

*BIRMINGHAM UNIVERSITY*  
*FIELD ARCHAEOLOGY UNIT*

**An archaeological evaluation at  
Catholme, Barton-under-Needwood,  
Staffordshire:**

**trial trenching phase**

*B.U.F.A.U.*



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**An archaeological evaluation at Catholme,  
Barton-under-Needwood, Staffordshire:  
trial trenching phase**

by

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## **An archaeological evaluation at Catholme, Barton-under-Needwood, Staffordshire: trial trenching phase**

### **Summary**

*Archaeological trial trenching was undertaken at Catholme Farm, Barton-under-Needwood, Staffordshire (NGR SK 1960 1680) in August and September 1999. This followed a desk-based assessment, an aerial photographic assessment, fieldwalking and geophysical survey. Although the results of the fieldwalking and geophysical survey were largely negative, cropmarks on aerial photographs suggested the presence of archaeological features including linear boundaries and three pit alignments within the study area. Immediately adjacent to the study area are three Scheduled Ancient Monuments including a complex of multiple, concentric pit circles (SAM 256), a circular enclosure or ring ditch associated with lines of radiating pits (SAM 215) and a group of ring ditches and linear features (SAM 216).*

*A series of 22 trial trenches were excavated to test potential features within the study area. Evidence was obtained for two of the pit alignments. Numerous other linear features were recorded some of which may relate to prehistoric land boundaries. One of these ditches contained a single fragment of prehistoric pottery. However, others were probably medieval or post-medieval agricultural furrows.*

### **Introduction**

The following report details the results of the trial trenching phase of an archaeological evaluation at Catholme Farm near Barton-under-Needwood, Staffordshire (centred on NGR SK 1960 1680, Fig. 1). It was undertaken following the submission of a planning application for the creation of a series of balancing lagoons. The work was commissioned by Phoenix Consulting on behalf of Hanson Aggregates and was undertaken by Birmingham University Field Archaeology Unit in late August and early September 1999. The trial trenching followed a desk-based assessment (Richmond 1999a), an aerial photographic assessment (Cox 1999), a fieldwalking survey and surface collection (Hancocks and Coates 1999) and a geophysical survey (Bartlett 1999). The programme of trial trenching was based on a scheme of investigation prepared by Phoenix Consulting (Richmond 1999b).

### **Archaeological background**

The site lies approximately 1.5km to the southeast of the village of Barton-under-Needwood and is bounded to the east by the Birmingham to Derby railway. The boundary of the study area (Fig. 2) encloses approximately 18 hectares and the site lies on a sand and gravel terrace on the west bank of the River Trent just north of its

confluence with the River Tame. Information on past settlement and landuse on the gravel terraces of the River Trent has primarily been obtained from aerial photographic survey notably, by Jim Pickering and Rowan Whimster (1989). These surveys have demonstrated extensive and intensive human activity on the gravel terraces since at least the Neolithic (Gaffney and Hughes 1993).

The desk-based study (Richmond 1999a) assessed the extent of the known archaeology within and around the potential development area. It included a comprehensive documentary and cartographic survey and a review of previous archaeological work in the immediate area. The remains of three suggested prehistoric sites adjacent to the application area have been scheduled as Ancient Monuments (SAM 215, SAM 216 and SAM 256). The boundary of the application area has been designed to avoid the buried remains of these sites and consequently to ensure their continued preservation *in situ*. The easternmost of these sites (SAM 256) is a circular monument comprising multiple concentric circles of pits. It has been suggested that it represents a ceremonial structure, perhaps a complex series of timber circles, of a type well-known throughout Britain dating to the late Neolithic or Early Bronze Age (Gibson 1994). The best known examples of multiple pit circles are found in Wessex and include Woodhenge near to Stonehenge and those in the great henge enclosures of Durrington Walls and Mount Pleasant. A further cropmarked site to the west comprises a circular enclosure with a series of radiating pits (SAM 215). However, an archaeological evaluation to the west of this site in 1992 failed to identify any archaeological features (Jones 1992). A third scheduled site (SAM 216) lies to the northwest of the study area and includes at least one ring ditch and a group of linear features. However, some of the features belonging to this complex which are recorded on the SMR, including a putative cursus, were not identified during the aerial photographic assessment (Cox 1999).

Cropmarked features within the application zone, which were identified during the aerial photographic survey (Cox 1999), included three pit alignments. These are thought to be the remains of linear boundaries of Bronze Age date and are indicated on Figure 2. Few archaeological artefacts were collected during the fieldwalking and the geophysical survey failed to detect potential archaeological features. Consequently, the locations of the trial trenches were largely dictated by the results of the rectified aerial photographic survey.

## **Aims**

The objective of the programme of trial trenching was to obtain useful information concerning the presence, character, extent, state of preservation and date of any archaeological features or deposits within the study area and to establish whether archaeology in the application area may be associated with the suggested archaeology of the scheduled areas.

