



DESK STUDY & SITE WALKOVER REPORT

WHITEGATE ROAD HOUSING DEVELOPMENT, WREXHAM

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CONTENTS

	Page
1.0 INTRODUCTION	3
2.0 DESK STUDY	3
2.1 Site location & aerial plan	4
2.2 Site History	5
2.3 Desk Study Checklist Output	5
2.4 Building Control	6
2.5 GroundSure Report	6
3.0 WALKOVER REPORT	6
4.0 DISCUSSION	7
5.0 RECOMMENDATIONS	7

Appendices

- A Desk study checklist
- B Historical maps
- C Photographs
- D Information provided by statutory undertakers
- E GroundSure report
- F Borehole logs of 1975

1.0 INTRODUCTION

The project concerns the erection of a number of affordable houses on a site off Whitegate Road, Wrexham which is currently used as a car park.

This report details the investigations that have been undertaken into the site and provides a general background to the sites history, discusses any concerns that there are with the ground and their likely causes and recommends intrusive investigation methods that will be necessary in order to carry out the appropriate foundation design.

2.0 DESK STUDY

The desk study is a means of obtaining important site information prior to undertaking a walkover survey and intrusive site investigation. The principal aims of the desk study are to:

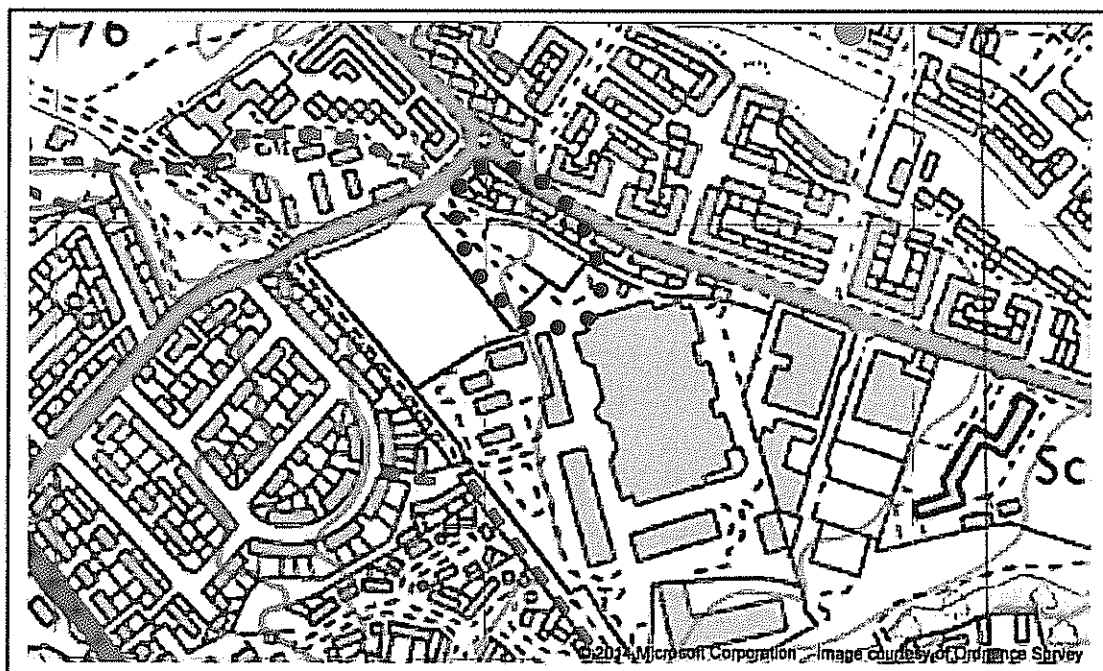
- Identify service locations.
- Determine the likely ground strata so an appropriate machine and method can be selected for the intrusive site investigation.
- Ascertain the presence of any existing hazards and assess their risk.
- Understand how the site history may affect the performance of the new structures.
- Highlight particulars to look out for when carrying out the walkover survey and intrusive investigation.
- Determine the most appropriate methods for further site investigation.
- Determine the likely presence of any contamination on the site and the location of any potential sources of contamination close to the site.
- Determine the requirement for Radon and/or Methane protection under the proposed structures.

Information has been obtained from a variety of sources such as GroundSure, ordnance survey maps, the local council and well founded anecdotal evidence. Statutory undertakers have been consulted to obtain the locations of any services and apparatus within or near to the site (see appendix D).

2.1 SITE LOCATION & AERIAL PLAN



Site aerial photograph circa 2013



Site location map 2013

2.2 SITE HISTORY

Maps of the site have been obtained spanning the period between 1899 and the present day (see appendix B). Principal observations concerning the site are listed in the table below.

<u>1899</u>	Site is undeveloped and appears to be arable or grazing land.
<u>1912</u>	Site is undeveloped and appears to be arable or grazing land.
<u>1937</u>	Site is undeveloped and appears to be arable or grazing land.
<u>1960</u>	Works have been developed adjacent to the site but the actual site remains undeveloped.
<u>1964</u>	Same as 1960.
<u>1974</u>	Appears to be a small building to the south end of the site. Could be part of the factory works.
<u>1992</u>	The small building has gone. Site is undeveloped.
<u>2014</u>	Site is a car park and the same as 1992.

The maps indicate that the site has only been developed once and that was in the early 1970's. Prior to this the land would probably have been used for farming.

2.3 DESK STUDY CHECKLIST OUTPUT

A checklist of potential issues has been completed for the site. The main potential hazards are detailed below. The full checklist is given in appendix B.

1. Changes in ground level

Ground may have been disturbed to the south of the site where there was once a small building. Trial pits should be undertaken to determine the depth of fill material here compared to other locations in site.

2. Mining or Quarrying

There are mine workings within the area. Namely at Bershan Colliery which is approximately 4km from the site.

From consultation with the Coal Authority the site is within a coal field but there are no mine workings within/under or near to the site.

3. The presence of utility services.

The information received shows that there are gas and water mains within the road adjacent to the site. A HV electric service crosses through the top north corner of the site. This may need to be diverted for the development. A CAT scanner should be used prior to any excavation over the site.

2.4 BUILDING CONTROL

Records of previous ground investigations within the locality show that the ground is predominantly medium dense sand and gravel at shallow depth. One trial pit revealed a fill depth of 1m.

2.5 GROUNDSURE REPORT

GroundSure report was purchased for the site which revealed the following information of note.

- Contamination of the subsoil is unlikely
- There is a negligible risk of flooding.
- Basic Radon protection will be required
- Land is not likely to be infill.
- Coal mining is not of concern.

3.0 WALKOVER REPORT

A walkover survey of the site was undertaken in April 2014. The purpose was to gather information on the surrounding area in order to determine if there are any potential issues within the ground. The walkover survey provided an opportunity to address the issues raised by this desk study and to uncover any other issues that may prove to have a bearing upon the design of the foundations or warrant further more detailed investigation.

The walkover revealed that the site is generally level and is covered with tarmacadam or hardstanding. There are no overhead services.

4.0 DISCUSSION

The output from the desk study indicates that the site exhibits no significant hazards which are likely to affect continuation of the works or the design of the structures and their foundations.

The ground is likely to be suitable for conventional footings such as mass concrete strips and pads. We suggest that trial pits are suitable to determine the ground conditions and verify this.

There was one previous building on the site which means that there could be buried foundations. A trial pit should be dug to determine whether this is the case.

5.0 RECOMMENDATIONS

The following is a list of actions that we consider to be required for the site.

1. Undertake trial pitting.
2. Take samples and send to the lab for contamination testing.

The above will provide enough information to allow the foundations to be designed provided that the ground material encountered is not different to that sand and gravel that we believe it to be.

APPENDICES

Appendix A

Desk study checklist

SITE INVESTIGATION DESK STUDY: CHECKLIST OF ISSUES TO CONSIDER FOR EACH DEVELOPMENT

The issues below are taken from the recommendations for site investigation listed in the NHBC standards.

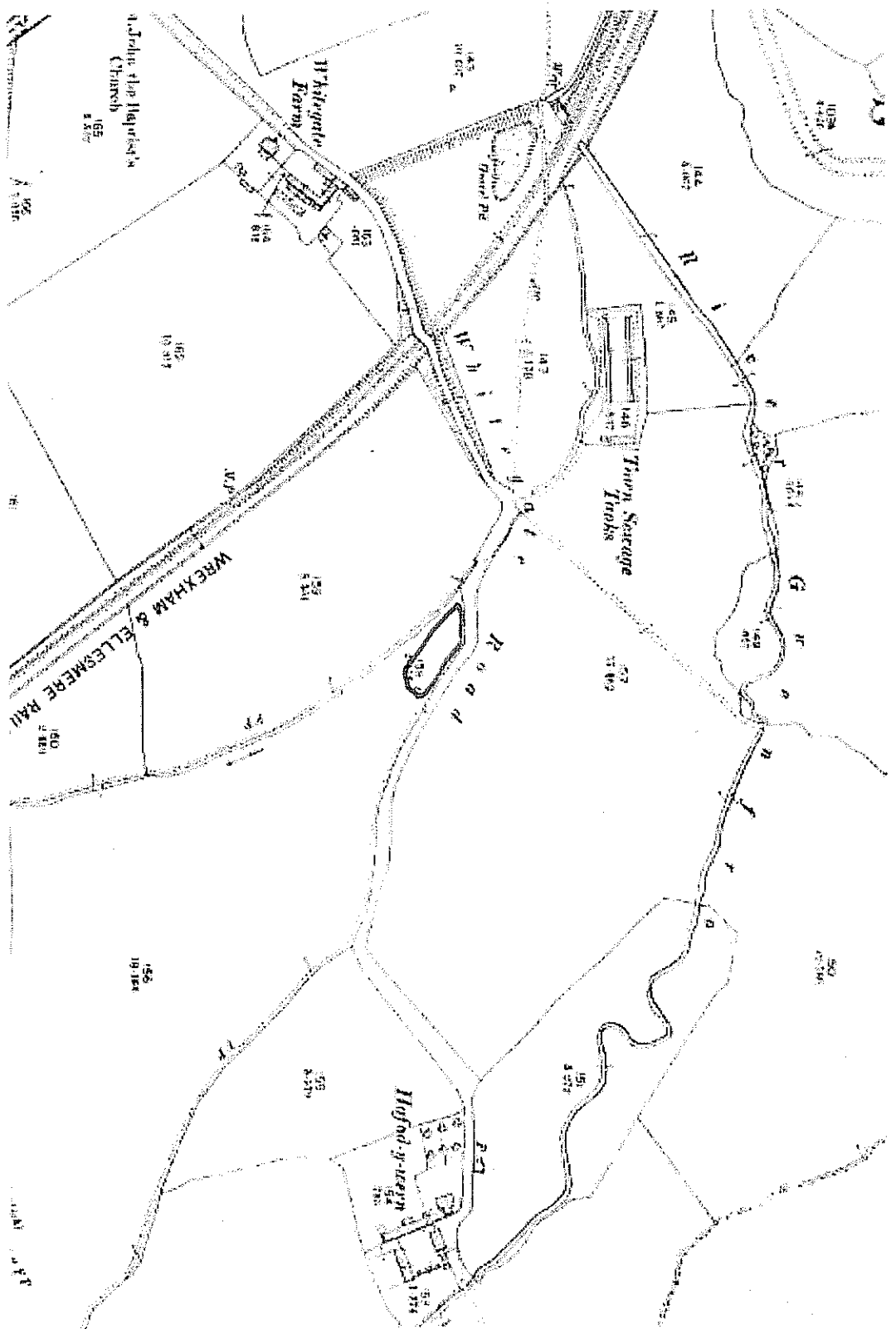
SITE: WHITEGATE ROAD HOUSING DEVELOPMENT

Ref:	Issue:	Yes:	No:	Notes:
1	Is the site sloping?		✓	
2	Is there a watercourse on or near to the site?		✓	Only surface run-off drains in the vicinity of the site.
3	Are there trees in the vicinity of the development?		✓	None that will affect the development.
4	Are there likely to have been any changes within the ground level due to fill or demolition of old structures?	✓		The site is a car park currently and could have been built on before as it's within a built up area.
5	Is there any information on the type of subsoil's that lie below ground level?	✓		Sedimentary deposits are likely with sand and silt. Trial pits will confirm this.
6	Is the subsoil material likely to cause foundation problems?		✓	
7	Are there likely to be soft deposits over the site?		✓	There is not likely to be organic or soft material considering the sites use as a car park..
8	Is there any information on the strength or compressibility of the ground at the proposed bearing level?		✓	To be obtained from trial pits and lab testing.
9	Is the subsoil likely to be a type of shrinkable clay?		✓	Not in this location.
10	Is the groundwater likely to attack buried concrete?		✓	
11	Is there any evidence of ground slipping within or near to the site?		✓	None known of
12	Has there been any mining or quarrying within or near to the site?	✓		Coal mining area.

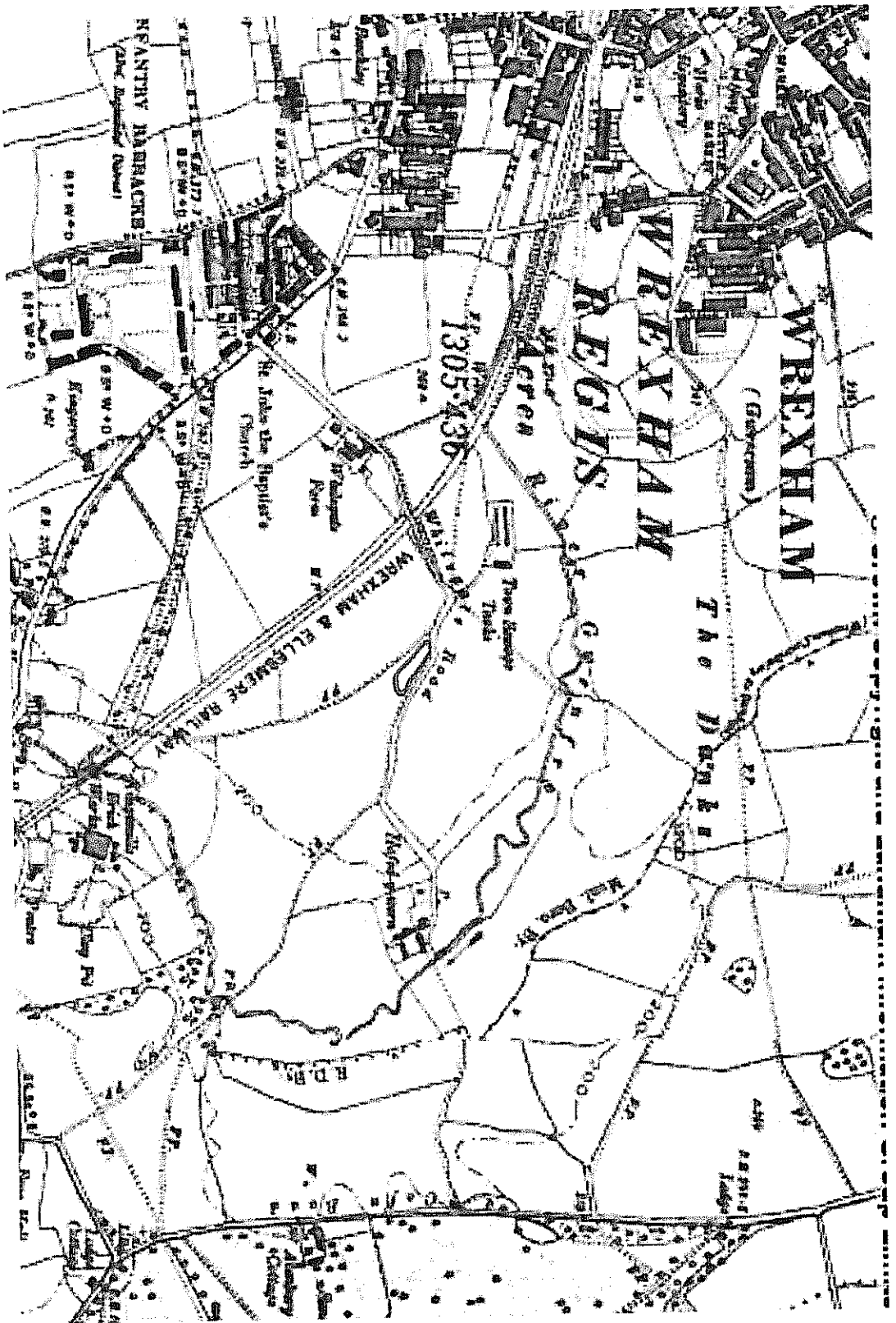
13	Are there coal seams under the site?	✓	✓	Could be. Need to check with The Coal Authority.
14	Will the footprint of the building(s) have a significant affect on the ground strata?		✓	Foundations will be designed using appropriate methods and values from the intrusive site investigation however loads will be low and spread out.
15	Are the foundation loads likely to be high in magnitude and pose a concern?		✓	
16	Is the proposed structure likely to be sensitive to differential settlements?		✓	Ground material expected to be uniform across the site. Building foundations could be present.
17	Are there any utility services on or near to the site?	✓		Services are run underground along the adjacent roads.
18	Is there a high water table indicated?		✓	Water table was not found within the boreholes for the adjacent site.
19	Are there any signs of flooding?		✓	Not within a flood zone.
20	Is there evidence of defects within existing structures?		✓	No existing structures.
21	Is there likely to be contamination of the ground?	✓		Could be. Ground will need to be tested.

