#### **UKSD Limited**

Phase I Geo-Environmental Desktop Study

Site off Southgore Lane, North Leverton

t: 0115 9414560 f: 0115 9644879

e: consult@millward.co.uk w: www.millward.com

millward is a trading name of the millward partnership ltd reg. no 4079805

Date of Issue: Nov 2018

Job

Number: MA10967



## SITE OFF SOUTHGORE LANE, NORTH LEVERTON

### **CONTENTS**

#### **EXECUTIVE SUMMARY**

- 1.0 INTRODUCTION
- 2.0 SITE LOCATION AND DESCRIPTION
- 3.0 GEO-ENVIRONMENTAL SETTING
- 4.0 HISTORY OF LAND USE
- 5.0 PHASE I GEOTECHNICAL ASSESSMENT
- 6.0 PHASE I ENVIRONMENTAL ASSESSMENT
- 7.0 RECOMMENDATIONS

#### **INFORMATION SOURCES**

#### **APPENDICES**

Proposed Site Layout Plan

Site Location Plan
Site Features Plan

IV Environmental Data Report

V Historical Mapping



#### **Executive Summary**

This presents the salient points of the report and should not be referred to in isolation. The conclusions and recommendations presented below are considered reasonable based on the assessments of the site undertaken by millward. However, these cannot be guaranteed to gain regulatory approval and therefore copies of this report should be sent to the appropriate Regulatory Authorities and / or other organisations (as appropriate) by the client for their comments and approval prior to undertaking any irrecoverable works associated with the site.

Foundations	Foundation recommendations are bound the remit of a Phase Liversity and
roundations	Foundation recommendations are beyond the remit of a Phase I report and
	are subject to laboratory testing and confirmation of ground conditions. At this stage it is considered likely that traditional foundations may be feasible
	across the site where competent natural soils are present at shallow depth,
	subject to the findings of an intrusive investigation.
Desilation None Trans	
Building Near Trees	Based on a review of available desk study information and geological
	mapping, it is considered likely that cohesive residual soils may be present
	at shallow depths across the site. It is therefore considered likely that
	deepening due to trees may be required at this stage, although this is
Dood Comptunation	subject to the findings of an intrusive investigation.
Road Construction	Road construction issues are beyond the remit of a Phase I report; however,
	values of between 2.5% and 5% may be anticipated in the natural strata
D	subject to in situ testing.
Drainage	Drainage issues are beyond the remit of a Phase I report and are subject to
	in situ testing. However, evidence from available desk study information and
	geological mapping suggests that the site may be underlain cohesive residual soils. If / where encountered these are not likely to provide
	favourable infiltration rates for in situ drainage features, subject to the
	findings of an intrusive investigation and in situ testing (if required). All
	drainage proposals should be agreed with the Local Authority prior to
NA: :	finalising designing designs.  No potential issues have been identified at this stage, subject to regulatory
Mining	
Sulphate	authority approval.  Sulphate classification is beyond the remit of this report and is subject to
Classification	
Contamination	laboratory testing.
Contamination	Potentially significant contaminative land uses have not been recorded on
	site or within an influencing distance. However, the Local Planning Authority
	may require confirmation that the historic orchard and nearby railway line
Ground Gas and	have not adversely affected soil conditions on site.
Radon	No ground gas risks / sources have been identified at this stage.
Radon	The site does not lie in an area where proporties are above the LIDA Action
	The site does not lie in an area where properties are above the HPA Action
	Level in accordance with the site-specific environmental data report (Appendix V). Radon precautions are therefore not likely to be required for
	new dwellings / structures, subject to Local Authority approval.
Further Works	At this stage the following further works will be necessary, subject to
Fultilei WOIKS	comments from the Regulatory Authorities:
	Comments from the Regulatory Authorities.
	<ul> <li>Completion of a site intrusive investigation to confirm site conditions</li> </ul>
	and to determine specific recommendations for future construction.
	The Client will need to liaise with appropriately licensed waste
	management contractors to determine requirements for additional
	analysis etc. should materials be considered for off-site removal /
	disposal.



#### 1.0 INTRODUCTION

#### 1.1 Preamble

Millward have been appointed by UKSD Limited (hereafter referred to as 'the Client') to undertake a Phase I Geo-Environmental Desktop Study of the Site off Southgore Lane, North Leverton (hereafter referred to as 'the site').

#### 1.2 Report Status

This report provides factual and interpretive geotechnical and environmental information, alongside associated construction proposals and recommendations, in relation to a proposed residential development.

This report has been prepared for the sole use and reliance of the Client and their appointed agents (e.g. Millward). No other third party may rely on, or reproduce the content of this report without the written approval of Millward. If any unauthorised third party comes into possession of this report, they rely upon it entirely at their own risk and the authors do not owe them any warranty, duty of care or skill.

#### 1.3 Sources and Conditions

The findings and recommendations made in this report are based on published information. Millward cannot accept responsibility for the reliability and authenticity of published information or reports prepared by third parties. There may be conditions prevailing on site which have not been revealed by this assessment and which have not been taken into account by this report. Responsibility cannot be accepted for any conditions not revealed by this assessment. Further assessments or testing may be required to inform subsequent works which we have not been made fully aware of or instructed upon at this stage (e.g. removal of soils for disposal etc.).

#### 1.4 Previous Reports

Millward have not been made aware of any previous reports relating to the site by the Client.



#### 1.5 Proposed Development

This report has been prepared on the understanding that the site is to be redeveloped to support residential housing. From proposed layout plans (supplied by the Client) it is understood that this will comprise 15 No. plots which are serviced by a centrally-positioned access road (leading off Southgore Lane), with a public open space toward the site's western boundary. Should these development proposals alter, then the recommendations in this report may be subject to change.

Extracts of the proposed development layout (supplied by the Client) are presented in the Proposed Site Layout Plan (Drawing 001) in Appendix I.



#### 2.0 SITE LOCATION AND DESCRIPTION

#### 2.1 Location

The site is located west of Southgore Lane, North Leverton, as shown on the Site Location Plan presented in Appendix II. The site is located at Ordnance Survey National Grid Reference 478416,381862.

#### 2.2 Description

The following key observations have been made:

#### 2.2.1 Site Description:

- The site currently supports an open area of ground;
- The site forms an irregularly shaped parcel of land which extends to 1.16ha;
- The site is accessed off Southgore Lane;
- Small mounds / uneven ground are present in some areas, with rough ground / unkempt vegetation across some western parts of the site;
- The site's boundaries are defined by fences / hedges associated with adjacent fields / land.

#### 2.2.2 Surrounding Area:

- The site is set within a mixed agricultural and residential area;
- Land to the north and south of the site supports large gardens and / or open fields associated with nearby properties;
- Land to the east of the site supports residential properties and Southgore Lane;
- A railway line borders the site to the west, beyond which lie open fields.

A Site Features Plan showing the general aspects of the site is included in Appendix III.



#### 3.0 GEO-ENVIRONMENTAL SETTING

#### 3.1 Geology, Hydrogeology and Mining

A review of the following information has been undertaken:

- British Geological Survey 1:50,000 scale Series, Sheet 101, Solid & Drift Edition;
- Coal Mining Searches, The Law Society Guidance Notes and Directory 1998
   Edition;
- Environment Agency Online Aquifer Designation Database (accessed March 2015):
- Building Research Establishment (BRE), Radon: Guidance on Protective Measures for New Buildings (BR211, 2007 Edition);
- Site Specific Environmental Data Report: Ref. GEO-M-1944262 (March 2015).

**Table 3.1: Geological Information** 

Drift Deposits	Drift / superficial deposits are not recorded across the subject site.
Solid Geology	The site is shown to be underlain by Mercia Mudstone. This is generally recorded to comprise red, less commonly green-grey, mudstones and subordinate siltstones with thick halite-bearing units in some basinal areas. Thin beds of gypsum/anhydrite widespread; sandstones are also present.
Discontinuities	No faults are shown across the site on available geological mapping.
Artificial Ground	No artificial ground is recorded within the proximity of the site.
Soil Chemistry	Soil Chemistry for the site does not highlight any elevated natural contaminants.
Hydrogeology & Hydrology	The Mercia Mudstone is classified by the EA as a 'Secondary B' aquifer. These are predominantly lower permeability layers which may store and yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers.  The site is not identified to be within an Environment Agency source protection zone.  No groundwater or surface water abstractions have been recorded within a 250m radius of the site. No potable water abstractions have been recorded within a 2000m radius of the site.  An unnamed watercourse is present 70m south-east of the site.
Flooding	The site is not recorded to be set within a Zone 2 or Zone 3 floodplain and no areas benefitting from flood defences are recorded within a 250m radius.
	The site is not recorded to be set within an area identified as being at risk from groundwater flooding.



Table 3.1: Geological Information (Cont.)

Table 6.1. declegical fine matter (cont.)				
Natural Ground	The site has been classified as having:			
Stability Hazards				
	<ul> <li>Shrinking / Swelling Clay – Very Low Hazard Rating</li> </ul>			
	<ul> <li>Landslide – Very Low Hazard Rating</li> </ul>			
	Ground Dissolution – No Hazard Rating			
	<ul> <li>Compressible Ground – No Hazard Rating</li> </ul>			
	<ul> <li>Collapsible Ground –Very Low Hazard Rating</li> </ul>			
	<ul> <li>Running Sand – No Hazard Rating</li> </ul>			
Mining	The site-specific environmental data obtained for the site			
	(included within Appendix V) indicates that the site is <b>not</b> set			
	within an area at risk from coal mining.			
Radon	The site is <b>not</b> recorded to lie within a radon affected area, as			
	less than 1% of homes are above the HPA Action Level in			
	accordance with the site-specific environmental data report			
	(Appendix IV). Radon precautions are therefore <b>not</b> likely to be			
	required for new structures, subject to Local Authority approval.			

#### 3.2 Environmental Data Search

The principal considerations of immediate relevance are given in Table 3.3 below. For a comprehensive list of environmental data, please refer to the site specific environmental data report presented in Appendix IV.

**Table 3.2: Environmental Data** 

Authorisations, Incidents and Registers	One discharge consent is listed within a 250m radius of the site. This is positioned 20m south relating to 'final/ treated effluent', dating from 1972.  No other AIR's have been recorded within a 250m radius of the site.
Landfills and Other Waste Sites	No landfills or other waste sites / waste transfer stations are recorded within a 250m radius of the site.
Current Land Uses	Four industrial land uses are recorded within a 250m radius. The closest is positioned 84m north relating to 'Electrical Equipment Repair and Servicing'.
Petrol Fuel Sites	No Petrol / Fuel sites are recorded within a 250m radius of the site.
Hydrogeology and Hydrology	No significant hydrogeology / hydrology issues have been noted within a 250m radius of the site.
Designated Environmentally Sensitive Sites	The site is recorded to be within a nitrate vulnerable zone.



#### 4.0 HISTORY OF LAND USE

A study of historical Ordnance Survey maps has been undertaken to identify any potentially contaminative former land-uses. The main historical features of the site and surrounding area (within a 250m radius) are summarised in Table 4.1 (below) and Table 4.2 (overleaf) and are shown on the historical maps presented in Appendix V. It should be noted, however that considerable periods of time may have elapsed between successive Ordnance Survey map editions and it is possible that further land uses have occurred in the intervening years which were not recorded. In these circumstances, whilst we have tried to ascertain the complete record of the site history, the possibility that other significant land uses may have taken place cannot be discounted.

**Table 4.1: Principal Historical On-site Features** 

OS map date(s)	Source scale	Principal On-Site Features	
1885	1:10,560	The eastern part of the site supports a garden / orchard. The western part supports a field / open ground.	
1886	1:2,500	No significant changes identified.	
1899	1:2,500	The majority of the site is now recorded to support an orchard, with the far south-eastern corner supporting open ground.	
1900	1:10,560	No significant changes identified.	
1904	1:10,560	No significant changes identified.	
1920	1:2,500	Some small rectangular structures (possibly sheds) recorded on near the site's north-eastern corner.	
1921*	1:10,560	No significant changes identified.	
1947	1:10,560	No significant changes identified.	
1951	1:10,560	No significant changes identified.	
1972	1:2,500	No significant changes identified.	
1977	1:10,000	No significant changes identified.	
1989	1:2,500	No significant changes identified.	
1994*	1:2,500	No significant changes identified.	
2002	1:10,000	Orchard no longer recorded. Site now shown to support an open field.	
2010	1:10,000	No significant changes identified.	
2014	1:10,000	No significant changes identified.	

<sup>\* -</sup> Full extent of site/area not recorded on plans.



**Table 4.2: Principal Historical Off-site Features** 

OS map date(s)	Source scale	Principal Off-Site Features	Direction
		Open fields.	ALL
		Orchards.	N
1885	1:10,560	Railway line and station.	S
		Houses.	NE
		Marsh ground.	S/SE
1886	1:2,500	No significant changes identified.	-
1899	1:2,500	Pumps.	ALL
1900	1:10,560	No significant changes identified.	-
1904	1:10,560	No significant changes identified.	-
1920	1:2,500	No significant changes identified.	-
1921*	1:10,560	No significant changes identified.	-
1947	1:10,560	No significant changes identified.	-
1951	1:10,560	No significant changes identified.	-
1972	1:2,500	Houses.	NE,NW,S
1977	1:10,000	No significant changes identified.	-
1989	1:2,500	No significant changes identified.	-
1994*	1:2,500	No significant changes identified.	-
2002	1:10,000	Houses.	N,E
2010	1:10,000	No significant changes identified.	-
2014	1:10,000	No significant changes identified.	-

 $<sup>^{\</sup>star}\,$  - Full extent of site/area not recorded on plans.



#### 5.0 PHASE I GEOTECHNICAL ASSESSMENT

#### 5.1 Anticipated Ground Conditions

Soils - Made Ground / Topsoil

On the basis of available information it is considered that significant made ground soils are not likely to be present across the site. Cultivated topsoil is expected across most areas.

Drift and Solid - Natural Strata

Superficial soils are not recorded beneath the site. The site is recorded to be underlain by Mercia Mudstone. Residual soils of this formation are likely to be encountered as weathered clays at shallow depth, where present.

#### Groundwater

The site is recorded to be set upon a 'Secondary B' aquifer. Significant groundwater is therefore not anticipated during site works, depending on the prevailing weather conditions, ambient conditions groundwater etc.

Stability Issues (e.g. Mining / Slopes)

- Shrinking / Swelling Clay Very Low Hazard Rating
- Landslide Very Low Hazard Rating
- Ground Dissolution No Hazard Rating
- Compressible Ground No Hazard Rating
- Collapsible Ground –Very Low Hazard Rating
- Running Sand No Hazard Rating

No coal mining issues have been identified.

Contamination and Performance of Building Materials

Following a review of historic mapping, potentially contaminative land uses have not been identified on site or within an influencing distance. Potential impacts to building materials are therefore subject to laboratory analysis.



#### 6.0 PHASE I ENVIRONMENTAL ASSESSMENT

#### 6.1 Phase I Conceptual Model

The following is based on the desk study information listed herein.

#### 6.1.1 Site Summary:

A review of all available desk study information indicates that the site has supported open fields and / or orchards since the earliest available mapping (dated 1885) up to present.

The surrounding area has been partially & progressively developed to support housing in some areas, and it currently supports a mix of residential and agricultural land uses. A railway line runs along the site's western boundary.

Potentially significant contaminative land uses have not been recorded on site or within an influencing distance. However, the Local Planning Authority may require confirmation that the orchard and nearby railway line have not adversely affected soil conditions on site.

#### 6.1.2 S-P-R Characterisation:

The statutory guidance describes contaminated land in terms of 'significant pollutants' and 'pollutant linkages', using SOURCE-PATHWAY-RECEPTOR' scenarios for the site. For a pollutant linkage to exist all three of these elements must be present. These have been clearly defined in the guidance as follows:

.....potential source as 'a contaminant which is in, or under the land and which has the potential to cause significant harm or to cause pollution of controlled waters'.

.....potential pathway as 'one or more routes or means by, or through, which a receptor is being exposed to, or affected by a contaminant, or could be so exposed or affected'.

.....potential receptor as 'a living organism, a group of living organisms, an ecological system or a piece of property which is being or could be, harmed by a contaminant or controlled waters which are being, or could be, polluted by a contaminant'.

Examination of the desk study information and features noted on the site has identified the following (see below):



#### Potential Sources:

The review of the available desk study information has revealed the following potential sources of contamination identified resulting from former and/or existing land uses that must be considered in a SOURCE-PATHWAY-RECEPTOR scenario. There is also though the possibility that naturally occurring levels of some contaminants may exceed the relevant guidance values.

**Table 6.1: Potential Sources of Contamination** 

Potential Onsite	Associated Potential Contaminants*			
Sources	Metals and Inorganics	Organics	Other	
None Identified	-	-	-	
Potential Offsite Sources				
None Identified	-	-	-	

<sup>\*</sup> Professional experience alongside CLR8: Potential Contaminants for the Assessment of Land (used for guidance purposes)

#### Potential Pathways:

- · Direct ingestion of soil and dust,
- Dermal contact with soil and dust,
- Inhalation of vapour and dust,
- Leaching and direct contact (e.g. with foundations / controlled waters),
- Vadose zone.

#### Potential Receptors:

- Ground workers employed in the redevelopment of the site,
- Future end users of the site,
- Controlled waters.



#### 6.1.3 Potential Pollutant Linkages:

A potential pollutant linkage is defined as 'the relationship between a contaminant, a pathway and a receptor' where the pollutant is the contaminant in the pollutant linkage. For land to be identified as contaminated under the current UK guidance all three elements of the pollutant linkage must be present. In many cases there may be more than one pollutant linkage on any given site.

A review of the desk study information, the features noted on site and the potential sources, pathways and receptors listed above has led to the potential significant pollutant linkages (SPL) being considered (Table 6.2 overleaf).



Table 6.2: Potential Pollutant Linkages							
Potential Receptors							
Source	Pathway	Controlled	Ground	End-	Flora	Building	SPL*
		Waters	workers	users		materials	
	Direct		✓	<b>✓</b>			<b>✓</b>
	Ingestion						
Metal/metalloids	Dermal		✓	<b>✓</b>			<b>✓</b>
and inorganics in	Contact						
SOIL	Inhalation		✓	1			<b>*</b>
	Leaching/direct	<b>√</b>			1	✓	1
	movement				,	·	
Asbestos containing materials in SOIL	Inhalation		✓	<b>✓</b>			<b>*</b>
	Direct		<b>√</b>	1			1
	Ingestion			·			
Organics in	Dermal		<b>√</b>	1			1
SOIL	Contact		•				,
	Inhalation		✓	✓			✓
	Leaching/direct	<b>√</b>			<b>√</b>	<b>√</b>	1
	movement	✓			•	•	•
	Direct		✓				<b>√</b>
	Ingestion		•				,
Metal/metalloids	Dermal		<b>√</b>				<b>√</b>
and inorganics in	Contact		•				,
GROUNDWATER	Inhalation						
	Leaching/direct	<b>√</b>			<b>√</b>	✓	1
	movement	•			•	•	
	Direct		✓				1
	Ingestion		•				_
Organics	Dermal		✓				<b>✓</b>
in	Contact		•				,
GROUNDWATER	Inhalation						
	Leaching/direct						,
	movement	✓			✓	✓	<b>✓</b>
	Direct						
	Ingestion						
GROUND GAS	Dermal						
(Carbon Dioxide	Contact						
and Methane)	Inhalation		✓	✓			✓
	Leaching/direct					,	
	movement					✓	<b>✓</b>

<sup>\*</sup> Potential SPL identified pending Local Authority comments and confirmation of ground conditions



#### 6.1.4 Model Status and Uncertainty

The potential significant linkages listed above are based on the available data listed in the sections above and the features noted on site. Therefore, the linkages identified are tentative and subject to the following uncertainty:

- Presence and nature of any made ground and the underlying strata;
- Presence and depth of any groundwater at shallow depth;
- Actual presence of contaminants or ground gas sources in soils and / or water.



#### 7.0 RECOMMENDATIONS

All recommendations are subject to the relevant regulatory authority approval. The conclusions and recommendations presented below are considered reasonable based on the assessments of the site undertaken by millward. However, these cannot be guaranteed to gain regulatory approval and therefore copies of this report should be sent to the appropriate regulatory authorities and / or other organisations, suppliers etc. (as appropriate) by the client for their comments and approval prior to undertaking any irrecoverable works associated with the site.

- 7.1 Foundations: Foundation recommendations are beyond the remit of a Phase I report and are subject to laboratory testing and confirmation of ground conditions. At this stage it is considered likely that traditional foundations may be feasible across the site where competent natural soils are present at shallow depth, subject to the findings of an intrusive investigation.
- **7.2 Building Near Trees:** Based on a review of available desk study information and geological mapping, it is considered likely that cohesive residual soils may be present at shallow depths across the site. It is therefore considered likely that deepening due to trees may be required at this stage, although this is subject to the findings of an intrusive investigation.
- **7.3 Road Construction:** Road construction issues are beyond the remit of a Phase I report; however, values of between 2.5% and 5% may be anticipated in the natural strata subject to in situ testing.
- 7.4 Drainage: Drainage issues are beyond the remit of a Phase I report and are subject to in situ testing. However, evidence from available desk study information and geological mapping suggests that the site may be underlain cohesive residual soils. If / where encountered these are not likely to provide favourable infiltration rates for in situ drainage features, subject to the findings of an intrusive investigation and in situ testing (if required). All drainage proposals should be agreed with the Local Authority prior to finalising designing designs.
- **7.5 Mining: No** potential issues have been identified at this stage, subject to regulatory authority approval.



- **7.6 Sulphate Classification:** Sulphate classification is beyond the remit of this report and is subject to laboratory testing.
- 7.7 Contamination: Potentially significant contaminative land uses have not been recorded on site or within an influencing distance. However, the Local Planning Authority may require confirmation that the historic orchard and nearby railway line have not adversely affected soil conditions on site.
- **7.8 Ground Gas and Radon:** No ground gas risks / sources have been identified at this stage.

The site does **not** lie in an area where properties are above the HPA Action Level in accordance with the site-specific environmental data report (Appendix V). Radon precautions are therefore **not** likely to be required for new dwellings / structures, subject to Local Authority approval.

- **7.9 Further Works:** At this stage the following further works will be necessary, subject to comments from the Regulatory Authorities:
  - Completion of a site intrusive investigation to confirm site conditions and to determine specific recommendations for future construction.
  - The Client will need to liaise with appropriately licensed waste management contractors to determine requirements for additional analysis etc. should materials be considered for off-site removal / disposal.



### **INFORMATION SOURCES**

	British Geological Survey 1:50,000 scale Series, Sheet 101, Solid & Drift			
	Edition;			
	Coal Mining Searches, The Law Society Guidance Notes and Directory 1998			
	Edition;			
Geological data	Environment Agency Online Aquifer Designation Database (accessed March			
	2015);			
	Building Research Establishment (BRE), Radon: Guidance on Protective			
	Measures for New Buildings (BR211, 2007 Edition);			
	Site Specific Environmental Data Report: Ref. GEO-M-1944262 (March 2015).			
	Site Specific Environmental Data Report: Ref. GEO-M-1944262 (March 2015).			
	BRE Report BR211 "Radon: Guidance on protective measures for new			
	dwellings" (1999 Edition).			
	Environment Agency (EA) & DEFRA: Model Procedures for the Management of			
	Land Contamination – Contaminated Land Report 11 (CLR11) (2004).			
	EA: Human Health Toxicology Assessment of Contaminants in Soil			
	(SC0021/SR2) (2009).			
	EA: Updated Technical Background to the CLEA Model (SC050021/SR3)			
Environmental	(2009).			
Environmental	EA: Compilation of Data for Priority Organic Pollutants for Derivation of Soil			
	Guideline Values (SC050021/SR7) (2008).			
	Chartered Institute of Environmental Health (CIEH): Professional Practice			
	Note: Reviewing human health risk assessment reports invoking contaminant			
	oral bioavailability measurements or estimates (2009).			
	Land Quality Management (LQM) /CIEH: The LQM/CIEH Generic Assessment			
	Criteria for Human Health Risk Assessment (2nd edition) (2009).			
	CL: AIRE in Association with EIC and AGS: Soil Generic Assessment Criteria for			
	Human Health Risk Assessment (updated January 2010 version).			
Historical	As presented Appendix VI.			



## **APPENDIX I**

Proposed Site Layout Plan



DO NOT SCALE NOTES:





Approx Site Boundary

# millward

#### integrated engineering consultants

3.7 midder payersent nuttinghare ng1.7dx ± 0115.341.4560 ii. 0115.064.4879 iii. info@milestratususk www.mbrant.co.uk

CLIENT:

Henry Taylor Building Surveyors (Small Works) Ltd

PROJECT:

Site off Southgore Lane, North Leverton

Proposed Site Layout Plan

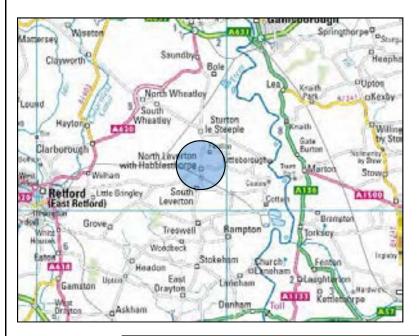
SCALE@SIZE : NTS	Final
DESIGN/DRAWN: JR	March 2015
PROJECT No:	DRAWING No:
MA10081	001

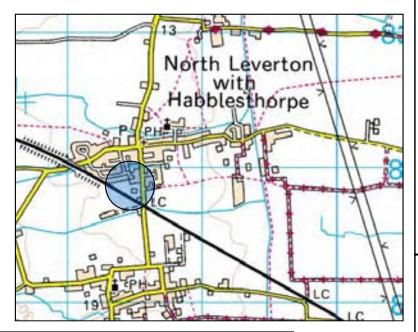
The proposed layout plan shown is an extract taken from Drawing ref. HTR00/104/14/01 'Proposed Feasibility Scheme' dated March. 2014



## **APPENDIX II**

Site Location Plan







DO NOT SCALE NOTES:





Approx. Site Location



Approx. Site Boundary



#### integrated engineering consultants

3-7 middle payament inattingham ng1 Yds ti 0115 941 4560 (; 0115 964 4879 ib: intellimitward.co.us www.mitward.co.uk

CLIENT:

PROJECT:

Site off Southgore Lane, North Leverton

TITLE:

Site Location Plan

SCALE@SIZE : NTS	Final
DESIGN/DRAWN: JR	March 2015
PROJECT No:	DRAWING No:
MA10967	002



## **APPENDIX III**

Site Features Plan





## **APPENDIX IV**

Environmental Data Report



# GroundSure Geolnsight Plus

Address: Land off Southgore Lane, North Leverton,

Date: 5 Mar 2015

NW NE



Aerial Photograph Capture date: 19-Jul-2013
Grid Reference: 478416,381862

Site Size: 1.16ha

SE

# **Contents Page**

Contents Page	3
Overview of Findings	5
1:10,000 Scale Availability	8
Availability of 1:10,000 Scale Geology Mapping	9
1 Geology (1:10,000 scale)	10
1.1 Artificial Ground Map (1:10,000 scale)	
1. Geology 1:10,000 scale	
1.1 Artificial Ground	
1.2 Superficial Deposits and Landslips Map (1:10,000 scale)	
1.2 Superficial Deposits and Landslips	
1.2.1 Superficial Deposits/ Drift Geology	
1.2.2 Landslip	
1.3 Bedrock and Faults	
1.3.1 Bedrock/ Solid Geology	
1.3.2 Faults	
2 Geology 1:50,000 Scale	
2.1 Artificial Ground Map	
2. Geology 1:50,000 scale	
2.1 Artificial Ground	
2.1.1 Artificial/ Made Ground	
2.2 Superficial Deposits and Landslips Map (1:50,000 scale)	
2.2 Superficial Deposits and Landslips	
2.2.1 Superficial Deposits/ Drift Geology	
2.2.2 Permeability of Superficial Ground	
2.2.3 Landslip         2.2.4 Landslip Permeability	
2.3 Bedrock and Faults Map (1:50,000 scale)	
2.3 Bedrock, Solid Geology & Faults	21
2.3.1 Bedrock/Solid Geology	
2.3.2 Permeability of Bedrock Ground	
3 Radon Data	
3.1 Radon Affected Areas	
3.2 Radon Protection	
4 Ground Workings Map	
4 Ground Workings	24
4.1 Historical Surface Ground Working Features derived from Historical MappingMapping	
4.2 Historical Underground Working Features derived from Historical Mapping	
4.3 Current Ground Workings	25
5 Mining, Extraction & Natural Cavities	27
5.1 Historical Mining	27
5.2 Coal Mining	
5.3 Johnson Poole and Bloomer	
5.4 Non-Coal Mining	
5.5 Non-Coal Mining Cavities	
5.6 Natural Cavities	
5.7 Brine Extraction	
5.9 Tin Mining	
5.10 Clay Mining	
6 Natural Ground Subsidence	
6.1 Shrink-Swell Clay Map	
6.2 Landslides Map	
6.3 Ground Dissolution of Soluble Rocks Map	
6.4 Compressible Deposits Map	33
6.5 Collapsible Deposits Map	
6.6 Running Sand Map	35
6 Natural Ground Subsidence	36
6.1 Shrink-Swell Clays	
6.2 Landslides	
6.3 Ground Dissolution of Soluble Rocks	
6.4 Compressible Deposits	37

Report Reference: GEO-M-1944262 Client Reference: GML15126\_JR\_001



6.5 Collapsible Deposits	. 37
6.6 Running Sands	. 37
7 Borehole Records	. 39
8 Estimated Background Soil Chemistry	40
9 Railways and Tunnels Map	
9 Railways and Tunnels	.42
9.1 Tunnels	. 42
9.2 Historical Railway and Tunnel Features	. 42
9.3 Historical Railways	. 43
9.4 Active Railways	
9.5 Railway Projects	. 43



## **Overview of Findings**

The GroundSure GeoInsight Plus provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 and 1:10,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Shallow Mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database, Johnson Poole and Bloomer mining data and GroundSure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the 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.

