New Water Main, Sewer and Sewage Pumping Station at Ham Farm, Gillingham, Dorset

Results of a Programme of Archaeological Mitigation

Section 1 – NGR 382236, 125642 to 382108, 125426

Section 2 – NGR 380220, 126161 to 381105, 125218

Prepared by:
D Brace

On behalf of:
Wessex Water

Document No: ACW1508/4/0
Date: July 2023

AC archaeology

NEW WATER MAIN, SEWER AND SEWAGE PUMPING STATION AT HAM FARM, GILLINGHAM, DORSET:
RESULTS OF A PROGRAMME OF ARCHAEOLOGICAL MITIGATION

Section 1 - NGR 382236, 125642 to 382108, 125426
Section 2 - NGR 380220, 126161 to 381105, 125218

Summary

Archaeological mitigation consisting of a 'strip, map and record' intervention was undertaken along two parts of the route during groundworks associated with the construction of a replacement water main on land to the south-west of Gillingham in Dorset. This programme of work involved the construction of a new water main and sewage system related to a major housing development on the southern side of Gillingham. The archaeological investigations were carried out between May and July 2023.

A number of archaeological features were recorded during the 'strip, map and record' part of the investigation. These consisted of a series of gullies and ditches in the north-west part of the scheme (SMR 1). These are likely to have an agricultural origin related to field boundaries and water management. A small quantity of modern glass, pottery and animal bone was recovered from a number of the recorded features.

1. INTRODUCTION

1.1 This document sets out the results of a programme of archaeological mitigation during groundworks associated with the construction of a new water main and associated infrastructure at Ham Farm, Gillingham, Dorset. The new water main and sewage system relates to a major housing development on the southern side of Gillingham. The route of the pipeline and the areas requiring mitigation is shown on Fig. 1.

1.2 The archaeological mitigation was undertaken by AC archaeology Ltd between May and July 2023 and was commissioned by Wessex Water in consultation with the Senior Archaeologist at Dorset Council (SADC). Consultations confirmed that archaeological mitigation was required for portions of the overall route. This involved a 'strip, map and record' (SMR) programme along two parts of the route where previous investigations had confirmed the potential for significant archaeological deposits to survive. This approach to archaeological mitigation was based primarily on the results of an archaeological evaluation, geophysical survey and open area excavation (Robinson 2019). This work was undertaken in support of a new housing development, as well as the results of a Historic Environment Assessment (HEA) that was commissioned by Wessex Water as part of this overall project.

1.3 In addition, a survey of surviving ridge and furrow within the central area of the pipe route was planned as part of the overall mitigation strategy. However, once on site, it was apparent that there were no visible earthworks to record and this element of fieldwork was not completed.

2. SITE LOCATION, LAND USE AND GEOLOGY

2.1 The scheme lies mostly within the ancient parish of Gillingham with the far south-eastern extent falling within the ancient parish of East Stour. It largely comprises agricultural land with no notable features or structures present along the route.

2.2 The areas of archaeological mitigation concerned Section 2 and consists of a c.1.5km pipeline from Stour Meadows, Gillingham and crosses a number of pasture fields before, terminating at the proposed new pumping station at Ham Farm.

2.3 The geology comprises mudstone of the Kimmeridge Clay Formation, a sedimentary bedrock, formed between 152 and 157 million years ago during the Jurassic period. The routes lies between 70m and 79m above Ordnance Datum.

2.4 For most of the route there are no superficial deposits recorded, apart from localised areas of flood zones related to the River Stour and River Lodden which contain alluvial deposits of clay, silt, sand and gravel. These date to the Quaternary Period.

3. ARCHAEOLOGICAL BACKGROUND

3.1 The HEA provided a detailed assessment of heritage assets in the general area of the pipeline route (Robinson & Cottam 2023). No designated heritage assets were found within the line of the scheme, with 11 identified within the broader study area, including two conservation areas. The HEA identified three areas containing likely archaeological deposits, with a fourth area being located *c*. 200m east of Compound A.

3.2 Site 1 is located at the northernmost part of Section 1 and consists of a double ditched feature thought to be a field boundary. This was found during archaeological trial trenching in 2015. The ditches are undated and appear to predate any of the historic maps consulted as part of the HEA. In the field immediately to the east, and 200m east of Compound A, was further archaeological evidence consisting of pits and post holes of Late Bronze Age date that could relate to prehistoric settlement (Site 2). These sites may be contemporary in date.

