SMR
PRN 11636
BOX 2001
BOX 1868

Ducklington

Gill Mill Area 4

Oxon.

SP 376/069

Archaeological Assessment

October 1989

ARCHAEOLOGICAL ASSESSMENT

GILL MILL, DUCKLINGTON AREA 4

INTRODUCTION

An assessment was undertaken in October 1989 by the Oxford Archaeological Unit on behalf of J. Smith & Son of Bletchington as part of a continuing programme of investigation in advance of gravel extraction at Smith's site at Gill Mill, Ducklington.

The field specified as Area 4 (SP 376/069), of approximately 8 hectares, is a rough triangle bounded on the north by the north branch of the River Windrush, on the south by the artificially channelled section of Standlake Brook, and on the east by the footpath between Gill Mill bridge and a footbridge over Standlake Brook (Fig. 1). The topography is level. At present, this field is under pasture, as is the field to the east; fields to the north are under crops, and the field southwest of Standlake Brook
is dewatered, with gravel extraction in progress.

SUMMARY (Fig. 2)

Small-scale trial excavations revealed the area to be extensively but not totally covered by alluvial clay, above a large number of features, many waterlogged, of the Roman period. Area 4 can be divided into three zones:

1 A layer of debris (containing large numbers of Roman-era potsherds and bone) produced during the occupation of a roadside settlement, was found to be preserved in the northeast corner and along the east edge of Area 4. The western extent of the settlement can now be quite accurately estimated. The settlement seems to have been on a slightly raised area whose margins were defined by ditches and banks. The soil upon which the village was constructed is present under the occupation layer. The good preservation within this zone merits a very detailed archaeological investigation; this would help elucidate the nature of the settlement.

2 A rectangular pattern of ditches orientated SW-NE, forming the boundaries of fields along the west edge of the roadside settlement, was found to occupy the eastern 230m of Area 4. The density of artifacts was very low in this zone. The western edge of this zone of ditches cannot be precisely defined. The waterlogged nature of the majority of the features in this area will allow recovery of artifacts made from organic materials, and the reconstruction of the environment during the period of the settlement.

3 The westernmost 150m of Area 4 seems to contain few features. However, the size and shape of this zone is not yet precisely known, as the western extent of Zone 2 is not firmly established.

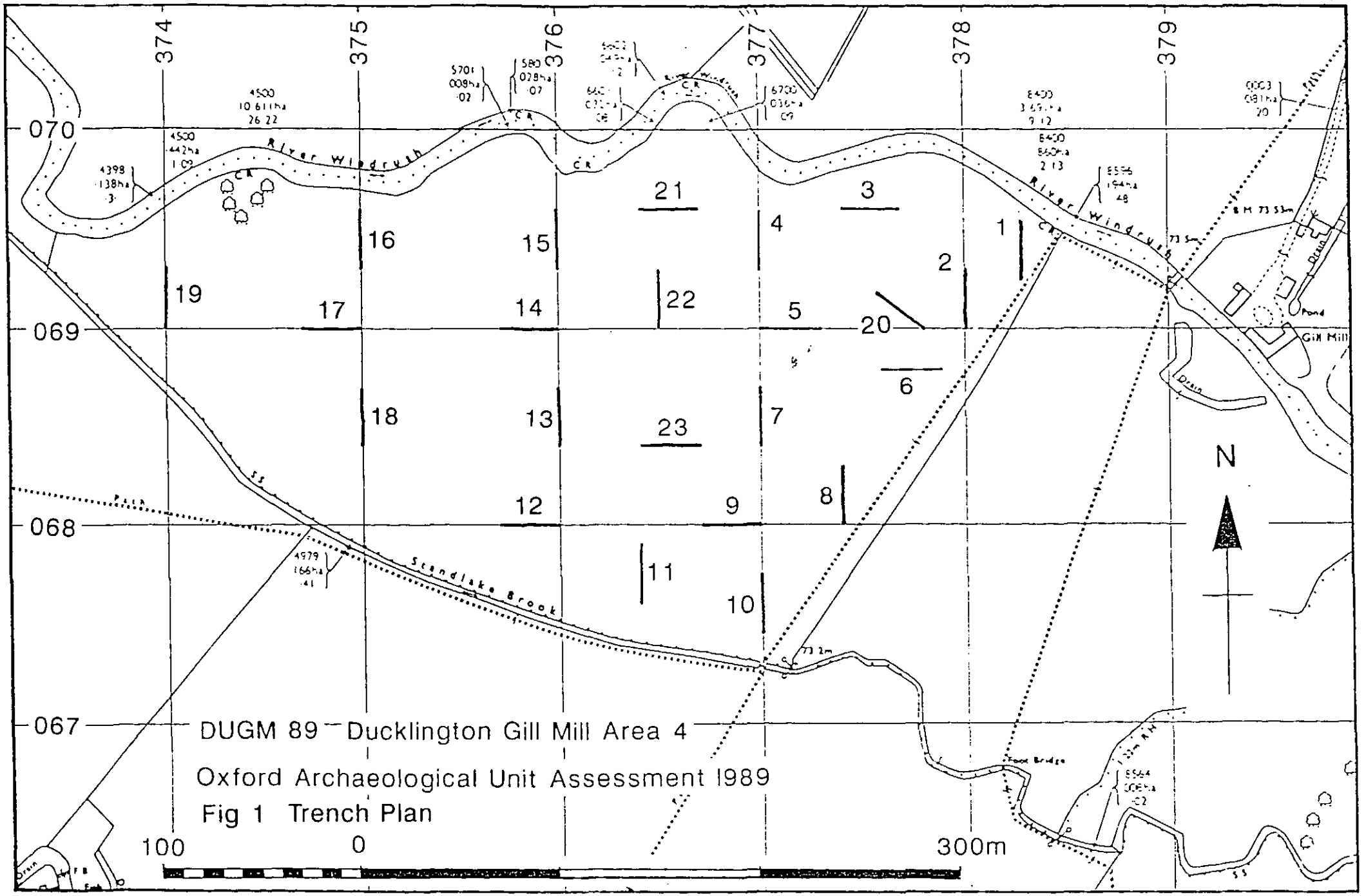
374
375
376
377
378
379
070
069
068
067
River Windrush
Standlake Brook
Gill Mill
Drain
Pond
Path
N
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Fig 1 Trench Plan
100
0
300m

