



**Report on an Archaeological Watching Brief During the
Installation of Pipe 4, Fernhurst Furnace, Fernhurst, West
Sussex**

October 2015

NON-TECHNICAL SUMMARY

This document sets out the results from an archaeological watching brief carried out during the installation of a relief water pipe at Fernhurst Furnace, Fernhurst, West Sussex. The trench excavated for the pipe revealed the upper part of the original clay dam together with a number of later capping and repair deposits composed of clay, slag and sandstone.

BACKGROUND

Topographical Background

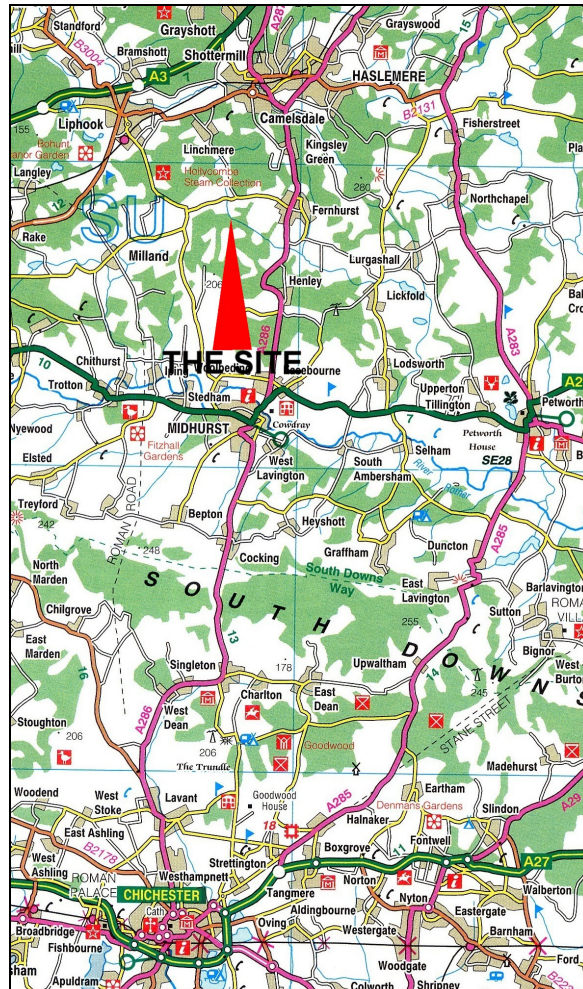


Figure 1 Site location. © Crown copyright. All rights reserved. License number: AL100036068

1. Fernhurst furnace lies within the parish of Fernhurst, approximately 1.5 miles to the west of the village of Fernhurst and 5 miles to the north of Midhurst, in West Sussex (see Fig.1). The top of the dam to the furnace pond lies at 64.5m aOD and at NGR SU8792 2817. The geology is Lower Cretaceous Weald clay, with sandstone pockets.

Planning Background

1. Fernhurst furnace is a Scheduled Monument (No.1021403). The watching brief was undertaken during the installation of a new relief pipe to the existing northern spillway through the dam. Scheduled Monument Consent was granted to undertake the works, with a condition attached requiring a watching brief during works, to be governed by a written scheme of investigation (WSI) approved by English Heritage.

2. West Sussex Archaeology Ltd (WSA) was appointed by the landowner to carry out the archaeological works required to meet this condition. A Written Scheme of Investigation, drawn up by WSA, set out the methodology used in order to fulfil the terms of the condition (WSA 2014).
3. This report details the results of that archaeological work, which was carried out on the 14th July 2015 by George Anelay of WSA. The project archive, which consists solely of paperwork, will be deposited with West Sussex Record Office.

Historical Background

1. An iron smelting furnace was in operation at the Fernhurst furnace by AD1614, but it seems likely from documentary evidence that it was also in use during the 16th century. The furnace continued in operation, with periodic lulls in operation, until falling into disuse in AD1776 (Barnes in Magilton 2003).

RESULTS

1. A single trench, c.10m long and 1m wide, was excavated through the top of the furnace pond dam in order to allow for the laying of the pipe. This reached a maximum depth of 1.75m.
2. Below the current topsoil (1 in Fig.3) a number of deposits were revealed relating to the dam's initial construction and subsequent repairs. At the base the upper portion of what is almost certainly the dam's original weald clay structure was revealed (6 in Fig.3) extending to within 0.4m of the current ground surface. Immediately above this on its western and partially on its eastern sides, was a layer of clay mixed with slag (4 in Fig.3) which probably represents a later repair or capping to the dam, constructed after the furnace had begun operating. On the western side a further two layers had been added, one of Weald clay (3 in Fig.3), similar to that of the original dam, the other of slag (2 in Fig.3). On the eastern side a thick deposit of Lower Greensand rubble (5 in Fig.3) had been piled up against the dam. The nature of this latter deposit suggested that the eastern part of the dam had suffered some significant damage in the past, which was then repaired with this sandstone rubble.
3. It was apparent that the base of the pipe trench was well above the level of the base of the original dam.