3.3 Site 3 consists of a field of ridge and furrow that was identified on air photographs and is likely to have formed part of the medieval open field system. However, site investigations failed to find any surviving earthworks.

3.4 Site 4 consists of a Romano-British settlement that was first identified during a programme of trial trenching in 2015. Parts of the area were investigated in 2021, ahead of a new road relating to the new housing development. Further excavation work took place in 2022 in advance of the new housing development.

4. AIMS OF THE INVESTIGATION

4.1 The principal aims of the archaeological mitigation programme were to:

- To carry out, under constant archaeological direction the stripping of the SMR areas in the relevant working widths and compound areas, where necessary.

- To carry out an earthwork survey in the area comprising remnants of ridge and furrow. This stage of work was not completed as there were no visible earthworks;

- To record and excavate any archaeological features exposed by the groundworks;

- To contribute to research agendas, for example, the South West Archaeological Research Framework Research Strategy 2012-2017 (Somerset County Council 2012):
  Theme A: Settlement Sites and Landscapes – urban, rural, prehistoric.
  Theme C: Environment and Dating – landscape change and methodologies: Research Aim 21a: Development of field systems and intensification of agriculture in the Bronze and Iron Ages.

5. FIELD METHODOLOGY

5.1 The site investigation was undertaken in accordance with a Written Scheme of Investigation approved by the SADC (Clark, 2023). Attendance by the archaeologist was comprehensive (i.e. present during all relevant ground disturbance). The investigation comprised a 'SMR' portion along a section of the pipeline at the north-west and south-east ends of the pipe route. The excavation of the subsequent pipe trench was not monitored.

5.2 Direction drilling pits (launch / receptor) were initiated at locations along the route of the pipeline to avoid any undue damage to the rail network and the River Stour.

5.3 Site observations were recorded using the standard AC archaeology *pro-forma* recording system, comprising written and graphic records in accordance with AC archaeology's General Site Recording Manual, Version 2. A comprehensive photographic record was also made and is included as a series of plates at the back of this report.

5.4 The archive has been prepared using the unique site code ACW1508.

6. RESULTS

6.1 The route covered an area approximately 1.5km in length, including a small element requiring directional drilling under the West of England Main Line and the River Stour. A portion of the easement, to the south-east, had been disturbed as a result of previous construction works (a compound).

Strip, Map and Record Area (Site 4; Plan Fig. 1)

6.2 Archaeological mitigation involved a programme of SMR in the south-eastern portion of the pipeline route. The SMR measured approximately 150m in length with a completed width of approximately 10m to 12m. Under the direction of the site archaeologist and using a toothless bucket, topsoil was removed to a depth of between 0.1m and 0.3m with subsoil removed to a depth no greater than 0.6m (**Plate 1**). This was in order to obtain a full plan of the stripped area. The soils were subsequently stored in a bund on either side of the easement. The exposed natural geology varied across the SMR, but generally comprised clay and silt, with patches of river terrace gravels, likely the result of alluvial activity. The deposits encountered during this phase of the fieldwork are summarised in Table 1. While no features of archaeological significance were recorded during this phase, there was some evidence of agricultural activity including modern terracing which may be related to recent construction and drainage activity (see Fig. 1).

6.3 The deposits encountered during this phase of the fieldwork are summarised in Table 1 below.

Context Number	Description	Depth (mm)	Interpretation
100	Mid brown loamy silty clay	>300	Turf and topsoil
101	Light yellow-brown silty clay	>600	Subsoil
102	Varied; yellow-brown clay with silt/sand and gravel patches	-	Natural geology

Table 1: Deposits encountered during SMR (Site 4)

Strip, Map and Record Area (Site 1; Plan Fig. 1 & Fig. 2a)

6.4 A second area of archaeological mitigation involved a programme of SMR in the north-western portion of the pipeline route. The SMR measured approximately 175m in length with a completed width of approximately 10m to 12m. Under the direction of the site archaeologist and using a toothless bucket, topsoil was removed to a depth of 0.2m with subsoil removed to a depth no greater than 0.25m (**Plate 2**). This was in order to obtain a full plan of the stripped area. The soils were subsequently stored in a bund on either side of the easement. Part of the easement comprised a matted running track for plant access and was not stripped. In addition, a sewage main was encountered across a portion of the working width and required avoidance. The exposed natural geology varied across the SMR, but generally comprised clay, with patches of river terrace gravels, which are result of alluvial activity. The deposits encountered during this phase of the fieldwork are summarised in Table 2. A number of features of archaeological interest were recorded during this phase, suggestive of agricultural and water management activity. All of the recorded features continued beyond the extents of the SMR.

