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Innovative Land Development Solutions

GROUND INVESTIGATION

SCOTLAND STREET, ELLESMERE

Report No: 22360/1
Date: April 2023

Prepared for

LANDFIND (SERVICES) LIMITED

PROJECT QUALITY ASSURANCE
INFORMATION SHEET

GROUND INVESTIGATION

SCOTLAND STREET, ELLESMERE

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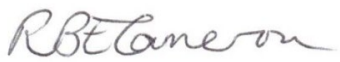	
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EXECUTIVE SUMMARY

GROUND INVESTIGATION

SCOTLAND STREET, ELLESMERE

Georisk Management Limited has been commissioned to carry out a ground investigation at the above site, which is to be redeveloped for housing.

Phase I	**Comments**
The Site	The site is located to the south of Scotland Street in Ellesmere, Shropshire and can be located approximately by National Grid Reference 339780, 334660. It covers an area of approximately 0.25 hectares and comprises a former chapel converted into a vehicle servicing building in the north of the site fronting Scotland Street with a narrow hard-surfaced access road leading to the main part of the site. A central hard-surfaced area is used for parking and there are several outbuildings and sheds used for general storage purposes. The rear of the site comprises soft landscaping with trees and overgrown hedges along the boundaries. The site is bordered by Scotland Street and housing to the north, housing to the east and west and woodland with a supermarket beyond to the south. No evidence of potential significant contamination was noted during the site walkover.
Site History	Historical maps show the site comprised a chapel in the north, with a small outbuilding in the west, from 1875. It is understood this building was converted to a garage business from 1910, with several further outbuildings mapped across the centre of the site in the early 1900's. The business ceased trading in 2021, with the site being used for parking and storage since. It is understood that the petrol, and later diesel, were sold at the site and that fuel sales ceased in the 1980's, with two 500-gallon underground storage tanks de-gassed in the late 1990's. The hard-surface central part of the site was used as a vehicle parking area for this business. Surrounding land use has remained primarily residential, with increasing housing throughout the 20th century. To the south, the site of a former foundry and later factory is now occupied by a supermarket.
Geology	The geology of the site is anticipated to comprise Made Ground and Glacial Till overlying the Wilmslow Sandstone Formation of the Sherwood Sandstone Group of Triassic age.
Coal Mining	The site is not in an area affected by past shallow coal mining activities.
Hydrology	The nearest surface water feature is a wharf associated with the Shropshire Union Canal Llangollen Branch at approximately 90 m to the south-east of the site; There are no surface watercourses (rivers or streams) within 250 m of the site. The EA has records of 1 No. licensed discharge consent within 250 m of the site: Severn Trent Water Limited is licensed to discharge Public Sewage: Storm Sewage Overflow into the Newnes Brook at a location approximately 160 m to the east of the site. The EA has records of 1 No. licensed surface water abstraction within 250 m of the site: British Waterways Board is licensed to abstract surface water at a point on Shropshire Union Canal approximately 185 m to the south-east of the site for Dairies: General Washing/Process Washing and Other Industrial/Commercial/Public Services: Evaporative Cooling.
Flood Risk	Based on current information provided by the EA, included in the Envirocheck Report, the site is mapped in an area likely to be at risk from river flooding. Flood risk should be assessed further by specialist consultants.
Hydrogeology	The Glacial Till is classified by the EA as a *'Secondary – Undifferentiated'* aquifer. The Wilmslow Sandstone Formation is classified by the EA as a *'Principal'* aquifer. The EA has no records of any licensed groundwater abstractions within 250 m of the site. The site is not mapped by the EA within a groundwater Source Protection Zone.

Phase I	Comments
Landfills	The EA and Local Authority have no records of any operational or historic landfills within 250 m of the site. The Envirocheck report identifies 1 No. record of potentially infilled land (water) within 250 m of the site, which is located at 158 m to the north-west of the site. This relates to a pond that is shown on historical mapping extracts to have been infilled by 1954. Due to the age of infilling, this feature is not considered to be significant in terms of this assessment.
Pollution	The EA has no records of any significant or major pollution incidents to controlled waters within 250 m of the site. The EA has no records of any sites within 250 m of the study area that are potential pollution hazards or potential sources of industrial pollution and regulated under the EC Integrated Pollution Prevention and Control Directive (IPPC). The Local Authority has no records of any sites within 250 m of the study area that are potential pollution hazards or potential sources of pollution and regulated under Local Authority Pollution Prevention and Control regulations.
Radon	Radon protection is not required for a new housing development at the site.
Phase II	**Comments**
Ground Conditions	**Topsoil** was encountered in WS6 to WS9 to a maximum depth of 0.3 m begl and typically consisted of grass over dark brown slightly clayey sand with rootlets and occasional gravel of brick. **Made Ground** was encountered across much of the site, except in WS6 to WS8, to depths of between 0.4 and 1.9 m begl. It typically comprised brown locally clayey locally gravelly or very gravelly sand or very soft to soft brown very sandy gravelly clay. The gravel content comprised quartzite, sandstone, brick, tarmac and glass. **Glacial Till** was encountered beneath the topsoil or Made Ground and proved to a maximum depth of 4.9 m begl. This material was variable and typically comprised soft or firm becoming stiff with depth brown sandy locally gravelly clay or medium dense brown locally clayey or gravelly sand. Soft or loose material was recorded at the following locations: WS3: soft clay at 0.9 to 1.5 m begl and loose sand at 1.5 to 2.0 m begl; WS4: very soft and soft clay at 0.8 to 1.8 m begl; WS5: very soft clay at 0.8 to 1.8 m begl; WS8: loose sand at 1.0 to 1.6 m begl; WS9: loose sand at 1.0 to 2.4 m begl and WS10: very soft to soft locally organic clay at 1.4 to 3.0 m begl.
Contamination	No visual/olfactory evidence of potential significant contamination was recorded during the fieldwork.
Groundwater	During the fieldwork, groundwater was encountered at depths of between 1.0 and 2.1 m begl in the Glacial Till. Subsequent monitoring of standpipes installed in WS1, WS8 and WS10 has recorded standing groundwater levels of between 0.5 and 2.8 m begl.
Soil-Gas	A maximum methane level of 0.3 % by volume (% v/v) has been recorded during the monitoring programme. Methane was not recorded in WS1 and WS8 and was only recorded in WS10. Steady state carbon dioxide levels have ranged from 1.1 to 3.2 % v/v during the monitoring programme. No positive gas flow was recorded and ambient atmospheric pressures have ranged from 976 to 1001 mb.
Environmental Assessment	**Comments**
Soil Contamination	The majority of the test results for the contaminants of concern are below the relevant assessment criteria (S4UL/C4SL/SSV); however, the following result exceeds the relevant assessment criteria in the Made Ground: • WS5 at 0.4 m begl: dibenz(ah)anthracene (0.27 mg/kg). All samples tested were screened for the presence of asbestos; asbestos was not identified in any of the samples analysed.
Risk Evaluation: Human Health	WS5 is located beneath the proposed building footprint of Plot 2. Made Ground represents no plausible pollutant linkage beneath building footprints. No remedial action in respect of risk to human health is considered necessary for the proposed development at the site. Clean topsoil should be provided in all gardens and soft landscaped areas to provide a suitable growing medium.

Environmental Assessment	Comments
Underground Fuel Tanks	It is understood that two 500-gallon underground fuel storage tanks are present beneath the former garage building in the north of the site and are believed to be empty and were de-gassed during the 1990's. As the tanks are beneath the existing building, investigation around the tanks was very limited with two exploratory holes put down in the existing access road. No hydrocarbon impact was recorded at these two locations; however, there is the potential for localised hydrocarbon impact associated with these features. Further investigation will be required following demolition of the building and the redundant infrastructure will need to be removed as part of the redevelopment of the site. At this stage, the outline remediation strategy for their removal and also to deal with any impacted soil/groundwater, is as follows: • excavation of remnant filling station infrastructure; • delineation and excavation of any contaminated soil and/or groundwater and off-site disposal at a suitably licensed receiving facility; • infilling of excavations with clean fill. Any remediation works would require validation by an independent engineer and submission of a validation report to the relevant regulators for approval.
Risk Evaluation: Gas Protection	Gas protection not considered necessary for the proposed development.
Statutory Consultation	This report should be submitted to the Local Authority and/or warranty provider for approval and discharge of relevant planning or land quality conditions before any development works start on site.
Geotechnical Assessment	**Comments**
Preparatory Works	Site preparatory works will need to be carried out to facilitate development and are likely to include: • demolition of existing buildings with special attention being given to the appropriate removal of any asbestos containing materials; • removal and grubbing out of former petrol filling station infrastructure; • removal of any remnant foundations, other buried obstructions and hardstanding; • infilling of any voids with suitably compacted granular fill; • diversion and relocation of existing services; • reprofiling of site levels to achieve a suitable development platform (the extent of which will depend on agreed levels). It is recommended that an asbestos survey is carried out to identify all asbestos containing materials (ACM) within the buildings to be demolished. Following this, demolition should be undertaken in a controlled manner to ensure that ACM do not enter near-surface soils to become a potential future source of contamination.
Foundations	This investigation has identified topsoil or Made Ground to depths of between 0.3 and 1.9 m begl overlying variable Glacial Till. Across much of the site, the upper Glacial Till comprise very soft/soft clay and/or a loose granular soil. If the use of traditional spread (strip/trench fill) footings was to be considered, they would need to extend through the Made Ground and any very soft/soft clay or loose granular Glacial Till. Based on the ground conditions encountered, and assuming at least 300 mm penetration into competent Glacial Till, this would result in founding depths in the order of 1.9 to 3.3 m begl across much of the site. Geotechnical testing of the near-surface soil indicates that the clay Glacial Till should be classified as a shrinkable soil of medium volume change potential. Foundations near any trees/hedgerows may need to be deepened and heave protection measures adopted in accordance with NHBC Standards Chapter 4.2 'Building Near Trees'. These aspects should be considered further at detailed design stage and a detailed tree survey will be required to assist with foundation design. For strip/trench fill foundations placed in competent Glacial Till, an allowable bearing pressure of 125 kN/m^2 is considered appropriate for foundation design purposes with total settlements would not be anticipated to exceed 25 mm. If the use of traditional spread foundations is not deemed to be feasible or economic, consideration would need to be given to an abnormal foundation solution, such as ground improvement with vibro-stone columns or piling.

Geotechnical Assessment	Comments
Foundations (continued)	Ground improvement with vibro-stone columns to facilitate the use of a reinforced strip footing is a potential option subject to consultation with specialist contractors for advice on detailed design and application of their proprietary vibro-treatment system in the prevailing ground conditions, particularly given the presence of low shear strength soils which may not be suitable for treatment. This technique could 'improve' the bearing capacity of the near-surface soil profile to around 125 to 150 kN/m^2 and as this investigation has identified the depth to a suitable founding material to be between 3.0 and 4.0 m begl, full depth treatment should be achievable. Piling is another potential option. As the load bearing characteristics of piles are dependent upon the type of pile used, method of installation, construction and workmanship, it is recommended that detailed discussions are held with suitably experienced piling contractors to determine the most suitable pile design and the piling scheme. In any event, positive assurances should be sought from the piling contractor in respect of performance and a representative number of piles should be subject to pile loading tests. Vibration control measures may be needed to ensure that pile installation does not impact adjacent buildings. Further ground investigation comprising deeper boreholes may be required for pile design purposes. Care should be taken to limit the exposure of any excavation prepared to receive concrete, which may cause deterioration and a reduction in bearing capacity. Foundation excavations should be inspected by qualified personnel and if any soft or loose materials are encountered at formation level, foundations should be deepened and infilled to design level with lean-mix concrete.
Floor Slabs	Based on the ground conditions encountered, it is recommended that a suspended floor slab design (cast in situ or 'beam and block' with underfloor void) is adopted for the proposed development.
Buried Concrete Design	A Design Sulphate Class of DS-1 and an ACEC class of AC-1 apply at the site.
Pavement Design	For preliminary design purposes, the following long term CBR values could be assumed for various near-surface materials present at the site (based on average construction conditions): • Made Ground: 2 %; • Glacial Till: 2-4 %. The proposed formation should be proof rolled and caution must be exercised to ensure that any soft/loose areas identified within the formation are excavated and filled with suitably compacted granular fill. The near-surface soils have the potential to be disturbed by weathering and site traffic. Suitable workings methods should therefore be employed to avoid this and therefore reduce the potential to create volumes of unsuitable fill material. Once road alignments and levels have been finalised, in situ CBR tests should be undertaken to allow detailed design of road formations to be made.
Dewatering	Based on the findings of this investigation, groundwater ingress should be anticipated in excavations and may likely require more sophisticated dewatering measures than sump pumping, such as well-pointing.
Excavations	Conventional mechanical excavation should be achievable through the near-surface Glacial Till to depths of at least 4.0 m begl. Shallow excavations should remain stable in the short-term; however, instability may occur in excavations left open for extended periods of time. Support should be provided in any excavations requiring man entry. Care should be taken to limit the exposure of any excavation prepared to receive concrete, which may cause deterioration and a reduction in bearing capacity. Foundation excavations should be inspected by qualified personnel and if any soft or loose materials are encountered at formation level, foundations should be deepened and infilled to design level with lean-mix concrete.
Additional Work	**Comments**
Various	This report should be submitted to the Local Authority and/or warranty provider for approval and discharge of relevant planning or land quality conditions before any development works start on site.
	Further investigation, risk assessment and, if required, remediation, around underground fuel tanks in the north of the site.

