

**T H A M E S      V A L L E Y**

**ARCHAEOLOGICAL**

**S E R V I C E S**

**Bilsham Solar Farm, Yapton,  
West Sussex**

**An Archaeological Watching Brief**

**by Daniel Strachan and Susan Porter**

**Site Code: BSY 14/134**

**(SU 9607 0243)**

# **Bilsham Solar Farm, Yapton, Bognor Regis, West Sussex**

**An Archaeological Watching Brief**

**For Cobalt Energy Limited**

by Daniel Strachan and Susan Porter

Thames Valley Archaeological Services Ltd

Site Code BSY 14/134

**January 2015**

## Summary

**Site name:** Bilsham Solar Farm, Yapton, , Bognor Regis, West Sussex

**Grid reference:** SU 9607 0243

**Site activity:** Watching Brief

**Planning reference:** Y/87/13

**Date and duration of project:** 2nd July – 5th August 2014, 9th-11th February 2015

**Project manager:** Steve Ford

**Site supervisor:** Daniel Strachan

**Site code:** BSY 14/134

**Summary of results:** The power cable infrastructure for the solar farm was monitored. Five features were observed, one of which formed a modern trackway. The remaining four comprised undated gullies and pits.

**Location and reference of archive:** The archive is presently held at Thames Valley Archaeological Services, Reading and will be deposited at The Novium (Chichester Museum) in due course.

*This report may be copied for bona fide research or planning purposes without the explicit permission of the copyright holder. All TVAS unpublished fieldwork reports are available on our website: [www.tvas.co.uk/reports/reports.asp](http://www.tvas.co.uk/reports/reports.asp).*

Report edited/checked by: Steve Ford✓ 17.02.15 Steve Preston✓ 28.01.15
---

# **Bilsham Solar Farm, Yapton, West Sussex An Archaeological Watching Brief**

by Daniel Strachan and Susan Porter

**Report 14/134**

## **Introduction**

This report documents the results of an archaeological watching brief carried out at Bilsham Solar Farm, Yapton, near Bognor Regis, West Sussex (SU 9607 0243) (Fig. 1). The work was commissioned by Mr Michael Rigby of Cobalt Energy Limited, Cobalt House, Dew Pond Lane, Tongue Lane Industrial Estate, Buxton, Derbyshire, SK17 7LF.

Planning permission (Y/87/13) has been gained from Arun District Council to construct a solar photovoltaic farm. This permission is subject to a condition (11) which requires that an archaeological watching brief be carried out during ground works.

This is in accordance with the Department for Communities and Local Government's *National Planning Policy Framework* (NPPF 2012) and the District's policies on archaeology. The field investigation was carried out to a specification approved by Mr Mark Taylor, Principal Archaeologist for West Sussex County Council. The fieldwork was undertaken by Daniel Strachan between 2nd July 2014 and 5th August 2014 and James McNicoll-Norbury between 9th-11th February 2015 and the site code is BSY 14/134.

The archive is presently held at Thames Valley Archaeological Services, Reading and will be deposited with Chichester Museum in due course.

## **Location, topography and geology**

The site is located within the West Sussex coastal plain on the outskirts of Yapton on the western side of Drove Lane (Fig. 1). The site comprises four large fields within an agricultural landscape accessed from a trackway off Drove Lane, which forms the eastern extent of the site. To the south-west the site is bounded by a drainage ditch known as Ryebank Rife and to the north-west a second drainage ditch known as Lidsey Rife. The north-eastern extent of the site is marked by a hedgerow. Topographically the site is located on an area of higher ground at 4.5m above Ordnance Datum in the eastern corner falling away to the west and south by *c.*2m. The underlying geology is recorded as the Marsh Farm Formation sands and clays (BGS 1996).

