

**FERNHALL LANE RISING MAIN
WALTHAM ABBEY**

ARCHAEOLOGICAL MONITORING



**Essex County Council
Field Archaeology Unit**

June 2011

Fernhall Lane Rising Main, Waltham Abbey, Archaeological Monitoring
HER Summary Report

Prepared for Optimise / Thames Water

Archaeological monitoring was carried out during the refurbishment of the Fernhall Lane Rising Main, Waltham Abbey, Essex. This document presents the results of that monitoring, undertaken in May 2011.

The work was carried out for Optimise (contractors acting for Thames Water) in line with a brief of works prepared by Essex County Council Historic Environment Management (Adam Garwood).

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| Document Ref: | 2378 Report |
| ECC Proj. Ref: | 2378 |
| Date: | June 2011 |
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Institute for Archaeologists Registered Organisation



HER Summary Report

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| Site Name/Address: Fernhall Lane Rising Main Fernhall Lane / Crown Hill | |
| Parish: Waltham Abbey | District: Waltham Abbey |
| NGR: 541845 / 201016 to 542135/200968 to 542212 201002 | Site Code: WAFL 11 |
| Type of Work: Archaeological Monitoring | Site Director/Team: E. Heppell (ECC FAU) |
| Dates of Work: 4-5 May 2011 | Size of Area Investigated: 11 launch/receptor pits for directional drilling (average 1.2m wide x 2m long x 1.5m deep) |
| Curating Museum: Epping Forest Museum | Funding Source: Optimise / Thames Water |
| Further Work Anticipated? No | Related HER Nos. None |
| Final Report: Summary Report for EHER | OASIS Ref: essexcou1-103003 |
| Periods Represented: None | |
| SUMMARY OF FIELDWORK RESULTS: | |
| <p>Introduction:</p> <p>Archaeological monitoring took place during groundworks associated with the Fernhall Lane Rising Main Refurbishment. When planning the scheme Thames Water had determined that an approved programme of archaeological work would be required in order to fulfil the company's obligations under the Code of Practice on Conservation, Access & Recreation (Water Act 1989). ECC Historic Environment Management (ECC HEM) advised that, in line with guidance contained in PPS5: Planning for the Historic Environment, a programme of archaeological monitoring should take place during the excavation of the direction drill launch/ reception pits.</p> <p>ECC FAU carried out the monitoring on the behalf of Optimise/Murphys and Thames Water in accordance with a brief of works (ECC HEM 2011) issued by Adam Garwood of ECC Historic Environment Management and a responding Written Scheme of Investigation (ECC FAU 2011).</p> <p>Results:</p> <p>Archaeological monitoring was carried out during the machine excavation of 10 launch/receptor pits that were used for the directional drilling of a c. 375m length of rising main (Fig.1). The route of the main ran east along Crown Hill from a manhole, between the roadway and woodland before crossing Fernhall Lane. It then ran downhill to a trackway, turning northeast at the base of the slope to intercept the existing lane. Initially 6-7 pits were planned for the route but a further four were dug to enable the directional drilling to avoid existing services.</p> <p>The launch/receptor pits were excavated by a wheeled excavator with a bladed bucket. They were 1.2m wide 2-3m long and 1.5-1.8m deep. Topsoil and subsoil were 0.3-0.4m thick and</p> | |

rested on an underlying deposit of clay with chalk and flint pieces. There were fewer inclusions in the clay encountered in the pits to the east of Fernhall Lane. The British Geological Survey map the underlying clays as Lowestoft Formation (the chalky clays) and London Clay, the latter the cleaner material encountered in the pits to the east of the road (Fig. 2).

No archaeological remains were identified in any of the pits and no artefacts were recovered.

The archive for the monitoring comprises this report and photographs (appended to the report). This will be deposited in the Essex Historic Environment Record, the OASIS online repository and with Epping Museum.

Previous Summaries/Reports: None

Author of Summary: E.Heppell

Date of Summary: 30 June 2011

Introduction:

Archaeological monitoring took place during groundworks associated with the Fernhall Lane Rising Main Refurbishment. When planning the scheme Thames Water had determined that an approved programme of archaeological work would be required in order to fulfil the company's obligations under the Code of Practice on Conservation, Access & Recreation (Water Act 1989). ECC Historic Environment Management (ECC HEM) advised that, in line with guidance contained in PPS5: Planning for the Historic Environment, a programme of archaeological monitoring should take place during the excavation of the direction drill launch/ reception pits.

ECC FAU carried out the monitoring on the behalf of Optimise/Murphys and Thames Water in accordance with a brief of works (ECC HEM 2011) issued by Adam Garwood of ECC Historic Environment Management and a responding Written Scheme of Investigation (ECC FAU 2011).

