

Phase 1 Desk Study and
Preliminary Geoenvironmental Assessment

For a site at

Oakwood Lodge, Wythenshawe

Undertaken for

Garden City Design and Build Ltd

Report Title:	Oakwood Lodge, Wythenshawe Phase 1 Desk Study and Preliminary Geoenvironmental Assessment
Report Reference:	8928G-WML-00-XX-RP-G-0001
Client:	Garden City Design and Build Ltd
Issue Date:	1st August 2019
Drafted By:	T P Booth 
Reviewed By:	S C Seddon 
Authorised By:	P G Davies 

This document has been prepared for the titled project (or named part thereof) and should not be relied upon or used for any other project without an independent check being carried out as to its suitability and prior written authorization being obtained from WML Consulting. WML accepts no responsibility or liability for the consequences of the use of this document, wholly or in part, for any other purpose than that for which it was commissioned. Any persons so using or relying upon this document for such other purpose do so at their own risk.

This report was prepared for the sole use of the Client and shall not be relied upon or transferred to any other party without the express written authorisation of WML. It may contain material subject to copyright or obtained subject to license; unauthorised copying of this report will be in breach of copyright/license.

The findings and opinions provided in this document are given in good faith and are subject to the limitations imposed by employing site assessment methods and techniques, appropriate to the time of investigation and within the limitations and constraints defined within this document. The findings and opinions are relevant to the dates when the assessment was undertaken, but should not necessarily be relied upon to represent conditions at a substantially later date.

The findings and opinions conveyed in this report are based on information obtained from a variety of sources as detailed and which WML assumes to be reliable, but has not been independently confirmed. Therefore, WML cannot and does not guarantee the authenticity or reliability of third party information it has relied upon.

Where opinions expressed in this report are based on current available guidelines and legislation, no liability can be accepted by WML for the effects of any future changes to such guidelines and legislation.

The limitations of liability of WML for the contents of this document have been agreed with the Client, as set out in the terms and conditions of offer and related contract documentation.

WML Consulting Ltd
No. 8 Oak Green,
Earl Road,
Stanley Green Business Park,
Cheadle Hulme,
Cheshire
SK8 6QL

Tel: 0161 482 0600
Email: info@wmlconsulting.com
www.wmlconsulting.com

CONTENTS

1.0	INTRODUCTION	1
	Appointment	1
	Proposed Development	1
	Objective.....	1
	Scope	1
2.0	SITE SETTING.....	2
3.0	ENVIRONMENTAL SETTING	3
4.0	HISTORICAL SETTING.....	6
5.0	PRELIMINARY CONTAMINATION RISK ASSESSMENT	7
	Introduction	7
	Preliminary Risk Assessment.....	10
6.0	PRELIMINARY GEOTECHNICAL AND OTHER CONSIDERATIONS	11
	Geotechnical Considerations	11
	Other Considerations	11
7.0	SUMMARY AND RECOMMENDATIONS	12
	Site Investigation.....	12

APPENDICES

Appendix 01	-	Drawings
Appendix 02	-	Site Photographs
Appendix 03	-	GroundSure Environmental Insight Report
Appendix 04	-	Qualitative Risk Assessment Guidance

1.0 INTRODUCTION

Appointment

- 1.1 WML Consulting has been commissioned by Garden City Design and Build Ltd to undertake a Phase 1 Desk Study and Preliminary Geo-environmental Assessment of a site referred to as Oakwood Lodge, Wythenshawe.

Proposed Development

- 1.2 It is understood that the project comprises the construction of 20no semi-detached residential properties with areas of hardstanding for access and car parking, soft landscaping and private gardens.
- 1.3 A proposed development plan by Arcus Consulting LLP referenced 5415-00-05-A, dated May 2019 is presented in Appendix 01.

Objective

- 1.4 The purpose of the desk study is to collate available geological and environmental data for the site and its environs in order to undertake a preliminary geotechnical and geoenvironmental appraisal and thus inform a site-specific conceptual model.
- 1.5 This enables a preliminary assessment of geo-environmental risks to be undertaken and provides information for the design of a geotechnical and geo-environmental ground investigation.
- 1.6 This follows recommendations set out in the Environment Agency (EA) Model Procedures for the Management of Land Contamination 2004, CLR11.

Scope

- 1.7 The desk study has comprised a site reconnaissance visit on 18th July 2019 and a review of the following information sources:
- British Geological Survey (BGS) 1:50,000 scale, Sheet 98 'Stockport' (Solid & Drift edition).
 - BGS Digital Geological Map of Great Britain (DiGMapGB-50; available as a web map service).
 - The site and surrounding area's geological and environmental setting from data presented in the site specific GroundSure Environmental Insight Report (Appendix 03).
 - Historical Ordnance Survey maps as provided by GroundSure (Appendix 03).
 - UKradon Indicative Atlas of radon in England and Wales as provided by Public Health England.
 - BRE Publication 211 (2015) "Radon: Guidance on Protective Measures for New Buildings".
 - Review of free public sector information through QGIS viewer licensed under the Open Government Licence v3.0.

2.0 SITE SETTING

Description	Comments
Site Address	Longley Lane Wythenshawe Manchester M22 4LA
National Grid Reference	383410E, 389477N
Site Area	0.6 hectares
Site Location	The site is bounded by:- North-east – Playing fields. East and south - Residential properties. South-west – Nursery. The site location is indicated on the plan included within the Groundsure report presented in Appendix 03.
Site Description	At the time of the inspection on 18th July 2019, the site was unoccupied and predominantly fenced-off from the general public. The majority of the site was occupied by a single-storey, brick structure surrounded by localised areas of unmaintained soft landscaping together with asphalt hardstanding formerly used for access and parking. A series of asphalt pedestrian footpaths extended to the west and north of the structure. The south-eastern section of the site comprised further areas of asphalt road and parking, interspersed with soft landscaping. The only vehicular access into the site is from the shared access road with the adjacent nursery, off Longley Lane to the south-west. A metal security fence and mature hedges run around the northern, eastern and western site boundaries with a number of semi-mature trees located on the northern site boundary. A mature oak tree is located in the south-eastern part of the site with two further mature oak trees located within the grounds of the neighbouring nursery, immediately to the south-west of the site. Photographs of the site and immediately surrounding area are provided in Appendix 02.
Topography	The site is generally level and commensurate with the surrounding topography, ranging from approximately 35.85m Above Ordnance Datum (AOD) in the north-east to 35.10m AOD in the south-east. A topographical survey forms the base map of the proposed development plan presented in Appendix 01.

3.0 ENVIRONMENTAL SETTING

3.1 The following sections on the environmental setting of the site are summarised from the GroundSure Enviro Insight Report and a review of the information sources outlined within Section 1.7.

Description	Comments	
Geology (1:50, 000 scale Map Sheet and digital mapping)	Artificial Deposits	None recorded.
	Superficial Deposits	Devensian Glaciofluvial Sheet Deposits, mainly comprising sand and gravel.
	Solid Strata	Triassic Wilmslow Sandstone Formation, mainly comprising sandstone.
	Geological Faults	1no, conjectured to extend roughly north-west to south-east with downthrown to the west and 34m west of the site. Due to the underlying geology, this is not considered to pose a risk to the proposed development.
Radon	The property is not in a radon affected area as defined by the BGS/Public Health England as less than 1% of properties are above the action level of exposure. Therefore, no radon protection measures are necessary for new structures as described in publication BR211 by the Building Research Establishment.	
Mining and Subsidence	In consideration of the underlying geology, risks of subsidence from coal mining can be discounted. In addition a review of the Coal Authority interactive website indicates that the site is not located within an area where coal is known or considered to outcrop. There are no recorded or suspected past shallow coal mine workings, known surface coal mines or mine entry points within the site or wider area. The site is also not located within a Coal Authority designated 'Development High Risk Area'. Therefore in consideration of the underlying geology and information from the Coal Authority it is considered that the risks of subsidence from coal mining can be discounted. The Groundsure report also indicates that the risks of surface ground movement resulting from dissolution related subsidence are also considered negligible and can be discounted.	
Hydrogeology	Superficial Aquifer	Secondary (A) Aquifer Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.
	Bedrock Aquifer	Principal Aquifer Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may

Description	Comments		
		support water supply/river base flow on a strategic scale.	
	Source Protection Zone (SPZ)	None within 500m.	
	Groundwater Abstractions within 1km	2no historical licenses for laundry use 578m south.	
Hydrology	Surface Water Features	A drain is indicated some 143m south-east of the site at Didsbury golf course.	
	Surface Water Abstractions within 1km	None.	
Landfill and Waste Management Activity	Active Landfill within 1km	None.	
	Historical (EA/Local Authority) Landfill within 250m	1no 119m south accepted unknown waste types for an unknown period of time.	
	Other Waste Sites within 250m	Household, Commercial and Industrial Waste Transfer Station located 239m south.	
Industrial Land Use Information	There are 28no potentially contaminative industrial sites within 250m of the subject site. The closest of these relate to:-		
	Distance (m)	Direction	Activity
	76	SE	Electricity sub-station
	94	S	Tank
	125	SW	Photographic and optical equipment
	Underground High Pressure Pipelines within 500m	None.	
	Petrol Filling Stations within 250m	1no – BP on Longley Lane 165m west.	
Environmental Permits, Incidents and Registers	Permits Incidents/Registers	Distance (m)	Comments
	IPC Authorisations, Part A(1),	250	None.
	Part A(2) Authorised Activities	250	None
	Part B IPPC Authorised Activities	250	1no for coating processes 171m south-west.

Description	Comments		
	Permits Incidents/Registers	Distance (m)	Comments
	List 1 or List 2 Dangerous Substances Inventory Sites	250	None
	Licensed Discharge Consents	250	None
	Radioactive Substance Authorisations	250	None
	Recorded Pollution Incidents	250	None
	Contaminated Land - Section 78R of the Environmental Protection Act 1990	250	None
Potential Flood Risk	Detailed assessment of flood risk is outside the scope of this report. However, reference to the EA website and the Groundsure report indicates that the risk of flooding from rivers and the sea (RoFRaS) is currently designated as 'very low'. The site is indicated on BGS records to be within an area which is considered to have a limited potential susceptibility to clearwater flooding from unconfined aquifers. The BGS confidence rating for this assessment is considered 'Low'.		
Environmentally Sensitive Sites	There is 1no designated environmentally sensitive site within 250m of the study site. These relate to the Liverpool, Manchester and West Yorkshire Greenbelt, 91m south-east.		
Archaeological Information	No archaeological information has been obtained for the purpose of this report. Where considered appropriate reference should be made to an archaeological consultant in this respect.		

4.0 HISTORICAL SETTING

- 4.1 The historical development of the site has been determined by reference to archive Ordnance Survey (OS) map extracts obtained from the GroundSure EnviroInsight Report in Appendix 03.
- 4.2 The earliest maps dated 1876 indicate the site to have been undeveloped and in rural / agricultural use with a track extending along the eastern site boundary. A tree-lined field boundary also extended roughly north-west to south-east across the central section of the site.
- 4.3 By 1956 a nursery had been constructed immediately to the south-west of the site and by 1989 the site itself had been developed as Oakwood Lodge, roughly in its current configuration.
- 4.4 The areas immediately to the north-west and south-east of the site underwent residential development in the 1950's and 1990's respectively.
- 4.5 Nearby historical industrial development between the 1930's and 1950's included an Embroidery Works, Printing Works, a Confectionary Works and an Electrical Products Works in what would later become Sharston Industrial Area, around 100m south-west at its closest point.
- 4.6 As the site has not been subject to industrial and therefore potentially contaminative use, no significant sources of ground contamination are anticipated.
- 4.7 Asbestos Containing Materials (ACM) could potentially be present within existing structures and it is assumed that the site will be subject to a detailed pre-demolition survey, with any ACM so identified being removed by an appropriately licensed contractor. .

5.0 PRELIMINARY CONTAMINATION RISK ASSESSMENT

Introduction

- 5.1 The following paragraphs outline a Preliminary Risk Assessment (PRA) for the site as defined by DEFRA and the EA Model Procedures for the Management of Land Contamination, CLR11 (2004).
- 5.2 The table in Paragraph 5.4 provides a Preliminary Conceptual Model (PCM) which defines the site in terms of a potential pollution linkage, that is, whether a pathway exists between a contamination source and a sensitive environmental receptor (Source-Pathway-Receptor relationship).
- 5.3 The table considers whether a pollution linkage is potentially present or not and provides a preliminary qualitative assessment of risk, based on the information currently available and in accordance with guidance provided in the CIRIA document C552 (2001) Contaminated Land Risk Assessment – A guide to good practice. The risk evaluation process is described further in Appendix 04.
- 5.4 Where a possible linkage is identified, it does not necessarily mean that a significant risk exists, but indicates that further information is required through appropriate site investigation to substantiate the conceptual model.

Source	Pathway	Receptor	Probability of Linkage	Comment
The likelihood of significant ground contamination sources being present at the site due to its past use is considered low.	Direct contact, ingestion of soil, dermal contact, dust exposure pathways.	Current Site Users	Unlikely	The site is currently disused and surfaced primarily with hardstanding and former landscaping. Also, in consideration of its transient use, the risk to current site users is considered VERY LOW .
		Site End Users	Low	The provision of new buildings and new hard cover will break any direct pollution linkage significantly, although a direct exposure scenario could be envisaged in proposed garden areas. However, the consequence of such exposure is considered minor, thus providing a VERY LOW preliminary risk.
		Construction Workers	Unlikely	Construction workers could potentially be exposed to contaminated soils during earthworks and foundation construction, although the exposure time will be relatively short. Also, any contamination risks will be mitigated by adopting good site working practices including appropriate health and safety measures during the works, thus providing a minor consequence of exposure and VERY LOW preliminary risk.

Source	Pathway	Receptor	Probability of Linkage	Comment
		Adjacent land users	Unlikely	Contact via wind-blown dust/debris, particularly during the development phase is possible although the exposure time would be relatively short. The current risk is considered VERY LOW , although this could increase during construction works. Appropriate health and safety measures adopted during site development, including dust control and the controlled removal of any detected ACM, will ensure that the risk remains low.
The likelihood of significant soluble and/or liquid, and therefore mobile contaminants occurring at the site due to its past use is considered low.	Direct downward migration through leaching and/or mobile liquids.	Groundwater	Low	The site is indicated to be underlain by a Secondary A (superficial) and Principal (bedrock) Aquifer. However, as no significant sources of mobile contaminants are anticipated, the consequence of any exposure to contaminants would be mild. Therefore, the preliminary risk to groundwater is considered LOW .
	Off-site migration in groundwater or surface water flow.	Surface water	No linkage anticipated	The nearest surface water feature is a drain located 143m south-east of the site and therefore a sufficient distance as not to be impacted. Therefore, the risk to surface water is considered VERY LOW .
		Groundwater and surface water abstractions	No linkage anticipated	The site is not within an EA SPZ and there are no surface or groundwater abstractions within 500m of the site. Therefore, risks to groundwater/surface water abstractions are considered VERY LOW .
		Adjacent Properties	Unlikely	No significant sources of mobile contaminants are anticipated with no driver for significant lateral movement of contaminants. Therefore, the consequence of any unlikely impact is considered minor with the preliminary risk to adjacent properties considered LOW .
		Ecology	No linkage anticipated	There are no ecologically sensitive sites within influencing distance of the subject site. The risk to the surrounding ecology from any contamination arising from the site is therefore considered VERY LOW .
The likelihood of volatile contaminants occurring at the site due to its past use is considered low.	Inhalation of harmful vapours (indoor and outdoor airspaces)	Current Site Users	Unlikely	Significant sources of volatile contaminants at the site are not anticipated. Also, with site use being transient, no plausible long-term pollution linkage is anticipated. Therefore, the preliminary risk to current site users is assessed as VERY LOW .

Source	Pathway	Receptor	Probability of Linkage	Comment
		Site End Users	Unlikely	Significant sources of volatile contaminants at the site are not anticipated. The preliminary risk from inhalation of indoor/outdoor air is therefore considered LOW .
		Construction Workers	Unlikely	In the unlikely event of construction workers coming into contact with possible volatile compounds, the exposure time would be relatively short with minor consequence. The chronic exposure risk to construction workers, assuming that appropriate health and safety measures will be adopted, is therefore considered VERY LOW .
		Adjacent Properties	Unlikely	Significant sources of volatile contaminants at the site are not anticipated with no driver for lateral migration. Therefore, the preliminary risk to adjacent properties and users is assessed as LOW .
A historic landfill approximately 120m to the south accepted unknown waste until sometime prior to 1956. No significant thickness of degradable made ground is likely to exist beneath the site. The presence of ground gas resulting from shallow unrecorded mine workings can be discounted. The gas source generation potential is therefore considered to be low.	Emissions from the ground beneath the site collecting in confined spaces and excavations	Construction/ services maintenance workers	Unlikely	The potential to generate significant volumes of toxic and/ or flammable/ explosive gas beneath the site is considered low. Due to age of infilling, the potential for continued generation and migration of ground gas from the landfill is considered low. Assuming that appropriate health and safety measures will be adopted during construction, the preliminary risk is therefore considered LOW .
	Migration of gases on/off site and collecting in confined spaces on/off site.	Adjoining site users	Unlikely	The potential to generate significant volumes of ground gas beneath the site is considered low. Therefore, the preliminary risk to adjacent properties from the site is considered VERY LOW .
		Current/future site users	Low	The potential to generate significant volumes of ground gas beneath the site is considered low. Due to age of infilling, the potential for continued generation and migration of ground gas from the landfill is considered low. Therefore, the preliminary risk to site end users is considered LOW .
The site is not within an area which is affected by naturally occurring radon gas.	Natural emissions from the ground collecting in confined spaces within buildings	Site end users	No linkage anticipated	The site is not located in an area where radon protection measures are required. Therefore the potential risk to site end users is considered VERY LOW .

Source	Pathway	Receptor	Probability of Linkage	Comment
Chemicals which could prove aggressive to construction materials are unlikely to be present beneath the site.	Direct contact	Construction concrete, plastic water pipes.	Unlikely	Any risks to construction materials identified after site investigation and assessment will be mitigated as part of the structural design. The perceived risk is therefore considered LOW .

Preliminary Risk Assessment

- 5.5 Under the proposed development scenario, potential pollution linkages are on the whole considered unlikely with associated preliminary risks being assessed as very low to low.
- 5.6 The approach at the Phase 1 Desk Study stage must, however, be precautionary until such time as uncertainties in the conceptual model can be verified by appropriate site investigation.
- 5.7 Such uncertainties relate to the potential presence, albeit low, of ground gas resulting from the proximity of a recorded landfill to the site.
- 5.8 Ground investigations may therefore need to include monitoring of standpipes to provide further information on the ground gas regime beneath the site.

6.0 PRELIMINARY GEOTECHNICAL AND OTHER CONSIDERATIONS

Geotechnical Considerations

Geotechnical	Summary
Ground Obstructions	Historical/existing foundations, ground floor slabs and other buried concrete obstructions associated with existing structures will be present. These will need to be broken out to suitable depths below formation levels where they are to impact on the proposed development.
Foundations	New structures at that site could be supported on traditional shallow strip/pad foundations on the glaciofluvial sheet deposits, where this is proven by ground investigation to be shallow and competent.
Soakaways	In consideration of the potentially granular nature of the natural soils beneath the site, soakaways may be a feasible drainage option, although this may be precluded by a potentially shallow groundwater table. This will need to be confirmed by ground investigation followed by possible large scale infiltration tests at drainage design stage.

Other Considerations

Site Preparation	Summary
Asbestos	Due to the age of the existing property, the presence of ACM cannot be discounted. Therefore, no demolition should proceed until an asbestos survey of the existing building has been undertaken and any ACM removed by an appropriately licensed contractor.

7.0 SUMMARY AND RECOMMENDATIONS

Development Considerations	Comments
Shallow Coal Mining	Very low risk.
Flood Risk	Very low risk.
Ground Obstructions	These will be present associated with the existing structure.
Foundations	Potentially traditional shallow strip/pad foundations on the glaciofluvial sheet deposits. This will need to be confirmed by ground investigation.
Ground Contamination	Overall preliminary risk considered very low to low. This will be subject to confirmation by ground investigation.
Hazardous Ground Gas	Low risk but may need to be confirmed by ground investigation and monitoring.
Radon	Very low risk with no radon protection measures required.
Soakaway Drainage	The ground may be amenable to soakaway drainage although a possibly high groundwater table may preclude this. Ground investigations and possible large-scale infiltration testing will be required to assess the soil suitability.

Site Investigation

- 7.1 Site investigations will be necessary to provide information on the physical and chemical ground conditions. This will enable assumptions made in the preliminary site conceptual model to be confirmed or modified so as to assess the actual environmental risks posed by the site.
- 7.2 The investigation will comprise sampling and chemical analysis of the near surface soil and possibly groundwater. Investigations will also need to include monitoring for ground gas.
- 7.3 Ground investigations will also provide parameters for the preliminary design of foundations, floor slabs and external pavements.
- 7.4 Site investigations will be undertaken in accordance with British Standard Institution (BSI), Code of Practice for Ground Investigations – BS5930:2015 and Investigation of Potentially Contaminated Sites – Code of Practice. BS 10175:2011.

APPENDIX 01

Drawings



APPENDIX 02

Site Photographs



Photograph 1
View north towards the entrance to Oakwood Court in the central part of the site.



Photograph 2
View north-west towards a plant room on the southern elevation of the existing structure.



Photograph 3

View south towards the asphalt access road and car parking in the southern part of the site with a mature oak tree in the left of the picture.



Photograph 4

View north across a courtyard to the south of the existing structure.



Photograph 5
View east towards the western elevation of the existing structure.



Photograph 6
View south-east towards the western elevation of the existing structure.



Photograph 7

View north-east across the northern part of the site with the north-eastern site boundary in the left of the picture and the existing structure in the right of the picture.



Photograph 8

View east across the northern part of the site with the northern site boundary in the left of the picture and the existing structure in the right of the picture.

APPENDIX 03
Groundsure Enviroinsight Report



WML Consulting	Groundsure Reference:	GS-6176285
UNIT 8 WRIGHT MOTTERSHAW LYDON CONSULTING LTD, STANLEY GREEN BUSINESS PARK, CHEADLE/CHEADLE HULME, SK8 6QL	Your Reference:	8928G_-_Oakwood
	Report Date	16 Jul 2019
	Report Delivery Method:	Email - pdf

Enviro Insight

Address: LONGLEY LANE, MANCHESTER, M22 4LA

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Enviro Insight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,

Managing Director
Groundsure Limited

Enc.
Groundsure Enviroinsight

Address: LONGLEY LANE, MANCHESTER, M22 4LA

Date: 16 Jul 2019

Reference: GS-6176285

Client: WML Consulting

NW

N

NE

W

E



SW

S

SE

Aerial Photograph Capture date: 21-Apr-2016

Grid Reference: 383410,389477

Site Size: 0.6034ha

Report Reference: GS-6176285

Client Reference: 8928G_-_Oakwood

Contents Page

Contents Page	3
Overview of Findings	6
Using this report	10
1. Historical Land Use	11
1. Historical Industrial Sites	12
1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping	12
1.2 Additional Information – Historical Tank Database	15
1.3 Additional Information – Historical Energy Features Database	17
1.4 Additional Information – Historical Petrol and Fuel Site Database	17
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	18
1.6 Historical military sites	18
1.7 Potentially Infilled Land	18
2. Environmental Permits, Incidents and Registers Map	21
2. Environmental Permits, Incidents and Registers	22
2.1 Industrial Sites Holding Licences and/or Authorisations	22
2.1.1 Records of historic IPC Authorisations within 500m of the study site	22
2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site	22
2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site	23
2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site	23
2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site	23
2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site	23
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	24
2.1.8 Records of Licensed Discharge Consents within 500m of the study site	24
2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site	24
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	24
2.2 Dangerous or Hazardous Sites	24
2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents	25
2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site	25
2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site	25
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	25
3. Landfill and Other Waste Sites Map	26
3. Landfill and Other Waste Sites	27
3.1 Landfill Sites	27
3.1.1 Records from Environment Agency/Natural Resources Wales landfill data within 1000m of the study site	27
3.1.2 Records of Environment Agency/Natural Resources Wales historic landfill sites within 1500m of the study site	27
3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site	28
3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site	28
3.2 Other Waste Sites	29
3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site	29
3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site	32
4. Current Land Use Map	34
4. Current Land Uses	35
4.1 Current Industrial Data	35
4.2 Petrol and Fuel Sites	37
4.3 National Grid High Voltage Underground Electricity Transmission Cables	37
4.4 National Grid High Pressure Gas Transmission Pipelines	37

5. Geology	38
5.1 Artificial Ground and Made Ground.....	38
5.2 Superficial Ground and Drift Geology	38
5.3 Bedrock and Solid Geology	38
6 Hydrogeology and Hydrology	39
6a. Aquifer Within Superficial Geology	39
6b. Aquifer Within Bedrock Geology and Abstraction Licences	40
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licences	41
6d. Hydrogeology – Source Protection Zones within confined aquifer	42
6e. Hydrology – Watercourse Network and River Quality	43
6.Hydrogeology and Hydrology	44
6.1 Aquifer within Superficial Deposits.....	44
6.2 Aquifer within Bedrock Deposits.....	44
6.3 Groundwater Abstraction Licences.....	45
6.4 Surface Water Abstraction Licences.....	46
6.5 Potable Water Abstraction Licences.....	46
6.6 Source Protection Zones.....	46
6.7 Source Protection Zones within Confined Aquifer.....	47
6.8 Groundwater Vulnerability and Soil Leaching Potential.....	47
6.9 River Quality.....	47
6.9.1 Biological Quality:.....	47
6.9.2 Chemical Quality:.....	48
6.10 Ordnance Survey MasterMap Water Network.....	48
6.11 Surface Water Features.....	51
7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea)	52
7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (RoFRaS)	53
Map	53
7 Flooding	54
7.1 River and Coastal Zone 2 Flooding.....	54
7.2 River and Coastal Zone 3 Flooding.....	54
7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating.....	54
7.4 Flood Defences.....	54
7.5 Areas benefiting from Flood Defences.....	54
7.6 Areas benefiting from Flood Storage.....	55
7.7 Groundwater Flooding Susceptibility Areas.....	55
7.8 Groundwater Flooding Confidence Areas.....	55
8. Designated Environmentally Sensitive Sites Map	56
8. Designated Environmentally Sensitive Sites	57
8.1 Records of Sites of Special Scientific Interest (SSSI) within 2000m of the study site:.....	57
8.2 Records of National Nature Reserves (NNR) within 2000m of the study site:.....	57
8.3 Records of Special Areas of Conservation (SAC) within 2000m of the study site:.....	57
8.4 Records of Special Protection Areas (SPA) within 2000m of the study site:.....	57
8.5 Records of Ramsar sites within 2000m of the study site:.....	57
8.6 Records of Ancient Woodland within 2000m of the study site:	58
8.7 Records of Local Nature Reserves (LNR) within 2000m of the study site:.....	58
8.8 Records of World Heritage Sites within 2000m of the study site:.....	58
8.9 Records of Environmentally Sensitive Areas within 2000m of the study site:	58
8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:	58
8.11 Records of National Parks (NP) within 2000m of the study site:	58
8.12 Records of Nitrate Sensitive Areas within 2000m of the study site:.....	59
8.13 Records of Nitrate Vulnerable Zones within 2000m of the study site:.....	59

8.14 Records of Green Belt land within 2000m of the study site:.....	59
9. Natural Hazards Findings.....	60
9.1 Detailed BGS GeoSure Data.....	60
9.1.1 Shrink Swell.....	60
9.1.2 Landslides.....	60
9.1.3 Soluble Rocks.....	60
9.1.4 Compressible Ground.....	61
9.1.5 Collapsible Rocks.....	61
9.1.6 Running Sand.....	61
9.2 Radon.....	62
9.2.1 Radon Affected Areas.....	62
9.2.2 Radon Protection.....	62
10. Mining.....	63
10.1 Coal Mining.....	63
10.2 Non-Coal Mining.....	63
10.3 Brine Affected Areas	63
Contact Details.....	64
Standard Terms and Conditions.....	66

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: Historical Industrial Sites	On-site	0-50	51-250	251-500
1.1 Potentially Contaminative Uses identified from 1:10,000 scale mapping	1	4	51	89
1.2 Additional Information – Historical Tank Database	0	0	27	22
1.3 Additional Information – Historical Energy Features Database	0	0	11	14
1.4 Additional Information – Historical Petrol and Fuel Site Database	0	0	0	0
1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database	0	0	12	0
1.6 Historical military sites	0	0	0	0
1.7 Potentially Infilled Land	0	0	14	33
Section 2: Environmental Permits, Incidents and Registers	On-site	0-50m	51-250	251-500
2.1 Industrial Sites Holding Environmental Permits and/or Authorisations				
2.1.1 Records of historic IPC Authorisations	0	0	0	0
2.1.2 Records of Part A(1) and IPPC Authorised Activities	0	0	0	2
2.1.3 Records of Red List Discharge Consents	0	0	0	0
2.1.4 Records of List 1 Dangerous Substances Inventory sites	0	0	0	0
2.1.5 Records of List 2 Dangerous Substances Inventory sites	0	0	0	0
2.1.6 Records of Part A(2) and Part B Activities and Enforcements	0	0	1	6
2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0
2.1.8 Records of Licensed Discharge Consents	0	0	0	0
2.1.9 Records of Water Industry Referrals	0	0	0	0
2.1.10 Records of Planning Hazardous Substance Consents and Enforcements within 500m of the study site	0	0	0	0
2.2 Records of COMAH and NIHHS sites	0	0	0	0
2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents				
2.3.1 National Incidents Recording System, List 2	0	0	0	3
2.3.2 National Incidents Recording System, List 1	0	0	0	0
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990	0	0	0	0

Section 3: Landfill and Other Waste Sites	On-site	0-50m	51-250	251-500	501-1000	1000-1500
3.1 Landfill Sites						
3.1.1 Environment Agency/Natural Resources Wales Registered Landfill Sites	0	0	0	0	0	Not searched
3.1.2 Environment Agency/Natural Resources Wales Historic Landfill Sites	0	0	1	1	1	3
3.1.3 BGS/DoE Landfill Site Survey	0	0	0	0	0	1
3.1.4 Records of Landfills in Local Authority and Historical Mapping Records	0	0	0	0	1	7
3.2 Landfill and Other Waste Sites Findings						
3.2.1 Operational and Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	12	Not searched	Not searched
3.2.2 Environment Agency/Natural Resources Wales Licensed Waste Sites	0	0	3	1	6	0

Section 4: Current Land Use	On-site	0-50m	51-250	251-500
4.1 Current Industrial Sites Data	0	0	28	Not searched
4.2 Records of Petrol and Fuel Sites	0	0	1	0
4.3 National Grid Underground Electricity Cables	0	0	0	0
4.4 National Grid Gas Transmission Pipelines	0	0	0	0

Section 5: Geology	
5.1 Records of Artificial Ground and Made Ground present beneath the study site	None identified
5.2 Records of Superficial Ground and Drift Geology present beneath the study site	Identified
5.3 For records of Bedrock and Solid Geology beneath the study site see the detailed findings section.	

Section 6: Hydrogeology and Hydrology	0-500m					
6.1 Records of Strata Classification in the Superficial Geology within 500m of the study site	Identified					
6.2 Records of Strata Classification in the Bedrock Geology within 500m of the study site	Identified					
	On-site	0-50m	51-250	251-500	501-1000	1000-2000
6.3 Groundwater Abstraction Licences (within 2000m of the study site)	0	0	0	0	2	5
6.4 Surface Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	2
6.5 Potable Water Abstraction Licences (within 2000m of the study site)	0	0	0	0	0	0
6.6 Source Protection Zones (within 500m of the study site)	0	0	0	0	Not searched	Not searched
6.7 Source Protection Zones within Confined Aquifer	0	0	0	0	Not searched	Not searched
6.8 Groundwater Vulnerability and Soil Leaching Potential (within 500m of the study site)	1	1	0	1	Not searched	Not searched

Section 6: Hydrogeology and Hydrology

0-500m

	On-site	0-50m	51-250	251-500	501-1000	1000-1500
6.9 Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site	No	No	No	Yes	No	Yes
6.10 Ordnance Survey MasterMap Water Network entries within 500m of the site	0	0	16	12	Not searched	Not searched
6.11 Surface water features within 250m of the study site	No	No	Yes	Not searched	Not searched	Not searched

Section 7: Flooding

7.1 Environment Agency Zone 2 floodplains within 250m of the study site	None identified					
7.2 Environment Agency/Natural Resources Wales Zone 3 floodplains within 250m of the study site	None identified					
7.3 Risk of flooding from Rivers and the Sea (RoFRaS) rating for the study site	Very Low					
7.4 Flood Defences within 250m of the study site	None identified					
7.5 Areas benefiting from Flood Defences within 250m of the study site	None identified					
7.6 Areas used for Flood Storage within 250m of the study site	None identified					
7.7 Maximum BGS Groundwater Flooding susceptibility within 50m of the study site	Limited potential					
7.8 BGS confidence rating for the Groundwater Flooding susceptibility areas	Low					

Section 8: Designated Environmentally Sensitive Sites

	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	0	0
8.2 Records of National Nature Reserves (NNR)	0	0	0	0	0	0
8.3 Records of Special Areas of Conservation (SAC)	0	0	0	0	0	0
8.4 Records of Special Protection Areas (SPA)	0	0	0	0	0	0
8.5 Records of Ramsar sites	0	0	0	0	0	0
8.6 Records of Ancient Woodlands	0	0	0	0	0	0
8.7 Records of Local Nature Reserves (LNR)	0	0	0	1	1	1
8.8 Records of World Heritage Sites	0	0	0	0	0	0
8.9 Records of Environmentally Sensitive Areas	0	0	0	0	0	0

Section 8: Designated Environmentally Sensitive Sites	On-site	0-50m	51-250	251-500	501-1000	1000-2000
8.10 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	0	0
8.11 Records of National Parks	0	0	0	0	0	0
8.12 Records of Nitrate Sensitive Areas	0	0	0	0	0	0
8.13 Records of Nitrate Vulnerable Zones	0	0	0	0	0	0
8.14 Records of Green Belt land	0	0	1	1	1	2

Section 9: Natural Hazards	
9.1 Maximum risk of natural ground subsidence	Very Low
9.1.1 Maximum Shrink-Swell hazard rating identified on the study site	Negligible
9.1.2 Maximum Landslides hazard rating identified on the study site	Very Low
9.1.3 Maximum Soluble Rocks hazard rating identified on the study site	Negligible
9.1.4 Maximum Compressible Ground hazard rating identified on the study site	Negligible
9.1.5 Maximum Collapsible Rocks hazard rating identified on the study site	Very Low
9.1.6 Maximum Running Sand hazard rating identified on the study site	Very Low
9.2 Radon	
9.2.1 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 site is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.
9.2.2 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.

Section 10: Mining	
10.1 Coal mining areas within 75m of the study site	None identified
10.2 Non-Coal Mining areas within 50m of the study site boundary	None identified
10.3 Brine affected areas within 75m of the study site	None identified

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. Historical Industrial Sites

Provides information on past land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. Potentially Infilled Land features are also included. This search is conducted using radii of up to 500m.

2. 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.

3. 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.

4. 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 gas pipelines and underground electricity transmission lines.

5. Geology

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

6. Hydrogeology and Hydrology

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

7. Flooding

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

8. 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.

9. 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 and radon..

10. Mining

Provides information on areas of coal and non-coal mining and brine affected areas.

11. Contacts

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

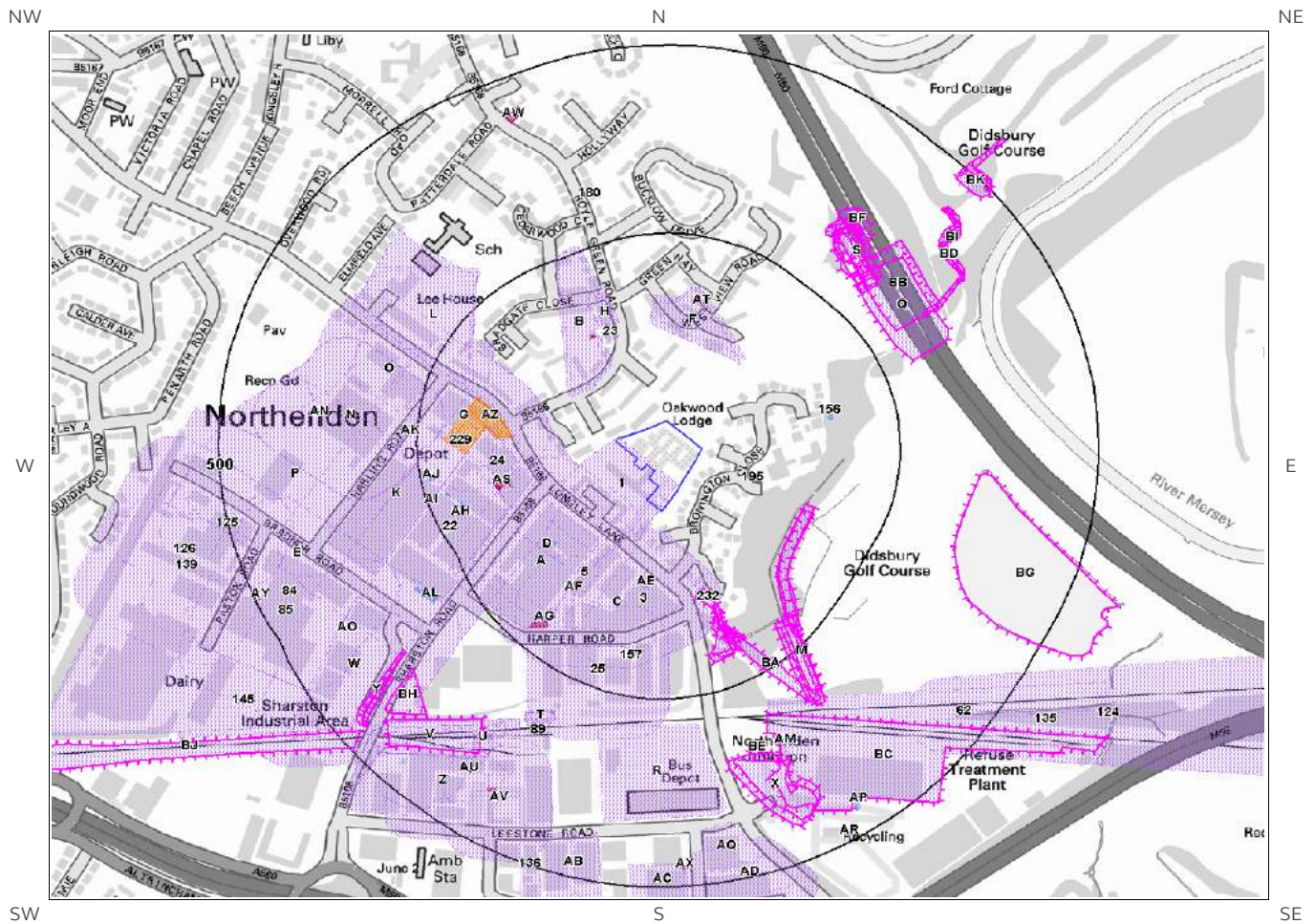
Note: Maps

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

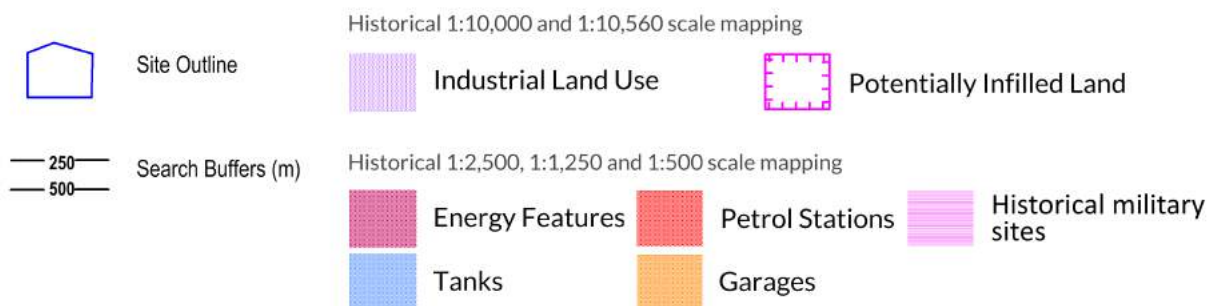
Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

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

1. Historical Land Use



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



1. Historical Industrial Sites

1.1 Potentially Contaminative Uses identified from 1:10,000 scale Mapping

The systematic analysis of data extracted from standard 1:10,560 and 1:10,000 scale historical maps provides the following information:

Records of sites with a potentially contaminative past land use within 500m of the search boundary: 145

ID	Distance [m]	Direction	Use	Date
1	0	On Site	Nursery	1967
2D	20	SW	Unspecified Works	1967
3	26	S	Unspecified Works	1967
4C	31	S	Unspecified Works	1975
5	44	SW	Unspecified Factories	1938
6AI	60	SW	Unspecified Works	1954
7A	70	SW	Unspecified Commercial/Industrial	1989
8A	70	SW	Unspecified Works	1975
9A	70	SW	Unspecified Commercial/Industrial	1995
10B	74	NW	Nursery	1938
11B	80	NW	Nursery	1954
12C	81	S	Unspecified Commercial/Industrial	1989
13C	81	S	Unspecified Commercial/Industrial	1995
14A	81	SW	Unspecified Factory	1938
15D	82	SW	Unspecified Works	1938
16G	83	W	Unspecified Works	1967
17A	98	SW	Unspecified Factory	1954
18E	107	W	Industrial Area	1989
19E	107	W	Industrial Area	1995
20F	109	NE	Nursery	1938
21F	117	NE	Nursery	1954
22	123	W	Unspecified Mills	1975
23	124	N	Smithy	1897
24	124	W	Unspecified Works	1938
25	131	S	Unspecified Works	1967
26G	134	W	Unspecified Commercial/Industrial	1975
27H	139	N	Smithy	1905
28H	139	N	Smithy	1923
29H	139	N	Smithy	1916
30I	140	SE	Unspecified Ground Workings	1967

