### PROJECT QUALITY CONTROL DATA SHEET

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<th>Site Name:</th>
<th>Church Raike, Chipping</th>
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<tr>
<td>Report Title:</td>
<td>Desk Study Assessment Report</td>
</tr>
<tr>
<td>Report Number:</td>
<td>LC/C2179/3452</td>
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<th>Engineer:</th>
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<td>Speke</td>
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<tr>
<td>L24 9LG</td>
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<table>
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<tr>
<th>Contact: Mr Johnson Mulk</th>
<th>Contact:</th>
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<tr>
<th>Revision</th>
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CONTENTS

1.0 INTRODUCTION ........................................................................................................... 1

2.0 THE SITE .................................................................................................................... 2
   2.1 LOCATION & ACCESS ............................................................................................... 2
   2.2 SURROUNDING LAND USE ..................................................................................... 2
   2.3 SITE DESCRIPTION .................................................................................................. 2

3.0 ENVIRONMENTAL SETTING .................................................................................... 4
   3.1 PUBLISHED GEOLOGY ......................................................................................... 4
   3.2 HYDROGEOLOGY .................................................................................................. 4
   3.3 HYDROLOGY .......................................................................................................... 4
   3.4 HISTORICAL SETTING ......................................................................................... 5
   3.5 ENVIRONMENTAL SEARCHES ............................................................................. 6
   3.6 COAL AUTHORITY SEARCH .................................................................................. 7

4.0 ENVIRONMENTAL DISCUSSION ............................................................................. 8
   4.1 CONTAMINATIVE SOURCES ................................................................................ 8
   4.2 SITE CONCEPTUAL MODEL ................................................................................ 8

5.0 DEVELOPMENT CONSTRAINTS ............................................................................. 10
   5.1 FOUNDATIONS ..................................................................................................... 10
   5.2 OTHER CONSTRAINTS .......................................................................................... 10

6.0 CONCLUSIONS AND RECOMMENDATIONS ......................................................... 11

DRAWINGS

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<td>Site Features Plan</td>
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APPENDICES

APPENDIX A Historical Maps
APPENDIX B Environmental Health Officers Report
APPENDIX C Groundsure Report
APPENDIX D Limitations
1.0 INTRODUCTION

1.1 This report describes a Desk Study Assessment carried out by Brownfield Solutions Limited (BSL) out for Prospect GB on a site off Church Raike, Chipping.

1.2 The objectives of the Desk Study Assessment were to determine the sites environmental setting and likely site conditions, highlighting potential areas of concern that may govern the sites development.

1.3 This Desk Study Assessment has been carried out based on information obtained from a number of areas, BSL have assumed that this information is correct.
2.0 THE SITE

2.1 Location & Access

2.1.1 The site is located close to the centre of Chipping approximately 12km west of Clitheroe. The site is either side of Church Raike as indicated on the site location Plan C2179/01. The site is centred on National Grid Reference SJ 6192 4347.

2.1.2 Access to the site is gained from two points, owing to the site being split by the road. Access to the southern portion of the site is gained via a track of Church Raike on the north western side at the cricket ground. Access to the northern portion of the site is gained via Malt Kiln Brow.

2.2 Surrounding Land Use

2.2.1 The southern section of the site is bounded to the south by residential buildings. To the west of the site a single dwelling abuts the site along with fields. The eastern portion of the site is bounded by dense vegetation.

2.2.2 The northern boundary is primarily open fields with a major water course partially abutting the northern boundary. The eastern corner of the site is bounded by housing along Malt Kiln Brow. To the south the site is bounded by a minor water course and the road.

2.2.3 A mill lies further east of the site with further residential and commercial properties to the south.

2.3 Site Description

2.3.1 The site is split by a road, therefore for the purpose of this study the site will be referred to in two sections; the northern and southern sections. A walkover survey was carried out on the site on the 7th January 2013. The main site features and potential issues identified during this survey are detailed below.

2.3.2 The northern portion of the site is steeply sloping to the south. Along the southern boundary a minor water course lies at the bottom of a ditch. This is further bounded by a retaining wall of 3-4m in height. The road splitting the site lies at the top of the retaining wall.

2.3.3 The southern part of the site comprises two fields; including a cricket ground on the west and a wooded area to the east, which are separated by hedgerows. The cricket ground includes a pavilion building on the western side. At the northern edge a near vertical slope with a maximum height of 2m separates the site from the road. The southern area slopes gently to the north east. This slope is at its steepest at the eastern side of the site and gradually flattens out towards the access point at the western side of the site.
2.3.4 The cricket pavilion lies at the southern side of the site; a small ditch marks the southern boundary.

2.3.5 Pertinent site features are shown on the Site Drawing C2179/02.
3.0 ENVIRONMENTAL SETTING

3.1 Published Geology

3.1.1 The following publications of the British Geological Survey (BGS) were examined in respect of the geology underlying the site:

- 1:50,000 Scale Geological Sheet Garstang 67, solid with drift edition.

3.1.2 The site is indicated to be underlain by Glacial Till with this strata typically comprising boulder clay.

3.1.3 The deeper solid Geology underlying the Glacial Till is the Park Style Limestone member, typically comprising Limestone in the north eastern part of the site with the remainder of the site consisting of the Lower Bowland Shale Formation typically comprising Mudstone and Sandstone.

3.1.4 There is one unnamed fault on site trending south west. The strata down throw is to the south east. This is considered very unlikely to affect the stability of the site.

3.2 Hydrogeology

3.2.1 The superficial deposits in this area are classified by the Environment Agency as falling into two categories. The first of which is a Secondary A aquifer (Strata with 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. These are generally aquifers formerly classed as minor aquifers). The second superficial deposit in the area is classed as an Unproductive Aquifer (Strata with rock layers or drift deposits with low permeability that have negligible significance for water supply or base river flow).

3.2.2 The deeper Mudstone is also classed as Secondary A aquifer.

3.2.3 The site is indicated not to lie within 500m of a Source Protection Zone, there are also no potable water or groundwater abstraction licences within 2000m of the site.

3.2.4 There are 4 surface water abstraction licences within 2000m of the site. The two nearest of these licences are located 866m from the site at a spring at Blackhall, Chipping.

3.3 Hydrology

3.3.1 A tertiary watercourse runs along the southern boundary of the northern section of the site.
3.3.2 An unnamed secondary watercourse lies 1m at its nearest point from the north of the entire site.

3.3.3 The nearest named watercourse to the site is Chipping Brook which is 261m from the site at its nearest point. Dobson’s Brook lies 321m from the site.

3.3.4 Several other secondary and tertiary unnamed watercourses lie within 250m of the site.

3.3.5 There is no River Quality Data within 1500m of the site.

3.3.6 Information obtained from the Environment Agency indicates that the north eastern area of the site could be affected by zone 2 and zone 3 flooding.

3.4 Historical Setting

3.4.1 Information has been obtained from historical Ordnance Survey Maps with the pertinent issues that may have affected the site or its environs summarised below.

3.4.2 The following plans produced by the Ordnance Survey were examined.

<table>
<thead>
<tr>
<th>Scale</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:1250</td>
<td>2012</td>
</tr>
</tbody>
</table>

The Site

3.4.3 The site has remained largely unchanged since the first map of 1846. Its primary usage has been open fields.

3.4.4 The 1968 map shows the cricket ground pavilion on the southern portion of the site. The Pavilion remains at present.

3.4.5 The easternmost part of the site is shown as wooded in 1994, there are no further changes to the present time.

Surrounding Area

3.4.6 The earliest map available of 1846 shows the site to be surrounded primarily by agricultural fields. A farm house and accompanying buildings is present to the west of the northern portion of the site. The north eastern boundary of the site is bounded by a workhouse and accompanying buildings. A building with a mill pond associated with is labelled as “Chipping Factory” and other industrial buildings are present to the east of the site.

3.4.7 The map of 1891 shows the workhouse is now labelled as Kirk House and Chipping Factory is now labelled as Chipping Chair Manufactory.
3.4.8 Between 1951 and have been incorporated to form and Kirk Mills respectively.

3.4.9 There are no major changes to the surrounding area until the map of 1951. The map of 1951 shows minor residential development to the south east of the site. There are no further marked changes.

3.4.10 The map of 1968 shows further development to the south east of the site. Chipping chair Manufactory is now labelled as Kirk Mills.