Section 1: Geology 1:10,000 Scale				
1.1 Artificial Ground	1.1 Is there any Artificial Ground/ Made Ground present beneath the study site at 1:10,000 scale?	No		
1.2 Superficial Geology and Landslips	5 1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site at 1:10,000 scale?*	No		
	1.2.2 Are there any records of landslip within 500m of the study site boundary at 1:10,000 scale?	No		
1.3 Bedrock, Solid Geology and Faults	$1.3.1\mathrm{For}$ records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.			
	1.3.2 Are there any records of faults within 500m of the study site boundary at 1:10,000 scale?	No		

Section 2: Geology 1:50,000 Scale				
2.1 Artificial Ground	2.1.1 Is there any Artificial Ground/ Made Ground present beneath the study site?	No		
	2.1.2 Are there any records relating to permeability of artificial ground within the study site*boundary?	No		
2.2 Superficial Geology and Landslip	2.2.1 Is there any Superficial Ground/Drift Geology present beneath study site?*	No		
	$2.2.2\mbox{Are}$ there any records of permeability of superficial ground within 500m of the study site?	No		
	2.2.3 Are there any records of landslip within 500m of the study site boundary?	No		
	2.2.4 Are there any records relating to permeability of landslips within the study site* boundary?	No		
2.3 Bedrock, Solid Geology and Faults	2.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.			



## Section 2: Geology 1:50,000 Scale

$2.3.2\mbox{Are}$ there any records of faults within 500m of the study site boundary?	Yes
2.3.3 Are there any records of faults within 500m of the study site boundary?	No

Section 3: R	adon	
3. Radon	3.1Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above	The property is not in a Radon Affected Area, as less than 1% of properties are
	the Action Level?	above the Action Level.

 $\begin{array}{cc} 3.2 \text{Radon Protection} & \text{No radon protective measures are} \\ & \text{necessary.} \end{array}$ 

		-			
Section 4: Ground Workings	On-site	0-50m	51-250	251-500	501-1000
4.1 Historical Surface Ground Working Features from Small Scale Mapping	0	3	7	Not Searched	Not Searched
4.2 Historical Underground Workings from Small Scale Mapping	0	0	0	0	0
4.3 Current Ground Workings	0	0	0	0	0
Section 5: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
5.1 Historical Mining	0	0	0	0	0
5.2 Coal Mining	0	0	0	0	0
5.3 Johnson Poole and Bloomer Mining Area	0	0	0	0	0
5.4 Non-Coal Mining*	0	0	0	0	0
5.5 Non-Coal Mining Cavities	0	0	0	0	0
5.5 Natural Cavities	0	0	0	0	0
5.6 Brine Extraction	0	0	0	0	0
5.7 Gypsum Extraction	0	0	0	0	0
5.8 Tin Mining	0	0	0	0	0

Report Reference: GEO-M-1944262 Client Reference: GML15126\_JR\_001

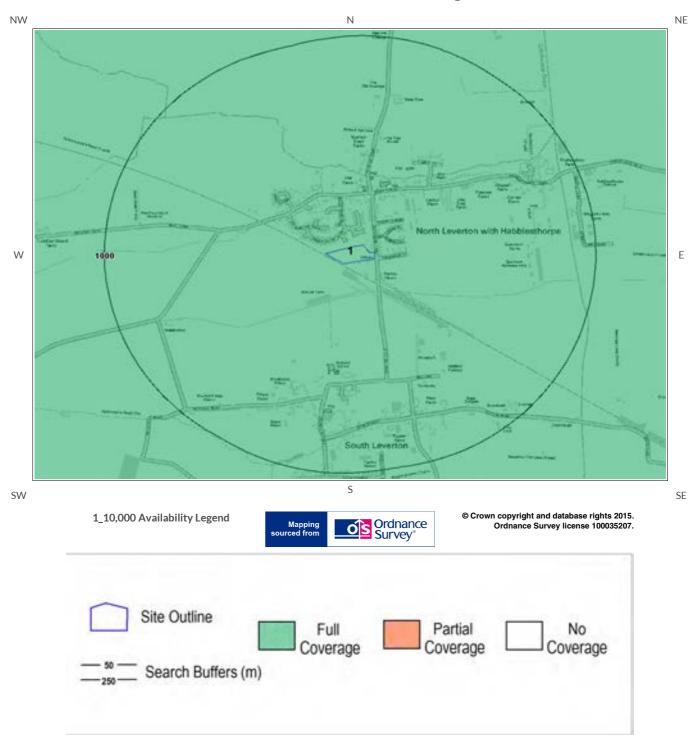


Section 5: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
5.9 Clay Mining	0	0	0	0	0
Section 6: Natural Ground Subsidence	On-sit	е			
6.1 Shrink-Swell Clay	Very Lo	W			
6.2 Landslides	Very Lo	W			
6.3 Ground Dissolution of Soluble Rocks	Negligib	le			
6.4 Compressible Deposits	Negligib	le			
6.5 Collapsible Deposits	Very Lo	w			
6.5 Running Sand	Negligib	le			
Section 7: Borehole Records	On-si	to	0-50m	51	-250
				31	
7 BGS Recorded Boreholes	0		0		4
Section 8: Estimated Background Soil Chemistry	On-si	te	0-50m	51	-250
8 Records of Background Soil Chemistry	2		0		0
Section 9: Railways and Tunnels	On-site	0-50m	51-250	250-500	
9.1 Tunnels	0	0	0	Not Searched	
9.2 Historical Railway and Tunnel Features	0	1	2	Not Searched	
9.3 Historical Railways	0	0	0	Not Searched	
9.4 Active Railways	0	4	0	Not Searched	
9.5 Railway Projects	0	0	0	0	

Report Reference: GEO-M-1944262 Client Reference: GML15126\_JR\_001



# 1:10,000 Scale Availability





# Availability of 1:10,000 Scale Geology Mapping

The following information represents the availability of the key components of the 1:10,000 scale geological data.

ID	Distance	Artificial Coverage	Superficial Coverage	Bedrock Coverage	Mass Movement Coverage
1	0.0	No deposits are mapped	Full	Full	No coverage
N2	1444.0	No deposits are mapped	Full	Full	No coverage
N3	1806.0	No deposits are mapped	Full	Full	No coverage

Guidance: The 1:10,000 scale geological interpretation is the most detailed generally available from BGS and is the scale at which most geological surveying is carried out in the field. The database is presented as four types of geology (artificial, mass movement, superficial and bedrock), although not all themes are mapped or available on every map sheet. Therefore a coverage layer showing the availability of the four themes is presented above.

The definitions of coverage are as follows:

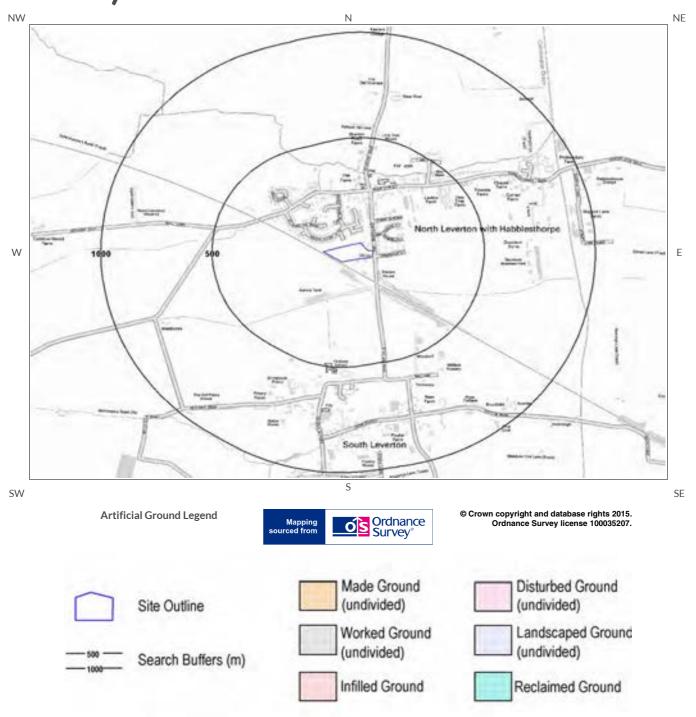
Geology	Full Coverage Partial Coverage		No Coverage	
Bedrock	The whole tile has been mapped	Some but not all the tile has been mapped	No coverage	
Superficial	The whole tile has been mapped	Some but not all of the tile has been mapped	No coverage	
Artificial	Some deposits are mapped on this tile	-	No deposits are mapped	
Mass Movement	Some deposits are mapped on this tile	-	No coverage	

Report Reference: GEO-M-1944262 Client Reference: GML15126\_JR\_001



# 1 Geology (1:10,000 scale).

# 1.1 Artificial Ground Map (1:10,000 scale)







# 1. Geology 1:10,000 scale

#### 1.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping.

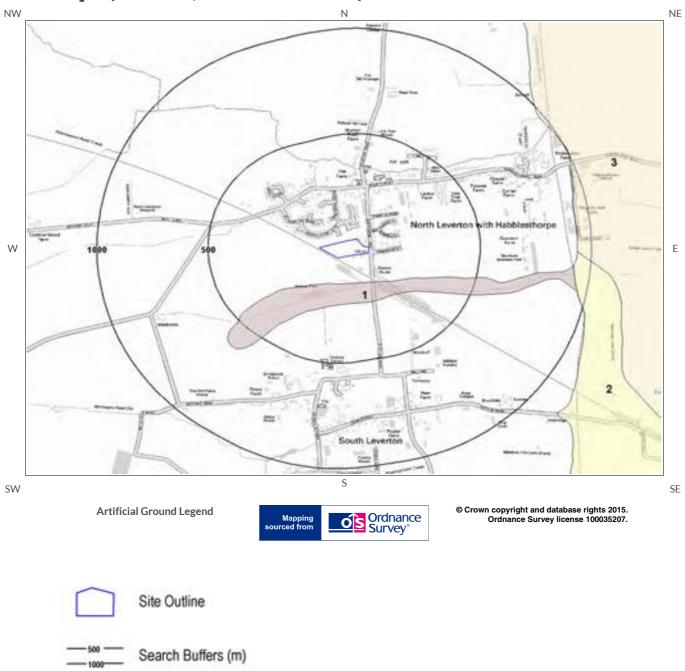
Are there any records of Artificial/Made Ground within 500m of the study site boundary at 1:10,000 scale?

No

Database searched and no data found.



## 1.2 Superficial Deposits and Landslips Map (1:10,000 scale)





### 1.2 Superficial Deposits and Landslips

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping

### 1.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary at 1:10,000 scale?

Yes

ID	Distance (m)	Direction	LEX Code	Description	Rock Description
1	123.0	S	HEAD-XCZSV	Head - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel

### 1.2.2 Landslip

Are there any records of Landslip within 500m of the study site boundary at 1:10,000 scale?

Nο

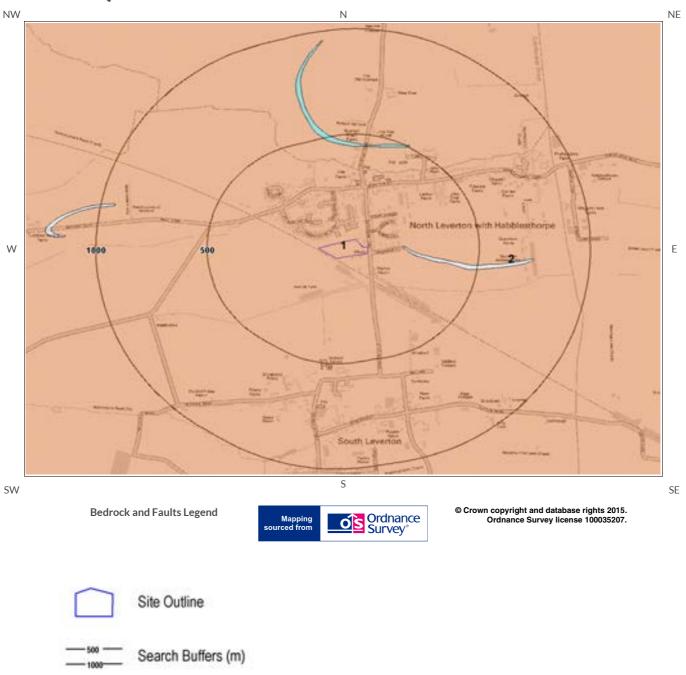
Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:10,000 scale

This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.



# 1.3 Bedrock and Faults Map (1:10,000 scale)





### 1.3 Bedrock and Faults

The following geological information represented on the mapping is derived from 1:10,000 scale BGS Geological mapping.

### 1.3.1 Bedrock/Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary at 1:10,000 scale.

ID	Distance (m)	Direction	LEX Code	Description	Rock Age
1	0.0	On Site	MMG-MDST	Mercia Mudstone Group - Mudstone	Rhaetian Age - Early Triassic Epoch
2	150.0	Е	MMG-DSLST	Mercia Mudstone Group - Dolomitic Siltstone	Rhaetian Age - Early Triassic Epoch
3	443.0	N	MMG-DSLST	Mercia Mudstone Group - Dolomitic Siltstone	Rhaetian Age - Early Triassic Epoch

### 1.3.2 Faults

Are there any records of Faults within 500m of the study site boundary at 1:10,000 scale?

No

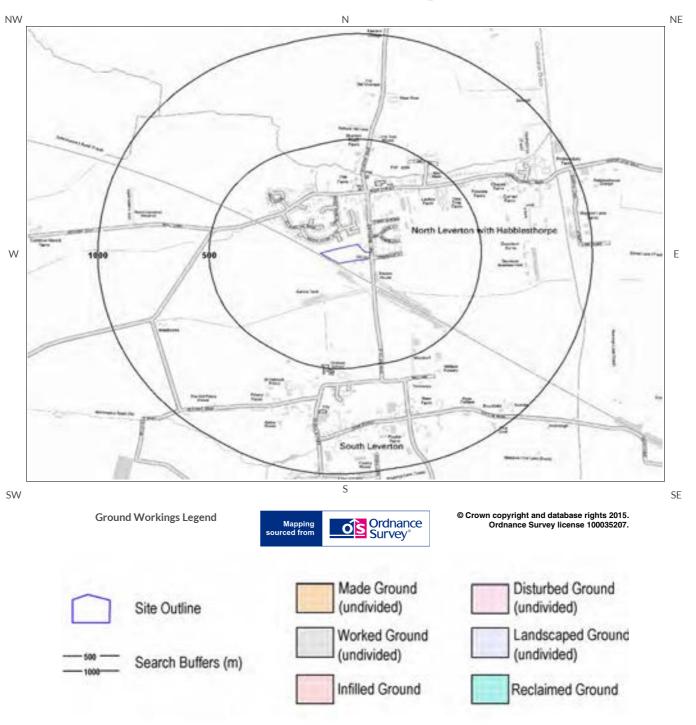
Database searched and no data found at this scale.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of great Britain at 1:10,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.



# 2 Geology 1:50,000 Scale2.1 Artificial Ground Map







### 2. Geology 1:50,000 scale

### 2.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 101

### 2.1.1 Artificial/ Made Ground

Are there any records of Artificial/ Made Ground within 500m of the study site boundary?

No

Database searched and no data found.

### 2.1.2 Permeability of Artificial Ground

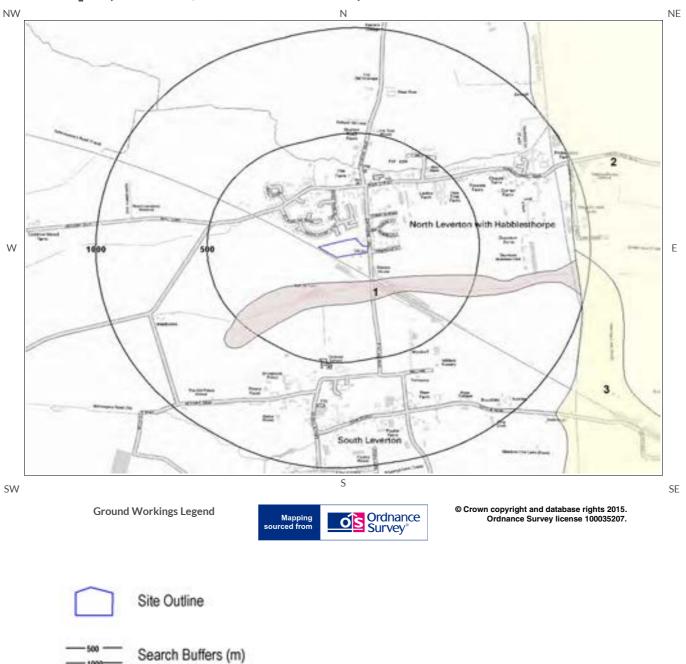
Are there any records relating to permeability of artificial ground within the study site boundary?

No

Database searched and no data found.



## 2.2 Superficial Deposits and Landslips Map (1:50,000 scale)





### 2.2 Superficial Deposits and Landslips

### 2.2.1 Superficial Deposits/ Drift Geology

Are there any records of Superficial Deposits/ Drift Geology within 500m of the study site boundary? Yes

ID	Distance	Direction	LEX Code	Description	Rock Description
1	117.0	S	HEAD-CSSG	HEAD	CLAY, SILT, SAND AND GRAVEL

### 2.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site boundary?

Nο

Database searched and no data found.

### 2.2.3 Landslip

Are there any records of Landslip within 500m of the study site boundary?

No

Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, there are: Artificial/ Made Ground, Superficial/ Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

### 2.2.4 Landslip Permeability

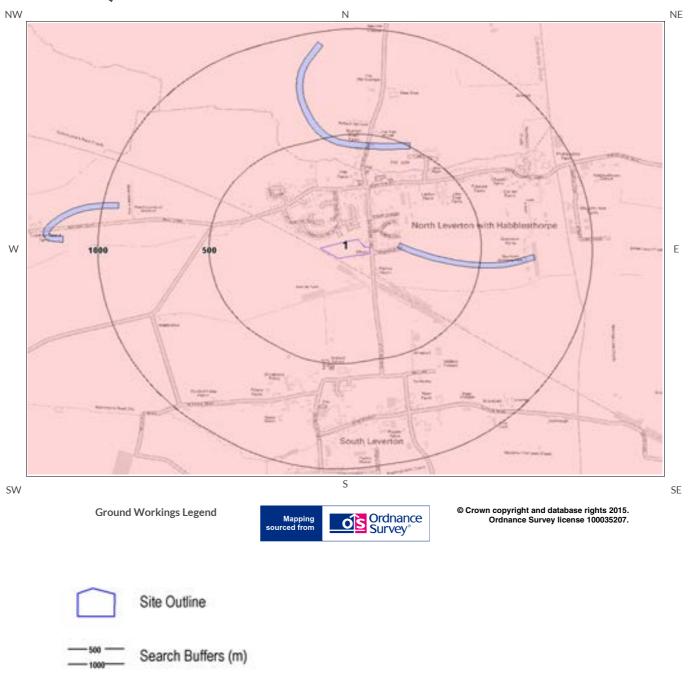
Are there any records relating to permeability of landslips within the study site boundary?

No

Database searched and no data found.



# 2.3 Bedrock and Faults Map (1:50,000 scale)





### 2.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 101

### 2.3.1 Bedrock/Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary:

ID	Distance	Direction	LEX Code	Rock Description	Rock Age
1	0.0	On Site	MMG-MDST	Mercia Mudstone Group - Mudstone	Rhaetian / Scythian
2	123.0	Е	MMG-DLSL	Mercia Mudstone Group - Dolomitic Siltstone	Rhaetian / Scythian
3	433.0	N	MMG-DLSL	Mercia Mudstone Group - Dolomitic Siltstone	Rhaetian / Scythian

### 2.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site boundary?

Yes

Distance	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	Low	Low

### 2.3.3 Faults

Are there any records of Faults within 500m of the study site boundary?

No

#### Database searched and no data found.

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discrete layers, these are: Bedrock/Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nation wide coverage.



### 3 Radon Data

### 3.1 Radon Affected Areas

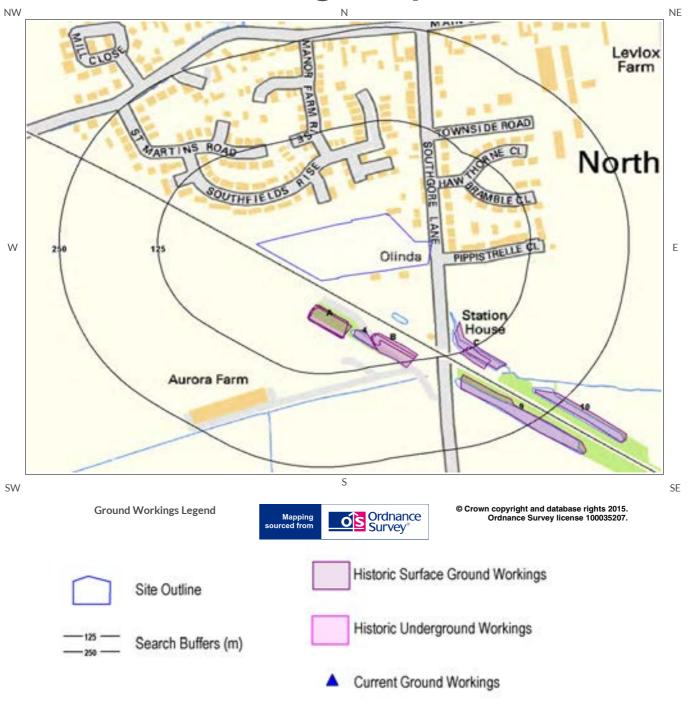
Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

### 3.2 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary.



## 4 Ground Workings Map







## 4 Ground Workings

### 4.1 Historical Surface Ground Working Features derived from Historical Mapping

This dataset is based on GroundSure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping

Are there any Historical Surface Ground Working Features within 250m of the study site boundary?

Yes

ID	Distance (m)	Direction	NGR	Use	Date
1A	33.0	S	478424 381751	Unspecified Pit	1916
2A	33.0	S	478424 381751	Unspecified Pit	1951
3A	36.0	S	478427 381750	Unspecified Pit	1900
4	72.0	S	478472 381726	Pond	1977
5B	82.0	S	478508 381718	Unspecified Ground Workings	1916
6B	83.0	S	478508 381712	Unspecified Pit	1900
7C	86.0	SE	478600 381719	Pond	1977
8C	122.0	SE	478611 381702	Ponds	1916
9	155.0	S	478672 381627	Pond	1977
10	216.0	SE	478745 381625	Pond	1977

### 4.2 Historical Underground Working Features derived from Historical Mapping

This data is derived from the GroundSure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary?

No

Database searched and no data found.



### 4.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

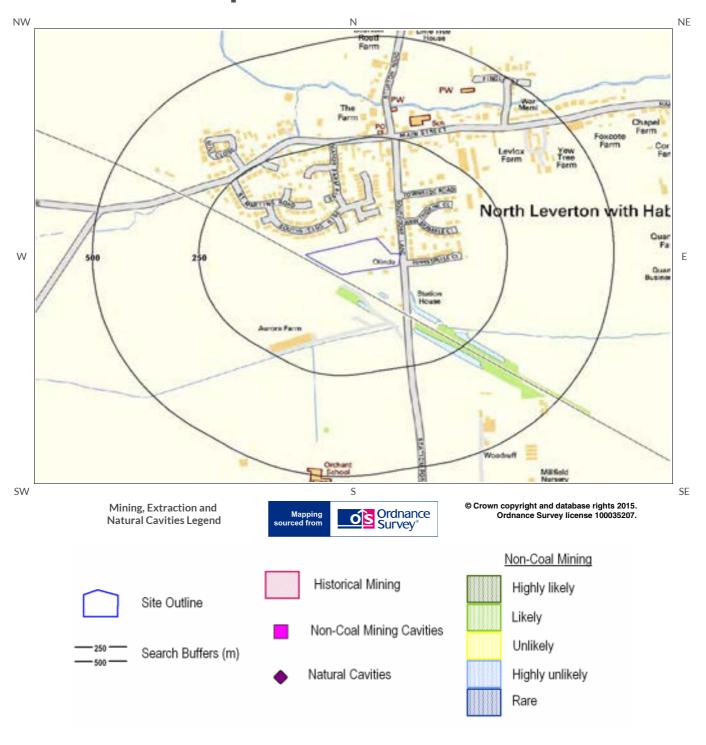
Are there any BGS Current Ground Workings within 1000m of the study site boundary?

No

Database searched and no data found.



## 5 Mining, Extraction & Natural Cavities Map







### 5.1 Historical Mining

This dataset is derived from GroundSure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

### 5.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

### 5.3 Johnson Poole and Bloomer

This dataset provides information as to whether the study site lies within an area where JPB hold information relating to mining.

Are there any JPB Mining areas within 1000m of the study site boundary?

No

The following information provided by JPB is not represented on mapping: Database searched and no data found.

### 5.4 Non-Coal Mining

This dataset provides information as to whether the study site lies within an area which may have been subject to non-coal historic mining.

Are there any Non-Coal Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.



### 5.5 Non-Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled "Review of mining instability in Great Britain, 1990" PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary?

No

Database searched and no data found.

