

ARCHAEOLOGICAL  
SERVICES  
DURHAM UNIVERSITY

on behalf of  
URS

Land at Church Lane  
Bedlington  
Northumberland

archaeological evaluation

report 3497  
July 2014



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## **1. Summary**

### **The project**

- 1.1 This report presents the results of an archaeological evaluation conducted in advance of a proposed development on land at Church Lane, Bedlington, Northumberland. The works comprised the excavation of seven evaluation trenches.
- 1.2 The works were commissioned by URS and conducted by Archaeological Services Durham University.

### **Results**

- 1.3 An undated linear cut was recorded in Trench 7. The remains of a modern brick structure, probably a football field pavilion, were identified in Trench 5.
- 1.4 Furrows, the remains of medieval or post-medieval ploughing, were recorded in trenches 2, 3, 4, 5, 6 and 7.
- 1.5 Deposits which may be associated with former opencast mining to the south were identified in trenches 1 and 6.

### **Recommendation**

- 1.6 No further archaeological works are recommended.

## 2. Project background

### Location (Figure 1)

- 2.1 The proposed development area is located on land at Church Lane, Bedlington, Northumberland (NGR centre: NZ 25929 81286) and covered an area of c. 4.6 hectares (ha).

### Development proposal

- 2.2 The development proposal is for housing.

### Objective

- 2.3 The objective of the scheme of works was to assess the nature, extent and potential significance of any archaeological resource within the proposed development area, so that an informed decision may be made regarding the nature and scope of any further scheme of archaeological works that may be required in relation to the development.

### Specification

- 2.4 The archaeological evaluation has been undertaken in accordance with a Written Scheme of Investigation provided by URS (2014).

### Dates

- 2.5 Fieldwork was undertaken between 17th and 19th July 2014. This report was prepared for July 2014.

### Personnel

- 2.6 Fieldwork was conducted by Nathan Thomas and Benjamin Westwood. This report was prepared by Nathan Thomas, with illustrations by Janine Watson, and editing by Peter Carne. Sample processing was undertaken by Hannah Woodrow. Specialist reporting was conducted by Jennifer Jones (artefacts) and Dr Charlotte O'Brien (palaeoenvironmental). The Project Manager was Daniel Still.

### Archive/OASIS

- 2.7 The site code is **BCL14**, for **Bedlington Church Lane 2014**. The archive is currently held by Archaeological Services Durham University and will be transferred to the Great North Museum in due course. The charcoal fragments will be retained at Archaeological Services Durham University. The flint and residue have been scanned in their entirety with all material of palaeoenvironmental or dating value removed, and have therefore been discarded. Archaeological Services Durham University is registered with the **Online Access to the Index of archaeological investigations project (OASIS)**. The OASIS ID number for this project is **archaeol3-185539**.

## 3. Landuse, topography and geology

- 3.1 At the time of the archaeological evaluation the area comprised a single arable field that had recently been harvested. To the north was recreation land, to the south farmland, to the east Church Lane and housing, and to the west was a golf course.
- 3.2 The area was predominantly level with a mean elevation of approximately 45m OD.

- 3.3 The underlying solid geology of the area comprises sandstone, mudstone and siltstone strata of the Pennine Middle Coal Measures, which are overlain by Devensian till in the north; no superficial deposits are recorded in the south of the area (BGS 2014).

#### **4. Historical and archaeological background**

- 4.1 The following is summarised from the WSI provided by URS (2014).

##### **The prehistoric and Roman periods**

- 4.2 The first substantial archaeological evidence in the vicinity of Bedlington is of Bronze Age date (2500 to 800BC), at Mill Field, c.550m to the east.

- 4.3 There is little evidence of later prehistoric activity around Bedlington, but the adjacent coastal strip was densely occupied during the Iron Age (700 BC to AD 43) and Romano-British periods (1st to 5th Century AD). There are no known remains of a Roman date at Bedlington.

