

Edingale to Drakelow Gas Pipeline

Report on an Archaeological Evaluation.



Trench 2 viewed facing south west with feature [208] in the front right foreground.

ARS Ltd Report No. 2009/64
November 2009

Compiled By:

Adam Tinsley
Archaeological Research Services Ltd
Suite 7, Angel House
Portland Square
Bakewell
Derbyshire
DE45 1HB

Checked By:

Dr. Richard Chatterton
Tel: 01629 814540
Fax: 01629 814657
admin@archaeologicalresearchservices.com
www.archaeologicalresearchservices.com

**Edingale to Drakelow Gas Pipeline.
Report on an Archaeological Evaluation.**

ARS Ltd Report 2009 /64

November 2009

Archaeological Research Services Ltd

Contents

	List of Illustrations.....	1
	Executive Summary.....	2
1.	Introduction.....	5
2.	Location and Geology.....	5
3.	Background.....	5
4.	Aims and Objectives.....	6
5.	Methodology.....	6
6.	Assessment Results.....	7
6.1.	Trench 1.....	7
6.2.	Trench 2.....	9
6.3.	Trench 3.....	13
6.4	Topographic Survey of Ridge and Furrow at Rosliston Road.....	14
7.	Discussion.....	17
8.	Conclusions.....	17
9.	Publicity, Confidentiality and Copyright.....	18
10.	Statement of Indemnity.....	18
11.	Acknowledgments.....	18
12.	Bibliography.....	22
13.	Appendix 1.....	23
14.	Appendix 2.....	26
15.	Appendix 3.....	27

List of Illustrations

Fig No.	Detail	Page No.
1.	Site location map.....	3
2.	Site map indicating the relative location of all three sites along the route of the pipeline.....	4
2a.	Location map of Trenches 1 and 2.....	5
2b.	Location map of ridge and furrow transects.....	6
2c.	Location map of Trench 3.....	7
3.	The east facing section of Trench 1 showing probable linear feature cut [104].....	11
4.	The south facing section of Trench 2 showing possible linear feature cut [204].....	13
5.	The north facing section of feature cut [206].....	14
6.	The south facing section of Trench 2 showing feature cut [210].....	15
7.	The south facing section of Trench 1 showing feature cut [208].....	16
8.	The west facing section of Trench 3 and exploratory sondage.....	17
9.	The location and profile of the ridge and furrow transects at Rosliston Road.....	19
10.	The prehistoric pottery recovered from feature cut [208] in Trench 2...	23
11.	Plan and east facing section of Trench 1.....	28
12.	Plan and south facing section of Trench 2.....	29
13.	Plan and east facing section of Trench 3.....	30

Executive Summary

Archaeological Research Services Ltd were commissioned by RSK Environment Ltd, acting on behalf of E.on UK Ltd, to undertake an evaluation on land situated on the proposed route of a gas pipeline from Edingale, Staffordshire, to the power station at Drakelow, Derbyshire. This formed a part of the planning condition imposed upon the pipeline scheme and was targeted to investigate two locations along the route, identified to be of interest during consultation by RSK Environment Ltd with the County Archaeological Officer at the Environmental Services Department, Derbyshire County Council. The two areas were identified on the basis of previous non-intrusive archaeological evaluation of the pipeline route involving field walking and a scheme of geophysical survey. Subsequent to this a further scheme of evaluation by trial trenching was requested in order to establish the nature and extent of any surviving archaeological remains and thereby inform future ground works and development of the pipeline project. A third site was also identified to contain probable evidence of Medieval or Post Medieval agriculture in the form of existent ridge and furrow which was subjected to a scheme of topographic survey using a total station. Trenches 1 and 2 located several features both expected and unexpected, one of which produced material deriving from a ceramic vessel of potentially Early Neolithic date. Trench 3 by comparison did not locate any features of archaeological significance and was deemed sterile. The topographic survey of the ridge and furrow proved successful in providing a profile of the earth works upon which basis they may more readily be identified with Post Medieval rather than Medieval agricultural practices.

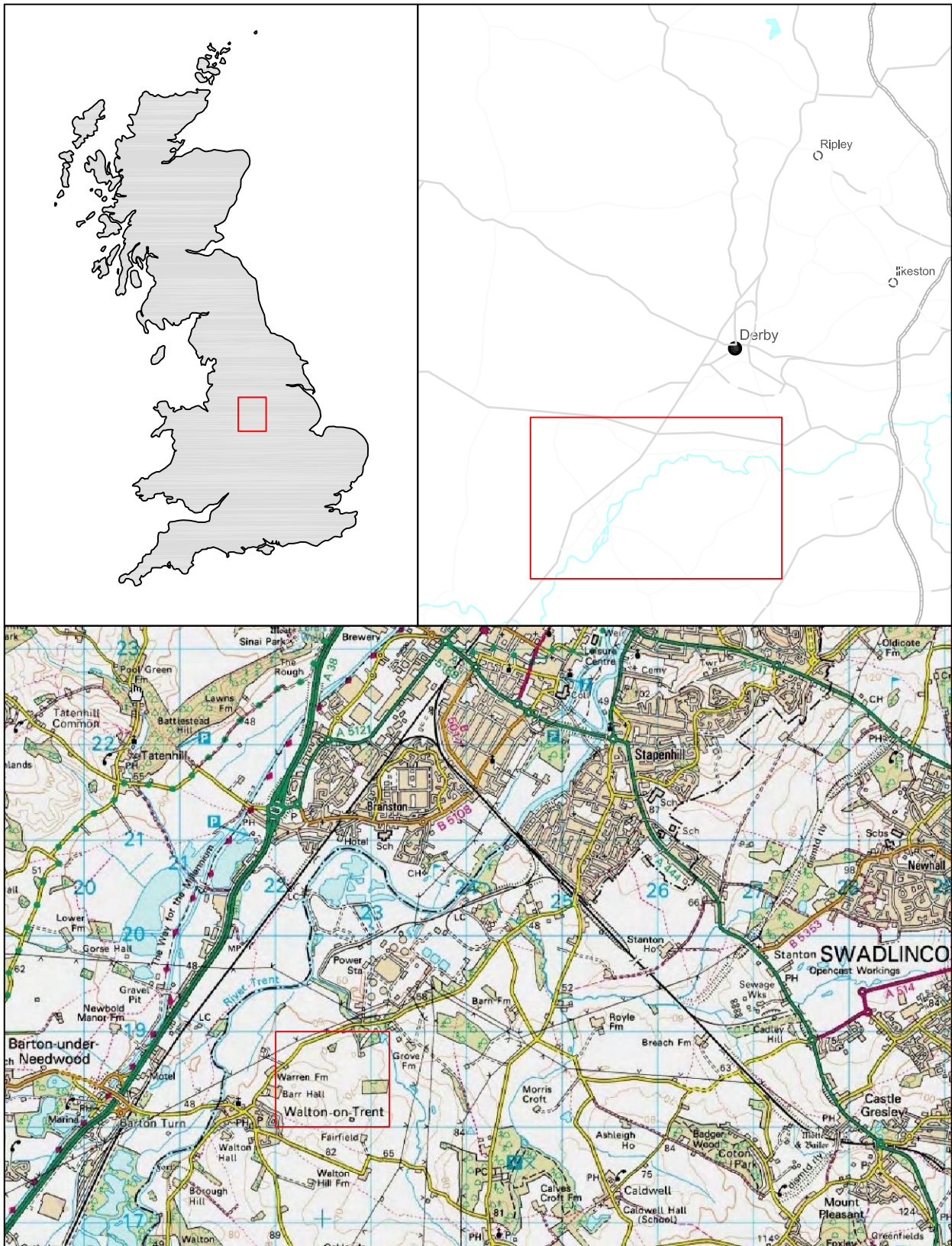
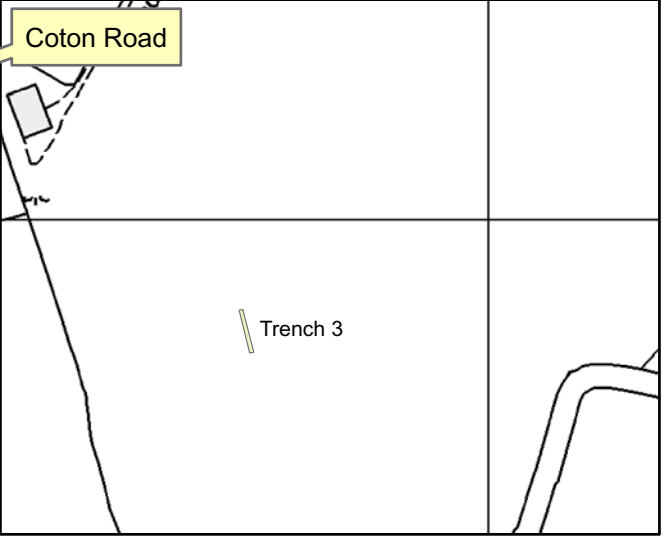
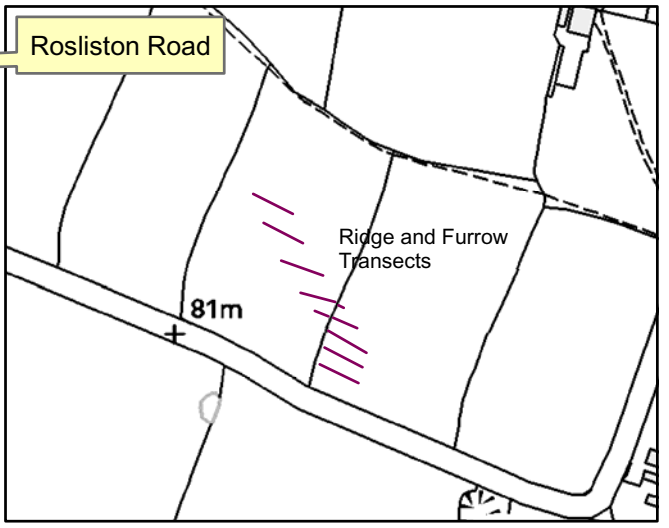
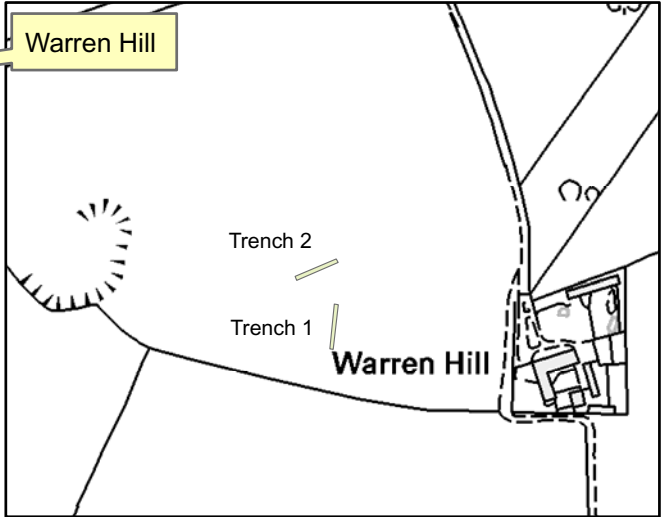
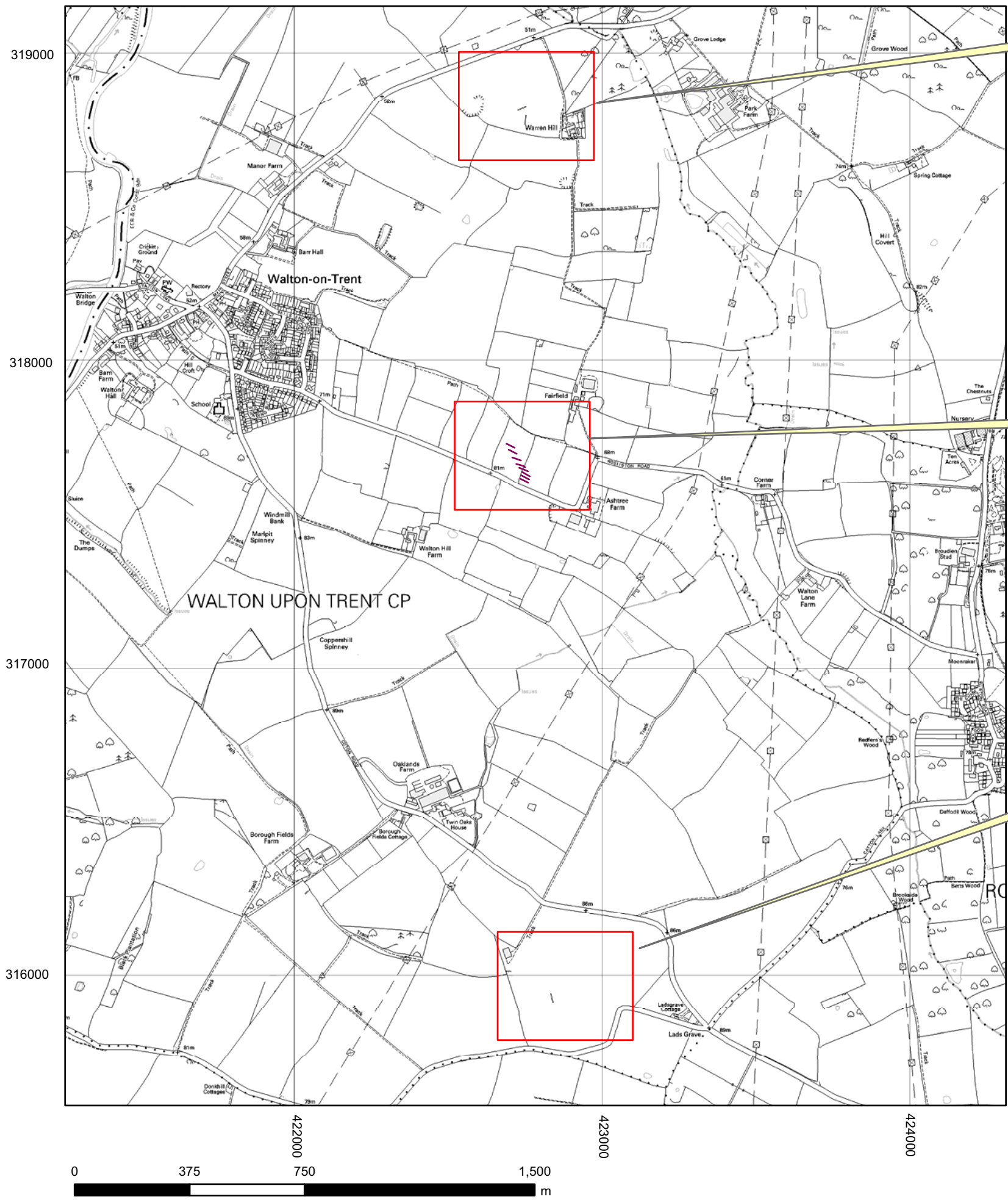