### 5.6 Natural Cavities

This dataset provides information based on Peter Brett Associates natural cavities database.

Are there any Natural Cavities within 1000m of the study site boundary?

No

Database searched and no data found.

#### 5.7 Brine Extraction

This data provides information from the Coal Authority issued on behalf of the Cheshire Brine Subsidence Compensation Board.

Are there any Brine Extraction areas within 1000m of the study site boundary?

No

Database searched and no data found.

### 5.8 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records.

Are there any Gypsum Extraction areas within 1000m of the study site boundary?

No

Database searched and no data found.

### 5.9 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records. This search is based upon postcode information to a sector level..

Are there any Tin Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.



### 5.10 Clay Mining

This dataset provides information on Kaolin and Ball Clay mining from relevant mining records.

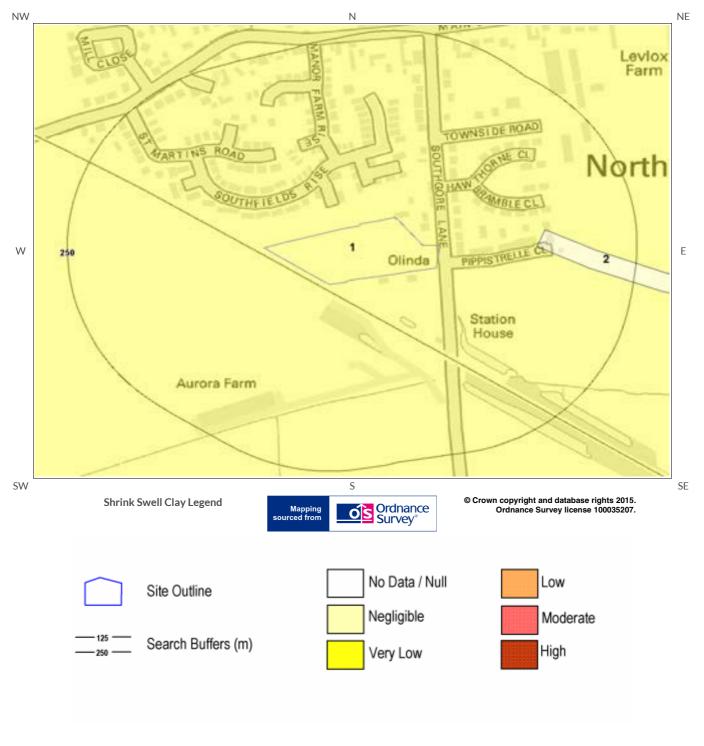
Are there any Clay Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

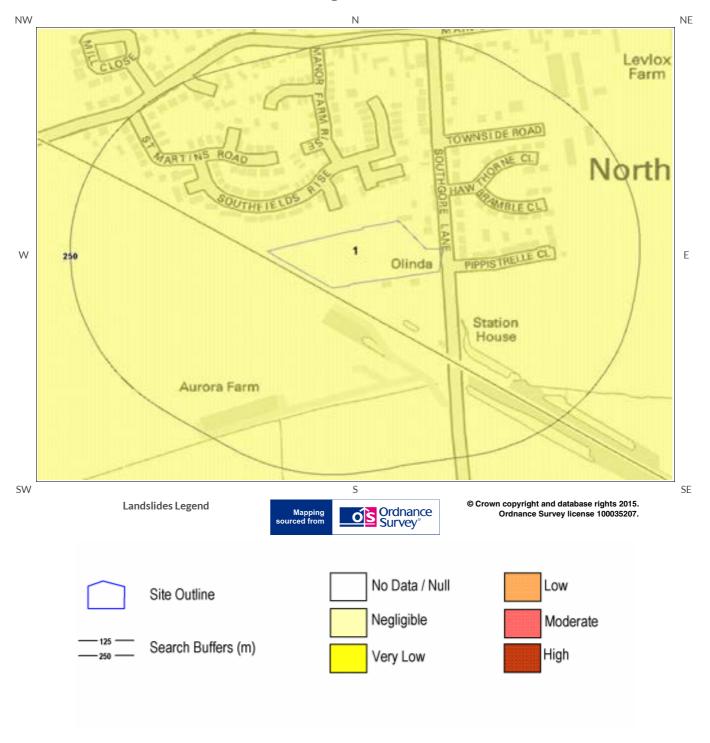


# 6 Natural Ground Subsidence6.1 Shrink-Swell Clay Map



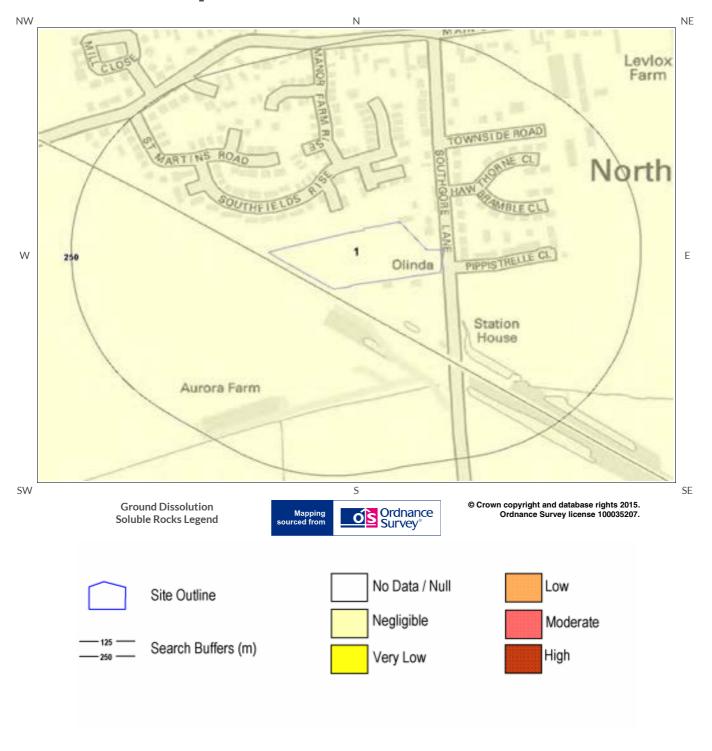


### 6.2 Landslides Map



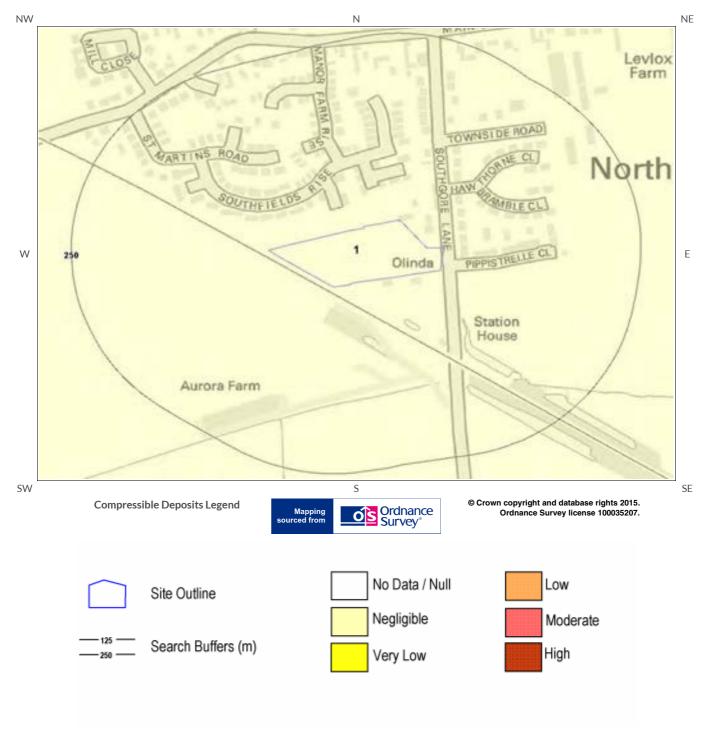


## 6.3 Ground Dissolution of Soluble Rocks Map



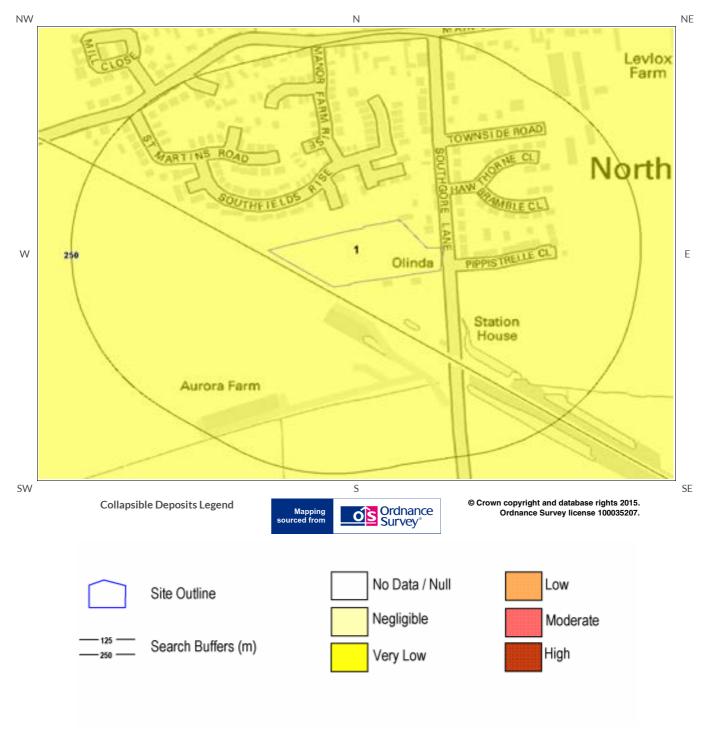


## 6.4 Compressible Deposits Map



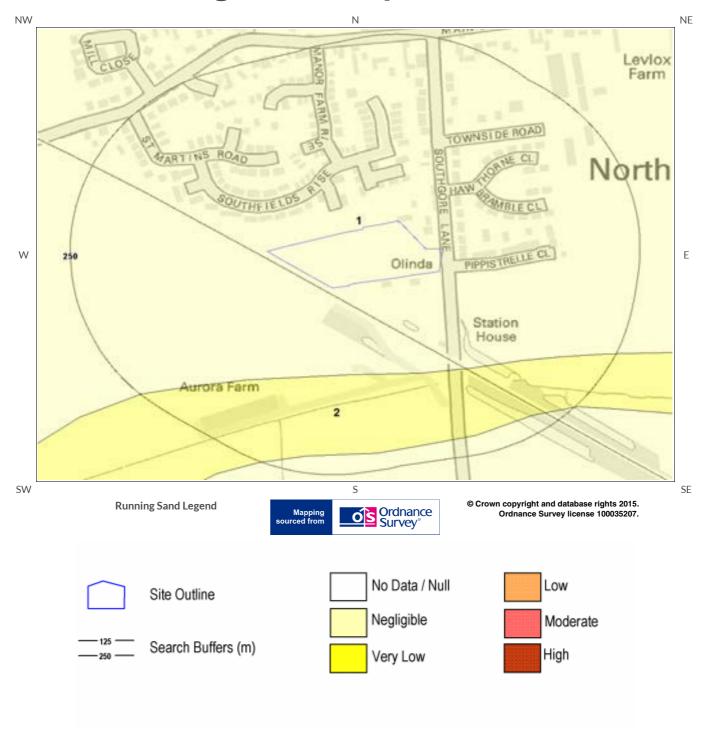


## 6.5 Collapsible Deposits Map





### 6.6 Running Sand Map







### 6 Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS).

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site\* boundary?

Very Low

### 6.1 Shrink-Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	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.

### 6.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

### 6.3 Ground Dissolution of Soluble Rocks

The following Ground Dissolution information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. 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.

<sup>\*</sup> This includes an automatically generated 50m buffer zone around the site



### 6.4 Compressible Deposits

The following Compressible Deposits information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

### 6.5 Collapsible Deposits

The following Collapsible Rocks information provided by the British Geological Survey:

ID	Distanc (m)	e Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	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.

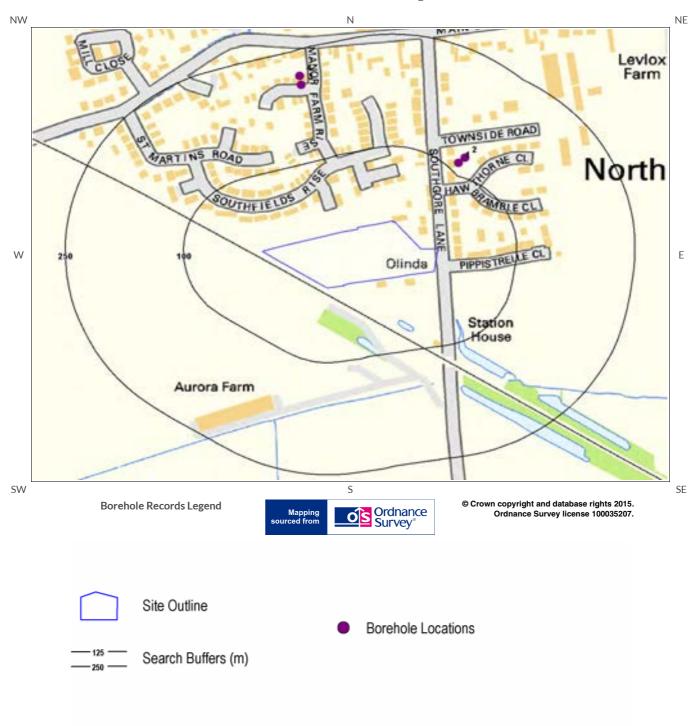
### 6.6 Running Sands

The following Running Sands information provided by the British Geological Survey:

ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.



### 7 Borehole Records Map







### 7 Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary:

4

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	112.0	NE	478582 381973	SK78SE3	-1.0	S OF TOWNSIDE ROAD N LEVERTON
2	123.0	NE	478590 381980	SK78SE44	8.53	TOWNSIDE ROAD NORTH LEVERTON
3	204.0	N	478382 382078	SK78SE6	-1.0	ENE OF RAILWAY BRIDGE
4	216.0	N	478380 382090	SK78SE47	8.53	SOUTH OF MAIN ROAD NORTH LEVERTON

Additional online information is available for the following boreholes listed above:

#2: scans.bgs.ac.uk/sobi\_scans/boreholes/239974

#4: scans.bgs.ac.uk/sobi\_scans/boreholes/239977





# 8 Estimated Background Soil Chemistry

Records of background estimated soil chemistry within 250m of the study site boundary:

2

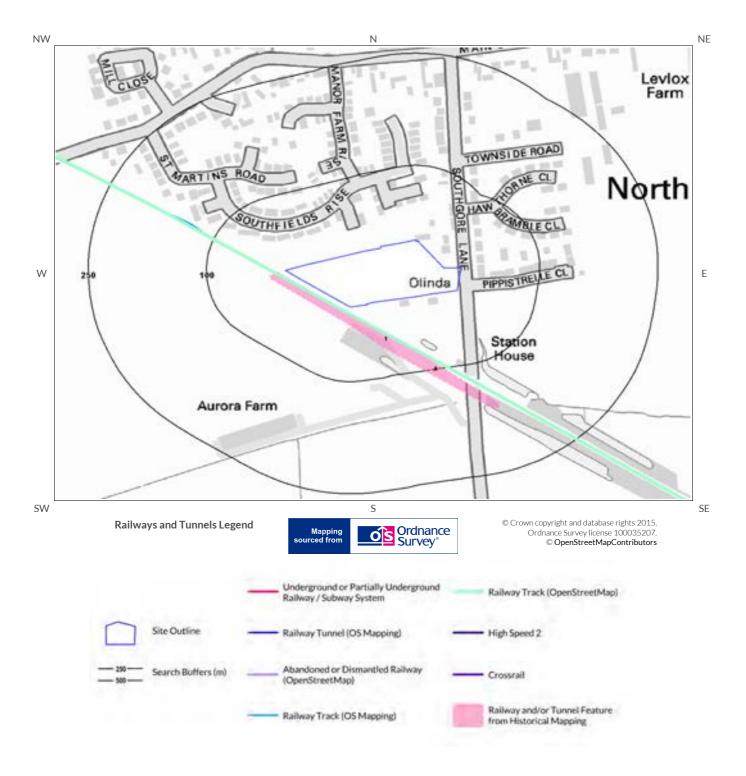
For further information on how this data is calculated and limitations upon its use, please see the GroundSure GeoInsight Plus User Guide, available on request.

Distance (m)	Direction	Sample Type	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Nickel (Ni)	Lead (Pb)
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	30 - 45 mg/kg	<100 mg/kg

<sup>\*</sup>As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.



### 9 Railways and Tunnels Map







## 9 Railways and Tunnels

### 9.1 Tunnels

This data is derived from OpenStreetMap and provides information on the possible locations of underground railway systems in the UK - the London Underground, the Tyne & Wear Metro and the Glasgow Subway.

Have any underground railway lines been identified within the study site boundary?

No

Have any underground railway lines been identified within 250m of the study site boundary?

No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

This data is derived from Ordnance Survey mapping and provides information on the possible locations of railway tunnels forming part of the UK overground railway network.

Have any other railway tunnels been identified within the site boundary?

No

Have any other railway tunnels been identified within 250m of the site boundary?

No

Database searched and no data found.

Any records that have been identified are represented on the Railways and Tunnels Map.

### 9.2 Historical Railway and Tunnel Features

This data is derived from GroundSure's unique Historical Land-use Database and contains features relating to tunnels, railway tracks or associated works that have been identified from historical Ordnance Survey mapping.

Have any historical railway or tunnel features been identified within the study site boundary?

No

Have any historical railway or tunnel features been identified within 250m of the study site boundary?

Yes

ID	Distance (m)	Direction	NGR	Details	Date
1	7	SW	478459 381762	Railway Sidings	1885
2A	87	S	478525 381720	Railway Sidings	1886
3A	87	S	478525 381720	Railway Sidings	1920

Any records that have been identified are represented on the Railways and Tunnels Map.



### 9.3 Historical Railways

This data is derived from OpenStreetMap and provides information on the possible alignments of abandoned or dismantled railway lines in proximity to the study site.

Have any historical railway lines been identified within the study site boundary?

No

Have any historical railway lines been identified within 250m of the study site boundary?

No

Database searched and no data found.

Multiple sections of the same track may be listed in the detail above Any records that have been identified are represented on the Railways and Tunnels Map.

### 9.4 Active Railways

These datasets are derived from Ordnance Survey mapping and OpenStreetMap and provide information on the possible locations of active railway lines in proximity to the study site.

Have any active railway lines been identified within the study site boundary?

No

Have any active railway lines been identified within 250m of the study site boundary?

Yes

Distance (m)	Direction	Name	Туре
8	SW	Not given	Rail
8	SW	Not given	Rail
9	SW	Not given	Multi Track
9	SW	Not given	Multi Track

Multiple sections of the same track may be listed in the detail above Any records that have been identified are represented on the Railways and Tunnels Map.

### 9.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail.

Is the study site within 5km of the route of the High Speed 2 rail project?

No

Is the study site within 500m of the route of the Crossrail rail project?

No

Further information on proximity to these routes, the project construction status and associated works can be obtained through the purchase of a **GroundSure HS2 and Crossrail Report**.

### **Contact Details**

#### **B**ritish Geological Survey Enquiries

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



#### **British Gypsum**

British Gypsum Ltd East Leake Loughborough Leicestershire LE12 6HX



#### The Coal Authority

200 Lichfield Lane Mansfield Notts NG18 4RG Tel: 0345 7626 848 DX 716176 Mansfield 5 www.coal.gov.uk



#### **Public Health England**

Public information access office Public Health England, Wellington House 133-155 Waterloo Road, London, SE1 8UG

 $\label{lem:https://www.gov.uk/government/organisations/public-health-england } Email: enquiries@phe.gov.uk$ 

Main switchboard: 020 7654 8000



#### Johnson Poole & Bloomer Limited

Harris and Pearson Building, Brettel Lane Brierley Hill, West Midlands DY5 3LH Tel: +44 (0) 1384 262 000 Email:enquiries.gs@jpb.co.uk Website: www.jpb.co.uk



#### Ordnance Survey

Adanac Drive, Southampton SO16 0AS

Tel: 08456 050505

Website: http://www.ordnancesurvey.co.uk/





#### Getmapping PLC

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

Website:http://www1.getmapping.com/



### Peter Brett Associates

Caversham Bridge House
Waterman Place
Reading
Berkshire RG1 8DN
Tel: +44 (0)118 950 0761 E-mail:reading@pba.co.uk
Website:http://www.peterbrett.com/home



Acknowledgements: 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.

#### Standard Terms and Conditions

#### 1 Definitions

In these terms and conditions unless the context otherwise requires: "Beneficiary" means the person or entity for whose benefit the Client has obtained the Services.

"Client" means the party or parties entering into a Contract with GroundSure.

"Commercial" means any building or property which is not Residential.

"Confidential Information" means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

- (i) information which the Client can prove was rightfully in its possession prior to disclosure by GroundSure and
- (ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

"Support Services" means Support Services provided by GroundSure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

"Contract" means the contract between GroundSure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

"Third Party Data Provider" means any third party providing Third Party Content to GroundSure.

"Data Reports" means reports comprising factual data with no accompanying interpretation.

"Fees" has the meaning set out in clause 5.1.

"GroundSure" means GroundSure Limited, a company registered in England and Wales under number 03421028.

"GroundSure Materials" means all materials prepared by GroundSure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

"Intellectual Property" means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

"Mapping" means a map, map data or a combination of historical maps of various ages, time periods and scales.

"Order" means an electronic, written or other order form submitted by the Client requesting Services from GroundSure in respect of a specified Site.

"Ordnance Survey" means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.

"Order Website" means the online platform through which Orders may be placed by the Client and accepted by GroundSure.

"Report" means a Risk Screening Report or Data Report for Commercial or Residential property.

"Residential" means any building or property used as or intended to be used as a single dwelling.

"Risk Screening Report" means a risk screening report comprising factual data with an accompanying interpretation by GroundSure.

"Services" means any Report, Mapping and/or Support Services which GroundSure has agreed to provide by accepting an Order pursuant to clause 2.6

"Site" means the area of land in respect of which the Client has requested GroundSure to provide the Services.

**"Third Party Content"** means data, database information or other information which is provided to GroundSure by a Third Party Data Provider.

"User Guide" means the user guide, as amended from time to time, available upon request from GroundSure and on the website (www.GroundSure.com) and forming part of this Contract.

### 2 Scope of Services, terms and conditions, requests for insurance and quotations

 $2.1 \; \text{GroundSure}$  agrees to provide the Services in accordance with the Contract.

2.2 GroundSure shall exercise reasonable skill and care in the provision of the Services.

2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of GroundSure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.

2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, GroundSure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and GroundSure will have no liability therefor. In addition you acknowledge and agree that GroundSure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 GroundSure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by GroundSure. GroundSure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by GroundSure. GroundSure's acceptance of an Order shall be binding only when made in writing and signed by GroundSure's authorised representative or when accepted through the Order Website.

### 3 The Client's obligations

3.1The Client shall comply with the terms of this Contract and

- (i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and
- (ii) be liable to GroundSure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.

3.3 The Client shall supply to GroundSure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as GroundSure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.

3.4 Where the Client's approval or decision is required to enable GroundSure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the GroundSure Materials, or use the GroundSure Materials in a manner for which they were not intended. The Client may make the GroundSure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that GroundSure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

### 4 Reliance

4.1The Client acknowledges that the Services provided by GroundSure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by GroundSure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

- (i) the Beneficiary,
- (ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),
  - (iv) the first purchaser or first tenant of the Site, and

- purchaser or tenant of the Site.
- 4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.
- 4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by GroundSure. Any party considering such Reports and Services does so at their own risk.

#### **5 Fees and Disbursements**

- 5.1GroundSure shall charge and the Client shall pay fees at the rate and frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by GroundSure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together "Fees").
- 5.2 The Client shall pay all outstanding Fees to GroundSure in full without deduction, counterclaim or set off within 30 days of the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per
- 5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of GroundSure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

### 6 Intellectual Property and Confidentiality

6.1 Subject to

- full payment of all relevant Fees and (i)
- compliance with this Contract, the Client is granted (ii) (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the GroundSure Materials.
- 6.2 All Intellectual Property in the GroundSure Materials are and shall remain owned by GroundSure or GroundSure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.
- 6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.
- 6.4 The Client shall, and shall procure that any recipients of the GroundSure Materials shall:
- not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to GroundSure or any third party from the Services;
- 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 respect of adjacent or nearby sites;
- not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services):
- (iv)not combine the Services with or incorporate such Services into any other information data or service;
- not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);
- where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and
- not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,

the professional advisers and lenders of the first 6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the GroundSure Materials in order to advise the Beneficiary in a professional capacity. However, GroundSure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.

> 6.6 The Client shall procure that any person to whom the Services are made available shall notify GroundSure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

### 7.Liability: Particular Attention Should Be Paid To This Clause

- 7.1 This Clause 7 sets out the entire liability of GroundSure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:
- any breach of contract, including any deliberate breach of the Contract by GroundSure or its employees, agents subcontractors;
  - (ii) any use made of the Reports, Services, Materials or part of them; and
- (iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.
- 7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract
- 7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.
- 7.4 GroundSure shall not be liable for

anv

- loss of profits;
- (ii) loss of business:
- depletion of goodwill and/or similar losses; (iii)
- (iv)loss of anticipated savings;
- (v) loss of goods;
- (vi) loss of contract;
- loss of use; (vii)
- (viii) loss or corruption of data or information;
- (ix) business interruption:
- (x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;
- loss or damage that arise as a result of the use of all or (xi) part of the GroundSure Materials in breach of the Contract;
- loss or damage arising as a result of any error, omission or inaccuracy in any part of the GroundSure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;
- (xiii) loss or damage to a computer, software, modem, telephone or other property; and
- (xiv) loss or damage caused by a delay or loss of use of GroundSure's internet ordering service.
- 7.5 GroundSure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.
- 7.6 GroundSure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of GroundSure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against GroundSure in relation to the Services or other matters arising pursuant to the Contract.

#### 8 GroundSure's right to suspend or terminate

- 8.1 If GroundSure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, GroundSure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.
- 8.2 GroundSure shall be entitled to terminate the Contract immediately on written notice in the event that:
- the Client fails to pay any sum due to GroundSure within 30 days of the Payment Date; or

- (ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or
- (iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or
- (iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

### 9. Client's Right to Terminate and Suspend

- 9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.
- 9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:
- (i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon GroundSure's acceptance of the Order; and
- $\hbox{ (ii) } \qquad \hbox{the Reports and/or Mapping provided under this } \\ \hbox{Contract are }$ 
  - (a) supplied to the Client's specification(s) and in any

event

(b) by their nature cannot be returned.

### 10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

- (i) GroundSure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in GroundSure's possession or control; and
- (ii) the Client shall pay to GroundSure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay GroundSure any additional costs incurred in relation to the termination or suspension of the Contract.

#### 11 Anti-Bribery

- 11.1 The Client warrants that it shall:
- (i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010;
- (ii) comply with such of GroundSure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and
- (iii) promptly report to GroundSure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.
- 11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

### 12 General

- 12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.
- 12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through GroundSure
- 12.3 GroundSure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of GroundSure.
- 12.4 No failure on the part of GroundSure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.
- 12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.

- 12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.
- 12.7 GroundSure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:
- (i) the Client or Beneficiary's failure to provide facilities, access or information;
  - (ii) fire, storm, flood, tempest or epidemic;
  - (iii) Acts of God or the public enemy;
  - (iv) riot, civil commotion or war;
  - (v) strikes, labour disputes or industrial action;
- (vi) acts or regulations of any governmental or other agency;
- (vii) suspension or delay of services at public registries by Third Party Data Providers;
  - (viii) changes in law; or
- (ix) any other reason beyond GroundSure's reasonable control.