The above summary is intended for reference purposes only and specific details should be obtained by reading the entire report.

FOREWORD

This report has been prepared for the sole internal use and reliance of the Client(s) named on the Project Quality Assurance Information Sheet. This report shall not be relied upon or transferred to any other parties without the express written authorisation of Georisk Management Ltd (Georisk). If an unauthorised third party comes into possession of this report they rely on it at their peril and the authors owe them no duty of care and skill.

The report should be read in its entirety, including all associated drawings and appendices. Georisk cannot be held responsible for any misinterpretations arising from the use of extracts that are taken out of context.

The findings and opinions conveyed in this report are based on information obtained from a variety of sources as detailed within this report and which Georisk believes is reliable. All reasonable care and skill has been applied in examining the information obtained, nevertheless, Georisk cannot and does not guarantee the authenticity or reliability of the information it has relied upon.

The report represents the findings and opinions of experienced geoenvironmental consultants. Georisk does not provide legal advice and the advice of lawyers may also be required.

Any recommendations made or opinions expressed in the Report are based on the exploratory hole records, an examination of samples and the results of the site and laboratory tests. No liability can be accepted for conditions not revealed by the exploratory holes particularly between positions. Whilst every effort is made to ensure accuracy of data supplied any opinion expressed as to the possible configuration of strata between or below investigation locations is for guidance only and no responsibility is accepted as to its accuracy.

Unless otherwise specifically stated, this report assumes that ground levels will not change significantly from those existing at present and that the proposed development will be of two to three storey construction. If this is not to be the case, some modifications to this report may be required.

The groundwater conditions entered on the borehole records and from any monitoring programme are those observed at the time of the investigation. Groundwater levels are susceptible to seasonal fluctuations and may be higher during wetter periods than those encountered during this investigation.

Where the report refers to the potential presence of invasive plant species, such as Japanese Knotweed, or the presence of possible asbestos containing materials, it should be noted that the observations are for information purposes only and should be verified by a suitably qualified expert.

Georisk reserves the right to amend the conclusions and recommendations made in this report in the light of any further or more detailed information that may become available.

GROUND INVESTIGATION

SCOTLAND STREET, ELLESMERE

1. INTRODUCTION

1.1 Georisk Management Limited (Georisk) has been instructed by Landfind (Services) Limited carry out a ground investigation of a parcel of land on Scotland Street in Ellesmere, Shropshire. The work was carried out in accordance with Georisk's offer letter reference 22360/LO.001/AMG dated 24 November 2022, which was accepted by email of 22 February 2023.

1.2 The site is to be redeveloped for housing and; therefore, the principal aims of this investigation are as follows:

- to carry out Phase I hazard identification and assessment (desk study) including determination of an initial conceptual site model based on 'source-pathway-receptor' principles;
- to determine the prevalent ground and groundwater conditions at the site;
- to provide an assessment of the concentrations of a range of potential contaminants of concern within the near-surface soils, including Phase II evaluation of risk to human health and/or environmental receptors;
- to identify any potential geoenvironmental constraints associated with the development of the site for a residential end use;
- to provide general geotechnical design recommendations for the proposed future residential development scheme.

1.3 This report presents the factual data obtained from the programme of fieldwork, laboratory testing and monitoring implemented by Georisk, together with an assessment of the contamination status of the near-surface soils and general engineering considerations for the proposed development scheme.

2. INFORMATION SOURCES

2.1 The information sources used in the production of this report were as follows:

- site walkover to appraise current layout and conditions;
- review of British Geological Survey (BGS) maps and publications;
- review of information contained within environmental databases maintained by the Environment Agency (EA) and other regulatory bodies provided in an Envirocheck Report by Landmark Information Group dated March 2023;
- information gained with respect to the ground and groundwater conditions established in the programme of fieldwork and monitoring carried out by Georisk;
- appraisal of laboratory data resulting from chemical and geotechnical testing scheduled by Georisk;
- drawing entitled *'Proposed Site Plan'* by Shenton Owen, reference W22/2778/02 dated May 2022;
- topographic survey by Battlefield Land Surveys Ltd, reference 13034 01 dated March 2022.

3. REFERENCE SOURCES

3.1 This report has been prepared with regard to the following sources of reference and guidance, supplemented with experience of similar sites:

- *Investigation of Potentially Contaminated Sites – Code of Practice. British Standards Institute BS10175 (2001+A2:2017);*
- *Human health toxicological assessment of contaminants in soil. Science Report SC050021/SR2 EA (2009);*
- *Code of Practice for Site Investigations. BS5930 (2015+A1:2020);*
- *The LQM/CIEH S4ULs for Human Health Risk Assessment. LQM 2015;*
- *Updated technical background to the CLEA Model. Science Report SC050021/SR3 EA (2009);*
- *Development of Category 4 Screening Levels for Assessment of Land Affected by Contamination – Policy Companion Document. SP1010 DEFRA/CL:AIRE (2014);*
- *Land Contamination Risk Management. EA. (2020);*
- *Guidance on Comparing Soil Contamination Data with a Critical Concentration. CIEH and CL:AIRE (2008);*
- *Remedial Targets Methodology: Hydrogeological Risk Assessment for Land Contamination. EA (2006);*
- *Guidance for the Safe Development of Housing on Land Affected by Contamination. R & D Publication 66, NHBC, Environment Agency and CIEH (2008);*
- *Abandoned Mine Workings Manual CIRIA C758 (2019);*
- *Concrete in Aggressive Ground. BRE Special Digest 1: Part 1 Assessing the aggressive chemical environment. Building Research Establishment (2005);*
- *Radon: guidance on protective measures for new dwellings. BRE Report BR211 (2015);*
- *Code of practice for design of protective measures for methane and carbon dioxide ground gases for new buildings. BS8485 (2007+A1:2019);*
- *Guidance on Evaluation of Development Proposals on sites where Methane and Carbon Dioxide are Present. NHBC report Edition No. 4 (2007);*
- *Assessing Risks Posed by Hazardous Ground Gases to Buildings. CIRIA Report C669 (2006);*
- *Passive venting of soil gases beneath buildings. DETR/ARUP Environmental PIT Research Report (1997);*
- *Protective measures for housing on gas-contaminated land. BRE/EA Report BR414 (2001);*
- *Site preparation and resistance to moisture. The Building Regulations 2000 Approved Document C (2004 edition);*
- *Specification for topsoil requirements for use (BS 3882:2015);*
- *NHBC Standards (2021).*

4. THE SITE

4.1 The site is located to the south of Scotland Street in Ellesmere, Shropshire and can be located approximately by National Grid Reference 339780, 334660. The general site layout is shown on Drawing No. 22360/1, entitled *'Exploratory Hole Location Plan'* included in Appendix A.

4.2 It covers an area of approximately 0.25 hectares and comprises a former chapel converted into a vehicle servicing building in the north of the site fronting Scotland Street with a narrow hard-surfaced access road leading to the main part of the site.

4.3 A central hard-surfaced area is used for parking and there are several outbuildings and sheds used for general storage purposes.

4.4 The rear of the site comprises soft landscaping with trees and hedges along the boundaries. Photographs of the site are presented below:




4.5 The site is bordered by Scotland Street and housing to the north, housing to the east and west and woodland with a supermarket beyond to the south.

4.6 No evidence of potential significant contamination was noted during the site walkover.

5. SITE HISTORY

5.1 The history of the site and the surrounding area has been assessed by reviewing available historical County Series and Ordnance Survey maps. The maps studied are included in Appendix B of this report and a summary is presented in Table 1.

Year	Site	Surrounding Area
1875	A building labelled 'Mount Zion Chapel' is mapped in the north of the site fronting Scotland Street, with a smaller outbuilding mapped in the west of the site. The southern half of the site is undeveloped but is subdivided into numerous plots, with a track running through the middle from north to south.	The site is mapped in an area of mixed land use. Several buildings are mapped to the east and west of the site also fronting Scotland Street. A timber yard borders the site to the south. 'Bridgwater Foundry (Iron)' and a gas works are mapped 100 m to the south. Undeveloped land is mapped to the north, north-west, east and west.
1901	A further small outbuilding is mapped in the west of the site.	A nursery is mapped approximately 20 m to the north with greenhouses. A malthouse is mapped approximately 90 m to the west. Further buildings associated with the timber yard are mapped adjacent to the southern boundary.

Year	Site	Surrounding Area
1926	The building in the north of the site is no longer mapped as a chapel.	The foundry and gas works are now mapped as a cheese factory.
1976	Several further small buildings are mapped across the centre and south of the site.	Housing is mapped from approximately 20 m to the north and north-west. The timber yard is no longer labelled. Several large buildings replace the former cheese factory buildings.
1984	No significant changes are mapped.	Housing is mapped adjacent to the eastern boundary.
1985	No significant changes are mapped.	No significant changes are mapped.
1988	No significant changes are mapped.	Further housing is mapped approximately 30 m to the west fronting Scotland Street.
1991	No significant changes are mapped.	The cheese factory is no longer labelled.
1995	No significant changes are mapped.	No significant changes are mapped.
2000	No significant changes are mapped.	No significant changes are mapped.
2006	The site is no longer subdivided into small plots.	No significant changes are mapped.
2022	No significant changes are mapped.	The factory has been replaced by a supermarket.

Table 1: Summary of Historical Land Usage

5.2 It is understood that the building in the north of the site was used as historically used as a vehicle servicing garage from 1910 until November 2021 and also sold petrol and later diesel. Fuel sales ceased in the 1980's, with two 500-gallon underground storage tanks de-gassed in the late 1990's. The hard-surface central part of the site was used as a vehicle parking area for this business.

6. GEOENVIRONMENTAL SETTING

6.1 Geology and Mining

Geology

6.1.1 The geology of the site has been appraised from information published by BGS and is shown to comprise Glacial Till overlying the Wilmslow Sandstone Formation of the Sherwood Sandstone Group of Triassic age.

6.1.2 The presence of nominal Made Ground associated with existing built development at the site should also be anticipated.

Mining

6.1.3 The '*Interactive Map Viewer*' on the Coal Authority website indicates the site lies outside a '*Coal Mining Reporting Area*' and; therefore, no further assessment is required in respect of this potential development constraint.

6.2 Hydrology

6.2.1 The nearest surface water feature is a wharf associated with the Shropshire Union Canal Llangollen Branch at approximately 90 m to the south-east of the site.

6.2.2 There are no surface watercourses (rivers or streams) within 250 m of the site.

6.2.3 The EA has records of 1 No. licensed discharge consent within 250 m of the site:

- Severn Trent Water Limited is licensed to discharge Public Sewage: Storm Sewage Overflow into the Newnes Brook at a location approximately 160 m to the east of the site.

6.2.4 The EA has records of 1 No. licensed surface water abstraction within 250 m of the site:

- British Waterways Board is licensed to abstract surface water at a point on Shropshire Union Canal approximately 185 m to the south-east of the site for Dairies: General Washing/Process Washing and Other Industrial/Commercial/Public Services: Evaporative Cooling.

6.2.5 Based on current information provided by the EA, included in the Envirocheck Report, the site is mapped in an area which could be at risk from river flooding. Flood risk should be assessed further by specialist consultants.

6.3 Hydrogeology

6.3.1 The Glacial Till is classified by the EA as a '*Secondary – Undifferentiated*' aquifer, which is assigned in cases 'where it has not been possible to attribute either category A or B to a rock type. In most cases this means that the layer in question has previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type'.

6.3.2 The Wilmslow Sandstone Formation is classified by the EA as a '*Principal*' aquifer, which are defined as 'layers of rock or drift deposits that have high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale. In most cases, principal aquifers are aquifers previously designated as major aquifer'.

6.3.3 The EA has no records any licensed groundwater abstractions within 250 m of the site.

6.3.4 The site is not mapped by the EA within a groundwater Source Protection Zone.

6.4 Waste Management

6.4.1 The EA and Local Authority have no records of any operational or historic landfills within 250 m of the site.

6.4.2 The Envirocheck report identifies 1 No. record of potentially infilled land (water) feature within 250 m of the site, which is located 158 m to the north-west of the site. This relates to a pond that is shown on historical mapping extracts to have been infilled by 1954. Due to the age of infilling, this feature is not considered to be significant in terms of this assessment.

