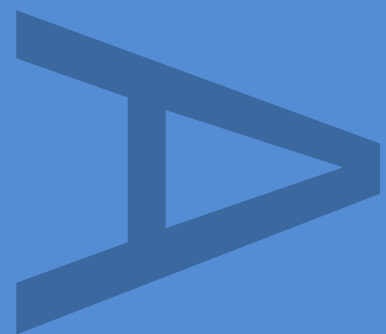


SEARCH AND RESCUE
FACILITY, ROYAL AIRFIELD
BASE (RAF ST ATHAN),
VALE OF GLAMORGANSHIRE,
SOUTH WALES

AN ARCHAEOLOGICAL
WATCHING BRIEF

January 2015

PRE-CONSTRUCT ARCHAEOLOGY LTD
R11943



DOCUMENT VERIFICATION

SEARCH AND RESCUE FACILITY, ROYAL
AIRFIELD BASE (RAF ST ATHAN),
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AN ARCHAEOLOGICAL WATCHING BRIEF

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Search and Rescue Facility, Royal Airfield Base (RAF St Athan), Vale of Glamorganshire, South Wales: An Archaeological Watching Brief

Local Planning Authority: Vale of Glamorgan

Central National Grid Reference: SS 998 677

Site Code: SAGW 14

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January 2015

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ABSTRACT

This report details the working methods and results of an archaeological watching brief undertaken by Pre-Construct Archaeology Limited within the boundary of a Royal Airfield Force base (RAF St Athan), in the Vale of Glamorgan in South Wales (Figure1). The watching brief was conducted between the 16th October and the 12th December 2014 and was commissioned by Waterman EED.

The watching brief established that a relatively modern topsoil survived above a sequence of underlying cultivation soils and natural deposits. No further archaeological features or finds were found or recovered.

1 INTRODUCTION

- 1.1 Pre-Construct Archaeology Limited (PCA) was commissioned by Waterman EED, to undertake an archaeological watching brief during the construction of a search and rescue facility at St Athans Airfield. (Figure 1)
- 1.2 This parcel of land (hereafter referred to as the 'site') covers an area of approximately 1.41 hectares (ha) and is located within the administrative boundary of Vale of Glamorgan Council (VGC). The Vale of Glamorgan Council granted planning permission to carry out the "erection of an aircraft hangar providing a new helicopter search and rescue facility at RAF St Athan". The site is centred on Ordnance Survey Grid Reference (NGR) SS. 998 677.
- 1.3 A Written Scheme of Investigation (Waterman EED 2013) detailing the method by which the watching brief would be undertaken was prepared in January 2013 prior to the commencement of fieldwork in accordance with a brief set by Glamorgan Gwent Archaeological Trust and the Institute for Field Archaeology Standard and Guidance for Archaeological Watching Briefs (IFA 2008).
- 1.4 The watching brief was undertaken between the 16th of October and the 12th December 2014. The aim of the watching brief was to identify and record any surviving archaeological remains and /or deposits that would have been impacted upon by the groundwork's.
- 1.5 Following approval of the project by the Local Planning Authority, the completed archive comprising written, drawn and photographic records will be deposited with the Archaeological Planning Section, Glamorgan-Gwent Archaeological Trust Heathfield House, Heathfield, Swansea, SA1 6EL.
- 1.6 Site records were compiled using the unique site code SAGW 14.

2 GEOLOGY AND TOPOGRAPHY

2.1 Geology

2.1.1 The geology of the Vale, comprising alternating bands of hard limestone and soft shale's (Lower Lias limestones with subordinate mudstones – Porthkerry Formation of the Jurassic Period; Bridgend (Sheet 262-Solid and Drift Edition, 1:50,000 BGS 1989), is exposed in the line of vertical costal cliffs up to 60m high, which is intermittently broken by small steep sided valleys.

2.1.2 The site is wholly underlain by the Lower Lias Porthkerry Formation. No drift deposits are indicated. Ground investigation data indicates that the clayey topsoil overlies silty clay which grades into weathered limestone with depth. The depth of the limestone bedrock is generally less than 2m. Observations at the National Museum of Wales investigations at Llanmaes reveal a bedrock surface of a character similar to limestone pavements, with grike and clints, the former infilled with silty clays, which could contain archaeological material. In some areas solution features are present with the depth to bedrock in excess of 4m below ground level, which could be important sources of palaeoenvironmental data. Made Ground is also likely to be encountered particularly within the airfield, due to the present and historic activities.