31I	145	SE	Unspecified Ground Workings	1975
32H	145	N	Smithy	1911
33H	147	N	Smithy	1938
34H	148	N	Smithy	1908
35J	149	SE	Unspecified Heap	1995
36J	151	SE	Unspecified Heap	1967
37J	151	SE	Unspecified Heap	1989
38J	151	SE	Unspecified Heap	1975
39I	154	SE	Unspecified Ground Workings	1954
40I	155	SE	Unspecified Ground Workings	1989
41I	155	SE	Unspecified Ground Workings	1995
42AH	157	W	Unspecified Mill	1967
43BA	177	SE	Unspecified Heap	1954
44L	178	W	Nursery	1907
45K	188	W	Unspecified Depot	1967
46K	188	W	Unspecified Depot	1975
47O	195	W	Unspecified Factory	1967
48L	204	W	Nursery	1905
49L	205	NW	Nursery	1907
50L	205	NW	Nursery	1907
51M	207	SE	Unspecified Heap	1954
52M	207	SE	Unspecified Heap	1916
53M	215	SE	Unspecified Heap	1923
54N	218	W	Unspecified Works	1967
55N	218	W	Unspecified Works	1975
56O	245	W	Unspecified Commercial/Industrial	1975
57P	266	W	Unspecified Works	1975
58P	266	W	Unspecified Works	1967
59Q	278	NE	Cuttings	1989
60Q	278	NE	Cuttings	1975
61W	284	SW	Unspecified Factory	1967
62	285	SE	Railway Building	1989
63R	285	S	Dairy	1975
64R	285	S	Dairy	1967
65S	287	NE	Unspecified Heap	1938
66BB	289	NE	Cuttings	1995
67S	296	NE	Unspecified Heap	1954
68T	297	SW	Railway Station	1938
69T	298	SW	Railway Station	1967
70T	299	SW	Railway Station	1908
71T	299	SW	Railway Station	1911
72T	301	SW	Railway Station	1954

73BC	301	SE	Refuse Treatment Plant	1989
74T	302	SW	Railway Station	1897
75T	303	SW	Railway Station	1916
76T	303	SW	Railway Station	1923
77T	303	SW	Railway Station	1905
78T	310	SW	Railway Station	1938
79U	322	SW	Railway Sidings	1989
80U	322	SW	Railway Sidings	1975
81U	322	SW	Railway Sidings	1967
82U	322	SW	Railway Sidings	1995
83U	322	SW	Railway Sidings	1954
84	328	SW	Unspecified Works	1967
85	329	SW	Unspecified Works	1975
86BD	329	NE	Unspecified Ground Workings	1967
87V	330	SW	Goods Yard	1938
88V	330	SW	Railway Sidings	1938
89	330	SW	Railway Building	1897
90W	334	SW	Unspecified Commercial/Industrial	1975
91BE	334	S	Unspecified Ground Workings	1954
92X	341	S	Unspecified Heap	1938
93X	342	S	Unspecified Heap	1954
94BF	342	NE	Unspecified Heap	1967
95V	343	SW	Railway Sidings	1905
96V	343	SW	Railway Sidings	1916
97V	343	SW	Goods Yard	1916
98V	343	SW	Goods Yard	1923
99V	343	SW	Goods Yard	1905
100V	343	SW	Railway Sidings	1923
101W	349	SW	Biscuit Factory	1938
102AV	349	SW	Unspecified Works	1967
103V	352	SW	Railway Sidings	1897
104V	352	SW	Railway Sidings	1907
105V	358	SW	Cuttings	1975
106V	358	SW	Cuttings	1995
107V	358	SW	Cuttings	1967
108V	358	SW	Cuttings	1989
109Y	365	SW	Unspecified Ground Workings	1954
110U	366	SW	Cattle Pen	1907
111U	366	SW	Cattle Pen	1907
112V	367	SW	Railway Sidings	1938
113Y	370	SW	Unspecified Pit	1938
114BH	370	SW	Unspecified Pit	1938
115Z	371	SW	Unspecified Works	1995

116Z	371	SW	Unspecified Works	1975
117Z	371	SW	Unspecified Works	1989
118AA	371	SW	Goods Yard	1907
119AA	371	SW	Goods Yard	1907
120Z	392	SW	Unspecified Depot	1967
121AA	392	SW	Goods Yard	1907
122BI	396	NE	Unspecified Ground Workings	1975
123Y	398	SW	Unspecified Ground Workings	1975
124	400	SE	Rifle Range	1938
125	420	W	Unspecified Works	1967
126	421	W	Unspecified Works	1975
127AQ	424	S	Unspecified Works	1967
128AB	434	S	Unspecified Works	1967
129AA	438	SW	Railway Sidings	1907
130AA	438	SW	Railway Sidings	1907
131AB	440	S	Unspecified Commercial/Industrial	1995
132AB	440	S	Unspecified Commercial/Industrial	1989
133AB	440	S	Unspecified Works	1975
134AD	450	S	Unspecified Works	1975
135	455	SE	Rifle Range	1892
136	458	S	Unspecified Works	1967
137AC	470	S	Unspecified Works	1975
138AC	470	S	Unspecified Works	1967
139	472	W	Unspecified Works	1967
140BJ	474	SW	Cuttings	1916
141AD	475	S	Unspecified Commercial/Industrial	1989
142AD	475	S	Unspecified Commercial/Industrial	1995
143BK	482	NE	Unspecified Pit	1975
144BL	488	NE	Unspecified Ground Workings	1967
145	496	SW	Unspecified Depot	1975

1.2 Additional Information – Historical Tank Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical tanks within 500m of the search boundary:

49

ID	Distance (m)	Direction	Use	Date
----	--------------	-----------	-----	------

146AE	97	S	Unspecified Tank	1995
147AE	97	S	Unspecified Tank	1992
148D	128	SW	Unspecified Tank	1956
149D	128	SW	Unspecified Tank	1959
150D	128	SW	Unspecified Tank	1967
151D	128	SW	Unspecified Tank	1956
152D	128	SW	Unspecified Tank	1995
153D	128	SW	Unspecified Tank	1992
154AF	150	SW	Unspecified Tank	1956
155AF	151	SW	Unspecified Tank	1956
156	163	E	Tanks	1898
157	198	S	Unspecified Tank	1959
158AG	202	SW	Unspecified Tank	1956
159AG	202	SW	Unspecified Tank	1967
160AG	202	SW	Unspecified Tank	1956
161AG	204	SW	Unspecified Tank	1995
162AG	204	SW	Unspecified Tank	1992
163AH	205	SW	Tanks	1956
164AH	206	SW	Tanks	1956
165AH	209	SW	Tanks	1956
166AI	220	W	Tanks	1956
167AI	220	W	Tanks	1967
168AI	220	W	Tanks	1956
169AI	221	W	Tanks	1992
170AI	221	W	Tanks	1995
171AJ	233	W	Unspecified Tank	1995
172AJ	233	W	Unspecified Tank	1992
173AK	258	W	Unspecified Tank	1956
174AK	258	W	Unspecified Tank	1956
175AL	295	SW	Unspecified Tank	1956
176AL	295	SW	Unspecified Tank	1956
177AL	307	SW	Unspecified Tank	1967
178AL	307	SW	Unspecified Tank	1956
179AL	309	SW	Unspecified Tank	1956
180	313	N	Unspecified Tank	1910
181AM	341	SE	Unspecified Tank	1983
182AM	342	SE	Unspecified Tank	1996
183AN	374	W	Unspecified Tank	1992
184AN	374	W	Unspecified Tank	1992
185AO	415	SW	Unspecified Tank	1992
186AO	415	SW	Unspecified Tank	1995
187AP	454	SE	Unspecified Tank	1983
188AP	455	SE	Unspecified Tank	1996
189AP	461	SE	Unspecified Tank	1996
190AP	461	SE	Unspecified Tank	1983
191AQ	475	S	Unspecified Tank	1978

192AR	487	SE	Unspecified Tank	1978
193AR	487	SE	Unspecified Tank	1997
194AR	487	SE	Unspecified Tank	1992

1.3 Additional Information – Historical Energy Features Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical energy features within 500m of the search boundary:

25

ID	Distance (m)	Direction	Use	Date
195	74	SE	Electricity Substation	1996
196B	138	N	Electricity Substation	1992
197B	138	N	Electricity Substation	1984
198AS	142	SW	Electricity Substation	1956
199AS	153	W	Electricity Substation	1956
200AS	154	W	Electricity Substation	1995
201AS	154	W	Electricity Substation	1992
202AT	159	N	Electricity Substation	1992
203AT	159	N	Electricity Substation	1967
204AG	205	SW	Electricity Substation	1956
205AG	215	SW	Electricity Substation	1956
206AU	420	SW	Electricity Substation	1995
207AU	420	SW	Electricity Substation	1992
208AV	423	SW	Electricity Substation	1992
209AV	423	SW	Electricity Substation	1995
210AW	441	N	Electricity Substation	1992
211AW	442	N	Electricity Substation	1984
212AX	472	S	Electricity Substation	1978
213AX	472	S	Electricity Substation	1987
214AX	473	S	Electricity Substation	1995
215AX	473	S	Electricity Substation	1992
216AY	491	SW	Electricity Substation	1992
217AY	491	SW	Electricity Substation	1992
218AY	491	SW	Electricity Substation	1996
219AY	494	SW	Electricity Substation	1987

1.4 Additional Information – Historical Petrol and Fuel Site Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical petrol stations and fuel sites within 500m of the search boundary:

0

Database searched and no data found.

1.5 Additional Information – Historical Garage and Motor Vehicle Repair Database

The systematic analysis of data extracted from High Detailed 1:1,250 and 1:2,500 scale historical maps provides the following information.

Records of historical garage and motor vehicle repair sites within 500m of the search boundary:

12

ID	Distance (m)	Direction	Use	Date
220G	130	W	Garage	1984
221AZ	134	W	Garage	1967
222AZ	135	W	Garage	1959
223AZ	135	W	Garage	1956
224AZ	142	W	Garage	1956
225AZ	142	W	Garage	1959
226G	165	W	Garage	1967
227G	173	W	Garage	1956
228G	173	W	Garage	1959
229	173	W	Garage	1956
230G	174	W	Garage	1959
231G	174	W	Garage	1956

1.6 Historical military sites

Certain military installations were not noted on historic mapping for security reasons. Whilst not all military land is necessarily of concern, Groundsure has researched and digitised a number of Ordnance Factories and other military industrial features (e.g. Ordnance Depots, Munitions Testing Grounds) which may be of contaminative concern. This research was drawn from a number of different sources, and should not be regarded as a definitive or exhaustive database of potentially contaminative military installations. The boundaries of sites within this database have been estimated from the best evidence available to Groundsure at the time of compilation.

Records of historical military sites within 500m of the search boundary:

0

Database searched and no data found.

1.7 Potentially Infilled Land

Records of Potentially Infilled Features from 1:10,000 scale mapping within 500m of the study site:

47

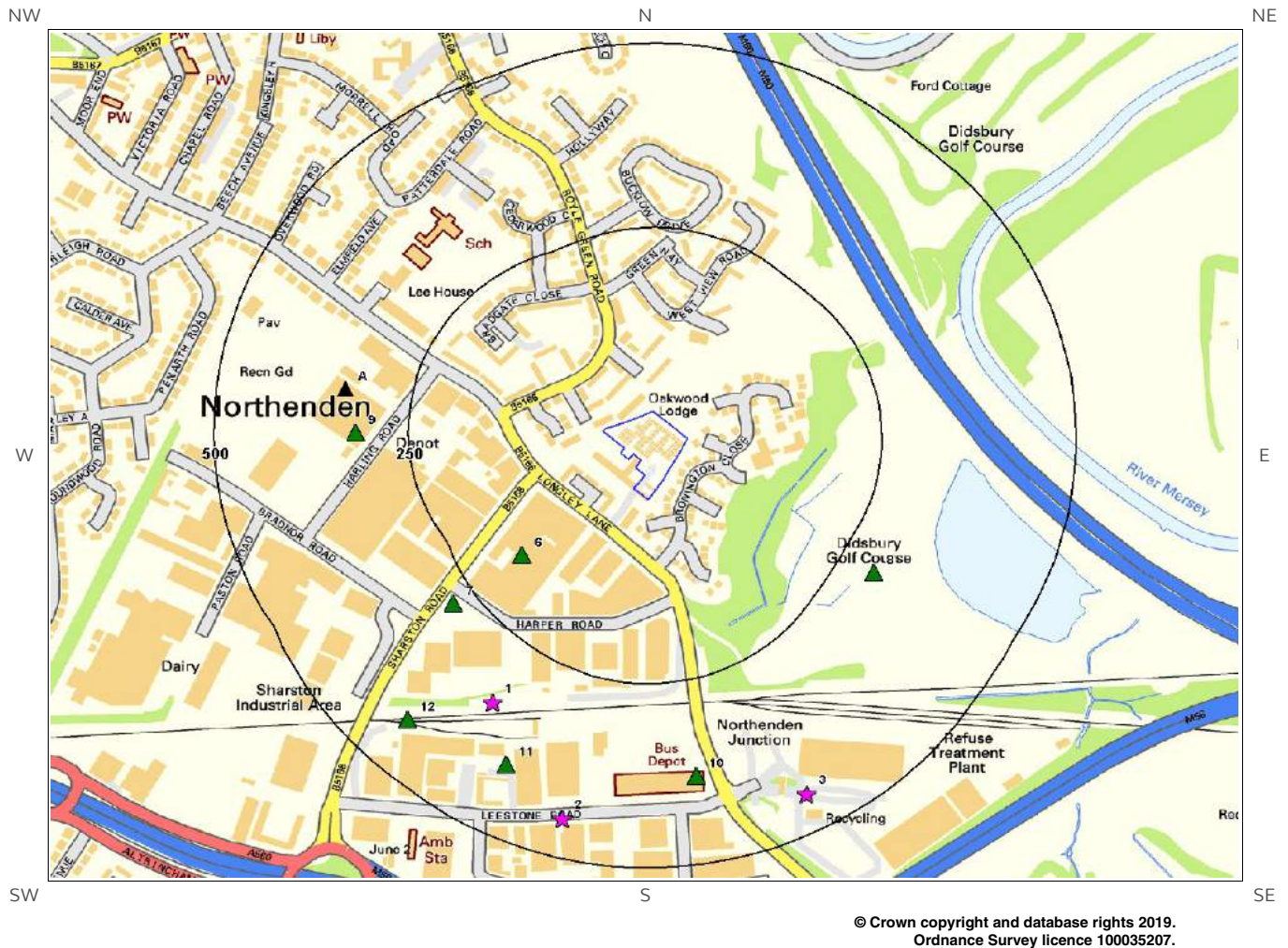
The following Historical Potentially Infilled Features derived from the Historical Mapping information is provided by Groundsure:

ID	Distance(m)	Direction	Use	Date
232	115	SE	Pond	1954

233I	140	SE	Unspecified Ground Workings	1967
234I	145	SE	Unspecified Ground Workings	1975
235J	149	SE	Unspecified Heap	1995
236J	151	SE	Unspecified Heap	1989
237J	151	SE	Unspecified Heap	1975
238J	151	SE	Unspecified Heap	1967
239I	154	SE	Unspecified Ground Workings	1954
240I	155	SE	Unspecified Ground Workings	1995
241I	155	SE	Unspecified Ground Workings	1989
242BA	177	SE	Unspecified Heap	1954
243M	207	SE	Unspecified Heap	1954
244M	207	SE	Unspecified Heap	1916
245M	215	SE	Unspecified Heap	1923
246Q	278	NE	Cuttings	1989
247Q	278	NE	Cuttings	1975
248S	287	NE	Unspecified Heap	1938
249BB	289	NE	Cuttings	1995
250S	294	NE	Ponds	1923
251S	294	NE	Ponds	1916
252S	294	NE	Ponds	1905
253S	296	NE	Unspecified Heap	1954
254S	297	NE	Ponds	1938
255S	297	NE	Ponds	1897
256BC	301	SE	Refuse Treatment Plant	1989
257S	308	NE	Pond	1911
258BD	329	NE	Unspecified Ground Workings	1967
259BE	334	S	Unspecified Ground Workings	1954
260BF	335	NE	Pond	1967
261BG	341	E	Pond	1995
262BG	341	E	Pond	1989
263BG	341	E	Pond	1975
264X	341	S	Unspecified Heap	1938
265X	342	S	Unspecified Heap	1954
266BF	342	NE	Unspecified Heap	1967
267V	358	SW	Cuttings	1967
268V	358	SW	Cuttings	1995
269V	358	SW	Cuttings	1989
270V	358	SW	Cuttings	1975
271Y	365	SW	Unspecified Ground Workings	1954
272BH	370	SW	Unspecified Pit	1938

273BH	370	SW	Unspecified Pit	1938
274BI	396	NE	Unspecified Ground Workings	1975
275Y	398	SW	Unspecified Ground Workings	1975
276BJ	474	SW	Cuttings	1916
277BK	482	NE	Unspecified Pit	1975
278BL	488	NE	Unspecified Ground Workings	1967

2. Environmental Permits, Incidents and Registers Map



- | | | |
|-------------------------------|--|--------------------------|
| Site Outline | Recorded Pollution Incident | RAS 3 & 4 Authorisations |
| Dangerous Substances (List 1) | Part A(1) Authorised Processes and Historic IPC Authorisations | |
| Dangerous Substances (List 2) | Part A(2) and Part B Authorised Processes | |
| Water Industry Referrals | COMAH / NIHHS Sites | |
| Licenced Discharge Consents | Sites Determined as Contaminated Land | |
| Red List Discharge Consents | Hazardous Substance Consents and Enforcements | |

2. Environmental Permits, Incidents and Registers

2.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency/Natural Resources Wales and Local Authorities reveal the following information:

2.1.1 Records of historic IPC Authorisations within 500m of the study site:

0

Database searched and no data found.

2.1.2 Records of Part A(1) and IPPC Authorised Activities within 500m of the study site:

2

The following Part A(1) and IPPC Authorised Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details	
13A	335	W	383020 389550	Operator: VITA LIQUID POLYMERS LIMITED Installation Name: VITA LIQUID POLYMERS LTD Process: ORGANIC CHEMICALS; NITROGEN CONTAINING COMPOUNDS EG AMINES	Permit Number: DP3532DM Original Permit Number: DP3532DM EPR Reference: - Issue Date: 05/06/2018 Effective Date: 05/06/2018 Last date noted as effective: 2019-04-30 Status: SUPERCEDED
14A	335	W	383020 389550	Operator: VITA LIQUID POLYMERS LIMITED Installation Name: VITA LIQUID POLYMERS - WYTHENSHAW - EPR/DP3532DM Process: ORGANIC CHEMICALS; NITROGEN CONTAINING COMPOUNDS EG AMINES	Permit Number: HP3039QB Original Permit Number: DP3532DM EPR Reference: - Issue Date: 12/09/2018 Effective Date: 12/09/2018 Last date noted as effective: 2019-04-30 Status: EFFECTIVE

2.1.3 Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site:

0

Database searched and no data found.

2.1.4 Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.5 Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site:

0

Database searched and no data found.

2.1.6 Records of Part A(2) and Part B Activities and Enforcements within 500m of the study site:

7

The following Part A(2) and Part B Activities are represented as points on the Environmental Permits, Incidents and Registers Map:

ID	Distance (m)	Direction	NGR	Details
6	171	SW	383247 389324	Address: Electrium Sales Ltd, Harper Road, Sharton, Wythenshawe, M22 4RA Process: Coating Processes Status: Current Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
7	281	SW	383158 389259	Address: Wylex Ltd, Sharston Road, Wythenshawe, M22 4RA Process: Combustion & Incineration Status: Historical Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
8	299	SE	383700 389301	Address: Wylex Sharston Rd, M22 4RS Process: Coating Processes Status: Historical Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
9	318	W	383033 389490	Address: Vita Liquid Polymers Ltd, Harling Road, Sharston Industrial Estate, Wythenshawe, Manchester, M22 4SZ Process: Coating Processes Status: Current Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
10	383	S	383471 389024	Address: Bellcharm Motor Company Ltd, Accident Repair Centre, Leestone Road, M22 4RB Process: Respraying of Road Vehicles Status: Historical Permit Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified

ID	Distance (m)	Direction	NGR	Details
Permit Type: Part B				
11	406	SW	383226 389040	Address: Lafarge Aggregates Limited, The Railway Sidings, Sharston Industrial Estate, M22 4RT Process: Use of Bulk Cement Status: Historical Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified
12	430	SW	383100 389101	Address: Blue Circle Industries, Shentonfield Rd, M22 4RT Process: Use of Bulk Cement Status: Historical Permit Permit Type: Part B Enforcement: No Enforcement Notified Date of Enforcement: No Enforcement Notified Comment: No Enforcement Notified

2.1.7 Records of Category 3 or 4 Radioactive Substances Authorisations:

0

Database searched and no data found.

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

0

Database searched and no data found.

2.1.9 Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site:

0

Database searched and no data found.

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

0

Database searched and no data found.

2.2 Dangerous or Hazardous Sites

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

0

Database searched and no data found.

2.3 Environment Agency/Natural Resources Wales Recorded Pollution Incidents

2.3.1 Records of National Incidents Recording System, List 2 within 500m of the study site:

3

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

ID	Distance (m)	Direction	NGR	Details
1	342	SW	383208.0 389126.0	Incident Date: 01-Jul-2010 Incident Identification: 796800.0 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes Water Impact: Category 4 (No Impact) Land Impact: Category 2 (Significant) Air Impact: Category 3 (Minor)
2	448	S	383298.0 388968.0	Incident Date: 26-Oct-2001 Incident Identification: 39221.0 Pollutant: Inert Materials and Wastes Pollutant Description: Construction and Demolition Materials and Wastes Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
3	449	SE	383613.0 389001.0	Incident Date: 17-Jul-2003 Incident Identification: 174583.0 Pollutant: Specific Waste Materials Pollutant Description: Inorganic Chemical Wastes Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

2.3.2 Records of National Incidents Recording System, List 1 within 500m of the study site:

0

Database searched and no data found.

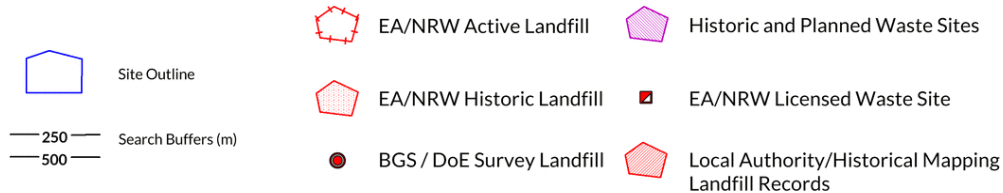
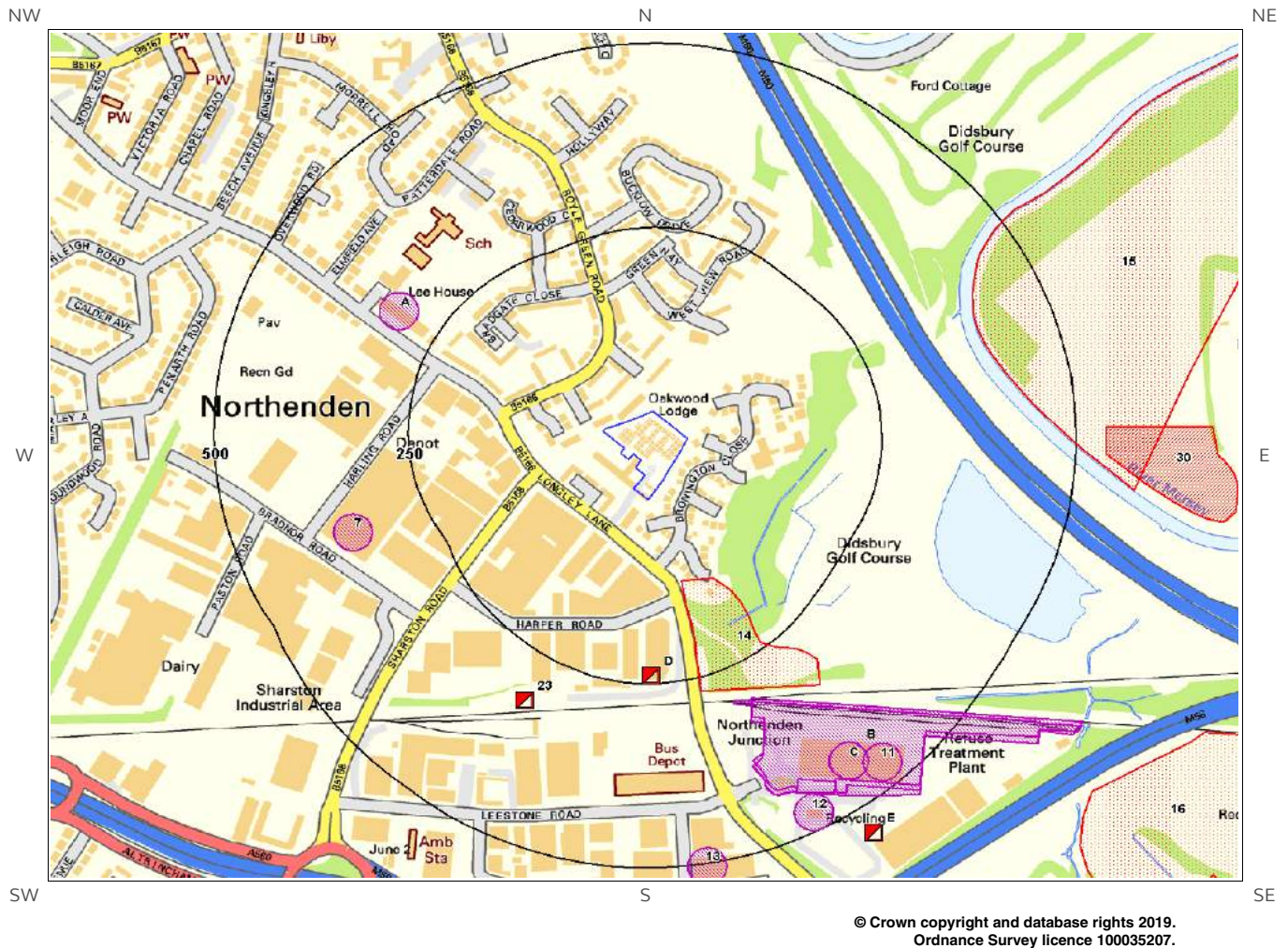
2.4 Sites Determined as Contaminated Land under Part 2A EPA 1990

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.

3. Landfill and Other Waste Sites Map



3. Landfill and Other Waste Sites

3.1 Landfill Sites

3.1.1 Records from Environment Agency/Natural Resources Wales landfill data within 1000m of the study site:

0

Database searched and no data found.

3.1.2 Records of Environment Agency/Natural Resources Wales historic landfill sites within 1500m of the study site:

6

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
14	119	S		Site Address: Longley Lane, Northenden, Greater Manchester Waste Licence: - Site Reference: F053 Waste Type: - Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -
15	402	E		Site Address: Parrs Wood Road, Manchester Waste Licence: - Site Reference: F014 Waste Type: Commercial, Household Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: Manchester Corporation Cleansing Department Licence Holder: - First Recorded: 30-Nov-1959 Last Recorded: 31-Dec-1976
16	695	SE		Site Address: Brookside Road, Gatley, Greater Manchester Waste Licence: - Site Reference: J045 Waste Type: Household Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: - First Recorded: - Last Recorded: -
Not shown	1080	NE		Site Address: Parrs Wood Road, Didsbury, Manchester Waste Licence: Yes Site Reference: F014 Waste Type: Inert, Industrial, Commercial, Household, Special, Liquid sludge Environmental Permitting Regulations (Waste) Reference: - Licence Issue: 01-Jan-1974 Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: Manchester City Council First Recorded: 31-Dec-1947 Last Recorded: 31-Aug-1976
Not	1089	NE		Site Address: Parrs Wood Road, Licence Issue: 01-Jan-1974

ID	Distance (m)	Direction	NGR	Details
shown				Manchester, Greater Manchester Waste Licence: Yes Site Reference: F014 Waste Type: Inert, Industrial, Commercial, Household, Special, Liquid sludge Environmental Permitting Regulations (Waste) Reference: - Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: Manchester City Council First Recorded: 31-Dec-1947 Last Recorded: 31-Aug-1976
Not shown	1345	N		Site Address: Former Northenden Sewage Works, Princess Parkway, Greater Manchester Waste Licence: - Site Reference: F052 Waste Type: Inert, Industrial, Commercial, Household, Liquid sludge Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: - Operator: - Licence Holder: Manchester City Council First Recorded: 31-Dec-1950 Last Recorded: 31-Dec-1965

3.1.3 Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

1

The following landfill records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
Not shown	1071	NE	384400.0 390000.0	Address: Parkwood Rd Tip, Parkwood Rd, Dewsbury, Manchester BGS Number: 847.0 Risk: No risk to aquifer Waste Type: N/A

3.1.4 Records of Landfills from Local Authority and Historical Mapping Records within 1500m of the study site:

8

The following landfill records are represented as points or polygons on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Site Address	Source	Data Type
30	539	E	384084 389436	Refuse Tip	1976 mapping	Polygon
Not shown	1084	E	384603 389875	Refuse Tip	1963 mapping	Polygon
Not shown	1108	NE	384358 390213	Refuse Tip	1988 mapping	Polygon
Not shown	1160	NE	384599 390079	Refuse Tip	1973 mapping	Polygon
Not shown	1175	E	384615 389798	Refuse Tip	1966 mapping	Polygon
Not shown	1175	E	384616 389799	Refuse Tip	1963 mapping	Polygon
Not shown	1244	E	384737 389892	Refuse Tip	1963 mapping	Polygon

ID	Distance (m)	Direction	NGR	Site Address	Source	Data Type
Not shown	1244	E	384737 389892	Refuse Tip	1966 mapping	Polygon

3.2 Other Waste Sites

3.2.1 Records of waste treatment, transfer or disposal sites within 500m of the study site:

12

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details		
2A	283	NW	383089 389657	Type of Site: Waste Management Facility Site Address: Longley Lane, Sharston, MANCHESTER, Greater Manchester, M22 4HZ	Planning Application Reference: 063199/VO/SOUTH2/01 Date: -	Further Details: Scheme comprises re-organisations of waste management facility and vehicle depot to provide extended and enhanced materials re-cycling facilities, there will be a new research and development centre, cladding of existing store, re-location of tanks/vehicle barriers and a visitors centre. Associated works include 155 car parking spaces, access, sewer systems, enabling, landscaping works and service engineering. Construction - internal partitions walls; carpets, insitu concrete, linoleum/vinyl, raised access floor; pitched roof; aluminium framed, double glazed windows; fire, timber doors; pad foundations; portal, steel frame; black top surfacing, drain covers, kerbing, planting, road drainage, street lighting, turfing/grass, white lining site works; fire alarm system, suspended ceilings fittings. An application (ref: 063199/VO/SOUTH2/01) for Detailed Planning permission was granted by Manchester C.C. Contract details have not yet been confirmed. We have been advised that detailed planning has been approved. Data Source: Historic Planning Application Data Type: Point
3A	283	NW	383089 389657	Type of Site: Waste Disposal (Alterations) Site Address: Longley Lane, Sharston, MANCHESTER,	Planning Application Reference: 49638 Date: -	Further Details: Modify doorways. An application (ref: 49638) for Detailed Planning permission was submitted to Manchester C.C. on 29th March 1996. Data Source: Historic Planning

ID	Distance (m)	Direction	NGR	Details		
				Greater Manchester, M22 4HZ		Application Data Type: Point
4B	295	S	383743 389064	Type of Site: Refuse Treatment Plant Site Address: N/A	Planning Application Reference: N/A Date: 1982	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
5B	301	SE	383755 389067	Type of Site: Refuse Treatment Plant Site Address: N/A	Planning Application Reference: N/A Date: 1989	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
6B	306	SE	383755 389063	Type of Site: Refuse Treatment Plant Site Address: N/A	Planning Application Reference: N/A Date: 1996	Further Details: N/A Data Source: Historic Mapping Data Type: Polygon
7	324	SW	383029 389357	Type of Site: Waste Recycling Plant Site Address: The Astrodome, Bradnor Road, Sharston, MANCHESTER, Greater Manchester, M22 4TX	Planning Application Reference: 043960/93 Date: -	Further Details: No Details Data Source: Historic Planning Application Data Type: Point
8C	414	SE	383667 389047	Type of Site: Recycling Area/Car Park Site Address: Refuse Treatment Plant, Longley Lane, Sharston, MANCHESTER, Greater Manchester, M22 4	Planning Application Reference: 49846 Date: -	Further Details: 15 space car park. Re-cycling areas. An application (ref: 49846) for Detailed Planning permission was submitted to Manchester C.C. on 3rd May 1996. Data Source: Historic Planning Application Data Type: Point
9C	414	SE	383668 389047	Type of Site: Waste Storage Area Site Address: South Manchester Resource Reco, Longley Lane, Sharston, MANCHESTER, Greater Manchester, M22 4RQ	Planning Application Reference: 087983/FO/2008/S2 Date: 01/07/2009	Further Details: Scheme comprises creation of temporary waste storage area for a period of 18 months during the redevelopment of the waste management facility approved as part of planning permission 085916/JO/2008S2. An application (ref: 087983/FO/2008/S2) for detailed planning permission was granted by Manchester C.C. Planning decision obtained Data Source: Historic Planning Application Data Type: Point
10C	414	SE	383668 389047	Type of Site: Waste Transfer Station (C/U) Site Address: Former Railway Sidings, Lomgley Lane, Sharston,	Planning Application Reference: 48545 Date: -	Further Details: Use of land as a waste transfer station with the construction of timber and metal storage bays. An application (ref: 48545) for Detailed Planning permission was submitted to Manchester

ID	Distance (m)	Direction	NGR	Details	
				MANCHESTER, Greater Manchester,	C.C. on 26th September 1995. Data Source: Historic Planning Application Data Type: Point
11	442	SE	383711 389045	Type of Site: Recycling Centre Site Address: Longley Lane, Sharston Industrial Area, MANCHESTER, Greater Manchester, M22 4WT Planning Application Reference: 083953/FO/2007/S2 Date: 22/02/2010	Further Details: Scheme comprises construction of a mechanical biological treatment plant, improvements to the green waste shredding facility and the household waste recycling centre. Construction - black top surfacing site works. An application (ref: 083953/FO/2007/S2 for detailed planning permission was granted by Manchester C.C. This is part of the PFI waste management scheme, lead 05087716 Works have commenced on site. Data Source: Historic Planning Application Data Type: Point
12	450	SE	383623 388977	Type of Site: Materials Recycling Facility Site Address: Greater Manchester Waste, Longley Lane, Sharston, Manchester, Greater Manchester, M22 4RQ Planning Application Reference: 107205/WST/2014/S2 Date: 30/12/2014	Further Details: Scheme comprises construction of materials recycling facility (MRF) welfare and office facility. The associated works include sewer systems, landscaping, infrastructure, enabling works, cable laying and access roads. Data Source: Historic Planning Application Data Type: Point
13	479	S	383486 388904	Type of Site: Metal Recycling Facility Site Address: Former Green Bros Signs Ltd Si, Shentonfield Road, Sharston Industrial Area, Manchester, Greater Manchester, M22 4TJ Planning Application Reference: 101154/FO/2012/S2 Date: 07/02/2013	Further Details: Scheme comprises change of use of site to metal recycling facility, including construction of office/staff amenity building, construction of buying shed and canopy, construction of End of Life Vehicle facility and associated tank farm, siting of weighbridge and associated cabin, construction of 6m high boundary treatment, landscaping and siting of external plant and machinery and associated works following demolition of industrial building. Data Source: Historic Planning Application Data Type: Point

3.2.2 Records of Environment Agency/Natural Resources Wales licensed waste sites within 1500m of the study site:

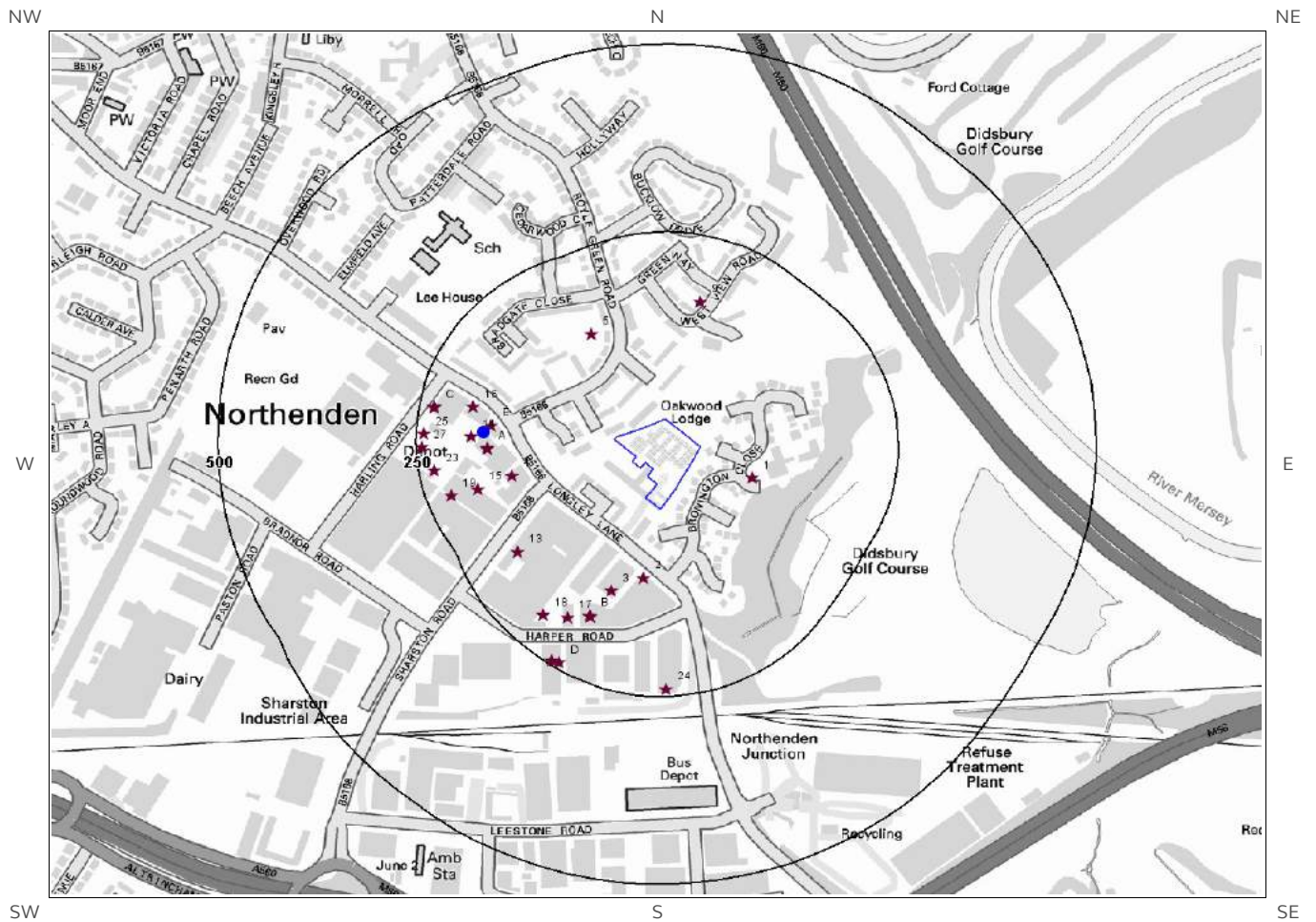
10

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance (m)	Direction	NGR	Details
20D	239	S	383413 389163	Site Address: The Old Railway Station, Longley Lane, Sharston Ind Est, Manchester, M22 4SS Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: MOH005 EPR reference: EA/EPR/UP3390VZ/T001 Operator: M O' Halloran & Son (Plant Hire) Ltd Waste Management licence No: 53457 Annual Tonnage: 3250.0 Issue Date: 16/02/1998 Effective Date: 21/03/2011 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: The Old Railway Station Correspondence Address: -
21D	239	S	383413 389163	Site Address: The Old Railway Station, Longley Lane, Sharston Ind Area, Manchester, Lancs, M22 4SS Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: REC249 EPR reference: GP3093SD/T001 Operator: The Recycling Hutch Ltd Waste Management licence No: 53457 Annual Tonnage: 3250.0 Issue Date: 16/02/1998 Effective Date: 16/04/2010 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: The Recycling Hutch Correspondence Address: -
22D	239	S	383413 389163	Site Address: The Old Railway Station, Longley Lane, Sharston Ind Area, Manchester, M22 4SS Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: DSH001 EPR reference: - Operator: Davidson's Skip Hire Ltd Waste Management licence No: 53457 Annual Tonnage: 3250.0 Issue Date: 16/02/1998 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: Davidson's Skip Hire Ltd Correspondence Address: The Old Railway Station, Longley Lane, Sharston Ind Area, Manchester, M22 4SS
23	315	SW	383250 389130	Site Address: The Old Railway Station, Longley Lane, Sharston Ind Est, Manchester, M22 4SS Type: Household, Commercial & Industrial Waste T Stn Size: >= 25000 tonnes < 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: PPO005 EPR reference: EA/EPR/AB3205FD/T001 Operator: P P O' Connor Limited Waste Management licence No: 53457 Annual Tonnage: 3250.0 Issue Date: 16/02/1998 Effective Date: 27/06/2013 Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Transferred Site Name: The Old Railway Station Correspondence Address: -
24E	537	SE	383700 388950	Site Address: Longley Lane, Sharston, Manchester, M22 4RQ Type: Household Waste Amenity Site Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GRE092 EPR reference: YP3195EX/V003 Issue Date: 27/03/2008 Effective Date: - Modified: 10/06/2009 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified

ID	Distance (m)	Direction	NGR	Details	
				Operator: Viridor Waste (Greater Manchester) Ltd Waste Management licence No: 100189 Annual Tonnage: 0.0	Site Name: South Manchester Resource Recovery Centre Correspondence Address: -
25E	537	SE	383700 388950	Site Address: South Manchester Resource Recovery Centre & M B T Facility, Longley Lane, Sharston, Manchester, M22 4RQ Type: Biological Treatment Facility Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GRE092 EPR reference: EA/EPR/YP3195EX/V007 Operator: Viridor Waste (Greater Manchester) Ltd Waste Management licence No: 100189 Annual Tonnage: 200000.0	Issue Date: 27/03/2008 Effective Date: - Modified: 21/10/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: South Manchester Resource Recovery Centre & M B T Facility Correspondence Address: -
26E	537	SE	383700 388950	Site Address: Longley Lane, Sharston, Manchester, M22 4RQ Type: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GRE092 EPR reference: YP3195EX/V003 Operator: Viridor Waste (Greater Manchester) Ltd Waste Management licence No: 100189 Annual Tonnage: 0.0	Issue Date: 27/03/2008 Effective Date: - Modified: 10/06/2009 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: South Manchester Resource Recovery Centre Correspondence Address: -
27E	537	SE	383700 388950	Site Address: Longley Lane, Sharston, Manchester, M22 4RQ Type: Household, Commercial & Industrial Waste T Stn Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GRE092 EPR reference: - Operator: Greater Manchester Waste Ltd Waste Management licence No: 100189 Annual Tonnage: 0.0	Issue Date: 27/03/2008 Effective Date: - Modified: - Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Issued Site Name: South Manchester Resource Recovery Centre Correspondence Address: P O Box 151, Higher Swan Lane, Bolton, BL3 3WW
28E	537	SE	383700 388950	Site Address: South Manchester Resource Recovery Centre & M B T Facility, Longley Lane, Sharston, Manchester, Lancs, M22 4RQ Type: Biological Treatment Facility Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GRE092 EPR reference: EA/EPR/YP3195EX/V006 Operator: Viridor Waste (Greater Manchester) Limited Waste Management licence No: 100189 Annual Tonnage: 200000.0	Issue Date: 27/03/2008 Effective Date: - Modified: 28/05/2013 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: South Manchester Resource Recovery Centre & M B T Facility Correspondence Address: -
29E	537	SE	383700 388950	Site Address: Premises At, Longley Lane, Sharston, Manchester, Lancs, M22 4RQ Type: Biological Treatment Facility Size: >= 75000 tonnes Environmental Permitting Regulations (Waste) Licence Number: GRE092 EPR reference: EA/EPR/YP3195EX/V004 Operator: Viridor Waste (Greater Manchester) Ltd Waste Management licence No: 100189 Annual Tonnage: 200000.0	Issue Date: 27/03/2008 Effective Date: - Modified: 21/06/2011 Surrendered Date: - Expiry Date: - Cancelled Date: - Status: Modified Site Name: South Manchester H W R C, M R F And M B T Facility Correspondence Address: -

4. Current Land Use Map



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



4. Current Land Uses

4.1 Current Industrial Data

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

28

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

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
1	76	SE	Electricity Sub Station	383525 389444	Greater Manchester, M22	Electrical Features	Infrastructure and Facilities
2	94	S	Tank	383388 389311	Greater Manchester, M22	Tanks (Generic)	Industrial Features
3	125	SW	Siltint Industries Ltd	383347 389293	124, Longley Lane, Manchester, Greater Manchester, M22 4SP	Photographic and Optical Equipment	Consumer Products
4	137	W	Crown Telecom	383222 389447	Longley House 110, Longley Lane, Manchester, Greater Manchester, M22 4SY	Radar and Telecommunications Equipment	Industrial Products
5	141	N	Electricity Sub Station	383322 389636	Greater Manchester, M22	Electrical Features	Infrastructure and Facilities
6E	156	W	National Tyres and Autocare	383195 389514	Longley Lane, Manchester, Greater Manchester, M22 4SY	Vehicle Repair, Testing and Servicing	Repair and Servicing
7A	160	W	Longworth Ltd	383191 389483	Leltex House, Longley Lane, Manchester, Greater Manchester, M22 4SY	Workwear	Industrial Products
8A	160	W	Hartbrights Sign Solutions	383191 389483	Longley Lane, Manchester, Greater Manchester, M22 4SY	Signs	Industrial Products
9	163	N	Electricity Sub Station	383459 389679	Greater Manchester, M22	Electrical Features	Infrastructure and Facilities
10B	168	SW	Inkguard	383319 389260	Unit 4 Harper House, Harper Road, Sharston Industrial Area, Manchester, Greater Manchester, M22 4RG	Published Goods	Industrial Products
11B	168	SW	Oak Fields Autos	383320 389259	Unit 5 Harper House, Harper Road, Sharston Industrial Area, Manchester, Greater Manchester, M22 4RG	Vehicle Repair, Testing and Servicing	Repair and Servicing
12B	168	SW	Branagan Flooring Services	383320 389259	Unit 1/A Harper House, Harper Road, Sharston Industrial Area, Manchester, Greater Manchester, M22 4RG	Construction Completion Services	Construction Services
13	177	SW	Electrium Sales Ltd	383229 389345	Sharston Road, Wythenshawe, Manchester, Greater Manchester, M22 4RA	Electronic Equipment	Industrial Products

ID	Distance (m)	Direction	Company	NGR	Address	Activity	Category
14	181	W	B P Car Wash	383170 389499	Longley Lane, Manchester, Greater Manchester, M22 4SY	Vehicle Cleaning Services	Personal, Consumer and Other Services
15	184	W	Juice Works	383178 389429	Sonex House, Sharston Road, Sharston Industrial Area, Manchester, Greater Manchester, M22 4RX	Non Alcoholic Drinks	Foodstuffs
16	184	W	BP Service Station	383172 389538	Longley Lane, Manchester, Greater Manchester, M22 4SY	Petrol and Fuel Stations	Road and Rail
17	186	SW	V F M Auto Service Centre	383292 389258	Harper Road, Sharston Industrial Area, Manchester, Greater Manchester, M22 4RG	Vehicle Repair, Testing and Servicing	Repair and Servicing
18	203	SW	Tank	383261 389261	Greater Manchester, M22	Tanks (Generic)	Industrial Features
19	219	W	Tanks	383145 389420	Greater Manchester, M22	Tanks (Generic)	Industrial Features
20C	231	W	Mia Secure Parking	383124 389538	Unit 3 The Oakfield Centre, Harling Road, Sharston Industrial Area, Manchester, Greater Manchester, M22 4UX	Airlines and Airline Services	Transport, Storage and Delivery
21C	231	W	Belly Button Designs	383124 389538	Unit 1 The Oakfield Centre, Harling Road, Sharston Industrial Area, Manchester, Greater Manchester, M22 4UX	Published Goods	Industrial Products
22C	231	W	Hire Equip N W Ltd	383124 389538	Unit 1 The Oakfield Centre, Harling Road, Sharston Industrial Area, Manchester, Greater Manchester, M22 4UX	Construction and Tool Hire	Hire Services
23	231	W	Tank	383123 389454	Greater Manchester, M22	Tanks (Generic)	Industrial Features
24	239	S	Howells Railway Products Plc	383416 389162	Longley Lane, Sharston Industrial Area, Manchester, Greater Manchester, M22 4SS	Special Purpose Machinery and Equipment	Industrial Products
25	241	W	Bus Depot	383110 389503	Greater Manchester, M22	Bus and Coach Stations, Depots and Companies	Public Transport, Stations and Infrastructure
26D	241	SW	C E S UK Car Parts	383281 389197	Unit 2 Beta Court, Harper Road, Sharston Industrial Area, Manchester, Greater Manchester, M22 4QE	Vehicle Parts and Accessories	Motoring
27	243	W	Depot	383108 389485	Greater Manchester, M22	Container and Storage	Transport, Storage and Delivery
28D	244	SW	Cheshire Exhaust Services	383271 389200	Unit 2 Beta Court, Harper Road, Sharston Industrial Area, Manchester, Greater Manchester, M22 4QE	Vehicle Repair, Testing and Servicing	Repair and Servicing

4.2 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
29E	165	W	383186 389504	BP	106 Longley Lane, Northendon, Manchester, Greater Manchester, M22 4SY	No	Open

4.3 National Grid High Voltage Underground Electricity Transmission Cables

This dataset identifies the high voltage electricity transmission lines running between generating power plants and electricity substations. The dataset does not include the electricity distribution network (smaller, lower voltage cables distributing power from substations to the local user network). This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high voltage underground electricity transmission cables within 500m of the study site:

0

Database searched and no data found.

4.4 National Grid High Pressure Gas Transmission Pipelines

This dataset identifies high-pressure, large diameter pipelines which carry gas between gas terminals, power stations, compressors and storage facilities. The dataset does not include the Local Transmission System (LTS) which supplies gas directly into homes and businesses. This information has been extracted from databases held by National Grid and is provided for information only with no guarantee as to its completeness or accuracy. National Grid do not offer any warranty as to the accuracy of the available data and are excluded from any liability for any such inaccuracies or errors.

Records of National Grid high pressure gas transmission pipelines within 500m of the study site:

0

Database searched and no data found.

5. Geology

5.1 Artificial Ground and Made Ground

Database searched and no data found.

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

5.2 Superficial Ground and Drift Geology

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

Lex Code	Description	Rock Type
GFSDD-XSV	GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN	SAND AND GRAVEL

5.3 Bedrock and Solid Geology

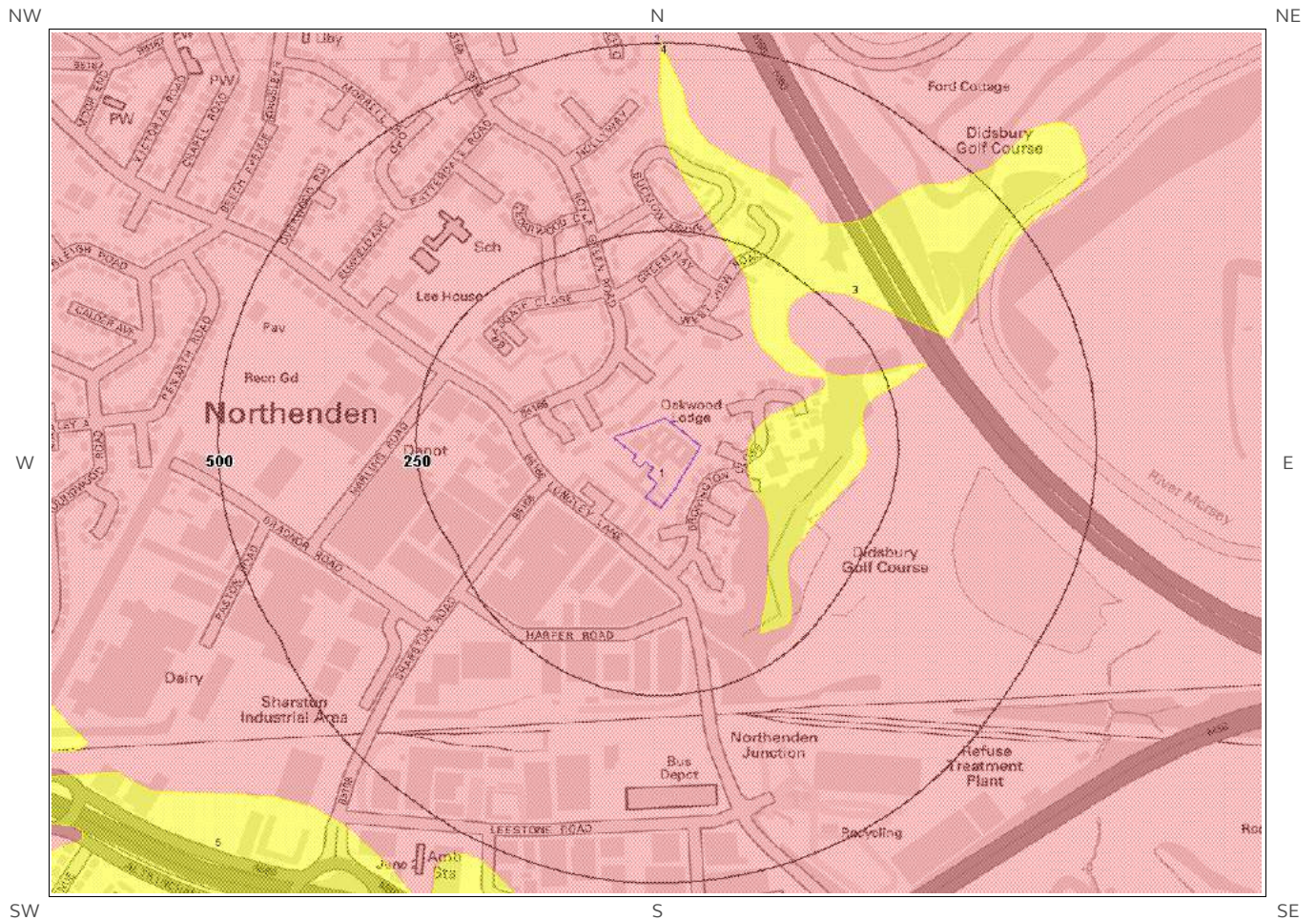
The database has been searched on site, including a 50m buffer.

Lex Code	Description	Rock Type
WLSF-SDST	WILMSLOW SANDSTONE FORMATION	SANDSTONE
TPSF-SIMS	TARPORLEY SILTSTONE FORMATION	SILTSTONE, MUDSTONE AND SANDSTONE

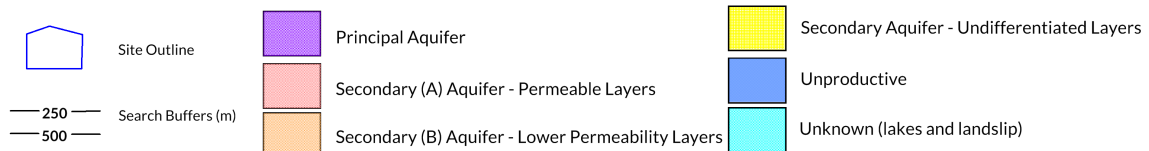
(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

6 Hydrogeology and Hydrology

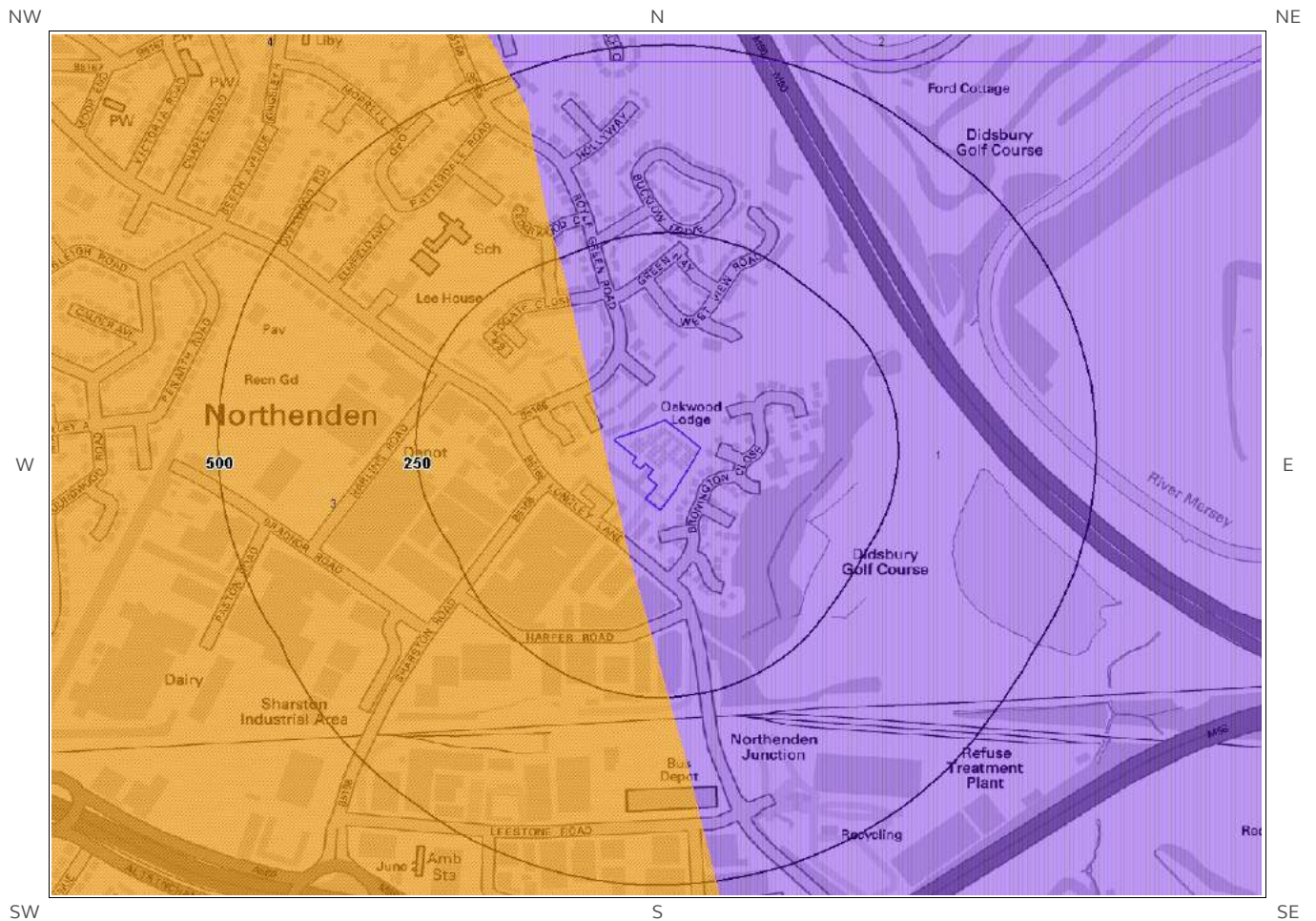
6a. Aquifer Within Superficial Geology



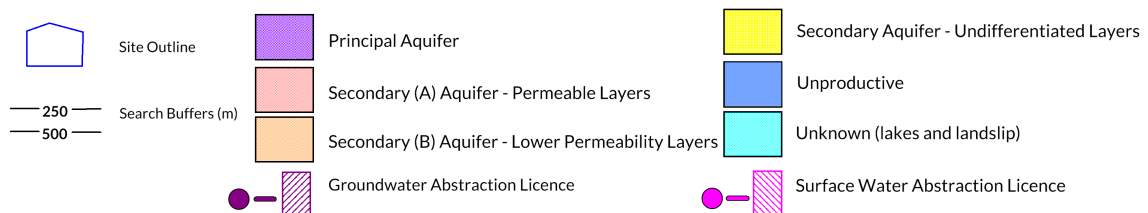
© Crown copyright and database rights 2019
Ordnance Survey licence 100035207.



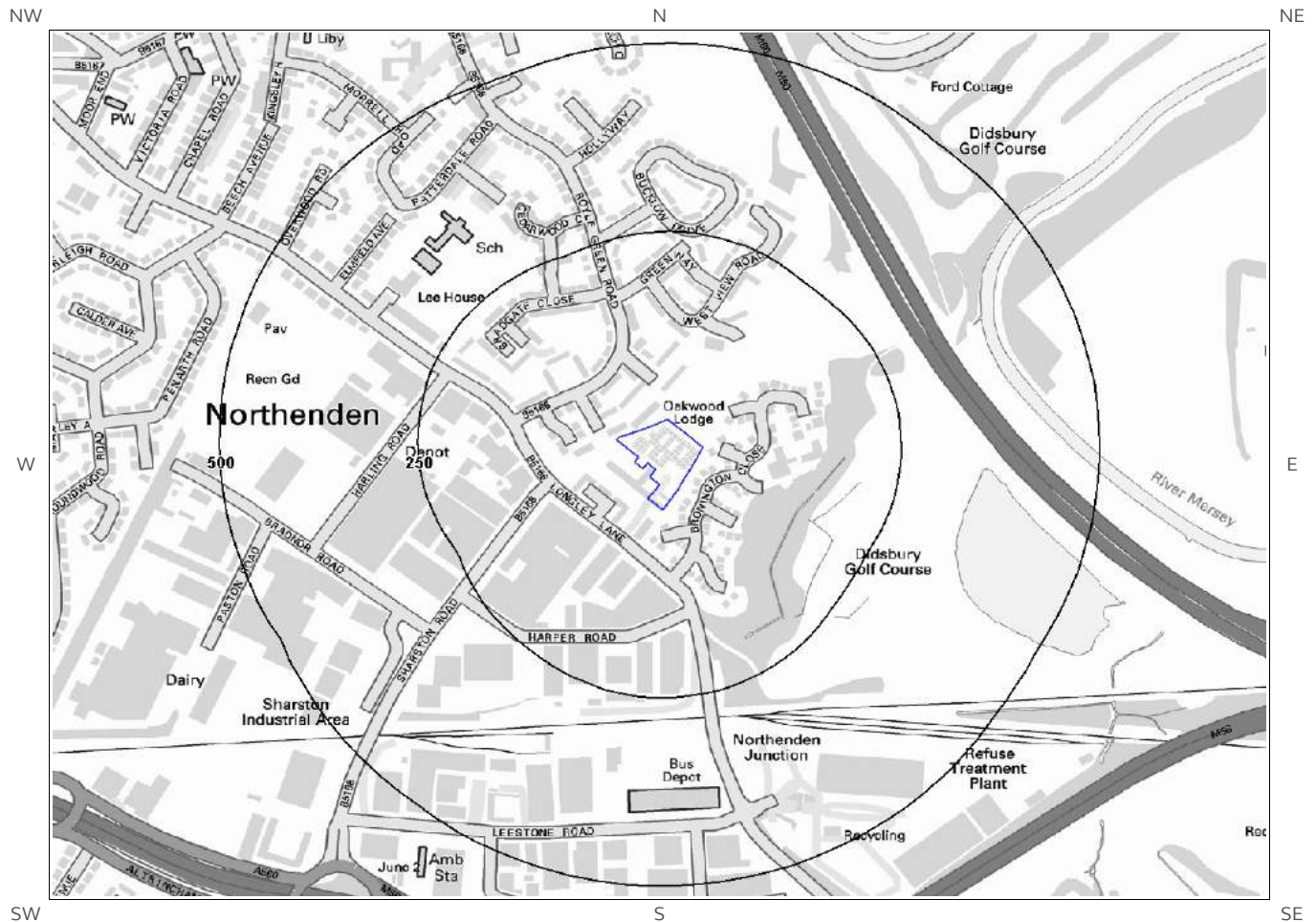
6b. Aquifer Within Bedrock Geology and Abstraction Licences



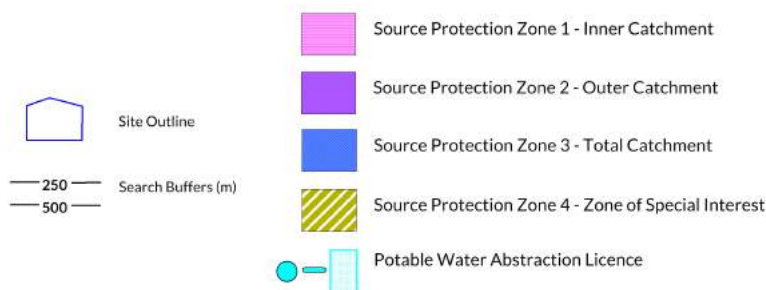
© Crown copyright and database rights 2019
Ordnance Survey licence 100035207.



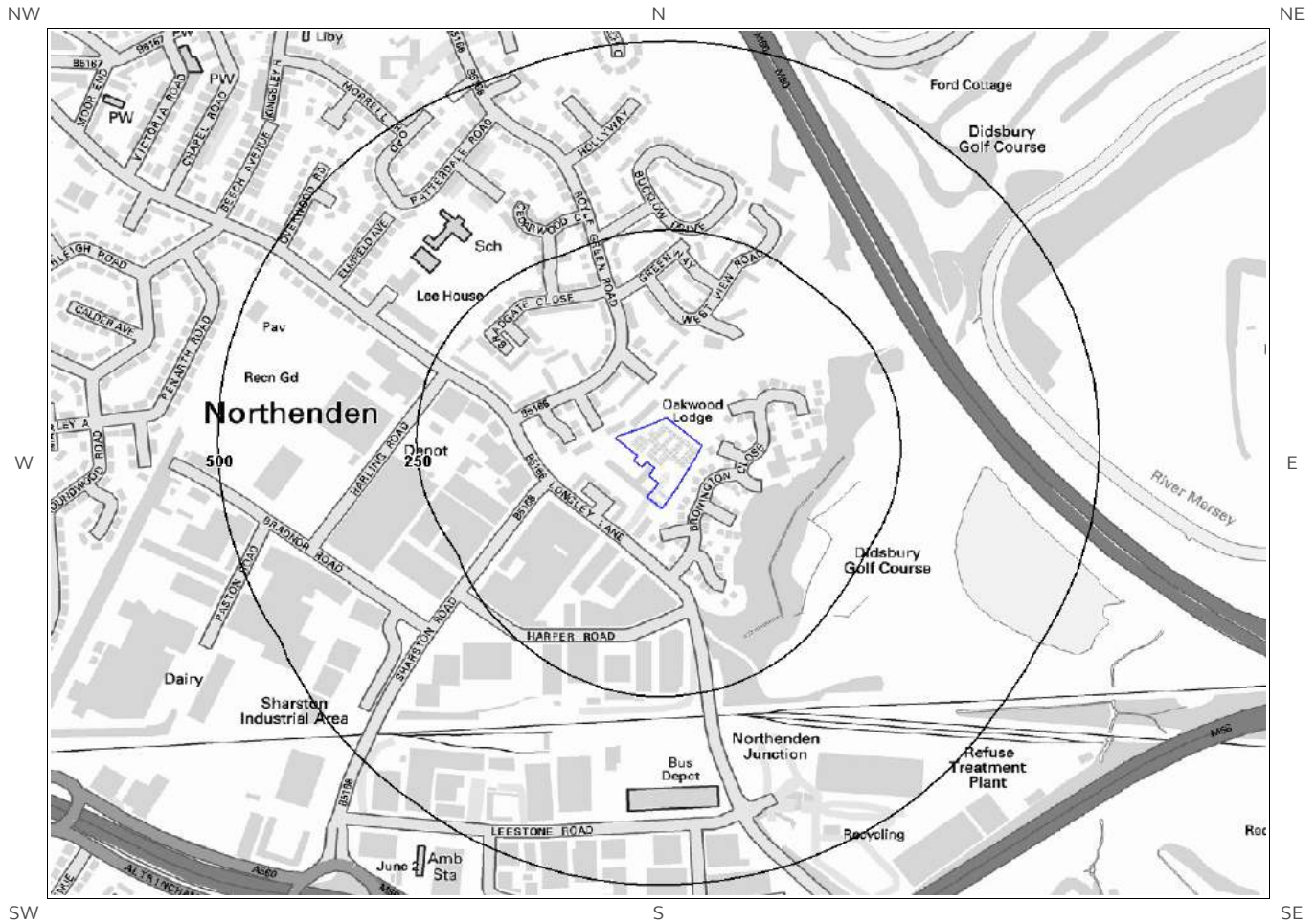
6c. Hydrogeology – Source Protection Zones and Potable Water Abstraction Licences



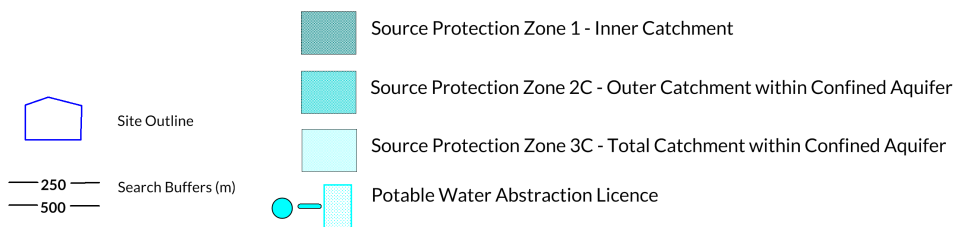
© Crown copyright and database rights 2019
Ordnance Survey licence 100035207.



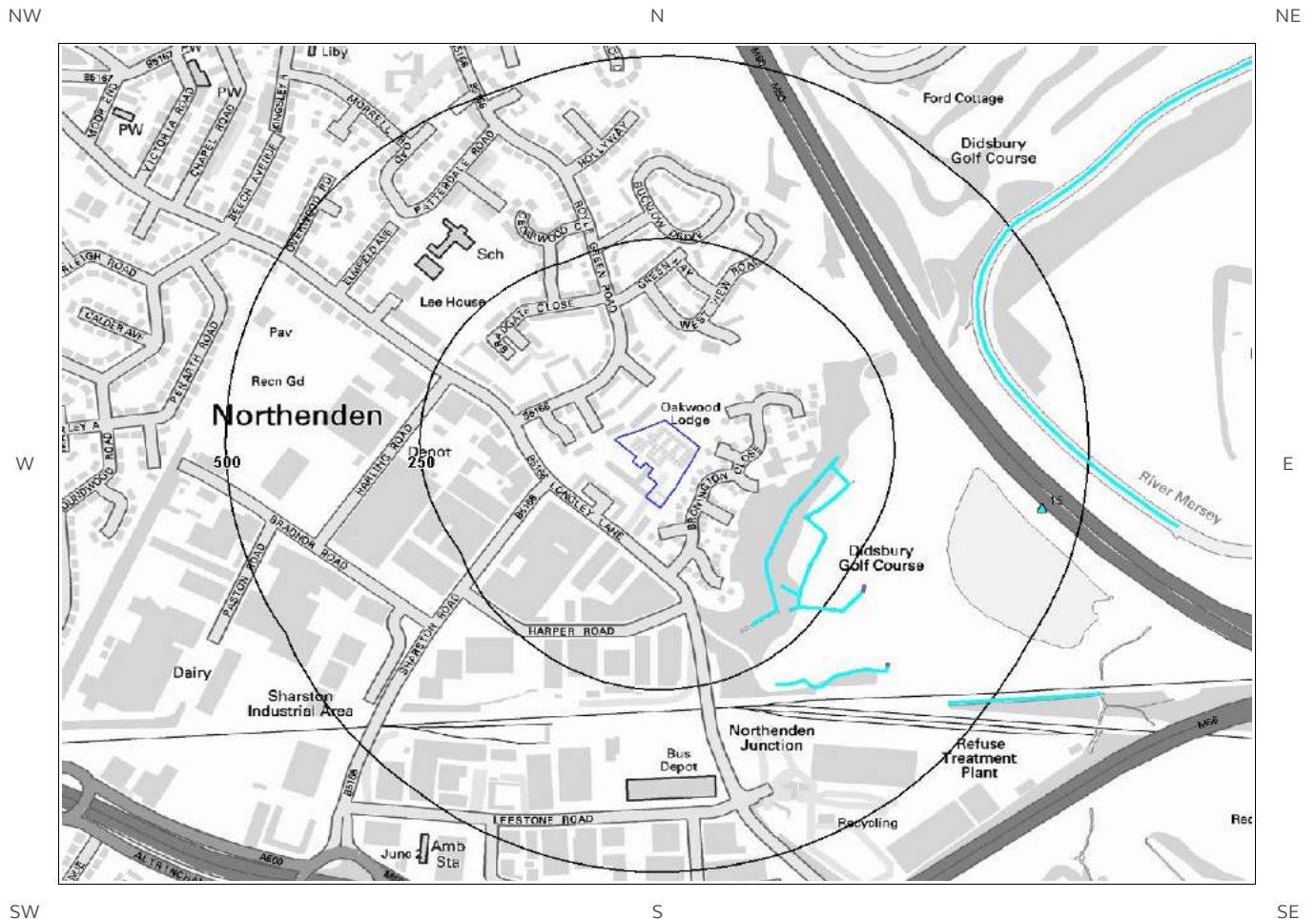
6d. Hydrogeology – Source Protection Zones within confined aquifer



© Crown copyright and database rights 2019
Ordnance Survey licence 100035207.



6e. Hydrology – Watercourse Network and River Quality



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



6. Hydrogeology and Hydrology

6.1 Aquifer within Superficial Deposits

Records of strata classification within the superficial geology at or in proximity to the property Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales'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 Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Superficial Geology Map (6a):

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
3	60	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
2	478	N	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
4	478	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

6.2 Aquifer within Bedrock Deposits

Records of strata classification within the bedrock geology at or in proximity to the property Yes

From 1 April 2010, the Environment Agency/Natural Resources Wales'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 Enviro Insight User Guide.

The following aquifer records are shown on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	Designation	Description
1	0	On Site	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers
3	15	W	Secondary B	Predominantly lower permeability layers which may store/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
2	478	N	Principal	Geology of high intergranular and/or fracture permeability, usually providing a high level of water storage and may support water supply/river base flow on a strategic scale. Generally principal aquifers were previously major aquifers

6.3 Groundwater Abstraction Licences

Groundwater Abstraction Licences within 2000m of the study site

Identified

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details
Not shown	578	S	383610 388860	Status: Historical Licence No: 2569014037 Details: Laundry Use Direct Source: Ground Water - North West Region Point: "UNDERGROUND STRATA: BOREHOLE AT SHARSTON, MANCHESTER" Data Type: Point Name: MR KHALID SALEEM Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 15/11/2002 Expiry Date: 31-Mar-18 Issue No: 1 Version Start Date: 15/11/2002 Version End Date:
Not shown	578	S	383610 388860	Status: Historical Licence No: 2569014037 Details: Laundry Use Direct Source: Ground Water - North West Region Point: UNDERGROUND STRATA: BOREHOLE AT SHARSTON, MANCHESTER Data Type: Point Name: MR KHALID SALEEM Annual Volume (m³): 20975 Max Daily Volume (m³): 80.67 Original Application No: - Original Start Date: 15/11/2002 Expiry Date: 31/03/2018 Issue No: 1 Version Start Date: 15/11/2002 Version End Date:
Not shown	1088	NE	383950 390470	Status: Historical Licence No: 2569015006 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: "BOREHOLE AT DIDSBUY GOLF CLUB, NORTHENDEN, WYTHENSHAW," Data Type: Point Name: DIDSBUY GOLF CLUB LTD Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 22/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 24/12/1992 Version End Date:
Not shown	1088	NE	383950 390470	Status: Historical Licence No: 2569015006 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT DIDSBUY GOLF CLUB, NORTHENDEN, WYTHENSHAW, Data Type: Point Name: DIDSBUY GOLF CLUB LTD Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 22/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 24/12/1992 Version End Date:
Not shown	1088	NE	383950 390470	Status: Active Licence No: 2569015006 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: BOREHOLE AT DIDSBUY GOLF CLUB NORTHENDEN WYTHENSHAW Data Type: Point Name: DIDSBUY GOLF CLUB LTD Annual Volume (m³): 9092 Max Daily Volume (m³): 68.19 Original Application No: - Original Start Date: 22/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/04/2008 Version End Date:
Not shown	1214	SE	384400 388700	Status: Historical Licence No: 2569014022 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: "WELL AT PREMISES, GATLEY, CHESHIRE" Data Type: Point Name: JEFFERIES Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 03/09/1974 Expiry Date: - Issue No: 101 Version Start Date: 31/01/1997 Version End Date:

ID	Distance (m)	Direction	NGR	Details
Not shown	1214	SE	384400 388700	Status: Historical Licence No: 2569014022 Details: Spray Irrigation - Direct Direct Source: Ground Water - North West Region Point: WELL AT PREMISES, GATLEY, CHESHIRE Data Type: Point Name: JEFFERIES Annual Volume (m³): - Max Daily Volume (m³): - Original Application No: - Original Start Date: 03/09/1974 Expiry Date: - Issue No: 101 Version Start Date: 31/01/1997 Version End Date:

6.4 Surface Water Abstraction Licences

Surface Water Abstraction Licences within 2000m of the study site

Identified

The following Surface Water Abstraction Licences records are represented as points, lines and regions on the Aquifer within Bedrock Geology Map (6b):

ID	Distance (m)	Direction	NGR	Details
Not shown	1677	NW	382650 391020	Status: Historical Licence No: 2569015016 Details: General Washing/Process Washing Direct Source: Surface, Non-Tidal - North West Region Point: RIVER MERSEY AT TRAFFORD, MANCHESTER Data Type: Point Name: AMEC / ALFRED MCALPINE JV Annual Volume (m³): - Max Daily Volume (m³): - Application No: - Original Start Date: 28/11/2003 Expiry Date: 31/12/2006 Issue No: 1 Version Start Date: 28/11/2003 Version End Date:
Not shown	1677	NW	382650 391020	Status: Historical Licence No: 2569015016 Details: Dust suppression Direct Source: Surface, Non-Tidal - North West Region Point: RIVER MERSEY AT TRAFFORD, MANCHESTER Data Type: Point Name: AMEC / ALFRED MCALPINE JV Annual Volume (m³): - Max Daily Volume (m³): - Application No: - Original Start Date: 28/11/2003 Expiry Date: 31/12/2006 Issue No: 1 Version Start Date: 28/11/2003 Version End Date:

6.5 Potable Water Abstraction Licences

Potable Water Abstraction Licences within 2000m of the study site

None identified

Database searched and no data found.

6.6 Source Protection Zones

Source Protection Zones within 500m of the study site

None identified

Database searched and no data found.

6.7 Source Protection Zones within Confined Aquifer

Source Protection Zones within the Confined Aquifer within 500m of the study site None identified

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.

6.8 Groundwater Vulnerability and Soil Leaching Potential

Environment Agency/Natural Resources Wales information on groundwater vulnerability and soil leaching potential within 500m of the study site Identified

Distance (m)	Direction	Classification	Soil Vulnerability Category	Description
0	On Site	Major Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
38	W	Minor Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.
478	N	Major Aquifer/High Leaching Potential	HU	Soil information for urban areas and restored mineral workings. These soils are therefore assumed to be highly permeable in the absence of site-specific information.

6.9 River Quality

Environment Agency/Natural Resources Wales information on river quality within 1500m of the study site Identified

6.9.1 Biological Quality:

Database searched and no data found.

6.9.2 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 (6e):

ID	Distance (m)	Direction	NGR	River Quality Grade	Chemical Quality Grade				
					2005	2006	2007	2008	2009
15	447	E	383900 389400	River Name: Gatley Bk. Reach: Qsl At Heald Green Station To Mersey End/Start of Stretch: End of Stretch NGR	B	B	B	B	B
Not shown	1199	SE	384363 388674	River Name: Gatley Bk. Reach: Qsl At Heald Green Station To Mersey End/Start of Stretch: Sample Point NGR	B	B	B	B	B

6.10 Ordnance Survey MasterMap Water Network

Ordnance Survey MasterMap Water Network entries within 500m of the study site

This watercourse information is provided by Ordnance Survey MasterMap Water Network. The data provides a detailed centre line following the curve of the waterway precisely, so all distances provided in the report should be understood as measurements to the centreline rather than a measurement to the nearest point of the watercourse. Underground watercourses are inferred from entry and exit points so caution is advised in using these to indicate precise locations of underground watercourses when planning site investigation and development.

