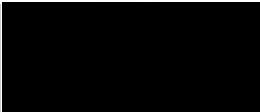


**GROUND INVESTIGATION REPORT**  
**for the land to the south of**  
**MADDOXFORD LANE, BOORLEY GREEN,**  
**HAMPSHIRE, SO32 2DB**  
**on behalf of**  
**BLOOR HOMES LIMITED**



|              |                                                                                      |
|--------------|--------------------------------------------------------------------------------------|
| Report:      | GROUND INVESTIGATION REPORT                                                          |
| Site:        | LAND TO THE SOUTH OF MADDOXFORD LANE, BOORLEY GREEN, HAMPSHIRE,<br>SO32 2DB          |
| Client:      | BLOOR HOMES LIMITED                                                                  |
| Date:        | 19/06/2018                                                                           |
| Reference:   | GE17077-GIR-JUN18                                                                    |
| Version:     | 1.0                                                                                  |
| Prepared by: |    |
|              | FIONA GOODE BSc (Hons), MSc, FGS, MEnvSc, RSoBRA<br>SENIOR CONSULTANT ENGINEER       |
| Reviewed by: |  |
|              | GAVIN ROBERTS CGeol, BEng (Hons), MSc, FGS<br>TECHNICAL DIRECTOR                     |

**Geo-Environmental Services Limited**

Unit 7, Danworth Farm, Cuckfield Road, Hurstpierpoint, West Sussex, BN6 9GL  
+44(0)1273 832972 [www.gesl.net](http://www.gesl.net)

**AMENDMENT RECORD**

| Revision ref. | Date       | Reasons for amendment                  | Author's initials |
|---------------|------------|----------------------------------------|-------------------|
| 1.0           | 19/06/2018 | First issue                            | FG                |
| 1.1           | 16/02/2026 | Updated following comments from client | FG                |
|               |            |                                        |                   |
|               |            |                                        |                   |
|               |            |                                        |                   |
|               |            |                                        |                   |



## CONTENTS

|                                                                             |    |
|-----------------------------------------------------------------------------|----|
| EXECUTIVE SUMMARY .....                                                     | i  |
| 1.0 INTRODUCTION .....                                                      | 1  |
| 1.1 General .....                                                           | 1  |
| 1.2 Form of Development .....                                               | 1  |
| 1.3 Objectives .....                                                        | 1  |
| 1.4 Standards and References .....                                          | 1  |
| 1.5 Conditions .....                                                        | 2  |
| 2.0 DESK STUDY .....                                                        | 3  |
| 2.1 Site Description .....                                                  | 3  |
| 2.2 Geology .....                                                           | 3  |
| 2.3 Hydrogeology .....                                                      | 4  |
| 2.4 Hydrology .....                                                         | 4  |
| 2.5 Sensitive Land Uses .....                                               | 4  |
| 2.6 Radon .....                                                             | 5  |
| 2.7 Environmental Data .....                                                | 5  |
| 2.8 Soil Chemistry .....                                                    | 5  |
| 2.9 Geotechnical Data .....                                                 | 6  |
| 2.10 Landfill and Ground Workings .....                                     | 6  |
| 2.11 Historic Mapping .....                                                 | 7  |
| 2.12 Asbestos .....                                                         | 8  |
| 2.13 Previous Ground Investigations .....                                   | 8  |
| 2.14 Potential Contamination .....                                          | 8  |
| 2.15 Ground Gas and Vapour Summary .....                                    | 9  |
| 3.0 PRELIMINARY ASSESSMENT .....                                            | 10 |
| 3.1 Potential Geotechnical Issues .....                                     | 10 |
| 3.2 Preliminary Environmental Conceptual Site Model & Risk Assessment ..... | 10 |
| 3.2.1 Methodology .....                                                     | 10 |
| 3.2.2 Summary of Plausible Sources .....                                    | 11 |
| 3.2.3 Summary of Plausible Pathways .....                                   | 12 |
| 3.2.4 Summary of Plausible Receptors .....                                  | 12 |
| 3.3 Preliminary Risk Assessment Summary .....                               | 17 |
| 3.4 Scope of Works .....                                                    | 17 |
| 3.5 Investigation Strategy .....                                            | 17 |
| 4.0 ENCOUNTERED CONDITIONS .....                                            | 19 |
| 4.1 Soils .....                                                             | 19 |
| 4.2 Groundwater .....                                                       | 19 |
| 4.3 Obstructions .....                                                      | 20 |
| 4.4 Geotechnical Testing .....                                              | 20 |
| 5.0 ENGINEERING CONSIDERATIONS .....                                        | 22 |
| 5.1 Conventional Foundations .....                                          | 22 |
| 5.2 Piled Foundations .....                                                 | 23 |
| 5.3 Floor Slabs .....                                                       | 24 |
| 5.4 Excavations .....                                                       | 24 |
| 5.5 Pavements .....                                                         | 25 |
| 5.6 Sub-Surface Concrete .....                                              | 25 |
| 5.7 Soakaways .....                                                         | 25 |
| 6.0 ENVIRONMENTAL CONSIDERATIONS .....                                      | 27 |
| 6.1 Outline Risk Assessment .....                                           | 27 |
| 6.2 Soil Contamination vs. End Users .....                                  | 27 |



|      |                                                       |    |
|------|-------------------------------------------------------|----|
| 6.3  | Soil Contamination vs. Soft Landscaping .....         | 28 |
| 6.4  | Soil Contamination vs. Built Environment .....        | 28 |
| 6.5  | Soil Contamination vs. Adjacent Land Users.....       | 28 |
| 6.6  | Soil Contamination vs. Groundwater.....               | 29 |
| 6.7  | Groundwater Contamination vs. Human Health .....      | 29 |
| 6.8  | Groundwater Contamination vs. Soft Landscaping .....  | 29 |
| 6.9  | Groundwater Contamination vs. Built Environment ..... | 29 |
| 6.10 | Groundwater Contamination vs. Controlled Waters.....  | 29 |
| 6.11 | Waste Disposal.....                                   | 30 |
| 6.12 | Discovery Strategy .....                              | 31 |

## **FIGURES**

|          |                                |
|----------|--------------------------------|
| FIGURE 1 | Site Location Plan             |
| FIGURE 2 | Exploratory Hole Location Plan |
| FIGURE 3 | Conceptual Site Model          |
| FIGURE 4 | SPT N Values Vs Depth          |
| FIGURE 5 | Moisture Content Vs Depth      |

## **APPENDICES**

|            |                                                                |
|------------|----------------------------------------------------------------|
| APPENDIX A | Site Photographs                                               |
| APPENDIX B | Desk Study Information                                         |
| APPENDIX C | Exploratory Hole Logs and In-situ Test Results                 |
| APPENDIX D | Geotechnical Laboratory Test Results                           |
| APPENDIX E | Geochemical Laboratory Test Results and Statistical Assessment |
| APPENDIX F | Groundwater Monitoring Results                                 |
| APPENDIX G | Soakage Testing Results                                        |



| EXECUTIVE SUMMARY           |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Site Details                | Site Address            | Land to the South of Maddoxford Lane, Boorley Green, Hampshire, SO32 2DB                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                             | National Grid Reference | 451434, 114345                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                             | Site Area               | 4.21Ha (approx.)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                             | Form of Development     | The proposed development is understood to comprise the construction of residential properties, private gardens, soft landscaping access road and associated development infrastructure.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Encountered Conditions      | Scope of works          | The investigation included undertaking a desk study, coupled with intrusive investigations and laboratory testing to inform a geotechnical and geo-environmental assessment. The intrusive investigation was undertaken in two phases with trial pitting and dynamic sampler boreholes constructed in March 2018 and a cable percussion borehole constructed in May 2018.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                             | Ground Conditions       | <p>Topsoil was encountered within all investigation locations and was found to be underlain by the River Terrace Deposits which comprised a mixture of sandy gravelly clay, silty sandy clay, silty clay, clayey gravel, clayey sandy gravel and clayey gravelly sand underlain by the Wittering Formation which comprised interbedded sandy clay, silty clay, clay, clayey sand and sand extending to the maximum depth of the investigation, i.e. 25m bgl.</p> <p>No visual or olfactory evidence of potential contamination was identified within the soils recovered from the exploratory holes.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                             | Groundwater             | <p>Groundwater monitoring wells were installed within WS2, WS4 and WS6. Return groundwater monitoring was undertaken on one occasion following the fieldworks on 12th April 2018. Groundwater was encountered within both WS4 and WS6 at depths of 0.34m bgl and 0.30m bgl respectively, with groundwater levels being recorded as dry within WS2.</p> <p>During the drilling of BH1 groundwater was struck at 3.9m bgl and rose to 2.5m bgl after drilling was suspended for twenty minutes.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Geotechnical Considerations | Foundations             | <p>On the basis of the results of the Atterberg Limit tests in conjunction with the field observations it is considered that the more cohesive soils of the River Terrace Deposits and Wittering Formation should be classified 'en-masse' as high volume change potential, as defined by NHBC Standards, Chapter 4.2. Therefore, a minimum founding depth of 1.0m bgl is recommended.</p> <p>As such where conventional foundations are proposed, a preliminary net allowable bearing capacity of 100kPa is recommended for the firm to stiff gravelly sandy clay of the River Terrace Deposits. For foundations extending into the underlying sand and gravel, the net allowable bearing capacity could be increased to 130kPa.</p> <p>However, foundation depths are also likely to require deepening due to the presence of zones of lower strength soils and to account of tree influence (including trees and hedgerows whether retained or removed). As such, in some areas of the site, foundations in excess of 2.5m bgl may be required.</p> <p>Therefore, piled foundations may be more suitable in some areas of the site, with piles extending to competent strata at depth. The pile toe level will depend on the pile type, size and structural load.</p> |
|                             | Floor Slabs             | Given the presence of shrinkable soils, it is recommended that suspended floor slabs are used with an adequate void designed according to NHBC Standards. As a guide, initial modelling indicates a requirement for a sub-floor void of at least 300mm due to the presence of shrinkable soils.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



| EXECUTIVE SUMMARY                                                                                                                                                                                                                  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                                    | Excavations       | <p>Shallow excavations are likely be stable in the short to medium term, however deeper excavations, those left open for prolonged periods, or where exposed to water or groundwater ingress occurs may become unstable or result in running sand and may require support.</p> <p>Any excavations formed across the slope have the potential to destabilise the ground above the excavation and thus should be constructed in short sections with trench support.</p> <p>Under no circumstances should personnel be permitted to enter unsupported excavations during construction or maintenance.</p>                                                                                                                                                                                                                                                                                                                                                   |
|                                                                                                                                                                                                                                    | Pavements         | With reference to TRL LR1132 and assuming a 'thin' pavement construction (as defined in LR1132), an equilibrium suction index CBR of 3.0% is recommended for the cohesive soils present at shallow depth based on a low water table and poor to average construction conditions. The soils of the River Terrace Deposits are considered potentially frost susceptible for pavement design purposes thus requiring a minimum 450mm pavement construction thickness.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|                                                                                                                                                                                                                                    | Drainage          | <p>During the March 2018 investigation, water ingress from the surface was noted at the start of testing in all locations and the entire site was noted to be relatively waterlogged. The soakage tests undertaken within TP1 and TP5 were deemed to have failed as water levels increased during the testing period. There was an insufficient fall in head in TP4 to calculate an infiltration rate.</p> <p>The results from the soakage testing to date indicate that the discharge of storm water to the ground would not be achievable at the locations tested on this site and that the use of conventional soakaways may have limited viability. Therefore, on-site storage and attenuation, or alternative storm water disposal options should be considered. However, it is recommended that further soakage testing is carried out when weather conditions are more favourable and surface water ingress does not impact the test results.</p> |
|                                                                                                                                                                                                                                    | Buried Concrete   | Buried concrete (shallow foundations) should be designed in accordance with Class DS-2 of BRE Special Digest 1, with an ACEC class of AC-1s.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Environmental Considerations                                                                                                                                                                                                       | Human Health      | As assessment of the soils has not identified any contaminants of concern at concentrations that would require remediation works. As such it is considered that remedial action would not be warranted to protect end users of the proposed residential development.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                                                                                                                                                                                                                    | Groundwater       | It is considered that no risk mitigation measures are required with respect to groundwater.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                                                                                                                                                                                                                                    | Radon Gas         | No radon protection measures are required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|                                                                                                                                                                                                                                    | Ground Gas        | No plausible pollutant linkage was identified in relation to ground gas.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                    | Built Environment | It is anticipated that specific measures for water supply pipes on this site will not be required, subject to confirmation from the Local Water Supplier.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|                                                                                                                                                                                                                                    | Waste Disposal    | Waste Acceptance Criteria Testing was undertaken on three soil samples from across the site, the results indicate that Topsoil and the natural soils would be considered as inert for the purpose of disposal.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <p>Further Action:</p> <ul style="list-style-type: none"> <li>If abnormal conditions are encountered, Geotechnical/Geo-Environmental advice should be sought to determine a suitable course of action.</li> </ul>                  |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <p><i>This Executive Summary is intended to provide a brief summary of the main findings and conclusions of the investigation. For detailed information, the reader is referred to the main report ref. GE17077/GIR/JUN18.</i></p> |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |



## **1.0 INTRODUCTION**

### **1.1 General**

Geo-Environmental Services Limited (Geo-Environmental) was instructed by Bloor Homes Southern to undertake an investigation of the geotechnical and geo-environmental factors pertaining to proposed development at land to the south of Maddoxford Lane, Boorley Green, Hampshire, SO32 2DB (herein referred to as 'the site'). The site's location is presented in Figure 1.

### **1.2 Form of Development**

The proposed development is understood to comprise the construction of residential properties, private gardens, soft landscaping, access road and associated development infrastructure. The proposed development layout was unknown at the time of writing.

### **1.3 Objectives**

The data from the geotechnical investigation was to form the basis of an interpretation with respect to foundation design, pavement construction, concrete specification, excavation stability and other pertinent construction issues.

A Preliminary Risk Assessment (PRA) was undertaken as part of the desk study in accordance with CLR11, in order to identify any specific requirement for and scope of any further assessment. The objective of the risk assessments was to evaluate the risks posed to the proposed redevelopment, adjacent land uses and the wider environment, in the context of likely planning requirements, immediate liabilities under the Environmental Protection Act 1990 and risks posed to Controlled Waters under the Water Resources Act from the current status of the site and in line with the proposed redevelopment.

### **1.4 Standards and References**

Where practicable, the ground investigation and subsequent geotechnical and environmental assessments were undertaken in accordance with the following documents and guidance.

- National Planning Policy Framework – March 2012
- Model Procedures for the Management of Contaminated Land, CLR11, DEFRA and Environment Agency 2004;
- Environment Agency Guidance on Requirements for Land Contamination Reports, Version 1 dated July 2005;
- BS10175:2011+A1:2013 - Investigation of Potentially Contaminated Sites - Code of Practice, BSI 2013;
- BS5930: 2015 - Code of Practice for Site Investigations, BSI 2015;
- EN ISO 14688 Geotechnical Investigation and Testing Part 1-2002 and Part 2-2004;
- BS1377: 1990 - Soils for Civil Engineering Purposes, BSI1990;
- NHBC Standards Chapter 4.1 Land Quality - Managing Ground Conditions, September 1999;
- NHBC Standards Chapter 4.2 Building Near Trees;
- CIRIA C665 – Assessing risks posed by hazardous ground gases to buildings (2007);
- NHBC 10627-R01(04)- Guidance on evaluation of development proposals on sites where methane and carbon dioxide are present (2007);
- BS8485:2015 Code of practice for the characterisation and remediation from ground gas in affected developments.



## 1.5 Conditions

This report does not purport to be a “Geotechnical Design Report” as defined in Clause 2.8 of Eurocode 7 (Geotechnical Design BS EN 1997-1:2004) and some of the data used to support this preliminary geotechnical assessment may not be fully compliant with that design code. It is considered possible that further detailed ground investigations could be required to facilitate the detailed geotechnical design process and should be carried out on a structure specific basis if necessary.

The data collected from the investigations have been used to provide an interpretation of the geotechnical and/or environmental conditions pertaining to the site. The recommendations and opinions expressed in this report are based on the data obtained. Geo-Environmental takes no responsibility for conditions that either have not been revealed in the available records, or that occur between or under points of physical investigation. Whilst every effort has been made to interpret the conditions, such information is only indicative and liability cannot be accepted for its accuracy.

It should be noted that in particular the concentrations and levels of mobile liquid and gaseous materials are likely to vary with time. The results obtained may therefore only be representative of the conditions at the time of sampling. This report should not be taken as any guarantee that a site is free of hazardous or potentially contaminative materials.

Information contained in this report is intended for the use of the Client and Geo-Environmental can take no responsibility for the use of this information by any party for uses other than that described in this report. Geo-Environmental makes no warranty or representation whatsoever express or implied with respect to the use of this information by any third party. Geo-Environmental does not indemnify the Client or any third parties against any dispute or claim arising from any finding or other result of this investigation report or any consequential losses.

Assessment criteria or other parameters developed for the evaluation of contamination on this site are based on a number of assumptions regarding exposure and toxicology. Exposure to contaminants and levels of adverse effects may therefore vary. Whilst reasonable care and expertise has been employed in the development of such criteria, no liability is accepted in this respect. Other criteria or guidance on the development of assessment criteria may be published in the future and no liability is accepted in this respect.



## 2.0 DESK STUDY

The findings of the Phase I desk study are presented in the following section. Site photographs taken as part of the site walkover are presented in Appendix A and a copy of the information obtained as part of the desk study is presented in Appendix B.

Comments made in the following sections regarding possible ground conditions on the site are based purely on the desk study assessment undertaken.

### 2.1 Site Description

The site comprised an irregularly shaped parcel of land at NGR 451434, 114345 and extended to approximately 4.21Ha.

The site comprised two fields separated by a mature tree line running north-south roughly through the centre of the site. The eastern field was accessed from Maddoxford Lane via a gateway located in the north eastern corner of the field. The field was relatively flat but rising slightly in the south western corner, and vegetated by a grass crop. A water trough was located in the north east of the field with the water supply pipe running south east from the trough towards the adjacent farmhouse. Overhead power cables were noted to be present running across the south eastern corner of the field. The northern and eastern boundaries to the field comprised hedgerows, with a hedgerow and mature trees comprising the southern boundary.

Access to the western field was via a gap at the northern end of the tree line between the two fields. The western field rose in level to the south and west, becoming level in the southern portion and was vegetated by a grass crop. Overhead power cables ran across the north western corner of the field. A gas valve compound was located immediately adjacent to the south of the western field, and was bounded by a barbed wire fence. A gas main ran beneath the site from this compound, in a northerly direction and beneath Maddoxford Lane into land to the north. Scarring was noted to be present within Maddoxford Lane, and a marker post was situated in the verge opposite the site.

The site was bounded by Maddoxford Lane to the north which was noted to be c.1m-1.5 lower than the eastern portion of the field in places. A verge ditch containing water also ran adjacent to the site, and was noted to be culverted in places.

The surrounding land uses comprised a residential development scheme under construction to the north of Maddoxford Lane, residential development to the west and farms and farm land to the south and east.

### 2.2 Geology

British Geological Survey geological mapping indicated the geology of the site to comprise the River Terrace Deposits overlying sands, silts and clays of the Wittering Formation.

The rivers of southern England, including the Ancient Solent and its tributaries, have been subject to several changes of level since Pleistocene times. One result has been the formation of a complex series of **River Terrace Deposits**. The deposits are generally found at an elevation close to or higher than that of the existing rivers, and generally comprise sand and gravel of roughly bedded flint or chert of varying degrees of coarseness.

The **Wittering Formation** is the lowest unit of the Bracklesham Group and was deposited by intertidal sedimentation during the Eocene. It comprises mainly brown grey laminated sandy clays and clayey sands with beds of green to brown glauconitic sands. Lignite beds may be encountered towards the base of the formation.



### 2.3 Hydrogeology

With reference to Envirocheck data the superficial deposits (River Terrace Deposits) and the bedrock (Wittering Formation) were both classified as a Secondary 'A' Aquifers.

Secondary 'A' Aquifers comprise permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.

According to information provided from the Environment Agency the site was indicated to be outside of any Source Protection Zone with regard to the protection of groundwater for potable supply.

The environmental dataset identified one groundwater abstraction within 500m of the site, located 246m east and comprised groundwater abstracted for agricultural irrigation.

One discharge consent to land/soakaway was recorded within 500m of the site, located 40m south west, recorded as sewage discharge – final/treated effluent, issued 19<sup>th</sup> January 1990 and revoked 31<sup>st</sup> March 1997.

No pollution incidents to groundwater were recorded within 500m of the site.

The site was located in an area with the potential for groundwater flooding to occur at surface.

### 2.4 Hydrology

With reference to Envirocheck data, the nearest surface water feature was located 63m east of the site. Surface water courses were indicated on the dataset maps approximately 200m to the north-east of the site with a confluence point on the southern boundary of the eastern field. The desk study information indicated a tertiary river network approximately 150m to the east of the site, which according to Ordnance Survey maps was the River Hamble and its tributaries.

Three discharge consents to controlled waters were identified within 500m of the site:

- two located 48m and 100m north east of the site, respectively, described as discharge of private sewage issued 15<sup>th</sup> April 1965 and revoked 31<sup>st</sup> March 1997; and
- one located 308m west of the site, described as discharge of other matter issued 25<sup>th</sup> April 1980 and revoked 31<sup>st</sup> March 1997.

One pollution incident to controlled waters was identified within 500m of the site and related to surcharging sewage located 278m west, which occurred on the 22<sup>nd</sup> December 1993 and was rated as Category 3 minor incident.

In addition, two surface water abstractions were identified within 500m of the site, located 211m and 240m east respectively, for agricultural spray irrigation, yearly abstraction rate of 2500m<sup>3</sup>, start date 15<sup>th</sup> January 1971 no end dates were supplied.

### 2.5 Sensitive Land Uses

A search was made of environmentally sensitive areas including local and national nature reserves, areas of outstanding natural beauty (AONBs), nitrate zones, Ramsar sites, sites of special scientific interest (SSSIs), conservation areas, special protection areas and biosphere reserves. Wangfield Lodge Copse, an area of ancient and semi-natural woodland was identified 450m south east of the site.



The site has been identified as being located within a nitrate vulnerable zone.

## 2.6 Radon

The Envirocheck report states that the site lies in an area where <1% of homes are above the Action Level as defined by Public Health England and the BGS. In addition, the BGS assessment states that no radon protective measures are required in the construction of new houses or extensions on the site.

## 2.7 Environmental Data

Searches of other various environmental databases were made as part of the desk study, including air pollution control sites, Part IIA contaminated land, Integrated Pollution Control (IPC) and Integrated Pollution Prevention and Control (IPPC) sites, registered radioactive substances, COMAH sites, explosives sites, Notification of Installations Handling Hazardous Substances (NIHHS) sites, planning permissions for sites involving hazardous substances and fuel station registers. Additional detail is referenced in Appendix B.

No Integrated Pollution Prevention and Control sites or Local Authority Pollution Prevention and Control Sites were identified within 500m of the site.

The desk study identified 6 Contemporary Trade Directory entries within 500m of the site and these are summarised in Table 2.1.

| Name                      | Classification                                    | Distance | Direction | Status   |
|---------------------------|---------------------------------------------------|----------|-----------|----------|
| Botley Motor Body Repairs | Car Body Repairs                                  | 356m     | E         | Inactive |
| R B R Garden Machinery    | Lawnmowers and Garden Machinery Sales and Service | 364m     | W         | Inactive |
| B A Powell                | Tyre Dealers                                      | 430m     | W         | Inactive |
| I Group Machinery         | Cutting Tools and Machinery                       | 440m     | W         | Inactive |
| I Group                   | Machinery – Industrial and Commercial             | 440m     | W         | Inactive |
| G S W Haswell             | Precision Engineers                               | 462m     | SW        | Inactive |

**Table 2.1 Summary of contemporary trades**

Given the locations and general activities of the contemporary trade directory entries identified, in relation to the site, it is considered unlikely for these uses to have had a detrimental impact on the site.

## 2.8 Soil Chemistry

Data obtained as part of the desk study provides details on the estimated soil chemistry for the natural soils in the vicinity of the site. The estimated soil quality on the subject site is presented Table 2.2.

| Contaminant | Estimated Concentration |
|-------------|-------------------------|
| Arsenic     | <15 mg/kg               |
| Cadmium     | <1.8 mg/kg              |
| Chromium    | 60-90 mg/kg             |
| Lead        | <100 mg/kg              |
| Nickel      | 15-30 mg/kg             |

**Table 2.2 Estimated Soil Concentrations on site**



All the natural background concentrations (where available) were below respective published Soil Guideline Values, Generic Assessment Criteria and Category 4 Screening Levels for the protection of human health under a residential land use, i.e. the most conservative end use.

However, these values are not necessarily representative of the site's soil chemistry. Furthermore, some screening criteria are dependent on pH and soil organic matter content. Therefore, concentrations of specific determinands and the utilised SGV/GAC/C4SL cannot be determined without site specific investigation and analysis.

## 2.9 Geotechnical Data

The site lies within an area that is considered by the Coal Authority that might not be affected by coal mining activity.

National databases for a number of different geological hazards have been compiled by the BGS, and a summary of the hazard data pertaining to the site itself is presented in Table 2.3.

| Hazard                      | Designation     |
|-----------------------------|-----------------|
| Non-coal mining             | No hazard       |
| Collapsible ground          | Very low hazard |
| Compressible ground         | No hazard       |
| Ground dissolution          | No hazard       |
| Landslide                   | Very low hazard |
| Running sand                | Very low hazard |
| Shrinking and Swelling clay | Moderate        |

**Table 2.3 Summary of BGS Geological Hazards**

## 2.10 Landfill and Ground Workings

A search of BGS recorded landfill sites, IPC registered waste sites, licensed waste management facilities, local authority recorded landfill sites, other registered landfill sites, waste transfer stations and other waste treatment or disposal sites was undertaken as part of the desk study. Such sites may form an artificial source of ground gases, such as carbon dioxide and methane, where wastes are buried or disposed of to landfill.

The Envirocheck dataset did not identify any waste sites within 1km of the site.

The desk study did identify the presence of three areas of potentially infilled land (non-water) on the historical mapping and within 500m of the site, details of which are provided below:

- Unknown filled ground (pit, quarry etc.), 1989 mapping 128m north east
- Unknown filled ground (pit, quarry etc.), 1989 mapping 303m south east
- Unknown filled ground (pit, quarry etc.), 1989 mapping 467m south east

The desk study also identified three BGS recorded mineral sites within 500m of the site, details of which are provided below:

- Greywood Gravel Pit, opencast sand and gravel extraction, ceased, 240m north east
- Wangfield Copse Gravel Pit, opencast sand and gravel extraction, ceased, 357m south east
- Wangfield Copse Gravel Pit, opencast sand and gravel extraction, ceased, 470m south east



## 2.11 Historic Mapping

Historic maps dating back to 1868 were obtained as part of the desk study. A summary of the apparent key features observed on the map extracts both on the site and within the local area is presented within Table 2.4.

| Date               | On-site                                                                      | Off-site                                                                                                                                                                                                                                                               |
|--------------------|------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1868-1869          | Mapping incomplete. The site was shown to comprise two open fields/farmland. | Mapping incomplete. Surrounding land uses were shown predominantly to comprise agricultural land and woodland.                                                                                                                                                         |
| 1871               | No significant change noted.                                                 | Maddoxford Farm was shown to be located c.20m to the north of the site. A stream/waterway (tributary to the River Hamble) was located c.50m to the north east. Two railway lines were shown c.270m south west and c.260m east of the site.                             |
| 1896               | No significant change noted.                                                 | No significant change noted.                                                                                                                                                                                                                                           |
| 1897               | No significant change noted.                                                 | A gravel pit was noted approximately 275m south east of the site and an old sand pit was labelled c.950m south east.                                                                                                                                                   |
| 1909               | No significant change noted.                                                 | Approximately 120m north east of the site a gravel pit was shown.                                                                                                                                                                                                      |
| 1910               | No significant change noted.                                                 | The old sand pit located c.950m south east of the site was no longer shown. Two nurseries were noted approximately 280m and 400m west of the site.                                                                                                                     |
| 1940               | No significant change noted.                                                 | Mapping incomplete. No significant change noted.                                                                                                                                                                                                                       |
| 1947-1948 (aerial) | No significant change noted.                                                 | No significant change noted.                                                                                                                                                                                                                                           |
| 1962               | No significant change noted.                                                 | The nursery located c. 280m west of the site was no longer shown. Some residential development to the south west and west was evident.                                                                                                                                 |
| 1965               | No significant change noted.                                                 | No significant change noted.                                                                                                                                                                                                                                           |
| 1968               | No significant change noted.                                                 | The gravel pits previously shown to the north east and south east were no longer shown. The railway line to the east of the site was labelled as disused. The nursery c.400m west of the site was no longer evident but a nursery was evident c.750m east of the site. |
| 1974               | Mapping incomplete. No significant change noted.                             | Mapping incomplete. No significant change noted.                                                                                                                                                                                                                       |
| 1976               | No significant change noted.                                                 | No significant change noted.                                                                                                                                                                                                                                           |
| 1977-1987          | No significant change noted.                                                 | Adjacent to the southern boundary of the site a gas valve company site was labelled, in-line with its present day position.                                                                                                                                            |
| 1987-1989          | No significant change noted.                                                 | A nursery was noted c.650m south of the site and an industrial estate was evident c.1km to the south east. Residential development has occurred surrounding the site to the south and west.                                                                            |
| 1993               | No significant change noted.                                                 | No significant change noted.                                                                                                                                                                                                                                           |
| 1996               | No significant change noted.                                                 | No significant change noted.                                                                                                                                                                                                                                           |
| 1999 (aerial)      | No significant change noted.                                                 | No significant change noted.                                                                                                                                                                                                                                           |



| Date          | On-site                      | Off-site                     |
|---------------|------------------------------|------------------------------|
| 2000 (raster) | No significant change noted. | No significant change noted. |
| 2006 (raster) | No significant change noted. | No significant change noted. |
| 2018 (raster) | No significant change noted. | No significant change noted. |

**Table 2.4 Summary of historic map extracts**

The historic mapping has shown the site to have remained as undeveloped farmland/fields, from the earliest mapping to present day.

The surrounding land uses have been shown to comprise farmland, and nurseries, with railway lines and old sand/gravel workings within the search area. Over the mapping period residential development was shown to occur to the south and west with associated services. The surrounding land was also shown to have included several gravel pits, the largest of which being located c. 275m south of the site. The mapping indicates that some of these gravel pits have been redeveloped for residential uses.

## 2.12 Asbestos

Whilst no clear evidence of asbestos containing materials was observed during the site walkover visit, in line with current best practice, asbestos and ACM should be assumed to be present until proven otherwise, this includes the consideration of the potential for asbestos to be present within the shallow soils on the site.

## 2.13 Previous Ground Investigations

Geo-Environmental was not aware of any previous intrusive investigation works that had been undertaken on the site. However, Geo-Environmental has undertaken investigations on the land to the north of Maddoxford Lane, on which the Client has formal reliance (ref. GE9523/GIR/JT/OCT13), and that includes investigation of a former gravel pit which identified some localised soil based contamination (not mobile) and confirmed the infilled pit did not comprise a ground gas source.

## 2.14 Potential Contamination

The site's previous and current use is shown by mapping to be farmland/fields and at the time of the investigation, the site was used for hay crop.

Surrounding land uses have been noted to comprise a railway line, farmland, gravel pits and nurseries, as well as residential development and associated services.

These types of uses are covered by the National House Building Council (NHBC), Environment Agency (EA) and Chartered Institute of Environmental Health (CIEH) publication 'Guidance for the Safe Development of Housing on Land Affected by Contamination' (2008), which provides a summary of industrial profiles (1995 - 1996) published by the former Department of the Environment (DoE) (now part of the Department for Environment, Food and Rural Affairs [DEFRA]).

Potential contaminants associated with the site's use and nearby site uses/ former uses include heavy metals such as lead, chromium, zinc and copper, organic pollutants such as poly-aromatic hydrocarbons (PAH), herbicides, pesticides and insecticides.

In addition, it is possible that the surrounding land uses may have resulted in the deposition of airborne contaminants on the surface and shallow soils on site including heavy metals, organic pollutants such as Polyromantic hydrocarbons (PAH), petroleum hydrocarbons/oils), inorganic compounds.

**2.15 Ground Gas and Vapour Summary**

The desk study for the site has not identified any potential sources of ground gases on the site. Several old gravel pits were identified within 1km of the site, with at least one located within 275m of the site, and thought likely to be the recorded BGS mineral site, the other pits were noted to be located in excess of 500m from the site. It is unknown whether all of these pits have been subsequently backfilled and if so what materials were utilised. There are however a number of residential properties located in closer proximity to these disused pits than the site. In addition, although the underlying geology comprises some permeable strata, it is unlikely to be continuous to allow for the migration of ground gases onto the site.

As noted in Section 2.13, investigation on land to the north of Maddoxford Lane, and upon which the Client has formal reliance, included investigation of an infilled gravel pit and no ground gas hazard was identified from investigation and monitoring of that parcel of land.

It is therefore considered that these former gravel pits do not represent a plausible potential source of ground gas.



### **3.0 PRELIMINARY ASSESSMENT**

Based on the findings of the desk study, the following sections summarise the anticipated geotechnical and environmental factors likely to impact the site.