WEST SUSSEX ARCHÆOLOGY

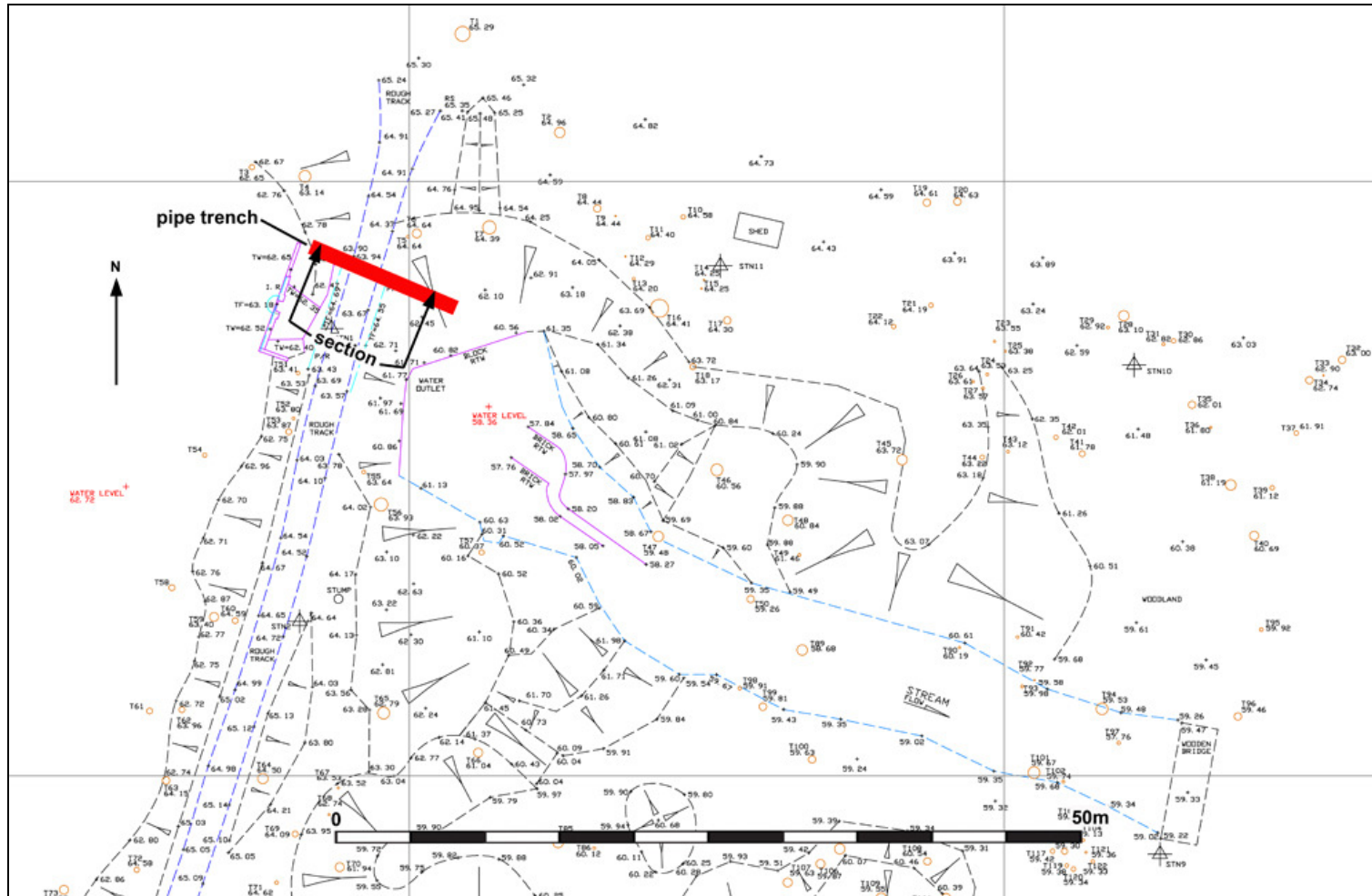


Figure 2 Topographical plan showing the location of the pipe trench through the dam and the drawn section.