In the event that GroundSure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then GroundSure shall be entitled to terminate this Contract immediately on written notice to the Client.

12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.

12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.

12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.

12.12 This Contract shall be governed by and construed in accordance with English law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

12.13 GroundSure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.

12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at GroundSure who will respond in a timely manner.

12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law

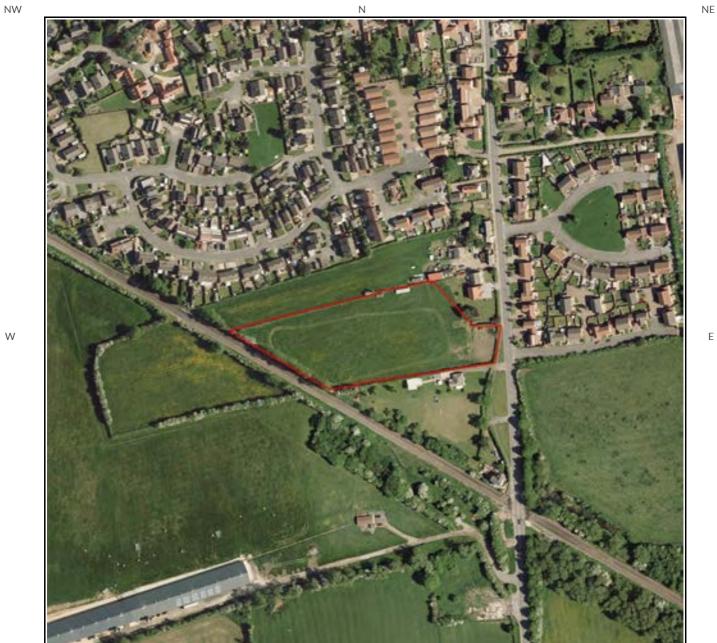
#### © GroundSure Limited June 2013



## GroundSure **Envirolnsight**

Address: Land off Southgore Lane, North Leverton,

Date: 5 Mar 2015



Aerial Photograph Capture date:

Grid Reference:

19-Jul-2013 478416,381862

Site Size:

1.16ha

SE

## **Contents Page**

Contents Page	3
Overview of Findings	5
Using this report	9
1. Environmental Permits, Incidents and Registers Map	10
1. Environmental Permits, Incidents and Registers	11
1.1 Industrial Sites Holding Licences and/or Authorisations	11
1.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:	11
1.1.3 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:	
1.1.5 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:	11
1.1.6 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:	
1.1.7 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:	
1.1.9 Records of Licensed Discharge Consents within 500m of the study site:	
1.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site:	
1.2 Dangerous or Hazardous Sites	
1.3 Environment Agency Recorded Pollution Incidents	
1.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:	
1.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	
2. Landfill and Other Waste Sites Map	
2. Landfill and Other Waste Sites	
2.1 Landfill Sites	
2.1 Landrin Sites	
2.1.2 Records of Environment Agency historic landfill sites within 1500m of the study site:	
2.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:	15
2.1.4 Records of Local Authority landfill sites within 1500m of the study site:	
2.2 Other Waste Sites	
2.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site:	
3. Current Land Use Map	
3. Current Land Uses	18
3.1 Current Industrial Data	18
3.2 Petrol and Fuel Sites	18
3.3 Underground High Pressure Oil and Gas Pipelines	18
4. Geology	19
4.1 Artificial Ground and Made Ground	
4.2 Superficial Ground and Drift Geology	
4.3 Bedrock and Solid Geology	19
5. Hydrogeology and Hydrology	20
5a. Aquifer Within Superficial Geology	20
5b. Aquifer Within Bedrock Geology and Abstraction Licenses	21
5c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses	22
5d. Hydrology Source Protection Zones within confined aquifer	23
5 e. Hydrology – Detailed River Network and River Quality	24
5. Hydrogeology and Hydrology	25
5.1 Aquifer within Superficial Deposits	
5.2 Aquifer within Bedrock Deposits	

5.3 Groundwater Abstraction Licences	
5.4 Surface Water Abstraction Licences	
5.5 Potable Water Abstraction Licences	
5.6 Source Protection Zones	
5.7 Source Protection Zones within Confined Aquifer	
5.8 Groundwater Vulnerability and Soil Leaching Potential	
5.9.1 Biological Quality:	
5.9.2 Chemical Quality:	
5.10 Detailed River Network	
5.11 Surface Water Features	
6. Environment Agency Flood Map for planning (from rivers and the sea)	30
6. Flooding	31
6.1 Zone 2 Flooding	
6.2 Zone 3 Flooding	
6.3 Flood Defences	
6.4 Areas benefiting from Flood Defences	
6.5 Areas benefiting from Flood Storage	
6.6 Groundwater Flooding Susceptibility Areas	
6.6.1 Are there any British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study si 6.6.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?	
6.7 Groundwater Flooding Confidence Areas	
7. Designated Environmentally Sensitive Sites Map	
7. Designated Environmentally Sensitive Sites	
7.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:	
7.2 Records of National Nature Reserves (NNR) within 2000m of the study site:	
7.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:	
7.4 Records of Special Protection Areas (SPA) within 2000m of the study site:	
7.6 Records of Ancient Woodland within 2000m of the study site:	
7.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:	
7.8 Records of World Heritage Sites within 2000m of the study site:	
7.9 Records of Environmentally Sensitive Areas within 2000m of the study site:	
7.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:	
7.11 Records of National Parks (NP) within 2000m of the study site:	
7.12 Records of Nitrate Sensitive Areas within 2000m of the study site:	35
7.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:	
7.14 Records of Green Belt land within 2000m of the study site:	
8. Natural Hazards Findings	
8.1 Detailed BGS GeoSure Data	
8.1.1 Shrink Swell	
8.1.2 Landslides	
8.1.3 Soluble Rocks	
8.1.4 Compressible Ground 8.1.5 Collapsible Rocks	
8.1.6 Running Sand	
9. Mining	
9.1 Coal Mining	
9.2 Shallow Mining	
9.3 Brine Affected Areas	
Contact Details	
Standard Terms and Conditions	42

## **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.

Section 1: Environmental Permits, Incidents and Registers	On-sit	e	0-50m	51-25	0 2	51-500
1.1 Industrial Sites Holding Environmental Permits and/or Authorisations						
1.1.1 Records of historic IPC Authorisations	0		0	0		0
1.1.2 Records of Part A(1) and IPPC Authorised Activities	0		0	0		0
1.1.3 Records of Water Industry Referrals (potentially harmful discharges to the public sewer)	0		0	0		0
1.1.4 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters)	0		0	0		0
1.1.5 Records of List 1 Dangerous Substances Inventory sites	0		0	0		0
1.1.6 Records of List 2 Dangerous Substances Inventory sites	0		0	0		0
1.1.7 Records of Part A(2) and Part B Activities and Enforcements	0		0	0		0
1.1.8 Records of Category 3 or 4 Radioactive Substances Authorisations	0		0	0		0
1.1.9 Records of Licensed Discharge Consents	0		1	0		0
1.1.10 Records of Planning Hazardous Substance Consents and Enforcements	0		0	0		0
1.2 Records of COMAH and NIHHS sites	0		0	0		0
1.3 Environment Agency Recorded Pollution Incidents						
1.3.1 National Incidents Recording System, List 2	0		0	0		0
1.3.2 National Incidents Recording System, List 1	0		0	0		0
1.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0		0	0		0
Section 2: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000- 5000
2.1 Landfill Sites						
2.1.1 Environment Agency Registered Landfill Sites	0	0	0	0	0	Not searched
2.1.2 Environment Agency Historic Landfill Sites	0	0	0	0	0	0
2.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	0	0
2.1.4 GroundSure Local Authority Landfill Sites Data	0	0	0	0	0	0
2.2 Landfill and Other Waste Sites Findings						
2.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	Not searched	Not searched
2.2.2 Environment Agency Licensed Waste Sites	0	0	0	0	0	0

Section 3: Current Land Use	On-site	0-50m	51-250	251-500
3.1 Current Industrial Sites Data	0	0	4	Not searched
3.2 Records of Petrol and Fuel Sites	0	0	0	1
3.3 Underground High Pressure Oil and Gas Pipelines	0	0	0	0

Section 4: Geology	
4.1 Are there any records of Artificial Ground and Made Ground present beneath the study site?	No
4.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site?	None
4.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 5: Hydrogeology and Hydrology	0-500m					
5.1 Are there any records of Strata Classification in the Superficial Geology within 500m of the study site?		Yes				
5.2 Are there any records of Strata Classification in the Bedrock Geology within 500m of the study site?		Yes				
	On-site	0-50m	51-250	251-500	501-1000	1000- 2000
5.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
5.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	2
5.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
5.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
5.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
5.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	0	0	0	0	Not searched	Not searched
	On-site	0-50m	51-250	251-500	501-1000	1000- 1500
5.9 Is there any Environment Agency information on river quality within 1500m of the study site?	No	No	No	No	Yes	No
5.10 Detailed River Network entries within 500m of the site	0	0	10	5	Not searched	Not searched
5.11 Surface water features within 250m of the study site	No	No	Yes	Not searched	Not searched	Not searched

Section 6: Flooding	
6.1 Are there any Environment Agency Zone 2 floodplains within 250m of the study site?	No
6.2 Are there any Environment Agency Zone 3 floodplains within 250m of the study site?	No
6.3 Are there any Flood Defences within 250m of the study site?	No
6.4 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
6.5 Are there any areas used for Flood Storage within 250m of the study site?	No
6.6 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Not Prone
6.7 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	Not Applicable

Section 7: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000- 2000
7.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	1
7.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
7.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
7.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
7.5 Records of Ramsar sites	0	0	0	0	0	0
7.6 Records of Ancient Woodlands	0	0	0	0	0	0
7.7 Records of Local Nature Reserves (LNR)	0	0	0	0	0	0
7.8 Records of World Heritage Sites	0	0	0	0	0	0
7.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0
7.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0
7.11 Records of National Parks	0	0	0	0	0	0
7.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
7.13 Records of Nitrate Vulnerable Zones	1	0	0	0	1	3
7.14 Records of Green Belt Data	0	0	0	0	0	0

## Section 8: Natural Hazards

 $9.3\,$  Are there any brine affected areas within 75m of the study site?

8.1 What is the maximum risk of natural ground subsidence?	Very Low
8.1.1 What is the maximum Shrink-Swell hazard rating identified on the study site?	Very Low
8.1.2 What is the maximum Landslides hazard rating identified on the study site?	Very Low
8.1.3 What is the maximum Soluble Rocks hazard rating identified on the study site?	Negligible
8.1.4 What is the maximum Compressible Ground hazard rating identified on the study site?	Negligible
8.1.5 What is the maximum Collapsible Rocks hazard rating identified on the study site?	Very Low
8.1.6 What is the maximum Running Sand hazard rating identified on the study site?	Negligible
Section 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

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 and Scheduled Ancient Woodland. These searches are conducted using radii of up to 2000m.

### 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**

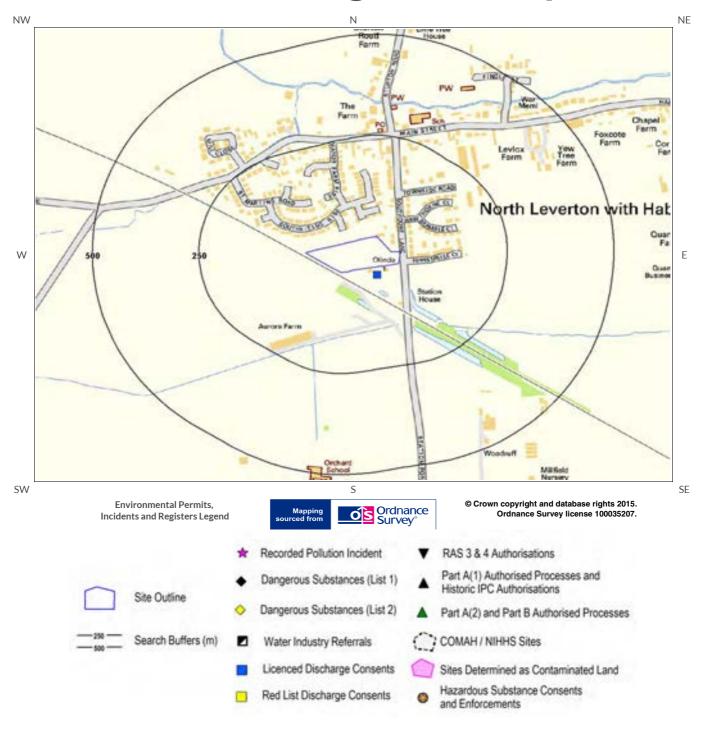
Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -ld: 1, ld: 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







# 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

O
0
0
n of O
0
0
1



	1.1.6 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site	0
	Database searched and no data found.	
	1.1.7 Records of Part A(2) and Part B Activities and Enforcements within 500m of the stud	ly site:
	Database searched and no data found.	
	1.1.8 Records of Category 3 or 4 Radioactive Substances Authorisations:	0
	Database searched and no data found.	
	1.1.9 Records of Licensed Discharge Consents within 500m of the study site:  The following Licensed Discharge Consents records are represented as points on the En Incidents and Registers Map:	1 nvironmental Permits,
ID	D Distance Direction NGR Details	
1	Leverton, Retford, Nottinghamshire Status: Pre Ni	3/3/1972 e: 16/3/1972
	1.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500	m of the study site:
	Database searched and no data found.	
	1.2 Dangerous or Hazardous Sites	

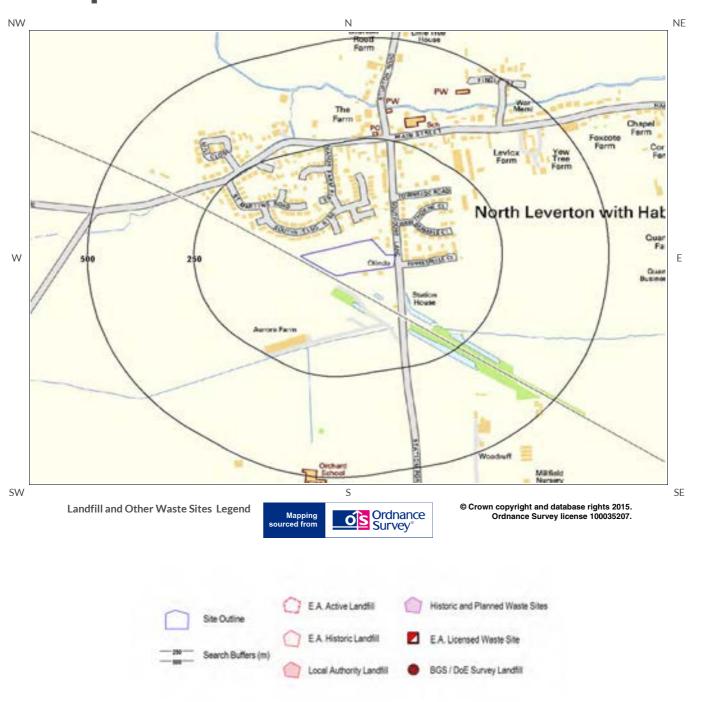
Database searched and no data found.



1.3 Environment Agency Recorded Pollution Incidents	
1.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:	
Database searched and no data found.	0
1.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:	
Database searched and no data found.	0
1.4 Sites Determined as Contaminated Land under Part 2A 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







## 2. Landfill and Other Waste Sites

2.1 Landfill Sites	
2.1.1 Records from Environment Agency landfill data within 1000m of the study site:	
	0
Database searched and no data found.	
2.1.2 Records of Environment Agency historic landfill sites within 1500m of the study site:	
	0
Database searched and no data found.	
2.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:	
	0
Database searched and no data found.	
2.1.4 Records of Local Authority landfill sites within 1500m of the study site:	
	0
Database searched and no data found.	
2.2 Other Waste Sites	
2.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:	
	0
Database searched and no data found.	



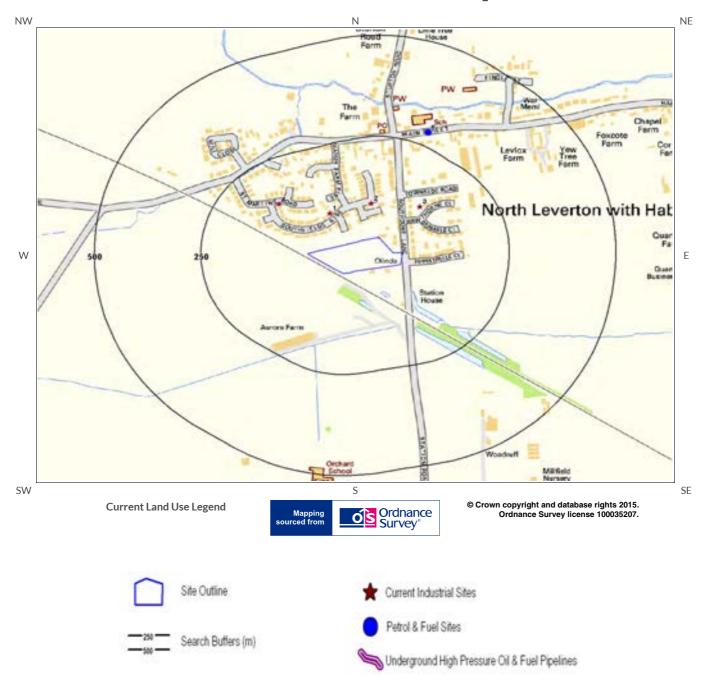
2.2.2 Records of Environment Agency licensed waste sites within 1500m of the study site:

0

Database searched and no data found.



## 3. Current Land Use Map







## 3. Current Land Uses

## 3.1 Current Industrial Data

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

4

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

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	84.0	N	Aqua Services	478385 381955	29, Southfields Rise, North Leverton, Retford, DN22 0AY	Electrical Equipment Repair and Servicing	Repair and Servicing
2	86.0	N	Electricity Sub Station	478482 381980	DN22	Electrical Features	Infrastructure and Facilities
3	120.0	N	Electricity Sub Station	478596 381972	DN22	Electrical Features	Infrastructure and Facilities
4	141.0	NW	Electricity Sub Station	478265 381978	DN22	Electrical Features	Infrastructure and Facilities

## 3.2 Petrol and Fuel Sites

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

1

The following petrol or fuel site records provided by Catalist are represented as points on the Current Land Use map:

ID	Distance (m)	Direction	NGR	Company	Address	LPG	Status
5	284.0	NE	478615 382155	Wcf	Crookes Garage, Main Street, Main Street, North Leverton, Retford, Nottinghamshire, DN22 0AN	No	Closed

## 3.3 Underground High Pressure Oil and Gas Pipelines

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

0

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

Database searched and no data found.

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

## 4.3 Bedrock and Solid Geology

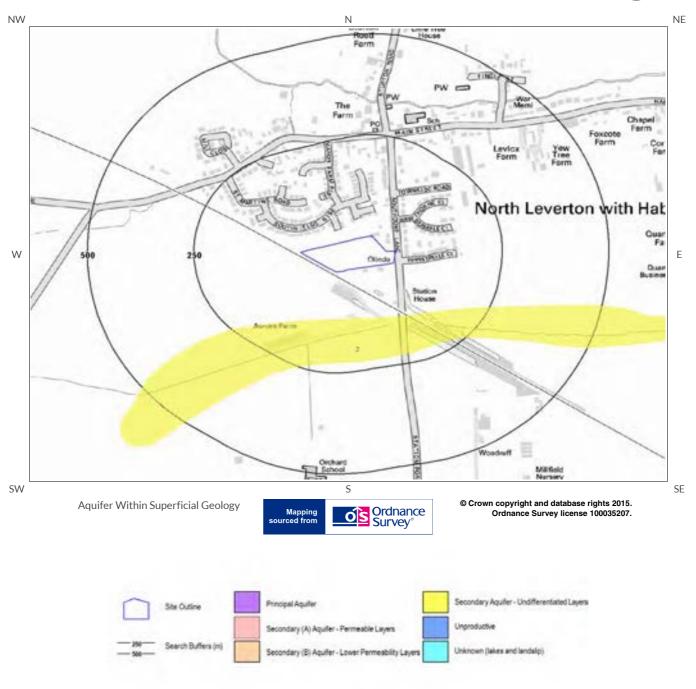
The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
MMG-MDST	MERCIA MUDSTONE GROUP	MUDSTONE

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

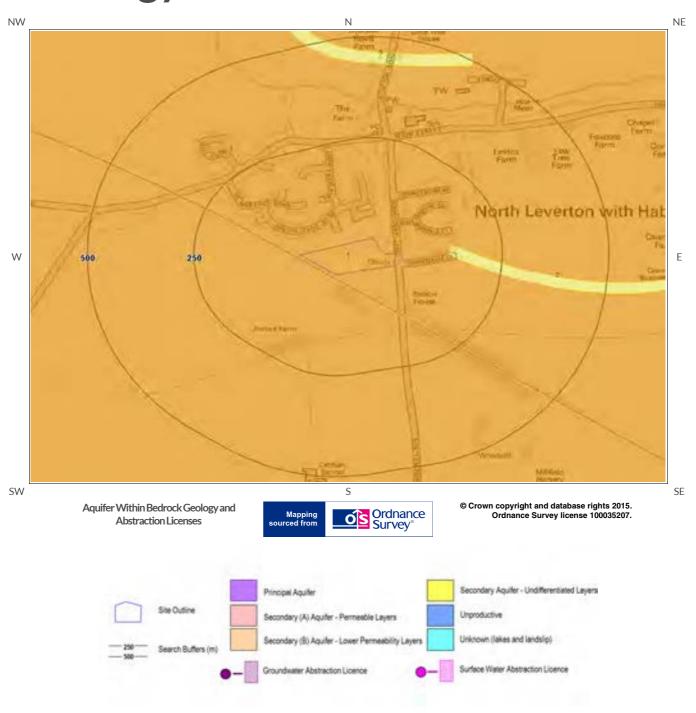


# 5. Hydrogeology and Hydrology5a. Aquifer Within Superficial Geology



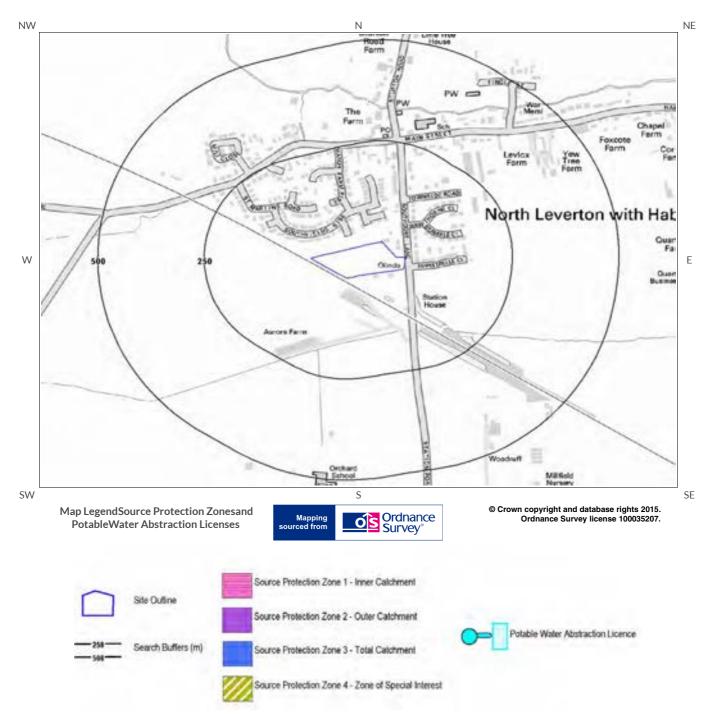


# 5b. Aquifer Within Bedrock Geology and Abstraction Licenses



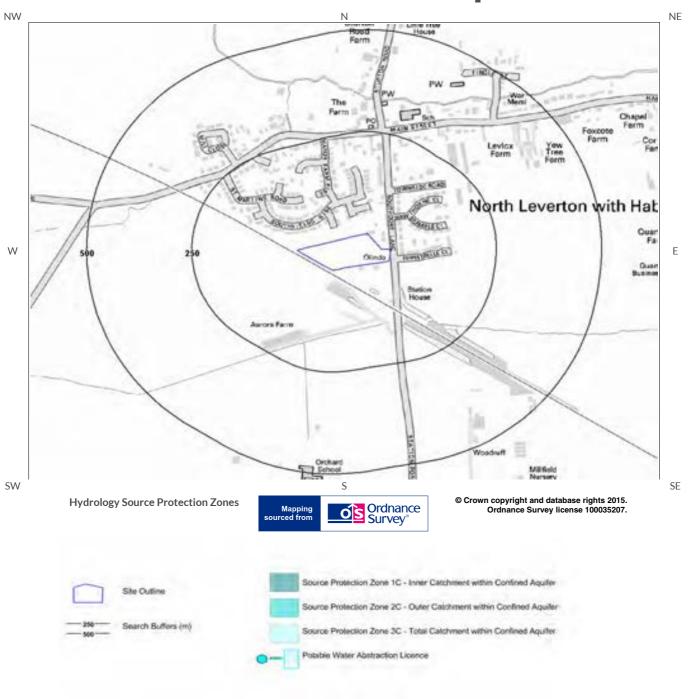


## 5c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licenses



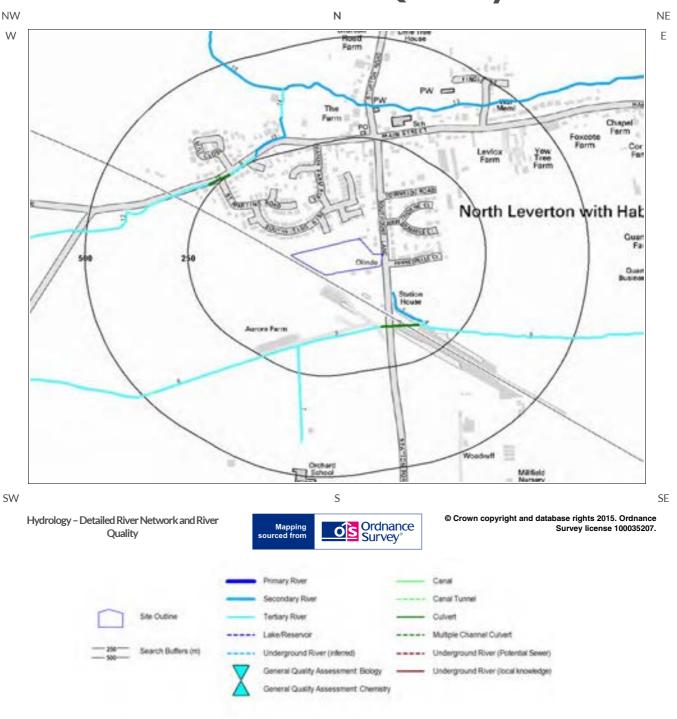


## 5d. Hydrology Source Protection Zones within confined aquifer





## 5 e. Hydrology – Detailed River Network and River Quality







## 5.1 Aquifer within Superficial Deposits

Are there records of strata classification 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):

ID	Distance (m)	Direction	Designation	Description
2	117.0	S	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type

## 5.2 Aquifer within Bedrock Deposits

Are there records of strata classification 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):

ID	Distance (m)	Direction	Designation	Description
1	0.0	On Site	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeablehorizons and weathering.  These are generally the water-bearing parts of the former non-aquifers
2	123.0	E	Secondary (undifferentiated )	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
3	433.0	N	Secondary (undifferentiated )	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type



## 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

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

ID	Distance (m)	Direction	NGR	Details		
Not shown	1576.0	SE	479400 380500	Licence No: 03/28/69/0251/1 Details: Spray Irrigation - Direct Direct Source: Surface Water Midlands Region Point: South Leverton - Catchwater Drain Data Type: Point	Annual Volume (m³): 45000 Max Daily Volume (m³): 900 Application No: - Original Start Date: 8/8/2003 Expiry Date: 31/3/2015 Issue No: 1 Version Start Date: 8/8/2003 Version End Date:	
Not shown	1576.0	SE	479400 380500	Licence No: 03/28/69/0251 Details: Spray Irrigation - Direct Direct Source: Surface Water Midlands Region Point: South Leverton - Catchwater Drain Data Type: Point	Annual Volume (m³): - Max Daily Volume (m³): - Application No: - Original Start Date: 20/8/1996 Expiry Date: 31/10/2006 Issue No: 100 Version Start Date: 1/4/2003 Version End Date:	

## 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 Source Protection Zones within Confined Aquifer

Are there any Source Protection Zones within the Confined Aquifer within 500m of the study site?

