

# Archaeological Investigation of land south of Preston Road, Manston, Kent

NGR 634780 166962  
Site Code: MANS/WB/14  
Planning Application: F/TH/13/0315  
Date: 27/03/2014



Report for Vogt Solar Ltd

## **SWAT. ARCHAEOLOGY**

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# Contents

List of Figures.....	3
List of Plates.....	3
Summary.....	4
Introduction.....	4
Site Description and Topography.....	4
Planning Background.....	5
Archaeological and Historical Background.....	5
The Archaeological Record.....	5
Aims and Objectives.....	5
Methodology.....	6
Monitoring.....	6
Results.....	6
Finds.....	7
Conclusion.....	7
Acknowledgements.....	7
Appendix 1.....	
Appendix 2.....	

## List of Figures

Fig. 1 Location of site

## List of Plates

Plate 1 Aerial view of site

Plate 2 Construction of compound

Plate 3 Maintenance road construction

Plate 4 Main cable runs

Plate 5 Piling in progress

Plate 6 Main inverter construction



Plate 1. Aerial view of site (Google Earth 2003)

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## **SUMMARY**

*Swale & Thames Survey Company (SWAT) carried out an archaeological watching brief of land south of Preston Road, Manston, Kent. A planning application (F/TH/13/0315) for the construction of a solar array park at Manston (Fig. 1) whereby the Council requested that an Archaeological Watching Brief be undertaken in order to determine the possible impact of the construction work on any archaeological remains.*

*The work was carried out in accordance with consultations with the Archaeological Heritage Officer, KCC. The archaeological investigation consisted of monitoring of the excavation of topsoil for temporary haul roads (Plate 3) excavation of site compound and of trenches for electric cabling (Plate 4) linking the ends of solar panel arrays and the main cable run (Plate 4) between the site and the main electric grid.*

*A scan of the excavated spoil from the ground-works with a metal detector was also done.*

*The programme of archaeological works revealed no archaeology.*

*The Archaeological Watching Brief has therefore been successful in fulfilling the primary aims and objectives set by the Senior Heritage Officer in an Archaeological Specification dated August 2013.*

## **INTRODUCTION**

Swale and Thames Survey Company (SWAT Archaeology) was commissioned by Vogt Solar Ltd, St John's Innovation Centre, Cowley road, Cambridge Road, CB4 0WS to carry out an archaeological watching brief at the above site. The work was carried out in accordance with consultation with the Senior Archaeological Heritage Officer, KCC, and the written archaeological specification. The watching brief was carried out from 6<sup>th</sup> January to 10<sup>th</sup> February 2014.

## **SITE DESCRIPTION AND TOPOGRAPHY**

The site is located on land south of Preston Road, Manston, Kent (Fig. 1). The site is situated in a field south of Preston Road, north of Manston Court and situated to a solar park constructed in 2013, and is about 12 hectares in area. The site centre is at NGR: 634780 166962.

According to the online geological maps of the British Geological Survey (1:50,000) the sites lies on Chalk with Thanet Beds to the north east. These are overlain by Head deposits. Inspection of the excavated trench runs revealed a common stratigraphy across the site of 30-35cm of topsoil overlaying brick earth. The deepest trench excavated was about 1.25m which revealed no outcrops of Chalk (Plate 6).

## **PLANNING**

The site has planning permission for the Solar Array from Thanet District Council. The planning reference is F/TH/13/0315 whereby the Senior Heritage Officer requested that an archaeological Watching Brief be undertaken in order to monitor specific ground works associated with the solar array.

The following Condition was attached to the planning permission.