3.4.11 By 1982 the majority of the southern boundary of the site is bounded by housing.

3.4.12 There are no further notable changes to the surrounding area between 1982 and 2013.

3.4.13 The Historical Maps are presented in Appendix A.

3.5 Environmental Searches

3.5.1 A formal request was also been made to Ribble Valley Health Department for information pertaining to the site this information is presented in Appendix B. A summary of the relevant findings is presented below:

- The department is unaware of any environmental issues or land reclamation schemes that would affect the site.
- The site has not been identified as requiring further consideration under Part IIA of the Environmental Protection Act 1990.
- The site is unlikely to be subject of a remediation notice or considered a special site.
- The department is unaware of any landfill sites within 250m of the site.
- The department is unaware of any pollution incidents associated with the site or surrounding land.

3.5.2 An Environmental Search has been conducted through Groundsure, which utilises British Geological Survey and Environment Agency databases. The full report can be found in Appendix C. Although a summary of the more relevant findings is presented below.

Landfill Searches

3.5.3 There are no current registered landfill sites within 2000m of the site.

3.5.4 There are two historic landfill sites within 1000m of the site. Both these sites are located 642m from the site and are licenced to Colte Coates farm. The licence was surrendered on 29th April 1994 with the waste type noted as inert.

3.5.5 There are two records of non-operational landfill sites within 1000m of the site. The first at Black Hall farm, Garstang lies 110m from the site. The licence was last modified on 1st September 1981 and pertains to difficult
landfill with some restrictions on source of waste. The licence status for this site is noted as lapsed/cancelled/defunct/not applicable/surrendered. The second site is also located at Black Hall Farm but lies 673m from the site at its nearest point. The licence was last updated on the 1st January 1991 and the waste type is noted as inert. The licence for this site is also described as lapsed/cancelled/defunct/not applicable/surrendered.

Registered Waste Treatment/Transfer Sites
3.5.6 There are no licensed waste treatment/transfer sites within 500m of the site.

3.5.7 There are no records of Environment Agency licensed waste sites within 1500m of the study site.

Pollution Incidents
3.5.8 There is one recorded pollution incident affecting controlled surface waters within 250m of the site. There are no recorded pollution incidents affecting the site.

3.5.9 The nearest pollution incident is a Category 3 (minor incident) crude sewage pollution event recorded as affecting the local waterways 110m from the site on 15th January 2002.

Authorised Processes
3.5.10 There are no Local Authority IPC or IPPC processes within 250m of the site.

3.5.11 There is one Part A(2) / Part B authorised process 60m to the East, noted as wood processing and combustion at Kirk Mills.

Radon
3.5.12 The site is in an area where full radon precautions may be required in accordance BRE Report 211 ‘Radon – Guidance on protective measures for new dwellings’ 2007 Edition.

3.6 Coal Authority Search
3.6.1 The site does not lie in an area where the Law Society recommends a mining search be undertaken. Therefore a mining report is not included within this desk study assessment report.
4.0 ENVIRONMENTAL DISCUSSION

4.1 Contaminative Sources

4.1.1 From the information obtained during the desk study no significant sources of potential contamination have been identified which may affect redevelopment of the site for Residential purposes.

4.1.2 However the site's past may have led to some possible minor contamination of the near surface soils through the use of fertilizer and other unrecorded contaminants. Although given the site's relatively small size this is considered unlikely.

4.1.3 There is a former landfill site 110m from the site and thus may be a potential source of ground gas.

4.2 Site Conceptual Model

4.2.1 Potential sensitive targets that may be adversely affected by this contamination include, site end users, groundwater and surface waters. In addition construction workers may be at some short-term risk.

4.2.2 The risk assessment methodology used in this instance is based on Source – Pathway – Receptor (SPR) philosophy. The source is the presence of contamination, or substance/event likely to cause harm. The receptor is the target that may be detrimentally affected by the source. The pathway is the means of the contamination to move from the source to the receptor. Where any of these three factors are removed there is deemed to be no risk.

<table>
<thead>
<tr>
<th>Potential Contaminative Source / Location</th>
<th>Contaminant</th>
<th>Receptor</th>
<th>Likelihood</th>
<th>Justification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pesticides from farming</td>
<td>Pesticides</td>
<td>Site end users, construction workers</td>
<td>Low</td>
<td>Unlikely that significant contamination from pesticides is present. This should however be checked with contaminants testing. Therefore the risk is considered to be low.</td>
</tr>
<tr>
<td>Landfill site</td>
<td>Ground gases</td>
<td>Confined spaces in buildings</td>
<td>Low</td>
<td>Former landfill site situated 110m south west of the site received difficult waste. Therefore the risk is considered to be moderate. Ground gas monitoring should be undertaken to determine the risk to site end users.</td>
</tr>
<tr>
<td>Natural Rock</td>
<td>Radon gas</td>
<td>Confined spaces in buildings</td>
<td>High</td>
<td>Full Radon precautions are required. The risk is considered to be high.</td>
</tr>
</tbody>
</table>

4.2.3 At this stage the potential contaminants identified above are considered to present potential risks to proposed site end users through a variety of pathways, which include the following:
• Dermal contact with site end users
• Intake of contaminated vegetables grown in impacted soils.
• Inhalation of contaminated dusts
• Contact and or inhalation with contaminated perched groundwater’s
• Migration into internal buildings and inhalation of asphyxiating and toxic ground gases

Therefore it is recommended that an intrusive investigation is undertaken to establish and quantify the contaminants present on site, refine the site conceptual model, define groundwater levels and direction and the presence of any ground gasses. This will enable the risks to be refined and quantified and ultimately allow an effective remedial strategy to be designed if required.
5.0 DEVELOPMENT CONSTRAINTS

5.1 Foundations

5.1.1 It is not known at this stage what the proposed development will be, therefore specific foundation details cannot be provided at this stage.

5.1.2 It is anticipated that in general the boulder clay will be competent for shallow foundations. Where the site is steep, some additional consideration may need to be given, such as deepening of foundations to reduce the depth at which the load is applied to the soils. Consideration should also be given to the build programme to ensure that adjacent foundations are not undermined.

5.1.3 A significant amount of trees on the east side of the site are likely to have a significant effect on the depth of foundations (NHBC Chapter 4.2).

5.1.4 This should be confirmed by on site intrusive investigations.

5.2 Other Constraints

5.2.1 Asbestos was not covered in this report. It should be noted that a Type 3 intrusive survey will be required prior to demolition of the pavilion building.
6.0 CONCLUSIONS AND RECOMMENDATIONS

6.1 Based on the findings of this Desk Study Assessment it can be seen that the site has been undeveloped with the exception of the pavilion. Little change has seemingly occurred to the site during its history.

6.2 Foundations are likely to be trench fill within shallow boulder clays if present if the site is to be developed with conventional two storey house types. Trees particularly on the eastern part of the site will need to be considered in the foundation design.

6.3 Therefore to allow future residential development of the site the following further works are recommended, although this list is not exhaustive and should be read in conjunction with any planning conditions that are applicable to the site.

- Topographical survey
- Intrusive site investigations comprising trial pitting and/or shallow soil sampling depending on access restrictions. Type 3 Asbestos survey.
- Design of remedial strategy if required.
- Foundation design
DRAWINGS
Site Features Plan

Drawing No. C2179/02

Date: 7/1/13  
Scale: NTS

Drawn By: AJH  
Checked By: JMJ
APPENDIX A
Historical Maps
Site Details:

Church Raike, Chipping

Client Ref: EMS_190222_278236
Report Ref: EMS-190222_278236
Grid Ref: 361927, 443477

Map Name: MasterMap
Map date: 2012
Scale: 1:1,250
Printed at: 1:2,500
Site Details:

Church Raike, Chipping

Client Ref: EMS_190222_278236
Report Ref: EMS-190222_278236
Grid Ref: 361927, 443477

Map Name: National Grid
Map date: 1994
Scale: 1:2,500
Printed at: 1:2,500

Surveys N/A
Revised N/A
Edition N/A
Copyright 1994
Levelled N/A

Produced by GroundSure Environmental Insight
www.groundsure.com

Supplied by www.emapsite.com
sales@emapsite.com

Crown copyright all rights reserved. Licence No: 100035207
Production date: 08 January 2013

To view map legend click here Legend
Church Raike, Chipping

Site Details:
Client Ref:  EMS_190222_278236
Report Ref:  EMS-190222_278236
Grid Ref:  361927, 443477

Map Name: National Grid
Map date:  1982
Scale:  1:2,500
Printed at:  1:2,500

To view map legend click here  Legend

Produced by GroundSure Environmental Insight
www.groundsure.com

Supplied by: www.emapsite.com
sales@emapsite.com

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Production date:  08 January 2013
Site Details:

Church Raike, Chipping

Client Ref: EMS_190222_278236
Report Ref: EMS-190222_278236
Grid Ref: 361927, 443477

Map Name: National Grid

Map date: 1967-1968

Scale: 1:2,500

Printed at: 1:2,500
Site Details:

Client Ref:  Report Ref:  Grid Ref:  

Map Name:  Map date:  Scale:  Printed at:  

Produced by  GroundSure Environmental Insight
www.groundsure.com
Supplied by:  www.emapsite.com  sales@emapsite.com
Production date: 07 January 2013

Legend

Church Raike, Chipping
Church Raike, Chipping

Client Ref: EMS_190222_278236
Report Ref: EMS-190222_278236
Grid Ref: 361927, 443477

Map Name: National Grid
Map date: 2012
Scale: 1:10,000
Printed at: 1:10,000
Site Details:

Church Raike, Chipping

Client Ref: EMS_190222_278236
Report Ref: EMS-190222_278236
Grid Ref: 361927, 443477

Map Name: 1:10,000 Raster
Map date: 2002
Scale: 1:10,000
Printed at: 1:10,000
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Church Raike, Chipping

Client Ref: EMS_190222_278236
Report Ref: EMS-190222_278236
Grid Ref: 361927, 443477

Map Name: Provisional
Map date: 1969
Scale: 1:10,560
Printed at: 1:10,560

Produced by GroundSure Environmental Insight
www.groundsure.com
Supplied by www.emapsite.com
sales@emapsite.com
Production date: 07 January 2013
To view map legend click here Legend

Legend
Church Raike, Chipping
EMS_190222_278236
EMS-190222_278236
361927, 443477
Provisional
1969
1:10,560
1:10,560
07 January 2013

Surveyed 1969
Revised 1969
Edition N/A
Copyright N/A
Levelled N/A
Site Details:

Church Raike, Chipping

Client Ref:  EMS_190222_278236
Report Ref:  EMS-190222_278236
Grid Ref:  361927, 443477

Map Name: County Series
Map date:  1910-1914
Scale:  1:10,560
Printed at:  1:10,560

To view map legend click here  Legend
APPENDIX B
Environmental Health Officers Report
Dear Aaron.

Further to your contaminated land searches, the answers are as follows:

**Church Raike, Chipping.**

1) There are no known environmental problems or land reclamation schemes.

2) We have not yet carried out a detailed survey in relation to this site and therefore at present it is not identified as contaminated land.

3) Refer to No.2

4) Refer to No.2

5) No

6) Unknown

7) There is no further information available.

I hope the information supplied is sufficient for your needs.

Kind regards,

Simon

From: Aaron Stokoe [mailto:a.stokoe@brownfieldsolutions.co.uk]
Sent: 12 December 2012 13:43
To: Simon Hartley
Subject: Contaminated Land Searches

Dear Simon,

Please find attached our requests for contaminated land searches.

Many Thanks

Aaron

Aaron Stokoe BSc (Hons)
Project Engineer

a.stokoe@brownfieldsolutions.co.uk

Mob: 07789020103
Tel: 01606 334844
Fax: 01606 334843

Brownfield Solutions Ltd
Wychwood House
1 Queen Street
Northwich
Cheshire
Best in the country for customer satisfaction – 94 per cent of Ribble Valley residents are satisfied with life in the borough (Place Survey 2009)
APPENDIX C
Groundsure Report
GroundSure EnviroInsight

Address: Church Raike, Chipping

Dear Sir/Madam,

Thank you for placing your order with emapsite. Please find enclosed the GroundSure EnviroInsight as requested.

If you would like further assistance regarding this report then please contact the emapsite customer services team on 0118 9736883 quoting the above report reference number.

Yours faithfully,

emapsite customer services team

Enc. GroundSure EnviroInsight
GroundSure
EnviroInsight

Address: Church Raikes, Chipping

Date: Jan 7, 2013

GroundSure Reference: EMS-190222_278237

Your Reference: EMS_190222_278237

Client: Emapsite

Brought to you by emapsite
Aerial Photograph of Study Site

Site Name: Church Raike, Chipping
Grid Reference: 361927,443477
Size of Site: 2.69 ha
### Overview of Findings

For further details on each dataset, please refer to each individual section in the main report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

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<td>Records of Water Industry Referrals (potentially harmful discharges to the public sewer)</td>
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<td>Records of Red List Discharge Consents (potentially harmful discharges to controlled waters)</td>
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<td>2.1 Landfill Sites</td>
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<td>Environment Agency Registered Landfill Sites</td>
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<td>Landfill Data – Operational Landfill Sites</td>
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Report Reference: EMS-190222_278237
3. Current Land Uses

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<td>3</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3.2 Records of Petrol and Fuel Sites</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3.3 Underground High Pressure Oil and Gas Pipelines</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

4. Geology

<table>
<thead>
<tr>
<th>Description</th>
<th>on-site</th>
<th>0-50</th>
<th>51-250</th>
<th>251-500</th>
<th>501-1000</th>
<th>1001-2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.1 Are there any records of Artificial Ground and Made Ground present beneath the study site? *</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site? *</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.3 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* This includes an automatically generated 50m buffer zone around the site.

5. Hydrogeology and Hydrology

<table>
<thead>
<tr>
<th>Description</th>
<th>on-site</th>
<th>0-50</th>
<th>51-250</th>
<th>251-500</th>
<th>501-1000</th>
<th>1001-2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1 Are there any records of Productive Strata in the Superficial Geology within 500m of the study site?</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.2 Are there any records of Productive Strata in the Bedrock Geology within 500m of the study site?</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.3 Groundwater Abstraction Licences (within 2000m of the study site).</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5.4 Surface Water Abstraction Licences (within 2000m of the study site).</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>-</td>
</tr>
<tr>
<td>5.5 Potable Water Abstraction Licences (within 2000m of the study site).</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5.6 Are there any Source Protection Zones within 500m of the study site?</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.7 River Quality</td>
<td>Is there any Environment Agency information on river quality within 1500m of the study site?</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>5.8 Detailed River Network entries within 500m of the site</td>
<td>2</td>
<td>5</td>
<td>5</td>
<td>20</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>5.9 Surface water features within 250m of the study site</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

6. Flooding

<table>
<thead>
<tr>
<th>Description</th>
<th>on-site</th>
<th>0-50</th>
<th>51-250</th>
<th>251-500</th>
<th>501-1000</th>
<th>1001-2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.1 Are there any Environment Agency indicative Zone 2 floodplains within 250m of the study site?</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.2 Are there any Environment Agency indicative Zone 3 floodplains within 250m of the study site?</td>
<td>Yes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.3 Are there any Flood Defences within 250m of the study site?</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.4 Are there any areas benefitting from Flood Defences within 250m of the study site?</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.5 Are there any areas used for Flood Storage within 250m of the study site?</td>
<td>No</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.6 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.7 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?</td>
<td>High</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7. Designated Environmentally Sensitive Sites

<table>
<thead>
<tr>
<th>Description</th>
<th>on-site</th>
<th>0-50</th>
<th>51-250</th>
<th>251-500</th>
<th>501-1000</th>
<th>1001-2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1 Records of Sites of Special Scientific Interest (SSSI)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>7.2 Records of National Nature Reserves (NNR)</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Report Reference: EMS-190222_278237
7.1 Records of Sites of Special Scientific Interest (SSSI) 0 0 0 0 0 1
7.3 Records of Local Nature Reserves (LNR) 0 0 0 0 0 0
7.4 Records of Special Areas of Conservation (SAC) 0 0 0 0 0 0
7.5 Records of Special Protection Areas (SPA) 0 0 0 0 0 1
7.6 Records of Ramsar sites 0 0 0 0 0 0
7.7 Records of World Heritage Sites 0 0 0 0 0 0
7.8 Records of Environmentally Sensitive Areas 0 0 0 0 0 0
7.9 Records of Areas of Outstanding Natural Beauty (AONB) 1 0 0 0 0 1
7.10 Records of National Parks 0 0 0 0 0 0
7.11 Records of Nitrate Sensitive Areas 0 0 0 0 0 0
7.12 Records of Nitrate Vulnerable Zones 0 0 0 0 0 0
7.13 Records of Ancient Woodlands 0 0 0 0 1 3

8. Natural Hazards

8.1 What is the maximum risk of natural ground subsidence? Moderate

9. Mining

9.1 Are there any coal mining areas within 75m of the study site? No
9.2 What is the risk of subsidence relating to shallow mining within 150m of the study site? Negligible
9.3 Are there any brine affected areas within 75m of the study site? No
Using this Report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between GroundSure and the Client. The document contains the following sections:

1. Environmental Permits, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

2. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

3. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure underground oil and gas pipelines.

4. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

5. Hydrogeology and Hydrology

Provides information on productive strata within the bedrock and superficial geological layers, abstraction licenses, Source Protection Zones (SPZs) and river quality. These searches are conducted using radii of up to 2000m.