No

Historically, Source Protection Zone maps have been focused on regulation of activities which occur at or near the ground surface, such as prevention of point source pollution and bacterial contamination of water supplies. Sources in confined aquifers were often considered to be protected from these surface pressures due to the presence of a low permeability confining layer (e.g. glacial till, clay). The increased interest in subsurface activities such as onshore oil and gas exploration, ground source heating and cooling requires protection zones for confined sources to be marked on SPZ maps where this has not already been done.

Database searched and no data found.

## 5.8 Groundwater Vulnerability and Soil Leaching Potential

Is there any Environment Agency information on groundwater vulnerability and soil leaching potential within 500m of the study site?

Database searched and no data found.

## 5.9 River Quality

Is there any Environment Agency information on river quality within 1500m of the study site?

Yes

## 5.9.1 Biological Quality:

Database searched and no data found.

### 5.9.2 Chemical Quality:

Chemical quality data is based on the General Quality Assessment Headline Indicators scheme (GQAHI). In England, each chemical sample is measured for ammonia and dissolved oxygen. In Wales, the samples are measured for biological oxygen demand (BOD), ammonia and dissolved oxygen. The results are graded from A ('Very Good') to F ('Bad').

The following Chemical Quality records are shown on the Hydrology Map (5d):

				_	Chemical Quality Grade				
ID	Distance (m)	Direction	NGR	River Quality Grade	2005	2006	2007	2008	2009
Not shown	923.0	E	479470 381730	River Name: Catchwater Drain Reach: Trib From North Leverton To R Trent End/Start of Stretch: Start of Stretch NGR	В	В	В	В	В



## 5.10 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 (5e):

ID	Distance (m)	Direction	С	Details
1	70.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
2	148.0	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
3	148.0	S	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
4A	170.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
5A	173.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
6	178.0	SE	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
7	189.0	S	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
8	189.0	S	River Name: Drain Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
9	249.0	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
10	249.0	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Culvert Main River Status: Currently Undefined
11	258.0	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
12	266.0	NW	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
13	329.0	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined
14	336.0	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Tertiary River Main River Status: Currently Undefined
15	402.0	N	River Name: - Welsh River Name: - Alternative Name: -	River Type: Secondary River Main River Status: Currently Undefined



## 5.11 Surface Water Features

Are there any surface water features within 250m of the study site?

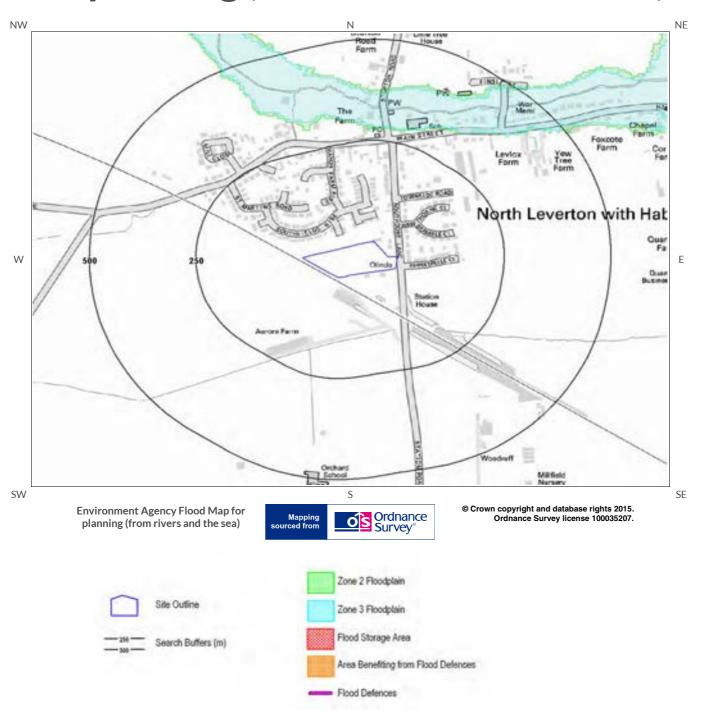
Yes

The following surface water records are not represented on mapping:

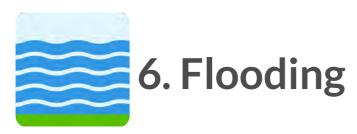
Distance (m)	Direction
70.0	SE
147.0	S
189.0	S
189.0	S
193.0	SE
249.0	NW
249.0	NW
250.0	NW



## 6. Environment Agency Flood Map for planning (from rivers and the sea)







## 6.1 Zone 2 Flooding

Environment Agency Zone 2 floodplains estimate the annual probability of flooding as between 1 in 1000 (0.1%) and 1 in 100 (1%) from rivers and between 1 in 1000 (0.1%) and 1 in 200 (0.5%) from the sea. Any relevant data is represented on Map 1 – Environment Agency Flood Map for Planning:

Is the site within 250m of an Environment Agency Zone 2 floodplain?					
Database searched and no data found.					
6.2 Zone 3 Flooding					
Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year of flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented a $1$ – Environment Agency Flood Map for Planning.					
Is the site within 250m of an Environment Agency Zone 3 floodplain?	No				
Database searched and no data found.					
6.3 Flood Defences					
Are there any Flood Defences within 250m of the study site?	No				
Database searched and no data found.					
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 benefiting from Flood Storage					
Are there any areas used for Flood Storage within 250m of the study site?	No				



## 6.6 Groundwater Flooding Susceptibility Areas

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

No

Notes: Groundwater flooding may either be associated with shallow unconsolidated sedimentary aquifers which overlie unproductive aquifers (Superficial Deposits Flooding), or with unconfined aquifers (Clearwater Flooding).

6.6.2 What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Not Prone

The area is not considered to be prone to groundwater flooding based on rock type.

## 6.7 Groundwater Flooding Confidence Areas

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

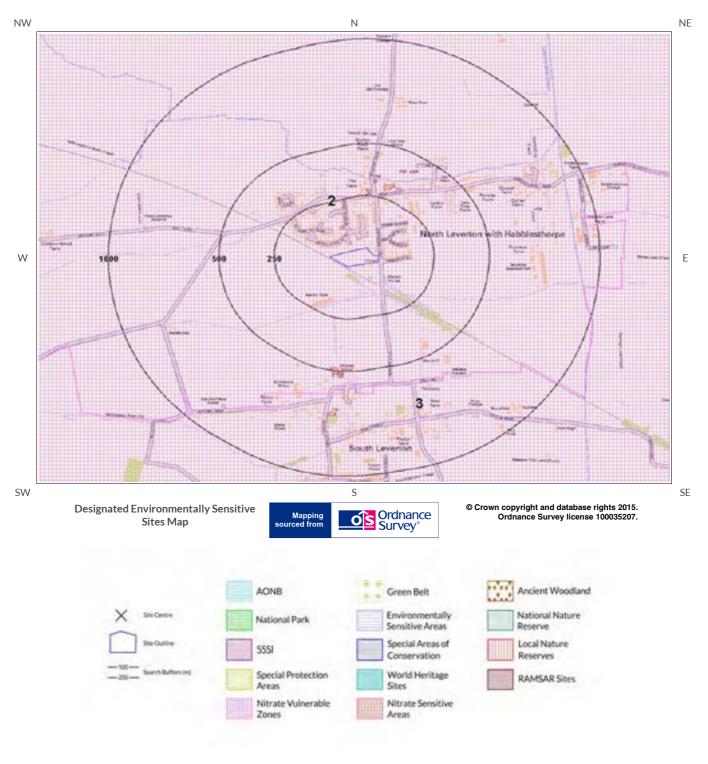
Not Applicable

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





Yes



## 7. Designated Environmentally Sensitive Sites

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

	7.1 Records	s of Sites of Sp	pecial Scientific Interest (SSSI) within 2000m of the study site:	_
				1
			ecial Scientific Interest (SSSI) records provided by Natural England/Natural spolygons on the Designated Environmentally Sensitive Sites Map:	Resources
ID	Distance (m)	Direction	SSSI Name Da	ata Source
Sho	1/1/()	S	Ashton's Meadow Nat	ural England
	7.2 Records	s of National N	Nature Reserves (NNR) within 2000m of the study site:	0
			Database searched and no data found.	
	7.3 Records	s of Special Ar	eas of Conservation (SAC) within 2000m of the study site:	0
			Database searched and no data found.	
	7.4 Records	s of Special Pr	otection Areas (SPA) within 2000m of the study site:	0
			Database searched and no data found.	
	7.5 Records	s of Ramsar si	tes within 2000m of the study site:	0
	_		Database searched and no data found.	_



7.6 Records of Ancient Woodland within 2000m of the study site:	
Detabase seemshed and no data found	0
Database searched and no data found.	
7.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:	
	0
Database searched and no data found.	
7.8 Records of World Heritage Sites within 2000m of the study site:	
	0
Database searched and no data found.	
	ı
7.9 Records of Environmentally Sensitive Areas within 2000m of the study site:	
	0
Database searched and no data found.	
7400 - 1 (4 - (0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	į
7.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:	
	0
Database searched and no data found.	
Butabase scarefied and no data found.	
7.11 Records of National Parks (NP) within 2000m of the study site:	
7.11 Necords of National Farks (NF) within 2000 if of the study site.	0
	0
Database searched and no data found.	
7.12 Records of Nitrate Sensitive Areas within 2000m of the study site:	
	0
	O
Database searched and no data found.	



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

5

The following Nitrate Vulnerable Zone records produced by DEFRA are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	NVZ Name	Data Source
2	0.0	On Site	Existing	DEFRA
3	556.0	S	Existing	DEFRA
Not shown	1444.0	E	Existing	DEFRA
Not shown	1489.0	Е	Existing	DEFRA
Not shown	1806.0	S	Existing	DEFRA

7.14 Records of Green	Belt land within	2000m of the	study site
-----------------------	------------------	--------------	------------

0

Database searched and no data found.





#### 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:

#### Hazard

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.

### 8.1.2 Landslides

What is the maximum Landslide\* 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:

### Hazard

Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

<sup>\*</sup> This indicates an automatically generated 50m buffer and site.



### 8.1.3 Soluble Rocks

What is the maximum Soluble Rocks\* hazard rating identified on the study site?

Negligible

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

### Hazard

Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. 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?

Negligible

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

#### Hazard

No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

## 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:

### Hazard

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.

Report Reference: GEO-M-1944260 Client Reference: GML15126\_JR\_001



# 8.1.6 Running Sand

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

Negligible

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

### Hazard

No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

Report Reference: GEO-M-1944260 Client Reference: GML15126\_JR\_001

<sup>\*</sup> 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

Guidance: No Guidance Required.



# **Contact Details**

**B**ritish Geological Survey Enquiries

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



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



Public information access office Public Health England, Wellington House 133-155 Waterloo Road, London, SE1 8UG

https://www.gov.uk/government/organisations/public-healthengland

Email:enquiries@phe.gov.uk Main switchboard: 020 7654 8000

The Coal Authority

200 Lichfield Lane Mansfield Notts NG18 4RG Tel: 0345 7626 848 DX 716176 Mansfield 5 www.coal.gov.uk

Ordnance Survey

Adanac Drive, Southampton SO16 0AS Tel: 08456 050505

Local Authority
Authority: Bassetlaw District Council
Phone: 01909 533 533
Web: http://www.bassetlaw.gov.uk/
Address: Queen s Buildings, Potter Street, Worksop, Nottinghamshire, S80 2AH

**Gemapping PLC** 

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















Acknowledgements: 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, Natural England 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: GEO-M-1944260 Client Reference: GML15126\_JR\_001

### **Standard Terms and Conditions**

### 1 Definitions

In these terms and conditions unless the context otherwise requires:

"Beneficiary" means the person or entity for whose benefit the Client has obtained the Services.

"Client" means the party or parties entering into a Contract with GroundSure.

"Commercial" means any building or property which is not Residential.

"Confidential Information" means the contents of this Contract and all information received from the Client as a result of, or in connection with, this Contract other than

- (i) information which the Client can prove was rightfully in its possession prior to disclosure by GroundSure and
- (ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

"Support Services" means Support Services provided by GroundSure including, without limitation, interpreting third party and in-house environmental data, providing environmental support advice, undertaking environmental audits and assessments, Site investigation, Site monitoring and related items.

"Contract" means the contract between GroundSure and the Client for the provision of the Services, and which shall incorporate these terms and conditions, the Order, and the relevant User Guide.

"Third Party Data Provider" means any third party providing Third Party Content to GroundSure.

"Data Reports" means reports comprising factual data with no accompanying interpretation.

"Fees" has the meaning set out in clause 5.1.

"GroundSure" means GroundSure Limited, a company registered in England and Wales under number 03421028.

"GroundSure Materials" means all materials prepared by GroundSure and provided as part of the Services, including but not limited to Third Party Content, Data Reports, Mapping, and Risk Screening Reports.

"Intellectual Property" means any patent, copyright, design rights, trade or service mark, moral rights, data protection rights, know-how or trade mark in each case whether registered or not and including applications for the same or any other rights of a similar nature anywhere in the world.

"Mapping" means a map, map data or a combination of historical maps of various ages, time periods and scales.

"Order" means an electronic, written or other order form submitted by the Client requesting Services from GroundSure in respect of a specified Site.

"Ordnance Survey" means the Secretary of State for Business, Innovation and Skills, acting through Ordnance Survey, Adanac Drive, Southampton, SO16 0AS, UK.

"Order Website" means the online platform through which Orders may be placed by the Client and accepted by GroundSure.

"Report" means a Risk Screening Report or Data Report for Commercial or Residential property.

"Residential" means any building or property used as or intended to be used as a single dwelling.

"Risk Screening Report" means a risk screening report comprising factual data with an accompanying interpretation by GroundSure.

**"Services"** means any Report, Mapping and/or Support Services which GroundSure has agreed to provide by accepting an Order pursuant to clause 2.6.

"Site" means the area of land in respect of which the Client has requested GroundSure to provide the Services.

**"Third Party Content"** means data, database information or other information which is provided to GroundSure by a Third Party Data Provider.

"User Guide" means the user guide, as amended from time to time, available upon request from GroundSure and on the website (www.GroundSure.com) and forming part of this Contract.

# 2 Scope of Services, terms and conditions, requests for insurance and quotations

- 2.1 GroundSure agrees to provide the Services in accordance with the Contract.
- 2.2 GroundSure shall exercise reasonable skill and care in the provision of the Services
- 2.3 Subject to clause 7.3 the Client acknowledges that it has not relied on any statement or representation made by or on behalf of GroundSure which is not set out and expressly agreed in writing in the Contract and all such statements and representations are hereby excluded to the fullest extent permitted by law.
- 2.4 The Client acknowledges that terms and conditions appearing on a Client's order form, printed stationery or other communication, or any terms or conditions

implied by custom, practice or course of dealing shall be of no effect, and that this Contract shall prevail over all others in relation to the Order.

2.5 If the Client or Beneficiary requests insurance in conjunction with or as a result of the Services, GroundSure shall use reasonable endeavours to recommend such insurance, but makes no warranty that such insurance shall be available from insurers or that it will be offered on reasonable terms. Any insurance purchased by the Client or Beneficiary shall be subject solely to the terms of the policy issued by insurers and GroundSure will have no liability therefor. In addition you acknowledge and agree that GroundSure does not act as an agent or broker for any insurance providers. The Client should take (and ensure that the Beneficiary takes) independent advice to ensure that the insurance policy requested or offered is suitable for its requirements.

2.6 GroundSure's quotations or proposals are valid for a period of 30 days only unless an alternative period of time is explicitly stipulated by GroundSure. GroundSure reserves the right to withdraw any quotation or proposal at any time before an Order is accepted by GroundSure. GroundSure's acceptance of an Order shall be binding only when made in writing and signed by GroundSure's authorised representative or when accepted through the Order Website.

### 3 The Client's obligations

3.1The Client shall comply with the terms of this Contract and

- (i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and
- (ii) be liable to GroundSure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.
- 3.2 The Client shall be solely responsible for ensuring that the Services are appropriate and suitable for its and/or the Beneficiary's needs.
- 3.3 The Client shall supply to GroundSure as soon as practicable and without charge all requisite information (and the Client warrants that such information is accurate, complete and appropriate), including without limitation any environmental information relating to the Site and shall give such assistance as GroundSure shall reasonably require in the provision of the Services including, without limitation, access to the Site, facilities and equipment.
- 3.4 Where the Client's approval or decision is required to enable GroundSure to carry out work in order to provide the Services, such approval or decision shall be given or procured in reasonable time and so as not to delay or disrupt the performance of the Services.

3.5 Save as expressly permitted by this Contract the Client shall not, and shall procure that the Beneficiary shall not, re-sell, alter, add to, or amend the GroundSure Materials, or use the GroundSure Materials in a manner for which they were not intended. The Client may make the GroundSure Materials available to a third party who is considering acquiring some or all of, or providing funding in relation to, the Site, but such third party cannot rely on the same unless expressly permitted under clause 4.

3.6 The Client is responsible for maintaining the confidentiality of its user name and password if using the Order Website and the Client acknowledges that GroundSure accepts no liability of any kind for any loss or damage suffered by the Client as a consequence of using the Order Website.

### 4 Reliance

4.1The Client acknowledges that the Services provided by GroundSure consist of the presentation and analysis of Third Party Content and other content and that information obtained from a Third Party Data Provider cannot be guaranteed or warranted by GroundSure to be reliable.

4.2 In respect of Data Reports, Mapping and Risk Screening Reports, the following classes of person and no other are entitled to rely on their contents;

(i) the Beneficiary,

(ii) the Beneficiary's professional advisers, (iii) any person providing funding to the Beneficiary in relation to the Site (whether directly or as part of a lending syndicate),

(iv) the first purchaser or first tenant of the Site, and

 $\mbox{(v)}$  the professional advisers and lenders of the first purchaser or tenant of the Site.

4.3 In respect of Support Services, only the Client, Beneficiary and parties expressly named in a Report and no other parties are entitled to rely on its contents.

4.4 Save as set out in clauses 4.2 and 4.3 and unless otherwise expressly agreed in writing, no other person or entity of any kind is entitled to rely on any Services or Report issued or provided by GroundSure. Any party considering such Reports and Services does so at their own risk.

### 5 Fees and Disbursements

5.1GroundSure shall charge and the Client shall pay fees at the rate and frequency specified in the written proposal, Order Website or Order acknowledgement form, plus (in the case of Support Services) all proper disbursements incurred by GroundSure. The Client shall in addition pay all value added tax or other tax payable on such fees and disbursements in relation to the provision of the Services (together "Fees").

- 5.2 The Client shall pay all outstanding Fees to GroundSure in full without deduction, counterclaim or set off within 30 days of the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.
- 5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of GroundSure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

### 6 Intellectual Property and Confidentiality

### 6.1 Subject to

- (i) full payment of all relevant Fees and
- (ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the GroundSure Materials.
- 6.2 All Intellectual Property in the GroundSure Materials are and shall remain owned by GroundSure or GroundSure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.
- 6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.
- $6.4\ \mbox{The Client shall,}$  and shall procure that any recipients of the GroundSure Materials shall:
- (i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to GroundSure or any third party from the Services:
- (ii) 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 respect of adjacent or nearby sites;
- (iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);
- (v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);
- (vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and
- (vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey,
- 6.5 Notwithstanding clause 6.4, the Client may make reasonable use of the GroundSure Materials in order to advise the Beneficiary in a professional capacity. However, GroundSure shall have no liability in respect of any advice, opinion or report given or provided to Beneficiaries by the Client.
- 6.6 The Client shall procure that any person to whom the Services are made available shall notify GroundSure of any request or requirement to disclose, publish or disseminate any information contained in the Services in accordance with the Freedom of Information Act 2000, the Environmental Information Regulations 2004 or any associated legislation or regulations in force from time to time.

### 7. Liability: Particular Attention Should Be Paid To This Clause

- 7.1 This Clause 7 sets out the entire liability of GroundSure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:
  - (i) any breach of contract, including any deliberate breach of the Contract by GroundSure or its employees, agents or subcontractors:
  - (ii) any use made of the Reports, Services, Materials or any part of them; and
- (iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.
- 7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.
- 7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death

or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.

7.4 GroundSure shall not be liable for

- (i) loss of profits;
- (ii) loss of business;
- (iii) depletion of goodwill and/or similar losses;
- (iv) loss of anticipated savings;
- (v) loss of goods;
- (vi) loss of contract;
- (vii) loss of use;
- (viii) loss or corruption of data or information;
- (ix) business interruption;
- (x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;
- (xi) loss or damage that arise as a result of the use of all or part of the GroundSure Materials in breach of the Contract;
- (xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the GroundSure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;
- $\mbox{(xiii)} \qquad \mbox{loss or damage to a computer, software, modem, telephone or other property; and} \\$
- (xiv) loss or damage caused by a delay or loss of use of GroundSure's internet ordering service.
- 7.5 GroundSure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.
- 7.6 GroundSure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of GroundSure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against GroundSure in relation to the Services or other matters arising pursuant to the Contract.

### 8 GroundSure's right to suspend or terminate

- 8.1 If GroundSure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, GroundSure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.
- 8.2 GroundSure shall be entitled to terminate the Contract immediately on written notice in the event that:
- (i) the Client fails to pay any sum due to GroundSure within 30 days of the Payment Date; or
- (ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or
- (iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or
- (iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

### 9. Client's Right to Terminate and Suspend

- 9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.
- 9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:
- (i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon GroundSure's acceptance of the Order; and
  - (ii) the Reports and/or Mapping provided under this Contract are
    - (a) supplied to the Client's specification(s) and in any event
    - (b) by their nature cannot be returned.

### 10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

(i) GroundSure shall take steps to bring to an end the Services in an orderly manner, vacate any Site with all reasonable speed and shall deliver to the Client and/or Beneficiary any property of the Client and/or Beneficiary in

GroundSure's possession or control; and

(ii) the Client shall pay to GroundSure all and any Fees payable in respect of the performance of the Services up to the date of termination or suspension. In respect of any Support Services provided, the Client shall also pay GroundSure any additional costs incurred in relation to the termination or suspension of the Contract.

### 11 Anti-Bribery

11.1 The Client warrants that it shall:

- (i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010:
- (ii) comply with such of GroundSure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and
- (iii) promptly report to GroundSure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.
- 11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

#### 12 General

- 12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.
- 12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through GroundSure.
- 12.3 GroundSure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of GroundSure.
- 12.4 No failure on the part of GroundSure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.
- 12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.
- 12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.
- 12.7 GroundSure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:
- (i) the Client or Beneficiary's failure to provide facilities, access or information:
  - (ii) fire, storm, flood, tempest or epidemic;
  - (iii) Acts of God or the public enemy;
  - (iv) riot, civil commotion or war;
  - (v) strikes, labour disputes or industrial action;
  - (vi) acts or regulations of any governmental or other agency;
- (vii) suspension or delay of services at public registries by Third Party Data Providers;
  - (viii) changes in law; or
  - (ix) any other reason beyond GroundSure's reasonable control.

In the event that GroundSure is prevented from performing the Services (or any part thereof) in accordance with this clause 12.6 for a period of not less than 30 days then GroundSure shall be entitled to terminate this Contract immediately on written notice to the Client.

- 12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.
- 12.9 Such notice shall be deemed to have been received on the day of delivery if delivered by hand, facsimile or email (save to the extent such day is not a working day where it shall be deemed to have been delivered on the next working day) and on the second working day after the day of posting if sent by first class post.
- 12.10 The Contract constitutes the entire agreement between the parties and shall supersede all previous arrangements between the parties relating to the subject matter hereof.
- 12.11 Each of the provisions of the Contract is severable and distinct from the others and if one or more provisions is or should become invalid, illegal or unenforceable, the validity and enforceability of the remaining provisions shall not in any way be tainted or impaired.
- 12.12 This Contract shall be governed by and construed in accordance with English

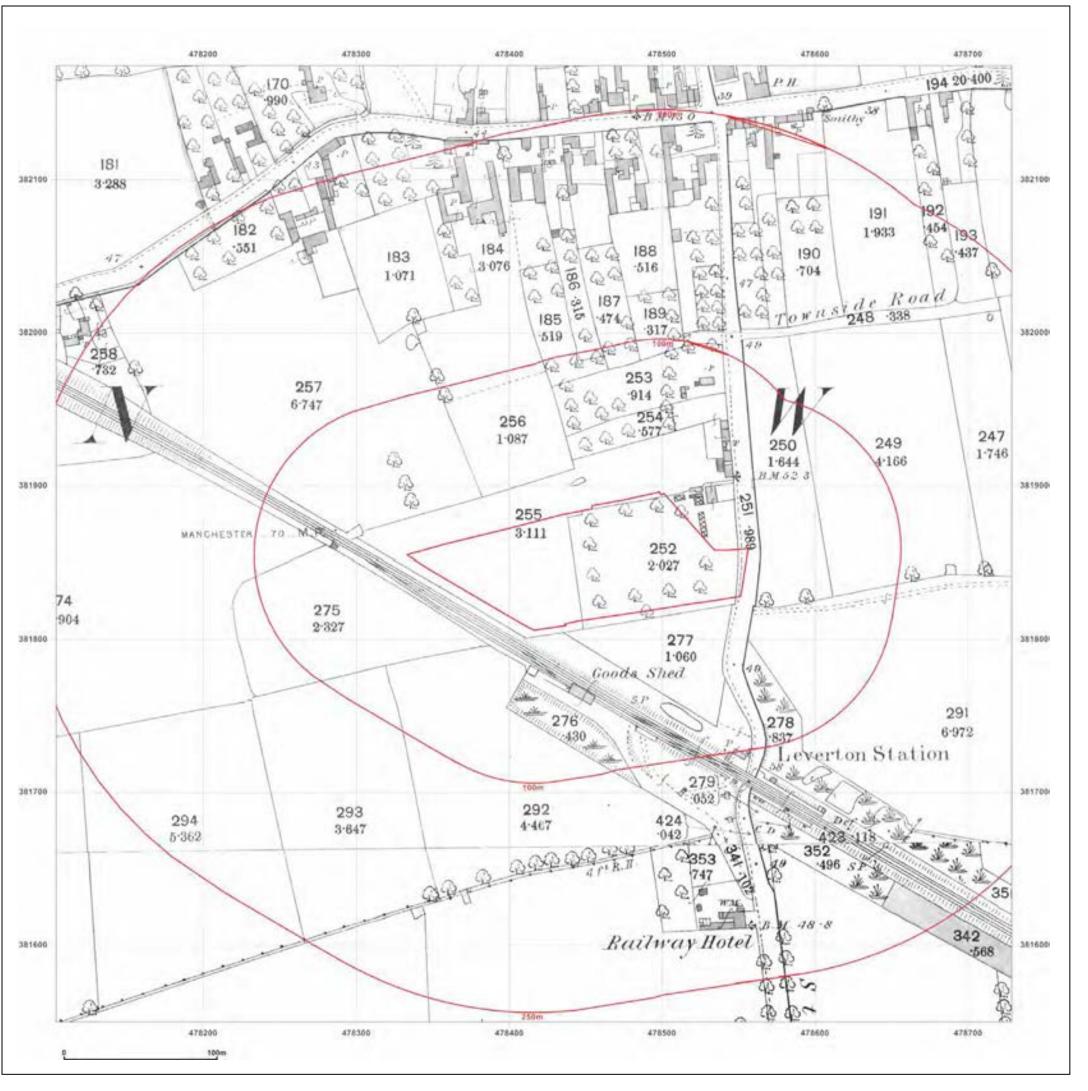
law and any proceedings arising out of or connected with this Contract shall be subject to the exclusive jurisdiction of the English courts.