*4 No development shall take place until the applicant, or their agents or successors in title, has secured the implementation of a watching brief to be undertaken by an archaeologist approved by the Local Planning Authority so that the excavation is observed and items of interest and finds are recorded. The watching brief shall be in accordance with a written programme and specification which has been submitted to and approved by the Local Planning Authority.*

## **ARCHAEOLOGICAL AND HISTORICAL BACKGROUND**

The site is in an area of considerable archaeological potential relating to known discoveries close-by. Thanet is generally rich in archaeological remains and this site lies within an area of particular archaeological interest. There are numerous crop marks in the vicinity which probably indicate areas of activity dating from the Prehistoric Period onwards. However, there are no recorded crop marks on the development site itself. Bronze Age flints were found in 2005 in the vicinity of the site (TR 36 NW 487) and Late Iron Age and Roman features were found in 2003 close to the site when a pipeline excavation was being watched (TR 36 NE 169). Recent investigations within Preston Park Caravan Park have revealed Neolithic remains.

## **AIMS AND OBJECTIVES**

The aims of the watching brief were to be targeted at three aspects:

1. The stripping of ground deposits (topsoil and subsoil) to create a foundation base for an inverter housing. These excavations should be carried out with a flat bladed bucket under the direction of the supervising archaeologist and in a manner that would allow any archaeology present to be properly exposed, identified and investigated before subsequent disturbance by construction.
2. The archaeologist should then record and investigate any archaeology visible before stripping to full construction depth is completed.
3. Monitoring of the excavation of the trenches for electric cabling linking the ends of the solar panel arrays and main cable run between the site and the main electric grid (Plate 3).

## **METHODOLOGY**

The objectives of the archaeological watching brief are to contribute to heritage knowledge of the area through the recording of any archaeological remains exposed as a result of excavations in connection with the ground works. Stripping for access roads and compounds were watched (Plates 2 & 3) but were of insufficient depth to impact on the geology or buried archaeological features. One large inverter housing was installed on site in the area of construction storage (Plate 6) which failed to expose the underlying chalk strata.

Trenching was carried out 20<sup>th</sup> January to 10<sup>th</sup> February 2014, with the excavation of four long trenches for the cable runs measuring 0.65m in width and about 140m in length. Trench location was to an agreed plan carried out by the solar array contractors (Fig. 2 and Appendix 2).

The trenches prior to excavation were scanned for finds by a SWAT Archaeology metal detectorist, and during and after excavation. Excavation was carried out using a 3 ton mechanical excavator fitted with a toothless bucket for the cable runs and removing the overburden to the top of the first recognisable archaeological horizon, or natural, under the constant supervision of an experienced archaeologist. The trench was subsequently inspected to identify any exposed features in plan and carefully selected cross-sections through the features would have been excavated to enable sufficient information about form, development date and stratigraphic relationships to be recorded without prejudice to more extensive investigations, should these prove to be necessary.

Unfortunately no archaeology was revealed in the cable runs or solar array area.

All archaeological work was carried out in accordance with the KCC Archaeological Specification (2013).

## **MONITORING**

No site visits by the Heritage Officer (KCC) were carried out.

## **RESULTS**

The first activity on site was the construction of temporary access road (Plate 3) followed by the piling of the solar array galvanised steel uprights by the ground contractors followed closely by the excavation of the cable runs (Plates 4 & 5). Work started on all phases of development whilst Paul Wilkinson from SWAT Archaeology was present on site.

The Archaeological Watching Brief continued for the rest of the groundwork's but no archaeology was revealed. Geology revealed was constant across the site and comprised topsoil- a grey brown sandy clay loam of about 35cm thick overlaying a dark grey brown sandy stiff clay (Brick earth). A metal detector survey was carried out but the ferrous and non-ferrous material recovered was modern and mostly fastenings discarded by the solar array contractors.

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## **FINDS**

No finds were retrieved

## **CONCLUSION**

The archaeological Watching Brief has been successful in fulfilling the primary aims and objectives of the Specification. A common stratigraphic sequence was recognised across the site comprising topsoil **(01)** overlying subsoil **(02)** sealing Head Chalk **(03)**.

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## **ACKNOWLEDGEMENTS**

SWAT would like to thank Vogt Solar Ltd for commissioning this project. Thanks are also extended to Simon Mason, Senior Heritage Officer, Kent County Council for his advice and assistance.