#### **3.1 Potential Geotechnical Issues**

The following factors that might impact the geotechnical condition of the site were identified as part of the desk study:

- The possible presence of Made Ground (e.g. varying depth and/or composition) on site, which if encountered may affect the foundation design and construction.
- The presence of laterally and vertically variable strata and the impact these could have on further construction.
- Consideration of the volume change potential change of any cohesive soils and the affect this could have on foundations.
- The suitability of shallow soils as bearing stratum for conventional foundations.
- The possible presence of aggressive ground conditions (sulphates) which may affect the foundation design and construction.
- The presence of trees and/or vegetation on the site and the associated foundation design if/where shrinkable soils are encountered.
- The possible presence of perched and/or shallow groundwater beneath the site which may affect foundation design and construction.
- The suitability of the shallow soils for the use of soakaways on the site as part of the proposed development.

#### **3.2 Preliminary Environmental Conceptual Site Model & Risk Assessment**

##### **3.2.1 Methodology**

A Preliminary Risk Assessment ('PRA') and Conceptual Site Model ('CSM') have been prepared in accordance with CLR11 based on information obtained as part of the desk study. Possible risks associated with potential sources of contamination and sensitive receptors identified have been qualitatively assessed following a source-pathway-receptor ('Pollutant Linkage') approach in accordance with current UK protocols.

A risk of harm may only exist where a plausible pollutant linkage is present, and where the quantity or concentration of a contaminant is sufficient so as to pose harm. Under the statutory definition, "Contamination" may only strictly exist where contaminants pose a risk of harm to a receptor. The risk classification has been assessed in accordance with CIRIA C552 (Rudland et al., 2001). A summary of how the risks are derived and their definitions are presented in Tables 3.1 and 3.2.



|             |                 | Consequence       |                   |                   |                   |
|-------------|-----------------|-------------------|-------------------|-------------------|-------------------|
|             |                 | Severe            | Medium            | Mild              | Minor             |
| Probability | High Likelihood | Very high risk    | High risk         | Moderate risk     | Moderate/low risk |
|             | Likely          | High risk         | Moderate risk     | Moderate/low risk | Low risk          |
|             | Low Likelihood  | Moderate risk     | Moderate/low risk | Low risk          | Very low risk     |
|             | Unlikely        | Moderate/low risk | Low risk          | Very low risk     | Very low risk     |

Table 3.1 Risk Ratings Matrix

| Risk Rating          | Definitions                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Very high risk       | <p>There is a high probability that severe harm could arise to a designated receptor from an identified hazard, OR, there is evidence that severe harm to a designated receptor is currently happening.</p> <p>This risk, if realised, is likely to result in a substantial liability.</p> <p>Urgent investigation (if not already undertaken) and remediation are likely to be required.</p> |
| High risk            | <p>Harm is likely to arise to a designated receptor from an identified hazard</p> <p>Realisation of the risk is likely to present a substantial liability.</p> <p>Urgent investigation (if not already undertaken) is required and remediation works may be necessary in the short term and are likely over the longer term.</p>                                                              |
| Moderate risk        | It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild.                                                                                                                                 |
| Moderate to low risk | It is possible that harm could arise to a designated receptor from an identified hazard. However, it is unlikely that any such harm would be severe, or if any harm were to occur it is probable that the harm would be relatively mild.                                                                                                                                                      |
| Low risk             | It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.                                                                                                                                                                                                                       |
| Very low risk        | There is low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.                                                                                                                                                                                                                                                         |

Table 3.2 Risk Rating Definitions

### 3.2.2 Summary of Plausible Sources

Possible sources of contamination identified from the desk study are summarised in Table 3.3.

| Source                                | Description                                                                         | Contaminants                                                                 |
|---------------------------------------|-------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Made Ground and shallow natural soils | The site appears to have had a greenfield use and thus site-wide soil contamination | Possible elevated concentrations of metals, metalloids, organic compounds to |



| Source            | Description                                                                                                                                                                                                                                        | Contaminants                                                                                                                                                |
|-------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                   | is considered unlikely. If Made Ground is present locally, the risk of soil contamination being present may increase locally.                                                                                                                      | include TPH and PAH, inorganic compounds such as sulphate and asbestos.                                                                                     |
| On-site land uses | The site has been used historically as arable farmland, this can lead to the presence of pesticides and fertilisers.                                                                                                                               | Possible elevated concentrations of organochlorine and organophosphate pesticides.                                                                          |
| Off-site sources  | A number of historical and current industrial uses have been identified in the vicinity of the site, including a railway line and nurseries. This may have resulted in potentially mobile contaminants migrating within the soils and groundwater. | Possible elevated concentrations of metals, metalloids, organic compounds to include phenol, TPH and PAH, inorganic compounds such as sulphate and asbestos |

**Table 3.3 Possible Sources of Contamination**

On the basis of the information reviewed as part of the desk study, no plausible source of ground gas was identified and thus ground gas has not been considered further as part of the preliminary risk assessment.

### 3.2.3 Summary of Plausible Pathways

The plausible pathways are summarised in Table 3.4. These pathways are based on the proposed end use, including communal gardens and soft landscaping.

| Pathway                      | Description                                                                                                                                                                                |
|------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Direct Contact               | Ingestion of soil particles, inhalation of soil derived dust (including tracked back dust), dermal contact. Bioaccumulation within home grown vegetation.                                  |
| Inhalation                   | Inhalation of soil dust both inside and outside of buildings.                                                                                                                              |
| Vertical & Lateral Migration | Contaminant movement both vertically through leaching/gravity and horizontally along preferential pathways, e.g. services trenches, more permeable bedded strata or with groundwater.      |
| Shallow Groundwater          | Shallow groundwater or perched water may be present within the Made Ground or underlying sands and gravels which could result in the vertical and lateral migration of contaminants.       |
| Chemical Attack              | Attack of buried plastics and concrete by aggressive ground conditions.                                                                                                                    |
| Flooding                     | The Envirocheck reports state the site is located within an area at risk of groundwater flooding which could result in the migration of contaminants from the site to potential receptors. |

**Table 3.4 Possible Contamination Pathways**

### 3.2.4 Summary of Plausible Receptors

Potential receptors associated with the site and its development are summarised in Table 3.5.

| Receptor  | Description                                      | Comments                                                                                                                                                                 |
|-----------|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| End Users | Residents/occupants of the proposed development. | The proposed development comprises residential housing with private garden areas, soft landscaping, access roads, car parking and associated development infrastructure. |



| Receptor             | Description                                                                                                                 | Comments                                                                                                                                                                                            |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Soft Landscaping     | Possible areas of planting including possible lawns, shrubs, trees, etc.                                                    | Private gardens and areas of soft landscaping are proposed.                                                                                                                                         |
| Built Environment    | Buried concrete for foundations and plastics for potable water supply pipes may be laid in contact with contaminated soils. | Aggressive ground conditions may be present beneath the site.                                                                                                                                       |
| Adjacent Land Users  | Sensitive land uses identified within the immediate vicinity.                                                               | Adjacent land uses to the east were primarily residential with gardens, with a new residential development currently under construction to the north of the site.                                   |
| Groundwater          | Controlled waters contained within the aquifer(s) beneath the site.                                                         | The site overlies a Secondary 'A' Aquifer.                                                                                                                                                          |
| Surface Water        | Controlled Waters within lakes, rivers, and ponds, etc., or coastal waters.                                                 | No surface water was identified on site.                                                                                                                                                            |
| Ecological Receptors | Sensitive areas of ecological significance.                                                                                 | No environmentally sensitive land uses have been identified within close proximity to the site in addition. As such, this has not been considered further as part of this assessment at this stage. |

**Table 3.5 Possible receptors of contamination**

Site workers involved in the preparation and construction of the development have not been considered further in this assessment as the Principal Contractor is duty bound under the current CDM Regulations to undertake their own risk assessments with respect to their employees.

Whilst the above sources and receptors have been identified, Table 3.6 summarises the identified plausible pollution linkages and a qualitative assessment of the risks based on the desk study research.



## Ground Investigation Report

| Potential Source/Media                                                | Potential Receptors          | Potential Pathways                                 | Probability | Consequence | Risk and Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------|------------------------------|----------------------------------------------------|-------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Contaminants within Made Ground (If present) & Shallow Natural Ground | End users                    | Direct contact and inhalation of soil derived dust | Low         | Medium      | <b>Moderate to Low</b><br>End users could come into contact with soils via direct contact as the development will include soft landscaping. However, Made Ground is unlikely to be present across the site.                                                                                                                                                                                                                                                                          |
|                                                                       | Soft Landscaping             | Root Uptake                                        | Low         | Mild        | <b>Low</b><br>The proposed development is likely to include areas of private gardens. However, Made Ground is unlikely to be present across the site.                                                                                                                                                                                                                                                                                                                                |
|                                                                       | Adjacent land users          | Direct contact                                     | Low         | Minor       | <b>Very Low</b><br>Adjacent site users are unlikely to come into contact with soils within areas of proposed soft landscaping.                                                                                                                                                                                                                                                                                                                                                       |
|                                                                       | Water supply pipes           | Direct contact                                     | Low         | Mild        | <b>Low</b><br>Water supply pipes could come into contact with impacted soils depending upon depth of installation and extent of soil impact.                                                                                                                                                                                                                                                                                                                                         |
|                                                                       | Buildings and infrastructure | Direct contact                                     | Low         | Minor       | <b>Very Low</b><br>Foundations and utilities will be placed within potentially aggressive soils (e.g. sulphate). However, Made Ground is unlikely to be present across the site.                                                                                                                                                                                                                                                                                                     |
|                                                                       | Groundwater                  | Vertical migration                                 | Low         | Mild        | <b>Low</b><br>Shallow groundwater (<5m bgl) could be present and groundwater levels could fluctuate seasonally and in response to weather events. The strata beneath the site are classified as a Secondary A Aquifer. Fluctuations in groundwater levels are likely and could result in migration of mobile contaminants if present. However, given that site wide Made Ground or soil based impact is unlikely, the risk of harm to groundwater from Made Ground could be limited. |
| On-site land uses                                                     | End users                    | Direct contact and inhalation of soil derived dust | Low         | Medium      | <b>Moderate to Low</b><br>End users could come into contact with soils via direct contact as the development will include soft landscaping. However,, Made Ground is unlikely to be present across the site.                                                                                                                                                                                                                                                                         |
|                                                                       | Soft landscaping             | Root Uptake                                        | Low         | Mild        | <b>Low</b><br>The proposed development is likely to include areas of private gardens. The site is currently used for hay crop with no visual evidence of vegetation distress in the hay crop of trees and hedgerows.                                                                                                                                                                                                                                                                 |



## Ground Investigation Report

| Potential Source/Media | Potential Receptors          | Potential Pathways                                 | Probability | Consequence | Risk and Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|------------------------------|----------------------------------------------------|-------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                        | Adjacent land users          | Direct contact                                     | Low         | Minor       | <b>Very Low</b><br>Adjacent site users are unlikely to come into contact with soils within areas of proposed soft landscaping.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|                        | Water supply pipes           | Direct contact                                     | Low         | Mild        | <b>Low</b><br>Water supply pipes could come into contact with impacted soils depending upon depth of installation and extent of soil impact.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|                        | Buildings and infrastructure | Direct contact                                     | Low         | Minor       | <b>Very Low</b><br>Foundations and utilities will be placed within potentially aggressive soils (e.g. sulphate). However, Made Ground is unlikely to be present across the site.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|                        | Groundwater                  | Vertical migration                                 | Low         | Mild        | <b>Low</b><br>Shallow groundwater (<5m bgl) could be present and groundwater levels could fluctuate seasonally and in response to weather events. The strata beneath the site are classified as a Secondary A Aquifer. Fluctuations in groundwater levels are likely and could result in migration of mobile contaminants. However, given that site wide contamination or soil based impact is unlikely, the risk of harm to groundwater from on-site uses could be limited.                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Off-site sources       | End users                    | Direct contact and inhalation of soil derived dust | Low         | Mild        | <b>Low</b><br>End users are likely to come into contact with soils via direct contact in areas of soft landscaping (private gardens). However, landscaping would be completed with uncontaminated soils in the near surface root zone. Moreover, whilst potentially contaminative off-site uses have been identified, migration of contaminants from the existing or former railway lines is not considered plausible in terms of impacting the site given the distance from the site and that these are/were running lines only. Moreover, if organic contaminants were present at the off-site potential source locations, the organic contaminants are likely to be readily adsorbed on to clay particles within the soil mass thereby inhibiting migration. As noted in Section 2.13, investigation of the infilled gravel pit on land to the north of Maddoxford Lane did not identify any mobile contamination (soil based or gas) |
|                        | Soft Landscaping             | Root Uptake                                        | Low         | Minor       | <b>Very Low</b><br>The proposed development is likely to include areas of private gardens.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |



| Potential Source/Media | Potential Receptors          | Potential Pathways | Probability | Consequence | Risk and Justification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------|------------------------------|--------------------|-------------|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                        | Adjacent land users          | Direct contact     | Low         | Minor       | <b>Very Low</b><br>No specific pollutant linkage has been identified between off-site sources and adjacent land users whereby the site forms or potential forms an exposure pathway.                                                                                                                                                                                                                                                                                                                                                                        |
|                        | Water supply pipes           | Direct contact     | Low         | Minor       | <b>Very Low</b><br>Water supply pipes could come into contact with impacted soils depending upon depth of installation and extent of soil impact. However, the anticipated supply connections would not require installation of new pipes/utilities in or through the off-site source locations.                                                                                                                                                                                                                                                            |
|                        | Buildings and infrastructure | Direct contact     | Low         | Minor       | <b>Very Low</b><br>Foundations would be constructed within the site and would not extend into the identified potential off-site source locations.                                                                                                                                                                                                                                                                                                                                                                                                           |
|                        | Groundwater                  | Vertical migration | Low         | Minor       | <b>Very Low</b><br>Shallow groundwater (<5m bgl) could be present and groundwater levels could fluctuate seasonally and in response to weather events. The strata beneath the site are classified as a Secondary A Aquifer over unproductive strata. Fluctuations in groundwater levels are likely and could result in migration of mobile contaminants, if present. However, given the distance from the potential off-site sources and low likelihood of mobile contamination being present, the risk of harm to groundwater beneath the site is limited. |

Table 3.6 Plausible Pollutant Linkages &amp; Qualitative Risk Assessment



### 3.3 Preliminary Risk Assessment Summary

The potential pollutant linkages established within this preliminary risk assessment are not considered to prevent development on the subject site, but could require investigation and assessment to support further characterisation, calibration of the CSM and where/if necessary determine a remedial strategy to reduce, remove or otherwise control any risk within the site to key receptors.

### 3.4 Scope of Works

In summary, the following scope of works for the intrusive investigation was agreed with the Client.

- Attendance of a Geo-Environmental/Geotechnical Engineer to set out and supervise the intrusive investigation.
- Attendance of a specialist sub-contractor to undertake buried services clearance for all exploratory hole positions prior to breaking ground.
- The construction of 8No. machine dug trial pits to provisional of 3.0m bgl, together with testing and sampling at regular intervals.
- The construction of 1No. cable percussive borehole to a depth of 25m bgl, together with in-situ testing and sampling at regular intervals.
- The construction of 6No. window sample boreholes to depths of up to 5m bgl, together with in-situ testing and sampling at regular intervals.
- Super heavy dynamic probing at 2No. locations across the site.
- Installation groundwater monitoring wells within three of the window sample boreholes to enable return spot monitoring on one occasion.
- Return groundwater monitoring across the site on one occasion.
- Soakage testing in line with BRE365 at 4No. locations across the site.
- Geotechnical laboratory testing on soil and groundwater samples recovered from the exploratory holes to support the geotechnical assessment.
- Geochemical testing on selected soil samples to clarify the findings of the preliminary risk assessment and identify possible remediation requirements.
- Waste Acceptance Criteria (WAC) testing on selected samples considered representative of soils most likely to be removed from site for disposal as waste.
- Provision of a Ground Investigation Report.

### 3.5 Investigation Strategy

The positioning of exploratory holes was determined on site to provide general coverage and to target specific areas. Table 3.7 sets out the investigation strategy adopted.

| Area of Concern                               | Investigation                                                                                             | Positions |
|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------|
| General ground conditions                     | Exploratory holes located across the site, coupled with sampling and laboratory analysis.                 | All       |
| Potential contamination of near surface soils | Exploratory holes located to provide coverage of the site, coupled with sampling and laboratory analysis. | All       |

**Table 3.7 Summary of the Investigation Strategy**

Soil samples were collected and placed into amber jars and cool boxes on site for transit to the office, where they were stored under chilled conditions (<4°C) prior to final transportation in cool boxes to the laboratory by their



in-house courier. Both the geotechnical and contamination testing were undertaken by UKAS accredited laboratories. Contamination testing of soil samples was also undertaken in accordance with accredited MCerts protocols. Samples were stored in temperature controlled conditions from sampling until receipt at the laboratory from which time sample preparation and storage was determined by testing requirements and in line with laboratory's protocols.



## 4.0 ENCOUNTERED CONDITIONS

A factual record of the conditions encountered during the physical investigation of the site is presented in the following sections.

For further details of the ground conditions, reference should be made to the exploratory hole logs and in situ testing presented in Appendix C, the geotechnical testing results in Appendix D, geochemical testing results in Appendix E, groundwater monitoring results in Appendix F and soakage testing results in Appendix G.

The physical ground investigation works were undertaken on the 5<sup>th</sup> March 2018 and 14<sup>th</sup> May 2018.

Unless stated otherwise, all depths are reported as metres below ground level (m bgl).

### 4.1 Soils

The ground conditions encountered were broadly consistent with those anticipated from the desk study, i.e. a thickness of Topsoil overlying the River Terrace Deposits with the Wittering Formation encountered at depth. The ground conditions are summarised in Table 4.1.

| Top<br>(m bgl) | Base<br>(m bgl) | Description                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 0              | 0.15 - 0.40     | TOPSOIL: Grass over dark brown silty sandy gravelly CLAY and dark brown silty gravelly CLAY with abundant roots.                                                                                                                                                                                                                                                                                                  |
| 0.15 - 0.40    | 1.20 – 5.00+    | RIVER TERRACE DEPOSITS: Soft to firm orange brown and grey mottled silty CLAY, silty sandy CLAY and silty sandy gravelly CLAY, with some orange sand lenses; Orange brown clayey gravelly SAND and yellow/grey fine SAND; Orange brown and red brown clayey sandy fine to coarse flint GRAVEL and brown clayey fine to medium GRAVEL.                                                                             |
| 1.20 - 3.70    | 25.00 +         | WITTERING FORMATION: Firm grey interbedded sandy CLAY; Stiff grey CLAY; Firm orange brown and grey mottled sandy gravelly CLAY; Stiff orange and grey sandy CLAY; Soft orange red and grey mottled silty sandy CLAY; Orange brown and grey mottled very clayey silty SAND; Green grey fine SAND; Orange brown clayey gravelly fine SAND; Brown/orange clayey fine SAND; Dense grey silty SAND with bands of CLAY. |

**Table 4.1 Summary of Ground Conditions**

No visual or olfactory evidence of potential contamination was identified within the investigation positions.

For more detailed descriptions at specific locations, reference should be made to the exploratory hole logs presented in Appendix C.

### 4.2 Groundwater

Weather conditions comprised heavy rainfall in the run up to and on the day of the intrusive investigation in March 2018, resulting in water ingress from surface at most investigation locations making it difficult to identify true groundwater strikes.



The fieldworks to construct BH1 were undertaken in May 2018 when weather conditions were considerably drier. During the drilling of BH1 groundwater was struck at 3.9m bgl and rose to 2.5m bgl after drilling was suspended for twenty minutes. It should be noted that the borehole was cased and that water was added to aid drilling and thus water strikes at other depths may have been masked.

Groundwater monitoring wells were installed within WS2, WS4 and WS6. Return groundwater monitoring was undertaken on one occasion following the fieldworks on 12<sup>th</sup> April 2018. Groundwater was encountered within both WS4 and WS6 at depths of 0.34m bgl and 0.30m bgl respectively, with WS2 recorded as dry (well installed to 3m bgl). It may be prudent to undertake additional monitoring visits to determine possible seasonal variation.

It should also be noted that changes in groundwater levels do occur for a number of reasons including seasonal effects and variations in drainage. Such fluctuations may only be recorded by the measurement of the groundwater level within a series of standpipes or piezometers installed within appropriate response zones.

### 4.3 Obstructions

Whilst not an obstruction, TP3 was abandoned at 2.1m bgl due to pit instability as there was significant storm water run-off ingress. WS1 refused at 4m bgl collapsing to 2.5m bgl, WS2 refused at 4m bgl, and WS6 reached 5m bgl but collapsed to 4m bgl. The refusals are considered to be due to the presence of dense sand at depth and collapse may be due to groundwater influence.

Whilst not encountered as an obstruction, a gas pipeline was known to cross through the site. The location and alignment of the pipeline was determined by a specialist surveyor prior to breaking ground in order that an appropriate easement could be maintained. The gas pipeline crossed the western field from the Gas Valve Compound on the southern boundary, to Maddoxford Lane on the northern boundary. Service marker posts/boards were present and indicated the boundary crossover points.

### 4.4 Geotechnical Testing

In-situ Standard Penetration Tests (SPTs) were undertaken within BH1. These results ranged between SPT'N' values of N=7 to N=63 corresponding with a very loose to very dense relative density for the granular soils encountered.

Dynamic probes were undertaken in 2No. locations DP2 and DP6, to depths of up to 5.0m bgl. These positions were targeted to provide a general coverage of the site. Equivalent SPT 'N' values ranged between N=0 and N=18, indicating granular soils to be of very loose to loose relative density.

Geotechnical laboratory tests were undertaken on selected samples of the key strata encountered on this site. The results are summarised in Table 4.2 below.

| Parameter                         | River Terrace Deposits | Wittering Formation |
|-----------------------------------|------------------------|---------------------|
| Natural Water Content (%)         | 12-52                  | 28-53               |
| Liquid Limit (%)                  | 26-77                  | 30-79               |
| Plastic Limit (%)                 | 14-26                  | 23-33               |
| Plasticity Index Ip (%)           | 10-54                  | 6-46                |
| Modified Plasticity Index Ip' (%) | 2-49                   | 6-46                |
| pH                                | 7.06-7.09              | 7.62-7.82           |
| Water soluble sulphate (g/l)      | 0.21-0.35              | 0.27-0.47           |

**Table 4.2 Summary of Geotechnical Laboratory Test Results**



The Modified Plasticity Indices showed the cohesive soils of both the River Terrace Deposits and the Wittering Formation to vary from non-shrinkable to High Volume Change Potential as defined in NHBC guidance. However, only one sample of River Terrace Deposits was classified as non-shrinkable and the non-shrinkable samples of Wittering Formation were from depths of c. 10m bgl or deeper. The modified plasticity indices for the remaining samples ranged from low to high volume change potential as defined in NHBC Standards and there was no clear lateral or vertical zoning of the samples, parent soils or results.

#### **4.5 Chemical Analysis**

In order to assess the general chemical quality of the strata encountered, samples of soils recovered from the exploratory holes were submitted for analysis for a range of potential contaminants selected on the basis of the findings of the desk study and supported by CLR publication CLR8 and Environment Agency R&D66 publication.

The testing rationale included sampling and analysis to provide a general coverage of the subject site. Testing was undertaken for a range of commonly occurring contaminants including metals, metalloids, inorganic compounds, phenols, speciated TPH, PAH and asbestos as identified from the desk study.



## 5.0 ENGINEERING CONSIDERATIONS

Subsequent to intrusive investigation of the site and receipt of the laboratory test results, the following geotechnical assessments have been made.

### 5.1 Conventional Foundations

On the basis of the results of the Atterberg Limit tests in conjunction with the field observations it is considered that the more clayey soils of both the River Terrace Deposits and Wittering Formation should be classified 'en-masse' as high volume change potential, as defined by NHBC Standards, Chapter 4.2. Therefore, a minimum founding depth of 1.0m bgl is recommended in accordance with NHBC Standards.

Foundations should extend through any Made Ground, disturbed or reworked ground, root zones or the like and terminate in competent strata. It should be noted that in some areas of the site foundations are likely to require deepening to account for the presence of lower strength soils, e.g. 'soft' sandy clay in WS2 from 1.2m to 1.8m bgl.

Where conventional foundations are proposed, a preliminary net allowable bearing capacity of 100kPa is recommended for the firm to stiff gravelly sandy clay of the River Terrace Deposits. For foundations extending into the underlying sand and gravel, the net allowable bearing capacity could be increased to 130kPa. Total settlement should remain within tolerable limits for the bearing capacities set out above. Wherever possible, foundations should terminate within a single stratum to mitigate the risk of differential settlement.

In addition, the presence of trees and hedgerows within and around the site could influence foundation depths for plots in their vicinity. Initial modelling of foundation depths using the NHBC Foundation Depth Calculator indicates the following possible foundation depths in proximity to a mature high water demand tree and assumes clay soils of high volume change potential to depth:

- <5m from tree – foundation depth in excess of 2.5m bgl required. This would require structure specific design if deep strip foundations are proposed.
- 10m from tree – minimum foundation depth of 2.5m bgl.
- 15m from tree – minimum foundation depth of 2.0m bgl.
- 20m from tree – minimum foundation depth of 1.5m bgl.
- 25m from tree – minimum foundation depth of 1.0m bgl.

Deepening of foundations would also be required where trees and/or hedgerow are removed and foundations should be designed in accordance with NHBC Standards. Similarly, foundations for plots located on sloping ground should be designed in accordance with the relevant requirements of NHBC Standards.

Where foundations are proposed to be constructed within the zone of influence of trees, it is likely (as indicated above) that foundations would need to be deepened to account for the presence and influence of the tree(s). It is possible that foundation bases would require to be stepped and as such, it is recommended that steps do not exceed 0.225m in height at any point and are at least 1.0m (lateral distance) away from any corner or node point on the foundations. Where this cannot be accommodated, the foundation should be formed at the greater depth.

Foundations which are proposed in proximity to trees should be designed in accordance with NHBC Standards Chapter 4.2, and design approaches 4.2B and 4.2C, which incorporate the water demand of trees and the distance of the tree from the nearest portion of foundation.

Heave protection measures in accordance with NHBC Standards will be required where foundation depths exceed



1.50m and if/where foundations pass through desiccated ground. Initial foundation depth modelling identified a requirement for a minimum 75mm thickness of compressible media to foundation sides in excess of 1.5m deep. Foundations greater than 2.50m deep would require structure-specific design by a structural engineer. Foundations should be a minimum 450mm in width.

Whilst no evidence of deep roots, extensive root zones or indicators of significantly desiccated ground were identified it should be noted that desiccation is a transient condition and thus could occur within the more cohesive strata at another time and at locations remote from those investigated. Heave protection measures would be required in accordance with NHBC Standards. In addition, foundation depths should be designed to account for the presence and/or removal of trees. The implications of potential heave should be considered if/where level thresholds are required on plots close to where trees are removed.

It is recommended that foundation excavations be concreted or blinded as soon after excavation as possible. Where concreting could take place the following day it is recommended that excavations are not taken to full depth overnight and that the final 0.5m of cover is only removed immediately prior to concreting. Long, deep excavations should be avoided in order to mitigate the risk of trench side collapse prior to concrete pour. Any abutting sections of foundation which are formed as separate pours should be reinforced, e.g. with mesh, rods, dowels or the like, to tie-in the adjoining sections.

It should be noted that in some cases granular soils at likely founding depth overlie shallow cohesive soils. Where this is the case foundation depths should account of the volume change potential (both in terms of seasonal volume change and moisture demand from trees) in line with NHBC Standards, Chapter 4.2.9 (Strip and trench fill foundations in non-shrinkable soils overlying shrinkable soil).

## **5.2 Piled Foundations**

In the event that conventional foundations are not suitable, e.g. due to the required depth of construction, an alternative such as piled foundations would be considered suitable.

The construction of a piled foundation is a specialist job and the advice of a reputable contractor familiar with the type of ground and groundwater conditions encountered on this site should be sought prior to finalising the design. The actual working load for proposed piles will depend on the particular type of pile and method of installation adopted.

Preliminary load capacities calculated for various diameter, single vertically loaded CFA piles given in Table 5.1. These should be used for preliminary purposes only as the actual working load is dependent on the type of pile and method of installation. The working loads have been derived based on the soil profile and conditions encountered in borehole BH1 and are based on assumed pile diameters. Different loads may be achievable for different pile diameters and also for different pile types, such as driven pre-cast piles.



| Pile Diameter (m) | Pile Depth (m) | Working Load (kN) |
|-------------------|----------------|-------------------|
| 0.15              | 10             | 30                |
|                   | 12             | 40                |
|                   | 14             | 50                |
|                   | 16             | 60                |
|                   | 18             | 80                |
|                   | 20             | 90                |
| 0.30              | 10             | 80                |
|                   | 12             | 110               |
|                   | 14             | 130               |
|                   | 16             | 160               |
|                   | 18             | 190               |
|                   | 20             | 220               |

**Table 5.1 Preliminary load capacities for CFA piles**

These working loads have been calculated on the basis of the ground and groundwater conditions in the borehole and assume the following parameters:

- The contribution to the working load on the upper 3m has been ignored.
- A factor of safety of 3 was used on the sum of the end bearing and skin friction working loads.
- No allowance has been made for additional forces acting on the pile shaft, such as negative skin friction, or loading due to desiccation or heave forces.

The working loads presented in Table 5.1 are applicable to single vertically loaded piles. Where groups of piles are to be constructed, the working load of each individual pile should be reduced by a factor of 0.8 and a calculation made to check for the factor of safety against block failure.

The piling contractor should be aware that the borehole was cased to support the borehole during drilling and that water was added to aid the drilling process. The absence of obstructions at pile positions cannot be guaranteed.

Piled foundations, any pile caps or ring beams should be designed to account for the presence of shrinkable soils and this may require the incorporation of additional reinforcement and heave protection measures such as compressible media to pile caps and ring beams or slip coats and reinforcement to the upper portion of pile shafts.

A temporary working platform would be required for the piling rig to operate on.

### 5.3 Floor Slabs

Given the presence of shrinkable soils, it is recommended that suspended floor slabs are used with an adequate void designed according to NHBC Standards. As a guide, initial modelling indicates a requirement for a sub-floor void of at least 300mm due to the presence of shrinkable soils.

### 5.4 Excavations

Shallow excavations are likely be stable in the short to medium term, however deeper excavations, those left open for prolonged periods, or where exposed to water or groundwater ingress occurs may become unstable or result



in running sands and may require support.

Long and/or deep excavations traversing the slope should be avoided as these are likely to be unstable and could destabilise the ground on the higher side of the excavation. Where such excavations cannot be avoided, they should be constructed in short sections and with trench support.

Ground works should be designed in such a manner to avoid personnel entry into unsupported excavations. Where this cannot be avoided, such entry should only be into supported excavations in accordance with a safe system of work and relevant legislation, e.g. Confined Spaces Regulations.

## **5.5 Pavements**

With reference to TRL LR1132 and assuming a 'thin' pavement construction (as defined in LR1132), an equilibrium suction index CBR of 3.0% is recommended for the cohesive soils present at shallow depth based on a low water table and poor to average construction conditions. This value should be used for preliminary design purposes. In the event that in-situ testing is undertaken on the exposed sub-grade formation immediately prior to construction, the lower CBR value (i.e. equilibrium CBR or site measured CBR) should be used to confirm final pavement thickness.

Based on the geotechnical results, the soils of the River Terrace Deposits are considered potentially frost susceptible for pavement design purposes and thus a minimum pavement thickness of 450mm is recommended.

Any hard or soft spots in the formation level may induce reflective cracking in the pavement and allowance should be made for removing any slabs or other hard spots etc. that may be present.

## **5.6 Sub-Surface Concrete**

The results of the water soluble sulphate and pH analyses indicate that buried concrete (shallow foundations) should be designed in accordance with Class DS-2 of BRE Special Digest 1, with an ACEC class of AC-1s. The advice of this publication should be taken for the design and specification of all sub surface concrete.

## **5.7 Soakaways**

Soakage testing was undertaken within 3No. trial pits (TP1, TP4 and TP5). Soakage testing was also proposed within TP3 however due to pit instability the pit was abandoned and infilled prior to testing commencing. The location of the trial pits was restricted by the current use of the site for agricultural purposes with works requiring a JCB requested to be kept close to the site boundaries so as not to damage the central portions of the field and main hay crop.

Water ingress from the surface was noted at the start of testing in all locations and the entire site was noted to be relatively waterlogged during the March 2018 intrusive investigation. The soakage tests undertaken within TP1 and TP5 were deemed to have failed as water levels increased during the testing period.

There was an insufficient fall in head in TP4 to calculate an infiltration rate. In addition, given the limited fall in water level measured it is not considered suitable or reliable to estimate a permeability based on the actual measured range as this would be likely to derive an overly optimistic permeability. The results of the soakage testing that were completed are presented within Appendix G.

The results from the soakage testing to date indicate that the discharge of storm water to the ground would not be achievable at the locations tested on this site and that the use of conventional soakaways may have limited



viability. Therefore, on-site storage and attenuation, or alternative storm water disposal options should be considered. However, there may be benefit in undertaking further soakage testing out when weather conditions are more favourable and surface water ingress does not impact the test results.