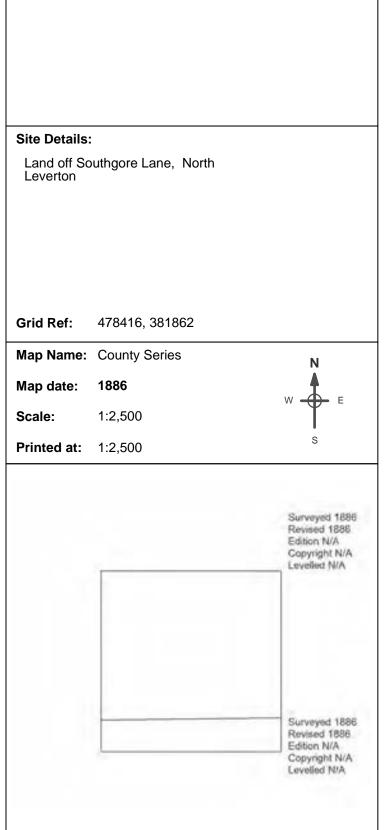
- 12.13 GroundSure is an executive member of the Council of Property Search Organisation (CoPSO) and has signed up to the Search Code administered by the Property Codes Compliance Board (PCCB). All Risk Screening Reports shall be supplied in accordance with the provisions of the Search Code.
- 12.14 If the Client or Beneficiary has a complaint about the Services, written notice should be given to the Compliance Officer at GroundSure who will respond in a timely manner.
- 12.15 The Client agrees that it shall, and shall procure that each Beneficiary shall, treat in confidence all Confidential Information and shall not, and shall procure that each Beneficiary shall not (i) disclose any Confidential Information to any third party other than in accordance with the terms of this Contract; and (ii) use Confidential Information for a purpose other than the exercise of its rights and obligations under this Contract. Subject to clause 6.6, nothing shall prevent the Client or any Beneficiary from disclosing Confidential Information to the extent required by law. © GroundSure Limited June 2013