ARCHAEOLOGICAL BACKGROUND

A settlement of the Roman period, identified by coins and other metalwork, was known to lie opposite Gill Mill between the two branches of the Windrush. An assessment in advance of gravel extraction undertaken by this Unit in 1988 revealed the extent of this settlement in Area 2, the field SSE of Area 10 (Fig. 6), and that it consists of two lines of properties c. 120 m wide either side of a road or trackway running SW-NE (Fig. 6).

No other significant remains were revealed in the nearby fields during the 1988 assessment. Differential crop growth observed on aerial photographs of the Gill Mill area were found to be a poor indicator of archaeological deposits.

STRATEGY

The object of the assessment was to investigate a sample of the area's archaeology. Two percent of the field's surface area was excavated as a network of trenches 30m x 1.8m aligned with the Ordnance Survey grid (Fig. 1), using a 360-degree excavator equipped with a six foot ditching bucket. Further trenches were also excavated by the same method to more clearly identify the nature and extent of well-preserved remains. The majority of the features found in these trenches were excavated by hand to ascertain their character and state of preservation, and to recover dating evidence.

SOILS

The general soil profile of the field is a topsoil of dark grey-brown friable clay loam (19-25cm) above a layer of grey prismatic clay with considerable amounts of rusty orange flecking, which smears to a mid grey brown colour. It is thickest (32-40cm) along the north edge of the area and becomes more shallow to the south; it is absent in the southern corner and along the east edge. This alluvial clay lies above the floodplain gravels; the upper 40-60cm of the gravel is slightly clayey.