## **Archaeological background**

The archaeological potential of the site has been presented in a desk based assessment (APS 2013). In summary there is strong evidence for Bronze Age occupation and settlement in the area, *c.*275m to the east of the proposal site a hoard of five middle Bronze Age palstaves were uncovered during ploughing and were found to have been placed in a small pit. A small excavation in the area of the pit recovered bronze slag, a flint scatter including roughouts, reworked flakes and wasters and a sherd of Bronze Age pottery (Aldsworth 1982). An additional palstave was found *c.*50m to the south-west of the hoard.

At *c.*150m to the east of the proposal site an excavation uncovered pits of late Bronze Age date and features relating to the Iron Age; with field walking around the area of the site recovering burnt flint, worked flint and a Roman coin (Rudling 1987). Further to the south-east of the proposal site a probable burnt mound was also excavated, reinforcing the often observed close association of Bronze Age metal hoards, water courses, and burnt mounds. Fieldwalking *c.*500m to the east of the eastern boundary of the solar farm site recovered a very large assemblage of worked flint; including 276 scrapers, 113 pierces/ awls, and 11 knives.

Evidence for Roman occupation has also been found in the vicinity of the site. Fieldwalking *c.*300m to the east recovered a scatter of Roman pottery and a coin dated AD393-423, in the area where a potential enclosure has been identified in aerial photos. An archaeological evaluation carried out in the area, in advance of the construction of a reservoir uncovered a Roman pond together with field systems and features indicative of a small Roman farmstead. Further Bronze Age and Iron Age ditches were also identified. A further scatter of pottery, coins, and lead loom weights have been found *c.*400m to the south of the proposal site with a coin and Roman belt buckle found *c.*425m to the east.

## **Objectives and methodology**

The purpose of the watching brief was to excavate and record any archaeological deposits affected by the groundworks for the construction of the solar farm. This was to involve examination of all areas of intrusive groundworks, in particular constant monitoring of the excavation of the trenching for the cabling and the excavation of the foundations for the substations and inverter buildings.

Archaeological deposits which were threatened by the groundworks were to be excavated and recorded with sufficient time allowed to carry this out within the groundworkers' schedules. All intrusive excavation was observed under constant archaeological monitoring and spoil heaps were examined for finds.

## **Results**

The groundworks on the site were observed as a series of sixteen test pits, a single test trench, three long cable trenches totalling around 1150m in length and six inverter trenches (Fig. 2).

### Test Pits 1–4 and 6–8 (Fig. 2)

The test pits measured 1.50m in length and 0.30m in width and were excavated to a depth of 1.10m, with the exception of test pits 7 and 8 which were 0.65m in depth. The stratigraphy comprised 0.30m topsoil overlying mid brownish red natural clay 0.70m in depth overlying grey clay natural geology. Below the topsoil and cutting the brownish red clay, a possible pit/ posthole (1) was observed in the northern section of test pit (Fig. 3). It was 0.35m in diameter with shallow sides curving to a bowl shaped base 0.10m in depth containing a single fill comprising soft mid dark grey brown clayey silt (51) with no finds.

### Test Pit 5 (Fig. 2)

Test pit 5 measured 1.50m in length and was 0.30m wide excavated to a depth of 1.10m, and here a change to the natural geology were observed. At a depth of 0.70m the red brown clay was observed to overlie friable chalky sand. This may be due to its proximity to the river. Below the topsoil and cutting the brownish red clay, a gully (2) was observed in both the south-west and north-eastern sections of the test pit (Fig. 3). It was 0.34m wide with steeply sloping sides and a 'V' shaped profile, aligned approximately west–east, and 0.17m in depth. It contained a single fill of firm mid dark grey grown clayey silt (52). No finds were recovered.

### Test Pits 9–14 (Fig. 2)

Test pits 9-14 were 1.50m long and 0.30m wide excavated to a depth of 0.50m. The stratigraphy comprised 0.30m topsoil overlying mid brownish red clay natural geology. No deposits of archaeological interest were observed and no finds were recovered.