## **Method**

A total of 22 trenches were excavated of varying dimensions (see appendix). These provided a total sample of approximately 1% of the proposed development area. The rationale for each of the trench locations was principally based on the results of the aerial photographic assessment. Each of the trenches was located using a Total Station Theodolite and the ploughsoil was excavated using a mechanical excavator fitted with a 2m toothless ditching bucket under archaeological supervision. Where appropriate, the subsoil surface was hand cleaned. A representative sample of the features identified were hand excavated to provide information concerning the survival and complexity of feature fills, and to recover artefactual evidence. A detailed context record on individual pro-forma record cards was maintained and all features and trenches were photographed using both colour and black and white film. Trench plans were drawn at a scale of 1:50 or 1:20 as necessary. Excavated sections of individual features were drawn at a scale of 1:10 or 1:20.

## **Summary results of trial trenching**

Detailed results of the trial trenching, including the objectives of each trench location and descriptions of features and stratigraphy, are provided in the appendix. The following is a brief summary describing the principal features recorded.

The ploughsoil over most of the site varied between 0.3m and 0.4m deep. The subsoil generally comprised orange brown sand and gravel.

Few features of archaeological interest were identified in the southern part of the study area (Trenches 9-13) or in the northeastern area (Trenches 15-18). There were also no features in the trenches immediately to the north and south of the multiple pit circle (SAM 256) (Trenches 1 and 3). However, several linear features, orientated east-west, were recorded in the area between the two scheduled areas (Trench 2). Although no artefacts were recovered from any of these features it seems possible that they are associated with the monument complex.

The pits recorded in Trenches 4, 19 and 21 might represent possible traces of the northern pit alignment. However, the central pit alignment was not detected in Trench 16. The pit recorded in Trench 14 (F451) may be associated with the southern pit alignment. Although there was no clear evidence for this pit alignment in Trench 22, the linear feature that was recorded contained a possible fragment of prehistoric pottery. It is just possible that this linear ditch forms a southern boundary to the monument complex represented by the two scheduled areas (SAM 215 and SAM 256).

Although occasional features including ditches and pits were identified elsewhere, they were generally isolated and fragmentary and could not be dated. In several of the trenches there was evidence for medieval and post-medieval agricultural furrows and these, along with modern ploughing, appear to have severely damaged earlier archaeological features.

## **Discussion**

The trial trenching appears to have identified two of the three pit alignments plotted during the aerial photographic assessment. These alignments might relate to a series of late prehistoric land divisions forming part of a system which also includes the alignment identified on Fatholme Farm to the north. A similar alignment of pits has recently been excavated at Whitmoor Haye approximately 3.5km to the south of the study area (Coates 1999). However, it is notoriously difficult to characterise gravel cut pits in small-scale excavations and narrow evaluation trenches. No finds were recovered from any of the excavated pits and they could easily be isolated features. A more positive identification of the pit alignments can only be made by opening much larger areas in the vicinity of the plotted cropmarked features.

The group of linear features in the area between the two scheduled areas (Trench 2) and the ditch recorded in Trench 22 suggest that features associated with the scheduled monuments may exist outside the scheduled areas. However, these remains were fragmentary and there is no clear evidence relating them in date or function to the scheduled remains. Apart from these features very little of archaeological interest was recorded within the rest of the study area. The few features that were recorded were 'negative' gullies or ditches, which could not be dated. There was no evidence for any stratified deposits and all the identified features were heavily truncated by both medieval and modern ploughing.

## **Acknowledgements**

Gary Coates supervised the fieldwork with the assistance of John Hovey, Simon Holyoak, Chris Hewitson, Roddy Mattinson, John Roberts, Venessa Clarke and Ed Newton. The illustrations are the work of Nigel Dodds, Mark Breedon and John Halstead.

The project was managed by Gwilym Hughes who also compiled the report. The work monitored by Andrew Richmond on behalf of Phoenix Consulting, Chris Welch on behalf of Staffordshire County Council and Paul Stamper on behalf of English Heritage.

## Appendix

### Detailed results of Trial Trenching

#### Trench 1

*Aim:* to investigate an apparently blank area to the immediate north of SAM 256.

*Method:* machine excavated trench 2m wide and 40m long orientated E-W.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.35m. It comprised an orange brown gravel with lenses of orange sand.

*Features:* no features identified.

*Interpretation:* no significant archaeology encountered.

#### Trench 2

*Aim:* to investigate an apparently blank area between SAM 256 and SAM 215.

*Method:* machine excavated trench 2m wide and 40m long orientated N-S.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.35m. It comprised an orange brown gravel with lenses of orange sand.

*Features:*

F51: narrow linear E-W feature filled with brown silty sand and gravel. Up to 0.85m wide and 0.35m deep with a V-shaped profile. Associated with possible post hole F52.

F52: sub-circular pit cut into side of linear feature F51. 0.36m wide and 0.4m deep with steep side and flat base. Similar fill to F51.