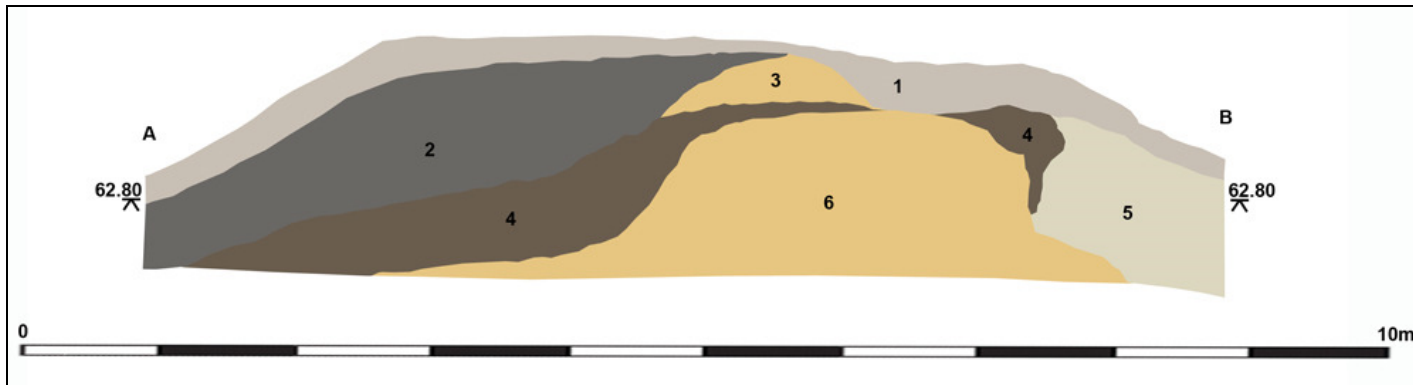


Figure 3 Drawn section of the north face of the pipe trench through the dam.

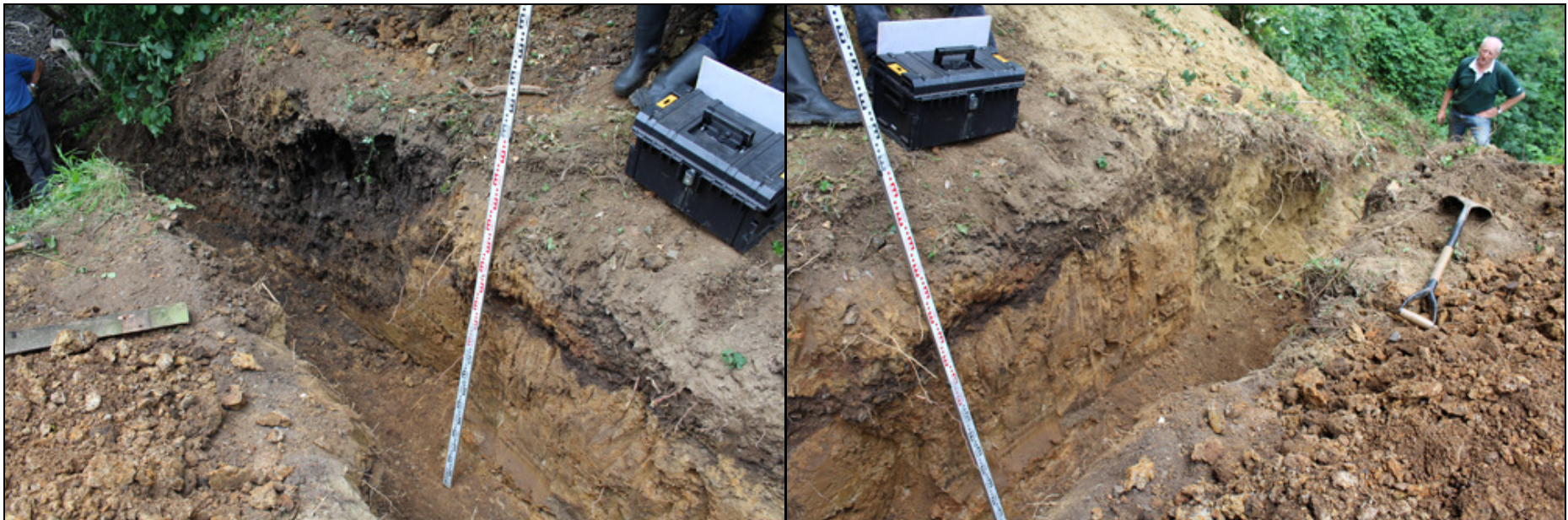


Figure 4 The north section through the dam. The left image looking north-west, the right looking north-east.

BIBLIOGRAPHY

Magilton, J. 2003. **Fernhurst Furnace**. Chichester District Archaeology 2. Chichester District Council.

West Sussex Archaeology. 2014. **Methods Statement For An Archaeological Watching Brief During The Installation Of Pipe 4, Fernhurst Furnace, Fernhurst, West Sussex**. Unpublished.