The following Ordnance Survey MasterMap Water Network records are represented on the Hydrology Map (6e):

ID	Distance/Direction	Name	Type of Watercourse	Additional Details
1	144 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.2
5	144 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.2
2	166 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.4
6	166 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions)

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
				Average Width in Watercourse Section (m): 2.4
3	170 E	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.4
7	170 E	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.4
4	187 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.4
8	187 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.4
5	190 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.1
9	190 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.1
6	216 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.4
7	216 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.4
10	216 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.4
11	216 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.4
8	224 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.3
12	224 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.3

ID	Distance/ Direction	Name	Type of Watercourse	Additional Details
9	278 SE	-	Lake, loch or reservoir.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
13	278 SE	-	Lake, loch or reservoir.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
10	285 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.1
14	285 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.1
11	361 SE	-	Lake, loch or reservoir.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
15	361 SE	-	Lake, loch or reservoir.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
12	363 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
16	363 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: Underground Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): Not Provided
13	392 E	River Mersey	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 16.8
17	392 E	River Mersey	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 16.8
14	457 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.2
Not shown	457 SE	-	Inland river not influenced by normal tidal action.	Catchment Area: Mersey Relationship to Ground Level: On ground surface Permanence: Watercourse contains water year round (in normal conditions) Average Width in Watercourse Section (m): 2.2

6.11 Surface Water Features

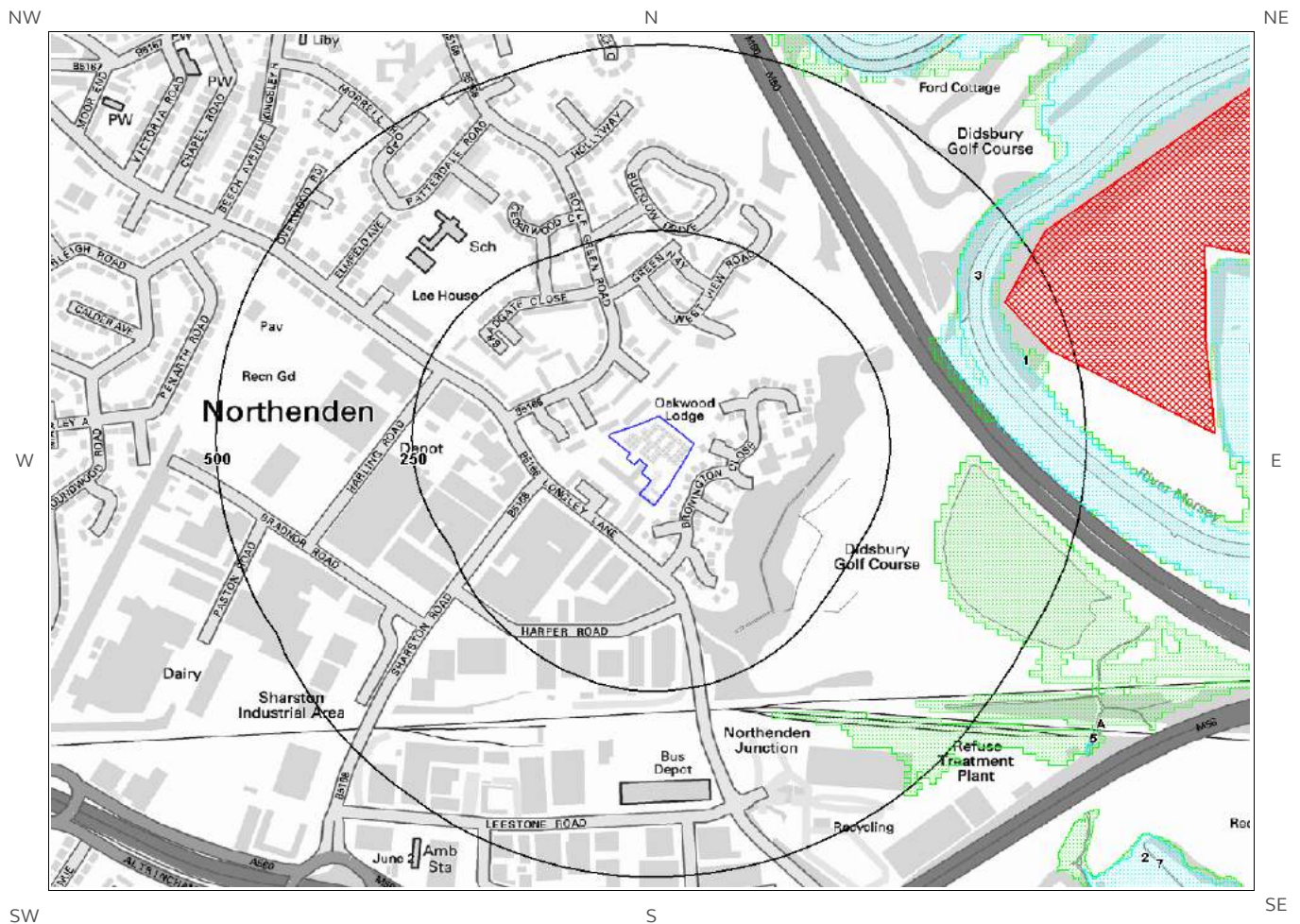
Surface water features within 250m of the study site

Identified

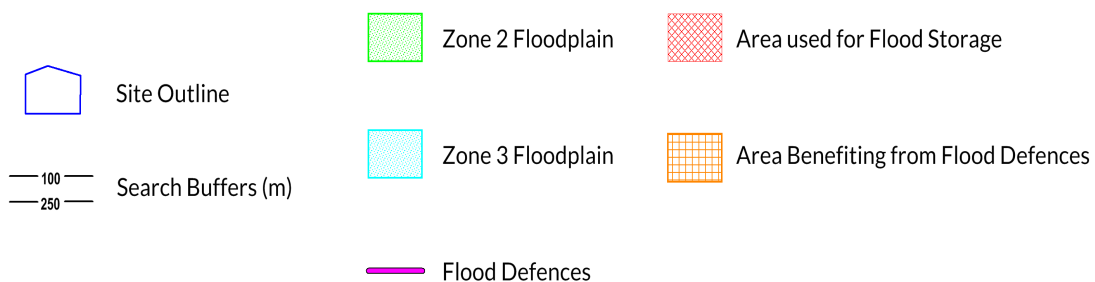
The following surface water records are not represented on mapping:

Distance (m)	Direction
143	SE
167	SE
167	SE
189	SE
216	SE

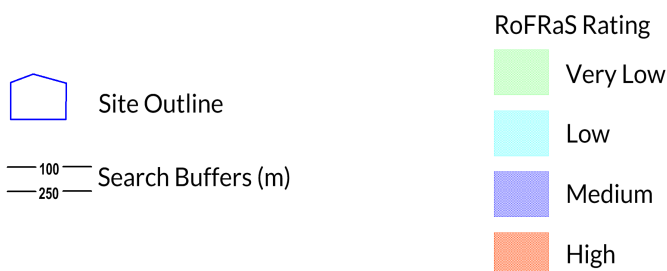
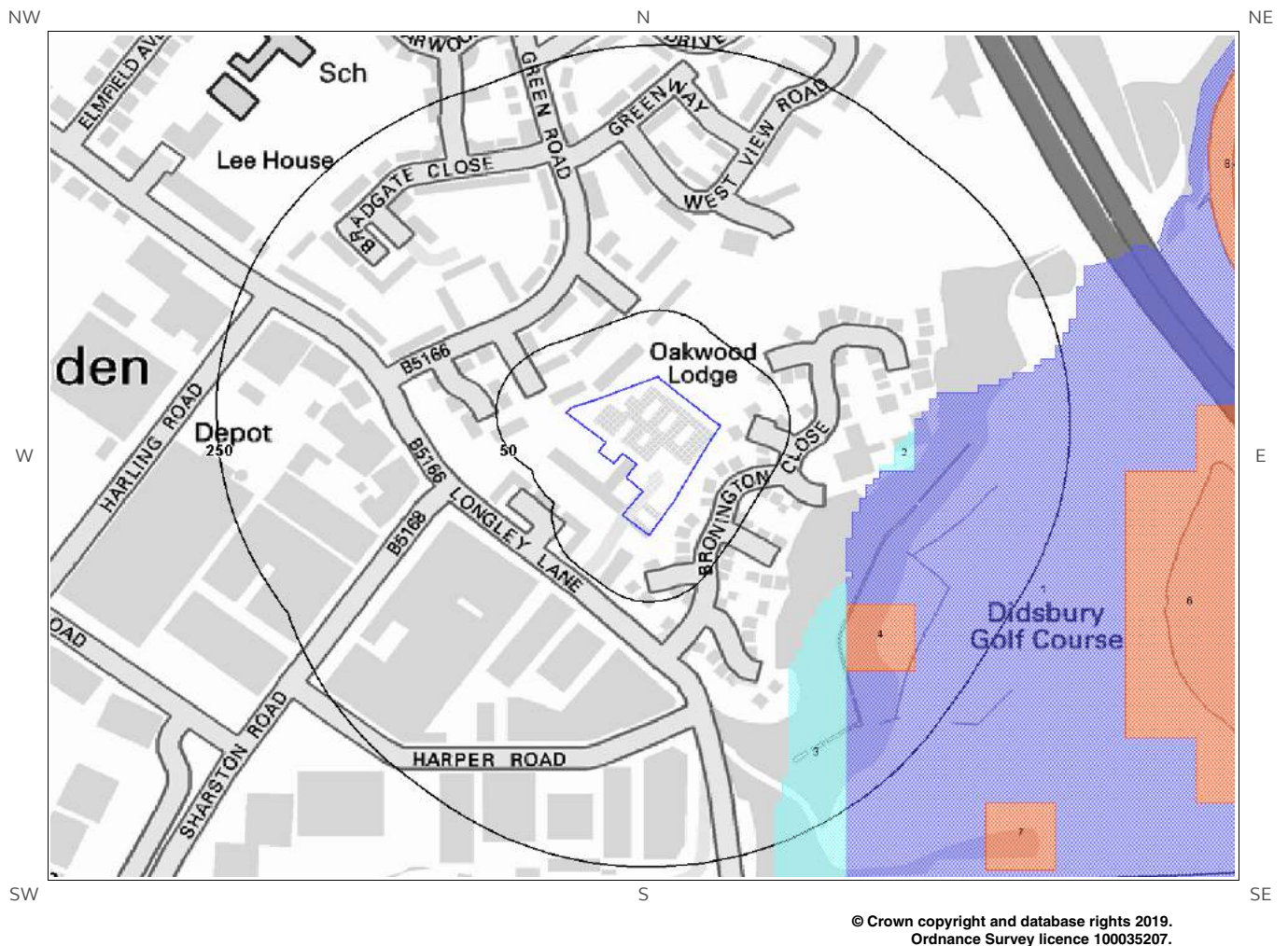
7a. Environment Agency/Natural Resources Wales Flood Map for Planning (from rivers and the sea)



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



7b. Environment Agency/Natural Resources Wales Risk of Flooding from Rivers and the Sea (RoFRaS) Map



7 Flooding

7.1 River and Coastal Zone 2 Flooding

Environment Agency/Natural Resources Wales Zone 2 floodplain within 250m None identified

Environment Agency/Natural Resources Wales 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 7a – Flood Map for Planning:

Database searched and no data found.

7.2 River and Coastal Zone 3 Flooding

Environment Agency/Natural Resources Wales Zone 3 floodplain within 250m None identified

Zone 3 shows the extent of a river flood with a 1 in 100 (1%) or greater chance of occurring in any year or a sea flood with a 1 in 200 (0.5%) or greater chance of occurring in any year. Any relevant data is represented on Map 7a – Flood Map for Planning.

Database searched and no data found.

7.3 Risk of Flooding from Rivers and the Sea (RoFRaS) Flood Rating

Highest risk of flooding onsite Very Low

The Environment Agency/Natural Resources Wales RoFRaS database provides an indication of river and coastal flood risk at a national level on a 50m grid with the flood rating at the centre of the grid calculated and given above. The data considers the probability that the flood defences will overtop or breach by considering their location, type, condition and standard of protection.

RoFRaS data for the study site indicates the property is in an area with a Very Low (less than 1 in 1000) chance of flooding in any given year.

7.4 Flood Defences

Flood Defences within 250m of the study site None identified
Database searched and no data found.

7.5 Areas benefiting from Flood Defences

Areas benefiting from Flood Defences within 250m of the study site None identified

7.6 Areas benefiting from Flood Storage

Areas used for Flood Storage within 250m of the study site

None identified

7.7 Groundwater Flooding Susceptibility Areas

7.7.1 British Geological Survey groundwater flooding susceptibility areas within 50m of the boundary of the study site

Identified

Clearwater Flooding or Superficial Deposits Flooding

Clearwater Flooding

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).

7.7.2 Highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions

Limited potential

Where limited potential for groundwater flooding to occur is indicated, this means that although given the geological conditions there may be a groundwater flooding hazard, unless other relevant information, e.g. records of previous flooding, suggests groundwater flooding has occurred before in this area, you need take no further action in relation to groundwater flooding hazard.

7.8 Groundwater Flooding Confidence Areas

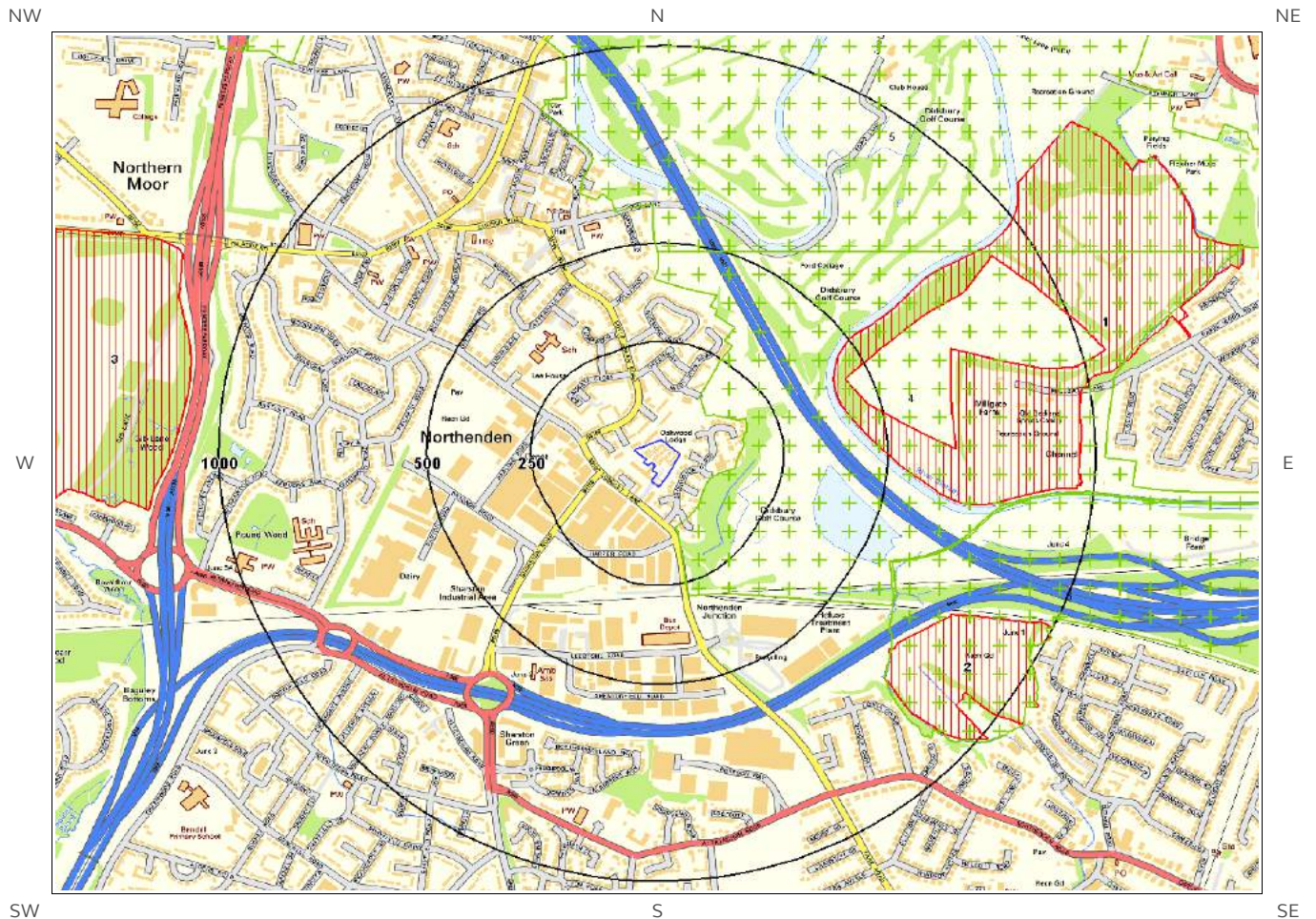
British Geological Survey confidence rating in this result

Low

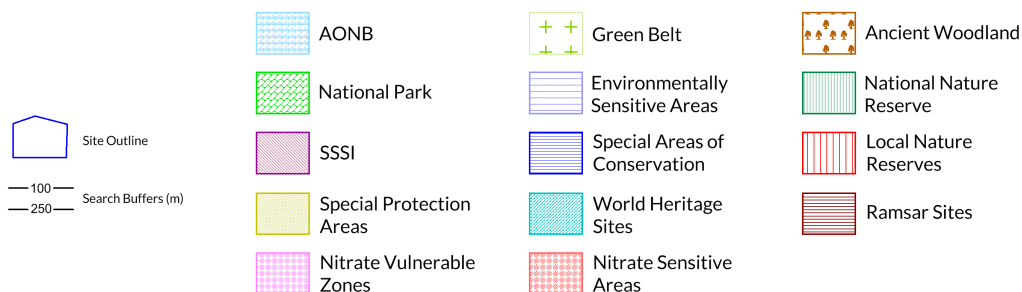
Notes: Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

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.

8. Designated Environmentally Sensitive Sites Map



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



8. Designated Environmentally Sensitive Sites

Designated Environmentally Sensitive Sites within 2000m of the study site	Identified
---	------------

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

3

The following Local Nature Reserve (LNR) records provided by Natural England/Natural Resources Wales are represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance (m)	Direction	LNR Name	Data Source
1	407	E	Stenner Woods and Milgate Fields, Didsbury	Natural England
2	689	SE	Gatley Carrs	Natural England
3	1083	W	Wythenshawe Park	Natural England

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

0

Database searched and no data found.

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

0

Database searched and no data found.

8.10 Records of Areas of Outstanding Natural Beauty (AONB) within 2000m of the study site:

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

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

0

Database searched and no data found.

8.14 Records of Green Belt land within 2000m of the study site:

5

Green Belt data contains Ordnance Survey data © Crown copyright and database right [2015].

ID	Distance	Direction	Green Belt Name	Local Authority Name
4	91	SE	Liverpool, Manchester and West Yorks Greenbelt	Manchester District (B)
5	478	N	Liverpool, Manchester and West Yorks Greenbelt	Manchester District (B)
6	579	SE	Liverpool, Manchester and West Yorks Greenbelt	Stockport District (B)
Not shown	1658	S	Liverpool, Manchester and West Yorks Greenbelt	Manchester District (B)
Not shown	1823	S	Liverpool, Manchester and West Yorks Greenbelt	Stockport District (B)

9. Natural Hazards Findings

9.1 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 Geo Insight**, available from our **website**. The following information has been found:

9.1.1 Shrink Swell

Maximum Shrink-Swell** 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
Ground conditions predominantly non-plastic. 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 likely due to potential problems with shrink-swell clays.

9.1.2 Landslides

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.

9.1.3 Soluble Rocks

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.

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

9.1.4 Compressible Ground

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.

9.1.5 Collapsible Rocks

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.

9.1.6 Running Sand

Maximum Running Sand** 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
Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. 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.

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

9.2 Radon

9.2.1 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 site is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

The radon data in this report is supplied by the BGS/Public Health England and is the definitive map of Radon Affected Areas in Great Britain and Northern Ireland. The dataset was created using long-term radon measurements in over 479,000 homes across Great Britain and 23,000 homes across Northern Ireland, combined with geological data. The dataset is considered accurate to 50m to allow for the margin of error in geological lines, and the findings of this report supercede any answer given in the less accurate Indicative Atlas of Radon in Great Britain, which simplifies the data to give the highest risk within any given 1km grid square. As such, the radon atlas is considered indicative, whereas the data given in this report is considered definitive.

9.2.2 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.

10. Mining

10.1 Coal Mining

Coal mining areas within 75m of the study site

None identified

Database searched and no data found.

10.2 Non-Coal Mining

Non-Coal Mining areas within 50m of the study site boundary

None identified

Database searched and no data found.

10.3 Brine Affected Areas

Brine affected areas within 75m of the study site

None identified

Guidance: No Guidance Required.

Contact Details

Groundsure Helpline
Telephone: 08444 159 000
info@groundsure.com

British Geological Survey Enquiries

Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143.
Fax: 0115 936 3276.
Email:

Web: www.bgs.ac.uk

BGS Geological Hazards Reports and general geological enquiries:
enquiries@bgs.ac.uk

Environment Agency

National Customer Contact Centre, PO Box 544
Rotherham, S60 1BY
Tel: 03708 506 506

Web: www.environment-agency.gov.uk

Email: enquiries@environment-agency.gov.uk

Public Health England

Public information access office
Public Health England, Wellington House
133-155 Waterloo Road, London, SE1 8UG
www.gov.uk/phe

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: Manchester City Council
Phone: 0161 234 5000
Web: <http://www.manchester.gov.uk/>
Address: , Manchester, M60 2LA

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/Natural Resources Wales 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.

Standard Terms and Conditions

Groundsure's Terms and Conditions can be viewed online at this link:

<https://www.groundsure.com/terms-and-conditions-feb11-2019>

Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: County Series

Map date: 1849

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1845
Revised 1849
Edition 1849
Copyright N/A
Levelled N/A

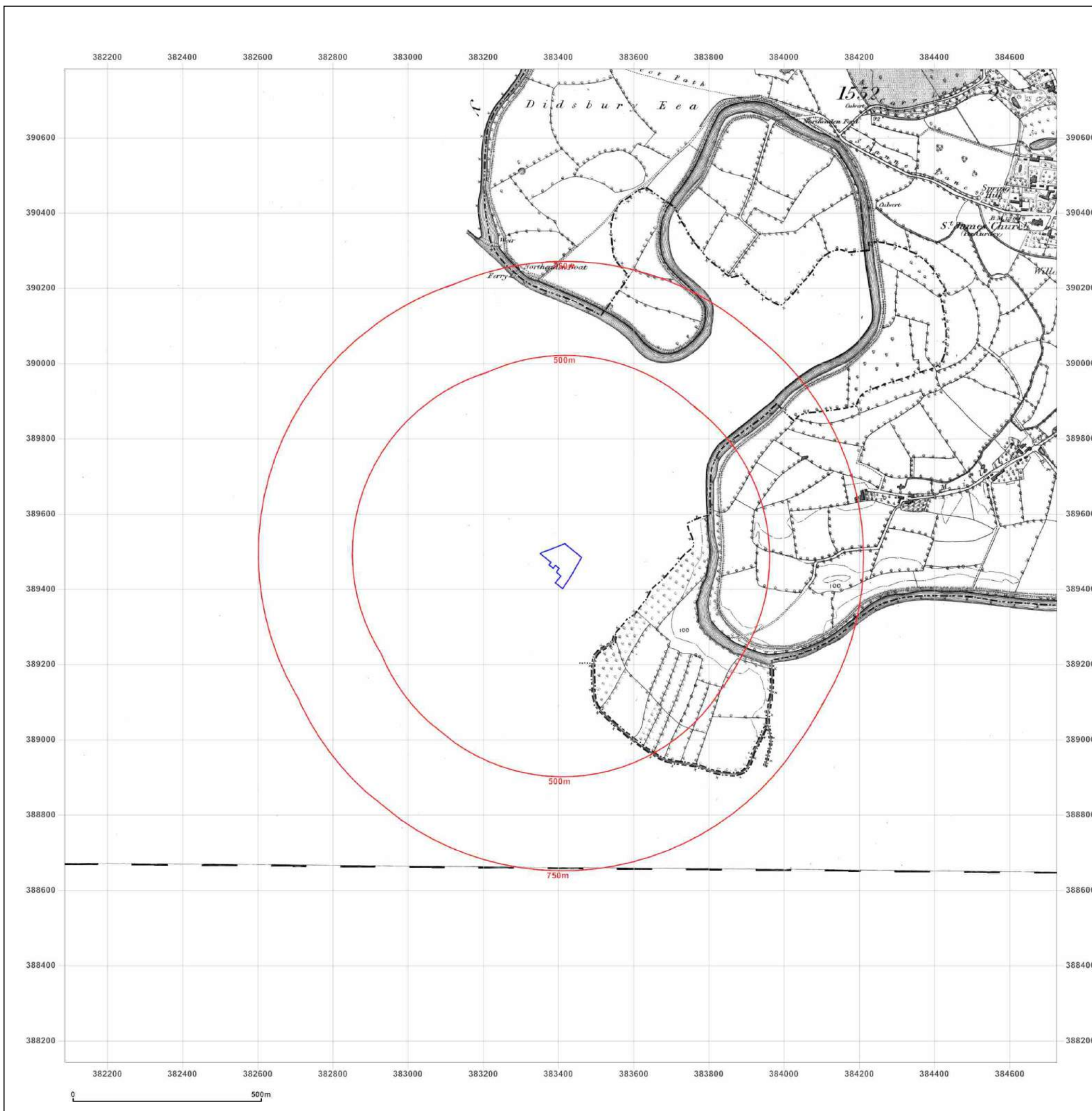


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: County Series

Map date: 1892-1893

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1892
Revised 1892
Edition 1892
Copyright N/A
Levelled N/A

Surveyed 1893
Revised 1893
Edition 1893
Copyright N/A
Levelled N/A

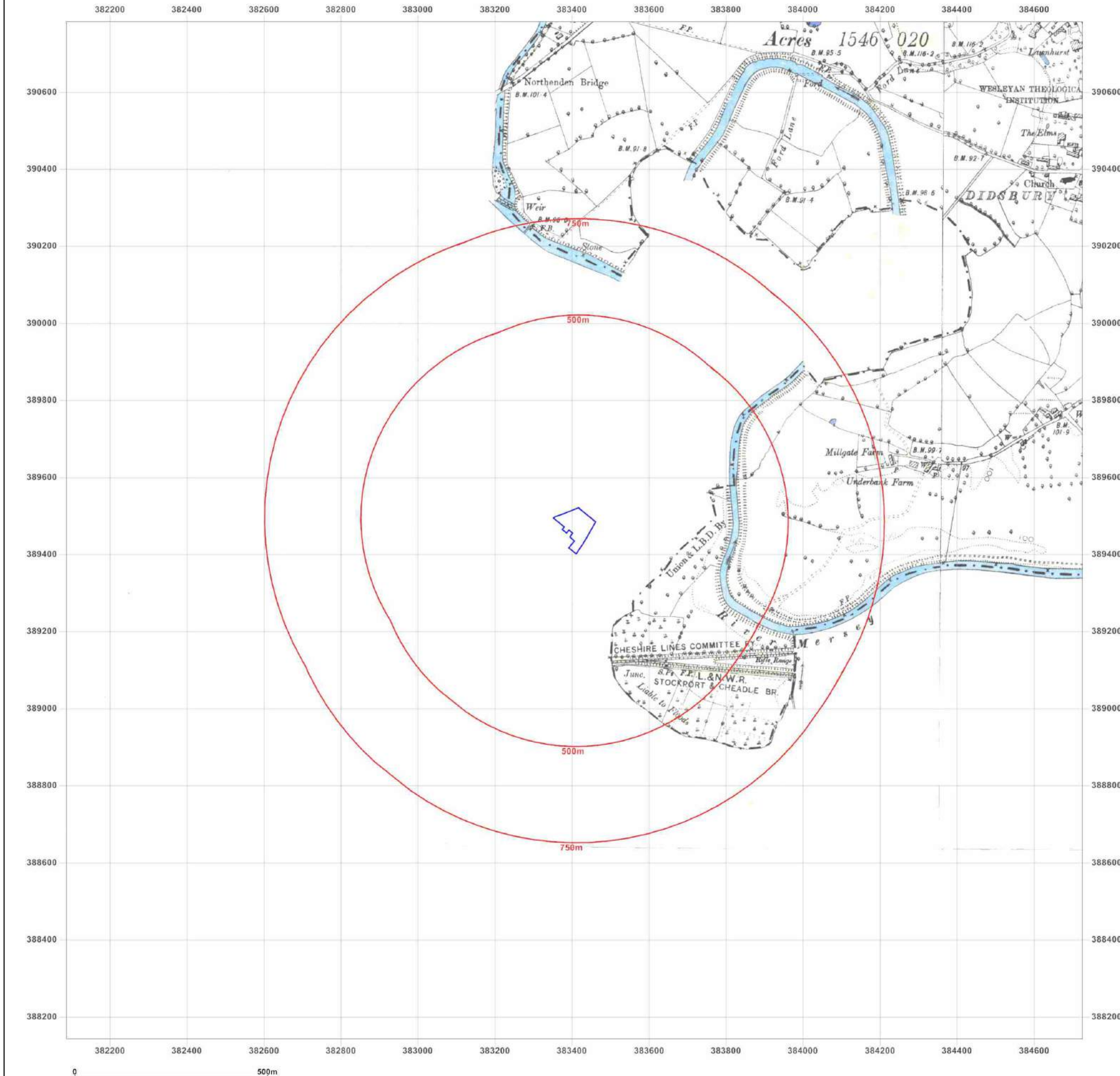


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: County Series

Map date: 1897

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1876
Revised 1897
Edition 1897
Copyright N/A
Levelled N/A

Surveyed 1876
Revised 1897
Edition 1897
Copyright N/A
Levelled N/A

Surveyed 1876
Revised 1897
Edition 1897
Copyright N/A
Levelled N/A

Surveyed 1876
Revised 1897
Edition 1897
Copyright N/A
Levelled N/A

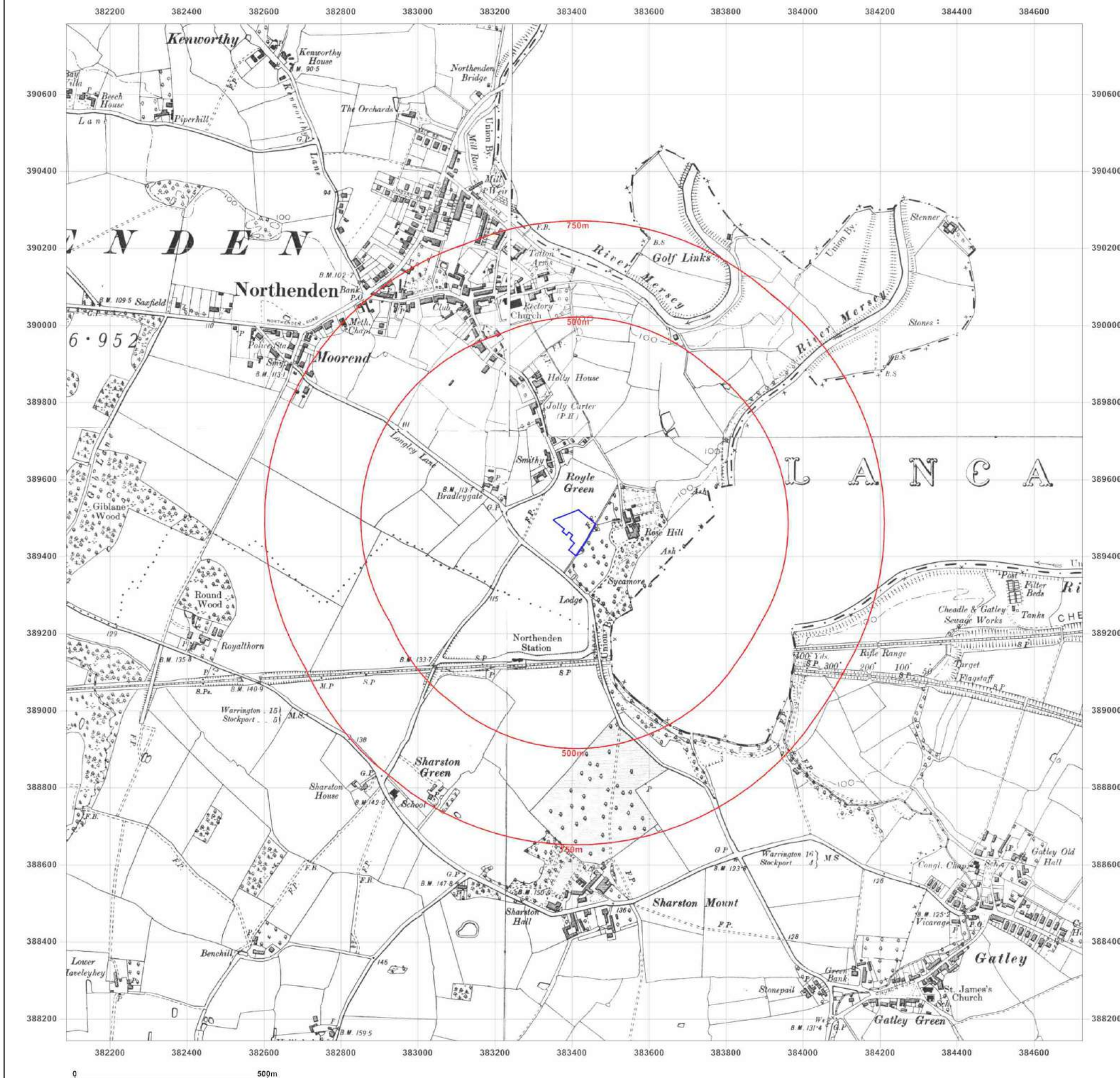


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: County Series

Map date: 1905-1908

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1844
Revised 1905
Edition 1905
Copyright N/A
Levelled N/A

Surveyed 1873
Revised 1907
Edition 1907
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1908
Edition 1908
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: County Series

Map date: 1907-1911

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1873
Revised 1908
Edition 1908
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1908
Edition 1911
Copyright N/A
Levelled N/A

Surveyed 1873
Revised 1907
Edition 1907
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1908
Edition 1911
Copyright N/A
Levelled N/A

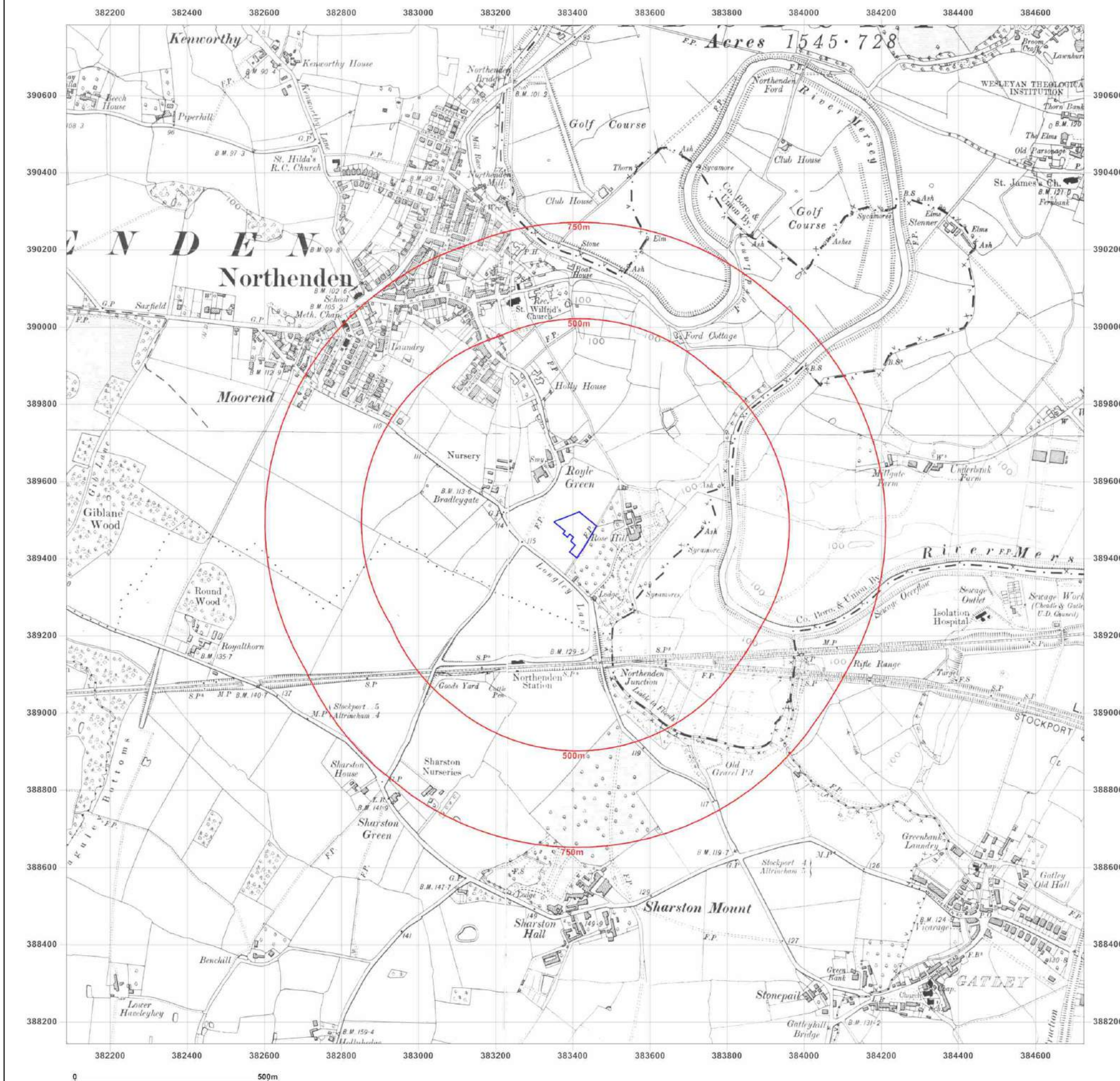


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: County Series

Map date: 1907-1911

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1873
Revised 1908
Edition 1911
Copyright N/A
Levelled N/A

Surveyed 1844
Revised 1904
Edition 1911
Copyright N/A
Levelled N/A

Surveyed 1873
Revised 1907
Edition 1907
Copyright N/A
Levelled N/A

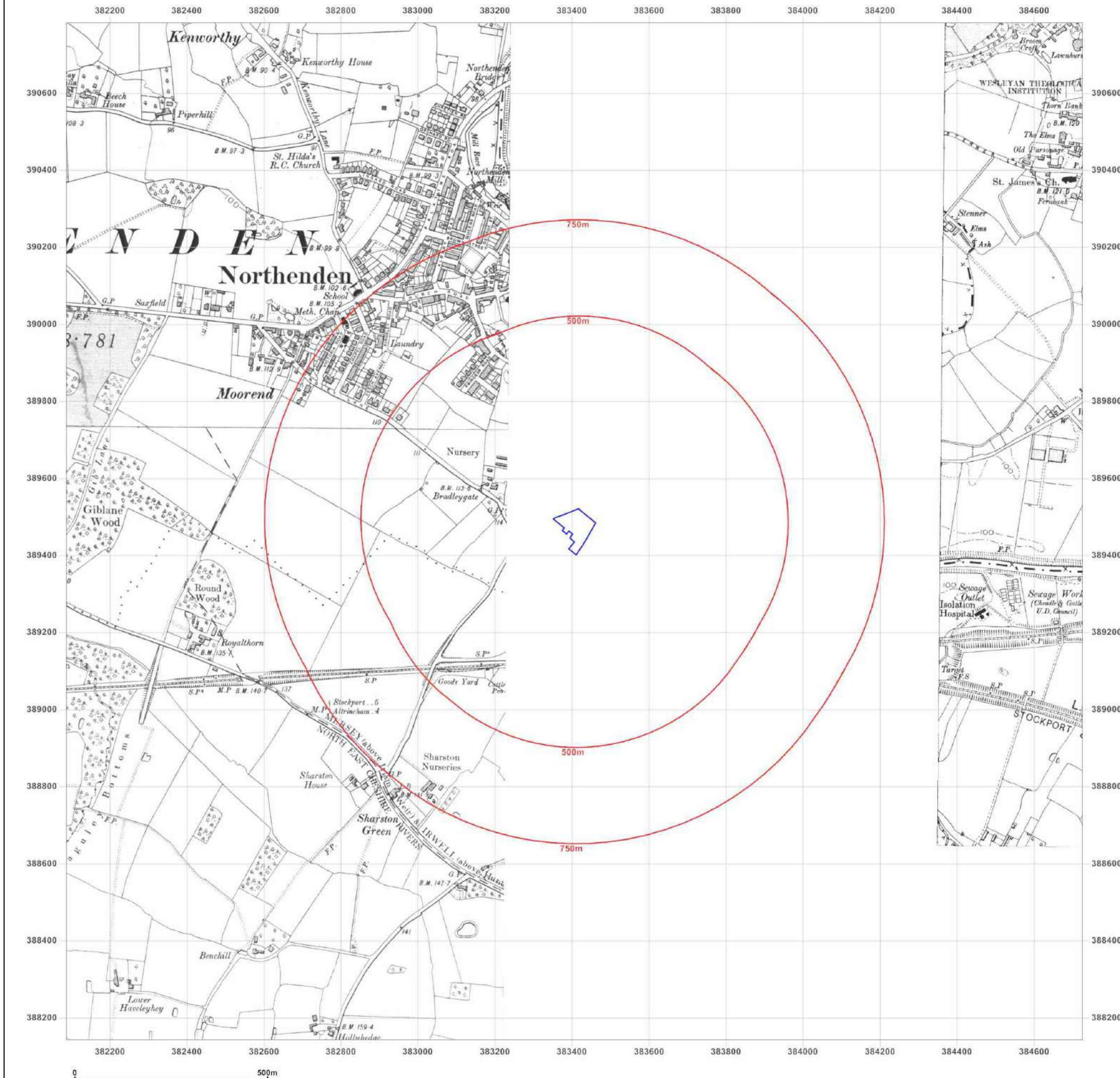


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: County Series

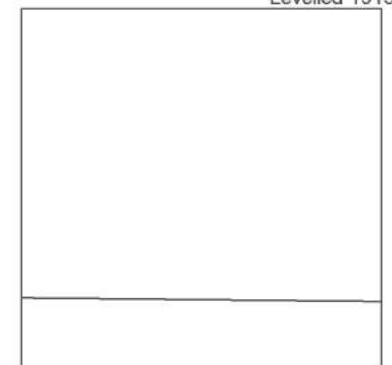
Map date: 1923

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1844
Revised 1916
Edition 1923
Copyright N/A
Levelled 1915

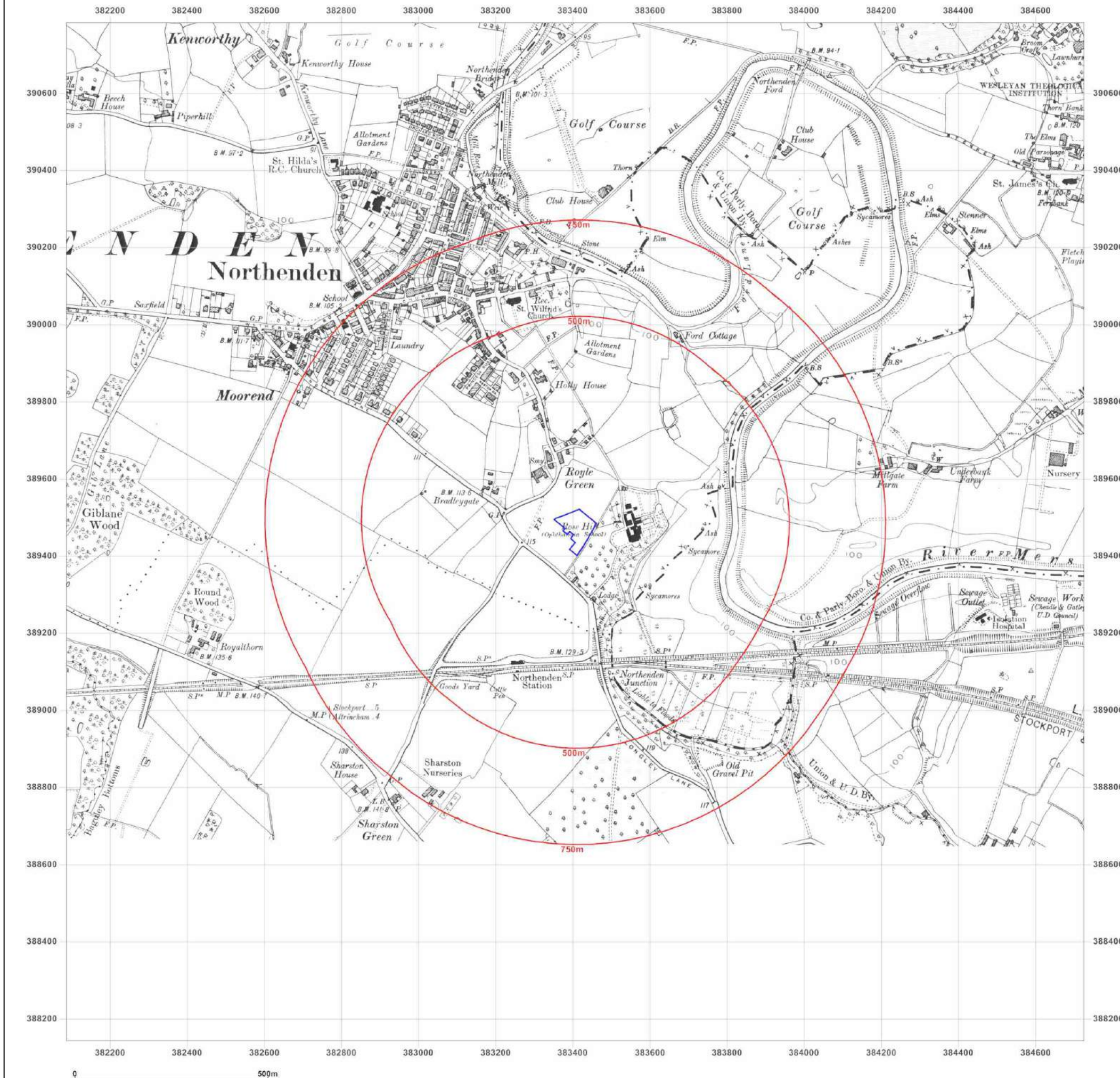


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: County Series

Map date: 1923

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1844
Revised 1916
Edition 1923
Copyright N/A
Levelled 1915