## **6.0 ENVIRONMENTAL CONSIDERATIONS**

A Generic Quantitative Risk Assessment (GQRA) incorporating the results of the desk study and ground investigation was undertaken, the findings of which are presented in the following sections.

As stated in Section 3, site workers involved in the preparation and construction of the development have not been considered further in this assessment as the Principal Contractor is duty bound under the current CDM Regulations to undertake their own risk assessments with respect to their employees.

### **6.1 Outline Risk Assessment**

A number of plausible pollutant linkages were identified as part of the desk study. The investigation did not encounter conditions that warranted a revision of the preliminary Conceptual Site Model.

### **6.2 Soil Contamination vs. End Users**

The presence of a possible contaminant does not necessarily imply that a site or area is contaminated or that there is any unacceptable risk to human health. A Preliminary Quantitative Risk Assessment has been undertaken in order to evaluate any unacceptable risks posed to human health with respect to the proposed redevelopment. It should be noted that this assessment is protective of the chronic long-term effects of contaminants, which is also likely to be protective of any possible immediate acute effects.

A quantitative risk assessment has been undertaken by comparing the results of the laboratory chemical testing of shallow soils against Site Specific Assessment Criteria (SSAC) generated using the Contaminated Land Exposure Assessment (CLEA) model v1.07 published by the Environment Agency, or against the Category 4 Screening Levels (C4SLs) published by DEFRA. Although the C4SLs were released for Part 2A use, the associated policy companion document for the C4SLs indicated that they may also be used for planning. Although the C4SLs represent a marginally higher risk level than the SSACs (low risk rather than minimal risk) it is considered that the risk levels remain very low. Therefore, the final C4SLs are considered to be suitable to assess soils under the planning regime.

The exploratory holes were located to provide general coverage of the site in line with the anticipated development. Samples were selected to provide a good coverage of the site and to specifically target shallow soils that are likely to come into contact with identified receptors. Analysis was undertaken on soil samples collected from these exploratory holes.

In the first instance the results of the sample analysis were compared to the Tier 1 screening criteria where available. All of the results were noted to be below the respective assessment criteria, therefore further assessment was not considered necessary.

As such it is considered that remedial action would not be warranted to protect end users of the proposed residential development.

Testing to date indicated that Topsoil would be suitable for retention and re-use in gardens and soft landscaping within the proposed development.

Should further Topsoil need to be imported onto site, for use within to private gardens and soft landscaped areas of the site, prior to importation, the chemical, physical and nutritional suitability should be verified. Importation of topsoil or subsoil from unverified or unsuitable sources would require their removal from site and replacement with suitable materials. As a matter of good practice, it is recommended that the location, approximate extent



and thickness of any imported topsoil are recorded and presented in the Validation/Verification Report to be prepared by the Environmental Consultant.

### 6.3 Soil Contamination vs. Soft Landscaping

British Standard BS3882:2015 *Specification for topsoil and requirements for use* provides assessment criteria for a number of potentially phytotoxic contaminants in terms of new planting.

The results of the chemical analysis for determinants known to pose a potential phytotoxic risk to plant growth are summarised in Table 6.1, together with the respective adopted Generic Assessment Criteria (GAC) for plant growth. The compliance criteria set out in BS3882:2015 are pH dependent and thus the GAC used relate to the pH range measured on samples recovered from the site.

| Determinant | Phytotoxicity GAC (mg/kg) |            |         | GAC Exceedances |
|-------------|---------------------------|------------|---------|-----------------|
|             | pH <6.0                   | pH 6.0-7.0 | pH >7.0 |                 |
| Zinc        | 200                       | 200        | 300     | No              |
| Copper      | 100                       | 135        | 200     | No              |
| Nickel      | 60                        | 75         | 110     | No              |

**Table 6.1 Summary of Plant Phytotoxicity Assessment**

The phytotoxicity assessment did not identify any exceedance against the relevant phytotoxicity criteria. As such it is considered that no specific measures are required in this respect.

### 6.4 Soil Contamination vs. Built Environment

Recommendations with respect to pH and sulphate in relation to buried concrete are made in Section 5.6.

The current guidance on the selection of materials for water supply pipes to be laid in contaminated land is contained in UK Water Industry Research's (UKWIR) report reference 10/WM/03/21 (re-issued 2010). However, the guidance is not mandatory and there has been concerns raised by various industry technical associations regarding the document and the methodologies proposed.

As such, the utility company should be consulted in order to confirm their specific requirements in this respect, at this time subject to further confirmation it is considered that specific protection measures are unlikely to be required for potable water supply. As a matter of good practice and to maximise the protection to maintenance workers, it is recommended that clean, granular backfill is used in service runs and that marker tapes are used for all buried services.

### 6.5 Soil Contamination vs. Adjacent Land Users

Accounting for the recommendations set out in Section 6.2 with respect to end users, it is considered that no long term exposure scenarios exist and thus no specific remedial action is warranted in relation to adjacent land users.

However, short term risks to adjacent land users may arise in relation to the generation of soil derived dust and the particles as fugitive emissions from the site during the construction phase. Therefore, it is recommended that dust suppression techniques, e.g. damping down exposed soils, are employed during the ground works and construction phases on site in order to minimise and manage potential nuisance issues for adjacent land users.



## 6.6 Soil Contamination vs. Groundwater

No soil based concentrations of concern were identified from the laboratory analysis and this was supportive of observations of recovered and exposed soils during the intrusive investigation. Thus, in the absence of any specific soil based source, no further assessment or remedial action is warranted in this respect.

## 6.7 Groundwater Contamination vs. Human Health

End users would not come in to contact with groundwater and thus in the absence of a plausible pollutant linkage between groundwater and end-users, no specific protection measures are considered likely to be required in this respect.

## 6.8 Groundwater Contamination vs. Soft Landscaping

Groundwater was discontinuous at shallow depth. As such, groundwater was considered to be outside of the root zone of influence for the soft landscaping on the site. Notwithstanding this, the vegetation on and around the site showed no evidence of stress. As such, it is considered that no specific action is warranted with respect to soft landscaping.

## 6.9 Groundwater Contamination vs. Built Environment

Protection measures for the Built Environment as discussed in Sections 5.6 and 6.4 are considered appropriate.

## 6.10 Groundwater Contamination vs. Controlled Waters

Groundwater samples were collected from WS4 and WS6 during a monitoring visit on 12<sup>th</sup> April 2018. The results of the groundwater analyses undertaken were compared against the Environmental Quality Standards for freshwater (EQS), Water Framework Directive and the Water Supply (Water Quality) Regulations 2000. A summary of contaminant concentrations encountered above the respective EQS, WFD and DWS guideline values, where values are set is presented in Table 6.2. It should be noted that the Tier 1 screening criteria used are conservative and take no account of potential dilution and attenuation between the sampling point and any given receptor.

| Contaminant           | Location |      |
|-----------------------|----------|------|
|                       | WS4      | WS6  |
| Benzo(a)pyrene        | 0.19     | 0.36 |
| Benzo(b)fluoranthene  | 0.18     | 0.44 |
| Benzo(k)fluoranthene  | 0.10     | 0.23 |
| Benzo(g,h,i)perylene  | 0.11     | 0.25 |
| Indeno(1,2,3cd)pyrene | 0.13     | 0.28 |
| Fluoranthene          | 0.15     | 0.29 |
| TPH C21-C35 Aro       | 14.8     | -    |

**Table 6.2 Contaminant exceedances within Groundwater (ug/l)**

Currently there are no UK quality standards for the individual TPH fractions. However, there are a range of potential quality standards for hydrocarbons/mineral oil as outlined in Table 6.3 below, which could be adopted to allow for the assessment of risk posed by individual speciated fractions on-site. Assessment Criteria for the key Polyaromatic Hydrocarbons identified (for which standards are available) within the groundwater beneath the site are also presented in Table 6.3.



| Contaminant                                                                                          | Target Value µg/l             |                    |                      |
|------------------------------------------------------------------------------------------------------|-------------------------------|--------------------|----------------------|
|                                                                                                      | Drinking Water <sup>(a)</sup> | EQS <sup>(b)</sup> | UKTAG <sup>(c)</sup> |
| Hydrocarbon (Dissolved or Emulsified)                                                                | 10 (Revoked)                  |                    |                      |
| Mineral Oil                                                                                          | 10 (Revoked)                  |                    |                      |
| Benzene                                                                                              | 1                             | 30                 | 0.5                  |
| Toluene                                                                                              |                               | 50                 | 350                  |
| Ethylbenzene                                                                                         |                               | 20                 |                      |
| Xylene                                                                                               |                               | 30                 |                      |
| Anthracene                                                                                           |                               | 0.02               | 0.05                 |
| Naphthalene                                                                                          |                               | 10.0               |                      |
| Fluoranthene                                                                                         |                               | 0.02               |                      |
| Benzo(a)pyrene                                                                                       | 0.01                          | 0.03               | 0.005                |
| Benzo(b)fluoranthene                                                                                 |                               |                    | 0.05                 |
| Benzo(g,h,i)perylene                                                                                 |                               |                    | 0.05                 |
| Benzo(k)fluoranthene                                                                                 |                               |                    | 0.05                 |
| Indeno(1,2,3cd)pyrene                                                                                |                               |                    | 0.05                 |
| PAH (Sum of Benzo(b)fluoranthene, Benzo(k)fluoranthene, indeno(123-cd)pyrene and benzo(ghi)perylene) | 0.01                          |                    |                      |

(a) Water Supply (Water Quality) Regulations 1989.

(b) Environmental Quality Standards (freshwater)

(c) UK Technical Advisory Group to Water Framework Directive (as an annual mean)

**Table 6.3 Summary of Compliance Standards**

No on-site sources of hydrocarbon contamination have been identified on the site, therefore the marginally elevated concentrations identified are considered likely to represent natural background concentrations. Moreover, it is considered that remediation would not be effective in reducing these concentrations. In addition, the absence of groundwater within other exploratory holes is considered to indicate that water is discontinuous within the River Terrace Deposits beneath the site and thus likely to be of limited presence and volume. It is therefore considered that no specific further assessment or remedial action would be warranted in relation to the water analysis undertaken to date.

### 6.11 Waste Disposal

Waste Acceptance Criteria (WAC) testing was undertaken on samples of the shallow soils on the site from TP2 at 0.4m bgl and TP5 at 0.2m bgl, from across the site and details are provided below:

- TP2 at 0.4m bgl (River Terrace Deposits) soils classified as 'Inert Waste';
- TP5 at 0.2m bgl (Topsoil) soils classified as 'Inert Waste';

Based on the WAC testing undertaken from representative samples of the shallow soils across the site it is considered that the Topsoil and natural soils beneath the site would be considered as inert waste for the purpose of disposal.

In accordance with the CL:AIRE Code of Practice (2011) materials are only considered waste if 'they are discarded, intended to be discarded or required to be discarded by the holder'.

The Code of Practice therefore allows soils to be reused on site where the following criteria are met:

- The soils are required to be used;



- The soils are suitable both in terms of chemical and geotechnical properties for the intended use;
- Only the required volume is used.

In order to comply with the Code of Practice, a material management plan that confirms the above criteria are met has to be prepared. The material management plan must be reviewed by a 'Qualified Person' who then issues a declaration to the Environment Agency. Geo-Environmental can provide this service should it be required.

Where materials do not meet the required criteria, it may be possible to treat them under an environmental permit so that they may be re-used on site. In addition, where material is discarded as waste, it may still be possible to reuse the waste on site under a standard rules environmental permit or a U1 waste exemption. However, strict limits on the volumes that can be reused apply in these cases.

Under current legislation, where wastes are to be disposed of to landfill they may, depending on their classification, require pre-treatment. Pre-treatment shall comprise a chemical, physical (including sorting), thermal or biological process. The pre-treatment is required to change the characteristics of the waste, reduce its volume, reduce its hazardous nature, and facilitate its handling and enhance its recovery.

Other materials disposed of from site as part of the development of the site may require disposal separately. All materials containing dangerous substances e.g. tar or bitumen, asbestos, mercury, hydrocarbons, PCBs and asbestos are likely to be classified as Hazardous Waste and therefore susceptible to the relevant legislative controls.

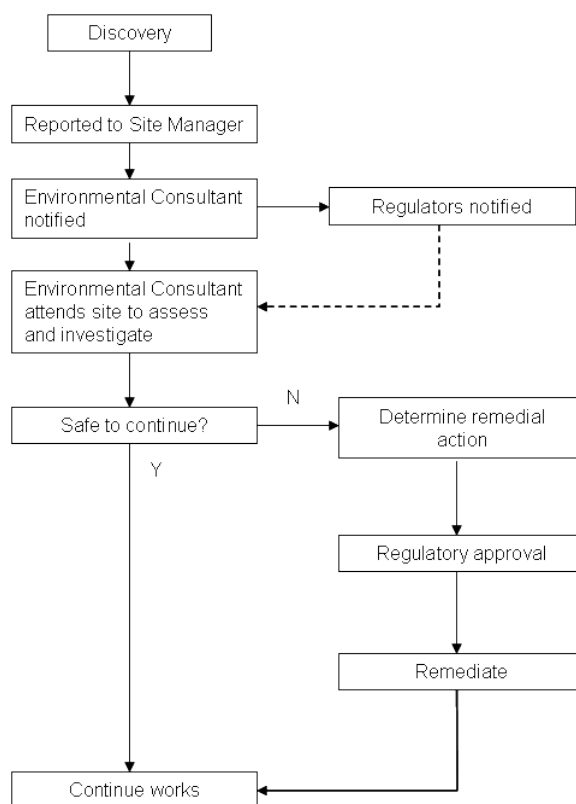
#### **6.12 Discovery Strategy**

Whilst an investigation has been undertaken on the site, it remains possible that unexpected soil conditions may be encountered during the process of site demolition, clearance and construction.

Examples may include oily pockets within the soil, pockets of cement boarding or fibrous materials within the soil, black ashy materials, soils exhibiting strong odours, brightly coloured materials and former structures or brickwork.

Should previously undiscovered contamination be encountered during construction by the ground workers, this should be reported to the Site Manager immediately in order that any necessary inspection may be made. Records should be kept and samples submitted for analysis where conditions encountered are not as anticipated. The results of any such testing should be sent to the authorities for consultation.

The process is shown overleaf.



#### Discovery Strategy Process

A copy of the discovery strategy should be lodged on site and provisions made to ensure that all workers are made aware of their responsibility to observe, report and act on any potentially suspicious or contaminated materials they may encounter.



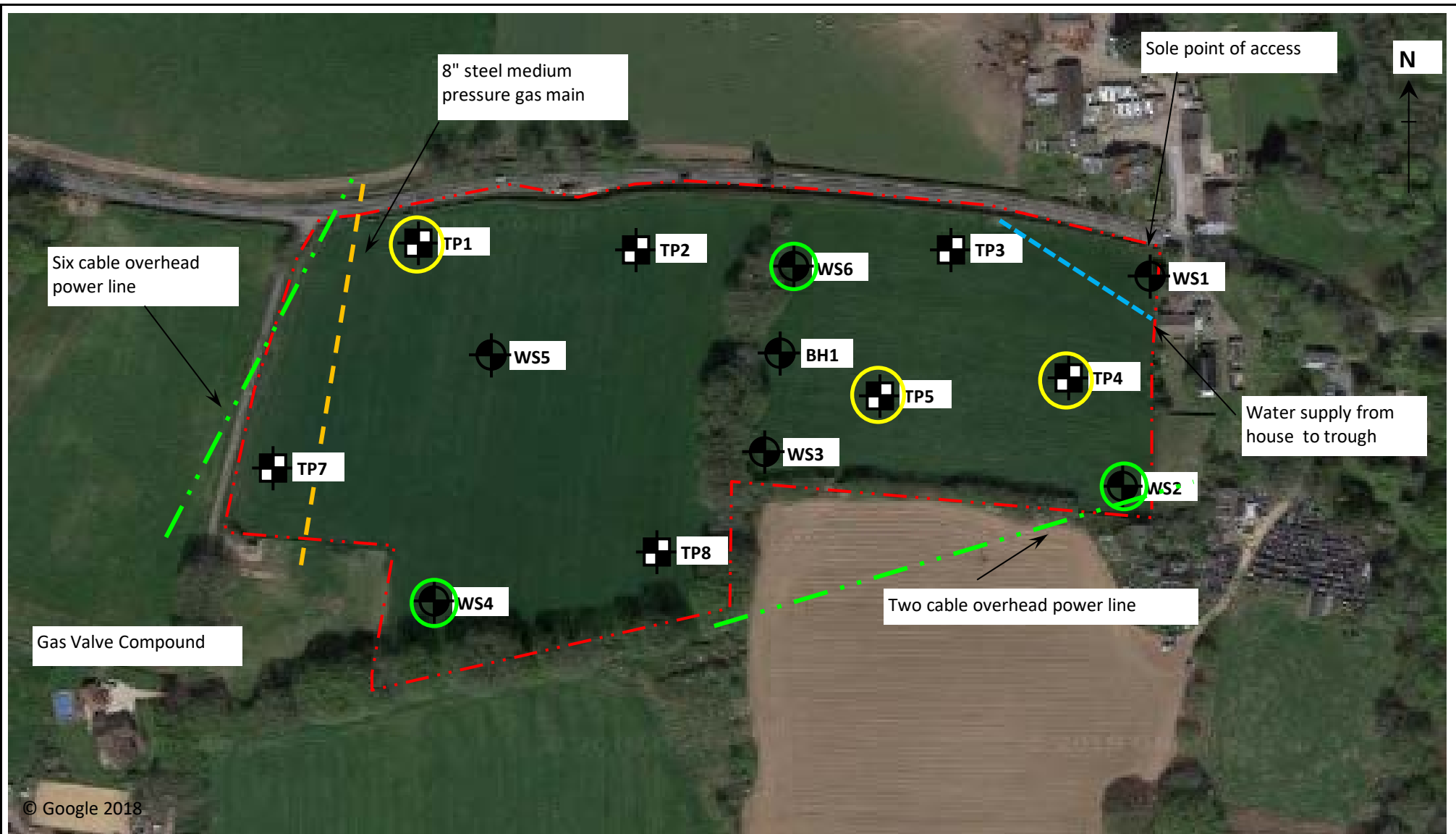
## Figures





|                 |                                                     |                  |              |                                                                                                                                                                    |                    |                                                                                                                       |  |
|-----------------|-----------------------------------------------------|------------------|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|-----------------------------------------------------------------------------------------------------------------------|--|
| <b>Project:</b> | Land to the south of Maddoxford Lane, Boorley Green |                  |              | <b>Title</b>                                                                                                                                                       | Site Location Plan |                                                                                                                       |  |
| <b>Client:</b>  | Bloor Homes Southern                                |                  |              | <b>Geo-Environmental Services Ltd</b><br><br>Unit 7 Danworth Farm, Cuckfield Road<br><br>Hurstpierpoint, West Sussex BN6 9GL<br><br>+44(0)1273 832972 www.gesl.net |                    | <br><br><b>Geo-Environmental</b> |  |
| <b>Ref No:</b>  | GE17077                                             | <b>Revision:</b> | 1.0          |                                                                                                                                                                    |                    |                                                                                                                       |  |
| <b>Drawn:</b>   | GR                                                  | <b>Date:</b>     | 09/02/2018   |                                                                                                                                                                    |                    |                                                                                                                       |  |
| <b>Figure:</b>  | 1                                                   | <b>Scale:</b>    | Not To Scale |                                                                                                                                                                    |                    |                                                                                                                       |  |





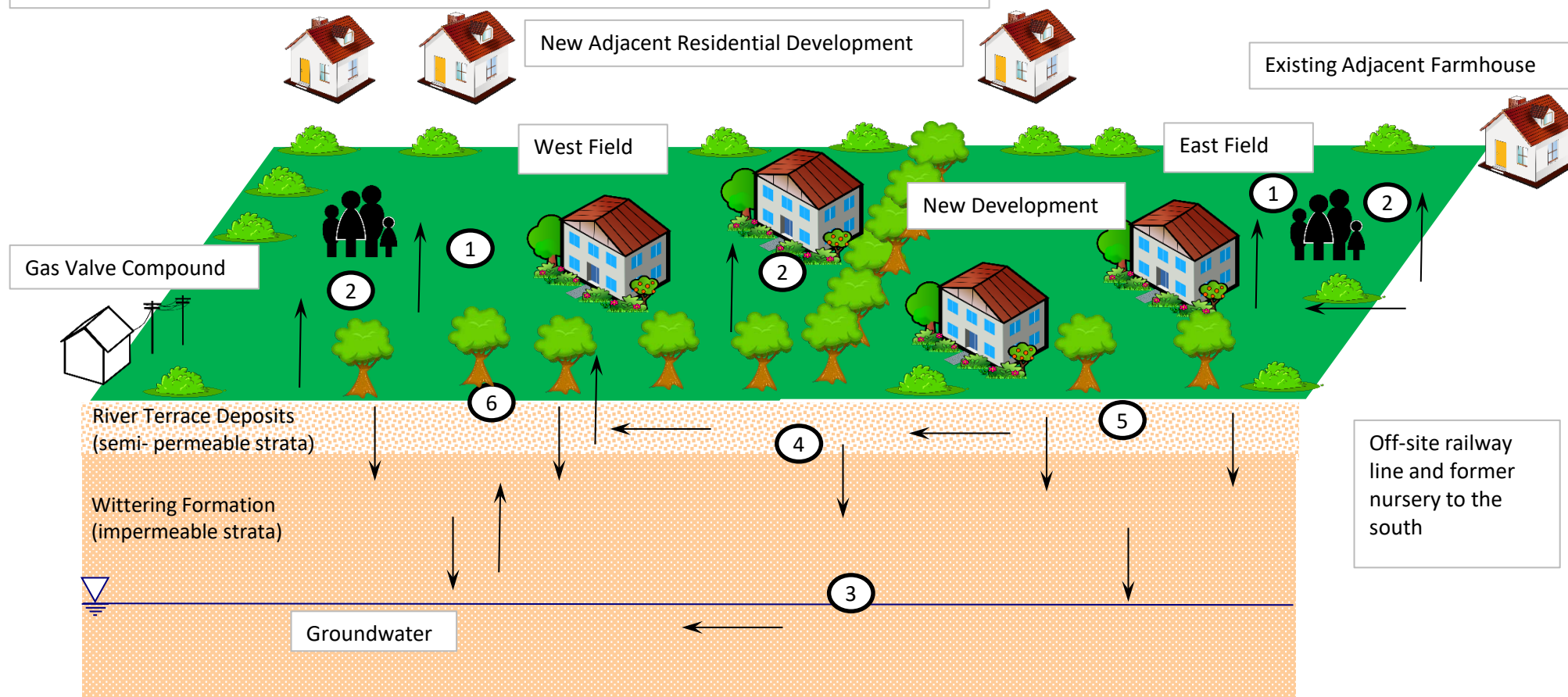
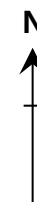
○ Soakage test positions
 ○ Well installations

**NOTE: All services positions are approximate only**

|                 |                                                     |                  |              |                                                                                                                                                                                                                      |                                |  |
|-----------------|-----------------------------------------------------|------------------|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--|
| <b>Project:</b> | Land to the south of Maddoxford Lane, Boorley Green |                  |              | <b>Title</b>                                                                                                                                                                                                         | Exploratory Hole Location Plan |  |
| <b>Client:</b>  | Bloor Homes Southern                                |                  |              | <div>Geo-Environmental Services Ltd</div> <div>Unit 7 Danworth Farm, Cuckfield Road</div> <div>Hurstpierpoint, West Sussex BN6 9GL</div> <div>+44(0)1273 832972 <a href="http://www.gesl.net">www.gesl.net</a></div> |                                |  |
| <b>Ref No:</b>  | GE17077                                             | <b>Revision:</b> | 1.2          |                                                                                                                                                                                                                      |                                |  |
| <b>Drawn:</b>   | GR                                                  | <b>Date:</b>     | 04/04/2018   |                                                                                                                                                                                                                      |                                |  |
| <b>Figure:</b>  | 2                                                   | <b>Scale:</b>    | Not To Scale |                                                                                                                                                                                                                      |                                |  |
|                 |                                                     |                  |              | <div><br/><b>Geo-Environmental</b></div>                                                                                        |                                |  |

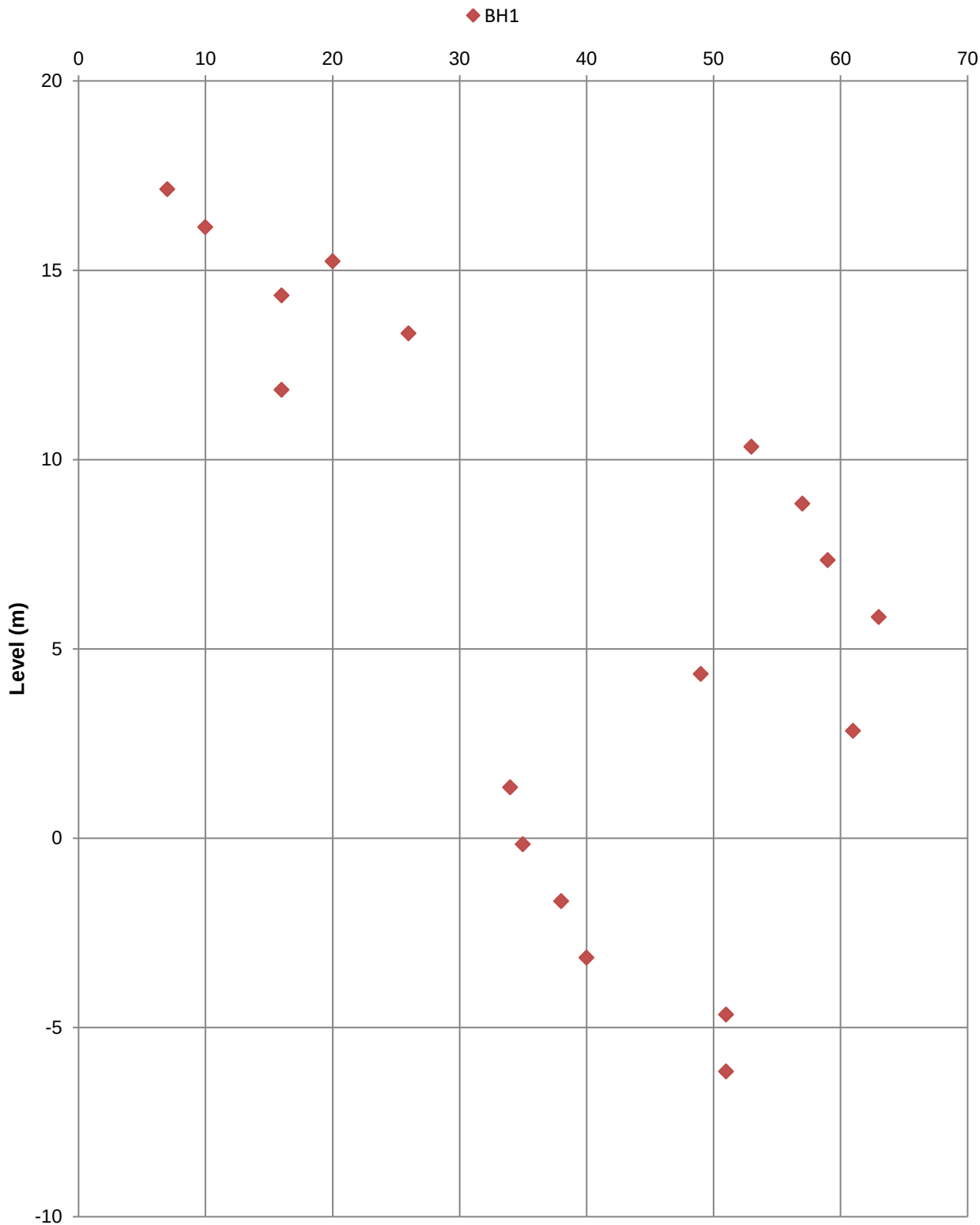
#### Possible Pollutant Linkages:

1. Direct contact with contaminated soils, ingestion of contaminated soils
2. Inhalation of soil dusts indoor and outdoor
3. Vertical and lateral migration through permeable strata and with groundwater
4. Shallow groundwater within made ground- vertical and lateral migration
5. Chemical attack of buried plastics and concrete
6. Risk of groundwater flooding resulting in migration of contaminants

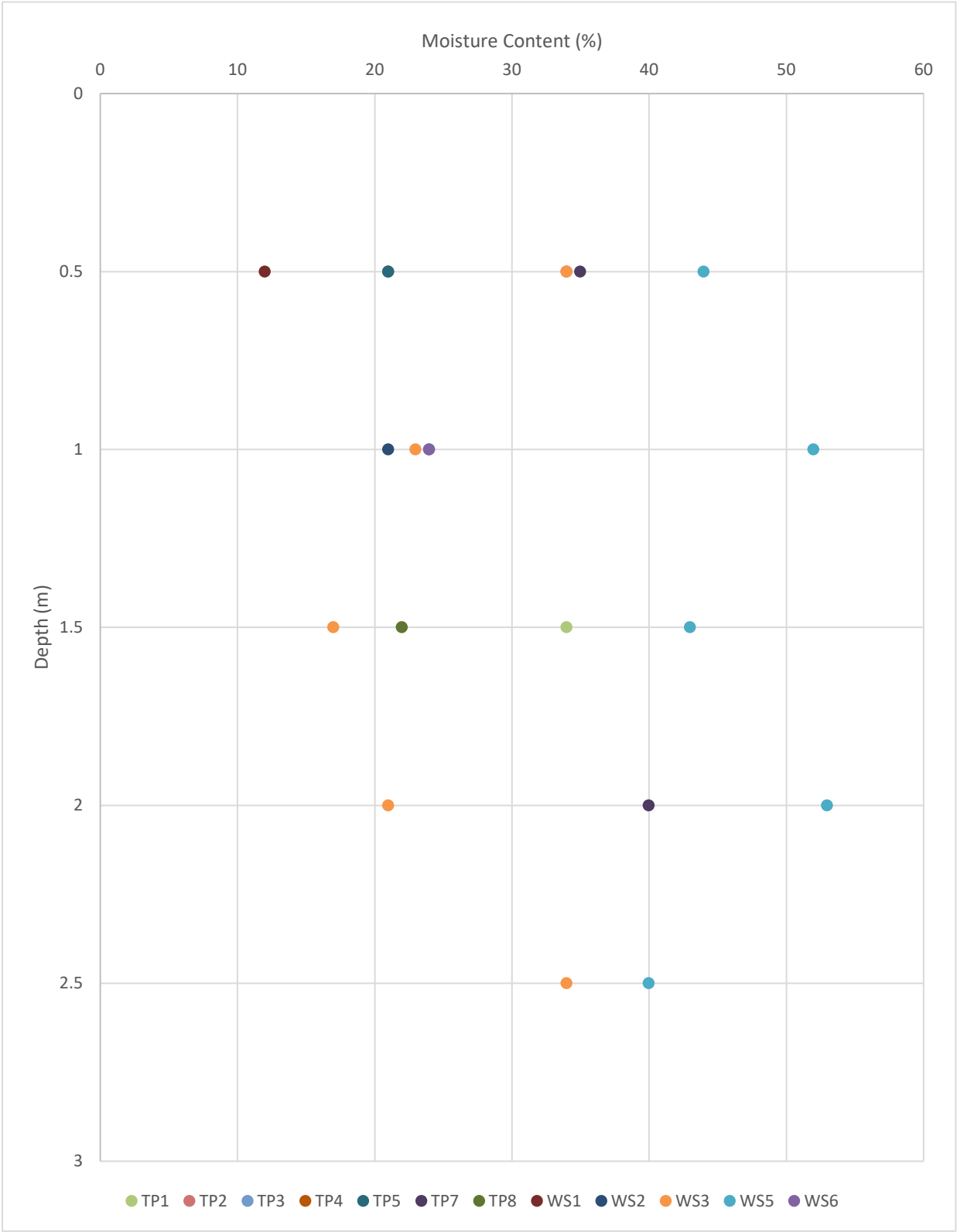


|                 |                                                     |                  |              |                                                                                                                                                                                         |                       |                                                                                                                       |  |
|-----------------|-----------------------------------------------------|------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|-----------------------------------------------------------------------------------------------------------------------|--|
| <b>Project:</b> | Land to the south of Maddoxford Lane, Boorley Green |                  |              | <b>Title</b>                                                                                                                                                                            | Conceptual Site Model |                                                                                                                       |  |
| <b>Client:</b>  | Bloor Homes Southern                                |                  |              | <b>Geo-Environmental Services Ltd</b><br><br><b>Unit 7 Danworth Farm, Cuckfield Road</b><br><br><b>Hurstpierpoint, West Sussex BN6 9GL</b><br><br><b>+44(0)1273 832972 www.gesl.net</b> |                       | <br><br><b>Geo-Environmental</b> |  |
| <b>Ref No:</b>  | GE17077                                             | <b>Revision:</b> | 1            |                                                                                                                                                                                         |                       |                                                                                                                       |  |
| <b>Drawn:</b>   | FG                                                  | <b>Date:</b>     | 12/06/2018   |                                                                                                                                                                                         |                       |                                                                                                                       |  |
| <b>Figure:</b>  | 3                                                   | <b>Scale:</b>    | Not To Scale |                                                                                                                                                                                         |                       |                                                                                                                       |  |

|                                                                                                                                                                                                                                               |                                                      |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|
| <div>  <div>           Geo-Environmental<br/>           Services Limited<br/>           www.gesl.net<br/>           +44 (0)1273 832 972         </div> </div> | <div>SPT N Value vs Level</div>                      |
| Project ID: <b>GE17077</b>                                                                                                                                                                                                                    | Project Title: <b>Maddoxford Lane, Boorley Green</b> |
| Client: <b>Bloor Homes</b>                                                                                                                                                                                                                    | Location: <b>BH1</b>                                 |



|                                                                                                                                                                               |                                                      |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|--|
|  <div> Geo-Environmental<br/> Services Ltd<br/> www.gesl.net<br/> +44 (0)1273 832 972 </div> | <h1>Moisture Content</h1>                            |  |
| Project ID: <b>GE17077</b>                                                                                                                                                    | Project Title: <b>Maddoxford Lane, Boorley Green</b> |  |
| Client: <b>Bloor Homes</b>                                                                                                                                                    | Location: <b>Boorley Green</b>                       |  |