Paul Wilkinson supervised the fieldwork, assisted in the field by Mike Robson on metal detector. Illustrations were produced by Jonny Madden for Digitise This.

Dr Paul Wilkinson MifA  
27<sup>th</sup> March 2014

## Plates



Plate 2. Construction compound being built (looking east)





Plate 3. Construction of maintenance road (looking south-east)



Plate 4. Main cable runs excavated with ditching bucket (looking south)



Plate 5. Piling in progress



Plate 6. Main inverter building under construction (looking north).

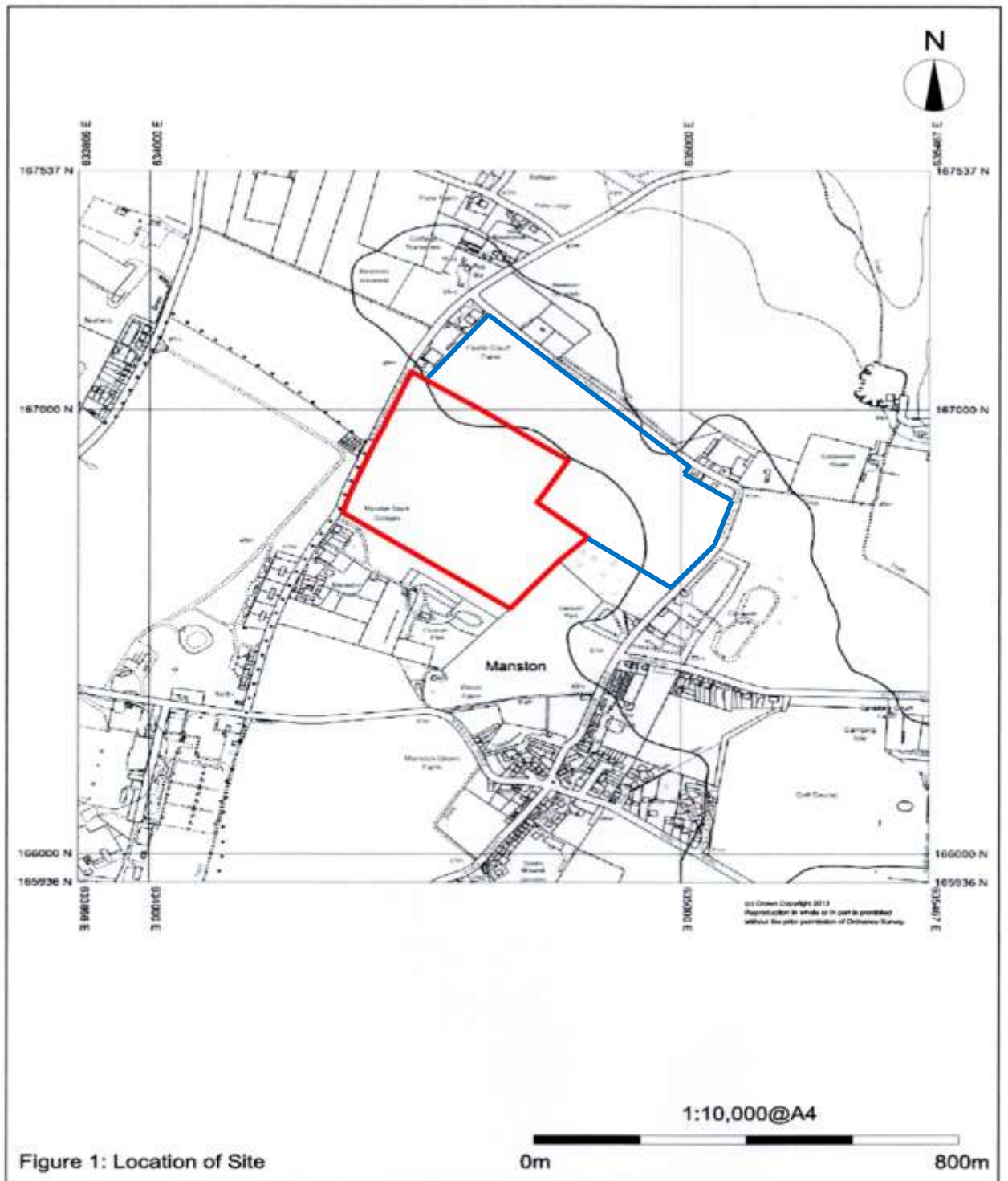
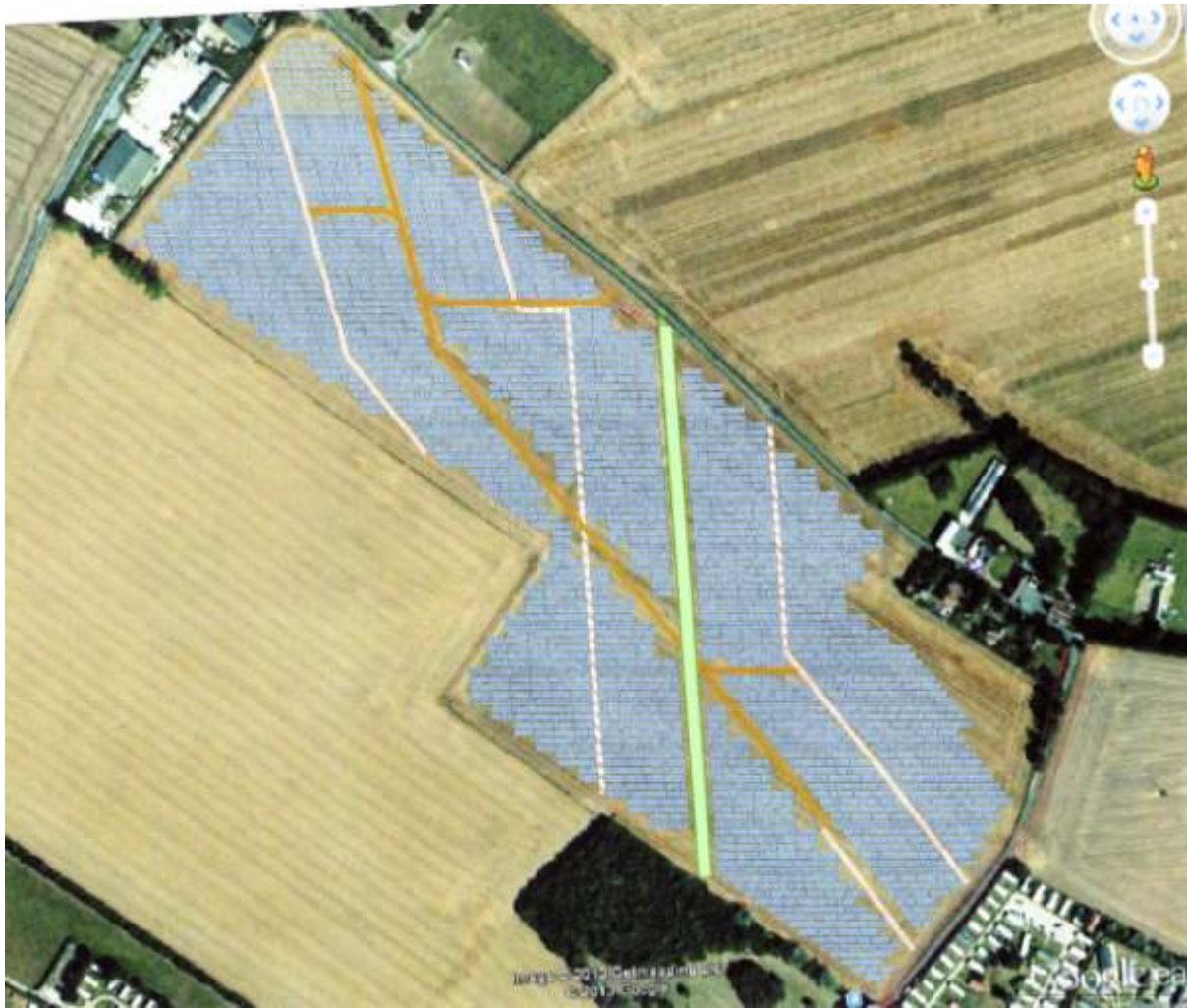


Figure 1. Showing location of 2013 solar array area (red line) and 2014 extension (blue line).