Appendix B

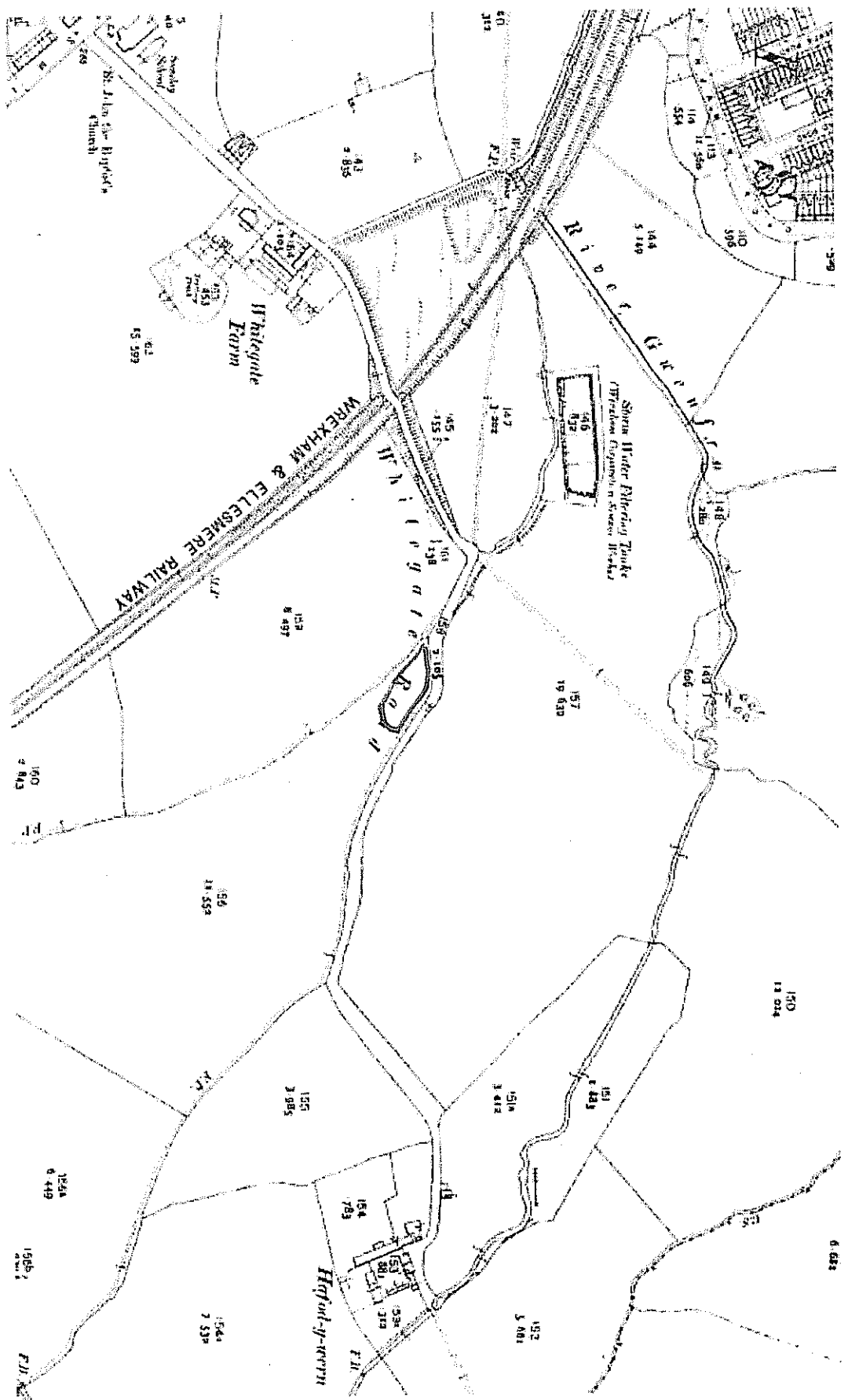
Historical Maps



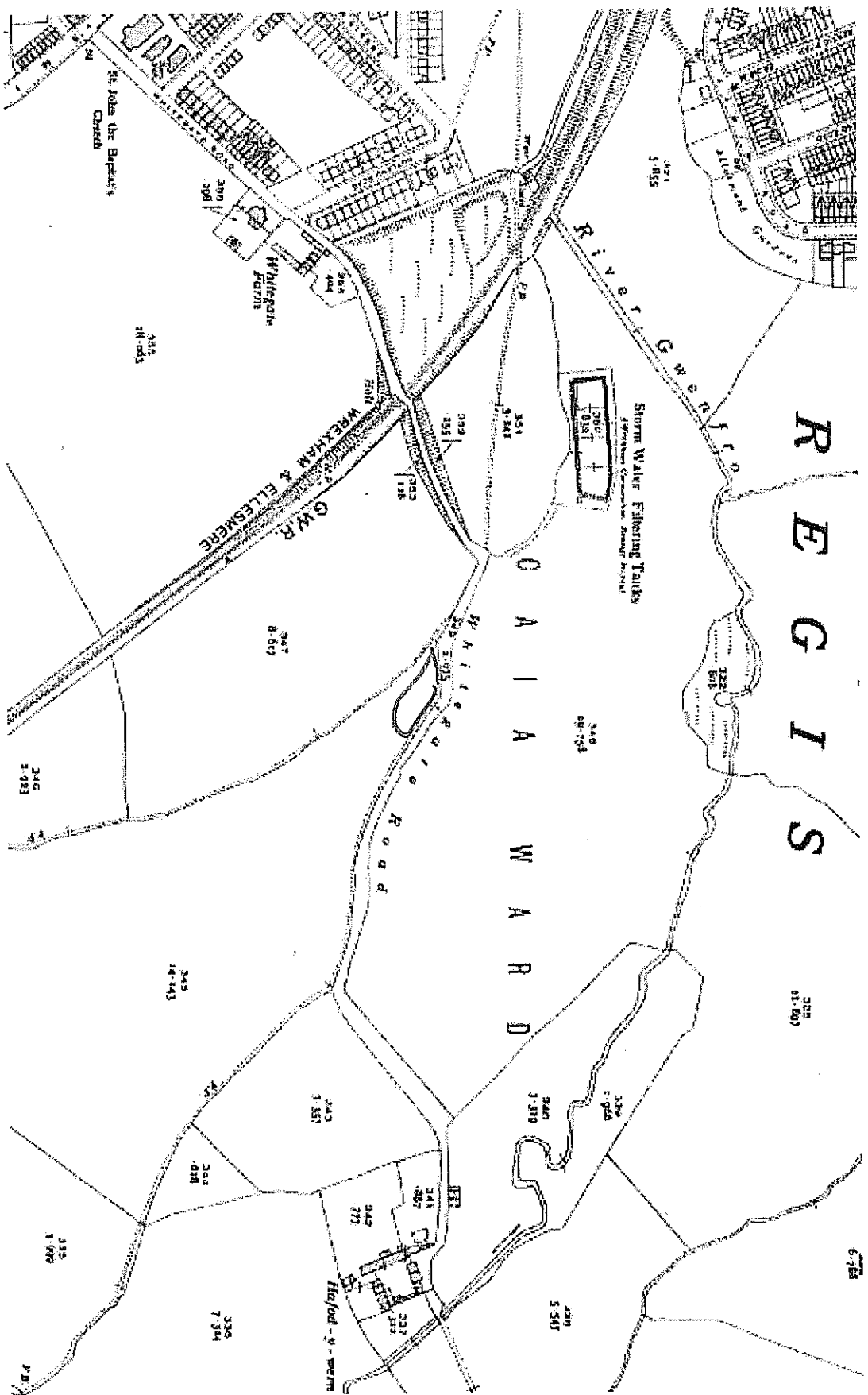
1899 Pre-WWII 1:2,500 - DENBIGHSHIRE



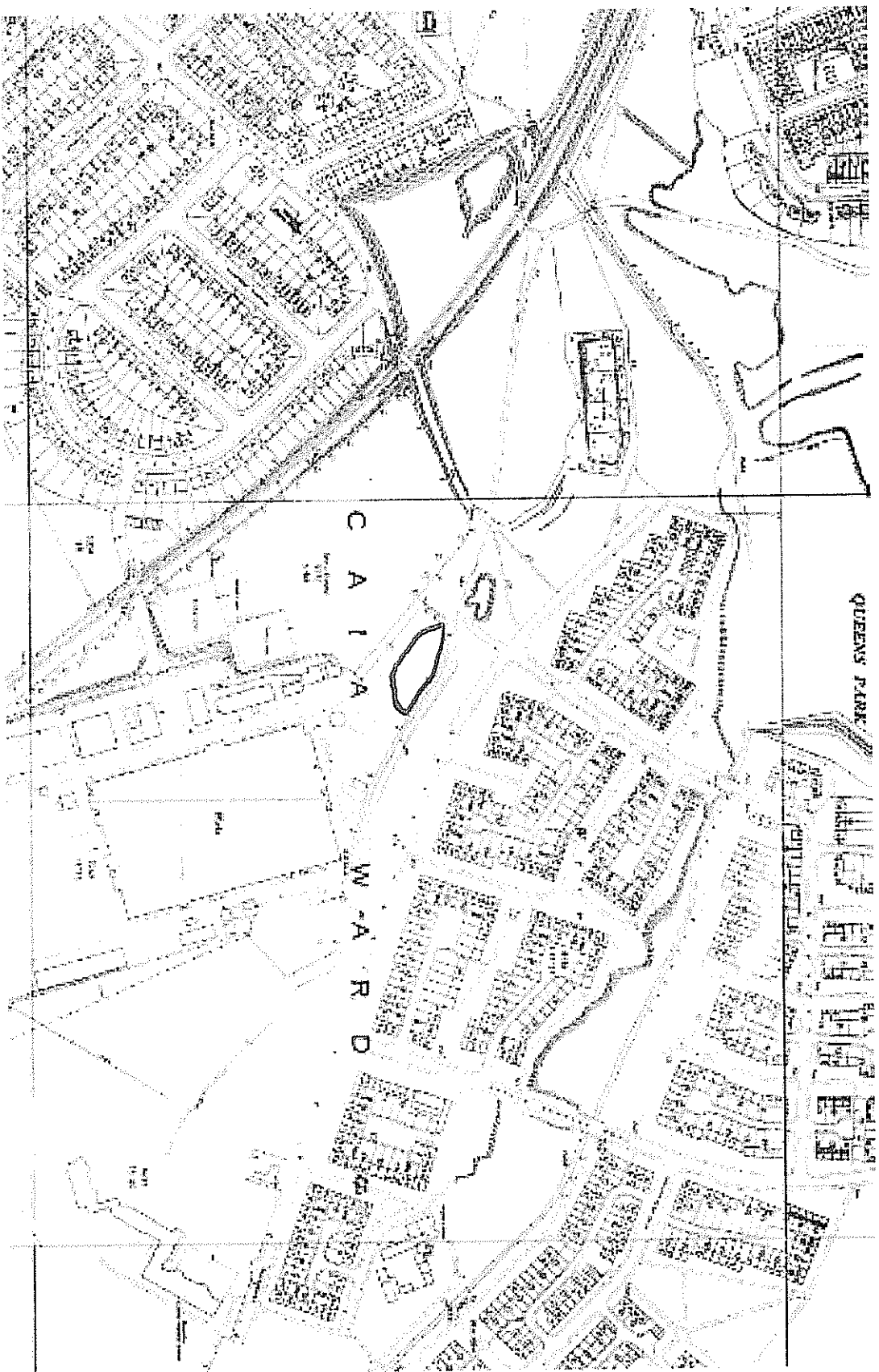
1899-1900 Pre-WWI 1:10,560 - DENBIGHSHIRE



1912 Pre-WWII 1:2,500 - DENBIGHSHIRE



1937 Pre-WWII 1:2,500 - DENBIGHSHIRE



1960-61 Post-WWII 1:2,500 - CHESHIRE



1974-83 Post-WWII 1:10,000 - DENBIGHSHIRE

Appendix C

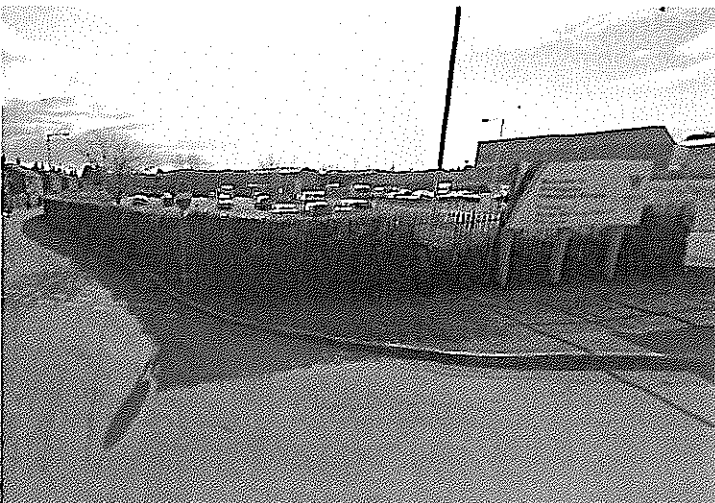
Photographs



Photograph 1: View looking south east.



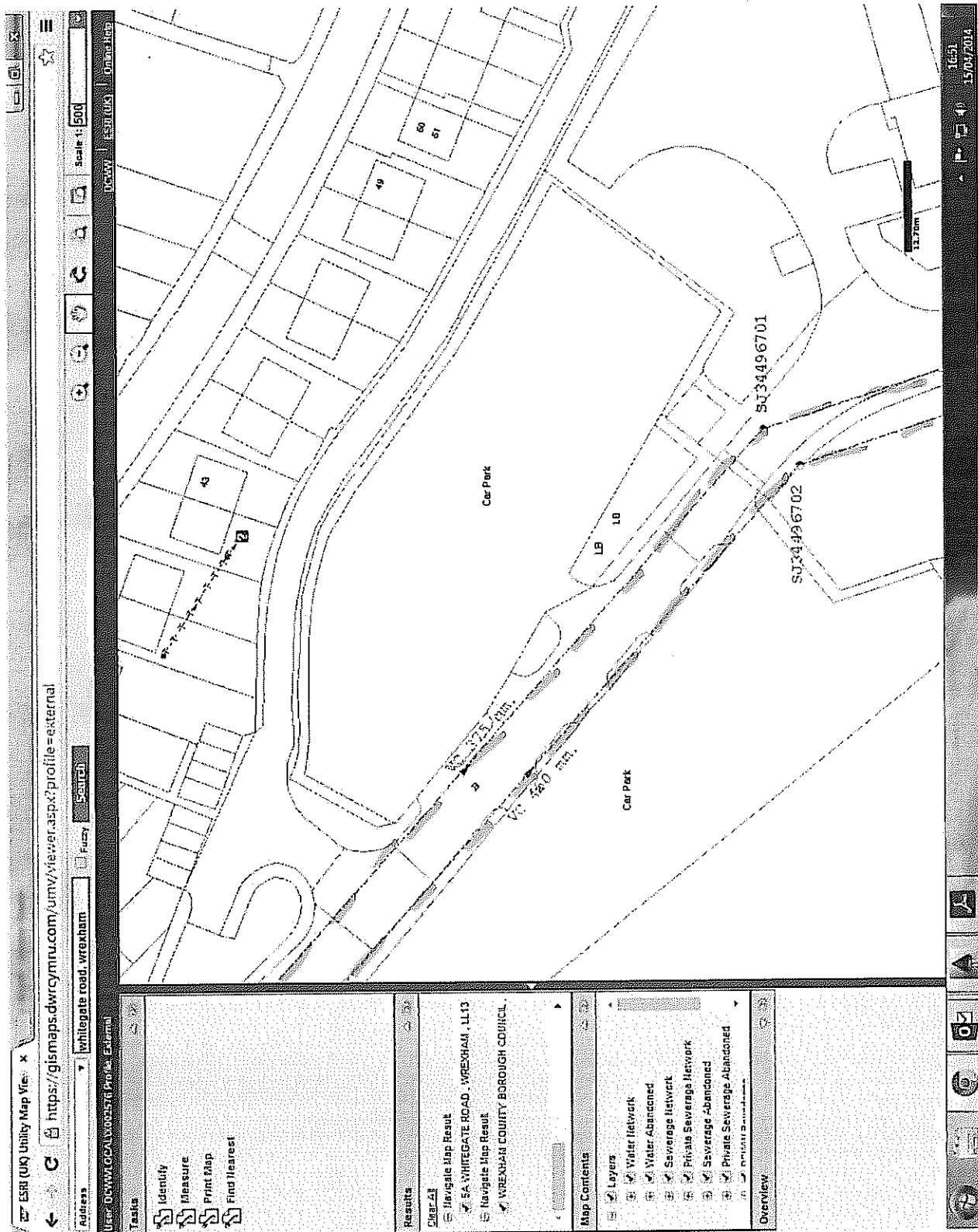
Photograph 2: View looking north west.