Summary Of Fieldwork Results:

Archaeological monitoring was carried out during the machine excavation of 10 launch/receptor pits that were used for the directional drilling of a c. 375m length of rising main (Fig.1). The route of the main ran east along Crown Hill from a manhole, between the roadway and woodland before crossing Fernhall Lane. It then ran downhill to a trackway, turning northeast at the base of the slope to intercept the existing lane. Initially 6-7 pits were planned for the route but a further four were dug to enable the directional drilling to avoid existing services.

The launch/receptor pits were excavated by a wheeled excavator with a bladed bucket. They were 1.2m wide 2-3m long and 1.5-1.8m deep. Topsoil and subsoil were 0.3-0.4m thick and rested on an underlying deposit of clay with chalk and flint pieces. There were fewer inclusions in the clay encountered in the pits to the east of Fernhall Lane. The British Geological Survey map the underlying clays as Lowestoft Formation (the chalky clays) and London Clay, the latter the cleaner material encountered in the pits to the east of the road (Fig. 2).

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ARCHIVE DATA:

Locations Of Pits

| Name | Easting | Northing |
|---------|---------|----------|
| Pit 1 | 541962 | 201014 |
| Pit 2 | 541864 | 201015 |
| Pit 3 | 541849 | 201017 |
| Manhole | 541845 | 201016 |
| Pit 4 | 541893 | 201015 |
| Pit 5 | 541870 | 201016 |

| Name | Easting | Northing |
|--------|---------|----------|
| Pit 6 | 542058 | 200996 |
| Pit 7 | 542008 | 201010 |
| Pit 8 | 542135 | 200968 |
| Pit 9 | 542159 | 200974 |
| Pit 10 | 542178 | 200990 |
| Pit 11 | 542212 | 201002 |

Selected Photographs:



Plate 1. Pit 1 (looking east)



Plate 2. Pit 2 (looking east)



Plate 3 . Pit 8 (looking west)



Plate 4. Pit 8 after drilling (looking east)



Plate 5. Working shot, Pit 9

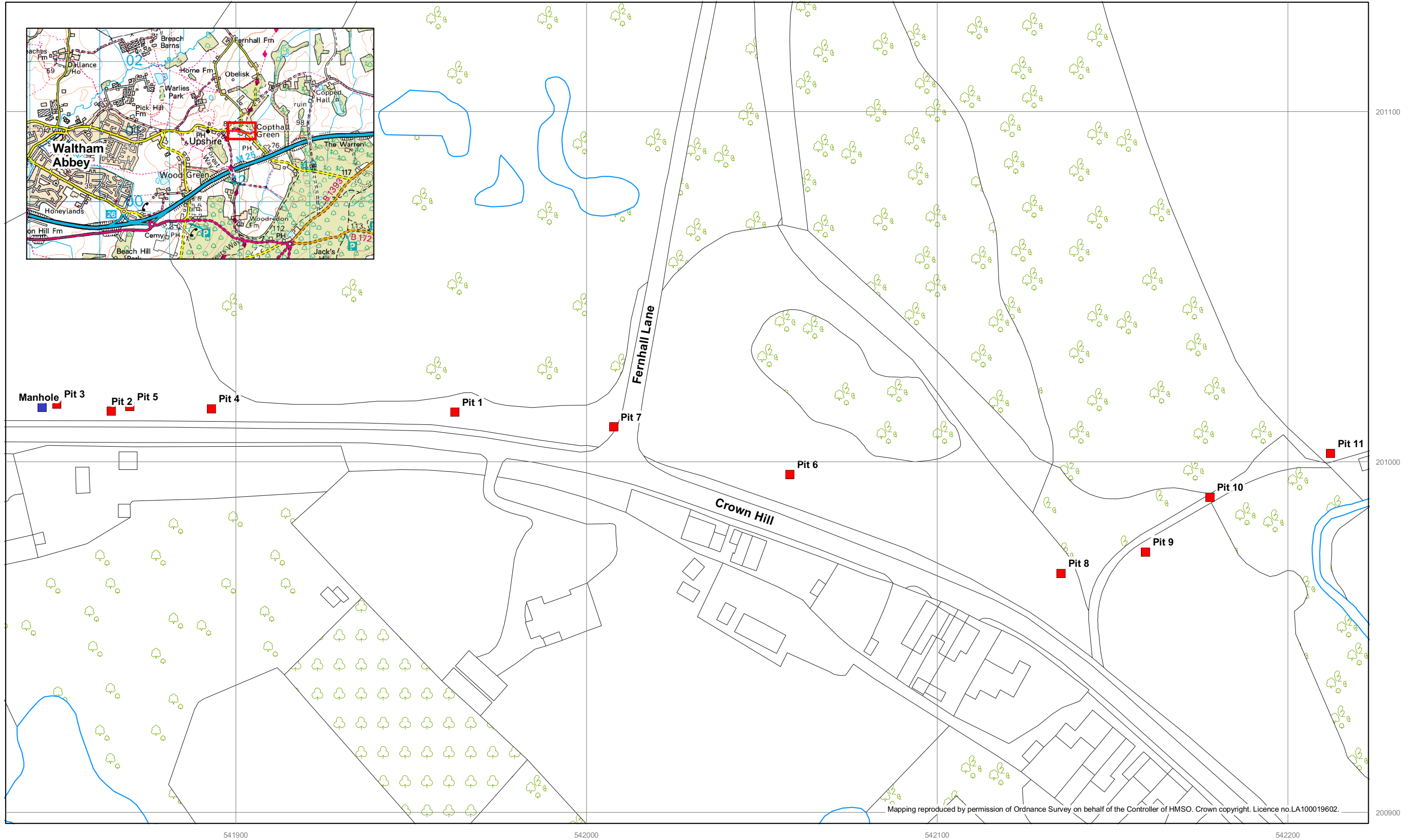
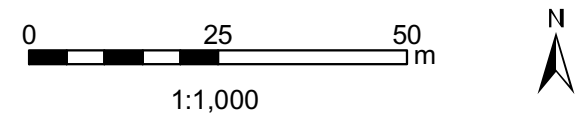