## **APPENDIX A**

### **Site Photographs**





Plate 1 View of central tree line - eastern field on LHS at slightly lower level than western field on RHS of photo



Plate 2 View of central tree line looking north from western side



Plate 3 View of eastern field looking north-east from central tree line



Plate 4 View of Gas Valve Compound immediately to south of western field



Plate 5 View of ground levels falling from high point in western field - fall to west north and east



Plate 6 View of ground levels from high point in southern portion of northern field - levels fall to the west north and east



Plate 7 View of ground levels rising across central tree line from eastern to western fields



Plate 8 View east along southern boundary of western field



Plate 9 View of Maddoxford Lane c. 1-1.5m lower than western field in places



Plate 10 View of marker flags along gas pipeline route through western field



Plate 11 View of overhead power and gas main crossing point on Maddoxford Lane



Plate 12 View of overhead power lines crossing NW corner of western field



Plate 13 View of overhead power lines in vicinity of WS2



Plate 14 View of overhead power lines in NW corner of western field



Plate 15 View of access point from eastern to western field



Plate 16 View of private access road along western boundary



Plate 17 View of private access to GVC unit on the western field boundary and private road adjacent



Plate 18 View of Scar in Maddoxford Lane and gas pipeline marker scar traces back across the western field



Plate 19 View of sole access gate into the site



Plate 20 View of southern boundary adjacent to GVC compound looking at position for WS4



Plate 21 View from south to north through eastern field



Plate 22 View looking north along eastern boundary of eastern field



Plate 23 View looking west along southern boundary of eastern field



Plate 24 Water in verge ditch along Maddoxford Lane - ditch culverted in places



Plate 25 View of water pipe marker flag route



Plate 26 View of water pipe marker flags from house to water trough



Plate 27 View of water trough and marker flags showing pipe route back to adjacent house



Plate 28 View of western field from Maddoxford Lane looking to the GVC



Plate 29 View of Western field looking west from central tree line



## **APPENDIX B**

### **Desk Study Information**





Geo-Environmental

# Envirocheck<sup>®</sup> Report:

## Datasheet

### Order Details:

**Order Number:**

156832749\_1\_1

**Customer Reference:**

GE17077

**National Grid Reference:**

451410, 114320

**Slice:**

A

**Site Area (Ha):**

4.05

**Search Buffer (m):**

1000

### Site Details:

Land to the south of Maddoxford Lane  
Boorley Green  
Botley  
SOUTHAMPTON  
SO32 2DG

### Client Details:

Mr C Azevedo  
Geo Environmental Services Ltd  
Unit 7 Danworth Farm  
Cuckfield Road  
Hurstpierpoint  
West Sussex  
BN6 9GL



| Report Section        | Page Number |
|-----------------------|-------------|
| Summary               | -           |
| Agency & Hydrological | 1           |
| Waste                 | 24          |
| Hazardous Substances  | -           |
| Geological            | 25          |
| Industrial Land Use   | 30          |
| Sensitive Land Use    | 33          |
| Data Currency         | 34          |
| Data Suppliers        | 39          |
| Useful Contacts       | 40          |

**Introduction**

The Environment Act 1995 has made site sensitivity a key issue, as the legislation pays as much attention to the pathways by which contamination could spread, and to the vulnerable targets of contamination, as it does the potential sources of contamination. For this reason, Landmark's Site Sensitivity maps and Datasheet(s) place great emphasis on statutory data provided by the Environment Agency/Natural Resources Wales and the Scottish Environment Protection Agency; it also incorporates data from Natural England (and the Scottish and Welsh equivalents) and Local Authorities; and highlights hydrogeological features required by environmental and geotechnical consultants. It does not include any information concerning past uses of land. The datasheet is produced by querying the Landmark database to a distance defined by the client from a site boundary provided by the client. In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

**Copyright Notice**

© Landmark Information Group Limited 2018. The Copyright on the information and data and its format as contained in this Envirocheck® Report ("Report") is the property of Landmark Information Group Limited ("Landmark") and several other Data Providers, including (but not limited to) Ordnance Survey, British Geological Survey, the Environment Agency/Natural Resources Wales and Natural England, and must not be reproduced in whole or in part by photocopying or any other method. The Report is supplied under Landmark's Terms and Conditions accepted by the Customer. A copy of Landmark's Terms and Conditions can be found with the Index Map for this report. Additional copies of the Report may be obtained from Landmark, subject to Landmark's charges in force from time to time. The Copyright, design rights and any other intellectual rights shall remain the exclusive property of Landmark and /or other Data providers, whose Copyright material has been included in this Report.

**Natural England Copyright Notice**

Site of Special Scientific Interest, National Nature Reserve, Ramsar, Special Protection Area, Special Conservation Area, Marine Nature Reserve data (derived from Ordnance Survey 1:10000 raster) is provided by, and used with the permission of, Natural England who retain the copyright and Intellectual Property Rights for the data.

**Scottish Natural Heritage Copyright**

Contains SNH information licensed under the Open Government Licence v3.0.

**Ove Arup Copyright Notice**

The Mining Instability data was obtained on licence from Ove Arup & Partners Limited (for further information, contact [mining.review@arup.com](mailto:mining.review@arup.com)). No reproduction or further use of such Data is to be made without the prior written consent of Ove Arup & Partners Limited. The supplied Mining Instability data is derived from publicly available records and other third party sources and neither Ove Arup & Partners nor Landmark warrant the accuracy or completeness of such information or data.

**Peter Brett Associates Copyright Notice**

The cavity data presented has been extracted from the PBA enhanced version of the original DEFRA national cavity databases. PBA/DEFRA retain the copyright & intellectual property rights in the data. Whilst all reasonable efforts are made to check that the information contained in the cavity databases is accurate we do not warrant that the data is complete or error free. The information is based upon our own researches and those collated from a number of external sources and is continually being augmented and updated by PBA. In no event shall PBA/DEFRA or Landmark be liable for any loss or damage including, without limitation, indirect or consequential loss or damage arising from the use of this data.

**Radon Potential dataset Copyright Notice**

Information supplied from a joint dataset compiled by The British Geological Survey and Public Health England.

**Natural Resources Wales Copyright Notice**

Contains Natural Resources Wales information © Natural Resources Wales and Database Right. All rights Reserved. Contains Ordnance Survey Data. Ordnance Survey Licence number 100019741. Crown Copyright and Database Right. Contains Natural Resources Wales information © Natural Resources Wales and Database Right. All rights Reserved. Some features of this information are based on digital spatial data licensed from the Centre for Ecology & Hydrology © NERC (CEH). Defra, Met Office and DARD Rivers Agency © Crown copyright. © Cranfield University. © James Hutton Institute. Contains OS data © Crown copyright and database right 2018. Land & Property Services © Crown copyright and database right.

**Report Version v53.0**



| Data Type                                                     | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---------------------------------------------------------------|-------------|---------|-----------|-------------|-----------------------------|
| <b>Agency &amp; Hydrological</b>                              |             |         |           |             |                             |
| BGS Groundwater Flooding Susceptibility                       | pg 1        | Yes     | Yes       | Yes         | n/a                         |
| Contaminated Land Register Entries and Notices                |             |         |           |             |                             |
| Discharge Consents                                            | pg 2        |         | 3         | 1           | 12                          |
| Prosecutions Relating to Controlled Waters                    |             |         | n/a       | n/a         | n/a                         |
| Enforcement and Prohibition Notices                           |             |         |           |             |                             |
| Integrated Pollution Controls                                 |             |         |           |             |                             |
| Integrated Pollution Prevention And Control                   | pg 6        |         |           |             | 1                           |
| Local Authority Integrated Pollution Prevention And Control   |             |         |           |             |                             |
| Local Authority Pollution Prevention and Controls             |             |         |           |             |                             |
| Local Authority Pollution Prevention and Control Enforcements |             |         |           |             |                             |
| Nearest Surface Water Feature                                 | pg 6        |         | Yes       |             |                             |
| Pollution Incidents to Controlled Waters                      | pg 7        |         |           | 1           |                             |
| Prosecutions Relating to Authorised Processes                 |             |         |           |             |                             |
| Registered Radioactive Substances                             |             |         |           |             |                             |
| River Quality                                                 | pg 7        | 1       | 1         |             |                             |
| River Quality Biology Sampling Points                         |             |         |           |             |                             |
| River Quality Chemistry Sampling Points                       | pg 8        |         | 1         |             |                             |
| Substantiated Pollution Incident Register                     |             |         |           |             |                             |
| Water Abstractions                                            | pg 8        |         | 2         |             | 8 (*5)                      |
| Water Industry Act Referrals                                  |             |         |           |             |                             |
| Groundwater Vulnerability                                     | pg 12       | Yes     | n/a       | n/a         | n/a                         |
| Drift Deposits                                                |             |         | n/a       | n/a         | n/a                         |
| Bedrock Aquifer Designations                                  | pg 12       | Yes     | n/a       | n/a         | n/a                         |
| Superficial Aquifer Designations                              | pg 12       | Yes     | n/a       | n/a         | n/a                         |
| Source Protection Zones                                       |             |         |           |             |                             |
| Extreme Flooding from Rivers or Sea without Defences          | pg 12       |         | Yes       | n/a         | n/a                         |
| Flooding from Rivers or Sea without Defences                  | pg 12       |         | Yes       | n/a         | n/a                         |
| Areas Benefiting from Flood Defences                          |             |         |           | n/a         | n/a                         |
| Flood Water Storage Areas                                     |             |         |           | n/a         | n/a                         |
| Flood Defences                                                |             |         |           | n/a         | n/a                         |
| OS Water Network Lines                                        | pg 13       |         | 15        | 29          | 51                          |



| Data Type                                                           | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*up to 2000m) |
|---------------------------------------------------------------------|-------------|---------|-----------|-------------|--------------------------------|
| <b>Waste</b>                                                        |             |         |           |             |                                |
| BGS Recorded Landfill Sites                                         |             |         |           |             |                                |
| Historical Landfill Sites                                           |             |         |           |             |                                |
| Integrated Pollution Control Registered Waste Sites                 |             |         |           |             |                                |
| Licensed Waste Management Facilities (Landfill Boundaries)          |             |         |           |             |                                |
| Licensed Waste Management Facilities (Locations)                    |             |         |           |             |                                |
| Local Authority Landfill Coverage                                   |             | 2       | n/a       | n/a         | n/a                            |
| Local Authority Recorded Landfill Sites                             |             |         |           |             |                                |
| Potentially Infilled Land (Non-Water)                               | pg 24       |         | 1         | 2           | 3                              |
| Potentially Infilled Land (Water)                                   |             |         |           |             |                                |
| Registered Landfill Sites                                           |             |         |           |             |                                |
| Registered Waste Transfer Sites                                     |             |         |           |             |                                |
| Registered Waste Treatment or Disposal Sites                        |             |         |           |             |                                |
| <b>Hazardous Substances</b>                                         |             |         |           |             |                                |
| Control of Major Accident Hazards Sites (COMAH)                     |             |         |           |             |                                |
| Explosive Sites                                                     |             |         |           |             |                                |
| Notification of Installations Handling Hazardous Substances (NIHHS) |             |         |           |             |                                |
| Planning Hazardous Substance Consents                               |             |         |           |             |                                |
| Planning Hazardous Substance Enforcements                           |             |         |           |             |                                |



| Data Type                                                         | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*up to 2000m) |
|-------------------------------------------------------------------|-------------|---------|-----------|-------------|--------------------------------|
| <b>Geological</b>                                                 |             |         |           |             |                                |
| BGS 1:625,000 Solid Geology                                       | pg 25       | Yes     | n/a       | n/a         | n/a                            |
| BGS Estimated Soil Chemistry                                      | pg 25       | Yes     | Yes       | Yes         | Yes                            |
| BGS Recorded Mineral Sites                                        | pg 27       |         | 1         | 2           | 1                              |
| BGS Urban Soil Chemistry                                          |             |         |           |             |                                |
| BGS Urban Soil Chemistry Averages                                 |             |         |           |             |                                |
| CBSCB Compensation District                                       |             |         | n/a       | n/a         | n/a                            |
| Coal Mining Affected Areas                                        |             |         | n/a       | n/a         | n/a                            |
| Mining Instability                                                |             |         | n/a       | n/a         | n/a                            |
| Man-Made Mining Cavities                                          |             |         |           |             |                                |
| Natural Cavities                                                  |             |         |           |             |                                |
| Non Coal Mining Areas of Great Britain                            |             |         |           | n/a         | n/a                            |
| Potential for Collapsible Ground Stability Hazards                | pg 28       | Yes     | Yes       | n/a         | n/a                            |
| Potential for Compressible Ground Stability Hazards               | pg 28       |         | Yes       | n/a         | n/a                            |
| Potential for Ground Dissolution Stability Hazards                |             |         |           | n/a         | n/a                            |
| Potential for Landslide Ground Stability Hazards                  | pg 28       | Yes     |           | n/a         | n/a                            |
| Potential for Running Sand Ground Stability Hazards               | pg 28       | Yes     | Yes       | n/a         | n/a                            |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards | pg 29       | Yes     | Yes       | n/a         | n/a                            |
| Radon Potential - Radon Affected Areas                            |             |         | n/a       | n/a         | n/a                            |
| Radon Potential - Radon Protection Measures                       |             |         | n/a       | n/a         | n/a                            |
| <b>Industrial Land Use</b>                                        |             |         |           |             |                                |
| Contemporary Trade Directory Entries                              | pg 30       |         |           | 6           | 14                             |
| Fuel Station Entries                                              |             |         |           |             |                                |
| Points of Interest - Commercial Services                          | pg 31       |         | 1         |             |                                |
| Points of Interest - Education and Health                         |             |         |           |             |                                |
| Points of Interest - Manufacturing and Production                 | pg 31       |         | 2         |             | 6                              |
| Points of Interest - Public Infrastructure                        | pg 32       |         |           |             | 1                              |
| Points of Interest - Recreational and Environmental               |             |         |           |             |                                |
| Gas Pipelines                                                     |             |         |           |             |                                |
| Underground Electrical Cables                                     |             |         |           |             |                                |



| Data Type                            | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m<br>(*up to 2000m) |
|--------------------------------------|-------------|---------|-----------|-------------|--------------------------------|
| <b>Sensitive Land Use</b>            |             |         |           |             |                                |
| Ancient Woodland                     | pg 33       |         |           | 1           | 2                              |
| Areas of Adopted Green Belt          |             |         |           |             |                                |
| Areas of Unadopted Green Belt        |             |         |           |             |                                |
| Areas of Outstanding Natural Beauty  |             |         |           |             |                                |
| Environmentally Sensitive Areas      |             |         |           |             |                                |
| Forest Parks                         |             |         |           |             |                                |
| Local Nature Reserves                |             |         |           |             |                                |
| Marine Nature Reserves               |             |         |           |             |                                |
| National Nature Reserves             |             |         |           |             |                                |
| National Parks                       |             |         |           |             |                                |
| Nitrate Sensitive Areas              |             |         |           |             |                                |
| Nitrate Vulnerable Zones             | pg 33       | 1       |           |             |                                |
| Ramsar Sites                         |             |         |           |             |                                |
| Sites of Special Scientific Interest |             |         |           |             |                                |
| Special Areas of Conservation        |             |         |           |             |                                |
| Special Protection Areas             |             |         |           |             |                                |
| World Heritage Sites                 |             |         |           |             |                                |



| Map ID | Details                                                                                                                                     | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A13NW (NW)                             | 0                            | 1       | 451414<br>114323 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A13SW (SW)                             | 0                            | 1       | 451400<br>114300 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | A13NE (E)                              | 0                            | 1       | 451550<br>114350 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13NE (NE)                             | 0                            | 1       | 451450<br>114350 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A13SW (S)                              | 0                            | 1       | 451414<br>114300 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A13NW (W)                              | 88                           | 1       | 451200<br>114400 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | A13NE (NE)                             | 167                          | 1       | 451700<br>114500 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | A13NE (E)                              | 169                          | 1       | 451750<br>114323 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | A13NE (E)                              | 171                          | 1       | 451750<br>114400 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13SE (E)                              | 180                          | 1       | 451750<br>114250 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13SE (E)                              | 202                          | 1       | 451750<br>114200 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A13NE (NE)                             | 205                          | 1       | 451650<br>114600 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A14SW (E)                              | 219                          | 1       | 451800<br>114300 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A14NW (E)                              | 219                          | 1       | 451800<br>114323 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A13SW (S)                              | 227                          | 1       | 451400<br>114000 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A14SW (E)                              | 227                          | 1       | 451800<br>114250 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A14NW (E)                              | 269                          | 1       | 451850<br>114323 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A14NW (E)                              | 270                          | 1       | 451850<br>114350 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | A14NW (E)                              | 279                          | 1       | 451850<br>114450 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur                        | A14SW (E)                              | 291                          | 1       | 451850<br>114200 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding to Occur at Surface                     | A14NW (NE)                             | 309                          | 1       | 451800<br>114600 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A14NW (E)                              | 319                          | 1       | 451900<br>114323 |



| Map ID | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|---------------|
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | A14SW (E)                              | 319                          | 1       | 451900 114300 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | A8NW (S)                               | 327                          | 1       | 451400 113900 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding to Occur at Surface                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A14SW (E)                              | 338                          | 1       | 451900 114200 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | A13SE (SE)                             | 354                          | 1       | 451750 114000 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | A14NW (E)                              | 371                          | 1       | 451950 114400 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | A8NW (S)                               | 377                          | 1       | 451350 113850 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | A8NE (SE)                              | 385                          | 1       | 451600 113900 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | A18SW (N)                              | 397                          | 1       | 451400 114800 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding to Occur at Surface                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A14NW (NE)                             | 406                          | 1       | 451950 114550 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding to Occur at Surface                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A14NW (NE)                             | 417                          | 1       | 451900 114650 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Limited Potential for Groundwater Flooding to Occur                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | A9NW (SE)                              | 422                          | 1       | 451800 113950 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding to Occur at Surface                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A14NW (NE)                             | 429                          | 1       | 451950 114600 |
|        | <b>BGS Groundwater Flooding Susceptibility</b><br>Flooding Type: Potential for Groundwater Flooding to Occur at Surface                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | A14NW (NE)                             | 498                          | 1       | 452000 114650 |
| 1      | <b>Discharge Consents</b><br>Operator: Mr M.Rogers<br>Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE)<br>Location: Oakridge Farm, Botley Oakridge Farm, Maddoxford Lane, Botley, Southampton, Hampshire, So32 2db<br>Authority: Environment Agency, Southern Region<br>Catchment Area: Not Given<br>Reference: P02535<br>Permit Version: 1<br>Effective Date: 19th January 1990<br>Issued Date: 19th January 1990<br>Revocation Date: 31st March 1997<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company<br>Discharge: Into Land<br>Environment: Into Land<br>Receiving Water: Into Land<br>Status: <b>Lapsed (under Environment Act 1995, Schedule 23)</b><br>Positional Accuracy: Located by supplier to within 100m | A13SW (SW)                             | 40                           | 2       | 451220 114240 |



| Map ID | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|---------------|
| 2      | <b>Discharge Consents</b><br>Operator: M D J Newell<br>Property Type: Undefined Or Other<br>Location: Maddoxford Farm House, Botley Hampshire<br>Authority: Environment Agency, Southern Region<br>Catchment Area: Not Given<br>Reference: H01343<br>Permit Version: 1<br>Effective Date: 15th April 1965<br>Issued Date: 15th April 1965<br>Revocation Date: 31st March 1997<br>Discharge Type: Non Water Company (Private) Sewage<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: Freshwater River<br><b>Status: Lapsed (under Environment Act 1995, Schedule 23)</b><br>Positional Accuracy: Located by supplier to within 100m                                        | A13NE (NE)                             | 48                           | 2       | 451620 114410 |
| 3      | <b>Discharge Consents</b><br>Operator: M D J Newell<br>Property Type: Undefined Or Other<br>Location: Maddoxford Farm, Botley, Hampshire<br>Authority: Environment Agency, Southern Region<br>Catchment Area: Not Supplied<br>Reference: H01199<br>Permit Version: 1<br>Effective Date: 15th April 1965<br>Issued Date: 15th April 1965<br>Revocation Date: 19th October 1992<br>Discharge Type: Unknown<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: Freshwater River<br><b>Status: Pre National Rivers Authority Legislation where issue date &lt; 01/09/1989</b><br>Positional Accuracy: Located by supplier to within 10m                                          | A13NE (NE)                             | 100                          | 2       | 451630 114470 |
| 4      | <b>Discharge Consents</b><br>Operator: John Mclean & Sons Ltd.<br>Property Type: Undefined Or Other<br>Location: Oatlands Lane/Crowsnest Lane, Boorley Green, Botley, Hampshire<br>Authority: Environment Agency, Southern Region<br>Catchment Area: Not Given<br>Reference: N01129<br>Permit Version: 1<br>Effective Date: 25th April 1980<br>Issued Date: 25th April 1980<br>Revocation Date: 31st March 1997<br>Discharge Type: Discharge Of Other Matter-Surface Water<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: Freshwater River<br><b>Status: Lapsed (under Environment Act 1995, Schedule 23)</b><br>Positional Accuracy: Located by supplier to within 100m | A12SE (W)                              | 308                          | 2       | 450960 114170 |
| 5      | <b>Discharge Consents</b><br>Operator: Hampshire County Council<br>Property Type: Undefined Or Other<br>Location: Wangfield Farm, Botley, Hampshire<br>Authority: Environment Agency, Southern Region<br>Catchment Area: Not Supplied<br>Reference: H01759<br>Permit Version: 1<br>Effective Date: 18th October 1963<br>Issued Date: 18th October 1963<br>Revocation Date: 1st October 1991<br>Discharge Type: Unknown<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: Freshwater River<br><b>Status: Pre National Rivers Authority Legislation where issue date &lt; 01/09/1989</b><br>Positional Accuracy: Located by supplier to within 10m                            | A14SW (E)                              | 509                          | 2       | 452070 114170 |



| Map ID | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
| 6      | <b>Discharge Consents</b><br>Operator: J.D. Barker Esq.<br>Property Type: Undefined Or Other<br>Location: Hill Farm House, BOTLEY , Hampshire<br>Authority: Environment Agency, Southern Region<br>Catchment Area: Not Given<br>Reference: H01824<br>Permit Version: 1<br>Effective Date: 17th January 1964<br>Issued Date: 17th January 1964<br>Revocation Date: Not Supplied<br>Discharge Type: Non Water Company (Private) Sewage<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: Freshwater River<br><b>Status:</b> Pre National Rivers Authority Legislation where issue date < 01/09/1989<br>Positional Accuracy: Located by supplier to within 100m                                                       | A18NW (N)                              | 688                          | 2       | 451370<br>115090 |
| 7      | <b>Discharge Consents</b><br>Operator: Botley Park Hotel & Country Club<br>Property Type: HOLIDAY ACCOM/CAMP SITE/CARAVAN SITE/HOTEL/HOSTEL<br>Location: Botley Park Hotel & Country Club, Botley, Hampshire<br>Authority: Environment Agency, Southern Region<br>Catchment Area: Not Given<br>Reference: P11555<br>Permit Version: 1<br>Effective Date: 21st June 1991<br>Issued Date: 21st June 1991<br>Revocation Date: Not Supplied<br>Discharge Type: Discharge Of Other Matter-Surface Water<br>Discharge: Saline Estuary<br>Environment:<br>Receiving Water: Saline Estuary<br><b>Status:</b> Post National Rivers Authority Legislation where issue date > 31/08/1989<br>Positional Accuracy: Located by supplier to within 100m   | A17SW (NW)                             | 701                          | 2       | 450720<br>114800 |
| 8      | <b>Discharge Consents</b><br>Operator: Hambrooks Growing Concern Ltd<br>Property Type: FARMS (NOT HOUSE)/CROP + ANIMAL REARING/PLANT NURSERY<br>Location: Wangfield Orchard Nursery, Wangfield Lane, CURDRIDGE , Hampshire<br>Authority: Environment Agency, Southern Region<br>Catchment Area: Not Given<br>Reference: P02707<br>Permit Version: 1<br>Effective Date: 8th May 1990<br>Issued Date: 8th May 1990<br>Revocation Date: 31st March 1997<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company<br>Discharge: Into Land<br>Environment:<br>Receiving Water: Into Land<br><b>Status:</b> Lapsed (under Environment Act 1995, Schedule 23)<br>Positional Accuracy: Located by supplier to within 100m | A14NE (E)                              | 746                          | 2       | 452290<br>114610 |
| 9      | <b>Discharge Consents</b><br>Operator: J.D. Barker Esq.<br>Property Type: Undefined Or Other<br>Location: Hill Farm, Botley Hampshire<br>Authority: Environment Agency, Southern Region<br>Catchment Area: Not Supplied<br>Reference: H01825<br>Permit Version: 1<br>Effective Date: 17th January 1964<br>Issued Date: 17th January 1964<br>Revocation Date: 4th November 1992<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: Freshwater River<br><b>Status:</b> Pre National Rivers Authority Legislation where issue date < 01/09/1989<br>Positional Accuracy: Located by supplier to within 10m                            | A18NW (N)                              | 759                          | 2       | 451340<br>115160 |



| Map ID | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|---------------|
| 10     | <b>Discharge Consents</b><br>Operator: Mr & Mrs J Dinsdale<br>Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE)<br>Location: Brackenfield, Wangfield Lane Brackenfield, Wangfield Lane, Curdridge, Southampton, Hampshire, So32 2da<br>Authority: Environment Agency, Southern Region<br>Catchment Area: Hamble<br>Reference: G00734<br>Permit Version: 1<br>Effective Date: 12th December 2005<br>Issued Date: 12th December 2005<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company<br>Discharge: Land/Soakaway<br>Environment:<br>Receiving Water: Groundwater<br><b>Status:</b> New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)<br>Positional Accuracy: Located by supplier to within 10m | A14NE (E)                              | 789                          | 2       | 452360 114500 |
| 11     | <b>Discharge Consents</b><br>Operator: Hampshire County Council<br>Property Type: Undefined Or Other<br>Location: Uplands Farm, BOTLEY , Hampshire<br>Authority: Environment Agency, Southern Region<br>Catchment Area: Not Given<br>Reference: H01804<br>Permit Version: 1<br>Effective Date: 17th January 1964<br>Issued Date: 17th January 1964<br>Revocation Date: Not Supplied<br>Discharge Type: Agriculture - Site Drainage<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: Freshwater River<br><b>Status:</b> Pre National Rivers Authority Legislation where issue date < 01/09/1989<br>Positional Accuracy: Located by supplier to within 100m                                                                                                                                          | A8SE (S)                               | 847                          | 2       | 451550 113410 |
| 12     | <b>Discharge Consents</b><br>Operator: Aggregate Industries Uk Ltd<br>Property Type: WHOLESALE TRADE (NOT MOTOR VEHICLES)<br>Location: Botley Depot Station Hill, Botley, Southampton, Hampshire, So30 2dn<br>Authority: Environment Agency, Southern Region<br>Catchment Area: Hamble<br>Reference: P11203<br>Permit Version: 1<br>Effective Date: 6th January 2003<br>Issued Date: 6th January 2003<br>Revocation Date: Not Supplied<br>Discharge Type: Trade Effluent Discharge-Site Drainage<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: River Hamble<br><b>Status:</b> New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)<br>Positional Accuracy: Located by supplier to within 10m                                                     | A9SW (SE)                              | 919                          | 2       | 451887 113445 |
| 13     | <b>Discharge Consents</b><br>Operator: Law Land Co. Ltd.<br>Property Type: Undefined Or Other<br>Location: Hill & Sons Transport Depot, Botley, Bottings, Hampshire<br>Authority: Environment Agency, Southern Region<br>Catchment Area: Not Supplied<br>Reference: N01031<br>Permit Version: 1<br>Effective Date: 27th August 1979<br>Issued Date: 27th August 1979<br>Revocation Date: 4th November 1992<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: Freshwater River<br><b>Status:</b> Pre National Rivers Authority Legislation where issue date < 01/09/1989<br>Positional Accuracy: Located by supplier to within 10m                                                                                 | A8SE (S)                               | 944                          | 2       | 451650 113330 |



| Map ID | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
| 14     | <b>Discharge Consents</b><br>Operator: P B Bignell<br>Property Type: Undefined Or Other<br>Location: Netherhill Farm, Botley Hampshire<br>Authority: Environment Agency, Southern Region<br>Catchment Area: Not Given<br>Reference: H01712<br>Permit Version: 1<br>Effective Date: 12th July 1963<br>Issued Date: 12th July 1963<br>Revocation Date: Not Supplied<br>Discharge Type: Agriculture - Site Drainage<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: Freshwater River<br><b>Status:</b> Pre National Rivers Authority Legislation where issue date < 01/09/1989<br>Positional Accuracy: Located by supplier to within 100m                                                                                                                                                                        | A19NW (NE)                             | 963                          | 2       | 452000<br>115250 |
| 15     | <b>Discharge Consents</b><br>Operator: The Owner/Occupier<br>Property Type: Undefined Or Other<br>Location: Titlarks Farm, Curdridge Hampshire<br>Authority: Environment Agency, Southern Region<br>Catchment Area: Not Given<br>Reference: H01688<br>Permit Version: 1<br>Effective Date: 12th July 1963<br>Issued Date: 12th July 1963<br>Revocation Date: 28th March 1996<br>Discharge Type: Unknown<br>Discharge: Freshwater Stream/River<br>Environment:<br>Receiving Water: Freshwater River<br><b>Status:</b> Pre National Rivers Authority Legislation where issue date < 01/09/1989<br>Positional Accuracy: Located by supplier to within 100m                                                                                                                                                                                 | A9NE (SE)                              | 966                          | 2       | 452430<br>113850 |
| 16     | <b>Discharge Consents</b><br>Operator: Mr Jon Hollis<br>Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE)<br>Location: Netherhill Cottage, Netherhill Lane Netherhill Cottage, Netherhill Lane, Durley, Southampton, Hampshire, So32 2bp<br>Authority: Environment Agency, Southern Region<br>Catchment Area: Hamble<br>Reference: G01062<br>Permit Version: 1<br>Effective Date: 13th March 2007<br>Issued Date: 13th March 2007<br>Revocation Date: Not Supplied<br>Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company<br>Discharge: Land/Soakaway<br>Environment:<br>Receiving Water: Groundwater Via Soakaway<br><b>Status:</b> New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)<br>Positional Accuracy: Located by supplier to within 10m | A19NW (NE)                             | 993                          | 2       | 451910<br>115320 |
| 17     | <b>Integrated Pollution Prevention And Control</b><br>Name: Vero Poultry Limited<br>Location: Wangfield Poultry Farm Epr/Tp3632ww, Wangfield Poultry Farm, Wangfield Lane,,Curdridge, SOUTHAMPTON, Hampshire, SO32 2DA<br>Authority: Environment Agency - South East Region, Solent & South Downs Area<br>Permit Reference: TP3632WW<br>Original Permit Ref: Tp3632ww<br>Effective Date: 2nd June 2015<br><b>Status:</b> Effective<br>Application Type: Application<br>App. Sub Type: New<br>Positional Accuracy: Automatically positioned to the address<br>Activity Code: 6.9 A(1) (A) (I)<br>Activity Description: Intensive Farming; Greater Than 40,000 Poultry<br>Primary Activity: Y                                                                                                                                             | A14NE (E)                              | 764                          | 2       | 452343<br>114409 |
|        | <b>Nearest Surface Water Feature</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | A13NE (E)                              | 63                           | -       | 451643<br>114367 |



| Map ID | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
| 18     | <b>Pollution Incidents to Controlled Waters</b><br>Property Type: Domestic/Residential<br>Location: Crowsnest Lane, BOORLEY GREEN<br>Authority: Environment Agency, Southern Region<br>Pollutant: Surcharged Sewage<br>Note: Sewage Surcharging<br>Incident Date: 22nd December 1993<br>Incident Reference: 992<br>Catchment Area: Not Given<br>Receiving Water: Not Given<br>Cause of Incident: Plc Sewage Other<br>Incident Severity: Category 3 - Minor Incident<br>Positional Accuracy: Located by supplier to within 100m | A12NE (W)                              | 278                          | 2       | 451000<br>114400 |
|        | <b>River Quality</b><br>Name: Horton Heath Strm<br>GQA Grade: River Quality B<br>Reach: Hamble Conf - Lower Upham<br>Estimated Distance (km): 8.1<br>Flow Rate: Flow less than 0.31 cumecs<br>Flow Type: River<br>Year: 2000                                                                                                                                                                                                                                                                                                   | A13NE (E)                              | 0                            | 2       | 451565<br>114372 |
|        | <b>River Quality</b><br>Name: Hamble<br>GQA Grade: River Quality A<br>Reach: Tidal Limit At Botley - Durley Mill<br>Estimated Distance (km): 2.6<br>Flow Rate: Flow less than 1.25 cumecs<br>Flow Type: River<br>Year: 2000                                                                                                                                                                                                                                                                                                    | A13SE (E)                              | 163                          | 2       | 451739<br>114269 |