Surveyed 1844
Revised 1916
Edition 1923
Copyright N/A
Levelled 1915

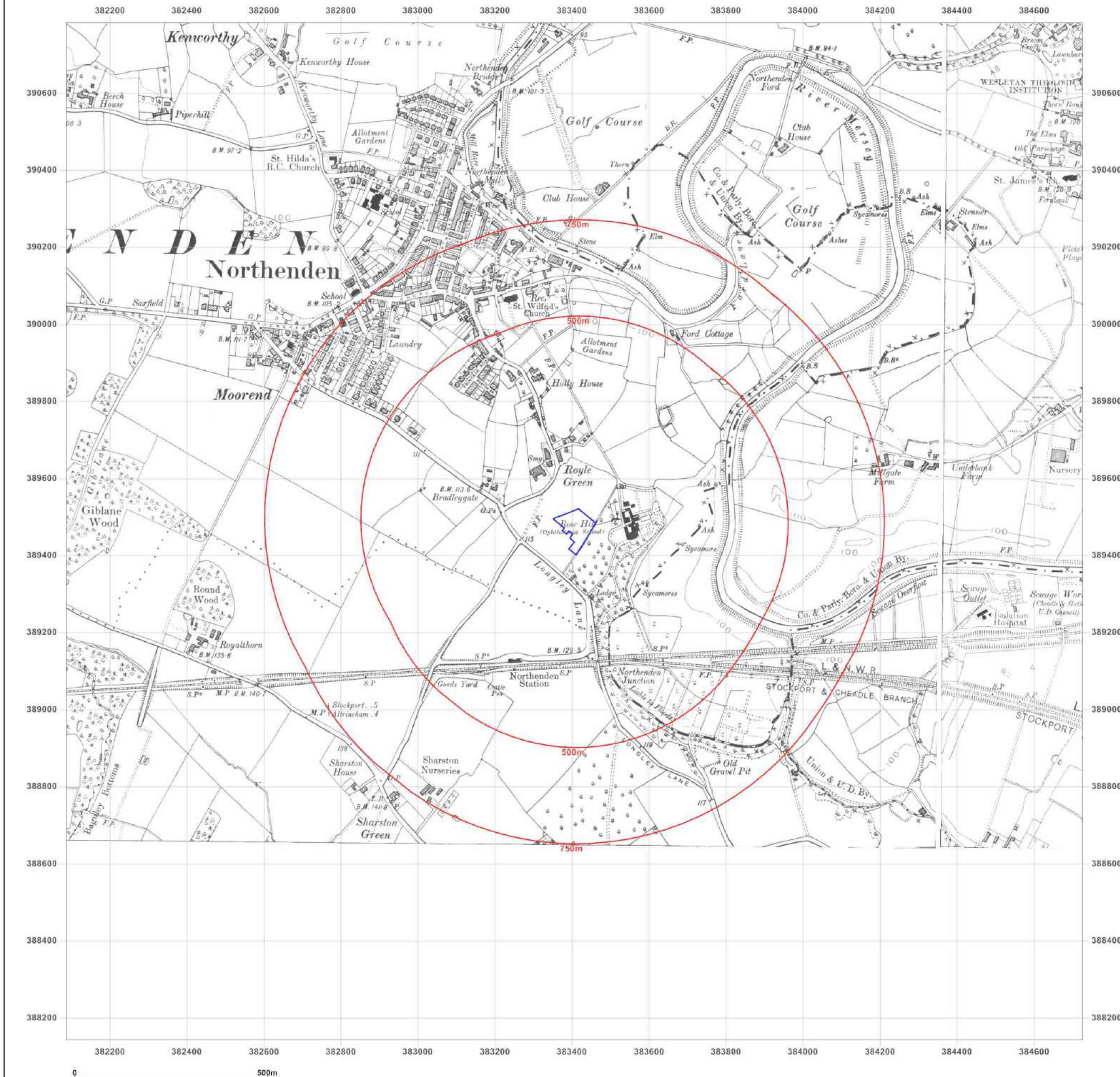


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: County Series

Map date: 1934-1938

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1844
Revised 1938
Edition 1938
Copyright N/A
Levelled 1927

Surveyed 1844
Revised 1934
Edition 1934
Copyright N/A
Levelled 1927

Surveyed 1873
Revised 1938
Edition 1938
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1938
Edition 1938
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: County Series

Map date: 1935-1938

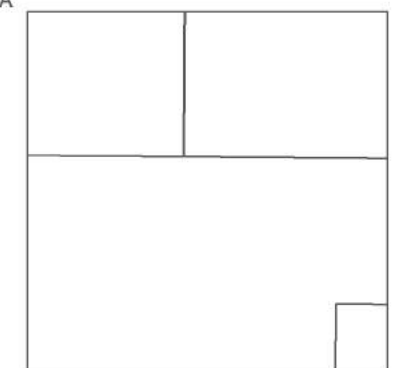
Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1873
Revised 1938
Edition 1938
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1938
Edition 1938
Copyright N/A
Levelled N/A



Surveyed 1872
Revised 1935
Edition N/A
Copyright N/A
Levelled N/A

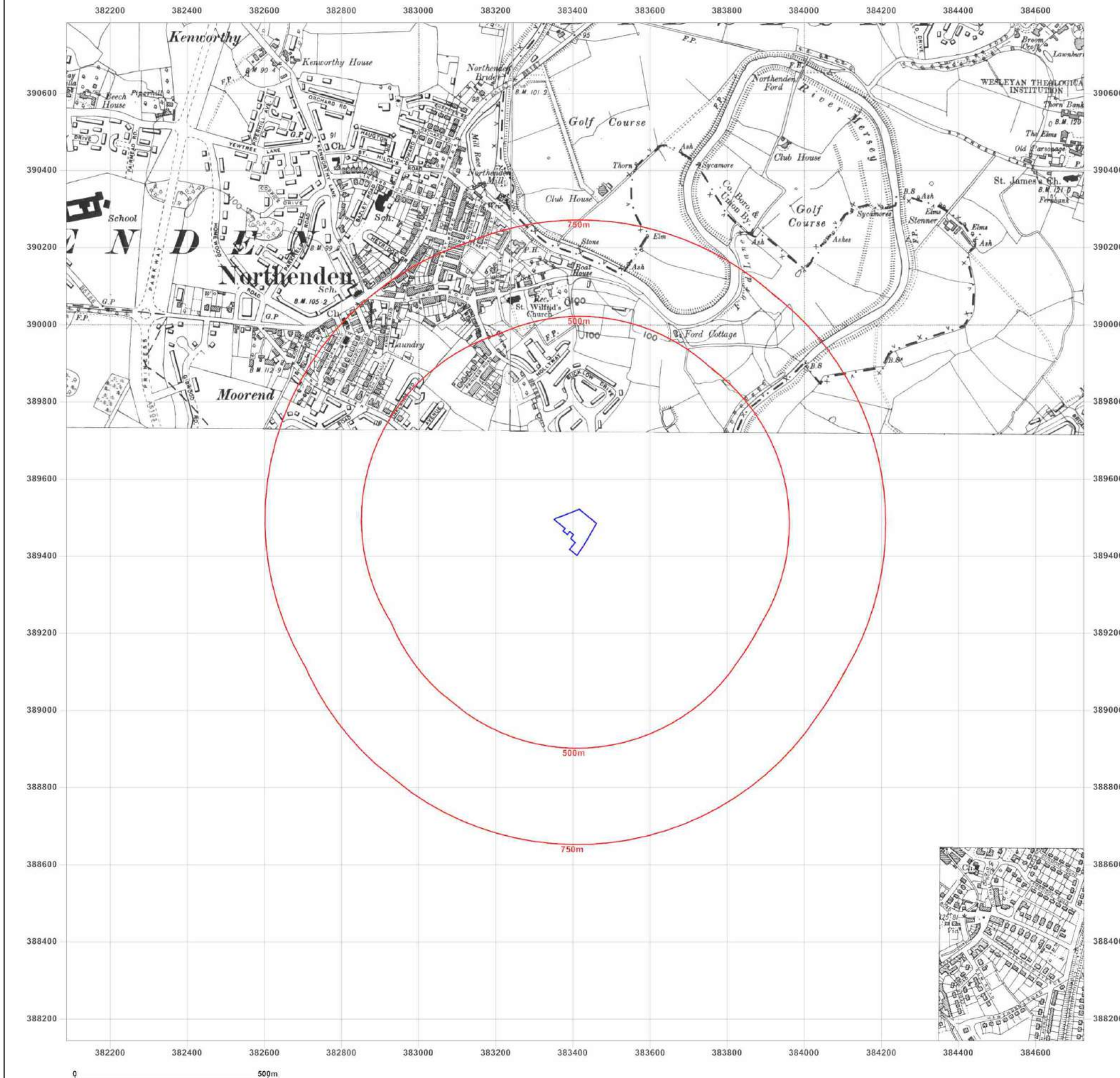


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: Provisional

Map date: 1954-1955

Scale: 1:10,560

Printed at: 1:10,560



Surveyed N/A
Revised 1955
Edition N/A
Copyright 1955
Levelled N/A

Surveyed 1949
Revised 1954
Edition N/A
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: Provisional

Map date: 1966-1967

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1966
Revised 1966
Edition N/A
Copyright 1966
Levelled N/A

Surveyed 1967
Revised 1967
Edition N/A
Copyright 1967
Levelled N/A

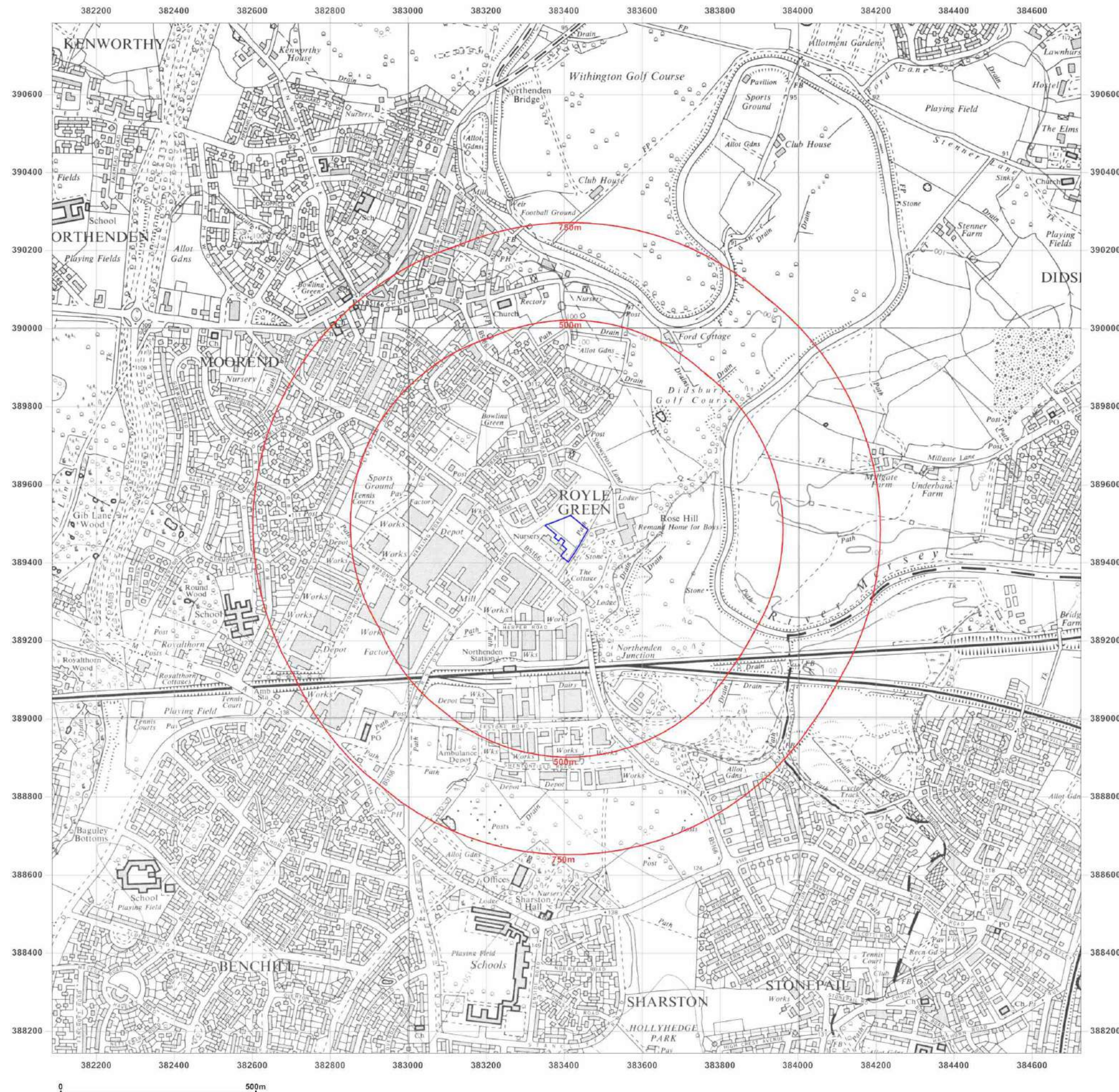


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: National Grid

Map date: 1977-1981

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1977
Revised 1981
Edition N/A
Copyright 1981
Levelled 1976

Surveyed 1975
Revised 1977
Edition N/A
Copyright 1977
Levelled 1964



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: National Grid

Map date: 1988-1989

Scale: 1:10,000

Printed at: 1:10,000



Surveyed 1985
Revised 1988
Edition N/A
Copyright 1988
Levelled 1981

Surveyed 1984
Revised 1989
Edition N/A
Copyright 1989
Levelled 1981



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: 1:10,000 Raster

Map date: 2002

Scale: 1:10,000

Printed at: 1:10,000



2002



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

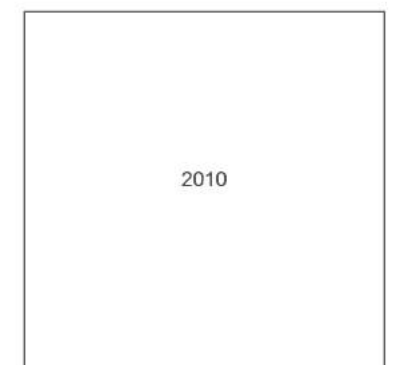
Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: National Grid

Map date: 2010

Scale: 1:10,000

Printed at: 1:10,000

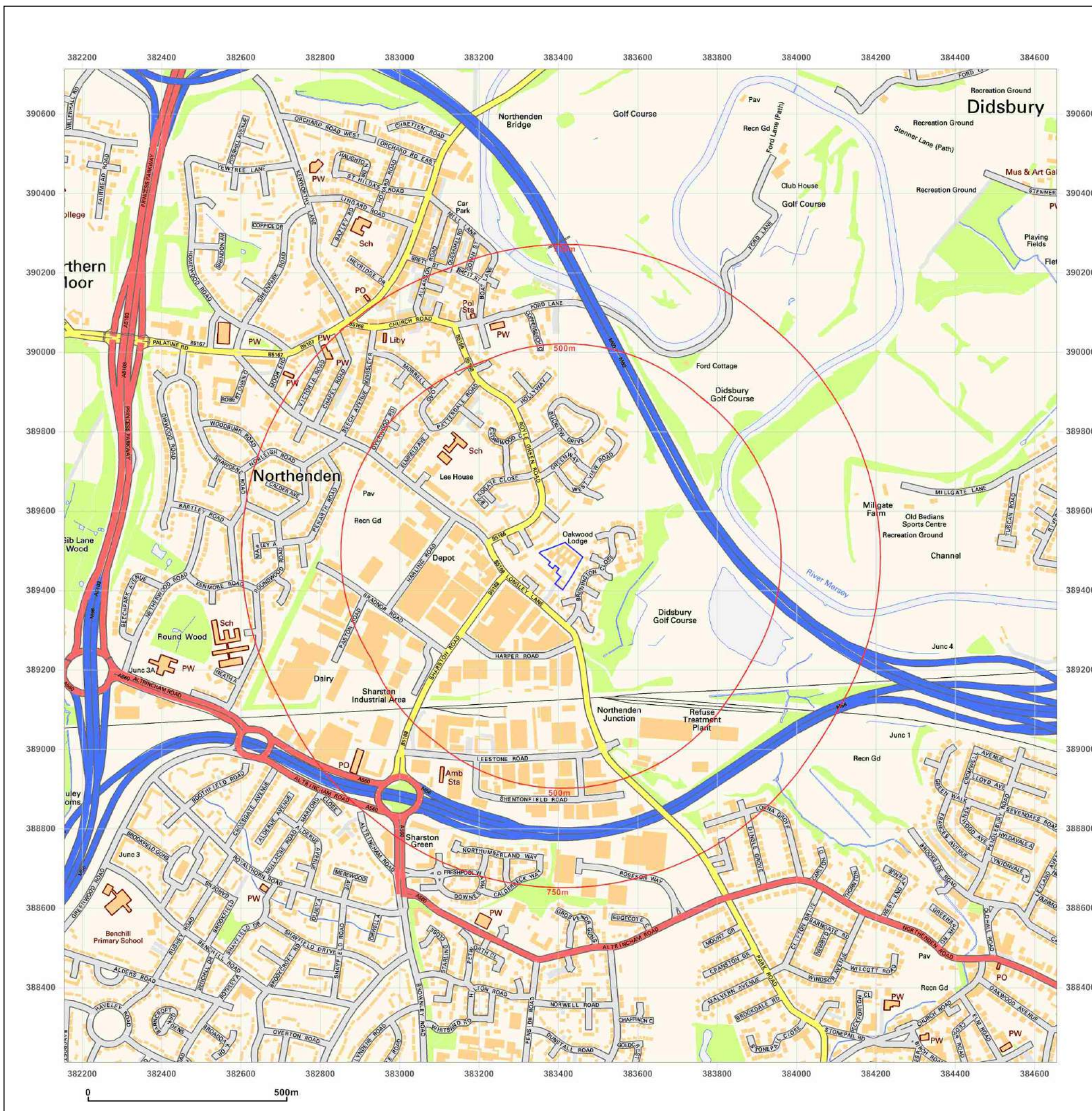


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

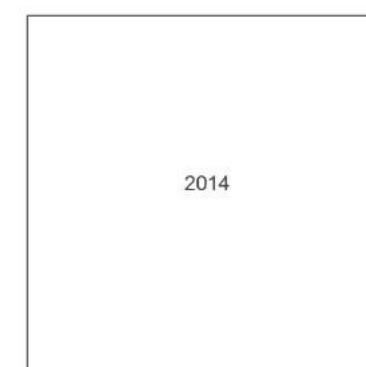
Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: National Grid

Map date: 2014

Scale: 1:10,000

Printed at: 1:10,000

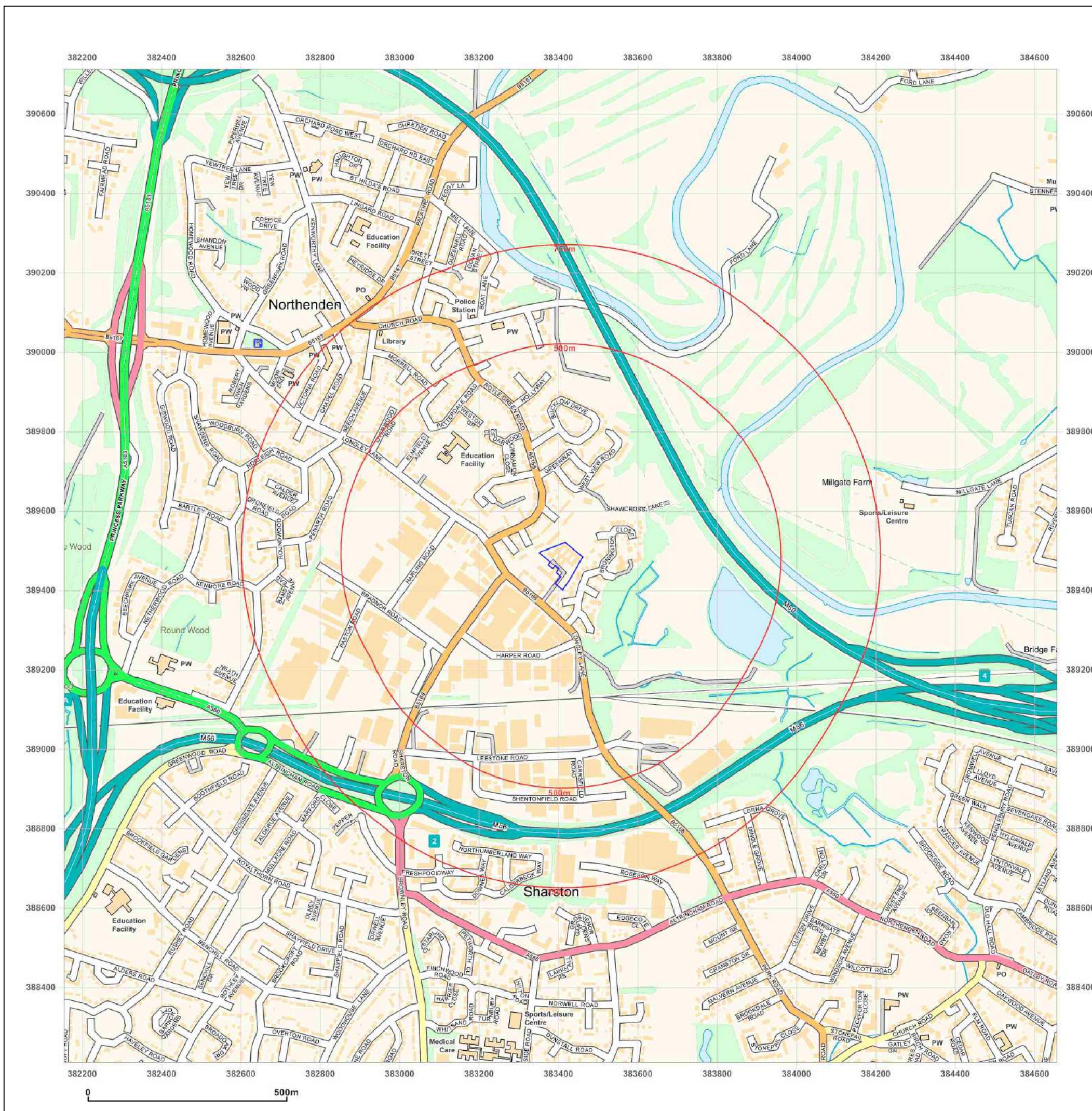


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



WML Consulting	Groundsure Reference:	GS-6176286
UNIT 8 WRIGHT MOTTERSHAW LYDON CONSULTING LTD, STANLEY GREEN BUSINESS PARK, CHEADLE/CHEADLE HULME, SK8 6QL	Your Reference:	8928G_-_Oakwood
	Report Date	16 Jul 2019
	Report Delivery Method:	Email - pdf

Geo Insight

Address: LONGLEY LANE, MANCHESTER, M22 4LA

Dear Sir/ Madam,

Thank you for placing your order with Groundsure. Please find enclosed the **Groundsure Geo Insight** as requested.

If you need any further assistance, please do not hesitate to contact our helpline on 08444 159000 quoting the above Groundsure reference number.

Yours faithfully,



Managing Director
Groundsure Limited

Enc.
Groundsure Geo Insight

Address: LONGLEY LANE, MANCHESTER, M22 4LA

Date: 16 Jul 2019

Reference: GS-6176286

Client: WML Consulting



Aerial Photograph Capture date: 21-Apr-2016
Grid Reference: 383410,389477
Site Size: 0.6034ha

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).....	10
1. Geology 1:10,000 scale.....	11
1.1 Artificial Ground.....	11
1.2 Superficial Deposits and Landslips map (1:10,000 scale).....	12
1.2 Superficial Deposits and Landslips.....	13
1.2.1 Superficial Deposits/ Drift Geology.....	13
1.2.2 Landslip.....	13
1.3 Bedrock and linear features map (1:10,000 scale).....	14
1.3 Bedrock and linear features.....	15
1.3.1 Bedrock/ Solid Geology.....	15
1.3.2 Linear features.....	15
2 Geology 1:50,000 Scale.....	16
2.1 Artificial Ground map.....	16
2. Geology 1:50,000 scale.....	17
2.1 Artificial Ground.....	17
2.1.1 Artificial/ Made Ground	17
2.1.2 Permeability of Artificial Ground.....	17
2.2 Superficial Deposits and Landslips map (1:50,000 scale).....	18
2.2 Superficial Deposits and Landslips.....	19
2.2.1 Superficial Deposits/ Drift Geology.....	19
2.2.2 Permeability of Superficial Ground	19
2.2.3 Landslip.....	20
2.2.4 Landslip Permeability.....	20
2.3 Bedrock and linear features map (1:50,000 scale).....	21
2.3 Bedrock, Solid Geology & linear features.....	22
2.3.1 Bedrock/Solid Geology.....	22
2.3.2 Permeability of Bedrock Ground.....	22
2.3.3 Linear features.....	22
3 Radon Data.....	23
3.1 Radon Affected Areas.....	23
3.2 Radon Protection.....	23
4 Ground Workings map.....	24
4 Ground Workings.....	25
4.1 Historical Surface Ground Working Features derived from Historical Mapping.....	25
4.2 Historical Underground Working Features derived from Historical Mapping.....	26
4.3 Current Ground Workings.....	26
5 Mining, Extraction & Natural Cavities.....	28
5.1 Historical Mining.....	28
5.2 Coal Mining.....	28
5.3 Johnson Poole and Bloomer.....	28
5.4 Non-Coal Mining.....	28
5.5 Non-Coal Mining Cavities.....	29
5.6 Natural Cavities.....	29
5.7 Brine Extraction.....	29
5.8 Gypsum Extraction.....	29
5.9 Cornwall and Devon Metalliferous Mining.....	29
5.10 Clay Mining.....	30
6 Natural Ground Subsidence.....	31
6.1 Shrink-Swell Clay map.....	31
6.2 Landslides map.....	32
6.3 Ground Dissolution of Soluble Rocks map.....	33
6.4 Compressible Deposits map.....	34
6.5 Collapsible Deposits map.....	35
6.6 Running Sand map.....	36

6 Natural Ground Subsidence.....	37
6.1 Shrink-Swell Clays.....	37
6.2 Landslides.....	37
6.3 Ground Dissolution of Soluble Rocks.....	37
6.4 Compressible Deposits.....	38
6.5 Collapsible Deposits.....	38
6.6 Running Sands.....	38
7 Borehole Records.....	40
8 Estimated Background Soil Chemistry.....	41
9 Railways and Tunnels map.....	42
9 Railways and Tunnels.....	43
9.1 Tunnels	43
9.2 Historical Railway and Tunnel Features	43
9.3 Historical Railways.....	44
9.4 Active Railways.....	44
9.5 Railway Projects.....	44

Overview of Findings

The Groundsure Geo Insight 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; Non-coal 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	1.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site at 1:10,000 scale?*	Yes
	1.2.2 Are there any records of landslide within 500m of the study site boundary at 1:10,000 scale?	No
1.3 Bedrock, Solid Geology and linear features	1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
	1.3.2 Are there any records of linear features within 500m of the study site boundary at 1:10,000 scale?	Yes

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 Landslips	2.2.1 Is there any Superficial Ground/Drift Geology present beneath the study site?*	Yes
	2.2.2 Are there any records of permeability of superficial ground within 500m of the study site?	Yes
	2.2.3 Are there any records of landslide 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

Section 2: Geology 1:50,000 Scale

2.3 Bedrock, Solid Geology and linear features

2.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.

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

Yes

2.3.3 Are there any records of linear features within 500m of the study site boundary?

Yes

Section 3: Radon

3. Radon

3.1 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

No radon protective measures are necessary.

Section 4: Ground Workings

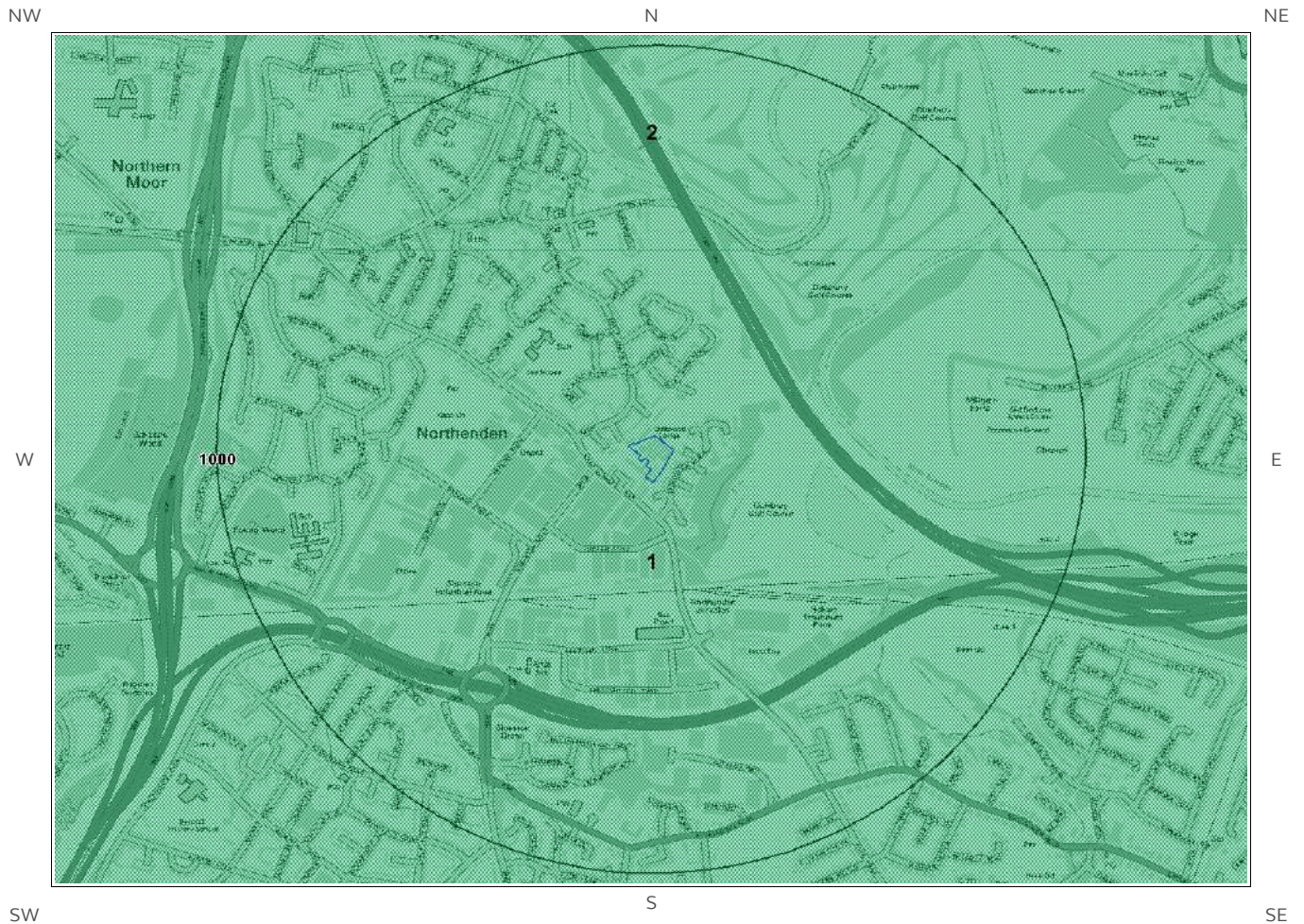
	On-site	0-50m	51-250	251-500	501-1000
4.1 Historical Surface Ground Working Features from Small Scale Mapping	0	0	14	Not Searched	Not Searched
4.2 Historical Underground Workings from Small Scale Mapping	0	0	0	0	0
4.3 Current Ground Workings	0	0	0	1	1

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	1	2
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

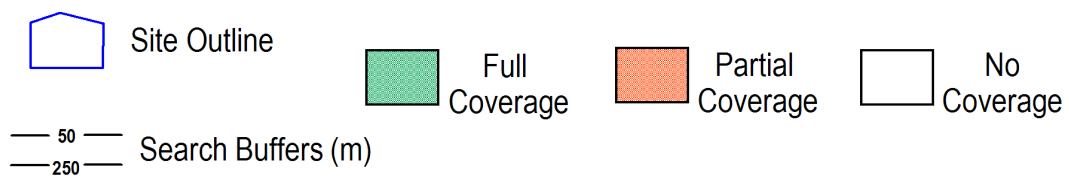
Section 5: Mining, Extraction & Natural Cavities	On-site	0-50m	51-250	251-500	501-1000
5.6 Brine Extraction	0	0	0	0	0
5.7 Gypsum Extraction	0	0	0	0	0
5.8 Cornwall and Devon Metalliferous Mining	0	0	0	0	0
5.9 Clay Mining	0	0	0	0	0
Section 6: Natural Ground Subsidence	On-site				
6.1 Shrink-Swell Clay	Negligible				
6.2 Landslides	Very Low				
6.3 Ground Dissolution of Soluble Rocks	Negligible				
6.4 Compressible Deposits	Negligible				
6.5 Collapsible Deposits	Very Low				
6.5 Running Sand	Very Low				
Section 7: Borehole Records	On-site	0-50m	51-250		
7 BGS Recorded Boreholes	0	1	4		
Section 8: Estimated Background Soil Chemistry	On-site	0-50m	51-250		
8 Records of Background Soil Chemistry	2	4	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	0	0	Not Searched	
9.3 Historical Railways	0	0	0	Not Searched	
9.4 Active Railways	0	0	0	Not Searched	
9.5 Railway Projects	0	0	0	0	

1:10,000 Scale Availability



1_10,000 Availability Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



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
2	478.0	Some deposits are mapped	Full	Full	No coverage
N3	1539.0	No deposits are mapped	Full	Full	No coverage
N4	1623.0	Some deposits are mapped	Full	Full	No coverage

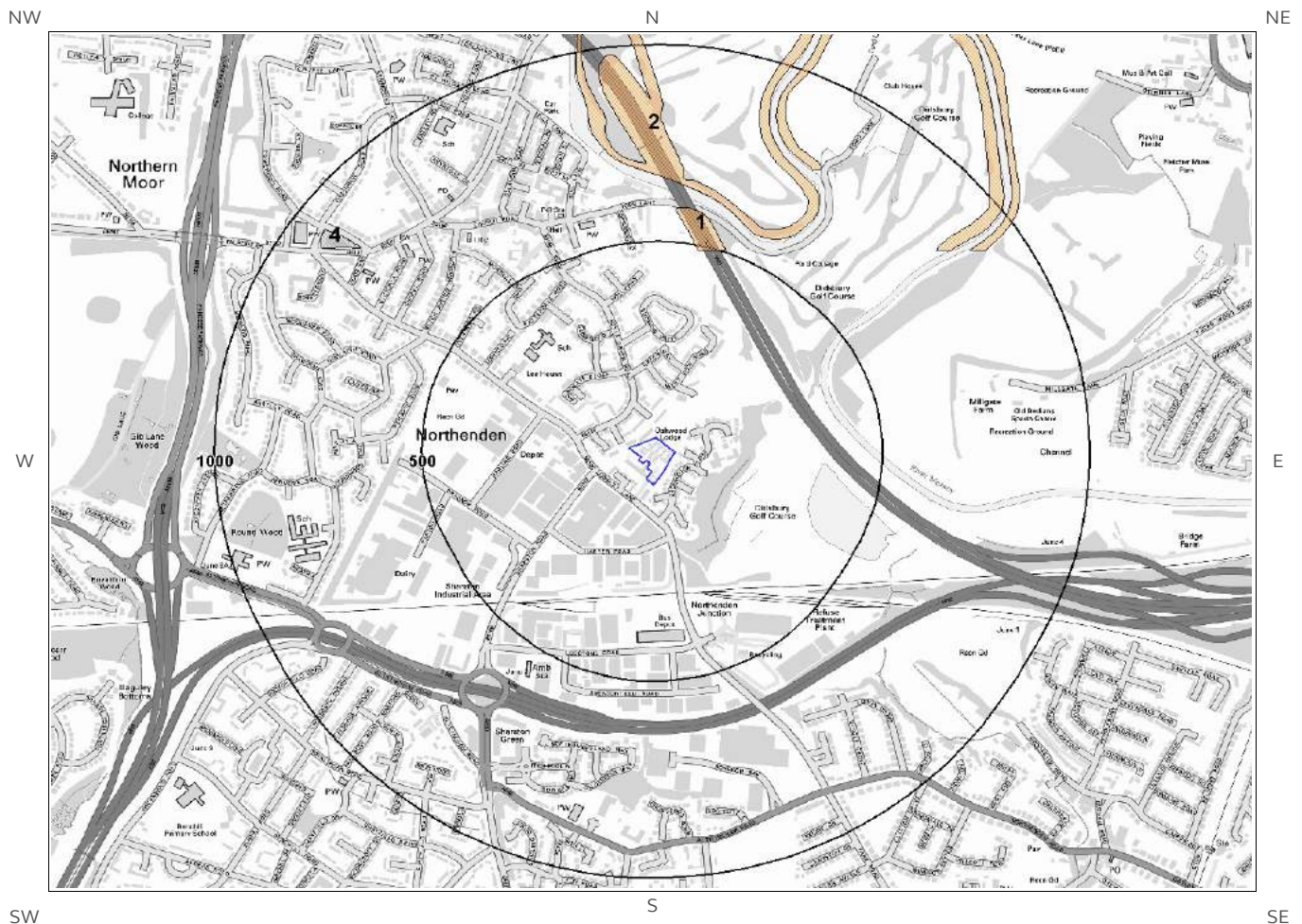
Guidance: The 1:10,000 scale geological interpretation is the most detailed generally available from BGS and is the scale at which most geological surveying is carried out in the field. The database is presented as four types of geology (artificial, mass movement, superficial and bedrock), although not 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

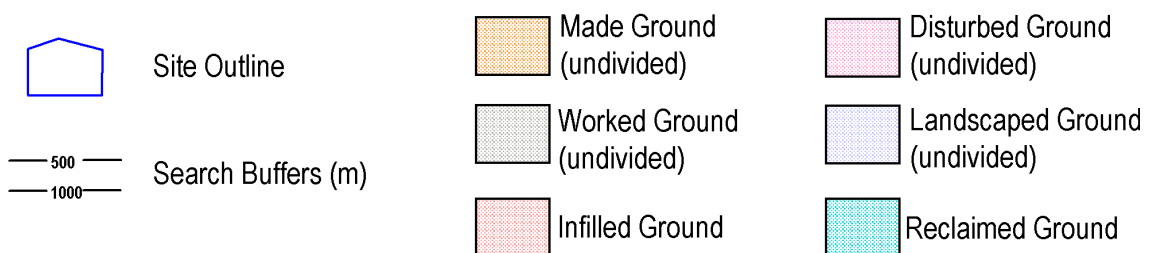
1 Geology (1:10,000 scale).