Fig.1. Location of trial / receptor pits which were subject to archaeological monitoring



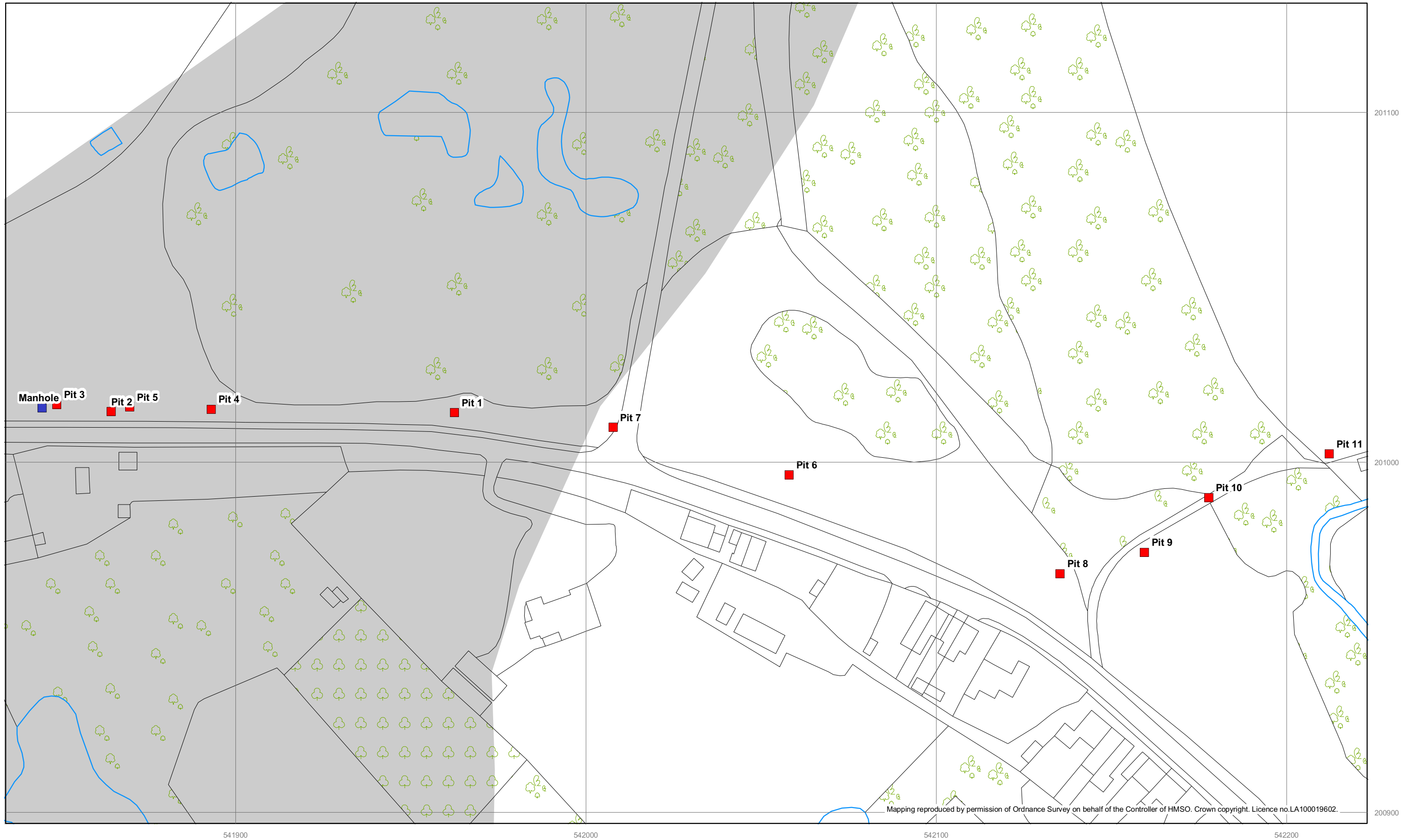


Fig.2. Extents of Lowestoft Formation Deposits, derived from BGS mapping