6.5 Pollution

6.5.1 The EA has no records of any significant or major pollution incidents to controlled waters within 250 m of the site.

6.5.2 The EA has no records of any sites within 250 m of the study area that are potential pollution hazards or potential sources of industrial pollution and regulated under the EC Integrated Pollution Prevention and Control Directive (IPPC).

6.5.3 The Local Authority has no records of any sites within 250 m of the study area that are potential pollution hazards or potential sources of pollution and regulated under Local Authority Pollution Prevention and Control regulations.

6.6 Radon

6.6.1 Information provided by the BGS and contained in the Envirocheck Report indicates that radon protection is not required for a new housing development at the site.

7. INITIAL CONCEPTUAL SITE MODEL

7.1 Environmental Setting

7.1.1 On the basis of the findings of the Phase I Desk Study presented in Sections 4 to 6 of this report, the environmental setting of the site can be summarised as follows:

- the site is located to the south of Scotland Street in Ellesmere, Shropshire and can be located approximately by National Grid Reference 339780, 334660;
- it covers an area of approximately 0.25 hectares and comprises a former chapel converted into a vehicle servicing building in the north of the site fronting Scotland Street with a narrow hard-surfaced access road leading to the main part of the site. A central hard-surfaced area is used for parking and there are several outbuildings and sheds used for general storage purposes. The rear of the site comprises soft landscaping with trees and overgrown hedges along the boundaries;
- the site is bordered by Scotland Street and housing to the north, housing to the east and west and woodland with a supermarket beyond to the south;
- no evidence of potential significant contamination was noted during the site walkover;
- historical maps show the site comprised a chapel in the north, with a small outbuilding in the west, from 1875. It is understood this building was converted to a garage business from 1910, with several further outbuildings mapped across the centre of the site in the early 1900's. The business ceased trading in 2021, with the site being used for parking and storage since;
- it is understood that the petrol, and later diesel, were sold at the site and that fuel sales ceased in the 1980's, with two 500-gallon underground storage tanks de-gassed in the late 1990's. The hard-surface central part of the site was used as a vehicle parking area for this business;
- surrounding land use has remained primarily residential, with increasing housing throughout the 20th century. To the south, the site of a former foundry and later factory is now occupied by a supermarket;
- the geology of the site is anticipated to comprise nominal Made Ground and Glacial Till overlying the Wilmslow Sandstone Formation of the Sherwood Sandstone Group of Triassic age;
- the site is not in an area affected by past shallow coal mining activities;
- the nearest surface water feature is a wharf associated with the Shropshire Union Canal Llangollen Branch at approximately 90 m to the south-east of the site;
- there are no surface watercourses (rivers or streams) within 250 m of the site;
- the EA has records of 1 No. licensed discharge consent within 250 m of the site: Severn Trent Water Limited is licensed to discharge Public Sewage: Storm Sewage Overflow into the Newnes Brook at a location approximately 160 m to the east of the site;
- the EA has records of 1 No. licensed surface water abstraction within 250 m of the site: British Waterways Board is licensed to abstract surface water at a point on Shropshire Union Canal approximately 185 m to the south-east of the site for Dairies: General Washing/Process Washing and Other Industrial/Commercial/Public Services: Evaporative Cooling;
- based on current information provided by the EA, included in the Envirocheck Report, the site is mapped in an area likely to be at risk from river flooding. Flood risk should be assessed further by specialist consultants;
- the Glacial Till is classified by the EA as a *'Secondary – Undifferentiated'* aquifer;
- the Wilmslow Sandstone Formation is classified by the EA as a *'Principal'* aquifer;

- the EA has no records of any licensed groundwater abstractions within 250 m of the site;
- the site is not mapped by the EA within a groundwater Source Protection Zone;
- the EA and Local Authority have no records of any operational or historic landfills within 250 m of the site;
- the Envirocheck report identifies 1 No. record of potentially infilled land (water) within 250 m of the site, which is located at 158 m to the north-west of the site. This relates to a pond that is shown on historical mapping extracts to have been infilled by 1954. Due to the age of infilling, this feature is not considered to be significant in terms of this assessment;
- the EA has no records of any significant or major pollution incidents to controlled waters within 250 m of the site;
- the EA has no records of any sites within 250 m of the study area that are potential pollution hazards or potential sources of industrial pollution and regulated under the EC Integrated Pollution Prevention and Control Directive (IPPC);
- the Local Authority has no records of any sites within 250 m of the study area that are potential pollution hazards or potential sources of pollution and regulated under Local Authority Pollution Prevention and Control regulations;
- radon protection is not required for a new housing development at the site.

7.2 Initial Conceptual Site Model and Preliminary Risk Assessment

General

7.2.1 The initial conceptual site model and preliminary risk assessment are based on information derived from the desk study to provide a qualitative assessment of risk posed to human health and environmental receptors from potential on and off-site sources of contamination as defined within Part IIA of the Environmental Protection Act (1990). For a significant risk to exist, it must be established that contamination has the potential to cause harm to susceptible targets. This is known as '*pollutant linkage'* and requires three criteria to be identified at a significant level:

- the presence of substances that may cause harm (SOURCE);
- the presence of a receptor which may be harmed (RECEPTOR);
- the existence of a plausible pollutant linkage between the source and the target (PATHWAY).

7.2.2 EA R&D66 (2008) includes a risk classification system based on classification of consequence and probability. Table 2 presents a risk matrix, in which the likelihood or probability of each pollutant linkage being realised is ranked against the severity of the consequences. The result is the risk classification, based upon which risk management actions can be implemented. The individual sources, pathways and receptors identified are assessed against this risk matrix; potential pollutant linkages and associated risks are recorded.

		Severity of Consequence			
		Severe	**Medium**	**Mild**	**Minor**
Probability of pollutant linkage	**High Likelihood**	Very high risk	High risk	Moderate risk	Moderate / low risk
	Likely	High risk	Moderate risk	Moderate / low risk	Low risk
	Low Likelihood	Moderate risk	Moderate / low risk	Low risk	Very low risk
	Unlikely	Moderate / low risk	Low risk	Very low risk	Very low risk

Table 2: Risk Matrix

7.2.3 Definitions of risk terminology are as follows.

7.2.4 **Very high risk:** there is a probability that severe harm could arise to a designated receptor from an identified source, or there is evidence that severe harm to a designated receptor is currently occurring.

7.2.5 **High risk:** harm is likely to arise to a designated receptor from an identified source.

7.2.6 **Moderate risk:** it is possible that harm could arise to a designated receptor from an identified source. However, it is relatively unlikely that any such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild.

7.2.7 **Low risk:** it is possible that harm could arise to a designated receptor from an identified source, but it is likely that this harm, if realised, would at worst normally be mild.

7.2.8 **Very low risk:** there is a low possibility that harm could arise to the receptor. In the event of such harm being realised it is not likely to be severe.

7.2.9 Professional judgement and experience has been used to estimate the combination of probability and consequence of the harm posed by the pollutant linkages identified. This allows the risk to be evaluated on a qualitative basis. The risk category is used to prioritise /target the site investigation. Using this matrix and the available screening limits it has been possible to carry out a semi-quantitative risk assessment for the sources, pathways and receptors which have been identified at the site.

7.2.10 The initial conceptual site model also illustrates the contaminants of concern identified from the contamination assessment and demonstrates the potential pathways and receptors which are considered likely to exist at the site.

7.2.11 Risk is based on a consideration of both:

- the likelihood of an event (probability); and
- the severity of the potential consequences.

7.2.12 A pollutant linkage must be established before tests for probability and consequence are applied. If there is no pollutant linkage then there is no potential risk and there is no need to apply tests for probability and consequence. The risk assessment needs to include a logical and transparent system to define categories of severity of consequence and probability of occurrence. The initial conceptual model and preliminary risk assessment are discussed below.

Proposed Development

7.2.13 The proposed development scheme is to comprise construction of new housing with private gardens, together with an access road and parking areas.

Potential On-Site Sources of Contamination

7.2.14 Based on information derived from the Phase I Desk Study, the following potential significant on-site sources of contamination have been identified that could affect the proposed development of the site:

- Made Ground associated with existing built development at the site;
- hazardous soil-gases derived from on-site Made Ground;

- ground contamination associated with the former use of the site as a petrol station and vehicle repair garage. Following guidance in EA R&D66 (2008) for '*road vehicle servicing and repair: garages and filling stations*', key potential contaminants include metals (chromium, copper, lead and zinc), asbestos, pH, polyaromatic hydrocarbons (PAH), Volatile Organic Compounds (VOC) and fuel hydrocarbons (as characterised by Total Petroleum Hydrocarbons (TPH) and BTEX compounds);
- TPH and BTEX contamination in area of former underground fuel tanks in the north of the site;
- asbestos containing materials (ACM) used in building construction.

Potential Off-Site Sources of Contamination

7.2.15 Based on information derived from the Phase I Desk Study, the following potential significant off-site sources of contamination have been identified that could affect the proposed development:

- ground contamination associated with the 'timber yard' to the south of the site. Following guidance in EA R&D66 (2008), for 'timber treatment works', key potential contaminants include heavy metals (arsenic, cadmium, chromium, copper, lead and zinc), pH (acidity) and sulphate, phenol, PAH, chlorinated aliphatic hydrocarbons, dieldrin, organotin compounds and asbestos.

Receptors

7.2.16 The following site-specific receptors are considered to be potentially feasible:

- site workers – construction personnel involved in redevelopment works;
- long term site users – house occupants;
- plant life – landscaped or garden areas;
- building fabric and foundations;
- controlled waters – Shropshire Union Canal Llangollen Branch located 90 m to the south-east;
- controlled waters – licensed surface water abstraction 185 m to the south-east;
- controlled waters – Wilmslow Sandstone Formation classified as a *'Principal'* aquifer.

Pathways

7.2.17 The potential pathways that are considered relevant to this site are as follows:

- direct contact with and/or incidental ingestion of any contaminated soils or dusts derived from contaminated soil;
- consumption of home-grown produce;
- inhalation of dust derived from any contaminated soil;
- direct contact between contaminated soils and building substructures;
- migration of hazardous soil-gases via permeable strata or via ducts/drains into confined spaces;
- vertical/lateral migration of mobile contaminants into controlled waters receptors.

Pollutant Linkages

7.2.18 On the basis of the '*source-pathway-receptor*' information presented above, the following potential pollutant linkages have been identified at the site:

Source	Pathway	Target	Consequence	Probability	Risk
Contamination associated with past usage as petrol station and garage Made Ground associated with on-site built development Hazardous soil-gases associated with Made Ground	Dermal contact	Site user: female child 0-6 years	Medium	Likely	Moderate
		Site construction worker	Mild	Likely	Moderate/low
	Ingestion	Site user: female child 0-6 years	Medium	Likely	Moderate
		Site construction worker	Mild	Likely	Moderate/low
	Consumption of home-grown vegetables	Site user: female child 0-6 years	Medium	Likely	Moderate
	Ingestion of soil attached to home-grown vegetables	Site user: female child 0-6 years	Medium	Likely	Moderate
	Dermal contact with dust derived from contaminated soil	Site user: female child 0-6 years	Medium	Likely	Moderate
		Site construction worker	Mild	Likely	Moderate/low
	Ingestion of dust derived from contaminated soil	Site user: female child 0-6 years	Medium	Likely	Moderate
		Site construction worker	Mild	Likely	Moderate/low
	Inhalation of dust derived from contaminated soil	Site user: female child 0-6 years	Medium	Likely	Moderate
		Site construction worker	Mild	Likely	Moderate/low
	Soil-gases entering buildings via services/foundations	Site user: female child 0-6 years	Medium	Likely	Moderate
	Vertical/lateral migration of mobile contaminants	Controlled waters	Mild	Likely	Low
	Direct contact	Buildings	Mild	Likely	Moderate/low
	Direct contact	Water supply pipework	Medium	Likely	Moderate

Table 3: Pollutant Linkages

7.2.19 Based on the known previous land usage of the site and surrounding area, the identified pollutant linkages and geological setting, it is considered that the site represents a **low** risk to controlled waters. No further assessment of risk to controlled waters is considered necessary unless significant contamination is identified at the site.

7.2.20 Based on the proposed end use of the site, the site is considered to represent a **moderate** risk to human health, which should be assessed through a programme of routine chemical testing, soil-gas monitoring and risk assessment in accordance with current guidance (CLEA).

Contaminants of Concern

7.2.21 The following potential contaminants of concern are considered appropriate for the assessment of the site:

- selected toxic and phytotoxic metals (arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium and zinc);
- speciated polyaromatic hydrocarbons (PAH);
- pH;
- sulphate;
- cyanide;
- phenol;

- asbestos;
- speciated total petroleum hydrocarbons (TPH CWG).

7.2.22 As set out above, there was a timber yard to the south of the site until at least 1976. It is unknown whether this was used for timber production/treatment or storage. If any evidence of potential migration of contamination from this site is noted during the fieldwork, further specific testing may be required.