-  Field boundary
-  40.57 Bottom of bank
-  Neighbouring Fence
-  Assumed footpath route
-  11kV Overhead cables & tele. pole
-  Level contours
-  Irrigation supply valves
-  Hedge
-  Fence of the PV Area
-  Gate
-  Maintenance road
-  Construction storage
-  Inverter / Transformer Station
-  Cable trenches

Figure 2. Development plan (above) with key (left). Appendix 2 contains same plan but in more detail.

**APPENDIX 1 – Kent County Council HER Summary Form**

<b>Site Name:</b> <i>Manston Court Farm site,</i>	
<b>SWAT Site Code:</b> <i>Mans/WB/14</i>	
<b>Site Address:</b> <i>Land south of Preston Road, Manston, Kent</i>	
<b>Summary:</b> <i>Swale &amp; Thames Survey Company (SWAT) carried out an archaeological watching brief on land south of Preston Road, Manston. A planning application for the construction of a new solar array at the above site was submitted to Thanet District Council (TDC) whereby Kent County Council Heritage and Conservation (KCCHC), on behalf of Thanet District Council requested that an Archaeological Watching Brief be undertaken in order to determine the possible impact of the development on any archaeological remains. The work was carried out in accordance with the requirements set out within an Archaeological Specification (KCC 2012) and in discussion with the Senior Archaeological Officer, Kent County Council. The Archaeological Watching Brief consisted of watching all phases of construction which encountered no archaeological features.</i>	
<b>District/Unitary:</b> <i>Thanet</i>	<b>Parish:</b> <i>Manston</i>
<b>Period(s):</b> <b>Tentative:</b>	
<b>NGR (centre of site : 8 figures):</b> <b>(NB if large or linear site give multiple NGRs):</b> <i>NGR 634780 166962</i>	
<b>Type of archaeological work (delete)</b> <i>Watching Brief</i>	
<b>Date of Recording:</b> <i>Jan-Feb 2014</i>	
<b>Unit undertaking recording:</b> <i>Swale &amp; Thames Survey Company (SWAT)</i>	
<b>Geology:</b> <i>Brick earth over outcropping Upper Chalk</i>	
<b>Title and author of accompanying report:</b> <i>Wilkinson P. An Archaeological Watching Brief at land south of Preston Road, Manston, Thanet, Kent</i>	
<b>Summary of fieldwork results (begin with earliest period first, add NGRs where appropriate)</b>  <i>As above</i>  <p style="text-align: right;"><b>(cont. on attached sheet)</b></p>	
<b>Location of archive/finds:</b> <i>SWAT</i>	
<b>Contact at Unit:</b> <i>Paul Wilkinson</i>	<b>Date:</b> <i>27<sup>th</sup> March 2014</i>

Geographical coordinates

Country: UK  
 Address: Preston Road, Newton, Birmingham, Kent, CT12 9AS  
 Location: 51°22'17"N  
 Longitude: 0°48'03"W  
 Altitude: 48.03 m

Areas:

Fenced area: 1,850 m  
 Fence length: 4,292 m  
 Area Field: 46,754 m<sup>2</sup>  
 Area Field: 891 m  
 Total: 122,000 m<sup>2</sup>

System

Number of Panels	Number of Inverters	AC Power
982	4	4,292 MWp
676	4	2,703 MWp
1,578	10	7,425 MWp

