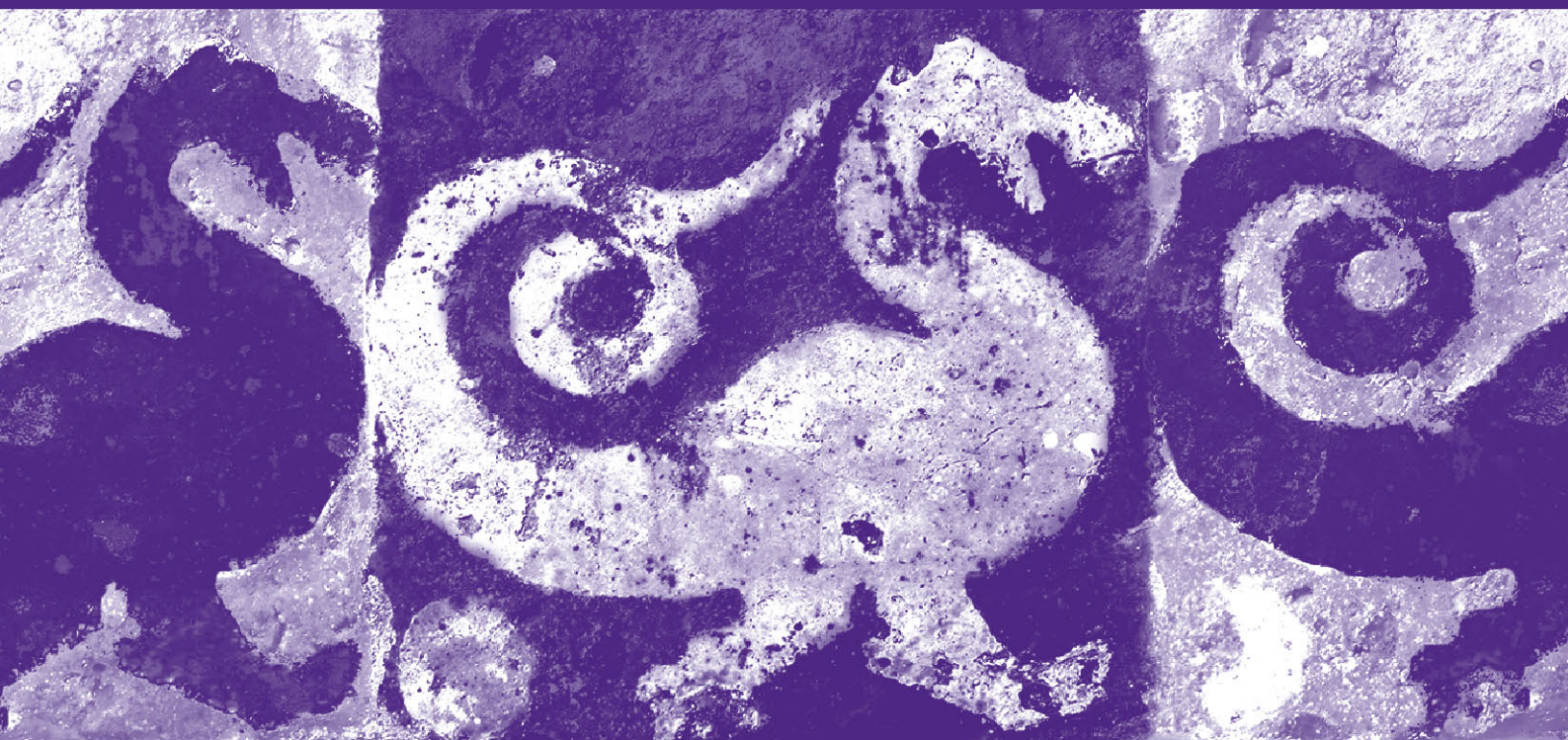


COSMIC+
RISK ASSESSMENT OF
ARCHAEOLOGICAL SITES
NEAR CHARLTON,
WORCESTERSHIRE



COSMIC+
RISK ASSESSMENT OF
ARCHAEOLOGICAL SITES NEAR
CHARLTON, WORCESTERSHIRE

Darren Miller

Illustrations by Richard Bradley

23rd April 2010
Revised 17th May 2010

© Historic Environment and Archaeology Service,
Worcestershire County Council

Historic Environment and Archaeology Service,
Worcestershire County Council,
Woodbury,
University of Worcester,
Henwick Grove,
Worcester WR2 6AJ



INVESTOR IN PEOPLE

Project 3409
Report 1768

Contents

1. Background.....	1
1.1 Sites at risk	1
1.2 Current management	1
1.3 Assessment	1
2. Summary of results	2
2.1 Sites at moderate risk.....	2
2.1.1 Hanging Bank.....	2
2.2 Sites at low and minimal risk	3
2.2.1 Boat House Bank.....	3
2.2.2 South Foxy	4
2.2.3 North Foxy, Sallies, Townsend, Crossing Piece and Rick Yard	4
3. Management options	4
3.1.1 Hanging Bank.....	4
3.1.2 Boat House Bank.....	5
3.1.3 South Foxy	5
4. Acknowledgements.....	5
5. References	6
6. Glossary and notes.....	6

COSMIC+ Risk assessment of archaeological sites near Charlton, Worcestershire

Darren Miller

1. Background

1.1 Sites at risk

This report considers the risk of cultivation and related factors to known archaeological sites in fields near Charlton, owned by John Rodgman and farmed by George Massingham. It is based on a risk assessment model initially developed for English Nature by the Oxford Archaeological Unit (COSMIC: OAU 2006) and further developed by Worcestershire Historic Environment and Archaeology Service for Natural England (COSMIC+: WHEAS 2009b)

The assessment is intended to inform a management plan and an application for Higher Level Stewardship. It covers eight fields in which archaeological sites were already known from cropmarks or other evidence (Figure 1; see appendix for field numbers, site codes, and brief descriptions). All of the sites had been noted in a previous consultation and were considered to be of high risk of erosion (WHEAS 2009a). The main aims of the project were to define the risk, in each case; to identify the factors that cause and prevent erosion; and to recommend appropriate management options.

1.2 Current management

The eight fields are cultivated every year. In most fields, crops of leeks and salad onions are followed by two break crops of cereals (wheat, barley, or maize). The fields are ploughed to depths that range from 17cm (6¾ inches) to 28cm (11 inches). They are not subsoiled and do not require frequent drainage work. Leeks and salad onions are picked by hand; the cereals are harvested with a combine harvester. All these factors are relevant to the assessment, as are intrinsic (topographical) factors and archaeological factors.

1.3 Assessment

The assessment proceeded in six stages broadly following a detailed project design produced for the holding (WHEAS 2009b, 8-19).

The first stage was a review of the recent consultation and the information on which it was based.

The second stage was an interview with Mr Massingham, who provided detailed information on the fields and their management.

The third stage involved a walkover survey and test-pitting. This fieldwork provided consistent data on slopes, soil types, and depths of cultivation.

The fourth stage involved additional fieldwork. In three fields, the evidence of the cropmarks was supplemented by geophysical surveying. In each field, the results were tested by excavating small trenches.

The information was then assessed, using a modified version of the original model. For each site, the likelihood of erosion was established by scoring a range of management and intrinsic factors. The survival, quality, and significance of each site were established by considering

the evidence and current research frameworks. The total scores for each set of factors were weighted to acknowledge particular combinations. Final risk scores were calculated and related to broader risk levels.

Finally, the results were checked and reviewed to identify appropriate management options.

2. **Summary of results**

The results are summarised below. The detailed results are presented in the appendix except for the results of the geophysical survey. Information relating to each field is presented together, for ease of reference. Each field is shown on a large-scale plan. Each plan shows the best available plot of the cropmarks and the location of test pits (exaggerating their size). Where appropriate, the plans also show geophysical survey plots and sample trenches. In addition, for each field there is a sheet summarising the results of the walkover survey and test-pitting; an annotated photograph of a typical test pit; and an assessment sheet, showing how each site was scored. Where sample trenches were excavated, there is also a table and at least one photograph.

The main technical terms used below, and in the appendix, are defined and explained in section 6.

2.1 **Sites at moderate risk**

2.1.1 **Hanging Bank**

Hanging Bank contains several sites, all in the west half of the field. They were first identified from cropmarks and, on this evidence, the area was designated a Scheduled Ancient Monument in 1987 (WT287).

Cropmarks near the southern boundary suggest two rectangular ditched enclosures cut by a circular ditch. The enclosures are adjacent and oriented on the same north-west to south-east axis. The northern enclosure is defined by a single ditch. The southern enclosure is defined by two sets of ditches and clearly extends across the boundary into the adjacent field (Rick Yard). The circular ditch has been interpreted as the quarry ditch of a Bronze Age barrow. The northern enclosure has been interpreted as a Neolithic mortuary enclosure.

The cropmarks in this area were selected for additional fieldwork. Geophysical survey within a standard 30×30m grid identified anomalies that suggested a very different pattern of ditches. A sample trench excavated across one of these anomalies exposed a substantial ditch. It would therefore seem that, in this case, the cropmarks do not accurately represent the buried deposits and cannot bear much interpretation. However, they clearly indicate a site of some kind, and as no Iron Age or Roman pottery was found in the sample trenches (or on the surface) an early prehistoric date remains possible.

Another set of cropmarks straddles the boundary between Hanging Bank and North Foxy. The cropmarks suggest a large rectangular enclosure on an east-west axis, a ditch running south from the east end of the enclosure, and several pits. These cropmarks have been interpreted as part of a late prehistoric or Roman settlement.

In this area, geophysical survey supported the evidence of the cropmarks. Strong anomalies defined the east end of the rectangular enclosure, the ditch to the south, and the pits to the east. The survey also identified other internal and external features. Two sample trenches were excavated across the rounded corner of the rectangular enclosure. The ditches were exposed, but no other features were found, and no artefacts were recovered.

Finally, two cropmarks have been identified between the concentrations described above. They seem to indicate sub-rectangular enclosures and, although not tested further during this survey, are best regarded as further evidence of late prehistoric or Roman settlement.

According to the assessment, all of these sites are at moderate risk and should be protected by changes in management (Table 1).

The risk reflects a combination of factors, but mainly the fact that ploughing only leaves a shallow buffer that could decrease as a result of soil loss. According to the results of the test pitting, the field was last ploughed to an average depth of 28cm (11 inches), leaving an average buffer of 16cm (6½ inches). However, in test pit 211, the buffer was only 12cm deep (4¾ inches). Moreover, in sample trench 44, a ditch was found only 30cm below the surface, implying a buffer of 2cm or less. The risk posed by shallow buffers is compounded by the risk of soil loss from harvesting leeks and salad onions (even by hand) and from wind and water erosion (the field has light soils, and slopes gently to the north). As shown on Table 1, the risk is slightly less when cereals are grown, because no soil is lost during harvesting.

Field number	Field name	Final risk score	Serious	High	Moderate	Low	Minimal
			60+	50-60	40-50	30-40	0-30
		Leeks/salad onions			Cereals		
6482	Hanging Bank	40.5			38		

Table 1: Risk levels in Hanging Bank from leek/salad onion and cereal cultivation.

2.2 Sites at low and minimal risk

The other sites covered in this assessment are at low or minimal risk (Table 2). They are documented in the appendix and do not require further description or discussion. There is also no need to consider how they might be protected by changes in management. However, as sites in Boat House Bank and South Foxy are close to the moderate risk threshold, it is worth describing them and discussing the factors involved, especially given the potential significance of the sites present. For the same reason, possible changes in management will be considered in the following section.

2.2.1 Boat House Bank

Boat House bank contains a site that was first identified from cropmarks. The cropmarks suggest two enclosures (one D-shaped, the other sub-circular) and a discrete and distinct group of pits (some in regular rows). On this evidence, the site was interpreted as an Iron Age settlement, and scheduled in 1987 (WT288).

The site was selected for additional fieldwork. A geophysical survey grid and three sample trenches substantially confirmed the evidence of the cropmarks. No datable artefacts were found in the sample trenches, but the form of a quarter-sectioned pit was consistent with an Iron Age date.

The risk to this site reflects the same combination of factors noted above i.e. a shallow buffer, and the risk of soil loss from harvesting and wind or water erosion. According to the test pit data, the field was last ploughed to an average depth of 24cm (9½ inches), leaving an average buffer of 12cm (4¾ inches). However, in one test pit to the west of the site, the buffer is only 7cm deep (2¾ inches).

Field number	Field name	Final risk score	Serious 60+	High 50-60	Moderate 40-50	Low 30-40	Minimal 0-30
			Leeks/salad onions			Cereals	
9582	Boat House Bank		39			36.5	
2343	South Foxy		39			31	
2772	North Foxy		35.8			27.8	
3095	Sallies		32.3			24.8	
4120	Townsend		32.3			24.8	
5245	Crossing Piece		31			23	
6660	Rick Yard		29.5			22	

Table 2: Sites at low and minimal risk

2.2.2 South Foxy

Cropmarks identified in the east half of South Foxy indicate three ring-ditches and a larger double ring-ditch. These are thought to represent a group of Bronze Age barrows (burial mounds). This interpretation is supported by documentary evidence. In 1863, a highly decorated Bronze Age urn containing cremated bone was found immediately to the north-east, during the construction of the railway line.

Geophysical survey over two adjacent ring-ditches confirmed the presence of one of them and identified a central pit. Another grid covering the double ditched example also confirmed it and identified internal features. Sample trenches excavated within each grid provided further confirmation but no dating evidence.

Once again, the risk to these sites reflects a shallow buffer and the risk of soil loss. According to the test pit data, the field was last ploughed to an average depth of 22cm (8¾ inches), leaving an average buffer of 14cm (5½ inches). However, in some places, the buffer is only 10cm (4 inches) deep.

2.2.3 North Foxy, Sallies, Townsend, Crossing Piece and Rick Yard

The sites in the other fields covered in this assessment are at lower risk. According to the test pit data, the fields are ploughed less deeply than Hanging Bank, Boat House Bank, and South Foxy, and have moderate or deep buffers.

3. Management options

3.1.1 Hanging Bank

The simplest way of protecting the sites in Hanging Bank would be to reduce the depth of ploughing. According to the results of the test pitting and sample trenching, ploughing to a depth of 20cm (8 inches), rather than 28cm (11 inches) would leave a buffer of at least 10cm

(4 inches) across the field. This would be sustainable, especially if additional measures were taken to prevent and compensate for soil loss.

Alternatively, the west half of the field could be taken out of cultivation. The reversion of archaeological features is supported by Higher Level Stewardship through options HD2 or HD7. However, reversion may not be justified in this case, as only parts of the sites that extend into Rick Yard and North Foxy would be preserved.

3.1.2 Boat House Bank

The site in Boat House Bank could also be protected by restricting the depth of ploughing to 20cm (8 inches). This would leave a sustainable buffer of at least 10cm (4 inches) across the site. Additional measures could also be taken to prevent and compensate for soil loss. In particular, soil washed from leeks and salad onions could be collected and specifically spread across the area of the site to ensure maintenance of the buffer.

3.1.3 South Foxy

The same measures recommended for the site in Boat House Bank could also be applied to the sites in South Foxy although the current buffer of 10-16cm (4-6¼ inches) affords a reasonable level of protection. Alternatively, given the archaeological significance of the sites and the fact that the buffer is only 10cm in some places, a more sustainable and safer option might be to take the east part of the field out of cultivation. Here, although the final risk score does not require reversion (any more than a reduction in ploughing depth), there are better grounds for considering this option than in Hanging Bank. In particular, the sites confirmed by the fieldwork are of considerable significance as a group and could be protected in their entirety without greatly reducing the size of the field.

Field number	Field name	Main risk factors	Management options	Risk after mitigation
6482	Hanging Bank	Shallow buffer; gentle slope; light, loamy soils; soil loss during harvesting; significant deposits	Reduce depth of ploughing to 20cm (eight inches)	Low
			Reversion of west half of field (HD2 or HD7)	No risk
9582	Boat House Bank	Shallow buffer; gentle slope; light, loamy soils; soil loss during harvesting; significant deposits	Reduce depth of ploughing to 20cm (eight inches)	Low
2343	South Foxy	Light sandy soils; soil loss during harvesting; highly significant deposits	Reversion of east side of field to protect group of barrows	No risk

Table 3: Summary of risk factors and management options for sites at highest risk

4. Acknowledgements

Whitehouse Farm: John Rodgman commissioned the project with the support of Natural England. George Massingham provided information at interview and throughout the fieldwork.

Natural England: The project was initiated and overseen by Jez Bretherton and Helen Trapp.

English Heritage: the sample trenching in Boat House Bank was monitored by the West Midlands Regional Inspector, Tony Fleming.