7.3 Investigation Strategy

7.3.1 On the basis of the information presented above, the ground investigation strategy proposed for the investigation is as follows:

Exploratory Holes	Purpose
Dynamic percussive boreholes: WS1 to WS10	To determine prevalent ground and groundwater conditions across site, including: • nature and extent of any Made Ground; • nature and extent of any soil contamination; • suitability of the ground for foundations and pavement design.
Dynamic percussive boreholes: WS1 to WS10	Undertake in situ Standard Penetration Tests (SPT) to determine a geotechnical strength profile.
Selected dynamic percussive boreholes: WS1, WS8 & WS10	Construction of soil-gas and groundwater monitoring installations to facilitate assessment of risk posed by any hazardous soil-gases and establish standing water levels.

Table 4: Investigation Strategy

8. FIELDWORK, MONITORING AND LABORATORY TESTING

8.1 Fieldwork

8.1.1 The fieldwork was carried out on 8 and 9 March 2023 and comprised the following elements:

- 10 No. dynamic percussive sampling boreholes, designated WS1 to WS10, formed to a maximum depth of 4.9 m below existing ground level (begl);
- in-situ Standard Penetration Tests (SPT) in WS1 to WS10;
- construction of 50 mm diameter combined soil-gas and groundwater monitoring wells in WS1, WS8 and WS10.

8.1.2 The position of the exploratory holes were set out by Georisk and their locations are shown on the Exploratory Hole Location Plan included as Drawing No. 22360/1 in Appendix A.

8.1.3 The fieldwork was supervised by Georisk. All soil description and sample logging was carried out in accordance with BS 5930 (2015+A1:2020) and the exploratory hole records are presented in Appendix C.

8.1.4 Small disturbed samples were recovered from the exploratory holes as necessary to facilitate sample description and for subsequent laboratory testing.

8.1.5 Observations of groundwater encountered during the fieldwork are included on the exploratory hole records included in Appendix C.

8.2 Soil-Gas and Groundwater Monitoring

8.2.1 Combined soil-gas and groundwater monitoring installations were constructed in WS1, WS8 and WS10 as shown on the borehole records included in Appendix C. Monitoring has been carried out on four occasions between 17 March and 28 April 2023, with the following measurements taken in sequence:

- atmospheric pressure (mb);
- relative pressure (mb);
- flow monitoring (l/hr);
- measurement of CO_2, CH_4 and O_2 gas concentrations (% by volume; % v/v);
- groundwater level (m begl).

8.2.2 The results of the soil-gas and groundwater monitoring are presented in Appendix D.

8.3 Chemical Testing

8.3.1 A programme of chemical testing was scheduled by Georisk on selected soil samples retrieved from the exploratory holes. The testing was carried out at an independent UKAS accredited laboratory for the contaminants of concern as indicated in Section 7. The chemical test results are presented in Appendix E.

8.4 Geotechnical Testing

8.4.1 Routine geotechnical testing comprising moisture content and Atterberg Limit testing was carried out on selected samples. The testing was carried out in accordance with BS1377 (1990) at an independent UKAS accredited laboratory and the results are presented in Appendix F.

9. GROUND AND GROUNDWATER CONDITIONS

Full details of the ground conditions encountered by Georisk are presented on the exploratory hole records included in Appendix C.

9.1 Topsoil and Made Ground

9.1.1 Topsoil was encountered in WS6 to WS9 to a maximum depth of 0.3 m begl and typically consisted of grass over dark brown slightly clayey sand with rootlets and occasional gravel of brick.

9.1.2 Made Ground was encountered across much of the site, except in WS6 to WS8, to depths of between 0.4 and 1.9 m begl. It typically comprised brown locally clayey locally gravelly or very gravelly sand or very soft to soft brown very sandy gravelly clay. The gravel content comprised quartzite, sandstone, brick, tarmac and glass.

9.1.3 The results of 2 No. Standard Penetration Tests (SPT) carried out in the Made Ground at a depth of 1.0 m begl returned 'N' values of 0 and 1, which correspond to very soft clay.

9.2 Glacial Till

9.2.1 Glacial Till was encountered beneath the topsoil or Made Ground and proved to a maximum depth of 4.9 m begl. This material was variable and typically comprised soft or firm becoming stiff with depth brown sandy locally gravelly clay or medium dense brown locally clayey or gravelly sand.

9.2.2 Soft or loose material was recorded at the following locations:

- WS3: soft clay at 0.9 to 1.5 m begl and loose sand at 1.5 to 2.0 m begl;
- WS4: very soft and soft clay at 0.8 to 1.8 m begl;
- WS5: very soft clay at 0.8 to 1.8 m begl;
- WS8: loose sand at 1.0 to 1.6 m begl;
- WS9: loose sand at 1.0 to 2.4 m begl;
- WS10: very soft to soft locally organic clay at 1.4 to 3.0 m begl.

9.2.3 The results of 46 No. SPT carried out in the Glacial Till at depths of between 1.0 and 4.9 m begl returned 'N' values of between 0 and 50, which are summarised in Table 5.

Depth (m begl)	Minimum SPT 'N' value	Maximum SPT 'N' value	Material Description
1.0	0	14	Loose and medium dense SAND/very soft, soft and stiff CLAY
2.0	3	48	Loose and medium dense SAND/soft, soft to firm, firm, stiff and very stiff CLAY
3.0	7	20	Loose and medium dense SAND/firm and stiff CLAY
3.45	19	26	Medium dense SAND/stiff CLAY
3.9-4.0	9	50	Loose to very dense SAND/stiff CLAY
4.35-4.45	22	40	Medium dense SAND/stiff CLAY
4.8-4.9	28	49	Medium dense SAND/stiff CLAY

Table 5: Summary of SPT 'N' Values in Glacial Till

9.2.4 Selected samples of clay Glacial Till were scheduled for Atterberg Limit determinations and natural moisture content testing. The test results are presented in Appendix F, together with a summary of the majority of the samples tested presented in Table 6.

Test	Minimum (%)	Maximum (%)
Liquid Limit	35	55
Plastic Limit	18	25
Plasticity Index	17	31
Modified Plasticity Index	12	31
Moisture Content	17	29
Plasticity	Medium	High
Volume Change Potential	Low	Medium

Table 6: Summary of Atterberg Limit Tests on Glacial Till

9.2.5 A single sample of very soft organic clay Glacial Till from WS10 was scheduled for Atterberg testing with results indicating extremely high plasticity and high volume change potential.

9.3 Groundwater

9.3.1 During the fieldwork, groundwater was encountered at depths of between 1.0 and 2.1 m begl in the Glacial Till.

9.3.2 Groundwater monitoring standpipes were installed in WS1, WS8 and WS10 as shown on the borehole records included in Appendix C and have been monitored on four occasions between 17 March and 28 April 2023. The results of the groundwater monitoring are presented in Appendix D and summarised in Table 7.

Exploratory Hole	Standing Groundwater Levels (m begl)	
	Shallowest	Deepest
WS1	2.1	2.2
WS8	2.3	2.8
WS10	0.5	0.8

Table 7: Summary of Groundwater Level Monitoring Results

9.4 Evidence of Potential Contamination

9.4.1 No visual/olfactory evidence of potential significant contamination was recorded during the fieldwork.

9.5 Development of Conceptual Site Model

9.5.1 Based on the ground and groundwater conditions revealed by the geoenvironmental investigation carried out and detailed above, the preliminary conceptual model described in Section 7 is considered to be largely representative of the actual site conditions in relation to the proposed development.

10. SOIL-GAS RISK ASSESSMENT

10.1 Risk Assessment Protocol

10.1.1 Current best practice for the assessment of soil-gas risk to housing developments is provided in CIRIA Report C665 '*Assessing Risked Posed by Hazardous Ground Gases to Buildings*' (2007) and BS8485 (2015+A1:2019) '*Code of practice for the design of protective measures for methane and carbon dioxide ground gases for new buildings*'.

10.1.2 C665 sets out a semi-quantitative procedure to estimate gas risk, which was proposed by Wilson & Card (1999) and is a development of a procedure given in CIRIA 149 (1995). This method also uses both gas concentrations and borehole flow rates to define a Characteristic Situation for a site based on the limiting gas volume flow for methane and carbon dioxide. For a given Characteristic Situation, a set of remedial measures can be applied to the development.

10.2 Monitoring Results

10.2.1 Soil-gas monitoring installations were constructed in WS1, WS8 and WS10, which have been monitored on four occasions between 17 March and 28 April 2023. The results of the soil-gas monitoring are presented in Appendix D and are summarised in Table 8 (in terms of maximum methane and steady carbon dioxide concentrations recorded).

Well	Methane (% v/v)	Carbon Dioxide (% v/v)	Positive Flow Rate (l/hr)	Methane GSV (l/hr)	Carbon Dioxide GSV (l/hr)	Characteristic Situation: BS8485 (2015+A1:2019)	
						CH_4	CO_2
WS1	0.0	1.4 – 2.0	0.0	n/a	0.001	CS1	CS1
WS8	0.0	1.3 – 2.5	0.0	n/a	0.0013	CS1	CS1
WS10	0.0-0.3	1.1 – 3.2	0.0	0.00015	0.0016	CS1	CS1

Table 8: Summary of Soil-Gas Monitoring Results

10.2.2 A maximum methane level of 0.3 % by volume (% v/v) has been recorded during the monitoring programme. Methane was not recorded in WS1 and WS8 and was only recorded in WS10.

10.2.3 Steady state carbon dioxide levels have ranged from 1.1 to 3.2 % v/v during the monitoring programme.

10.2.4 No positive gas flow was recorded and ambient atmospheric pressures have ranged from 976 to 1001 mb.

10.3 Risk Assessment and Protection Strategy

10.3.1 For 'Characteristic Situation 1' (CS1), the 'Typical Maximum Concentrations' for methane (1 % v/v) and carbon dioxide (5 % v/v) have not been exceeded.

10.3.2 To provide a further detailed level of assessment, Gas Screening Values (GSV) have also been determined (see Table 8). The GSV is calculated by multiplying the maximum gas concentration recorded in a particular borehole and the maximum borehole flow rate recorded across the site and is then used to determine the level of gas protection necessary to protect future users of the proposed development. Where no positive gas flow has been recorded, a default flow rate of 0.05 l/hr based on the detection limit of the equipment used has been assumed to calculate a GSV.

10.3.3 From the monitoring results for methane, a maximum GSV of 0.00015 l/hr has been calculated, which is below the CS1 GSV of 0.07 l/hr.

10.3.4 From the monitoring results for carbon dioxide, a maximum GSV of 0.0016 l/hr has been calculated, which is below the CS1 GSV of 0.07 l/hr.

10.3.5 The GSV calculated from the monitoring results are indicative of a CS1 classification and as the 'Typical Maximum Concentrations' for a CS1 classification have not been exceeded in the borehole installations, it is considered appropriate to adopt a CS1 classification for the proposed development at the site.

10.3.6 On this basis, gas protection measures are not considered necessary, which is supported by the geoenvironmental setting and established ground conditions at the site. The only potential significant source of soil-gas identified that could affect the proposed development was from on-site Made Ground. This investigation has identified localised Made Ground to a maximum depth of 1.9 m begl, which typically does not contain any deleterious or organic material that could generate significant soil-gas and; therefore, on-site Made Ground is not considered to pose a significant risk to the proposed development. Nominal organic material was encountered in WS10 between 1.4 to 1.8 m begl; however, no significant soil-gas was recorded at this location.

10.3.7 Radon protection is not required for the proposed development at the site.

10.3.8 In our opinion, no further monitoring is necessary; however, to satisfy relevant planning and/or land quality conditions, these recommendations should be agreed with the Local Authority and/or NHBC/warranty provider in advance of any development works starting on site that would lead to the removal of the borehole installations.

11. HUMAN HEALTH RISK ASSESSMENT

11.1 General

11.1.1 The UK approach to the assessment of contaminated land is based upon the principles of risk assessment, which is founded on the use of '*source-pathway-receptor'* principles in order to establish the potential presence of '*pollutant linkage*'. The main legislative driver for dealing with historical land affected by contamination is Part 2A of the Environmental Protection Act 1990. Under Part 2A, land is considered to be contaminated if it is determined that there is a '*Significant Possibility of Significant Harm*' (SPOSH) to human health.

11.1.2 Georisk adopts a tiered approach to risk assessment in accordance with current UK guidance and good practice. The initial step of this process, known as Tier 1, is the comparison of site-derived data with relevant guideline levels.

11.1.3 Should the adopted criteria be exceeded then two courses of action are available. The first is to break the pollutant linkage by undertaking remedial works such as removing or treating the contaminated soil. Alternatively, a more detailed risk assessment can be carried out to determine whether a contamination risk actually exists.

