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MAP Archaeological Practice

Land off Halifax Road
Penistone
South Yorkshire

Archaeological Evaluation by Trial Trenching

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MAP 05.32.21

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Land off Halifax Road
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Archaeological Evaluation by Trial Trenching

Summary

An Archaeological Evaluation by Trial Trenching was carried out by MAP Archaeological Practice Ltd., on land off Halifax Road, Penistone prior to the commencement of a residential development with associated infrastructure.

The Evaluation by Trial Trenching, which followed a Heritage Assessment and Geophysical Survey, identified a number of small and irregular gullies were identified during the excavation which do not conform with visible field boundaries or those depicted on cartographic sources. It is possible that some identified features were not of archaeological origin, the remainder are likely to be of Post-Medieval or modern date.

In consultation with South Yorkshire Archaeology Service, no further archaeological work is required on the site.

1. Introduction

- 1.1 This report sets out the results of an Archaeological Evaluation by Trial Trenching, carried out by MAP Archaeological Practice Ltd. on land off Halifax Road, Penistone in November 2021.
- 1.2 The work was carried out in order to inform South Yorkshire Archaeology Service of the archaeological potential of the site and to mitigate the impact of the residential development.
- 1.3 In accordance with the recommendations of the National Planning Policy Framework (2021) on 'Archaeology and Planning' a staged scheme of archaeological work is proposed. The results of the Trial Trenching, which follows a Heritage Assessment (BWB 2021) and Geophysical Survey (Phase Site Investigations 2018), will be summarised and an appropriate mitigation strategy will be formulated if necessary.
- 1.4 The work was carried out in accordance a Written Scheme of Investigation which was prepared by MAP Archaeological Practice (appendix 7).
- 1.5 MAP adhered to the general principles of both the ClfA (2021) '*Code of Conduct*' and '*Standard and Guidance for Archaeological Field Evaluation*' (2020) throughout the project.
- 1.6 All maps within this report have been produced from the Ordnance Survey with the permission of the Controller of Her Majesty's Stationery Office, Crown Copyright, Licence No. AL 50453A.
- 1.7 All work was funded by Barratt Homes.

2. Site Description

2.1 An application for planning permission has been made to Barnsley Metropolitan Borough Council for a residential development, areas of open space, landscaping and associated infrastructure (planning reference 2020/0274)

2.2 The site, which measures approximately 16ha, is located to the south of Halifax Road, approximately 10km west of Barnsley (NGR SE 246 044). The site is bounded to the north by Halifax Road, to the east by residential housing to the south by Scout Dyke and a Mill Race and to the west by agricultural land.

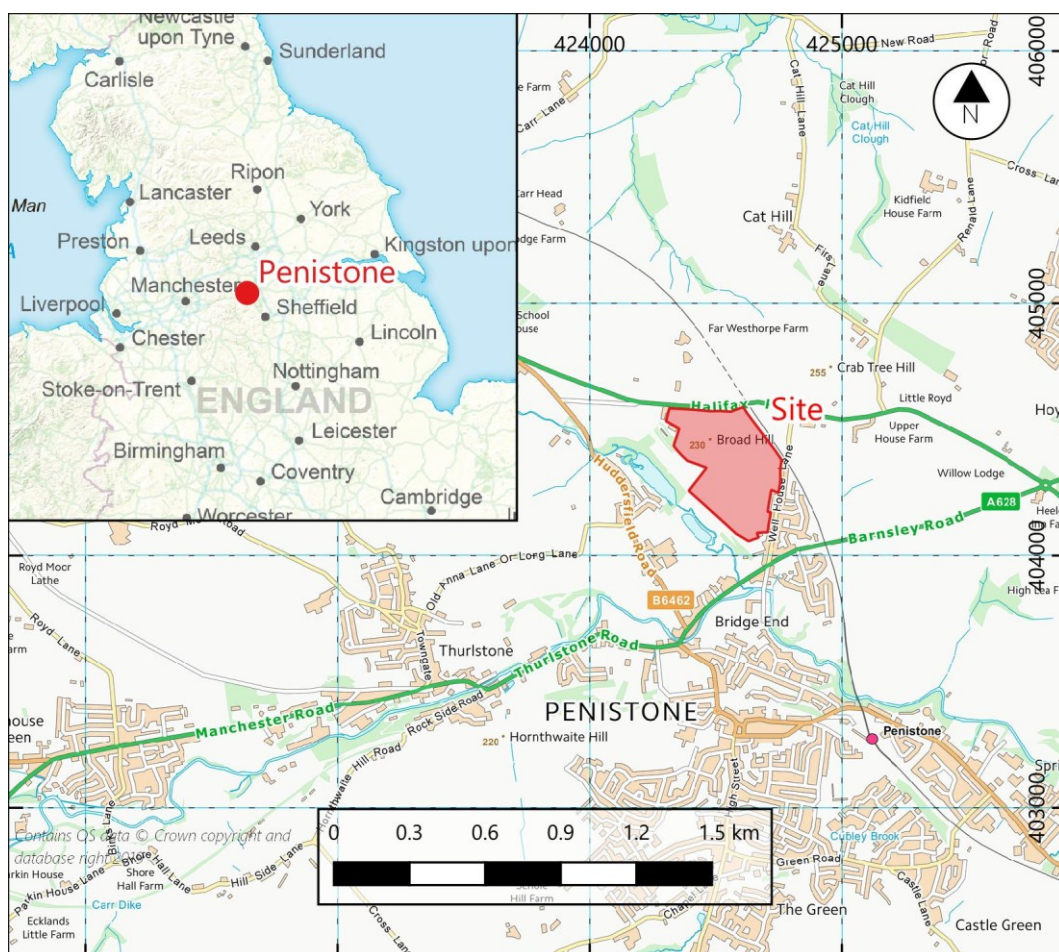


Figure 1. Site Location

- 2.3 The site consists of three pasture fields which lie on bedrock geology of alternating bands of mudstone and siltstone of the Pennine Lower Coal Measures and sandstone of the Penistone Flags formation (BGS. 2021).

3. Archaeological and Historical Background

- 3.1 Penistone is recorded in the Domesday Survey of 1086 as *Pengestone*'. The village, which has pre-conquest origins developed into the Medieval period.
- 3.2 A Heritage Assessment was carried out by BWB in 2021. The Assessment concluded that field boundaries within the site consist of stone walls built as a result of enclosure of the landscape. No prehistoric or Romano-British activity is recorded within the vicinity of the site and records do not suggest that Medieval activity extended into the site.
- 3.3 A geophysical Survey was carried out at the site in 2018 by Phase Site Investigations. The survey provided evidence of potential archaeological activity, likely to represent enclosures, in the south-eastern region of the site. Other linear features may be of archaeological origin although they may represent agricultural activity. Anomalies relating to geological variations and drainage features were also identified.

4. Aims and Objectives

- 4.1 The aim of the Archaeological Trial Trenching was to determine the presence/absence, nature, date, quality of survival and importance of archaeological deposits to enable an assessment of the potential and significance of the archaeology to be made.

5. Methodology

5.1 Excavation

- 5.1.1 Thirty-one trial trenches were excavated, all measuring thirty-six measured 50m x 2m with the remainder measuring 25m x 2m. The trenches were positioned across the site to investigate geophysical anomalies but also areas which appear void of archaeology in the results of the survey. Trench 7 was backfilled at the request of the landowner.

- 5.1.2 Topsoil was removed by a tracked excavator fitted with a toothless bucket, operating under close archaeological supervision. Machining ceased at the top of either archaeological or naturally formed deposits, depending upon which was located first. The exposed surfaces were cleaned appropriately, and any subsequent excavation was carried out by hand.

- 5.1.3 All work was carried out in line with both the Chartered Institute of Field Archaeologists Code of Conduct (2019) and Standard and Guidance for Archaeological Field Evaluation (CIfA 2020).

5.2 On-site Recording

- 5.2.1 All thirty-one Trial Trenches were recorded on MAP's *pro forma* trench index sheets. The photographic record comprised fifty one black and white 35mm film photographs and one hundred and sixteen digital photographs
-

taken in jpeg and RAW. The photographic record included film registers, shot number, location of shot, direction of shot and brief description (Appendix 3).

6. Results.

6.1 The total depths and elevations of all thirty-one trial trenches are displayed in the below table. A dark-brown grey silt topsoil was overserved across the site

<i>Trench</i>	<i>Elevation</i>	<i>Depth of Excavation</i>	<i>Depth of Topsoil</i>
<i>Tr.1</i>	North-West- 230.48m AOD	0.25m-	0.25m-
	South-East- 230.94m AOD	0.29m	0.28m
<i>Tr.2</i>	North-East- 231.53m AOD	0.27m	0.27m
	South-West- 231.55m AOD		
<i>Tr.3</i>	North-West- 232.66m AOD	0.25m-	0.23m-
	South-East- 231.82m AOD	0.28m	0.25m
<i>Tr.4</i>	South-West- 231.39m AOD	0.27m-	0.24m-
	North-East- 231.65m AOD	0.28m	0.25m
<i>Tr. 5</i>	North-East- 232.03m AOD	0.29m-	0.29m-
	South-West- 231.80m AOD	0.31m	0.31m
<i>Tr. 6</i>	North-East- 231.09m AOD	0.25m-	0.25m
	South-West- 231.58m AOD	0.33m	
<i>Tr. 7</i>	Not recorded at request of landowner		
<i>Tr.8</i>	North-West- 229.86m AOD	0.26m-	0.26m
	South-East- 228.52m AOD	0.40m	
<i>Tr.9</i>	North-East- 230.18m AOD	0.22m-	0.20m-
	South-West – 229.86m AOD	0.26m	0.22m
<i>Tr.10</i>	North-East-227.93m AOD	0.22m-	0.22m-
	South-West- 229.29m AOD	0.25m	0.25m
<i>Tr.11</i>	North-West- 229.42m AOD	0.25m	0.25m
	South-East- 227.76m AOD		
<i>Tr.12</i>	North-East-224.43m AOD	0.25m-	0.23m-

	South-West-226.15m AOD	0.28m	0.25m
Tr.13	South-East- 220.48m AOD	0.26m-	0.26m-
	North-West- 223.10m AOD	0.30m	0.30m
Tr.14	South-East- 220.02m AOD	0.25m-	0.22m-
	North-West- 222.11m AOD	0.26m	0.25m
Tr.15	North-East- 219.36m AOD	0.23m-	0.23m-
	South-West- 219.84m AOD	0.35m	0.35m
Tr.16	North-East- 222.17m AOD	0.31m-	0.29m-
	South-West- 218.29m AOD	0.34m	0.34m
Tr.17	North-East – 218.32m AOD	0.28m-	0.28m-
	South-West- 216.01m AOD	0.30m	0.29m
Tr.18	North-West- 219.06m AOD	0.23m-	0.23mm-
	South-East- 216.64m AOD	0.25m	0.25m
Tr.19	North-West-223.02m AOD	0.23m-	0.23m-
	South-East- 219.46m AOD	0.26m	0.26m
Tr.20	North-West- 213.16m AOD	0.33m	0.28m-
	South-East- 212.91m AOD		0.33m
Tr.21	North-East- 215.56m AOD	0.25m-	0.25m-
	South-West-214.64 AOD	0.27m	0.27m
Tr.22	North-West-216.42m AOD	0.23m-	0.23m-
	South-East -215.88m AOD	0.24m	0.24m
Tr.23	North-East- 217.70m AOD	0.31m-	0.25m
	South-West- 216.56m AOD	0.35m	
Tr.24	North-East- 213.17m AOD	0.25m-	0.25m-
	South-West- 210.90m AOD	0.26m	0.26m
Tr.25	North- 214.00m AOD	0.21m-	0.21m-
	South- 213.74m AOD	0.26m	0.26m
Tr.26	East- 217.40m AOD	0.26m-	0.26m-
	West- 216.02m AOD	0.33m	0.33m
Tr.27	North-West-217.69m AOD	0.33m-	0.28m-
	South-East-218.19m AOD	0.34m	0.30m
Tr.28	South-East- 215.26m AOD	0.35m-	0.35m-
	North-West- 215.69m AOD	0.41m	0.41m
Tr. 29	North-East- 218.20m AOD	0.28m-	0.27m-
	South-West- 218.46m AOD	0.30m	0.30m
Tr.30	West- 218.10m AOD	0.27m-	0.27m-
	East- 217.01m AOD	0.30m	0.30m

Tr.31	East- 215.92m AOD	0.22m-	00.22m-
	West- 213.97m AOD	0.26m	0.26m

- 6.2 Trench 1 contained a single north to south aligned gully which measured 0.92m wide and 0.23m deep. The 'V' shaped gully contained a single fill, a light yellowish grey silty clay. An environmental sample taken from the feature contained a small deposit of oak charcoal.
- 6.3 Trench 6 contained a 2.06m wide and 0.36m deep ditch which ran on a south-east to north-west alignment. The ditch, which had an irregular profile, contained two fills. The lower fill consisted of a mid-brown-grey sandy clay whilst the upper fill was a mid-yellowish brown sandy clay. A single clay tobacco pipe stem was recovered, which is 19th century in date,
- 6.4 Trench 9 was located in order to assess a curvi-linear highlighted in the results of the Geophysical Survey. A small gully, which ran on a north-west to south-east alignment, was identified which measured 0.67m wide and 0.18m deep. The single fill of the feature, a light grey brown silty sand which contained coal and clinker.
- 6.5 Trench 26 was positioned in order to evaluate two anomalies highlighted in the results of the Geophysical Survey. Two gullies were identified, north of which ran on a south-west to north-east alignment. The eastern most gully measured 0.29m wide, 0.05m deep and contained a single mid grey brown sandy silt fill. Three crumb-sized (<1cm) sherds of 19th century pottery was recovered from the feature as were two shards of modern glass, and a fragment of roofing slate. The second gully measures 0.44m wide, 0.09m deep and also contained a mid grey brown sandy silt. Environmental

samples produced lots of coal and clinker fragments with a trace amount of charred detritus which was considered to be residual.

6.6 Two gullies were also identified within Trench 27. The first gully, which ran on a north to south alignment, measured 0.5m wide and 0.16m deep and contained a mid-grey brown sandy silt fill. The second feature ran east to west and also contained a mid-grey brown sandy silt fill. A slither of hazel nutshell was recovered from an environmental sample, which is considered to be residual.

