin spread.
72 - 3	E	Yellow-green sand with gravel 1203. To 0.7 m down.
		Foundation Pit 11
74 - 5	N	Tan gravel sand 1101. Modern surface steps down to S.
76	S	Gravel sand 1101 to 0.1 m down.
77 - 8	S	Clean yellow sand and stones 1102. To 0.2 m down.
		Foundation Pit 10
79 - 80	S	Tan gravel sand 1001.
81	S	Dark brown topsoil 1002. Thin skin.
82 - 3	S	Yellow stony sand 1003 appearing under 81. To 0.2 m down.
84	WN W	General view of work area, S of existing shed.
85	N	General view of work area, S of existing shed. Pits open.
86 - 8	N	General view of work area, S of existing shed, from existing sub-station at SW corner. Five pits open along W edge of extension.
89	E	General view of work area, S of existing shed, from existing sub-station at SW corner. Pits open along S edge of extension.
90	N	General view of work area, S of existing shed, from SE corner. Pits open along E edge of extension.
91	W	General view of work area, S of existing shed, from SE corner. Pits open along S edge of extension. Sub-station at SW corner.
92	W	General view of work area, S of existing shed, from SE corner. Pits open along S edge of extension. Sub-station at SW corner. Pit at SE corner very shallow. Level marker adjacent.
93	N	General view of work area, S of existing shed, from SE corner. Pits open along E edge of extension. Pit at SE corner and next N both very shallow. Level marker adjacent.
94	NE	Distant view across SE corner to NW. SE corner close to machine. Access track to S.
95	W	General view of extension area from E side. Pits open. Current ground level steps down

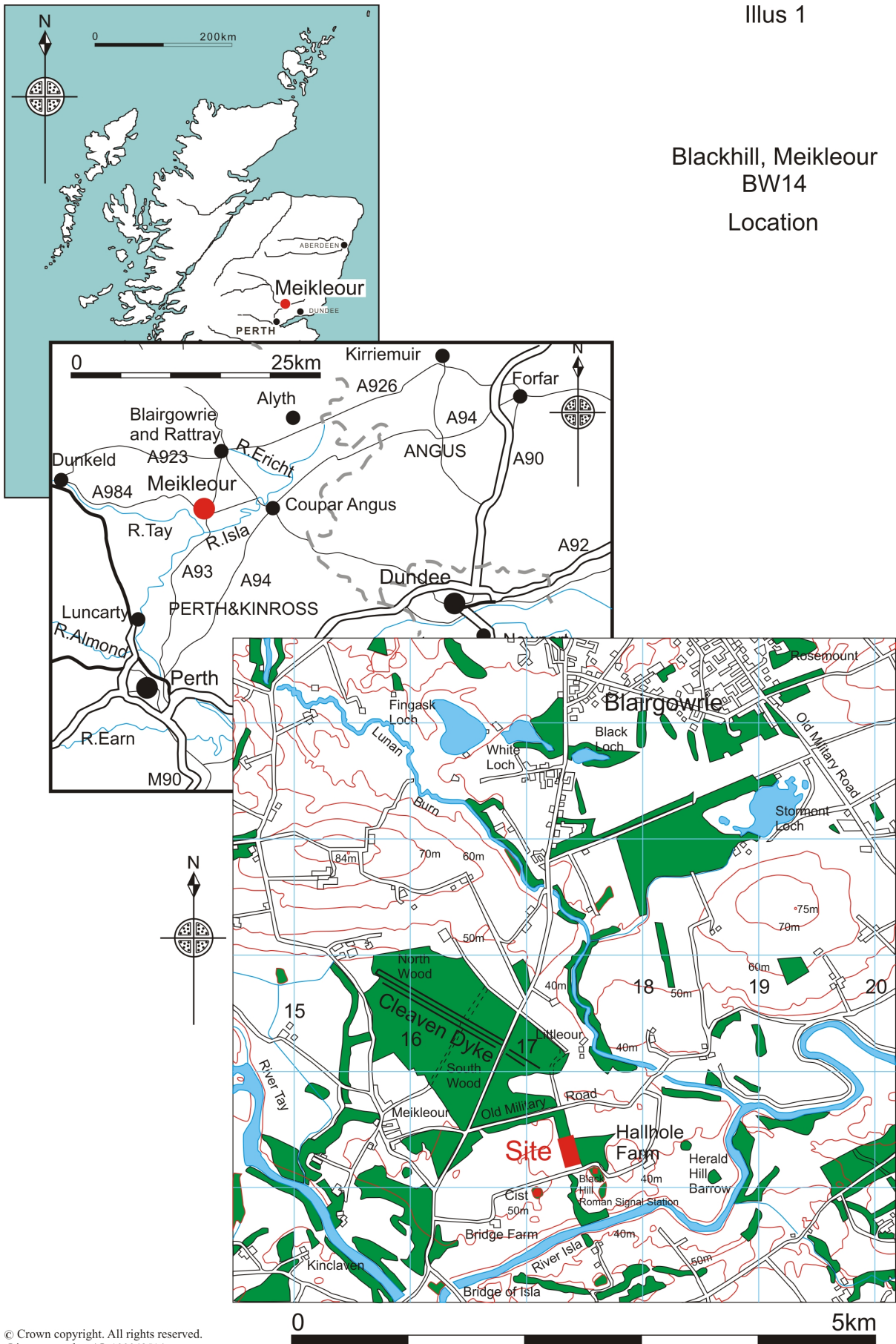
<i>No</i>	<i>View</i>	<i>Description</i>
		markedly towards SE corner.