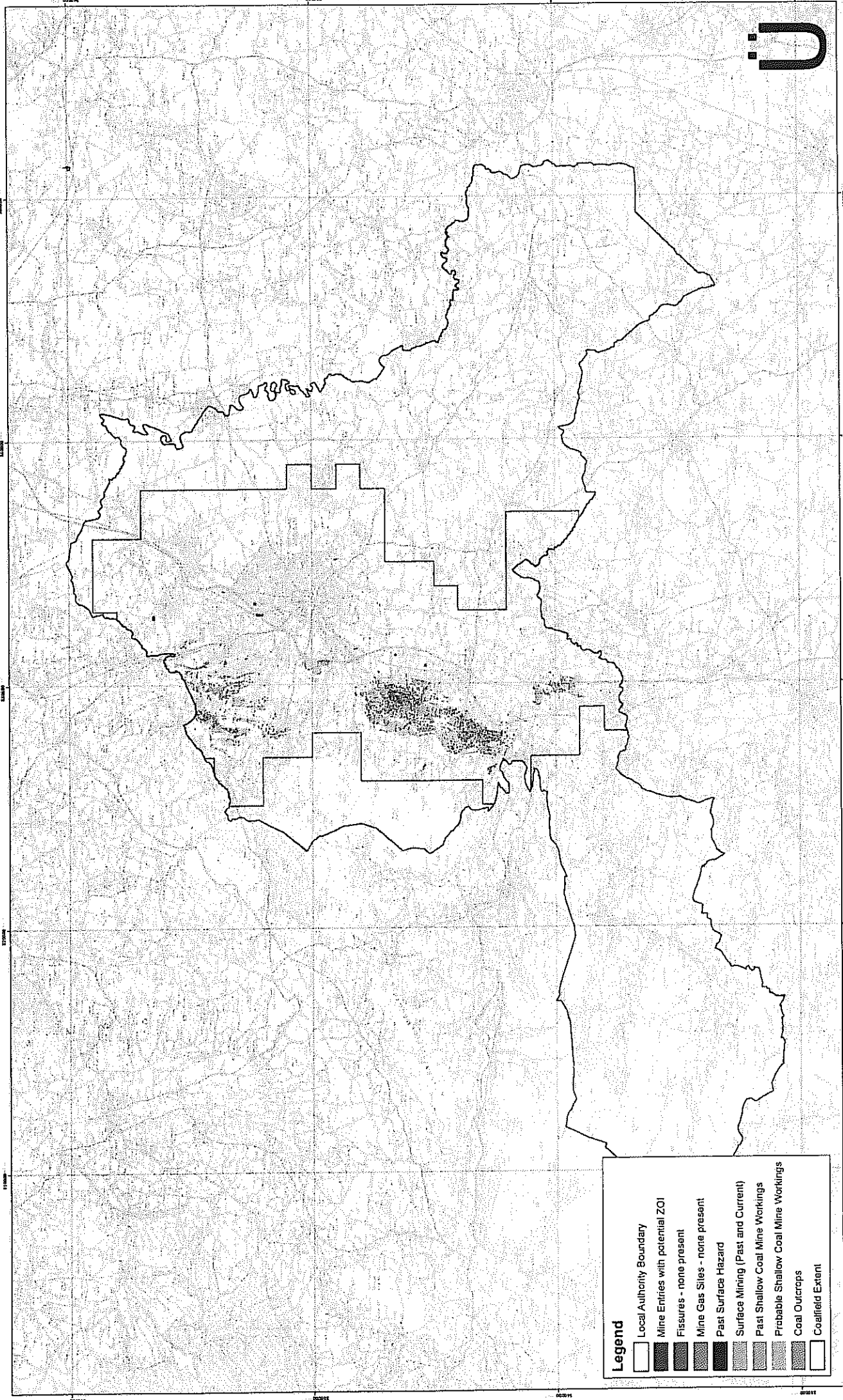
Photograph 3: View from north west.

Appendix D

Information provided by Statutory Undertakers



Wrexham - Wrexham - Coal Mining Development Referral Area



Legend

- Local Authority Boundary
- Mine Entries with potential ZOI
- Fissures - none present
- Mine Gas Siles - none present
- Past Surface Hazard
- Surface Mining (Past and Current)
- Past Shallow Coal Mine Workings
- Probable Shallow Coal Mine Workings
- Coal Outcrops
- Coalfield Extent

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Scale: 1:70,000
@A1

Created by: MEREDS

Last updated: 13/09/2010

Drawing ref: Wrexham - Wrexham.mxd



The Coal Authority

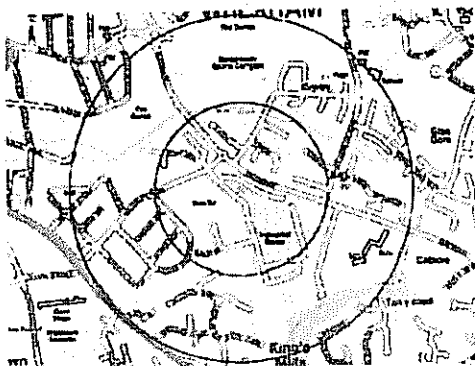
Appendix E

GroundSure Report



GroundSure
ENVIRONMENTAL INSIGHT

GroundSure Homebuyers



Address: Site at, Whitegate, Cala Park,
WRECSAM, LL13 8TN

Date: 4 Nov 2013

GroundSure Reference: 11788513

Your Reference: 11788513

Grid Reference: 334622,349744



Professional Assessment on Contaminated Land Passed

GroundSure considers that there is not a "High Potential Risk" that the property will be identified as "Contaminated Land" within the meaning set out in Part 2A of the Environmental Protection Act 1990. Therefore, GroundSure consider that Contaminated Land issues are unlikely to have a significant impact on the security of the property in normal lending scenarios.



Professional Assessment on Flood Risk

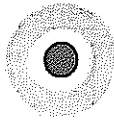
A Negligible risk of tidal/fluviat flooding and a Low risk of surface water (pluvial) flooding has been identified within 25m of the centre of the property.

*High Potential Risk" is the level of risk which results in 1% of reports being In Need of Further Assessment.

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GroundSure
ENVIRONMENTAL INSIGHT

GroundSure Homebuyers

Other Environmental Findings

Groundwater Flooding: The site or an area in close proximity is considered to have the potential for groundwater flooding to occur at the surface. Please refer to the Detailed Findings in Section 5.7 for further information.

Natural Ground Subsidence: The study site is located in an area where some properties may be affected by Natural Ground Subsidence. Please refer to the Detailed Findings and Section 5.8 for further information.

Radon: The study site is located in an area where some properties are Radon Affected. Please refer to the Detailed Findings and Section 5.9 for further information.

Coal Mining: The study site lies in an area which may be affected by coal mining. Please refer to the Detailed Findings and Section 6.1 for further information.

Historic Infilled Land: GroundSure have not identified any past activities that can cause structural problems on or in proximity to the property.

BGS Non-Coal Mining: The British Geological Survey (BGS) have not identified a risk of non-coal mining at the property.

HS2: The property does not lie within 5km of the proposed High Speed 2 (HS2) train route. No further recommendations are necessary.

Energy: The property has been identified to lie within 5km of one or more of the following:

- Existing or proposed oil/gas/shale gas/coalbed methane wells
- Existing or proposed wind turbines
- Existing or proposed power stations or nuclear installations.

For further information, you may wish to purchase a GroundSure Energy report.

Please note that no physical inspection of the property has been carried out in the preparation of this report. If you would like any further assistance regarding this report, please contact TM Group on (T) 0844 249 9202, email: helpdesk@tmgroup.co.uk

GroundSure Ltd



Recommendations – Contaminated Land

In view of the type and location of land use disclosed by this environmental report GroundSure were initially unable to certify this property. However, a GroundSure consultant has analysed the nature of the development at the site, and concluded that the issues of concern would have been the developer's legal responsibility to address as part of the development process, and as such have surmised that these concerns are not significant. This risk assessment is based upon the assumption that the developer of the site has undertaken the development process in line with their legal responsibilities as set out in Planning Policy Statement (PPS) 23: Planning and Pollution Control or any subsequent equivalent guidance under the National Planning Policy Framework (NPPF). A prudent purchaser may wish to obtain confirmation of all works undertaken and proof of discharge of any conditions relating to land quality to assist in any future sale.

Please note this report and assessment are only suitable for single residential properties. If you require an assessment for a commercial property, please contact your search provider for further guidance.

Recommendations - Flood

NaFRA

No guidance required.

Historic Flood Events

The site is not recorded to have been subject to historic flooding. However, the absence of data does not provide a definitive conclusion that the site has never flooded, only that the Environment Agency hold no record of any flooding at the site.

JBA surface water (pluvial) flooding

Whilst there is a risk of surface water flooding at or within 25m of the centre of the property, the property is only likely to be at risk from an extreme rainfall event predicted to occur once every 1000 years. No further assessment is likely to be necessary.

Report Reference: 11788513

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Page 2



Overview of Findings

For further information on each dataset, please refer to the Detailed Findings section of the report.

Factor	Assessment	Section
Past Land Use		
1:10,000 & 1:10,560 scale Historical Data [Nationwide]		
Potentially Contaminative Historical Land Uses	Passed	1.1
Potentially Infilled Land (1:10,000 & 1:10,560 scale survey)	Passed	1.2
Additional Information 1:2,500 scale Historical Data		
Historical Tanks	Passed	1.3
Historical Energy Features	Passed	1.4
Historical Petrol Stations	Passed	1.5
Historical Garage / Vehicle Repair	Passed	1.6
Historical Military / Ordnance Sites	Passed	1.7
Landfill and Waste Sites		
Landfill Sites	Passed	2.1
GroundSure Local Authority Landfill Sites Data	Passed	2.2
Waste Treatment, Transfer or Disposal Sites	Passed	2.3
Environment Agency Licensed Waste Sites	Passed	2.4
Industrial Sites and Processes		
Potentially Contaminative Industrial Sites	Passed	3.1
Petrol & Fuel Sites	Passed	3.2
Part A Authorised Processes	Passed	3.3
Part A (2) and Part B Authorised Processes and Enforcements.	Passed	3.4
Radioactive Substance Authorisations	Passed	3.5
Licensed Discharges	Passed	3.6
Dangerous Substance Inventory	Passed	3.7
Dangerous or Hazardous Sites (COMAH or NIHHS)	Passed	3.8
Hazardous Substance Consents and Enforcements	Passed	3.9
EPA1990 Sites	Passed	3.10
Environment Agency Recorded Pollution Incidents	Passed	3.11
Environmental Setting		
Sites of Special Scientific Interest (SSSI)	No	4.1
Ramsar Sites	No	4.1
National Nature Reserves (NNR)	No	4.1
Special Areas of Conservation (SAC)	No	4.1
Special Protection Areas (SPA)	No	4.1
Local Nature Reserves (LNR)	No	4.1
World Heritage Sites	No	4.1
Areas of Outstanding Natural Beauty (AONB)	No	4.1
National Parks (NP)	No	4.1
Natural Hazards & Additional Factors		
What is the maximum National Flood Risk Assessment (NaFRA) Flood Rating within 25m of the centre of the property?	Negligible	5.1
Are there any Flood Defences within 250m?	No	5.2
Are there any Areas Benefiting from Flood Defences within 250m?	No	5.3
Are there any Areas Used for Flood Storage within 250m?	No	5.4
Has the site or an area within 25m been subject to past flooding as recorded by the Environment Agency?	No	5.5
What is the maximum Surface Water flood risk identified within 25m of the centre of the property?	Low	5.6
What is the maximum susceptibility to Groundwater Flooding in proximity to the study site?	Potential at surface	5.7
Natural Ground Subsidence	Moderate - High	5.8

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Page 3



Radon



The property is in a Radon
Affected Area, as between 5 and
10% of properties are above the
Action Level

Radon Protective Measures

Basic

5.9
5.10

Mining

Coal Authority Coal Mining Records

Yes
Unclassified

6.1
6.2

BGS Non-Coal Mining Hazards

No

6.3

Mining Cavities

No

6.4

Natural Cavities

No

6.5

Historical Mining

No

6.6

Historical Underground Workings

Additional Information

Mobile Transmitter Locations

Yes

7.1

OfCom Telecommunication Masts Locations

Yes

7.2

Overhead Electricity Transmission Lines and Pylons

No

7.3

Guide to Our Professional Assessment

8

Contact Details

9

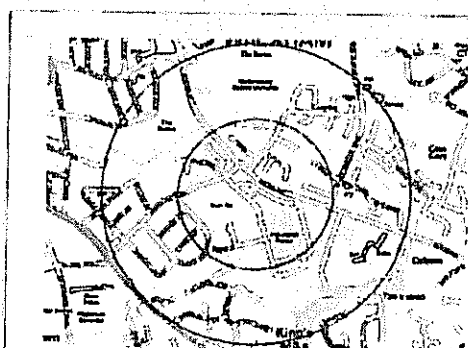
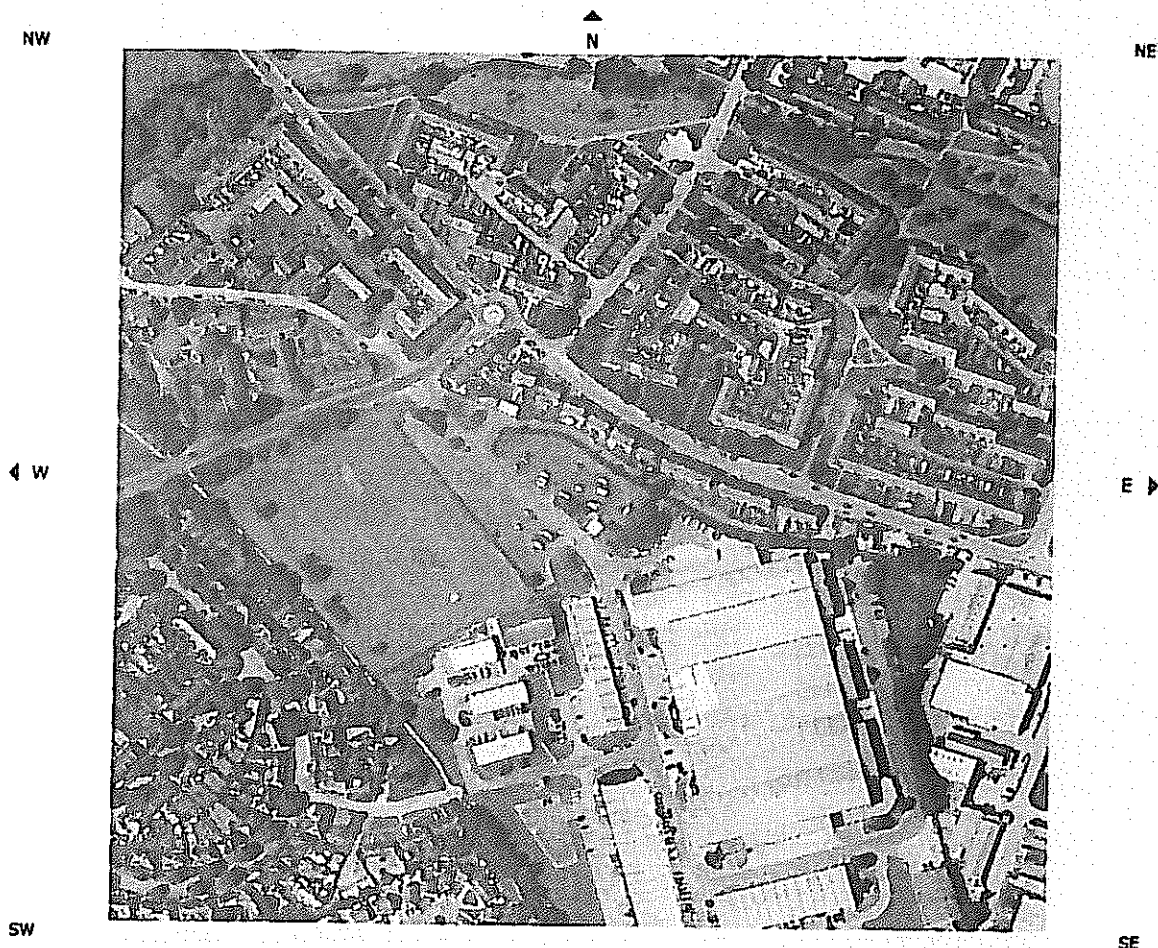
Terms and Conditions