6.7 Trench 30 contained two gullies on south-west to north-east and north-west to south-east alignments. The western most feature measured 0.35m wide and 0.09m deep, filled with a mid-grey brown sandy silt. The eastern feature measured 0.55m wide and 0.15m deep, again filled by a mid-grey brown sandy silt. Two crumb-sized sherds of 19th century pottery was recovered from the feature. Birch and hazel charcoal was identified within an environmental sample taken from the easternmost feature.

6.8 A gully measuring 0.53m wide and 0.16m deep was identified in Trench 21. Running on a north to south alignment the feature was filled by a mid brown sandy silt which contained no archaeological material.

7. Conclusion

7.1 A small possible enclosure was identified in the south-eastern corner of the site, in the results of the Geophysical Survey. A number of small and irregular gullies were identified during the excavation which do not

conform with visible field boundaries or those depicted on cartographic sources.

- 7.2 The area was subject to enclosure under the Hoyland Swane Enclosure Act of 1861 when the area was divided into four parcels of land, each under different ownership. The enclosure map was consulted at the Barnsley archives to assess whether the small features were detectable in former field boundaries although this proved inconclusive.



Hoyland Swane Enclosure

- 7.3 The archaeological evaluation has illustrated that the majority of anomalies identified in the results of the Geophysical Survey are likely to be of geological, modern drainage or agricultural origin with changes in the

underlying geology, modern land drains and plough scaring being identified in the majority of trenches.

- 7.4 The small finds assemblage recovered during the evaluation consists of material dating to the 18th century and later. Widespread abrasion and a small sherd size was noted, suggestive of reworking during manuring and ploughing processes (Appendix 5). No further work is recommended on the assemblage.
- 7.5 Environmental data supports the hypothesis that the features are likely to be Post-Medieval or modern in date with residual material originating from burning taking place in the vicinity, possibly agricultural clearance work.
- 7.6 The irregular and sinuous nature of identified gullies suggests that many features may not be of archaeological origin and may represent small geological fissures, the natural infilling of which would produce magnetic enhancement which would be detected by Geophysical Survey. Similarly, the irregular nature of the ditch like feature identified in Trench 9, which appears to follow the contours of the site and forms a natural channel downslope (and which could be seen at ground level prior to excavation) is not suggestive of an archaeological feature.

8. Bibliography

British Geological Society. Geology of Britain Viewer. Available at;
<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

BWB. 2021. Halifax Road, Penistone, Heritage Assessment

CIfA, 2019, Code of Conduct.

CIfA, 2020, Standards and Guidance for Archaeological Field Evaluation.

Mackney, D. et al. 1984. Soils of England and Wales. Sheet 1. Northern
England. Soil Survey of England and Wales.

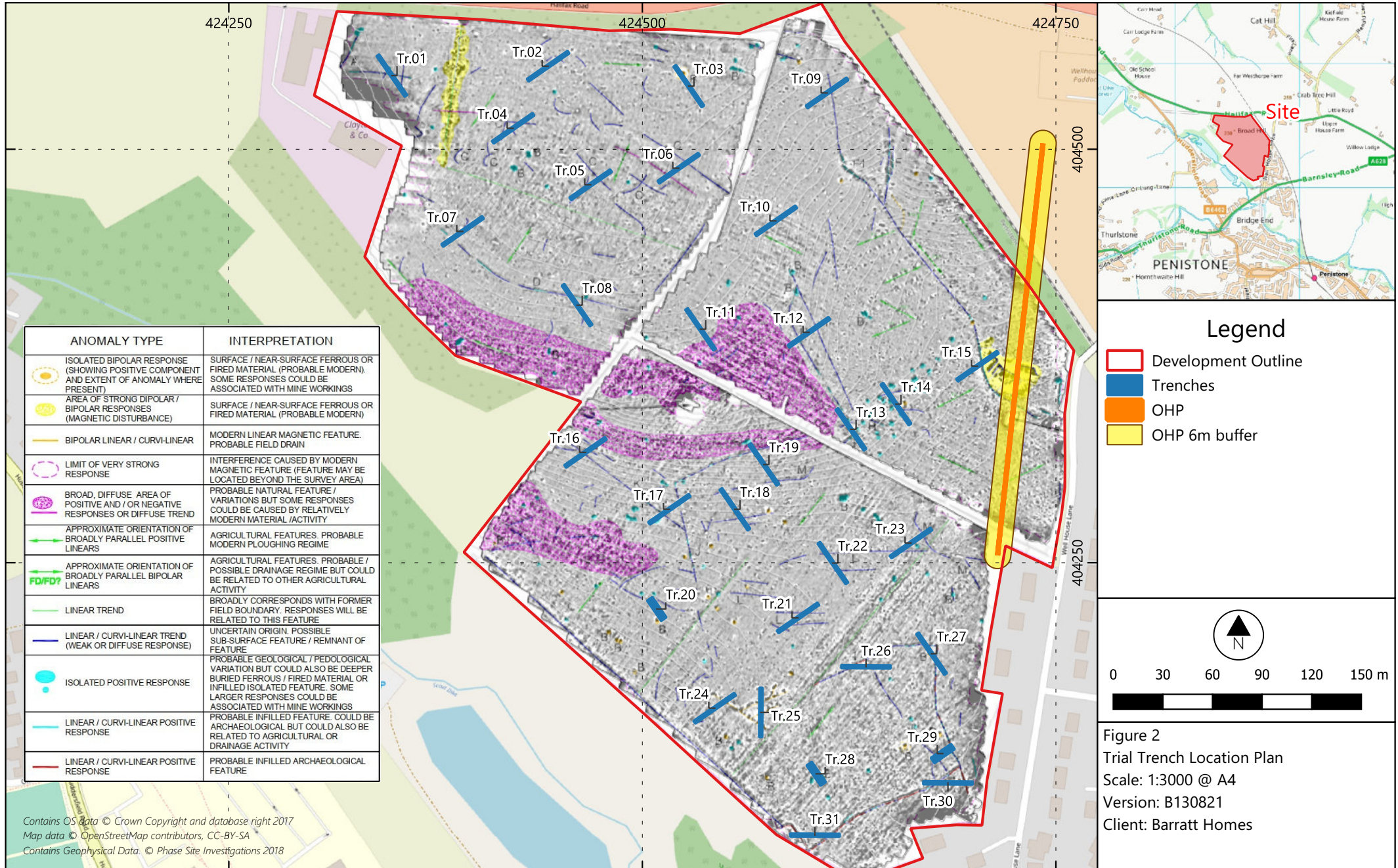
Historic England. 2018. Our Portable Past. Guidance for Good Practice.
Available at
[https://historicengland.org.uk/images-
books/publications/ourportablepast/heag177-our-portable-past/](https://historicengland.org.uk/images-books/publications/ourportablepast/heag177-our-portable-past/)

Phase Site Investigations. 2018. Land South of Halifax Road, Penistone,
Archaeological Geophysical Survey

South Yorkshire Archaeology Service & Historic England. South Yorkshire
Historic Environment Research Framework. Web Resource. Available at
<https://researchframeworks.org/syrf/> [Accessed 25.052021].

9. List of Contributors

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Contains Geophysical Data. © Phase Site Investigations 2018