11.1.4 The UK approach to the assessment of human health risk from contaminated land is set out in the CLEA (Contaminated Land Exposure Assessment) framework, which was first published in 2002 by the Department for Environment, Food and Rural Affairs (DEFRA) and the EA. The original guidance was withdrawn and revised guidance issued in 2009, which is set out in the following documents published by the EA:

- *Human health toxicological assessment of contaminants in soil*. Science Report SC050021/SR2;
- *Updated technical background to the CLEA Model*. Science Report SC050021/SR3.

11.1.5 The CLEA model uses generic assumptions about the fate and transport of chemicals in the environment and a generic conceptual model for site conditions together with human behaviour to estimate long term human exposure to soil contaminants.

11.1.6 Soil Guideline Values (SGV) were derived using the CLEA Model by comparing estimated exposure with 'Health Criteria Values' (HCV) that represent a tolerable risk to health from chronic exposure. SGVs are scientifically based 'generic assessment criteria' that can be used to simplify the assessment of risk to human health from chronic exposure to contaminants in soil. SGVs are a screening tool for the 'generic quantitative risk assessment' of land contamination.

11.1.7 Since revised SGVs were developed in 2009, revised Part 2A statutory guidance was then published in 2012. The revised Part 2A statutory guidance introduces a four-category system for classifying land under Part 2A for cases of SPOSH to human health. Category 4 applies to land where the level of risk posed is acceptably low. DEFRA appointed CL:AIRE to develop '*Category 4 Screening Levels*' (C4SL), which would provide a simple test for deciding when land is suitable for use and definitely not contaminated. In March 2014, C4SLs were published for a limited number of contaminants.

11.1.8 Further to this, Suitable for Use Levels (S4UL) published by the Chartered Institute of Environmental Health (CIEH) and Land Quality Management (LQM) were issued in January 2015. These provide a comprehensive update of previous GAC published by CIEH. The S4UL are derived from the CLEA software produced by the EA and are based upon the concept of either 'tolerable' risk (where the relevant health criteria value is a tolerable daily intake), or 'minimal' risk (where the health criteria is an index dose).

11.1.9 The following hierarchy has been adopted by Georisk for determining which assessment criteria to be followed:

- Suitable 4 Use Levels (S4UL) developed by LQM/CIEH (2015);
- C4SL (in the absence of other assessment criteria);
- Soil Screening Values developed by Atkins ATRISKsoil (in the absence of other assessment criteria).

11.2 Human Health Risk Assessment Design

Proposed Development

11.2.1 The proposed development scheme is to comprise construction of new housing with private gardens, together with an access road and parking areas.

Assessment Criteria

11.2.2 The assessment criteria used for the screening of contaminants is summarised in Table 9.

Contaminant Group	Determinands	Assessment Criteria Selected
ORGANIC CONTAMINANTS		
Non-halogenated hydrocarbons	Phenol	LQM/CIEH S4UL
	Total Petroleum Hydrocarbons (TPH)	LQM/CIEH S4UL
Polyaromatic Hydrocarbons (PAH)	USEPA 16 priority compounds	LQM/CIEH S4UL
INORGANIC CONTAMINANTS		
Metals	Lead	C4SL
	Arsenic, Cadmium, Chromium, Copper, Mercury, Nickel, Selenium, Zinc	LQM/CIEH S4UL
Non-metals	Cyanide	Atkins AtRisk Soil Screening Value (SSV)

Table 9: Human Health Risk Assessment Criteria

End Use

11.2.3 In view of the proposed use of the site, a 'residential with home-grown produce' with 1 % organic matter content end use conceptual model is considered appropriate.

11.2.4 Taking into account the possibility of double digging in gardens and/or installation of garden features, it is considered that the top 1 m of soil will need to be considered within the risk assessment, as the critical receptor (i.e. occupiers of the residential area) is most likely to be exposed to these materials.

Statistical Analysis

11.2.5 In view of the relatively small size of the site and its previous use, it is considered appropriate to assess contaminant levels by comparing test results with the relevant S4UL, C4SL or SSV rather than carrying out statistical analysis.

Contaminants of Concern

11.2.6 The potential contaminants of concern are detailed in Section 7 and these contaminants have subsequently been targeted for chemical analysis.

11.3 Generic Quantitative Human Health Risk Assessment

11.3.1 The results of the soil testing are presented in Appendix E and are summarised in Table 10.

Contaminant of Concern	Measured Concentration (mg/kg)		Critical Concentration (S4UL/C4SL/SSV) (mg/kg)	Number of test results above S4UL/C4SL/SSV
	Min	Max		
Arsenic	10	22	37	0 (6)
Cadmium	<0.2	3.5	11	0 (6)
Chromium	14	48	910	0 (6)
Copper	37	180	2400	0 (6)
Cyanide	<1.0	1.7	34	0 (6)
Lead	180	620	200	0 (6)
Mercury	0.3	0.9	40	0 (6)
Nickel	16	38	130	0 (6)
Phenol	<1.0	-	120	0 (6)
Selenium	<1.0	-	250	0 (6)
Zinc	96	1700	3700	0 (6)
PAH Compounds				
Acenaphthene	<0.05	<0.05	210	0 (6)
Acenaphthylene	<0.05	0.16	170	0 (6)
Anthracene	0.14	0.48	2400	0 (6)
Benzo(a)anthracene	0.61	2.6	7.2	0 (6)
Benzo(a)pyrene	0.42	2.1	2.2	0 (6)
Benzo(b)fluoranthene	0.49	2.6	2.6	0 (6)
Benzo(ghi)perylene	0.16	0.99	320	0 (6)
Benzo(k)fluoranthene	0.22	0.76	77	0 (6)
Chrysene	0.45	2	15	0 (6)
Dibenz(ah)anthracene	<0.05	0.27	0.24	**1 (6)**
Fluoranthene	0.8	4.3	280	0 (6)
Fluorene	<0.05	0.1	170	0 (6)
Indeno(123-cd)pyrene	0.18	1	27	0 (6)
Naphthalene	<0.05	0.37	2.3	0 (6)
Phenanthrene	0.34	2.3	95	0 (6)
Pyrene	0.66	3.6	620	0 (6)
TPH Aliphatic Fraction				
C_5-C_6	<0.001	-	42	0 (10)
>C_6-C_8	<0.001	-	100	0 (10)
>C_8-C_{10}	<0.001	-	27	0 (10)
>C_{10}-C_{12}	<1.0	-	130	0 (10)
>C_{12}-C_{16}	<2.0	-	1100	0 (10)
>C_{16}-C_{21}	<8.0	-	65000	0 (10)
>C_{21}-C_{35}	<8.0	250	65000	0 (10)
TPH Aromatic Fraction				
C_5-C_7	<0.001	-	370	0 (10)
>C_7-C_8	<0.001	-	860	0 (10)
>C_8-C_{10}	<0.001	-	47	0 (10)
>C_{10}-C_{12}	<1.0	-	250	0 (10)
>C_{12}-C_{16}	<2.0	-	1800	0 (10)
>C_{16}-C_{21}	<10	22	1900	0 (10)
>C_{21}-C_{35}	<10	160	1900	0 (10)
*Concentration expressed in mg/kg except where stated. Assumption of 1 % soil organic matter.				

Table 10: Summary of Chemical Test Results

11.3.2 The majority of the test results for the contaminants of concern are below the relevant assessment criteria (S4UL/C4SL/SSV); however, the following result exceeds the relevant assessment criteria in the Made Ground:

- WS5 at 0.4 m begl: dibenz(ah)anthracene (0.27 mg/kg).

11.3.3 All samples tested were screened for the presence of asbestos; asbestos was not identified in any of the samples analysed.

11.3.4 Selected soil samples were scheduled for the presence of BTEX compounds; no concentrations exceeded the limit of detection in the laboratory.

12. RISK EVALUATION AND OUTLINE REMEDIAL ACTION PLAN

12.1 Risk Evaluation

12.1.1 Following risk assessment utilising data obtained from this intrusive investigation, the following remaining pollutant linkages have been identified as being of concern in terms of the proposed redevelopment of the site:

Source	Pathway	Target
Elevated levels of dibenz(ah)anthracene in Made Ground in WS5 Potential for unidentified TPH impact in areas of former fuel tanks/garage	Dermal contact	Site user: female child 0-6 years
		Site construction worker
	Ingestion	Site user: female child 0-6 years
		Site construction worker
	Consumption of home-grown vegetables	Site user: female child 0-6 years
	Ingestion of soil attached to home-grown vegetables	Site user: female child 0-6 years
	Dermal contact with dust derived from contaminated soil	Site user: female child 0-6 years
		Site construction worker
	Ingestion of dust derived from contaminated soil	Site user: female child 0-6 years
		Site construction worker
	Inhalation of dust derived from contaminated soil	Site user: female child 0-6 years
		Site construction worker
	Direct contact	Water supply pipework

Table 11: Remaining Pollutant Linkages

12.2 Soil Contamination – Human Health

12.2.1 The site is to be redeveloped for housing with private gardens. Future site users should be considered as targets by physical contact, ingestion and dust inhalation associated with potentially contaminated Made Ground beneath gardens.

12.2.2 The majority of test results are below the adopted assessment criteria for the proposed residential end use; however, there is a single exceedance of dibenz(ah)anthracene in the Made Ground in WS5.

12.2.3 WS5 is located beneath the proposed building footprint of Plot 2. Made Ground represents no plausible pollutant linkage beneath building footprints.

12.2.4 On the basis of the chemical test results presented above, no remedial action in respect of risk to human health is considered necessary for the proposed development at the site.

12.2.5 Clean topsoil should be provided in all gardens and soft landscaped areas to provide a suitable growing medium.

12.3 Underground Fuel Tanks

12.3.1 It is understood that two 500-gallon underground fuel storage tanks are present beneath the former garage building in the north of the site and are believed to be empty and were de-gassed during the 1990's.

12.3.2 As the tanks are beneath the existing building, investigation around the tanks was very limited with two exploratory holes put down in the existing access road. No hydrocarbon impact was recorded at these two locations; however, there is the potential for localised hydrocarbon impact associated with these features. Further investigation will be required following demolition of the building and the redundant infrastructure will need to be removed as part of the redevelopment of the site. At this stage, the outline remediation strategy for their removal and also to deal with any impacted soil/groundwater, is as follows:

- excavation of remnant filling station infrastructure;
- delineation and excavation of any contaminated soil and/or groundwater and off-site disposal at a suitably licensed receiving facility;
- infilling of excavations with clean fill.

12.3.3 It should be noted that the proposed development in this part of the site is to comprise a new access road and bin store – no houses or gardens are proposed.

12.3.4 Any remediation works would require validation by an independent engineer and submission of a validation report to the relevant regulators for approval.

12.3.4 Prior to any development works starting at the site, it is recommended that these proposals are agreed with the Local Authority and warranty provider as appropriate.

12.4 Soil Contamination – General Considerations

12.4.1 The Made Ground represents no plausible pollutant linkage beneath plots or hardstanding. It is not considered necessary to remove Made Ground from site to address human health risk; however, any Made Ground that is taken off site would need to be taken to a suitably licensed land fill under duty of care documentation.

12.4.2 During the redevelopment of the site, construction workers are likely to be in direct contact with the near-surface soils and appropriate Health and Safety measures will need to be implemented based on the findings of this investigation.

12.4.3 Neighbouring site users may be potentially exposed to residual contamination through generation of dust through site redevelopment activities. This is an acute exposure risk and is manageable by implementing an appropriate construction management plan; for example, dust suppression removes the potential pollutant linkage.

12.4.4 Should any areas of previously unidentified potentially contaminated soil be encountered during future site construction works, we would recommend consultation with Georisk to ensure that our recommendations continue to apply. Any potentially contaminated soils would need to be left in situ pending further assessment.

12.4.5 This report should be submitted to the Local Authority and/or warranty provider for approval and discharge of relevant planning or land quality conditions before any development works start on site.

12.5 Soil Contamination – Water Supply Pipes

12.5.1 Based on the results of this investigation, it is considered that standard PE/PVC pipe laid in trenches with clean gravel surround should be suitable for the proposed development. It is recommended that a copy of this report is supplied to utility companies to confirm these recommendations prior to any irrecoverable works being undertaken.

13. ENGINEERING CONSIDERATIONS

13.1 Site Preparatory Works

13.1.1 Site preparatory works will need to be carried out to facilitate development and are likely to include:

- demolition of existing buildings with special attention being given to the appropriate removal of any asbestos containing materials;
- removal and grubbing out of former petrol filling station infrastructure;
- removal of any remnant foundations, other buried obstructions and hardstanding;
- infilling of any voids with suitably compacted granular fill;
- diversion and relocation of existing services;
- reprofiling of site levels to achieve a suitable development platform (the extent of which will depend on agreed levels).

13.1.2 It is recommended that an asbestos survey is carried out to identify all asbestos containing materials (ACM) within the buildings to be demolished. Following this, demolition should be undertaken in a controlled manner to ensure that ACM do not enter near-surface soils to become a potential future source of contamination.