| Map ID | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
| 19     | <b>River Quality Chemistry Sampling Points</b><br>Name: River Hamble<br>Reach: Tidal Limit At Botley To Durley Mill<br>Estimated Distance: 2.60<br>Objective: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m<br>Year: 1990<br>GQA Grade: River Quality Chemistry GQA Grade D - Fair<br>Compliance: Not Supplied<br>Year: 1993<br>GQA Grade: River Quality Chemistry GQA Grade B - Good<br>Compliance: Not Supplied<br>Year: 1994<br>GQA Grade: River Quality Chemistry GQA Grade B - Good<br>Compliance: Not Supplied<br>Year: 1995<br>GQA Grade: River Quality Chemistry GQA Grade A - Very Good<br>Compliance: Not Supplied<br>Year: 1996<br>GQA Grade: River Quality Chemistry GQA Grade A - Very Good<br>Compliance: Not Supplied<br>Year: 1997<br>GQA Grade: River Quality Chemistry GQA Grade A - Very Good<br>Compliance: Not Supplied<br>Year: 1998<br>GQA Grade: River Quality Chemistry GQA Grade A - Very Good<br>Compliance: Not Supplied<br>Year: 1999<br>GQA Grade: River Quality Chemistry GQA Grade A - Very Good<br>Compliance: Not Supplied<br>Year: 2000<br>GQA Grade: River Quality Chemistry GQA Grade A - Very Good<br>Compliance: Not Supplied<br>Year: 2001<br>GQA Grade: River Quality Chemistry GQA Grade A - Very Good<br>Compliance: Not Supplied<br>Year: 2002<br>GQA Grade: River Quality Chemistry GQA Grade B - Good<br>Compliance: Not Supplied<br>Year: 2003<br>GQA Grade: River Quality Chemistry GQA Grade B - Good<br>Compliance: Not Supplied<br>Year: 2004<br>GQA Grade: River Quality Chemistry GQA Grade B - Good<br>Compliance: Not Supplied<br>Year: 2005<br>GQA Grade: River Quality Chemistry GQA Grade B - Good<br>Compliance: Not Supplied<br>Year: 2006<br>GQA Grade: River Quality Chemistry GQA Grade B - Good<br>Compliance: Not Supplied<br>Year: 2007<br>GQA Grade: River Quality Chemistry GQA Grade B - Good<br>Compliance: Not Supplied<br>Year: 2008<br>GQA Grade: River Quality Chemistry GQA Grade B - Good<br>Compliance: Not Supplied<br>Year: 2009<br>GQA Grade: River Quality Chemistry GQA Grade A - Very Good<br>Compliance: Not Supplied | A13NE (E)                              | 125                          | 2       | 451704<br>114383 |
| 20     | <b>Water Abstractions</b><br>Operator: D K Cozens Esq<br>Licence Number: 11/42/25.3/51<br>Permit Version: 100<br>Location: Holly Tree Farm<br>Authority: Environment Agency, Southern Region<br>Abstraction: General Agriculture: Spray Irrigation - Direct<br>Abstraction Type: Water may be abstracted from a river or stream reach, or a row of wellpoints<br>Source: Surface<br>Daily Rate (m3): 205<br>Yearly Rate (m3): 2500<br>Details: See Licence Map<br>Authorised Start: 01 March<br>Authorised End: 31 October<br>Permit Start Date: 15th January 1971<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | A14SW (E)                              | 211                          | 2       | 451790<br>114280 |



| Map ID | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
| 20     | <b>Water Abstractions</b><br>Operator: D K Cozens Esq<br>Licence Number: 25.3/51<br>Permit Version: Not Supplied<br>Location: Holly Tree Farm<br>Authority: Environment Agency, Southern Region<br>Abstraction: Spray Irrigation<br>Abstraction Type: Not Supplied<br>Source: Surface<br>Daily Rate (m3): 205<br>Yearly Rate (m3): 2500<br>Details: River Hamble<br>Authorised Start: Not Supplied<br>Authorised End: Not Supplied<br>Permit Start Date: Not Supplied<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m                                                                                                                        | A14SW (E)                              | 240                          | 2       | 451820<br>114290 |
| 21     | <b>Water Abstractions</b><br>Operator: D & M Draper<br>Licence Number: 11/42/25.3/27a<br>Permit Version: 100<br>Location: Newhouse Farm, Botley<br>Authority: Environment Agency, Southern Region<br>Abstraction: General Agriculture: Spray Irrigation - Direct<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Surface<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: See Licence Map<br>Authorised Start: 01 April<br>Authorised End: 30 September<br>Permit Start Date: 1st April 2016<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m                                       | A9NW (SE)                              | 586                          | 2       | 451780<br>113760 |
| 22     | <b>Water Abstractions</b><br>Operator: Macdonald Hotels Ltd<br>Licence Number: 11/42/25.1/65ca<br>Permit Version: 101<br>Location: Botley Hotel & Country Club At Maddoxford (Point B)<br>Authority: Environment Agency, Southern Region<br>Abstraction: Golf Courses: Spray Irrigation - Direct<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Surface<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: See Licence Map.<br>Authorised Start: 01 January<br>Authorised End: 31 December<br>Permit Start Date: 1st April 2016<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m      | A18SW (NW)                             | 595                          | 2       | 451120<br>114960 |
| 22     | <b>Water Abstractions</b><br>Operator: Macdonald Hotels Ltd<br>Licence Number: 11/42/25.1/65ca<br>Permit Version: 100<br>Location: Botley Hotel & Country Club At Maddoxford (Point B)<br>Authority: Environment Agency, Southern Region<br>Abstraction: Golf Courses: Spray Irrigation - Direct<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Surface<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: See Licence Map.<br>Authorised Start: 01 January<br>Authorised End: 31 December<br>Permit Start Date: 8th September 1993<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m | A18SW (NW)                             | 595                          | 2       | 451120<br>114960 |



| Map ID | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|---------------|
| 23     | <b>Water Abstractions</b><br>Operator: Macdonald Hotels Ltd<br>Licence Number: 11/42/25.1/65ca<br>Permit Version: 101<br>Location: Botley Hotel & Country Club At Maddoxford (Point A)<br>Authority: Environment Agency, Southern Region<br>Abstraction: Golf Courses: Spray Irrigation - Direct<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Surface<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: See Licence Map.<br>Authorised Start: 01 January<br>Authorised End: 31 December<br>Permit Start Date: 1st April 2016<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | A17SE (NW)                             | 651                          | 2       | 450800 114820 |
| 23     | <b>Water Abstractions</b><br>Operator: Macdonald Hotels Ltd<br>Licence Number: 11/42/25.1/65ca<br>Permit Version: 100<br>Location: Botley Hotel & Country Club At Maddoxford (Point A)<br>Authority: Environment Agency, Southern Region<br>Abstraction: Golf Courses: Spray Irrigation - Direct<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Surface<br>Daily Rate (m3): 85<br>Yearly Rate (m3): 8500<br>Details: See Licence Map.<br>Authorised Start: 01 January<br>Authorised End: 31 December<br>Permit Start Date: 8th September 1993<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m               | A17SE (NW)                             | 651                          | 2       | 450800 114820 |
| 24     | <b>Water Abstractions</b><br>Operator: The Environment Agency<br>Licence Number: 30/052<br>Permit Version: 1<br>Location: Point A On Mill Stream, Botley Mill<br>Authority: Environment Agency, Southern Region<br>Abstraction: Environmental: Fish Pass/Canoe Pass<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Surface<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Not Supplied<br>Authorised Start: 01 January<br>Authorised End: 31 December<br>Permit Start Date: 12th June 2009<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m                                  | A8SE (SE)                              | 775                          | 2       | 451750 113540 |
| 24     | <b>Water Abstractions</b><br>Operator: Environment Agency<br>Licence Number: 30/052/R01<br>Permit Version: 1<br>Location: Point A On Mill Stream, Botley Mill<br>Authority: Environment Agency, Southern Region<br>Abstraction: Environmental: Fish Pass/Canoe Pass<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Surface<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Not Supplied<br>Authorised Start: 01 April<br>Authorised End: 31 March<br>Permit Start Date: 1st April 2016<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m                                       | A8SE (SE)                              | 782                          | 2       | 451750 113533 |



| Map ID | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
| 24     | <b>Water Abstractions</b><br>Operator: The Environment Agency<br>Licence Number: 30/052<br>Permit Version: 1<br>Location: Point A On Mill Stream, Botley Mill<br>Authority: Environment Agency, Southern Region<br>Abstraction: Environmental: Fish Pass/Canoe Pass<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Surface<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): Not Supplied<br>Details: Not Supplied<br>Authorised Start: 01 January<br>Authorised End: 31 December<br>Permit Start Date: 12th June 2009<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | A8SE (SE)                              | 782                          | 2       | 451750<br>113533 |
|        | <b>Water Abstractions</b><br>Operator: Dimehold Limited<br>Licence Number: 25.4/61<br>Permit Version: Not Supplied<br>Location: HEDGE END<br>Authority: Environment Agency, Southern Region<br>Abstraction: Impounding<br>Abstraction Type: Not Supplied<br>Source: Unknown<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): 0<br>Details: Tributary Of Pudbrook Lake; Licence Status: Revoked; Lapsed Or Cancelled<br>Authorised Start: Not Supplied<br>Authorised End: Not Supplied<br>Permit Start Date: Not Supplied<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m                          | A6NW (SW)                              | 1364                         | 2       | 450001<br>113721 |
|        | <b>Water Abstractions</b><br>Operator: Dimehold Limited<br>Licence Number: 30/042<br>Permit Version: Not Supplied<br>Location: HEDGE END<br>Authority: Environment Agency, Southern Region<br>Abstraction: Impounding<br>Abstraction Type: Not Supplied<br>Source: Surface<br>Daily Rate (m3): 0<br>Yearly Rate (m3): 0<br>Details: Tributary Pudbrook Lake<br>Authorised Start: Not Supplied<br>Authorised End: Not Supplied<br>Permit Start Date: Not Supplied<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m                                                                                       | A6NW (SW)                              | 1366                         | 2       | 450001<br>113716 |
|        | <b>Water Abstractions</b><br>Operator: Biddenfield Ltd<br>Licence Number: 25.7/1<br>Permit Version: Not Supplied<br>Location: C/O Cooper & Lybrand, 5 Town Quay, SOUTHAMPTON, Hampshire<br>Authority: Environment Agency, Southern Region<br>Abstraction: Impounding<br>Abstraction Type: Not Supplied<br>Source: Surface<br>Daily Rate (m3): Not Supplied<br>Yearly Rate (m3): 36364<br>Details: Hamble<br>Authorised Start: Not Supplied<br>Authorised End: Not Supplied<br>Permit Start Date: Not Supplied<br>Permit End Date: Not Supplied<br>Positional Accuracy: Manually positioned to the address or location                              | A3SE (S)                               | 1563                         | 2       | 451495<br>112677 |



| Map ID | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
|        | <b>Water Abstractions</b><br>Operator: Ian King<br>Licence Number: 25.4/62<br>Permit Version: Not Supplied<br>Location: Steeple Court Farm<br>Authority: Environment Agency, Southern Region<br>Abstraction: Spray Irrigation<br>Abstraction Type: Not Supplied<br>Source: Surface<br>Daily Rate (m3): 1080<br>Yearly Rate (m3): 17974<br>Details: Tributary Of Hamble<br>Authorised Start: Not Supplied<br>Authorised End: Not Supplied<br>Permit Start Date: Not Supplied<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 100m                                                  | (S)                                    | 1819                         | 2       | 451200<br>112410 |
|        | <b>Water Abstractions</b><br>Operator: I King<br>Licence Number: 30/045<br>Permit Version: 100<br>Location: Steeple Court Farm, Fareham<br>Authority: Environment Agency, Southern Region<br>Abstraction: General Agriculture: Spray Irrigation - Direct<br>Abstraction Type: Water may be abstracted from a single point<br>Source: Surface<br>Daily Rate (m3): 1080<br>Yearly Rate (m3): 17974<br>Details: See Licence Map<br>Authorised Start: 01 May<br>Authorised End: 30 September<br>Permit Start Date: 12th June 2009<br>Permit End Date: Not Supplied<br>Positional Accuracy: Located by supplier to within 10m | (S)                                    | 1828                         | 2       | 451200<br>112400 |
|        | <b>Groundwater Vulnerability</b><br>Soil Classification: Soils of Intermediate Leaching Potential (I1) - Soils which can possibly transmit a wide range of pollutants<br>Map Sheet: Sheet 52 Southern Hampshire<br>Scale: 1:100,000                                                                                                                                                                                                                                                                                                                                                                                      | A13NE<br>(NE)                          | 0                            | 2       | 451435<br>114335 |
|        | <b>Groundwater Vulnerability</b><br>Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment<br>Map Sheet: Sheet 52 Southern Hampshire<br>Scale: 1:100,000                                                                                                                                                                                         | A13NW<br>(NW)                          | 0                            | 2       | 451414<br>114323 |
|        | <b>Drift Deposits</b><br>None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                        |                              |         |                  |
|        | <b>Bedrock Aquifer Designations</b><br>Aquifer Designation: Secondary Aquifer - A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | A13NW<br>(NW)                          | 0                            | 1       | 451414<br>114323 |
|        | <b>Superficial Aquifer Designations</b><br>Aquifer Designation: Secondary Aquifer - A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | A13NW<br>(SW)                          | 0                            | 1       | 451410<br>114319 |
|        | <b>Superficial Aquifer Designations</b><br>Aquifer Designation: Secondary Aquifer - A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | A13NE<br>(NE)                          | 0                            | 1       | 451471<br>114370 |
|        | <b>Extreme Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Extreme Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models<br>Boundary Accuracy: As Supplied                                                                                                                                                                                                                                                                                                                                                                                                                | A13NE<br>(NE)                          | 53                           | 2       | 451620<br>114420 |
|        | <b>Flooding from Rivers or Sea without Defences</b><br>Type: Extent of Flooding from Rivers or Sea without Defences<br>Flood Plain Type: Fluvial Models<br>Boundary Accuracy: As Supplied                                                                                                                                                                                                                                                                                                                                                                                                                                | A13NE<br>(NE)                          | 53                           | 2       | 451620<br>114420 |
|        | <b>Areas Benefiting from Flood Defences</b><br>None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                        |                              |         |                  |
|        | <b>Flood Water Storage Areas</b><br>None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                        |                              |         |                  |
|        | <b>Flood Defences</b><br>None                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                        |                              |         |                  |



| Map ID | Details                                                                                                                                                                                                                                   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
| 25     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 15.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A13NE (E)                              | 63                           | 3       | 451643<br>114367 |
| 26     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 875.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A13NE (E)                              | 65                           | 3       | 451637<br>114415 |
| 27     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 281.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: River Hamble<br>Catchment Name: East Hampshire<br>Primacy: 1 | A13SE (SE)                             | 163                          | 3       | 451702<br>114201 |
| 28     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 123.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A13SE (E)                              | 193                          | 3       | 451740<br>114201 |
| 29     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 598.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: River Hamble<br>Catchment Name: East Hampshire<br>Primacy: 1 | A14SW (E)                              | 197                          | 3       | 451778<br>114311 |
| 30     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 30.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A13NW (NW)                             | 198                          | 3       | 451191<br>114562 |
| 31     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 119.8<br>Watercourse Level: Not Supplied<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1      | A13SW (S)                              | 206                          | 3       | 451367<br>114015 |
| 32     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 244.1<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A13SW (SW)                             | 207                          | 3       | 451248<br>114023 |
| 33     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 114.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A13SE (SE)                             | 210                          | 3       | 451692<br>114132 |



| Map ID | Details                                                                                                                                                                                                                                   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
| 34     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 73.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A14SW (SE)                             | 218                          | 3       | 451757<br>114182 |
| 35     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 36.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A13SW (S)                              | 222                          | 3       | 451376<br>114014 |
| 36     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 7.9<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1         | A13NW (NW)                             | 223                          | 3       | 451195<br>114592 |
| 37     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 71.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A13NW (NW)                             | 230                          | 3       | 451196<br>114600 |
| 38     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 5.4<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1         | A13SW (S)                              | 231                          | 3       | 451409<br>114011 |
| 39     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 340.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A13SW (S)                              | 232                          | 3       | 451409<br>114011 |
| 40     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 34.2<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A14SW (SE)                             | 252                          | 3       | 451775<br>114150 |
| 41     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 10.1<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A13SE (SE)                             | 263                          | 3       | 451738<br>114100 |
| 42     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 19.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A13SE (SE)                             | 263                          | 3       | 451738<br>114100 |



| Map ID | Details                                                                                                                                                                                                                                   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
| 43     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 6.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1   | A14SW (SE)                             | 268                          | 3       | 451757<br>114108 |
| 44     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 83.2<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: River Hamble<br>Catchment Name: East Hampshire<br>Primacy: 1  | A13SE (SE)                             | 270                          | 3       | 451737<br>114090 |
| 45     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 155.5<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A12SE (SW)                             | 271                          | 3       | 451017<br>114130 |
| 46     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 20.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 2  | A14SW (SE)                             | 271                          | 3       | 451763<br>114110 |
| 47     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 137.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A14SW (SE)                             | 271                          | 3       | 451763<br>114110 |
| 48     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 3.0<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1         | A18SW (NW)                             | 289                          | 3       | 451215<br>114669 |
| 49     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 62.4<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A18SW (NW)                             | 292                          | 3       | 451215<br>114672 |
| 50     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 5.2<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1         | A12SE (SW)                             | 307                          | 3       | 451017<br>114066 |
| 51     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 12.1<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1        | A13SE (SE)                             | 316                          | 3       | 451709<br>114022 |



| Map ID | Details                                                                                                                                                                                                                                   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
| 52     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 22.2<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: River Hamble<br>Catchment Name: East Hampshire<br>Primacy: 1  | A13SE (SE)                             | 326                          | 3       | 451719<br>114016 |
| 53     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 4.9<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1         | A18SW (NW)                             | 344                          | 3       | 451235<br>114730 |
| 54     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 46.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A18SW (NW)                             | 345                          | 3       | 451240<br>114733 |
| 55     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 743.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: River Hamble<br>Catchment Name: East Hampshire<br>Primacy: 1 | A13SE (SE)                             | 346                          | 3       | 451725<br>113997 |
| 56     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 159.1<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A18SW (NW)                             | 348                          | 3       | 451230<br>114733 |
| 57     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 19.5<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A18SW (N)                              | 361                          | 3       | 451279<br>114757 |
| 58     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 367.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A14SW (SE)                             | 363                          | 3       | 451790<br>114014 |
| 59     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 224.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A14SW (SE)                             | 364                          | 3       | 451801<br>114021 |
| 60     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 6.9<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1         | A18SW (N)                              | 368                          | 3       | 451296<br>114767 |



| Map ID | Details                                                                                                                                                                                                                                   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
| 61     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 21.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A18SW (N)                              | 371                          | 3       | 451302<br>114770 |
| 62     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 68.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 2  | A18SW (N)                              | 379                          | 3       | 451322<br>114780 |
| 63     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 65.5<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A18SW (N)                              | 379                          | 3       | 451322<br>114780 |
| 64     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 82.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A18SW (N)                              | 408                          | 3       | 451380<br>114810 |
| 65     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 204.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Ford Lake<br>Catchment Name: East Hampshire<br>Primacy: 1    | A18SE (N)                              | 424                          | 3       | 451487<br>114824 |
| 66     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 50.1<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A18SE (N)                              | 424                          | 3       | 451487<br>114824 |
| 67     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 77.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 2  | A18SE (N)                              | 453                          | 3       | 451448<br>114856 |
| 68     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 469.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A9NW (SE)                              | 474                          | 3       | 451888<br>113922 |
| 69     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 9.0<br>Watercourse Level: Not Supplied<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1        | A14SW (E)                              | 508                          | 3       | 452066<br>114160 |



| Map ID | Details                                                                                                                                                                                                                                   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
| 70     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 55.2<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A14SW (E)                              | 508                          | 3       | 452066<br>114160 |
| 71     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 146.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Ford Lake<br>Catchment Name: East Hampshire<br>Primacy: 1    | A18SW (N)                              | 514                          | 3       | 451402<br>114917 |
| 72     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 385.4<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A14SW (E)                              | 516                          | 3       | 452075<br>114163 |
| 73     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 375.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: River Hamble<br>Catchment Name: East Hampshire<br>Primacy: 1 | A19SW (NE)                             | 522                          | 3       | 451945<br>114757 |
| 74     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 35.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A19SW (NE)                             | 522                          | 3       | 451945<br>114757 |
| 75     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 50.2<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A17SE (NW)                             | 533                          | 3       | 451011<br>114845 |
| 76     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 88.4<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A12SW (W)                              | 548                          | 3       | 450707<br>114284 |
| 77     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 91.6<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A19SW (NE)                             | 550                          | 3       | 451950<br>114790 |
| 78     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 79.6<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A19SW (NE)                             | 550                          | 3       | 451950<br>114790 |



| Map ID | Details                                                                                                                                                                                                                                   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
| 79     | <b>OS Water Network Lines</b><br>Watercourse Form: Lake<br>Watercourse Length: 80.1<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1          | A18SW (N)                              | 566                          | 3       | 451197<br>114949 |
| 80     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 155.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A17SE (NW)                             | 568                          | 3       | 451048<br>114904 |
| 81     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 133.7<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A17SE (NW)                             | 572                          | 3       | 451016<br>114892 |
| 82     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 157.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A9NW (SE)                              | 575                          | 3       | 451852<br>113803 |
| 83     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 20.2<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1        | A18SW (N)                              | 582                          | 3       | 451219<br>114971 |
| 84     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 129.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A18SW (N)                              | 587                          | 3       | 451238<br>114979 |
| 85     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 560.6<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Ford Lake<br>Catchment Name: East Hampshire<br>Primacy: 1    | A18NW (N)                              | 602                          | 3       | 451361<br>115004 |
| 86     | <b>OS Water Network Lines</b><br>Watercourse Form: Lake<br>Watercourse Length: 120.1<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1         | A17SE (NW)                             | 605                          | 3       | 450893<br>114847 |
| 87     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 3.4<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1         | A17SE (NW)                             | 670                          | 3       | 450776<br>114822 |



| Map ID | Details                                                                                                                                                                                                                                   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
| 88     | <b>OS Water Network Lines</b><br>Watercourse Form: Lake<br>Watercourse Length: 9.2<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1           | A17SE (NW)                             | 670                          | 3       | 450777<br>114822 |
| 89     | <b>OS Water Network Lines</b><br>Watercourse Form: Lake<br>Watercourse Length: 42.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1          | A17SE (NW)                             | 671                          | 3       | 450782<br>114829 |
| 90     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 4.4<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1   | A17SE (NW)                             | 672                          | 3       | 450773<br>114821 |
| 91     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 2.7<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1         | A17SE (NW)                             | 675                          | 3       | 450769<br>114819 |
| 92     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 80.6<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A17SE (NW)                             | 676                          | 3       | 450766<br>114818 |
| 93     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 133.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A9NW (SE)                              | 701                          | 3       | 451830<br>113656 |
| 94     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 485.1<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A7NW (SW)                              | 735                          | 3       | 450609<br>113908 |
| 95     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 8.2<br>Watercourse Level: Underground<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1         | A9SW (SE)                              | 774                          | 3       | 451763<br>113547 |
| 96     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 439.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A9SW (SE)                              | 782                          | 3       | 451766<br>113539 |



| Map ID | Details                                                                                                                                                                                                                                   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
| 97     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 1.5<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1   | A14SE (E)                              | 808                          | 3       | 452389<br>114309 |
| 98     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 4.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1   | A14SE (E)                              | 809                          | 3       | 452390<br>114308 |
| 99     | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 129.2<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A14SE (E)                              | 809                          | 3       | 452390<br>114308 |
| 100    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 2.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1   | A14SE (E)                              | 813                          | 3       | 452394<br>114305 |
| 101    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 378.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A14SE (E)                              | 813                          | 3       | 452394<br>114305 |
| 102    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 171.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A14NE (E)                              | 843                          | 3       | 452421<br>114433 |
| 103    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 85.2<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A14NE (E)                              | 843                          | 3       | 452421<br>114433 |
| 104    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 80.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: River Hamble<br>Catchment Name: East Hampshire<br>Primacy: 1  | A19SE (NE)                             | 844                          | 3       | 452231<br>114921 |
| 105    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 135.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A19SE (NE)                             | 844                          | 3       | 452231<br>114921 |



| Map ID | Details                                                                                                                                                                                                                                   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|---------------|
| 106    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 11.1<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A8SE (S)                               | 869                          | 3       | 451621 113400 |
| 107    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 25.9<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A12SW (W)                              | 878                          | 3       | 450406 114034 |
| 108    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 53.4<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: River Hamble<br>Catchment Name: East Hampshire<br>Primacy: 1  | A8SE (S)                               | 880                          | 3       | 451624 113390 |
| 109    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 21.6<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A11SE (W)                              | 889                          | 3       | 450392 114048 |
| 110    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 25.2<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A11SE (W)                              | 903                          | 3       | 450383 114021 |
| 111    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 51.8<br>Watercourse Level: Not Supplied<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1       | A19SE (NE)                             | 914                          | 3       | 452308 114936 |
| 112    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 301.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: River Hamble<br>Catchment Name: East Hampshire<br>Primacy: 1 | A19SE (NE)                             | 914                          | 3       | 452308 114936 |
| 113    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 94.0<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: River Hamble<br>Catchment Name: East Hampshire<br>Primacy: 2  | A8SE (S)                               | 917                          | 3       | 451593 113346 |
| 114    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 96.6<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: River Hamble<br>Catchment Name: East Hampshire<br>Primacy: 1  | A8SE (S)                               | 917                          | 3       | 451593 113346 |



| Map ID | Details                                                                                                                                                                                                                                   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
| 115    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 338.8<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A19NW (NE)                             | 919                          | 3       | 452046<br>115175 |
| 116    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 235.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A19NE (NE)                             | 933                          | 3       | 452275<br>115006 |
| 117    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 34.1<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A19NW (NE)                             | 942                          | 3       | 452031<br>115211 |
| 118    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 37.1<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1  | A19SE (NE)                             | 960                          | 3       | 452357<br>114948 |
| 119    | <b>OS Water Network Lines</b><br>Watercourse Form: Inland river<br>Watercourse Length: 169.3<br>Watercourse Level: On ground surface<br>Permanent: True<br>Watercourse Name: Not Supplied<br>Catchment Name: East Hampshire<br>Primacy: 1 | A19NW (NE)                             | 967                          | 3       | 452022<br>115243 |



| Map ID | Details                                                                                                                                            | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
|        | <b>Local Authority Landfill Coverage</b><br>Name: Eastleigh Borough Council<br>- Has no landfill data to supply                                    |                                        | 0                            | 4       | 451414<br>114323 |
|        | <b>Local Authority Landfill Coverage</b><br>Name: Hampshire County Council<br>- Had landfill data but passed it to the relevant environment agency |                                        | 0                            | 5       | 451414<br>114323 |
|        | <b>Local Authority Landfill Coverage</b><br>Name: Winchester City Council<br>- Has supplied landfill data                                          |                                        | 64                           | 6       | 451636<br>114415 |
| 120    | <b>Potentially Infilled Land (Non-Water)</b><br>Bearing Ref: NE<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1989           | A13NE<br>(NE)                          | 128                          | -       | 451687<br>114453 |
| 121    | <b>Potentially Infilled Land (Non-Water)</b><br>Bearing Ref: SE<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1989           | A14SW<br>(SE)                          | 303                          | -       | 451820<br>114125 |
| 122    | <b>Potentially Infilled Land (Non-Water)</b><br>Bearing Ref: SE<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1989           | A14SW<br>(SE)                          | 467                          | -       | 451926<br>113996 |
| 123    | <b>Potentially Infilled Land (Non-Water)</b><br>Bearing Ref: W<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1989            | A12SW<br>(W)                           | 521                          | -       | 450738<br>114187 |
| 124    | <b>Potentially Infilled Land (Non-Water)</b><br>Bearing Ref: W<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1989            | A12SW<br>(W)                           | 583                          | -       | 450673<br>114229 |
| 125    | <b>Potentially Infilled Land (Non-Water)</b><br>Bearing Ref: SE<br>Use: Unknown Filled Ground (Pit, quarry etc)<br>Date of Mapping: 1989           | A9SW<br>(SE)                           | 844                          | -       | 452051<br>113611 |



| Map ID | Details                                                                                                                                                                                                                                                                                                                                     | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
|        | <b>BGS 1:625,000 Solid Geology</b><br>Description: Bracklesham Group And Barton Group (Undifferentiated)                                                                                                                                                                                                                                    | A13NW (NW)                             | 0                            | 1       | 451414<br>114323 |
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic Concentration: <15 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 60 - 90 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg  | A13NW (NW)                             | 0                            | 1       | 451414<br>114323 |
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic Concentration: <15 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 90 - 120 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg | A13NW (SW)                             | 0                            | 1       | 451410<br>114319 |
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic Concentration: <15 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 90 - 120 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg | A13NE (NE)                             | 0                            | 1       | 451471<br>114370 |
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic Concentration: <15 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 90 - 120 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg | A13SW (S)                              | 226                          | 1       | 451390<br>114000 |
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic Concentration: <15 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 90 - 120 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg | A14SW (E)                              | 316                          | 1       | 451878<br>114198 |
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic Concentration: <15 mg/kg<br>Cadmium Concentration: <1.8 mg/kg<br>Chromium Concentration: 90 - 120 mg/kg<br>Lead Concentration: <100 mg/kg<br>Nickel Concentration: 15 - 30 mg/kg | A18NW (N)                              | 622                          | 1       | 451225<br>115012 |



| Map ID | Details                                                                                                                                                                                                                                                                                                                                                      | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|---------------|
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic <15 mg/kg<br>Concentration:<br>Cadmium <1.8 mg/kg<br>Concentration:<br>Chromium 60 - 90 mg/kg<br>Concentration:<br>Lead Concentration: <100 mg/kg<br>Nickel 15 - 30 mg/kg<br>Concentration:       | A12NW (W)                              | 625                          | 1       | 450660 114470 |
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic <15 mg/kg<br>Concentration:<br>Cadmium <1.8 mg/kg<br>Concentration:<br>Chromium 60 - 90 mg/kg<br>Concentration:<br>Lead Concentration: <100 mg/kg<br>Nickel 15 - 30 mg/kg<br>Concentration:       | A12SW (W)                              | 716                          | 1       | 450539 114251 |
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic <15 mg/kg<br>Concentration:<br>Cadmium <1.8 mg/kg<br>Concentration:<br>Chromium 60 - 90 mg/kg<br>Concentration:<br>Lead Concentration: 100 - 200 mg/kg<br>Nickel 15 - 30 mg/kg<br>Concentration:  | A19NW (NE)                             | 746                          | 1       | 452000 115000 |
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic <15 mg/kg<br>Concentration:<br>Cadmium 1.8 - 2.2 mg/kg<br>Concentration:<br>Chromium 60 - 90 mg/kg<br>Concentration:<br>Lead Concentration: <100 mg/kg<br>Nickel 15 - 30 mg/kg<br>Concentration:  | A12SW (W)                              | 755                          | 1       | 450500 114310 |
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic <15 mg/kg<br>Concentration:<br>Cadmium 1.8 - 2.2 mg/kg<br>Concentration:<br>Chromium 90 - 120 mg/kg<br>Concentration:<br>Lead Concentration: <100 mg/kg<br>Nickel 15 - 30 mg/kg<br>Concentration: | A12NW (W)                              | 756                          | 1       | 450500 114323 |
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic <15 mg/kg<br>Concentration:<br>Cadmium 1.8 - 2.2 mg/kg<br>Concentration:<br>Chromium 60 - 90 mg/kg<br>Concentration:<br>Lead Concentration: <100 mg/kg<br>Nickel 15 - 30 mg/kg<br>Concentration:  | A12NW (W)                              | 761                          | 1       | 450500 114361 |