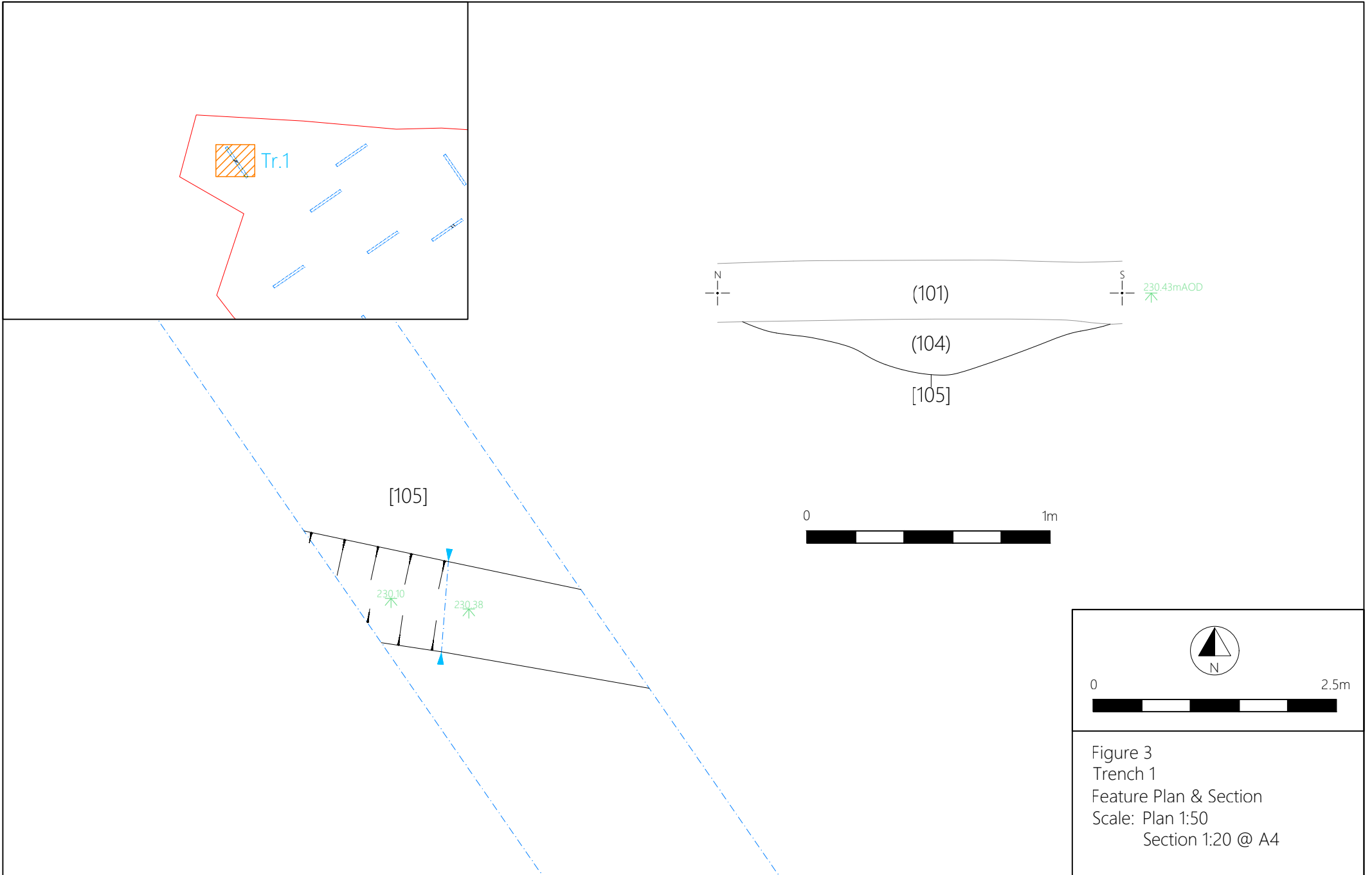


Figure 3
Trench 1
Feature Plan & Section
Scale: Plan 1:50
Section 1:20 @ A4

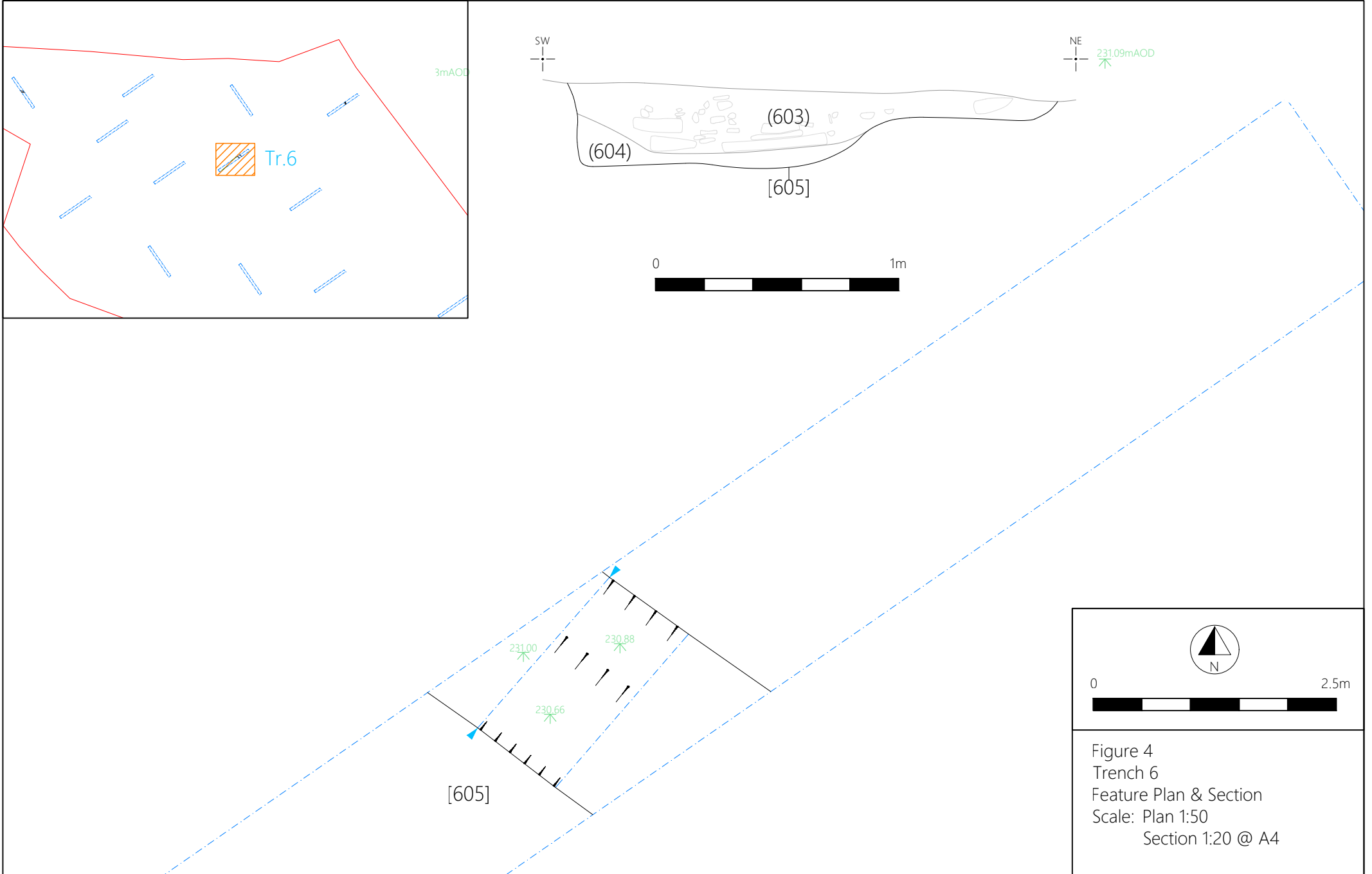


Figure 4
Trench 6
Feature Plan & Section
Scale: Plan 1:50
Section 1:20 @ A4

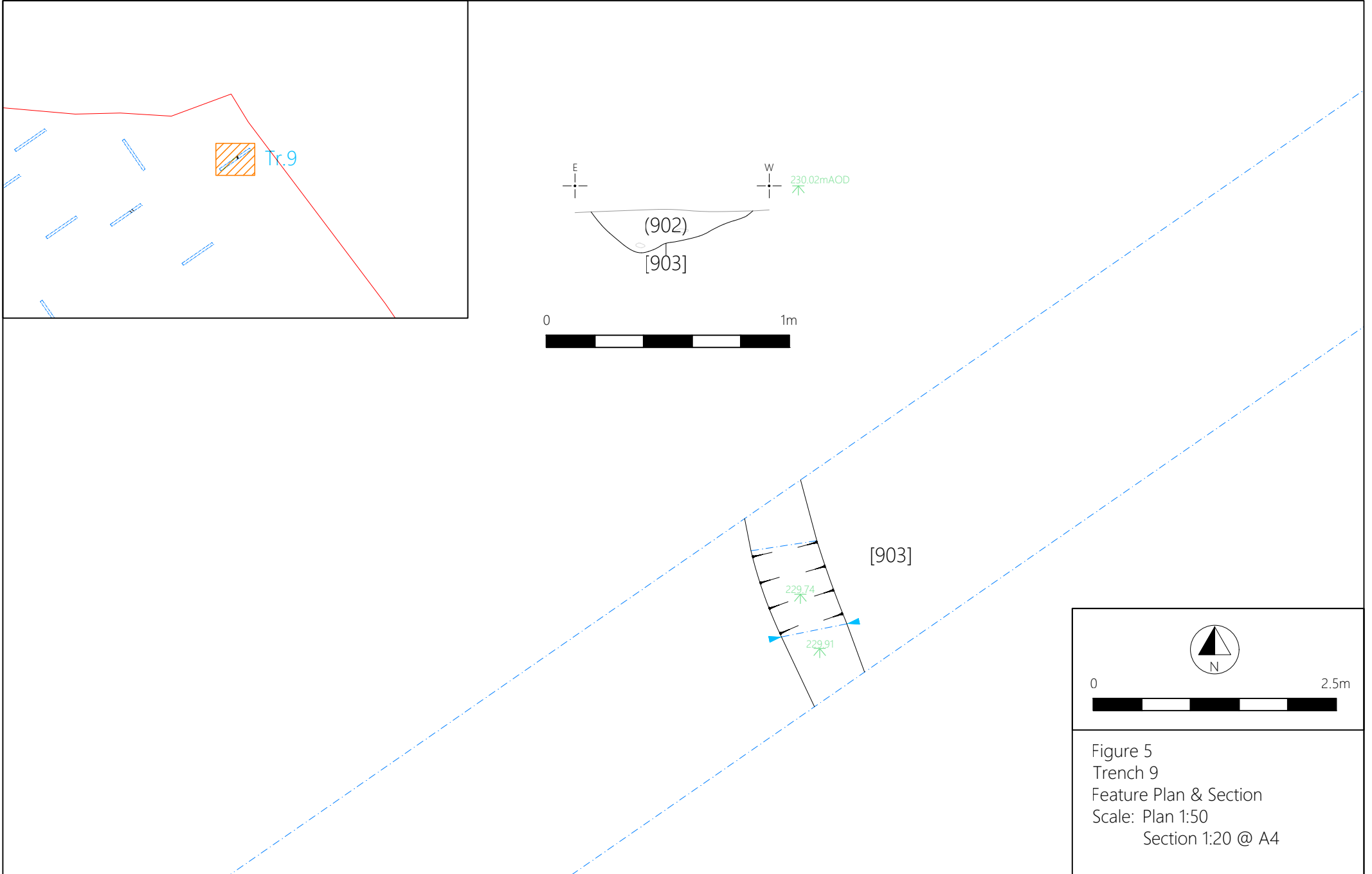


Figure 5
Trench 9
Feature Plan & Section
Scale: Plan 1:50
Section 1:20 @ A4

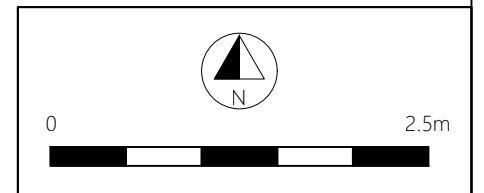
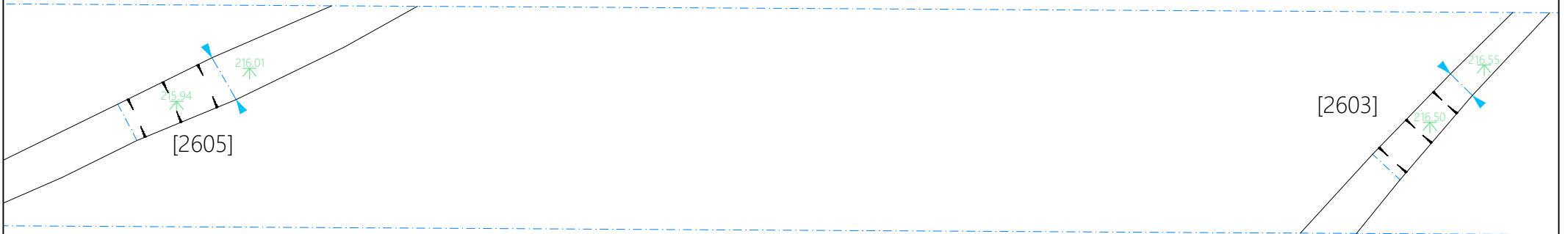
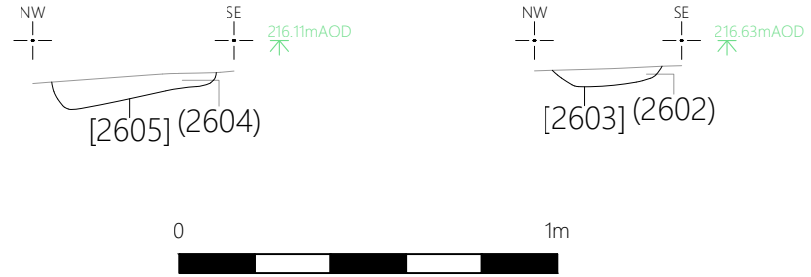
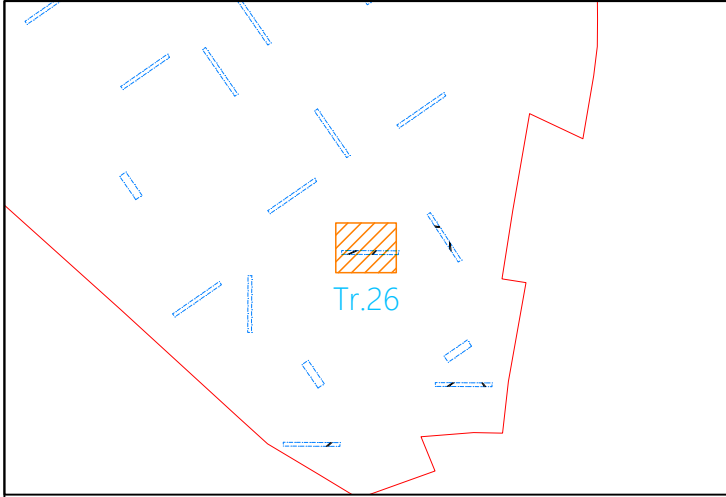


Figure 6
Trench 26
Feature Plan & Section
Scale: Plan 1:50
Section 1:20 @ A4

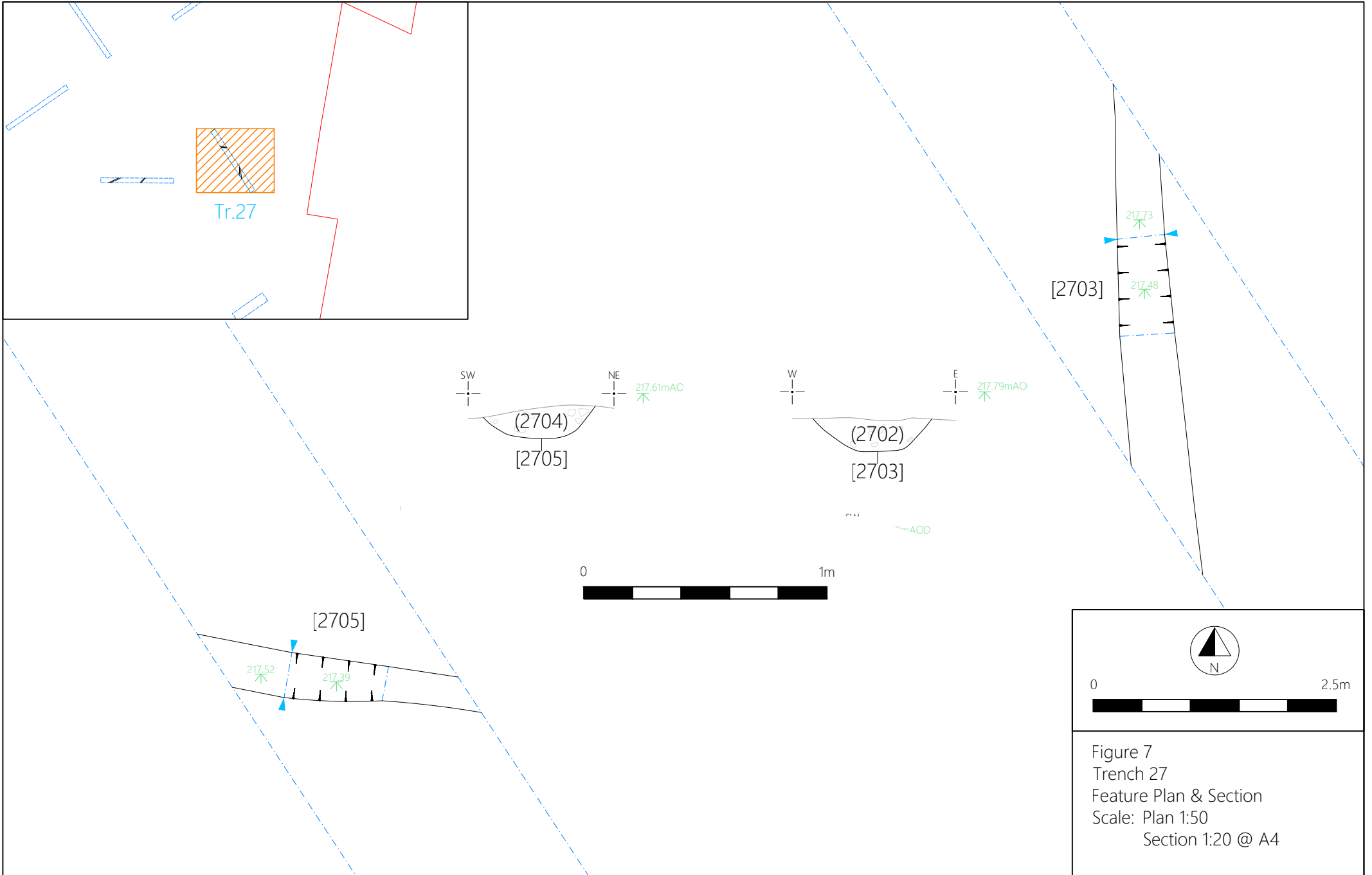
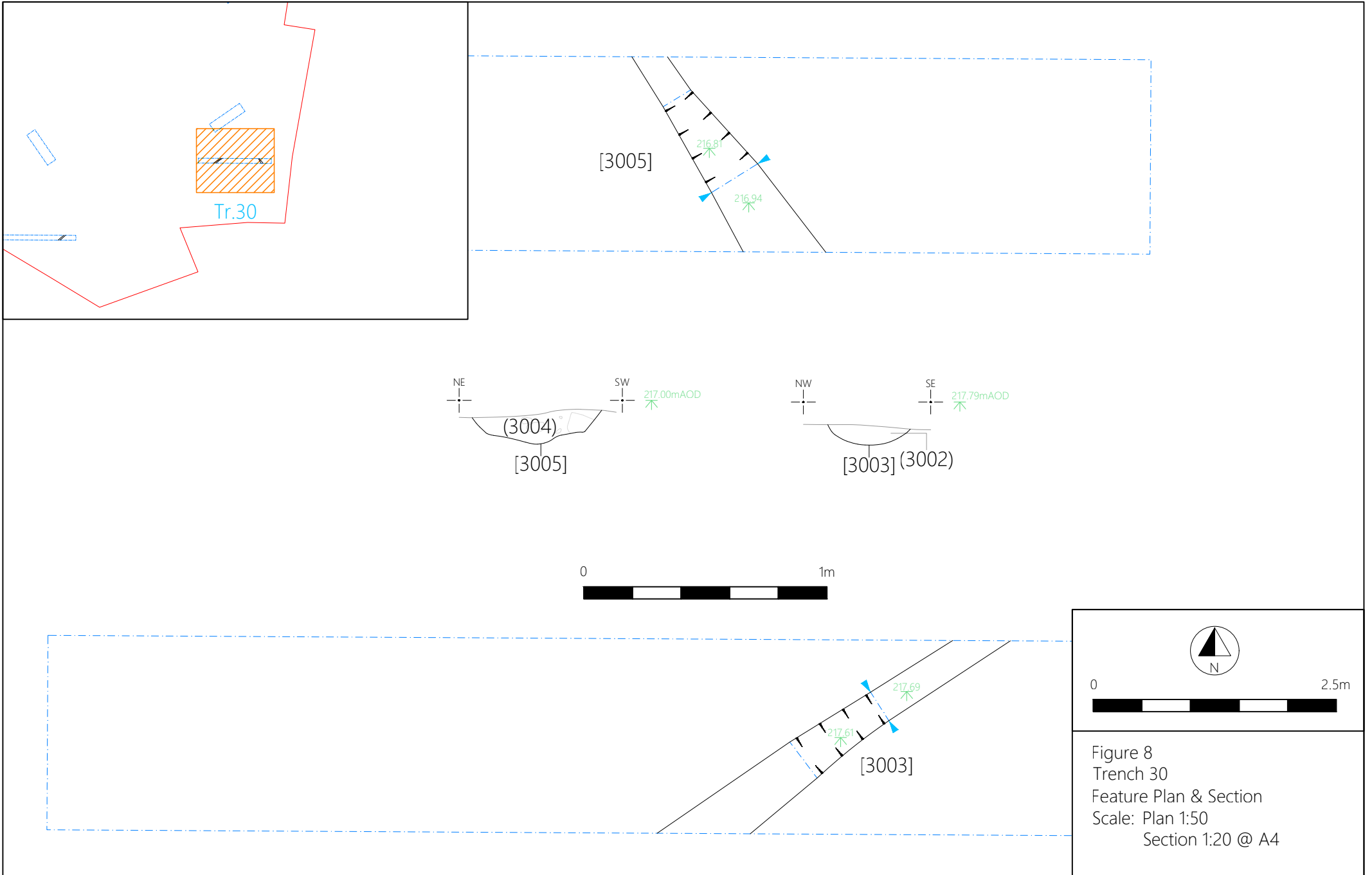