13.2 Foundation Design

13.2.1 This investigation has identified topsoil or Made Ground to depths of between 0.3 and 1.9 m begl overlying variable Glacial Till.

13.2.2 Across much of the site, the upper Glacial Till comprise very soft/soft clay and/or a loose granular soil. If the use of traditional spread (strip/trench fill) footings was to be considered, they would need to extend through the Made Ground and any very soft/soft clay or loose granular Glacial Till. Based on the ground conditions encountered, and assuming at least 300 mm penetration into competent Glacial Till, this would result in founding depths in the order of 1.9 to 3.3 m begl across much of the site.

13.2.3 Geotechnical testing of the near-surface soil indicates that the clay Glacial Till should be classified as a shrinkable soil of medium volume change potential. Foundations near any trees/hedgerows may need to be deepened and heave protection measures adopted in accordance with NHBC Standards Chapter 4.2 'Building Near Trees'. These aspects should be considered further at detailed design stage and a detailed tree survey will be required to assist with foundation design.

13.2.4 For strip/trench fill foundations placed in competent Glacial Till, an allowable bearing pressure of 125 kN/m^2 is considered appropriate for foundation design purposes with total settlements would not be anticipated to exceed 25 mm.

13.2.5 If the use of traditional spread foundations is not deemed to be feasible or economic, consideration would need to be given to an abnormal foundation solution, such as ground improvement with vibro-stone columns or piling.

13.2.6 Ground improvement with vibro-stone columns to facilitate the use of a reinforced strip footing is a potential option subject to consultation with specialist contractors for advice on detailed design and application of their proprietary vibro-treatment system in the prevailing ground conditions, particularly given the presence of low shear strength soils which may not be suitable for treatment. This technique could 'improve' the bearing capacity of the near-surface soil profile to around 125 to 150 kN/m^2 and as this investigation has identified the depth to a suitable founding material to be between 3.0 and 4.0 m begl, full depth treatment should be achievable.

13.2.7 Piling is another potential option. As the load bearing characteristics of piles are dependent upon the type of pile used, method of installation, construction and workmanship, it is recommended that detailed discussions are held with suitably experienced piling contractors to determine the most suitable pile design and the piling scheme. In any event, positive assurances should be sought from the piling contractor in respect of performance and a representative number of piles should be subject to pile loading tests. Vibration control measures may be needed to ensure that pile installation does not impact adjacent buildings. Further ground investigation comprising deeper boreholes may be required for pile design purposes.

13.2.8 Care should be taken to limit the exposure of any excavation prepared to receive concrete, which may cause deterioration and a reduction in bearing capacity. Foundation excavations should be inspected by qualified personnel and if any soft or loose materials are encountered at formation level, foundations should be deepened and infilled to design level with lean-mix concrete.

13.3 Floor Slabs

13.3.1 Based on the ground conditions encountered, it is recommended that a suspended floor slab design (cast in situ or 'beam and block' with underfloor void) is adopted for the proposed development.

13.4 Buried Concrete Requirements

13.4.1 For the near-surface soils, water soluble sulphate testing results (expressed as SO_4 in a 2:1 water:soil extract) ranged from 0.0095 to 0.016 g/l with pH values of 7.3 to 8.0. Following the guidance given in the BRE Special Digest 1 (2005) and assuming '*mobile*' groundwater conditions for a '*brownfield*' site, the Aggressive Chemical Environment for Concrete (ACEC) classification has been determined. These indicate a Design Sulphate Class of DS-1 and an ACEC class of AC-1 apply at the site.

13.5 Road/Pavement Design

13.5.1 For preliminary design purposes, the following long term CBR values could be assumed for various near-surface materials present at the site (based on average construction conditions):

- Made Ground: 2 %;
- Glacial Till: 2-4 %.

13.5.2 The proposed formation should be proof rolled and caution must be exercised to ensure that any soft/loose areas identified within the formation are excavated and filled with suitably compacted granular fill. The near-surface soils have the potential to be disturbed by weathering and site traffic. Suitable workings methods should therefore be employed to avoid this and therefore reduce the potential to create volumes of unsuitable fill material.

13.5.3 Once road alignments and levels have been finalised, in situ CBR tests should be undertaken to allow detailed design of road formations to be made.

13.6 Excavations

13.6.1 Conventional mechanical excavation should be achievable through the near-surface Glacial Till to depths of at least 4.0 m begl.

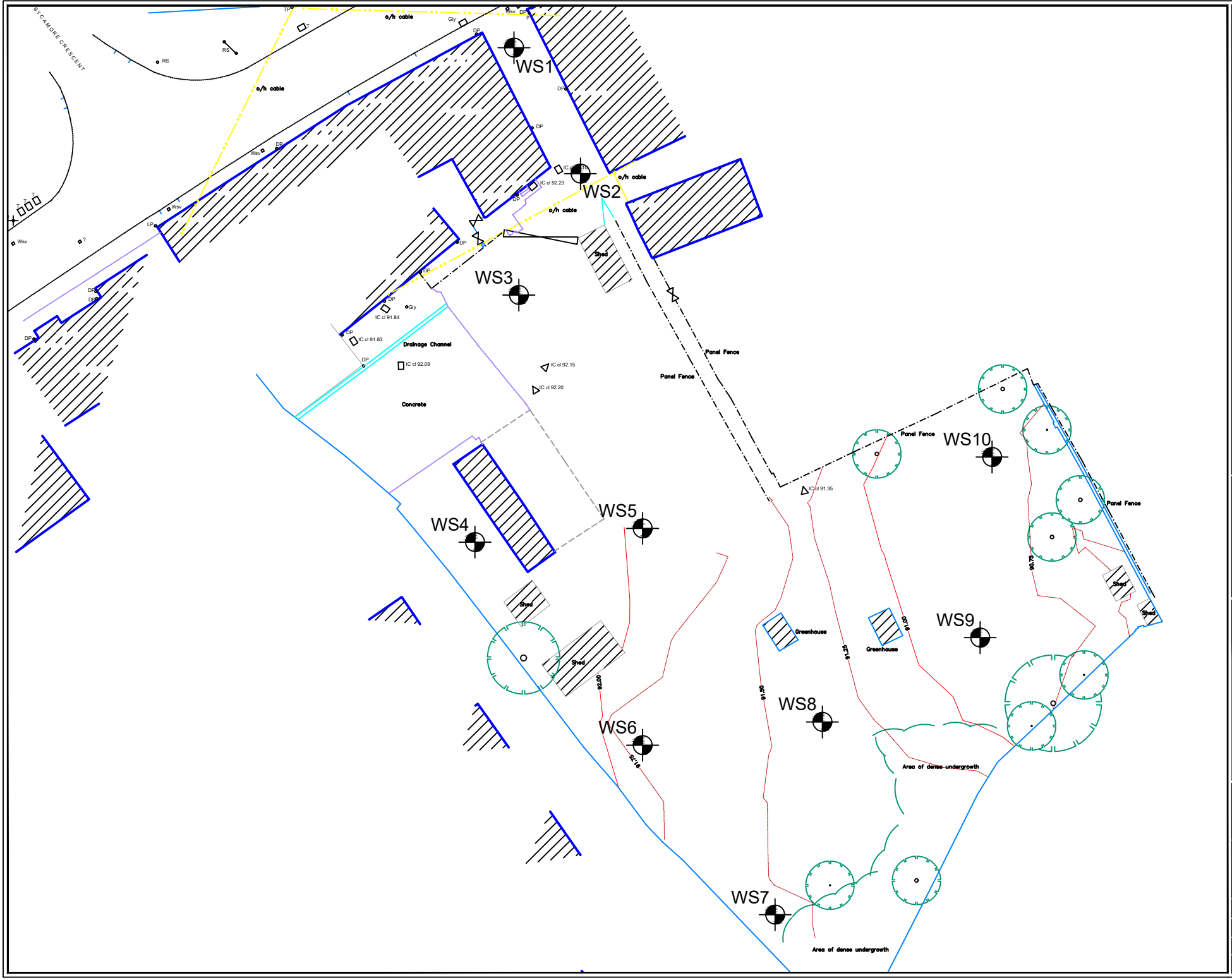
13.6.2 Shallow excavations should remain stable in the short-term; however, instability may occur in excavations left open for extended periods of time. Support should be provided in any excavations requiring man entry.

13.6.3 Care should be taken to limit the exposure of any excavation prepared to receive concrete, which may cause deterioration and a reduction in bearing capacity. Foundation excavations should be inspected by qualified personnel and if any soft or loose materials are encountered at formation level, foundations should be deepened and infilled to design level with lean-mix concrete.

13.6.4 Based on the findings of this investigation, groundwater ingress should be anticipated in excavations and may likely require more sophisticated dewatering measures than sump pumping, such as well-pointing.

APPENDIX A
DRAWING

Drawing No.	Drawing Title
22360/1	Exploratory Hole Location Plan



Notes

This drawing is to be read in conjunction with all development drawings, and designers risk assessments.

This drawing must not be scaled. Work to figured dimensions only.

KEY

Dynamic Percussive Sampling Borehole Location

Rev	Date	Description	Initials

Client

LANDFIND (SERVICES) LTD

georisk MANAGEMENT

Varney House, 91 Spon Lane, West Bromwich, B70 6AB
t. 0121 553 4044, f. 0121 553 1112
www.georisk-uk.com, email. enquiries@georisk-uk.com

Contract

SCOTLAND STREET
ELLESMERE

Drawing Title

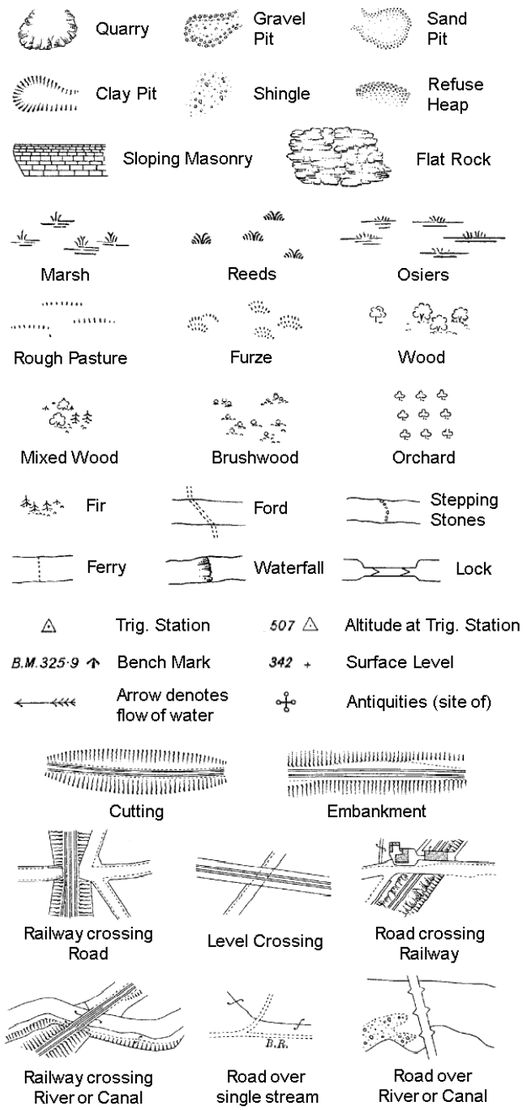
EXPLORATORY HOLE
LOCATION PLAN

Drawing Status	FINAL	
Drawn By	RC	Date 15/03/23
Checked/Approved	AMG	Date 15/03/23
Scale	NTS	Drawing Number 22360/1

APPENDIX B
HISTORICAL MAP EXTRACTS

Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:2,500



County Boundary (Geographical)

County & Civil Parish Boundary

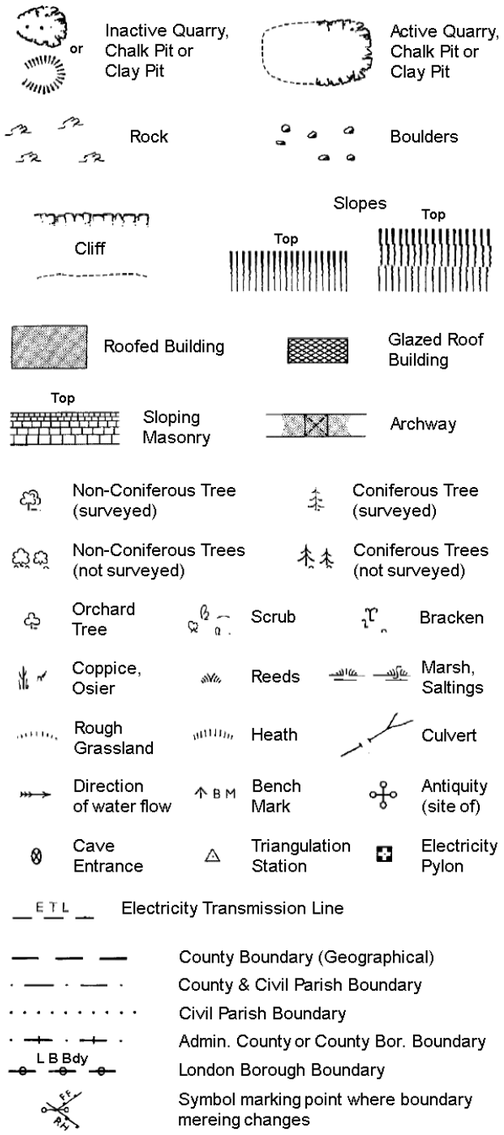
Administrative County & Civil Parish Boundary