Figure 1. Site Location



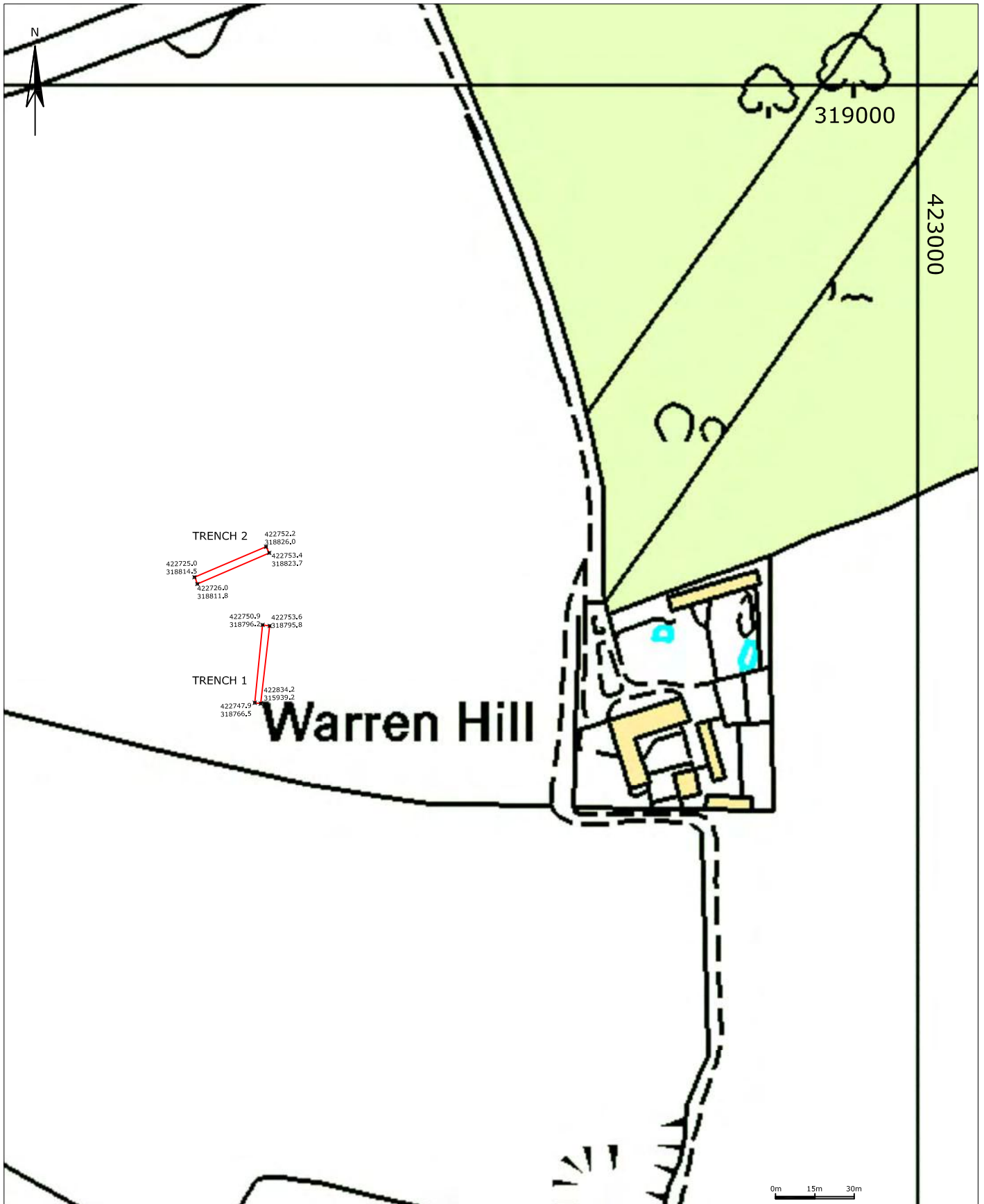
Archaeological Research Services Ltd
 Angel House
 Portland Square
 Bakewell
 Derbyshire
 DE45 1HB