Figure 7
Trench 27
Feature Plan & Section
Scale: Plan 1:50
Section 1:20 @ A4



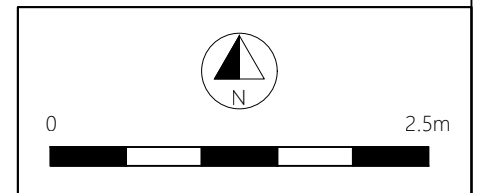
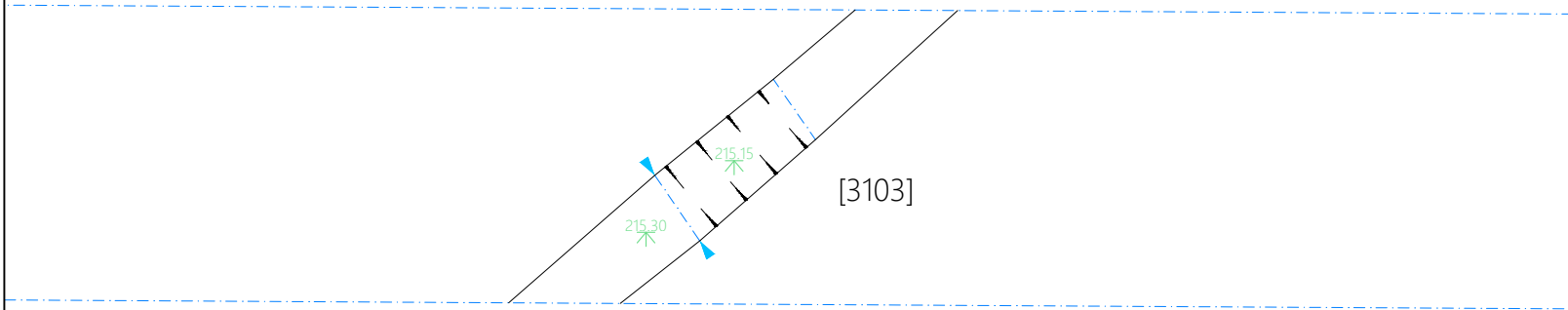
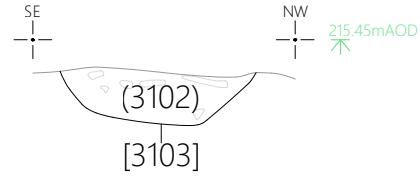
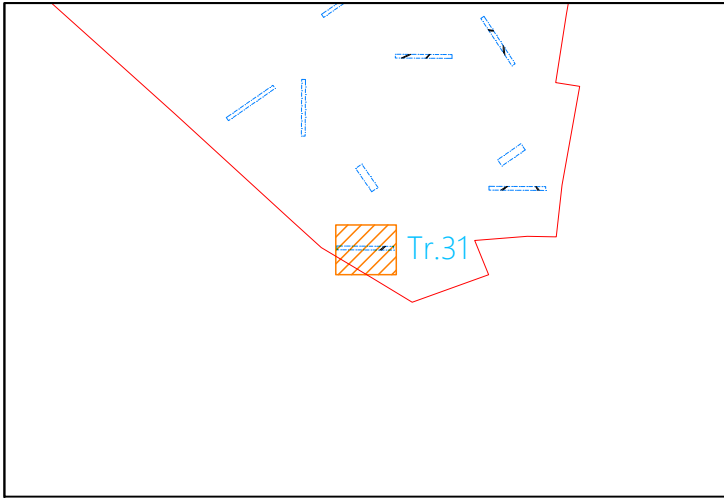


Figure 9
Trench 31
Feature Plan & Section
Scale: Plan 1:50
Section 1:20 @ A4



Plate 1. General View of Site.



Plate 2. General View of Site.



Plate 3. General View of Site.



Plate 4. Trench 1 Facing North-West



Plate 5. North-East Facing Section of Gully [105]



Plate 6. Trench 6 Facing North-East



Plate 7. South-East Facing Section of Ditch Cut [605]



Plate 8. Trench 9 Facing North-East



Plate 9. North-West Facing Section of Gully Cut [903]



Plate 10. Trench 15 Facing North-East



Plate 11. Trench 26 Facing West



Plate 12. South-West Facing Section of Gully Cut [2603]



Plate 13. South-West Facing Section of Gully Cut [2605]



Plate 14. Trench 27 Facing South-East



Plate 15. South Facing Section of Gully Cut [2703]



Plate 16. East Facing Section of Gully Cut [2705]



Plate 17. Trench 30 Facing North-East



Plate 18. South-West Facing Section of Gully Cut [3003]



Plate 19. North-West Facing Section of Gully Cut [3005]



Plate 20. Trench 31 Facing North-East



Plate 21. North Facing Section of Gully Cut [3103]



Plate 22. General View of Site

APPENDIX 1

Hand off Halifax Road, Pensistone

Site Code: 05.32.21

Context Index

Context No.	Type	Fill of	Description
0101	Deposit	-	Topsoil
0102	Fill	0103	Backfill of modern test pit
0103	Cut	-	Cut of modern test pit
0104	Fill	0105	Light yellowish grey silty clay
0105	Cut	-	Cut of north to south orientated gully
0601	Deposit	-	Topsoil
0602	Deposit	-	Subsoil
0603	Fill	0605	Mid yellowish brown sandy clay. Frequent stone inclusions
0604	Fill	0605	Mid brown greyy sandy clay.
0605	Cut	-	Cut of south-east to north-west orientated ditch
0901	Deposit	-	Topsoil
0902	Fill	-	Light grey brown silty sand. Frequent stone inclusions
0903	Cut	-	Cut of north-west to south-east orientated gully
2601	Deposit	-	Topsoil
2602	Fill	2603	Mid grey brown sandy silt. Occasional charcoal flecking
2603	Cut	-	Cut of south-west to north-east orientated gully
2604	Fill	2605	Mid brown grey sandy silt
2605	Cut	-	Cut of south-west to north-east orientated gully
2701	Deposit	-	Topsoil
2702	Fill	2703	Mid grey brown sandy silt. Frequent stone inclusions
2703	Cut	-	Cut of north to south orientated gully
2704	Fill	2705	Mid grey brown sandy silt. Frequent stone inclusions
2705	Cut	-	Cut of east to west orientated gully
3001	Deposit	-	Topsoil
3002	Fill	3003	Mid grey brown sandy silt. Frequent stone inclusion
3003	Cut	-	Cut of north-east to south-west orientated gully
3004	Fill	3005	Mid grey brown sandy silt. Frequent stone inclusion
3005	Cut	-	Cut of north-west to south-east orientated gully

3101	Deposit	-	Topsoil
3102	Fill	3103	Mid brown sandy silt. Frequent stone inclusions
3103	Cut	-	Cut of north to south orientated gully

APPENDIX 2

Land off Halifax Road, Penistone

Site Code: 05.32.21

Drawing Index

Drawing No.	Context No.	Scale	Description
001	0105	1:10	North-east facing section of gully 0105
002	0105	1:20	Plan of gully
003	0605	1:10	South-east facing section of ditch 0605
004	0605	1:20	plan of ditch
005	2603	1:10	South-west facing section of gully 2603
006	2603	1:20	Plan of Gully
007	2605	1:10	South-west facing section of gully 2605
008	2605	1:20	Plan of gully
009	2703	1:10	South facing section of gully 2703
010	2703	1:20	Plan of gully
011	2705	1:10	East facing section of gully 2705
012	2705	1:20	Plan of gully
013	3003	1:10	South-west facing section of gully 3003
014	3003	1:20	Plan of gully
015	3005	1:10	North-west facing section of gully 3005
016	3005	1:20	Plan of gully
017	3103	1:10	North facing section of gully 3103
018	3103	1:20	Plan of gully
019	0903	1:10	North-west facing section of gully 0903
020	0903	1:20	Plan of gully

APPENDIX 3

Land off Halifax Road, Penistone

Site Code: 05.32.21

Photographic Index

Digital B&W

Frame No.	Frame No.	Context No.	Scale	Description
IMG_0001	-	-	-	General view of site
IMG_0002	-	-	-	General view of site
IMG_0003	-	-	-	General view of site
IMG_0004	-	-	-	General view of site
IMG_0005	-	-	-	General view of site
IMG_0006	-	-	-	General view of site
IMG_0007	-	-	-	General view of site
IMG_0008	30 (1)	Trench 2	1m	Trench 2 facing north-east
IMG_0009	-	Trench 2	1m	Trench 2 facing north-east
IMG_0010	-	Trench 2	1m	Trench 2 facing south-west
IMG_0011	31 (1)	Trench 4	1m	Trench 4 facing south-west
IMG_0012	-	Trench 4	1m	Trench 4 facing south-west
IMG_0013	-	Trench 4	1m	Trench 4 facing north-east
IMG_0014	32 (1)	Trench 3	1m	Trench 3 facing south-east
IMG_0015	-	Trench 3	1m	Trench 3 facing south-east
IMG_0016	-	Trench 3	1m	Trench 3 facing north-west
IMG_0017	-	Trench 6	1m	Trench 6 facing south-west
IMG_0018	33 (1)	Trench 6	1m	Trench 6 facing north-east
IMG_0019	-	Trench 6	1m	Trench 6 facing north-east
IMG_0020	34 (1)	Trench 5	1m	Trench 5 facing south-west
IMG_0021	-	Trench 5	1m	Trench 5 facing south-west
IMG_0022	-	Trench 5	1m	Trench 5 facing north-east
IMG_0023	35 (1)	Trench 8	1m	Trench 8 facing south-east
IMG_0024	-	Trench 8	1m	Trench 8 facing south-east
IMG_0025	-	Trench 8	1m	Trench 8 facing north-west
IMG_0026	-	VOID	-	
IMG_0027	-	VOID	-	
IMG_0028	-	VOID	-	
IMG_0029	-	Trench 16	1m	Trench 16 facing north-east
IMG_0030	-	Trench 16	1m	Trench 16 facing south-west
IMG_0031	2 (2)	Trench 16	1m	Trench 16 facing south-west
IMG_0032	-	Trench 1	1m	Trench 1 facing south-east
IMG_0033	3 (2)	Trench 1	1m	Trench 1 facing north-west
IMG_0034	-	Trench 1	1m	Trench 1 facing north-west
IMG_0035	-	-	-	General view of site

IMG_0036	-	-	-	General view of site
IMG_0037	-	-	-	General view of site
IMG_0038	-	-	-	General view of site
IMG_0039	-	-	-	General view of site
IMG_0040	-	-	-	General view of site
IMG_0041	-	-	-	General view of site
IMG_0042	-	-	-	General view of site
IMG_0043	-	Trench 9	1m	Trench 9 facing north-east
IMG_0044	4 (2)	Trench 9	1m	Trench 9 facing south-west
IMG_0045	-	Trench 9	1m	Trench 9 facing south-west
IMG_0046	5 (2)	Trench 10	1m	Trench 10 facing south-west
IMG_0047	-	Trench 10	1m	Trench 10 facing south-west
IMG_0048	-	Trench 10	1m	Trench 10 Facing north-east
IMG_0049	6 (2)	Trench 11	1m	Trench 11 facing south-east
IMG_0050	-	Trench 11	1m	Trench 11 facing south-east
IMG_0051	-	Trench 11	1m	Trench 11 facing north-west
IMG_0052	7 (2)	Trench 12	1m	Trench 12 facing south-west
IMG_0053	-	Trench 12	1m	Trench 12 facing south-west
IMG_0054	-	Trench 12	1m	Trench 12 facing north-east
IMG_0055	8 (2)	Trench 13	1m	Trench 13 facing south-east
IMG_0056	-	Trench 13	1m	Trench 13 facing south-east
IMG_0057	-	Trench 13	1m	Trench 13 facing north-west
IMG_0058	9 (2)	Trench 14	1m	Trench 14 facing north-west
IMG_0059	-	Trench 14	1m	Trench 14 facing north-west
IMG_0060	-	Trench 14	1m	Trench 14 facing south-east
IMG_0061	10 (2)	Trench 15	1m	Trench 15 facing north-east
IMG_0062	-	Trench 15	1m	Trench 15 facing north-east
IMG_0063	-	Trench 15	1m	Trench 15 facing south-west
IMG_0064	-	Trench 15	1m	Trench 15 area of burning
IMG_0065	-	Trench 23	1m	Trench 23 facing north-east
IMG_0066	11 (2)	Trench 23	1m	Trench 23 facing south-west
IMG_0067	-	Trench 23	1m	Trench 23 facing south-west
IMG_0068	12 (2)	Trench 22	1m	Trench 22 facing north-west
IMG_0069	-	Trench 22	1m	Trench 22 facing south-east
IMG_0070	13 (2)	Trench 21	1m	Trench 21 facing south-west
IMG_0071	-	Trench 21	1m	Trench 21 facing north-east
IMG_0072	14 (2)	Trench 17	1m	Trench 17 facing north-east
IMG_0073	-	Trench 17	1m	Trench 17 facing south-west
IMG_0074	15 (2)	Trench 18	1m	Trench 18 facing south-east
IMG_0075	-	Trench 18	1m	Trench 18 facing north-west
IMG_0076	-	Trench 19	1m	Trench 19 facing north-west
IMG_0077	16 (2)	Trench 19	1m	Trench 19 facing south-east
IMG_0078	17 (2)	Trench 20	1m	Trench 20 facing south-east
IMG_0079	-	Trench 20	1m	Trench 20 facing north-west
IMG_0080	18 (2)	Trench 24	1m	Trench 24 facing north-east
IMG_0081	-	Trench 24	1m	Trench 24 facing south-west
IMG_0082	19 (2)	Trench 25	1m	Trench 25 facing north-west
IMG_0083	-	Trench 25	1m	Trench 25 facing south-east