2.2 Topography

2.2.1 The site is located in the Vale of Glamorgan (Bro Morgannwg), a lowland plateau of slightly undulating hills and valleys dissected by streams and small rivers. The area to the south of the A48 (the route established by the Romans as a principal road between Caerleon or '*Isca*' and Carmarthen or '*Moridunum*', was later known in the medieval period as '*Port Way*'), between the rivers Ewenni in the east and the Ely in the west, contains shallow free-draining soils, which are among the most fertile in South Wales. The physical division of upland and lowland is associated with distinct cultural traditions and can be seen in the variety of archaeological monuments, settlements patterns and historic landscapes. The site of the development is broadly level at between 46.945 & 46.861m AOD.

3 ARCHAEOLOGICAL AND HISTORICAL BACKGROUND

- 3.1 The archaeological and historical background of this site was researched in the Written Scheme of Investigation (Waterman 2014); the following text is a copy of that part of the document.
- 3.2 There are no statutory (scheduled ancient monuments, listed buildings or conservation areas) or non-statutory (registered parks & gardens or historic battlefields etc.) designated heritage assets within the site. The nearest designated heritage asset is Batslays House, a Grade II listed building, approximately 38m to the east of the site. The Site is not a part of the setting of any other designated heritage asset.
- 3.3 Cotswold Archaeology carried out a desk-based assessment in 2007 which illustrated the history and development of the airfield. The Site itself was occupied by an 'E'-type shed ('E3') until recently. A basic investigative record of the buildings was recommended both prior to and during demolition. The Royal Commission on Ancient and Historical Monuments in Wales undertook a survey as part of their remit to record historic structures in advance of demolition. The records are available on the Coflein website, and photographs of hangars E5 and E6 (similar to E3) are among the collection.
- 3.4 A separate planning application has been made for the Batslays Farm and associated historic curtilage buildings to be incorporated into the ABP scheme design and converted to office use. These buildings are outside the planning application boundary for the Search and Rescue facility which this WSI relates to, nevertheless, the Waterman desk-based assessment also recommended that a photographic recording of the setting of this listed building is carried out prior to the construction of the proposed SAR facility on the Site. This will be done concurrently with the recording of the WWII pillbox and its setting.
- 3.5 The nearest pillbox to the Site (02373s) is due for consented demolition, as part of a separate planning application for the ABP scheme. Although the pillbox lies outside the planning application boundary for the Search and Rescue facility which this WSI relates to, a basic (English Heritage Level 2 equivalent) investigative record of this pillbox is due to be compiled both prior to and during demolition.⁵ It originally planned to record the setting of the pillbox within its original WWII setting, which would have included the "E"-type shed that previously occupied the site. Because this was not carried out prior to the demolition of this shed, the Waterman desk-based assessment recommended that this is carried out prior to the construction of the

proposed SAR facility on the Site, so that its recording includes as much of the original setting as has been preserved.

- 3.6 Previous desk-based and archaeological evaluations in close proximity to the Site have not identified archaeological sites or monuments of sufficient importance to warrant preservation in situ.⁶ However, it is clear from these investigations that there is an important and complex chronology of human occupation dating from the Bronze Age, Iron Age, Romano-British, medieval and post-medieval periods in the immediate vicinity of the Site (Entec 2009). The Heritage desk-based assessment therefore recommended that an archaeological watching brief on any ground penetrating works in the extent of the Site should be carried out.

4 ARCHAEOLOGICAL METHODOLOGY

- 4.1 The watching brief fieldwork was designed to monitor all ground works associated with the construction of the new Search & Rescue facility that included the new aviation hanger, external hard standing and the associated drainage tanks etc.
- 4.2 The ground works monitored by the archaeological watching brief consisted of the foundations and tanks for the above works that covered an area of some 1.41 hectares (ha) and a maximum depth of c.2m.
- 4.3 The aim of the archaeological work was to define the location, extent, date, character, condition, significance and quality of any surviving archaeological remains. The watching brief also aimed to clarify the nature and extent of existing disturbances and intrusions and hence assess the degree of survival of archaeological deposits of whatever period.
- 4.4 All excavation was undertaken by three 20-ton tracked machines using both a flat bladed ditching bucket and a toothed bucket, which were monitored under archaeological supervision.
- 4.5 Deposits and structures were recorded using the PCA *pro forma* 'Context Recording Sheet'. Trench plans were drawn at a scale of 1:50; representative sections at a scale of 1:20. The locations of the stanchion pits and trenches were surveyed using GPS and TST survey equipment.
- 4.6 A full photographic record was made, including digital, black and white prints and 35mm colour transparencies. No finds were encountered throughout the fieldwork.