F53: wide E-W cut filled with a brown sandy silt. Up to 2.5m wide and 0.5m deep with a U-shaped profile.

F54: wide and shallow linear E-W feature filled with brown sandy silt. Up to 2.5m wide and 0.15m deep.

F55: very wide and shallow area of darker yellow brown sandy gravel up to 7m wide. Probably a variation in the natural subsoil.

*Interpretation:* the E-W orientation of the linear features (F51, F53 and F54) suggest that they may be associated with the two SAMs. However, no finds were recovered and it is also possible that some of these features are part of the ridge and furrow agricultural pattern. F51 with its possible associated post hole (F52) appeared to be the most convincing of the three linear features.

#### Trench 3

*Aim:* to investigate an apparently blank area to the immediate south of SAM 256.

*Method:* machine excavated trench 2m wide and 40m long orientated E-W.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.35m. It comprised an orange brown gravel with lenses of orange sand.

*Features:* no features identified.

*Interpretation:* no significant archaeology recorded.

#### **Trench 4**

*Aim:* to investigate an area where the northern and central pit alignments identified during the aerial photographic assessment converge, forming a double pit alignment.

*Method:* machine excavated trench 2m wide and 50m long and orientated N-S.

*Stratigraphy:* The natural subsoil was encountered at a depth of 0.35m. It comprised an orange brown sand and gravel.

*Features:*

F151: broad and shallow linear feature orientated NE-SW. 9m wide and 0.2m deep.

F152: narrow linear feature 0.7m wide and orientated E-W.

F153: shallow bowl-shaped pit 1m across and 0.1m deep.

F154: bowl-shaped pit 1.2m across and 0.4m deep. Cut by pit F155.

F155: bowl-shaped pit 1m across and 0.3m deep. Cuts F154.

F158 and F156: two small pits or possible post holes.

F159: bowl-shaped pit 1.4m across and 0.6m deep.

*Interpretation:* the two larger pits (F154 and F159) maybe associated with the double pit alignment recorded during the AP survey.

#### **Trench 5**

*Aim:* to investigate an apparently blank area to the immediate north of SAM 215.

*Method:* machine excavated trench 2m wide and 40m long and orientated E-W.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.35m. It comprised an orange brown gravel with lenses of orange sand.

*Features:* no features identified.

*Interpretation:* no significant archaeology recorded.



#### **Trench 6 (see Fig. 4)**

*Aim:* to investigate an area to the immediate northeast of SAM 215 between the two diverging pit alignments.

*Method:* machine excavated trench 2m wide and 30m long and orientated E-W.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.35m. It comprised an orange brown sand and gravel.

*Features:*

F251: linear feature orientated NW-SE and filled with sandy loam and gravel. Up to 1m wide and 0.25m deep.

*Interpretation:* it was difficult to determine whether or not feature is significant archaeology. It has the same orientation as the furrows recorded during the AP survey. However, the profile does not resemble an agricultural plough furrow.

#### **Trench 7**

*Aim:* to investigate an area to the immediate east of SAM 216. Also in the area of a circular enclosure recorded on the SMR but not during the aerial photographic assessment.

*Method:* machine excavated trench 2m wide and 40m long.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.4m. It comprised a white grey sand and gravel with lenses of orange gravel.

*Features:*

F300: oval pit 2m x 1.25m. Up to 0.3m deep. Flecks of charcoal in upper part of fill.

F301: narrow linear E-W feature up to 0.8m wide.

*Interpretation:* difficult to determine whether or not the recorded features are significant archaeology.

#### **Trench 8**

*Aim:* to investigate an area where cropmarked features are recorded on SMR but not during AP survey.

*Method:* machine excavated trench 2m wide and 30m long and orientated NE-SW.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.4m. It comprised an orange brown sand and gravel with lenses of grey sand and gravel.

*Features:* three plough furrows recorded, each approximately 10m apart.

*Interpretation:* no significant archaeology recorded.

#### **Trench 9**

*Aim:* to investigate a single pit alignment seen to clip the northern edge of this field.

*Method:* machine excavated trench 2m wide and 10m long and orientated N-S.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.4m. It comprised a orange sandy gravel.

*Features:* no features recorded.

*Interpretation:* it is possible that the pit alignment identified during the AP survey lies just to the north of the trench in the area of the modern trackway.

### **Trench 10**

*Aim:* to investigate a N-S feature that was identified during the AP survey.

*Method:* machine excavated trench 2m wide and 20m long and orientated E-W.

*Stratigraphy:* the natural subsoil was encountered at a depth of 3m. It comprised a yellow brown silty sand up to 0.3m thick. This in turn overlay an orange brown gravel.

*Features:* no features recorded. However, a spread of brick rubble was recorded at eastern end of trench – possibly associated with the railway.

*Interpretation:* no significant archaeology identified.

### **Trench 11**

*Aim:* to investigate an apparently blank area in an area where a barrow has been thought to exist.