Linear gully F203 (Plan Fig. 2a, Section Fig. 2.b; Plate 3)

6.5 Adjacent to Compound A, this linear gully was aligned broadly east to west and visible in plan for approximately 9m and was most likely truncated. It had a recorded width of 0.45m and was 0.16m in depth. The gully had sloping concave sides and a rounded base, with a singular fill (204) comprising a firm clay with silt. No finds were recovered during the sampling of this feature. Its overall function is not wholly clear but is likely associated with F207 to the north and may to relate to historic water management due to this area being liable to flooding.

Linear gullies F205 and F209 (Plan Fig. 2a, Sections Fig. 2.c & Fig. 2.e; Plate 4)

6.6 Two parallel gullies were located in the south-east part of the SMR, to the north of the STW, and aligned north-east to south-west. They were visible in plan for at least 12m and were 2.5m apart. Feature 205 had a width of 0.5m and a depth of 0.2m, while F209 had a width of 0.4m and was 0.12m deep. Both features had concave sides onto flat bases, with singular fills comprising firm mid brown clay-silt. Fill 206 contained a small fragment of CBM (2g), a green glass bottle neck (6g), an iron nail (15g) and two small pieces of clinker (3g). Fill 210 contained a fragment of CBM (4g), three fragments of clinker (10g) and a single rim sherd of post-medieval pottery. Their function is likely related to agriculture and water management.

Linear ditch F207 (Plan Fig. 2a, Section Fig. 2.d; Plate 5)

6.7 Exposed to the north of F203, this feature comprised a north-west to south-east aligned linear ditch. Heavily truncated, probably as a result of historic ploughing, it was visible for *c.* 36m, with a width of 0.95m and a depth of 0.16m. It had rounded, sloping sides and an undulating base with a singular fill (208) comprising firm clay with silt. No dateable artefacts were recovered from the fill. It most likely has an agricultural origin, related to water management.

Linear ditch F211 (Plan Fig. 2a, Section Fig. 2.f; Plate 6)

6.8 The most substantial of the features recorded during the investigation comprised a north to south aligned ditch towards the northern extent of the SMR (1). The ditch was visible in plan for c. 27m and was 1.62m wide and up to 0.42m deep. It had fairly steep, undulating sides and an uneven base, with a singular fill (212) comprising firm clay with silt. The feature may be the remnants of a field boundary, albeit one that appears to predate any of the historic maps consulted. Alternatively, its clay rich fill may suggest a natural origin, suggestive of an infilled paleo-channel.

6.9 A short section of a linear ditch was also visible, located between F207 and F211. It was north-east to south-west aligned and recorded in plan only.

Context Number	Description	Depth (mm)	Interpretation
200	Mid grey-brown silty clay with small stones and rare CBM	200	Topsoil
201	Dark yellow-brown clay-silt with stones and flint with rare CBM	>300	Subsoil
202	Mottled yellow-brown clay with occasional gravels	-	Natural geology
F203	E – W aligned linear gully	160	Probable agricultural / drainage feature
204	Mottled, light yellow-grey clay with silt. Firm	160	Sole fill of F203
F205	NE – SW aligned linear gully	200	Probable agricultural / drainage feature, parallel to F209
206	Mid brown clay silt	200	Sole fill of F205
F207	N – S aligned linear ditch	160	Probable truncated field boundary or drainage channel

208	Mottled Yellow-grey clay with silt. Firm	160	Sole fill of F207
F209	NE – SW aligned linear gully	120	Probable agricultural / drainage feature, parallel to F205
210	Mid brown clay silt. Firm	120	Sole fill of F209
F211	N – S aligned linear ditch	420	Probable former field boundary or infilled paleo-channel
212	Mottled yellow-grey and dark yellow-brown clay with silt. Firm	420	Sole fill of F211

Table 2: Deposits encountered during SMR (Site 1)

6.10 No additional discrete features of archaeological origin were observed within the SMR (1). The survey undertaken of the postulated ridge and furrow (Site 3) was of limited value, with little earthworks visible during the site investigation.