Stratascan: The survey team was managed and led by Simon Stowe. It included Allen Wright, Mel Biggs, Peter Barker, and Amanda Dawson.

WHEAS: The project was managed by Robin Jackson and led by Darren Miller. Information on fields and current management was recorded digitally by Ruth Humphreys. The fieldwork team comprised Darren Miller, Supervisor Adam Lee and Archaeologists Richard Bradley, Tegan Cole, Tim Cornah, Chris Gibbs, Christine Elgy and Mike Nicholson. The sample trenches were excavated for WHEAS by Arthur Redman. Most of the post-fieldwork analysis was undertaken by Darren Miller, Adam Lee, and Richard Bradley. The illustrations were produced by Richard Bradley.

5. References

OAU, 2006 *Conservation of Scheduled Monuments in Cultivation (COSMIC) for English Heritage and Defra*, Oxford Archaeological Unit, unpublished document dated June 2006

WHEAS, 2009a *Historic Environment Record Consultation for land in Charlton, Crothorne, Powick, and Hanley Castle*, Worcestershire Historic Environment and Archaeology Service unpublished document, dated 15th May 2009

WHEAS, 2009b *Project Design. Erosion and Archaeology Risk Assessment for use in support of Higher Level Stewardship Applications (Cosmic+): Kemerton Estate, Worcestershire*, Worcestershire Historic Environment and Archaeology Service, unpublished document dated 11th November 2009

6. Glossary and notes

Buffer: Soil between *current cultivation* and known or inferred archaeological deposits. The buffers identified in this assessment are limited to *former cultivation*, but in other contexts, buffers can include alluvium, colluvium, or made ground. In the COSMIC+ model, buffers are defined as shallow (less than 10cm), moderate (10-15cm), deep (15-25cm) or very deep (more than 25cm). The field summary sheets identify the minimum buffer in each field but also indicate both the range of values and the average (i.e. mean) value. Naturally, the depth of a buffer will vary according to the depth of cultivation (e.g. a buffer may be 20cm after ploughing for cereals but only 10cm after deeper ploughing for salad onions or potatoes). Buffers can also decrease as a result of soil loss through wind erosion, water erosion, and harvesting.

Current cultivation: Soil inverted or reworked by the last cultivation. It can be identified in the field and distinguished from *former cultivation* on the basis of colour, texture, and compaction.

Former cultivation: Soil beneath *current cultivation*, evidently inverted or reworked, but not by the last cultivation.

Subsoil: Archaeological term for soil above natural, formed by a combination of weathering and leaching. A lack of subsoil between *former cultivation* and *natural* indicates deep ploughing at some time in the past and constitutes evidence of *erosion*.

Natural: Archaeological term for parent material. On Whitehouse Farm the parent material is fluvioglacial sand and gravel.

Slope, soil groups, and water erosion: For each field, the model use slope categories and soil groups along with a figure for average annual rainfall to assess the risk of soil loss through water erosion. Slopes are categorised as steep (more than 7°), moderate (3-7°), or gentle (2-3°) and there is a separate category for level ground (less than 2°). In this connection, similar soils are classified as light (sand, loamy sand, sandy loam, sandy silt loam, silt loam); moderate (sandy clay loam, clay loam, silty clay loam, and silty clay); or heavy (silty clay and clay).

Soil types and wind erosion: In assessing the risk of soil loss through wind erosion, the model identifies five different soil groups, namely peats, silts/sands (sand, loamy sand, silty loam), loams (sandy loam, sandy silt loam, sand clay loam, clay loam, silty clay loam), sandy clay/silty clay and clay.

Archaeological deposits: material remains and traces of past human activity, often associated with artefacts and plant or animal remains. The term covers both positive features, such as walls and banks, and negative features, such as ditches and pits.

Erosion, loss of information and significance: When used of archaeological deposits, the term erosion signifies truncation or reworking as a result of cultivation (mainly ploughing and other kinds of tillage, but also subsoiling and drainage work). The erosion of deposits constitutes a loss of information. The extent of the loss is proportionate to the significance of the deposits. In the model, significance is assessed in terms of the survival and character of deposits and their relevance to current research agendas. However, this assessment does not negate the wider significance that some sites might have if they were known to exist (e.g. as personal or communal points of reference to a distant past).

Figure 1: Distribution of sites

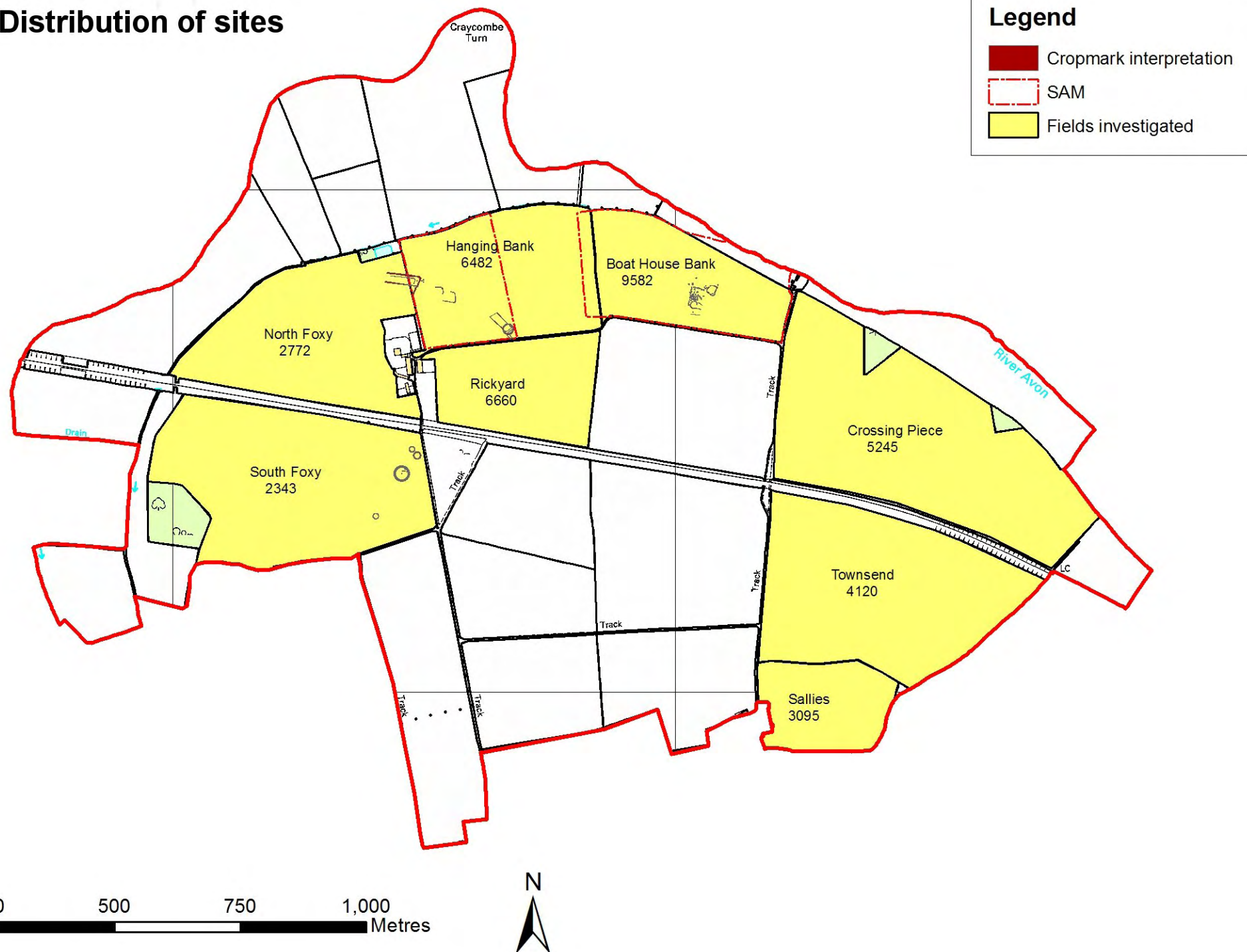
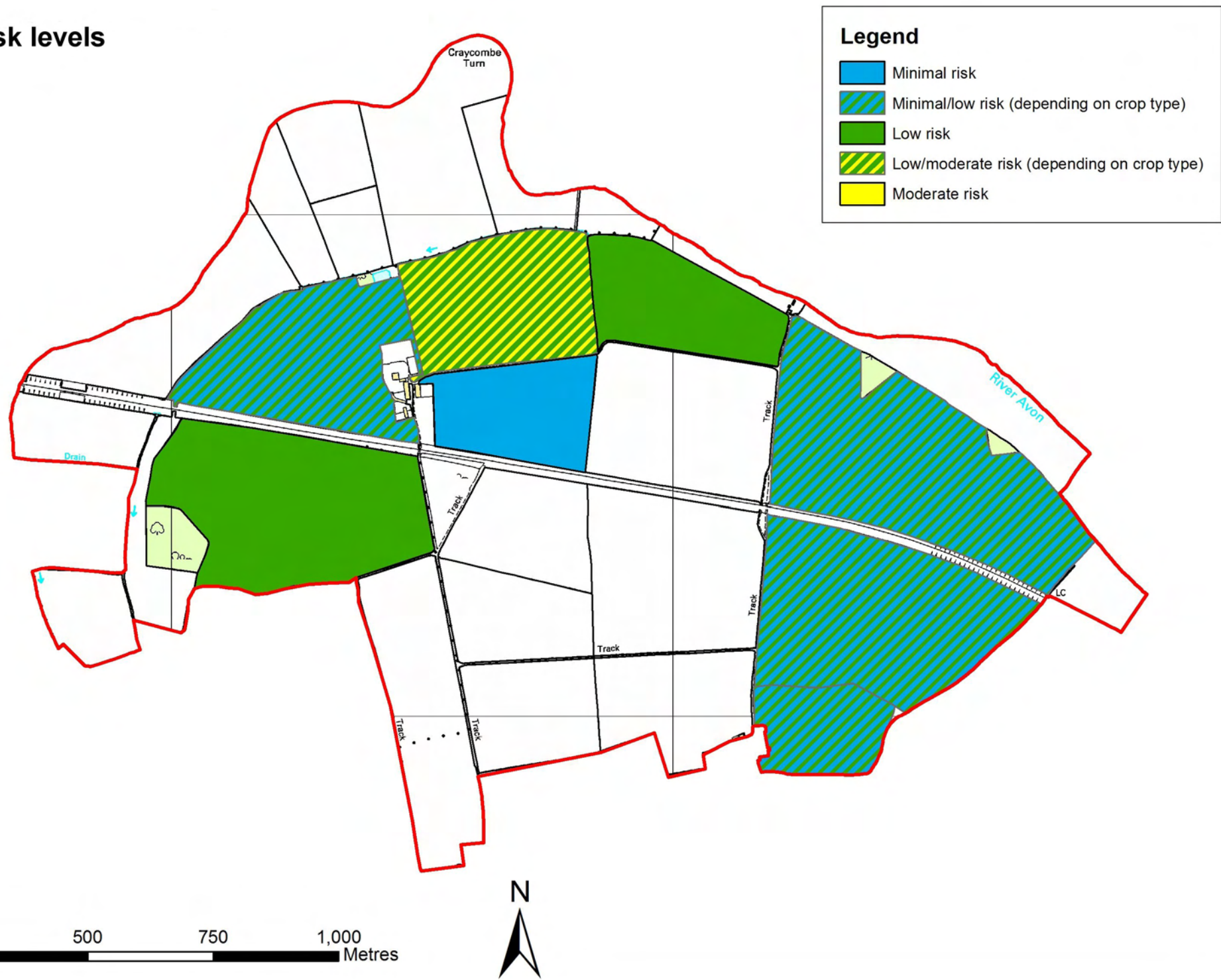