Report Reference: 11788513

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Page 4

Aerial Photograph



Aerial photography supplied by Getmapping PLC.
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**Site Name: Site at, Whitegate, Cala Park,
WRECSAM, LL13 8TN**

Grid Reference: 334622,349744

Report Reference: 11788513

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Page 5



Notes on Professional Assessments

Professional Assessment of Contaminated Land

Please note that this assessment takes account of the following data: historical land use, landfill and waste transfer/treatment or disposal sites, scrap yards, current industrial uses (as defined by PointX data), Part A(1), A(2) and B Processes, COMAH and NIHHS sites, Dangerous Substances releases, RAS consents, Discharge and Red List Discharge consents, EPA 1990 sites and Pollution Incidents. This information is listed in this report. The Professional Assessment of Contaminated Land does not include assessment of the risk presented by natural hazards such as radon, subsidence or flooding or for past or present coal mining activity. No physical inspection of the property has been carried out.

Our risk assessments assume that the Site will be used for residential accommodation. The report is not suitable for non-domestic properties or for identifying risks for developments at the planning stage in accordance with National Planning Policy Framework (NPPF).

Professional Assessment of Flood Risk

Please note this assessment is based entirely on information provided by the Environment Agency (fluvial/coastal flooding) and JBA Consulting (pluvial/surface water flooding).

Introduction to Detailed Findings

All mapped features within this report are given an identification number. This number identifies the feature on the maps which precede the following data sections. All distances provided are in metres and directions are given as compass headings.

Section 1.1 - Historical maps are a widely recognised source of information for investigating site history. Nevertheless, analysis of mapping at 1:10,560 and 1:10,000 scale will not always provide a complete site history. If you are concerned about the former uses of a site, we would advise additional analysis of planning records and/or more detailed historical mapping.

Please note that the number of records identified relates to areas subject to potentially contaminative former activities and these do not necessarily correspond to the number of sites found within these areas. In the case of the 1:2,500 scale data relating to areas of London and Bristol 100m² areas are referenced. In cases where such information requires further clarification, GroundSure analyse original source mapping and will adjust the assessment of the report accordingly.

Section 1.2 - Systematic analysis of historical maps can highlight areas which, over time, have the potential to have been infilled with various materials. Such areas can relate to such features as ditches, ponds, clay pits, brickfields and quarries. Areas of infill do not always refer to landfill sites, although they may sometimes indicate the presence of such sites. Such areas are normally infilled with inert materials, although in some cases contaminative materials may have been used.

Sections 1.3 to 1.6 - Selected highly contaminative land uses have been extracted from 1:2,500 and 1:1,250 scale historical mapping. This database covers the majority of the UK from the first available map, but where areas of the UK are not covered it is indicated in the report as "No Data Available". This indicates that no assessment of the risk from these features is included in the report. In this instance if you are still concerned about the former uses of a site, we would advise additional analysis of planning records and/or more detailed historical mapping.

Section 1.7 - 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.

Section 2 - This information is gathered from a wide range of sources including the Environment Agency (Agency) and the British Geological Survey (BGS). Data supplied by Environment Agency refers to waste management licences required by anyone involved in waste disposal under the Environmental Protection Act 1990. A survey by the BGS undertaken in 1972/3 provides data on some older landfill sites, which were not subject to this legislation.

Section 3.1 - The answer to this question is based on searches of current industrial data provided by PointX.

Section 3.6 - The answer to this question is based on searches of Environment Agency databases referencing discharges to controlled waters (Discharge Consents) as well as controlled discharges of more harmful substances to public sewers (Red List Discharge and Water Industry Referrals).

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Section 5.1 - The answer to this question is based upon a 50m search radius from the centre of the search location.

Sections 5.2 to 5.5 - The answers to these questions are based upon a 250m search radius from the centre of the search location.

Sections 5.6-5.9 - The answer to this question is based upon a 50m search radius from the centre of the search location.

Sections 6.1 - The answer to this question is based upon information found within 50m of the search centre.

Sections 6.2 and 6.4 - These databases provide an indication of "non-coal" mining and natural ground cavities. They are used to provide an indication that activities that have the potential to cause ground instability issues are present in the general vicinity of the property. However the accuracy of the data is not sufficient to confirm if the property will be directly affected.

Sections 6.5 and 6.6 - Systematic analysis of historical maps can highlight areas where either mining or underground workings have occurred in the past. The information is taken from features presented on historical maps which do not indicate the distance or direction which underground or mining workings extend beneath the surface. e.g features such as mine shafts only indicate the entrance to a mine, and by inference indicate the potential for underground features to extend outward from this point. Some features within this database may also relate to non-mining underground activities e.g. air shafts for underground railways.

Section 7.2 - Please be aware that the information provided in the report includes masts that have OfCom permission to be constructed. This does not imply that they are currently present or will ever be constructed.

Section 7.3 - Please be aware that the findings contained within overhead power transmission lines relates to Ordnance Survey Point X data, which identifies points along the transmission network. Therefore some features on the ground may not appear in the report. This database is provided only to give an indication that unsightly power lines may be present in close proximity to the property.

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Page 7

Detailed Findings

1. Past Land Use

1.1 Potentially Contaminative Uses

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

Are there any potentially contaminative past land uses within 250m of the search centre? **Yes**

Risk Assessment **Passed**

Guidance: These findings are not of concern. No further action is recommended.

Distance (m)	Direction	Use	Date
0.0	On Site	Unspecified Works	1977
0.0	On Site	Engineering Works	1949
17.0	S	Industrial Estate	1992
19.0	S	Unspecified Works	1964
34.0	SE	Unspecified Tank	1977
73.0	NW	Unspecified Heap	1964
149.0	SW	Cuttings	1949
149.0	SW	Cuttings	1938
149.0	SW	Cuttings	1910
150.0	SW	Cuttings	1938
152.0	W	Cuttings	1964
152.0	W	Cuttings	1977
162.0	S	Railway Sidings	1977
191.0	NW	Water Filtering Tanks	1938
193.0	NW	Water Filtering Tanks	1938
193.0	NW	Water Filtering Tanks	1938
197.0	NW	Water Filtering Tanks	1910
211.0	NW	Sewage Tanks	1898
211.0	NW	Sewage Tanks	1872
230.0	NE	Unspecified Ground Workings	1977
230.0	NE	Unspecified Ground Workings	1964

1.2 Potentially Infilled Land

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

Are there areas of potentially infilled land within 250m of the search centre? **Yes**

Risk Assessment **Passed**

Guidance: These findings are not of concern. No further action is recommended.

The following Historical Surface Ground Working Features derived from the Historical Mapping Information is provided by GroundSure:

Distance (m)	Direction	Use	Date
73.0	NW	Unspecified Heap	1964
149.0	SW	Cuttings	1937
149.0	SW	Cuttings	1938
152.0	W	Cuttings	1964
152.0	W	Cuttings	1977
191.0	NW	Water Filtering Tanks	1938

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211.0	NW	Sewage Tanks	1872
211.0	NW	Sewage Tanks	1898
230.0	NE	Unspecified Ground Workings	1977
230.0	NE	Unspecified Ground Workings	1964

1.3 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.

Are there any historical tanks within 100m of the search centre?

Yes

Risk Assessment

Passed

Guidance: These findings are not of concern. No further action is recommended.

Distance (m)	Direction	Use	Date
42.0	SE	Unspecified Tank	1959
42.0	SE	Unspecified Tank	1960

1.4 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.

Are there any historical energy features within 100m of the search centre?

Yes

Risk Assessment

Passed

Guidance: These findings are not of concern. No further action is recommended.

Distance (m)	Direction	Use	Date
87.0	S	Electricity Substation	1989
88.0	S	Electricity Substation	1984
89.0	S	Electricity Substation	1996

1.5 Additional Information – Historical Petrol Station Database

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

Are there any historical petrol stations within 100m of the search centre?

No

Risk Assessment

Passed

Guidance: GroundSure has searched this database and no data was found. No further action is recommended.

1.6 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.

Are there any historical garage and motor vehicle repair sites within 100m of the search centre?

No

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Page 9



Risk Assessment

Passed

Guidance: GroundSure has searched this database and no data was found. No further action is recommended.

1.7 Historical Military/Ordnance Sites

Analysis of historic military records has identified the following information.

Are there any historical military industrial sites known to GroundSure within 100m of the search centre?
No

Risk Assessment

Passed

Guidance: GroundSure has searched this database and no data was found. No further action is recommended.

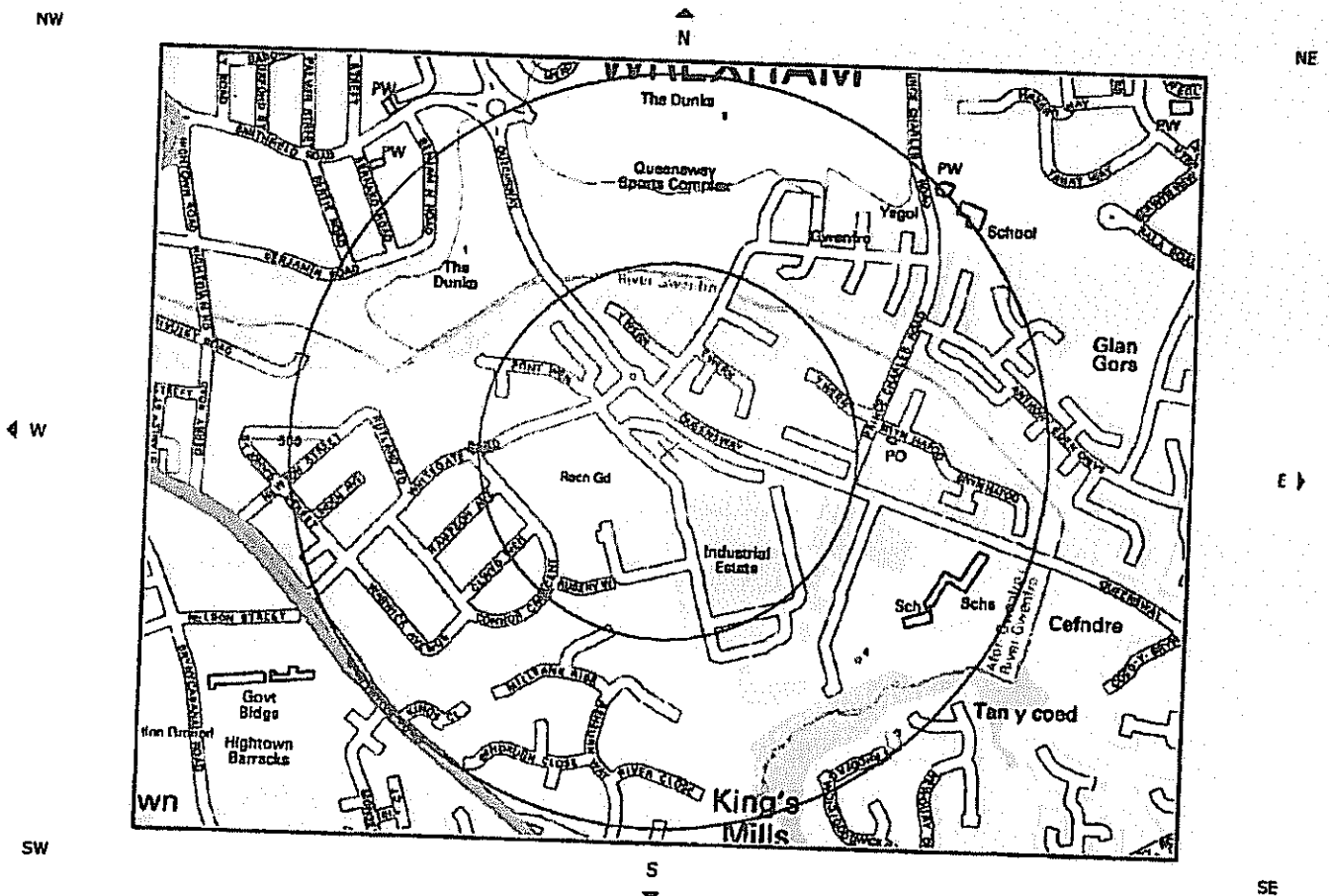
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Page 10

Detailed Findings

2. Landfill and Waste Sites



Landfill & Waste Sites Legend



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- | | | |
|----------------------------|----------------------------|------------------------------------|
| ✕ Site Outline | ⬡ E.A. Active Landfill | ⬡ Historic and Planned Waste Sites |
| — 250 — Search Buffers (m) | ⬡ E.A. Historic Landfill | ★ E.A. Licensed Waste Site |
| | ⬡ Local Authority Landfill | ⊙ BGS / DoE Survey Landfill |

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2.1 Landfill Sites

Are there any operational or non-operational landfill sites within 500m of the search centre?

Yes

Risk Assessment

Passed

Guidance: These findings are not of concern. No further action is recommended.

Environment Agency Active Landfill Sites

Database searched and no data found.

Environment Agency Historic Landfill Sites

The following records are represented as points and polygons on the Landfill and Waste Sites map. Only points or polygons within 500m of the property are detailed.

ID	Distance [m]	Direction	Details	First Input: 31-Dec-1960 Last Input: 31-Dec-1980
1	291.0	NW	Site Address: The Dunks No.2, Rear Of Benjamin Road, Queens Park Waste Licence: Yes Site Reference: 6955/0055 Waste Type: Inert, Industrial, Commercial, Household, Special Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: -	
2	342.0	N	Site Address: The Dunks, Rear Of Benjamin Road, Queens Park Waste Licence: Yes Site Reference: 6955/0057 Waste Type: Inert, Industrial, Commercial, Household, Special Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: -	First Input: 31-Jan-1960 Last Input: 31-Dec-1980
3	472.0	SE	Site Address: Marshall Refractories Limited off Abenbury Road, King's Mill, Wrexham Waste Licence: Yes Site Reference: 6955/0041 Waste Type: Inert, Environmental Permitting Regulations (Waste) Reference: - Licence Issue: Licence Surrendered: Licence Holder Address: -	First Input: 31-Dec-1968 Last Input: 31-Dec-1987

British Geological Survey / DoE Landfill Site Survey

Database searched and no data found.