| Map ID | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|---------------|
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic <15 mg/kg<br>Concentration:<br>Cadmium <1.8 mg/kg<br>Concentration:<br>Chromium 90 - 120 mg/kg<br>Concentration:<br>Lead Concentration: <100 mg/kg<br>Nickel 15 - 30 mg/kg<br>Concentration:                                                                                                                                            | A19NW (NE)                             | 793                          | 1       | 451897 115110 |
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic <15 mg/kg<br>Concentration:<br>Cadmium 3.0 - 6.0 mg/kg<br>Concentration:<br>Chromium 90 - 120 mg/kg<br>Concentration:<br>Lead Concentration: 100 - 200 mg/kg<br>Nickel 15 - 30 mg/kg<br>Concentration:                                                                                                                                  | A12SW (W)                              | 798                          | 1       | 450500 114000 |
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic <15 mg/kg<br>Concentration:<br>Cadmium <1.8 mg/kg<br>Concentration:<br>Chromium 90 - 120 mg/kg<br>Concentration:<br>Lead Concentration: 100 - 200 mg/kg<br>Nickel 15 - 30 mg/kg<br>Concentration:                                                                                                                                       | A19NW (NE)                             | 846                          | 1       | 452000 115118 |
|        | <b>BGS Estimated Soil Chemistry</b><br>Source: British Geological Survey, National Geoscience Information Service<br>Soil Sample Type: Sediment<br>Arsenic <15 mg/kg<br>Concentration:<br>Cadmium <1.8 mg/kg<br>Concentration:<br>Chromium 90 - 120 mg/kg<br>Concentration:<br>Lead Concentration: <100 mg/kg<br>Nickel 15 - 30 mg/kg<br>Concentration:                                                                                                                                            | A18NE (N)                              | 850                          | 1       | 451567 115245 |
| 126    | <b>BGS Recorded Mineral Sites</b><br>Site Name: Greywood Gravel Pit<br>Location: Botley, Southampton, Hampshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 162541<br>Type: Opencast<br><b>Status: Ceased</b><br>Operator: Not Supplied<br>Operator Location: Not Supplied<br>Periodic Type: Quaternary<br>Geology: River Terrace Deposits, 3<br>Commodity: Sand and Gravel<br>Positional Accuracy: Located by supplier to within 10m              | A13NE (NE)                             | 240                          | 1       | 451708 114587 |
| 127    | <b>BGS Recorded Mineral Sites</b><br>Site Name: Wangfield Copse Gravel Pit<br>Location: Curdridge, Southampton, Hampshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 162537<br>Type: Opencast<br><b>Status: Ceased</b><br>Operator: Not Supplied<br>Operator Location: Not Supplied<br>Periodic Type: Ypresian - Lutetian<br>Geology: Wittering Formation<br>Commodity: Sand and Gravel<br>Positional Accuracy: Located by supplier to within 10m | A14SW (SE)                             | 357                          | 1       | 451846 114072 |



| Map ID | Details                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR              |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|------------------|
| 128    | <b>BGS Recorded Mineral Sites</b><br>Site Name: Wangfield Copse Gravel Pit<br>Location: Curdridge, Southampton, Hampshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 162536<br>Type: Opencast<br><b>Status: Ceased</b><br>Operator: Not Supplied<br>Operator Location: Not Supplied<br>Periodic Type: Ypresian - Lutetian<br>Geology: Wittering Formation<br>Commodity: Sand and Gravel<br>Positional Accuracy: Located by supplier to within 10m | A14SW (SE)                             | 470                          | 1       | 451925<br>113990 |
| 129    | <b>BGS Recorded Mineral Sites</b><br>Site Name: Cold Down Copse Sand Pit<br>Location: Curdridge, Southampton, Hampshire<br>Source: British Geological Survey, National Geoscience Information Service<br>Reference: 162538<br>Type: Opencast<br><b>Status: Ceased</b><br>Operator: Not Supplied<br>Operator Location: Not Supplied<br>Periodic Type: Lutetian<br>Geology: Earnley Sand Formation<br>Commodity: Sand<br>Positional Accuracy: Located by supplier to within 10m                      | A9SW (SE)                              | 891                          | 1       | 452091<br>113581 |
|        | <b>BGS Measured Urban Soil Chemistry</b><br>No data available                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                        |                              |         |                  |
|        | <b>BGS Urban Soil Chemistry Averages</b><br>No data available                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                        |                              |         |                  |
|        | <b>Coal Mining Affected Areas</b><br>In an area that might not be affected by coal mining                                                                                                                                                                                                                                                                                                                                                                                                          |                                        |                              |         |                  |
|        | <b>Non Coal Mining Areas of Great Britain</b><br>No Hazard                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                        |                              |         |                  |
|        | <b>Potential for Collapsible Ground Stability Hazards</b><br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service                                                                                                                                                                                                                                                                                                                              | A13NW (NW)                             | 0                            | 1       | 451414<br>114323 |
|        | <b>Potential for Collapsible Ground Stability Hazards</b><br>Hazard Potential: No Hazard<br>Source: British Geological Survey, National Geoscience Information Service                                                                                                                                                                                                                                                                                                                             | A13NE (NE)                             | 56                           | 1       | 451624<br>114420 |
|        | <b>Potential for Collapsible Ground Stability Hazards</b><br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service                                                                                                                                                                                                                                                                                                                              | A13NE (NE)                             | 122                          | 1       | 451684<br>114446 |
|        | <b>Potential for Collapsible Ground Stability Hazards</b><br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service                                                                                                                                                                                                                                                                                                                              | A14SW (E)                              | 231                          | 1       | 451810<br>114283 |
|        | <b>Potential for Compressible Ground Stability Hazards</b><br>Hazard Potential: No Hazard<br>Source: British Geological Survey, National Geoscience Information Service                                                                                                                                                                                                                                                                                                                            | A13NW (NW)                             | 0                            | 1       | 451414<br>114323 |
|        | <b>Potential for Compressible Ground Stability Hazards</b><br>Hazard Potential: Moderate<br>Source: British Geological Survey, National Geoscience Information Service                                                                                                                                                                                                                                                                                                                             | A13NE (NE)                             | 56                           | 1       | 451624<br>114420 |
|        | <b>Potential for Compressible Ground Stability Hazards</b><br>Hazard Potential: No Hazard<br>Source: British Geological Survey, National Geoscience Information Service                                                                                                                                                                                                                                                                                                                            | A13NE (NE)                             | 122                          | 1       | 451684<br>114446 |
|        | <b>Potential for Compressible Ground Stability Hazards</b><br>Hazard Potential: No Hazard<br>Source: British Geological Survey, National Geoscience Information Service                                                                                                                                                                                                                                                                                                                            | A14SW (E)                              | 231                          | 1       | 451810<br>114283 |
|        | <b>Potential for Ground Dissolution Stability Hazards</b><br>Hazard Potential: No Hazard<br>Source: British Geological Survey, National Geoscience Information Service                                                                                                                                                                                                                                                                                                                             | A13NW (NW)                             | 0                            | 1       | 451414<br>114323 |
|        | <b>Potential for Landslide Ground Stability Hazards</b><br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service                                                                                                                                                                                                                                                                                                                                | A13NW (NW)                             | 0                            | 1       | 451414<br>114323 |
|        | <b>Potential for Running Sand Ground Stability Hazards</b><br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service                                                                                                                                                                                                                                                                                                                             | A13NW (NW)                             | 0                            | 1       | 451414<br>114323 |



| Map ID | Details                                                                                                                                                                                                                                                                   | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|---------------|
|        | <b>Potential for Running Sand Ground Stability Hazards</b><br>Hazard Potential: Low<br>Source: British Geological Survey, National Geoscience Information Service                                                                                                         | A13NE (NE)                             | 56                           | 1       | 451624 114420 |
|        | <b>Potential for Running Sand Ground Stability Hazards</b><br>Hazard Potential: No Hazard<br>Source: British Geological Survey, National Geoscience Information Service                                                                                                   | A13NE (NE)                             | 122                          | 1       | 451684 114446 |
|        | <b>Potential for Running Sand Ground Stability Hazards</b><br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service                                                                                                    | A13NE (NE)                             | 164                          | 1       | 451713 114479 |
|        | <b>Potential for Running Sand Ground Stability Hazards</b><br>Hazard Potential: Very Low<br>Source: British Geological Survey, National Geoscience Information Service                                                                                                    | A14SW (E)                              | 231                          | 1       | 451810 114283 |
|        | <b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b><br>Hazard Potential: Moderate<br>Source: British Geological Survey, National Geoscience Information Service                                                                                      | A13NW (NW)                             | 0                            | 1       | 451414 114323 |
|        | <b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b><br>Hazard Potential: Low<br>Source: British Geological Survey, National Geoscience Information Service                                                                                           | A13NE (NE)                             | 92                           | 1       | 451608 114492 |
|        | <b>Radon Potential - Radon Affected Areas</b><br>Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level).<br>Source: British Geological Survey, National Geoscience Information Service | A13NW (NW)                             | 0                            | 1       | 451414 114323 |
|        | <b>Radon Potential - Radon Protection Measures</b><br>Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions<br>Source: British Geological Survey, National Geoscience Information Service                     | A13NW (NW)                             | 0                            | 1       | 451414 114323 |



| Map ID | Details                                                                                                                                                                                                                                                                                                 | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|---------------|
| 130    | <b>Contemporary Trade Directory Entries</b><br>Name: Botley Motor Body Repairs<br>Location: Long Acres Farm, Wangfield Lane, Curdridge, Southampton, SO32 2DA<br>Classification: Car Body Repairs<br><b>Status:</b> Inactive<br>Positional Accuracy: Automatically positioned to the address            | A14NW (E)                              | 356                          | -       | 451935 114379 |
| 131    | <b>Contemporary Trade Directory Entries</b><br>Name: R B R Garden Machinery<br>Location: 25, Oatlands Road, Botley, Southampton, SO32 2DE<br>Classification: Lawnmowers & Garden Machinery - Sales & Service<br><b>Status:</b> Inactive<br>Positional Accuracy: Automatically positioned to the address | A12NE (W)                              | 364                          | -       | 450934 114476 |
| 132    | <b>Contemporary Trade Directory Entries</b><br>Name: B A Powell<br>Location: 4, Oatlands Road, Botley, Southampton, SO32 2DE<br>Classification: Tyre Dealers<br><b>Status:</b> Inactive<br>Positional Accuracy: Automatically positioned to the address                                                 | A12NE (W)                              | 430                          | -       | 450830 114327 |
| 133    | <b>Contemporary Trade Directory Entries</b><br>Name: I Group Machinery<br>Location: 12, Oatlands Close, Botley, Southampton, Hampshire, SO32 2DF<br>Classification: Cutting Tools & Machinery<br><b>Status:</b> Inactive<br>Positional Accuracy: Automatically positioned to the address                | A12NE (W)                              | 440                          | -       | 450844 114440 |
| 133    | <b>Contemporary Trade Directory Entries</b><br>Name: I Group<br>Location: 12, Oatlands Close, Botley, Southampton, Hampshire, SO32 2DF<br>Classification: Machinery - Industrial & Commercial<br><b>Status:</b> Inactive<br>Positional Accuracy: Automatically positioned to the address                | A12NE (W)                              | 440                          | -       | 450844 114440 |
| 134    | <b>Contemporary Trade Directory Entries</b><br>Name: G S W Haswell<br>Location: 152-154, Winchester Street, Botley, Southampton, SO30 2AA<br>Classification: Precision Engineers<br><b>Status:</b> Inactive<br>Positional Accuracy: Automatically positioned to the address                             | A12SE (SW)                             | 462                          | -       | 450872 114001 |
| 135    | <b>Contemporary Trade Directory Entries</b><br>Name: Stoneham Gates<br>Location: Fairways, Winchester Road, Botley, Southampton, SO32 2DH<br>Classification: Gate Manufacturers<br><b>Status:</b> Inactive<br>Positional Accuracy: Automatically positioned to the address                              | A12NW (W)                              | 537                          | -       | 450721 114317 |
| 136    | <b>Contemporary Trade Directory Entries</b><br>Name: Stoneham Joinery Ltd<br>Location: Unit 3/4, Fairways, Winchester Road, Botley, Southampton, SO32 2DH<br>Classification: Joinery Manufacturers<br><b>Status:</b> Inactive<br>Positional Accuracy: Automatically positioned to the address           | A12SW (W)                              | 591                          | -       | 450664 114289 |
| 136    | <b>Contemporary Trade Directory Entries</b><br>Name: D J Engineering Services<br>Location: Unit 5, Fairways, Winchester Road, Botley, Southampton, SO32 2DH<br>Classification: Mechanical Engineers<br><b>Status:</b> Active<br>Positional Accuracy: Automatically positioned to the address            | A12SW (W)                              | 596                          | -       | 450659 114298 |
| 137    | <b>Contemporary Trade Directory Entries</b><br>Name: Able Piling & Construction Ltd<br>Location: Wangfield Lane, Curdridge, Southampton, SO32 2DA<br>Classification: Pile Driving<br><b>Status:</b> Inactive<br>Positional Accuracy: Automatically positioned to the address                            | A14NE (E)                              | 651                          | -       | 452230 114404 |
| 138    | <b>Contemporary Trade Directory Entries</b><br>Name: Able Engineering<br>Location: Wangfield La, Curdridge, Southampton, SO32 2DA<br>Classification: Precision Engineers<br><b>Status:</b> Inactive<br>Positional Accuracy: Manually positioned to the road within the address or location              | A14SE (E)                              | 713                          | -       | 452279 114168 |



| Map ID | Details                                                                                                                                                                                                                                                                                                      | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|---------------|
| 139    | <b>Contemporary Trade Directory Entries</b><br>Name: United Transport Operators Ltd<br>Location: Wangfield House Cottage, Wangfield Lane, Curdridge, Southampton, SO32 2DA<br>Classification: Freight Forwarders<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address  | A14SE (E)                              | 723                          | -       | 452276 114111 |
| 140    | <b>Contemporary Trade Directory Entries</b><br>Name: Longacre Feeds<br>Location: Long Acre House, Winchester Road, Botley, Southampton, SO32 2DH<br>Classification: Pet Foods & Animal Feeds<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address                        | A17SW (NW)                             | 732                          | -       | 450613 114670 |
| 141    | <b>Contemporary Trade Directory Entries</b><br>Name: Twintec South Coast<br>Location: Glenfield, Woodhouse Lane, Botley, Southampton, SO30 2DJ<br>Classification: Water Softeners<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address                                   | A7NW (SW)                              | 757                          | -       | 450595 113887 |
| 141    | <b>Contemporary Trade Directory Entries</b><br>Name: Softner Supplies Co Ltd<br>Location: Glenfield, Woodhouse Lane, Botley, Southampton, SO30 2DJ<br>Classification: Water Softeners<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                             | A7NW (SW)                              | 757                          | -       | 450595 113887 |
| 142    | <b>Contemporary Trade Directory Entries</b><br>Name: Finger Prints T-Shirts<br>Location: Brackenfield, Wangfield Lane, Curdridge, Southampton, SO32 2DA<br>Classification: T-Shirts<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                               | A14NE (E)                              | 769                          | -       | 452337 114515 |
| 143    | <b>Contemporary Trade Directory Entries</b><br>Name: Botley Electrical Services<br>Location: 21, Holmesland Walk, Botley, Southampton, SO30 2DZ<br>Classification: Refrigerators & Freezers - Servicing & Repairs<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address | A7SE (SW)                              | 837                          | -       | 450915 113477 |
| 144    | <b>Contemporary Trade Directory Entries</b><br>Name: Aero Antiques<br>Location: Durley Airstrip, Netherhill, Botley, Southampton, SO32 2BP<br>Classification: Aviation Engineers<br><b>Status: Active</b><br>Positional Accuracy: Automatically positioned to the address                                    | A18NE (N)                              | 869                          | -       | 451465 115272 |
| 145    | <b>Contemporary Trade Directory Entries</b><br>Name: Ovington Motors<br>Location: Woodhouse Lane, Botley, Southampton, Hampshire, SO30 2EZ<br>Classification: Garage Services<br><b>Status: Inactive</b><br>Positional Accuracy: Manually positioned to the address or location                              | A7NW (SW)                              | 999                          | -       | 450434 113689 |
| 145    | <b>Contemporary Trade Directory Entries</b><br>Name: The Blind Business Ltd<br>Location: Woodhouse Lane, Botley, Southampton, SO30 2EZ<br>Classification: Blinds, Awnings & Canopies<br><b>Status: Inactive</b><br>Positional Accuracy: Automatically positioned to the address                              | A7NW (SW)                              | 1000                         | -       | 450433 113690 |
| 146    | <b>Points of Interest - Commercial Services</b><br>Name: Scrap Yard<br>Location: SO32<br>Category: Recycling Services<br>Class Code: Scrap Metal Merchants<br>Positional Accuracy: Positioned to address or location                                                                                         | A13SE (E)                              | 66                           | 7       | 451639 114279 |
| 147    | <b>Points of Interest - Manufacturing and Production</b><br>Name: M D J Newell<br>Location: Maddoxford Farm, Maddoxford Lane, Botley, Southampton, SO32 2DB<br>Category: Farming<br>Class Code: Livestock Farming<br>Positional Accuracy: Positioned to address or location                                  | A13NE (NE)                             | 38                           | 7       | 451575 114424 |



| Map ID | Details                                                                                                                                                                                                                                                                                                              | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|---------------|
| 147    | <b>Points of Interest - Manufacturing and Production</b><br>Name: M D J Newell<br>Location: Maddoxford Lane, Botley, Southampton, SO32 2DB<br>Category: Farming<br>Class Code: Livestock Farming<br>Positional Accuracy: Positioned to address or location                                                           | A13NE (NE)                             | 39                           | 7       | 451576 114424 |
| 148    | <b>Points of Interest - Manufacturing and Production</b><br>Name: Poultry House<br>Location: SO32<br>Category: Farming<br>Class Code: Poultry Farming, Equipment and Supplies<br>Positional Accuracy: Positioned to address or location                                                                              | A14NE (E)                              | 740                          | 7       | 452321 114322 |
| 148    | <b>Points of Interest - Manufacturing and Production</b><br>Name: Poultry Houses<br>Location: SO32<br>Category: Farming<br>Class Code: Poultry Farming, Equipment and Supplies<br>Positional Accuracy: Positioned to address or location                                                                             | A14NE (E)                              | 758                          | 7       | 452338 114382 |
| 149    | <b>Points of Interest - Manufacturing and Production</b><br>Name: J W Barker<br>Location: Hill Farm, Netherhill, Botley, Southampton, SO32 2BP<br>Category: Farming<br>Class Code: Arable Farming<br>Positional Accuracy: Positioned to address or location                                                          | A18NE (N)                              | 758                          | 7       | 451455 115161 |
| 149    | <b>Points of Interest - Manufacturing and Production</b><br>Name: J W Barker<br>Location: Netherhill, Botley, Southampton, SO32 2BP<br>Category: Farming<br>Class Code: Livestock Farming<br>Positional Accuracy: Positioned to address or location                                                                  | A18NE (N)                              | 759                          | 7       | 451456 115162 |
| 150    | <b>Points of Interest - Manufacturing and Production</b><br>Name: Wangfield Poultry Farm<br>Location: Wangfield Poultry Farm, Wangfield Lane, Curdridge, Southampton, SO32 2DA<br>Category: Farming<br>Class Code: Poultry Farming, Equipment and Supplies<br>Positional Accuracy: Positioned to address or location | A14NE (E)                              | 774                          | 7       | 452353 114405 |
| 151    | <b>Points of Interest - Manufacturing and Production</b><br>Name: P B Bignell<br>Location: High Trees, Netherhill, Botley, Southampton, SO32 2BP<br>Category: Farming<br>Class Code: Livestock Farming<br>Positional Accuracy: Positioned to address or location                                                     | A19NW (NE)                             | 969                          | 7       | 451913 115293 |
| 152    | <b>Points of Interest - Public Infrastructure</b><br>Name: Botley Fire Station<br>Location: Winchester, Street, Botley, SO30 2EB<br>Category: Central and Local Government<br>Class Code: Fire Brigade Stations<br>Positional Accuracy: Positioned to address or location                                            | A3NW (S)                               | 983                          | 7       | 451402 113250 |



| Map ID | Details                                                                                                                                                    | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR           |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|------------------------------|---------|---------------|
| 153    | <b>Ancient Woodland</b><br>Name: Wangfield Lodge Copse<br>Reference: 1487505<br>Area(m <sup>2</sup> ): 30165.42<br>Type: Ancient and Semi-Natural Woodland | A14SW (SE)                             | 450                          | 8       | 451886 113981 |
| 154    | <b>Ancient Woodland</b><br>Name: Mount Folly Copse<br>Reference: 1489316<br>Area(m <sup>2</sup> ): 17617.97<br>Type: Ancient and Semi-Natural Woodland     | A19SE (NE)                             | 909                          | 8       | 452373 114828 |
| 155    | <b>Ancient Woodland</b><br>Name: Mount Folly Copse<br>Reference: 1488001<br>Area(m <sup>2</sup> ): 19488.02<br>Type: Plantation on Ancient Woodland        | A20SW (E)                              | 973                          | 8       | 452503 114690 |
| 156    | <b>Nitrate Vulnerable Zones</b><br>Name: Hamble Estuary Eutrophic Nvz (Trac)<br>Description: Eutrophic Water<br>Source: Environment Agency, Head Office    | A13NW (NW)                             | 0                            | 9       | 451414 114323 |



| Agency & Hydrological                                                                                                                                                                                                                                                                                                                          | Version                                                      | Update Cycle                                                                                     |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>Contaminated Land Register Entries and Notices</b><br>Eastleigh Borough Council - Environmental Health Department<br>Southampton City Council - Environmental Health Services Pollution And Safety<br>Fareham Borough Council - Environmental Health Department<br>Winchester City Council - Environmental Health Department                | May 2015<br>October 2017<br>September 2013<br>September 2014 | Annual Rolling Update<br>Annual Rolling Update<br>Annual Rolling Update<br>Annual Rolling Update |
| <b>Discharge Consents</b><br>Environment Agency - Southern Region                                                                                                                                                                                                                                                                              | October 2017                                                 | Quarterly                                                                                        |
| <b>Enforcement and Prohibition Notices</b><br>Environment Agency - Southern Region                                                                                                                                                                                                                                                             | March 2013                                                   | As notified                                                                                      |
| <b>Integrated Pollution Controls</b><br>Environment Agency - Southern Region                                                                                                                                                                                                                                                                   | October 2008                                                 | Variable                                                                                         |
| <b>Integrated Pollution Prevention And Control</b><br>Environment Agency - South East Region - Solent & South Downs Area<br>Environment Agency - Southern Region                                                                                                                                                                               | October 2017<br>October 2017                                 | Quarterly<br>Quarterly                                                                           |
| <b>Local Authority Integrated Pollution Prevention And Control</b><br>Southampton City Council - Environmental Health Services Pollution And Safety<br>Winchester City Council - Environmental Health Department<br>Fareham Borough Council - Environmental Health Department<br>Eastleigh Borough Council - Environmental Health Department   | August 2014<br>December 2014<br>May 2016<br>September 2014   | Variable<br>Variable<br>Variable<br>Variable                                                     |
| <b>Local Authority Pollution Prevention and Controls</b><br>Southampton City Council - Environmental Health Services Pollution And Safety<br>Winchester City Council - Environmental Health Department<br>Fareham Borough Council - Environmental Health Department<br>Eastleigh Borough Council - Environmental Health Department             | August 2014<br>December 2014<br>May 2016<br>September 2014   | Annual Rolling Update<br>Annual Rolling Update<br>Annual Rolling Update<br>Annual Rolling Update |
| <b>Local Authority Pollution Prevention and Control Enforcements</b><br>Southampton City Council - Environmental Health Services Pollution And Safety<br>Winchester City Council - Environmental Health Department<br>Fareham Borough Council - Environmental Health Department<br>Eastleigh Borough Council - Environmental Health Department | August 2014<br>December 2014<br>May 2016<br>September 2014   | Variable<br>Variable<br>Variable<br>Variable                                                     |
| <b>Nearest Surface Water Feature</b><br>Ordnance Survey                                                                                                                                                                                                                                                                                        | September 2017                                               |                                                                                                  |
| <b>Pollution Incidents to Controlled Waters</b><br>Environment Agency - Southern Region                                                                                                                                                                                                                                                        | December 1999                                                | Not Applicable                                                                                   |
| <b>Prosecutions Relating to Authorised Processes</b><br>Environment Agency - Southern Region                                                                                                                                                                                                                                                   | March 2013                                                   | As notified                                                                                      |
| <b>Prosecutions Relating to Controlled Waters</b><br>Environment Agency - Southern Region                                                                                                                                                                                                                                                      | March 2013                                                   | As notified                                                                                      |
| <b>Registered Radioactive Substances</b><br>Environment Agency - Southern Region                                                                                                                                                                                                                                                               | January 2015                                                 |                                                                                                  |
| <b>River Quality</b><br>Environment Agency - Head Office                                                                                                                                                                                                                                                                                       | November 2001                                                | Not Applicable                                                                                   |
| <b>River Quality Biology Sampling Points</b><br>Environment Agency - Head Office                                                                                                                                                                                                                                                               | July 2012                                                    | Annually                                                                                         |
| <b>River Quality Chemistry Sampling Points</b><br>Environment Agency - Head Office                                                                                                                                                                                                                                                             | July 2012                                                    | Annually                                                                                         |
| <b>Substantiated Pollution Incident Register</b><br>Environment Agency - South East Region - Solent & South Downs Area<br>Environment Agency - Southern Region - Hampshire and Isle of Wight Area Office<br>Environment Agency - Southern Region - Solent and South Downs                                                                      | October 2017<br>October 2017<br>October 2017                 | Quarterly<br>Quarterly<br>Quarterly                                                              |
| <b>Water Abstractions</b><br>Environment Agency - Southern Region                                                                                                                                                                                                                                                                              | October 2017                                                 | Quarterly                                                                                        |



| Agency & Hydrological                                                                                                 | Version       | Update Cycle   |
|-----------------------------------------------------------------------------------------------------------------------|---------------|----------------|
| <b>Water Industry Act Referrals</b><br>Environment Agency - Southern Region                                           | October 2017  | Quarterly      |
| <b>Groundwater Vulnerability</b><br>Environment Agency - Head Office                                                  | April 2015    | Not Applicable |
| <b>Drift Deposits</b><br>Environment Agency - Head Office                                                             | January 1999  | Not Applicable |
| <b>Bedrock Aquifer Designations</b><br>British Geological Survey - National Geoscience Information Service            | August 2015   | As notified    |
| <b>Superficial Aquifer Designations</b><br>British Geological Survey - National Geoscience Information Service        | August 2015   | As notified    |
| <b>Source Protection Zones</b><br>Environment Agency - Head Office                                                    | October 2017  | Quarterly      |
| <b>Extreme Flooding from Rivers or Sea without Defences</b><br>Environment Agency - Head Office                       | November 2017 | Quarterly      |
| <b>Flooding from Rivers or Sea without Defences</b><br>Environment Agency - Head Office                               | November 2017 | Quarterly      |
| <b>Areas Benefiting from Flood Defences</b><br>Environment Agency - Head Office                                       | November 2017 | Quarterly      |
| <b>Flood Water Storage Areas</b><br>Environment Agency - Head Office                                                  | November 2017 | Quarterly      |
| <b>Flood Defences</b><br>Environment Agency - Head Office                                                             | November 2017 | Quarterly      |
| <b>OS Water Network Lines</b><br>Ordnance Survey                                                                      | January 2018  | Quarterly      |
| <b>Surface Water 1 in 30 year Flood Extent</b><br>Environment Agency - Head Office                                    | October 2013  | As notified    |
| <b>Surface Water 1 in 100 year Flood Extent</b><br>Environment Agency - Head Office                                   | October 2013  | As notified    |
| <b>Surface Water 1 in 1000 year Flood Extent</b><br>Environment Agency - Head Office                                  | October 2013  | As notified    |
| <b>Surface Water Suitability</b><br>Environment Agency - Head Office                                                  | October 2013  | As notified    |
| <b>BGS Groundwater Flooding Susceptibility</b><br>British Geological Survey - National Geoscience Information Service | May 2013      | As notified    |



| Waste                                                                                                                                                                                                                                                                                                                                            | Version                                                  | Update Cycle                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------|----------------------------------------------------------------------------------------|
| <b>BGS Recorded Landfill Sites</b><br>British Geological Survey - National Geoscience Information Service                                                                                                                                                                                                                                        | June 1996                                                | Not Applicable                                                                         |
| <b>Historical Landfill Sites</b><br>Environment Agency - Head Office                                                                                                                                                                                                                                                                             | October 2017                                             | Quarterly                                                                              |
| <b>Integrated Pollution Control Registered Waste Sites</b><br>Environment Agency - Southern Region                                                                                                                                                                                                                                               | October 2008                                             | Not Applicable                                                                         |
| <b>Licensed Waste Management Facilities (Landfill Boundaries)</b><br>Environment Agency - South East Region - Solent & South Downs Area<br>Environment Agency - Southern Region - Hampshire and Isle of Wight Area Office<br>Environment Agency - Southern Region - Solent and South Downs                                                       | October 2017<br>October 2017<br>October 2017             | Quarterly<br>Quarterly<br>Quarterly                                                    |
| <b>Licensed Waste Management Facilities (Locations)</b><br>Environment Agency - South East Region - Solent & South Downs Area<br>Environment Agency - Southern Region - Hampshire and Isle of Wight Area Office<br>Environment Agency - Southern Region - Solent and South Downs                                                                 | October 2017<br>October 2017<br>October 2017             | Quarterly<br>Quarterly<br>Quarterly                                                    |
| <b>Local Authority Landfill Coverage</b><br>Eastleigh Borough Council<br>Fareham Borough Council - Environmental Health Department<br>Hampshire County Council - Minerals and Waste Planning<br>Southampton City Council - Environmental Health Services Pollution And Safety<br>Winchester City Council - Environmental Health Department       | May 2000<br>May 2000<br>May 2000<br>May 2000<br>May 2000 | Not Applicable<br>Not Applicable<br>Not Applicable<br>Not Applicable<br>Not Applicable |
| <b>Local Authority Recorded Landfill Sites</b><br>Eastleigh Borough Council<br>Fareham Borough Council - Environmental Health Department<br>Hampshire County Council - Minerals and Waste Planning<br>Southampton City Council - Environmental Health Services Pollution And Safety<br>Winchester City Council - Environmental Health Department | May 2000<br>May 2000<br>May 2000<br>May 2000<br>May 2000 | Not Applicable<br>Not Applicable<br>Not Applicable<br>Not Applicable<br>Not Applicable |
| <b>Potentially Infilled Land (Non-Water)</b><br>Landmark Information Group Limited                                                                                                                                                                                                                                                               | December 1999                                            | Not Applicable                                                                         |
| <b>Potentially Infilled Land (Water)</b><br>Landmark Information Group Limited                                                                                                                                                                                                                                                                   | December 1999                                            | Not Applicable                                                                         |
| <b>Registered Landfill Sites</b><br>Environment Agency - Southern Region - Hampshire Area<br>Environment Agency - Southern Region - Solent and South Downs                                                                                                                                                                                       | March 2003<br>March 2003                                 | Not Applicable<br>Not Applicable                                                       |
| <b>Registered Waste Transfer Sites</b><br>Environment Agency - Southern Region - Hampshire Area<br>Environment Agency - Southern Region - Solent and South Downs                                                                                                                                                                                 | March 2003<br>March 2003                                 | Not Applicable<br>Not Applicable                                                       |
| <b>Registered Waste Treatment or Disposal Sites</b><br>Environment Agency - Southern Region - Hampshire Area<br>Environment Agency - Southern Region - Solent and South Downs                                                                                                                                                                    | March 2003<br>March 2003                                 | Not Applicable<br>Not Applicable                                                       |



| Hazardous Substances                                                                                                                                                                                                                                                  | Version                                                                          | Update Cycle                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|----------------------------------------------------------|
| <b>Control of Major Accident Hazards Sites (COMAH)</b><br>Health and Safety Executive                                                                                                                                                                                 | September 2017                                                                   | Bi-Annually                                              |
| <b>Explosive Sites</b><br>Health and Safety Executive                                                                                                                                                                                                                 | March 2017                                                                       | Variable                                                 |
| <b>Notification of Installations Handling Hazardous Substances (NIHHS)</b><br>Health and Safety Executive                                                                                                                                                             | November 2000                                                                    | Not Applicable                                           |
| <b>Planning Hazardous Substance Enforcements</b><br>Eastleigh Borough Council<br>Fareham Borough Council<br>Hampshire County Council - Minerals and Waste Planning<br>Southampton City Council - Development Control<br>Winchester City Council - Planning Department | February 2016<br>February 2016<br>February 2016<br>February 2016<br>October 2015 | Variable<br>Variable<br>Variable<br>Variable<br>Variable |
| <b>Planning Hazardous Substance Consents</b><br>Eastleigh Borough Council<br>Fareham Borough Council<br>Hampshire County Council - Minerals and Waste Planning<br>Southampton City Council - Development Control<br>Winchester City Council - Planning Department     | February 2016<br>February 2016<br>February 2016<br>February 2016<br>October 2015 | Variable<br>Variable<br>Variable<br>Variable<br>Variable |
| Geological                                                                                                                                                                                                                                                            | Version                                                                          | Update Cycle                                             |
| <b>BGS 1:625,000 Solid Geology</b><br>British Geological Survey - National Geoscience Information Service                                                                                                                                                             | January 2009                                                                     | Not Applicable                                           |
| <b>BGS Estimated Soil Chemistry</b><br>British Geological Survey - National Geoscience Information Service                                                                                                                                                            | October 2015                                                                     | As notified                                              |
| <b>BGS Recorded Mineral Sites</b><br>British Geological Survey - National Geoscience Information Service                                                                                                                                                              | November 2017                                                                    | Bi-Annually                                              |
| <b>CBSCB Compensation District</b><br>Cheshire Brine Subsidence Compensation Board (CBSCB)                                                                                                                                                                            | August 2011                                                                      | Not Applicable                                           |
| <b>Coal Mining Affected Areas</b><br>The Coal Authority - Property Searches                                                                                                                                                                                           | March 2014                                                                       | As notified                                              |
| <b>Mining Instability</b><br>Ove Arup & Partners                                                                                                                                                                                                                      | October 2000                                                                     | Not Applicable                                           |
| <b>Non Coal Mining Areas of Great Britain</b><br>British Geological Survey - National Geoscience Information Service                                                                                                                                                  | May 2015                                                                         | Not Applicable                                           |
| <b>Potential for Collapsible Ground Stability Hazards</b><br>British Geological Survey - National Geoscience Information Service                                                                                                                                      | June 2015                                                                        | As notified                                              |
| <b>Potential for Compressible Ground Stability Hazards</b><br>British Geological Survey - National Geoscience Information Service                                                                                                                                     | June 2015                                                                        | As notified                                              |
| <b>Potential for Ground Dissolution Stability Hazards</b><br>British Geological Survey - National Geoscience Information Service                                                                                                                                      | June 2015                                                                        | As notified                                              |
| <b>Potential for Landslide Ground Stability Hazards</b><br>British Geological Survey - National Geoscience Information Service                                                                                                                                        | June 2015                                                                        | As notified                                              |
| <b>Potential for Running Sand Ground Stability Hazards</b><br>British Geological Survey - National Geoscience Information Service                                                                                                                                     | June 2015                                                                        | As notified                                              |
| <b>Potential for Shrinking or Swelling Clay Ground Stability Hazards</b><br>British Geological Survey - National Geoscience Information Service                                                                                                                       | June 2015                                                                        | As notified                                              |
| <b>Radon Potential - Radon Affected Areas</b><br>British Geological Survey - National Geoscience Information Service                                                                                                                                                  | July 2011                                                                        | As notified                                              |
| <b>Radon Potential - Radon Protection Measures</b><br>British Geological Survey - National Geoscience Information Service                                                                                                                                             | July 2011                                                                        | As notified                                              |



| Industrial Land Use                                                                                                                               | Version                       | Update Cycle   |
|---------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|----------------|
| <b>Contemporary Trade Directory Entries</b><br>Thomson Directories                                                                                | November 2017                 | Quarterly      |
| <b>Fuel Station Entries</b><br>Catalist Ltd - Experian                                                                                            | February 2018                 | Quarterly      |
| <b>Gas Pipelines</b><br>National Grid                                                                                                             | July 2014                     | Quarterly      |
| <b>Points of Interest - Commercial Services</b><br>PointX                                                                                         | December 2017                 | Quarterly      |
| <b>Points of Interest - Education and Health</b><br>PointX                                                                                        | December 2017                 | Quarterly      |
| <b>Points of Interest - Manufacturing and Production</b><br>PointX                                                                                | December 2017                 | Quarterly      |
| <b>Points of Interest - Public Infrastructure</b><br>PointX                                                                                       | December 2017                 | Quarterly      |
| <b>Points of Interest - Recreational and Environmental</b><br>PointX                                                                              | December 2017                 | Quarterly      |
| <b>Underground Electrical Cables</b><br>National Grid                                                                                             | December 2015                 | Bi-Annually    |
| Sensitive Land Use                                                                                                                                | Version                       | Update Cycle   |
| <b>Ancient Woodland</b><br>Natural England                                                                                                        | October 2017                  | Bi-Annually    |
| <b>Areas of Outstanding Natural Beauty</b><br>Natural England                                                                                     | February 2018                 | Bi-Annually    |
| <b>Environmentally Sensitive Areas</b><br>Natural England                                                                                         | January 2017                  |                |
| <b>Forest Parks</b><br>Forestry Commission                                                                                                        | April 1997                    | Not Applicable |
| <b>Local Nature Reserves</b><br>Natural England                                                                                                   | August 2017                   | Bi-Annually    |
| <b>Marine Nature Reserves</b><br>Natural England                                                                                                  | January 2018                  | Bi-Annually    |
| <b>National Nature Reserves</b><br>Natural England                                                                                                | August 2017                   | Bi-Annually    |
| <b>National Parks</b><br>Natural England                                                                                                          | August 2017                   | Bi-Annually    |
| <b>Nitrate Vulnerable Zones</b><br>Environment Agency - Head Office<br>Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | December 2017<br>October 2015 | Bi-Annually    |
| <b>Ramsar Sites</b><br>Natural England                                                                                                            | August 2017                   | Bi-Annually    |
| <b>Sites of Special Scientific Interest</b><br>Natural England                                                                                    | August 2017                   | Bi-Annually    |
| <b>Special Areas of Conservation</b><br>Natural England                                                                                           | January 2018                  | Bi-Annually    |
| <b>Special Protection Areas</b><br>Natural England                                                                                                | February 2018                 | Bi-Annually    |