IMG_0084	20 (2)	Trench 28	1m	Trench 28 facing south-east
IMG_0085	-	Trench 28	1m	Trench 28 facing north-west
IMG_0086	21 (2)	Trench 31	1m	Trench 31 facing north-east
IMG_0087	-	Trench 31	1m	Trench 31 facing south-west
IMG_0088	22 (2)	Trench 30	1m	Trench 30 facing north-east
IMG_0089	-	Trench 30	1m	Trench 30 facing south-west
IMG_0090	-	Trench 29	1m	Trench 29 facing south-west
IMG_0091	23 (2)	Trench 29	1m	Trench 29 facing north-east
IMG_0092	24 (2)	Trench 27	1m	Trench 27 facing south-east
IMG_0093	-	Trench 27	1m	Trench 27 facing north-west
IMG_0094	25 (2)	Trench 26	1m	Trench 26 facing west
IMG_0095	-	Trench 26	1m	Trench 26 facing east
IMG_0096	26 (2)	0105	1m	North-east facing section of gully 0105
IMG_0097	-	0105	1m	North-east facing section of gully 0105
IMG_0098	27 (2)	0605	1m	South-east facing section of ditch 0605
IMG_0099	-	0605	1m	South-east facing section of ditch 0605
IMG_0100	28 (2)	2605	1m	South-west facing section of gully 2605
IMG_0101	-	2605	1m	South-west facing section of gully 2605
IMG_0102	29 (2)	2603	1m	South-west facing section of gully 2603
IMG_0103	-	2603	1m	South-west facing section of gully 2603
IMG_0104	30 (2)	2705	1m	East facing section of gully 2705
IMG_0105	-	2705	1m	East facing section of gully 2705
IMG_0106	31 (2)	2703	1m	South facing section of gully 2703
IMG_0107	-	2703	1m	South facing section of gully 2703
IMG_0108	32 (2)	3003	1m	South-west facing section of gully 3003
IMG_0109	-	3003	1m	South-west facing section of gully 3003
IMG_0110	33 (2)	3005	1m	North-west facing section of gully 3005
IMG_0111	-	3005	1m	North-west facing section of gully 3005
IMG_0112	-	3005	1m	North-west facing section of gully 3005
IMG_0113	34 (2)	3103	1m	North facing section of gully 3103
IMG_0114	-	3103	1m	North facing section of gully 3103
IMG_0115	35 & 36 (2)	0903	1m	North-west facing section of gully 0903
IMG_0116	-	0903	1m	North-west facing section of gully 0903

APPENDIX 4

Land off Halifax Road, Penistone

Site Code: 05.32.21

Environmental Index

Sample No.	Context No.	Cut	Description	Type
1	0104	0105	Light yellowish grey silty clay. Occasional charcoal flecking	Bulk
2	0604	0605	Mid yellowish brown sandy clay	Bulk
3	2602	2603	Mid grey brown sandy silt. Occasional charcoal flecking	Bulk
4	2604	2605	Mid brown grey sandy silt	Bulk
5	2702	2703	mid grey brown sandy silt.	Bulk
6	2704	2705	Mid grey brown sandy silt. Frequent stone	Bulk
7	3002	3003	Mid grey brown sandy silt. Frequent stone	Bulk
8	3004	3005	Mid grey brown sandy silt. Occasional charcoal flecking	Bulk
9	3102	3103	Mid brown sandy silt. Frequent stone	Bulk
10	0902	0903	Light grey brown silty sand	Bulk

APPENDIX 5

Halifax Road, Penistone, South Yorkshire

(5-32-21)

Finds Assessment

POTTERY

Introduction and Methods

The pottery assemblage from the trial trenching at Halifax Lane consisted of five crumb-sized (<1cm) sherds, which were visually inspected and compared to MAP's type collection. The total weight of the assemblage was c. 3g, leading to an Average Sherd Weight (ASW) of <1g. The pottery was all 18th century or later in date.

Pottery Catalogue

Pottery Codes:

PRLW	Pearl ware
CRW	Reduced ware
WE	White earthenware

Context 2602

1 CRW	crumb
1 WE	fragment from a green transfer-decorated cup handle
1 WE	crumb

Spot date: C 19

Context 3004

1 PRLW	crumb, trace of blue transfer decoration
--------	--

1 WE crumb, blue transfer decoration

Spot date: C 19

Conclusions

This very small assemblage dates from the late 18th into the 19th century, with widespread abrasion and small sherd size indicating reworking during manuring and ploughing.

Recommendations

Although small, the assemblage should be retained along with the rest of the archive and finds listed below.

GLASS

Two small fragments of glass were recovered from context 2602: a green bottle fragment and a clear window-pane fragment; both of are of modern date.

CLAY TOBACCO PIPE

A single clay tobacco pipe stem fragment was found in (604); the bore was c. 1.5mm, suggesting a 19th century date. The word 'CUTTY' was impressed laterally along the stem, indicating a short 'cutty pipe' designed to be gripped between the teeth leaving the hands free for manual work.

SLATE

There was fragment of grey roofing slate weighing 8.5g from (2602).

FLINT

A flake in dark grey un-weathered flint, weighing 48g, was recovered from (1601).

Appendix 6

Halifax Road, Penistone MAP 05-32-21

Carbonised Plant Macrofossils and Charcoal

Diane Alldritt

1: Introduction

Ten environmental sample flots taken during archaeological evaluation work by trial trenching on land at Halifax Road, Penistone (MAP 05-32-21) were examined for carbonised plant macrofossils and charcoal. Samples were taken from gully features excavated in trenches 1, 6, 9, 26, 27, 30 and 31 and produced small concentrations of charcoal from trenches 1 and 30, and a single fragment of hazel nutshell from trench 27, whilst only trace remains were recorded elsewhere.

2: Methodology

The bulk environmental samples were processed by MAP Archaeological Practice Ltd. using a Siraf style water flotation system (French 1971). The samples were 30litres to 40litres in volume. The flots were dried before examination under a low power binocular microscope typically at x10 magnification. All identified plant remains including charcoal were removed and bagged separately by type.

Wood charcoal was examined using a high powered Vickers M10 metallurgical microscope at magnifications up to x200. The reference photographs of Schweingruber (1990) were consulted for charcoal identification. Plant nomenclature utilised in the text follows Stace (1997) for all vascular plants apart from cereals, which follow Zohary and Hopf (2000).

3: Results

The environmental samples produced small amounts of carbonised remains <2.5ml up to 40ml in volume consisting primarily of charcoal fragments 0.5cm to 2.0cm in size together with trace finds of hazel nutshell in amongst crushed charred detritus below the level of identification. Modern remains were present at <2.5ml in volume mainly consisting of root detritus with occasional finds of modern seeds and earthworm egg capsules indicating a low degree of bioturbation was taking place. Clinker and coal were found in every sample and probably originated from Post Medieval / modern mixing and disturbance.

Results are given in table 1 and discussed below.

4: Discussion

Trench 1

Gully [105] (104) produced a deposit of *Quercus* (oak) charcoal possibly fuel waste from nearby settlement or waste from clearance burning for agriculture.

Trench 6

Gully [605] (604) was sterile containing only coal fragments and was probably a Post Medieval / modern feature.

Trench 9

Gully [903] (902) was sterile with a mixture of coal and clinker recovered suggesting a probable recent feature.

Trench 26

Gullies [2603] (2602) and [2605] (2604) both produced lots of coal and clinker fragments with only trace charred detritus recovered from fill (2604) probably

general background residual remains. These features were probably Post Medieval / modern.

Trench 27

Gullies [2703] (2702) and [2705] (2704) contained mainly coal and clinker with trace crushed charred remains found in both. Fill (2702) also had a <0.5cm degraded sliver of *Corylus avellana* (hazel) nutshell which was likely to be residual in the deposit.

Trench 30

Gully [3005] (3004) produced a small concentration of charcoal consisting of *Corylus* (hazel) and *Betula* (birch) likely to be a deposit of mixed fuel waste or remains from scrub burning. Gully [3003] (3002) was sterile.

Trench 31

Gully [3103] (3102) contained trace charred remains with nothing identifiable, probably residual material mixed through a Post Medieval feature.

.

5: Conclusion

The environmental samples produced two small concentrations of charcoal with oak identified from gully [105] (104) and hazel and birch from gully [3005] (3004) indicating some burning activity taking place in the vicinity, possibly fuel waste from settlement or burnt detritus from clearance work for agriculture. A trace sliver of hazel nutshell from gully [2703] (2702) was probably residual material from earlier activity. The remaining samples were largely found to be sterile of carbonised remains and were probably Post Medieval / modern agricultural features such as drainage or boundaries.

Further excavation work at the site has a low potential to produce any significant deposits of carbonised remains.

References

French, D. H. 1971 An Experiment in Water Sieving. *Anatolian Studies* 21 59-64.

Schweingruber, F. H. 1990 *Anatomy of European Woods*. Paul Haupt Publishers
Berne and Stuttgart.

Stace, C. 1997 *New Flora of the British Isles*. 2nd Edition Cambridge University Press.

Zohary, D. and Hopf, M. 2000 *Domestication of Plants in the Old World*. 3rd Edition
Oxford University Press.



IMG_0001



IMG_0002



IMG_0003



IMG_0004



IMG_0005



IMG_0006



IMG_0007



IMG_0008



IMG_0009



IMG_0010



IMG_0011



IMG_0012



IMG_0013



IMG_0014



IMG_0015



IMG_0016



IMG_0017



IMG_0018



IMG_0019



IMG_0020



IMG_0021



IMG_0022



IMG_0023



IMG_0024



IMG_0025



IMG_0026



IMG_0027



IMG_0028



IMG_0029



IMG_0030



IMG_0031



IMG_0032



IMG_0033



IMG_0034



IMG_0035



IMG_0036



IMG_0037



IMG_0038



IMG_0039



IMG_0040



IMG_0041



IMG_0042



IMG_0043



IMG_0044



IMG_0047



IMG_0048



IMG_0049



IMG_0050



IMG_0051



IMG_0052



IMG_0053



IMG_0054



IMG_0055



IMG_0056



IMG_0057



IMG_0058



IMG_0059



IMG_0060



IMG_0061



IMG_0062



IMG_0063



IMG_0064



IMG_0065



IMG_0066



IMG_0067



IMG_0068



IMG_0069



IMG_0070



IMG_0071



IMG_0072



IMG_0073



IMG_0074



IMG_0075



IMG_0076



IMG_0077



IMG_0078



IMG_0079



IMG_0080



IMG_0081



IMG_0082



IMG_0083



IMG_0084



IMG_0085



IMG_0086



IMG_0087



IMG_0088



IMG_0089



IMG_0090



IMG_0091



IMG_0092



IMG_0093



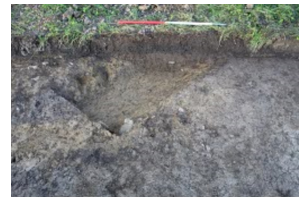
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IMG_0096



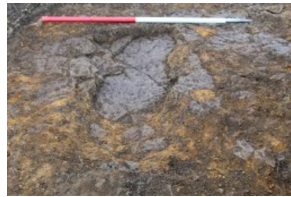
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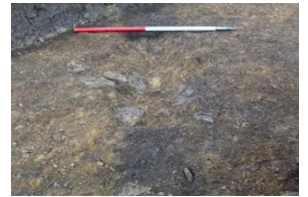
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IMG_0100



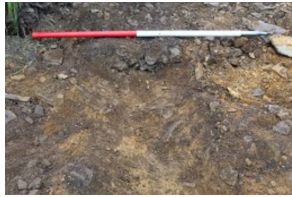
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IMG_0102



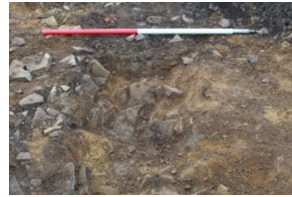
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IMG_0104



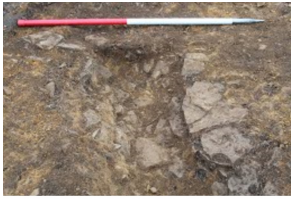
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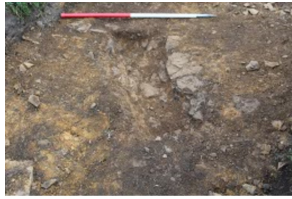
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IMG_0107



IMG_0108



IMG_0109



IMG_0110



IMG_0111



IMG_0112



IMG_0113



IMG_0114



IMG_0115



IMG_0116



IMG_0117



IMG_0118



Land off Halifax Road
Penistone
South Yorkshire

2020/0274

Written Scheme of Investigation

Archaeological Evaluation by Trial Trenching

MAP Archaeological Practice Ltd ©

Land off Halifax Road
Penistone
South Yorkshire

2020/0274

ARCHAEOLOGICAL EVALUATION BY TRIAL TRENCHING

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1 Introduction

1.1 This document is a Written Scheme of Works (WSI) for Archaeological Evaluation by Trial Trenching, which sets out the details for the archaeological work required on land to the south of Halifax Road, Penistone, South Yorkshire in order to inform South Yorkshire Archaeology Service of the archaeological potential of the site and to mitigate the impact of the residential development.