Appendix 3 Discovery & Excavation in Scotland Entry

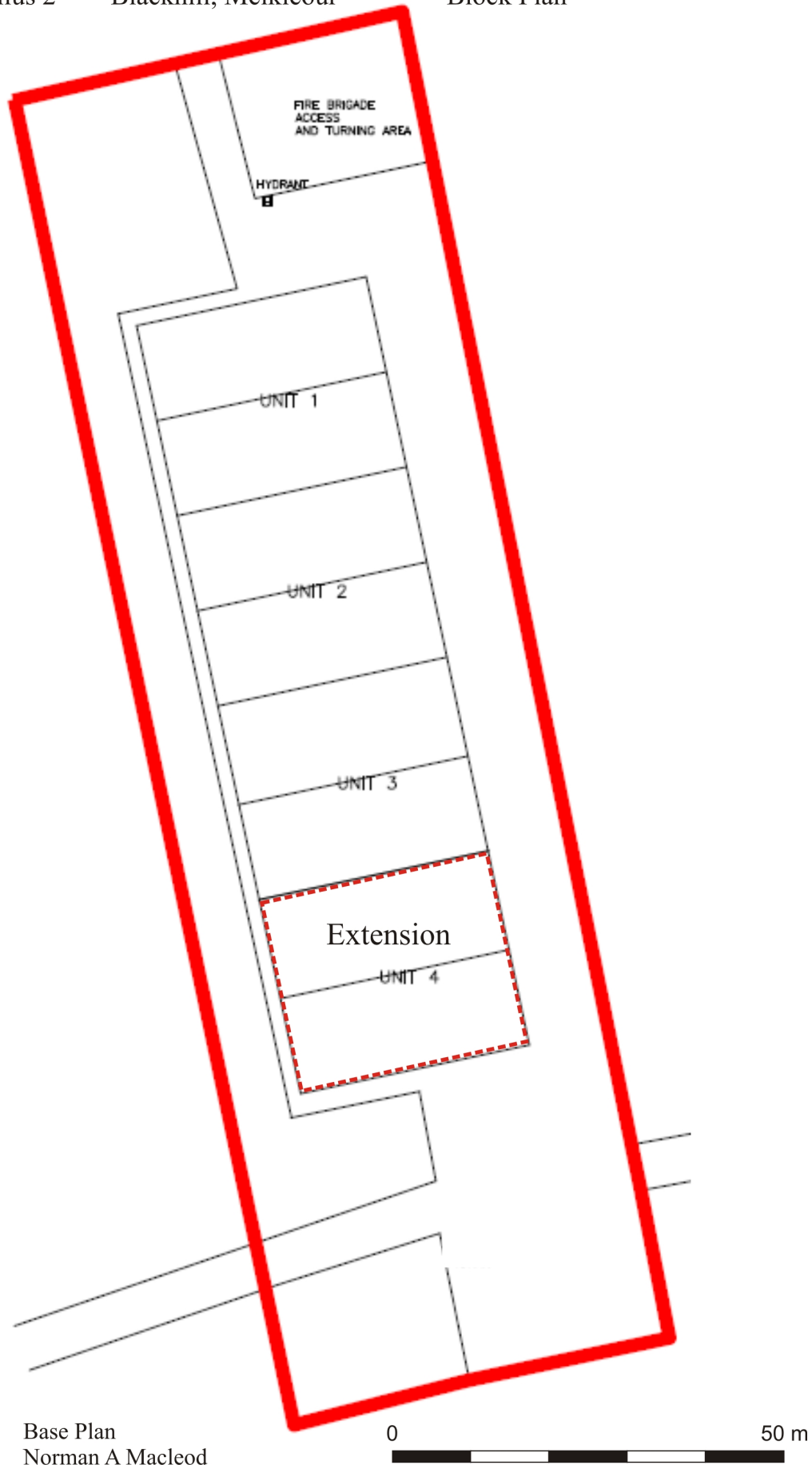
LOCAL AUTHORITY:	Perth and Kinross
PROJECT TITLE/SITE NAME:	Blackhill, Meikleour
PROJECT CODE:	BW14
PARISH:	Caputh
NAME OF CONTRIBUTOR:	D P Bowler
NAME OF ORGANISATION:	Alder Archaeology Ltd
TYPE(S) OF PROJECT:	Watching Brief
NMRS NO(S):	NO13SE 56/SM6952, NO13NE 7/SM4233, NO13NE 62/SM7282, NO14SE 59, NO14SE 80/SM1602
SITE/MONUMENT TYPE(S):	Neolithic Ritual Landscape
SIGNIFICANT FINDS:	None
NGR (2 letters, 8 or 10 figures)	NO 1738 3926
START DATE (this season)	11 June 2021
END DATE (this season)	11 June 2021
PREVIOUS WORK (incl. DES ref.)	Evaluation (2011), gradiometer survey (2012), excavation (2017). <i>DES 18</i> , 2017. 154, Hallhole Farm.
MAIN DESCRIPTION (NARRATIVE) (May include information from other fields)	Alder Archaeology Ltd carried out a watching brief on the digging of 14 foundation pits for an extension to an agricultural storage shed at Blackhill, Hallhole Farm, Meikleour. Previous excavation in 2017 had revealed Neolithic and Bronze Age pits, hearths, and ritual deposits. The present watching brief, to the S of the excavation site, revealed only modern hard standing and natural sand and gravel deposits, with a very thin modern topsoil layer in places. The watching brief (BW14) took place on 11 June 2021, and was funded by The Meikleour Trust.
PROPOSED FUTURE WORK:	None
CAPTION(S) FOR ILLUSTRS:	
SPONSOR OR FUNDING BODY:	Meikleour Trust
ADDRESS OF MAIN CONTRIBUTOR:	Alder Archaeology Ltd, 55 South Methven Street, Perth PH1 5NX
EMAIL ADDRESS:	director@alderarchaeology.co.uk
ARCHIVE LOCATION (intended/deposited)	NRHE / HES (intended)