2.2 GroundSure Local Authority Landfill Sites Data

Are there any additional Local Authority landfill sites records within 500m of the search centre?

No

Report Reference: 11788513

Page 12

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**Risk Assessment****Passed**

Guidance: GroundSure has searched this database and no data was found. No further action is recommended.

2.3 Waste Sites

Are there any operational or non-operational waste treatment, transfer or disposal sites within 500m of the search centre? **No**

Risk Assessment**Passed**

Guidance: GroundSure has searched this database and no data was found. No further action is recommended.

2.4 Environment Agency Licensed Waste Sites

Are there any Environment Agency Licensed Waste Sites within 500m of the search centre? **Yes**

Risk Assessment**Passed**

Guidance: These findings are not of concern. No further action is recommended.

The following records are represented as points on the Landfill and Waste Sites map. Only points within 500m of the property are detailed.

ID	Distance (m)	Direction	Address	Type	Size	Status
4	375.0	SE	Queensway Civic Amenity Site, Queensway, Wrexham, Chwyd, LL13 8UN	Household, Commercial & Industrial Waste T Stn	Small	Surrendered

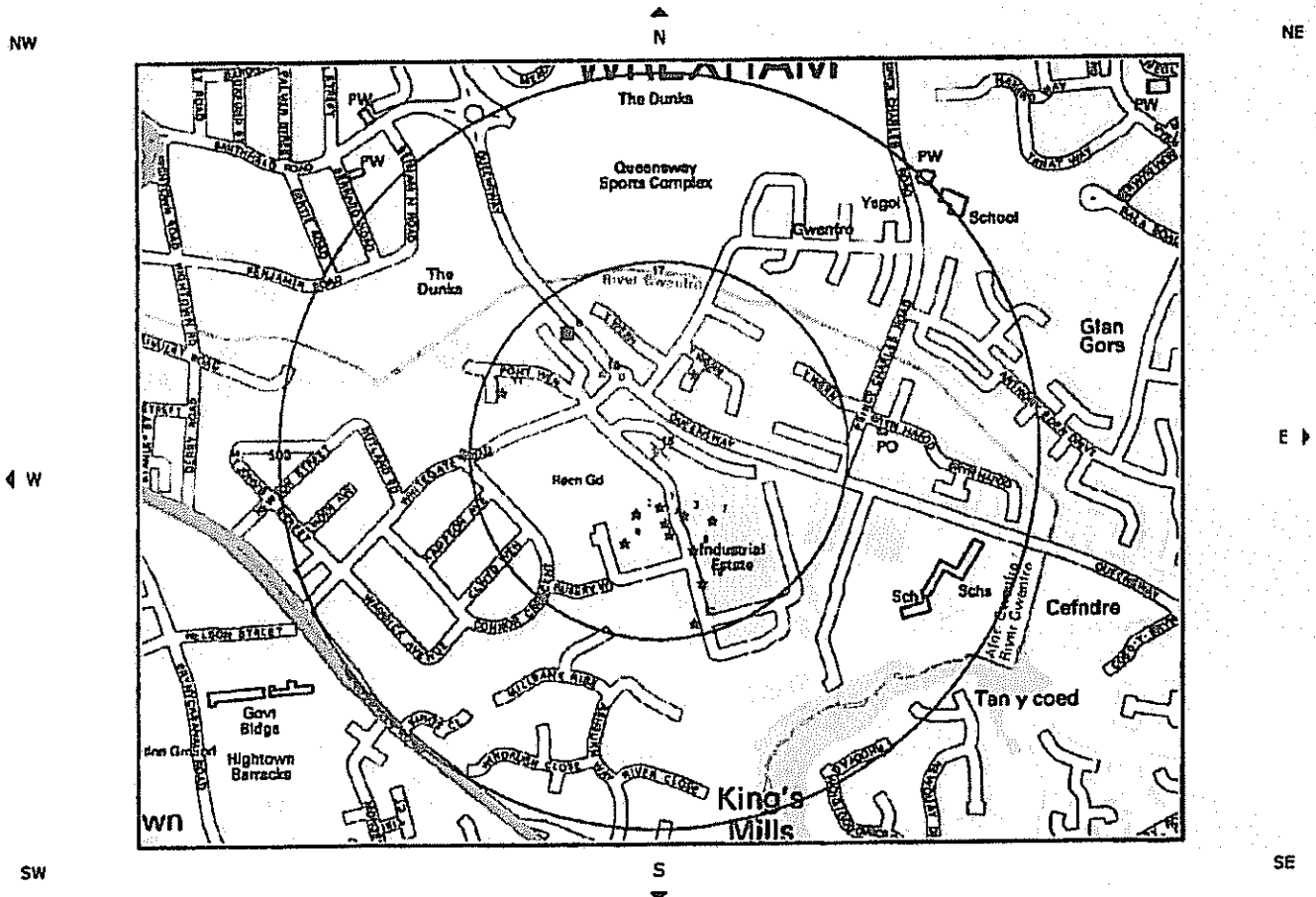
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Page 13

Detailed Findings

3. Industrial Sites and Processes



Industrial Sites & Processes Legend



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- | | | |
|----------------------------|--|---------------------------------------|
| ✕ Site Centre | ☆ Potentially Contaminative Industrial Sites | ■ Dangerous Substances (List 1) |
| — 250 — Search Buffers (m) | ▲ Part A Processes | □ Dangerous Substances (List 2) |
| | ● Radioactive Consents (Lower Risk) | ● Petrol & Fuel Sites |
| | ■ Red List Discharge Consents | ▲ Part A(2) and Part B Authorisations |
| | ■ Sites Determined as Contaminated Land | ◆ Water Industry Referrals |
| | ☆ Recorded Pollution Incident | ■ COMAH / NIHS Sites |
| | ■ Discharge Consents | |

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3.1 Potentially Contaminative Industrial Sites

Are there any potentially contaminative industrial sites within 250m of the search centre?

Yes

Risk Assessment

Passed

Guidance: These findings are not of concern. No further action is recommended.

The following records are represented as points on the Industrial Sites and Processes map.

ID	Distance [m]	Direction	Company	Address	Activity	Category
1	75.0	S	Thomas Repairs	Unit 28 Whitegate Industrial Estate, Whitegate Road, Wrexham, LL13 8UG	Vehicle Repair, Testing and Servicing	Repair and Servicing
2	89.0	S	British Encoder	Unit 33 Whitegate Industrial Estate, Whitegate Road, Wrexham, LL13 8UG	Electrical Components	Industrial Products
3	92.0	S	Electricity Sub Station	LL13	Electrical Features	Infrastructure and Facilities
4A	96.0	S	Bruce Armstrong	Unit 25 Whitegate Industrial Estate, Whitegate Road, Wrexham, LL13 8UG	Precision Engineers	Engineering Services
5A	111.0	S	Ram Leisure & Workwear Ltd	Unit 23 Whitegate Industrial Estate, Whitegate Road, Wrexham, LL13 8UG	Workwear	Industrial Products
6	111.0	NE	Electricity Sub Station	LL13	Electrical Features	Infrastructure and Facilities
7	116.0	SE	Ellison Europe Ltd	Unit 3 Whitegate Industrial Estate, Whitegate Road, Wrexham, LL13 8UG	Distribution and Haulage	Transport, Storage and Delivery
8	130.0	S	Grosvenor Telecom	Unit 30 Whitegate Industrial Estate, Whitegate Road, Wrexham, LL13 8UG	Electronic Equipment	Industrial Products
9	139.0	S	Electricity Sub Station	LL13	Electrical Features	Infrastructure and Facilities
10	185.0	S	Electricity Sub Station	LL13	Electrical Features	Infrastructure and Facilities
11	222.0	W	Electricity Sub Station	LL13	Electrical Features	Infrastructure and Facilities
12	233.0	S	Hohner Automation Ltd	Unit 14 Whitegate Industrial Estate, Whitegate Road, Wrexham, LL13 8UG	Electrical Components	Industrial Products

3.2 Petrol and Fuel Sites

Are there any petrol and fuel sites within 250m of the search centre?

No

Risk Assessment

Passed

Guidance: GroundSure has searched this database and no data was found. No further action is recommended.

3.3 Part A(1) Authorised Processes

Are there any Part A(1) Authorised Processes within 500m of the search centre?

No

Risk Assessment

Passed

Guidance: GroundSure has searched this database and no data was found. No further action is recommended.

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Page 15



3.4 Part A(2) and Part B Authorised Processes and Enforcements

Are there any Part A(2) and Part B Authorised Processes and Enforcements within 250m of the search centre? **No**

Risk Assessment

Passed

Guidance: GroundSure has searched this database and no data was found. No further action is recommended.

3.5 Radioactive Substance Authorisations

Are there any radioactive substance authorisations within 500m of the search centre?

No

Risk Assessment

Passed

Guidance: These findings are not of concern. No further action is recommended.

3.6 Licensed Discharge Consents

Are there any licensed discharge consents within 250m of the search centre?

Yes

Risk Assessment

Passed

Guidance: These findings are not of concern. No further action is recommended.

The following licence discharge consents are represented as points on the Industrial Sites and Processes map.

ID	Distance (m)	Direction	Address	Discharge Site Type	Receiving Water	Effluent Type	Status
13 B	198.0	NW	Wrexham Queens Park Y Wern - S, Wrexham Queens Park Y Wern - S, LL13 8UL	Sewage - water company	Gwenfro	Sewage Discharges - Sewer Storm Overflow - Water Company	Revoked (wra 91, S88 & Sched 10 As Amended By Env Act 1995)
14 B	198.0	NW	Wrexham Queens Park Y Wern - S, Wrexham Queens Park Y Wern - S, LL13 8UL	Sewage - water company	Gwenfro	Sewage Discharges - Sewer Storm Overflow - Water Company	New Consent, By Applicatio n (wra 91, Section 88)

3.7 Dangerous Substance Inventory

Are there any dangerous substance inventory sites within 500m of the search centre?

No

Risk Assessment

Passed

Guidance: These findings are not of concern. No further action is recommended.

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Page 16



3.8 Dangerous or Hazardous Sites

Are there any COMAH & NIHHS sites within 500m of the search centre?

No

Risk Assessment

Passed

Guidance: GroundSure has searched this database and no data was found. No further action is recommended.

3.9 Hazardous Substance Consents and Enforcements

Are there any Hazardous Substance Consents or Enforcements within 500m of the search centre?

No

Risk Assessment

Passed

Guidance: GroundSure has searched this database and no data was found. No further action is recommended.

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

Does the Local Authority hold information under Section 78R of the Environmental Protection Act 1990 for any sites within 250m of the search centre?

No

Risk Assessment

Passed

Guidance: GroundSure has searched this database and no data was found. No further action is recommended.

3.11 Environment Agency Recorded Pollution Incidents

Are there any Environment Agency recorded pollution incidents within 250m of the search centre?

Yes

Risk Assessment

Passed

Guidance: These findings are not of concern. No further action is recommended.

The following records are represented as points on the Industrial Sites and Processes map.

ID	Distance (m)	Direction	Incident Date	Land Impact	Water Impact	Pollutant
15	4.0	NW	13/05/2003	Category 4 (No Impact)	Category 4 (No Impact)	Smoke
16	127.0	NW	28/11/2002	Category 4 (No Impact)	Category 4 (No Impact)	Other Atmospheric
17	228.0	N	17/04/2001	Category 4 (No Impact)	Category 3 (Minor)	Pollutant or Effect Landfill Leachate

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Page 17



Detailed Findings

4. Environmental Setting

4.1 Designated Sites

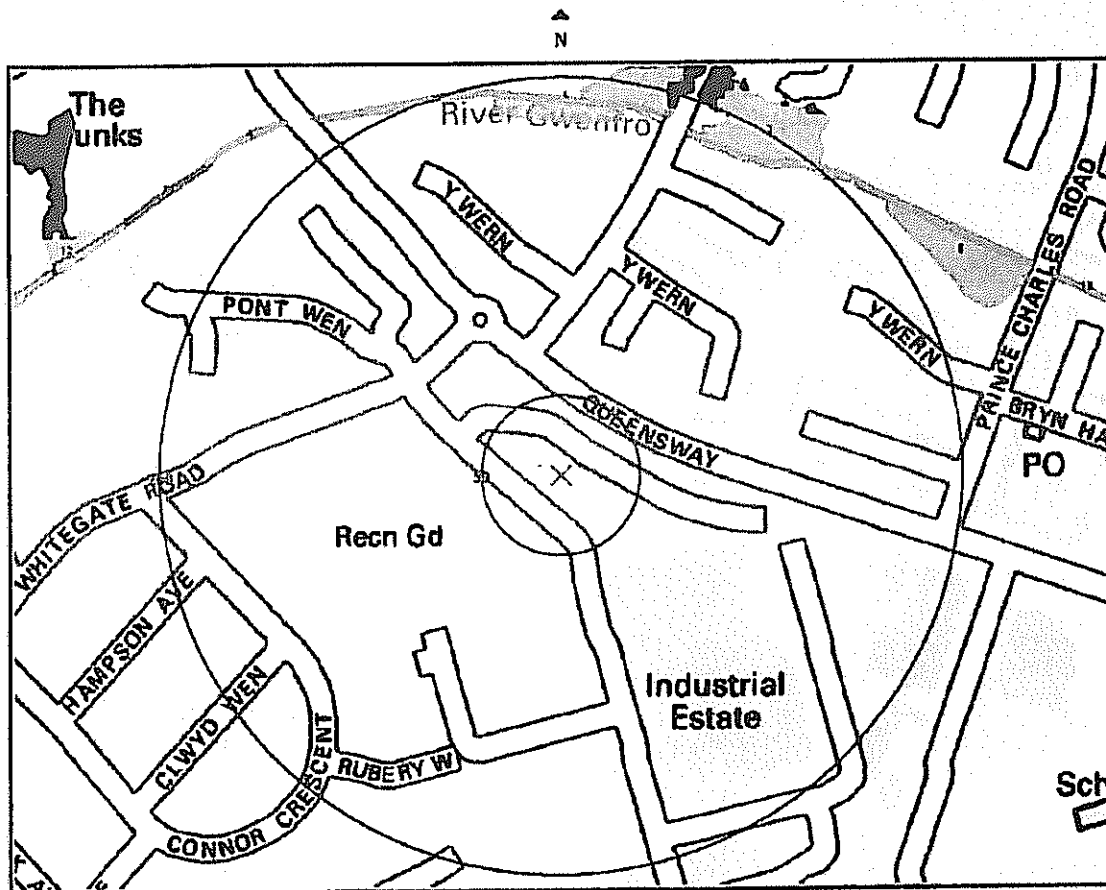
Presence of sites of ecological and environmental value within 250m of the study site?	No
Records of Sites of Special Scientific Interest (SSSI) within 250m of the study site:	0
Database searched and no data found.	
Records of Ramsar sites within 250m of the study site:	0
Database searched and no data found.	
Records of National Nature Reserves (NNR) within 250m of the study site:	0
Database searched and no data found.	
Records of Special Areas of Conservation (SAC) within 250m of the study site:	0
Database searched and no data found.	
Records of Special Protection Areas (SPA) within 250m of the study site:	0
Database searched and no data found.	
Records of Local Nature Reserves (LNR) within 250m of the study site:	0
Database searched and no data found.	
Records of World Heritage Sites within 250m of the study site:	0
Database searched and no data found.	
Records of Areas of Outstanding Natural Beauty (AONB)/National Scenic Areas within 250m of the study site:	0
Database searched and no data found.	
Records of National Parks (NP) within 250m of the study site:	0
Database searched and no data found.	