### Test pits 15 and 16 (Fig. 2)

Test pits 15 and 16 measured 1.50m in length and 1.00m in width and were excavated to a depth of 0.50m. The stratigraphy comprised 0.30m topsoil overlying mid brownish red clay natural geology. No deposits of archaeological interest were observed and no finds were recovered.

### Test Trench 17 (Fig. 2; Pl. 3)

Test trench 17 was excavated along the centre of the sub-station zone. The trench was 1m in width and 16.5m long, excavated to a depth of 0.50m. A single feature, posthole (3) was observed 11.50m from the western end. It

was circular in plan 0.29m in diameter with shallow sides to a concave base 0.06m in depth (Fig. 3; Pl. 4), containing a single fill comprising firm mid dark grey brown clayey silt (53). No finds were recovered.

#### Cable Trench 1 (Fig. 2, Pls 1 and 2)

Trench 1 was 0.60m in width excavated to a depth of 1.20m. The stratigraphy comprised 0.30m of topsoil overlying mid brownish red clay natural geology, that was observed to change at a depth of 1.20m to a more grey clay. A possible ditch terminus (4) was observed in section on a parallel alignment to the present field boundary ditch. It was 1.04m wide with steep near vertical sides to a depth of 0.58m containing a single fill (54) comprising firm light-mid grey silty clay from which no finds were recovered. A possible trackway (5) was observed in the section of trench 1 and was also parallel to the modern boundary. It was 3.18m wide and had shallow sides to a depth of 0.55m (Fig. 3). The trackway contained two fills comprising 0.48m soft mid brownish red silty clay re-deposited natural (55) overlying 0.08m friable dark brown grey silty clay (56) containing brick and modern concrete inclusions, from which no finds were recovered, the concrete indicating a modern date. The remainder of trench 1 was sterile, although the natural was observed to vary from sandy clay to chalk towards the south-west. It was observed that in the vicinity of the boundary ditch the natural geology appeared alluvial and may indicate a flood plain. In the south-west field the natural geology became extremely changeable.

#### Cable Trench 2 (Fig. 2)

The second cable trench was 0.30m wide and excavated to a depth of 0.50m, it was located to the south of cable trench one, with inverter Trenches 1 and 2 at either end. The stratigraphy was broadly similar to that of cable trench one, however a subsoil layer was noted at the eastern end, comprising 0.30m topsoil overlying 0.20m mid orange brown silty clay with occasional chalky flecks.

#### Cable Trench 3 (Fig. 2)

The third cable trench was 0.60m wide and excavated to a depth of 1.2m, it ran westwards from inverter trench 6 before turning southwards and running parallel to cable trench one and ending at inverter trench 2. The stratigraphy was broadly similar to that of cable trench one, however the natural geology was observed to contain more chalk patches inclusions.

#### Inverter Perimeter Trenching (fig 2)

A further six inverter perimeter trenches were excavated to a rectangular shape on a north-south alignment. All trenches observed were 0.45m wide and 0.60m in depth with a stratigraphy comprising 0.30m topsoil overlying

mid brownish red clay natural geology with slight variation as previously noted. Inverter trench 1 demonstrated the subsoil layer seen within cable trench 2. No deposits of archaeological interest were observed within these trenches and no finds were recovered.

## **Finds**

No finds of archaeological interest were recovered. Modern brick and concrete in trackway 5 was not retained.

## **Environmental sampling**

Bulk soil samples for palaeoenvironmental remains were taken from features 2 and 3 but neither produced any charred plant material.

## **Conclusion**

Although the site had a high potential for archaeological remains, few deposits of archaeological interest were observed. Of the deposits observed the trackway (5) is likely to be modern in date given the presence of concrete, likewise ditch 4 most likely represents an earlier alignment of the current field boundary and may be considered as post-medieval in date based on this. Of the remaining features pit/ posthole 1 appeared somewhat ephemeral and may have been a plough scar rather than a posthole, and features 2 and 3 remain undated. As such the level of archaeological activity identified on the site may be considered low.