6.11 To assist with directional drilling a launch and receptor pit were excavated to the south-east of SMR (1), near to Compounds B and C. This was to avoid any undue damage to the rail network and the River Stour. These excavations were not archaeologically monitored.

7. FINDS ASSESSMENT

7.1 All finds recovered on site have been retained, cleaned and marked where appropriate. Finds were marked using the relevant AC archaeology site code, and museum accession code. Finds were then quantified according to material or species type within each context and all data entered into a spreadsheet.

7.2 A limited assemblage of finds was recovered, with ten artefacts weighing 72g recovered from across the site. The assemblage is unlikely to further future research and is of limited archaeological value.

8. CONCLUSIONS

8.1 The programme of archaeological mitigation has demonstrated that a small number of archaeological features and deposits survive along the route of the scheme, with a number of features recorded in the SMR (1) at the north-west extent of the scheme.

8.2 The archaeological features were recorded during the strip, map and record portion of the investigation are generally thought to be post-medieval or modern in origin and may denote agricultural activity and elements of potential land division. They do not provide any evidence for intensive activity, such as settlement, along the route of the scheme.

Consideration of Methodology

8.3 The archaeological mitigation consisting of two SMR's along parts of the route based primarily on the results of the geophysical survey, but also previous investigations in the vicinity. The areas containing the anomalies considered to have the most potential was subject to SMR and this investigation did confirm the presence of a small number of archaeological deposits.

9. REFERENCES

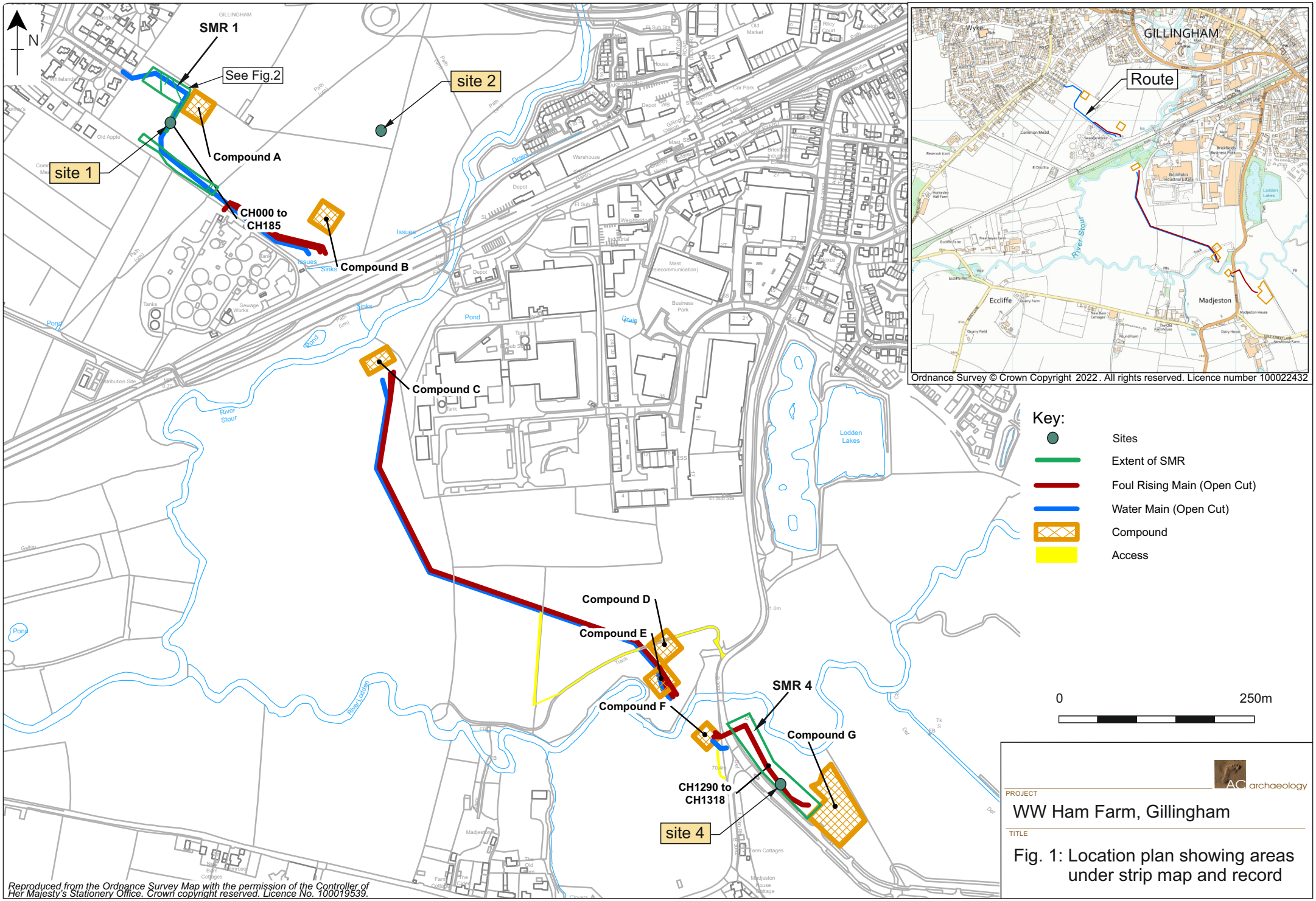
British Geological Survey, *Geology of Britain Viewer*. http://mapapps.bgs.ac.uk/geologyofbritain/home.html, © NERC. Accessed 03/2023