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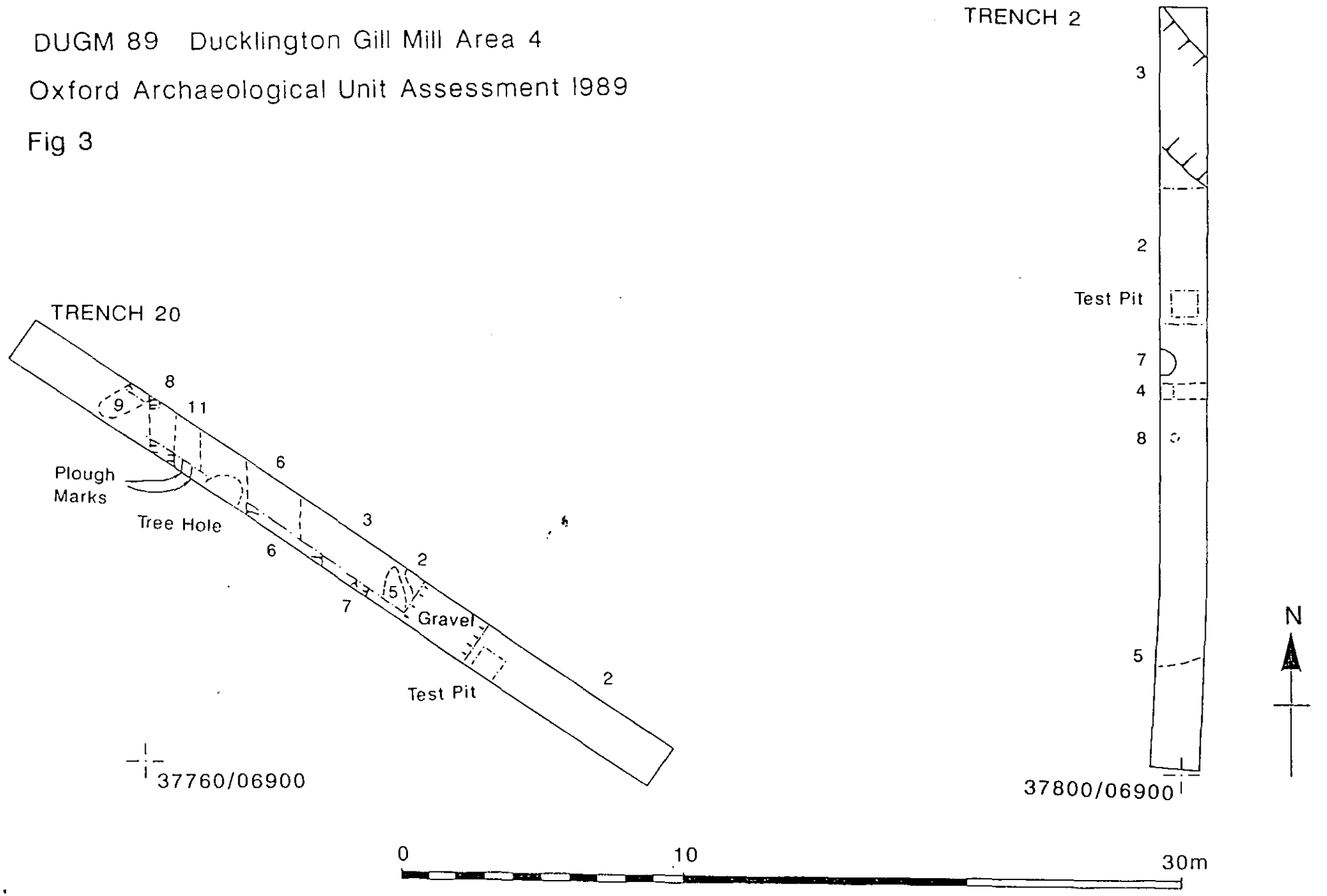
Fig 3