5 ARCHAEOLOGICAL SEQUENCES

5.1 Phase 1: Natural Deposits (Figure 3; Plates 2-4)

5.1.1 The earliest deposits encountered during the watching brief was the Lower Lias limestone bedrock (08) that was overlain by the weathered limestone (04), this in-turn was sealed beneath the graded silty clay (03). These deposits are interpreted as the natural geological deposits observed by the National Museum of Wales (see section 3.2 for details). The upper deposit of (03) was broadly level across the site at 46.53m AOD to 46.59m AOD. The underlying natural weathered limestone deposit of (04) was broadly level across the majority of the site at 46.03m AOD, 46.2m AOD and rose slightly to the east at 46.17m AOD. The limestone bedrock of (08) was encountered within all of the deep stanchion pits at a height of c.45.17m AOD.

5.2 Phase 2: Modern (Figure 3; Plates 1-4)

5.2.1 Overlaying the upper natural silty clay deposit of (03) was a moderately compact, grey silty clay layer (02). It contained occasional small quantities of fragmented limestone and roofing slate pieces. No dateable artefactual material was recovered although within the surrounding cultivated fields to the south and east (outside the limits of the airfield) these inclusions were present within the plough soil layer associated with several small fragments of mid-late Victorian White wares and Transfer Printed pottery fragments. A thin dark brown sandy silty topsoil deposit (01) was present above (02).

5.2.2 The demolition of the former 'E'-type shed ('E3') on the site noted that a compact levelling/bedding deposit of crushed stone and concrete (06) overlay the limestone deposit (04). This crushed levelling/bedding deposit supported the concrete E-type shed base (05).

5.2.3 The removal of all upper deposits (01), (02) & (03) and the 'grubbing-out' of the shed base (05) & (06) to the natural limestone of (04) & (08) facilitated the contractors to in-fill the site with recycled crushed stone and concrete (07). This formed a level site in which to excavate the foundation pads for the new Search and Rescue facility.

6 CONCLUSIONS AND RESEARCH AIMS

6.1 General Conclusions

- 6.1.1 The aim of the watching brief was to monitor all ground-works associated with the construction of the new Search and Rescue hanger and external hard standing, also to record any archaeological features and /or deposits that may have been present.
- 6.1.2 The watching brief established that c.0.40m thick c.19th-early 20th century cultivation soil survived above a sequence of underlying natural deposits.

6.2 Research Aims

- 6.2.1 Preliminary research questions for this study are addressed here;

To identify all archaeological remains revealed during the course of ground disturbance within the affected area.

To ensure the preservation by record of all archaeological remains revealed during the course of ground disturbance.

To prepare an appropriate archaeological archive of the site including the treatment and preservation of any finds; and publish the results of the archaeological programme of work.

6.3 Archive Destination

- 6.3.1 Upon completion of all phases of the archaeological work the archive will be deposited with the Glamorgan-Gwent Archaeological Trust under the unique site code SAGW 14.

6.4 Confidence

- 6.4.1 PCA considers that the archaeological watching brief was completed in accordance with all relevant guidelines, best-practice documents and the approved Written Scheme of Investigation.
- 6.4.2 The work was undertaken in good and changeable weather conditions.
- 6.4.3 We consider that the results detailed in this report are reliable. We are confident, that the methodology has allowed good identification of the archaeological and natural features that are and were contained within the excavated trenches.