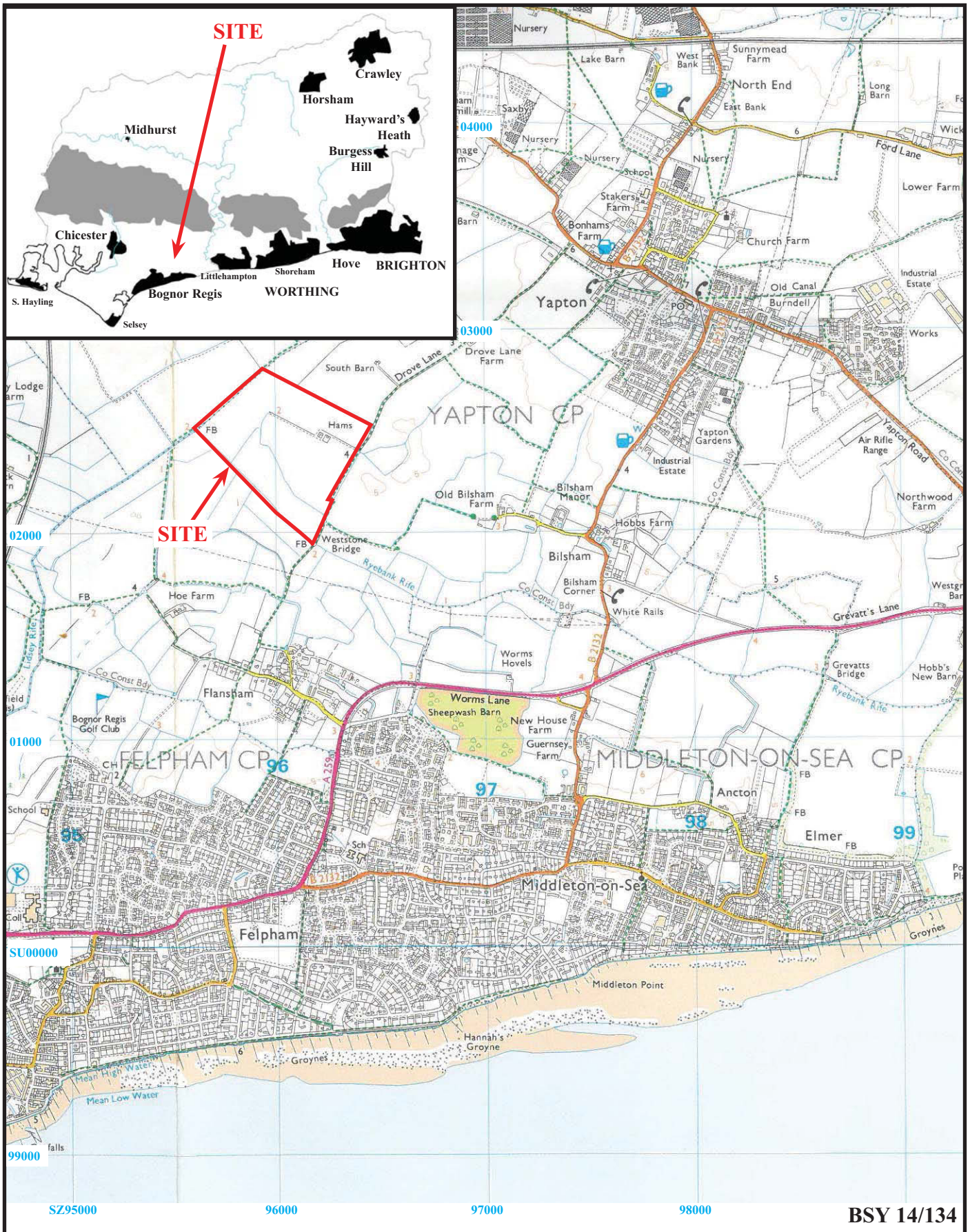
## **References**

- Aldsworth, F G, 1982, A Bronze Age hoard and settlement at Yapton, , *Sussex Archaeol Collect*, **121**, 196-8  
APS, 2013, 'Land at Bilsham Farm, Yapton, West Sussex, Archaeological Assessment', Archaeology and Planning Solutions, Cirencester 13/404  
BGS, 1996, *British Geological Survey*, 1:50,000, Sheet 317, Solid and Drift Edition, Keyworth  
NPPF 2012, *National Planning Policy Framework*, Dept Communities and Local Govt, London  
Rudling, D, 1987, The excavation of a Late Bronze Age site at Yapton, West Sussex, 1984, *Sussex Archaeol Collect*, **125**, 51-67



**APPENDIX 1: Feature details**

<i>Cut</i>	<i>Fill (s)</i>	<i>Type</i>	<i>Date</i>	<i>Dating evidence</i>
1	51	Pit/ Posthole	Undated	None
2	52	Gully	Undated	None
3	53	Posthole	Undated	None
4	54	Ditch	Undated	None
5	55-6	Road/ Trackway	Modern	Concrete