Illus 1

Blackhill, Meikleour
BW14
Location

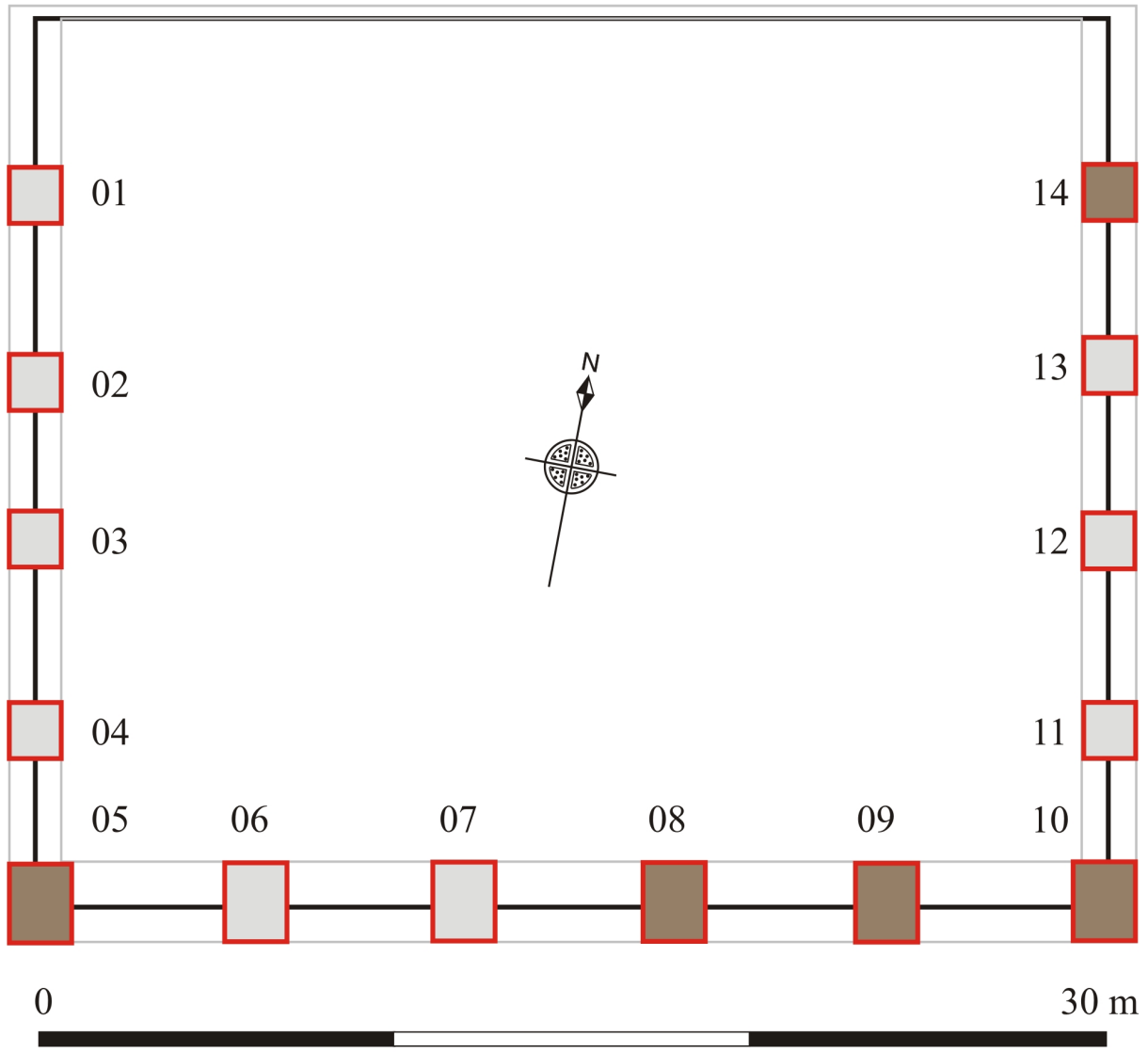


Illus 2 Blackhill, Meikleour Block Plan



Base Plan
Norman A Macleod

Illus 3 Blackhill, Meikleour Foundation Pits



 = buried topsoil

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Illustration 4: Ready to start Pit 01



Illustration 7: Pit 02. Crushed concrete and dry soil 201



Illustration 5: Pit 01. Brown sandy gravel 101



Illustration 8: Brown sandy gravel 202



Illustration 6: Sand 102 under gravel 101



Illustration 9: Clean yellow sand 203



Illustration 10: Pit 05. Buried topsoil 504 over sand 503



Illustration 13: Pits complete. View WNW



Illustration 11: Pit 09. Buried topsoil 902 over sand 903



Illustration 12: Pit 11 marked out. Modern ground level steps down to SE corner