6. Flooding

Provides information on surface water flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

7. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites. These searches are conducted using radii of up to 500m.

8. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence.

9. Mining

Provides information on areas of coal and shallow mining.
10. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, GroundSure provide a free Technical Helpline (08444 159000) for further information and guidance.

Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier “A” on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as “Not Shown”.

All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.
1. Environmental Permits, Incidents and Registers Map

Authorisations, Incidents and Registers Legend

- **Site Outline**
- **Search Buffers (m)**
- **Site**
- **Memorandum**
- **Closing**
- **Share**
- **Provisional**
- **Planned**
- **Owner**
- **Occupier**
- **Status**
- **Use**
- **Address**
- **Location**
- **Nature**
- **Type**
- **Activity**
- **Process**
- **Substance**
- **Event**
- **Incident**
- **Register**
- **Compliance**
- **Hazard**
- **Safeguards**
- **Authorisations**
- **Processes**
- **Operators**
- **Regulators**
- **Enforcement**

Report Reference: EMS-190222_278237
1. Environmental Permits, Incidents and Registers

1.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency and Local Authorities reveal the following information:

**Records of historic IPC Authorisations within 500m of the study site:**
0
Database searched and no data found.

**Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:**
0
Database searched and no data found.

**Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:**
0
Database searched and no data found.

**Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:**
0
Database searched and no data found.

**Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:**
0
Database searched and no data found.

**Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:**
0
Database searched and no data found.

**Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:**
2
The following Part A(2) and Part B Activities are represented as points on the Authorisations, Incidents and Registers map:

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance</th>
<th>Direction</th>
<th>NGR</th>
<th>Address: H.J. Berry &amp; Sons Limited, Kirk Mills, Chipping, Preston, Lancashire, PR3 2RA</th>
<th>Process: Wood Processing &amp; Combustion Status: Historical Permit Permit Type: Part B</th>
<th>Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified</th>
</tr>
</thead>
<tbody>
<tr>
<td>6B</td>
<td>60.0</td>
<td>E</td>
<td>362069, 443550</td>
<td>Address: H.J. Berry &amp; Sons Limited, Kirk Mills, Chipping, Preston, Lancashire, PR3 2RA</td>
<td>Process: Wood Processing &amp; Combustion Status: Historical Permit Permit Type: Part B</td>
<td>Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified</td>
</tr>
<tr>
<td>7B</td>
<td>60.0</td>
<td>E</td>
<td>362069, 443550</td>
<td>Address: H.J. Berry &amp; Sons Limited, Kirk Mills, Chipping, Preston, Lancashire, PR3 2RA</td>
<td>Process: Coating Process Status: Historical Permit Permit Type: Part B</td>
<td>Enforcement: No Enforcements Notified Date of Enforcement: No Enforcements Notified Comment: No Enforcements Notified</td>
</tr>
</tbody>
</table>

Report Reference: EMS-190222_278237
Records of Category 3 or 4 Radioactive Substance Licences within 500m of the study site:

Database searched and no data found.

Records of Licensed Discharge Consents within 500m of the study site: 4

The following Licensed Discharge Consents records are represented as points on the Authorisations, Incidents and Registers map:

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance</th>
<th>Direction</th>
<th>NGR</th>
<th>Details</th>
</tr>
</thead>
</table>
| 2  | 264.0    | S         | 362097, 443161 | Address: St. Bartholomews Vicarage, Garstang Road, Chipping, Preston, Lancashire, PR3 2QH  
Effluent Type: Sewage Discharges - Final/treated Effluent - Not Water Company  
Permit Number: 01361  
Permit Version: 1  
Receiving Water: Trib Of Chipping Brook  
Status: Pre Nra Legislation Where Issue Date < 01-sep-89 (historic Only)  
Issue date: -  
Effective Date: -  
Revocation Date: - |
| 3A | 324.0    | SE        | 362360, 443300 | Address: North St Mary's Church, Chipping, Lancashire  
Effluent Type: Sewage Discharges - Sewer Storm Overflow - Water Company  
Permit Number: 01RIB0005  
Permit Version: 1  
Receiving Water: Chipping Brook  
Status: Post Nra Legislation Where Issue Date > 31-aug-89 (historic Only)  
Issue date: -  
Effective Date: 1/1/1995  
Revocation Date: 13/4/2009 |
| 4A | 324.0    | SE        | 362360, 443300 | Address: North St Mary's Church, Chipping, Lancashire  
Effluent Type: Sewage Discharges - Sewer Storm Overflow - Water Company  
Permit Number: 01RIB0005  
Permit Version: 2  
Receiving Water: Chipping Brook  
Status: Varied Under Epr 2010  
Issue date: 14/4/2009  
Effective Date: 14/4/2009  
Revocation Date: - |
| 5  | 460.0    | W         | 361400, 443700 | Address: William Pye Ltd Swo, Saunder Rake Mill, Chipping, Lancashire  
Effluent Type: Miscellaneous Discharges - Surface Water  
Permit Number: 017290149  
Permit Version: 1  
Receiving Water: Chipping Brook  
Status: Revoked - Unspecified  
Issue date: -  
Effective Date: 8/9/1987  
Revocation Date: 1/4/1994 |

Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site: 0

Database searched and no data found.

1.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site: 0

Database searched and no data found.

1.3 Environment Agency Recorded Pollution Incidents

Records of National Incidents Recording System, List 2 within 250m of the study site: 1

The following NIRS List 2 records are represented as points on the Authorisations, Incidents and Registers Map:

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance</th>
<th>Direction</th>
<th>NGR</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Report Reference: EMS-190222_278237</td>
</tr>
</tbody>
</table>

Page 10
Records of National Incidents Recording System, List 1 within 250m of the study site: 0

Database searched and no data found.

1.4 Sites Determined as Contaminated Land under Part IIA EPA 1990

How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site? 0

Database searched and no data found.
2. Landfill and Other Waste Sites Map

Landfill & Other Waste Sites Legend

- Site Outline
- Operational Waste Treatment Licence
- E.A. Active Landfill
- Closed Waste Treatment Licence
- E.A. Historic Landfill (Area Data)
- REGIS Waste Licence
- E.A. Historic Landfill (Point Data)
- Operational Landfill
- BGS / DoE Survey Landfill
- Closed Landfill
- Local Authority Landfill (Area Data)
- Local Authority Landfill (Point Data)
2. Landfill and Other Waste Sites

2.1 Landfill Sites

Records from Environment Agency landfill data within 1000m of the study site: 0
Database searched and no data found.

Records of operational landfill sites sourced from Landmark within 1000m of the study site: 0
Database searched and no data found.

Records of Environment Agency historic landfill sites within 1500m of the study site: 2
The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance</th>
<th>Direction</th>
<th>NGR</th>
<th>Site Address</th>
<th>Waste Licence:</th>
<th>Site Reference</th>
<th>Waste Type:</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>3A</td>
<td>642.0</td>
<td>W</td>
<td>361100, 443000</td>
<td>Black Hall Farm, Off Garstang Road, Chipping, Lancashire</td>
<td>Yes</td>
<td>L1/03/213, WD100/213, K1/03/011, Licences 163 and 337, L1/03/410</td>
<td>Inert</td>
<td>Licence Issue: 07-Jul-1982, Licence Surrendered: 29-Apr-1994, Licence Hold Address: Colte Coates Farm, Collingshall Lane Chipping Operator: -</td>
</tr>
<tr>
<td>4A</td>
<td>642.0</td>
<td>W</td>
<td>361100, 443000</td>
<td>Black Hall Farm, Off Garstang Road, Chipping, Lancashire</td>
<td>Yes</td>
<td>K1/03/011, L1/03/410, 337</td>
<td>Inert</td>
<td>Licence Issue: 07-Jul-1982, Licence Surrendered: 29-Apr-1994, Licence Hold Address: Colte Coates Farm, Collingshall Lane Chipping Operator: -</td>
</tr>
</tbody>
</table>

Records of non-operational landfill sites sourced from Landmark within 1000m of the study site: 2
The following landfill records are represented as points on the Landfill and Other Waste Sites map:

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance</th>
<th>Direction</th>
<th>NGR</th>
<th>Site Address</th>
<th>Landfill Licence:</th>
<th>Agency Reference:</th>
<th>Waste Type:</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>110.0</td>
<td>SW</td>
<td>361800, 443300</td>
<td>Black Hall Farm, Garstang Road, Chipping, PRESTON, Lancashire</td>
<td>250AGTAL</td>
<td>Waste Type: Difficult</td>
<td>Difficult Landfill Known Restrictions: Some restriction on source of waste</td>
<td>Record Date: 01-Jul-1982 Transfer Date: Modification Date: 01-Sep-1982 Status: Licence lapsed/cancelled/defunct/not applicable/surrendered Category: LANDFILL Regulator: EA - North West Region - Central Area (Preston) Size: Undefined</td>
</tr>
<tr>
<td>2</td>
<td>673.0</td>
<td>W</td>
<td>361200, 443300</td>
<td>Blackhall Farm, Garstang Road, Chipping, PRESTON, Lancashire</td>
<td>410 CSG</td>
<td>Waste Type: Inert</td>
<td>Inert Landfill Known Restrictions: No known restriction on source of waste</td>
<td>Record Date: 01-Jan-1991 Transfer Date: Modification Date: 01-Jun-1993 Status: Licence lapsed/cancelled/defunct/not applicable/surrendered Category: LANDFILL Regulator: EA - North West Region - Central Area (Preston) Size: Very Small (&lt;10,000 tonnes/year)</td>
</tr>
</tbody>
</table>

Records of BGS/DoE non-operational landfill sites within 1500m of the study site: 0
Report Reference: EMS-190222_278237
Database searched and no data found.