Substructure

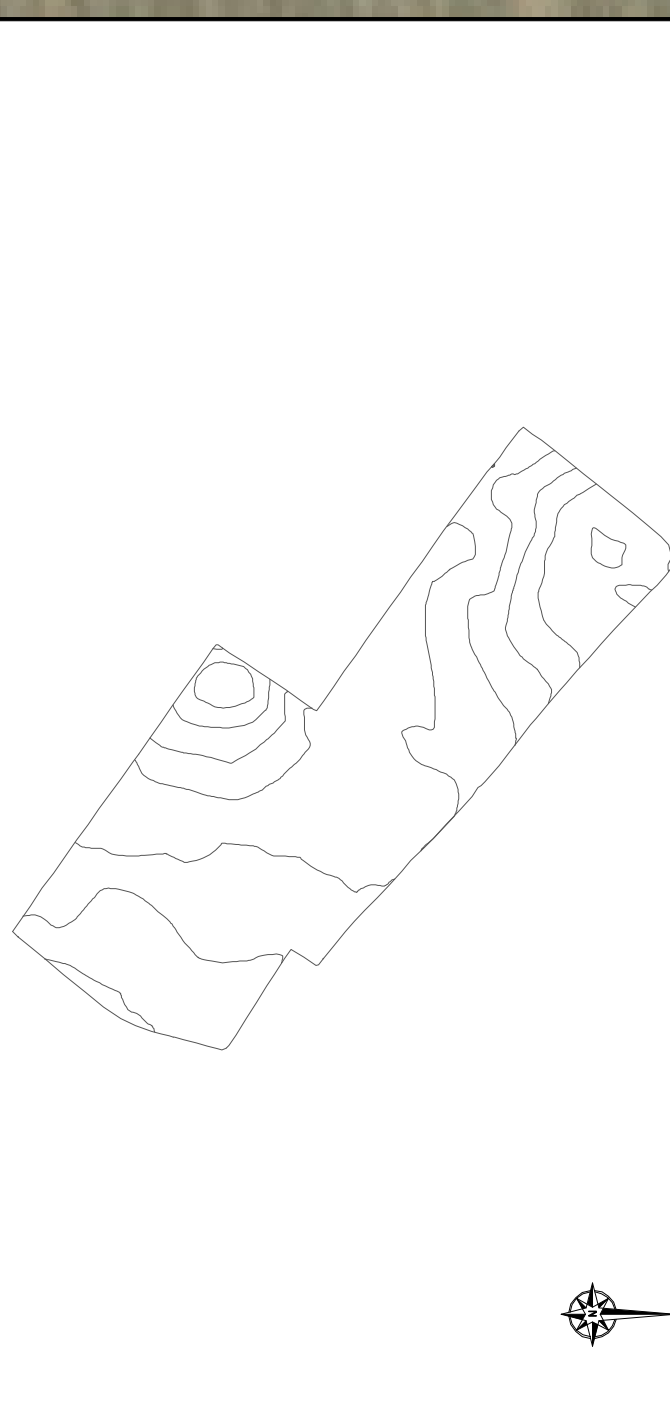
Number of Substructure: 1,578  
 Area Substructure: 2,672 (overall)  
 Area Substructure per rack: 1.69 m<sup>2</sup>  
 Assumed: 0.2 m<sup>2</sup>  
 Panels fit: 157  
 Panel: approx. 4.29 m  
 Array width: approx. 1.51 m

Legend

- 40.57' Field boundary
- Bottom of bank
- Neighbouring Fence
- Assumed footpath route
- Overhead cables & tele. pole
- Level contours
- Irrigation supply valves
- Hedge
- Fence of the PV Area
- Gate
- Maintenance road
- Construction storage
- Inverter / Transformer Station
- Cable trenches

Project Name: **2116.AP.001.0.A**

Rev	Date	Desc	Drawn	Check	Appr
1	19 Apr 13	MDL LMA	DAK		
2	25 Mar 13	MDL - - -	DAK		
3	25 Mar 13	MDL - - -	DAK		



Project Management / Engineering Design

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 2116.AP.001.0.A  
 Array Layout

19 Apr 13

Image © 2013 Getmapping plc  
 © 2013 Google

Scale: 1:5000  
 25 m  
 50 m  
 75 m  
 100 m