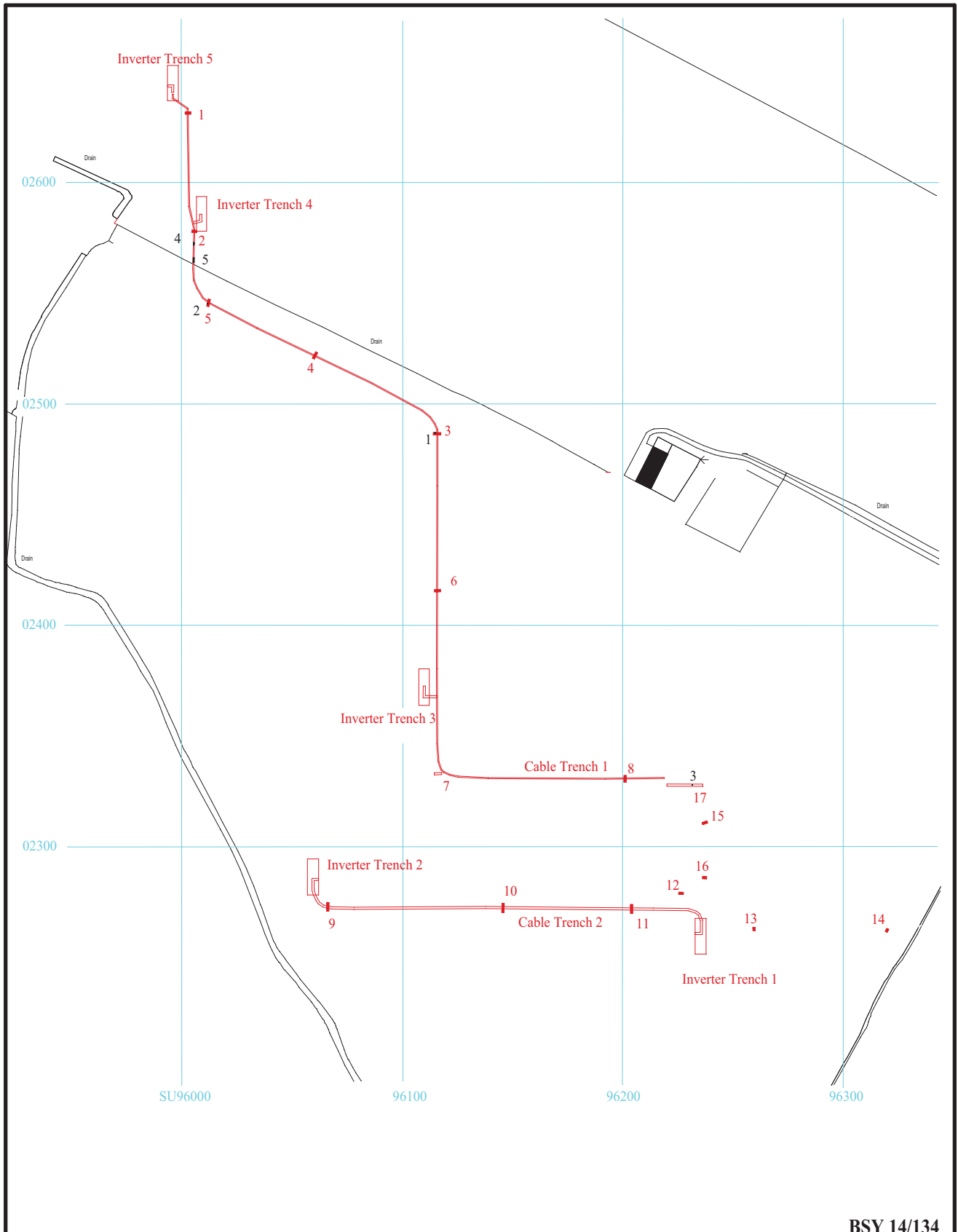


**Bilsham Solar Farm, Bilsham, Yapton,  
Bognor Regis, West Sussex, 2014  
Archaeological Watching Brief**

Figure 1. Location of site within Yapton and West Sussex.

Reproduced from Ordnance Survey Explorer 121 at 1:25000  
Ordnance Survey Licence 100025880