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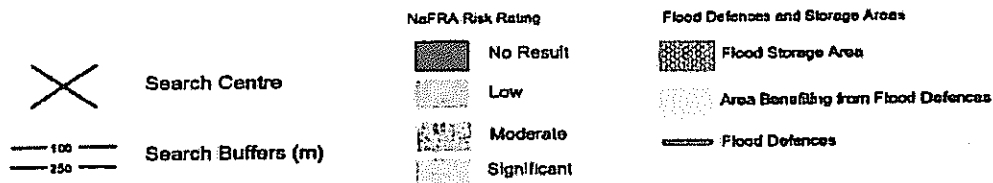
Page 18

Fluvial and Tidal Flood Risk Map



Ordnance Survey

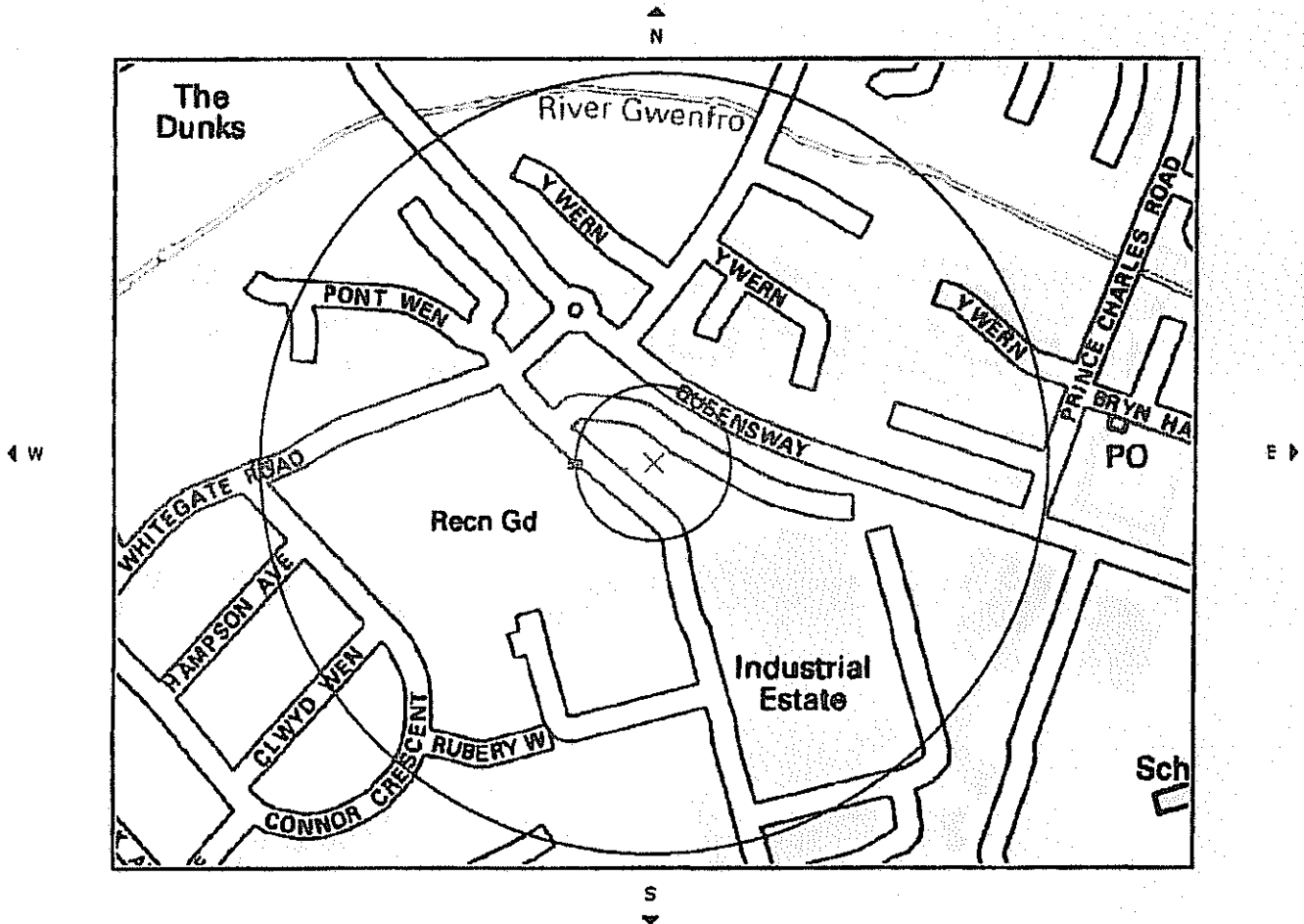
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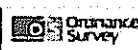
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Historic Flooding Events



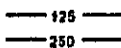
Flood Risk Legend



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Site Outline



Search Buffers (m)



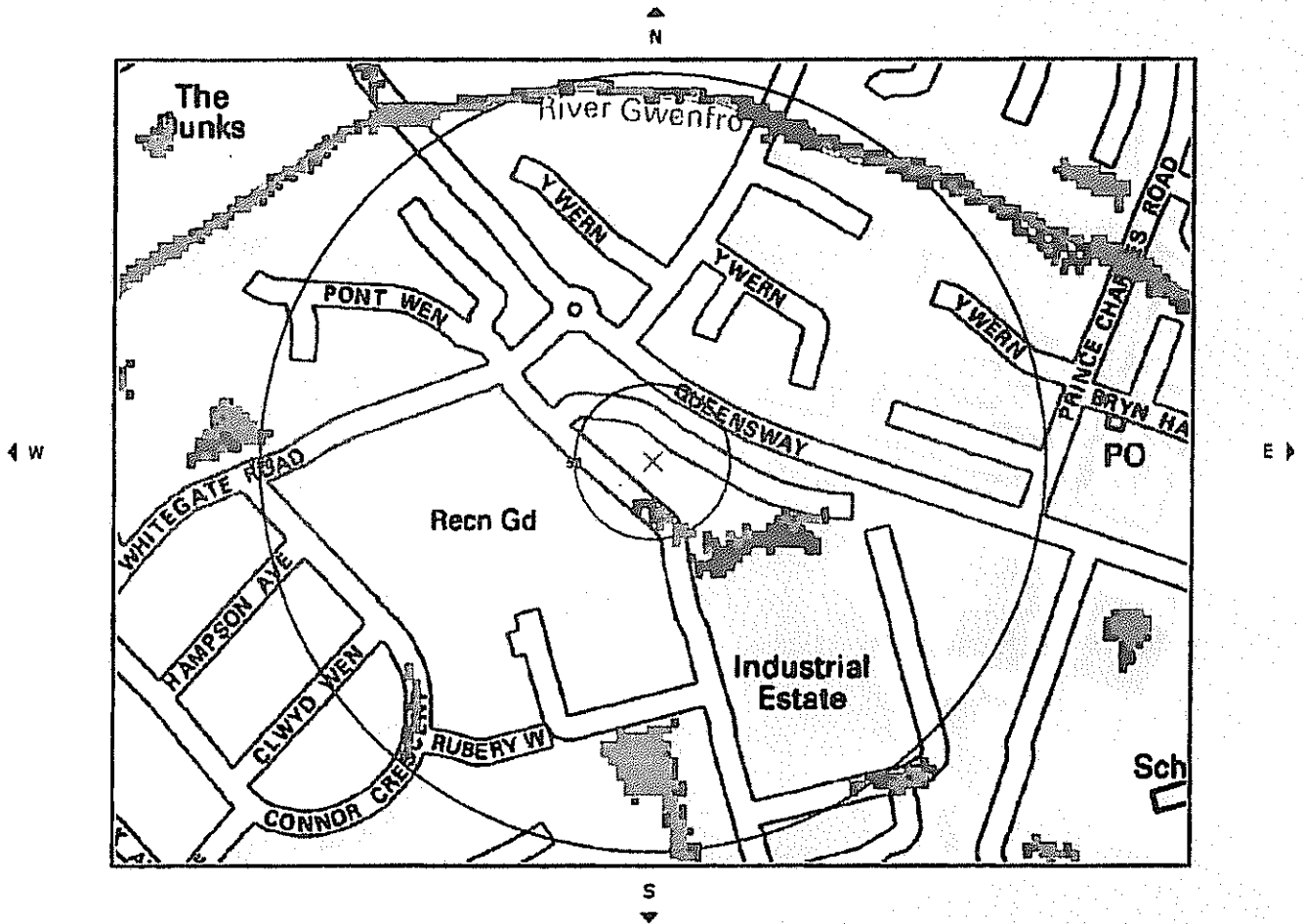
Historic Flood Events

Report Reference: 11788513

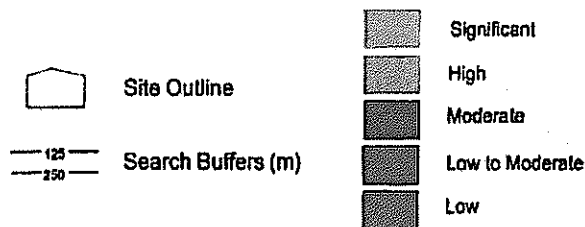
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Page 20

JBA Surface Water (Pluvial) Flood Map



JBA Surface Water Flood Legend



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The data is provided by JBA Risk Management Limited, © Jeremy Benn Associates Limited and JBA Risk Management Limited 2008, 2009, 2010, 2011.

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5. Detailed Findings

5.1 National Flood Risk Assessment (NaFRA)

What is the risk of flooding at the centre of the study site?

Negligible

What is the highest risk of flooding within 25m of the centre of the study site?

Negligible

The Environment Agency NaFRA database provides an indication of flood river and coastal risk at a national level on a 50m grid as used by many of the insurance companies. NaFRA data is based on a 50m grid system, with the flood rating at the centre of the grid calculated and given below. The data considers the probability that the flood defences will overtop or breach, and the distance from the river or the sea.

NaFRA data for the study site indicates the property has a negligible (less than 1 in 1000) chance of flooding in any given year.

5.2 Flood Defences

Are there any Flood Defences within 250m of the study site?

No

5.3 Areas Benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site?

No

5.4 Areas used for Flood Storage

Are there any areas used for Flood Storage within 250m of the study site?

No

5.5 Historic Flooding Events

Has the site or any area within 250m of the site been subject to historic flooding as recorded by the Environment Agency?

No

This database shows the individual footprint of every flood event recorded by the Environment Agency and previous bodies. This data is used to understand where flooding has occurred in the past and provides details as available. Absence of a historic flood event for an area does not mean that the area has never flooded, but only that the Environment Agency do not currently have records of flooding within the area. Equally, a record of a flood footprint in previous years does not mean that an area will flood again, and this information does not take account of flood management schemes and improved flood defences.

Historic flooding events: Database searched and no data found.

5.6 JBA Surface (Pluvial) Water Flooding

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Page 22

Surface Water (pluvial) flooding is defined as flooding caused by rainfall-generated overland flow before the runoff enters a watercourse or sewer. In such events, sewerage and drainage systems and surface watercourses may be entirely overwhelmed.

Surface Water (pluvial) flooding will usually be a result of extreme rainfall events, though may also occur when lesser amounts of rain falls on land which has low permeability and/or is already saturated, frozen or developed. In such cases overland flow and 'ponding' in topographical depressions may occur.

What is the risk of pluvial flooding at the centre of the study site? **Negligible**

What is the highest risk of pluvial flooding within 25m of the centre of the study site? **Low**

Guidance: The site or an area in close proximity has been assessed to be at Low Risk of surface water (pluvial) flooding. This indicates that this area would be expected to be affected by surface water flooding in a 1 in 1000 year rainfall event to a depth of greater than 0.1m.

This data is provided by JBA Consulting, © Jeremy Benn Associates Limited 2008/2009

The following pluvial (surface water) flood risk records within 50m of the study site are shown on the JBA Surface Water Flooding Map:

Distance	Direction	Risk
24.0	S	Low
29.0	S	Significant
35.0	S	Significant
39.0	S	Significant
41.0	S	Significant

5.7 Groundwater Flooding Susceptibility

What is the susceptibility to Groundwater Flooding in the search area based on the underlying geological conditions? **Potential for groundwater flooding at surface**

Guidance: Where potential for groundwater flooding to occur at surface is indicated, this means that given the geological conditions in the area groundwater flooding hazard should be considered in all land-use planning decisions. It is recommended that other relevant information e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information be investigated in order to establish relative, but not absolute, risk of groundwater flooding.

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 BGS Susceptibility to Groundwater Flooding hazard dataset identifies areas where geological conditions could enable groundwater flooding to occur and where groundwater may come close to the ground surface. The susceptibility data is suitable for use for regional or national planning purposes where the groundwater flooding information will be used along with a range of other relevant information to inform land-use planning decisions. It might also be used in conjunction with a large number of other factors, e.g. records of previous incidence of groundwater flooding, rainfall, property type, and land drainage information, to establish relative, but not absolute, risk of groundwater flooding at a resolution of greater than a few hundred metres. The susceptibility data should not be used on its own to make planning decisions at any scale, and, in particular, should not be used to inform planning decisions at the site scale. The susceptibility data cannot be used on its own to indicate risk of groundwater flooding.

5.8 Natural Ground Subsidence

What is the potential for natural ground subsidence* within the search area? **Moderate - High**

Guidance: The natural ground subsidence rating is obtained through the evaluation of six natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS). These datasets indicate the hazard posed by the occurrence of: Swell-Shrink Clay, Landslide, Compressible Ground, Collapsible Ground, Dissolution of Soluble Rocks and Running Sand. Many factors may contribute to ground subsidence problems. For instance, significant problems can arise in conurbations underlain by clay rich bedrock, such as over clay strata in the South East of England, or South Wales. Whilst surveyors are normally aware of local problem areas, data provided by the BGS can highlight areas where a significant potential for natural ground subsidence exists and which may need particular consideration.

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Page 23



Where moderate - high potential is indicated, this means that there is the potential for natural ground movement to occur that may be of concern. Such ground movement could cause damage to domestic or other properties. However, properties designed, constructed and maintained in compliance with modern building regulations should be unaffected by most minor subsidence. Therefore, if thinking of buying a property in the area, you should seek professional advice from a professional property surveyor and also look at the property yourself in more detail to look for any signs of existing damage. If you already own a property in the area, and you think natural ground movement may have damaged it, you should contact your insurance company for advice. You should also take professional advice before changing the ground in any way, for example, by planting or removing trees, changing drainage or carrying out building work.

*The term "Subsidence" refers to ground movement that could cause damage to foundations in domestic or other properties.

5.9 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 in a Radon Affected Area, as between 5 and 10% of properties are above the Action Level

5.10 Radon Protective Measures

Is the property in an area where radon protection measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?

Basic radon protective measures are necessary

Combined Radon Guidance: Radon is a colourless, odourless radioactive gas which is present in all areas of the United Kingdom, usually at levels that pose a negligible risk to homebuyers. However, in some areas levels of radon are much higher than in others, and in these cases it can pose a health risk. The data supplied by the Public Health England (PHE) and the British Geological Survey (BGS) is not able to determine exact Radon levels, as this information can only be obtained through site-specific, in-situ testing. As 5-10% of properties in the area may be radon affected, PHE recommend carrying out a site-specific radon assessment. This costs £49.80 including VAT and the results are confidential to the client. Please contact PHE (020 7654 8000) for further information and advice.

If planning on building an extension or a new build property basic radon protective measures will need to be installed in accordance with the Building Research Establishment guidance on radon protective measures for new dwellings (BR211 2007).

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Page 24

Detailed Findings

6. Mining

6.1 Coal Authority Coal Mining Records

Is the property within an area which may be affected by past, present or proposed underground coal mining? **Yes**

Guidance: The study site is not located in an area which is affected by surface or sub-surface coal mining as identified by the Coal Authority. No further action is recommended.

6.2 BGS Non-Coal Mining Hazards

What is the potential for undermining as a result of underground mineral extraction, excluding coal and minerals extracted as a consequence of coal mining? **Unclassified**

Database searched and no data found.

Guidance: The study site lies in an area which is unclassified in relation to non-coal mining. This means that there is no known hazard from underground mine workings because the rock types present are such that no commodities or metal ores have been worked by underground mining methods. It should be noted, however, that there is always the possibility of the existence of other sub-surface excavations, such as wells, cess pits, follies, air raid shelters/bunkers and other military structures etc. that could affect surface ground stability but which are outside the scope of this dataset.

The mining hazard data (not including coal) layer draws together a diverse range of material derived from geology, which constrains distribution, supplemented by literature searches for historic locations and expert knowledge to assemble, interpret, and organise this information. Mining of coal is specifically excluded from this data set and information on Coal Mining areas can be found in Section 6.1.

The data provides an assessment of the likelihood that past underground mining may have occurred in the area. It does not consider the depth of the extraction nor whether any remediation has previously been undertaken. Where extraction of such minerals has taken place in workings close to the surface (meaning to approximately 50m depth) the workings can pose a subsidence risk because they sometimes cause surface collapse. Old mine shafts and other mine openings in such areas can also lead to unexpected surface collapse.