Figure 2: Risk levels



Appendix

Summary of archaeological sites 1

Data on individual sites and fields..... 2-66

2343 South Foxy..... 2

2772 North Foxy 13

3095 Sallies 19

4120 Townsend 25

5245 Crossing Piece 31

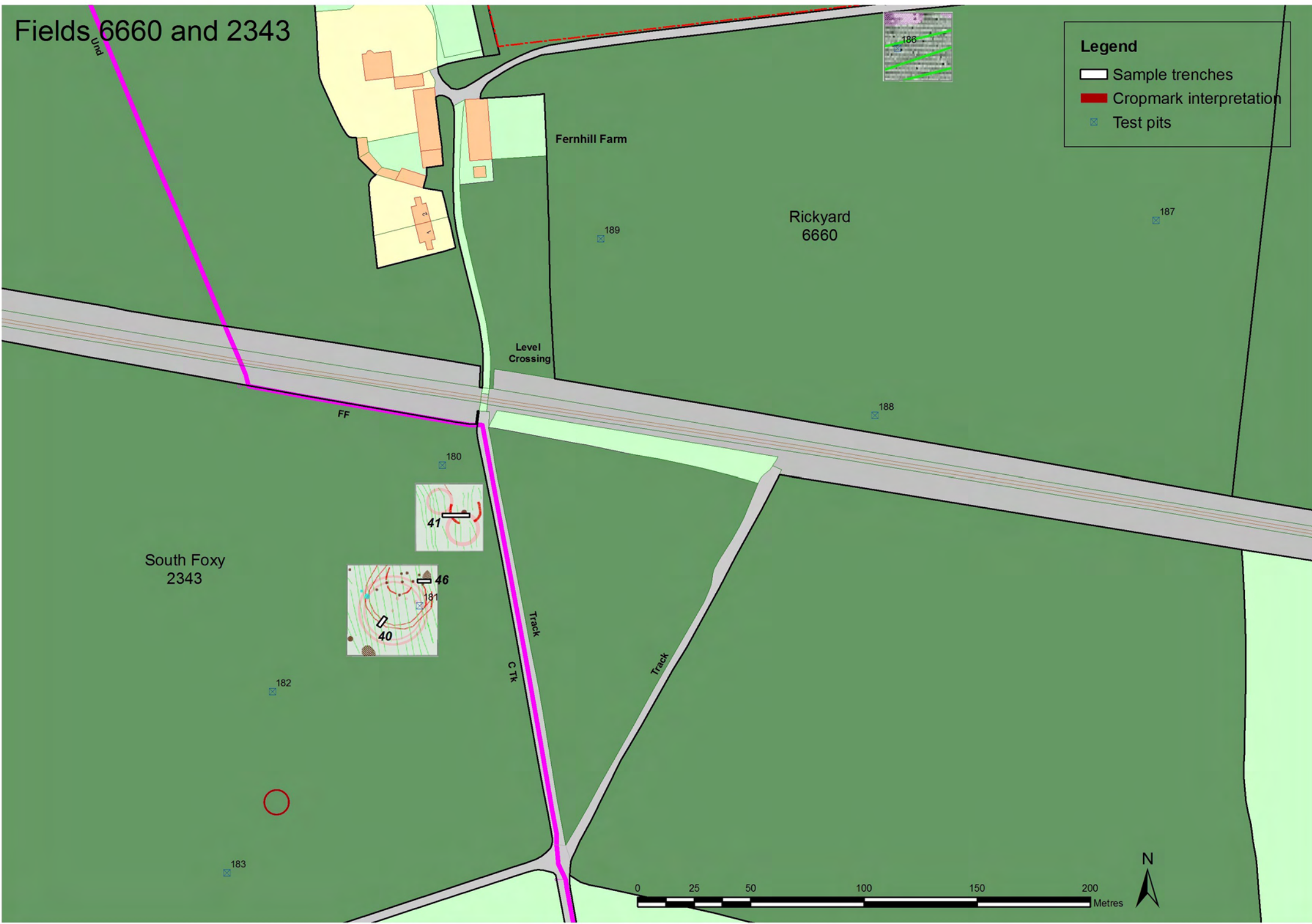
6482 Hanging Bank..... 37

6660 Rickyard..... 48

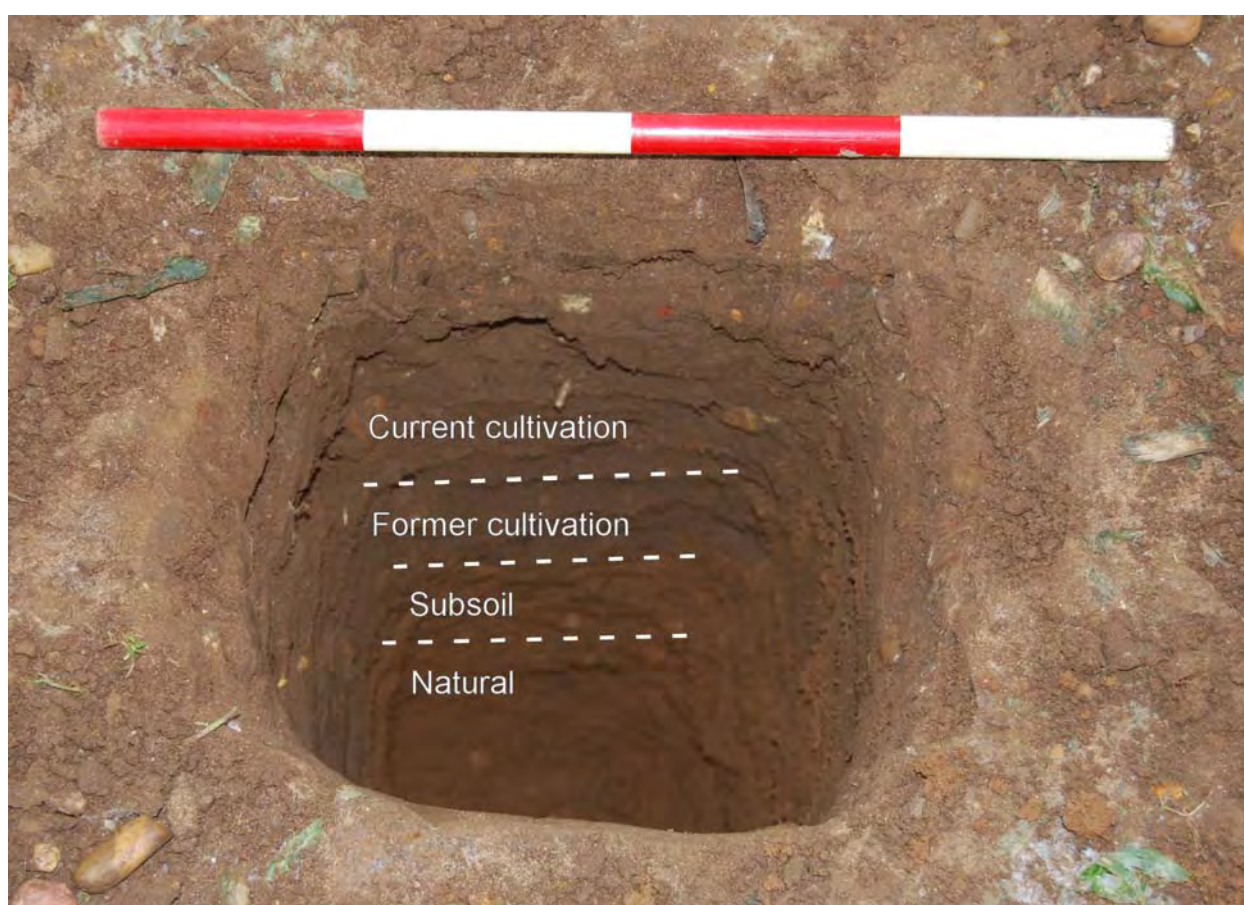
9582 Boat House Bank..... 54

Field number	Field name	HER number	Grid reference	Monument type	Documentation before fieldwork	Results of fieldwork
2343	South Foxy	WSM24008	SP00451 46420	Ring ditch	HER photographs show cropmarks indicating a double ring ditch with an inner ring and both central and surrounding pits.	Geophysical survey grid 41 identified anomalies corresponding to the cropmarks. The ditches of the double ring ditch were exposed and augered in sample trenches 40 and 46.
		WSM24007	SP00397 46347	Ring ditch	HER photographs show cropmarks indicating a ring ditch with a central pit.	n/a
		WSM24011	SO00487 46452	Enclosure	HER photographs (not transcribed) show cropmarks indicating a small rectangular enclosure, possibly Neolithic.	n/a
		WSM24010	SP00474 46484	Ring ditch	HER photographs show cropmarks indicating a ring ditch.	Both cropmarks were targeted in geophysical survey grid 40.
		WSM24009	SP00492 46472	Ring ditch	HER photographs show cropmarks indicating a ring ditch	Anomalies were found confirming the southern ring ditch (WSM
2772	North Foxy	WSM02753	SP00466 46824	Enclosures Pits	See 6482 Hanging Bank	
3095	Sallies	WSM24004	SP01225 46146	Enclosure	HER photographs (not transcribed) indicates a rectilinear enclosure, possibly a Roman marching camp.	n/a
4120	Townsend	WSM24004	SP01225 46146	Enclosure		
5245	Crossing Piece	WSM10119	SP01221 46738	Settlement	NMR photographs (not transcribed) show cropmarks indicating a prehistoric or Roman settlement.	n/a
6482	Hanging Bank	WSM02751	SP00620 46698	Enclosures Ring ditch	NMR and HER photographs show cropmarks indicating two adjacent rectangular enclosures cut by a ring ditch. One of the enclosures has been interpreted as a possible Neolithic mortuary enclosure. The ring ditch has been interpreted as the quarry ditch of a Bronze Age Barrow. The west part of Hanging Bank, including these sites, is a Scheduled Ancient Monument (WT287).	Geophysical survey grid 38 identified anomalies that suggested a different pattern of ditches. Sample trench 44 exposed two of these ditches. It therefore seems that, in this case, the cropmarks do not represent buried deposits and cannot bear much interpretation.
		WSM02752	SP00578 46817	Enclosures	NMR and HER photographs show cropmarks indicating parts of two rectilinear enclosures. The west part of Hanging Bank, including these sites, is a Scheduled Ancient Monument (WT287).	n/a
		WSM02753	SP00466 46824	Enclosures Pit cluster	NMR and HER photographs show cropmarks s straddling the boundary between Hanging Bank and North Foxy. The cropmarks indicate a rectangular enclosure on an east-west axis; an inner ditch on the same axis, a ditch running south from the east end of the enclosure, one pit inside the enclosure, and several pits to the east.	Geophysical survey grid 37 defined the east end of the rectangular enclosure, the ditch to the south, and several internal and external features. Sample trenches 42 and 43 were excavated across the rounded corner of the rectangular enclosure. The ditches were exposed and augered but no other features were found and no artefacts were recovered.
6660	Rick Yard	WSM02847	SP00495 46662	Enclosures	HER photographs (not transcribed) show cropmarks indicating enclosures.	n/a
		WSM02751	SP00680 46690	Enclosure	NMR and HER photographs show several enclosures in Hanging Bank, one of which - a rectangular double-ditched enclosure - appears to continue into Rick Yard.	Geophysical survey grid 42 targeted the rectangular double-ditched enclosure. No anomalies corresponding to the cropmarks were identified.
9582	Boat House Bank	WSM02754	SP01041 46793	Enclosures Pit cluster	NMR photographs show cropmarks indicating two or three enclosures and a cluster of over 70 pits. One enclosure is D-shaped. The other is more irregular and may represent a circular enclosure extended to the east. Rows of pits appear to define the western and northern extent of the pits. The site is a Scheduled Ancient Monument (WT288).	Geophysical survey grid 39 identified anomalies corresponding to the cropmarks. Pits and ditches were exposed in sample trenches 37-39. A ditch in trench 38 and a pit in trench 39 were sampled by hand-excavation but no datable artefacts were recovered.

Fields 6660 and 2343



Field 2343: South Foxy							
Test pits	180	181	182	183	Range		Average
					min	max	
Current cultivation	0.17	0.20	0.40	0.30	0.17	0.30	0.22
Former cultivation	0.16	0.15	Unclear	0.10	0.10	0.16	0.14
Subsoil	0.16	0.08	0.16	None	0.00	0.16	0.10
Natural	Unex	Unex	>0.04	>0.08			
Minimum buffer: 0.10							
Notes							
1) No clear differentiation between current and former cultivation layers in test pit 182; the figure for current cultivation is not included in the average.							
Slope: Level ground							
Soil group in relation to water erosion: Light							
Soil group in relation to wind erosion: Silts/sands							



Test pit 181 (scale 0.40m)

COSMIC Assessment Sheet – Land Parcel

2343

Field Name

South Foxy

Management factors							
	Serious risk Score 5	High risk Score 4	Medium risk Score 3	Low risk Score 2	Minimum risk Score 1	Score*	
						Root/tuber crops	Combin- able crops
Buffer	No buffer	Shallow buffer(< 10cm)	Moderate buffer (10-15cm)	Deep buffer (16-25cm)	Very deep buffer (> 25cm)	A.....3 B..... C.....	A.....3 B..... C.....
Cultivation method and depth	Very deep ploughing (>30cm)	Deep ploughing (26-30cm)	Normal ploughing 20-25cm)	Minimum tillage Shallow ploughing (10-19cm)	Direct drilling (<10cm)	A.....3 B..... C.....	A.....3 B..... C.....
Cropping	Cropping includes potatoes/sugar beet	Cropping includes other root/tuber crops	Cropping includes cereals, non-root crops		Cropping includes long term grass ley or set-aside(> 5 years)	A.....4 B..... C.....	A.....3 B..... C.....
Subsoiling	Regular subsoiling (< 3 years)	Regular or occasional subsoiling (3-6 years)	Rare subsoiling (7-15 years)	No subsoiling		A.....2 B..... C.....	
Initial score						12	11
Weighting	Any at serious risk = 2.5 Any at high risk = 1.5 Any at minimum risk = 0.5					1.5	1
Initial score multiplied by weighting						A ...18 B C	A11 B C

*Graded A-C according to quality of evidence

*Graded A-C according to quality of evidence

Site intrinsic factors								
Susceptibility of cultivated soil to water erosion								
Average annual rainfall = 600mm								
	Steep slopes (> 7°)		Moderate slopes (3°-7°)		Gentle slopes (2°-3°)		Level ground (< 2°)	Score*
Soil group	Rainfall more than 800mm	Rainfall less than 800mm	Rainfall more than 800mm	Rainfall less than 800mm	Rainfall more than 800mm	Rainfall less than 800mm		
Light soils	Serious Score 5	High Score 4	High Score 4	Medium Score 3	Medium Score 3	Low Score 2	Minimal Score 1	A.....1 B..... C.....
Moderate soils	High Score 4	Medium Score 3	Medium Score 3		Low Score 2		Minimal Score 1	
Heavy soils	Low Score 2		Minimal Score 1		Minimal Score 1		Minimal Score 1	
Susceptibility of cultivated soil to wind erosion								
Main soil group	Peats		Sands/Silts	Loams	Sandy clays/silty clay	Clay	Score*	
	Serious Score 5		High Score 4	Medium Score 3	Low Score 2	Minimal Score 1	A.....4 B..... C.....	
Risk of soil loss during harvesting								
Crop type	Potatoes/sugar beet	Other root/tuber crops	Combinable crops	Score*				
				Root/tuber crops	Combinable crops			
	Serious Score 5	High Score 4	Medium Score 3	A.....4 B..... C.....	A.....3 B..... C.....			
Initial score				9	8			
Weighting				Any of above in grey shaded box = 2	1	1		
Initial score multiplied by weighting				A9 B..... C.....	A8 B..... C.....			

Archaeological factors						
Survival and quality of evidence	Serious Score 5	High Score 4	Medium Score 3	Low Score 2	Minimum Score 1	Score*
[Other evidence: e.g. -Documentary (HER records, fieldwork reports) -Oral (information from farmers etc) -Material (artefacts in museums or private collections)]	- Upstanding earthworks/structures -Well-preserved deposits demonstrated by excavation -Other evidence indicating well-preserved deposits - Dense, discrete, and/or diagnostic deposits relevant to national research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Other evidence of nationally significant deposits	-Positive and negative features demonstrated by excavation - Positive and negative features indicated by cropmarks/anomalies -Other evidence indicating good preservation -Dense, discrete, and/or diagnostic deposits relevant to regional research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Less dense, discrete, or diagnostic deposits relevant to national research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Other evidence of highly significant deposits	-Negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits - Dense, discrete, or, diagnostic deposits relevant to county research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Less dense, discrete, or diagnostic deposits relevant to regional research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) - Dense, discrete, or diagnostic ploughsoil scatters - Other evidence of significant deposits	-Truncated negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits -Other evidence indicating truncation -Sparse or undiagnostic deposits relevant to local research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) - Diffuse or undiagnostic ploughsoil scatters -Other evidence distinguishing between sites of low and minimum significance	- Heavily truncated negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits -Other evidence indicating heavy truncation -Sparse or undiagnostic deposits demonstrated by excavation or indicated by cropmarks/anomalies - Diffuse or undiagnostic ploughsoil scatters	A..... B4 C.....
Significance	National significance	Regional significance	County significance	Local significance	No obvious significance	A..... B4 C.....
Initial score						8
Weighting	For score of 9-10 use weighting factor = 2; for score of 8-7 use weighting factor = 1.5; for score of 6 use weighting factor = 1.3; for score of 5-4 use weighting factor = 1; for score of 2-3 use weighting factor = 0.5					1.5
Initial score multiplied by weighting						A ... B ...12 C ...

*Graded A-C according to quality of evidence

Final risk score

	Root/tuber crops	Combinable crops
Management factors (out of 50)	18	11
Site intrinsic factors (out of 30)	9	8
Archaeological factors (out of 20)	12	12
Final risk score (out of 100)	39	31

Risk levels

Final risk score	Risk level
0-29	Minimal risk
30-39	Low risk
40-49	Moderate risk
50-59	High risk
60+	Serious risk

South Foxy (2343)

Trench 40

Maximum dimensions: Length: 5.20m

Width: 1.55m

Depth: 0.50m

Orientation: NE-SW

Context	Classification	Description	Depth below ground surface
4000	Ploughsoil	Loosely compacted mid greyish brown silty sand with common small gravels.	0-0.11m
4001	Ploughsoil	As 4000 but more compact.	0.11-0.36m
4002	Subsoil	Moderately compact mid reddish brown silty sand. Several ploughscars noted near boundary with 4003.	0.36-0.50m
4003	Natural	Moderately compact mid reddish brown sand with varying proportions of small gravels.	0.50m+
4004	Fill of 4005	Moderately compact mid reddish brown sand with <15% mid greyish brown silty sand. Unexcavated.	0.32m+
4005	Ditch	Linear, parallel-sided feature between 0.75 and 1.10m wide, aligned nearly E-W.	0.32m+
4006	Fill of 4007	As 4004. Unexcavated.	0.32m+
4007	Ditch	Linear, parallel-sided feature c0.80m wide, aligned nearly E-W, parallel to 4005.	0.32m+

Trench 41

Maximum dimensions: Length: 12.20m

Width: 1.55m

Depth: 0.50m

Orientation: E-W

Context	Classification	Description	Depth below ground surface
4100	Ploughsoil	Moderately compact mid brown sandy silt with common small to medium gravels.	0-0.35m
4101	Fill of 4102	Moderately compact mid brown silty sand with abundant small to medium small gravels.	0.35-1.12m (augered)
4102	Ditch	Linear, parallel-sided feature c2.0m wide and 0.77m deep.	0.35-1.12m (augered)
4103	Natural	Loosely compacted mid reddish brown sand with few gravels	0.35m+

Trench 46

Maximum dimensions: Length: 6.00m

Width: 1.55m

Depth: 0.74m

Orientation: E-W

Context	Classification	Description	Depth below ground surface
4600	Ploughsoil	Moderately compact mid greyish brown sandy silt with few small to medium gravels.	0-0.32m
4601	Subsoil	Loosely compacted mid brown silty sand with common small to medium gravels.	0.32-0.44m
4602	Natural	Loosely compacted mid brown silty sand with few small gravels.	0.44m+
4603	Ditch	Linear, parallel-sided feature c0.90m wide and 0.16m deep. Aligned NW-SE. Gradual break of slope at top, concave sides, and gradual break of slope to gently rounded base.	0.44-0.60m
4604	Fill of 4603	Moderately compact mid brown silty sand with few small gravels. Sealed by 4601.	0.44-0.60m
4605	Ditch	Linear, parallel-sided feature c0.90m wide. Aligned NW-SE, parallel to 4603.	0.44m+
4606	Fill of 4605	As 4604. Unexcavated.	0.44m+
4607	Pit	Partially exposed sub-circular pit with diameter of c1.10m.	0.44m+
4608	Fill of 4607	As 4604. Unexcavated.	0.44m+



Trench 40 facing west across ditches 4005 and 4007 (1m scales)



Trench 41 facing east across ditch 4102 (1m scales)