Site Code: DRA09
 Drawing Ref: RepFig
 Date: Nov 2009
 Drawn: JB
 Scale: 1:13000@A3 main
 1:5000@A3 inset

Fig. 2 Location of Trenches

Illustration by ARS Ltd© ARS Ltd
 Ordnance Survey data© Crown copyright, all rights reserved,
 reproduced with permission. License No. 100045420





Archaeological Research Services Ltd
 Angel House
 Portland Square
 Bakewell
 Derbyshire
 DE45 1HB

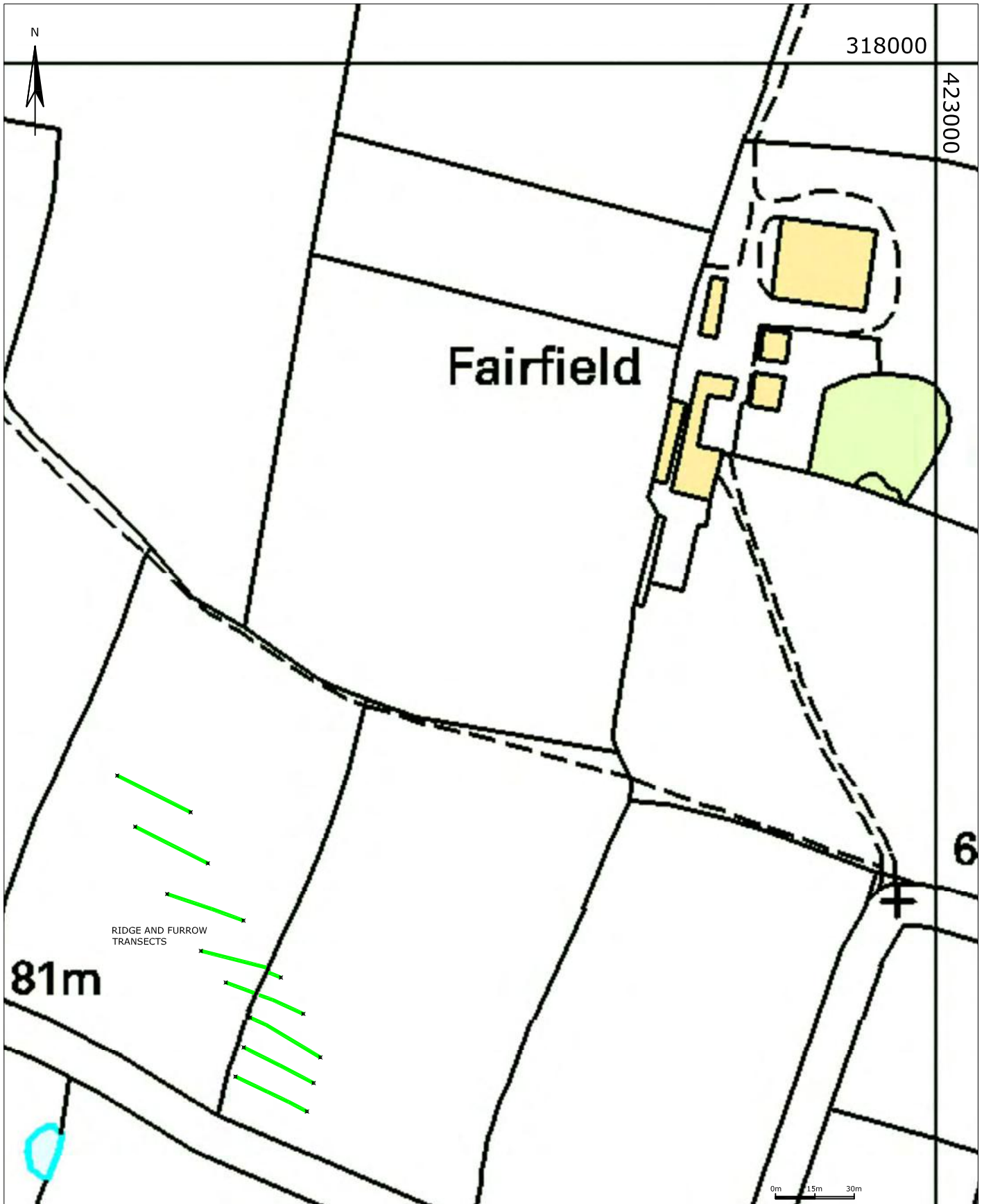
Figure 2a
 Location of Trenches 1 and 2

Key:

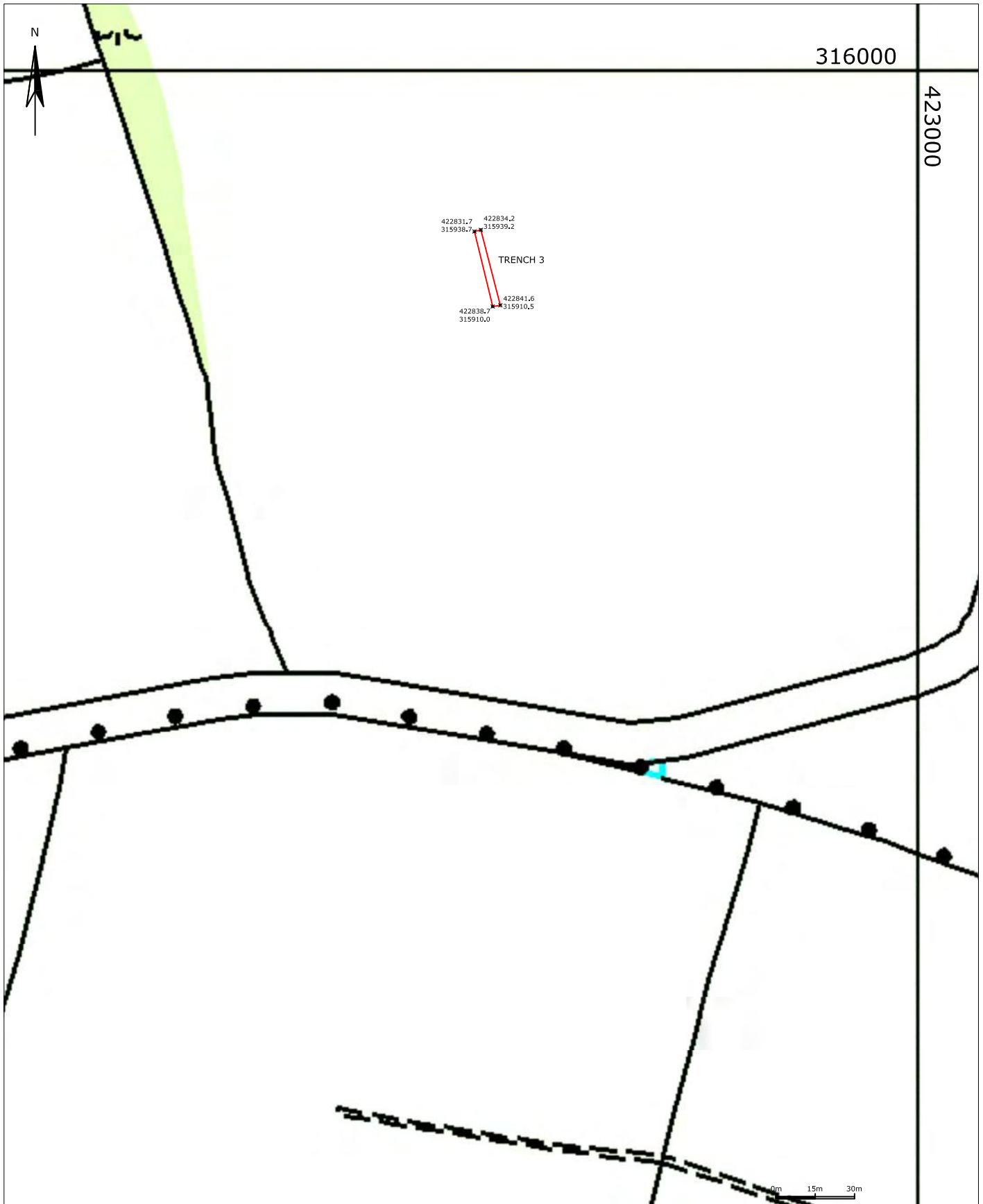
Site Code: DRA09
 Drawing Ref: RepFig
 Date: Jan 2010
 Drawn: RAJS
 Scale: 1:2000@A4

Notes:

Copyright/Licencing:
 This drawing
 © A.R.S. Ltd
 Ordnance Survey data if applicable
 © Crown Copyright, all rights reserved reproduced with permission. Licence No. 100045420



Archaeological Research Services Ltd Angel House Portland Square Bakewell Derbyshire DE45 1HB	Figure 2b Location of Ridge and Furrow Transects	Key:	Copyright/Licencing: This drawing © A.R.S. Ltd Ordnance Survey data if applicable © Crown Copyright, all rights reserved reproduced with permission. Licence No. 100045420
Site Code: DRA09 Drawing Ref: RepFig Date: Jan 2010 Drawn: RAJS Scale: 1:2000@A4	Notes:		



Archaeological Research Services Ltd Angel House Portland Square Bakewell Derbyshire DE45 1HB	Figure 2c Location of Trench 3	Key:	Copyright/Licensing: This drawing © A.R.S. Ltd Ordnance Survey data if applicable © Crown Copyright, all rights reserved reproduced with permission. Licence No. 100045420
Site Code: DRA09 Drawing Ref: RepFig Date: Jan 2010 Drawn: RAJS Scale: 1:2000@A4	Notes:		

1. Introduction

- 1.1 This report details the findings of a scheme of trial trenching at two locations along the proposed route of the Edingale, Staffordshire, to Drakelow, Derbyshire, gas pipeline carried out by Adam Tinsley and Brian Marshal on behalf of Archaeological Research Services limited between the 19th and 23rd of October 2009. It was commissioned by RSK Environment Ltd acting on behalf of E.on UK Ltd and was deemed necessary as part of the planning permission conditions imposed upon the scheme by Lichfield Borough Council. It involved the excavation of three trial trenches at two locations along the proposed route of the pipeline, two in close proximity at the site of Warren Hill, Walton-on-Trent, Derbyshire, and a third at the site of Coton Road, Walton-on-Trent, Derbyshire. The scope of works and trench locations were agreed in consultation with the County archaeologist for Staffordshire County Council as archaeological Adviser to Lichfield Borough Council and the Derbyshire County Council Archaeologist. These trenches were targeted under the instruction of RSK Environment Ltd to locate and explore the nature and extent of probable archaeological features identified during previous phases of archaeological assessment of the pipeline route. A third site was also identified along the route of the pipeline and recorded as possessing evidence for probable Medieval or Post Medieval agricultural practices in the form of extant ridge and furrow. This was subjected to a programme of topographic survey, recorded in transects using a total station.