The data provided by the British Geological Survey (BGS) are rated on a five point scale ranging from Rare, through Highly unlikely, Unlikely and Likely to Highly Likely that indicate how likely it is that past underground mining activities may have occurred.

6.3 Mining Cavities

Is the site located in an area of mining cavities? **No**

Guidance: This risk rating is obtained from the mining cavities dataset, which is supplied and digitally combined by Peter Brett Associates. There are no records within 250m of the site.

6.4 Natural Cavities

Is the site located in an area of natural cavities? **No**

Guidance: This risk rating is obtained from the natural cavities dataset, which is supplied and digitally combined by Peter Brett Associates. There are no records within 250m of the site.

Report Reference: 11788513

If you would like any further assistance regarding this report then please contact
TM Group on (T) 0844 249 9202, email: helpdesk@tmgroup.co.uk

6.5 Historical Mining Features from Detailed Mapping

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

Are there any Mining features within 500m of the centre of the study site?

No

Guidance: No further action required.

6.6 Historical Underground Workings Features from Detailed Mapping

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

Are there any Historical Underground Working Features within 250m of the centre of the study site? No

Guidance: No further action required.



7. Additional Information

7.1 Mobile Transmitter Locations

GroundSure's unique mobile phone transmitter database.

Have any mobile phone transmitters been identified within 250m of the study site?

Yes

The following records within 250m from have been found within this search:

Distance [m]	Direction	Max Licensed Power	Transmitter Power	Frequency Range	Operator	Height (m)	Transmission Type
182.0	E	32	26.0	1800 MHz	187.3090 92	15.0	GSM

7.2 Ofcom Mast Site Clearance Locations

Ofcom telecommunication base station and mast site clearance data details the height and location of all sites approved by Ofcom. The data may relate to an existing mast or a proposal site, therefore it does not necessarily mean that a mast currently exists at this site or that it will be built in the future, just that Ofcom have granted their consent. The data includes masts over 30 metres in height and/or with a power level exceeding 17dBW.

Have any Ofcom telecommunication masts been identified within 250m of the study site?

Yes

The following records within 250m have been found within this search:

Distance [m]	Direction	Ofcom Reference	Address	Approx. Mast Height (m)
170.0	E	V(P)9413	Clwyd, Wrexham, Queensway, B.Jones Garage Services	16
248.0	E	X(P)4278	Clwyd, Wrexham, Queensway, Fibrax Ltd	15

7.3 Pylons and Electricity Transmission Lines

Have any overhead transmission lines been identified within 500m of the study site ?

No

Database searched and no data found.

Guidance:None required.

Report Reference: 11788513

If you would like any further assistance regarding this report then please contact
TM Group on (T) 0844 249 9202, email: helpdesk@tmgroup.co.uk

Page 27



8. Guide to Our Professional Assessment

Introduction

This report is designed for residential conveyancers and their clients and satisfies standard environmental due diligence enquiries, recommended by the Law Society. This information is not always covered by Standard Con 29 Enquiries made to Local Authorities.

Purpose of this Assessment

As part of this report GroundSure provide a professional assessment of the risks posed by key environmental information which could lead to the property being designated as 'Contaminated Land' as defined under Part 2A of the Environmental Protection Act 1990. This assessment is based on the following data:

1. Historical land use (compiled from 1:10,000 & 1:10,560 maps)
2. Historical land use (compiled from 1:2,500) - London and Bristol Only
3. Additional Information Historical land use (compiled from 1:1,250 & 1:2,500 maps) - for selected areas.
4. Landfill and waste transfer/treatment or disposal sites (including scrap yards)
5. Current industrial uses (as defined by PointX data)
6. Catalyst Petrol Station
7. Part A(1), Part A(2) and Part B Authorisations
8. Control of Major Accident Hazards Sites (COMAH) and Notification of Installations Handling Hazardous Substances (NIHHS)
9. Dangerous Substances Inventory Releases (DSI)
10. Radioactive Substance Authorisations (RAS)
11. Discharge and Red List Discharge Consent
12. Sites Determined as Contaminated Land under Part 2A EPA 1990
13. Environment Agency Recorded Pollution Incidents
14. Historic Military / Ordnance Sites
15. Planning Hazardous Substance Consents

From this information GroundSure provide a statement regarding the likely designation of the property under Part 2A of EPA 1990 and the level of risk associated with the property is either Passed or In Need of Further Assessment. If the site is In Need of Further Assessment it does not necessarily mean that the site is unsuitable for purchase, but only that further assessment of the risk associated with the site is required. When a site is In Need of Further Assessment then the practitioner may, if required, discuss the case with one of the GroundSure consultants. Where a site is 'In Need of Further Assessment' GroundSure will, on request, attempt to arrange appropriate environmental insurance.

Method Statement

In assessing specific site risk, GroundSure follows principles used extensively throughout the environmental consultancy sector. Our system looks at the potential for specific industries to have generated residual contamination and for this contamination to remain at a site, or to have migrated to neighbouring sites. Sites are scored based on this system and if a site scores highly it indicates a high level of risk.

Limitations of the Study

This screening process reviews historical mapping and a range of current databases. The historical land use database reviewed for this study does NOT include 1:2,500 or 1:1,250 scale maps except for London and Bristol and GroundSure's additional information database of selected features namely tanks, energy features, petrol filling stations and garages. This additional information database covers the majority of the UK, but not all. Where no assessment has been made "No Data Available" is presented in the report. Where 1:2500 or 1:1250 scale maps are utilised all relevant and available map epochs to GroundSure are used. Additionally, this review does NOT include specific enquiries to the Local Authority who may hold additional information and it does NOT include a site visit/inspection. Your attention is drawn to the Terms and Conditions of Groundsure Limited under which this service is provided.

Report Reference: 11788513

If you would like any further assistance regarding this report then please contact
TM Group on (T) 0844 249 9202, email: helpdesk@tmgroup.co.uk



Remediation

This report is covered by GroundSure's remediation contribution. For the purpose of this condition, 'Claimant' shall mean one of: (a) the Beneficiary, (b) the purchaser of the site from the Beneficiary or (c) the funder of (a) or (b) as applicable.

This condition shall apply solely to GroundSure Homebuyers and GroundSure Home Environmental with "Passed" rather than "In Need of Further Assessment".

GroundSure may, at its sole discretion without any admission of liability, make a contribution to the Claimant towards the costs of any clean up works required to be carried out under a notice served on a Claimant in respect of a site under Part II (A) Environmental Protection Act 1990 ("Remediation Notice") on the terms of this condition ("Clean up Award").

The Clean up Award: (a) is only available once in respect of a site and to one Claimant only; (b) shall only apply where the site is a single residential dwelling house or a single residential flat within a block of flats. For the avoidance of doubt, a Clean up Award will not be considered in respect of commercial property or to any site being developed or redeveloped whether for residential purposes or otherwise; and (c) shall only apply to contamination or a pollution occurring as at or prior to the date of GroundSure Homebuyers.

The Clean up Award will not be paid in respect of any of the following, including without limitation: (a) asbestos; (b) radioactive contamination arising directly or indirectly from or in connection with ionising radiations or contamination by radioactivity from any nuclear waste or fuel; from the combustion of nuclear fuel or the radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear component thereof; (c) naturally occurring materials or their removal except where such materials are present in excess of their natural concentration; (d) any condition caused by acts of war or an act of terrorism; (e) any condition which is known or ought reasonably to have been known to the Claimant prior to the purchase of GroundSure Homebuyers; (f) non-compliance by the Claimant or any other person with respect to the site with any statute, regulation, byelaws complaint, or notice from any regulatory authority; (g) any property belonging to or in the custody or control of the Claimant which does not form a fixed part of the site or the structure; (h) any losses incurred following a material change in use of, alteration or development of the site; or (i) financial loss in respect of loss of rental, profit, revenue, savings, business or any consequential, indirect or economic loss, damages or expenses, including the cost of temporary accommodation or business interruption.

In the event the Claimant wishes to apply for a Clean up Award, it shall notify GroundSure in writing within 3 months of the date of the Remediation Notice. The Claimant shall comply with all reasonable requirements of GroundSure with regard to the commission and conduct of the clean up works to be carried out under the Remediation Notice. In the event that the Claimant breaches this provision including, without limitation, failing to obtain GroundSure's prior written consent in respect of estimates for such works GroundSure shall not be required to pay a Clean up Award.

GroundSure shall only pay a Clean up Award where a Remediation Notice is served within 36 months of the date of GroundSure Homebuyers. The maximum sum of any Clean up Award shall be £60,000 and shall be paid subject to the Claimant having paid to GroundSure an excess in respect of its claim of £5,000. GroundSure reserves the right at any time to withdraw the offer of payment of a Clean up Award.

The Claimant shall take all reasonable steps to appeal such Remediation Notice and mitigate any costs incurred in connection with the remediation works required under the terms of any Remediation Notice. GroundSure reserves the right to withhold or reduce the amount of its Clean up Award in the event of a breach of this condition or an appeal is still active.



9. Contact Details

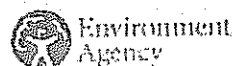
TM Group
Telephone: 0844 249 9202
helpdesk@tmgroup.co.uk



GroundSure Helpline
Telephone: 08444 159 000
info@4c.groundsure.com



Environment Agency
Tel: 08708 506 506
North
Lutra House - Dodd Way, Off Seedlee Road, Bamber Bridge, Preston,
PR5 8BX
Web: www.environment-agency.gov.uk
Email: enquiries@environment-agency.gov.uk



Local Authority - Wrexham County Borough Council. Address: The
Gulldhall, Wrexham, LL11 1AY. Web: www.wrexham.gov.uk. Tel:
01978 292000

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



JBA Consulting
South Barn,
Broughton Hall,
Skipton
BD23 3AE
01756 799919



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



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



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



Report Reference: 11788513

If you would like any further assistance regarding this report then please contact
TM Group on (T) 0844 249 9202, email: helpdesk@tmgroup.co.uk



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

CoPSO
The Old Rectory, Church Lane, Thornby, Northants NN6 8SN
Tel: 0871 4237191
(www.copso.org.uk)



This report is produced by GroundSure Ltd, whose correspondence address is GroundSure Ltd, Sovereign House, Church Street, Brighton, BN1 1UJ (Tel: 08444 159 000, Fax: 01273 763569, Email: info@gs.groundsure.com). GroundSure's registered address is GroundSure Ltd, c/o Top Right Group Limited, The Prow, 1 Wilder Walk, London W1B 5AP. Registration Number: 3421028. VAT Number 486 4004 42.

Acknowledgements
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This report has been prepared in accordance with the GroundSure Ltd standard Terms and Conditions of business for work of this nature.

Report Reference: 11788513

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Page 31



Search Code

IMPORTANT CONSUMER PROTECTION INFORMATION

This search has been produced by GroundSure Ltd, Sovereign House, Church Street, Brighton, BN1 1UJ. Tel: 08444 159 000. Email: info@4C.groundsure.com which is registered with the Property Codes Compliance Board (PCCB) as a subscriber to the Search Code. The PCCB independently monitors how registered search firms maintain compliance with the Code.

The Search Code:

- provides protection for homebuyers, sellers, estate agents, conveyancers and mortgage lenders who rely on the information included in property search reports undertaken by subscribers on residential and commercial property within the United Kingdom

- sets out minimum standards which firms compiling and selling search reports have to meet

- promotes the best practice and quality standards within the industry for the benefit of consumers and property professionals

- enables consumers and property professionals to have confidence in firms which subscribe to the code, their products and services.

By giving you this information, the search firm is confirming that they keep to the principles of the Code. This provides important protection for you.

The Code's core principles

Firms which subscribe to the Search Code will:

- display the Search Code logo prominently on their search reports
- act with integrity and carry out work with due skill, care and diligence
- at all times maintain adequate and appropriate insurance to protect consumers
- conduct business in an honest, fair and professional manner
- handle complaints speedily and fairly
- ensure that products and services comply with industry registration rules and standards and relevant laws
- monitor their compliance with the Code

COMPLAINTS

If you have a query or complaint about your search, you should raise it directly with the search firm, and if appropriate ask for any complaint to be considered under their formal internal complaints procedure. If you remain dissatisfied with the firm's final response, after your complaint has been formally considered, or if the firm has exceeded the response timescales, you may refer your complaint for consideration under The Property Ombudsman scheme (TPOs). The Ombudsman can award compensation of up to £5,000 to you if he finds that you have suffered actual loss as a result of your search provider failing to keep to the Code.

Please note that all queries or complaints regarding your search should be directed to your search provider in the first instance, not to TPOs or to the PCCB.

TPOs Contact Details:

The Property Ombudsman scheme
Milford House
43-55 Milford Street
Salisbury
Wiltshire SP1 2BP
Tel: 01722 333306
Fax: 01722 332296
Email: admin@tpos.co.uk

You can get more information about the PCCB from www.propertycodes.org.uk.

PLEASE ASK YOUR SEARCH PROVIDER IF YOU WOULD LIKE A COPY OF THE SEARCH CODE

Report Reference: 11788513

If you would like any further assistance regarding this report then please contact
TM Group on (T) 0844 249 9202, email: helpdesk@tmgroup.co.uk



COMPLAINTS PROCEDURE

If you want to make a complaint, we will:

- Acknowledge it within 5 working days of receipt.
- Normally deal with it fully and provide a final response, in writing, within 20 working days of receipt.
- Keep you informed by letter, telephone or e-mail, as you prefer, if we need more time.
- Provide a final response, in writing, at the latest within 40 working days of receipt.
- Liaise, at your request, with anyone acting formally on your behalf.

Complaints should be sent to: Operations Director, GroundSure Ltd, Sovereign House, Church Street, Brighton, BN1 1UJ. Tel: 08444 159 000. Email: info@4C.groundsure.com

If you are not satisfied with our final response, or if we exceed the response timescales, you may refer the complaint to The Property Ombudsman scheme (TPOs): Tel: 01722 333306, E-mail: admin@tpos.co.uk.

We will co-operate fully with the Ombudsman during an investigation and comply with his final decision.

Report Reference: 11788513

If you would like any further assistance regarding this report then please contact
TM Group on (T) 0844 249 9202, email: helpdesk@tmgroup.co.uk

Page 33

Standard Terms and Conditions

1 Definitions

In these terms and conditions unless the context otherwise requires:

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

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

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

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

(i) information which the Client can prove was rightfully in its possession prior to disclosure by GroundSure and

(ii) any information which is in the public domain (other than by virtue of a breach of this Contract).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

2.1 GroundSure agrees to provide the Services in accordance with the Contract.

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

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

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

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

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

3 The Client's obligations

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

(i) procure that the Beneficiary or any third party relying on the Services complies with and acts as if it is bound by the Contract and

(ii) be liable to GroundSure for the acts and omissions of the Beneficiary or any third party relying on the Services as if such acts and omissions were those of the Client.

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

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

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

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

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

4 Reliance

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

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

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

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

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

5 Fees and Disbursements

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

5.2 The Client shall pay all outstanding Fees to GroundSure in full without deduction, counterclaim or set off within 30 days of the date of GroundSure's invoice or such other period as may be agreed in writing between GroundSure and the Client ("Payment Date"). Interest on late payments will accrue on a daily basis from the Payment Date until the date of payment (whether before or after judgment) at the rate of 8% per annum.

5.3 The Client shall be deemed to have agreed the amount of any invoice unless an objection is made in writing within 28 days of the date of the invoice. As soon as reasonably practicable after being notified of an objection, without prejudice to clause 5.2 a member of GroundSure's management team will contact the Client and the parties shall then use all reasonable endeavours to resolve the dispute within 15 days.

6 Intellectual Property and Confidentiality

6.1 Subject to

- (i) full payment of all relevant Fees and
- (ii) compliance with this Contract, the Client is granted (and is permitted to sub-licence to the Beneficiary) a royalty-free, worldwide, non-assignable and (save to the extent set out in this Contract) non-transferable licence to make use of the GroundSure Materials.

6.2 All Intellectual Property in the GroundSure Materials are and shall remain owned by GroundSure or GroundSure's licensors (including without limitation the Third Party Data Providers) the Client acknowledges, and shall procure acknowledgement by the Beneficiary of, such ownership. Nothing in this Contract purports to transfer or assign any rights to the Client or the Beneficiary in respect of such Intellectual Property.