Co. Boro. Bdy. County Borough Boundary (England)

Co. Burgh Bdy. County Burgh Boundary (Scotland)

B P B S	Boundary Post or Stone	P.C.B	Police Call Box
B.R.	Bridle Road	P	Pump
E.P	Electricity Pylon	S.P	Signal Post
F.B.	Foot Bridge	St.	Sluice
F.P.	Foot Path	Sp.	Spring
G.P	Guide Post or Board	T.C.B	Telephone Call Box
M.S	Mile Stone	Tr.	Trough
M.P M.R	Mooring Post or Ring	W	Well

Ordnance Survey Plan, Additional SIMs and Supply of Unpublished Survey Information 1:2,500 and 1:1,250



County Boundary (Geographical)

County & Civil Parish Boundary

Civil Parish Boundary

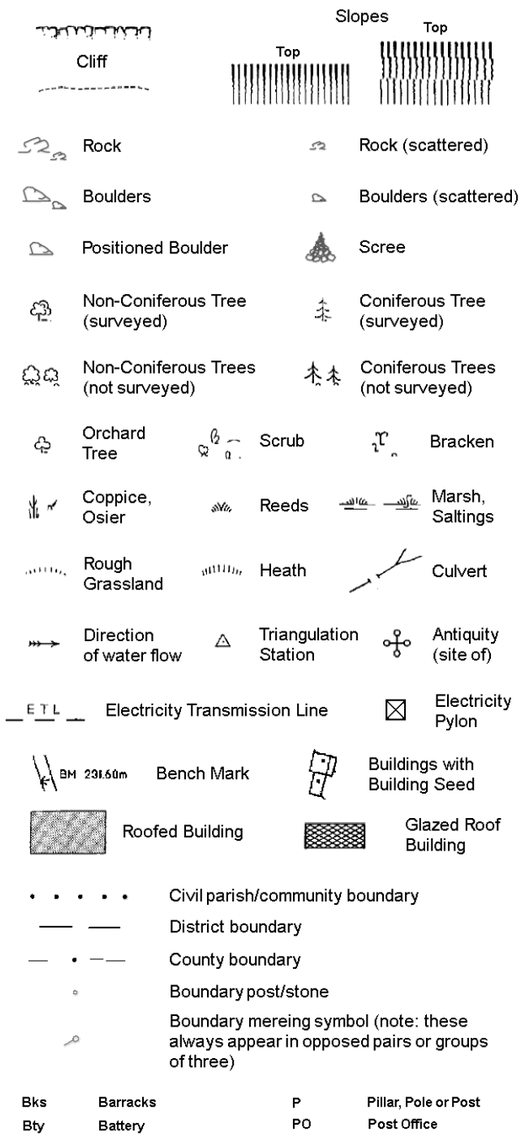
Admin. County or County Bor. Boundary

L B Bdy London Borough Boundary

Symbol marking point where boundary mereing changes

BH	Beer House	P	Pillar, Pole or Post
BP, BS	Boundary Post or Stone	PO	Post Office
Cn, C	Capstan, Crane	PC	Public Convenience
Chy	Chimney	PH	Public House
D Fn	Drinking Fountain	Pp	Pump
El P	Electricity Pillar or Post	SB, S Br	Signal Box or Bridge
FAP	Fire Alarm Pillar	SP, SL	Signal Post or Light
FB	Foot Bridge	Spr	Spring
GP	Guide Post	Tk	Tank or Track
H	Hydrant or Hydraulic	TCB	Telephone Call Box
LC	Level Crossing	TCP	Telephone Call Post
MH	Manhole	Tr	Trough
MP	Mile Post or Mooring Post	Wr Pt, Wr T	Water Point, Water Tap
MS	Mile Stone	W	Well
NTL	Normal Tidal Limit	Wd Pp	Wind Pump

Large-Scale National Grid Data 1:2,500 and 1:1,250



Civil parish/community boundary

District boundary

County boundary

Boundary post/stone

Boundary mereing symbol (note: these always appear in opposed pairs or groups of three)

Bks	Barracks	P	Pillar, Pole or Post
Bty	Battery	PO	Post Office
Cemy	Cemetery	PC	Public Convenience
Chy	Chimney	Pp	Pump
Cis	Cistern	Ppg Sta	Pumping Station
Dismtd Rly	Dismantled Railway	PW	Place of Worship
El Gen Sta	Electricity Generating Station	Sewage Ppg Sta	Sewage Pumping Station
El P	Electricity Pole, Pillar	SB, S Br	Signal Box or Bridge
El Sub Sta	Electricity Sub Station	SP, SL	Signal Post or Light
FB	Filter Bed	Spr	Spring
Fn / D Fn	Fountain / Drinking Ftn.	Tk	Tank or Track
Gas Gov	Gas Valve Compound	Tr	Trough
GVC	Gas Governer	Wd Pp	Wind Pump
GP	Guide Post	Wr Pt, Wr T	Water Point, Water Tap
MH	Manhole	Wks	Works (building or area)
MP, MS	Mile Post or Mile Stone	W	Well

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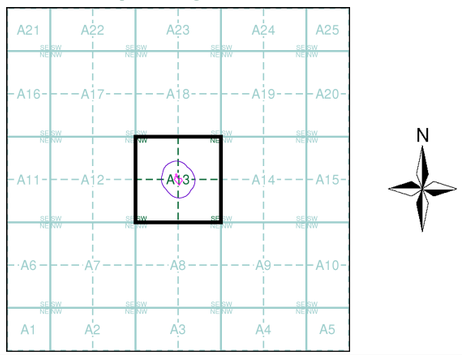
Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Shropshire	1:2,500	1875	2
Shropshire	1:2,500	1901	3
Shropshire	1:2,500	1926	4
Ordnance Survey Plan	1:2,500	1976	5
Additional SIMs	1:2,500	1984	6
Additional SIMs	1:2,500	1985	7
Additional SIMs	1:2,500	1988	8
Additional SIMs	1:2,500	1991	9
Large-Scale National Grid Data	1:2,500	1995	10
Historical Aerial Photography	1:2,500	2000	11

Historical Map - Segment A13



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Site Area (Ha):	0.25
Search Buffer (m):	100

Site Details

Scotland Street, ELLESMERE, SY12 0DG

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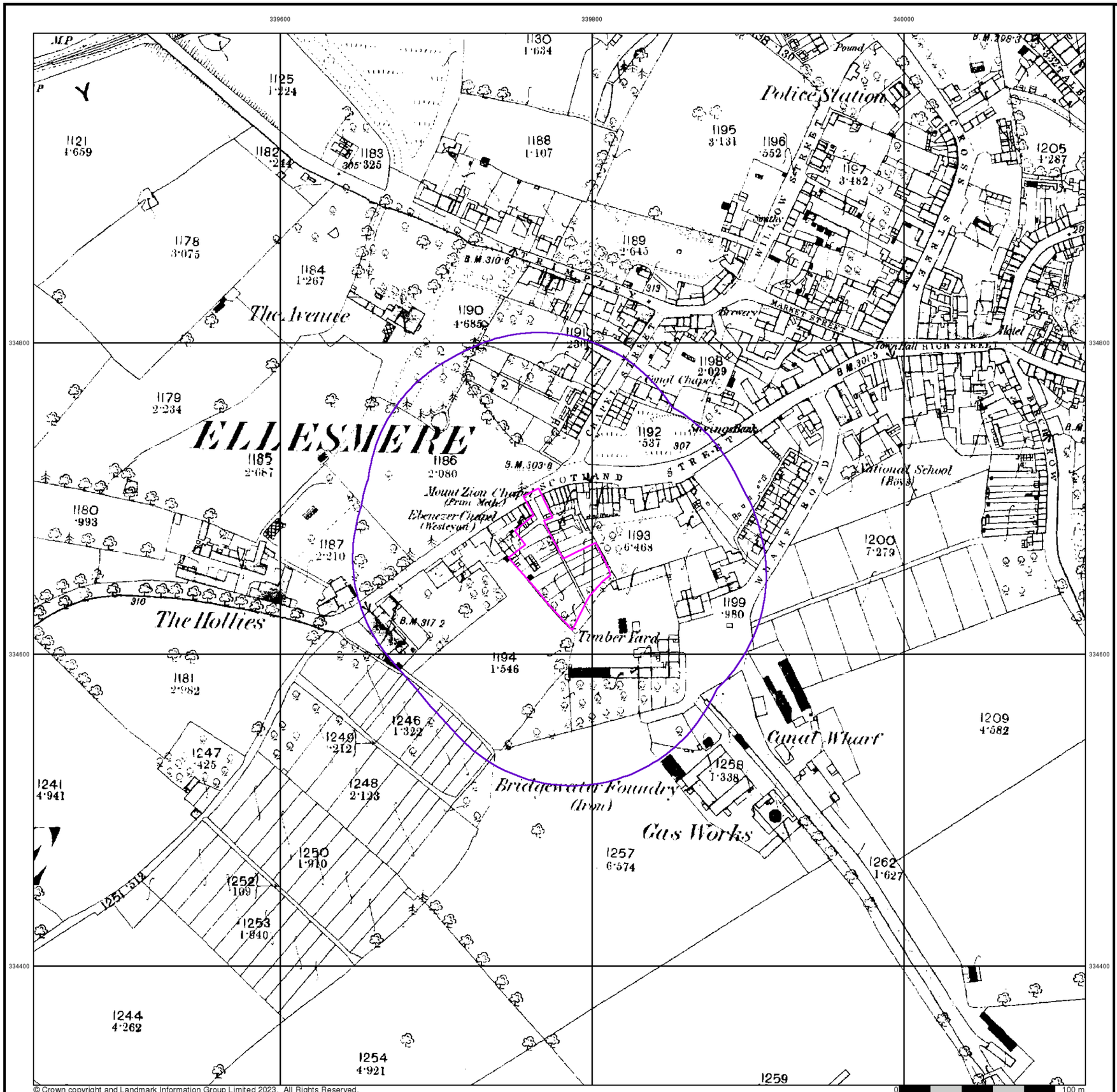

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Published 1875

Source map scale - 1:2,500

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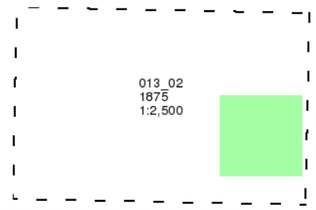
Map Name(s) and Date(s)



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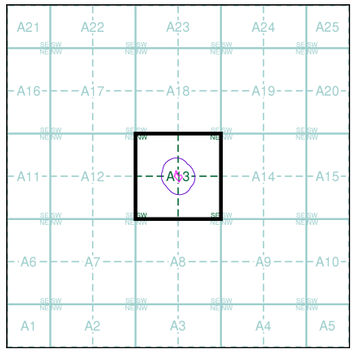