7 ACKNOWLEDGEMENTS AND CREDITS

Acknowledgements

Pre-Construct Archaeology Ltd would like to thank Waterman EED Ltd for commissioning the work. Thanks are also extended to the Staff at RAF St Athan and the various contractors who facilitated the smooth running of the project

PCA Credits

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Report: Kevin Trott

Project Manager: Kevin Trott

CAD: Jennifer Simonson

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APPENDIX 1: PLATES



Plate 1, General view of site, facing northwards (Scales 1 & 1m)



Plate 2, General view of excavated stratigraphy (Section 1), facing east (Scales 1 & 1m)



Plate 3, General view of excavated stratigraphy (Section 2) under former E3-Type building, facing east (Scales 1 & 0.50m)



Plate 4, General view of excavated Stanchion Pad stratigraphy (Section 4), facing east (Scale 2m)

APPENDIX 2: CONTEXT INDEX

Context	Category	Description			Interpretation	Above	Below	Highest Level mOD	Lowest Level mOD
		Colour	Texture	Inclusions					
01	Layer	Dark brown	Friable sandy silt	Occasional grass rootlets	Topsoil	02	-	46.93	46.81
02	Layer	Grey	Friable –firm silty clay	Fragmented limestone and occasional very small slate fragments	Cultivation soil	03	01	46.81	46.53
03	Deposit	Light grey	Fine-graded silty clay	-	Natural silty clay	04	02	46.53	46.03
04	Deposit	Very pale brown	Friable-firm silty clay	Fragmented Lower Lias Limestone	Natural weathered limestone	08	03, 06 & 07	46.03	45.93
05	Deposit	Light grey	Very compact	Concrete aggregate	Concrete floor	06	-	46.91	46.51
06	Deposit	Light grey-brown	Friable-moderately compact/firm	Fragmented concrete and stone	Crushed stone & concrete levelling/bedding	04	05	46.51	46.2
07	Deposit	Light grey-reddish brown	Friable-firm	Fragmented stone & concrete	Crushed stone & concrete infill	04	-	46.87	46.17
08	Deposit	Pale yellow	Compact	Lower Lias Limestone	Natural Limestone	-	04	45.67	45.27