Records of Local Authority landfill sites within 1500m of the study site: 0
Database searched and no data found.

2.2 Other Waste Sites

Records of operational waste treatment, transfer or disposal sites within 500m of the study site: 0
Database searched and no data found.

Records of non-operational waste treatment, transfer or disposal sites within 500m of the study site: 0
Database searched and no data found.

Records of Environment Agency licensed waste sites within 1500m of the study site: 0
Database searched and no data found.
3. Current Land Use Map

![Current Land Use Map](image)

**Current Land Use Legend**

- **Site Outline**
- **Search Buffers (m)**
- **Current Industrial Sites**
- **Petrol & Fuel Sites**
- **Underground High Pressure Oil & Fuel Pipelines**

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Licence Number: 100035207

Report Reference: EMS-190222_278237
3. Current Land Uses

3.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site:

The following records are represented as points on the Current Land Uses map.

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance</th>
<th>Direction</th>
<th>Company</th>
<th>Address</th>
<th>Activity</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>94.0</td>
<td>E</td>
<td>Electricity Sub Station</td>
<td>PR3</td>
<td>Electrical Features</td>
<td>Infrastructure and Facilities</td>
</tr>
<tr>
<td>2</td>
<td>158.0</td>
<td>N</td>
<td>Electricity Sub Station</td>
<td>PR3</td>
<td>Electrical Features</td>
<td>Infrastructure and Facilities</td>
</tr>
<tr>
<td>3</td>
<td>211.0</td>
<td>SE</td>
<td>Electricity Sub Station</td>
<td>PR3</td>
<td>Electrical Features</td>
<td>Infrastructure and Facilities</td>
</tr>
</tbody>
</table>

3.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site:

Database searched and no data found.

3.3 Underground High Pressure Oil and Gas Pipelines

Records of high pressure underground pipelines within 500m of the study site:

Database searched and no data found.
4. Geology

4.1 Artificial Ground and Made Ground

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

---

4.2 Superficial Ground and Drift Geology

The database has been searched on site, including a 50m buffer.

<table>
<thead>
<tr>
<th>Lex Code</th>
<th>Description</th>
<th>Rock Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALV-CSSG</td>
<td>ALLUVIUM</td>
<td>CLAY, SILT, SAND AND GRAVEL</td>
</tr>
<tr>
<td>TILL-DMTN</td>
<td>TILL, DEVENSIAN</td>
<td>DIAMICTON</td>
</tr>
</tbody>
</table>

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

---

4.3 Bedrock and Solid Geology

The database has been searched on site, including a 50m buffer.

<table>
<thead>
<tr>
<th>LEX Code</th>
<th>Description</th>
<th>Rock Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>PKSL-LMST</td>
<td>PARK STYLE LIMESTONE MEMBER</td>
<td>LIMESTONE</td>
</tr>
<tr>
<td>BSG-MDSI</td>
<td>BOWLAND SHALE FORMATION</td>
<td>MUDSTONE AND SILTSTONE</td>
</tr>
</tbody>
</table>

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

---

For more detailed geological and ground stability data please refer to the "GroundSure GeoInsight". Available from our website.
5a. Hydrogeology - Aquifer Within Superficial Geology

Aquifer Within Superficial Geology Legend

- **Site Outline**
- **Principal Aquifer**
- **Secondary (A) Aquifer - Permeable Layers**
- **Secondary (B) Aquifer - Lower Permeability Layers**
- **Secondary Aquifer - Undifferentiated Layers**
- **Unproductive**
- **Unknown (lakes and landslip)**

Report Reference: EMS-190222_278237
5b. Hydrogeology - Aquifer Within Bedrock
Geology and Abstraction Licenses

Aquifer Within Bedrock Geology Legend

- Site Outline
- Principal Aquifer
- Secondary (A) Aquifer - Permeable Layers
- Secondary (B) Aquifer - Lower Permeability Layers
- Search Buffers (m)
- Groundwater Abstraction Licence
- Surface Water Abstraction Licence

Report Reference: EMS-190222_278237

Crown Copyright. All Rights Reserved
Licence Number: 100035207
5c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses

Legend
- Site Outline
- Source Protection Zone 1 - Inner Catchment
- Source Protection Zone 2 - Outer Catchment
- Search Buffers (m)
- Source Protection Zone 3 - Total Catchment
- Source Protection Zone 4 - Zone of Special Interest
- Potable Water Abstraction Licence

Crown Copyright. All Rights Reserved
Licence Number: 100035207

Report Reference: EMS-190222_278237
5d. Hydrology – Detailed River Network and River Quality
5. Hydrogeology and Hydrology

5.1 Aquifer within Superficial Deposits

Are there records of productive strata within the superficial geology at or in proximity to the property?  Yes

From 1 April 2010, the Environment Agency’s Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the GroundSure Enviroinsight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (5a):

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance [m]</th>
<th>Direction</th>
<th>Designation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.0</td>
<td>On Site</td>
<td>Secondary A</td>
<td>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. These are generally aquifers formerly classified as minor aquifers.</td>
</tr>
<tr>
<td>10</td>
<td>0.0</td>
<td>On Site</td>
<td>Unproductive</td>
<td>These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow.</td>
</tr>
<tr>
<td>2</td>
<td>109.0</td>
<td>N</td>
<td>Secondary A</td>
<td>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. These are generally aquifers formerly classified as minor aquifers.</td>
</tr>
<tr>
<td>4</td>
<td>293.0</td>
<td>N</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
<tr>
<td>5</td>
<td>369.0</td>
<td>N</td>
<td>Unknown</td>
<td>Unknown</td>
</tr>
</tbody>
</table>

5.2 Aquifer within Bedrock Deposits

Are there records of productive strata within the bedrock geology at or in proximity to the property?  Yes

From 1 April 2010, the Environment Agency’s Groundwater Protection Policy has been using aquifer designations consistent with the Water Framework Directive. For further details on the designation and interpretation of this information, please refer to the GroundSure Enviroinsight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (5b):

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance [m]</th>
<th>Direction</th>
<th>Designation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.0</td>
<td>On Site</td>
<td>Secondary A</td>
<td>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. These are generally aquifers formerly classified as minor aquifers.</td>
</tr>
</tbody>
</table>

5.3 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 2000m of the study site?  No

Database searched and no data found.

5.4 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 2000m of the study site?  Yes

Report Reference: EMS-190222_278237
The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (5b):

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance</th>
<th>Direction</th>
<th>NGR</th>
<th>Licence No: 2671317007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not shown</td>
<td>866.0</td>
<td>SW</td>
<td>361100, 443000</td>
<td>Details: General use relating to Secondary Category (Medium Loss)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Direct Source: &quot;surface, Non-tidal - North West Region&quot;</td>
</tr>
</tbody>
</table>
|          |          |           |          | Point: "spring At Blackhall, Chipping."
|          |          |           |          | Data Type: Point
|          |          |           |          | Annual Volume (m³): - |
|          |          |           |          | Max Daily Volume (m³): - |
|          |          |           |          | Original Start Date: 10/10/1966 |
|          |          |           |          | Expiry Date: - |
|          |          |           |          | Issue No: 100 |
|          |          |           |          | Version Start Date: 10/10/1966 |
|          |          |           |          | Version End Date: |