*Method:* machine excavated trench 2m wide and 30m long and orientated E-W.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.35m. It comprised an orange brown sand and gravel.

*Features:* one linear feature recorded orientated NW-SE. Possible plough furrow.

*Interpretation:* no significant archaeology identified.

### **Trench 12**

*Aim:* to investigate an apparently blank area in a field where a barrow has been thought to exist.

*Method:* machine excavated trench 2m wide and 30m long and orientated N-S.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.35m. It comprised an orange brown sand and gravel.

*Features:* no features recorded.

*Interpretation:* no significant archaeology identified.

### **Trench 13**

*Aim:* to investigate an apparently blank area in a field where a barrow has been thought to exist.

*Method:* machine excavated trench 2m wide and 30m long and orientated N-S.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.35m. It comprised an orange brown sand and gravel.

*Features:* modern pipe trench recorded at southern end of trench. Also two or three possible E-W plough furrows.

*Interpretation:* no significant archaeology identified.

### **Trench 14 (see Fig. 4)**

*Aim:* to investigate a single pit alignment identified during AP survey. Also to test an area of deeper soils along the eastern edge of the site.

*Method:* machine excavated 'T-shaped' trench 4m wide and 20m long with an extension 5m by 5m.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.35m. It comprised an orange brown sand and gravel.

*Features:*

F451: large sub-circular pit with steep sides and flat base and filled with brown sandy silt. Up to 2m across and 0.6m deep.

F452: linear feature in SE corner of trench orientated NE-SW and filled with dark brown silty sand. Up to 1m wide and 0.6m deep with a steep, U-shaped profile. Cuts a narrower and shallower feature (F453).

F453: linear feature in SE corner of trench. 0.5m wide and 0.1m deep. Cut by larger linear feature (F452).

*Interpretation:* it seems probable that the large pit (F451) is part of the southern pit alignment identified during the AP survey. The linear features recorded in the SE corner of the trench also had the appearance of prehistoric linear boundaries.

### **Trench 15**

*Aim:* to investigate an area of deep soils close to the northern edge of SAM 256.

*Method:* machine excavated trench 2m wide and 20m long and orientated NE-SW.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.35m. It comprised an orange brown sand and gravel.

*Features:* no features recorded.

*Interpretation:* no significant archaeology identified.

### **Trench 16**

*Aim:* to investigate a single pit alignment identified during the AP survey.

*Method:* machine excavated trench 2m wide and 40m long and orientated N-S.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.35m. It comprised an orange brown gravel with lenses of orange sand.

*Features:* no features recorded.

*Interpretation:* no significant archaeology identified and specifically no features relating to the pit alignment.

### **Trench 17**

*Aim:* to investigate an area of cropmarks recorded on the SMR but not identified during the AP survey.

*Method:* machine excavated trench 2m wide and 40m long and orientated N-S.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.35m. It comprised an orange brown gravel with lenses of orange sand.

*Features:* no features recorded.

*Interpretation:* no significant archaeology identified.

### **Trench 18**

*Aim:* to investigate a potential linear cropmark identified during the AP survey.

*Method:* machine excavated trench 2m wide and 30m long and orientated E-W.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.35m. It comprised an orange brown gravel with lenses of orange sand.

*Features:* no features recorded.

*Interpretation:* no significant archaeology identified.

### **Trench 19 (see Fig. 4)**

*Aim:* to investigate a single pit alignment identified during the AP survey.

*Method:* machine excavated trench 2m wide and 30m long and orientated NW-SE.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.35m. It comprised a white to orange brown sand and gravel.

*Features:*

F901: linear feature orientated NW-SE and filled with sandy loam and gravel. Up to 1.3m wide and 0.25m deep with U-shaped profile.

F902: sub-circular pit with bowl-shaped profile, up to 2.5m across and 0.15m deep.

*Interpretation:* the pit (F901) is potentially part of the pit alignment identified during the AP survey. F901 has the same alignment as the furrows identified on the AP survey.

#### **Trench 20**

*Aim:* to investigate an area on the southern edge of SAM 216 and to the immediate north of an area where suggested pit features have been tentatively identified from the AP survey.

*Method:* machine excavated trench 2m wide and 40m long and orientated N-S.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.35m. It comprised an orange brown gravel with lenses of orange sand.

*Features:* no features recorded apart from a modern land drain.

*Interpretation:* no significant archaeology identified.

#### **Trench 21 (see Fig. 4)**

*Aim:* to investigate a pit alignment identified during the AP survey.

*Method:* machine excavated trench 4m wide and 13m long and orientated approximately NW-SE.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.35m. It comprised an orange brown sand and gravel.

*Features:*

F1001: sub-circular pit 1.3m across and 0.5m deep.

F1002: linear feature orientated approximately E-W.

F1003: sub-circular pit cut by linear feature F1002.