2. Location and geology

- 2.1 The base geology of the area comprises of Mercian Mudstone deposits with overlying Pleistocene till. Warren Hill can be highlighted due to the presence of further overlying sand and gravel deposits that are naturally flint bearing.
- 2.2 The site of Warren Hill and the location of Trenches 1 and 2 was centred upon grid reference SK 228 188 (Fig. 2).
- 2.3 The site at Coton Road and location of Trench 3 was centred upon grid reference SK 229 160 (Fig.2).
- 2.4 The site at Rosliston Road and location of the probable Medieval ridge and furrow was centred upon grid reference SK 228 177 (Fig.2).

3. Background

- 3.1 Previous assessment of the entire route of the Edingale, Staffordshire, to Drakelow, Derbyshire gas pipeline included a scheme of archaeological field walking, field reconnaissance and geophysical survey undertaken by Network Archaeology Ltd for Gas Experts Ltd and Murphy Pipelines Ltd on behalf of Eastern Pipelines Ltd (Network Archaeology 1997; GSB Propection 1997a and 1997b). These assessments were able to identify a number of areas of archaeological interest along the course of the pipeline and were followed by a recommendation that the line be re-routed to avoid some of these areas.

- 3.2 Following the recommendations of this stage of archaeological evaluation the line of the pipeline was re-routed and positioned so as to avoid all but one of the identified sites. A further programme of geophysical survey was then implemented over the amended pipeline corridor which identified an additional site of archaeological interest (Stratascan 2007).
- 3.3 The geophysical survey carried out at the site of Warren Hill identified a number of probable ditched enclosures of variable size and shape and of potential prehistoric date. The location of this site represents a rare high point within a gently undulating landscape with a natural vantage position over the River Trent located to the west and north. Surface flint was recorded during previous archaeological assessment of the site but does occur naturally within the localised sands and gravels.
- 3.4 At Coton Road geophysical survey and crop mark evidence indicated the presence of small rectilinear features possibly associated with the presence of one or more brick kilns in the area, as indicated by the name 'Brick Kiln Field' appearing upon the post-medieval Deed of Enclosure.
- 3.5 The location of the trenches in relation to the geophysical survey can be seen in the Written Scheme of Investigation prepared by RSK Environment (2009).
- 3.6 At the site of Rosliston Road a series of parallel earthworks known as ridge and furrow can be observed cutting across the current dividing boundary of two fields adjacent to the road. Such features are generally held to be of Medieval or Post Medieval date and provide evidence of farming practices in the local area.

4. Aims and Objectives

- 4.1 The main aim of the scheme of trial trenching was to locate and explore the nature and extent of the probable archaeological features identified at Warren Hill and Coton Road and to establish the relative chronology of these features if possible. This was carried out in order to better inform subsequent schemes of investigation and groundworks in these areas.
- 4.2 The aim of the survey programme was to attempt to capture and reproduce a topographic record of the existent earthworks at Rosliston Road prior to the initiation of groundworks in the area.

5. Methodology

- 5.1 All three trial trenches were located using a total station and positioned in relation to documented landmarks as represented on current OS maps of the area. Each trench measuring 30m by 2.5m was subsequently marked out using survey pegs driven into the ground at the corner points.
- 5.2 The Trench numbering adopted here is not that of the WSI and lists Trench 1 and 2 at the site of Warren Hill, numbered from south to north respectively, and Trench 3 at the site of Coton Road.

- 5.3 A pre excavation photograph of the area of each trench was taken and a full cat scan initiated prior to commencement of ground work.
- 5.4 Each trial trench was excavated in controlled spits down to the level of the natural, or to the point where archaeological deposits were first encountered, using a hydraulically operated machine fitted with a toothless bucket. This was carried out under the constant supervision of a suitably experienced archaeologist and to the specification detailed in the WSI as agreed by David Barrett the Development Control Archaeologist for Derbyshire County Council.
- 5.5 During excavation material relating to each individual soil stratum was removed and stored separately so that it could be returned as such and in order of excavation during backfilling of the trenches.
- 5.6 Following excavation of the trenches to the prescribed level each trench was hand cleaned and examined for the presence of cut archaeological features within the natural subsoil.
- 5.7 Any features so identified were cleaned and recorded photographically and a plan of the trench produced prior to excavation and sampling of the features.
- 5.8 All recording and excavation of any such features was undertaken using pro forma recording sheets and according to accepted professional standards and guidelines.
- 5.9 A sample section was recorded of each trial trench, even when found to be sterile, and of any excavated features.
- 5.10 Environmental samples, of an appropriate quantity, were retrieved from any feature deemed to be of a genuine archaeological nature and retained for further possible analysis.
- 5.11 The survey of the ridge and furrow earthworks at Rosliston Road was carried out using a total station and orientated using fixed hard points in the landscape as appear on current OS maps of the area.
- 5.12 The survey was carried out by locating eight 30m transects set at right angles across the existent ridge and furrow as directed by the RSK Environment Ltd brief. A single point was then recorded at every 0.25m intervals along each transect line in an attempt to capture the ridge and furrow in profile. Each transect was approximately positioned at an equal distance along the line of the ridge and furrow. The presence of an extant hedgerow relating to the current field system divided the area roughly into two equal parts and in some cases hampered the laying out of individual transect lines and the recording of a very limited number of survey points.

6 Assessment Results

6.1 Trench 1 Warren Hill

- 6.1.1 Trench 1, located at the site of Warren Hill, was positioned running from north to south in an area deemed to exist between the various enclosures indicated in the geophysical survey of the site (Figs 2 and 2a). This was deemed necessary in order to examine a number of low density geophysical anomalies possibly indicative of pit features beyond the confines of the main enclosures.
- 6.1.2 The trench was excavated to an average depth of 0.6m to the natural deposit (102).
- 6.1.3 Above this depth a single homogenous deposit was encountered, context (101), and interpreted as the current topsoil. The first 0.2m of this deposit had been considerably disturbed by recent ploughing and represented the modern plough zone.
- 6.1.4 While the distinction between context (101) and (102) proved to be pronounced in terms of colour, the interface between the two was not distinct but graded, probably due to the movement of sand elements from one to the other as carried by the percolation of water. The effect of exposing deposit (102) to the atmosphere and its subsequent loss of moisture also created a profound change in colour as the deposit lightened in tone.
- 6.1.5 No archaeological deposits or features were encountered within the topsoil.



Figure 3. The east facing section of Trench 1 showing probable linear feature cut [104].

- 6.1.6 A single probable linear feature, cut [104] fill (103), was observed cut into the natural running across the trench from east to west approximately 9.5m south of the northern trench terminus.
- 6.1.7 A single section, approximately 0.75m wide, was excavated across this feature and against the east facing section of the trench. This demonstrated that the cut possessed fairly even and steep sides, with a depth of up to 0.5m, and a relatively flat base sloping slightly down towards the north (Figure 3).
- 6.1.8 In plan the feature appeared to extend across the trench and continue east, although the southern edge of the cut appeared to possess a distinct and sharply defined dog leg, reducing the width of the feature from approximately 1.8m in the west to 0.8m as it exited the trench in the east.
- 6.1.9 No cultural artefacts were recovered from the fill (103) of the feature although a small quantity of charcoal was obtained.
- 6.1.10 A single 10 litre sample was retained from the excavated fill for potential environmental analysis.
- 6.1.11 No other archaeological features were observed elsewhere in Trench 1.

6.2 Trench 2

- 6.2.1 Trench 2, also located at the site of Warren Hill, was situated approximately north west of Trench 1 and was aligned on a south-west to north-east axis (Figs 2 and 2a). It was located with the intention of capturing the very western section of a large probable ditched enclosure apparent from the geophysical survey situated due west of the trench and the proposed route of the pipeline scheme.
- 6.2.2 The trench was excavated to a maximum depth of 0.5m at which point it was deemed to have reached natural deposits, in the form of context (202) identical to deposit (102) in Trench 1.
- 6.2.3 Above this point was a relatively homogenous deposit, context (201), identical to context (101) and similarly identified as modern topsoil.
- 6.2.4 The basic stratigraphy of Trench 2 was therefore identical to that of Trench 1.
- 6.2.5 The interface between deposits (201) and (202) proved difficult to judge due to the same conditions experienced during the excavation of Trench 1.
- 6.2.6 As with Trench 1 no archaeological deposits or features were identified within the topsoil context of (201).
- 6.2.7 Several features, identified as patches of darker material, were located within the underlying natural deposits and interpreted as indicating the presence of probable archaeological cut features at this level.