##### **The medieval and post-medieval periods**

- 4.4 There is little evidence for medieval activity on the site.
- 4.5 A possible deserted medieval village is recorded at Humford to the south-east of the site.
- 4.6 Further evidence of medieval activity was recorded at Front Street, Bedlington, to the north of the site, where a medieval ditch and post-medieval structure were identified during an archaeological evaluation.
- 4.7 An archaeological watching brief on Front Street identified medieval ditches. Further medieval ditches were found during an archaeological evaluation on Front Street.
- 4.8 An archaeological watching brief at Spring Bank on the eastern side of Bedlington identified medieval pits and ditches.

##### **The modern period**

- 4.9 During more recent times the proposed development area has remained rural, with housing development taking place to the east during the 1930s and later. A football pitch and pavilion was located on the north-eastern side of the site in the 1920s, but had disappeared by 1950.
- 4.10 Cartographic evidence shows the area to have remained undeveloped and used mainly as an agricultural field.

##### **Geophysical survey**

- 4.11 A geophysical survey has been conducted (Archaeological Services 2014). The works comprised 2 hectares (ha) of geomagnetic survey. A number of anomalies of possible anthropogenic origin were detected. In addition, areas of dipolar anomalies were identified which were interpreted as relating to modern disturbance.

## 5. The evaluation trenches

### Introduction

5.1 Seven evaluation trenches, each 40m by 2m, were excavated.

#### Trench 1 (Figure 3)

5.2 This trench did not target any identified geophysical anomalies. A loose mid brown deposit composed of shale, coal and stone fragments within a sandy clay matrix [2], was identified at a depth of 0.3m below ground level (BGL). Deposit [2] was excavated to a depth of 0.6m in the west end of the trench, and was determined to relate to landscaping associated with opencast mining activity known to have taken place to the immediate south. Above deposit [2] was a mid-greyish-brown silty clay cultivation soil [1: 0.3m deep]. No archaeological features or deposits were identified.

#### Trench 2 (Figure 3)

5.3 This trench was located over a linear magnetic anomaly. The natural drift geology, a mottled yellow/brown clay [3], was identified at a depth of between 0.3m and 0.45m BGL. Six shallow furrows were recorded cutting the natural [F4: <50mm deep]. The furrows were oriented north-east to south-west and were filled with a mid-yellowish brown silty clay [5]. A large ceramic drain was identified in the location of the detected magnetic anomaly. Above the furrows was a mid-greyish brown cultivation soil [1: 0.3 to 0.45m deep].

#### Trench 3 (Figure 3)

5.4 This trench was located over a former field boundary. The natural drift geology, a mottled yellow/brown clay with patches of sand [3], was identified at a depth of between 0.2m and 0.3m BGL. Four shallow furrows were recorded cutting the natural [F4: <50mm deep]. The furrows were oriented north-east to south-west and were filled with a mid-yellowish brown silty clay [5]. A furrow was recorded along the line of a former field boundary recorded on historic Ordnance Survey maps. This was of a similar width and depth to the other recorded furrows within the trench; the boundary was not identified. Above the furrows was a mid-greyish brown cultivation soil [1: 0.2 to 0.3m deep].

#### Trench 4 (Figure 3)

5.5 This trench was located over an area containing possible building debris and a weak penannular anomaly. The natural drift geology, a mottled yellow clay [3], was identified at a depth of between 0.3m and 0.7m BGL. Two shallow furrows were recorded cutting the natural [F4: <50mm deep] at the southern end of the trench. The furrows were oriented north-east to south-west and were filled with a mid-yellowish brown silty clay [5]. The location of the two recorded furrows accords with the identified soil-filled penannular anomaly. In the northern 25m of the trench was a light greyish brown silty clay subsoil [6: <0.4m deep]. The deposit was deepest in the northern end of the trench. It contained fragments of post-medieval ceramic, brick and charcoal. It coincides with the building debris identified in the geophysical survey and may relate to landscaping associated with the former 20th-century football field on the site. Above deposit [6] was a mid-greyish brown cultivation soil [1: 0.3m deep].