*Interpretation:* the pits (F1001 and F1003) possibly form part of the pit alignment identified during the AP survey. F1003 is on the same orientation as the furrows recorded on the AP survey.

#### **Trench 22 (see Fig. 5)**

*Aim:* to investigate a single pit alignment identified during the AP survey.

*Method:* machine excavated 'figure of 8' trench 4m wide and 13m long and orientated NW-SE.

*Stratigraphy:* the natural subsoil was encountered at a depth of 0.35m. It comprised an orange brown gravel with lenses of orange sand.

*Features:*

F1051: linear feature orientated NW-SE filled by yellow brown sandy loam and gravel and containing fragment of possible prehistoric pottery. 1.5m wide and up to 0.3m deep.

*Interpretation:* the linear feature may define the southern boundary of the monument complex (SAM 215 and SAM 256).

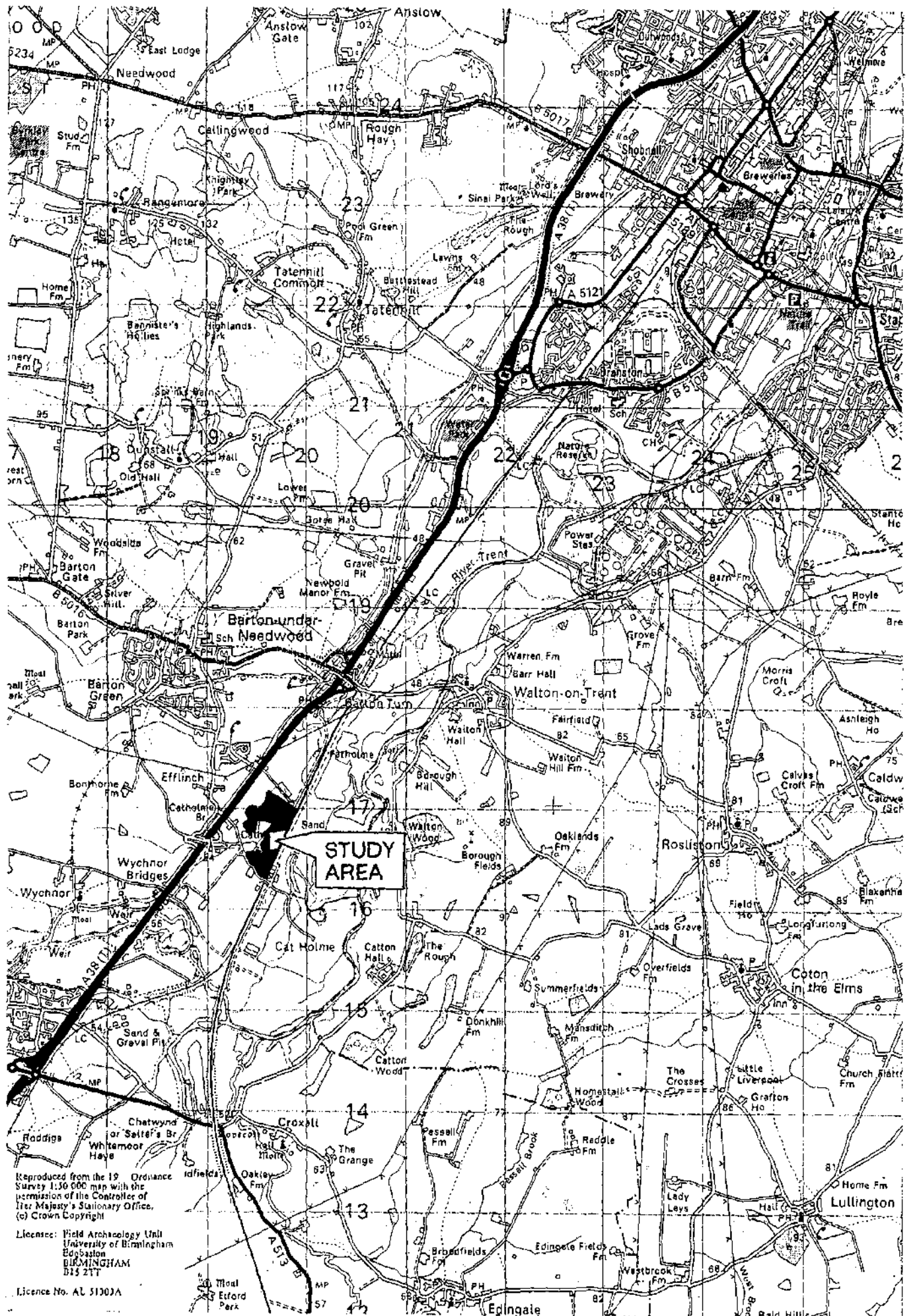
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FIG. 1