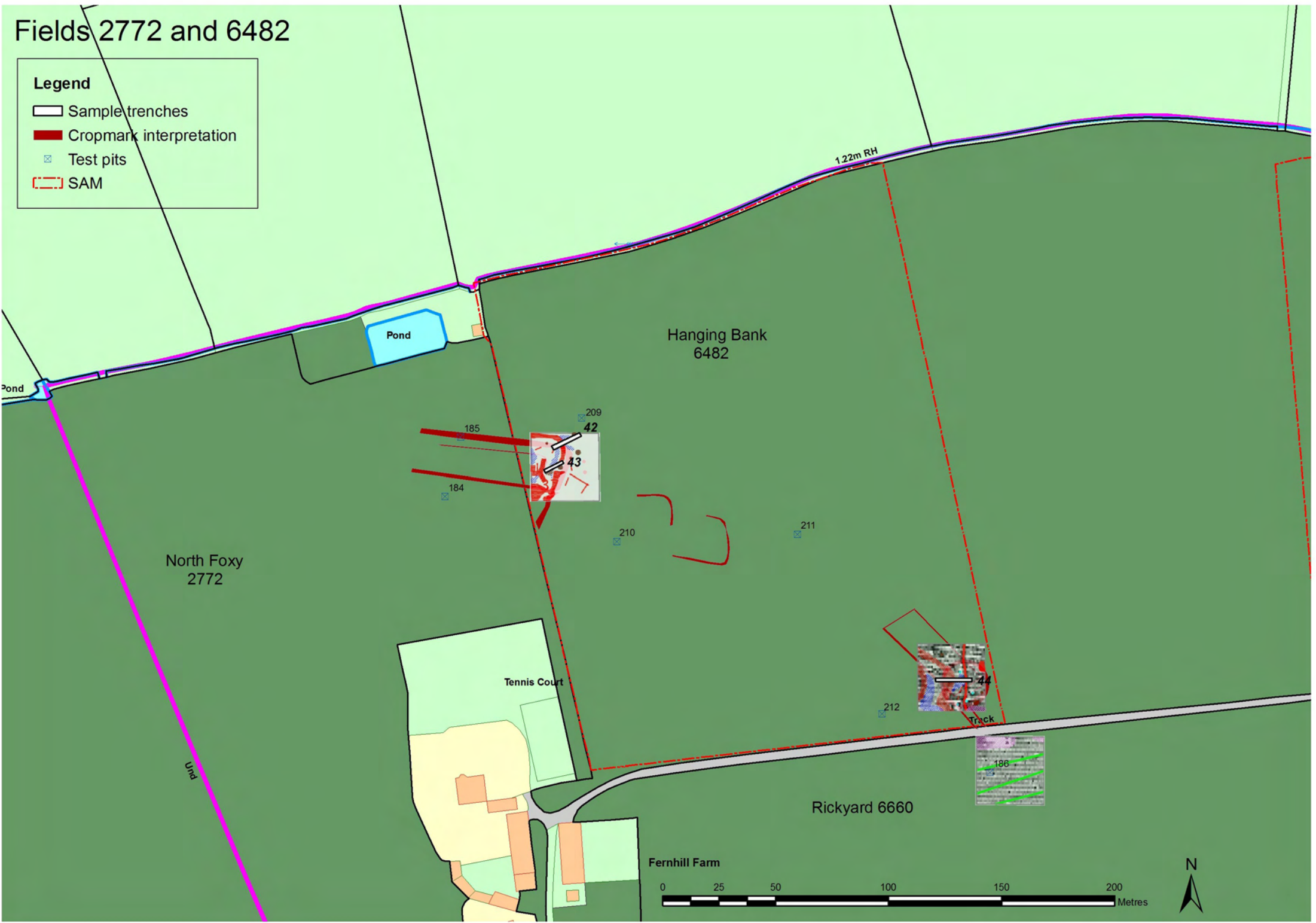


Trench 46 facing east across pit 4607 and ditches 4605 and 4603 (1m scale)

Fields 2772 and 6482

Legend

- Sample trenches
- Cropmark interpretation
- Test pits
- SAM



Field 2772: North Foxy					
Test pits	184	185	Range		Average
			min	max	
Current cultivation	0.17	0.17	0.17	0.17	0.17
Former cultivation	0.13	0.16	0.13	0.16	0.15
Subsoil	0.28	0.20	0.20	0.28	0.24
Natural	>0.03	Unex			
Minimum buffer: 0.13					
Slope: Gentle slope					
Soil group in relation to water erosion: Light					
Soil group in relation to wind erosion: Silts/sands					



Test pit 184 (scale 0.40m)

COSMIC Assessment Sheet – Land Parcel

2772

Field Name

North Foxy

Management factors							
	Serious risk Score 5	High risk Score 4	Medium risk Score 3	Low risk Score 2	Minimum risk Score 1	Score*	
						Root/tuber crops	Combin- able crops
Buffer	No buffer	Shallow buffer(< 10cm)	Moderate buffer (10-15cm)	Deep buffer (16-25cm)	Very deep buffer (> 25cm)	A.....3 B..... C.....	A.....3 B..... C.....
Cultivation method and depth	Very deep ploughing (> 30cm)	Deep ploughing (26-30cm)	Normal ploughing (20-25cm)	Minimum tillage Shallow ploughing (10-19cm)	Direct drilling (< 10cm)	A.....3 B..... C.....	A.....3 B..... C.....
Cropping	Cropping includes potatoes/sugar beet	Cropping includes other root/tuber crops	Cropping includes cereals, non-root crops		Cropping includes long term grass ley or set-aside(> 5 years)	A.....4 B..... C.....	A.....3 B..... C.....
Subsoiling	Regular subsoiling (< 3 years)	Regular or occasional subsoiling (3-6 years)	Rare subsoiling (7-15 years)	No subsoiling		A.....2 B..... C.....	
Initial score						12	11
Weighting	Any at serious risk = 2.5 Any at high risk = 1.5 Any at minimum risk = 0.5					1.5	1
Initial score multiplied by weighting						A ...18 B ... C ...	A11 B ... C ...

* Graded A-C according to quality of evidence

* Graded A-C according to quality of evidence

Site intrinsic factors								
Susceptibility of cultivated soil to water erosion factors								
Average annual rainfall = 600mm								
	Steep slopes (>7°)		Moderate slopes (3°-7°)		Gentle slopes (2°-3°)		Level ground (< 2°)	Score*
Soil group	Rainfall more than 800mm	Rainfall less than 800mm	Rainfall more than 800mm	Rainfall less than 800mm	Rainfall more than 800mm	Rainfall less than 800mm		
Light soils	Serious Score 5	High Score 4	High Score 4	Medium Score 3	Medium Score 3	Low Score 2	Minimal Score 1	A.....2 B..... C.....
Moderate soils	High Score 4	Medium Score 3	Medium Score 3		Low Score 2		Minimal Score 1	
Heavy soils	Low Score 2		Minimal Score 1		Minimal Score 1		Minimal Score 1	
Susceptibility of cultivated soil to wind erosion								
Soil group	Peats		Sands/Silts	Loams		Sandy clays/silty clay	Clay	Score*
	Serious Score 5		High Score 4	Medium Score 3		Low Score 2	Minimal Score 1	A.....4 B..... C.....
Risk of soil loss during harvesting								
Crop type	Potatoes/sugar beet	Other root/tuber crops	Combinable crops			Score*		
						Root/tuber crops	Combinable crops	
	Serious Score 5	High Score 4	Medium Score 3			A.....4 B..... C.....	A.....3 B..... C.....	
Initial score						10	9	
Weighting	Any of above in grey shaded box = 2					1	1	
Initial score multiplied by weighting						A10	A9	
						B.....	B.....	
						C.....	C.....	

Archaeological factors						
Survival and quality of evidence	Serious Score 5	High Score 4	Medium Score 3	Low Score 2	Minimum Score 1	Score*
[Other evidence: e.g. -Documentary (HER records, fieldwork reports) -Oral (information from farmers etc) -Material (artefacts in museums or private collections)]	- Upstanding earthworks/structures -Well-preserved deposits demonstrated by excavation -Other evidence indicating well-preserved deposits - Dense, discrete, and/or diagnostic deposits relevant to national research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Other evidence of nationally significant deposits	-Positive and negative features demonstrated by excavation - Positive and negative features indicated by cropmarks/anomalies -Other evidence indicating good preservation -Dense, discrete, and/or diagnostic deposits relevant to regional research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Less dense, discrete, or diagnostic deposits relevant to national research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Other evidence of highly significant deposits	-Negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits - Dense, discrete, or, diagnostic deposits relevant to county research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Less dense, discrete, or diagnostic deposits relevant to regional research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) - Dense, discrete, or diagnostic ploughsoil scatters - Other evidence of significant deposits	-Truncated negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits -Other evidence indicating truncation -Sparse or undiagnostic deposits relevant to local research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) - Diffuse or undiagnostic ploughsoil scatters -Other evidence distinguishing between sites of low and minimum significance	- Heavily truncated negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits -Other evidence indicating heavy truncation -Sparse or undiagnostic deposits demonstrated by excavation or indicated by cropmarks/anomalies - Diffuse or undiagnostic ploughsoil scatters	A..... B3 C.....
Significance	National significance	Regional significance	County significance	Local significance	No obvious significance	A..... B3 C.....
Initial score						6
Weighting	For score of 9-10 use weighting factor = 2; for score of 8-7 use weighting factor = 1.5; for score of 6 use weighting factor = 1.3; for score of 5-4 use weighting factor = 1; for score of 2-3 use weighting factor = 0.5.					1.3
Initial score multiplied by weighting						A ... B ...7.8 C ...

* Graded A-C according to quality of evidence

Final risk score

	Root/tuber crops	Combinable crops
Management factors (out of 50)	18	11
Site intrinsic factors (out of 30)	10	9
Archaeological factors (out of 20)	7.8	7.8
Final risk score (out of 100)	35.8	27.8

Risk levels

Final risk score	Risk level
0-29	Minimal risk
30-39	Low risk
40-49	Moderate risk
50-59	High risk
60+	Serious risk

Fields 4120 and 3095

Legend
☒ Test pits

Townsend
4120

MP 108.5

32.3

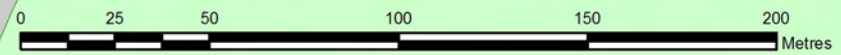
Track

Track

Track

35.1m

Sallies
3095



☒ 175

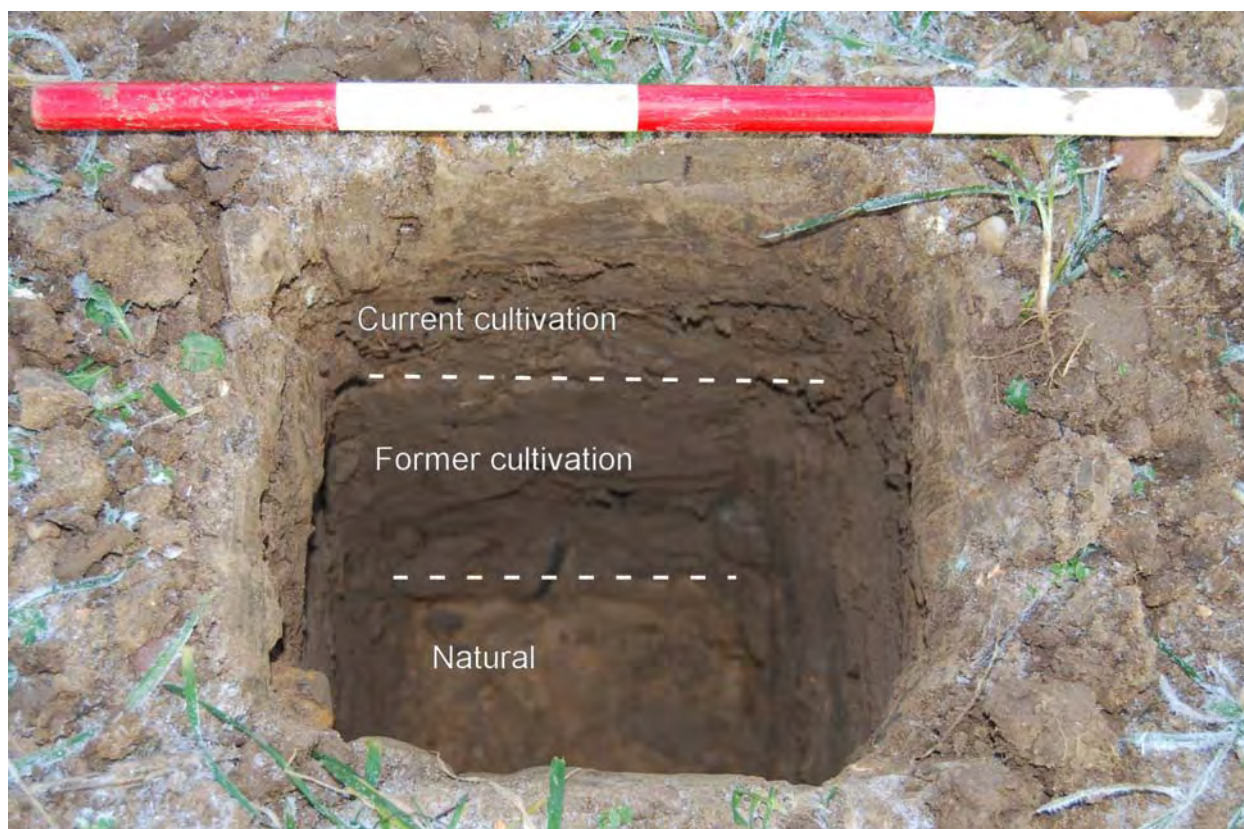
☒ 173

☒ 174

☒ 171

☒ 172

Field 3095: Sallies					
Test pits	171	172	Range		Average
			min	max	
Current cultivation	0.17	0.16	0.16	0.17	0.17
Former cultivation	0.23	0.21	0.21	0.23	0.22
Subsoil	0.27	None			
Natural	Unex	Unex			
Minimum buffer: 0.21					
Notes					
1) Deposit identified as natural in test pit 172 is, on reflection, more likely to be subsoil.					
Slope: Level ground					
Soil group in relation to water erosion: Light					
Soil group in relation to wind erosion: Loams					



Test pit 172 (scale 0.40m)

COSMIC Assessment Sheet – Land Parcel

3095

Field Name

Sallies

Management factors							
	Serious risk Score 5	High risk Score 4	Medium risk Score 3	Low risk Score 2	Minimum risk Score 1	Score*	
						Root/tuber crops	Combin- able crops
Buffer	No buffer	Shallow buffer(< 10cm)	Moderate buffer (10-15cm)	Deep buffer (16-25cm)	Very deep buffer (> 25cm)	A.....2 B..... C.....	A.....2 B..... C.....
Cultivation method and depth	Very deep ploughing (>30cm)	Deep ploughing (26-30cm)	Normal ploughing 20-25cm)	Minimum tillage Shallow ploughing (10-19cm)	Direct drilling (<10cm)	A.....3 B..... C.....	A.....3 B..... C.....
Cropping	Cropping includes potatoes/sugar beet	Cropping includes other root/tuber crops	Cropping includes cereals, non-root crops		Cropping includes long term grass ley or set-aside(> 5 years)	A.....4 B..... C.....	A.....3 B..... C.....
Subsoiling	Regular subsoiling (< 3 years)	Regular or occasional subsoiling (3-6 years)	Rare subsoiling (7-1 years)	No subsoiling		A.....2 B..... C.....	
Initial score						11	10
Weighting	Any at serious risk = 2.5 Any at high risk = 1.5 Any at minimum risk = 0.5					1.5	1
Initial score multiplied by management factor weighting						A ...16.5 B C	A10 B C

*Graded A-C according to quality of evidence

*Graded A-C according to quality of evidence

Site intrinsic factors								
Susceptibility of cultivated soil to water erosion								
Average annual rainfall = 600mm								
	Steep slopes (> 7°)		Moderate slopes (3°-7°)		Gentle slopes (2°-3°)		Level ground (< 2°)	Score*
Soil group	Rainfall more than 800mm	Rainfall less than 800mm	Rainfall more than 800mm	Rainfall less than 800mm	Rainfall more than 800mm	Rainfall less than 800mm		
Light soils	Serious Score 5	High Score 4	High Score 4	Medium Score 3	Medium Score 3	Low Score 2	Minimal Score 1	A.....1 B..... C.....
Moderate soils	High Score 4	Medium Score 3	Medium Score 3		Low Score 2		Minimal Score 1	
Heavy soils	Low Score 2		Minimal Score 1		Minimal Score 1		Minimal Score 1	
Susceptibility of cultivated soil to wind erosion								
Soil group	Peats		Sands/Silts	Loams	Sandy clays/silty clay		Clay	Score*
	Serious Score 5		High Score 4	Medium Score 3	Low Score 2		Minimal Score 1	A.....3 B..... C.....
Risk of soil loss during harvesting								
Crop type	Potatoes/sugar beet	Other root/tuber crops	Combinable crops	Score*				
				Root/tuber crops	Combinable crops			
	Serious Score 5	High Score 4	Medium Score 3	A.....4 B..... C.....	A.....3 B..... C.....			
Initial score				8	7			
Weighting				Any of above in grey shaded box = 2	1	1		
Initial score multiplied by weighting				A8 B..... C.....	A7 B..... C.....			