### **Trench 5 (Figures 3, 5)**

- 5.6 This trench was located over an area containing possible building debris. The natural drift geology, a mottled yellow clay [3], was identified at a depth of between 0.25m (east) and 0.7m (west) BGL. Five shallow furrows were recorded cutting the natural [F4: <50mm deep]. The furrows were oriented north-east to south-west and were filled with a mid-yellowish brown silty clay [5]. Above the furrows was a light yellowish brown silty clay subsoil [10: 0.2m deep], which may relate to landscaping associated with the football field that was on the site in the early 20th century. Cutting deposit [10] at the western end of the trench was a rectangular construction cut [F9: 2.25m long, 1.36m wide and 0.1m deep]. Construction cut [F9] contained the corner of a brick wall [F7]. Wall [F7] was constructed from machine-made bricks and three courses remained *in situ*. Abutting wall [F7] was a mottled orange black loose shale deposit [8: 15m long and 0.2m deep] that extended to the east. Both the identified features correlated with strong magnetic anomalies detected in this area. The brick structure may relate to the pavilion recorded on early 20th-century historic mapping, associated with the former football field. Above deposit [8] was a mid-greyish brown cultivation soil [1: 0.25m to 0.3m deep].

### **Trench 6 (Figure 3)**

- 5.7 This trench was located in the south-east of the site. The natural drift geology, a mottled yellow clay [3], was identified at a depth of between 0.4m and 0.6m BGL. Six shallow furrows were recorded cutting the natural [F4: <0.1m deep]. The furrows were oriented north-east to south-west and were filled with a mid-yellowish brown silty clay [5]. Above the furrows was a loose mixed silt, coal and shale deposit [13: 0.2 to 0.3m deep]. The deposit was interpreted as relating to landscaping associated with the adjacent previous opencast mining activity. Above deposit [13] was a mid-greyish brown cultivation soil [1: 0.3m deep].

### **Trench 7 (Figures 3, 6)**

- 5.8 This trench was located in the east of the site. The natural drift geology, a mottled yellow clay [3], was identified at a depth of between 0.35m and 0.65m BGL. Cutting the natural [3] at the northern end of the trench was a possible linear cut [F11: 8.25m long, 1m wide and 0.48m deep]. Cut F11 was oriented approximately north-south and was filled with a light yellowish brown sandy clay [12]. Four shallow furrows were recorded cutting the natural [F4: <0.1m deep]. The furrows were oriented north-east to south-west and were filled with a mid-yellowish brown silty clay [5]. Above the furrows was a light brown silty clay subsoil [14: 0.1m to 0.3m deep], which could relate to the former football field in this area. Above the subsoil [14] was a mid-greyish brown cultivation soil [1: 0.25m to 0.35m deep].

## **6. The artefacts**

### **Pottery assessment**

#### **Results**

- 6.1 Fifteen domestic and utilitarian sherds (105g wt) came from three contexts (Appendix 1, Table 1.2). All but one are of 19th to early 20th century date. The single earlier sherd is an abraded, unglazed medieval body sherd in an oxidised sandy/gritty fabric with reduced core. This came from furrow fill [5] and could have been deposited through field manuring practices. The later material includes pieces of plain and transfer-printed whiteware, bone china, colour glazed ware and a buff stoneware jar sherd.

#### **Recommendation**

- 6.2 No further work is recommended.

#### **Glass assessment**

##### **Results**

- 6.3 A body sherd of clear modern bottle glass came from context [2].

#### **Recommendation**

- 6.4 No further work is recommended.

#### **Building materials assessment**

##### **Results**

- 6.5 A small, very abraded fragment (<1g wt) of fired clay was recovered from environmental sample <1> from context [12]. It is micaceous, not very highly fired and has no visible inclusions. The degraded condition of the piece prevents further identification or dating.

#### **Recommendation**

- 6.6 No further work is recommended.