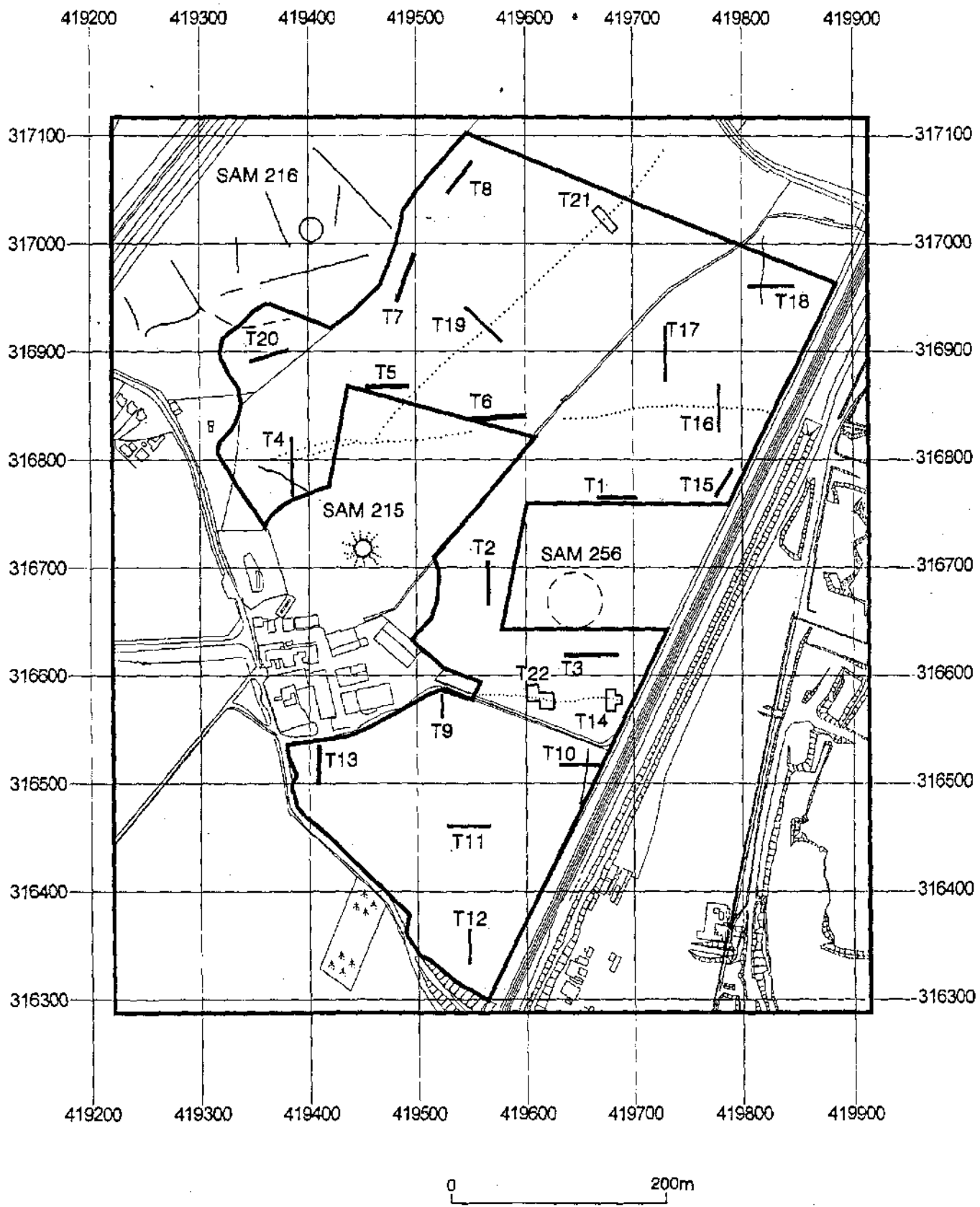
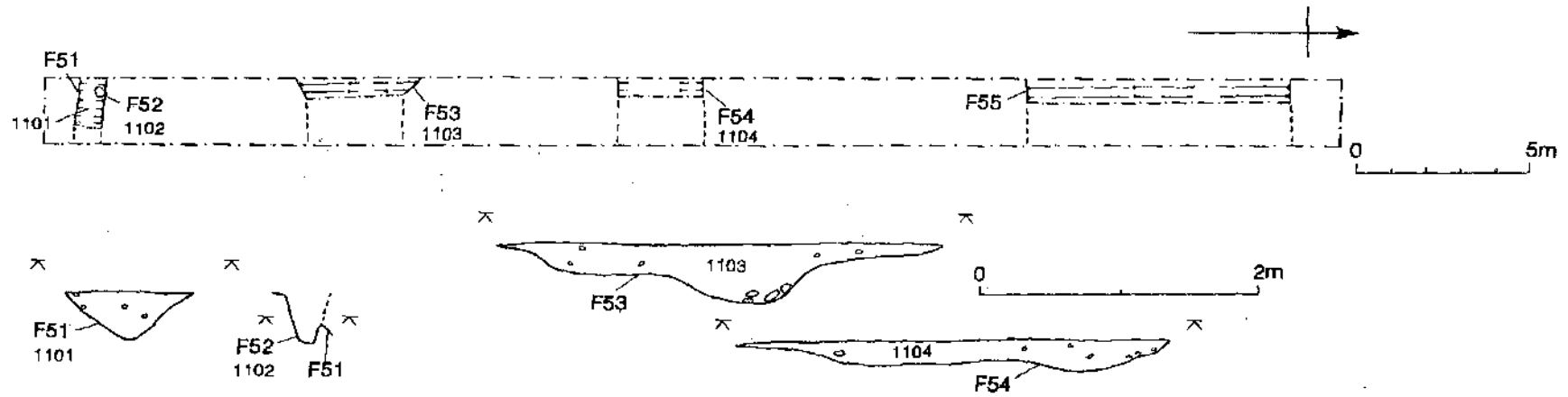