Clark, R. 2023, *New Water Main, Sewer and Sewage Pumping Station at Ham Farm, Gillingham, Dorset: Written Scheme of Investigation for a Programme of Archaeological Mitigation.* AC archaeology Ltd. Document no. ACW1508/2/0

Robinson, S. & S, Cottam. 2023, *A proposed new water man, sewer and sewage pumping station on land at Ham Farm, Gillingham, Dorset: Historic Environment Assessment.* AC archaeology Ltd. Report ACW1508/1/0

Robinson, S. 2019, *Land at New House and Ham Farm, Gillingham, Dorset. Results of archaeological site evaluation*. Doc. Ref. ACW1142/1/0

FIGURES:



Reproduced from the Ordnance Survey Map with the permission of the Controller of Her Majesty's Stationery Office. Crown copyright reserved. Licence No. 100019539.

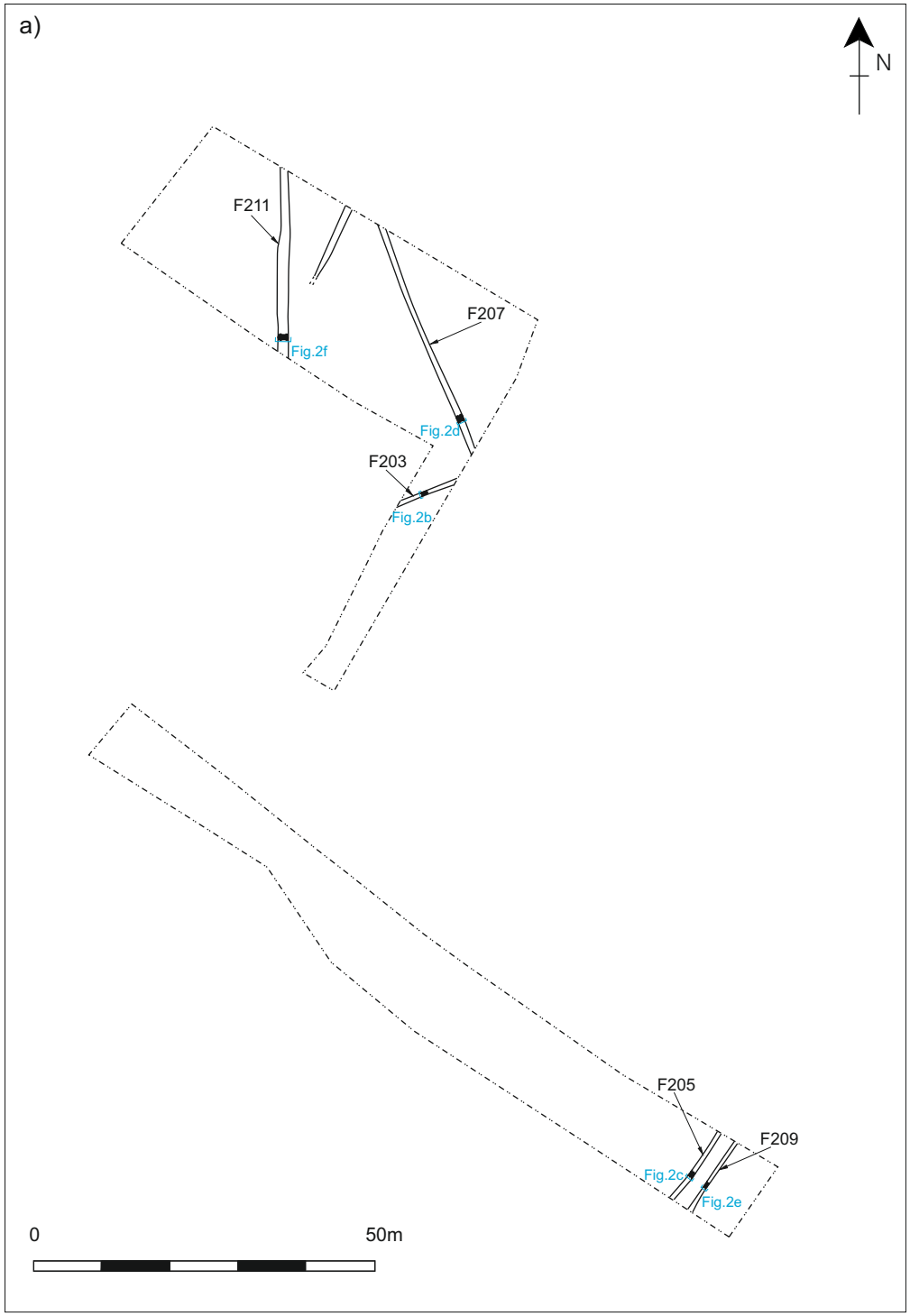
AC archaeology