# **APPENDIX V**

Historical Mapping







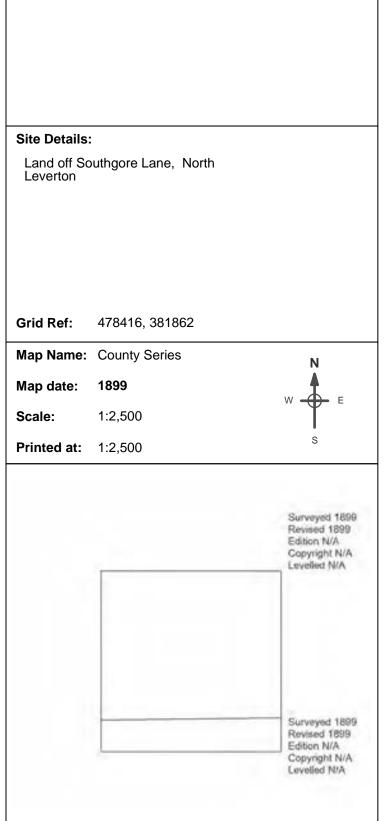
E: info@groundsure.com

W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

05 March 2015 Production date:







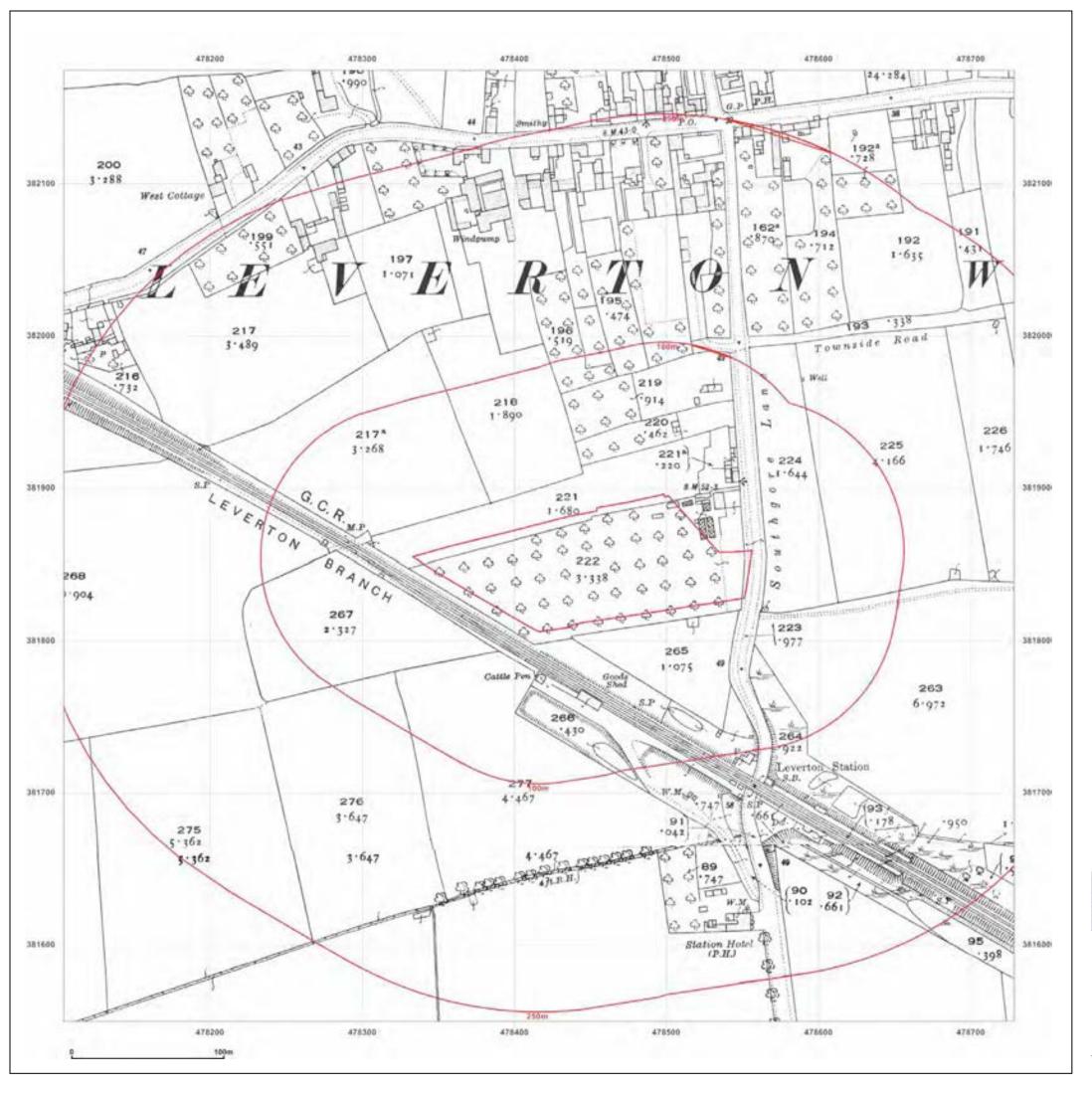
T: 08444 159000

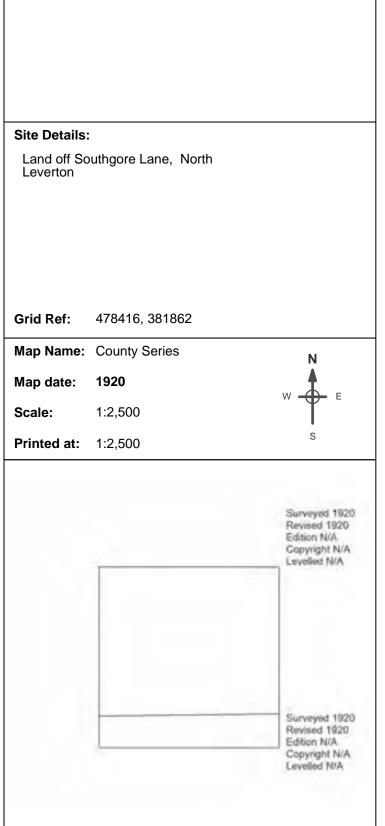
E: info@groundsure.com

W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 05 March 2015







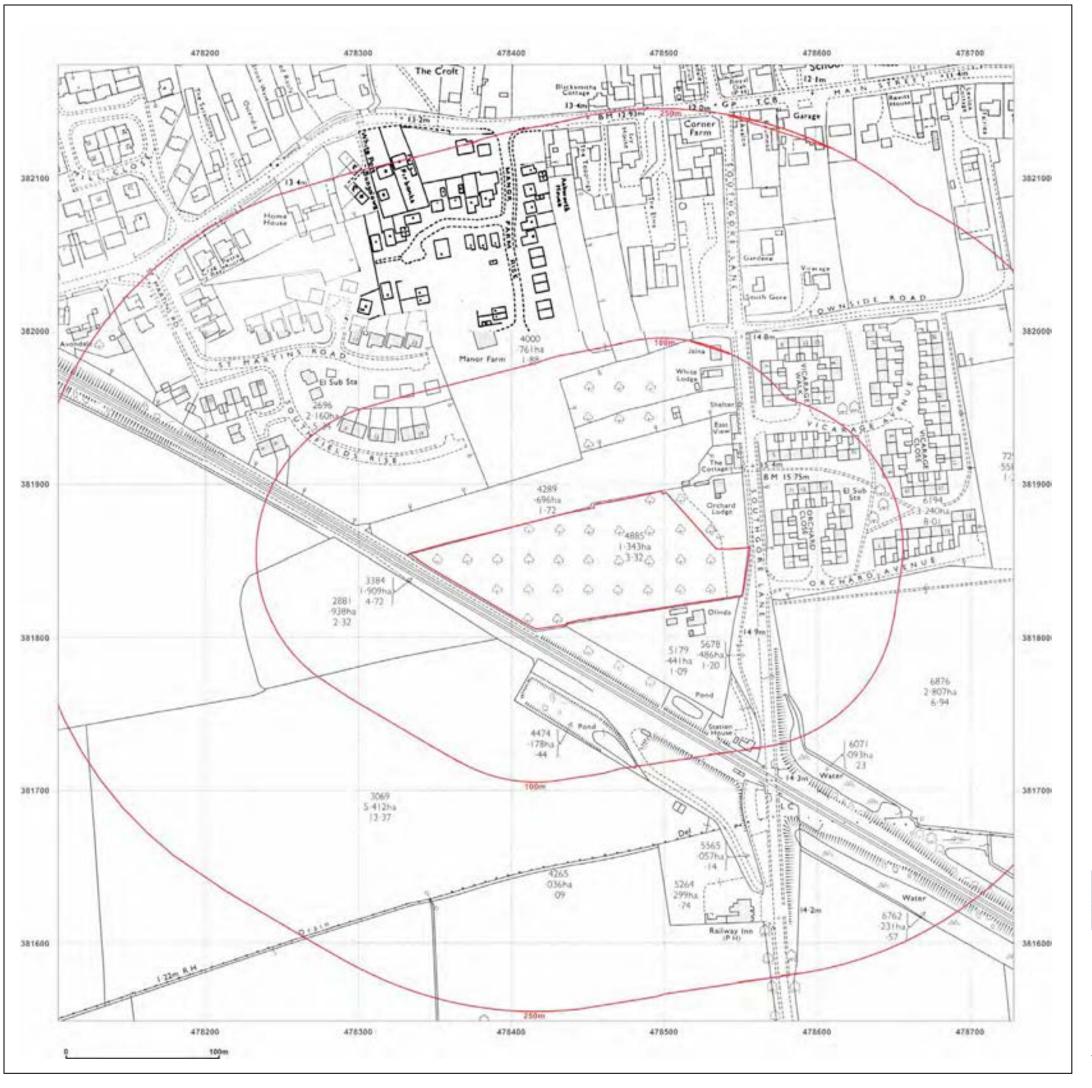
T: 08444 159000

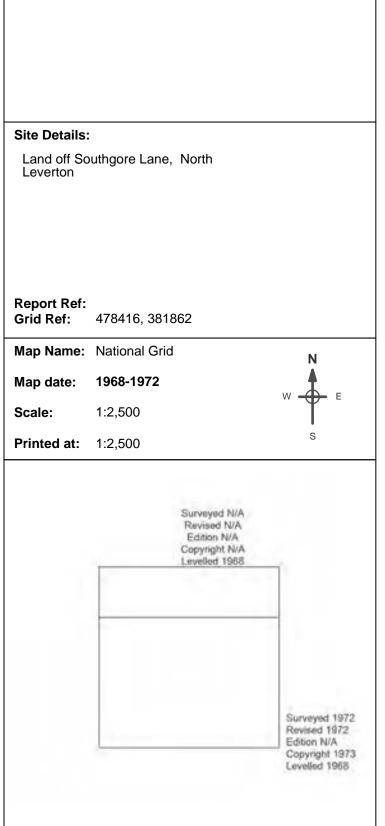
E: info@groundsure.com

W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

05 March 2015 Production date:





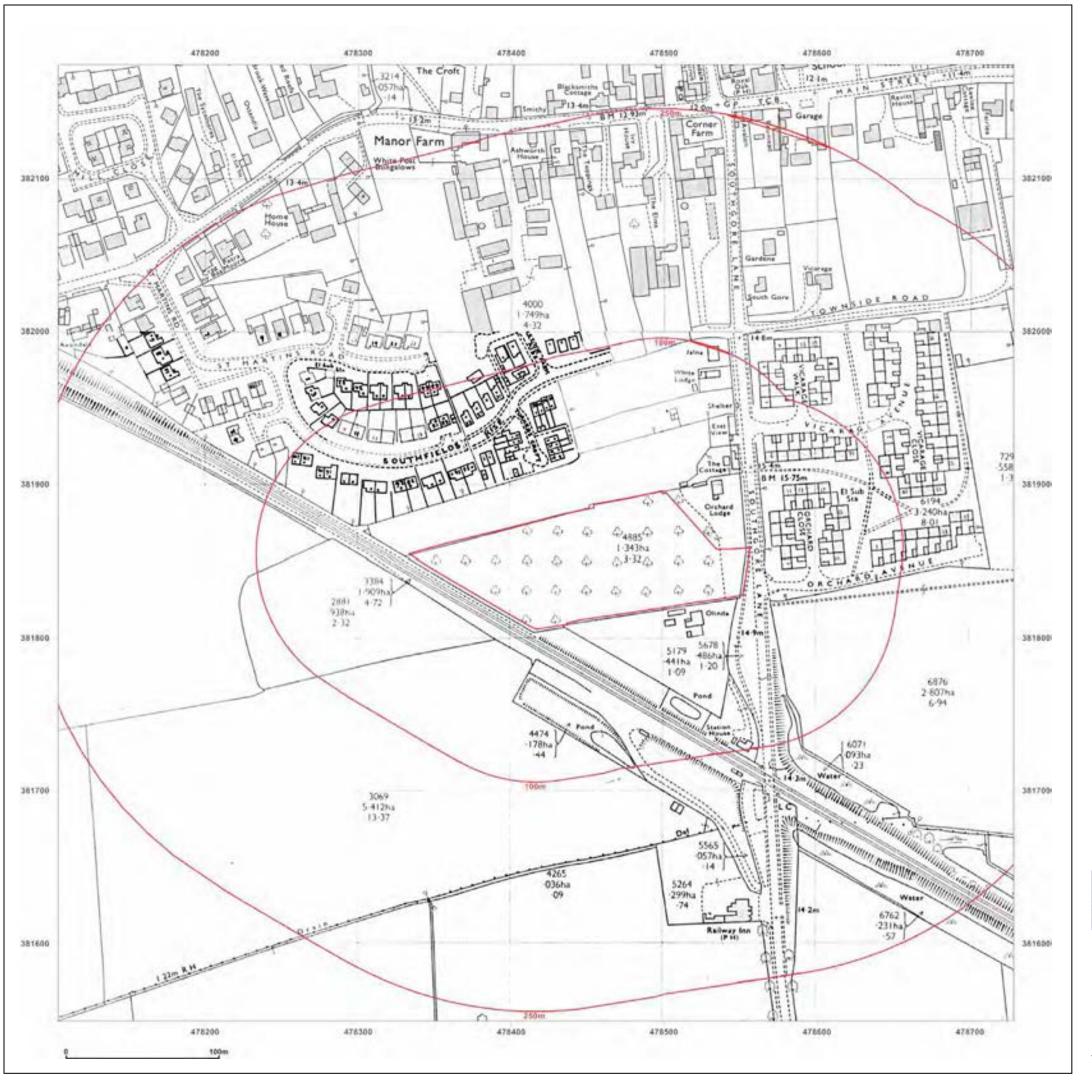


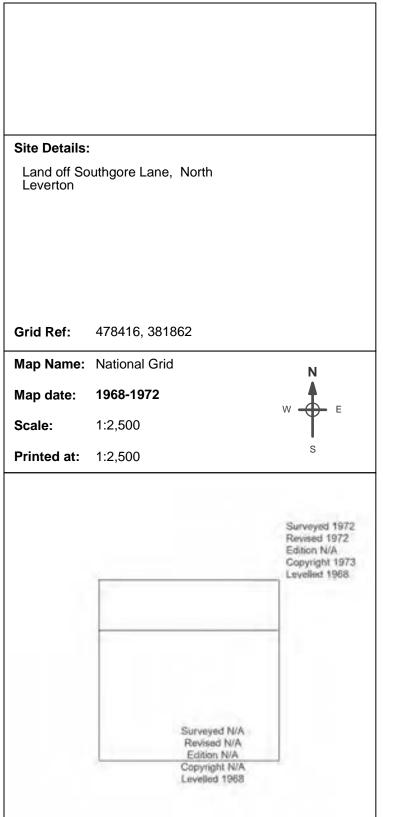
E: info@groundsure.com

W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 05 March 2015





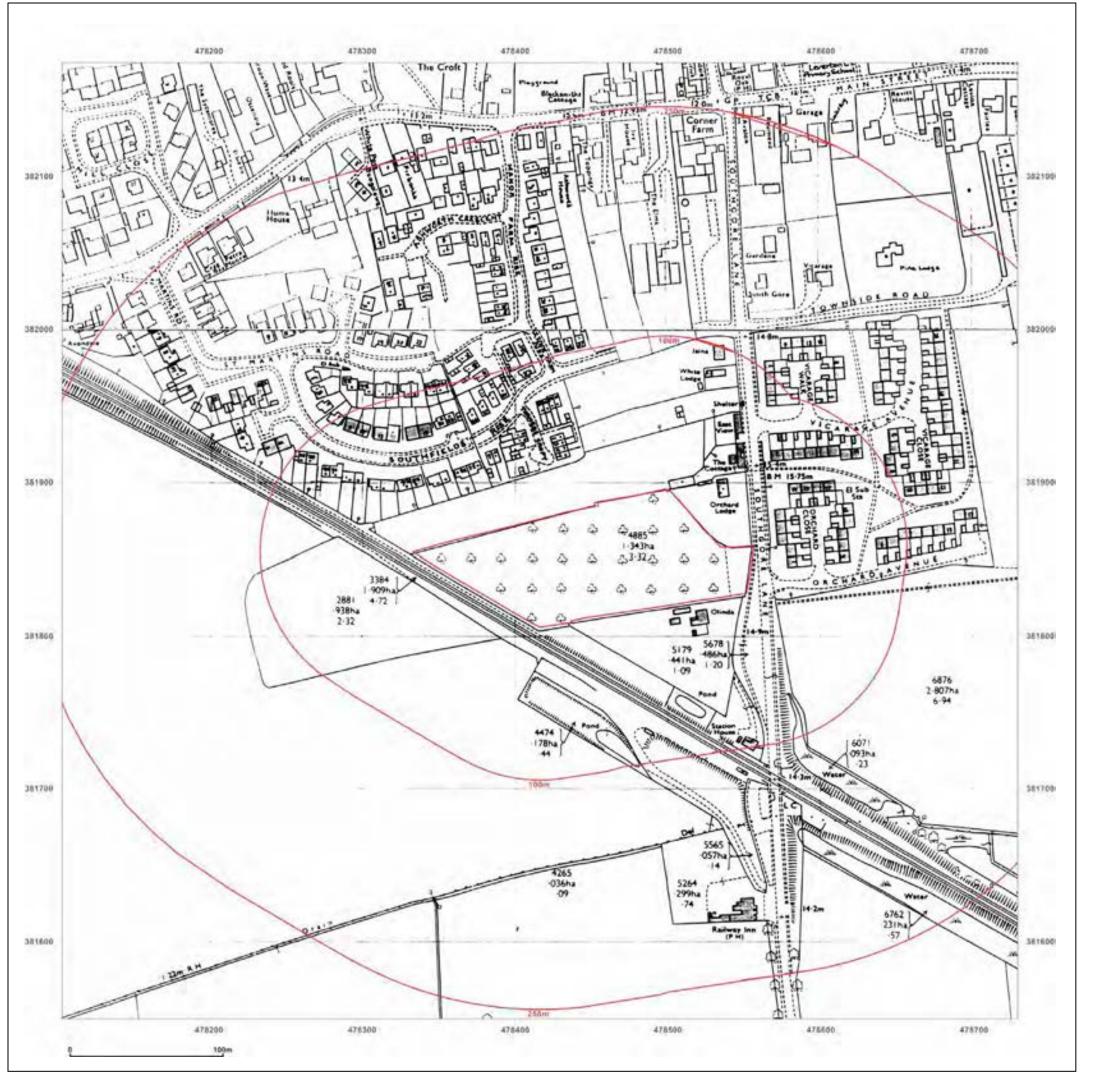


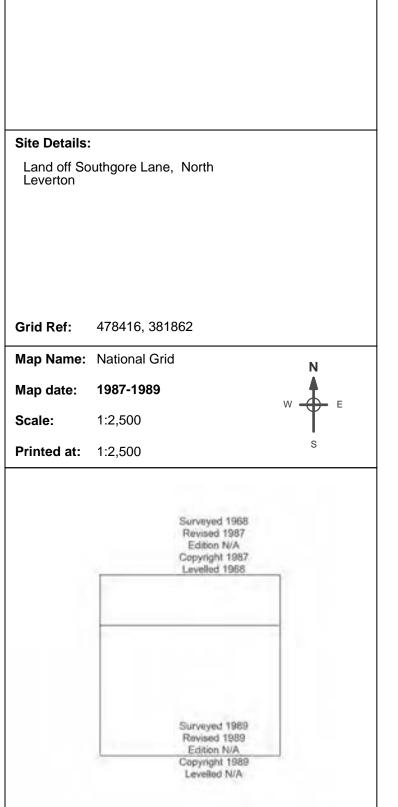
E: info@groundsure.com

W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 05 March 2015





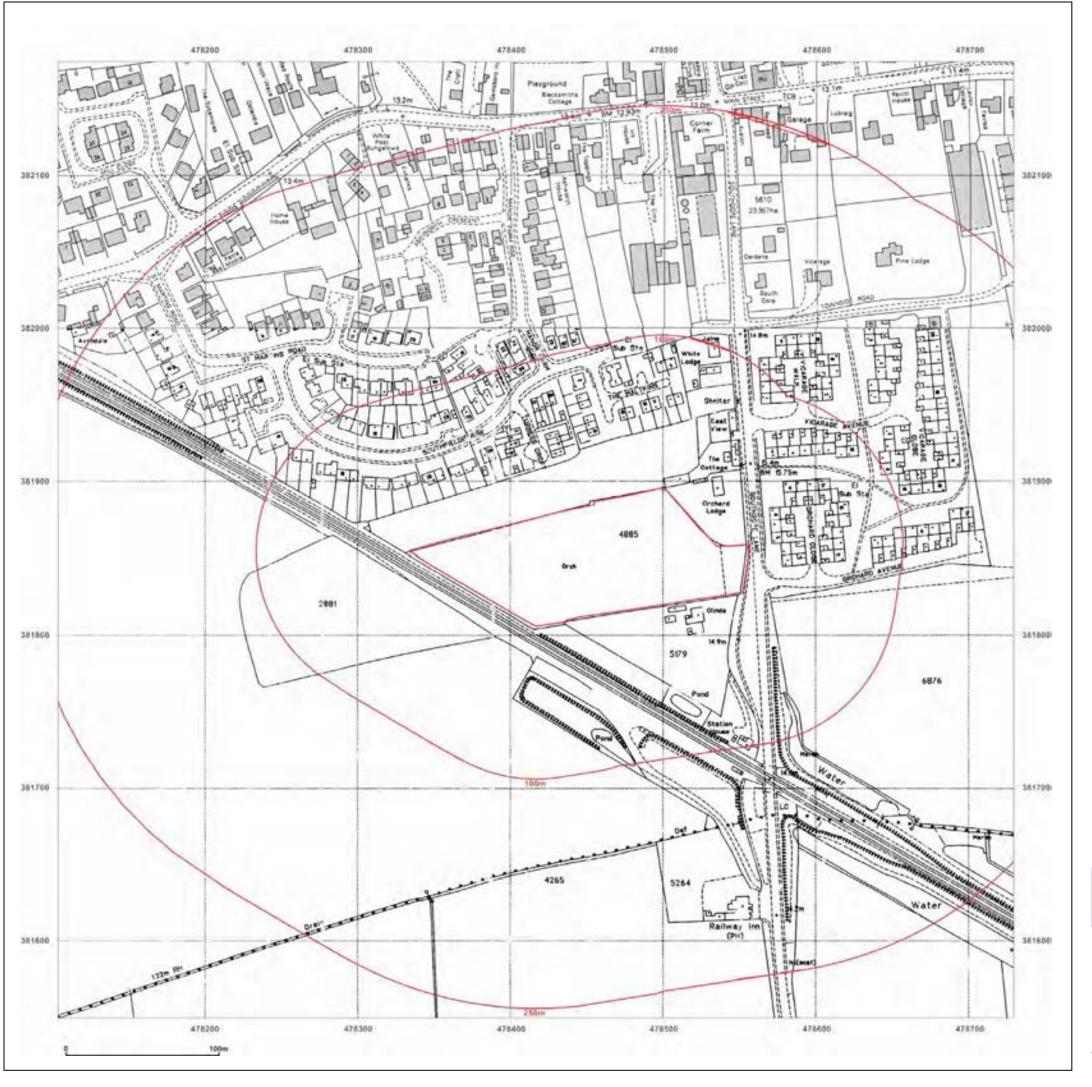


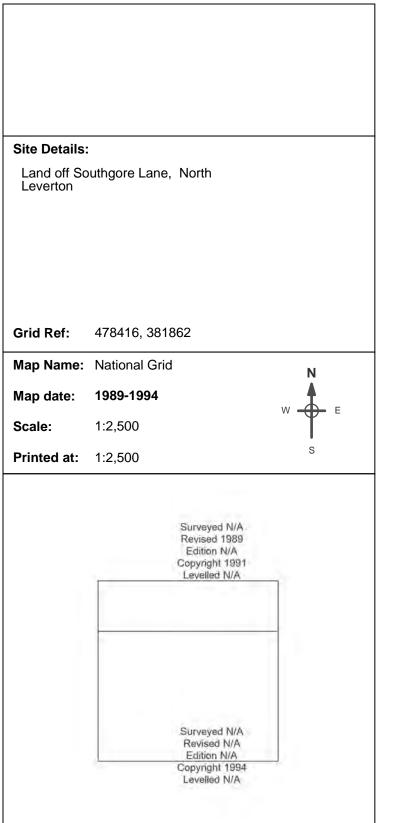
E: info@groundsure.com

W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 05 March 2015



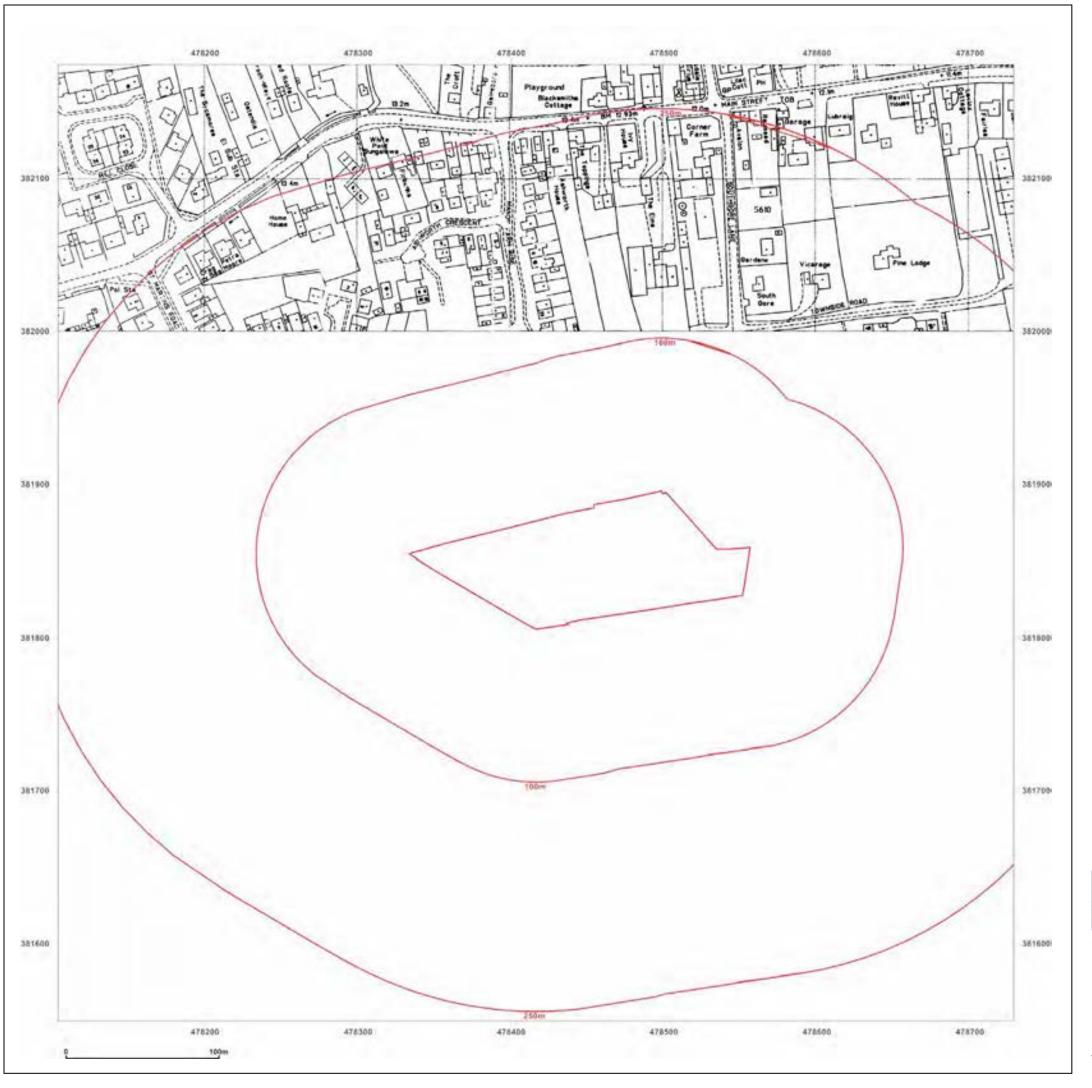


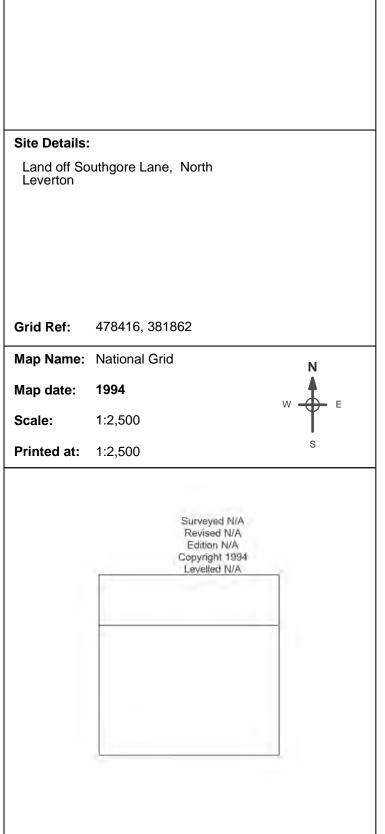


E: info@groundsure.com W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 05 March 2015