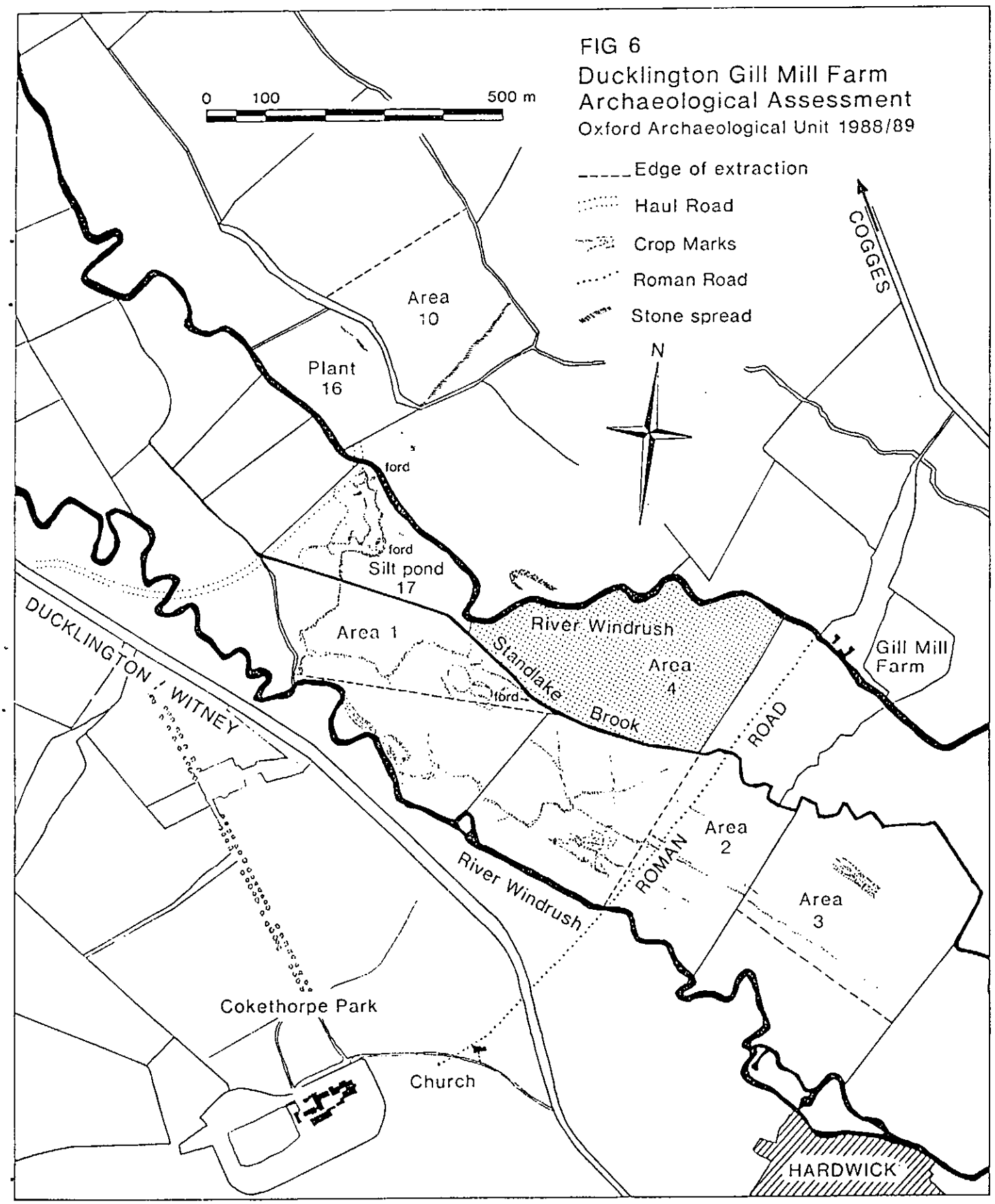


FIG 6
Ducklington Gill Mill Farm
Archaeological Assessment
Oxford Archaeological Unit 1988/89
0 100 500 m
Edge of extraction
Haul Road
Crop Marks
Roman Road
Stone spread
N
COGGES
Area 10
Plant 16
ford
ford
Silt pond 17
Area 1
River Windrush
Standlake Brook
Area 4
ford
Gill Mill Farm
DUCKLINGTON / WITNEY
ROAD
ROMAN
Area 2
Area 3
River Windrush
Cokethorpe Park
Church
HARDWICK

Fig.4 TR 2

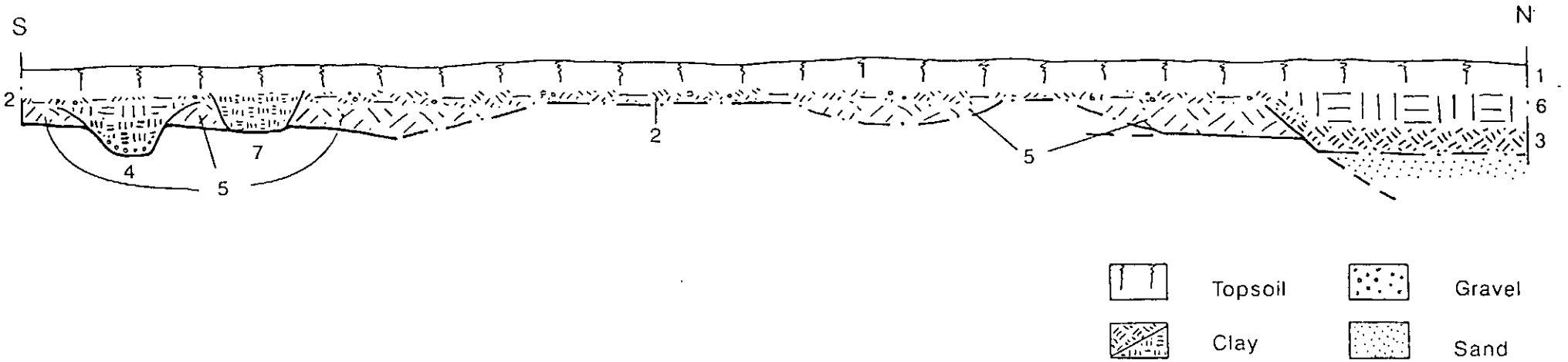
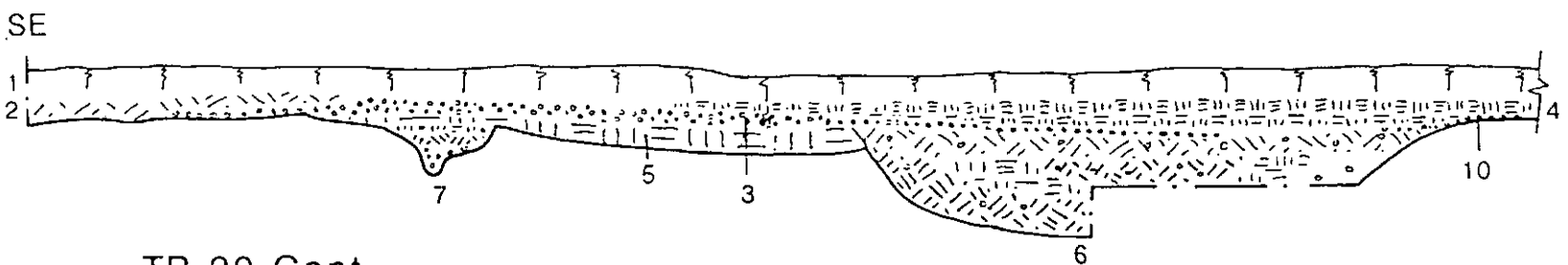
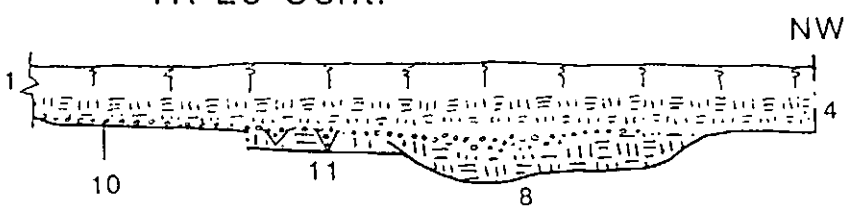


Fig.5 TR 20



TR 20 Cont.



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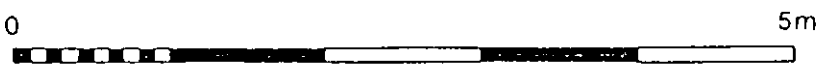

RESULTS (Figs 2-5)

Roman Occupation (Trenches 1, 2, 6, 8, 20)

Under the topsoil and a thin layer (8cm) of alluvial clay in Trench 1 there is a layer of dark friable clay containing small pieces of burnt limestone and charcoal. This layer was produced by human activity during the occupation of the Roman roadside settlement. A one-metre-square test pit excavated into this layer produced 22 sherds of Roman pottery and 3 pieces of animal bone. This occupation debris layer seals a layer of buttery grey clay, the topsoil upon which the Roman settlement was built.

In Trench 2 (Figs 3,4) the occupation layer of dark crumbly clay, 2/2, occurs directly under the topsoil. The one-square-metre test pit in 2/2 produced 6 Roman pottery sherds and 6 pieces of bone. 2/2 lies above the old topsoil 2/5, a shallow east-west ditch 2/4, and dips slightly into the southwest edge of a broad shallow ditch 2/3. The course of 2/3 is NW-SE, and its northeast edge is lower than its southwest; clay alluvium (2/6) has been deposited across the centre of the ditch 2/3 and the lower-lying ground to the northeast. The material within the ditch 2/3 is waterlogged up to 40cm below the present ground level, and contains many large and small pieces of waterlogged wood, including two manmade wood objects (Fig. 8). This trench also contains a rubbish pit 2/7 of recent date.

Trench 20 (Figs 3, 5) contains the most complex archaeology observed in this assessment. 20/2, the occupation material, is separated from the alluvial clay 20/4 (which deepens gradually to the northwest) by the remains of a gravel bank 20/3, which has spread across the surface of a preserved soil 20/5 into the east edge of a broad ditch 20/6, which runs N-S. West of 20/6 and under the alluvium the remains of another gravel bank 20/10 has spread across a preserved soil 20/11 into a smaller N-S ditch, 20/8. The soil layer 20/11 shows marks of ploughing. Immediately west of 20/8 another ditch, 20/9, which ends within this trench, runs SW-NE; it is earlier than ditch 20/8 and contained some Roman sherds. The buried soil 20/5 covers a treehole 20/7.

4 Roman sherds were recovered from a one-metre-square test pit in the occupation debris 20/2. No datable material was found in the broad ditch 20/6, which was waterlogged up to 60cm below grade. Both ditches 20/8 and 20/9 are also waterlogged.

The Roman occupation layer is also present directly under the topsoil in Trench 6, but only in the eastern half of the trench. There is a medium-sized shallow and waterlogged ditch 6/3, running SE-NW 5m east of the trench's west end, which held some Roman sherds. This ditch probably originally bounded the occupation material (analogous to ditch 3 in trench 2 and ditch 6 in Trench 20), which has subsequently been destroyed by ploughing in the neighbourhood of the ditch.

The occupation deposit has survived subsequent ploughing in the south half of Trench 8, and seems to exist in highly-disturbed form in the north part of the trench. Some traces of Roman topsoil survive in isolated patches in the surface of the gravel.

The area in Fig. 2 coloured brown is a representation of the estimated present extent of the Roman occupation debris.

Other Features (Trenches 3,4,5,9,10,11,12,13,14,15,19,21,22,23)

Below the alluvium in Trench 3 were three pits, one ditch and a possible ditch. Two of the three pits (3/3,3/7) were hand excavated, but produced no dating evidence. The possible ditch, 3/5, which runs E-W, was not adequately exposed by this trench to be investigated. The small flat-bottomed ditch 3/6, running WNW-ESE, produced no datable finds. Both the pit 3/7 and the ditch 3/6 are waterlogged.

Trench 4 contains a ditch 4/3 which has been cut through the alluvial clay, and a portion of a broad ditch 4/4 under the alluvium and running NW-SE across the north end of the trench. Neither of these features contained finds when excavated, but it seems that, as 4/3 is later than the alluvium, it is relatively recent, and so has been omitted from Fig. 2. The ditch 4/4 is waterlogged.

A circular pit and two ditches are under the alluvium in Trench 5. The pit 5/5 contained no finds, but is waterlogged. Ditch 5/4 is orientated N-S, and consists of a terminus of a ditch running north, cut by a later ditch on the same alignment cutting across the full width of this trench. This feature is also deep enough to be waterlogged. The ditch 5/3 was not excavated.

Under a thin layer of alluvial clay in Trench 9 is a ditch 9/3 (running SE-NW, waterlogged), and 9/5, the right-angle intersection of two small ditches; the more shallow NW-SE ditch is later than the slightly deeper SE-NW one. 9/5 is also waterlogged.

Towards the north end of Trench 10 is a ditch orientated NW-SE from which Roman pottery was recovered.

Trench 11 has thin alluvial layer, which seals two parallel ditches running SW-NE. The north ditch was waterlogged and held some Roman pottery.

Trench 12 also has two parallel ditches orientated SW-NE and under the alluvial layer.

Trench 13 has a single ditch whose course is SW-NE under the alluvial clay, as does Trench 14 and Trench 15. Ditches 14/3 and 15/3 are both waterlogged; ditch 13/4 was not excavated.

In Trench 19 is a small ditch running E-W under a thick alluvial deposit.

Trench 21 contains two SW-NE ditches, both large, both waterlogged, and both earlier than the alluviation.

There are two ditches in Trench 22. The smaller more southerly ditch 22/4 runs NW-SE and is under the alluvium. The more northerly ditch 22/5 runs E from its terminus, and is waterlogged.

In Trench 23 is a single NW-SE ditch.

Those ditches which have produced Roman pottery sherds are shown in red in Fig. 2. The majority of the ditches produced no dating evidence; these have been diagrammed in Fig. 2 in blue. Although these ditches are not datable at present, the greater portion of all the ditches lie within 230m of the east edge of the site and form a rectangular pattern orientated NE-SW, parallel to the western margin of the Roman occupation debris, and the extrapolated course of the Roman road. The lack of artifacts indicates this zone lies outside the habitation proper. These ditches are interpreted as the boundaries of small fields on the western edge of the Roman roadside settlement.

As no dating evidence was recovered from the pits in the same area, these have not been included in Fig. 2. All these pits lie within the area defined by the ditches, and assignment of these pits to the same period as the roadside settlement could therefore be mooted.

Stream Courses (Trenches 7,21,22) and Tree Holes

Portions of waterlogged former stream channel were found under the alluvium, running E-W in the north end of trench 7 and the south end of Trench 22, and NE-SW across the centre of Trench 21. These channels are best explained as meanders in the former course of the Windrush. Adequate information to interpret the course or number of these channels was not present in the assessment trenches, and so they could not be plotted in Fig. 2. As no intersection between a stream course and ditch occurred in any assessment trench, a comparative date was unobtainable.
Clay-filled hollows caused by trees having fallen or been pulled over were observed in the gravel of many of the trenches, particularly Trenches 12-19 (those west of the zone of ditches). Several of these were excavated, but produced no dating evidence.

Waterlogging

By excluding oxygen and therefore inhibiting decay, saturation by water preserves organic material within archaeological deposits. This has a two-fold advantage: manmade objects formed from materials which usually rot (wood, leather, hair, etc.) are preserved; the remains of plants (leaves, seeds, stems, pollen) and small animals (insects, snails) survive, allowing reconstruction of past ecology and economy. The high water table of the Gill Mill area has resulted in waterlogging of a very large proportion of the features found in Area 4. The high potential for waterlogged preservation in the Roman roadside settlement was noted in the 1988 assessment.

A comparative survey of the water table and waterlogged preservation was undertaken. The levels of standing water (three to five days after excavation) and the peaty clay indicative of waterlogging in Trenches 1-19, if any, were compared to the water level of the Windrush. This information is displayed in Fig. 7. The level of waterlogging is on average 23 cm higher than the level of standing water. The water table drops gradually towards the south. The difference between the standing water and waterlogged preservation does slightly increase towards the south within the area of archaeological importance (the area c.230m west of the east edge of Area 4, containing the network of ditches). It is unclear whether this increase is being caused by dewatering for gravel extraction in the field southwest of Standlake Brook, or is the normal condition. At present, it seems unlikely that preservation by water saturation has been significantly altered in the archaeology of Area 4.

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Fig 8 Small Find 1 (Feature 2/3)

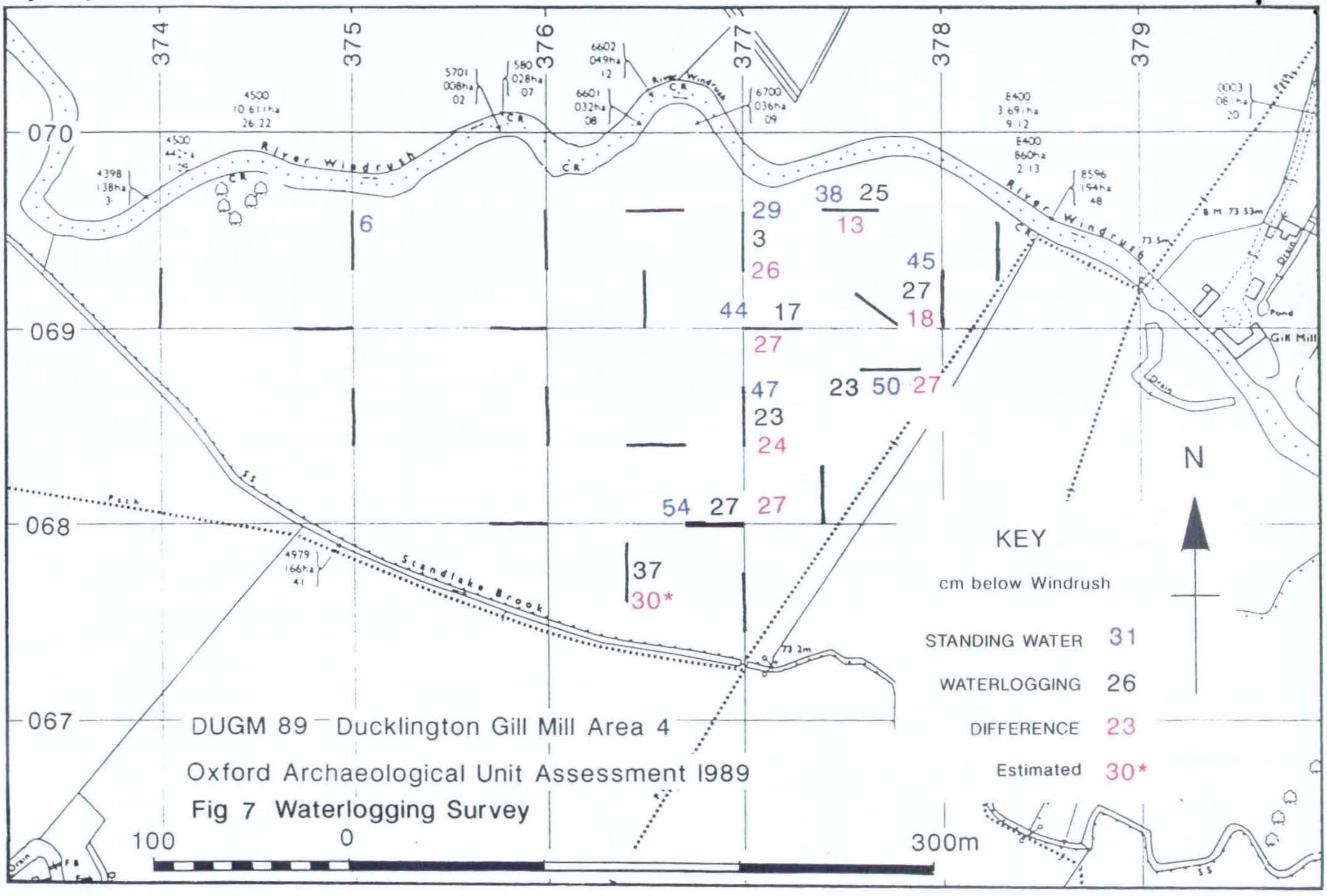

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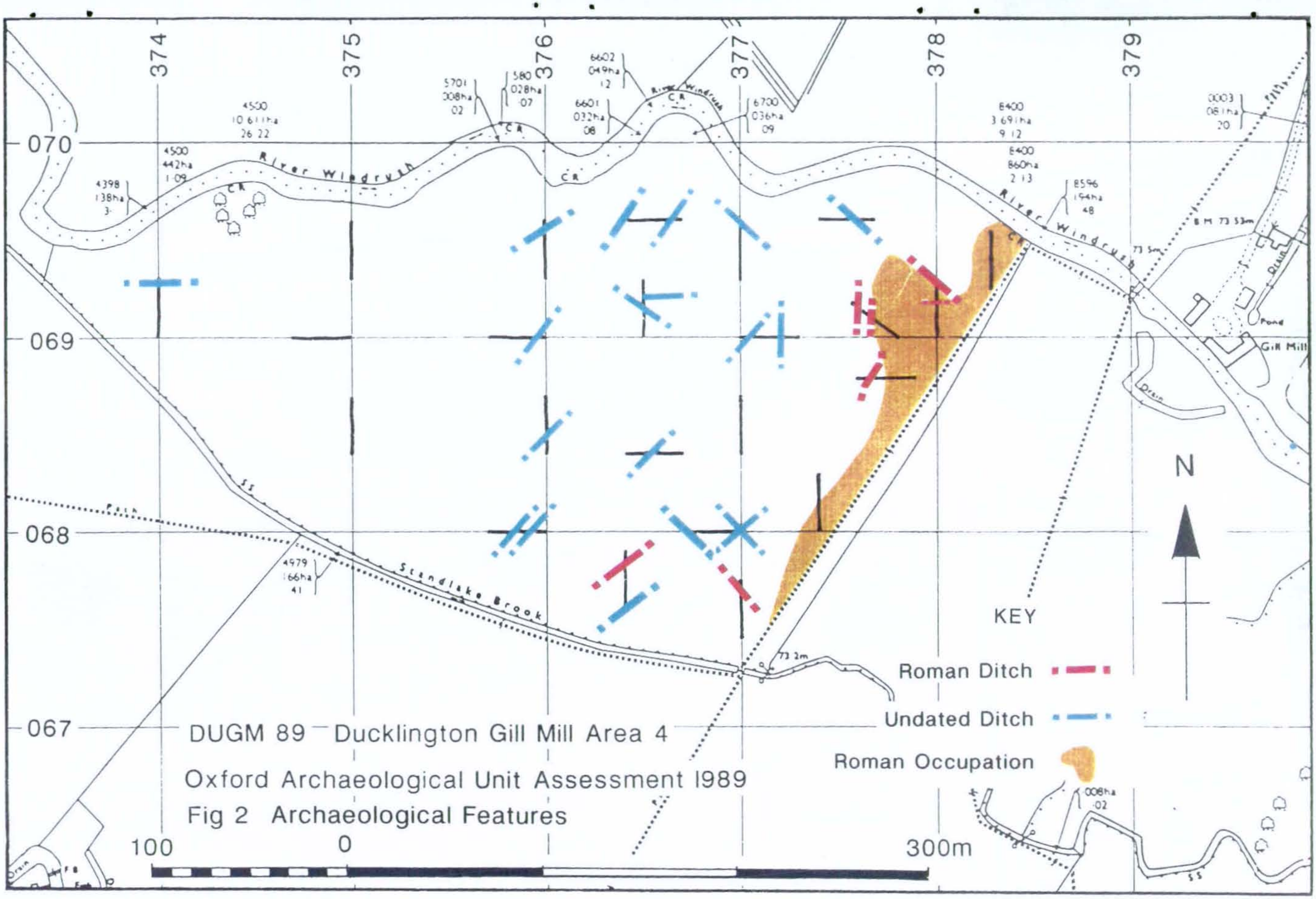
Fig 7 Waterlogging Survey


374
375
376
377
378
379
070
069
068
067
River Windrush
Standlake Brook
Gill Mill
Pond
Drain
Path
KEY
Roman Ditch
Undated Ditch
Roman Occupation
N
DUGM 89 Ducklington Gill Mill Area 4
Oxford Archaeological Unit Assessment 1989
Fig 2 Archaeological Features
100
0
300m

GILL MILL
1989 ASSESSMENT

NOT 1989

NOT 1989

POSSIBLE ADDITIONAL TRENCHES

River Windrush

Drain

Gill Mill

Fishhouse Plantation

Footbridge

Path

Ford

Pond

ditch

ditches

misc. features

occ scatter

ploughed out scatter

"Gillmass" former stream channel

6526
9·566ha
23·64

2700
3·691ha
9·12

2700
·373ha
·92

1800
·045ha
·11

4500
10·611ha
26·22

4500
·442ha
1·09

4500
·008ha
·02

4398
·138ha
·3

4797
·228ha
·56

5701
·008ha
·02

5801
·028ha
·07

6602
·049ha
·12

6601
·032ha
·08

6700
·036ha
·09

6700
8·672ha
21·43

6299
·020ha
·05

8400
·691ha
9·12

8400
·860ha
2·13

8596
·194ha
·48

8695
·178ha
·44

0033
1·231ha
3·04

0033
1·835ha
4·54

1320
1·207ha
2·98

0014
2·229ha
5·51

0014
·523ha
1·29

0007
·462ha
1·14

0003
·154ha
·38

0003
·081ha
·20

0800
1·507ha
3·72

1412
·762ha
1·88

0003
·105ha
·26

0003
·690ha
1·71

0088
1·513ha
3·74

0088
·089ha
·22

0003
·020ha
·05

0080
·012ha
·03

0080
4·352ha
10·76

0181
·012ha
·03

0070
5·801ha
14·34

0070
1·384ha
3·42

8564
·008ha

4979
·166ha
·41

1572
2·158ha
5·33

73·1m

73·5m

73·2m

BM 73·53m

1·22m R.H.