1.2 The Written Scheme of Works has been commissioned by the developers (Barratt and David Wilson Homes Yorkshire West) and in compliance with the South Yorkshire Archaeology Service *'Model Brief for Archaeological Evaluation by Trial Trenching'*.

1.3 In accordance with the recommendations of the National Planning Policy Framework (February 2019) on *'Archaeology and Planning'*, an Archaeological Evaluation by Trial Trenching has been proposed, following the results of a Heritage Assessment and Geophysical Survey. The results of the evaluation will be summarised in a report for an appropriate mitigation strategy to be formulated if necessary. If required, the mitigation will be outlined in a separate Written Scheme of Investigation.

2. Planning Background and Site Description

2.1 An application for planning permission has been made to Barnsley Metropolitan Borough Council for a residential development, areas of open space, landscaping and associated infrastructure (planning reference 2020/0274)

- 2.2 The site, which measures approximately 16ha, is located to the south of Halifax Road, approximately 10km west of Barnsley (NGR SE 246 044). The site is bounded to the north by Halifax Road, to the east by residential housing to the south by Scout Dyke and a Mill Race and to the west by agricultural land.
- 2.3 The site consists of three pasture fields which lie on bedrock geology of alternating bands of mudstone and siltstone of the Pennine Lower Coal Measures and sandstone of the Penistone Flags formation (BGS. 2021).

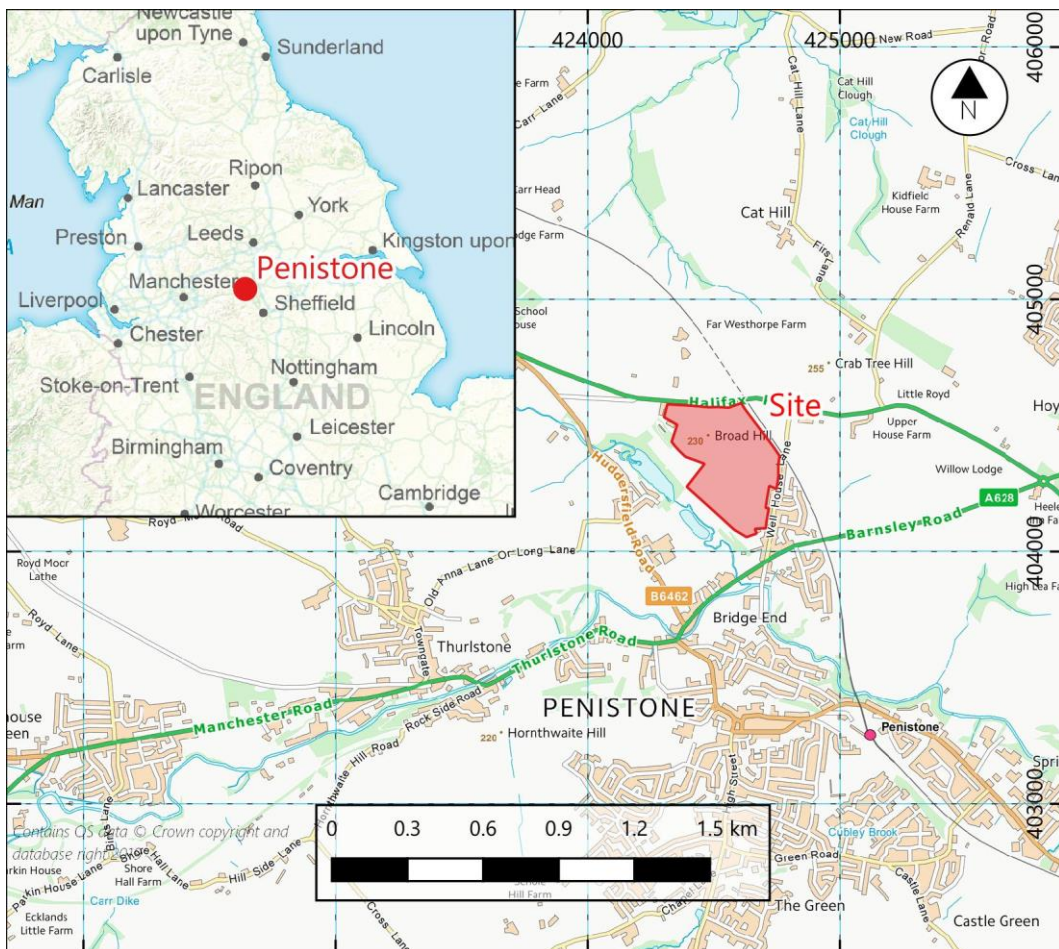


Figure 1. Site Location.

3. Archaeological and Historical Background

- 3.1 Penistone is recorded in the Domesday Survey of 1086 as *Pengestone*'. The village, which has pre-conquest origins developed into the Medieval period.
- 3.2 A Heritage Assessment was carried out by BWB in 2021. The Assessment concluded that field boundaries within the site consist of stone walls built as a result of enclosure of the landscape. No prehistoric or Romano-British activity is recorded within the vicinity of the site and records do not suggest that Medieval activity extended into the site.
- 3.3 A geophysical Survey was carried out at the site in 2018 by Phase Site Investigations. The survey provided evidence of archaeological activity, likely to represent enclosures, in the south-eastern region of the site. Other linear features may be of archaeological origin although they may represent agricultural activity. Anomalies relating to geological variations and drainage features were also identified.

4. Aims and Objectives

- 4.1 The aim of the Archaeological Trial Trenching is to determine the presence/absence, nature, date, quality of survival and importance of archaeological deposits to enable an assessment of the potential and significance of the archaeology to be made.
- 4.2 Based on the archaeological deposits which may be encountered during evaluation the site has the potential to inform the following research questions regarding the early Medieval, later Medieval and Post-Medieval periods

- What was the extent and nature of field systems associated with known Medieval villages?
- How can we improve our understanding of the processes of early enclosure and land improvement (including drainage schemes)? What were the economic, social or political roles of Iron Age and Romano-British field systems?

5. Compliance

- 5.1 MAP will adhere to the general principles of the ClfA Code of Conduct (ClfA 2019) throughout the project and to the ClfA 'Standards and Guidance for Archaeological Field Evaluations' (CIFA 2020a).
- 5.2 All work will be carried out in accordance with chapter 16 of the National Planning Policy Framework (2019) on 'Archaeology and Planning'.
- 5.3 The work will be monitored under the auspices of South Yorkshire Archaeology Service who will be consulted before the commencement of site works.
- 5.4 All maps within this report have been produced from the Ordnance Survey with the permission of the Controller of Her Majesty's Stationery Office, Crown Copyright. License No. AL 50453A and also data derived from Open Street Map (<https://www.openstreetmap.org/copyright>).
- 5.5 If human remains are encountered during the course of this evaluation, it is considered best practice to not remove the remains at this stage, however, this should be considered at a site-specific level. If it is deemed necessary to

remove human remains, this will be carried out under the conditions of, and after the receipt of, licences for the removal of human remains (issued by the Ministry of Justice) and in accordance with the Burial Act (1857), 'Updated Guidelines to the Standards for Recording Human Remains' (Brickley & McKinley. 2017), CIFA guidelines 'Excavation and Post-Excavation Treatment of Cremated and Inhumed Human Remains (McKinley & Roberts 1993), and all Historic England and Advisory Panel on the Archaeology of Burials in England (APABE) guidance, to ensure that they are treated with due dignity. The preferred option would be for them to be adequately recorded before lifting, and then carefully removed for scientific study, and long-term storage with an appropriate museum; however, the burial licence may specify reburial or cremation as a requirement.

5.6 MAP Archaeological Practice is an ISO 9001 accredited organisation (certificate number GB2005425). The award of the ISO 9001 certificate, independently audited by the British Standards Institution (BSI), demonstrates MAP's commitment to providing a quality service to our clients. ISO (the International Organisation for Standardisation) is the most recognised standards body in the world, helping to drive excellence and continuous improvement within businesses.

6 Fieldwork Methodology

6.1 Thirty-one Trial Trenches are proposed, positioned in order to assess anomalies in the Geophysical data but also areas supposedly devoid of such anomalies (Fig. 2), three measure 15m x 4m and the remainder 30m x 2m. An additional 10% of trenching may be required as a contingency. The results of the evaluation may lead to further archaeological mitigation work which will be specified in a separate Written Scheme of Investigation.

- 6.2 A minimum of one week's notice of the commencement of fieldwork will be given to the SYAS.
- 6.3 All overburden, topsoil and any subsoils will be carefully removed by mechanical excavator using a wide toothless blade (ditching bucket), under archaeological supervision, to the top of archaeological features or layers, thereafter all excavation will be by hand. Areas of intensive modern disturbance will be given a low priority in excavation. Where practicable, the fills of these features will be removed by mechanical excavator.
- 6.4 Context recording methodologies and systems will be used. All archaeological deposits will be recorded according to principles of stratigraphic excavation on MAP's *pro forma* sheets, which are compatible with the MoLAS recording system. The MAP recording manual will be used on site where necessary. The stratigraphy of trenches will be recorded even if no archaeology is found.
- 6.5 The excavation sampling policy is:
- a. A 100% sample of stakeholes
 - b. An initial 50% sample should be taken of all postholes, but where they are part of a building these should be 100% excavated
 - c. A 50% sample of pits with a diameter up to 1.5m (where justified, these should be 100% excavated,
 - d. A minimum 25% sample of all pits over 1.5m in diameter, but this should include a complete section across the pit to record a full profile (where justified, these should be 100% excavated)

- e. linear features will be sampled a minimum of 20% along their length (each sample section to be not less than 1m), or a minimum of a 1m sample section, if the feature is less than 5m long.
 - f. All junctions/intersections and corners of linear features will be investigated and their stratigraphic relationships determined – if necessary, using box sections and all ditch terminals will be examined,
 - g. Funerary contexts, buildings and industrial features will be subject to sufficient excavation to establish the objectives of the evaluation but no archaeological deposit will be entirely removed unless this is unavoidable to meet the aims of the fieldwork.
- 6.6 In certain cases, the use of mechanical excavation equipment may also be appropriate for removing deep intrusions (e.g. modern brick and concrete floors or footings), or for putting sections through major features after partial excavation (e.g. ditches), or through deposits to check that they are of natural origin.
- 6.7 A full written, drawn and photographic record will be made of all material revealed during the course of the Trial Trenching. Plans should be completed at a scale of 1:50 or 1:20 (as appropriate), whilst section drawings should be at a scale of 1:10. Black and white film photographs will form the basis of the photographic archive, with colour slides where necessary. Digital photography will only be used to supplement the record.
- 6.8 A sampling strategy for the recovery for environmental remains has been formulated in accordance with an Environmental Strategy written by an Environmental Consultant (Diane Aldritt, appendix 1) and also follows the

guidance of the Association for Environmental Archaeology (1995) and Historic England (2011).

6.9 Samples will be collected from primary and secondary contexts, where applicable, from a range of representative features, including pit and ditch fills, postholes, floor deposits, ring gullies and other negative features. Where features allow between 40 and 60 litres will be taken although entire contexts will be sampled if the volume is low, and specialist samples will be taken, the volume of these samples will be dependent on the material being sampled. Positive features will also be sampled; retention of structural material such as bricks will be implemented where necessary. Sampling will also be considered for those features where dating by other methods (for example pottery and artefacts) is uncertain. Animal bones will be hand collected, and coarse sieved samples collected from contexts containing a high density of bones. Small samples of other material will be recovered where applicable. Flotation samples and samples taken for coarse-mesh sieving from dry deposits will be processed at the time of the fieldwork wherever possible, partly to permit variation of sampling strategies if necessary, but also because processing at a later stage could cause delays.

6.10 All finds (artefacts and ecofacts) visible during excavation will be collected and processed, unless variations in this principle are agreed with the Local Authority. Finds will be appropriately packaged and stored under optimum conditions, as detailed in the RESCUE/UKIC publication First Aid for Finds. In accordance with the procedures outlined in MoRPHE, all iron objects, a selection of non-ferrous artefacts (including all coins), and a sample of any industrial debris relating to metallurgy will be X-radiographed before assessment. Any recording, marking and storage, materials will be of

archive quality. We have made an allowance for a minimum three boxes and a contingency for a small finds box in calculating estimates for museums storage grant.

- 6.11 We will make provision within our excavation strategies, where necessary, for use of shoring, pumps or artificial lighting. Such strategies will also follow for sampling for radiocarbon, archaeomagnetic and/or dendrochronological determinations, as appropriate: where in situ timbers are found to survive in good condition, samples should be taken for dendrochronological assay.
- 6.12 Arrangements for site access and reinstatement are to be agreed with the commissioning body.
- 6.13 Health and safety will take priority over archaeological matters. Archaeologists undertaking fieldwork must observe safe working practices; the Health and Safety arrangements must be agreed and understood by all relevant parties before work commences. Risk assessments must be carried out and documented in accordance with Management of Health and Safety at Work Regulations 1999. The Contractor should determine whether this project is covered by Construction (Design and Management) Regulations 2015 and ensure that all requirements under the regulations are met. All archaeologists and visitors to site will comply with necessary precautions regarding COVID-19 as outlined in the RAMS for the site and sign a declaration to declare they are not infectious, adhere to social distancing and approved safety measures. Should stepping of the trenches be required, where depths exceed safe dimensions (in depth), the trench width of 2m should be measured at the base of the trench.

- 6.14 Necessary precautions should be taken over underground services and overhead lines.
- 6.15 All on site staff hold valid CSCS cards. All Project Officers and Project Managers hold a valid First Aid at Work Certificate and Site Supervisor Safety Training qualifications.
- 6.16 MAP will provide evidence of all necessary insurances, including Employer's Liability, Professional Liability and Public Liability Cover.
- 6.17 Site inspections will be arranged with SYAS, so that the general site stratigraphy can be assessed in the initial stage of trial trenching and/or so that the site can be inspected when fieldwork is near to completion but before any trenches have been backfilled. Site visits with the Historic England Yorkshire Region Science Advisor will be arranged if necessary.