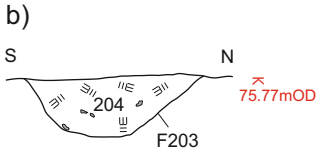
PROJECT

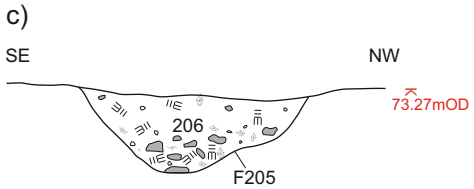
WW Ham Farm, Gillingham

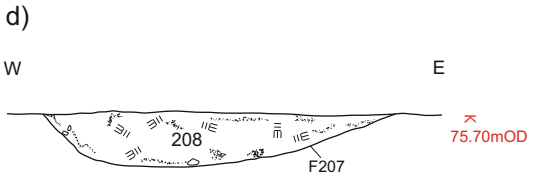
TITLE

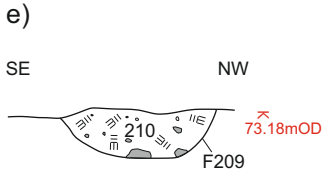
Fig. 1: Location plan showing areas under strip map and record

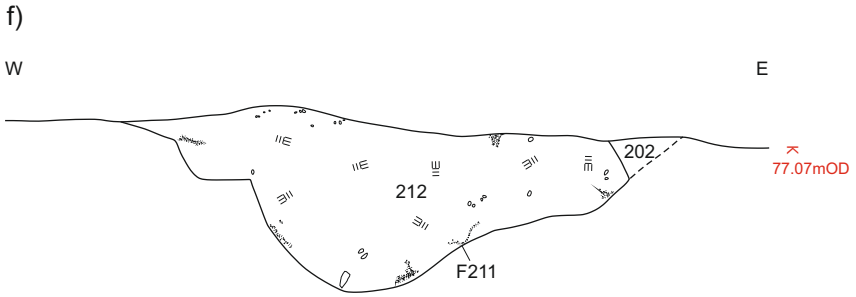


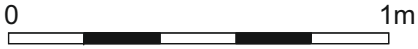












Key:

Gravel

Stone

Flint

Clay

AC archaeology

PROJECT

WW Ham Farm, Gillingham

TITLE

Fig. 2: Plan and section drawings from SMR1

Wiltshire Office

AC archaeology Ltd
Manor Farm Stables
Chicklade
Hindon
Nr Salisbury
Wiltshire
SP3 5SU

Telephone: 01747 820581
Fax: 01747 820440

Devon Office

AC archaeology Ltd
Unit 4, Halthaies Workshops
Bradninch
Nr Exeter
Devon
EX5 4LQ

Telephone/Fax: 01392 882410

www.acarchaeology.co.uk