A selection of organisations who provide data within this report

| Data Supplier                          | Data Supplier Logo                                                                                                                                                    |
|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ordnance Survey                        |                                                                                    |
| Environment Agency                     |                                                                                    |
| Scottish Environment Protection Agency |                                                                                    |
| The Coal Authority                     |                                                                                    |
| British Geological Survey              |  <b>British Geological Survey</b><br>NATURAL ENVIRONMENT RESEARCH COUNCIL          |
| Centre for Ecology and Hydrology       |  <b>Centre for Ecology &amp; Hydrology</b><br>NATURAL ENVIRONMENT RESEARCH COUNCIL |
| Natural Resources Wales                |                                                                                   |
| Scottish Natural Heritage              |                                                                                  |
| Natural England                        |                                                                                  |
| Public Health England                  |                                                                                  |
| Ove Arup                               |                                                                                  |
| Peter Brett Associates                 |                                                                                  |



| Contact | Name and Address                                                                                                                                            | Contact Details                                                                                                                 |
|---------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| 1       | <b>British Geological Survey - Enquiry Service</b><br>British Geological Survey, Kingsley Dunham Centre, Keyworth,<br>Nottingham, Nottinghamshire, NG12 5GG | Telephone: 0115 936 3143<br>Fax: 0115 936 3276<br>Email: enquiries@bgs.ac.uk<br>Website: www.bgs.ac.uk                          |
| 2       | <b>Environment Agency - National Customer Contact Centre (NCCC)</b><br>PO Box 544, Templeborough, Rotherham, S60 1BY                                        | Telephone: 03708 506 506<br>Email: enquiries@environment-agency.gov.uk                                                          |
| 3       | <b>Ordnance Survey</b><br>Adanac Drive, Southampton, Hampshire, SO16 0AS                                                                                    | Telephone: 03456 05 05 05<br>Email: customerservices@ordnancesurvey.co.uk<br>Website: www.ordnancesurvey.gov.uk                 |
| 4       | <b>Eastleigh Borough Council</b><br>Civic Offices, Leigh Road, Eastleigh, Hampshire, SO50 9YN                                                               | Telephone: 02380 688000<br>Fax: 02380 688261<br>Website: www.eastleigh.gov.uk                                                   |
| 5       | <b>Hampshire County Council - Minerals and Waste Planning</b><br>Room 130, Ashburton Court West, The Castle, Winchester, Hampshire,<br>SO23 8UD             | Telephone: 01962 841841<br>Fax: 01962 847055<br>Website: www.hants.gov.uk                                                       |
| 6       | <b>Winchester City Council - Environmental Health Department</b><br>City Offices, Colebrook Street, Winchester, Hampshire, SO23 9LJ                         | Telephone: 01962 848519<br>Fax: 01962 849101<br>Website: www.winchester.gov.uk                                                  |
| 7       | <b>PointX</b><br>7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY                                                                                   | Website: www.pointx.co.uk                                                                                                       |
| 8       | <b>Natural England</b><br>County Hall, Spetchley Road, Worcester, WR5 2NP                                                                                   | Telephone: 0300 060 3900<br>Email: enquiries@naturalengland.org.uk<br>Website: www.naturalengland.org.uk                        |
| 9       | <b>Environment Agency - Head Office</b><br>Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon,<br>BS32 4UD                                  | Telephone: 01454 624400<br>Fax: 01454 624409                                                                                    |
| -       | <b>Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards</b><br>Chilton, Didcot, Oxfordshire, OX11 0RQ             | Telephone: 01235 822622<br>Fax: 01235 833891<br>Email: radon@phe.gov.uk<br>Website: www.ukradon.org                             |
| -       | <b>Landmark Information Group Limited</b><br>Imperium, Imperial Way, Reading, Berkshire, RG2 0TD                                                            | Telephone: 0844 844 9952<br>Fax: 0844 844 9951<br>Email: customerservices@landmarkinfo.co.uk<br>Website: www.landmarkinfo.co.uk |

Please note that the Environment Agency / Natural Resources Wales / SEPA have a charging policy in place for enquiries.

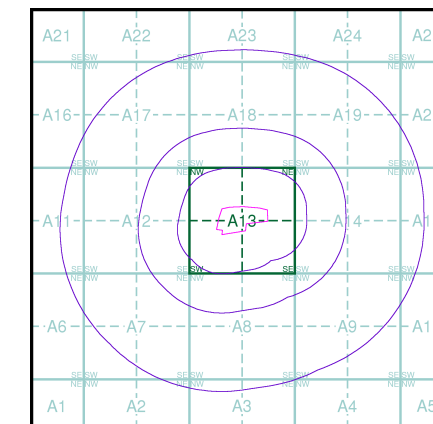




## Geo-Environmental

| General                                                      |                                                        |
|--------------------------------------------------------------|--------------------------------------------------------|
| Specified Site                                               | Specified Buffer(s)                                    |
| Bearing Reference Point                                      | Map ID                                                 |
| Several of Type at Location                                  |                                                        |
| Agency and Hydrological                                      |                                                        |
| Contaminated Land Register Entry or Notice (Location)        | BGS Recorded Landfill Site (Location)                  |
| Contaminated Land Register Entry or Notice                   | BGS Recorded Landfill Site                             |
| Discharge Consent                                            | EA Historic Landfill (Buffered Point)                  |
| Enforcement or Prohibition Notice                            | EA Historic Landfill (Polygon)                         |
| Integrated Pollution Control                                 | Integrated Pollution Control Registered Waste Site     |
| Integrated Pollution Prevention Control                      | Licensed Waste Management Facility (Landfill Boundary) |
| Local Authority Integrated Pollution Prevention and Control  | Licensed Waste Management Facility (Location)          |
| Local Authority Pollution Prevention and Control             | Local Authority Recorded Landfill Site (Location)      |
| Local Authority Pollution Prevention and Control Enforcement | Local Authority Recorded Landfill Site                 |
| Pollution Incident to Controlled Waters                      | Potentially Infilled Land (Non-water)                  |
| Prosecution Relating to Authorised Processes                 | Potentially Infilled Land (Non-water)                  |
| Prosecution Relating to Controlled Waters                    | Potentially Infilled Land (Non-water)                  |
| Registered Radioactive Substance                             | Potentially Infilled Land (Water)                      |
| River Network or Water Feature                               | Potentially Infilled Land (Water)                      |
| River Quality Sampling Point                                 | Potentially Infilled Land (Water)                      |
| Substantiated Pollution Incident Register                    | Potentially Infilled Land (Water)                      |
| Water Abstraction                                            | Potentially Infilled Land (Water)                      |
| Water Industry Act Referral                                  | Potentially Infilled Land (Water)                      |
| Hazardous Substances                                         |                                                        |
| COMAH Site                                                   | Explosive Site                                         |
| NIHHS Site                                                   | Explosive Site                                         |
| Planning Hazardous Substance Consent                         | Explosive Site                                         |
| Planning Hazardous Substance Enforcement                     | Explosive Site                                         |
| BGS Recorded Mineral Site                                    | Explosive Site                                         |
| Geological                                                   |                                                        |
| BGS Recorded Mineral Site                                    | Explosive Site                                         |

### Site Sensitivity Map - Slice A



### Order Details

Order Number: 156832749\_1\_1  
Customer Ref: GE17077  
National Grid Reference: 451410, 114320  
Slice: A  
Site Area (Ha): 4.05  
Search Buffer (m): 1000

### Site Details

Land to the south of Maddoxford Lane, Boorley Green, Botley, SOUTHAMPTON, SO32 2DG

**Landmark**  
INFORMATION GROUP

Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: [www.envirocheck.co.uk](http://www.envirocheck.co.uk)



## Geo-Environmental Industrial Land Use Map

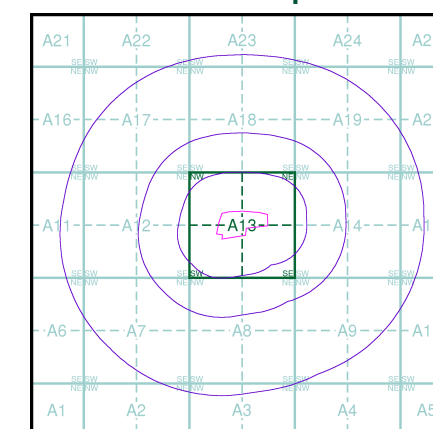
### General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

### Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Gas Pipeline
- Points of Interest - Commercial Services
- Points of Interest - Education and Health
- Points of Interest - Manufacturing and Production
- Points of Interest - Public Infrastructure
- Points of Interest - Recreational and Environmental
- Underground Electrical Cables

### Industrial Land Use Map - Slice A



### Order Details

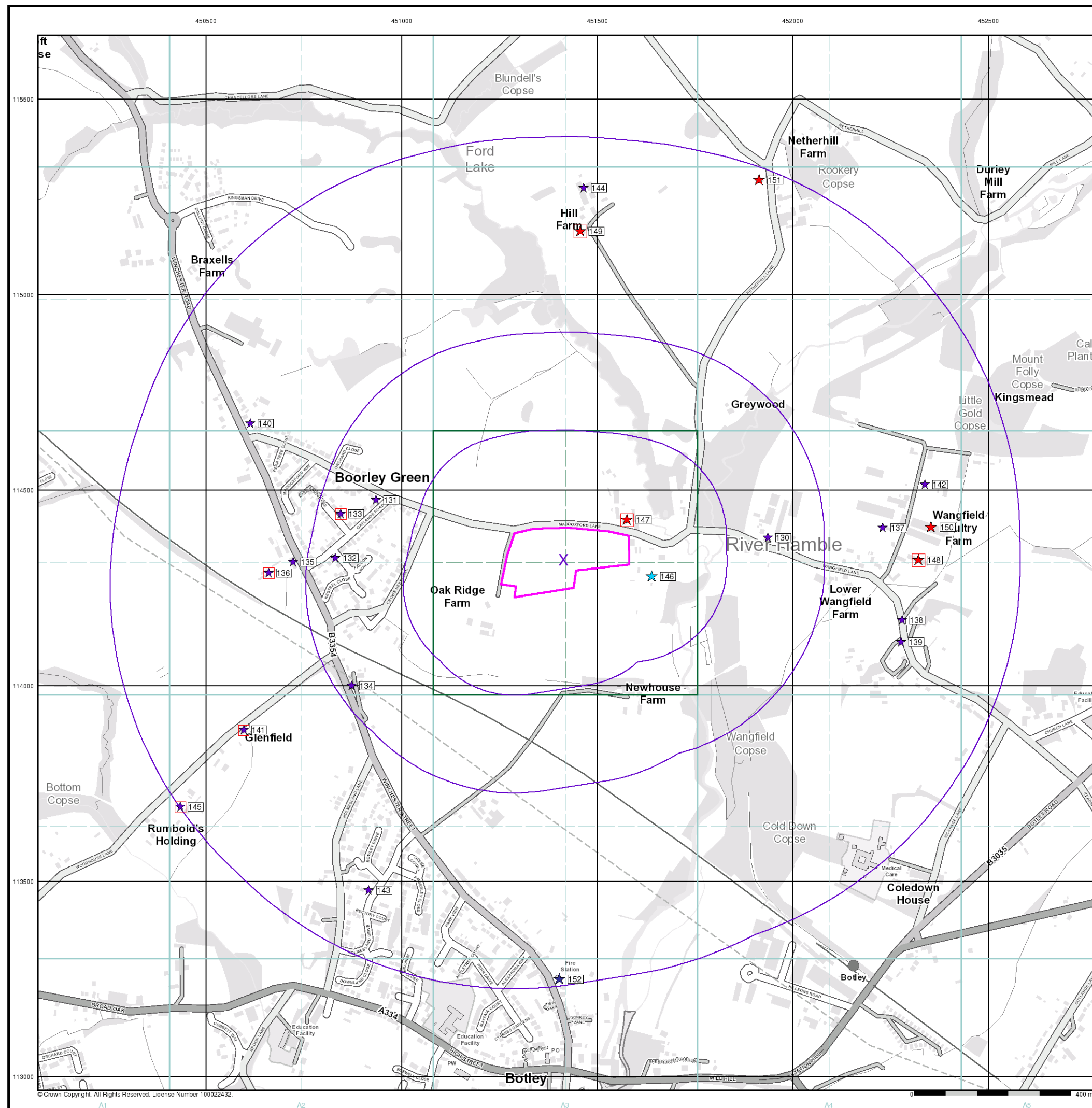
Order Number: 156832749\_1\_1  
Customer Ref: GE17077  
National Grid Reference: 451410, 114320  
Slice: A  
Site Area (Ha): 4.05  
Search Buffer (m): 1000

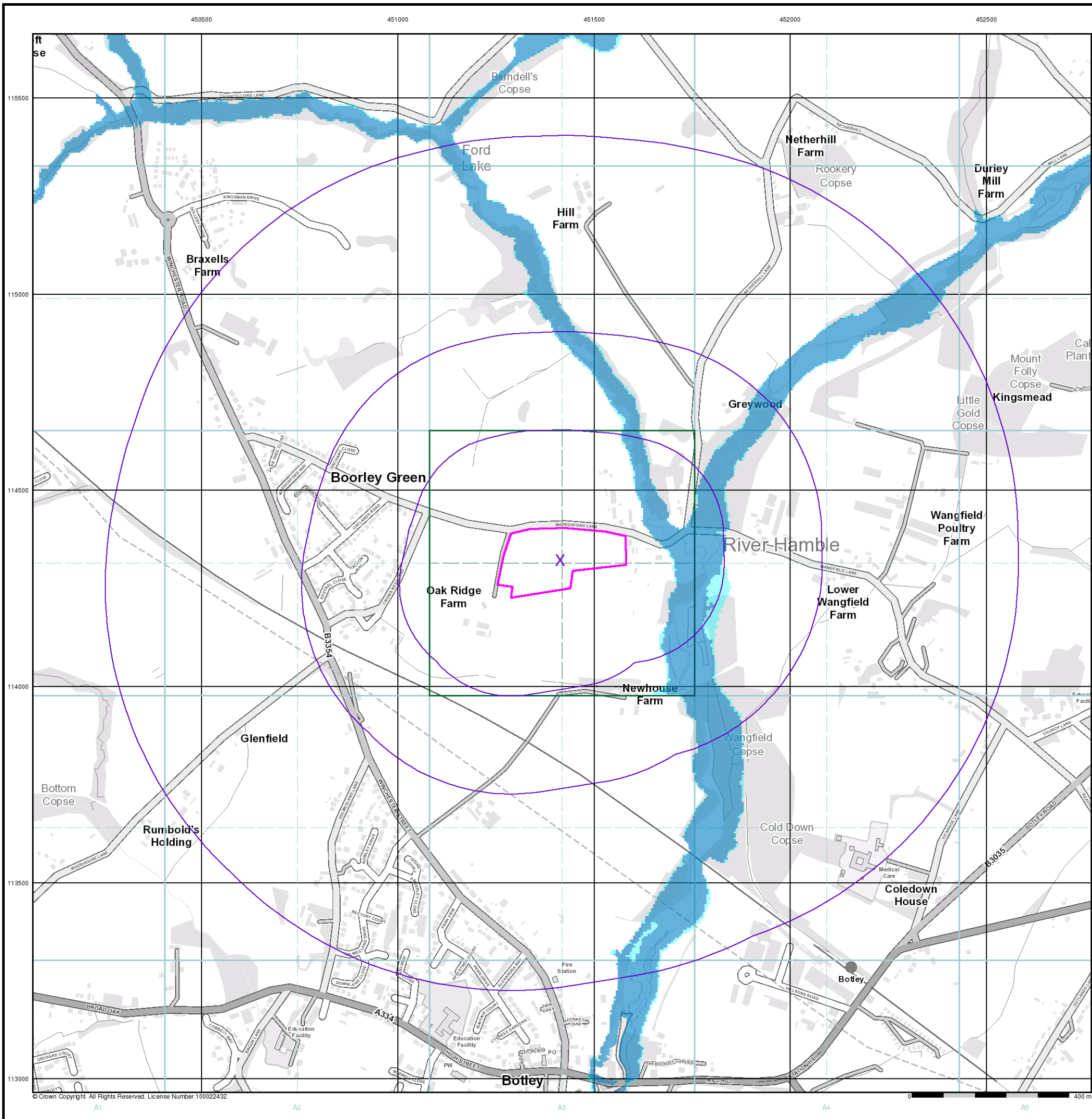
### Site Details

Land to the south of Maddoxford Lane, Boorley Green, Botley,  
SOUTHAMPTON, SO32 2DG

**Landmark**  
INFORMATION GROUP

Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: [www.envirocheck.co.uk](http://www.envirocheck.co.uk)





© Crown Copyright. All Rights Reserved. License Number 100022432.



## Geo-Environmental

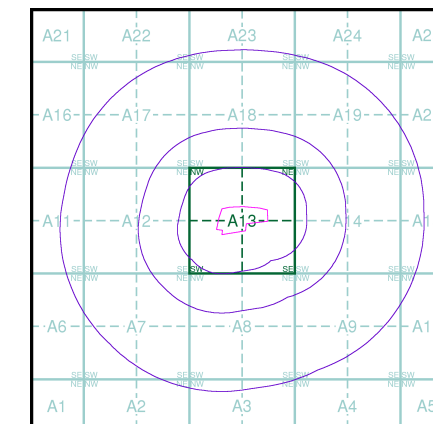
### General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

### Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

### Flood Map - Slice A



### Order Details

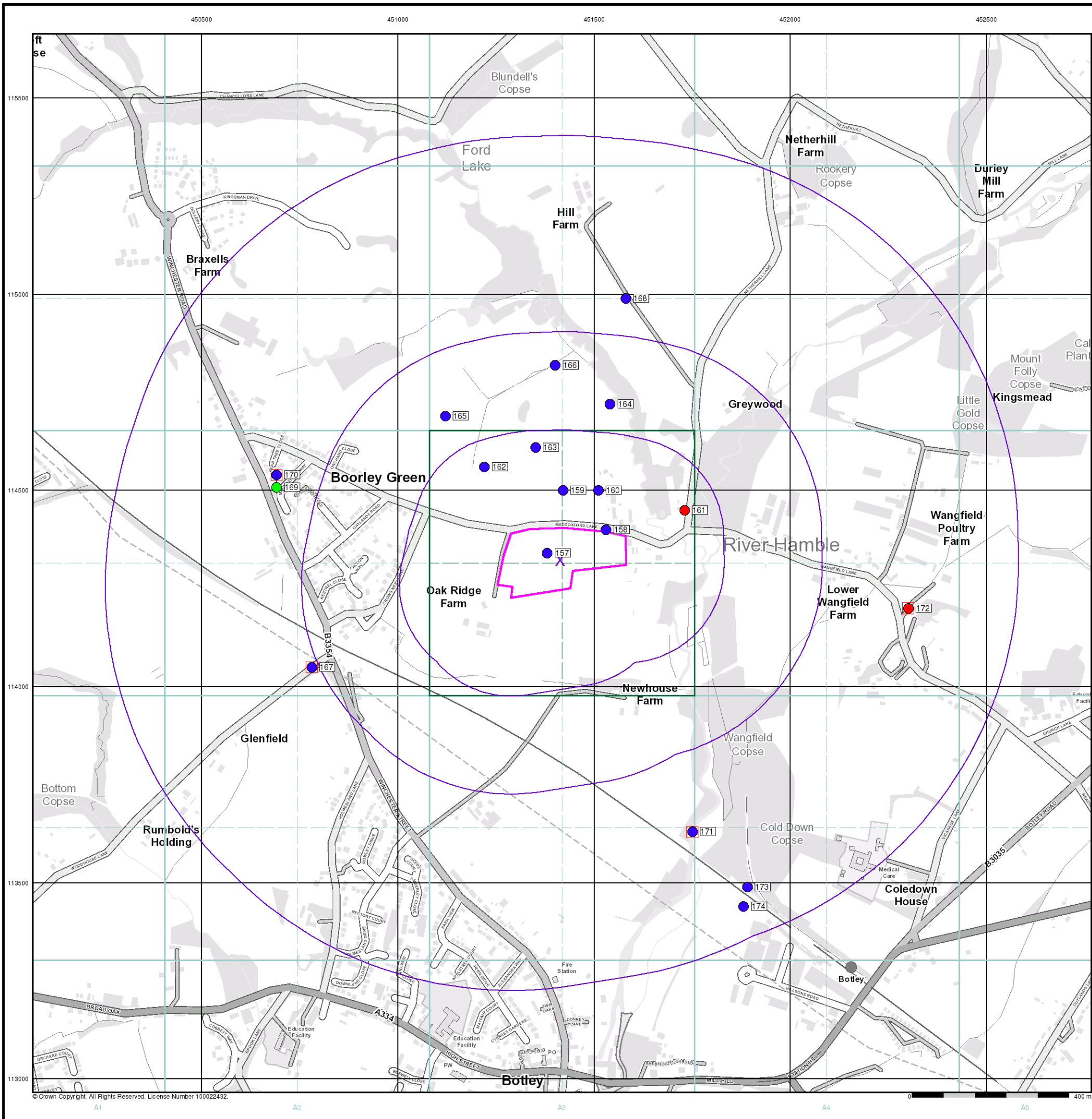
Order Number: 156832749\_1\_1  
 Customer Ref: GE17077  
 National Grid Reference: 451410, 114320  
 Slice: A  
 Site Area (Ha): 4.05  
 Search Buffer (m): 1000

### Site Details

Land to the south of Maddoxford Lane, Boorley Green, Botley,  
 SOUTHAMPTON, SO32 2DG

**Landmark**  
 INFORMATION GROUP

Tel: 0844 844 9952  
 Fax: 0844 844 9951  
 Web: [www.envirocheck.co.uk](http://www.envirocheck.co.uk)



© Crown Copyright. All Rights Reserved. License Number 100022432.



## Geo-Environmental

### General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location

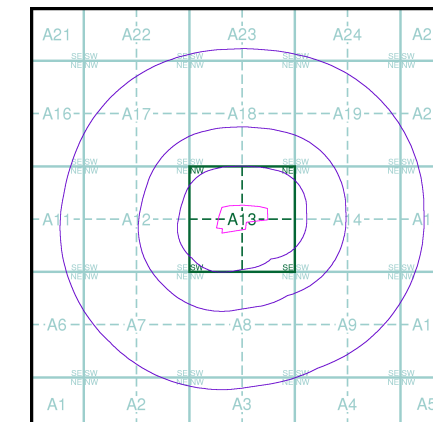
### Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of [www.envirocheck.co.uk](http://www.envirocheck.co.uk).

### Borehole Map - Slice A



### Order Details

Order Number: 156832749\_1\_1  
Customer Ref: GE17077  
National Grid Reference: 451410, 114320  
Slice: A  
Site Area (Ha): 4.05  
Search Buffer (m): 1000

### Site Details

Land to the south of Maddoxford Lane, Boorley Green, Botley, SOUTHAMPTON, SO32 2DG

**Landmark**  
INFORMATION GROUP

Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: [www.envirocheck.co.uk](http://www.envirocheck.co.uk)



## Geo-Environmental

### General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

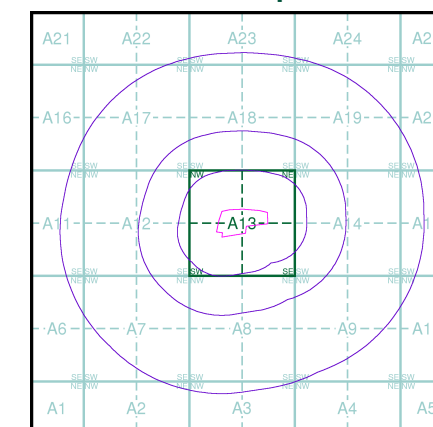
### OS Water Network Data

- |              |                         |
|--------------|-------------------------|
| Canal        | Drain                   |
| Reservoir    | Other                   |
| Foreshore    | Lake                    |
| Marsh        | Transfer                |
| Tidal River  | Lock Or Flight Of Locks |
| Inland River | Sea                     |

### Contours (height in meters)

- Standard Contour 105 100 95
- Master Contour
- Spot Height 167.3
- MLW Mean Low Water
- MHW Mean High Water

### OS Water Network Map - Slice A



### Order Details

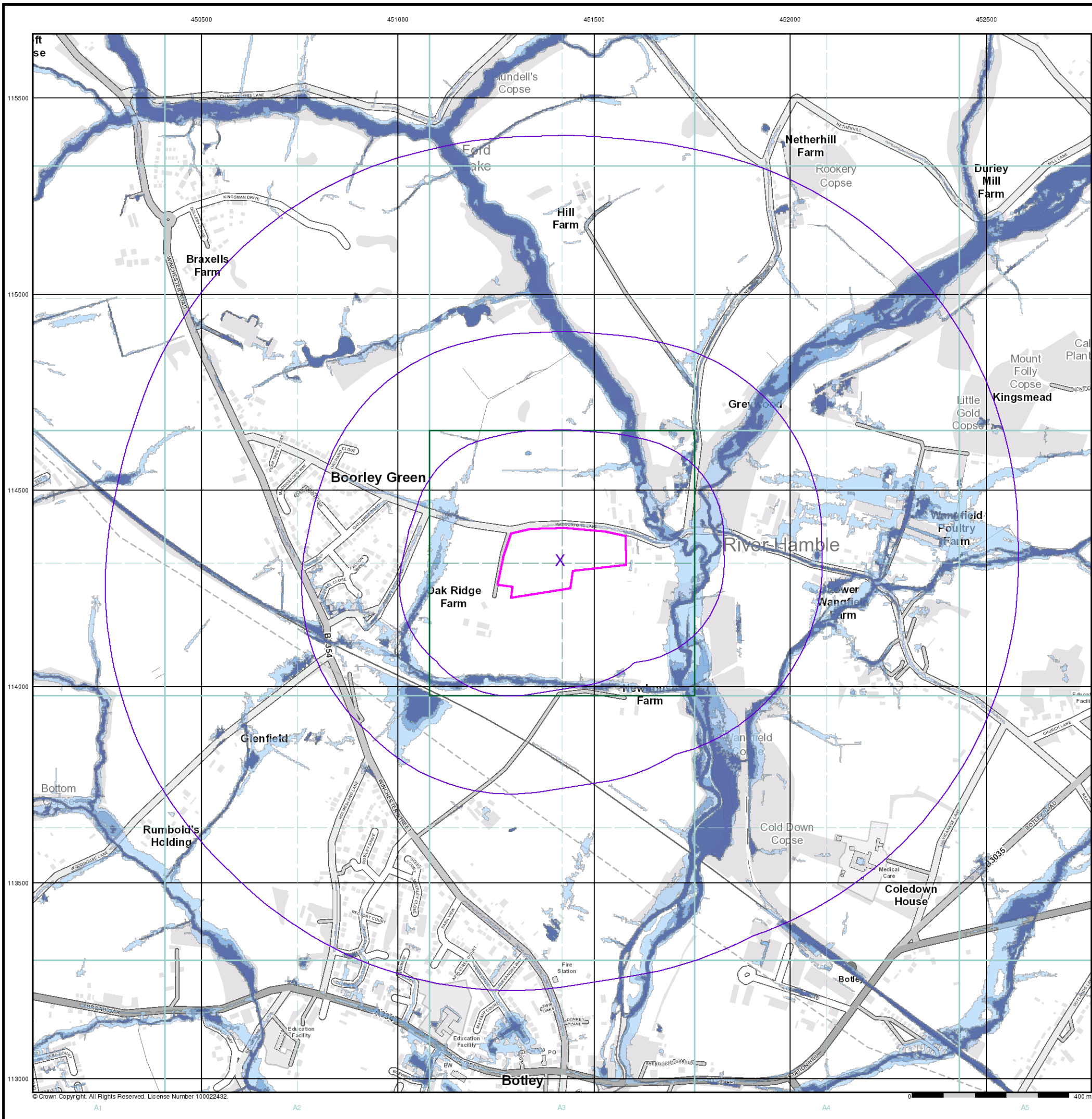
Order Number: 156832749\_1\_1  
Customer Ref: GE17077  
National Grid Reference: 451410, 114320  
Slice: A  
Site Area (Ha): 4.05  
Search Buffer (m): 1000

### Site Details

Land to the south of Maddoxford Lane, Boorley Green, Botley, SOUTHAMPTON, SO32 2DG

**Landmark**  
INFORMATION GROUP

Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: www.envirocheck.co.uk



© Crown Copyright. All Rights Reserved. License Number 100022432.