Archaeological factors						
Survival and quality of evidence	Serious Score 5	High Score 4	Medium Score 3	Low Score 2	Minimum Score 1	Score*
[Other evidence: e.g. -Documentary (HER records, fieldwork reports) -Oral (information from farmers etc) -Material (artefacts in museums or private collections)]	- Upstanding earthworks/structures -Well-preserved deposits demonstrated by excavation -Other evidence indicating well-preserved deposits - Dense, discrete, and/or diagnostic deposits relevant to national research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Other evidence of nationally significant deposits	-Positive and negative features demonstrated by excavation - Positive and negative features indicated by cropmarks/anomalies -Other evidence indicating good preservation -Dense, discrete, and/or diagnostic deposits relevant to regional research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Less dense, discrete, or diagnostic deposits relevant to national research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Other evidence of highly significant deposits	-Negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits - Dense, discrete, or, diagnostic deposits relevant to county research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Less dense, discrete, or diagnostic deposits relevant to regional research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) - Dense, discrete, or diagnostic ploughsoil scatters - Other evidence of significant deposits	-Truncated negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits -Other evidence indicating truncation -Sparse or undiagnostic deposits relevant to local research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) - Diffuse or undiagnostic ploughsoil scatters -Other evidence distinguishing between sites of low and minimum significance	- Heavily truncated negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits -Other evidence indicating heavy truncation -Sparse or undiagnostic deposits demonstrated by excavation or indicated by cropmarks/anomalies - Diffuse or undiagnostic ploughsoil scatters	A..... B3 C.....
Significance	National significance	Regional significance	County significance	Local significance	No obvious significance	A..... B3 C.....
Initial score						6
Weighting	For score of 9-10 use weighting factor = 2; for score of 8-7 use weighting factor = 1.5; for score of 6 use weighting factor = 1.3; for score of 5-4 use weighting factor = 1; for score of 2-3 use weighting factor = 0.5.					1.3
Initial score multiplied by weighting						A ... B ...7.8 C ...

*Graded A-C according to quality of evidence

Final risk score

	Root/tuber crops	Combinable crops
Management factors (out of 50)	16.5	10
Site intrinsic factors (out of 30)	8	7
Archaeological factors (out of 20)	7.8	7.8
Final risk score (out of 100)	32.3	24.8

Risk levels

Final risk score	Risk level
0-29	Minimal risk
30-39	Low risk
40-49	Moderate risk
50-59	High risk
60+	Serious risk

Fields 4120 and 3095

Legend
☒ Test pits

Townsend
4120

MP 108.5

32.3

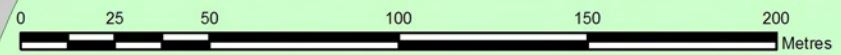
Track

Track

Track

35.1m

Sallies
3095



☒ 175

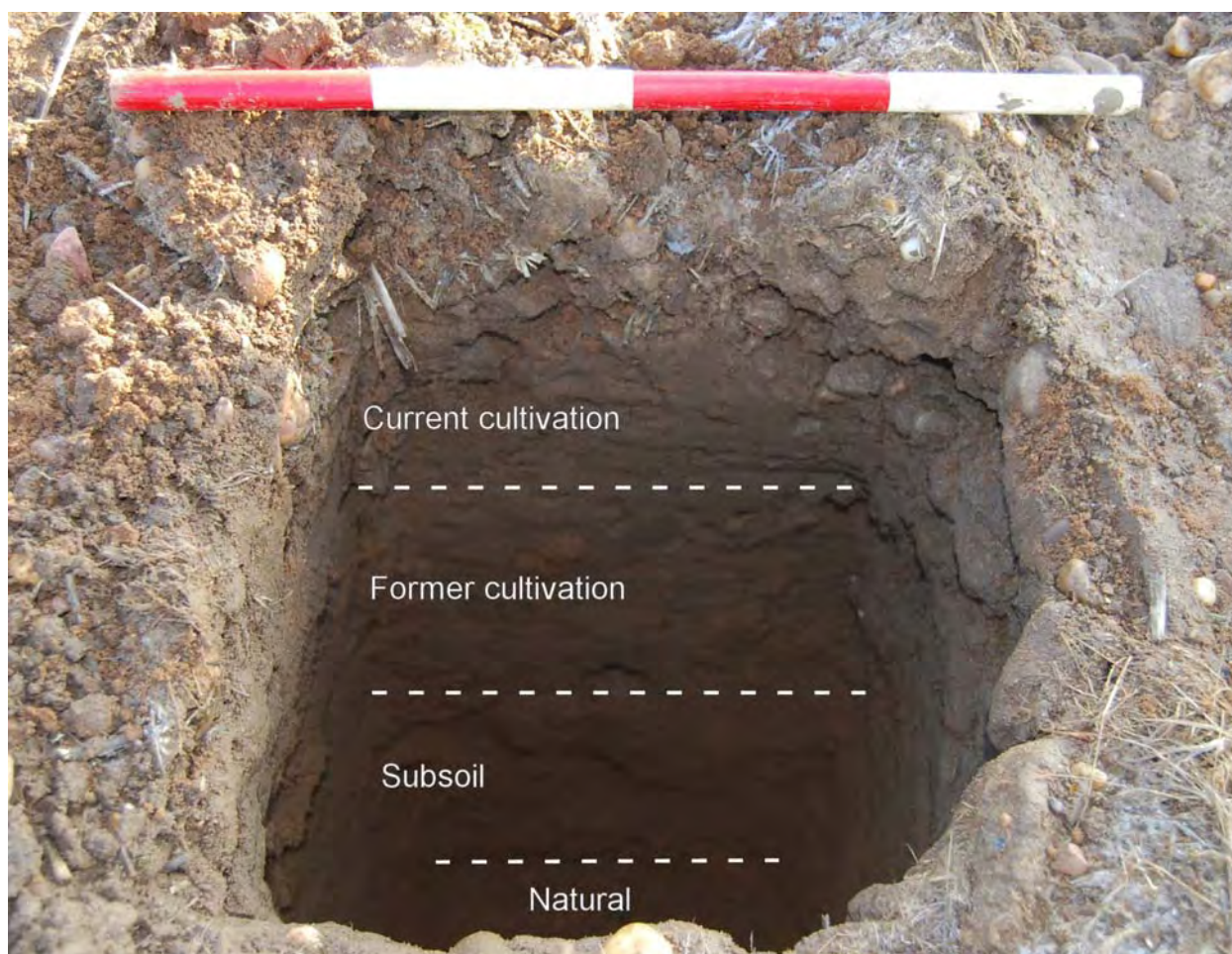
☒ 173

☒ 174

☒ 171

☒ 172

Field 4120: Townsend						
Test pits	173	174	175	Range		Average
				min	max	
Current cultivation	0.10	0.17	0.30	0.10	0.30	0.19
Former cultivation	0.25	0.27	0.30	0.25	0.30	0.27
Subsoil	0.17	0.27	Unex			
Natural	Unex	Unex	N/A			
Minimum buffer: 0.25						
Slope: Level ground						
Soil group in relation to water erosion: Light						
Soil group in relation to wind erosion: Loams						



Test pit 174 (scale 0.40m)

COSMIC Assessment Sheet – Land Parcel

4120

Field Name

Townsend

Management factors							
	Serious risk Score 5	High risk Score 4	Medium risk Score 3	Low risk Score 2	Minimum risk Score 1	Score*	
						Root/tuber crops	Combina- ble crops
Buffer	No buffer	Shallow buffer(< 10cm)	Moderate buffer (10-15cm)	Deep buffer (16-25cm)	Very deep buffer (> 25cm)	A.....1 B..... C.....	A.....1 B..... C.....
Cultivation method and depth	Very deep ploughing (>30cm)	Deep ploughing 26-30cm)	Normal ploughing (20-25cm)	Minimum tillage Shallow ploughing (10-19cm)	Direct drilling (<10cm)	A.....3 B..... C.....	A.....3 B..... C.....
Cropping	Cropping includes potatoes/sugar beet	Cropping includes other root/tuber crops	Cropping includes cereals, non-root crops		Cropping includes long term grass ley or set-aside(> 5 years)	A.....4 B..... C.....	A.....3 B..... C.....
Subsoiling	Regular subsoiling (< 3 years)	Regular or occasional subsoiling (3-6 years)	Rare subsoiling (7-15 years)	No subsoiling		A..... B.....3 C.....	
Initial score						11	10
Weighting	Any at serious risk = 2.5 Any at high risk = 1.5 Any at minimum risk = 0.5					1.5	1
Initial score multiplied by weighting						A ...16.5 B C	A10 B C

* Graded A-C according to quality of evidence

* Graded A-C according to quality of evidence

Site intrinsic factors								
Susceptibility of cultivated soil to water erosion								
Average annual rainfall = 600mm								
	Steep slopes (> 7°)		Moderate slopes (3°-7°)		Gentle slopes (2°-3°)		Level ground (< 2°)	Score*
Soil group	Rainfall more than 800mm	Rainfall less than 800mm	Rainfall more than 800mm	Rainfall less than 800mm	Rainfall more than 800mm	Rainfall less than 800mm		
Light soils	Serious Score 5	High Score 4	High Score 4	Medium Score 3	Medium Score 3	Low Score 2	Minimal Score 1	A.....1 B..... C.....
Moderate soils	High Score 4	Medium Score 3	Medium Score 3		Low Score 2		Minimal Score 1	
Heavy soils	Low Score 2		Minimal Score 1		Minimal Score 1		Minimal Score 1	
Susceptibility of cultivated soil to wind erosion								
Soil group	Peats		Sands/Silts	Loams	Sandy clays/silty clay		Clay	Score*
	Serious Score 5		High Score 4	Medium Score 3	Low Score 2		Minimal Score 1	A..... B.....3 C.....
Risk of soil loss during harvesting								
Crop type	Potatoes/sugar beet	Other root/tuber crops	Combinable crops	Score*				
				Root/tuber crops	Combinable crops			
	Serious Score 5	High Score 4	Medium Score 3	A.....4 B..... C.....	A.....3 B..... C.....			
Initial score				8	7			
Weighting				1	1			
Initial score multiplied by weighting				A8 B..... C.....	A7 B..... C.....			

Archaeological factors						
Survival and quality of evidence	Serious Score 5	High Score 4	Medium Score 3	Low Score 2	Minimum Score 1	Score*
<p>[Other evidence: e.g. -Documentary (HER records, fieldwork reports) -Oral (information from farmers etc) -Material (artefacts in museums or private collections)]</p>	<p>- Upstanding earthworks/structures -Well-preserved deposits demonstrated by excavation -Other evidence indicating well-preserved deposits - Dense, discrete, and/or diagnostic deposits relevant to national research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Other evidence of nationally significant deposits</p>	<p>-Positive and negative features demonstrated by excavation - Positive and negative features indicated by cropmarks/anomalies -Other evidence indicating good preservation -Dense, discrete, and/or diagnostic deposits relevant to regional research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Less dense, discrete, or diagnostic deposits relevant to national research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Other evidence of highly significant deposits</p>	<p>-Negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits - Dense, discrete, or, diagnostic deposits relevant to county research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Less dense, discrete, or diagnostic deposits relevant to regional research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) - Dense, discrete, or diagnostic ploughsoil scatters - Other evidence of significant deposits</p>	<p>-Truncated negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits -Other evidence indicating truncation -Sparse or undiagnostic deposits relevant to local research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) - Diffuse or undiagnostic ploughsoil scatters -Other evidence distinguishing between sites of low and minimum significance</p>	<p>- Heavily truncated negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits -Other evidence indicating heavy truncation -Sparse or undiagnostic deposits demonstrated by excavation or indicated by cropmarks/anomalies - Diffuse or undiagnostic ploughsoil scatters</p>	<p>A..... B3 C.....</p>
Significance	National significance	Regional significance	County significance	Local significance	No obvious significance	<p>A..... B3 C.....</p>
Initial score						6
Weighting	For score of 9-10 use weighting factor = 2; for score of 8-7 use weighting factor = 1.5; for score of 6 use weighting factor = 1.3; for score of 5-4 use weighting factor = 1; for score of 2-3 use weighting factor = 0.5					1.3
Initial score multiplied by weighting						<p>A ... B ...7.8 C ...</p>

* Graded A-C according to quality of evidence

Final risk score

	Root/tuber crops	Combinable crops
Management factors (out of 50)	16.5	10
Site intrinsic factors (out of 30)	8	7
Archaeological factors (out of 20)	7.8	7.8
Final risk score (out of 100)	32.3	24.8

Risk levels

Final risk score	Risk level
0-29	Minimal risk
30-39	Low risk
40-49	Moderate risk
50-59	High risk
60+	Serious risk

Field 5245

177

Crossing Piece
5245

176

178

179

Crossing

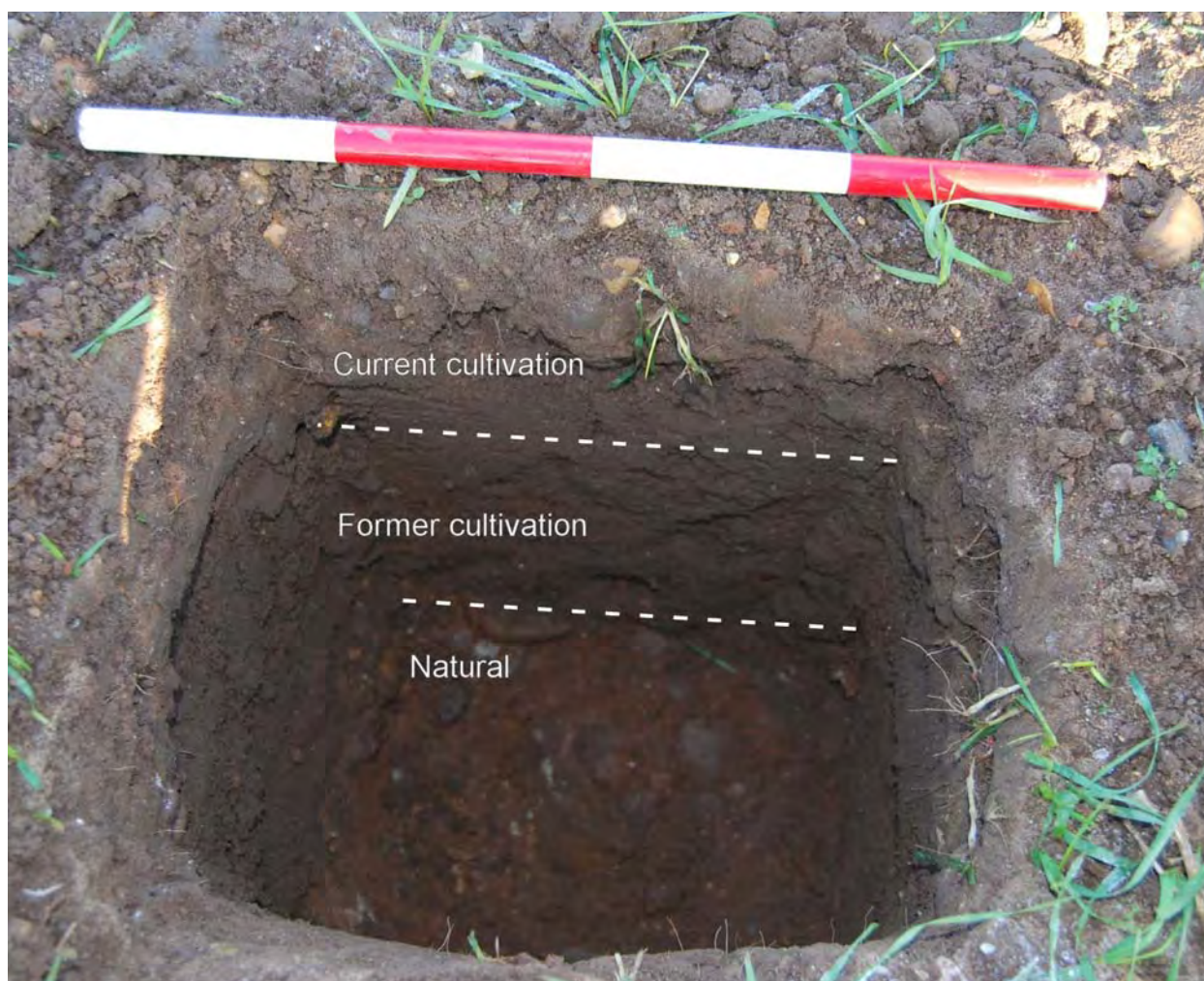
MP 108.5



Legend

☒ Test pits

Field 5245: Crossing Piece							
Test pits	176	177	178	179	Range		Average
					min	max	
Current cultivation	0.12	0.16	0.16	0.13	0.12	0.16	0.14
Former cultivation	0.10	0.26	0.29	0.22	0.10	0.29	0.22
Subsoil	0.22	None	None	0.25	0.00	0.25	0.12
Natural	Unex	Unex	Unex	Unex			
Minimum buffer: 0.10							
Slope: Level ground							
Soil group in relation to water erosion: Light							
Soil group in relation to wind erosion: Silts/sands							