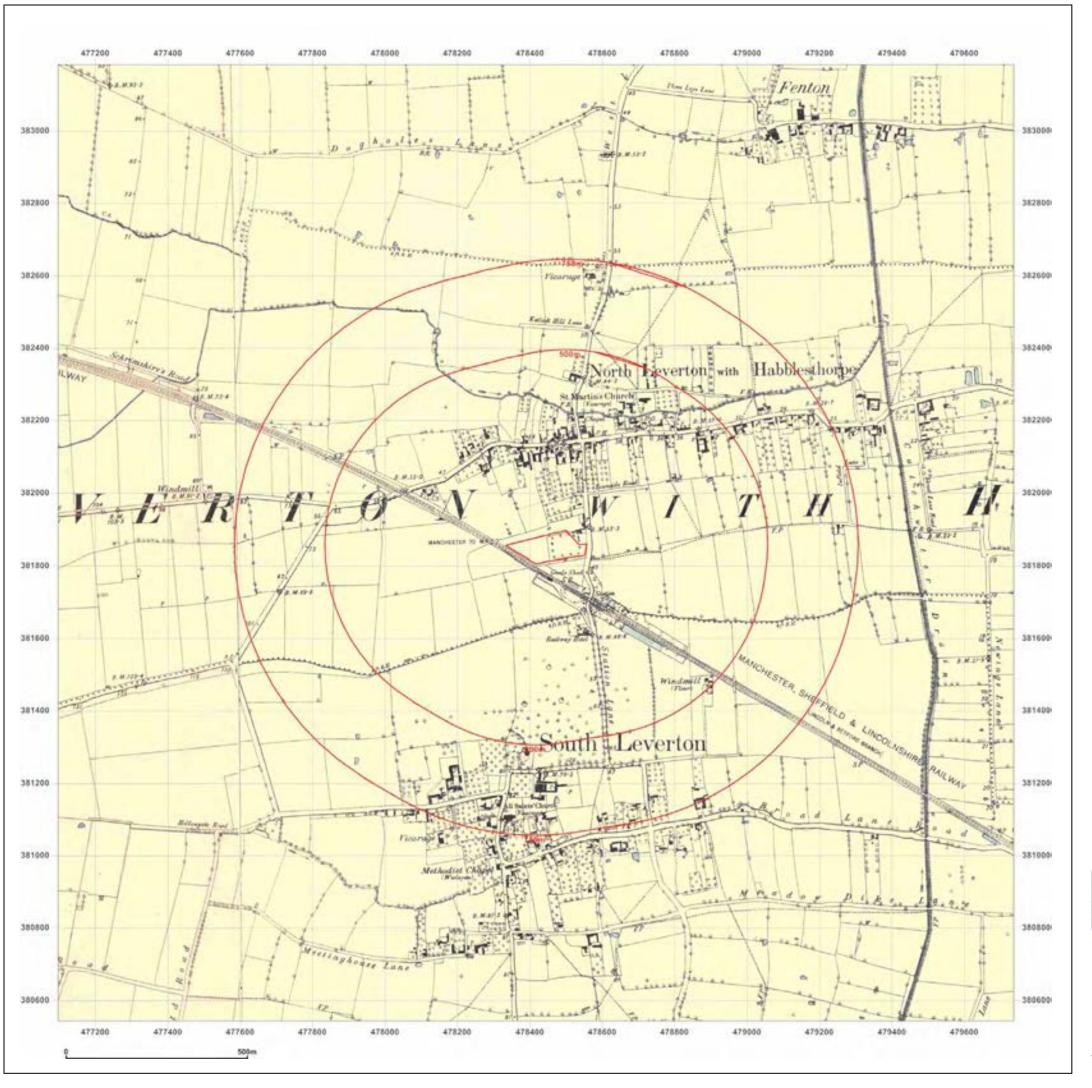


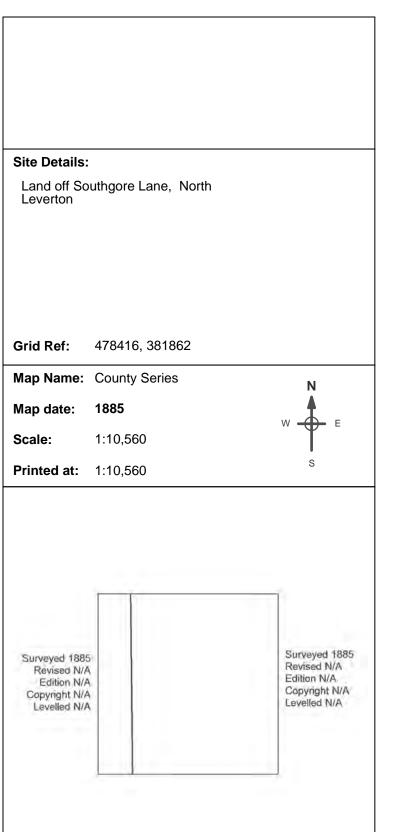
E: info@groundsure.com

W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 05 March 2015







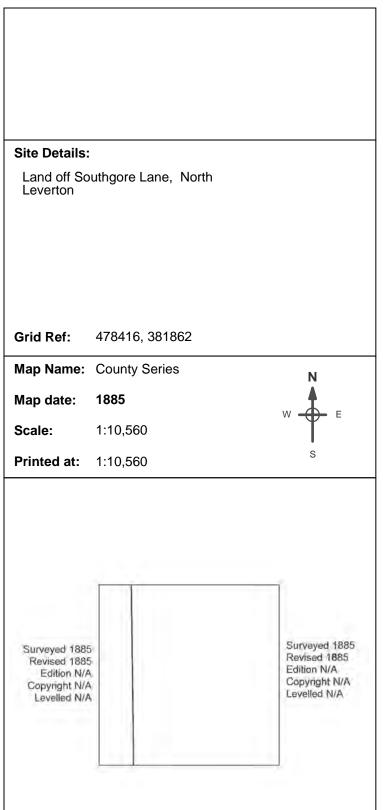
E: info@groundsure.com

W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

05 March 2015 Production date:







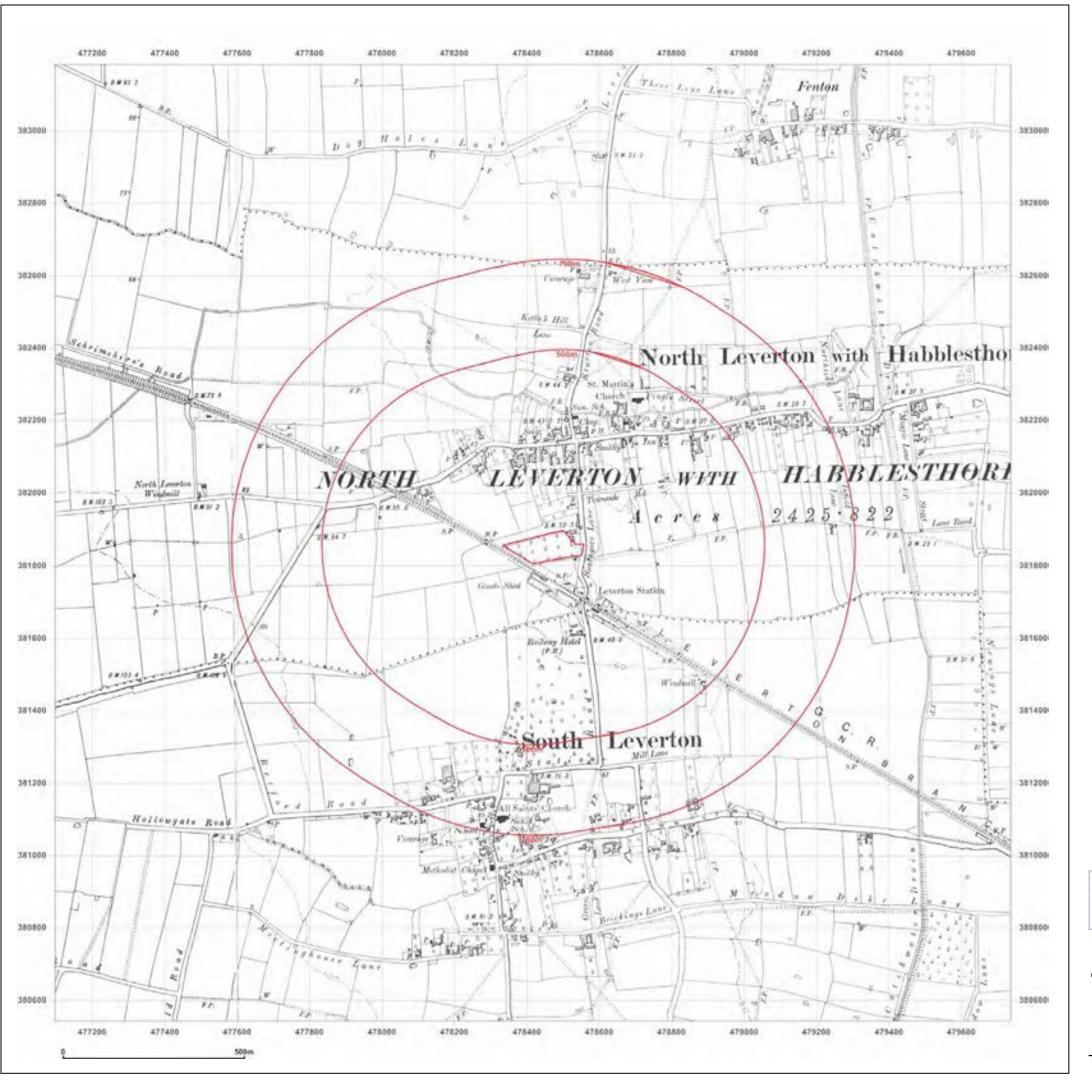
T: 08444 159000

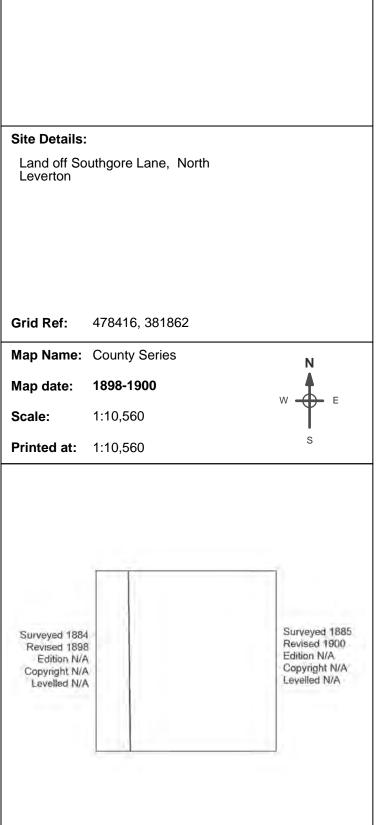
E: info@groundsure.com

W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 05 March 2015







GroundSure Environmental Insight

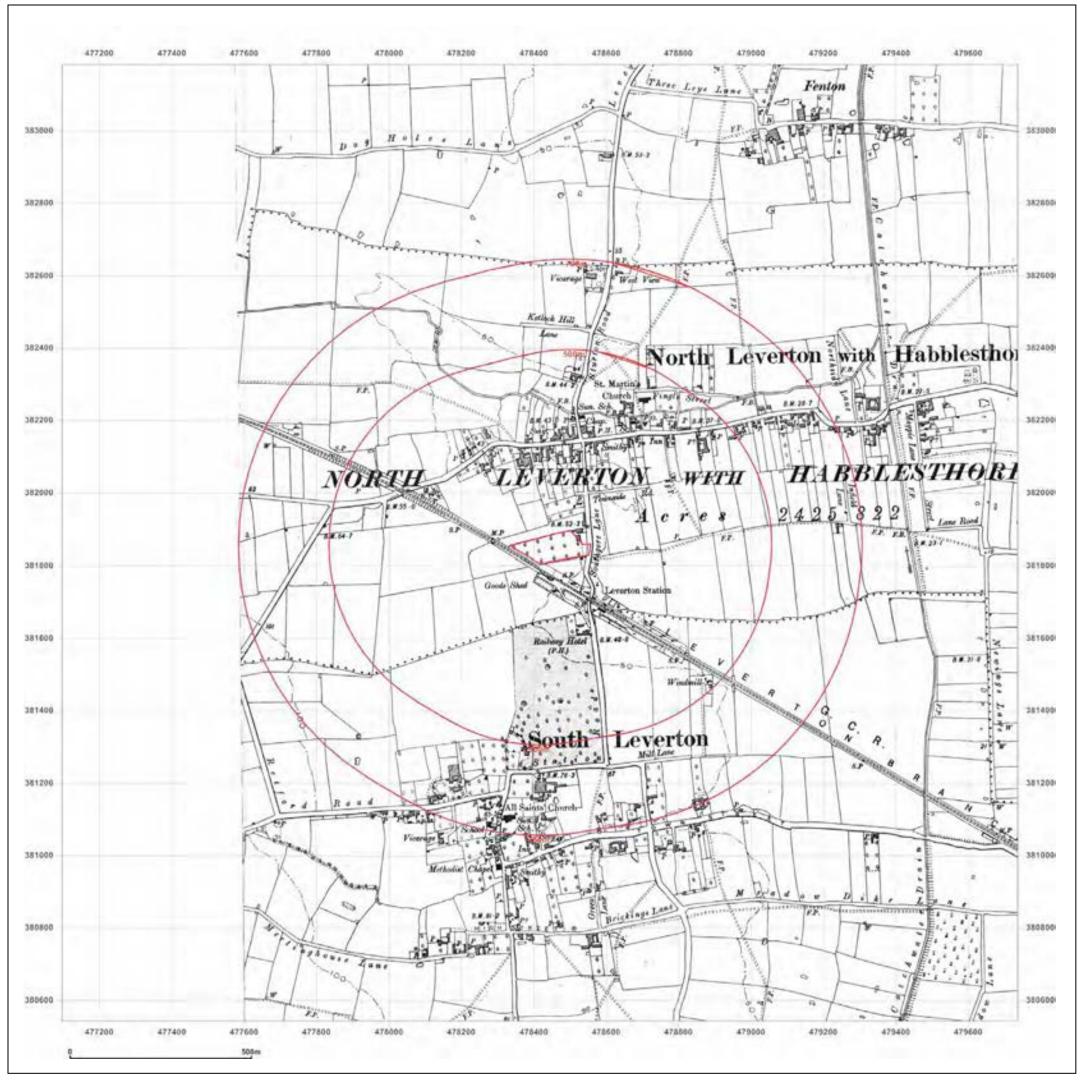
T: 08444 159000

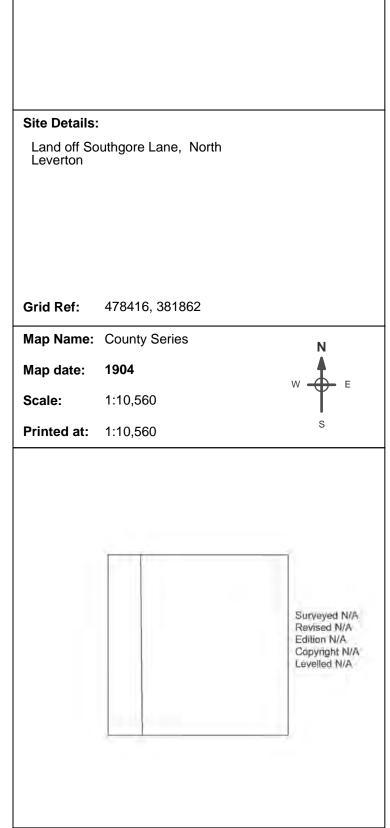
E: info@groundsure.com

W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

05 March 2015 Production date:







GroundSure Environmental Insight

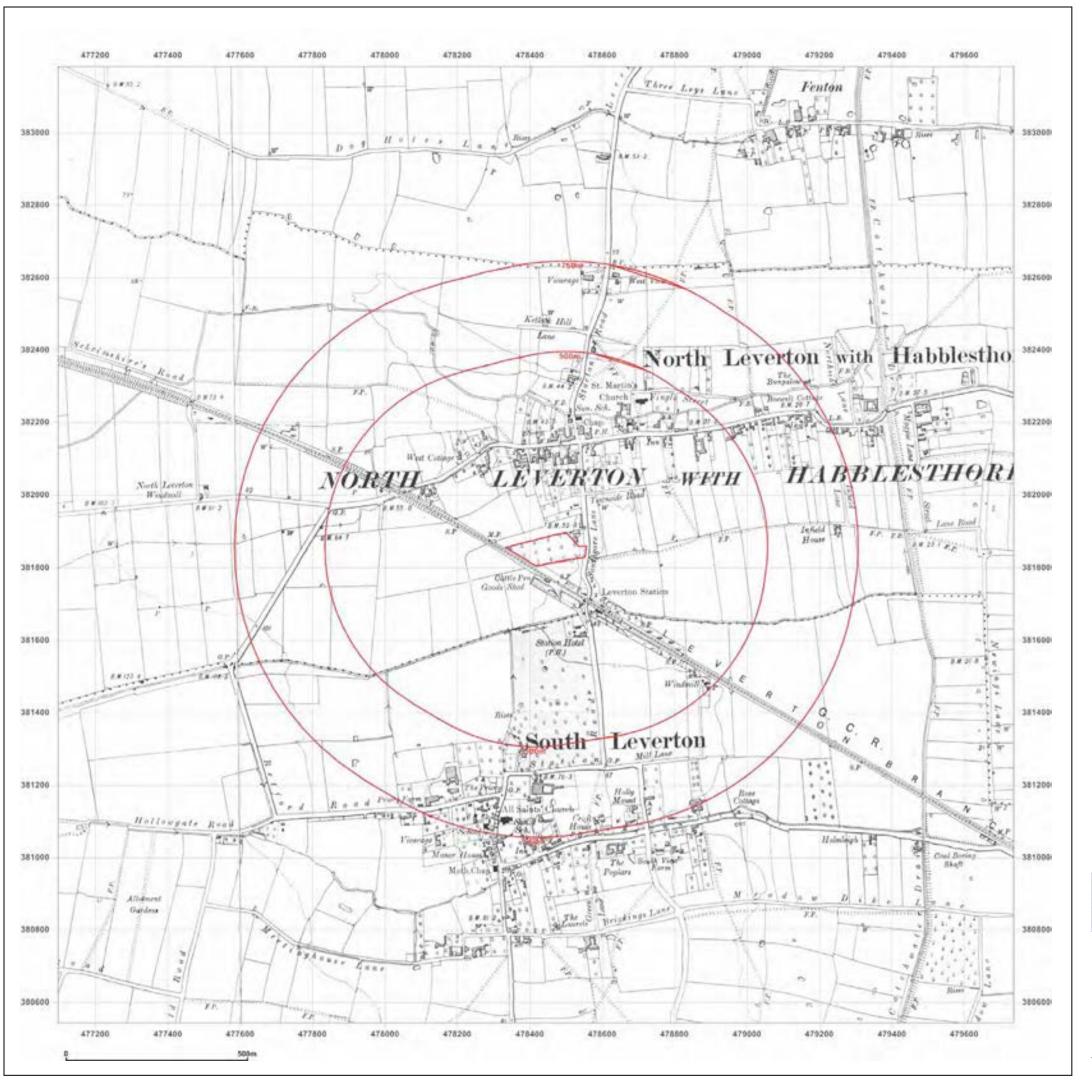
T: 08444 159000

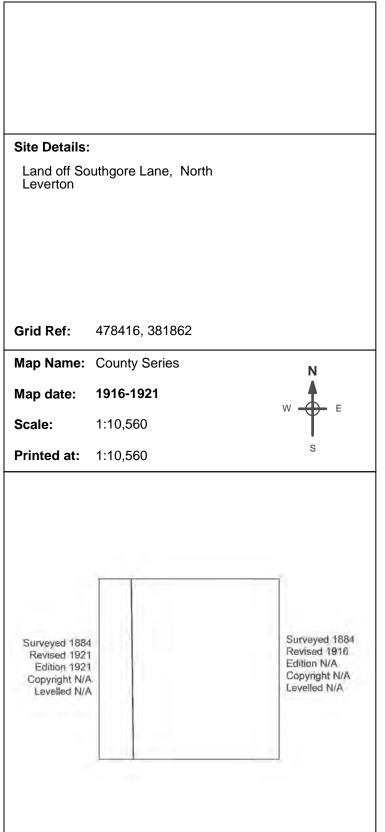
E: info@groundsure.com

W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 05 March 2015







GroundSure Environmental Insight

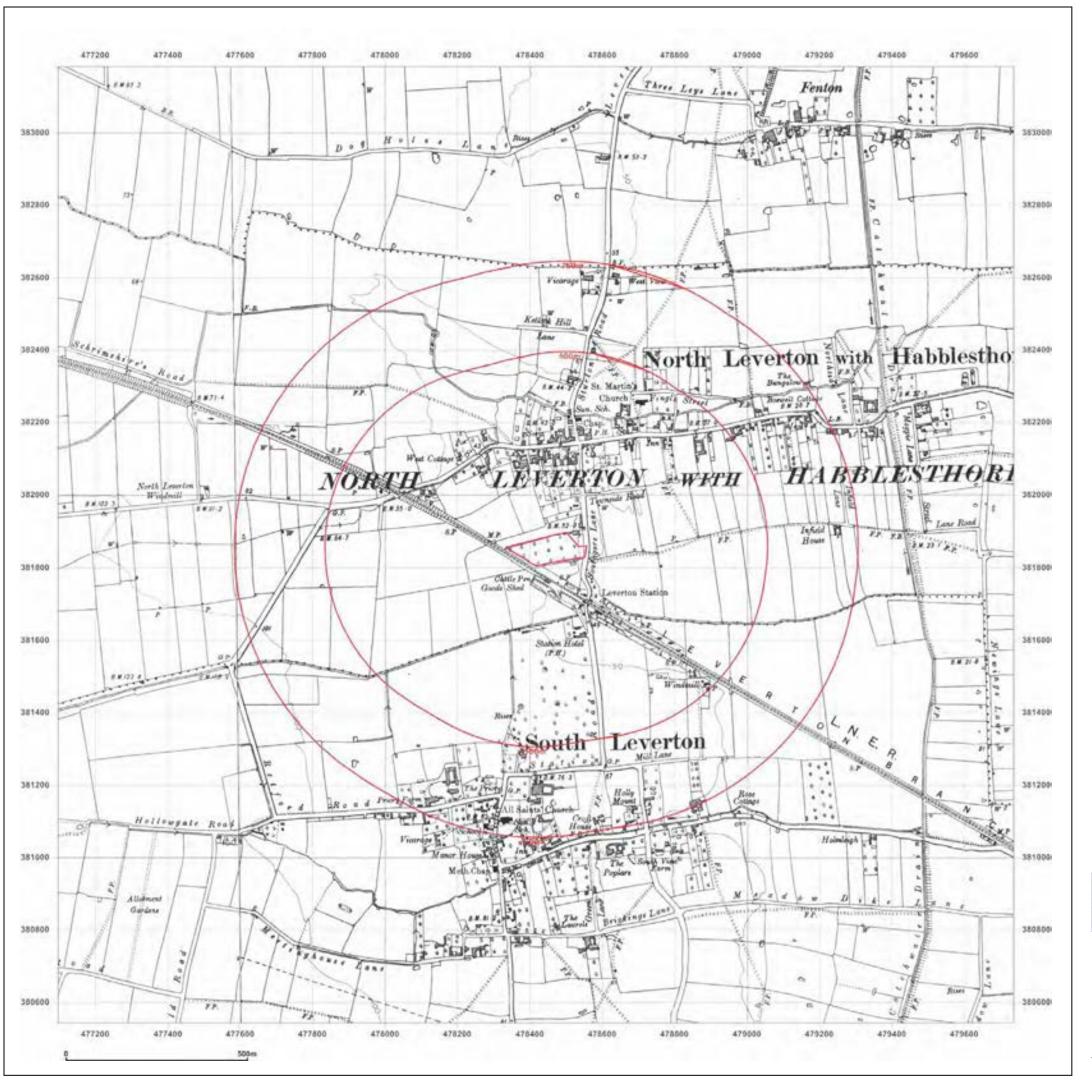
T: 08444 159000

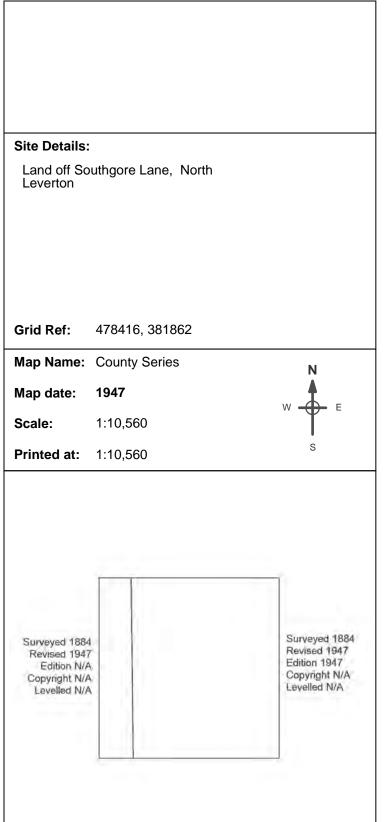
E: info@groundsure.com

W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

05 March 2015 Production date:







GroundSure Environmental Insight

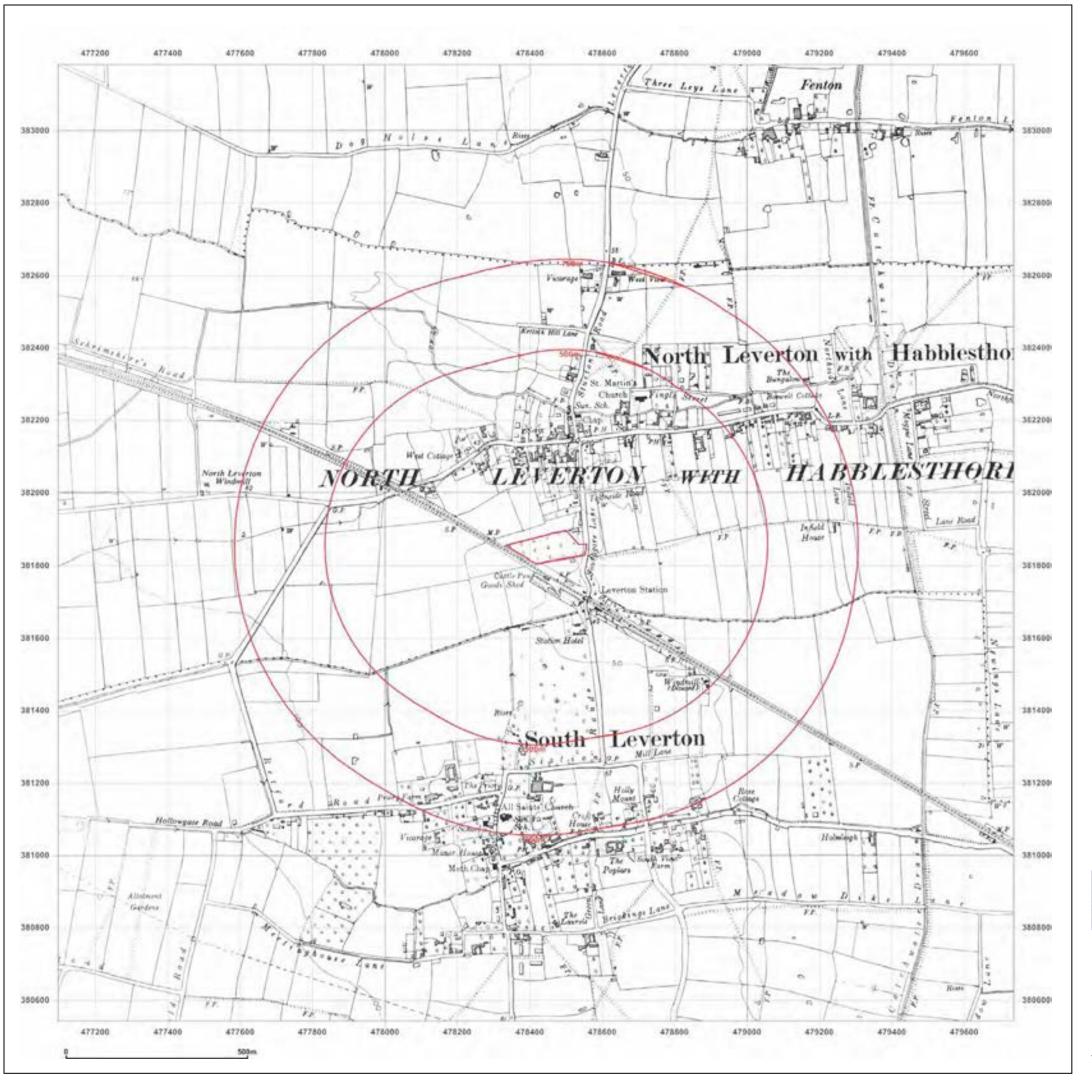
T: 08444 159000

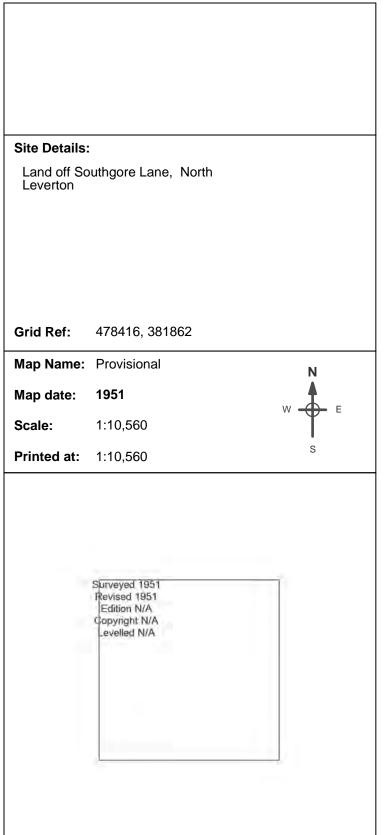
E: info@groundsure.com

W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 05 March 2015







GroundSure Environmental Insight

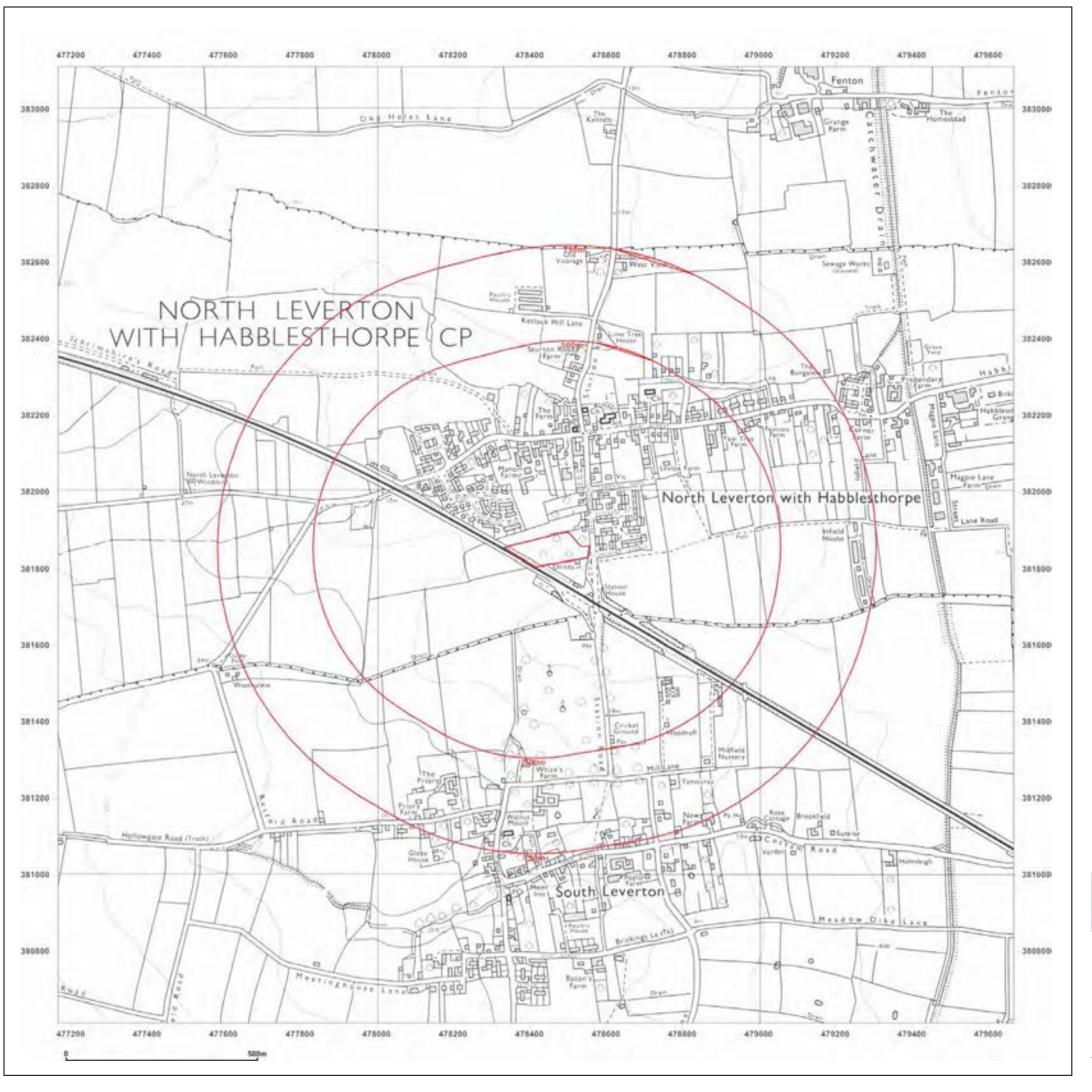
T: 08444 159000

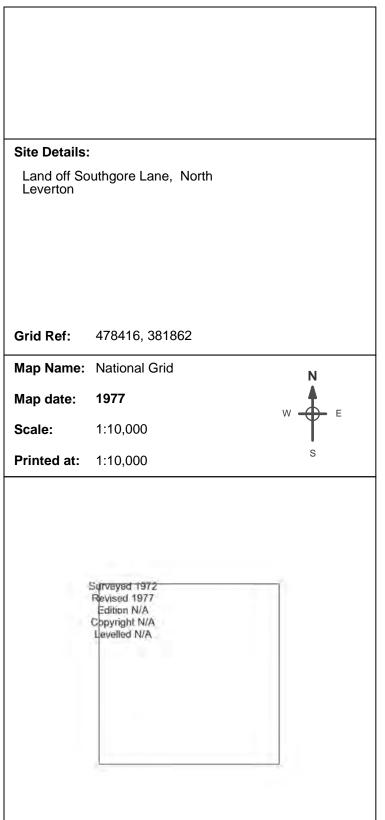
E: info@groundsure.com

W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 05 March 2015





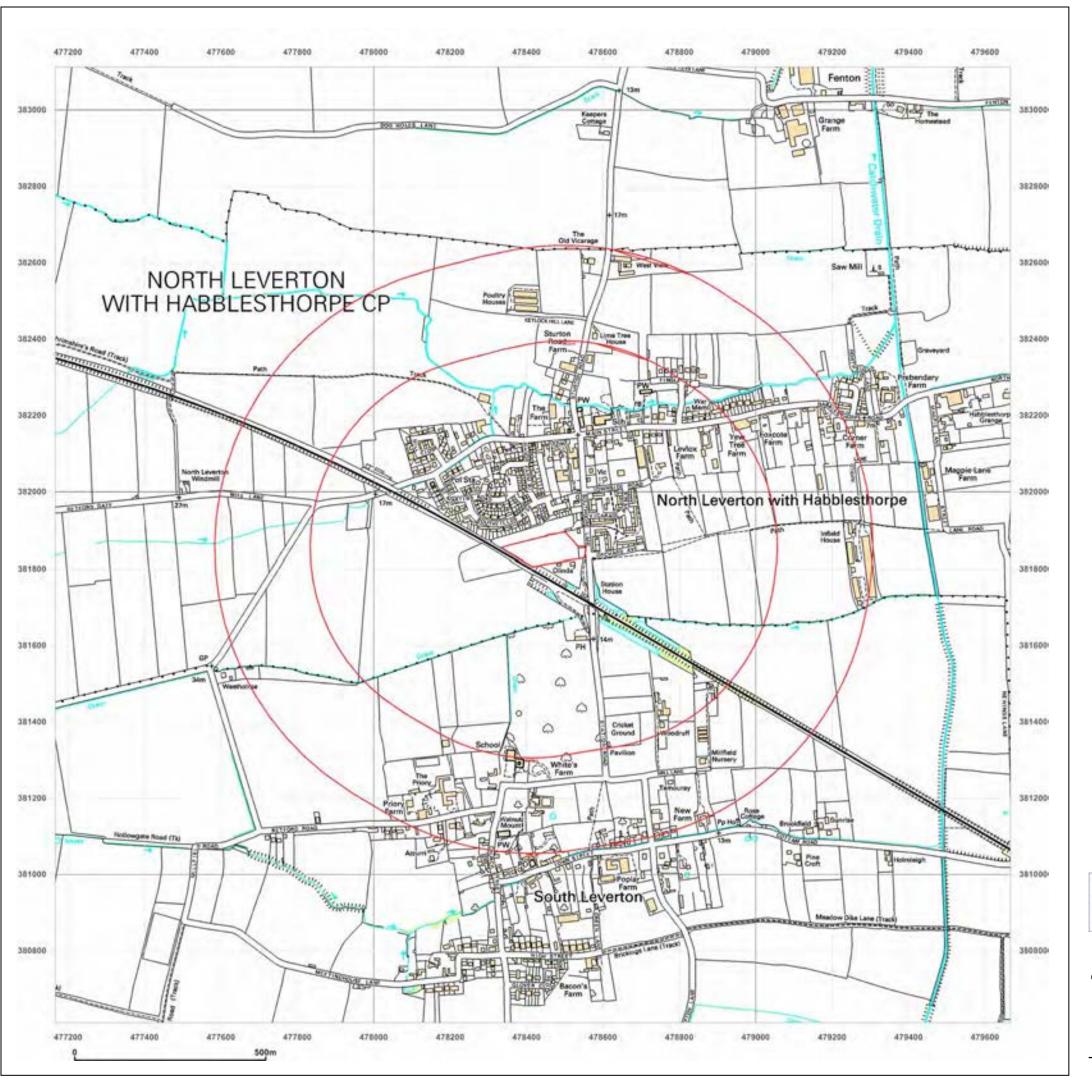


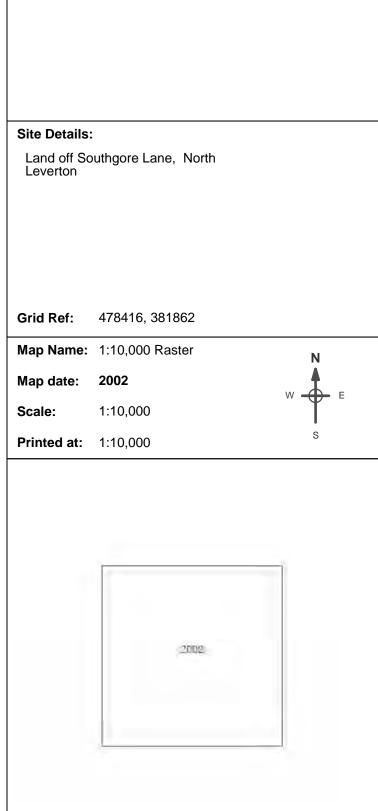
T: 08444 159000

E: info@groundsure.com W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 05 March 2015







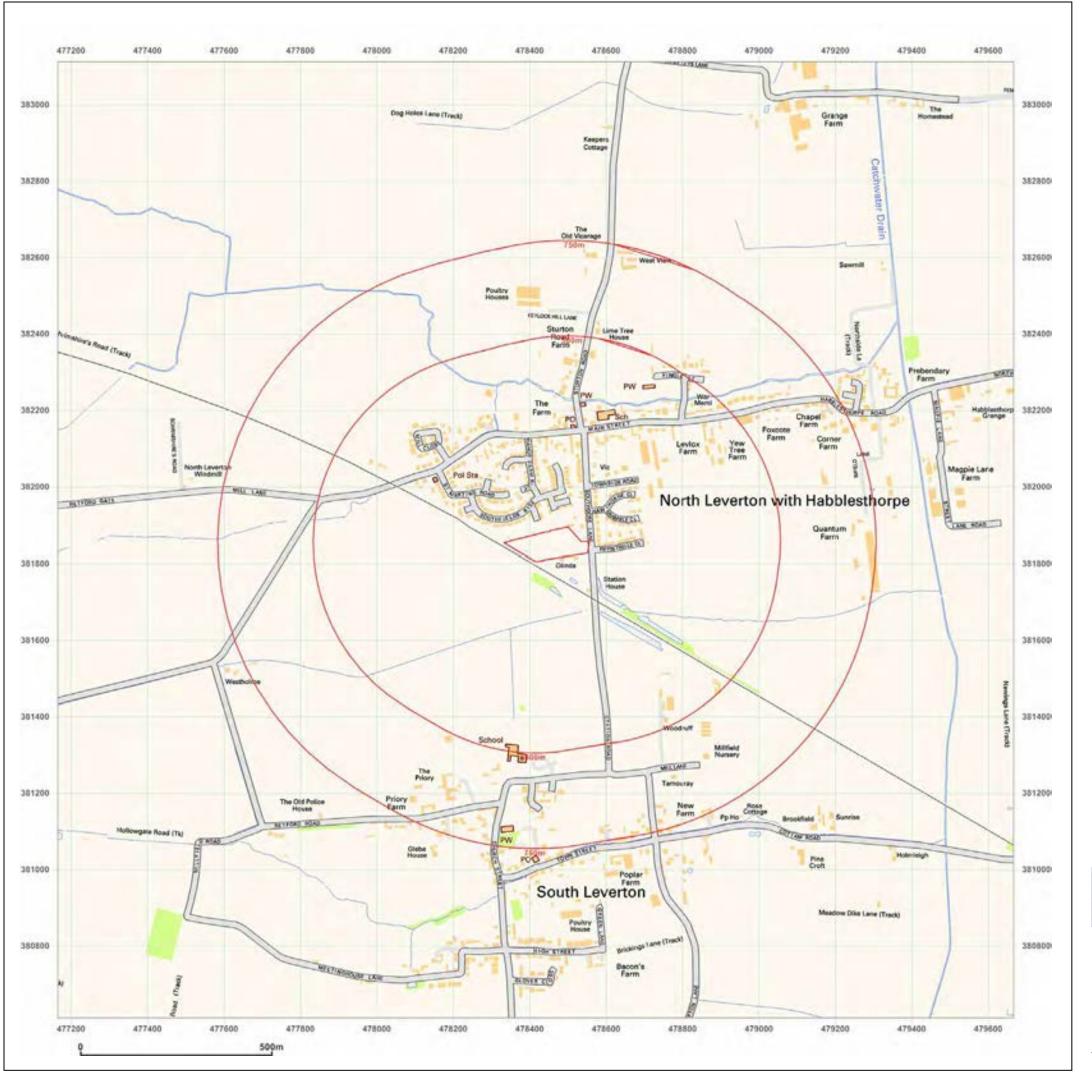
T: 08444 159000

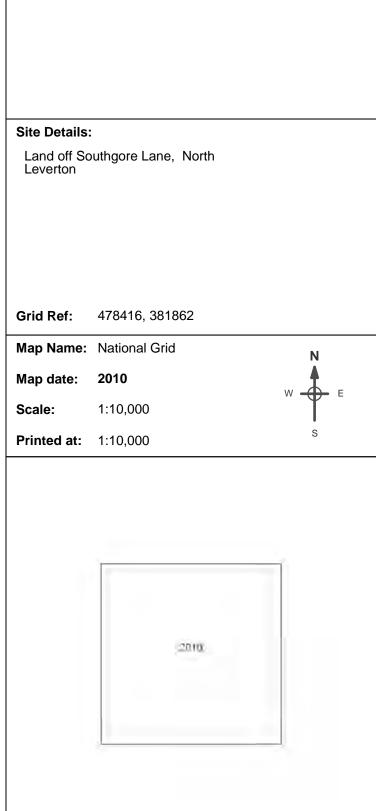
E: info@groundsure.com

W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 05 March 2015





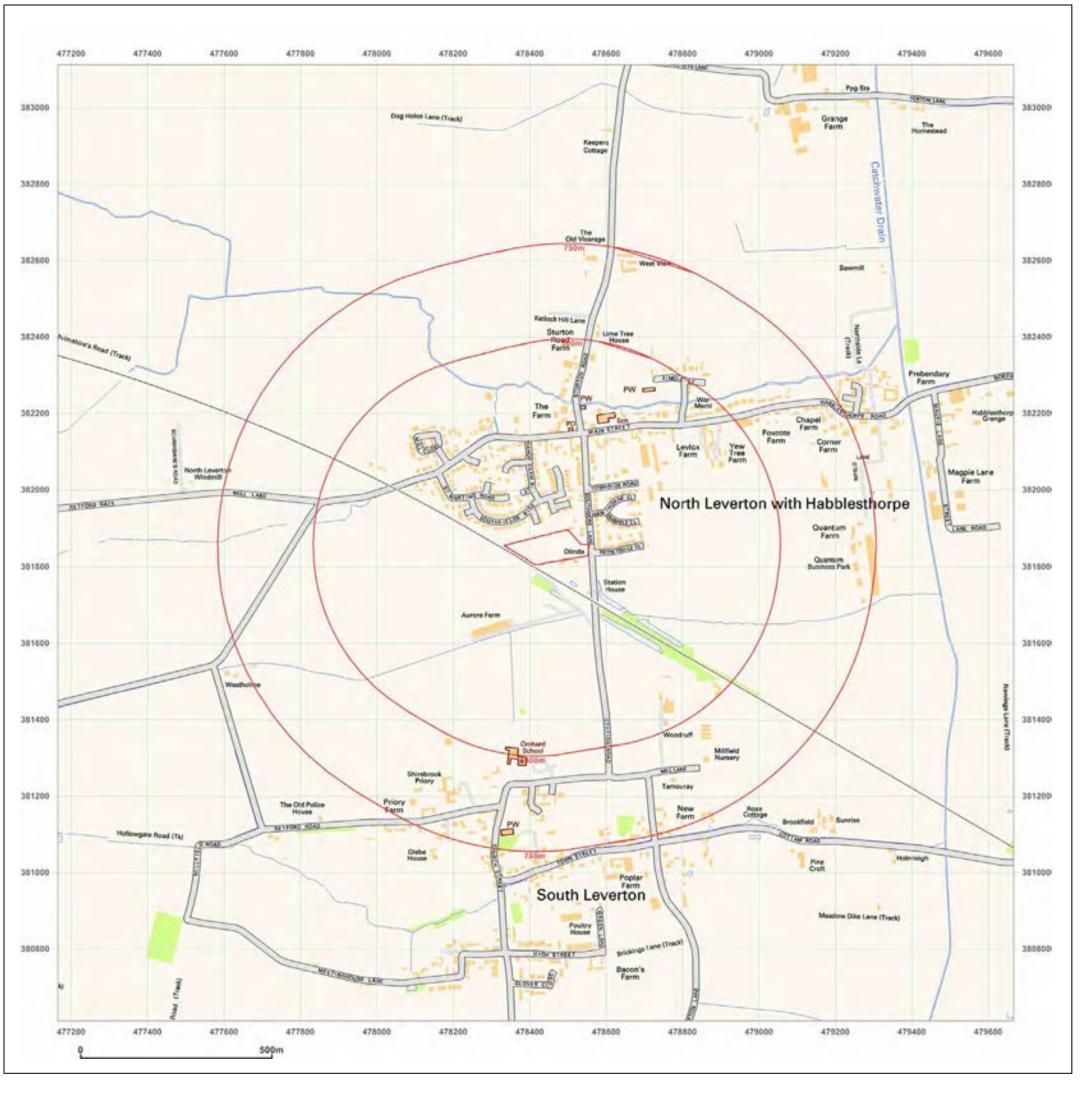


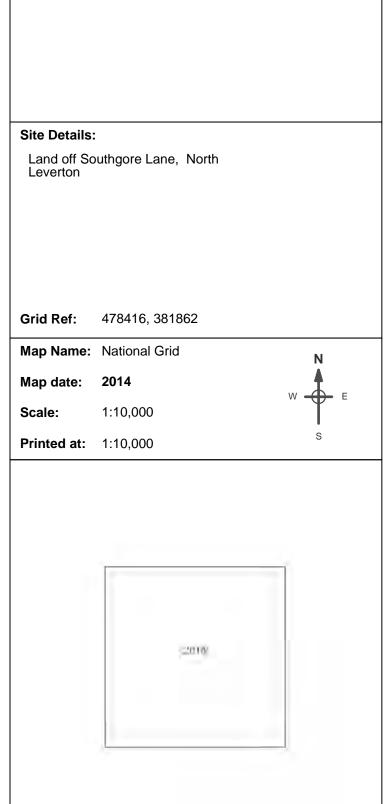
E: info@groundsure.com

W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 05 March 2015







E: info@groundsure.com

W: www.groundsure.com

© Crown copyright and database rights 2015 Ordnance Survey 100035207

Production date: 05 March 2015