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance</th>
<th>Direction</th>
<th>NGR</th>
<th>Licence No: 2671317007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not shown</td>
<td>866.0</td>
<td>SW</td>
<td>361100, 443000</td>
<td>Details: General use relating to Secondary Category (Medium Loss)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Direct Source: Surface, Non-tidal - North West Region</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Point: Spring At Blackhall, Chipping.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Data Type: Point</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Annual Volume (m³): -</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Max Daily Volume (m³): -</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Original Start Date: 10/10/1966</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Expiry Date: -</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Issue No: 100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Version Start Date: 10/10/1966</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Version End Date:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance</th>
<th>Direction</th>
<th>NGR</th>
<th>Licence No: 2671317012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not shown</td>
<td>1252.0</td>
<td>NW</td>
<td>361000, 444500</td>
<td>Details: Lake &amp; Pond Throughflow</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Direct Source: Surface, Non-tidal - North West Region</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Point: Tributary Of Chipping Brook, chipping</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Data Type: Point</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Annual Volume (m³): 87600</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Max Daily Volume (m³): 240</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Original Start Date: 3/7/1998</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Expiry Date: -</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Issue No: 102</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Version Start Date: 18/2/2002</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Version End Date:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance</th>
<th>Direction</th>
<th>NGR</th>
<th>Licence No: 2671317012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not shown</td>
<td>1252.0</td>
<td>NW</td>
<td>361000, 444500</td>
<td>Details: Lake &amp; Pond Throughflow</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Direct Source: &quot;surface, Non-tidal - North West Region&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Point: &quot;tributary Of Chipping Brook, chipping&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Data Type: Point</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Annual Volume (m³): -</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Max Daily Volume (m³): -</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Original Start Date: 3/7/1998</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Expiry Date: -</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Issue No: 102</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Version Start Date: 18/2/2002</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Version End Date:</td>
</tr>
</tbody>
</table>

5.5 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site? No

Database searched and no data found.

5.6 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site? No

Database searched and no data found.

5.7 River Quality

Is there any Environment Agency information on river quality within 1500m of the study site? No

Biological Quality:

Database searched and no data found.

Report Reference: EMS-190222_278237
### Chemical Quality

Database searched and no data found.

---

### 5.8 Detailed River Network

**Are there any Detailed River Network entries within 500m of the study site?** Yes

The following Detailed River Network records are represented on the Hydrology Map (5d):

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance</th>
<th>Direction</th>
<th>River Name:</th>
<th>Water Course Name:</th>
<th>Welsh River Name:</th>
<th>Alternative Name:</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.0</td>
<td>On Site</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined</td>
</tr>
<tr>
<td>2</td>
<td>0.0</td>
<td>On Site</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined</td>
</tr>
<tr>
<td>3</td>
<td>1.0</td>
<td>N</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined</td>
</tr>
<tr>
<td>4</td>
<td>4.0</td>
<td>NE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined</td>
</tr>
<tr>
<td>5</td>
<td>15.0</td>
<td>E</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined</td>
</tr>
<tr>
<td>6</td>
<td>29.0</td>
<td>W</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined</td>
</tr>
<tr>
<td>7</td>
<td>29.0</td>
<td>W</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined</td>
</tr>
<tr>
<td>8</td>
<td>76.0</td>
<td>NW</td>
<td>Chipping Brok</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined</td>
</tr>
<tr>
<td>9</td>
<td>76.0</td>
<td>NW</td>
<td>Dobson's Brok</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined</td>
</tr>
<tr>
<td>10</td>
<td>79.0</td>
<td>E</td>
<td>Chipping Brok</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined</td>
</tr>
<tr>
<td>11</td>
<td>136.0</td>
<td>NE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined</td>
</tr>
<tr>
<td>12</td>
<td>245.0</td>
<td>NE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined</td>
</tr>
<tr>
<td>13</td>
<td>261.0</td>
<td>E</td>
<td>Chipping Brok</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>River Type: Primary River Catchment: - Drain: NO Main River Status: Currently Undefined</td>
</tr>
<tr>
<td>14A</td>
<td>262.0</td>
<td>NE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined</td>
</tr>
<tr>
<td>15A</td>
<td>267.0</td>
<td>NE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined</td>
</tr>
</tbody>
</table>

Report Reference: EMS-190222_278237
<table>
<thead>
<tr>
<th>Page</th>
<th>Surface Water Features</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.9</td>
<td>Are there any surface water features within 250m of the study site? Yes</td>
</tr>
<tr>
<td></td>
<td>The following surface water records are not represented on mapping:</td>
</tr>
<tr>
<td></td>
<td>Report Reference: EMS-190222_278237</td>
</tr>
</tbody>
</table>

<p>| 16   | 267.0 NE | River Name: - Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined |
| 17   | 292.0 SW | River Name: - Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined |
| 18   | 321.0 N  | River Name: Dobson’s Brook Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined |
| 19   | 321.0 N  | River Name: - Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined |
| 20   | 325.0 NE | River Name: - Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined |
| 21   | 326.0 NE | River Name: - Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined |
| 22   | 366.0 S  | River Name: - Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined |
| 23   | 366.0 S  | River Name: - Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined |
| 24   | 383.0 S  | River Name: - Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Extended Culvert (greater than 50m) Catchment: - Drain: NO Main River Status: Currently Undefined |
| 25   | 383.0 S  | River Name: - Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined |
| 26   | 397.0 NW | River Name: - Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Extended Culvert (greater than 50m) Catchment: - Drain: NO Main River Status: Currently Undefined |
| 27   | 414.0 NE | River Name: - Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Extended Culvert (greater than 50m) Catchment: - Drain: NO Main River Status: Currently Undefined |
| 28   | 439.0 NW | River Name: - Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Secondary River Catchment: - Drain: NO Main River Status: Currently Undefined |
| 29   | 440.0 SE | River Name: - Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined |
| 30   | 442.0 S  | River Name: - Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined |
| 31   | 469.0 NE | River Name: - Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined |
| 32   | 477.0 S  | River Name: - Water Course Name: - Welsh River Name: - Alternative Name: - River Type: Tertiary River Catchment: - Drain: NO Main River Status: Currently Undefined |</p>
<table>
<thead>
<tr>
<th>Distance to Surface Water (m)</th>
<th>on-site</th>
<th>0-50</th>
<th>51-250</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface water features within 250m of the study site</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
6. Environment Agency Flood Map

Environment Agency Flood Legend

- **Zone 2 Floodplain**
- **Zone 3 Floodplain**
- **Flood Storage Area**
- **Area Benefiting from Flood Defences**
- **Flood Defences**

---

Report Reference: EMS-190222_278237
6. Flooding

6.1 Zone 2 Flooding

Zone 2 floodplain estimates the annual probability of flooding as one in one thousand (0.1%) or greater from rivers and the sea but less than 1% from rivers or 0.5% from the sea. Alternatively, where information is available they may show the highest known flood level.

Is the site within 250m of an Environment Agency indicative Zone 2 floodplain? Yes

The following floodplain records are represented as green shading on the Flood Map:

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance</th>
<th>Direction</th>
<th>Update</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.0</td>
<td>On Site</td>
<td>30-Nov-2012</td>
<td>Zone 2 - (Fluvial Models)</td>
</tr>
</tbody>
</table>

6.2 Zone 3 Flooding

Zone 3 estimates the annual probability of flooding as one in one hundred (1%) or greater from rivers and a one in two hundred (0.5%) or greater from the sea. Alternatively, where information is available they may show the highest known flood level.

Is the site within 250m of an Environment Agency indicative Zone 3 floodplain? Yes

The following floodplain records are represented as blue shading on the Flood Map:

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance</th>
<th>Direction</th>
<th>Update</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0.0</td>
<td>On Site</td>
<td>30-Nov-2012</td>
<td>Zone 3 - (Fluvial Models)</td>
</tr>
</tbody>
</table>

6.3 Flood Defences

Are there any Flood Defences within 250m of the study site? No

6.4 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site? No

6.5 Areas used for Flood Storage

Are there any areas used for Flood Storage within 250m of the study site? No

6.6 Groundwater Flooding Susceptibility Areas

Are there any British Geological Survey groundwater flooding susceptibility flood areas within 50m of the boundary of the study site? Yes

Report Reference: EMS-190222_278237
What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions? High

6.7 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result? High

Notes:

Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a threefold scale - Low, Moderate and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.
7. Designated Environmentally Sensitive Sites Map

Designated Environmentally Sensitive Sites Legend

- SAC
- SSSI
- NNR
- World Heritage Sites
- SPA
- Ramsar
- LNR
- Environmentally Sensitive Areas
- Areas of Outstanding Natural Beauty
- Nitrate Vulnerable Zones
- Nitrate Sensitive Areas
- National Parks
- Ancient Woodlands

Report Reference: EMS-190222_278237
7. Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 2000m of the study site? Yes

Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site: 1

The following Site of Special Scientific Interest (SSSI) records provided by Natural England/Countryside Council for Wales and Scottish Natural Heritage are represented as polygons on the Designated Environmentally Sensitive Sites Map:

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance</th>
<th>Direction</th>
<th>SSSI Name</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not shown</td>
<td>1901.0</td>
<td>NW</td>
<td>Bowland Fells</td>
<td>Natural England</td>
</tr>
</tbody>
</table>

Records of National Nature Reserves (NNR) within 2000m of the study site: 0

Database searched and no data found.