1.1 Artificial Ground map (1:10,000 scale)



Artificial Ground Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



1. Geology 1:10,000 scale

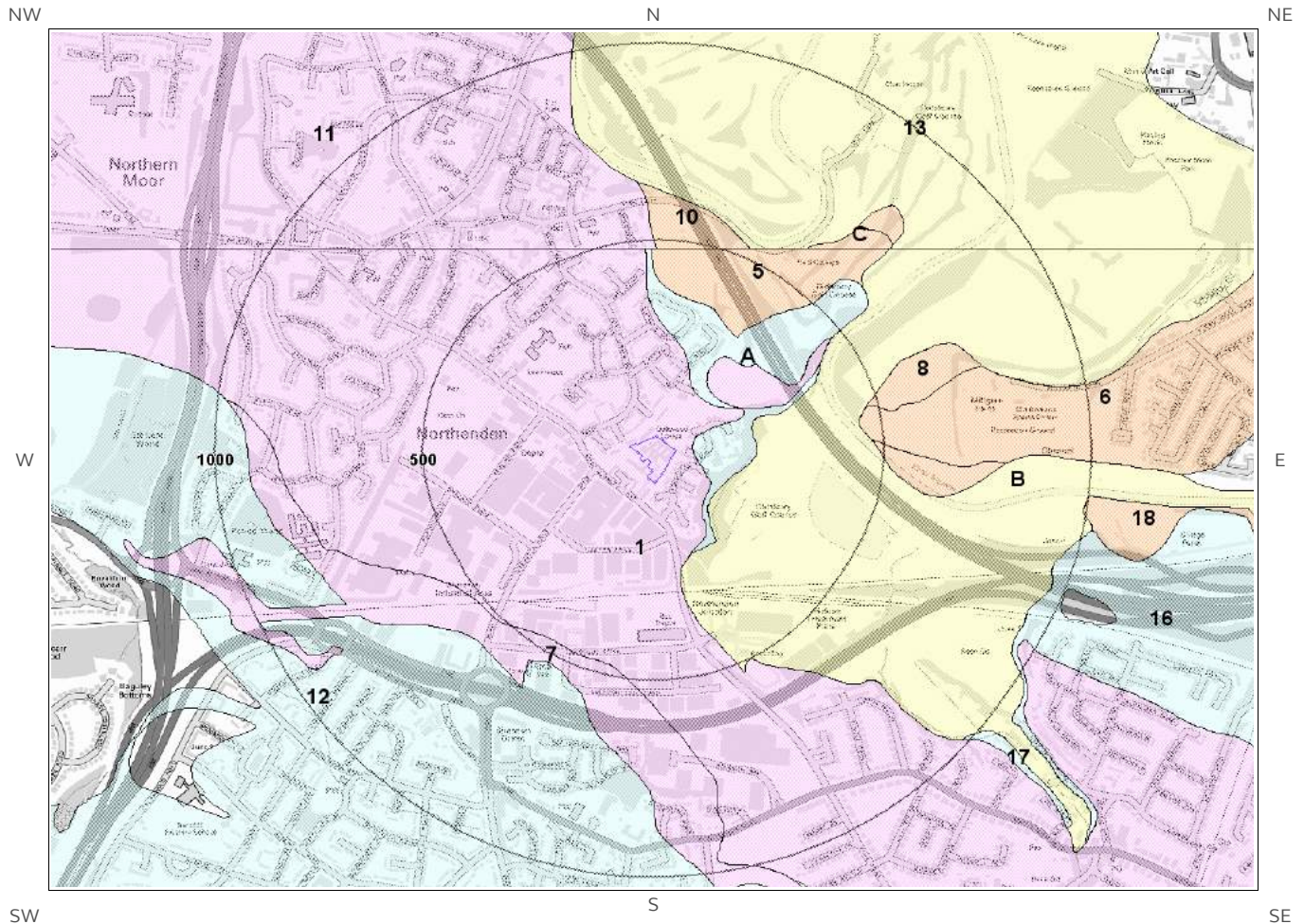
1.1 Artificial Ground

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? Yes

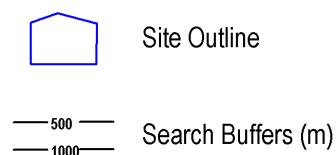
ID	Distance	Direction	LEX Code	Description	Rock Description
1	488.0	N	MGR-ARTDP	Made Ground (Undivided)	Artificial Deposit

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



Artificial Ground Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



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	0.0	On Site	GFSDD-XSV	Glaciofluvial Sheet Deposits, Devensian - Sand And Gravel	Sand And Gravel
2A	40.0	E	TILLD-DMTN	Till, Devensian - Diamicton	Diamicton
3B	133.0	SE	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
4A	165.0	NE	GFDUD-XSV	Glaciofluvial Deposits, Devensian - Sand And Gravel	Sand And Gravel
5	315.0	NE	RTD2-XSV	River Terrace Deposits, 2 - Sand And Gravel	Sand And Gravel
6	447.0	E	RTD2-XSV	River Terrace Deposits, 2 - Sand And Gravel	Sand And Gravel
7	467.0	SW	GFDUD-XSV	Glaciofluvial Deposits, Devensian - Sand And Gravel	Sand And Gravel
8	472.0	E	RTD1-XSV	River Terrace Deposits, 1 - Sand And Gravel	Sand And Gravel
9B	473.0	E	RTD1-XSV	River Terrace Deposits, 1 - Sand And Gravel	Sand And Gravel
10	478.0	N	RTD2-XSV	River Terrace Deposits, 2 - Sand And Gravel	Sand And Gravel
11	478.0	N	GFSDD-XSV	Glaciofluvial Sheet Deposits, Devensian - Sand And Gravel	Sand And Gravel

1.2.2 Landslip

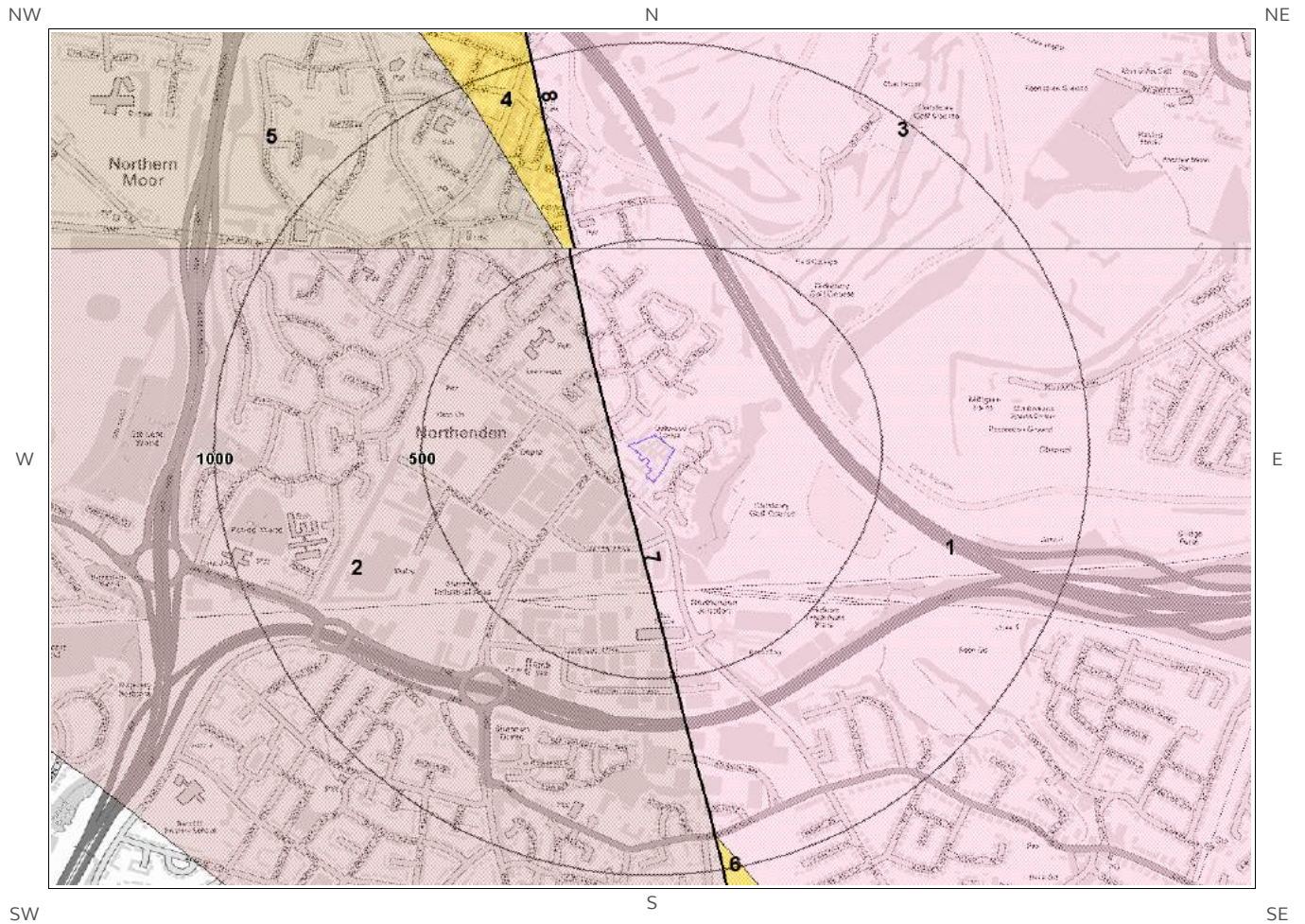
Are there any records of Landslip within 500m of the study site boundary at 1:10,000 scale? No

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 1:10,000 scale

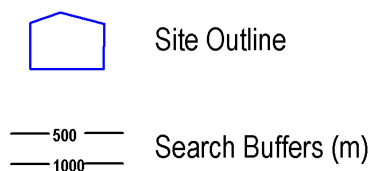
This Geology shows the main components as discrete layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

1.3 Bedrock and linear features map (1:10,000 scale)



Bedrock and linear features Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



1.3 Bedrock and linear features

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	WLSF-SDST	Wilmslow Sandstone Formation - Sandstone	Early Triassic Epoch
2	34.0	W	TPSF-SISD	Tarporley Siltstone Formation - Siltstone And Sandstone	Anisian Age - Olenekian Age
3	478.0	N	WLSF-SDST	Wilmslow Sandstone Formation - Sandstone	Early Triassic Epoch

1.3.2 Linear features

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

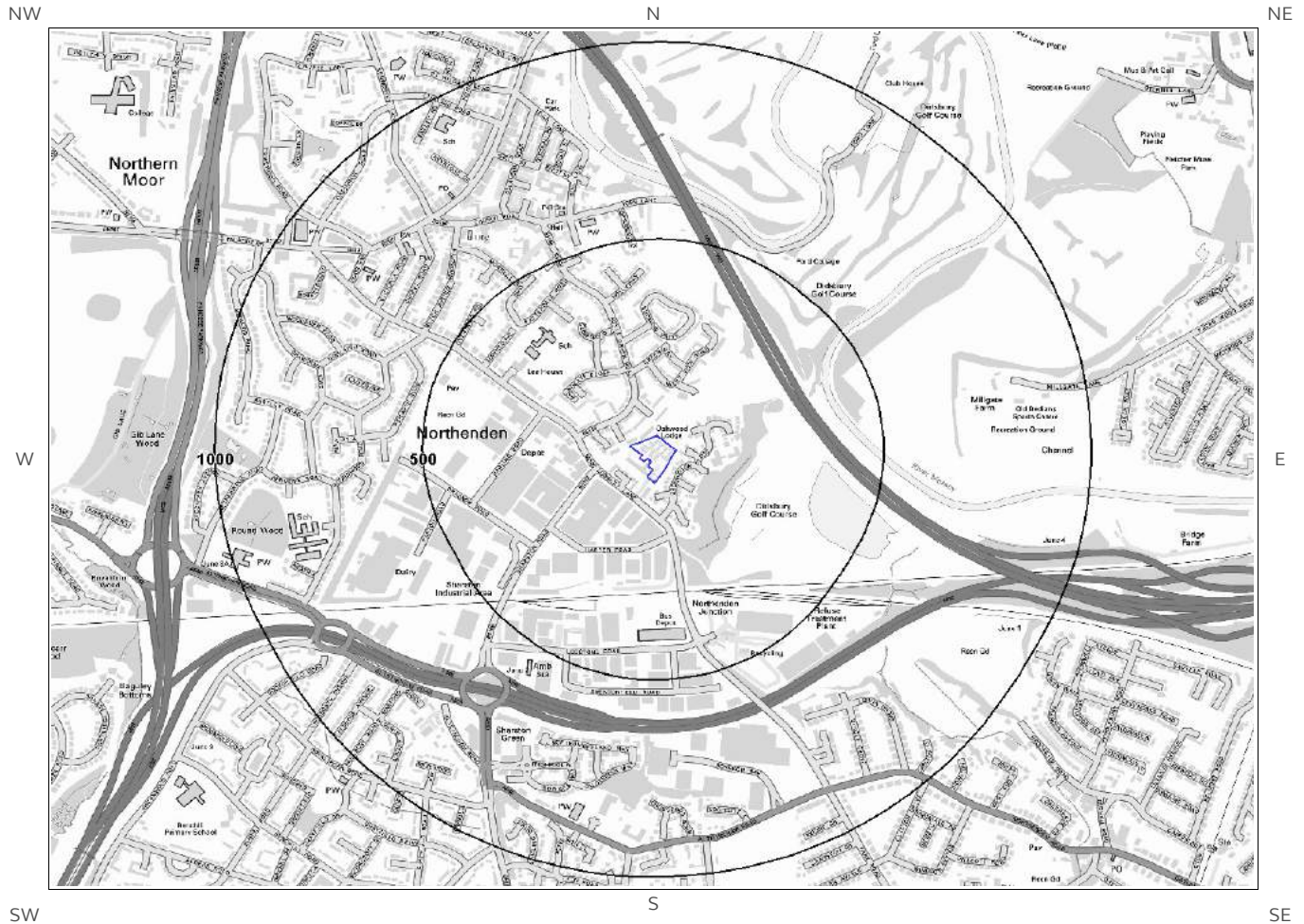
ID	Distance (m)	Direction	Category Description	Feature Description
7	34.0	W	FAULT	Normal fault, inferred; crossmarks on downthrow side

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.

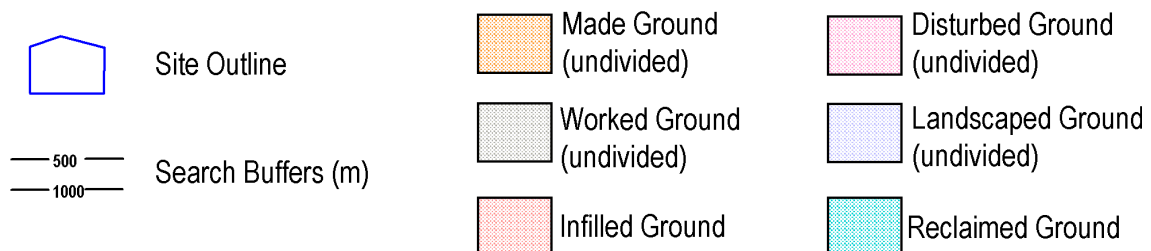
This Geology shows the main components as discrete layers, these are: Bedrock/ Solid Geology and linear features such as faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

2 Geology 1:50,000 Scale

2.1 Artificial Ground map



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



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: 098

2.1.1 Artificial/ Made Ground

Are there any records of Artificial/ Made Ground within 500m of the study site boundary? No

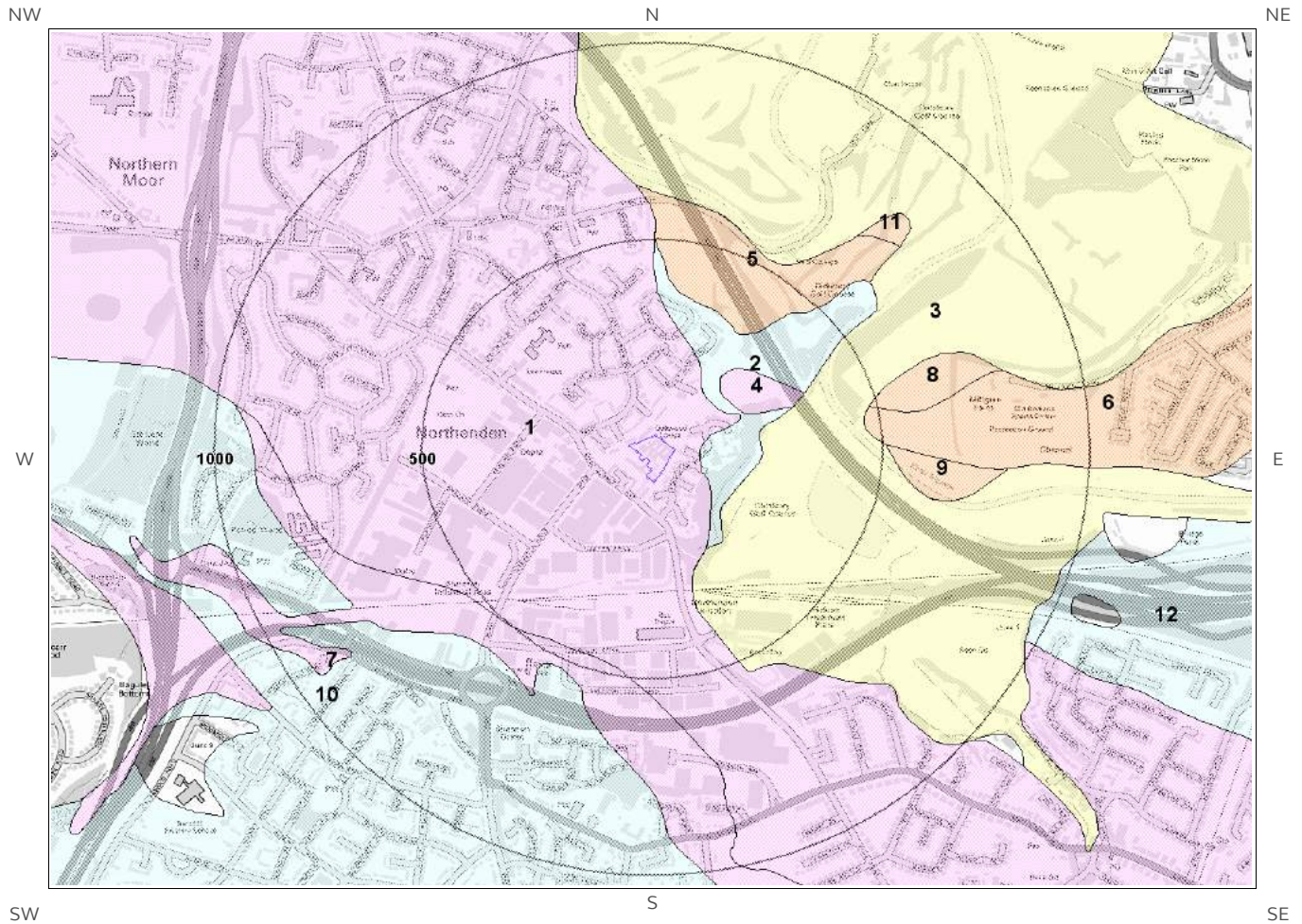
Database searched and no data found.

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.

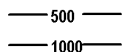
2.2 Superficial Deposits and Landslips map (1:50,000 scale)



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



Site Outline



Search Buffers (m)

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	0.0	On Site	GFSDD-XSV	GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN	SAND AND GRAVEL
2	60.0	E	TILLD-DMTN	TILL, DEVENSIAN	DIAMICTON
3	169.0	SE	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
4	180.0	NE	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
5	325.0	NE	RTDU-XSV	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND AND GRAVEL
6	460.0	E	RTDU-XSV	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND AND GRAVEL
7	465.0	S	GFDUD-XSV	GLACIOFLUVIAL DEPOSITS, DEVENSIAN	SAND AND GRAVEL
8	480.0	E	RTDU-XSV	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	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? Yes

Distance (m)	Direction	Flow Type	Maximum Permeability	Minimum Permeability
0.0	On Site	Intergranular	Very High	High

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.

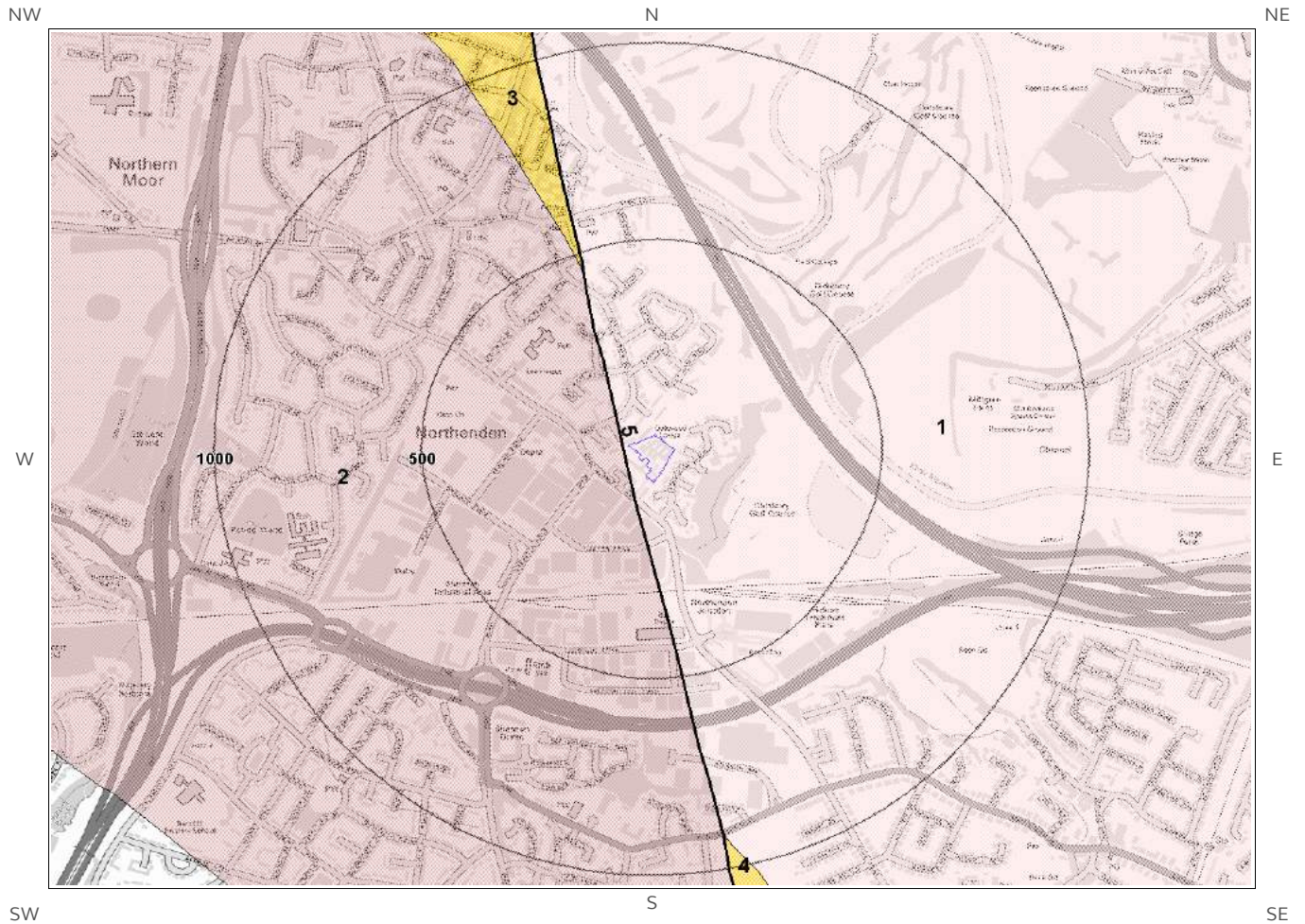
2.2.4 Landslip Permeability

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

No

Database searched and no data found.

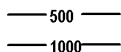
2.3 Bedrock and linear features map (1:50,000 scale)



© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



Site Outline



Search Buffers (m)

2.3 Bedrock, Solid Geology & linear features

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No: 098

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	WLSF-SDST	WILMSLOW SANDSTONE FORMATION - SANDSTONE	-
2	15.0	W	TPSF-SIMS	TARPORLEY SILTSTONE FORMATION - SILTSTONE, MUDSTONE AND SANDSTONE	OLENEKIAN
3	448.0	N	HEY-PESST	HELSBY SANDSTONE FORMATION - SANDSTONE, PEBBLY (GRAVELLY)	ANISIAN

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	Intergranular	High	High
15.0	W	Fracture	Moderate	Low

2.3.3 Linear features

Are there any records of linear features within 500m of the study site boundary? Yes

ID	Distance	Direction	Category Description	Feature Description
5	15.0	W	FAULT	Fault, inferred

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

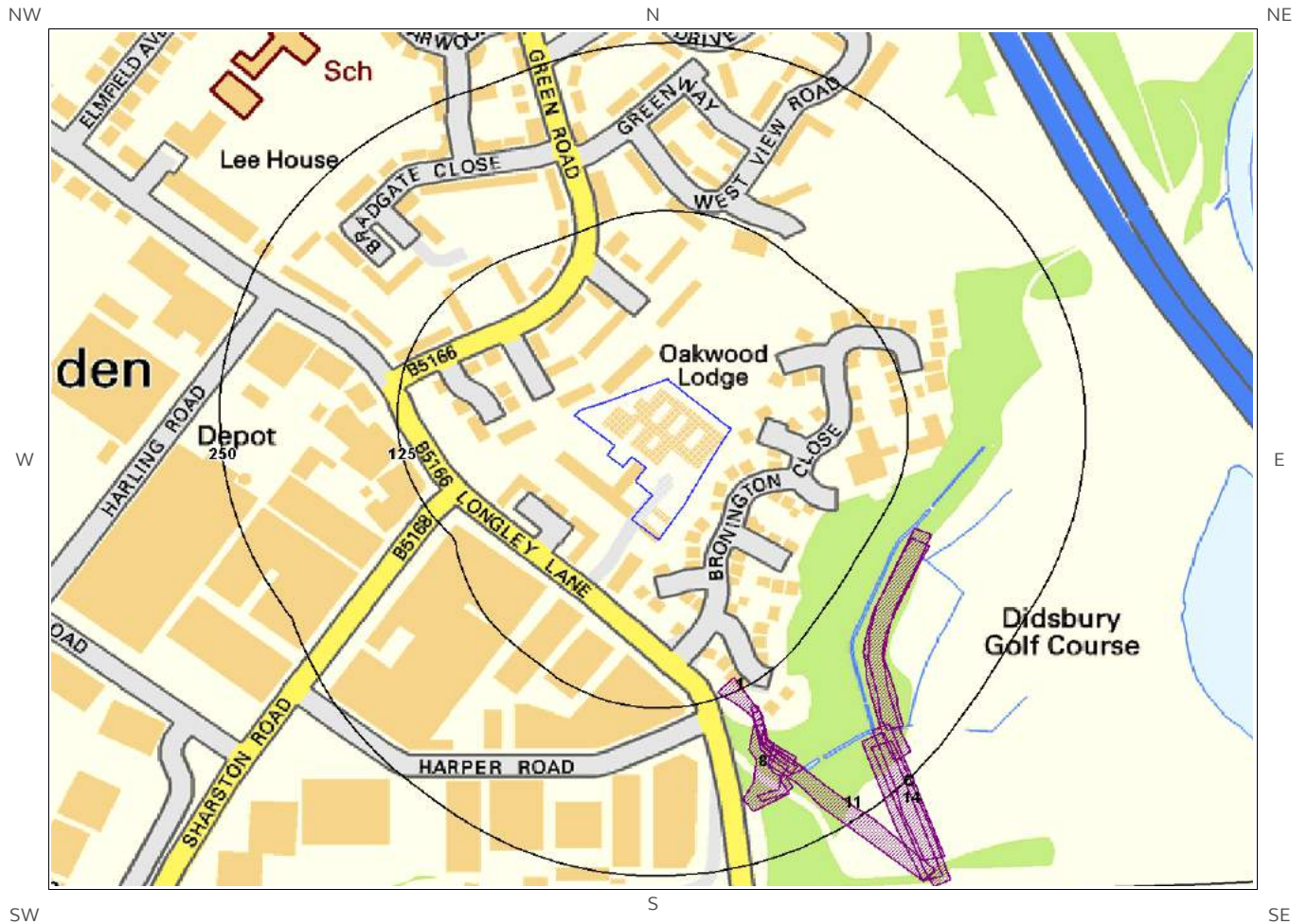
Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level? The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level.

The radon data in this report is supplied by the BGS/Public Health England and is the definitive map of Radon Affected Areas in Great Britain and Northern Ireland. The dataset was created using long-term radon measurements in over 479,000 homes across Great Britain and 23,000 homes across Northern Ireland, combined with geological data. The dataset is considered accurate to 50m to allow for the margin of error in geological lines, and the findings of this report supercede any answer given in the less accurate Indicative Atlas of Radon in Great Britain, which simplifies the data to give the highest risk within any given 1km grid square. As such, the radon atlas is considered indicative, whereas the data given in this report is considered definitive.

3.2 Radon Protection

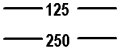
Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment? No radon protective measures are necessary.

4 Ground Workings map



Ground Workings Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.

- | | | | |
|---|--------------------|---|----------------------------------|
|  | Site Outline |  | Historic Surface Ground Workings |
|  | Search Buffers (m) |  | Historic Underground Workings |
| | |  | Current Ground Workings |

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
1	115.0	SE	383468 389283	Pond	1954
2A	140.0	SE	383494 389243	Unspecified Ground Workings	1967
3A	145.0	SE	383483 389251	Unspecified Ground Workings	1975
4	149.0	SE	383566 389336	Unspecified Heap	1995
5B	151.0	SE	383561 389321	Unspecified Heap	1975
6B	151.0	SE	383561 389321	Unspecified Heap	1989
7B	151.0	SE	383561 389321	Unspecified Heap	1967
8	154.0	SE	383485 389232	Unspecified Ground Workings	1954
9A	155.0	SE	383489 389250	Unspecified Ground Workings	1989
10A	155.0	SE	383489 389250	Unspecified Ground Workings	1995
11	177.0	SE	383547 389197	Unspecified Heap	1954
12C	207.0	SE	383586 389214	Unspecified Heap	1954
13C	207.0	SE	383581 389204	Unspecified Heap	1916
14	215.0	SE	383587 389198	Unspecified Heap	1923

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

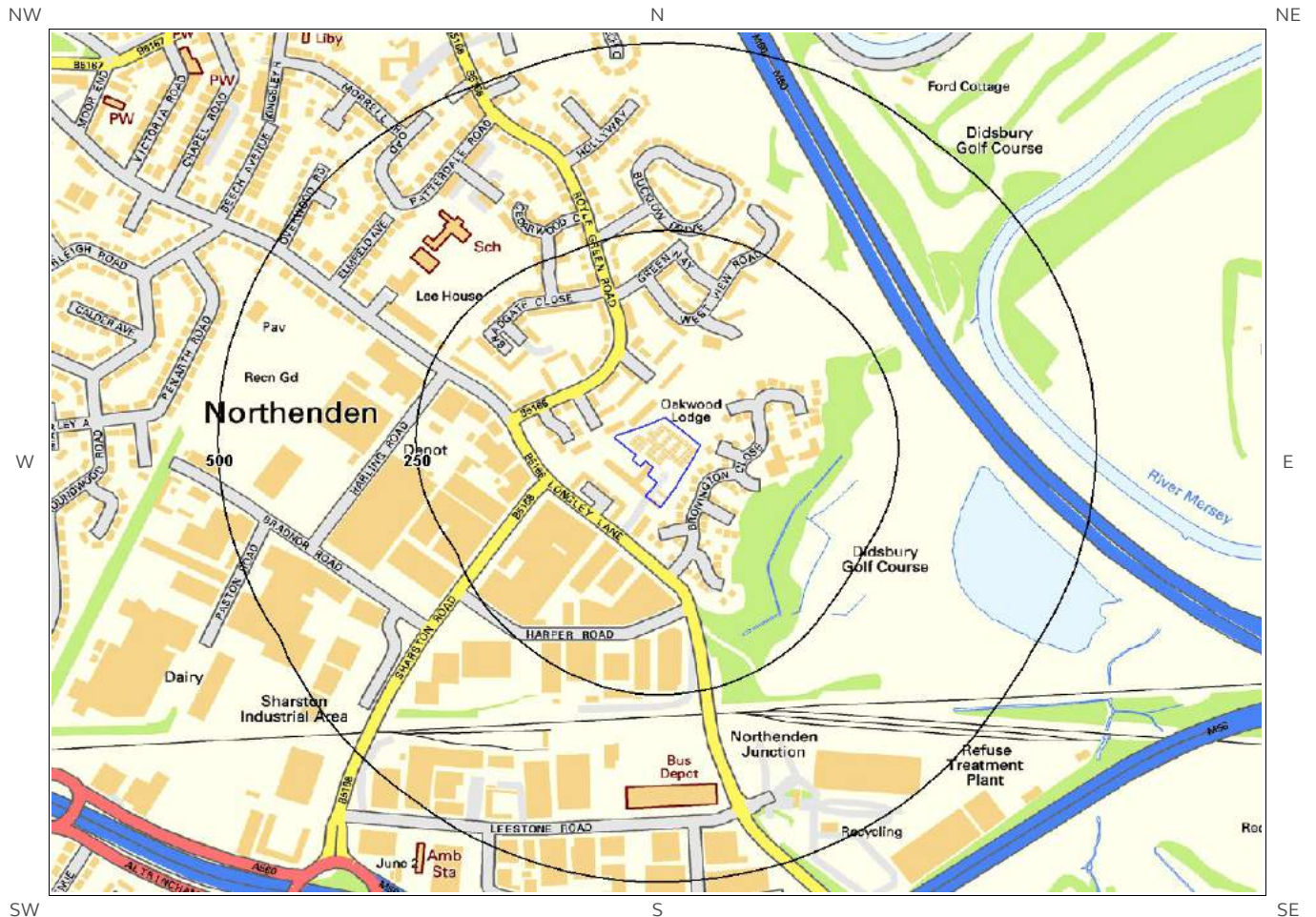
This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

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

The following Current Ground Workings information is provided by British Geological Survey:

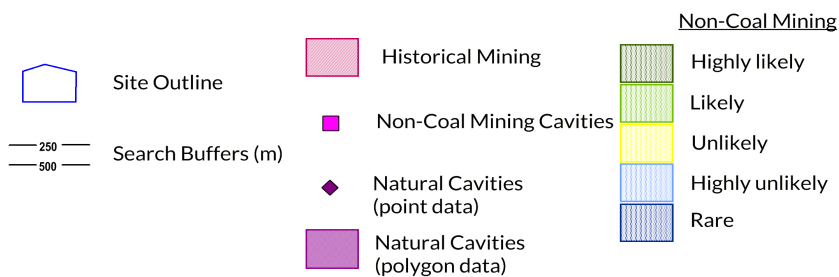
ID	Distance (m)	Direction	NGR	Commodity Produced	Pit Name	Type of working	Status
Not shown	373.0	SW	383191 389100	Crushed Rock	Northenden Rail Depot	A site where mineral commodities are unloaded from rail trucks and stored	Inactive
Not shown	636.0	SE	383764 388873	Sand & Gravel	Sharston Gravel Pit	A surface mineral working. It may be termed Quarry, Sand Pit, Clay Pit or Opencast Coal Site	Ceased

5 Mining, Extraction & Natural Cavities map



Mining, Extraction and Natural Cavities Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



5 Mining, Extraction & Natural Cavities

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? Yes

The following information provided by JPB is not represented on mapping: Whilst outside of an area where The Coal Authority have information on coal mining activities, Johnson Poole & Bloomer (JPB) have information such as mining plans and maps held within their archive of mining activities that have occurred within 1km of this property. Further details and a quote for services can be obtained by emailing this report to enquiries.gs@jpb.co.uk.

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 the Peter Brett Associates natural cavities database. The dataset is made up of points and polygons. Where polygons are used these represent an area in which it is expected the cavities could be found. It does not indicate that cavities are present everywhere within the polygon, and caution should be used in the interpretation of this data.

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 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 Cornwall and Devon Metalliferous Mining

This dataset provides information on metalliferous mining areas in Cornwall/Devon and is derived from records held by Mining Searches UK.

Are there any Cornwall and Devon Metalliferous 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.

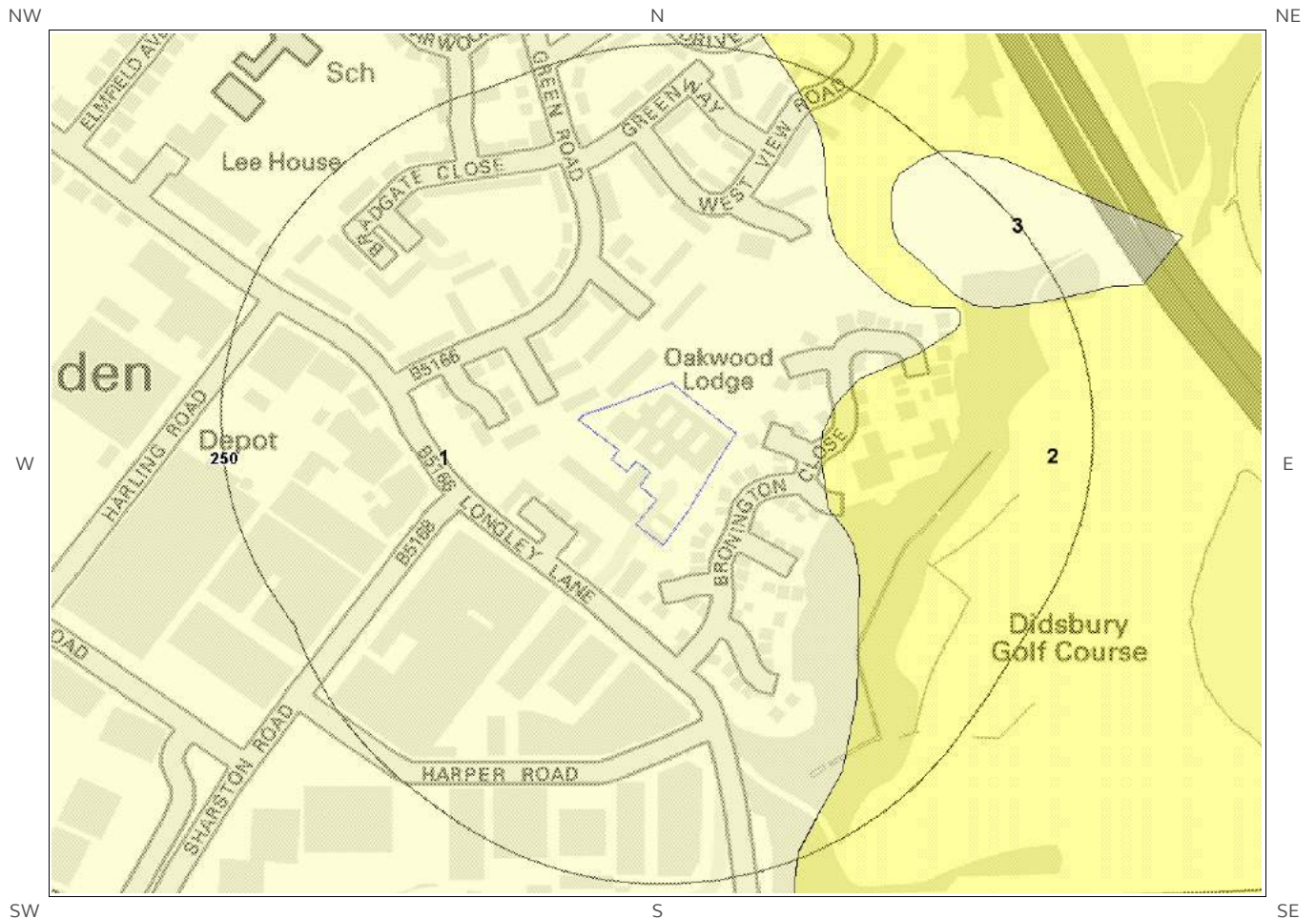
Are there any Clay Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

6 Natural Ground Subsidence

6.1 Shrink-Swell Clay map

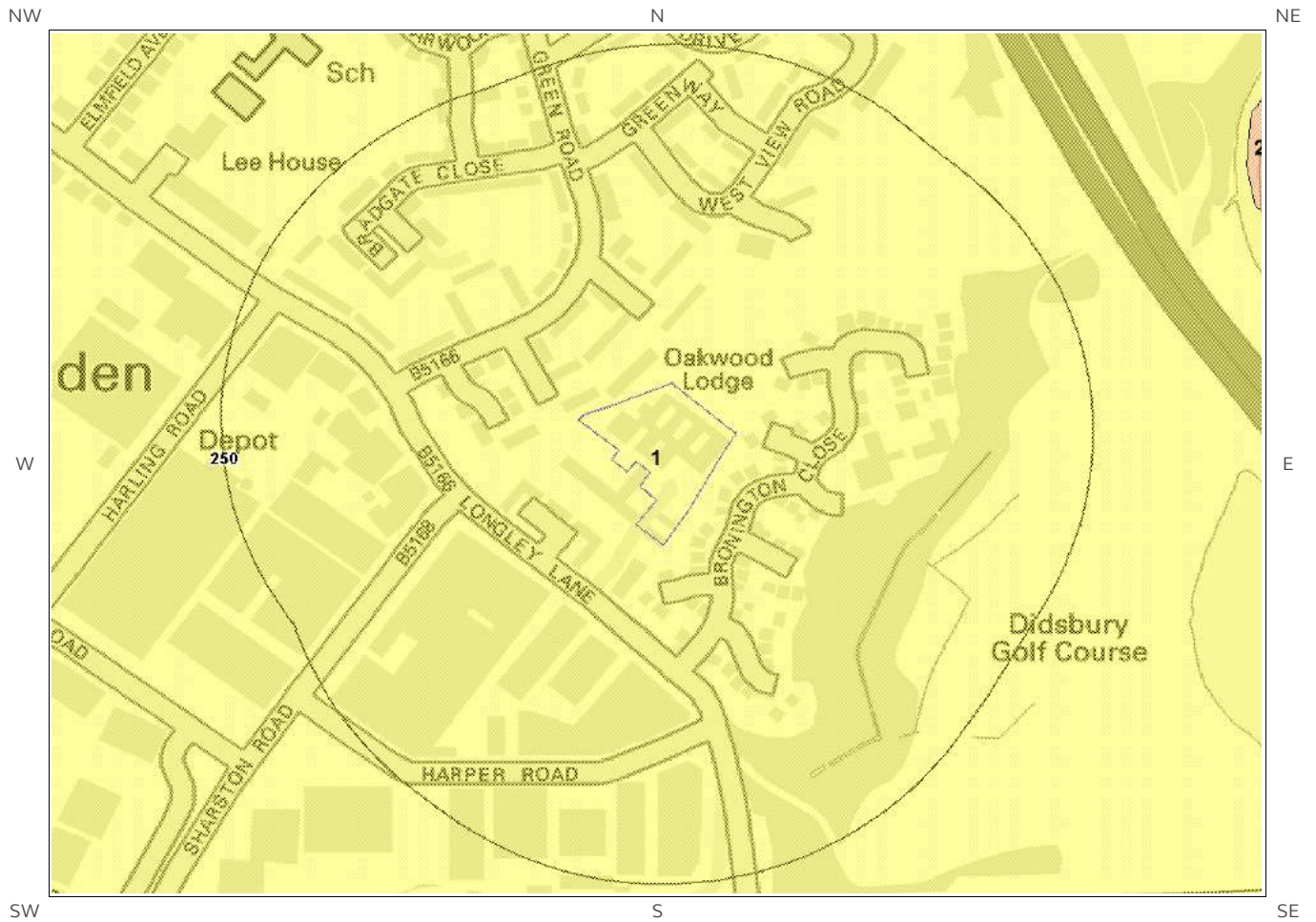


Shrink Swell Clay Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.