7. Post Excavation Analysis and Report

- 7.1 Upon completion of the evaluation, the artefacts, soil samples and stratigraphic information will be assessed as to their potential and significance for further analysis.
- 7.2 A report will be prepared to include the following:
- a) A non-technical summary of the results of the work, Introduction and aims and objectives.
 - b) An introduction which should include
 - the site code/project number
 - planning reference number and SMR Casework number
 - dates when fieldwork took place

- grid reference
- c) An account of the methods and results of the evaluation, describing structural data and associated finds and/or environmental data recovered.
- d) Interpretation, including phasing of the site sequence and spot-dating of ceramics (Descriptive material should be clearly separated from interpretive statements). This shall be supported by the use of photographs and drawings, to include an overall plan of the site accurately identifying the location of trenches; individual trench plans as excavated indicating the location of archaeological features, with at least one section detailing the stratigraphic sequence of deposits within each trench.
- e) A specialist assessment of the artefacts recovered with a view to their potential for further study. Allowance should be made for preliminary conservation and stabilisation of all objects and an assessment of long-term conservation and storage needs.

Assessment of artefacts must include inspection of X-radiographs of all iron objects, a selection of non-ferrous artefacts (including coins), and a sample of any industrial debris relating to metallurgy. A rapid scan of all excavated material should be undertaken by conservators and finds researchers in collaboration. Material considered vulnerable will be selected for stabilisation after specialist recording. Where intervention is necessary, consideration will be given to possible investigative procedures (e.g glass composition studies, residues in or on pottery, and mineral preserved organic material). Once assessed, all material will be packed and stored in optimum conditions, as described in *First Aid For Finds*. Waterlogged organic materials should be dealt with, following Historic England documents, *Guidelines for the care of waterlogged archaeological leather*, and *guidelines on the recording, sampling, conservation and curation of waterlogged wood*.

- f) A specialist assessment of environmental samples taken, with a view to their potential for subsequent study.

Processing of all samples collected for biological assessment, or sub-samples of them, will be completed. Bulk and site-riddled samples from dry deposits should have been processed during excavation, where possible. The preservation state, density and significance of material retrieved must be assessed, following methods presented in Environmental Archaeology and archaeological evaluations, or existing local guidelines, until national guidelines are available. Unprocessed sub-samples must be stored in conditions specified by the appropriate specialists.

Assessments for any technological residues will be undertaken. Samples for dating must be submitted to laboratories promptly, so as to ensure that results are available to aid development of specifications for subsequent mitigation strategies.

- g) The results from investigations in archaeological sciences will be included in the Site Archive and presented in the Evaluation Report. Reports must include sufficient detail to permit assessment of potential analysis. They will include tabulation of data in relation to site phasing and contexts and must include non-technical summaries. The objective presentation of data must be clearly separated from interpretation. Recommendation for further investigation (both on samples already collected, and at future excavations) must be clearly separated from the results and interpretation.
- h) An assessment of the archaeological significance of the deposits identified, in relation to other sites in the region.
- i) A conclusion with recommendations for further post-excavation work, if required.
- j) Detailed archive location and destination.

- k) Appendices and figures, as appropriate, including a copy of the specification and/or project design.
 - l) References and bibliography of all sources used
- 7.3 Copies of the report will be submitted to the commissioning body, the Local Planning Authority and South Yorkshire Archaeology Service within 3 months of the completion of the evaluation, unless an alternative timescale is agreed.
- 7.4 We will provide a digital copy of the report in PDF format to the South Yorkshire Historic Environment Record.
- 7.5 A Brief, interim report may be required shortly after the completion of fieldwork.
- 7.6 The following Specialists have been contacted as are available to work on the project:
- Pottery - T G Manby (Prehistoric),
 - M R Stephens (Medieval and Post-medieval)
 - P A Ware/P Mills (Roman)
 - Flint - P Makey
 - Animal Bone – J Richardson
 - Environmental Sampling – D Alldritt
 - Conservation – York Archaeological Trust
 - Human Remains – York Osteology
 - Ceramic Building Material – P Mills
 - Clay Tobacco Pipe - M R Stephens

7.7 A final report will comprise all below ground investigation and mitigation work.

8. Copyright, Confidentiality and Publicity

8.1 Unless the individual/organisation commissioning the project wishes to state otherwise, the copyright of any written, graphic or photographic records and reports rests with MAP.

9. Archive Preparation and Dissemination

9.1 The requirements for archive preparation and deposition must be addressed and undertaken in a manner agreed with Experience Barnsley who will be contacted before commencement of fieldwork. In line with the "Archaeological Archive Deposition Policy for Museums in Yorkshire and the Humber", produced by Renaissance Yorkshire, the museum will also be contacted during a mid-point review of the project during which information will be passed to the museum regarding the archive and the proposed timescale for deposition, and following the completion of work.

9.2 Guidance set out in the ClfA Toolkit for Selecting Archives (2019) will be followed, prior to the commencement of fieldwork in order to establish project-specific strategies for the retention or discarding of material. The retention of material will also be discussed with the Clifton Park Museum with regards to the significance and research potential of the archive.

9.3 The site archive, including finds and environmental material, subject to the permission of the relevant landowners, will be labelled, conserved and stored according to the United Kingdom Institute for Conservation (UKIC)'s.

Provision will be made for the stable storage of paper records and their long term storage on a suitable medium, such as microfilm, a copy of which should be deposited with the NMR (Historic England). An index to the contents of the archive together with details of its date and place of deposition should be lodged with the SMR.

9.4 Archive deposition will be arranged in consultation with Experience Barnsley and South Yorkshire Archaeology Service and in accordance with their deposition policy relating to the preparation and transfer of archives. The timetable for deposition shall be agreed on completion of the site archive and narrative.

9.5 The digital archive will be deposited with the ADS.

10. Bibliography

Archaeological Research Services. 2018. Geophysical Survey of land east of Moor Lane South, Ravenfield, Rotherham, South Yorkshire

British Geological Society. Geology of Britain Viewer. Available at; <http://mapapps.bgs.ac.uk/geologyofbritain/home.html> [accessed 07.06.2021]

BWB. 2021. Halifax Road, Penistone, Heritage Assessment

Phase Site Investigations. 2018. Land South of Halifax Road, Penistone, Archaeological Geophysical Survey

South Yorkshire Archaeology Service & Historic England. *South Yorkshire Historic Environment Research Framework*. Web Resource. Available at <https://researchframeworks.org/syrf/> [Accessed 25.052021].

11. Best Practice & Scientific Guidance

Archaeological Conservation

Investigative Conservation: Guidelines on how the Detailed Examination of Artefacts from Archaeological Sites can Shed Light on their Manufacture and Use (2008): Officially archived, but available on request.

Guidelines on the X-radiography of Archaeological Metalwork (2006): <https://historicengland.org.uk/images-books/publications/x-radiography-of-archaeological-metalwork/>

Waterlogged Organic Artefacts: Guidelines on their Recovery, Analysis and Conservation (2018): <https://historicengland.org.uk/images-books/publications/waterlogged-organic-artefacts/>

Environmental Archaeology

Animal Bones and Archaeology - Recovery to Archive (2019):
<https://historicengland.org.uk/images-books/publications/animal-bones-and-archaeology/>

Deposit Modelling and Archaeology: Guidance for Mapping Buried Deposits (2020): <https://historicengland.org.uk/images-books/publications/deposit-modelling-and-archaeology/>

Environmental Archaeology: A Guide to the Theory and Practice of Methods, from Sampling and Recovery to Post-excavation (Second Edition) (2011):
<https://historicengland.org.uk/images-books/publications/environmental-archaeology-2nd/>

Geoarchaeology: Using Earth Sciences to Understand the Archaeological Record (2015):
<https://historicengland.org.uk/images-books/publications/geoarchaeology-earth-sciences-to-understand-archaeological-record/>

Guidelines for the Curation of Waterlogged Macroscopic Plant and Invertebrate Remains (2008): Currently being revised, but available on request.

Mineralised Plant and Invertebrate Remains: A Guide to the Identification of Calcium Phosphate Replaced Remains (2020):

<https://historicengland.org.uk/images-books/publications/mineralised-plant-and-invertebrate-remains/>

Geophysical Survey

EAC Guidelines for the Use of Geophysics in Archaeology: Questions to Ask and Points to Consider (2016) [Europae Archaeologiae Consilium]:

<https://historicengland.org.uk/images-books/publications/eac-guidelines-for-use-of-geophysics-in-archaeology/>

Geophysical Survey in Archaeological Field Evaluation (2008): Officially archived, but available on request.

Marine Geophysics Data Acquisition, Processing and Interpretation: Guidance Notes (2013):

<https://historicengland.org.uk/images-books/publications/marine-geophysics-data-acquisition-processing-interpretation/>

Human Remains

Guidance for Best Practice for the Treatment of Human Remains Excavated from Christian Burial Grounds in England (Second Edition) (2017) [Advisory Panel on the Archaeology of Burials in England]:

https://www.archaeologyuk.org/apabe/pdf/APABE_ToHREfCBG_FINAL_WEB.pdf

Guidance for the Care of Human Remains in Museums (2005) [Department for Culture, Media and Sport]:

https://www.archaeologyuk.org/apabe/pdf/DCMS_Guidance_Human_Remains_in_Museums.pdf

Large Burial Grounds: Guidance on Sampling in Archaeological Fieldwork Projects (2015) [Advisory Panel on the Archaeology of Burials in England]:
https://www.archaeologyuk.org/apabe/pdf/Large_Burial_Grounds.pdf

Science and the Dead: A Guideline for the Destructive Sampling of Archaeological Human Remains for Scientific Analysis (2013) [Advisory Panel on the Archaeology of Burials in England]:
https://www.archaeologyuk.org/apabe/pdf/Science_and_the_Dead.pdf

The Role of the Human Osteologist in an Archaeological Fieldwork Project (2018): <https://historicengland.org.uk/images-books/publications/role-of-human-osteologist-in-archaeological-fieldwork-project/>

Updated Guidelines to the Standards for Recording Human Remains (2017) [Chartered Institute for Archaeologists / British Association for Biological Anthropology and Osteoarchaeology]:
<https://babao.org.uk/assets/Uploads-to-Web/14-Updated-Guidelines-to-the-Standards-for-Recording-Human-Remains-digital.pdf>

Materials Science and Industrial Processes

A Standard for Pottery Studies in Archaeology (2016) [Prehistoric Ceramics Research Group, the Study Group for Roman Pottery and the Medieval Pottery Research Group]: <https://historicengland.org.uk/images-books/publications/standard-for-pottery-studies-in-archaeology/>

Archaeological and Historic Pottery Production Sites: Guidelines for Best Practice (2015):

<https://historicengland.org.uk/images-books/publications/archaeological-and-historic-pottery-production-sites/>

Archaeometallurgy: Guidelines for Best Practice (2015):

<https://historicengland.org.uk/images-books/publications/archaeometallurgy-guidelines-best-practice/>

Archaeological Evidence for Glassworking: Guidelines for Recovering, Analysing and Interpreting Evidence (2018):

<https://historicengland.org.uk/images-books/publications/glassworkingguidelines/>

Organic Residue Analysis and Archaeology: Guidance for Good Practice (2017): <https://historicengland.org.uk/images-books/publications/organic-residue-analysis-and-archaeology/>

Science for Historic Industries: Guidelines for the Investigation of 17th- to 19th-century Industries (2018):

<https://historicengland.org.uk/images-books/publications/science-for-historic-industries/>

Preservation in Situ

Land Contamination and Archaeology: Good Practice Guidance (2017):

<https://historicengland.org.uk/images-books/publications/land-contamination-and-archaeology/>

Piling and Archaeology: Guidance and Good Practice (2019):
<https://historicengland.org.uk/images-books/publications/piling-and-archaeology/>

Preserving Archaeological Remains: Decision-taking for Sites under Development (2016):
<https://historicengland.org.uk/images-books/publications/preserving-archaeological-remains/>

Scientific Dating

Archaeomagnetic Dating: Guidelines on Producing and Interpreting Archaeomagnetic Dates (2006): Officially archived, but available on request; Historic England also suggests people consult the 'Archaeomagnetism: Magnetic Moments in the Past' webpages (<https://www.bradford.ac.uk/archaeomagnetism/>) hosted by the University of Bradford.

Dendrochronology: Guidelines on Producing and Interpreting Dendrochronological Dates (2004): Currently being revised, but available on request.

Luminescence Dating: Guidelines on Using Luminescence Dating in Archaeology (2008): Currently being revised, but available on request.
Practice and Guidelines

Archiving and Project Management

Brown, D.H. 2011. Archaeological Archives – A guide to best practice in creation, compilation, transfer and curation. Institute for Archaeologists and the Archaeological Archives Forum. 2nd Edition.

http://www.archaeologyuk.org/archives/aaf_archaeological_archives_2011.pdf

Chartered Institute for Archaeologists. (2019) Code of Conduct.

<https://www.archaeologists.net/sites/default/files/CodesofConduct.pdf>

Chartered Institute for Archaeologists. (2014b) Standard and Guidance for Archaeological Excavation.

https://www.archaeologists.net/sites/default/files/CIfAS&GExcavation_1.pdf

Historic England. 2015c. Management of Research Project in the Historic Environment: The MoRPHE Project Managers' Guide. Swindon: English Heritage.

<https://historicengland.org.uk/images-books/publications/morphe-project-managers-guide/heag024-morphe-managers-guide/>

Institute for Archaeologists. 2008. Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials. Reading: Institute for Archaeologists.

http://www.archaeologists.net/sites/default/files/nodefiles/ifa_standards_materials.pdf

Institute for Archaeologists. 2009. Standard and Guidance for the Creation, Compilation, Transfer and Deposition of Archaeological Archives. Reading: Institute for Archaeologists.