Records of Special Areas of Conservation (SAC) within 2000m of the study site: 0

Database searched and no data found.

Records of Special Protection Areas (SPA) within 2000m of the study site: 1

The following Special Protection Area (SPA) records provided by Natural England/Countryside Council for Wales and Scottish Natural Heritage are represented as polygons on the Designated Environmentally Sensitive Sites Map:

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance</th>
<th>Direction</th>
<th>SPA Name</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not shown</td>
<td>1901.0</td>
<td>NW</td>
<td>Bowland Fells</td>
<td>Natural England</td>
</tr>
</tbody>
</table>

Records of Ramsar sites within 2000m of the study site: 0

Database searched and no data found.

Records of Local Nature Reserves (LNR) within 2000m of the study site: 0

Database searched and no data found.

Records of World Heritage Sites within 2000m of the study site: 0

Database searched and no data found.

Records of Environmentally Sensitive Areas within 2000m of the study site: 0

Database searched and no data found.

Report Reference: EMS-190222_278237
Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site: 2

The following Area of Outstanding Natural Beauty (AONB) records and Scottish National Scenic Area (NSA) records provided by Natural England/Countryside Council for Wales/Scottish Government are represented as polygons on the Designated Environmentally Sensitive Sites Map:

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance</th>
<th>Direction</th>
<th>AONB/NSA Name</th>
<th>Data Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>0.0</td>
<td>On Site</td>
<td>Forest Of Bowland</td>
<td>Natural England</td>
</tr>
<tr>
<td>Not shown</td>
<td>1834.0</td>
<td>W</td>
<td>Forest Of Bowland</td>
<td>Natural England</td>
</tr>
</tbody>
</table>

Records of National Parks (NP) within 2000m of the study site: 0

Database searched and no data found.

Records of Nitrate Sensitive Areas within 2000m of the study site: 0

Database searched and no data found.

Records of Nitrate Vulnerable Zones within 2000m of the study site: 0

Database searched and no data found.

Records of Ancient Woodland within 2000m of the study site: 4

The following Ancient Woodland records are supplied by English Nature/Scottish Natural Heritage/Countryside Council for Wales and are represented as polygons on the Designated Environmentally Sensitive Sites Map:

<table>
<thead>
<tr>
<th>ID</th>
<th>Distance</th>
<th>Direction</th>
<th>Ancient Woodland Name</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>990.0</td>
<td>N</td>
<td>DOBSONS BROOK WOOD</td>
<td>Ancient and Semi-Natural Woodland</td>
</tr>
<tr>
<td>Not shown</td>
<td>1817.0</td>
<td>NE</td>
<td>UNKNOWN</td>
<td>Ancient and Semi-Natural Woodland</td>
</tr>
<tr>
<td>Not shown</td>
<td>1840.0</td>
<td>NE</td>
<td>UNKNOWN</td>
<td>Ancient and Semi-Natural Woodland</td>
</tr>
<tr>
<td>Not shown</td>
<td>1995.0</td>
<td>NE</td>
<td>UNKNOWN</td>
<td>Ancient Replanted Woodland</td>
</tr>
</tbody>
</table>

Report Reference: EMS-190222_278237
8. Natural Hazards Findings

8.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information on geology and ground stability, please obtain a GroundSure GeoInsight, available from our website. The following information has been found:

8.1.1 Shrink Swell

What is the maximum Shrink-Swell* hazard rating identified on the study site?  Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

<table>
<thead>
<tr>
<th>Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.</td>
</tr>
</tbody>
</table>

8.1.2 Landslides

What is the maximum Landslide* hazard rating identified on the study site?  Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

<table>
<thead>
<tr>
<th>Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to drainage or excavations take place. Possible increase in construction cost to reduce potential slope stability problems. Existing property no significant increase in insurance risk due to natural slope instability problems.</td>
</tr>
</tbody>
</table>

8.1.3 Soluble Rocks

What is the maximum Soluble Rocks* hazard rating identified on the study site?  Null - Negligible

Soluble rocks are not present in the search area. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

8.1.4 Compressible Ground

What is the maximum Compressible Ground* hazard rating identified on the study site?  Moderate

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

<table>
<thead>
<tr>
<th>Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Significant potential for compressibility problems. Avoid large differential loadings of ground. Do not drain or de-water ground near the property without technical advice. For new build consider possibility of compressible ground in ground investigation, construction and building design. Consider effects of groundwater changes. Extra construction costs are likely. For existing property possible increase in insurance risk from compressibility, especially if water conditions or loading of the ground change significantly.</td>
</tr>
</tbody>
</table>

Report Reference: EMS-190222_278237
8.1.5 Collapsible Rocks

**What is the maximum Collapsible Rocks* hazard rating identified on the study site?**  
**Very Low**

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

<table>
<thead>
<tr>
<th>Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible deposits.</td>
</tr>
</tbody>
</table>

8.1.6 Running Sand

**What is the maximum Running Sand* hazard rating identified on the study site?**  
**Low**

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

<table>
<thead>
<tr>
<th>Hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possibility of running sand problems after major changes in ground conditions. Normal maintenance to avoid leakage of water-bearing services or water bodies (ponds, swimming pools) should reduce likelihood of problems due to running sand. For new build, consider possibility of running sand into trenches or excavations if water table is high or sandy strata are exposed to water. Avoid concentrated water inputs to site. Unlikely to be an increase in construction costs due to potential for running sand. For existing property, no significant increase in insurance risk due to running sand problems is likely.</td>
</tr>
</tbody>
</table>

* This indicates an automatically generated 50m buffer and site.
9. Mining

9.1 Coal Mining

Are there any coal mining areas within 75m of the study site? No

Database searched and no data found.

9.2 Shallow Mining

What is the subsidence hazard relating to shallow mining on-site*? Negligible

*Please note this data is searched with a 150m buffer.

9.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site? No

Database searched and no data found.
10. Contacts

Emapsite
Telephone: 0118 9736883
sales@emapsite.com

British Geological Survey (England & Wales)
Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143. Fax: 0115 936 3276. Email: enquiries@bgs.ac.uk
Web: www.bgs.ac.uk
BGS Geological Hazards Reports and general geological enquiries

Environment Agency
National Customer Contact Centre
PO Box 544
Rotherham
S60 1BY
Tel: 08708 506 506
Web: www.environment-agency.gov.uk
Email: enquiries@environment-agency.gov.uk

Health Protection Agency
Chilton, Didcot, Oxon, OX11 0RQ
Tel: 01235 822622 www.hpa.org.uk/radiation
Radon measures and general radon information and guidance

The Coal Authority
200 Lichfield Lane, Mansfield, Notts NG18 4RG
Tel: 0845 762 6848
DX 716176 Mansfield 5
Web: www.groundstability.com

Ordnance Survey
Romsey Road
Southampton SO16 4GU
Tel: 08456 050505

Local Authority
Authority: Ribble Valley Borough Council
Phone: 01200 425111
Web: www.ribblevalley.gov.uk
Address: Council Offices, Church Walk, Clitheroe,
Lancashire, BB7 2RA

Get Mapping PLC
Virginia Villas, High Street, Hartley Witney, Hampshire RG27 8NW
Tel: 01252 845444

Acknowledgements
This product includes map data licensed from Landmark Information Group Limited®.
Site of Special Scientific Interest, National Nature Reserve, Ramsar Site, Special Protection Area, Special Area of Conservation data is provided by, and used with the permission of, English Nature who retain the Copyright and Intellectual Property Rights for the data.

PointX © Database Right/Copyright, Thomson Directories Limited © Copyright Link Interchange Network Limited © Database Right/Copyright and Ordnance Survey © Crown Copyright and/or Database Right. All Rights Reserved. Licence Number [03421028]. This report has been prepared in accordance with the GroundSure Ltd standard Terms and Conditions of business for work of this nature.