Test pit 177 (scale 0.40m)

COSMIC Assessment Sheet – Land Parcel

5245

Field Name

Crossing Piece

Management factors							
	Serious risk Score 5	High risk Score 4	Medium risk Score 3	Low risk Score 2	Minimum risk Score 1	Score*	
						Root/tuber crops	Combina- ble crops
Buffer	No buffer	Shallow buffer(< 10cm)	Moderate buffer (10-15cm)	Deep buffer (16-25cm)	Very deep buffer (> 25cm)	A.....3 B..... C.....	A.....3 B..... C.....
Cultivation method and depth	Very deep ploughing (> 30cm)	Deep ploughing (26-30cm)	Normal ploughing (20-25cm)	Minimum tillage Shallow ploughing (10-19cm)	Direct drilling (<10cm)	A.....3 B..... C.....	A.....3 B..... C.....
Cropping	Cropping includes potatoes/sugar beet	Cropping includes other root/tuber crops	Cropping includes cereals, non-root crops		Cropping includes long term grass ley or set-aside(> 5 years)	A.....4 B..... C.....	A.....3 B..... C.....
Subsoiling	Regular subsoiling (< 3 years)	Regular or occasional subsoiling (3-6 years)	Rare subsoiling (7-15 years)	No subsoiling		A.....2 B..... C.....	
Initial score						12	11
Weighting	Any at serious risk = 2.5 Any at high risk = 1.5 Any at minimum risk = 0.5					1.5	1
Initial score multiplied by weighting						A ...18 B C	A11 B C

*Graded A-C according to quality of evidence

*Graded A-C according to quality of evidence

Site intrinsic factors								
Susceptibility of cultivated soil to water erosion								
Average annual rainfall = 600mm								
	Steep slopes (> 7°)		Moderate slopes (3°-7°)		Gentle slopes (2°-3°)		Level ground (< 2°)	Score*
Soil group	Rainfall more than 800mm	Rainfall less than 800mm	Rainfall more than 800mm	Rainfall less than 800mm	Rainfall more than 800mm	Rainfall less than 800mm		
Light soils	Serious Score 5	High Score 4	High Score 4	Medium Score 3	Medium Score 3	Low Score 2	Minimal Score 1	A.....1 B..... C.....
Moderate soils	High Score 4	Medium Score 3	Medium Score 3		Low Score 2		Minimal Score 1	
Heavy soils	Low Score 2		Minimal Score 1		Minimal Score 1		Minimal Score 1	
Susceptibility of cultivated soil to wind erosion								
Soil group	Peats		Sands/Silts	Loams	Sandy clays/silty clay	Clay	Score*	
	Serious Score 5		High Score 4	Medium Score 3	Low Score 2	Minimal Score 1	A..... B.....4 C.....	
Risk of soil loss during harvesting								
Crop type	Potatoes/sugar beet	Other root/tuber crops	Combinable crops	Score*				
				Root/tuber crops	Combinable crops			
	Serious Score 5	High Score 4	Medium Score 3	A.....4 B..... C.....	A.....3 B..... C.....			
Initial score				9	8			
Weighting	Any of above in grey shaded box = 2			1	1			
Initial score multiplied by weighting				A9 B..... C.....	A8 B..... C.....			

Archaeological factors						
Survival and quality of evidence	Serious Score 5	High Score 4	Medium Score 3	Low Score 2	Minimum Score 1	Score*
[Other evidence: e.g. -Documentary (HER records, fieldwork reports) -Oral (information from farmers etc) -Material (artefacts in museums or private collections)]	- Upstanding earthworks/structures -Well-preserved deposits demonstrated by excavation -Other evidence indicating well-preserved deposits - Dense, discrete, and/or diagnostic deposits relevant to national research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Other evidence of nationally significant deposits	-Positive and negative features demonstrated by excavation - Positive and negative features indicated by cropmarks/anomalies -Other evidence indicating good preservation -Dense, discrete, and/or diagnostic deposits relevant to regional research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Less dense, discrete, or diagnostic deposits relevant to national research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Other evidence of highly significant deposits	-Negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits - Dense, discrete, or, diagnostic deposits relevant to county research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Less dense, discrete, or diagnostic deposits relevant to regional research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) - Dense, discrete, or diagnostic ploughsoil scatters - Other evidence of significant deposits	-Truncated negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits -Other evidence indicating truncation -Sparse or undiagnostic deposits relevant to local research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) - Diffuse or undiagnostic ploughsoil scatters -Other evidence distinguishing between sites of low and minimum significance	- Heavily truncated negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits -Other evidence indicating heavy truncation -Sparse or undiagnostic deposits demonstrated by excavation or indicated by cropmarks/anomalies - Diffuse or undiagnostic ploughsoil scatters	A..... B2 C.....
Significance	National significance	Regional significance	County significance	Local significance	No obvious significance	A..... B2 C.....
Initial score						4
Weighting	For score of 9-10 use weighting factor = 2; for score of 8-7 use weighting factor = 1.5; for score of 6 use weighting factor = 1.3; for score of 5-4 use weighting factor = 1; for score of 2-3 use weighting factor = 0.5					1
Initial score multiplied by weighting						A ... B ...4 C ...

*Graded A-C according to quality of evidence

Final risk score

	Root/tuber crops	Combinable crops
Management factors (out of 50)	18	11
Site intrinsic factors (out of 30)	9	8
Archaeological factors (out of 20)	4	4
Final risk score (out of 100)	31	23

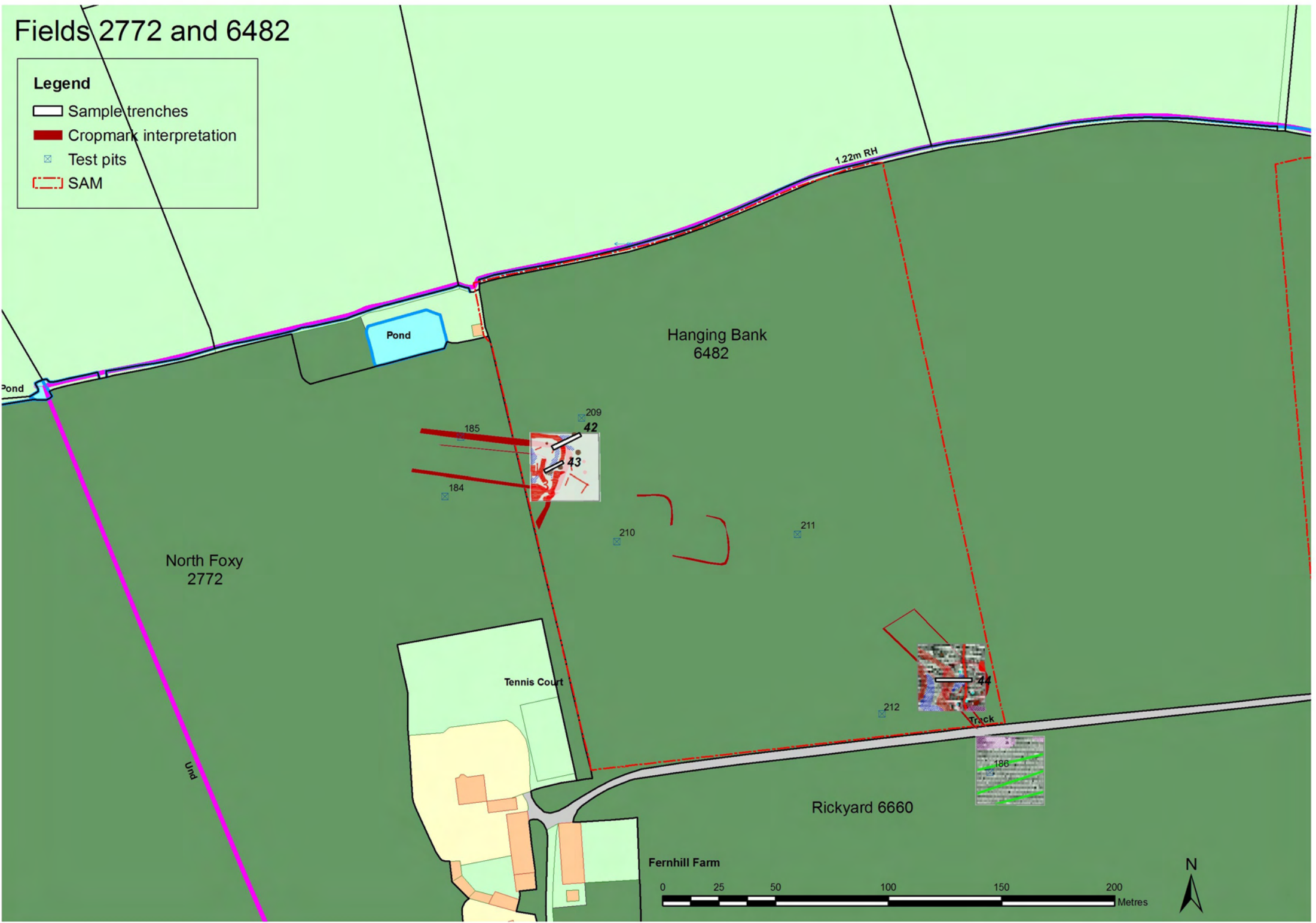
Risk levels

Final risk score	Risk level
0-29	Minimal risk
30-39	Low risk
40-49	Moderate risk
50-59	High risk
60+	Serious risk

Fields 2772 and 6482

Legend

- Sample trenches
- Cropmark interpretation
- Test pits
- SAM



Field 6482: Hanging Bank							
Test pits	209	210	211	212	Range		Average
					min	max	
Current cultivation	0.30	0.23	0.30	0.28	0.23	0.30	0.28
Former cultivation	0.15	0.21	0.12	0.15	0.12	0.21	0.16
Subsoil	None	None	None	None			
Natural	Unex	Unex	>0.18	Unex			
Minimum buffer: 0.12							
Slope: Gentle slope							
Soil group in relation to water erosion: Light							
Soil group in relation to wind erosion: Loams							



Test pit 212 (scale 0.40m)

COSMIC Assessment Sheet – Land Parcel

6482

Field Name

Hanging Bank

Management factors							
	Serious risk Score 5	High risk Score 4	Medium risk Score 3	Low risk Score 2	Minimum risk Score 1	Score*	
						Root/tuber crops	Combin- able crops
Buffer	No buffer	Shallow buffer(< 10cm)	Moderate buffer (10-15cm)	Deep buffer (16-25cm)	Very deep buffer (> 25cm)	A.....4 B..... C.....	A.....4 B..... C.....
Cultivation method and depth	Very deep ploughing (> 30cm)	Deep ploughing (26-30cm)	Normal ploughing (20-25cm)	Minimum tillage Shallow ploughing (10-19cm)	Direct drilling (<10cm)	A.....4 B..... C.....	A.....4 B..... C.....
Cropping	Cropping includes potatoes/sugar beet	Cropping includes other root/tuber crops	Cropping includes cereals, non-root crops		Cropping includes long term grass ley or set-aside(> 5 years)	A.....4 B..... C.....	A.....3 B..... C.....
Subsoiling	Regular subsoiling (< 3 years)	Regular or occasional subsoiling (3-6 years)	Rare subsoiling (7-15 years)	No subsoiling		A.....2 B..... C.....	
Initial score						14	13
Weighting	Any at serious risk = 2.5 Any at high risk = 1.5 Any at minimum risk = 0.5					1.5	1.5
Initial score multiplied by weighting						A21 B C	A19.5 B C

*Graded A-C according to quality of evidence

*Graded A-C according to quality of evidence

Site intrinsic factors								
Susceptibility of cultivated soil to water erosio								
Average annual rainfall = 600mm								
	Steep slopes (> 7°)		Moderate slopes (3°-7°)		Gentle slopes (2°-3°)		Level ground (< 2°)	Score*
Soil group	Rainfall more than 800mm	Rainfall less than 800mm	Rainfall more than 800mm	Rainfall less than 800mm	Rainfall more than 800mm	Rainfall less than 800mm		
Light soils	Serious Score 5	High Score 4	High Score 4	Medium Score 3	Medium Score 3	Low Score 2	Minimal Score 1	A.....2 B..... C.....
Moderate soils	High Score 4	Medium Score 3	Medium Score 3		Low Score 2		Minimal Score 1	
Heavy soil	Low Score 2		Minimal Score 1		Minimal Score 1		Minimal Score 1	
Susceptibility of cultivated soil to wind erosion								
Soil group	Peats		Sands/Silts	Loams		Sandy clays/silty clay	Clay	Score*
	Serious Score 5		High Score 4	Medium Score 3		Low Score 2	Minimal Score 1	A.....3 B..... C.....
Risk of soil loss during harvesting								
Crop type	Potatoes/sugar beet	Other root/tuber crops	Combinable crops			Score*		
						Root/tuber crops	Combin-able crops	
	Serious Score 5	High Score 4	Medium Score 3			A.....4 B..... C.....	A.....3 B..... C.....	
Initial score							9	8
Weighting	Any of above in grey shaded box = 2						1	1
Initial score multiplied by site intrinsic factor weighting							A9	A8
							B.....	B.....
							C.....	C.....

Archaeological factors						
Survival and quality of evidence	Serious Score 5	High Score 4	Medium Score 3	Low Score 2	Minimum Score 1	Score*
[Other evidence: e.g. -Documentary (HER records, fieldwork reports) -Oral (information from farmers etc) -Material (artefacts in museums or private collections)]	- Upstanding earthworks/structures -Well-preserved deposits demonstrated by excavation -Other evidence indicating well-preserved deposits - Dense, discrete, and/or diagnostic deposits relevant to national research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Other evidence of nationally significant deposits	-Positive and negative features demonstrated by excavation - Positive and negative features indicated by cropmarks/anomalies -Other evidence indicating good preservation -Dense, discrete, and/or diagnostic deposits relevant to regional research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Less dense, discrete, or diagnostic deposits relevant to national research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Other evidence of highly significant deposits	-Negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits - Dense, discrete, or, diagnostic deposits relevant to county research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Less dense, discrete, or diagnostic deposits relevant to regional research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) - Dense, discrete, or diagnostic ploughsoil scatters - Other evidence of significant deposits	-Truncated negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits -Other evidence indicating truncation -Sparse or undiagnostic deposits relevant to local research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) - Diffuse or undiagnostic ploughsoil scatters -Other evidence distinguishing between sites of low and minimum significance	- Heavily truncated negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits -Other evidence indicating heavy truncation -Sparse or undiagnostic deposits demonstrated by excavation or indicated by cropmarks/anomalies - Diffuse or undiagnostic ploughsoil scatters	A..... B3 C.....
Significance	National significance	Regional significance	County significance	Local significance	No obvious significance	A..... B4 C.....
Initial score						7
Weighting	For score of 9-10 use weighting factor = 2; for score of 8-7 use weighting factor = 1.5; for score of 6 use weighting factor = 1.3; for score of 5-4 use weighting factor = 1; for score of 2-3 use weighting factor = 0.5					1.5
Initial score multiplied by weighting						A ... B ...10.5 C ...