THAMES VALLEY  
ARCHAEOLOGICAL  
SERVICES



BSY 14/134

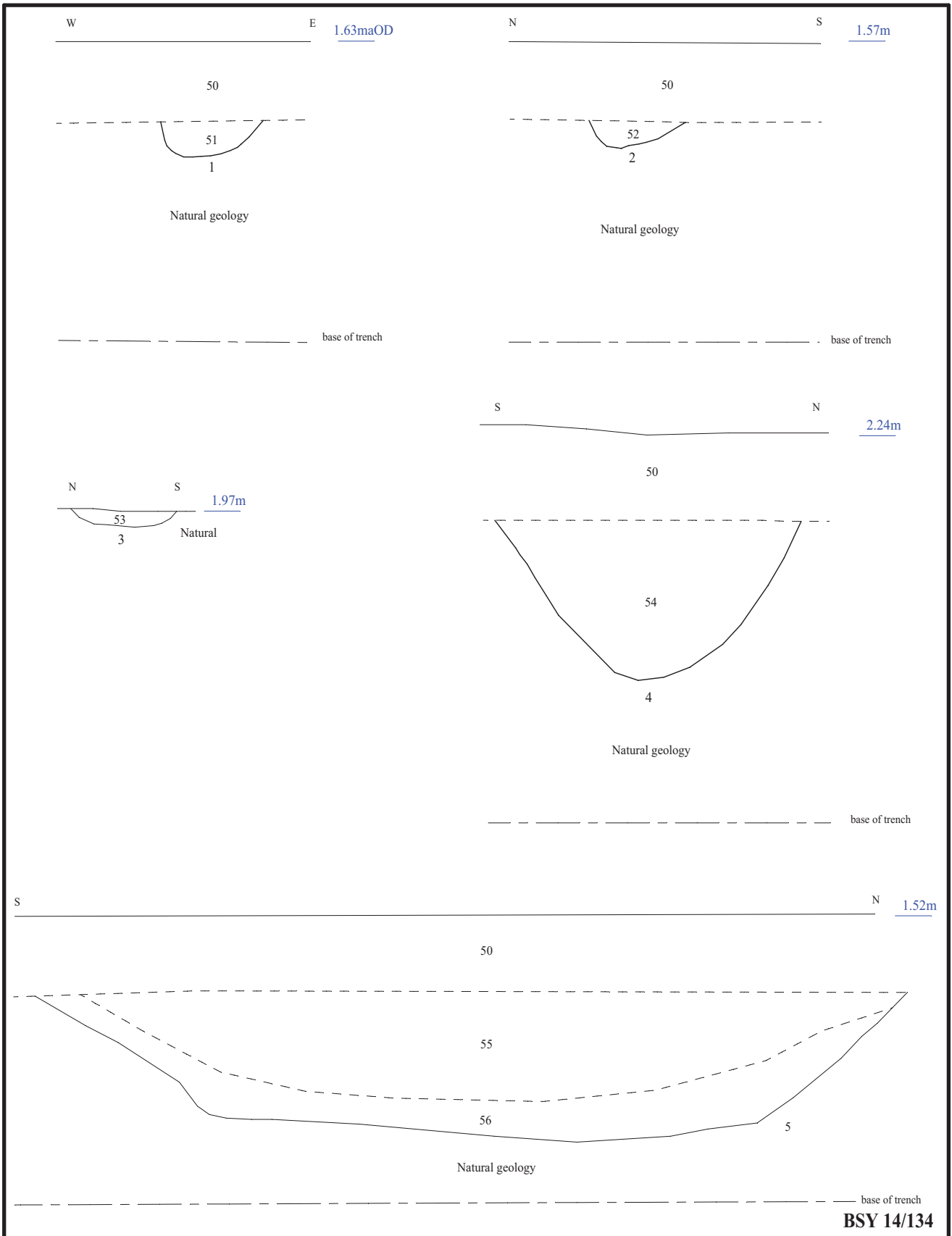


**Bilsham Solar Farm, Bilsham, Yapton,  
Bognor Regis, West Sussex, 2014  
Archaeological Watching Brief**

Figure 2. Location of areas.



THAMES VALLEY  
ARCHAEOLOGICAL  
SERVICES



**Bilsham Solar Farm, Bilsham, Yapton,  
Bognor Regis, West Sussex, 2014  
Archaeological Watching Brief**

THAMES VALLEY  
ARCHAEOLOGICAL  
SERVICES

Figure 3. Sections.







Plate 1. Cable Trench 1 representative section, looking west, Scales: 2m and 1m.



Plate 2. Cable Trench 1, looking north.

BSY 14/134

**Bilsham Solar Farm, Bilsham, Yapton,  
Bognor Regis, West Sussex, 2014  
Archaeological Watching Brief**

Plates 1 - 2.

THAMES VALLEY  
ARCHAEOLOGICAL  
SERVICES



Plate 3. Trench 17, looking west, Scales: 1m and 0.5m.



Plate 4. Trench 17, pit 3, looking north, Scale: 0.1m.

BSY 14/134

**Bilsham Solar Farm, Bilsham, Yapton,  
Bognor Regis, West Sussex, 2014  
Archaeological Watching Brief**

Plates 3 - 4.