FIG. 2

TRENCH 2



TRENCH 4

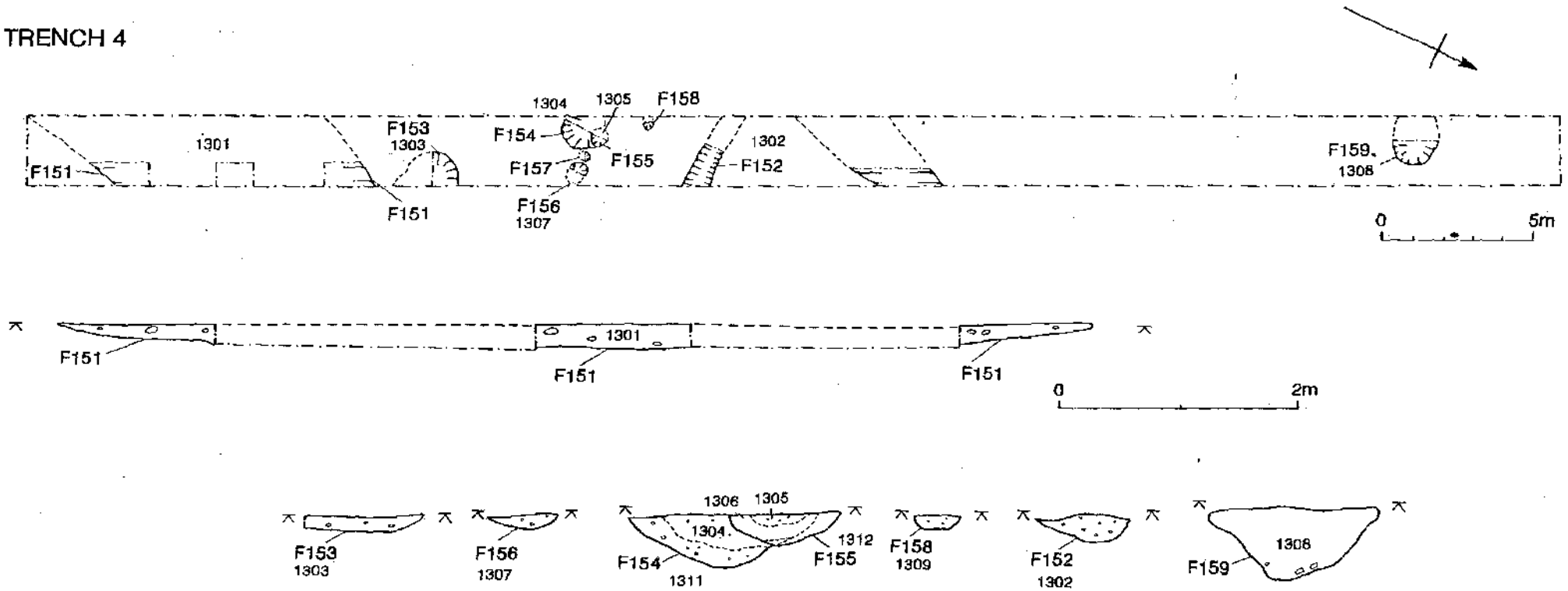
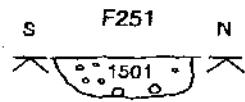
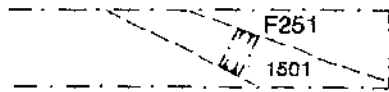
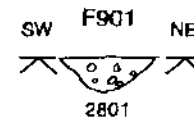
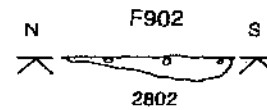
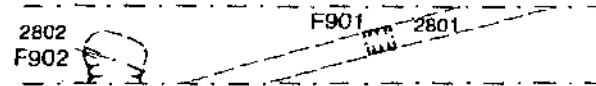