6.2 Landslides map



Landslides Legend

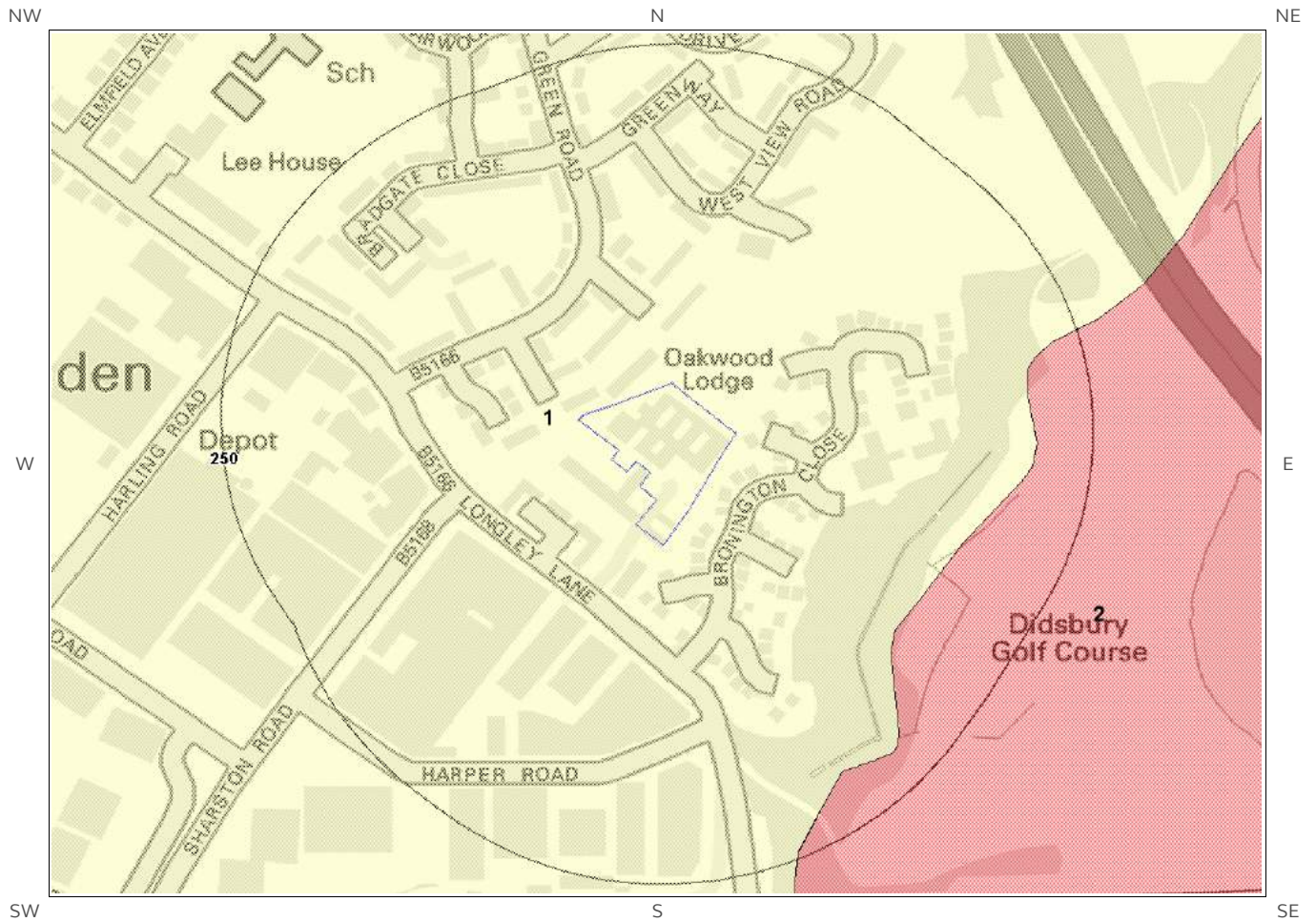
© Crown copyright and database rights 2019.
 Ordnance Survey licence 100035207.



6.3 Ground Dissolution of Soluble Rocks map



6.4 Compressible Deposits map

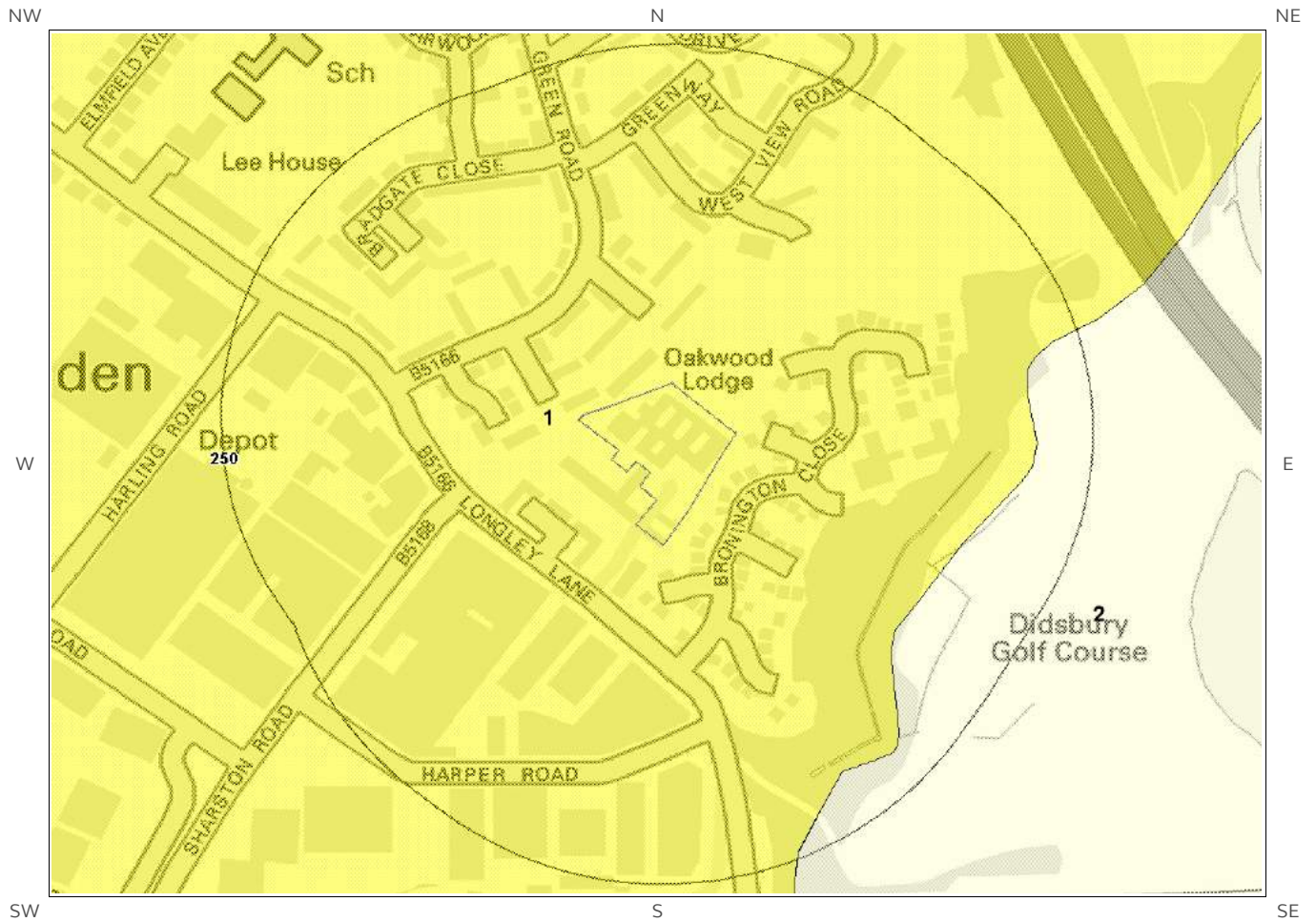


Compressible Deposits Legend

© Crown copyright and database rights 2019.
 Ordnance Survey licence 100035207.



6.5 Collapsible Deposits map

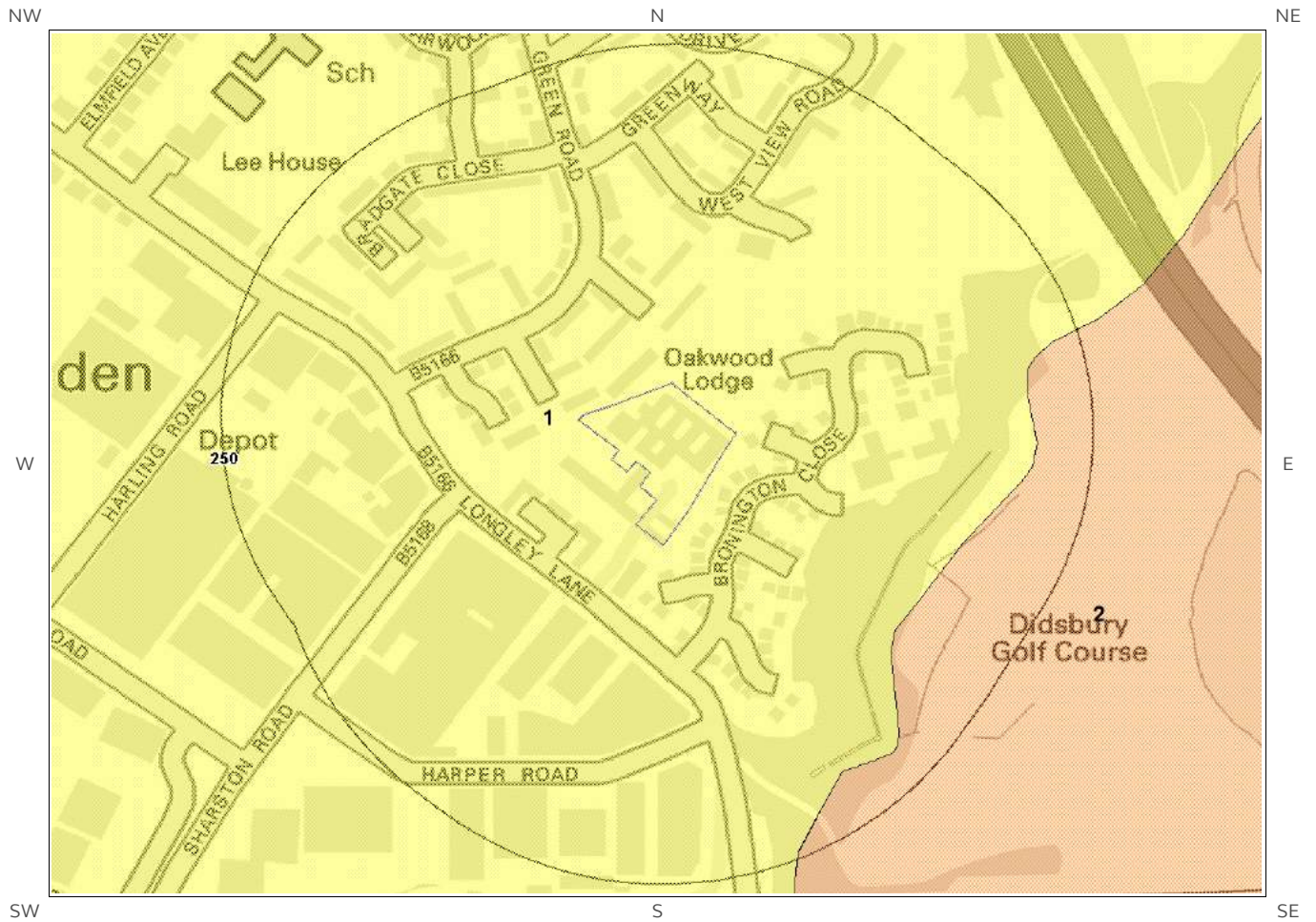


Collapsible Deposits Legend

© Crown copyright and database rights 2019.
 Ordnance Survey licence 100035207.



6.6 Running Sand map



Running Sand Legend

© Crown copyright and database rights 2019.
 Ordnance Survey licence 100035207.



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	Negligible	Ground conditions predominantly non-plastic. 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 likely 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.

* 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:

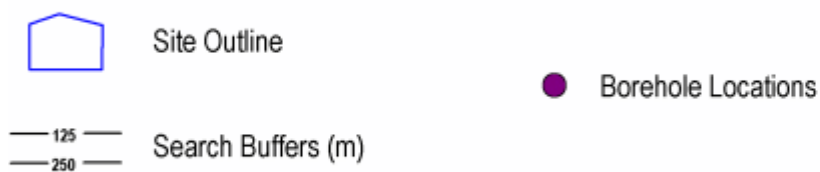
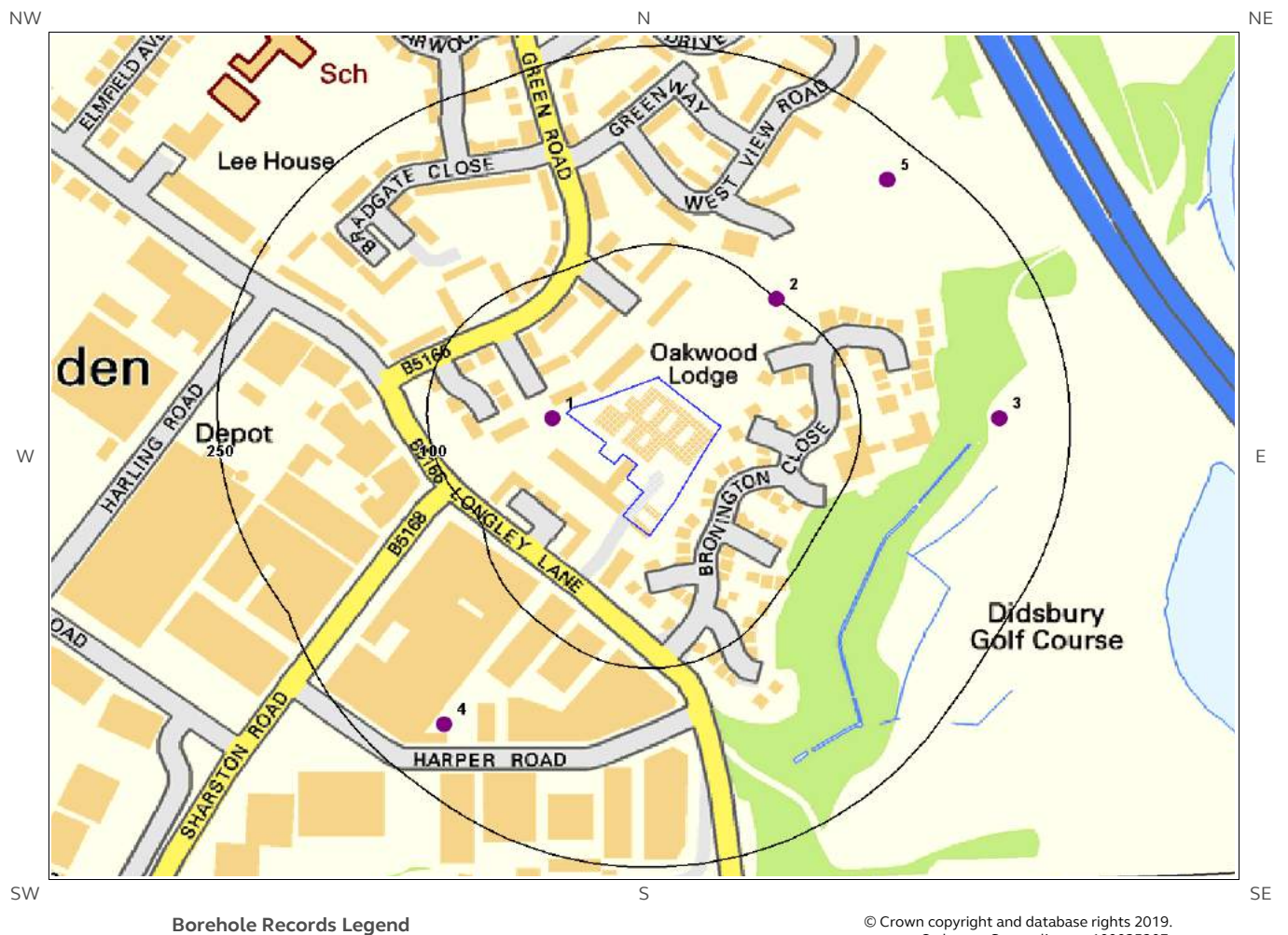
ID	Distance (m)	Direction	Hazard Rating	Details
1	0.0	On Site	Very Low	Deposits with potential to collapse when loaded and saturated are unlikely to be present. No special ground investigation required or increased construction costs or increased financial risk due to potential problems with collapsible 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	Very Low	Very low potential for running sand problems if water table rises or if sandy strata are exposed to water. 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:

5

ID	Distance (m)	Direction	NGR	BGS Reference	Drilled Length	Borehole Name
1	12.0	SW	383340 389490	SJ88NW38	15	SALE EASTERN/NORTHENDEN. 51
2	99.0	NE	383500 389580	SJ88NW37	11	SALE EASTERN/NORTHENDEN. 50
3	199.0	E	383660 389490	SJ88NW39	6	SALE EASTERN/NORTHENDEN. 52
4	203.0	SW	383263 389259	SJ88NW150	9	SHARSTON BYPASS. 132
5	219.0	NE	383580 389670	SJ88NW36	10	SALE EASTERN/NORTHENDEN. 49

The borehole records are available using the hyperlinks below: Please note that if the donor of the borehole record has requested the information be held as commercial-in-confidence, the additional data will be held separately by the BGS and a formal request must be made for its release.

#1: scans.bgs.ac.uk/sobi_scans/boreholes/914719

#2: scans.bgs.ac.uk/sobi_scans/boreholes/914718

#3: scans.bgs.ac.uk/sobi_scans/boreholes/914720

#4: scans.bgs.ac.uk/sobi_scans/boreholes/914831

#5: scans.bgs.ac.uk/sobi_scans/boreholes/914717

8 Estimated Background Soil Chemistry

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

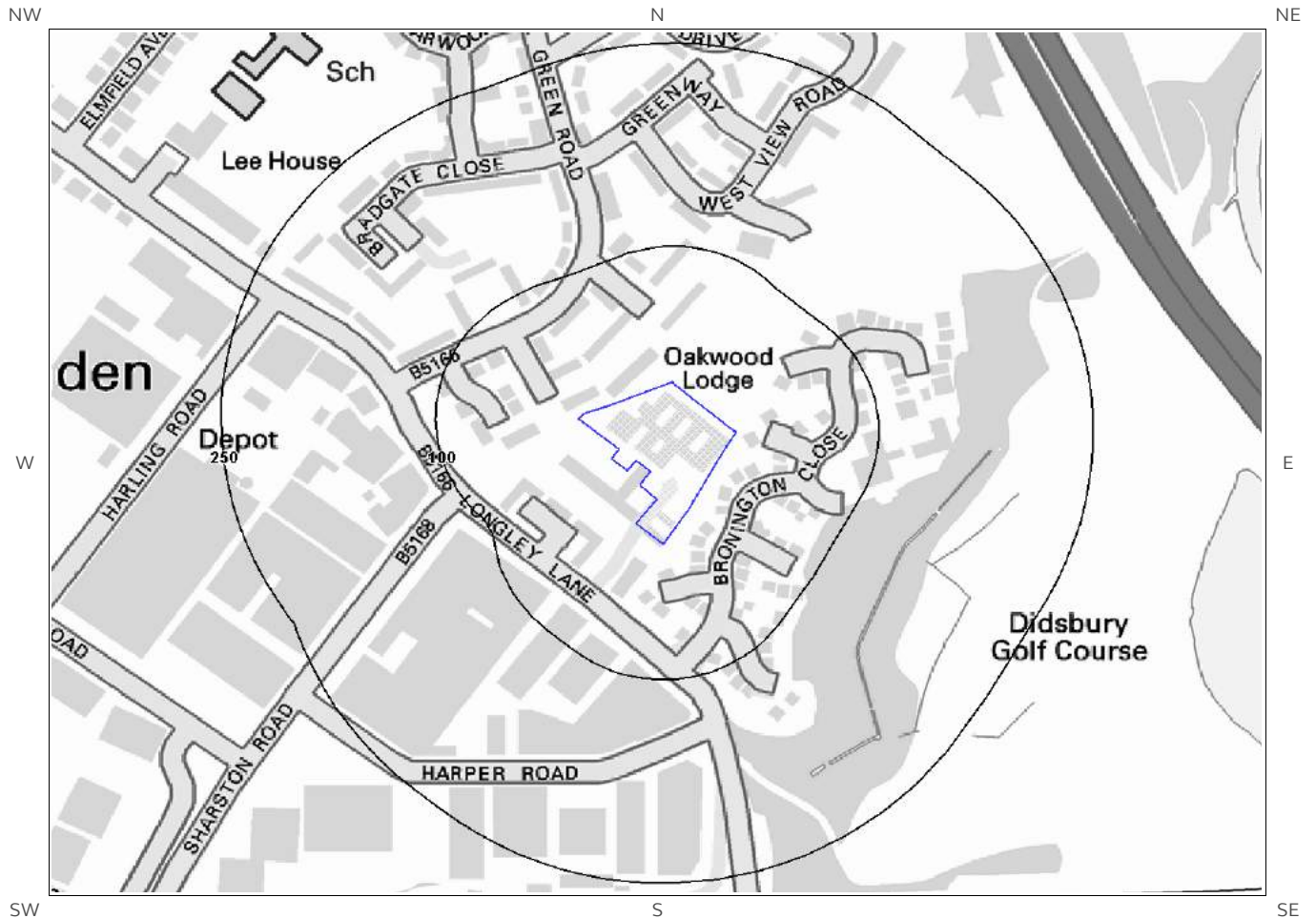
6

For further information on how this data is calculated and limitations upon its use, please see the Groundsure Geo Insight 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 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
0.0	On Site	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
15.0	W	RuralSoil	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
17.0	W	RuralSoil	<15 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	<15 mg/kg	<100 mg/kg
39.0	E	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg
42.0	E	RuralSoil	15 - 25 mg/kg	<1.8 mg/kg	60 - 90 mg/kg	15 - 30 mg/kg	<100 mg/kg

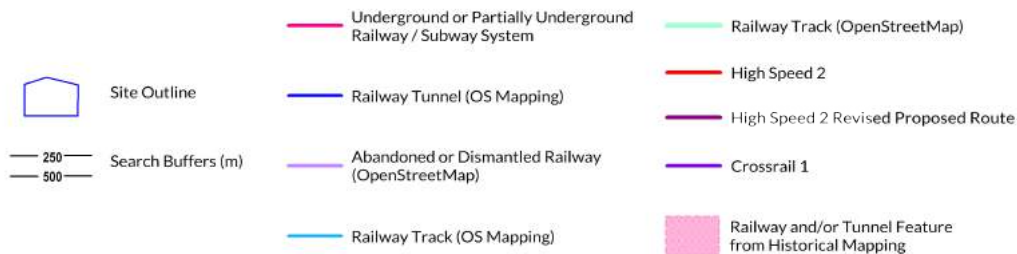
*As this data is based upon underlying 1:50,000 scale geological information, a 50m buffer has been added to the search radius.

9 Railways and Tunnels map



Railways and Tunnels Legend

© Crown copyright and database rights 2019.
Ordnance Survey licence 100035207.
© OpenStreetMapContributors



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? No

Database searched and no data found.

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? 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.

9.5 Railway Projects

These datasets provide information on the location of large scale railway projects High Speed 2 and Crossrail 1 .

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

Is the study site within 500m of the route of the Crossrail 1 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 1 Report.

The route data has been digitised from publicly available maps by Groundsure. The route as provided relates to the Crossrail 1 project only, and does not include any details of the Crossrail 2 project, as final details of the route for Crossrail 2 are still under consultation.

Please note that this assessment takes account of both the original Phase 2b proposed route and the amended route proposed in 2016. As the Phase 2b route is still under consultation, Groundsure are providing information on both options until the final route is formally confirmed. Practitioners should take account of this uncertainty when advising clients.

Contact Details

Groundsure Helpline
Telephone: 08444 159 000
info@groundsure.com



British 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 Geological Survey
NATURAL ENVIRONMENT RESEARCH COUNCIL

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



The Coal
Authority

Public Health England

Public information access office
Public Health England, Wellington House
133-155 Waterloo Road, London, SE1 8UG
<https://www.gov.uk/government/organisations/public-health-england>
Email: enquiries@phe.gov.uk
Main switchboard: 020 7654 8000



Public Health
England

Johnson Poole & Bloomer Limited

Harris and Pearson Building, Brettell 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://www.1.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

Groundsure's Terms and Conditions can be viewed online at this link:
<https://www.groundsure.com/terms-and-conditions-feb11-2019>

Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: County Series

Map date: 1872-1876

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1874
Revised 1874
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1872
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1876
Revised 1876
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1872
Revised 1872
Edition N/A
Copyright N/A
Levelled N/A

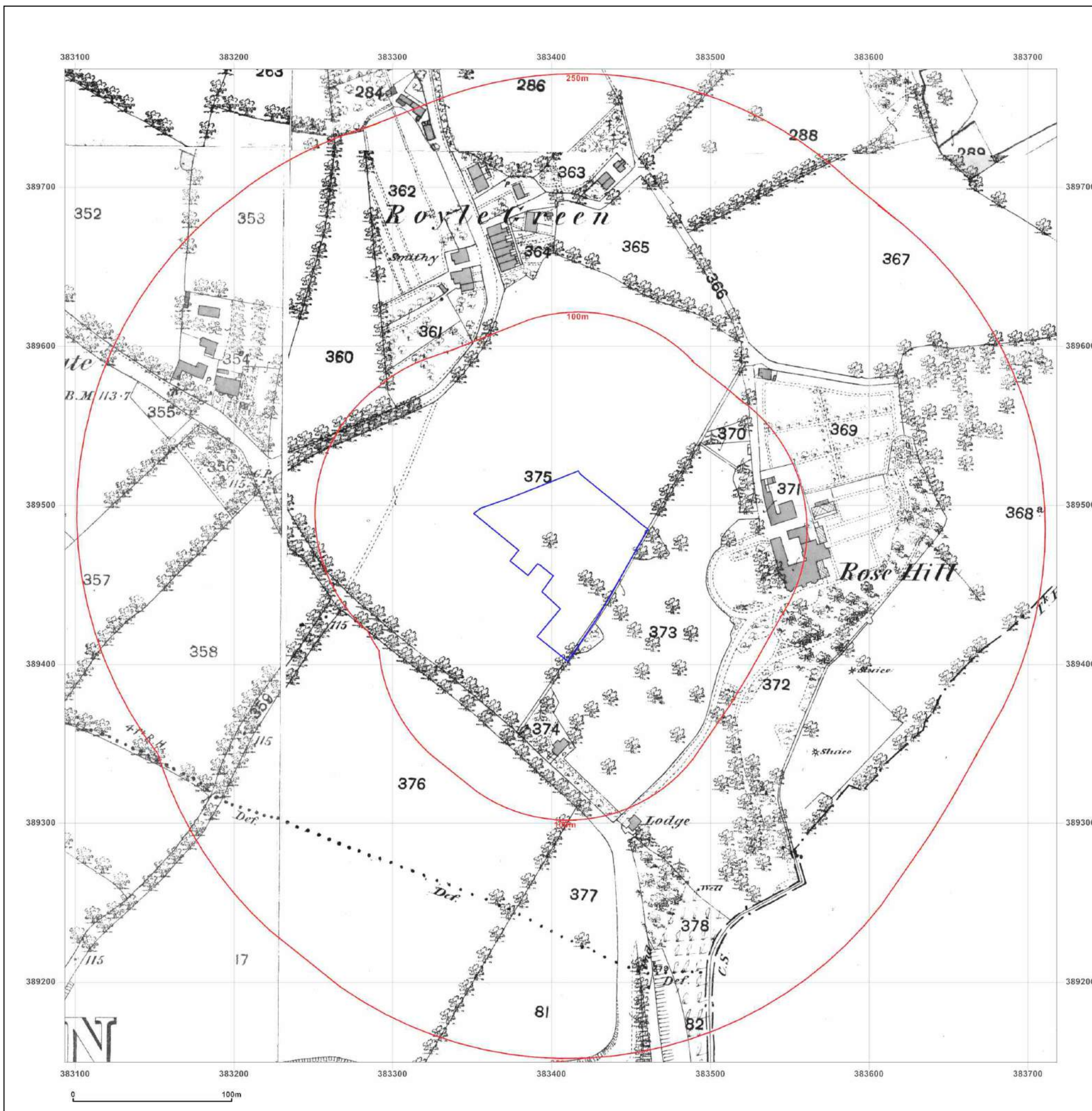


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: County Series

Map date: 1881

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1881
Revised N/A
Edition 1881
Copyright N/A
Levelled N/A

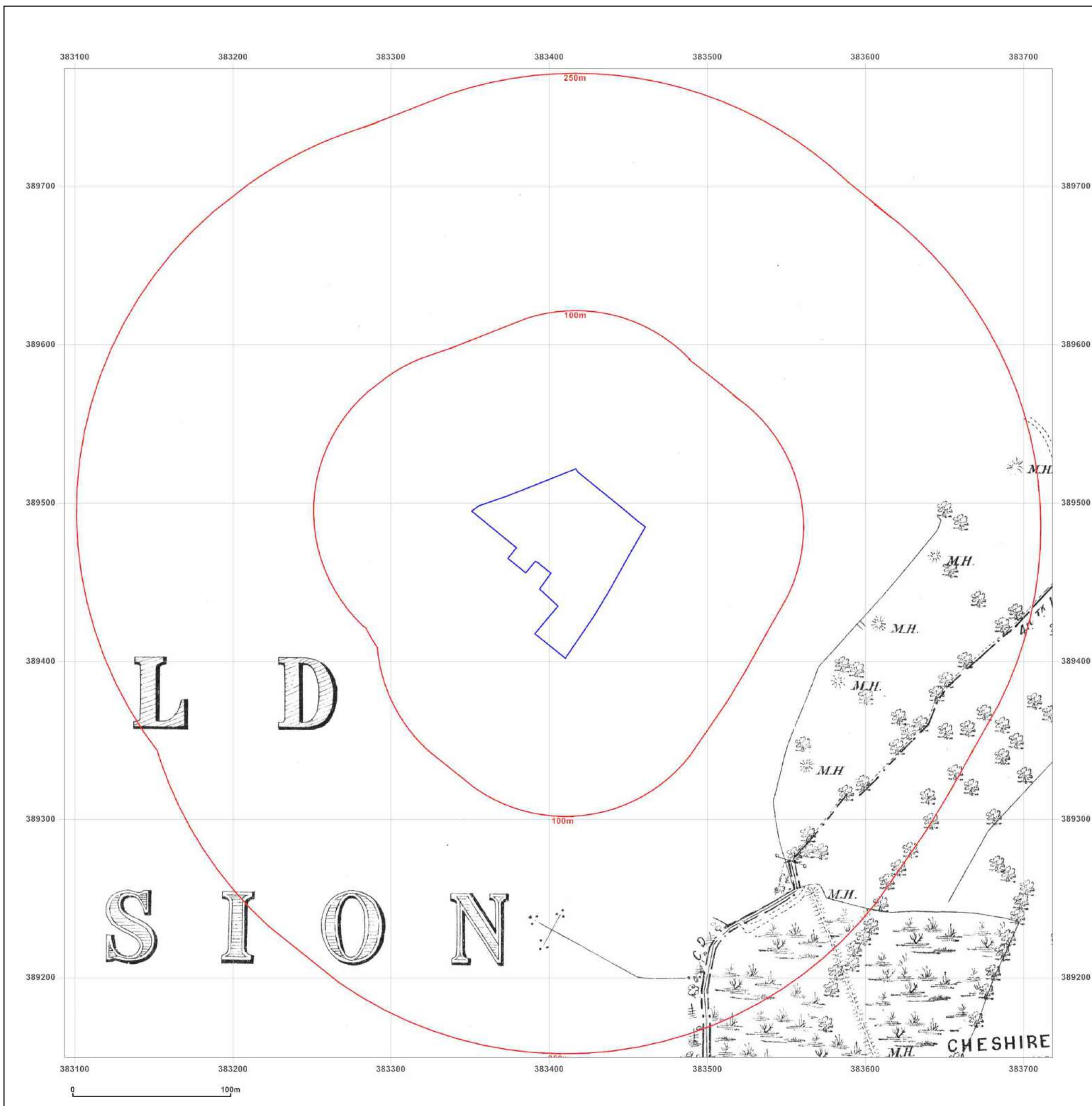


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: County Series

Map date: 1893

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1893
Revised N/A
Edition 1893
Copyright N/A
Levelled N/A

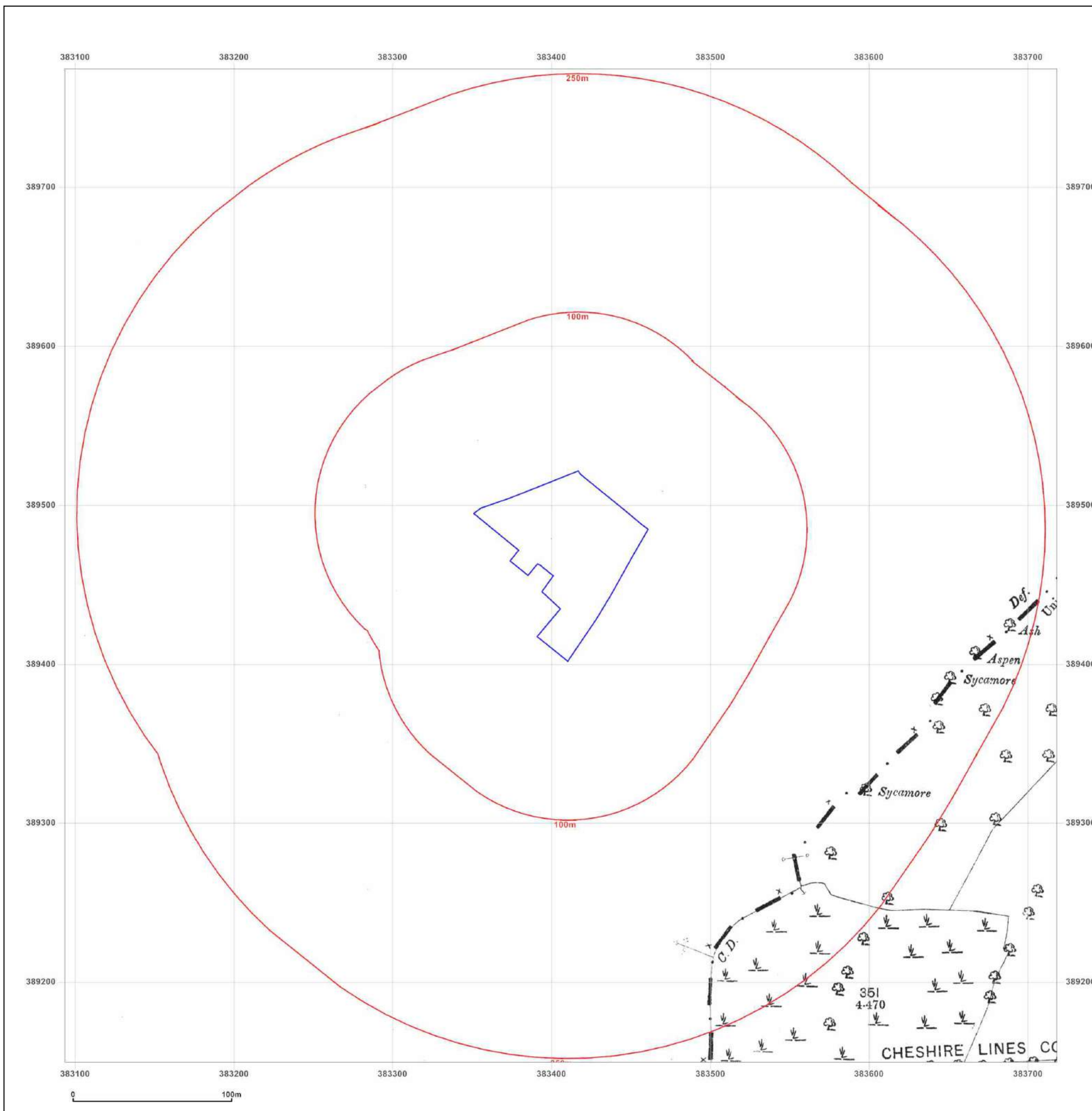


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: County Series

Map date: 1898

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1877
Revised 1897
Edition 1898
Copyright N/A
Levelled N/A

Surveyed 1877
Revised 1897
Edition 1898
Copyright N/A
Levelled N/A

Surveyed 1877
Revised 1897
Edition 1898
Copyright N/A
Levelled N/A

Surveyed 1877
Revised 1897
Edition 1898
Copyright N/A
Levelled N/A



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: County Series

Map date: 1907

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1891
Revised 1905
Edition 1907
Copyright N/A
Levelled N/A

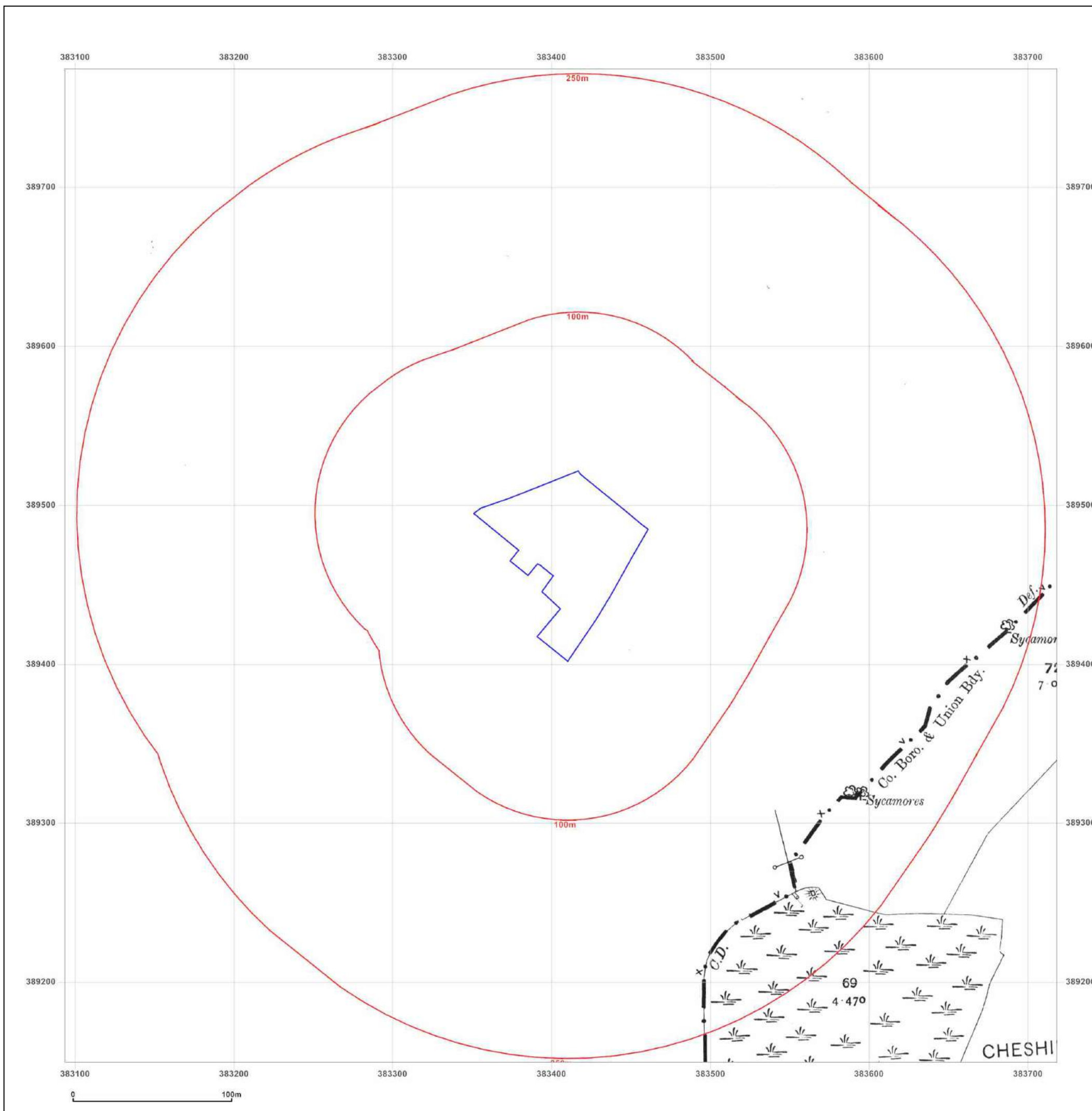


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: County Series

Map date: 1910

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1910
Revised 1908
Edition 1910
Copyright N/A
Levelled N/A

Surveyed 1910
Revised 1908
Edition 1910
Copyright N/A
Levelled N/A

Surveyed 1910
Revised 1908
Edition 1910
Copyright N/A
Levelled N/A

Surveyed 1910
Revised 1908
Edition 1910
Copyright N/A
Levelled N/A

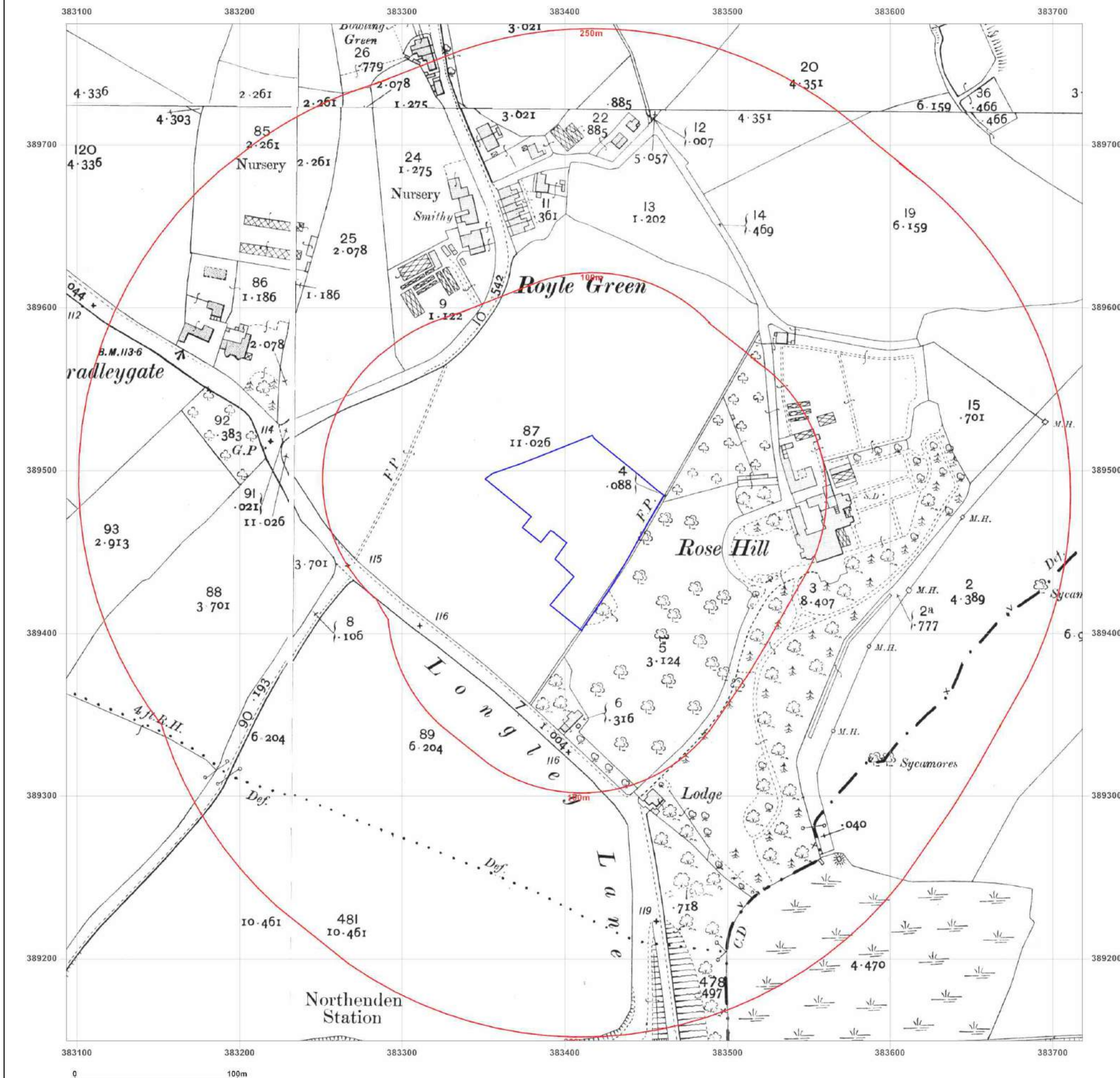


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: County Series

Map date: 1922

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1922
Revised 1916
Edition 1922
Copyright N/A
Levelled 1915

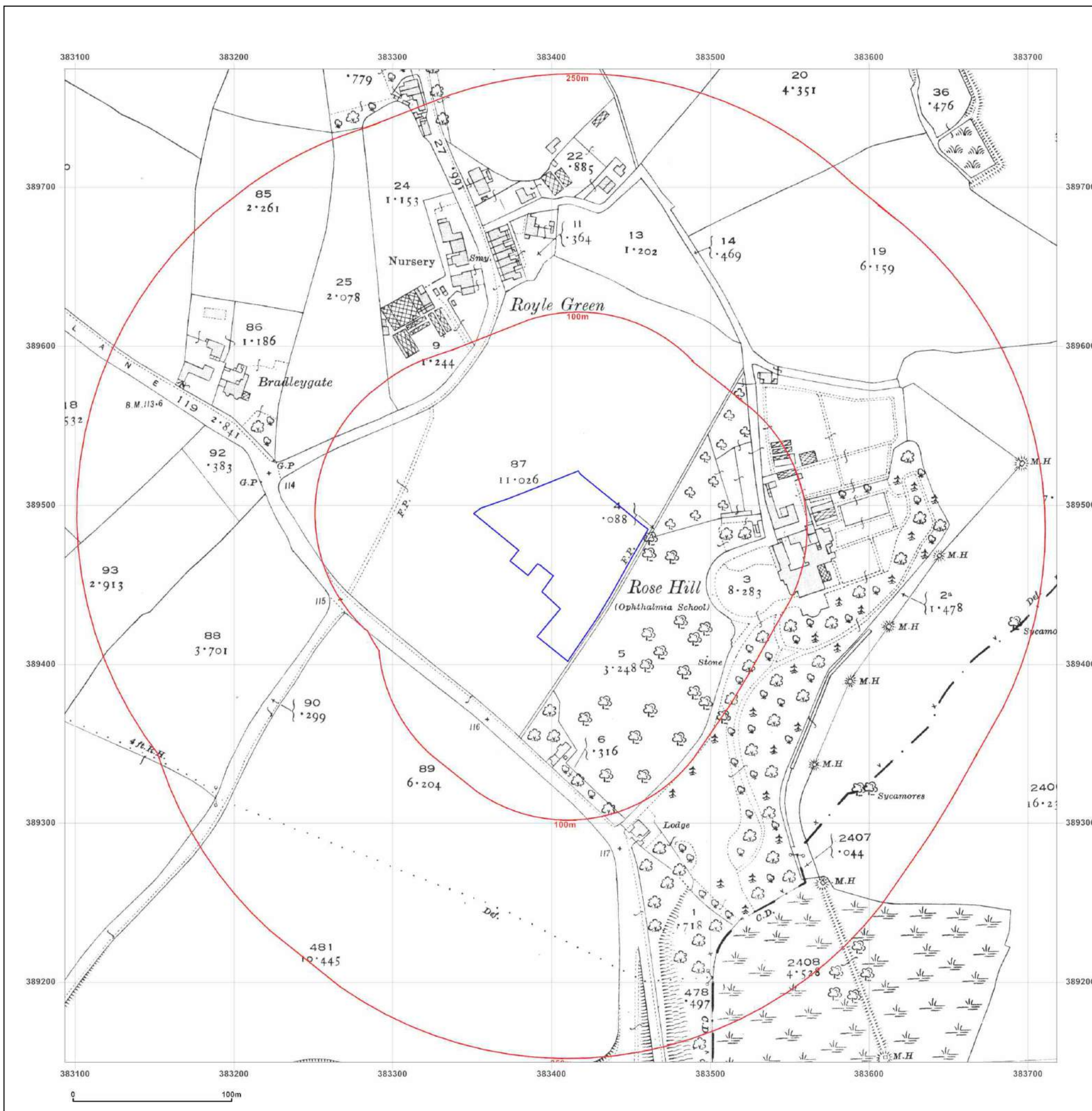


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: County Series

Map date: 1934

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1873
Revised 1934
Edition N/A
Copyright N/A
Levelled 1927

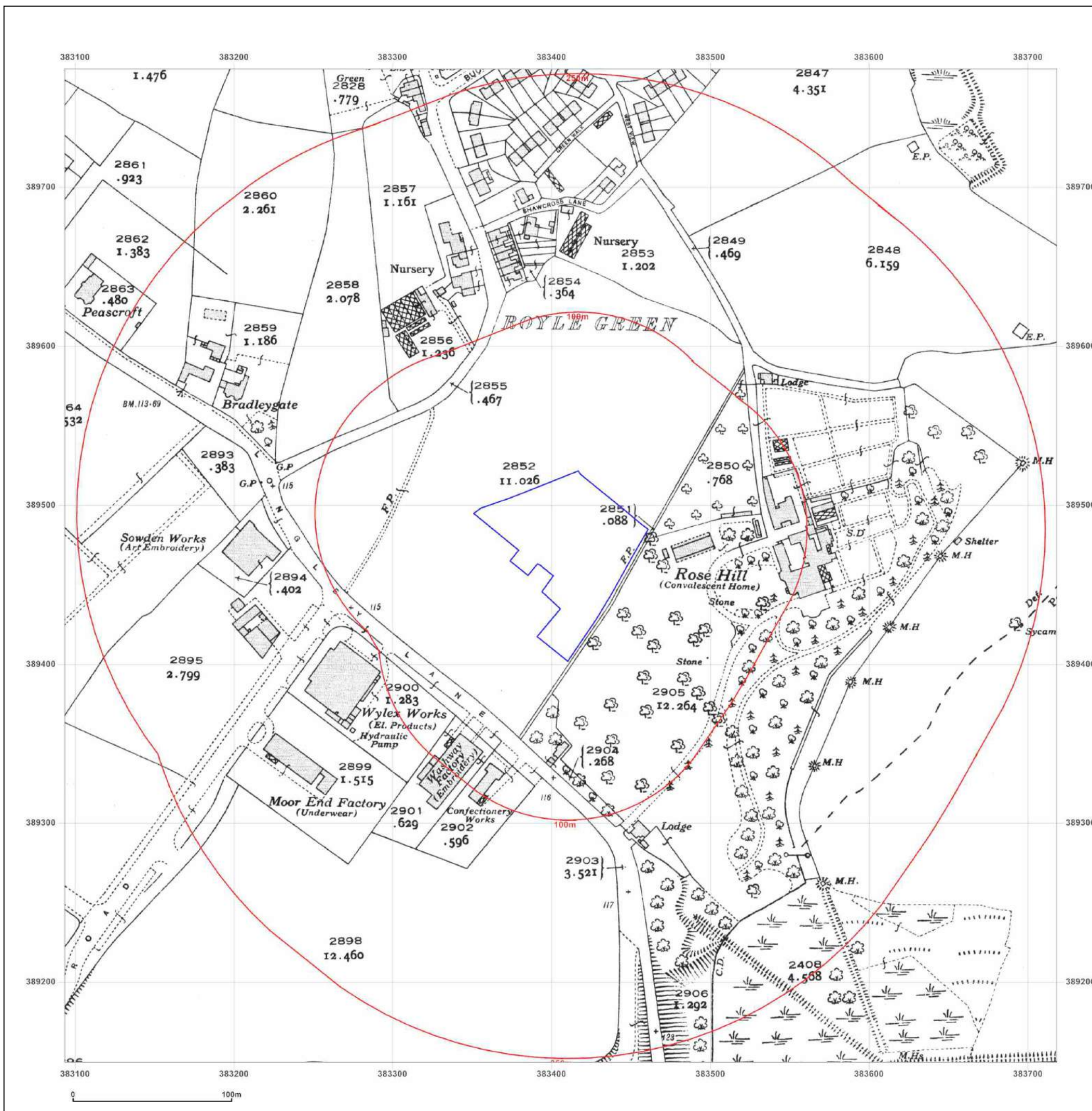


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: National Grid

Map date: 1956

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1956
Revised 1956
Edition N/A
Copyright 1956
Levelled 1949

Surveyed 1956
Revised 1956
Edition N/A
Copyright 1956
Levelled 1949

Surveyed 1956
Revised 1956
Edition N/A
Copyright 1956
Levelled 1949

Surveyed 1956
Revised 1956
Edition N/A
Copyright 1956
Levelled 1949

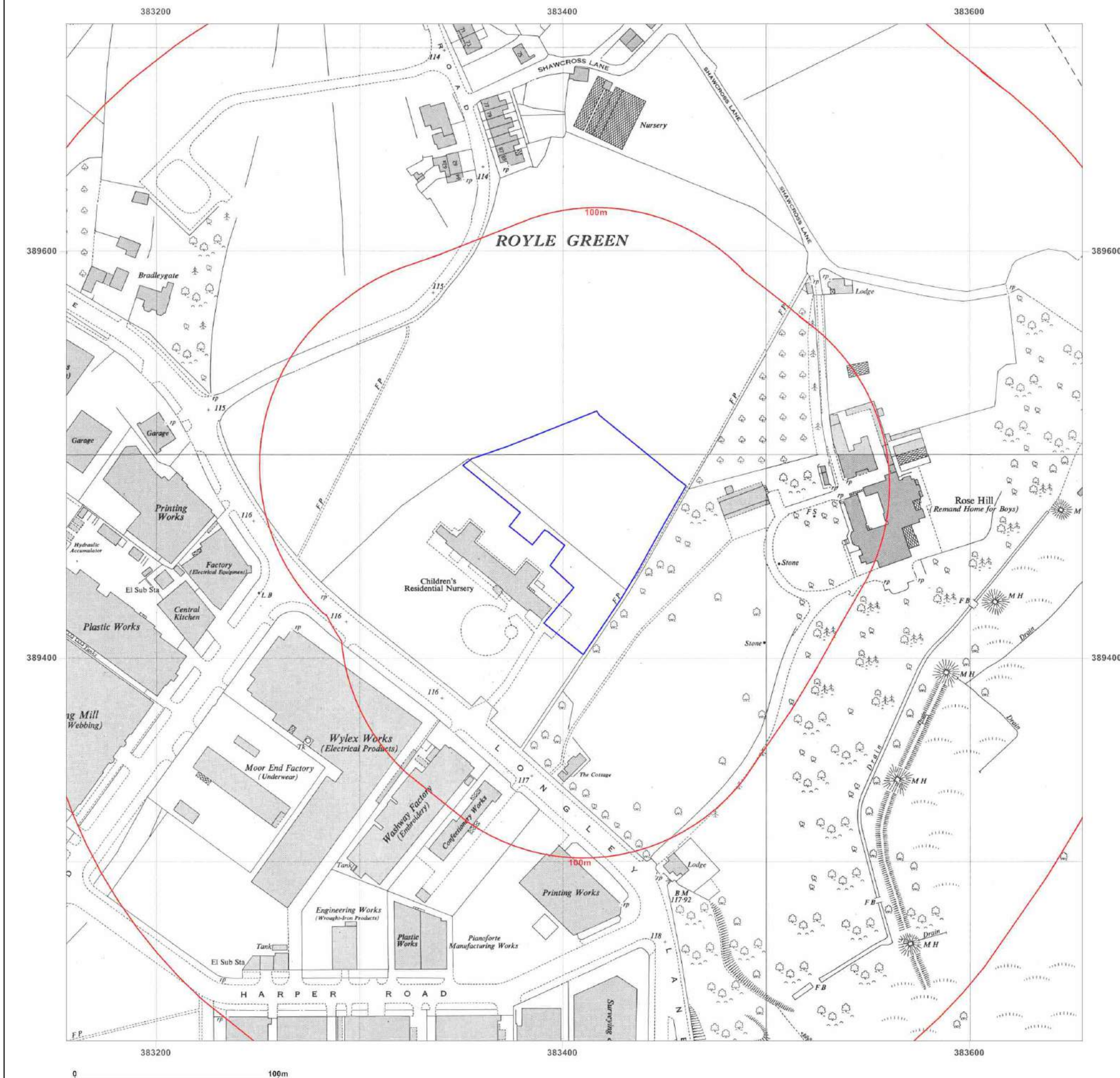


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: National Grid

Map date: 1956

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1956
Revised 1956
Edition N/A
Copyright 1957
Levelled 1949

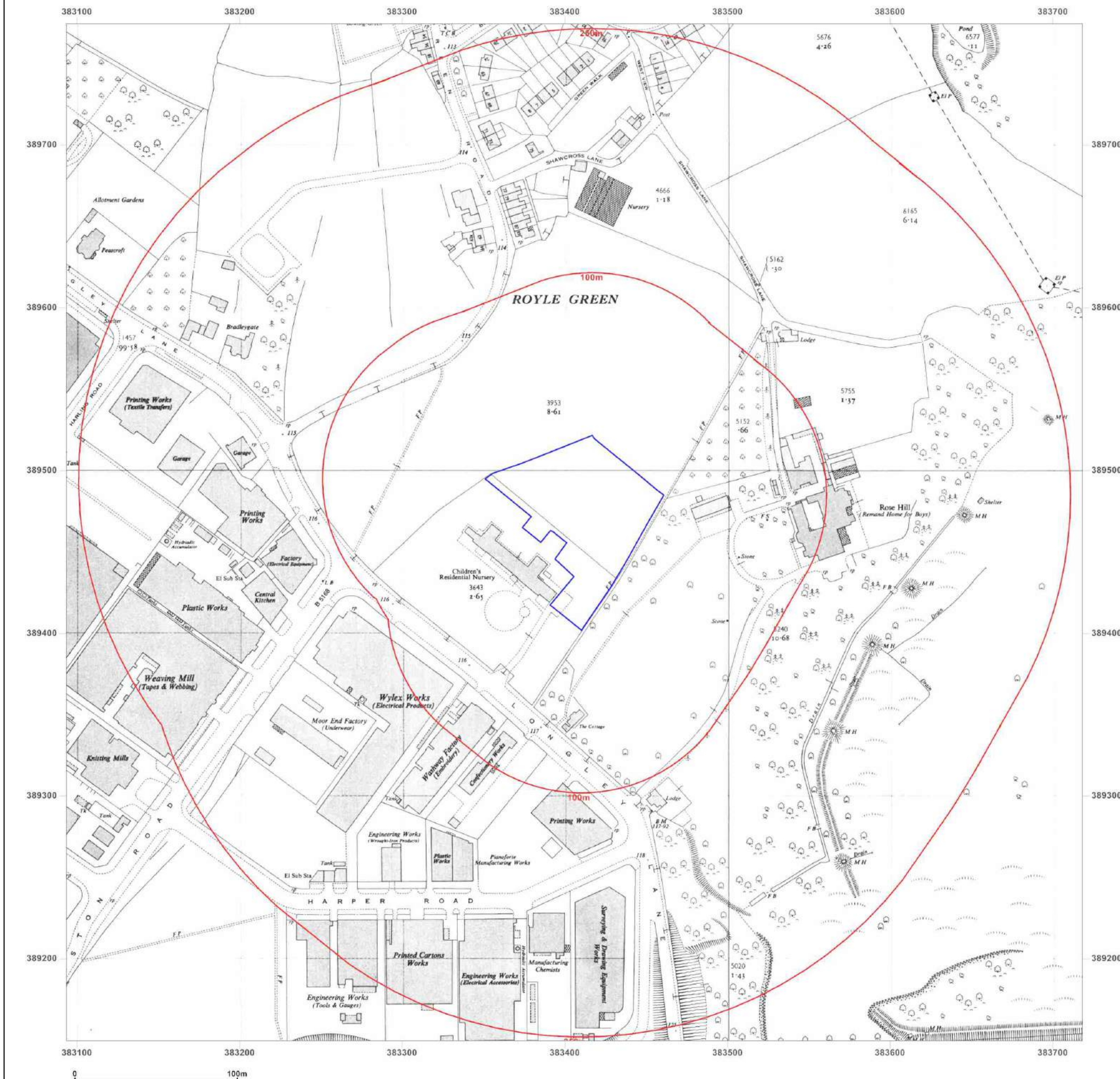


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: National Grid

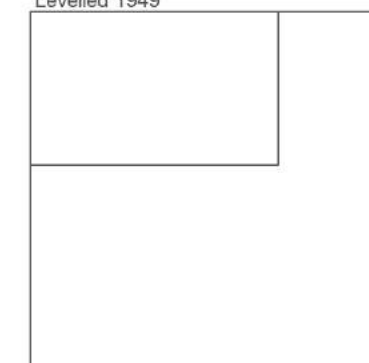
Map date: 1959

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1956
Revised 1959
Edition N/A
Copyright 1959
Levelled 1949



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: National Grid

Map date: 1959

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1958
Revised 1958
Edition N/A
Copyright 1961
Levelled 1956



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: National Grid

Map date: 1967

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1956
Revised 1966
Edition N/A
Copyright 1967
Levelled 1958

Surveyed 1956
Revised 1958
Edition N/A
Copyright 1967
Levelled 1958



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

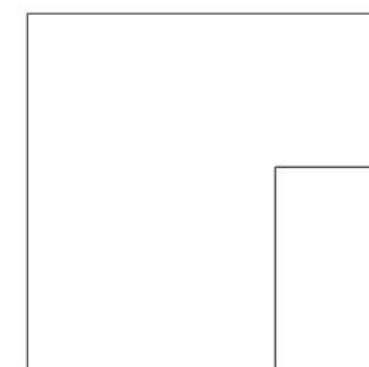
Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: National Grid

Map date: 1978

Scale: 1:1,250

Printed at: 1:2,000



Surveyed N/A
Revised 1978
Edition N/A
Copyright 1978
Levelled 1958

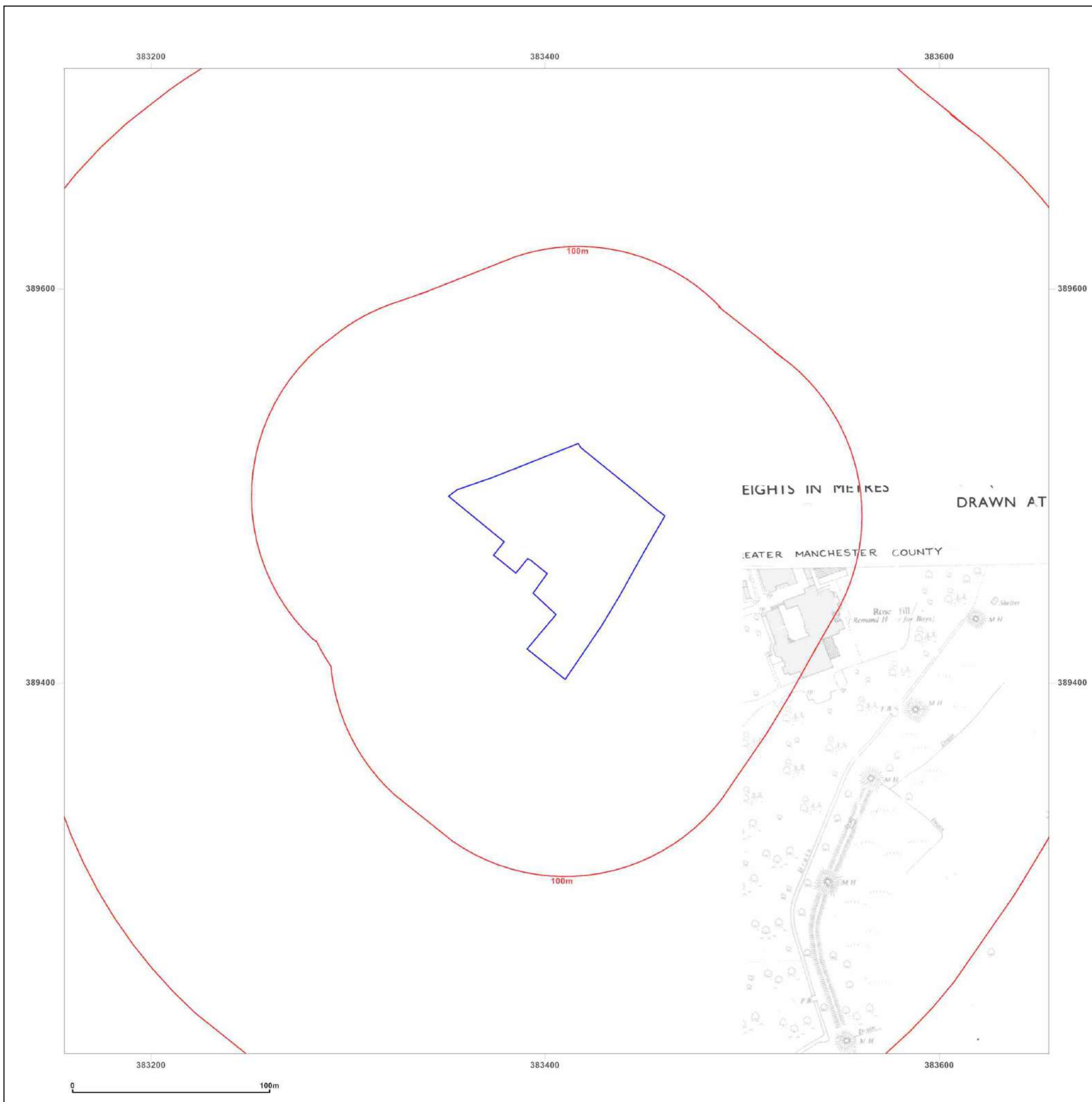


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: National Grid

Map date: 1983-1984

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1958
Revised 1984
Edition N/A
Copyright 1984
Levelled 1958

Surveyed 1956
Revised 1983
Edition N/A
Copyright 1984
Levelled 1958

Surveyed 1956
Revised 1982
Edition N/A
Copyright 1983
Levelled 1958



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: National Grid

Map date: 1992

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1992
Revised 1992
Edition N/A
Copyright 1992
Levelled N/A

Surveyed 1992
Revised 1992
Edition N/A
Copyright 1992
Levelled N/A

Surveyed 1992
Revised 1992
Edition N/A
Copyright 1992
Levelled N/A

Surveyed 1992
Revised 1992
Edition N/A
Copyright 1992
Levelled N/A

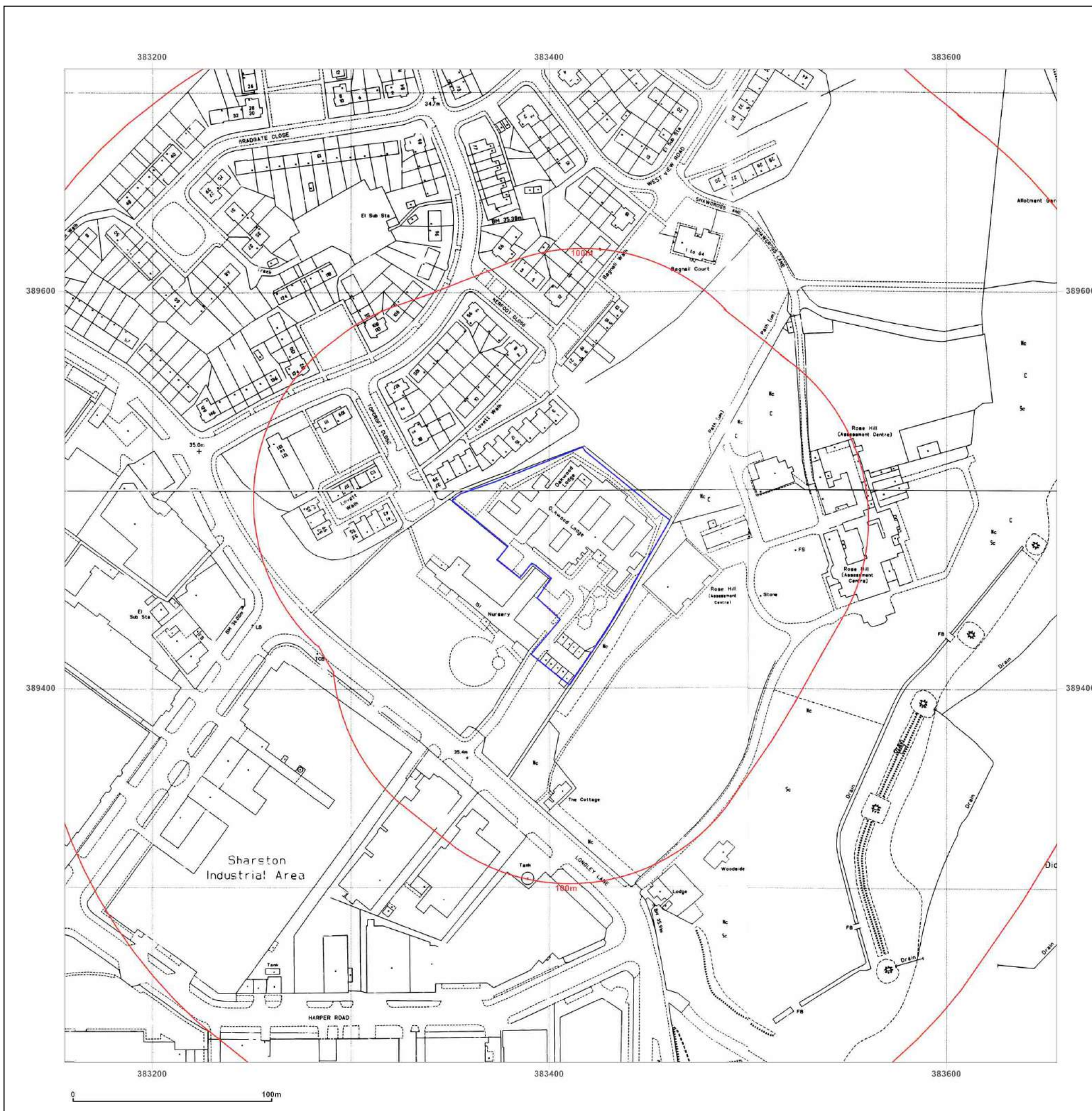


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: National Grid

Map date: 1992

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1992
Revised 1992
Edition N/A
Copyright 1992
Levelled N/A

Surveyed 1992
Revised 1992
Edition N/A
Copyright 1992
Levelled N/A



Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: National Grid

Map date: 1992

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1992
Revised 1992
Edition N/A
Copyright 1992
Levelled N/A

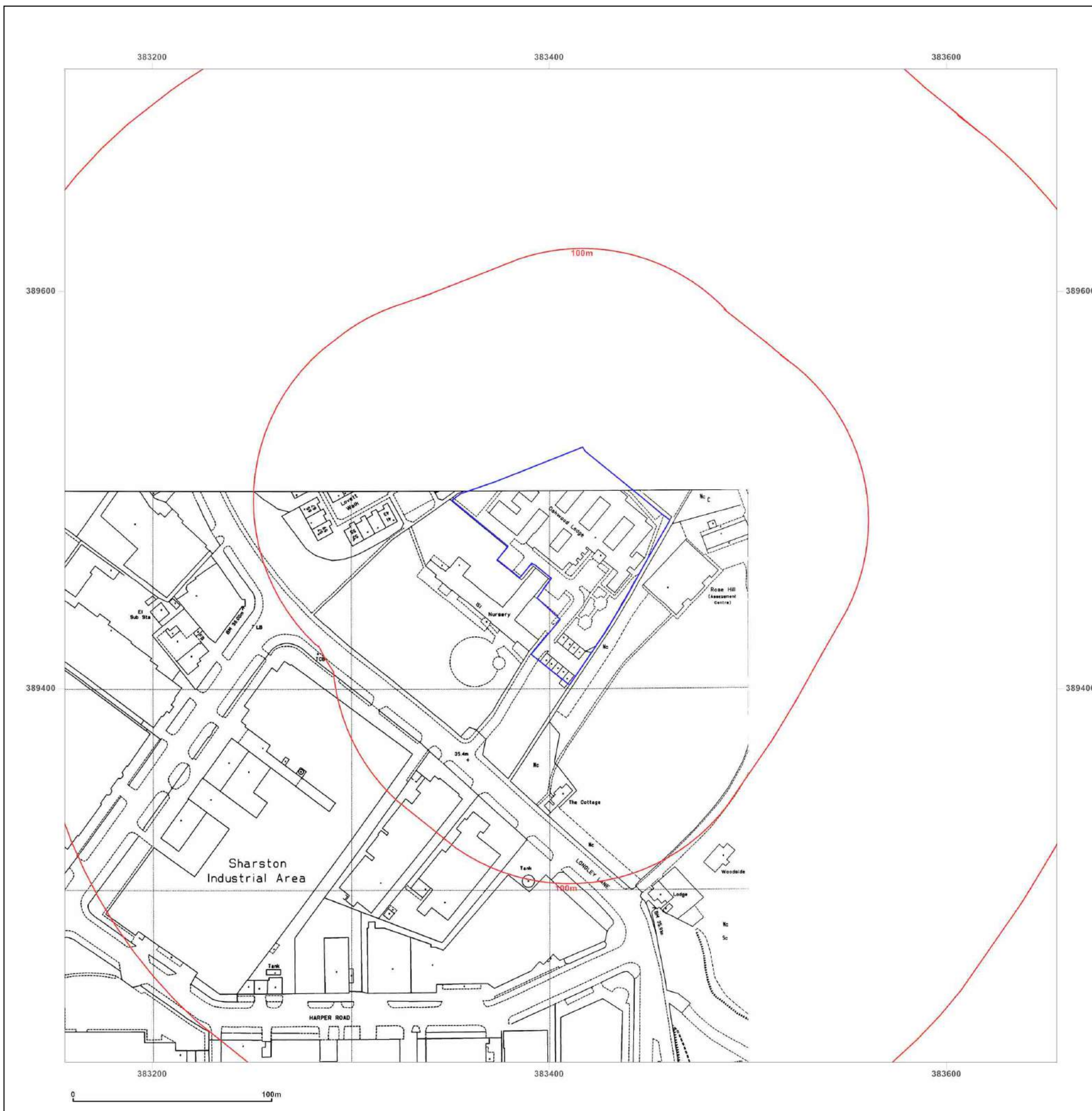


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



Site Details:

LONGLEY LANE,
MANCHESTER, M22 4LA

Client Ref: 8928G_-_Oakwood
Report Ref: GS-6176287
Grid Ref: 383406, 389462

Map Name: National Grid

Map date: 1995

Scale: 1:1,250

Printed at: 1:2,000



Surveyed 1995
Revised 1995
Edition N/A
Copyright 1995
Levelled N/A

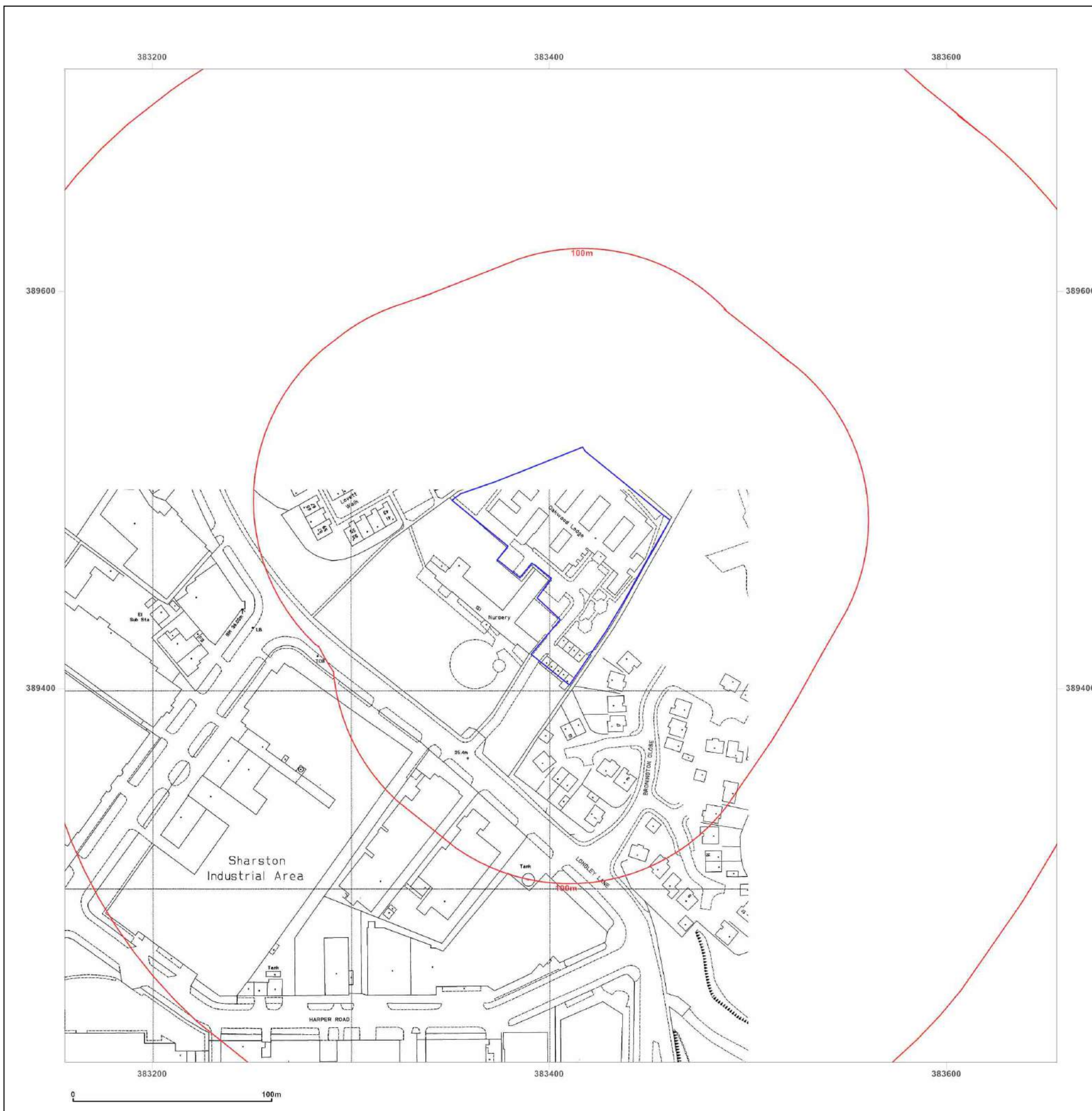


Produced by
Groundsure Insights
T: 08444 159000
E: info@groundsure.com
W: www.groundsure.com

© Crown copyright and database rights 2018 Ordnance Survey 100035207

Production date: 16 July 2019

Map legend available at:
www.groundsure.com/sites/default/files/groundsure_legend.pdf



APPENDIX 04

Qualitative Risk Assessment Guidance

Qualitative Risk Assessment Guidance

The Preliminary Contamination Risk Assessment methodology within the Phase 1 Desk Study Report is undertaken with reference to the following CIRIA guidance.

- Contaminated Land Risk Assessment - A Guide to Good Practice CIRIA C552:2001.

In practical terms, risk evaluation is undertaken in order to ascertain if potential risks are considered to be acceptable via classification following factors.

- The magnitude of the potential **consequences** (severity) of the risk occurring.
- The magnitude of the **probability** (likelihood) of the risks occurring.
- The potential consequences of contamination risks occurring at the Site should be classified in accordance with the following table which is adapted from Table 6.3 in the CIRIA guidance.

Table 1 Classification of Consequence

Classification	Definition
Severe	Short term (acute) risk to human health likely to result in 'significant harm' as defined by the <i>Environment Protection Act 1990</i> , Part IIA. Short term risk of (significant) pollution of sensitive water resource or ecosystem. Catastrophic damage to building/property. Short term risk to a particular ecosystem, or organism forming part of such an ecosystem.
Medium	Chronic damage to human health (significant harm). Pollution of sensitive water resources. A significant change in a particular ecosystem, or an organism forming part of such an ecosystem.
Mild	Pollution of non-sensitive water resources. Significant damage to crops, buildings, structures and services. Damage to sensitive buildings/structures/services or the environment.
Minor	Harm, although not necessarily significant harm, which may results in a financial loss, or expenditure to resolve. Non-permanent, easily preventable effects to human health. Easily repairable damage to buildings, structures and services.

The probability or likelihood of a risk occurring is then classified in accordance with Table 6.4 in the CIRIA Guidance which is also reproduced in Table 2 below.

Table 2 Classification of Probability

Classification / Likelihood	Definition
High	There is a pollution linkage and an event that either appears very likely in the short term and almost inevitable over the long term or there is evidence at the receptor of harm or pollution.
Likely	There is a pollutant linkage and all the elements are present and in the right place, which means that it is probable that an event will occur. Circumstances are such that an event is not inevitable, but possible in the short term and likely over the long term.
Low	There is a pollution linkage and circumstances are possible under which an event could occur. However, it is by no means certain that even over a longer period that such an event would take place and is even less likely in the shorter term.
Unlikely	There is a pollution linkage but circumstances are such that it is improbable that an event would occur even in the very long term.

These classifications are then compared to indicate the risk to each pollution linkage. For each likelihood scenario, it will be assumed that a pollution linkage exists between the source and any potential receptors. The classification is not applied if no active pollution linkage is perceived to exist.

Upon classification of both the consequences and probability, the two can be compared in Table 6.5 within the guidance, in order to produce a risk category rating. The risk categories range from 'Very High Risk' to 'Very Low Risk' and should be determined for each potential pollutant linkage as oppose to each receptor or hazard as indicated above.

The matrix table is reproduced in Table 3 below.

Table 3 Consequence Vs Probability Matrix

		Consequence			
		Severe	Medium	Mild	Minor
Probability	High Likelihood	Very High Risk	High Risk	Moderate Risk	Moderate / Low Risk
	Likely	High Risk	Moderate Risk	Moderate / Low Risk	Low Risk
	Low Likelihood	Moderate Risk	Moderate / Low Risk	Low Risk	Very Low Risk
	Unlikely	Moderate / Low Risk	Low Risk	Very Low Risk	Very Low Risk

The outcome of the Consequence vs Probability matrix should be compared to the risk definitions and likely actions required in Table 4 (Table 6.6 in CIRIA C552).

The outcome will then determine the overall risk category for the site and should form the basis for any proposed investigation work and remedial actions to be determined. The assessment is based on a qualitative approach at the initial Phase 1 Desk Study, and should be updated following the results of any subsequent ground investigation results.

Table 4 Definitions of Classified Risks and Likely Required Actions

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