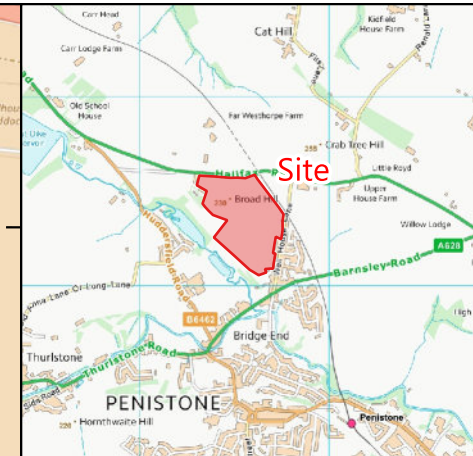
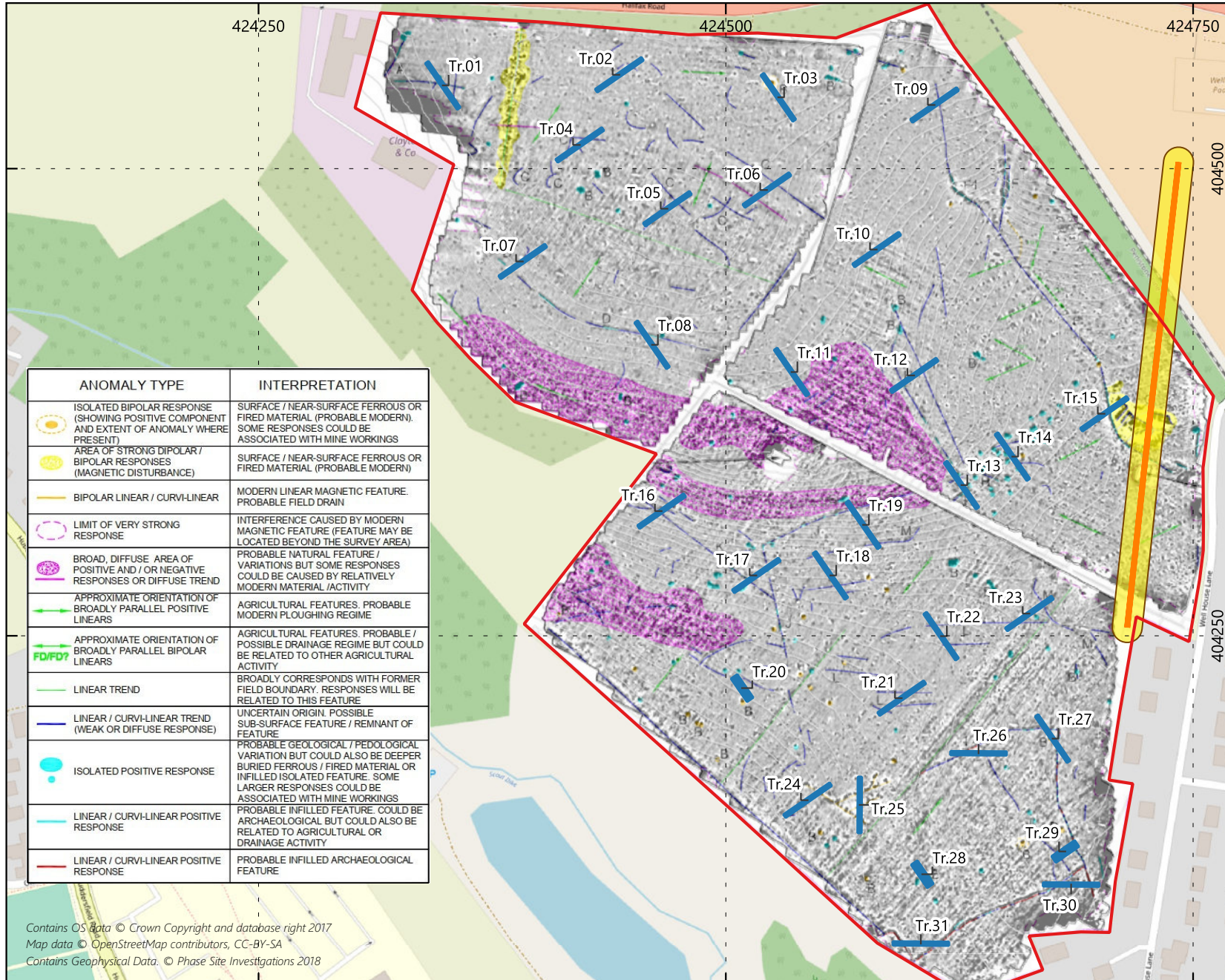
<http://www.archaeologists.net/sites/default/files/nodefiles/Archives2009.pdf>

Institute for Archaeologists. 2010 Draft Standard and Guidance for Archaeological Geophysical Survey. Reading: Institute for Archaeologists.

<http://www.archaeologists.net/sites/default/files/nodefiles/geophysicsSG.pdf>

SYAS. 2001. Yorkshire, the Humber and the North- East: A Regional Statement of Good Practice for Archaeology in the Development Process.

<https://www.sheffield.gov.uk/content/dam/sheffield/docs/planning-and-development/archaeology/The-regional-statement-for-good-practice-in-archaeology-within-Planning--pdf--24KB-.pdf>



ANOMALY TYPE	INTERPRETATION
ISOLATED BIPOLAR RESPONSE (SHOWING POSITIVE COMPONENT AND EXTENT OF ANOMALY WHERE PRESENT)	SURFACE / NEAR-SURFACE FERROUS OR FIRED MATERIAL (PROBABLE MODERN). SOME RESPONSES COULD BE ASSOCIATED WITH MINE WORKINGS
AREA OF STRONG DIPOLAR / BIPOLAR RESPONSES (MAGNETIC DISTURBANCE)	SURFACE / NEAR-SURFACE FERROUS OR FIRED MATERIAL (PROBABLE MODERN)
BIPOLAR LINEAR / CURVI-LINEAR	MODERN LINEAR MAGNETIC FEATURE. PROBABLE FIELD DRAIN
LIMIT OF VERY STRONG RESPONSE	INTERFERENCE CAUSED BY MODERN MAGNETIC FEATURE (FEATURE MAY BE LOCATED BEYOND THE SURVEY AREA)
BROAD, DIFFUSE AREA OF POSITIVE AND / OR NEGATIVE RESPONSES OR DIFFUSE TREND	PROBABLE NATURAL FEATURE / VARIATIONS BUT SOME RESPONSES COULD BE CAUSED BY RELATIVELY MODERN MATERIAL /ACTIVITY
APPROXIMATE ORIENTATION OF BROADLY PARALLEL POSITIVE LINEARS	AGRICULTURAL FEATURES. PROBABLE MODERN PLOUGHING REGIME
APPROXIMATE ORIENTATION OF BROADLY PARALLEL BIPOLAR LINEARS	AGRICULTURAL FEATURES. PROBABLE / POSSIBLE DRAINAGE REGIME BUT COULD BE RELATED TO OTHER AGRICULTURAL ACTIVITY
LINEAR TREND	BROADLY CORRESPONDS WITH FORMER FIELD BOUNDARY. RESPONSES WILL BE RELATED TO THIS FEATURE
LINEAR / CURVI-LINEAR TREND (WEAK OR DIFFUSE RESPONSE)	UNCERTAIN ORIGIN. POSSIBLE SUB-SURFACE FEATURE / REMNANT OF FEATURE
ISOLATED POSITIVE RESPONSE	PROBABLE GEOLOGICAL / PEDOLOGICAL VARIATION BUT COULD ALSO BE DEEPER BURIED FERROUS / FIRED MATERIAL OR INFILLED ISOLATED FEATURE. SOME LARGER RESPONSES COULD BE ASSOCIATED WITH MINE WORKINGS
LINEAR / CURVI-LINEAR POSITIVE RESPONSE	PROBABLE INFILLED FEATURE. COULD BE ARCHAEOLOGICAL BUT COULD ALSO BE RELATED TO AGRICULTURAL OR DRAINAGE ACTIVITY
LINEAR / CURVI-LINEAR POSITIVE RESPONSE	PROBABLE INFILLED ARCHAEOLOGICAL FEATURE

Legend

- Development Outline
- Trenches
- OHP
- OHP 6m buffer

Figure 2
Proposed Trial Location Plan
Scale: 1:3000 @ A4
Version: B130821
Client: Barratt Homes

Contains OS data © Crown Copyright and database right 2017
Map data © OpenStreetMap contributors, CC-BY-SA
Contains Geophysical Data. © Phase Site Investigations 2018

APPENDIX 1

Conservation Strategy By Ian Panter of York Archaeological Trust

Artefacts from all categories and all periods will be recovered as a matter of routine during the excavation. When retrieved from the ground finds will be kept in a finds tray or appropriate bags in accordance with **First Aid for Finds**. Where necessary, a conservator may be required to recover fragile finds from the ground depending upon circumstances.

If waterlogged conditions are encountered a wide range of organic materials may be recovered, including wood, leather and textiles. Advice will be sought from a conservator to discuss optimum storage requirements before any attempt is made to retrieve organic finds and structural timbers from the ground.

After the completion of the fieldwork stage, a conservation assessment will be undertaken which will include the X-radiography of all the ironwork (after initial screening to separate obviously modern debris), and a selection of the non-ferrous finds (including all coins). A sample of slag may also be X-rayed to assist with identification and interpretation. Wet-packed material, including glass, bone and leather will be stabilised and consolidated to ensure their long-term preservation. All finds will be stored in optimum conditions in accordance with **First Aid for Finds** and **Guidelines for the Preparation of Excavation Archives for Long-Term Storage** (Walker, 1990).

Waterlogged wood, including structural elements will be assessed following the English Heritage guidelines, **Waterlogged wood: sampling, conservation and**

curation of structural wood (Brunning 1996). The assessment will include species identification, technological examination and potential for dating.

The conservation assessment report will include statements on condition, stability and potential for further investigation (with conservation costs) for all material groups. The conservation report will be included in the updated project design prepared for the analysis stage of the project.

References

Brunning, R. and Watson, J. *Guidelines on Recording, Sampling, Conservation and Curation of Waterlogged Wood*. Swindon: English Heritage (2010).

<http://www.english-heritage.org.uk/publications/waterlogged-wood/waterlogged-wood.pdf>

Karsten, A., Graham, K., Jones, J., Mould, Q. and Walton Rogers, P. (2012) *Waterlogged Organic Artefacts: Guidelines on Their Recovery, Analysis and Conservation*. Swindon: English Heritage.

<http://www.english-heritage.org.uk/publications/waterlogged-organic-artefacts/woa-guidelines.pdf>

Walker, K. 1990 *Guidelines for the preparation of excavation archives for long-term storage*, Archaeology Section of the United Kingdom Institute for Conservation.

Watson, J., Fell, V. and Jones, J. (2008) *Investigative Conservation: Guidelines on How the Detailed Examination of Artefacts from Archaeological Sites can Shed Light on their Manufacture and Use*. Swindon: English Heritage.

<http://www.english-heritage.org.uk/publications/investigative-conservation/investigative-conservation.pdf>

Watkinson, D. and Neal, V. 1998 First Aid for Finds (3rd edition), RESCUE and the Archaeology Section of the United Kingdom Institute for Conservation.

Institute for Archaeologists. (2008) *Standard and Guidance for the Collection, Documentation, Conservation and Research of Archaeological Materials*. Reading:

Institute for Archaeologists. http://www.archaeologists.net/sites/default/files/node-files/ifa_standards_materials.pdf

APPENDIX 2

Environmental Strategy By Diane Alldrit

The on-site environmental sampling strategy will systematically seek to recover a representative sample of botanical, molluscan (both terrestrial and aquatic), avian and mammalian evidence from the full range of contexts encountered during the excavation. This will enable, at the assessment stage, the possibility for radiocarbon dating material to be obtained, and for an initial analysis of the economic and environmental potential of the site. In order to achieve this, a bulk sample (BS, Dobney *et al* 1992) comprising an optimum size of 40litre of sediment (where possible) should be taken from **every stratigraphically secure and archaeologically significant context**. In practice it may not always be possible to obtain 28l of sediment from certain features during the assessment stage, for instance from partially excavated pits or post-holes, in which case a single bucket sample, c.10 to 14litre should be taken at the site supervisors discretion. Deposits of mixed origin, for instance topsoil, wall fills and obvious areas of modern contamination, should be avoided where possible, as these will contain intrusive material and not provide secure radiocarbon dates.

All buckets and other sampling equipment must be clean and free of adherent soil in order to prevent cross-contamination between samples. If dry soil is to be stored for any length of time it should be kept in cool, dry conditions, and away from strong light sources. However, it is preferable to process samples as soon as possible after excavation.

Bulk soil samples shall be processed using an Ankara-type water flotation machine (French 1971) for the recovery of carbonised plant remains and charcoal. The

flotation tank should contain a >1mm mesh for collection of the retent or 'residue' portion of the sample (which may contain pottery, lithics and animal / bird bone, in addition to the heavier fragments of charcoal which do not float). The 'flot' portion of the sample, which may include carbonised seeds, cereal grain, charcoal and sometimes mollusc shell, should be captured using a nest of >1mm and >300micron Endicot sieves. Flotation equipment, including sieves, meshes, brushes and so forth must be meticulously cleaned between samples in order to prevent contamination of potential radiocarbon dating material. All material resulting from flotation will be dried prior to microscopic examination. Flotation is not suitable for the recovery of pollen or for processing waterlogged samples, which shall be discussed below.

Where there is potential for waterlogged preservation, shown for instance by the presence of wood and other organic or wet material, then a 5 to 10litre size sample should be taken (GBA sample, Dobney *et al* 1992). This material is to be retained for later processing using laboratory methods to enable the recovery of waterlogged plant material and insects. For assessment purposes a 1litre sub-sample of the organic sediment from each potential waterlogged sample shall be processed using laboratory wash-over methods, and once processed **kept wet**. All waterlogged samples awaiting processing should be kept damp, preferably stored in plastic sealable tubs, and in cool conditions. Where large waterlogged timbers are recovered these should be stored under refrigerated conditions and an appropriate conservator consulted.

There is the possibility that the waterlogged deposits may require parasite egg analysis. It is proposed that the 'squash' technique is adapted, this would require small lumps of raw sediment approximately 3mm in diameter taken from three separate points from within the sample and homogenised in a little water by

shaking. After allowing coarse particles to settle for a few moments, a drop of the supernatant was removed. This work would be undertaken by either John Carrott or Harry Kenwood if necessary.

If sediment suitable for pollen analysis is encountered, for instance rich organic peaty deposits, or deep ditch sections with organic preservation, the archaeobotanical specialist is to be consulted prior to any sampling taking place. These deposits would require sampling with large kubiena tins and require the specialist to be on-site. Pollen analysis, even at assessment level, would subsequently impose a considerable cost implication should it be carried out.

The specialist is available to provide consultation and advice on the environmental sampling strategy throughout the course of the excavation and during post-excavation processing if required.

References

Dobney, K. D., Hall, A. R., Kenward, H. K. and Milles, A. 1992 A working classification of sample types for environmental archaeology. *Circaea* 9 24-26.

French, D. H. 1971 An Experiment in Water Sieving. *Anatolian Studies* 21 59-64.