## Geo-Environmental

### General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point

### Risk of Flooding from Surface Water

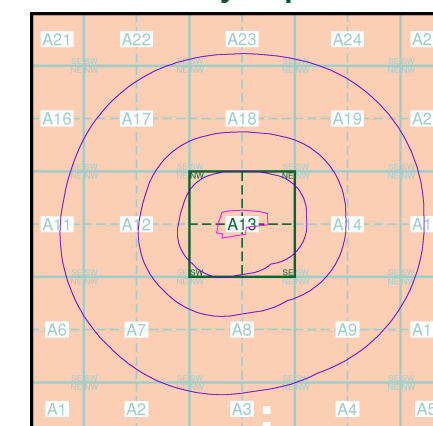
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

### Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

### EA/NRW Suitability Map - Slice A



### Order Details

Order Number: 156832749\_1\_1  
Customer Ref: GE17077  
National Grid Reference: 451410, 114320  
Slice: A  
Site Area (Ha): 4.05  
Search Buffer (m): 1000

### Site Details

Land to the south of Maddoxford Lane, Boorley Green, Botley, SOUTHAMPTON, SO32 2DG

**Landmark**  
INFORMATION GROUP

Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: [www.envirocheck.co.uk](http://www.envirocheck.co.uk)



© Crown Copyright. All Rights Reserved. License Number 100022432.



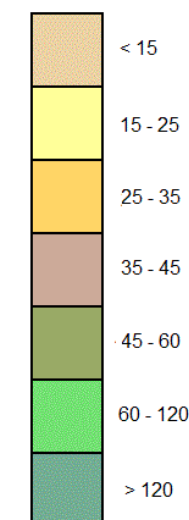
## Geo-Environmental

### General

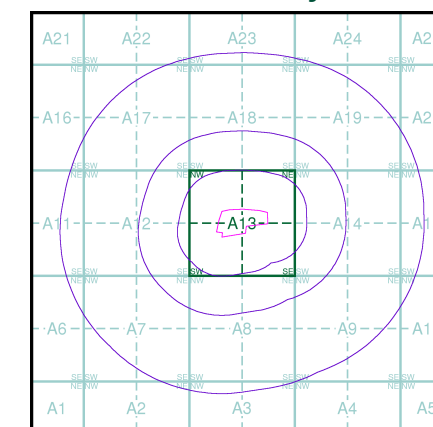
Specified Site Specified Buffer(s) Bearing Reference Point

### Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



### Estimated Soil Chemistry Arsenic - Slice A



### Order Details

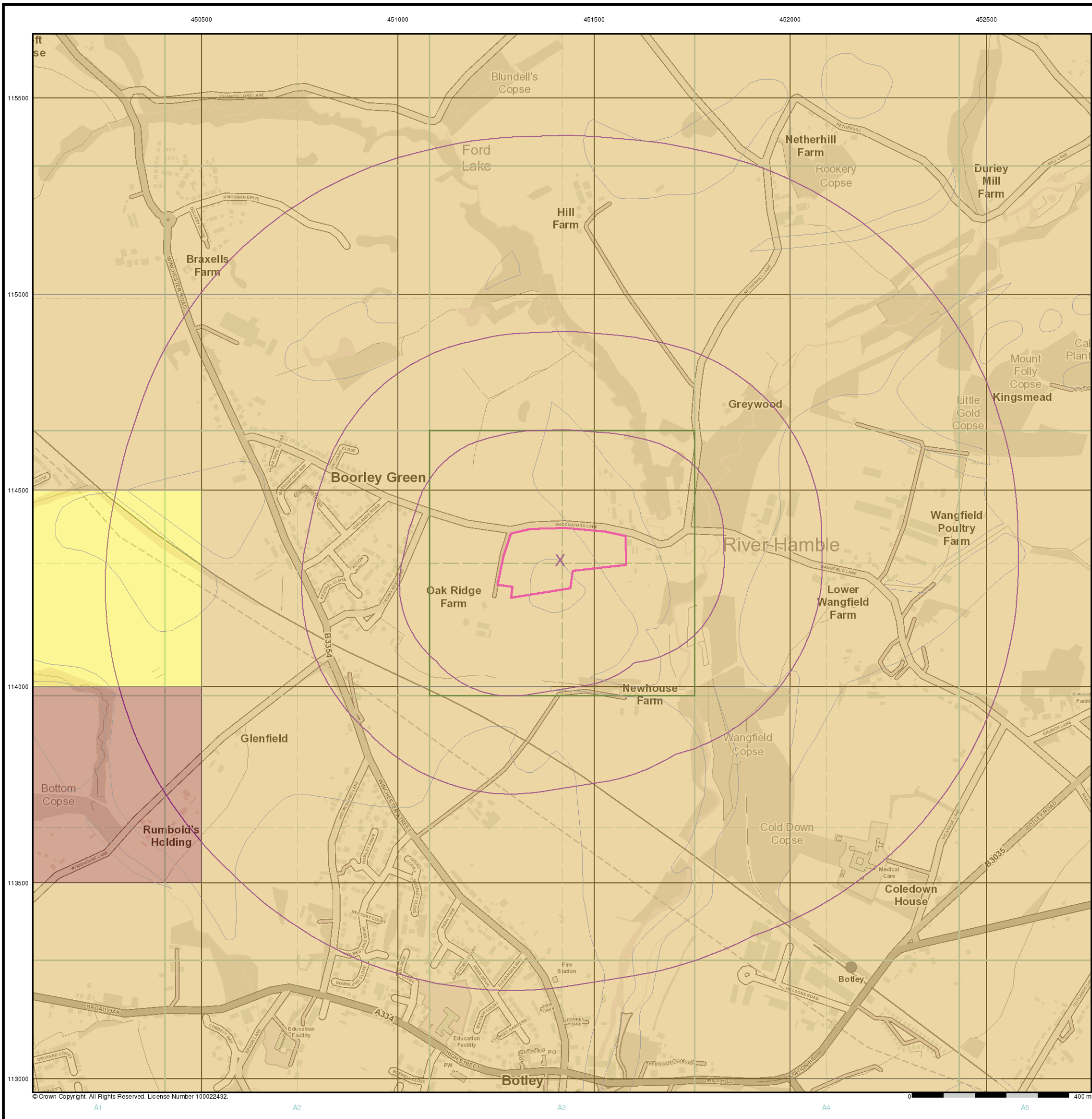
Order Details: 156832749\_1\_1  
Customer Ref: GE17077  
National Grid Reference: 451410, 114320  
Slice: A  
Site Area (Ha): 4.05  
Search Buffer (m): 1000

### Site Details

Land to the south of Maddoxford Lane, Boorley Green, Botley, SOUTHAMPTON, SO32 2DG

**Landmark**  
INFORMATION GROUP

Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: [www.envirocheck.co.uk](http://www.envirocheck.co.uk)



© Crown Copyright. All Rights Reserved. License Number 100022432.



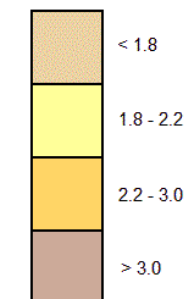
## Geo-Environmental

### General

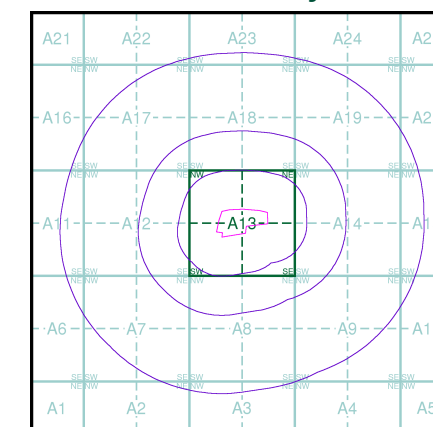
Specified Site Specified Buffer(s) Bearing Reference Point

### Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



### Estimated Soil Chemistry Cadmium - Slice A



### Order Details

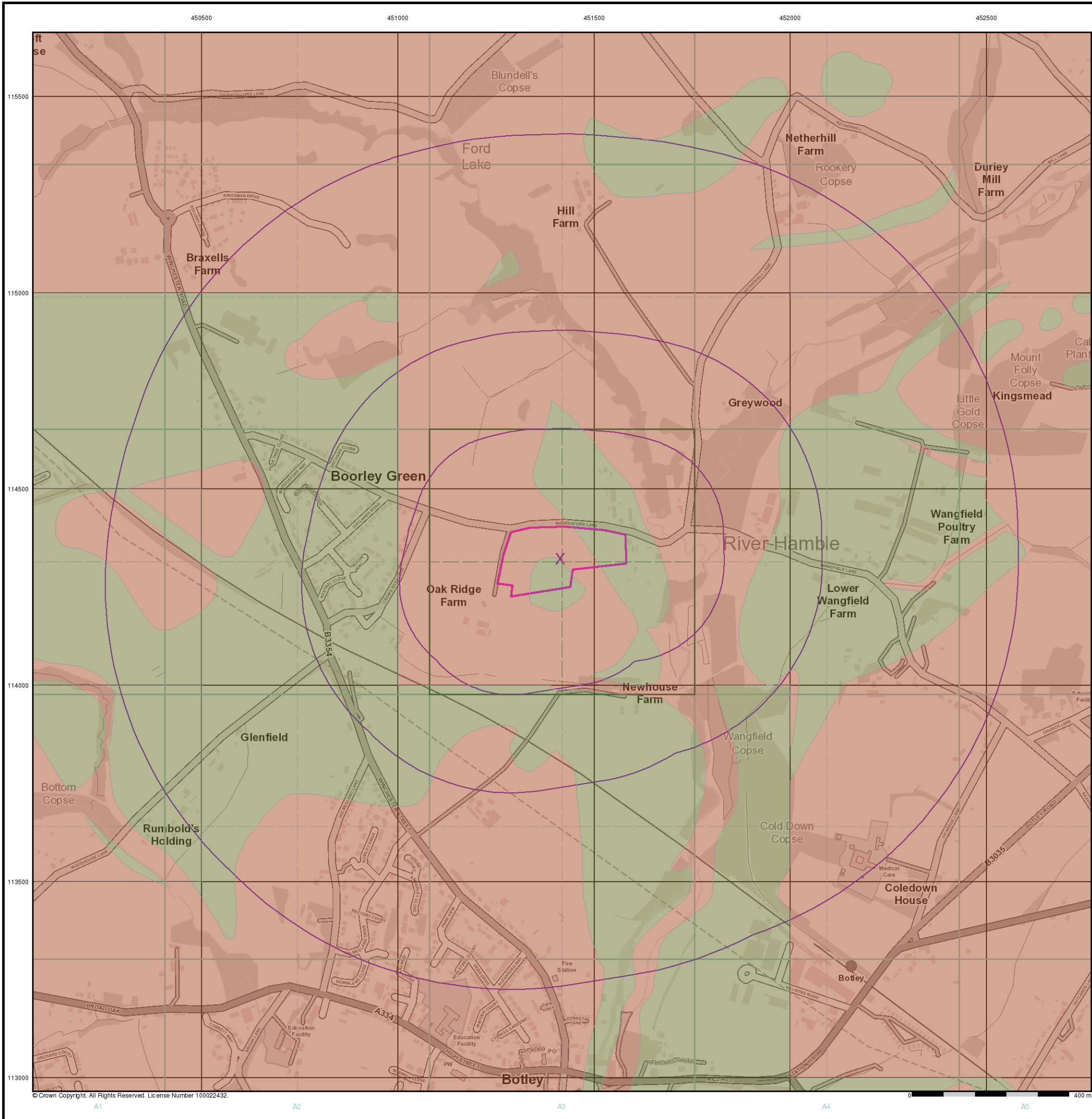
Order Details: 156832749\_1\_1  
Customer Ref: GE17077  
National Grid Reference: 451410, 114320  
Slice: A  
Site Area (Ha): 4.05  
Search Buffer (m): 1000

### Site Details

Land to the south of Maddoxford Lane, Boorley Green, Botley, SOUTHAMPTON, SO32 2DG

**Landmark**  
INFORMATION GROUP

Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: [www.envirocheck.co.uk](http://www.envirocheck.co.uk)



© Crown Copyright. All Rights Reserved. License Number 100022432.



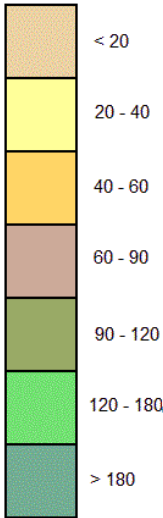
# Geo-Environmental

## General

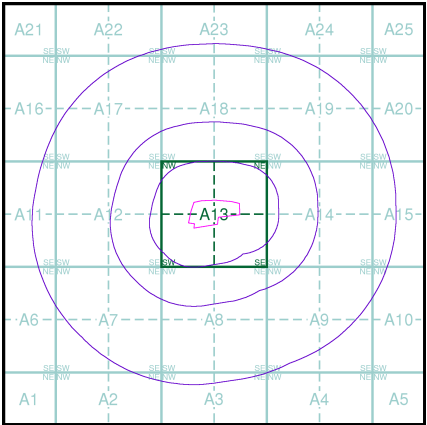
Specified Site      Specified Buffer(s)      Bearing Reference Point

## Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



## Estimated Soil Chemistry Chromium - Slice A



## Order Details

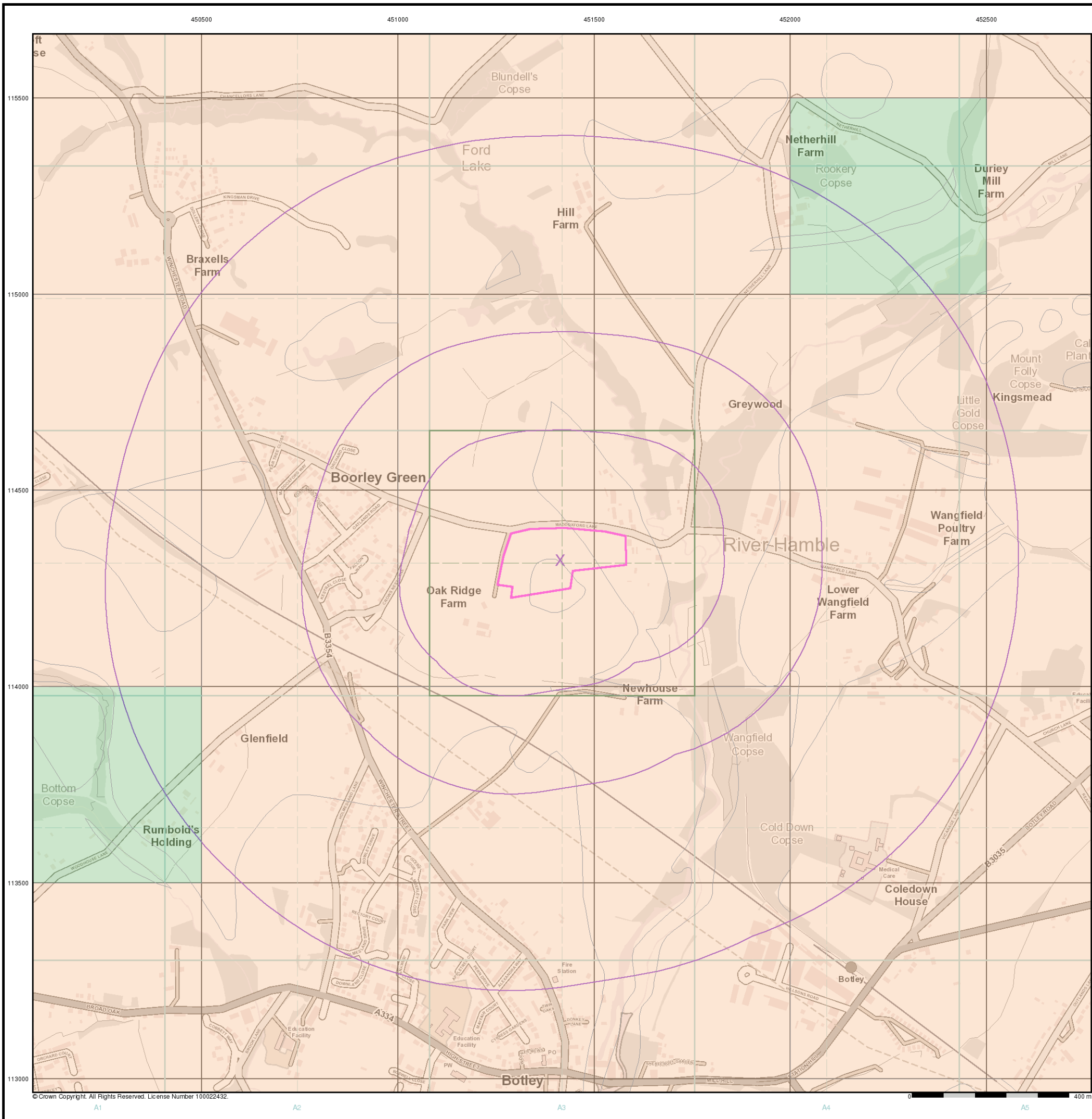
Order Details: 156832749\_1\_1  
Customer Ref: GE17077  
National Grid Reference: 451410, 114320  
Slice: A  
Site Area (Ha): 4.05  
Search Buffer (m): 1000

## Site Details

Land to the south of Maddoxford Lane, Boorley Green, Botley, SOUTHAMPTON, SO32 2DG



Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: [www.envirocheck.co.uk](http://www.envirocheck.co.uk)



© Crown Copyright. All Rights Reserved. License Number 100022432.



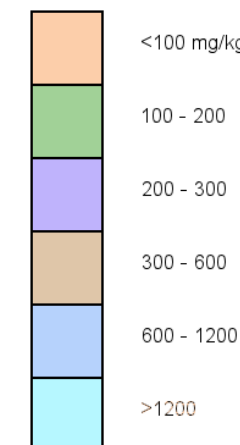
## Geo-Environmental

### General

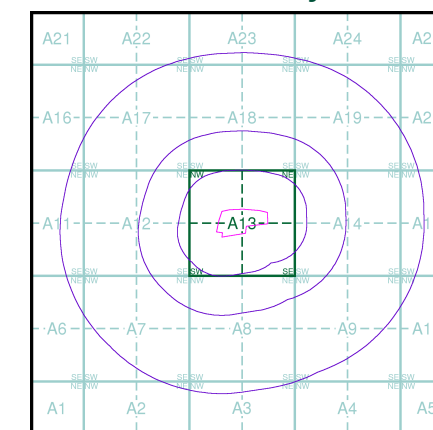
Specified Site Specified Buffer(s) Bearing Reference Point

### Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



### Estimated Soil Chemistry Lead - Slice A



### Order Details

Order Details: 156832749\_1\_1  
Customer Ref: GE17077  
National Grid Reference: 451410, 114320  
Slice: A  
Site Area (Ha): 4.05  
Search Buffer (m): 1000

### Site Details

Land to the south of Maddoxford Lane, Boorley Green, Botley, SOUTHAMPTON, SO32 2DG

**Landmark**  
INFORMATION GROUP

Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: [www.envirocheck.co.uk](http://www.envirocheck.co.uk)



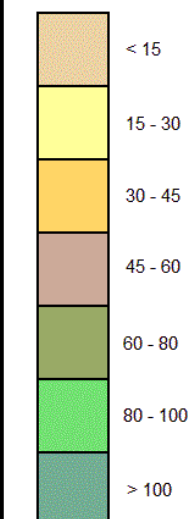
## Geo-Environmental

### General

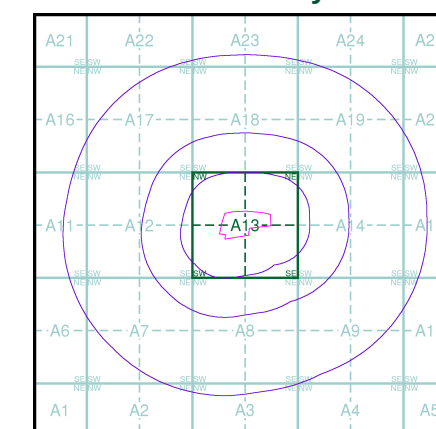
Specified Site Specified Buffer(s) Bearing Reference Point

### Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



### Estimated Soil Chemistry Nickel - Slice A



### Order Details

Order Details: 156832749\_1\_1  
Customer Ref: GE17077  
National Grid Reference: 451410, 114320  
Slice: A  
Site Area (Ha): 4.05  
Search Buffer (m): 1000

### Site Details

Land to the south of Maddoxford Lane, Boorley Green, Botley, SOUTHAMPTON, SO32 2DG

**Landmark**  
INFORMATION GROUP

Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: www.envirocheck.co.uk

# Historical Mapping Legends

## Ordnance Survey County Series 1:10,560

|  |                                               |  |                             |  |               |
|--|-----------------------------------------------|--|-----------------------------|--|---------------|
|  | Gravel Pit                                    |  | Sand Pit                    |  | Other Pits    |
|  | Quarry                                        |  | Shingle                     |  | Orchard       |
|  | Osiers                                        |  | Reeds                       |  | Marsh         |
|  | Mixed Wood                                    |  | Deciduous                   |  | Brushwood     |
|  | Fir                                           |  | Furze                       |  | Rough Pasture |
|  | Arrow denotes flow of water                   |  | Trigonometrical Station     |  |               |
|  | Site of Antiquities                           |  | Bench Mark                  |  |               |
|  | Pump, Guide Post, Signal Post                 |  | Well, Spring, Boundary Post |  |               |
|  | 285 Surface Level                             |  |                             |  |               |
|  | Sketched Contour                              |  | Instrumental Contour        |  |               |
|  | Main Roads                                    |  | Minor Roads                 |  |               |
|  | Sunken Road                                   |  | Raised Road                 |  |               |
|  | Road over Railway                             |  | Railway over River          |  |               |
|  | Railway over Road                             |  | Level Crossing              |  |               |
|  | Road over River or Canal                      |  | Road over Stream            |  |               |
|  | Road over Stream                              |  |                             |  |               |
|  | County Boundary (Geographical)                |  |                             |  |               |
|  | County & Civil Parish Boundary                |  |                             |  |               |
|  | Administrative County & Civil Parish Boundary |  |                             |  |               |
|  | County Borough Boundary (England)             |  |                             |  |               |
|  | County Burgh Boundary (Scotland)              |  |                             |  |               |
|  | Rural District Boundary                       |  |                             |  |               |
|  | Civil Parish Boundary                         |  |                             |  |               |

## Ordnance Survey Plan 1:10,000

|  |                                                                       |  |                                                         |
|--|-----------------------------------------------------------------------|--|---------------------------------------------------------|
|  | Chalk Pit, Clay Pit or Quarry                                         |  | Gravel Pit                                              |
|  | Sand Pit                                                              |  | Disused Pit or Quarry                                   |
|  | Refuse or Slag Heap                                                   |  | Lake, Loch or Pond                                      |
|  | Dunes                                                                 |  | Boulders                                                |
|  | Coniferous Trees                                                      |  | Non-Coniferous Trees                                    |
|  | Orchard                                                               |  | Scrub                                                   |
|  | Bracken                                                               |  | Heath                                                   |
|  | Marsh                                                                 |  | Reeds                                                   |
|  | Building                                                              |  | Glasshouse                                              |
|  | Sloping Masonry                                                       |  | Pylon                                                   |
|  | Cutting                                                               |  | Embankment                                              |
|  | Road Under                                                            |  | Road Over                                               |
|  | Level Crossing                                                        |  | Foot Bridge                                             |
|  | Standard Gauge Multiple Track                                         |  | Standard Gauge Single Track                             |
|  | Siding, Tramway or Mineral Line                                       |  | Narrow Gauge                                            |
|  | Geographical County                                                   |  | Administrative County, County Borough or County of City |
|  | Municipal Borough, Urban or Rural District, Burgh or District Council |  | Borough, Burgh or County Constituency                   |
|  | Civil Parish                                                          |  |                                                         |
|  | Boundary Post or Stone                                                |  | Police Station                                          |
|  | Church                                                                |  | Post Office                                             |
|  | Club House                                                            |  | Public Convenience                                      |
|  | Fire Engine Station                                                   |  | Public House                                            |
|  | Foot Bridge                                                           |  | Signal Box                                              |
|  | Fountain                                                              |  | Spring                                                  |
|  | Guide Post                                                            |  | Telephone Call Box                                      |
|  | Mile Post                                                             |  | Telephone Call Post                                     |
|  | Mile Stone                                                            |  | Well                                                    |

## 1:10,000 Raster Mapping

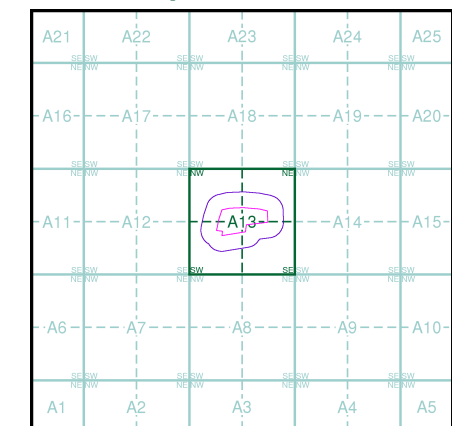
|  |                                                          |  |                                            |
|--|----------------------------------------------------------|--|--------------------------------------------|
|  | Gravel Pit                                               |  | Refuse tip or slag heap                    |
|  | Rock                                                     |  | Rock (scattered)                           |
|  | Boulders                                                 |  | Boulders (scattered)                       |
|  | Shingle                                                  |  | Mud                                        |
|  | Sand                                                     |  | Sand Pit                                   |
|  | Slopes                                                   |  | Top of cliff                               |
|  | General detail                                           |  | Underground detail                         |
|  | Overhead detail                                          |  | Narrow gauge railway                       |
|  | Multi-track railway                                      |  | Single track railway                       |
|  | County boundary (England only)                           |  | Civil, parish or community boundary        |
|  | District, Unitary, Metropolitan, London Borough boundary |  | Constituency boundary                      |
|  | Area of wooded vegetation                                |  | Non-coniferous trees                       |
|  | Non-coniferous trees (scattered)                         |  | Coniferous trees                           |
|  | Coniferous trees (scattered)                             |  | Positioned tree                            |
|  | Orchard                                                  |  | Coppice or Osiers                          |
|  | Rough Grassland                                          |  | Heath                                      |
|  | Scrub                                                    |  | Marsh, Salt Marsh or Reeds                 |
|  | Water feature                                            |  | Flow arrows                                |
|  | Mean high water (springs)                                |  | Mean low water (springs)                   |
|  | Telephone line (where shown)                             |  | Electricity transmission line (with poles) |
|  | Bench mark (where shown)                                 |  | Triangulation station                      |
|  | Point feature (e.g. Guide Post or Mile Stone)            |  | Pylon, flare stack or lighting tower       |
|  | Site of (antiquity)                                      |  | Glasshouse                                 |
|  | General Building                                         |  | Important Building                         |



## Geo-Environmental Historical Mapping & Photography included:

| Mapping Type                  | Scale    | Date        | Pg |
|-------------------------------|----------|-------------|----|
| Hampshire & Isle Of Wight     | 1:10,560 | 1871        | 2  |
| Hampshire & Isle Of Wight     | 1:10,560 | 1897        | 3  |
| Hampshire & Isle Of Wight     | 1:10,560 | 1910        | 4  |
| Historical Aerial Photography | 1:10,560 | 1947 - 1948 | 5  |
| Ordnance Survey Plan          | 1:10,000 | 1962        | 6  |
| Ordnance Survey Plan          | 1:10,000 | 1968        | 7  |
| Ordnance Survey Plan          | 1:10,000 | 1987 - 1989 | 8  |
| 10K Raster Mapping            | 1:10,000 | 2000        | 9  |
| 10K Raster Mapping            | 1:10,000 | 2006        | 10 |
| VectorMap Local               | 1:10,000 | 2018        | 11 |

## Historical Map - Slice A



## Order Details

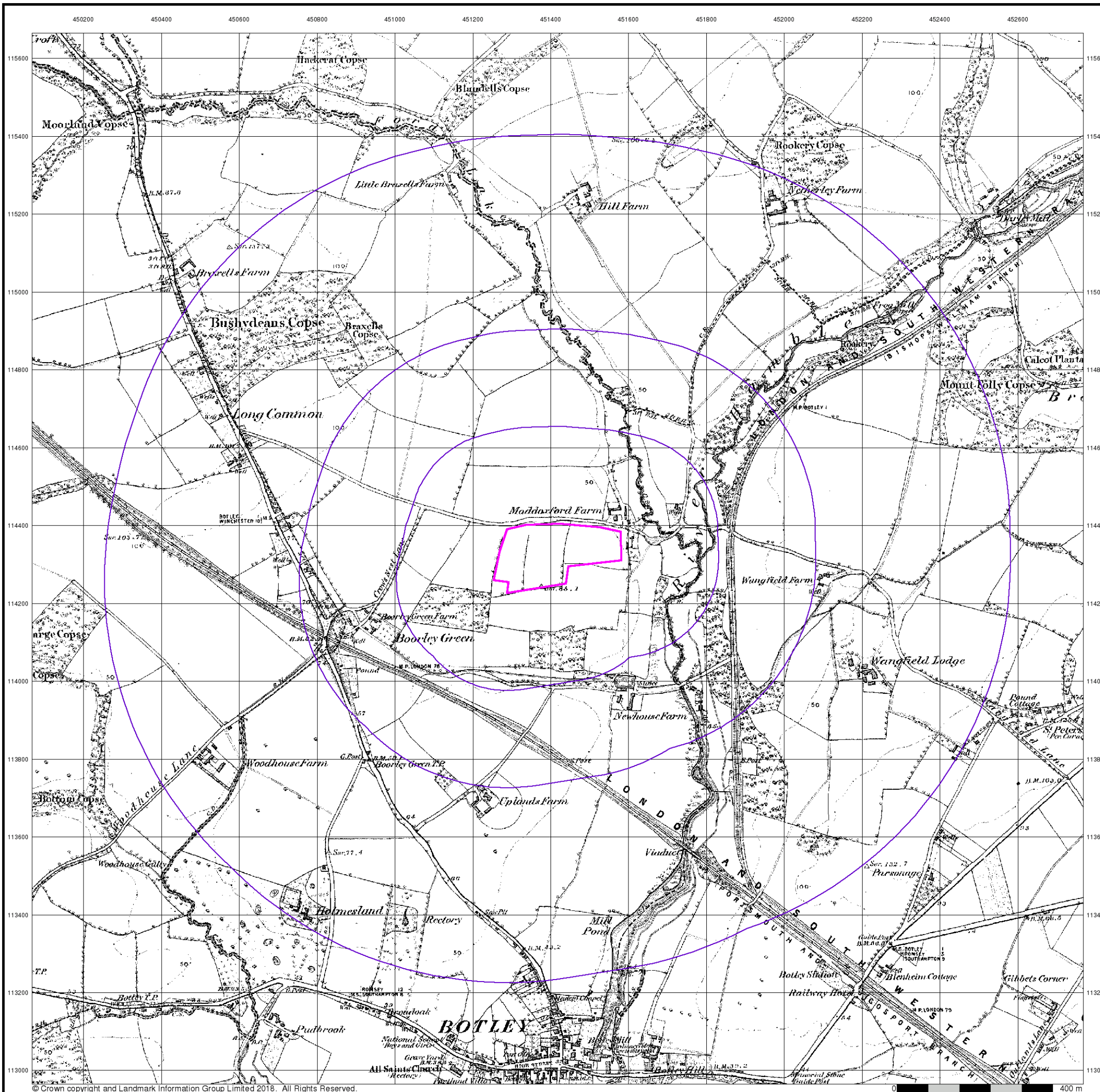
Order Number: 156832749\_1\_1  
Customer Ref: GE17077  
National Grid Reference: 451410, 114320  
Slice: A  
Site Area (Ha): 4.05  
Search Buffer (m): 1000

## Site Details

Land to the south of Maddoxford Lane, Boorley Green, Botley, SOUTHAMPTON, SO32 2DG

**Landmark**  
INFORMATION GROUP

Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2018. All Rights Reserved.



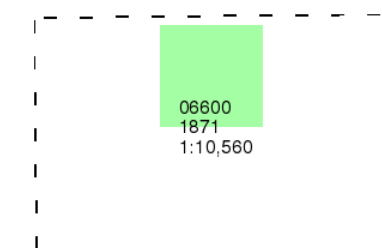
## Geo-Environmental Hampshire & Isle Of Wight

Published 1871

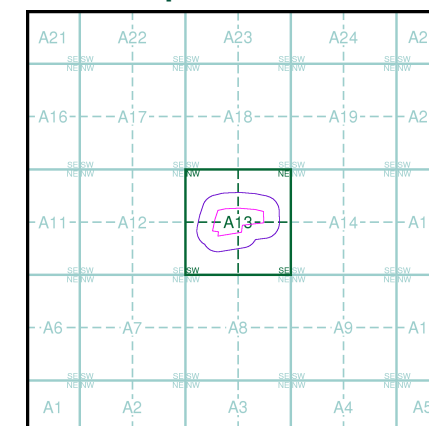
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

### Map Name(s) and Date(s)



### Historical Map - Slice A



### Order Details

Order Number: 156832749\_1\_1  
Customer Ref: GE17077  
National Grid Reference: 451410, 114320  
Slice: A  
Site Area (Ha): 4.05  
Search Buffer (m): 1000

### Site Details

Land to the south of Maddoxford Lane, Boorley Green, Botley, SOUTHAMPTON, SO32 2DG

**Landmark**  
INFORMATION GROUP

Tel: 0844 844 9952  
Fax: 0844 844 9951  
Web: [www.envirocheck.co.uk](http://www.envirocheck.co.uk)