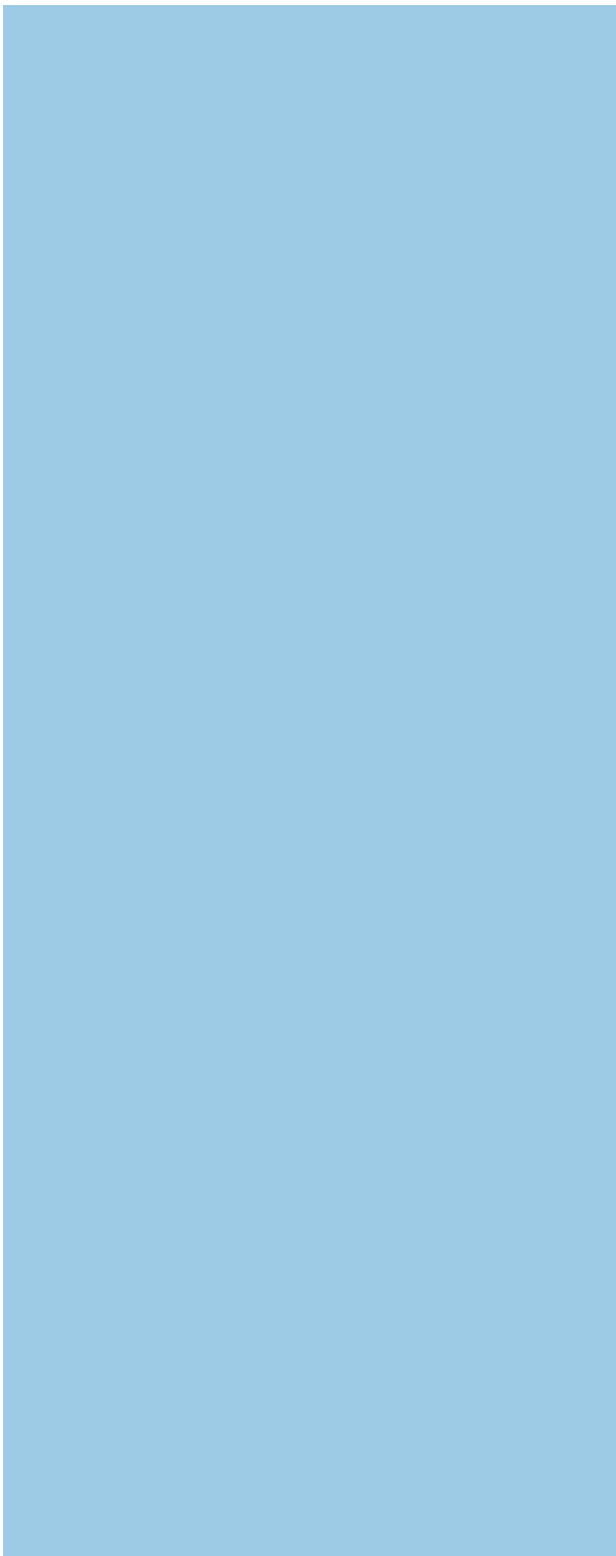
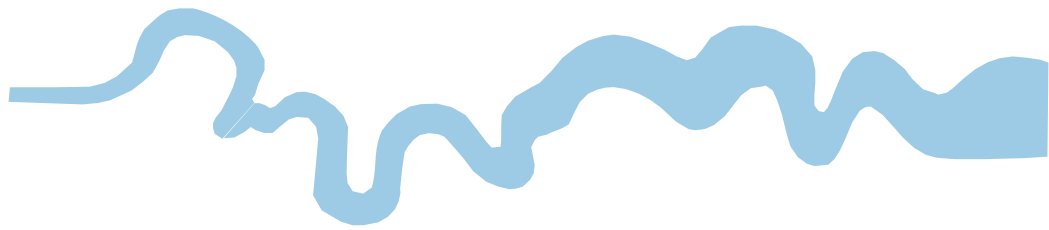
THAMES VALLEY  
ARCHAEOLOGICAL  
SERVICES



## TIME CHART

	<b>Calendar Years</b>
Modern _____	AD 1901
Victorian _____	AD 1837
Post Medieval _____	AD 1500
Medieval _____	AD 1066
Saxon _____	AD 410
Roman _____	AD 43
Iron Age _____	BC/AD 750 BC
Bronze Age: Late -----	1300 BC
Bronze Age: Middle -----	1700 BC
Bronze Age: Early -----	2100 BC
Neolithic: Late .....	3300 BC
Neolithic: Early .....	4300 BC
Mesolithic: Late .....	6000 BC
Mesolithic: Early .....	10000 BC
Palaeolithic: Upper .....	30000 BC
Palaeolithic: Middle .....	70000 BC
Palaeolithic: Lower .....	2,000,000 BC





**Thames Valley Archaeological Services Ltd,  
47-49 De Beauvoir Road, Reading,  
Berkshire, RG1 5NR**

**Tel: 0118 9260552  
Fax: 0118 9260553  
Email: [tvas@tvas.co.uk](mailto:tvas@tvas.co.uk)  
Web: [www.tvas.co.uk](http://www.tvas.co.uk)**