Figure 4. The south facing section of Trench 2 showing possible linear feature cut [204].

- 6.2.8 The most westerly of these features is represented by cut [204] and fill (203) which constitute the presence of a possible linear ditched feature extending across the trench on a north to south axis approximately 3m east of the western trench terminus.
- 6.2.9 The cut of this feature appears to extend south and north beyond the confines of the trench and is approximately 1.3m wide east to west. In plan this appeared fairly regular in shape but lacked any strong definition to the edges or fill.
- 6.2.10 A single exploratory slot, approximately 0.8m wide, was excavated across the width of the feature and against the south facing section of the trench. It revealed a very uneven surface to the edge and base of the cut which proved to be approximately 0.4m at its deepest point (Figure 4).
- 6.2.11 The uneven nature of the cut edges and base may suggest an entirely natural origin for the feature and indeed no cultural material was recovered from the fill. However, it may be that such an irregular pattern is the result of subsequent interference with a man made cut, perhaps in the form of animal or root activity. Indeed it is at this point in the trench that the eastern limit of the potential ditched enclosure was anticipated and the linear may well relate to the presence of this ditch.
- 6.2.12 Approximately 2m further east of this linear feature a relatively distinct sub-circular feature was identified in the form of cut [206] and fill (205) and believed to represent the remains of a small pit.



Figure 5. The north facing section of feature [206].

- 6.2.13 In plan it appeared as a darker sub-circle within the natural sand and gravels with approximately dimensions of 1.02m (north to south) and 0.8m (east to west).
- 6.2.14 The feature was excavated in half section with the northern half removed. This revealed an irregular profile with a maximum depth of approximately 0.3m (Figure 5).
- 6.2.15 The pronounced irregularity in the profile and excavated shape of this feature would suggest a natural origin, possibly a tree bowl or animal burrow and not as was first thought a pit.
- 6.2.16 No cultural material was recovered from this feature although a quantity of charcoal was retained as a potential dating sample.
- 6.2.17 Across the centre of Trench 2, a relatively wide zone of gravel and darker material was observed and initially thought to be some form of linear feature extending north to south. However, further examination revealed this to be entirely natural and probably formed by the percolation of elements of topsoil into a predominantly gravel based lens within the natural.
- 6.2.18 Between 4m and 7m west of the eastern terminal of Trench 2 a sub-circular feature was observed to extend south from the south facing section of the trench, cut [210] fill (209).

6.2.19 This feature was approximately 3m wide from east to west and extended into the trench for approximately 1.5m. If circular it therefore appeared in plan to be almost perfectly half sectioned by the trench and subsequently the half exposed in plan was fully excavated.



Figure 6. The south facing section of Trench 1 showing feature [210].

6.2.20 This feature was originally thought to represent a possible large pit. However, excavation revealed a relatively shallow yet highly irregular edge to the sides and base, a factor taken to be indicative of a natural origin (Figure 6). This feature has subsequently been identified as a probable tree bowl and produced no cultural material. A small quantity of charcoal was recovered from the fill and retained as a potential dating sample.

6.2.21 The final feature encountered in Trench 2 was represented by cut [208] and fill (207) and extended diagonally across the north east corner of the trench.

6.2.22 This feature has been interpreted as a linear cut feature, however, only the southern return of the cut could be defined extending from the south-eastern corner of the trench in a north-westerly direction and bisecting the south facing section of the trench approximately 3.5m west of the eastern trench terminus. The corresponding edge of the feature is believed to lie outside of the trench and therefore the feature could not be adequately characterised.

6.2.23 The profile captured in the south facing section of the trench does not therefore represent a true reflection of the character of the cut and it may yet prove to represent something other than a linear feature. With this said the

exploratory slot nevertheless revealed a fairly even surface to the south side and base which proved to be approximately 0.3m deep (Figure 7 and 12).



Figure 7. The south facing section of Trench 1 showing feature [208].

6.2.24 The fill of this feature did produce a quantity of ceramic material in the form of 10 plain and relatively un-diagnostic body sherds recovered from near the surface of the fill. While the lack of diagnostic features renders any typological identification of this material difficult it point towards a definite Prehistoric origin, perhaps relating to the Early Neolithic (see Appendix 1).

6.3 Trench 3

6.3.1 Trench 3, situated at the site of Coton Road, was located along a north south axis in a position intended to examine the potential for outlying features related to the near by crop mark believed to represent a brick kiln (Figs 2 and 2C).

6.3.2 The Trench was excavated to between 0.3m to 0.4m at which point a very definite natural deposit was encountered in the form of context (302).

6.3.3 An exploratory sondage was excavated through context (302) to a maximum depth of 0.8m at the northern end of the trench and confirmed the natural origin of this deposit (Figure 8).



Figure 8. The west facing section of Trench 3 with exploratory sondage.

6.3.4 The upper deposit immediately above this layer in Trench 3 comprised of a single homogenous context, (301), which was interpreted as representing the modern topsoil.

6.3.5 Besides the two contexts mentioned above Trench 3 was completely sterile and no archaeological deposits or features were located.

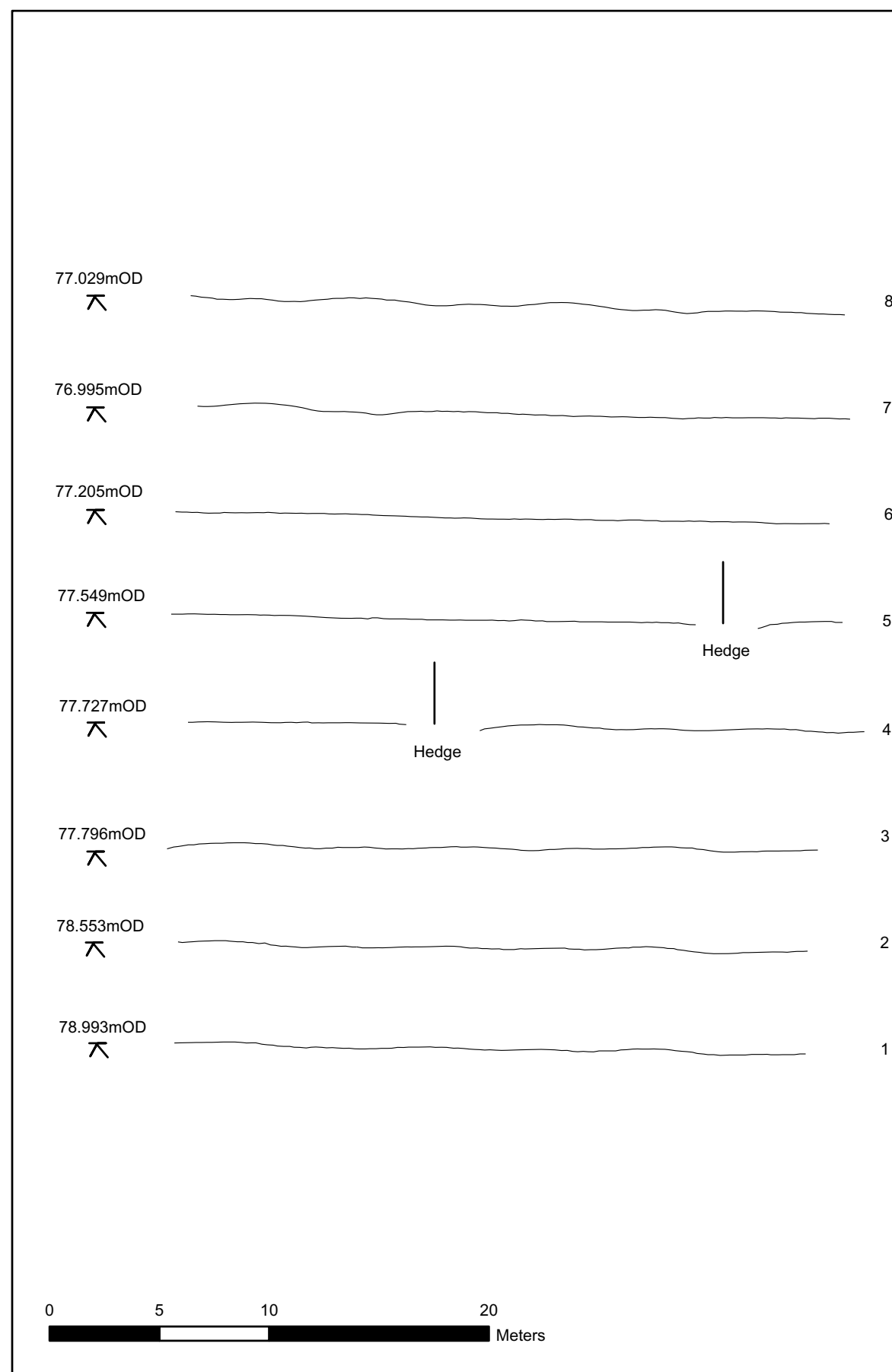
6.4 The topographic survey of the Ridge and Furrow at Rosliston Road

6.4.1 A visual assessment of the ridge and furrow at Rosliston Road was able to identify areas where the earthworks were relatively distinct and other areas where they proved to be far more ephemeral if not wholly imperceptible. This is largely confirmed by the topographic survey of the earthworks along the 8 transects that were set out (Figs 2 and 2B).