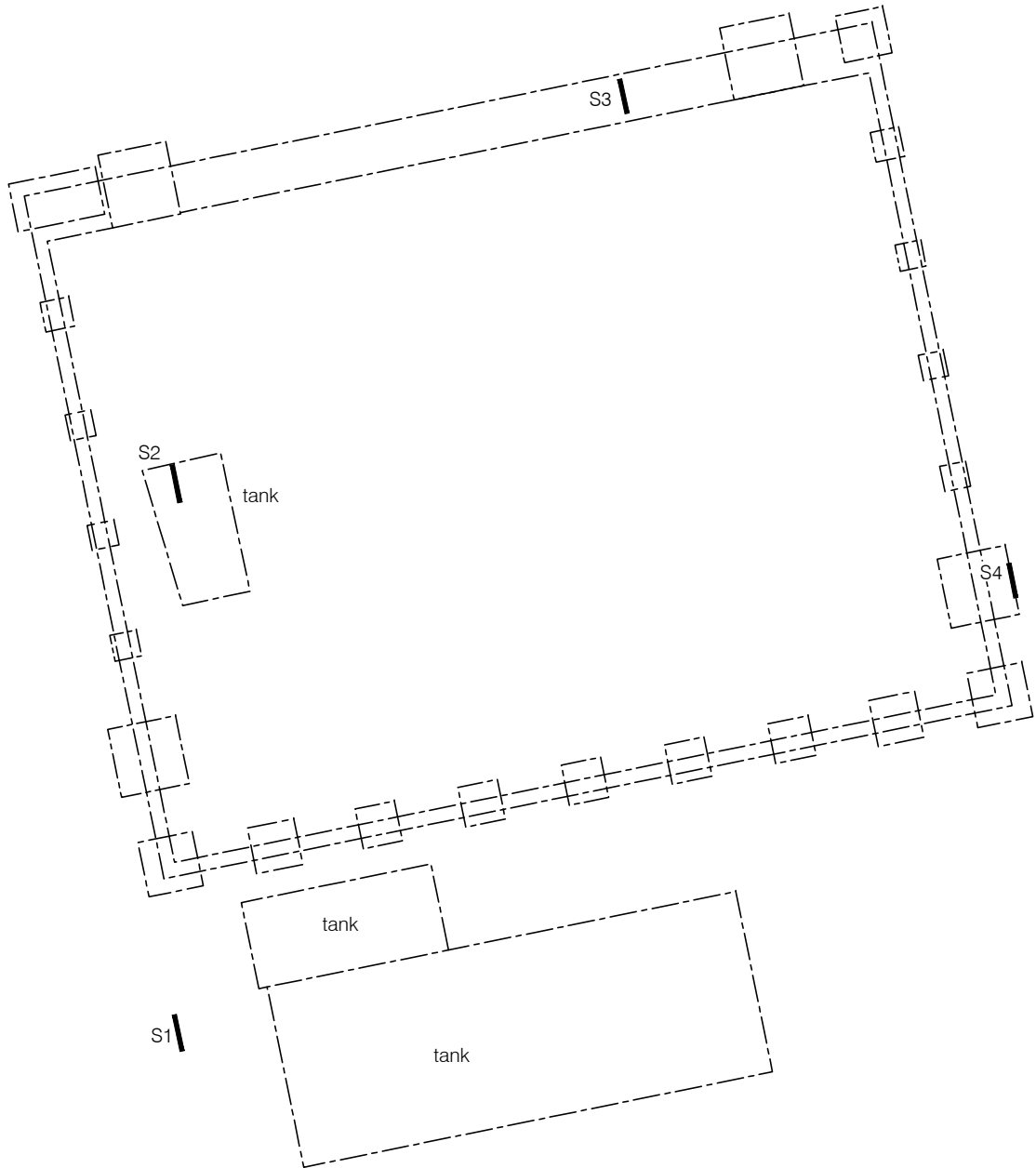


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Figure 1
 Site Location
 1:100,000 and 25,000 at A4



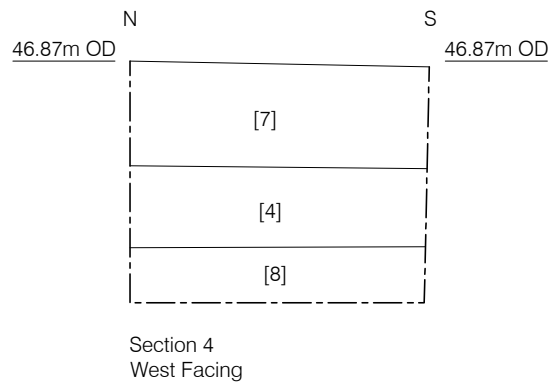
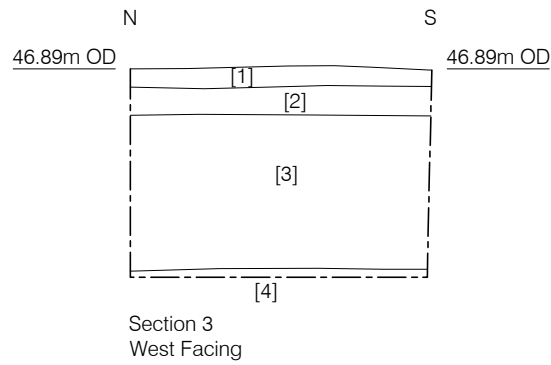
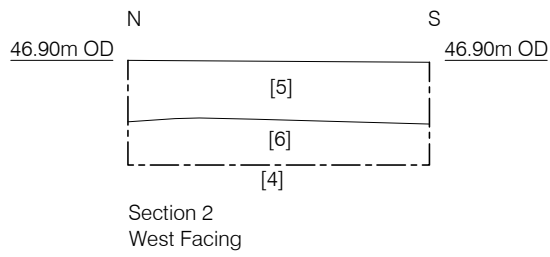
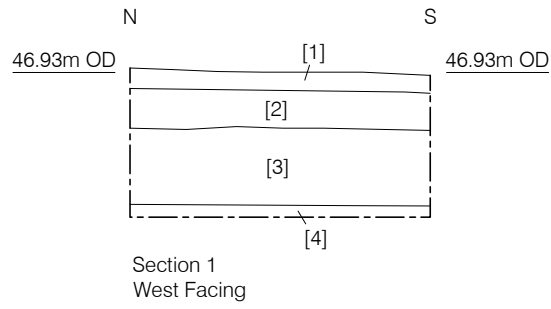
Figure 2
Trench Location
1:4,000 at A4



0 20m

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Figure 3
Trench Plan
1:400 at A4



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Figure 4
Sections 1 - 4
1:50 at A4

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