## **7. The palaeoenvironmental evidence**

### **Methods**

- 7.1 A palaeoenvironmental assessment was carried out on context [12], a fill of a linear cut of unknown date. The sample was manually floated and sieved through a 500 $\mu$ m mesh. The residue was examined for shells, fruitstones, nutshells, charcoal, small bones, pottery, flint, glass and industrial residues, and was scanned using a magnet for ferrous fragments. The flot was examined at up to x60 magnification using a Leica MZ7.5 stereomicroscope for waterlogged and charred botanical remains.
- 7.2 Selected charcoal fragments were identified, in order to provide material suitable for radiocarbon dating. The transverse, radial and tangential sections were examined at up to x600 magnification using a Leica DMLM microscope. Identifications were assisted by the descriptions of Schweingruber (1990) and Hather (2000), and modern reference material held in the Environmental Laboratory at Archaeological Services Durham University.
- 7.3 The works were undertaken in accordance with the palaeoenvironmental research aims and objectives outlined in the regional archaeological research framework and resource agendas (Petts & Gerrard 2006; Hall & Huntley 2007; Huntley 2010).

### **Results**

- 7.4 The sample comprised coal, clinker/cinder and a small amount of fired clay. A few fragments of birch and ash charcoal were recorded in the flot, which may be too small for radiocarbon dating. The results are presented in Appendix 1, Table A1.3.

### **Discussion**

- 7.5 The sample comprises a small amount of fuel waste, but the assessment can provide little additional information about the age or nature of the feature due to the absence of diagnostic palaeoenvironmental remains.



## Recommendations

- 7.6 No further analysis is required for the sample due to the low numbers of palaeoenvironmental remains. If additional work is undertaken at the site, the results of this assessment should be added to any further palaeoenvironmental data produced.

## 8. The archaeological resource

- 8.1 An undated linear cut was recorded in Trench 7. The remains of a modern brick structure, probably a football field pavilion, were identified in Trench 5.
- 8.2 Furrows, the remains of medieval or post-medieval ploughing, were recorded in trenches 2, 3, 4, 5, 6 and 7.
- 8.3 Deposits which may be associated with former opencast mining to the south were identified in trenches 1 and 6.

## 9. Impact assessment

- 9.1 Given the lack of evidence for a significant archaeological resource on the site, no significant impact is anticipated.

## 10. Recommendation

- 10.1 No further archaeological works are recommended.

## 11. Sources

- Archaeological Services 2014 *Land at Bedlington Church Lane geophysical survey*  
Unpublished report 3415 Archaeological Services Durham University
- BGS 2014 online *Geology of Britain* viewer available from:  
<http://mapapps.bgs.ac.uk/geologyofbritain/home.html> accessed 25th April 2014
- Hall, A R, & Huntley, J P, 2007 *A review of the evidence for macrofossil plant remains from archaeological deposits in northern England*, Research Department Report Series no. 87. London
- Hather, J G, 2000 *The identification of the Northern European Woods: a guide for archaeologists and conservators*. London
- Huntley, J P, 2010 *A review of wood and charcoal recovered from archaeological excavations in Northern England*. Research Department Report Series no. 68. London
- Petts, D, & Gerrard, C, 2006 *Shared Visions: The North-East Regional Research Framework for the Historic environment*. Durham
- Schweingruber, F H, 1990 *Microscopic wood anatomy*. Birmensdorf
- URS 2014 *WSI for archaeological trial trenching; Land at Church Lane, Bedlington, Northumberland*. Prepared for Miller Homes LTd.

## Appendix 1: Data table

**Table A1.1: Context data**

The \* symbols in the columns at the right indicate the presence of artefacts of the following types: P pottery, B bone, M metals, F flint, I industrial residues, G glass, C ceramic building material, O other materials.

No	Area	Description	P	B	M	F	I	G	C	O
1	All	Topsoil								
2	Tr1	Opencast deposit	*							
3	All	Natural								
F4	All	Furrow cut (general)								
5	All	Furrow fill (general)	*							
6	Tr4	Subsoil	*							
F7	Tr5	Brick wall								
8	Tr5	Industrial deposit								
F9	Tr5	Construction cut								
10	Tr5	Subsoil								
F11	Tr7	Linear cut								
12	Tr7	Fill of F11								
13	Tr6	Opencast deposit								
14	Tr7	Subsoil								

**Table A1.2: Sherd numbers by context**

Context	Med	Post-med	Includes
2		6	TPWW; WW; BC
5	1		OSGW
6		8	TPWW; WW;BSW; CGW

Key:

BC	bone china	OSGW	oxidised sandy/gritty ware
BSW	buff stoneware	TPWW	transfer printed whiteware
CGW	colour glazed ware	WW	whiteware

**Table A1.3: Data from palaeoenvironmental assessment**

Sample	1
Context	12
Feature	Cut
Material available for radiocarbon dating	(✓)
Volume processed (l)	20
Volume of flot (ml)	150
<b>Residue contents</b>	
Clinker / cinder	(+)
Coal	(+)
Fired clay / CBM	(+)
<b>Flot matrix</b>	
Charcoal	+
Clinker / cinder	++
Coal	++
<b>Identified charcoal (✓ presence)</b>	
<i>Betula</i> sp (Birches)	✓
<i>Fraxinus excelsior</i> (Ash)	✓

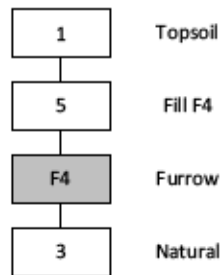
[(+): trace; +: rare; ++: occasional; +++: common; ++++: abundant  
(✓) may be unsuitable for dating due to small size]

## Appendix 2: Stratigraphic matrices

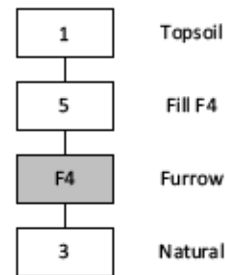
Trench 1



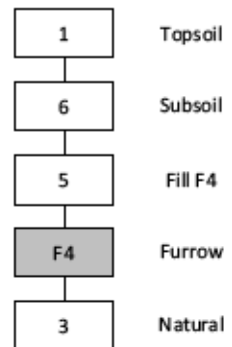
Trench 2



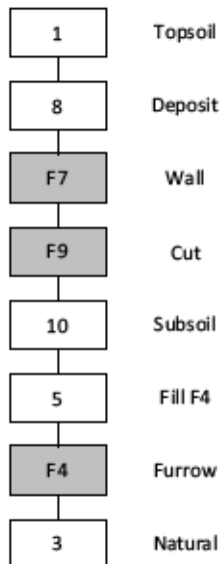
Trench 3



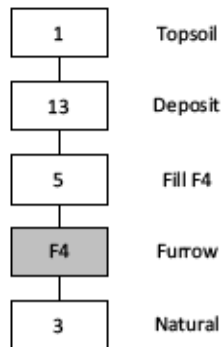
Trench 4



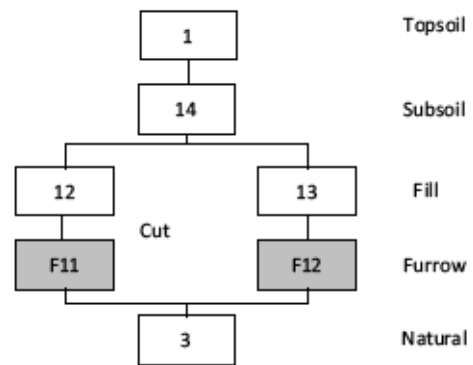
Trench 5

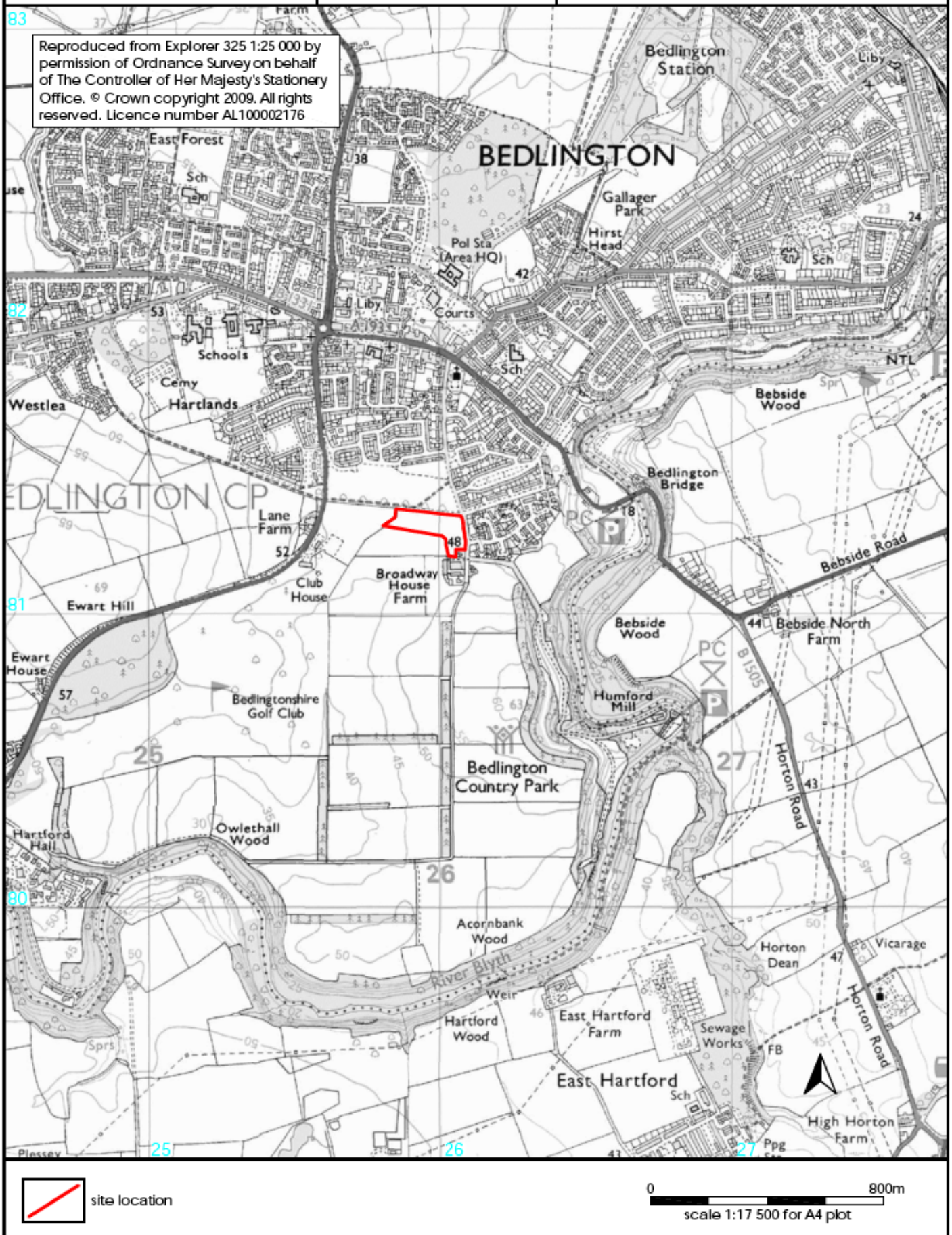


Trench 6



Trench 7

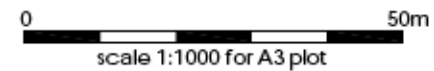




geophysical survey	
	magnetic survey
	soil-filled feature
	ferrous debris
	building debris

	service pipe
	land drain
	geotechnical borehole
	former field boundary

archaeological evaluation	
	extent of excavation
	drain
	furrow
	feature



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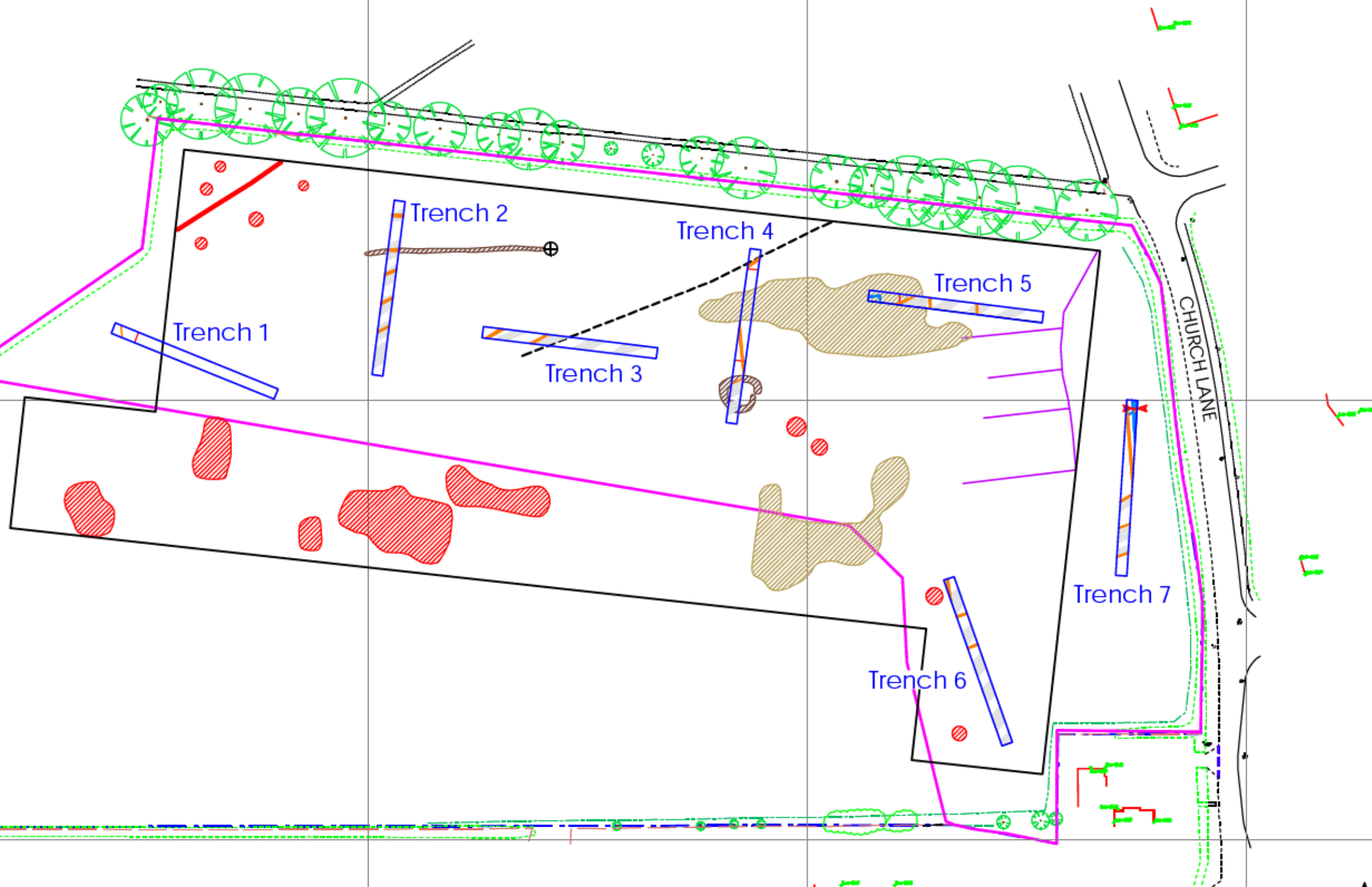
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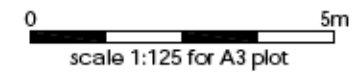
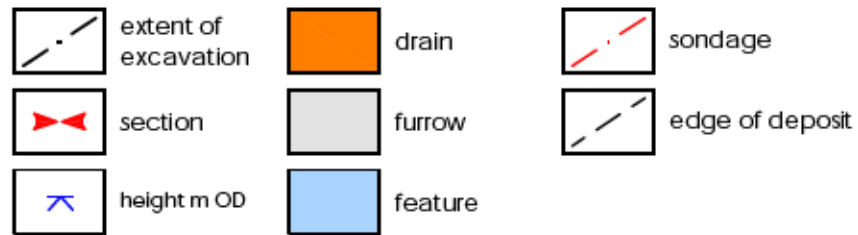
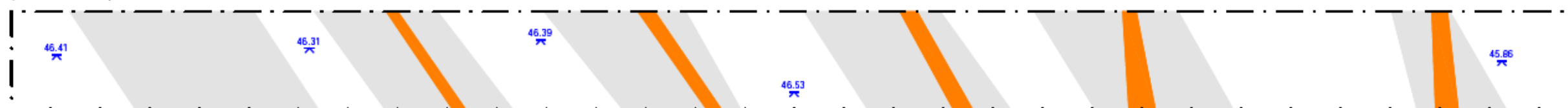


Figure 3: Trenches 1-7 plans and Trench 7 section

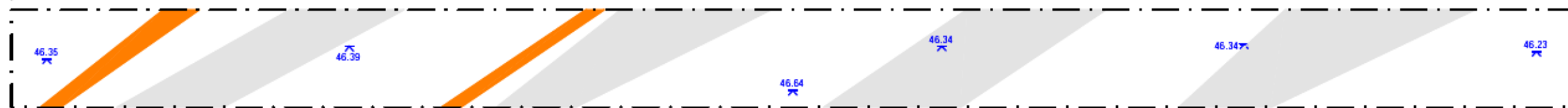
Trench 1, plan



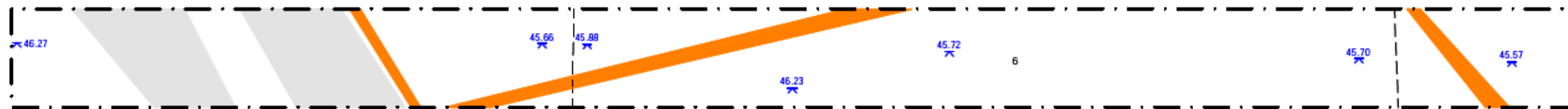
Trench 2, plan



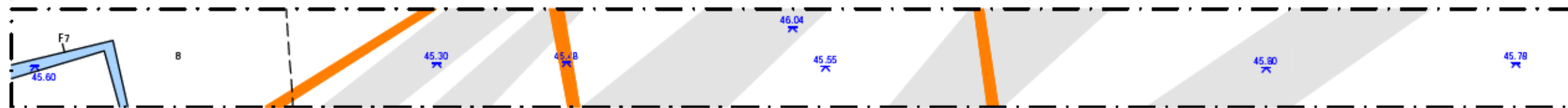
Trench 3, plan



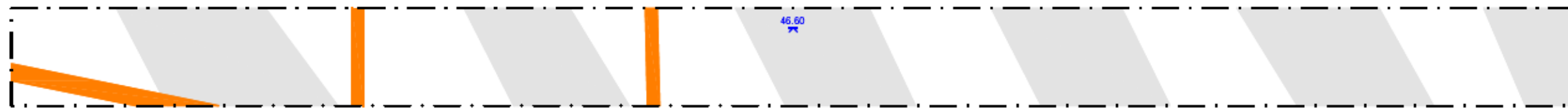
Trench 4, plan



Trench 5, plan



Trench 6, plan



Trench 7, plan

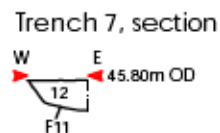
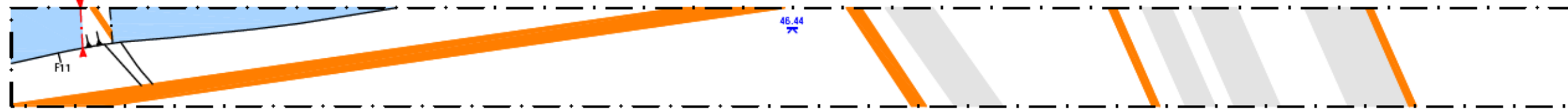




Figure 4: Trench 5, F7 and deposit [8], looking east



Figure 5: Trench 5, F7 and deposit [8], looking north-west



Figure 6: Trench 7, F11, looking north