6.4.2 As can be seen in Figure 9 the ridge and furrow appear most pronounced in profile along transects 8 and sections of 7 as well as transects 3 and 2 and sections of 1.

6.4.3 Here, the ridge and furrow appear to be approximately 2.5m wide between each ridge and approximately 0.2m deep. On this basis the ridge and furrow would appear to be quite narrow and as such may more readily be identified as of a Post-medieval rather than Medieval origin.

- 6.4.4 Within transect 4 the profile of the ridge and furrow appears less distinct. The gap along this transect relates to the presence of a current hedgerow boundary.
- 6.4.5 Within transects 5 and 6 the presence of ridge and furrow can barely, if at all, be detected.
- 6.4.6 This would seem to agree with the evidence presented by an imposition of the transect lines over a plan generated from extant aerial photographs of the area of ridge and furrow (Figure 9). As can be seen the transects producing greatest evidence for the presence of ridge and furrow in profile correspond to some of the clearest sections in plan, while transect 6 which failed to pick out any significant profile can be seen to reside in an area of relatively low density.



Archaeological Research Services Ltd

Angel House
Portland Square
Bakewell
Derbyshire
DE45 1HB

Site Code: DRA09
Drawing Ref: RepFig
Date: Nov 2009
Drawn: JB
Scale: 1:13000@A3 main
1:5000@A3 inset

Fig. 9 Ridge and Furrow Transect Profiles

— Ridge and Furrow

Illustration by ARS Ltd© ARS Ltd

Ordnance Survey data© Crown copyright, all rights reserved,
reproduced with permission. License No. 100045420

Ridge and Furrow transcribed from Aerial Photograph
RAF/543/1794 F22
© English Heritage National Monuments Record

7. Discussion.

- 7.1 While the previous programme of geophysical survey has been largely successful in the identification of a previously unknown archaeological site at Warren Hill this method of archaeological survey is not infallible.
- 7.2 The presence of a probable linear feature (context 104) cutting across Trench 1 in an east west direction as well as the ceramic bearing feature (context 208) within the north-eastern corner of Trench 2 were not anticipated by the geophysical surveys (Network 1997; Stratascan 2007). This suggests that further features, potentially of a similar Prehistoric date, may remain as yet undetected in the area of Warren Hill.
- 7.3 Several of these features could only be partially characterised within the confines of the trenches, for example, only one edge of the cut to feature [208] was contained within Trench 2 and while it has been interpreted as potentially linear in character exposure of its full extent may reveal a different form.
- 7.4 Trenching at the site of Warren Hill did also identify a possible linear feature in the form of cut [204] and it potentially relates to the western most enclosure anticipated by the programme of geophysical survey (Network 1997; Stratascan 2007). On present evidence, however, the uneven and irregular nature of the feature edge and base may well cast doubt on its man-made origin.

8. Conclusion

- 8.1 The excavation of Trenches 1 and 2 were successful in locating evidence of potential prehistoric activity at the site of Warren Hill as indicated by previous geophysical survey (Network 1997; Stratascan 2007, RSK Environment 2009). However, such features as were located can only be partially linked with those anticipated by this earlier stage of investigation.
- 8.2 A number of the features that were identified suggest the presence of additional archaeology to that identified in the geophysical surveys.
- 8.3 Within the confines of the trenching scheme these features could only be partially defined and further details should become apparent during subsequent archaeological investigation in this area.
- 8.4 The presence of prehistoric pottery (see Appendix 1), potentially of an Early Neolithic date, would support the case for a prehistoric origin for at least some of those features so far identified, although this identification may not necessarily extend to all and the potential for a multi period site remains.
- 8.5 Further archaeological assessment in the area of Warren Hill should therefore greatly aid the clarification of detail relating to the features so far encountered during the current evaluation scheme. This would also serve to capture any, as yet unidentified, archaeological features that may be present.

- 8.6 Trench 3 did not locate any archaeological features and was completely sterile.
- 8.7 The topological survey of the ridge and furrow at Rosliston Road was largely successful in creating a profile of the earthworks, at least along the majority of the surveyed transects. Given the relatively narrow width of the ridge and furrow so identified it is likely that the remains relate rather to Post-Medieval agricultural activity rather than the suspected Medieval period.

9. Publicity, Confidentiality and Copyright

- 9.1 Any publicity will be handled by the client.
- 9.2 Archaeological Research Services Ltd will retain the copyright of all documentary and photographic material under the Copyright, Designs and Patent Act (1988).

10. Statement of Indemnity

- 10.1 All statements and opinions contained within this report arising from the works undertaken are offered in good faith and compiled according to professional standards. No responsibility can be accepted by the author/s of the report for any errors of fact or opinion resulting from data supplied by any third party, or for loss or other consequence arising from decisions or actions made upon the basis of facts or opinions expressed in any such report(s), howsoever such facts and opinions may have been derived.

11. Acknowledgements

- 11.1 Many thanks must be extended to representatives of both E.on UK Ltd as well as RSK Environment Ltd.

12. Bibliography

Network Archaeology Ltd, 1997. *Drakelow Power Station Proposed Gas Pipeline, Archaeological Field Walking, Field Reconnaissance and Geophysical Survey*. Unpublished report commissioned by Gas Experts Ltd and Murphy Pipelines Ltd.

GSB Prospection, 1997a. *Drakelow Power Station 600mm Gas Pipeline, Report on Geophysical Survey*. Unpublished report commissioned by Network Archaeology Ltd.

GSB Prospection, 1997b. *Drakelow Power Station 600mm Gas Pipeline, Supplemental Survey*. Unpublished report commissioned by Network Archaeology Ltd.

Stratascan, 2007. *Geophysical Survey Report, Drakelow to Edingale Pipeline*, Unpublished report commissioned by Wardell Armstrong LLP

RSK Environment Ltd, 2009. *Edingale to Drakelow gas pipeline: Derbyshire and Staffordshire, Written Scheme of Investigation for Archaeological Evaluations (FINAL)*. Unpublished report commissioned by E.ON UK Plc.

13. Appendix 1 Report on the Pottery from Warren Hill, Trench 2. by A. S. Tinsley

13.1 Location.

13.1.1 All of the pottery recovered from the site of the Edingale, Staffordshire, to Drakelow, Derbyshire gas pipeline was recovered from Trench 2 and a single context, deposit (207), the fill of a possible linear feature defined by cut [208]. All sherds were recovered from near the surface of the deposit, in a confined area against the south western edge of the cut within an exploratory sondage cut across the feature.

13.2 Quantity

13.2.1 A total of 10 sherds were recovered in all. The total combined weight of the sherds is exactly 270 grams . Based upon there similar appearance, fabric and recovery from the same deposit where they were found in close proximity to one another, it is fair to assume that they all derive from a single vessel and have moved very little, if at all, since deposition.

13.3 Quality

13.3.1 All the sherds appear relatively fresh with little sign of wear.

13.3.2 They appear to be from a single thick walled vessel, with individual sherds ranging from 1.2cm to 1.5 cm in thickness, and varying in size from between 2.5cm and 10cm across at the widest point. Several sherds can be found to conjoin.

13.3.3 All are plain body sherds with little sign of surface treatment beyond a slight possible burnish applied to the external surface (Figure 10).

13.4 Fabric

13.4.1 All sherds have been executed in a single coarse fabric type.

13.4.2 The external surface has a light reddish brown colour while the internal surface and core are a dark brown to black.

13.4.3 The fabric has been tempered with a small quantity (<3%) of poorly sorted angular calcined flint blocks, ranging from 0.2cm to 1.2cm in size. Individual elements of this temper can be seen to erupt across both the external and internal surface.

13.5 Discussion

13.5.1 Given the identical nature of the sherds in terms of general appearance, thickness and fabric as well as there recovery in close proximity to one another in a single context it is fair to say that they all derive from a single vessel probably deposited where it was broken.



Figure 10. The ceramic sherds recovered from Trench 2 Feature [208] at the site of Warren Hill, Derbyshire (20cm scale).

- 13.5.2 There is little clear indication of the nature of this vessel except that it was relatively thick walled, executed in a coarse fabric and undecorated at least across part of the body surface. The sherds may indicate a cylindrical vessel although could as easily derive from a round bottomed hemispherical form.
- 13.5.3 Given the lack of clear diagnostic features it is difficult to say with any great certainty to what typological and consequently chronological grouping the vessel may be assigned.
- 13.5.4 While the use of flint as a temper may well reflect the expedient use of the naturally occurring flint source as found within the topsoil at Warren Hill, a relatively rare occurrence in areas of Derbyshire, its inclusion as a temper does more readily indicate a prehistoric origin for the vessel. Moreover the coarse nature of the fabric and the irregular but often large size of the temper inclusions taken together with the tendency for such inclusions to be left to erupt across sections of the vessel surfaces are more commonly indicative of an Early to Middle Neolithic range.
- 13.5.5 While flint tempers are known among later prehistoric pottery types there is a greater tendency for such inclusions to be more finely crushed and then evenly distributed throughout the ceramic matrix. Inclusions also tend not to be left protruding from the vessel surface which more often than not has been smoothed or treated in some other manner. Later prehistoric pottery also tends to utilise a different range of vessel tempers, for example grog, although here we can not rule out the expedient use of a local temper source.

13.5.6 The fabric type may be more redolent of the Impressed Ware tradition of the Early to Middle Neolithic yet the lack of decorative treatment would suggest otherwise. It could be that the sherds derive from an undecorated section of an Impressed Ware vessel yet on this basis they could as likely derive from an Early Neolithic carinated form.