6.3 Third Party Data Providers may enforce any breach of clauses 6.1 and 6.2 against the Client or Beneficiary.

6.4 The Client shall, and shall procure that any recipients of the GroundSure Materials shall:

- (i) not remove, suppress or modify any trade mark, copyright or other proprietary marking belonging to GroundSure or any third party from the Services;
- (ii) use the information obtained as part of the Services in respect of the subject Site only, and shall not store or reuse any information obtained as part of the Services provided in respect of adjacent or nearby sites;
- (iii) not create any product or report which is derived directly or indirectly from the Services (save that those acting in a professional capacity to the Beneficiary may provide advice based upon the Services);
- (iv) not combine the Services with or incorporate such Services into any other information data or service;
- (v) not reformat or otherwise change (whether by modification, addition or enhancement), the Services (save that those acting for the Beneficiary in a professional capacity shall not be in breach of this clause 6.4(v) where such reformatting is in the normal course of providing advice based upon the Services);
- (vi) where a Report and/or Mapping contains material belonging to Ordnance Survey, acknowledge and agree that such content is protected by Crown Copyright and shall not use such content for any purpose outside of receiving the Services; and
- (vii) not copy in whole or in part by any means any map prints or run-on copies containing content belonging to Ordnance Survey (other than that

contained within Ordnance Survey's OS Street Map) without first being in possession of a valid Paper Map Copying Licence from Ordnance Survey.

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

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

7 Liability: Particular Attention Should Be Paid To This Clause

7.1 This Clause 7 sets out the entire liability of GroundSure, including any liability for the acts or omissions of its employees, agents, consultants, subcontractors and Third Party Content, in respect of:

- (i) any breach of contract, including any deliberate breach of the Contract by GroundSure or its employees, agents or subcontractors;
- (ii) any use made of the Reports, Services, Materials or any part of them; and
- (iii) any representation, statement or tortious act or omission (including negligence) arising under or in connection with the Contract.

7.2 All warranties, conditions and other terms implied by statute or common law are, to the fullest extent permitted by law, excluded from the Contract.

7.3 Nothing in the Contract limits or excludes the liability of the Supplier for death or personal injury resulting from negligence, or for any damage or liability incurred by the Client or Beneficiary as a result of fraud or fraudulent misrepresentation.

7.4 GroundSure shall not be liable for

- (i) loss of profits;
- (ii) loss of business;
- (iii) depletion of goodwill and/or similar losses;
- (iv) loss of anticipated savings;
- (v) loss of goods;
- (vi) loss of contract;
- (vii) loss of use;
- (viii) loss or corruption of data or information;
- (ix) business interruption;
- (x) any kind of special, indirect, consequential or pure economic loss, costs, damages, charges or expenses;
- (xi) loss or damage that arise as a result of the use of all or part of the GroundSure Materials in breach of the Contract;
- (xii) loss or damage arising as a result of any error, omission or inaccuracy in any part of the GroundSure Materials where such error, omission or inaccuracy is caused by any Third Party Content or any reasonable interpretation of Third Party Content;
- (xiii) loss or damage to a computer, software, modem, telephone or other property; and
- (xiv) loss or damage caused by a delay or loss of use of GroundSure's internet ordering service.

7.5 GroundSure's total liability in relation to or under the Contract shall be limited to £10 million for any claim or claims.

7.6 GroundSure shall procure that the Beneficiary shall be bound by limitations and exclusions of liability in favour of GroundSure which accord with those detailed in clauses 7.4 and 7.5 (subject to clause 7.3) in respect of all claims which the Beneficiary may bring against GroundSure in relation to the Services or other matters arising pursuant to the Contract.

8 GroundSure's right to suspend or terminate

8.1 If GroundSure reasonably believes that the Client or Beneficiary has not provided the information or assistance required to enable the proper provision of the Services, GroundSure shall be entitled to suspend all further performance of the Services until such time as any such deficiency has been made good.

8.2 GroundSure shall be entitled to terminate the Contract immediately on written notice in the event that:

- (i) the Client fails to pay any sum due to GroundSure within 30 days of the Payment Date; or
- (ii) the Client (being an individual) has a bankruptcy order made against him or (being a company) shall enter into liquidation whether compulsory or voluntary or have an administration order made against it or if a receiver shall be appointed over the whole or any part of its property assets or undertaking or if the Client is struck off the Register of Companies or dissolved; or
- (iii) the Client being a company is unable to pay its debts within the meaning of Section 123 of the Insolvency Act 1986 or being an individual appears unable to pay his debts within the meaning of Section 268 of the Insolvency Act 1986 or if the Client shall enter into a composition or arrangement with the Client's creditors or shall suffer distress or execution to be levied on his goods; or

(iv) the Client or the Beneficiary breaches any term of the Contract (including, but not limited to, the obligations in clause 4) which is incapable of remedy or if remediable, is not remedied within five days of notice of the breach.

9. Client's Right to Terminate and Suspend

9.1 Subject to clause 10.1, the Client may at any time upon written notice terminate or suspend the provision of all or any of the Services.

9.2 In any event, where the Client is a consumer (and not a business) he/she hereby expressly acknowledges and agrees that:

(i) the supply of Services under this Contract (and therefore the performance of this Contract) commences immediately upon GroundSure's acceptance of the Order; and

(ii) the Reports and/or Mapping provided under this Contract are
(a) supplied to the Client's specification(s) and in any event
(b) by their nature cannot be returned.

10 Consequences of Withdrawal, Termination or Suspension

10.1 Upon termination of the Contract:

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

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

11 Anti-Bribery

11.1 The Client warrants that it shall:

(i) comply with all applicable laws, statutes and regulations relating to anti-bribery and anti-corruption including but not limited to the Bribery Act 2010;

(ii) comply with such of GroundSure's anti-bribery and anti-corruption policies as are notified to the Client from time to time; and

(iii) promptly report to GroundSure any request or demand for any undue financial or other advantage of any kind received by or on behalf of the Client in connection with the performance of this Contract.

11.2 Breach of this Clause 11 shall be deemed a material breach of this Contract.

12 General

12.1 The Mapping contained in the Services is protected by Crown copyright and must not be used for any purpose other than as part of the Services or as specifically provided in the Contract.

12.2 The Client shall be permitted to make one copy only of each Report or Mapping Order. Thereafter the Client shall be entitled to make unlimited copies of the Report or Mapping Order only in accordance with an Ordnance Survey paper map copy license available through GroundSure.

12.3 GroundSure reserves the right to amend or vary this Contract. No amendment or variation to this Contract shall be valid unless signed by an authorised representative of GroundSure.

12.4 No failure on the part of GroundSure to exercise, and no delay in exercising, any right, power or provision under this Contract shall operate as a waiver thereof.

12.5 Save as expressly provided in this Contract, no person other than the persons set out therein shall have any right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of the Contract.

12.6 The Secretary of State for Business, Innovation and Skills ("BIS") or BIS' successor body, as the case may be, acting through Ordnance Survey may enforce a breach of clause 6.4(vi) and clause 6.4(vii) of these terms and conditions against the Client in accordance with the provisions of the Contracts (Rights of Third Parties) Act 1999.

12.7 GroundSure shall not be liable to the Client if the provision of the Services is delayed or prevented by one or more of the following circumstances:

(i) the Client or Beneficiary's failure to provide facilities, access or information;

(ii) fire, storm, flood, tempest or epidemic;

(iii) Acts of God or the public enemy;

(iv) riot, civil commotion or war;

(v) strikes, labour disputes or industrial action;

(vi) acts or regulations of any governmental or other agency;

(vii) suspension or delay of services at public registries by Third Party

Data Providers;

(viii) changes in law; or

(ix) any other reason beyond GroundSure's reasonable control.

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

12.8 Any notice provided shall be in writing and shall be deemed to be properly given if delivered by hand or sent by first class post, facsimile or by email to the address, facsimile number or email address of the relevant

party as may have been notified by each party to the other for such purpose or in the absence of such notification the last known address.

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

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

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

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

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

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

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

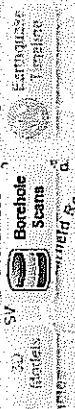
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Appendix F

Borehole Logs from 1975

British Geological Survey
NATURAL ENVIRONMENT RESEARCH

NATIONAL CIVIL RIGHTS MONTH



Geology of Britain viewer

More BGS map viewers

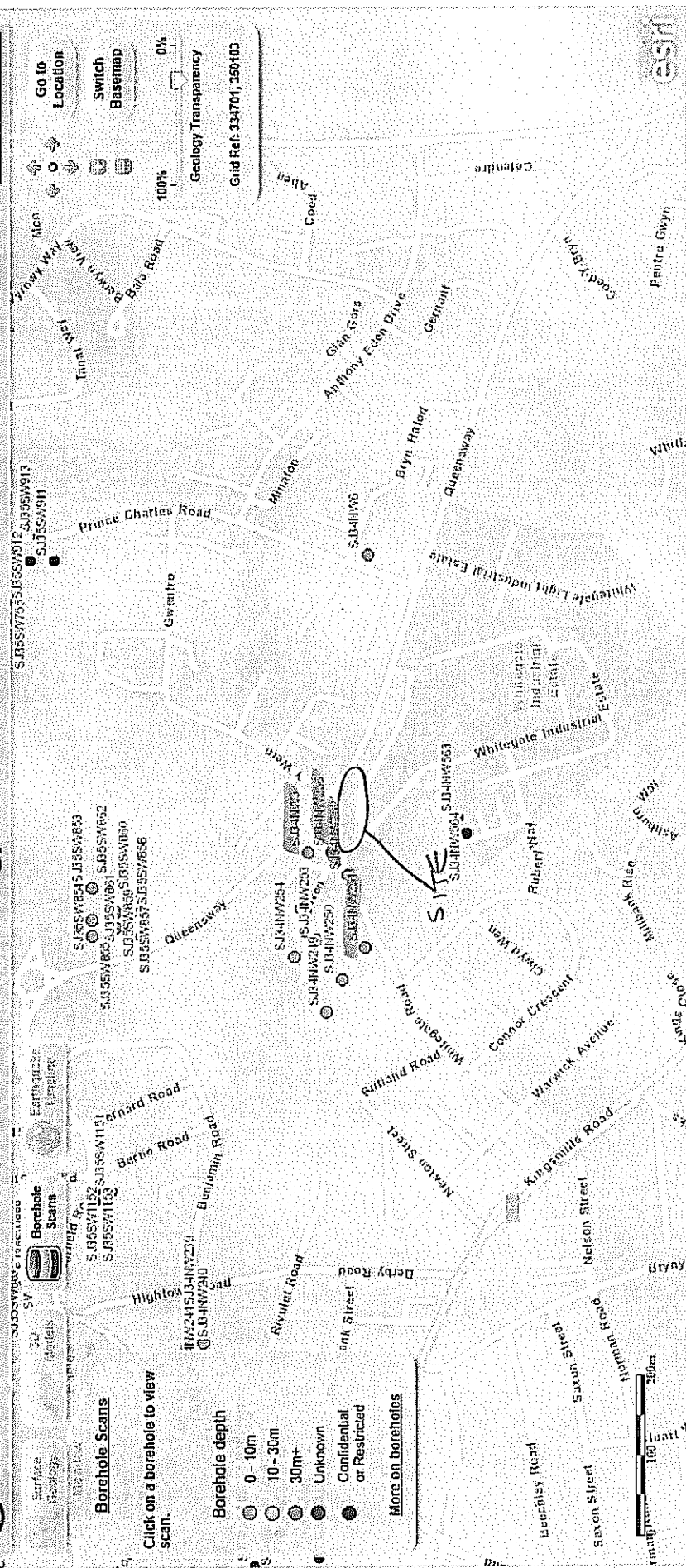


Click on a borehole to view
scan.

Borehole depth

- 0 - 10m
10 - 30m
30m+
Unknown
Confidential
or Restricted

More on boreholes





**British
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

BGS ID: 153643 : BGS Reference: SJ34NW251

British National Grid (27700) : 334410,349780

Report an issue with this borehole

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< Prev

Page 1 of 2

Next >

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Site Investigation Specialist
Mining and Foundation Consultants

BOREHOLE RECORD SHEET No. 3

Geo - Civil

(Gustcrest Limited)

Hilton House,

7-11 Bury Road, Radcliffe, Lancs.

Telephone 061-724 6421

Date 24.11.75

Scale 1:50

Job No. 65.75190/4015

Location WHITEGATE

Diameter 150mm

Date

Ground level

Description of Strata	Legend	Depth	Thick- ness	Sample		SPT 'N' Value	Water levels and General Remarks
				Type	Depth		
TOPSOIL		0.71	0.71				
BROWN SAND AND GRAVEL WITH SMALL CLAY BANDS				SPT	0.91	10	
				SPT	1.83	15	
				SPT	2.74	18	
		3.65	2.94				B.P. DRY
		END OF BOREHOLE					



**British
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

BGS ID: 153644 : BGS Reference: SJ34NW252

British National Grid (27700) : 334500,349800

Report an issue with this borehole

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< Prev

Page 1 of 2

Next >

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Site Investigation Specialist
Mining and Foundation Consultants

BOREHOLE RECORD SHEET No. 4

Geo - Civil

(Gustcrast Limited)

Hilton House,

7-11 Bury Road, Redcliffe, Lancs.

Telephone 081-724 6421

Date

Date 25.11.75

Scale 1:50

Job No. GC.75100/WA15

Location HILTERATE

Diameter 150mm

Ground level

Description of Strata	Legend	Depth	Thick- ness	Sample		SPT 'N' Value	Water levels and General Remarks
				Type	Depth		
TOPSOIL		0.38	0.38				
BROWN CLAYEY SAND AND GRAVEL		1.25	0.91	SPT	0.91	13	
BROWN SAND AND GRAVEL WITH SMALL CLAY BANDS				SPT	1.83	15	
				SPT	2.74	20	
		2.65	2.36				B.H. DRY
END OF BOREHOLE							



NATURAL ENVIRONMENT RESEARCH COUNCIL

British National Grid (27700) : 334420,349840

Report an issue with this borehole

Navigation icons: back, forward, search, and other controls.

< Prev

Page 1 of 2

Next >

**Site Investigation Specialist
Mining and Foundation Consultants**

BOREHOLE RECORD SHEET No. 5

Geo - Civil

(Gustafson Limited)

Hilton House.

7.11 Bury Road, Radcliffe, Lancs.

Telephone 081-724 6421

Date

Date 25.11.75

Date 25.11.75

Date
Scale 1:50

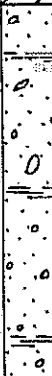
Scale
Job No. GC-75100/WM19

Job No.

Location ONTARIO

Diameter 15.0mm

Ground level

Description of Strata	Legend	Depth	Thick- ness	Sample		SPT 'N' Value	Water levels and General Remarks
				Type	Depth		
TOPSOIL		0.33	0.33				
BROWN SAND AND GRAVEL WITH SMALL CLAY BANDS				SPT	0.91	13	
				SPT	1.83	10	
				SPT	2.74	21	
		3.65	3.33				B.H. ONLY
		END OF BOREHOLE					

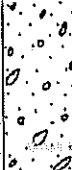
Site Investigation Specialist
Mining and Foundation Consultants

BOREHOLE RECORD SHEET No. 8

Geo - Civil

(Gustcrest Limited)
Hilton House,
7-11 Bury Road, Redcliffe, Lanca.
Telephone 081-724 6421

Date 25.11.75
Scale 1:50
Job No. GC.75100/WM15
Location WHITEGATE
Diameter 150mm
Ground level

Description of Strata	Legend	Depth	Thick- ness	Sample		SPT 'N' Value	Water levels and General Remarks
				Type	Depth		
SOIL, CLAY, ASH AND BRICK FILL				SPT	0.91	8	
				SPT	1.83	9	
				SPT	2.74	9	
		3.04	3.04				
BROWN SAND AND GRAVEL				SPT	4.11	18	0.11. DRY
		4.57	1.53				
		END OF BOREHOLE					



**British
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

BGS ID: 153394 : BGS Reference: SJ34NW3
British National Grid (27700) : 334530,349850

Report an issue with this borehole

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< Prev

Page 1 of 15



Next >

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