*Graded A-C according to quality of evidence

Final risk score

	Root/tuber crops	Combinable crops
Management factors (out of 50)	21	19.5
Site intrinsic factors (out of 30)	9	8
Archaeological factors (out of 20)	10.5	10.5
Final risk score (out of 100)	40.5	38

Risk levels

Total risk score	Risk level
0-29	Minimal risk
30-39	Low risk
40-49	Moderate risk
50-59	High risk
60+	Serious risk

Hanging Bank (6482)

Trench 42

Maximum dimensions: Length: 14.00m

Width: 1.55m

Depth: 0.50m

Orientation: ENE-WSW

Context	Classification	Description	Depth below ground surface
4200	Ploughsoil	Moderately compact mid greyish brown sandy silt with common small to large gravels.	0-0.40m
4201	Natural	Loosely compacted mid to light reddish brown sand with common small to medium gravels.	0.40m+
4202	Fill of 4203	Moderately compact mid brown sandy silt with few small to large gravels.	0.36-1.32m (augered)
4203	Ditch	Linear, parallel-sided feature c3.20m wide and 0.96m deep (augered). Aligned roughly N-S.	0.36-1.32m (augered)

Trench 43

Maximum dimensions: Length: 7.50m

Width: 1.55m

Depth: 0.60m

Orientation: ENE-WSW

Context	Classification	Description	Depth below ground surface
4300	Ploughsoil	Moderately compact mid greyish brown sandy silt with common small to large gravels.	0-0.36m
4301	Natural	Loosely compacted mid to light reddish brown sand with common small to medium gravels.	0.36m+
4302	Fill of 4303	Moderately compact mid brown sandy silt with few small to large gravels.	0.38-1.48m (augered)
4304	Ditch	Linear, parallel-sided feature c3.20m wide and 1.10m deep (augered). Aligned roughly N-S.	0.38-1.48m (augered)

Trench 44

Maximum dimensions: Length: 16.00m

Width: 1.55m

Depth: 0.60m

Orientation: E-W

Context	Classification	Description	Depth below ground surface
4400	Ploughsoil	Moderately compact mid greyish brown silty sand with common small to medium gravels.	0-0.30m

Context	Classification	Description	Depth below ground surface
4401	Subsoil	Moderately compact mid reddish brown silty sand with common small to medium gravels.	0.30-0.40m
4402	Natural	Loosely compacted light to mid reddish brown fine sand with abundant small to medium gravels.	0.40m+
4403	Fill of 4404	Moderately compact mid brown silty sand with common small to medium gravels.	0.30-1.15m (augered)
4404	Ditch	Linear, parallel-sided feature c1.90m wide and 0.85m deep (augered). Aligned roughly N-S.	0.30-1.15m (augered)
4405	Fill of 4406	Moderately compact mid, slightly reddish brown silty sand with common small to medium gravels. Sealed by 4401.	0.53-1.00m (augered)
4406	Ditch	Poorly defined but apparently linear, parallel-sided feature c1.80m wide and 0.47m deep (augered). Aligned roughly NW-SE.	0.53-1.00m (augered)



Trench 42 facing north-east across ditch 4203 (1m scale)

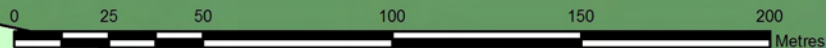
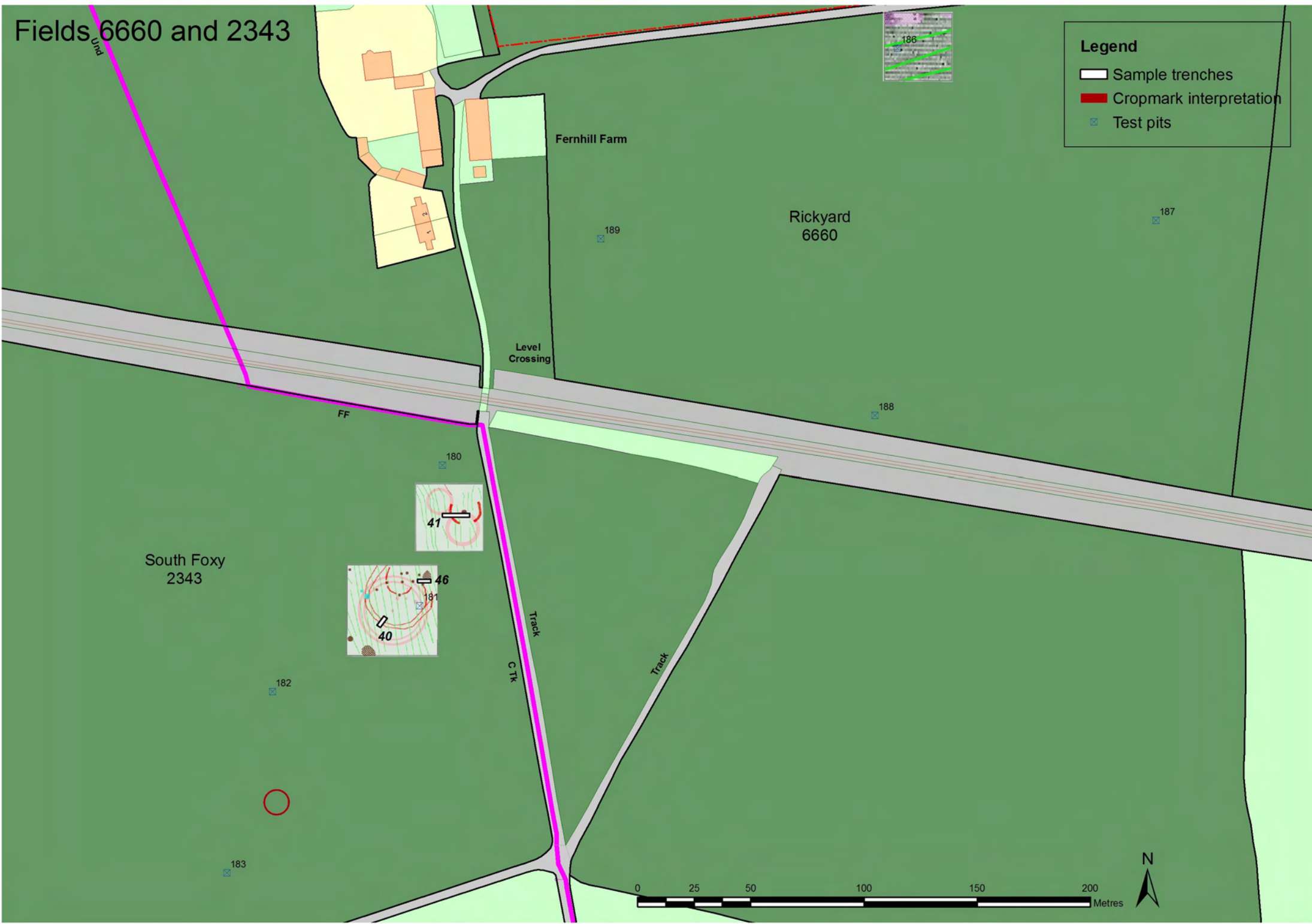


Trench 43 facing south-west across ditch 4303 (1m scale)

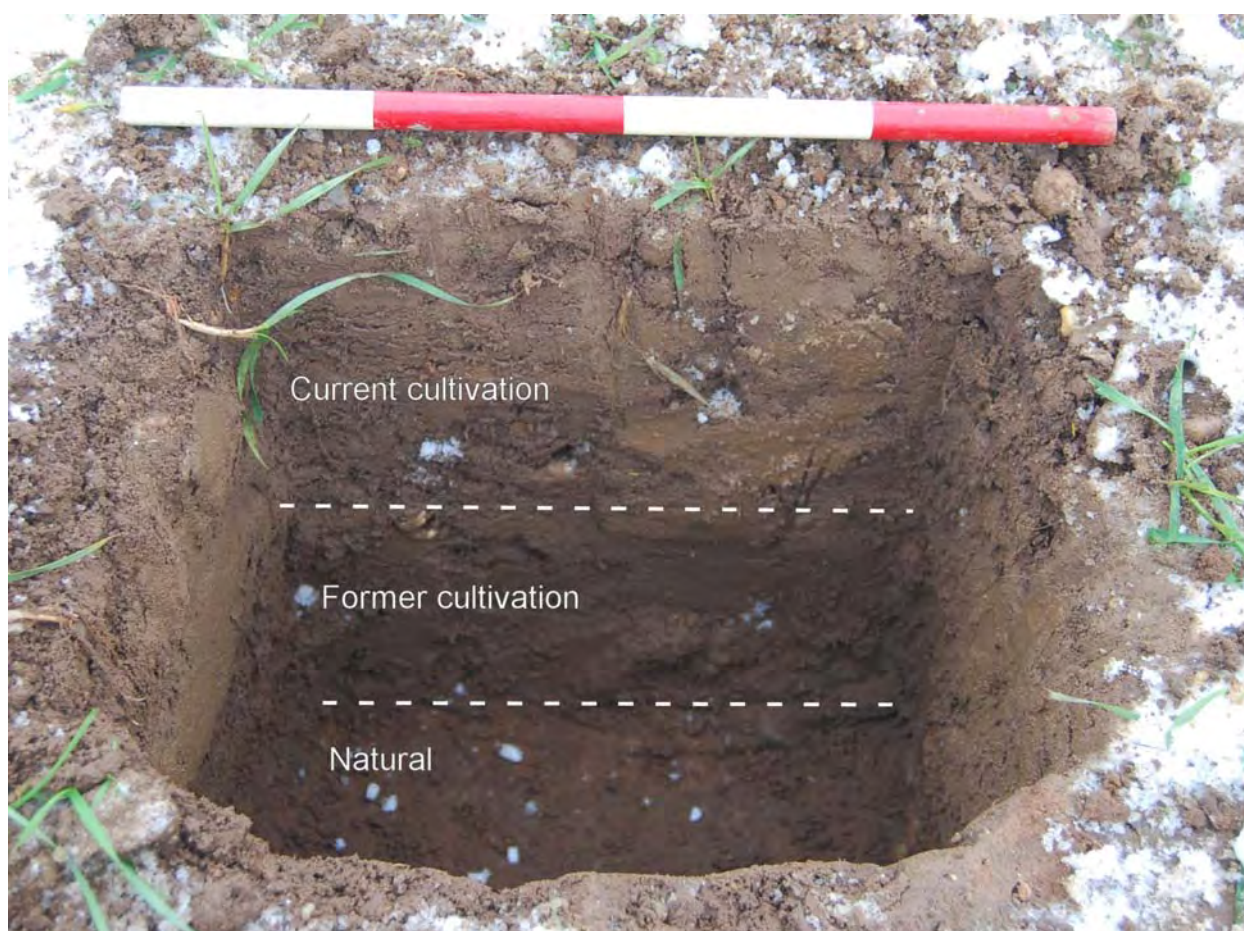


Trench 44 facing south-west across ditches 4403 and 4406 (1m scale)

Fields 6660 and 2343



Field 6660: Rick Yard							
Test pits	186	187	188	189	Range		Average
					min	max	
Current cultivation	0.15	0.20	0.16	0.18	0.15	0.20	0.17
Former cultivation	0.23	0.26	0.23	0.18	0.18	0.26	0.23
Subsoil	None	None	None	None			
Natural	>0.20	Unex	>0.11	Unex			
Minimum buffer: 0.18							
Slope: Level ground							
Soil group in relation to water erosion: Light							
Soil group in relation to wind erosion: Silts/sands							



Test pit 189 (scale 0.40m)

COSMIC Assessment Sheet – Land Parcel

6660

Field Name

Rick Yard

Management factors							
	Serious risk Score 5	High risk Score 4	Medium risk Score 3	Low risk Score 2	Minimum risk Score 1	Score*	
						Root/tuber crops	Combin- able crops
Buffer	No buffer	Shallow buffer(< 10cm)	Moderate buffer (10-15cm)	Deep buffer (16-25cm)	Very deep buffer (> 25cm)	A.....2 B..... C.....	A.....2 B..... C.....
Cultivation method and depth	Very deep ploughing (> 30cm)	Deep ploughing (26-30cm)	Normal ploughing (20-25cm)	Minimum tillage Shallow ploughing (10-19cm)	Direct drilling (<10cm)	A.....3 B..... C.....	A.....3 B..... C.....
Cropping regime	Cropping includes potatoes/sugar beet	Cropping includes other root/tuber crops	Cropping includes cereals, non-root crops		Cropping includes long term grass ley or set-aside(> 5 years)	A.....4 B..... C.....	A.....3 B..... C.....
Subsoiling	Regular subsoiling (< 3 years)	Regular or occasional subsoiling (3-6 years)	Rare subsoiling (7-15 years)	No subsoiling		A.....2 B..... C.....	
Initial score						11	10
Weighting	Any at serious risk = 2.5 Any at high risk = 1.5 Any at minimum risk = 0.5					1.5	1
Initial score multiplied by weighting						A ...16.5 B C	A10 B C

*Graded A-C according to quality of evidence

*Graded A-C according to quality of evidence

Site intrinsic factors								
Susceptibility of cultivated soil to water erosion								
Average annual rainfall = 600mm								
	Steep slopes (> 7°)		Moderate slopes (3°-7°)		Gentle slopes (2°-3°)		Level ground (< 2°)	Score*
Soil group	Rainfall more than 800mm	Rainfall less than 800mm	Rainfall more than 800mm	Rainfall less than 800mm	Rainfall more than 800mm	Rainfall less than 800mm		
Light soils	Serious Score 5	High Score 4	High Score 4	Medium Score 3	Medium Score 3	Low Score 2	Minimal Score 1	A.....1 B..... C.....
Moderate soils	High Score 4	Medium Score 3	Medium Score 3		Low Score 2		Minimal Score 1	
Heavy soils	Low Score 2		Minimal Score 1		Minimal Score 1		Minimal Score 1	
Susceptibility of cultivated soil to wind erosion								
Soil group	Peats		Sands/Silts	Loams	Sandy clays/silty clay		Clay	Score*
	Serious Score 5		High Score 4	Medium Score 3	Low Score 2		Minimal Score 1	A..... B.....4 C.....
Risk of soil loss during harvesting								
Crop type	Potatoes/sugar beet	Other root/tuber crops	Combinable crops	Score*				
				Root/tuber crops	Combinable crops			
	Serious Score 5	High Score 4	Medium Score 3	A.....4 B..... C.....	A.....3 B..... C.....			
Initial score				9	8			
Weighting				Any of above in grey shaded box = 2	1	1		
Initial score multiplied by weighting				A9 B..... C.....	A8 B..... C.....			

Archaeological factors						
Survival and quality of evidence	Serious Score 5	High Score 4	Medium Score 3	Low Score 2	Minimum Score 1	Score*
[Other evidence: e.g. -Documentary (HER records, fieldwork reports) -Oral (information from farmers etc) -Material (artefacts in museums or private collections)]	- Upstanding earthworks/structures -Well-preserved deposits demonstrated by excavation -Other evidence indicating well-preserved deposits - Dense, discrete, and/or diagnostic deposits relevant to national research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Other evidence of nationally significant deposits	-Positive and negative features demonstrated by excavation - Positive and negative features indicated by cropmarks/anomalies -Other evidence indicating good preservation -Dense, discrete, and/or diagnostic deposits relevant to regional research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Less dense, discrete, or diagnostic deposits relevant to national research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Other evidence of highly significant deposits	-Negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits - Dense, discrete, or, diagnostic deposits relevant to county research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Less dense, discrete, or diagnostic deposits relevant to regional research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) - Dense, discrete, or diagnostic ploughsoil scatters - Other evidence of significant deposits	-Truncated negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits -Other evidence indicating truncation -Sparse or undiagnostic deposits relevant to local research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) - Diffuse or undiagnostic ploughsoil scatters -Other evidence distinguishing between sites of low and minimum significance	- Heavily truncated negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits -Other evidence indicating heavy truncation -Sparse or undiagnostic deposits demonstrated by excavation or indicated by cropmarks/anomalies - Diffuse or undiagnostic ploughsoil scatters	A..... B2 C.....
Significance	National significance	Regional significance	County significance	Local significance	No obvious significance	A..... B2 C.....
Initial score						4
Weighting	For score of 9-10 use weighting factor = 2; for score of 8-7 use weighting factor = 1.5; for score of 6 use weighting factor = 1.3; for score of 5-4 use weighting factor = 1; for score of 2-3 use weighting factor = 0.5					1
Initial score multiplied by weighting						A ... B ...4 C ...

*Graded A-C according to quality of evidence

Final risk score

	Root/tuber crops	Combinable crops
Management factors (out of 50)	16.5	10
Site intrinsic factors (out of 30)	9	8
Archaeological factors (out of 20)	4	4
Final risk score (out of 100)	29.5	22

Risk levels

Total risk score	Risk level
0-29	Minimal risk
30-39	Low risk
40-49	Moderate risk
50-59	High risk
60+	Serious risk


This map illustrates the archaeological site of Field 9582, situated along the River Avon. The site is primarily composed of a large green area labeled 'Boat House Bank 9582'. A red dashed line outlines the 'Issues' area, which is further defined by a red dashed line. A red dashed line also outlines the 'Track' area. The River Avon is shown in light blue, with a pink line indicating the '1.22m FF' (Flooded Field) and a blue line indicating the '1.22m RH' (River Height). The map includes a legend in the top right corner with the following items:

- Sample trenches (white rectangle)
- Cropmark interpretation (red line)
- Test pits (blue square with cross)
- SAM (red dashed line)

Key features and labels on the map include:

- Field 9582**: The main area of interest, labeled in the top left.
- Boat House Bank 9582**: The central green area.
- River Avon**: The light blue water body.
- 1.22m FF**: Flooded Field boundary.
- 1.22m RH**: River Height boundary.
- Issues**: A red dashed line outlining a specific area.
- Track**: A red dashed line indicating a track.
- Test pits**: Marked with blue squares and crosses, numbered 213, 214, 215, and 216.
- Sample trenches**: Marked with white rectangles, numbered 37, 38, and 39.
- Cropmark interpretation**: Red lines indicating cropmarks.
- SAM**: A red dashed line indicating the SAM boundary.
- PP Hb**: A small orange rectangle labeled 'PP Hb' near the river.
- Crossing Piece 5245**: A label in the bottom right corner.
- Scale bar**: A scale bar at the bottom left, ranging from 0 to 200 metres.
- North arrow**: A north arrow pointing upwards, labeled 'N'.