13.6 Conclusions

13.6.1 The ceramic material recovered from Trench 2 and feature [208] at Warren Hill along the route of the Edingale, Staffordshire, to Drakelow, Derbyshire, gas pipeline is likely to represent a single vessel of almost certain Prehistoric date and was probably deposited where it was broken.

13.6.2 While no unequivocal diagnostic features could be identified and consequently the typological and chronological affinities of the material remain uncertain, assessment of the fabric type may suggest an Early Neolithic assignation, perhaps with the Carinated Bowl or Impressed Ware Tradition. It must be stressed however that this characterisation is highly speculative and would require the recovery of further and more diagnostic material in order to be corroborated.

14. Appendix 2 Context Register

Context No.	Context Type	Feature No.	Description
101	DEP	101	A medium to dark greyish brown clayey sand with common rounded to sub angular pebbles and occasional flint nodules. Interpreted as the current topsoil layer.
102	DEP	102	A light yellowish or orangey brown silty sand with abundant rounded to sub angular pebbles and gravels. Interpreted as natural sand and gravel deposits.
103	DEP	104	A medium greyish brown to orangey brown silty sand with common rounded to sub angular pebble inclusions. Fill of possible linear feature [104]
104	CUT	104	In plan appears as a linear feature running east west and in profile as a steep sided well defined cut with a flat base sloping from south to north. Cut of probable linear feature
201	DEP	201	Topsoil. Same as (101)
202	DEP	202	Natural sandy gravels. Same as (102)
203	DEP	204	A medium orangey brown silty sand with common rounded to sub angular pebbles. Fill of possible linear feature [204]
204	CUT	204	In plan appears as a linear feature running north to south, in profile has slightly irregular sides and base. Cut of possible linear feature
205	DEP	206	A medium orangey brown silty sand with occasional rounded to sub angular pebbles. Fill of probable tree throw [206]
206	CUT	206	In plan appeared as a sub circular feature and in profile had irregular edges and base. Cut of probable tree throw
207	DEP	208	A medium orangey brown silty sand with common rounded to sub angular pebbles. Fill of probable linear feature [208]. Produced small finds 1 and 2 Prehistoric pottery.
208	CUT	208	Only one side of a cut was defined within the confines of the trench and found to be regular and steep sided. Cut of probable linear feature
209	DEP	210	A medium orangey brown silty sand with common rounded to sub angular pebbles. Fill of probable tree throw [210]
210	DEP	210	In plan appeared as a large sub circular feature half sectioned by Trench 2. Cut of probable tree throw
301	DEP	301	A dark greyish brown silty clay with common rounded to sub angular pebbles. Interpreted as the current topsoil layer.
302	DEP	302	Predominantly a medium reddish brown clay with occasional rounded pebbles and pockets or bands of sandy gravels. Natural clay deposit.

15. Appendix 3 Levels Register

15.1 Reduced Heights for Warren Hill Trenches 1 and 2

Level	Uncorrected	Corrected
Trench 1 section Line	99.287	68.569
Trench 2 section line	98.122	67.404
Small Finf 1 Height	97.81	67.092
Bench Mark Height	81.718	51
Spot Height 1 Trench 1	99.505	68.787
Spot Height 2 Trench 1	99.09	68.372
Spot Height 3 Trench 1	99.359	68.641
Spot Height 4 Trench 1	98.822	68.104
Spot Height 5 Trench 1	99.363	68.645
Spot Height 6 Trench 1	98.716	67.998
Spot Height 7 Trench 1	99.295	68.577
Spot Height 8 Trench 1	98.492	67.774
Spot Height 9 Trench 1	98.768	68.05
Spot Height 10 Trench 1	98.68	67.962
Spot Height 11 Trench 1	98.693	67.975
Spot Height 12 Trench 1	99.094	68.376
Spot Height 13 Trench 2	98.314	67.596
Spot Height 14 Trench 2	97.799	67.081
Spot Height 15 Trench 2	97.591	66.873
Spot Height 16 Trench 2	97.797	67.079
Spot Height 17 Trench 2	97.884	67.166
Spot Height 18 Trench 2	97.46	66.742
Spot Height 19 Trench 2	98.282	67.564
Spot Height 20 Trench 2	98.102	67.384
Spot Height 21 Trench 2	98.112	67.394
Spot Height 22 Trench 2	98.104	67.386
Spot Height 23 Trench 2	98.133	67.415
Spot Height 24 Trench 2	98.159	67.441
Spot Height 25 Trench 2	97.884	67.166
Spot Height 26 Trench 2	98.097	67.379
Spot Height 27 Trench 2	98.228	67.51
Spot Height 28 Trench 2	97.994	67.276
Spot Height 29 Trench 2	98.151	67.433

Spot Height 30 Trench 2	98.688	67.97
Section line Cut [206]	98.207	67.489

15.2 Reduced Heights for Coton Road Trench 3

Level	Uncorrected	Corrected
Spot Height 1 Trench 3	99.403	90.305
Spot Height 2 Trench 3	98.685	89.587
Spot Height 3 Trench 3	99.09	89.992
Spot Height 4 Trench 3	98.962	89.864
Spot Height 5 Trench 3	99.35	90.252
Spot Height 6 Trench 3	98.812	89.714
Spot Height 7 Trench 3	99.153	90.055
Section Line	99.376	90.278
Bench Mark Height	95.098	86

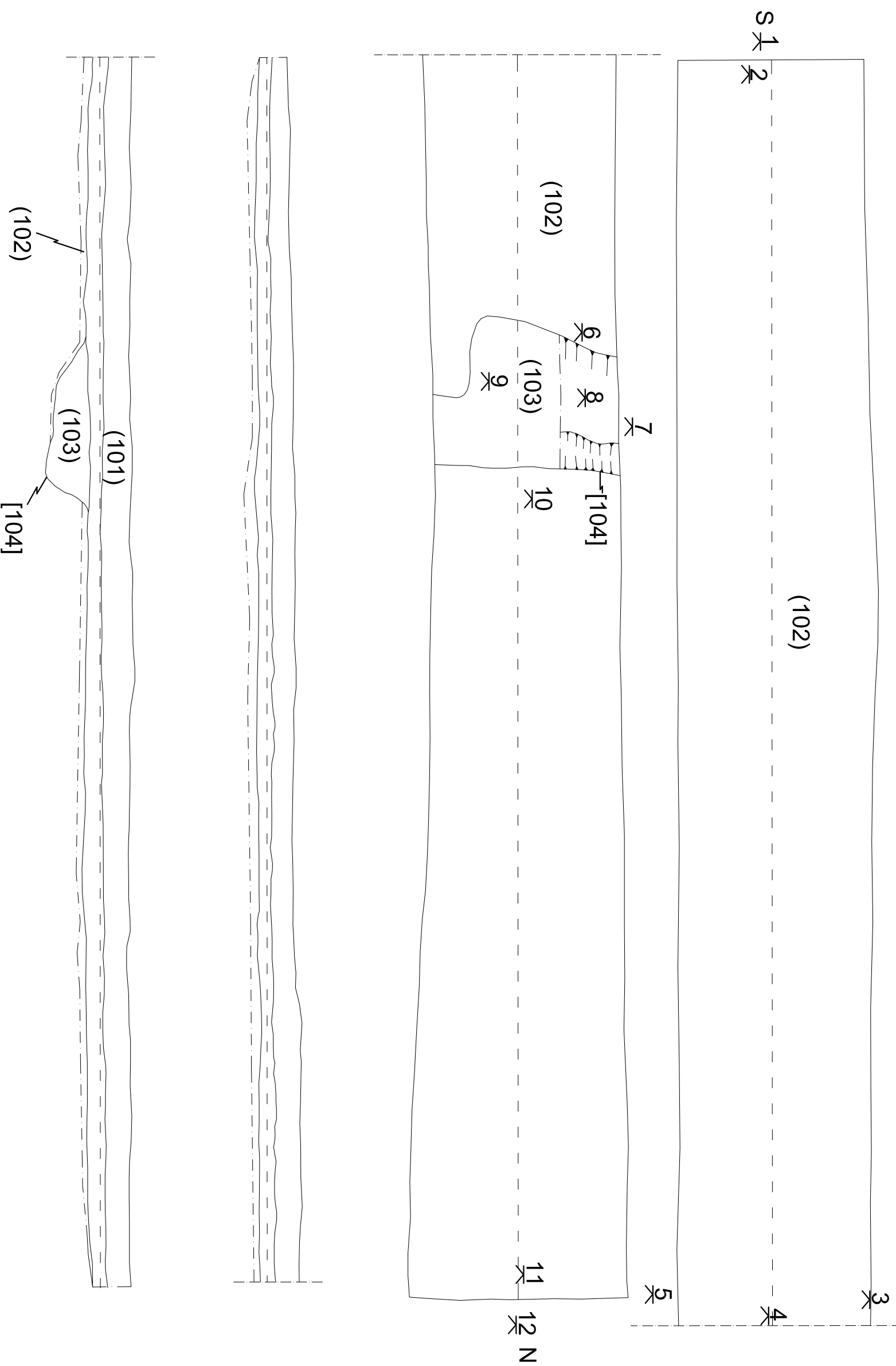


Archaeological Research Services Ltd
Angel House
Portland Square
Bakewell
Derbyshire
DE45 1HB

Site Code: dra09
Drawing Ref:
Date:
Drawn: AT
Scale: 1:50

Figure 11: Plan and east facing section of Trench 1.