FIG.3

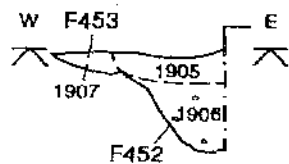
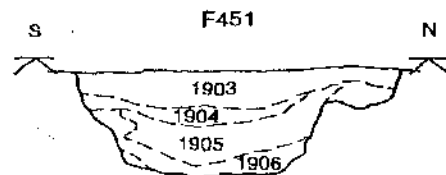
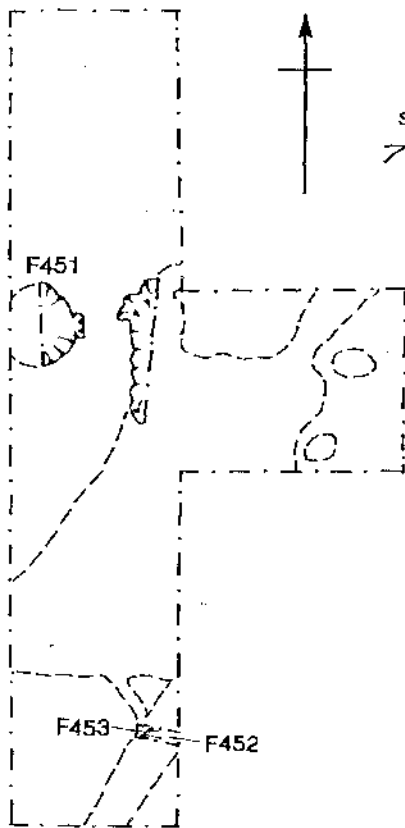
TRENCH 6



TRENCH 19



TRENCH 14



TRENCH 21

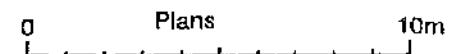
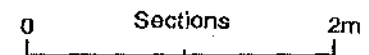
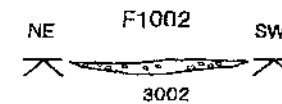
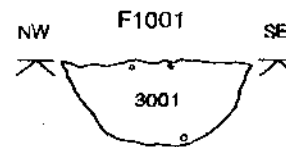
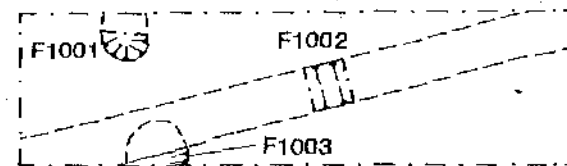


FIG.4

TRENCH 22

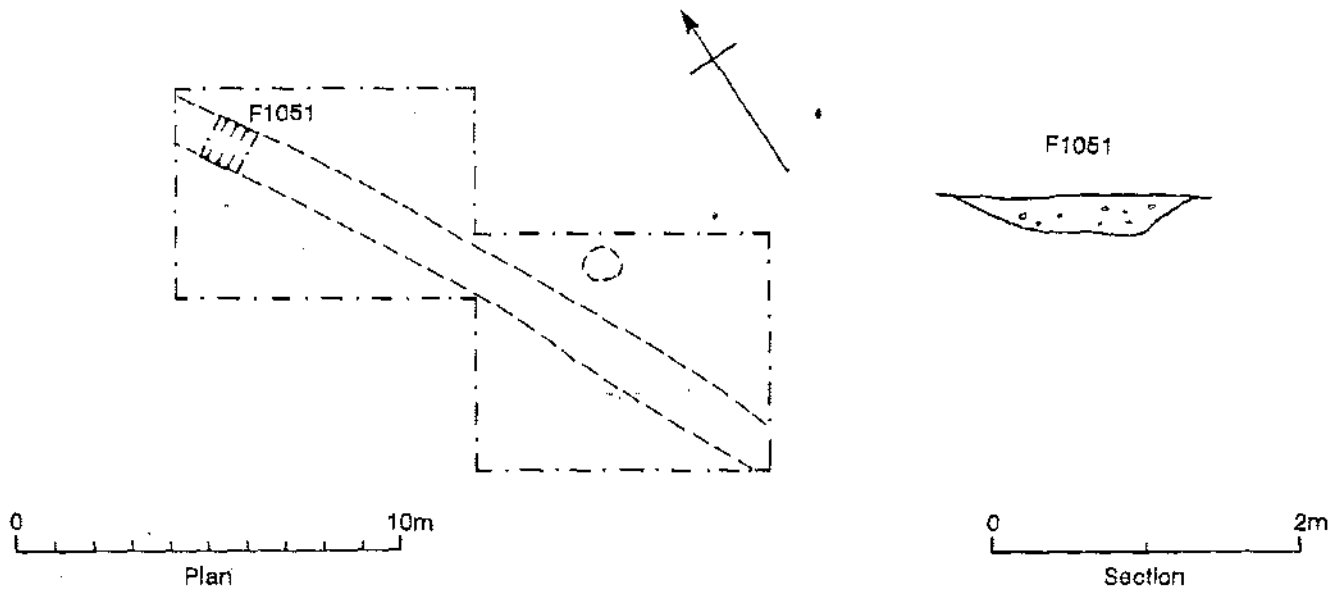


FIG. 5