Legend

 Sample trenches

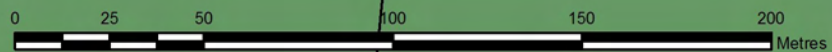
■ Cropmark interpretation

- ☒ Test pits

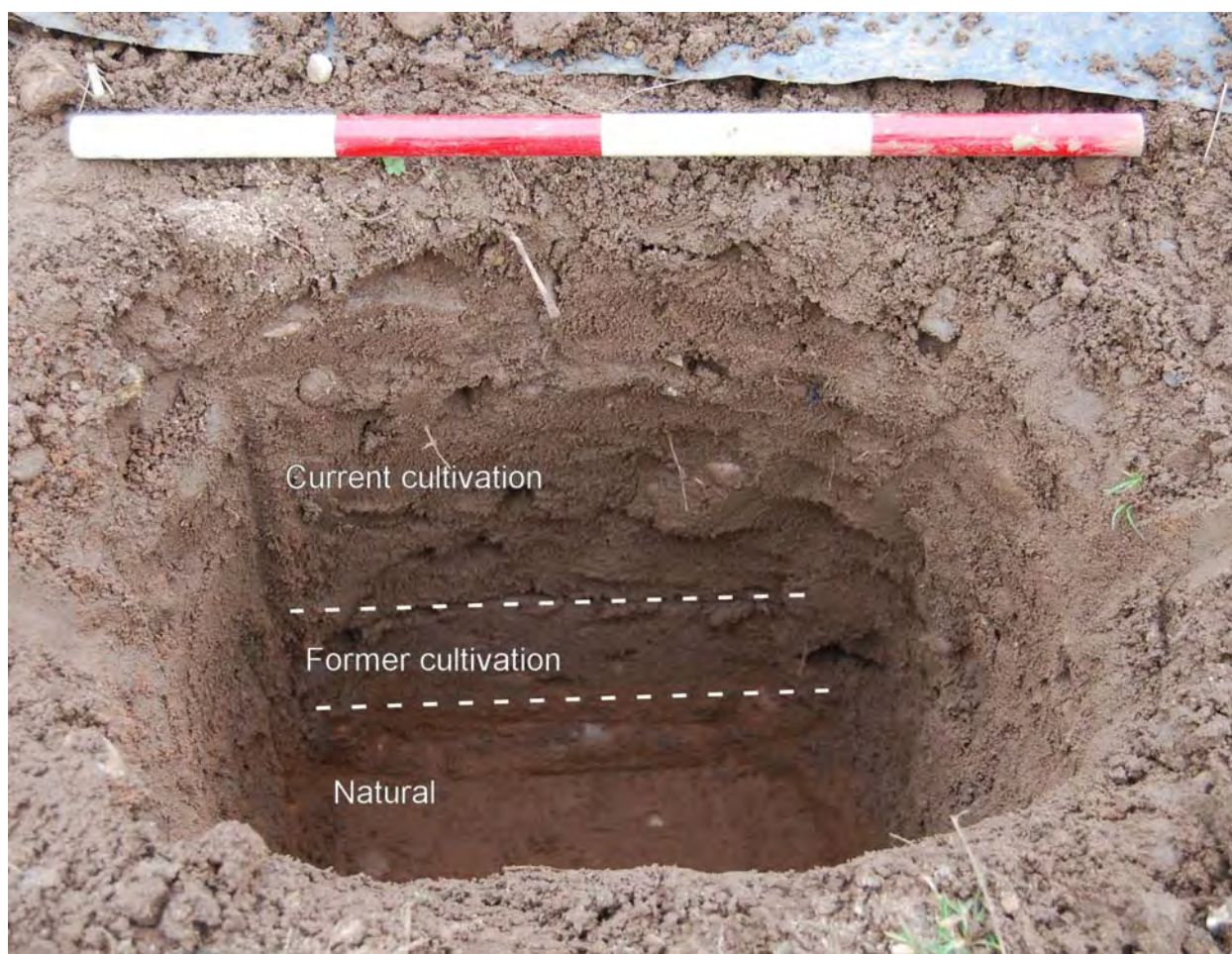
 SAM

Boat House Bank
9582

Crossing Piece
5245



Field 9582: Boat House Bank							
Test pits	213	214	215	216	Range		Average
					min	max	
Current cultivation	0.22	0.28	0.23	0.24	0.22	0.28	0.24
Former cultivation	0.16	0.07	0.10	0.15	0.07	0.16	0.12
Subsoil	None	None	0.19	None			
Natural	Unex	>0.05	Unex	>0.21			
Minimum buffer: 0.07							
Slope: Gentle slope							
Soil group in relation to water erosion: Light							
Soil group in relation to wind erosion: Loams							



Test pit 214 (scale 0.40m)

COSMIC Assessment Sheet – Land Parcel

9582

Field Name

Boat House Bank

Management factors							
	Serious risk Score 5	High risk Score 4	Medium risk Score 3	Low risk Score 2	Minimum risk Score 1	Score*	
						Root/tuber crops	Combin- able crops
Buffer	No buffer	Shallow buffer(< 10cm)	Moderate buffer (10-15cm)	Deep buffer (16-25cm)	Very deep buffer (> 25cm)	A.....4 B..... C.....	A.....4 B..... C.....
Cultivation method and depth	Very deep ploughing (> 30cm)	Deep ploughing (26-30cm)	Normal ploughing (20-25cm)	Disc/tine cultivation Shallow ploughing (10-19cm)	Direct drilling (< 10cm)	A.....3 B..... C.....	A.....3 B..... C.....
Cropping	Cropping includes potatoes/sugar beet	Cropping includes other root/tuber crops	Cropping includes cereals, non-root crops		Cropping includes long term grass ley or set-aside(> 5 years)	A.....4 B..... C.....	A.....3 B..... C.....
Subsoiling	Regular subsoiling (< 3 years)	Regular or occasional subsoiling (3-6 years)	Rare subsoiling (7-15 years)	No subsoiling		A.....2 B..... C.....	
Initial score						13	12
Weighting	Any at serious risk = 2.5 Any at high risk = 1.5 Any at minimum risk = 0.5					1.5	1.5
Initial score multiplied by weighting						A ...19.5 B C	A18 B C

* Graded A-C according to quality of evidence

* Graded A-C according to quality of evidence

Site intrinsic factors								
Susceptibility of cultivated soil to water erosion								
Average annual rainfall = 600mm								
	Steep slopes (>7°)		Moderate slopes (3°-7°)		Gentle slopes (2°-3°)		Level ground (2°)	Score*
Soil group	Rainfall more than 800mm	Rainfall less than 800mm	Rainfall more than 800mm	Rainfall less than 800mm	Rainfall more than 800mm	Rainfall less than 800mm		
Light soils	Serious Score 5	High Score 4	High Score 4	Medium Score 3	Medium Score 3	Low Score 2	Minimal Score 1	A.....2 B..... C.....
Moderate soils	High Score 4	Medium Score 3	Medium Score 3		Low Score 2		Minimal Score 1	
Heavy soils	Low Score 2		Minimal Score 1		Minimal Score 1		Minimal Score 1	
Susceptibility of cultivated soil to wind erosion								
Soil group	Peats		Sands/Silts	Loams		Sandy clays/silty clay	Clay	Score+ CF
	Serious Score 5		High Score 4	Medium Score 3		Low Score 2	Minimal Score 1	A.....3 B..... C.....
Risk of soil loss during harvesting								
Crop type	Potatoes/sugar beet	Other root/tuber crops	Combinable crops			Score*		
						Root/tuber crops	Combin- able crops	
	Serious Score 5	High Score 4	Medium Score 3			A.....4 B..... C.....	A.....3 B..... C.....	
Initial score							9	8
Weighting	Any of above in grey shaded box = 2						1	1
Initial score multiplied by weighting							A9 B..... C.....	A8 B..... C.....

Archaeological factors						
Survival and quality of evidence	Serious Score 5	High Score 4	Medium Score 3	Low Score 2	Minimum Score 1	Score*
[Other evidence: e.g. -Documentary (HER records, fieldwork reports) -Oral (information from farmers etc) -Material (artefacts in museums or private collections)]	- Upstanding earthworks/structures -Well-preserved deposits demonstrated by excavation -Other evidence indicating well-preserved deposits - Dense, discrete, and/or diagnostic deposits relevant to national research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Other evidence of nationally significant deposits	-Positive and negative features demonstrated by excavation - Positive and negative features indicated by cropmarks/anomalies -Other evidence indicating good preservation -Dense, discrete, and/or diagnostic deposits relevant to regional research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Less dense, discrete, or diagnostic deposits relevant to national research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Other evidence of highly significant deposits	-Negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits - Dense, discrete, or, diagnostic deposits relevant to county research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) -Less dense, discrete, or diagnostic deposits relevant to regional research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) - Dense, discrete, or diagnostic ploughsoil scatters - Other evidence of significant deposits	-Truncated negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits -Other evidence indicating truncation -Sparse or undiagnostic deposits relevant to local research agendas (demonstrated by excavation or indicated by cropmarks/anomalies) - Diffuse or undiagnostic ploughsoil scatters -Other evidence distinguishing between sites of low and minimum significance	- Heavily truncated negative features demonstrated by excavation -Negative features indicated by cropmarks/anomalies -Ploughsoil scatters derived from buried deposits -Other evidence indicating heavy truncation -Sparse or undiagnostic deposits demonstrated by excavation or indicated by cropmarks/anomalies - Diffuse or undiagnostic ploughsoil scatters	A..... B3 C.....
Significance	National significance	Regional significance	County significance	Local significance	No obvious significance	A..... B4 C.....
Initial score						7
Weighting	For score of 9-10 use weighting factor = 2; for score of 8-7 use weighting factor = 1.5; for score of 6 use weighting factor = 1.3; for score of 5-4 use weighting factor = 1; for score of 2-3 use weighting factor = 0.5					1.5
Initial score multiplied by weighting						A ... B ...10.5 C ...

* Graded A-C according to quality of evidence

Final risk score

	Root/tuber crops	Combinable crops
Management factors (out of 50)	19.5	18
Site intrinsic factors (out of 30)	9	8
Archaeological factors (out of 20)	10.5	10.5
Final risk score (out of 100)	39	36.5

Risk levels

Final risk score	Risk level
0-29	Minimal risk
30-39	Low risk
40-49	Moderate risk
50-59	High risk
60+	Serious risk

Boat House Bank (9582)

Trench 37

Maximum dimensions: Length: 9.80m

Width: 1.55m

Depth: 0.55m

Orientation: E-W

Context	Classification	Description	Depth below ground surface
3700	Ploughsoil	Moderately compact mid brown silty sand with common small to medium gravels.	0-0.36m
3701	Natural	Loosely compacted light to mid reddish/yellowish brown sand with abundant small gravels.	0.36-0.55m+
3702	Fill of 3703	Moderately compact mid, slightly reddish brown silty sand with common small to medium gravels.	0.36-0.84m
3703	Pit	Partially exposed pit. Sub-circular with sharp break of slope at top, steeply sloping sides, gradual break of slope at base and flat base. Diameter of 1.95m.	0.36-1.11m
3704	Fill of 3705	Loosely compacted mid brown silty sand with aggregates of yellowish brown sand and gravel Cut by 3703. Unexcavated.	0.36m+
3705	Pit	Partially exposed pit or ditch. Diameter of c1.60m.	0.36m+
3706	Fill of 3707	As 3702. Unexcavated.	0.36m+
3707	Pit	Partially exposed pit. Diameter of c1.60m.	0.36m+
3708	Fill of 3709	As 3702. Unexcavated.	0.36m+
3709	Pit	Partially exposed pit. Diameter of c1.90m.	0.36m+
3710	Fill of 3711	As 3702. Unexcavated.	0.36m+
3711	Pit	Partially exposed pit. Diameter of c1.35m.	0.36m+
3712	Fill of 3703	Moderately compact mid brown sandy silt with common small to large gravels and occasional charcoal flecks.	0.84-1.11m

Trench 38

Maximum dimensions: Length: 8.50m

Width: 1.55m

Depth: 0.71m

Orientation: NE – SW

Context	Classification	Description	Depth below ground surface
3800	Ploughsoil	Moderately compact mid brown silty sand with common small to medium gravels.	0-0.34m
3801	Natural	Loosely compacted light to mid reddish/yellowish brown sand with abundant small gravels.	0.34m+
3802	Fill of 3803	Moderately compact mid slightly reddish brown silty sand with common small to large gravels and few fragments of animal bone.	0.34-0.71m
3803	Ditch	Linear, parallel sided feature 1.20m and 0.37m deep with gradual break of slope at top, moderately sloping sides and gradual slope to flat base. Aligned NW-SE.	0.34-0.71m
3804	Fill of 3805	Moderately compact mid, slightly reddish brown with aggregates of darker brown silty sand. Few small to medium gravels and charcoal flecks. Also several fragments of animal bone. Unexcavated.	0.34m+
3805	Pit	Sub-circular pit, almost completely exposed, suggesting diameter of c2.25m.	0.34m+

Trench 39

Maximum dimensions: Length: 12.20m

Width: 1.55m

Depth: 0.72m

Orientation: WNW-ESE

Context	Classification	Description	Depth below ground surface
3900	Ploughsoil	Loosely compacted mid greyish brown silty sand with common small gravels.	0-0.30m
3901	Subsoil	Loosely compacted mid, slightly reddish brown silty sand with common small gravels.	0-30-0.40m
3902	Natural	Loosely compacted light yellowish and reddish brown sand with abundant small gravels.	0.40m+
3903	Fill of 3904	Moderately compact mid brown silty sand with common small gravels and few fragments of burnt animal bone. Unexcavated.	0.30m+
3904	Pit or tree-hole	Partially exposed irregular but generally sub-circular feature c1.20m in diameter. Uncertain relationship with 3906.	0.30m+

Context	Classification	Description	Depth below ground surface
3905	Fill of 3906	As 3903. Unexcavated.	0.30m+
3906	Tree or root disturbance	Small sub-circular feature c0.80m long by 0.35m wide.	0.30m+
3907	Fill of 3908	Moderately compact mid brown silty sand with common small gravels.	0.30m-0.72m
3908	Tree or root disturbance	Partially exposed feature or features sampled in two hand-excavated slots. One section showed a regular concave profile. The other section showed an irregular profile consistent with bioturbation.	0.30m-0.72m
3909	Fill of 3910	As 3907. Unexcavated.	0.30m+
3910	Tree or root disturbance	Partially exposed irregular feature up to 2.15m wide.	0.30m+
3911	Fill of 3912	As 3907. Unexcavated	0.30m+
3912	Tree or root disturbance	Small elongated oval feature 0.90m long by 0.22m wide.	0.30m+
3913	Void		
3914	Void		
3915	Fill of 3916	As 3907 but slightly sandier.	0.30m+
3916	Tree or root disturbance	Small irregular feature, 0.44m long by 0.35m wide.	0.30m+
3917	Fill of 3918	As 3915.	0.30m+
3918	Tree or root disturbance	Small sub-circular feature, 0.53m long by 0.30m wide.	0.30m+
3919	Fill of 3920	As 3915. Truncated by historic plough scars. Unexcavated.	0.30m+
3920	Tree or root disturbance	Irregular but generally oval feature with longest axis NW-SE. c1.0m long by 0.50m wide.	0.30m+
3921	Fill of 3922	As 3915. Unexcavated.	0.30m+
3922	Tree or root disturbance	Partially exposed sub-circular feature. Uncertain relationship with 3920.	0.30m+



Trench 37 facing west across pits 3705, 3703, 3707, 3709 and 3711 (1m scale)



Trench 37: pit 3703 facing south (1m scale)



Trench 38 facing south-east across pit 3805 and ditch 3803 (1m scale)



Trench 38: north facing section of ditch 3803 (1m scale)



Trench 39 facing south-east (1m scale)