Key:



Notes:

Copyright/licencing:

This drawing
© A.R.S. Ltd

Ordnance Survey data if applicable
© Crown Copyright, all rights reserved
reproduced with permission. Licence
No. 100045420

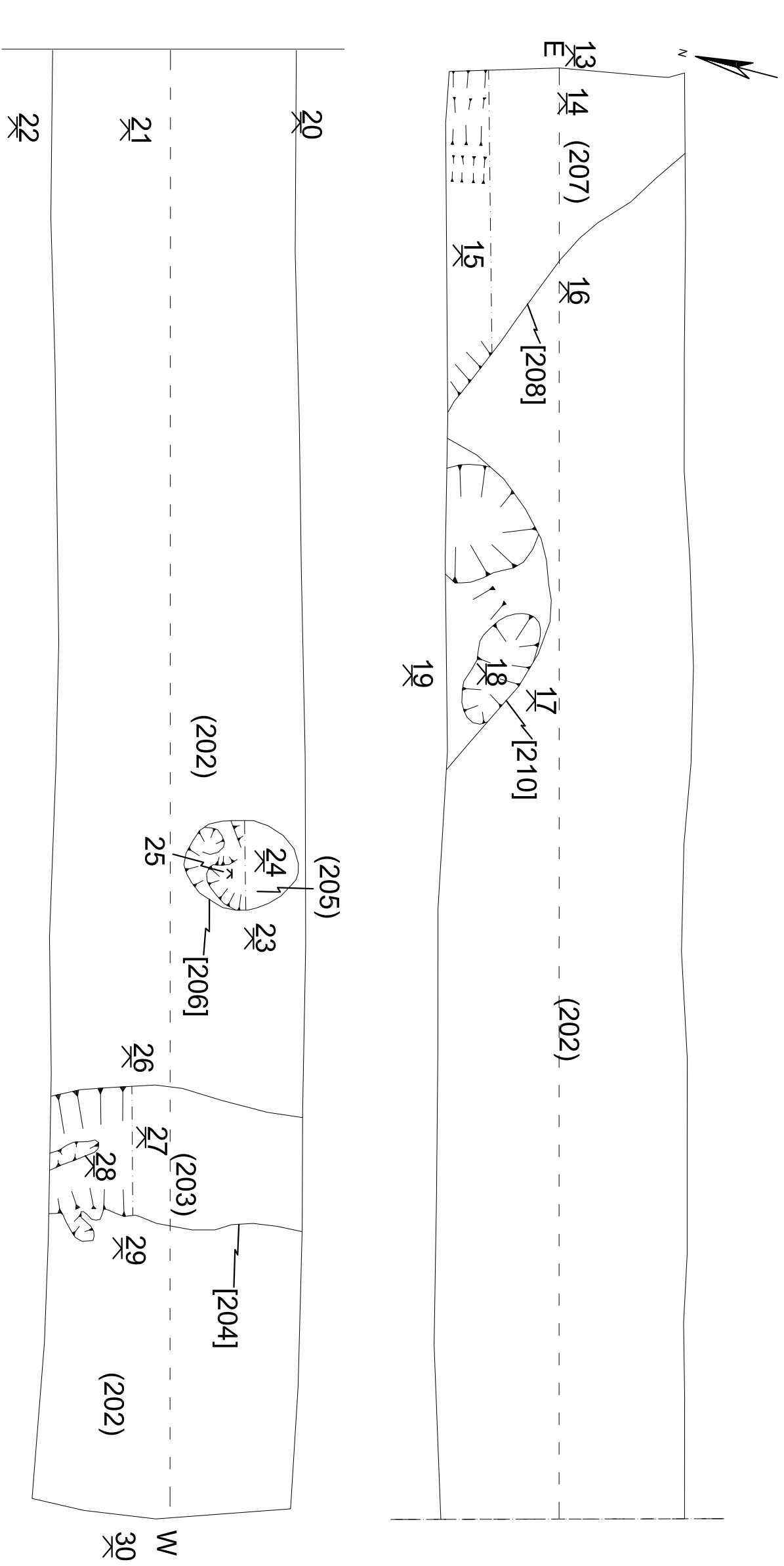
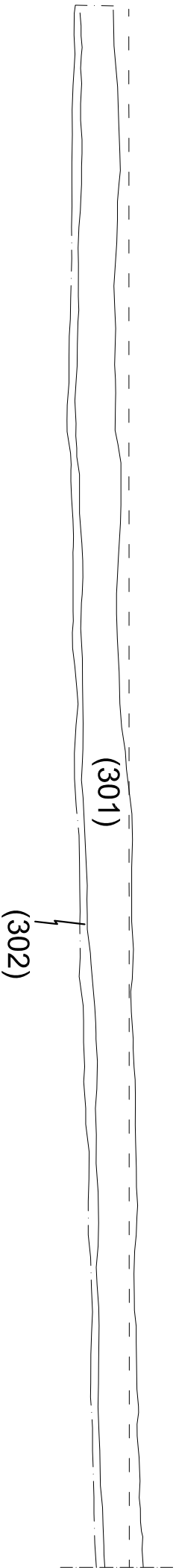
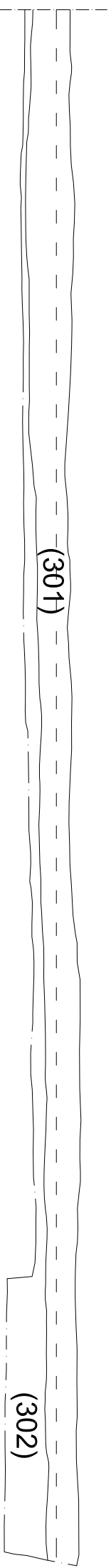
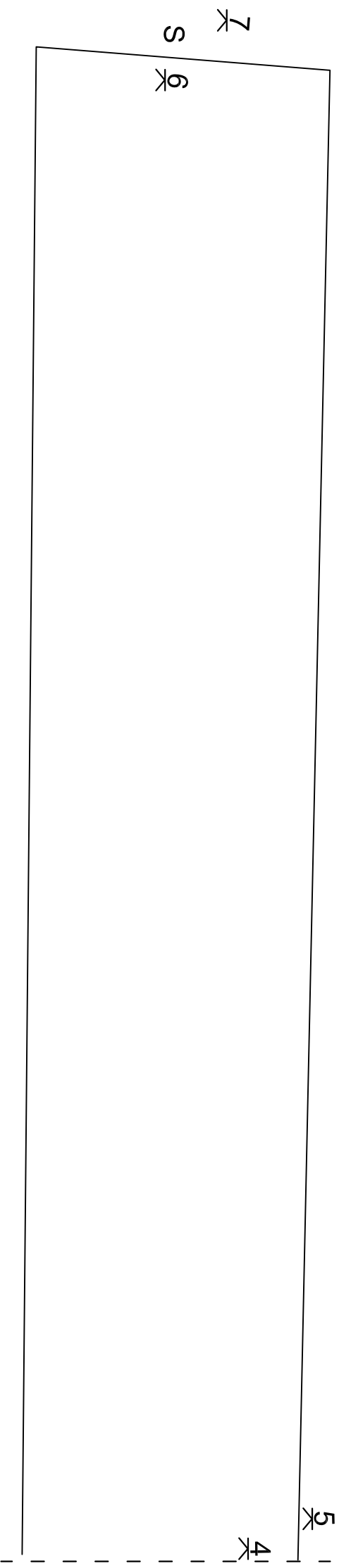
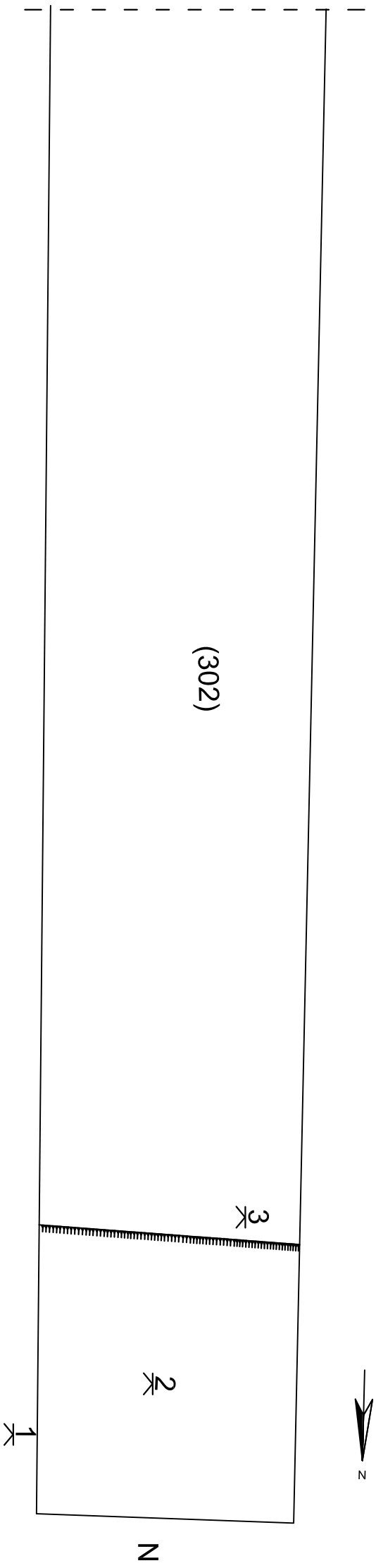


Figure 13 : Plan and west facing section of Trench 1.

Key:



Notes: