INTERTIDAL PALAEOENVIRONMENTAL AND ARCHAEOLOGICAL FEATURES AT OLDBURY-ON-SEVERN, SOUTH GLOUCESTERSHIRE

An archaeological survey by the Royal Commission on the Historical Monuments of England

November 1998

ROYAL COMMISSION ON THE HISTORICAL MONUMENTS OF ENGLAND

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OS Map No: ST 59 SE; ST 69 SW
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Surveyed: November 1998
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FIGURE LIST

Summary

Intercalated peats, sits and palaeosols exposed in the intertidal area near Oldbury-on-Severn were surveyed using differential GPS (Global Positioning System) in November 1998. Wooden fish traps were also recorded. The positions of five environmental sampling points were located.

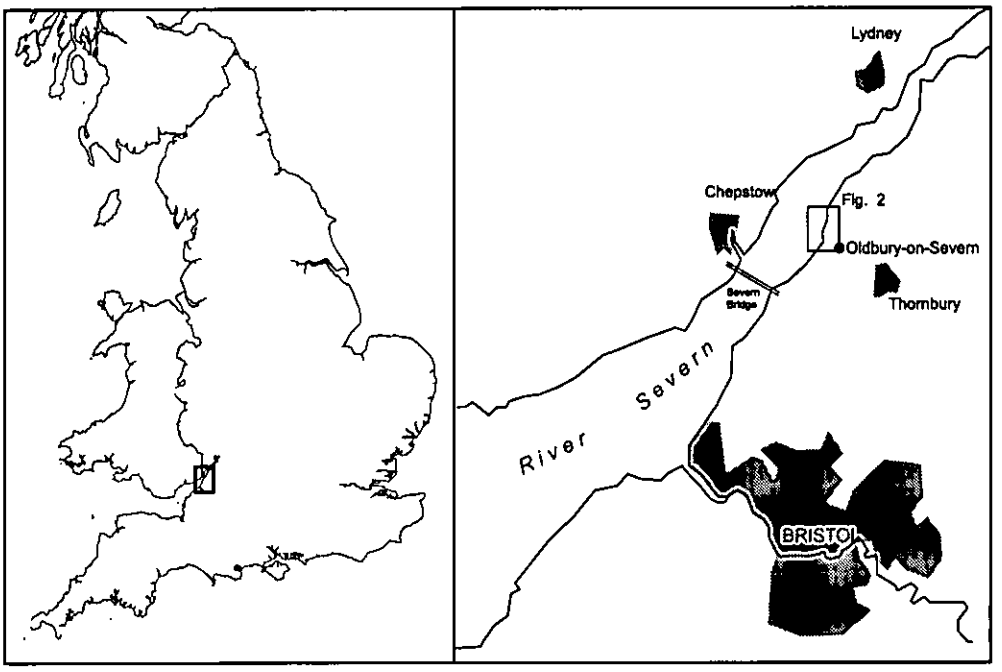

Fig. 1. Location.

INTRODUCTION AND LOCATION

Oldbury Flats comprises an expanse of estuarine alluvium exposed at low tide. It stretches some 5kms from Oldbury-on-Severn power station to Aust, and is an average of 750m wide. The tidal channel of the River Severn near Oldbury-on-Severn splits into two, with Oldbury Sands separating the river channel from Oldbury Lake (Figs 1 and 2). The survey was undertaken as part of a programme of postgraduate research on the palaeoenvironment and archaeology of the Severn Estuary, based at the School of Geographical Sciences, University of Bristol (Druce 1997).

SURVEY METHODS

The survey was carried out in November 1998, after storms had scoured the area of mud and silt, leaving clear areas of bedrock and intercalated peats, silts and palaeosols exposed. Part of the salt marsh edge had also been subject to recent erosion, and blocks of this material were scattered around (Plate 1). The survey was carried out using Leica single frequency differential GPS equipment. Leica's SKI software was used for post-processing the survey data. It was transformed from GPS co-ordinates (WGS 84) to the Ordnance Survey National Grid (OSGB36) using SKI's transformation modules. The survey drawings were produced in an Autocad environment.

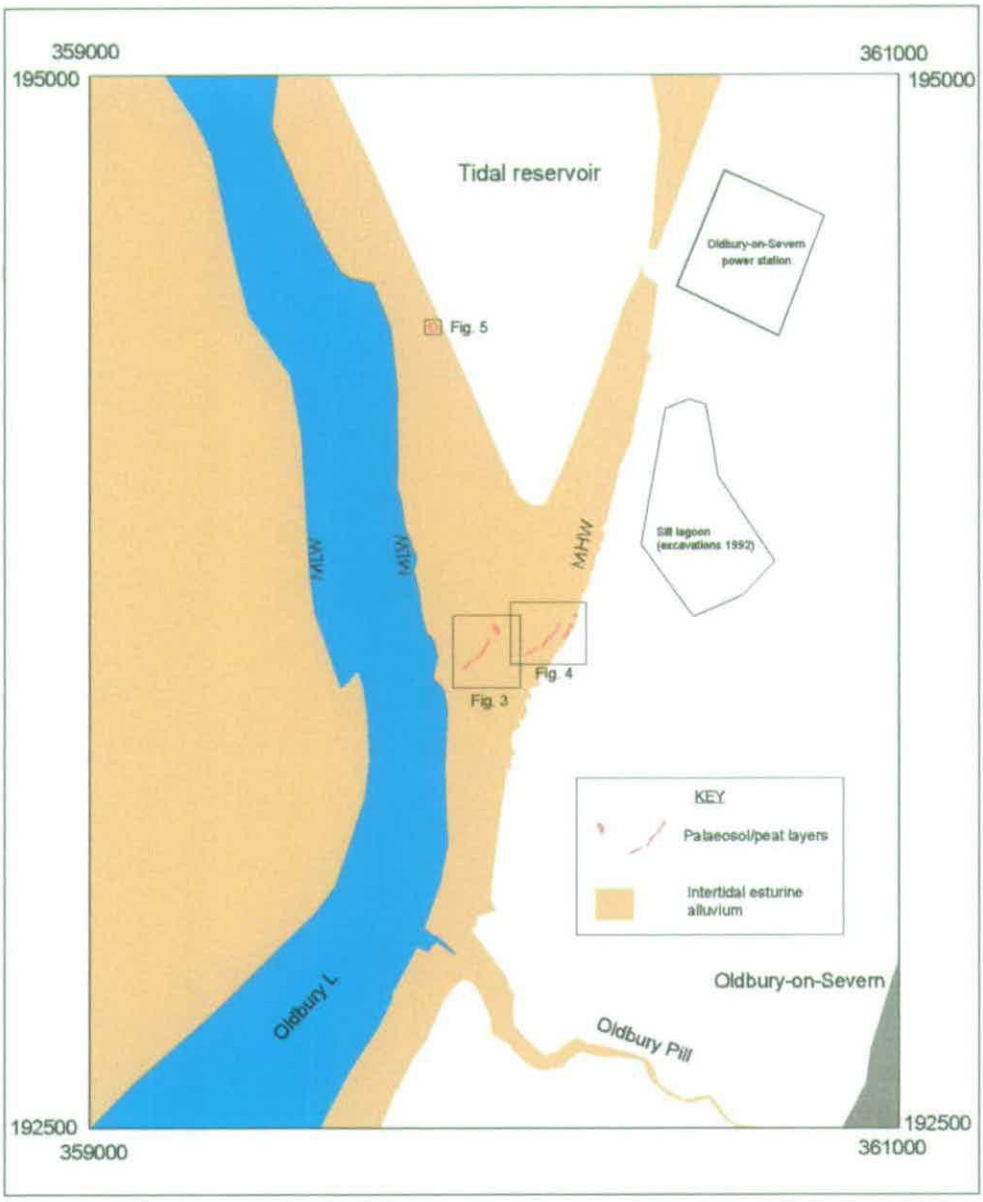

Fig. 2. Oldbury-on-Severn: location of palaeosol/peat layers and and archaeological features.

BACKGROUND

Large scatters of Romano-British pottery were recorded from the intertidal area to the south of the tidal reservoir (Green and Solley 1980). Allen and Fulford (1987) considered this material, together with their own collections from the foreshore in this area, in some detail. The pottery was shown to date from the late 1st/ early 2nd century AD, and both iron ore and slag were recovered. Further fieldwork in the area revealed that a large palaeochannel, eroding from the salt marsh edge, was the source of much of this material. The occupation debris recovered included coal, charcoal, animal bone, a quern, building material and personal artefacts (Allen and Fulford 1992). Excavation was undertaken in 1992 during the course of the construction of a silt lagoon to the south of Oldbury-on-Severn power station (Fig 2). Neolithic or early Bronze Age occupation, in the form of features and flint artefacts, was recorded. There was also evidence for substantial Romano-British occupation in the area during the 2nd-4th centuries AD (Hume 1992). In 1997 a large, dressed stone shaft was recovered from a feature adjacent to the main palaeochannel. The shaft may be part of a column from a Roman villa (Allen and Rippon 1997).

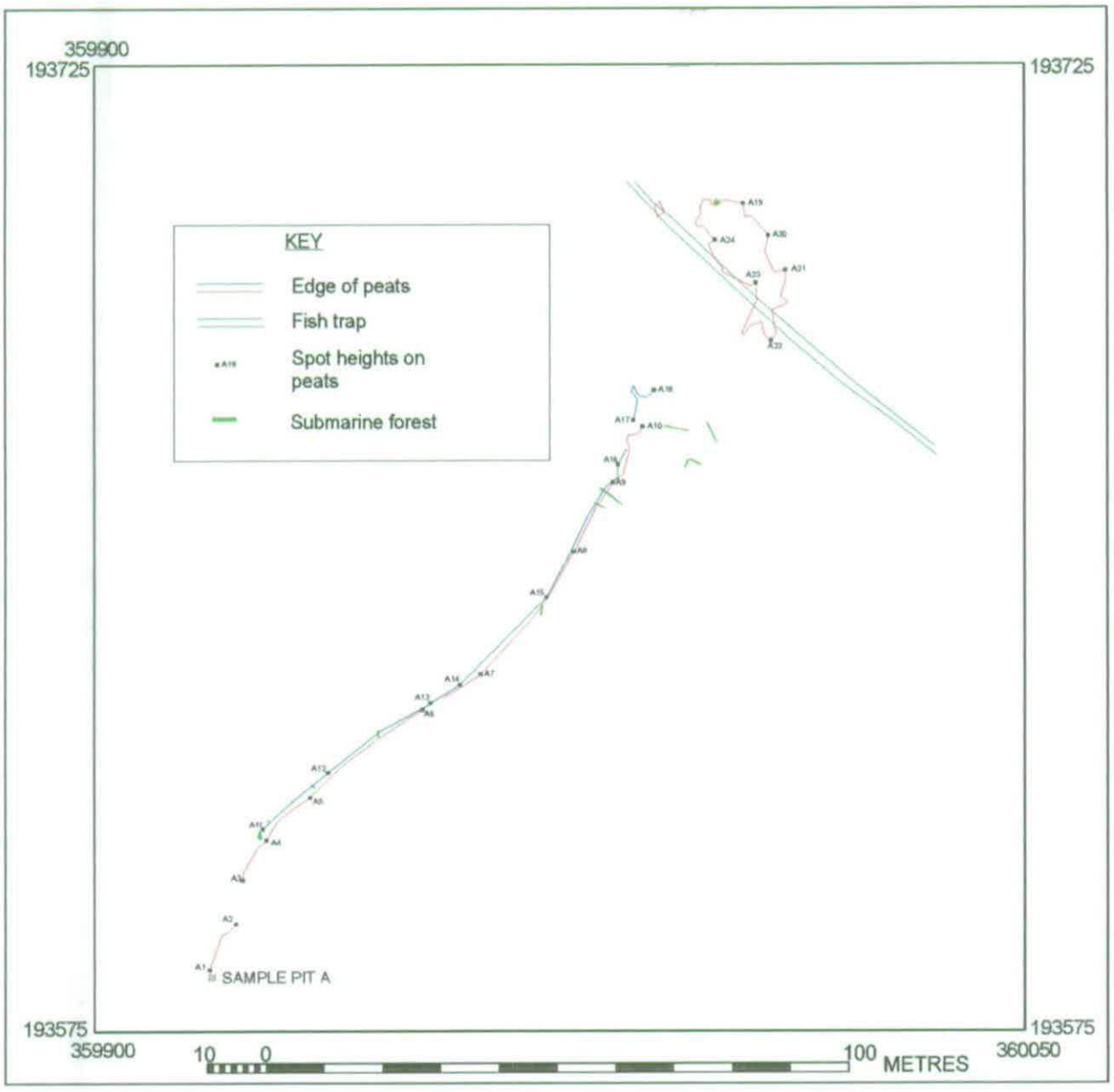

Fig. 3. Palaeosol/peat by sample pit A (RCHME 1:500 survey).

THE INTERCALATED PEATS, SILTS AND PALAEOSOLS

Several intercalated peats, silts and palaeosols were recorded during the course of the survey and the current programme of radiocarbon dating and environmental analysis will help to clarify the dates and composition of these layers. A small excavation of one of the palaeosols at ST 60128 93665 recovered flint diagnostic of the Neolithic period (Fig 4; John Allen pers comm). A sample taken from a basal peat overlying this palaeosol was radiocarbon dated to 4630 +/- 70 BP (Beta 44057) (Allen and Fulford 1992).

Two layers of peat, separated by blue/grey silt, are centred at ST 5996 9363. A length of 120m was exposed and surveyed. Samples were taken at ST 5991 9358 (Sample pit A; Fig 3). Several large pieces of wood, mainly prostrate trunks, lay on both of the peat layers. A further peat exposure, 25 x 10m, lies to the north-east (Fig 3; Plate 2). The palaeosol/peat layers by sample pits D and E (Fig 4) were also separated by blue/grey silts. Some 120m of this feature was recorded. The lower of these two layers had several prostrate trunks lying on its surface. Both layers are cut by a small palaeochannel. A thin organic horizon of reworked

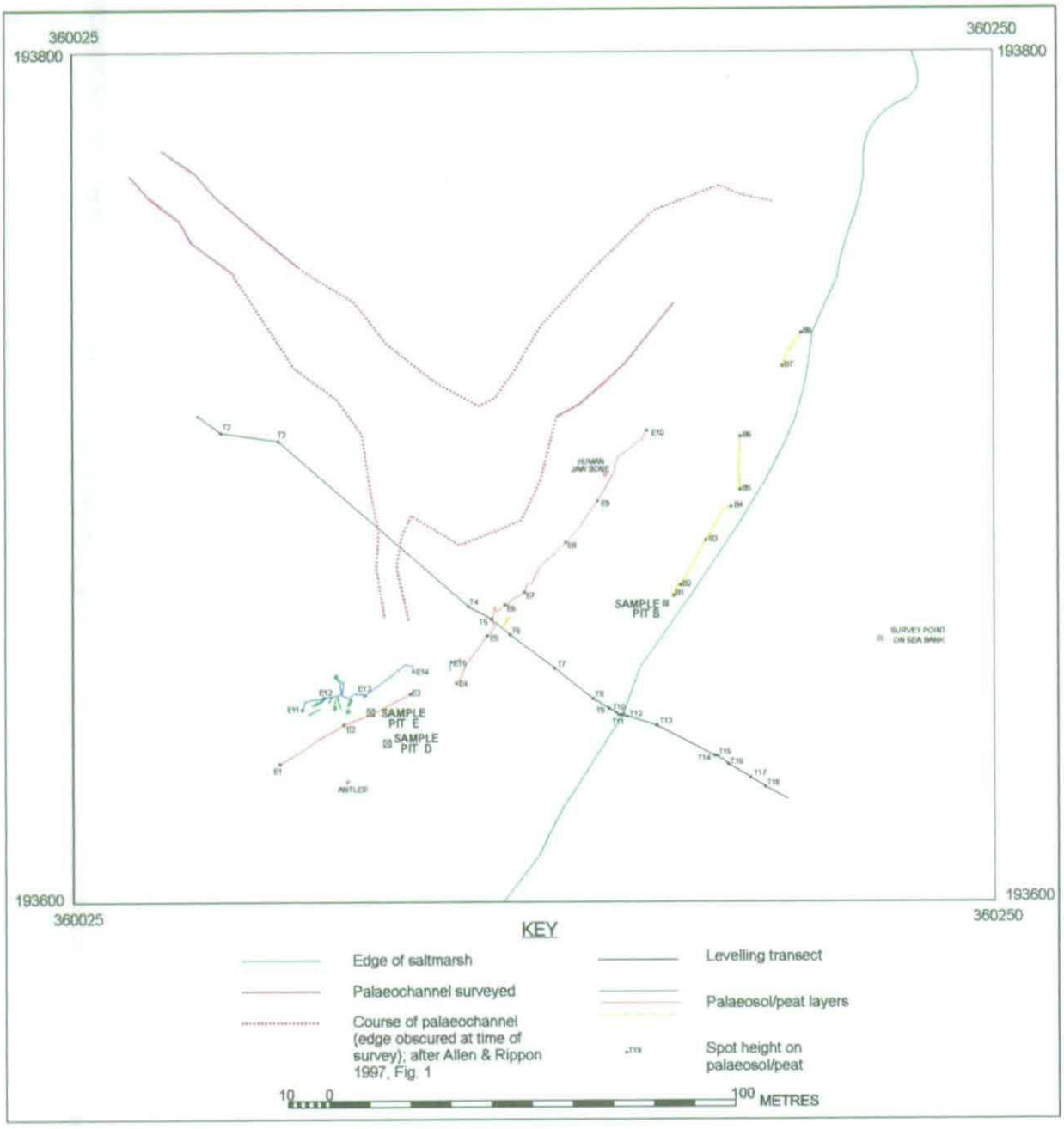

Fig. 4. Plan of Palaeosol/peat layers, sample pits B, D and E, transect points (RCHME 1:500 survey)

peat and silt which can be traced along the saltmarsh cliff face, was sampled at ST 6018 9369 (Sample pit B: Fig 4). A small exposure of palaeosol/peat, 100 x 80m, lies at ST 5984 9441, close to the wall of the tidal reservoir (Sample pit C: Fig 5). The deposits consist of a basal palaesol, resting on sandy silt and gravel, which grades up into thin peat lenses in places. The palaesol is overlain by dark grey silt and, in turn, two subsequent peat layers. Several tree stumps and prostrate trunks are present, mainly on the surface of the lower palaeosol/peat layer.

WOODEN FISH TRAPS

Two wooden fish traps were recorded during the course of the survey. A fish trap comprising a double row of wooden stakes, 20m long and 1m wide, lies at ST 6000 9409. A second fish

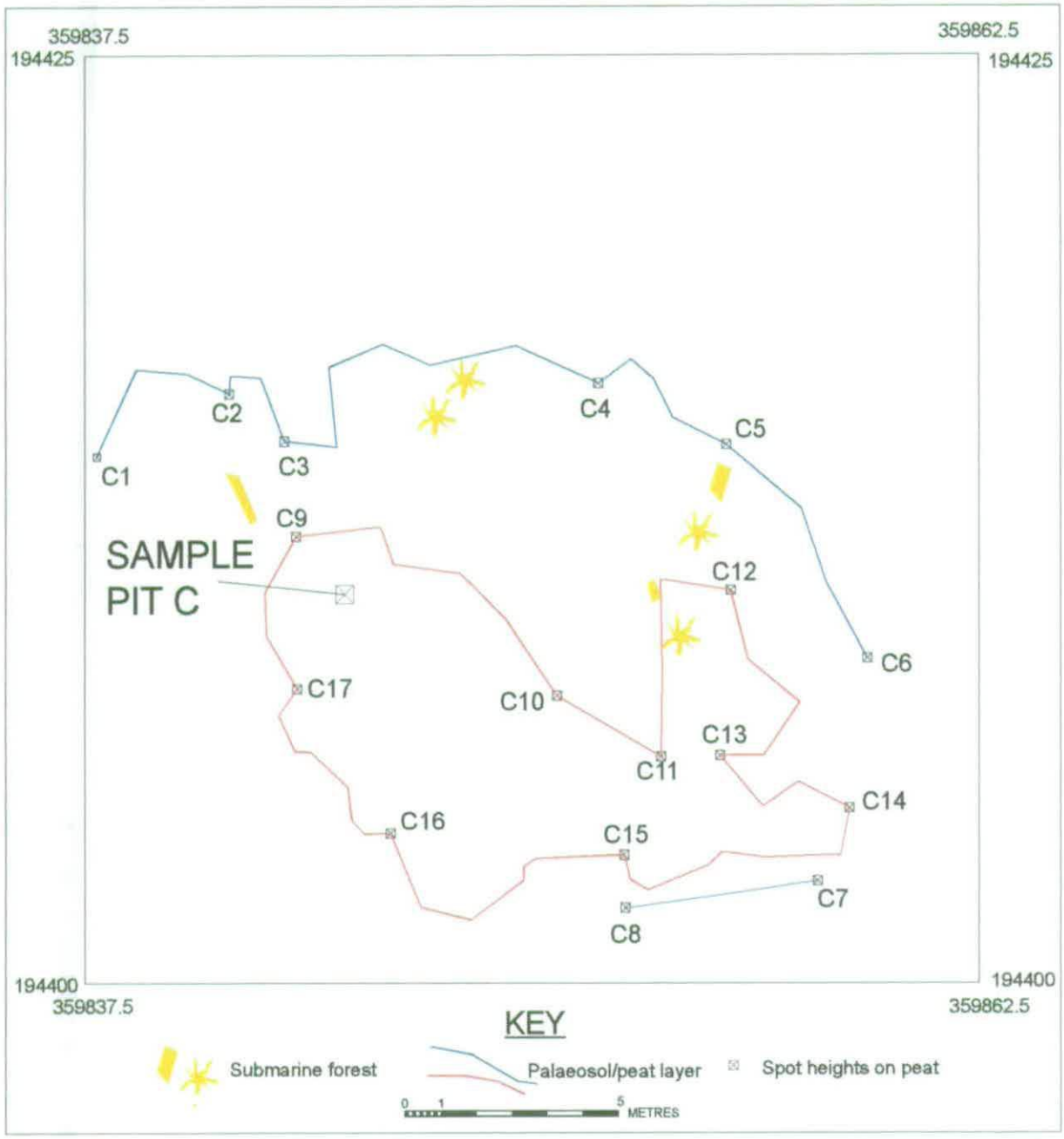

Fig. 5. Plan of palaeosol/peat layers by sample pit C (RCHME 1:200 survey)

trap lies some 380m to the south, centred at ST 6000 9369. It comprises a double row of wooden stakes, 65m long and 1.3m wide. (Fig 3; Plate 2).

ARTEFACT FINDS

A human jaw bone was found during the course of the survey work, it was unstratified but not weathered in appearance; it may have well come from the nearby palaeochannel. A red deer antler was also noted. Full details of the locations are set out in Appendix 2.

ACKNOWLEDGEMENTS

The School of Geographical Sciences, University of Bristol, contributed towards the cost of the survey. John Allen kindly explained the context of his work at Oldbury-on-Severn during a preliminary site visit; Vanessa Straker, Denise Druce and Nick Beddoe helped with the reconnaissance and survey work. David Evans supplied background material.

Plate 1. Oldbury-on-Severn: palaeosol/peat (foreground); Wentlooge and Northwick formations visible in eroding salt marsh edge (background).

Plate 2. Oldbury-on-Severn: wooden fish trap.

Further copies of this report are available from the NMRC, Kemble Drive, Swindon.

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APPENDIX 1

NMR NUMBERS

ST 59 SE 12: PALAEOSOL/PEAT, SAMPLE PIT C

ST 59 SE 13: PEAT LAYERS, SAMPLE PIT A

ST 69 SW 51: PALAEOSOL/PEAT LAYERS, SAMPLE PITS B, D AND E

ST 69 SW 52: FISH TRAP NEAR TIDAL RESERVOIR

ST 69 SW 53: FISH TRAP NEAR SAMPLE PIT A

APPENDIX 2: SURVEY INFORMATION

SAMPLE PIT A: LEVEL ON SURFACE AT 359918.955,193583.367 IS -1.08m OD
LEVELS ON PEAT LAYERS (METRES OD; NUMBERS REFER TO FIG 3)

A1 -1.14	A7 0.10	A13 -0.03	A19 0.82
A2 -0.98	A8 0.21	A14 0.07	A20 0.83
A3 -0.89	A9 0.26	A15 0.11	A21 0.86
A4 -0.70	A10 0.28	A16 0.24	A22 0.74
A5 -0.39	A11 -0.81	A17 0.27	A23 0.80
A6 -0.03	A12 -0.44	A18 0.36	A24 0.73

SAMPLE PIT B: LEVEL ON SURFACE AT 360169.880, 193670.768 IS 4.36m OD
LEVELS ON ORGANIC HORIZON (METRES OD; NUMBERS REFER TO FIG 4)

B1 4.26	B3 4.35	B5 4.61	B7 4.47
B2 4.32	B4 4.61	B6 4.29	B8 4.45

CO-ORDINATES OF PEG BY SAMPLE PIT C
359844.701
194410.543
TOP OF PEG -0.62m OD
BOTTOM OF PEG -0.99m OD

LEVELS ON PALAEOSOL/PEAT (METRES OD; NUMBERS REFER TO FIG 5)

C1 -1.34	C6-1.32	C11 -0.90	C16 -0.81
C2 -1.64	C7 -1.14	C12 -1.17	C17 -0.87
C3 -1.21	C8 -1.15	C13 -1.02	
C4 -1.42	C9 -0.99	C14 -1.10	
C5 -1.32	C10 -0.99	C15 -0.79	

CO-ORDINATES OF PEG BY SAMPLE PIT D
360101.707
193637.940
LEVEL AT TOP OF PEG 1.70m OD
LEVEL AT BOTTOM OF PEG 2.22m OD

CO-ORDINATES OF PEG BY SAMPLE PIT E
360097.612
193645.162
LEVEL AT TOP OF PEG 1.69m OD
LEVEL AT BOTTOM OF PEG 2.21m OD

LEVELS ON PALAEOSOL/PEAT (METRES OD; NUMBERS REFER TO FIG 4)

E1 1.47	E5 2.26	E9 2.59	E13 1.67
E2 1.68	E6 2.32	E10 2.78	E14 1.79
E3 1.89	E7 2.48	E11 1.49	E15 1.91
E4 2.01	E8 2.53	E12 1.61	

TRANSECT LEVELS (METRES OD; NUMBERS REFER TO FIG 4)

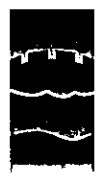
T1 0.65	T6 2.34	T11 4.65	T16 7.98
T2 0.78	T7 2.93	T12 6.84	T17 8.06
T3 0.95	T8 3.70	T13 7.17	T18 8.63
T4 1.59	T9 4.04	T14 7.43	T19 9.71
T5 2.08	T10 4.36	T15 7.88	

LEVEL ON WENTLOOGE/NORTHWICK INTERFACE AT 360159.388, 193644.507 IS 5.33m OD
POSITION OF JAW BONE
360155.199
193701.051
2.44m OD

POSITION OF ANTLER
360092.022
193628.875
1.60m OD

CO-ORDINATES OF PERMANENT SURVEY POINT ABOVE SALT MARSH
360222.272
193662.189
9.37m OD

CO-ORDINATES OF PERMANENT SURVEY POINT BY POWER STATION
361159.029
193716.011
7.08m OD



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The National Monuments Record contains all the information in this report – and more: original photographs, plans old and new, the results of all RCHME field surveys, indexes of archaeological sites and historical buildings, and complete coverage of England in air photographs.

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