Report Reference: EMS-190222_278237
6.5 The Client shall (and shall procure that any recipients of the Report as permitted under clause 4.2 shall):

5 Fees and Disbursements

4 Reliance

3.5 The Client is responsible for maintaining the confidentiality of its user name and password if using GroundSure's internet ordering service and accepts responsibility for all activity

2.4 Terms and conditions appearing on a Client's order form, printed stationery or other communication, including invoices, to GroundSure, its employees, servants, agents or other

1 Road, London NW1 7EJ.

In these conditions unless the context otherwise requires:

6.2 The Client shall acknowledge the ownership of the

5.3 In the event that the Client disputes the amount payable in respect of GroundSure's invoice it shall notify GroundSure no later than 28 days after the date thereof that it is in

4.1 GroundSure shall charge the Client fees at the rate and frequency specified in the Contract together, in the case of Consultancy Services, with all proper disbursements incurred by

3.1 The Client shall ensure the Beneficiary complies with and is bound by the terms and conditions set out in the Contract and shall provide that Groundsure may in its own right

2 GroundSure in performing the Services. For the avoidance of doubt, the fees payable for the Services are as set out in GroundSure's written proposal, Order Website or Order

1.1 GroundSure shall provide services to the Client and not to any third party as the Client's agent or representative or where accepted via GroundSure's Order Website.

9.5 GroundSure shall have the right to use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in

8 (ii) not remove, suppress or modify any trademark, copyright or other proprietary marking belonging to GroundSure or any third party from the Services;

8 (i) no removal of the site from the Client's Application or in GroundSure's system, and no change to or stoppage of the Service;

7.1 GroundSure shall not be liable for any costs or expenses incurred in connection with any action, suit or proceeding brought by or against the Client.

7.4 Where Client/Beneficiary approval or decision is required, such approval or decision shall be given or procured in reasonable time as not to delay or disrupt the performance of any other part of the Services.

7.3 Where Client/Beneficiary approval or decision is required, such approval or decision shall be given or procured in reasonable time as not to delay or disrupt the performance of any other part of the Services.

7.2 The Client shall or (shall procure that the Beneficiary shall) supply to GroundSure as soon as practicable and without charge all information necessary and accurate relevant data including the site specific and/or unusual environmental information relating to the Site known to the Client/Beneficiary which may pertain to the Services and shall give such assistance as GroundSure shall reasonably require in the performance of the Services (including, without limitation, access to a Site, facilities and equipment as agreed in the

6.1 The Client shall pay GroundSure the amount specified in the Contract in consideration of the Services to be provided.

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5.1 GroundSure shall charge the Client fees at the rate and frequency specified in the Contract together, in the case of Consultancy Services, with all proper disbursements incurred by

4.2 In the event that GroundSure's Risk Reporting, Reports, the Client shall be entitled to make Reports available to (i) the Beneficiary, (ii) the Beneficiary's professional

4.1 GroundSure shall charge the Client fees at the rate and frequency specified in the Contract together, in the case of Consultancy Services, with all proper disbursements incurred by

4. The Client shall not and shall not knowingly permit the Beneficiary to, save as expressly permitted by these terms and conditions, re-sell, alter, add to, amend or use out of context the content of any Report, Mapping or, in respect of any Services, information given by GroundSure. For the avoidance of doubt, the Client and Beneficiary may make the Report,

3. The Client is responsible for maintaining the confidentiality of its user name and password if using GroundSure's internet ordering service and accepts responsibility for all activity

2.2 All the reasonable steps necessary to ensure the performance of experienced environmental consultants in the performance of the Services.

1.3 GroundSure shall keep confidential all information received in connection with the provision of the Services to the Client, the Beneficiary or third parties and shall not disclose

1.2 GroundSure shall keep confidential all information received in connection with the provision of the Services to the Client, the Beneficiary or third parties and shall not disclose

1.1 GroundSure shall provide services to the Client and not to any third party as the Client's agent or representative or where accepted via GroundSure's Order Website.

1. GroundSure shall charge the Client a fee for each of the Services including the fees and disbursements payable by the Client in respect of the provision of the Services.

1.5 GroundSure reserves the right to charge interest which shall accrue on a daily basis from 30 days after the date of Payment Date with interest being calculated on the rate of five per cent per annum above the Bank of England base rate from time to time.

1.4 GroundSure shall issue an order for Consultancy Services. In the event that the Client disputes the amount payable in respect of GroundSure's invoice it shall notify GroundSure no later than 28 days after the date thereof that it is in

1.3 The Client shall be solely responsible for ensuring that the Report/Mapping ordered is appropriate and suitable for the

1. The Client is responsible for maintaining the confidentiality of its user name and password if using GroundSure's internet ordering service and accepts responsibility for all activity

1.1 GroundSure shall provide services to the Client and not to any third party as the Client's agent or representative or where accepted via GroundSure's Order Website.

1. The Client shall be responsible for ensuring that the insurance policy requested and/or offered is suitable for its requirements.

1.6 GroundSure reserves the right to withhold any quotation at any time before GroundSure accepts an Order or until GroundSure's acceptance of an Order or Confirmation shall be effective only where such acceptance is in writing and signed by GroundSure's authorised representative or where accepted via GroundSure's Order Website.

1. The Client shall ensure the Beneficiary complies with and is bound by the terms and conditions set out in the Contract and shall provide that Groundsure may in its own right

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1. The Client shall be responsible for ensuring that the insurance policy requested and/or offered is suitable for its requirements.

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1. The Client shall be responsible for ensuring that the insurance policy requested and/or offered is suitable for its requirements.
8.1 In the event that GroundSure reasonably believes that the Client or Beneficiary as applicable has not provided the information or assistance required to enable the proper
8.2 GroundSure may additionally terminate the Contract immediately on written notice in the event that:
8.3 GroudSure's total liability in contract, tort (including negligence or breach of statutory duty), misrepresentation, restitution or otherwise, arising in connection with the GroundSure
8.4 For the duration of the liability periods set out in clauses 7.5 and 7.6 below, GroundSure shall maintain professional indemnity insurance in respect of its liability under these terms
8.5 Any claim under the Contract in relation to Consultancy Services, must be brought within six years from the date the Consultancy Services were completed.
8.6 Any claim under the Contract in relation to Consultancy Services, must be brought within six years from the date the Consultancy Services were completed.
8.6 Save as otherwise set out in these terms and conditions, any information provided by one party ('Disclosing Party') to the other party ('Receiving Party') shall be treated as
9.1 Subject to clause 10.2, the Client may at any time after commencement of the Services by notice in writing to GroundSure require GroundSure to terminate or suspend immediately
9.2 The Client waives all and any right of cancellation it may have under the Consumer Protection (Distance Selling) Regulations 2000 (as amended) in respect of the Order of a
9.3 The Client's attention is drawn to this provision
9.4 Any claim for damages under this clause 6.5(v) shall be limited to the amount of the premium paid in respect of the Product/Mapping. This does not affect the Beneficiary's statutory
9.5 The Client shall be entitled to receive any Refunds and/or Repayments from the Refunding Agency in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999
9.7 The Client shall not be in breach of this clause 6.5(v) where such reformatting is in the normal course of providing advice based upon the Services;
9.8 Nothing in these terms and conditions:
9.9 The Contract constitutes the entire contract between the parties and shall supersede all previous arrangements between the parties.
9.10 Upon termination or any suspension of the Services, GroundSure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed
9.11 The mapping contained in the Services is protected by Crown copyright and must not be used for any purpose outside the context of the Services or as specifically provided in
9.12 The Client or Beneficiary shall not be in breach of this clause 6.5(v) if the reformatting is in the normal course of providing advice based upon the Services.
10.1 Upon termination or any suspension of the Services, GroundSure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed
10.2 In the event of termination/suspension of the Contract under clauses 8 or 9, the Client shall pay to GroundSure all and any fees payable in respect of the performance of the Services
11.4 Save as expressly provided in clauses 4.2, 4.3, 6.3 and 11.5, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999
11.9 The Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with these terms and conditions shall be subject to the
11.10 GroundSure shall not be liable to the Client in respect of the provision of the Services if delayed or prevented by one or more of the following circumstances:
11.11 The Client or Beneficiary's failure to provide facilities, access or information;
11.12 The Client or Beneficiary's right to suspend or terminate
APPENDIX D
Limitations
Standard Limitations

This desk study report was conducted and has been prepared for the sole internal use and reliance of the Client, Prospect GB. This report shall not be relied upon or transferred to any other parties without the express written authorisation of BSL. If an unauthorised third party comes into possession of this report they rely on it at their risk and the authors owe them no duty of care or skill.

The findings and opinions conveyed via the desk study are based on information obtained from a variety of sources as detailed within this report, which BSL believes are reliable. Nevertheless, BSL cannot and does not guarantee the authenticity or reliability of the information it has relied upon.

Any recommendations made in this report should be confirmed with the Regulatory bodies and Planning Authority prior to implementation to ensure compliance.

No existing manhole covers were lifted or drainage runs inspected during the course of this ground investigation.

The site plans enclosed in this report should not be scaled off.