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Search Buffer (m):	100

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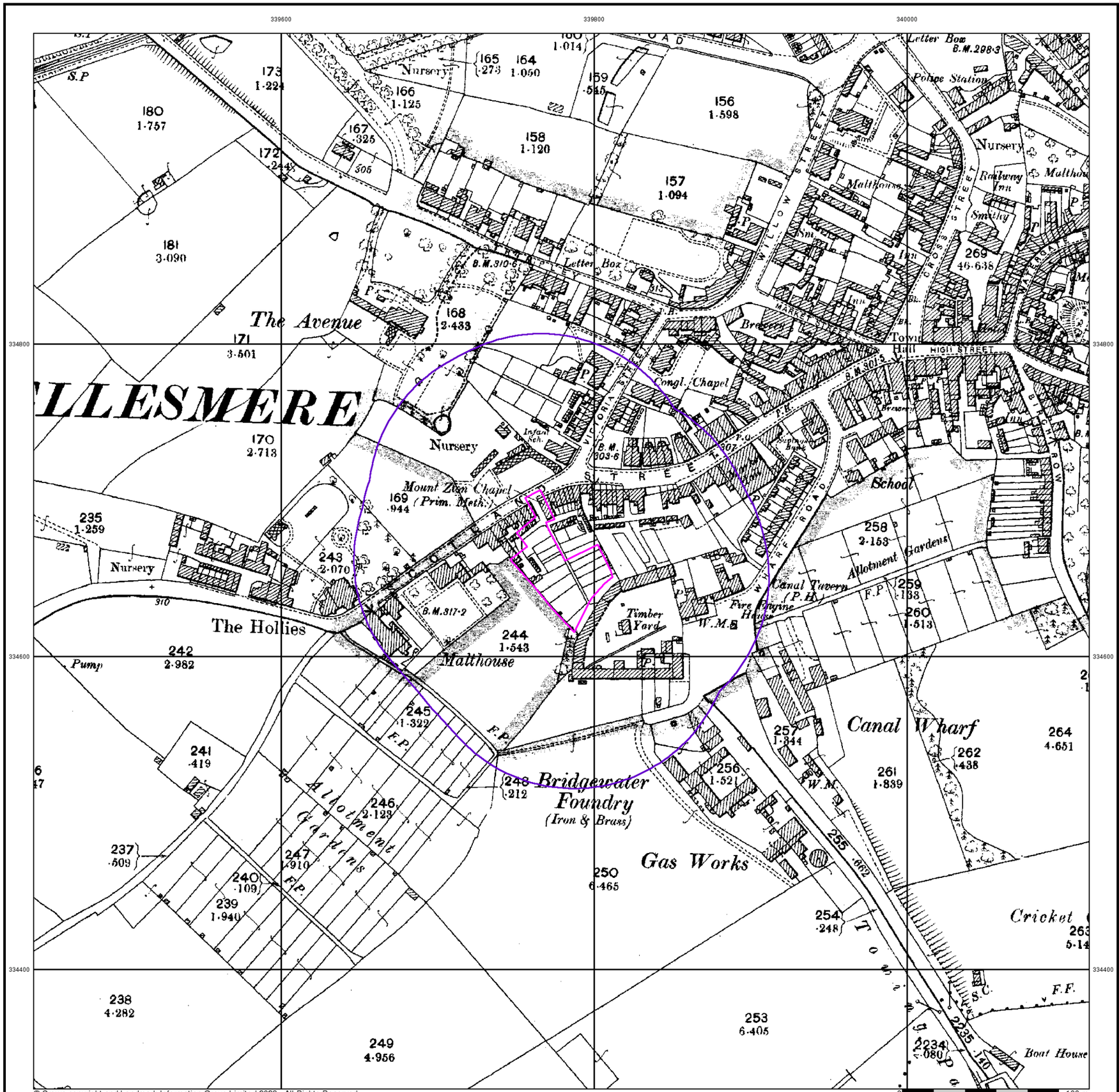

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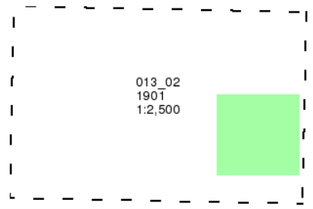

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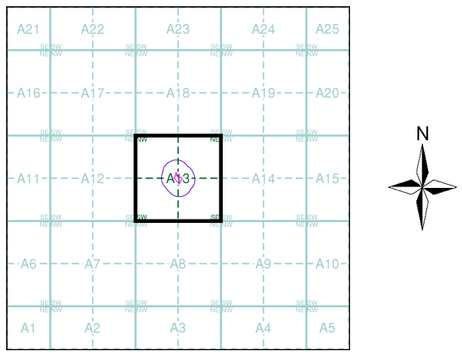

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Search Buffer (m):	100

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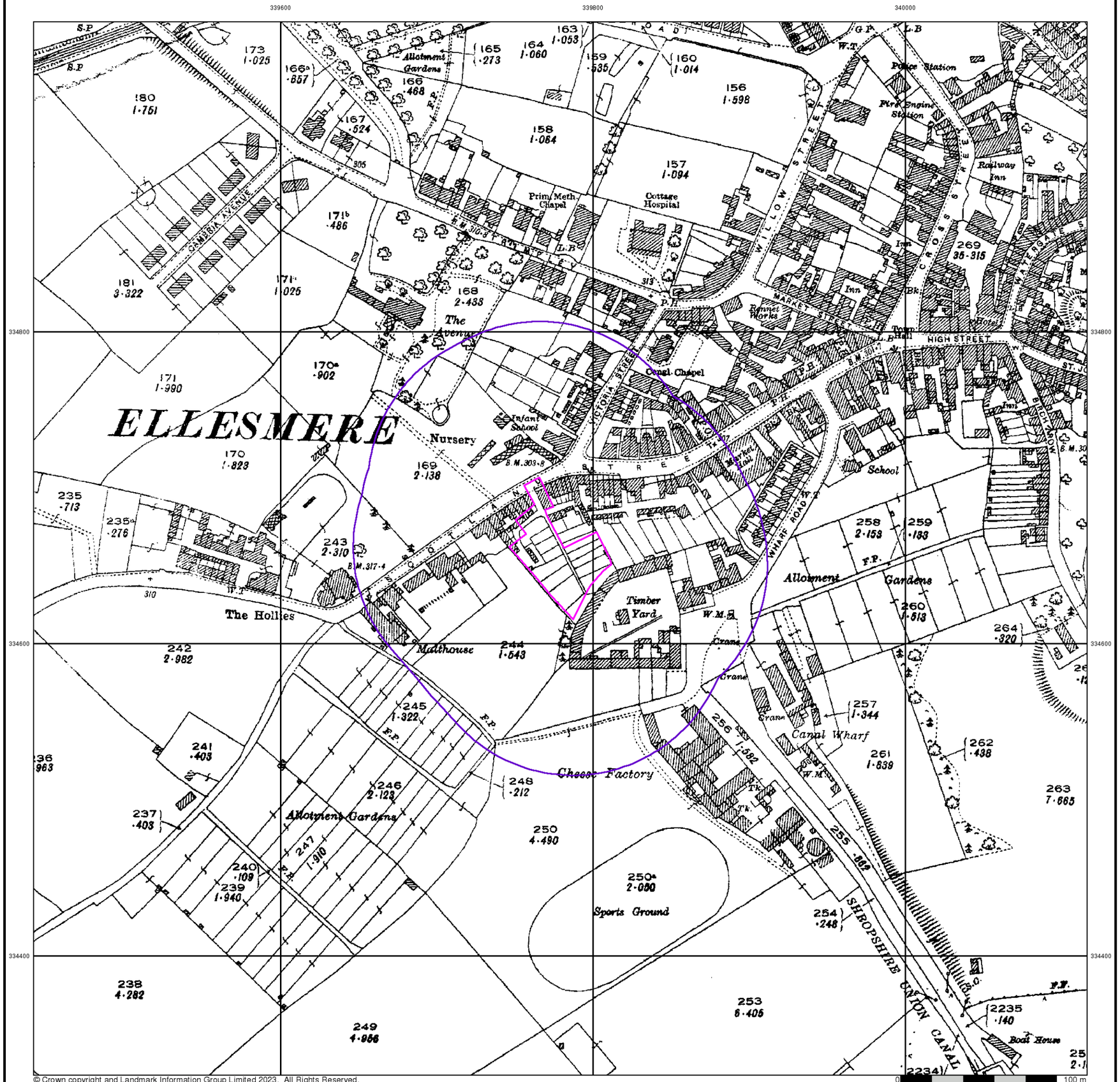

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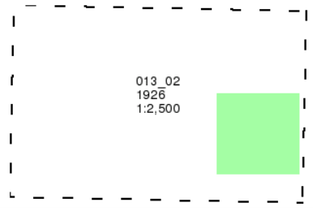

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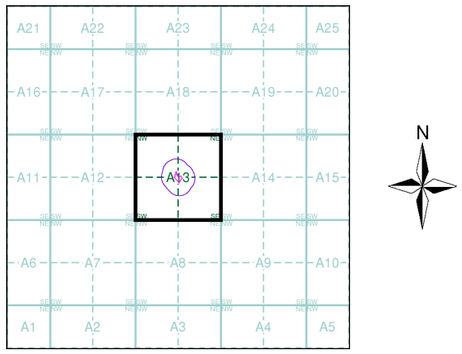

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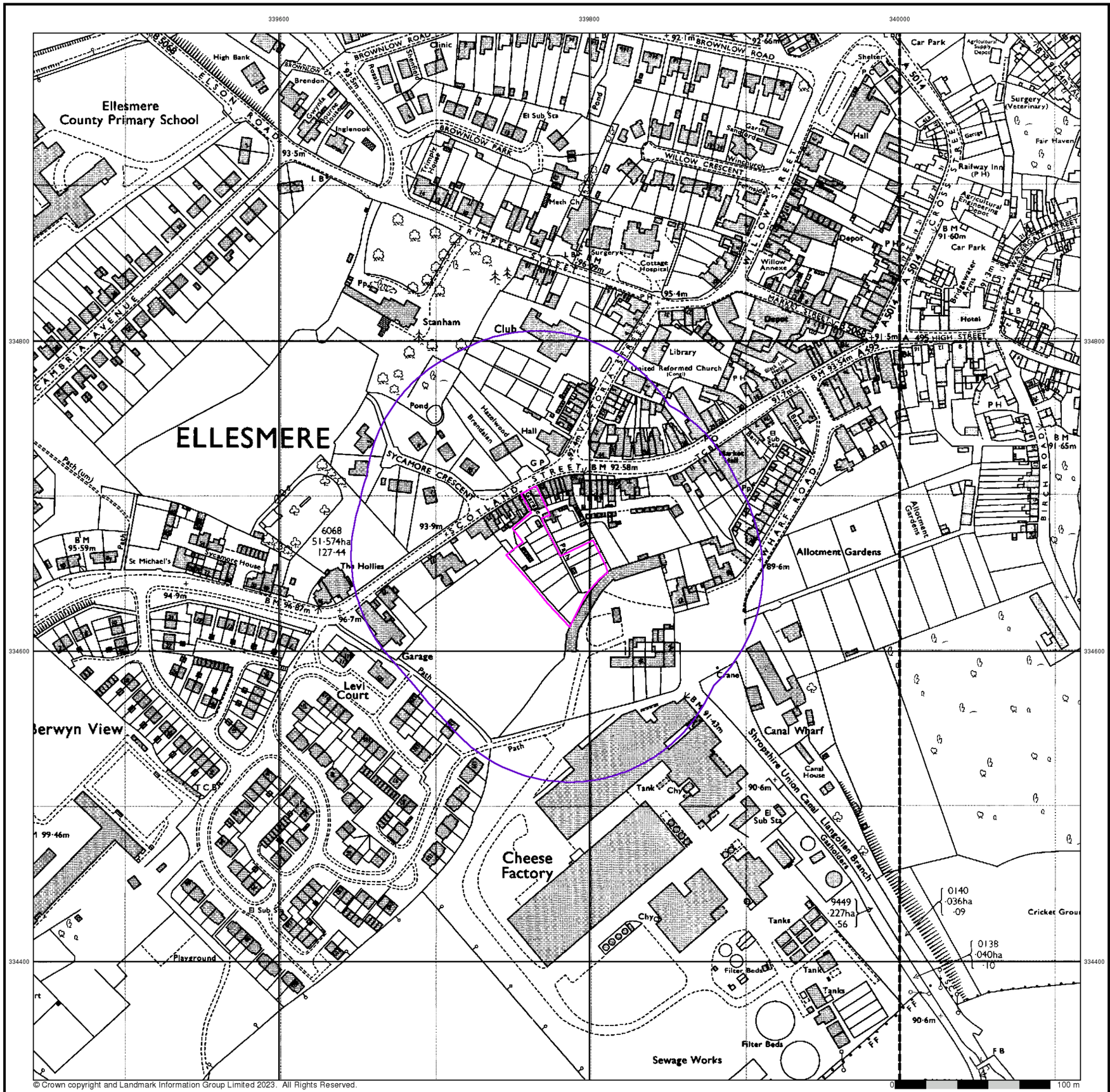
Site Details

Scotland Street, ELLESMERE, SY12 0DG

Landmark INFORMATION GROUP

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



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LANDMARK INFORMATION GROUP®

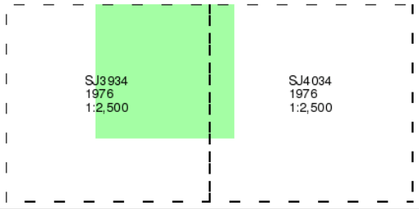
Ordnance Survey Plan

Published 1976

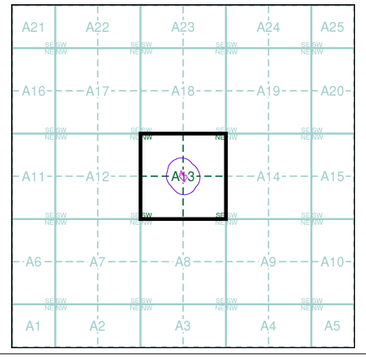
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840`s. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. The published date given below is often some years later than the surveyed date. Before 1938, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas.

Map Name(s) and Date(s)



Historical Map - Segment A13



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Customer Ref:	22360
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Slice:	A
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Search Buffer (m):	100

Site Details

Scotland Street, ELLESMERE, SY12 0DG

Landmark INFORMATION GROUP

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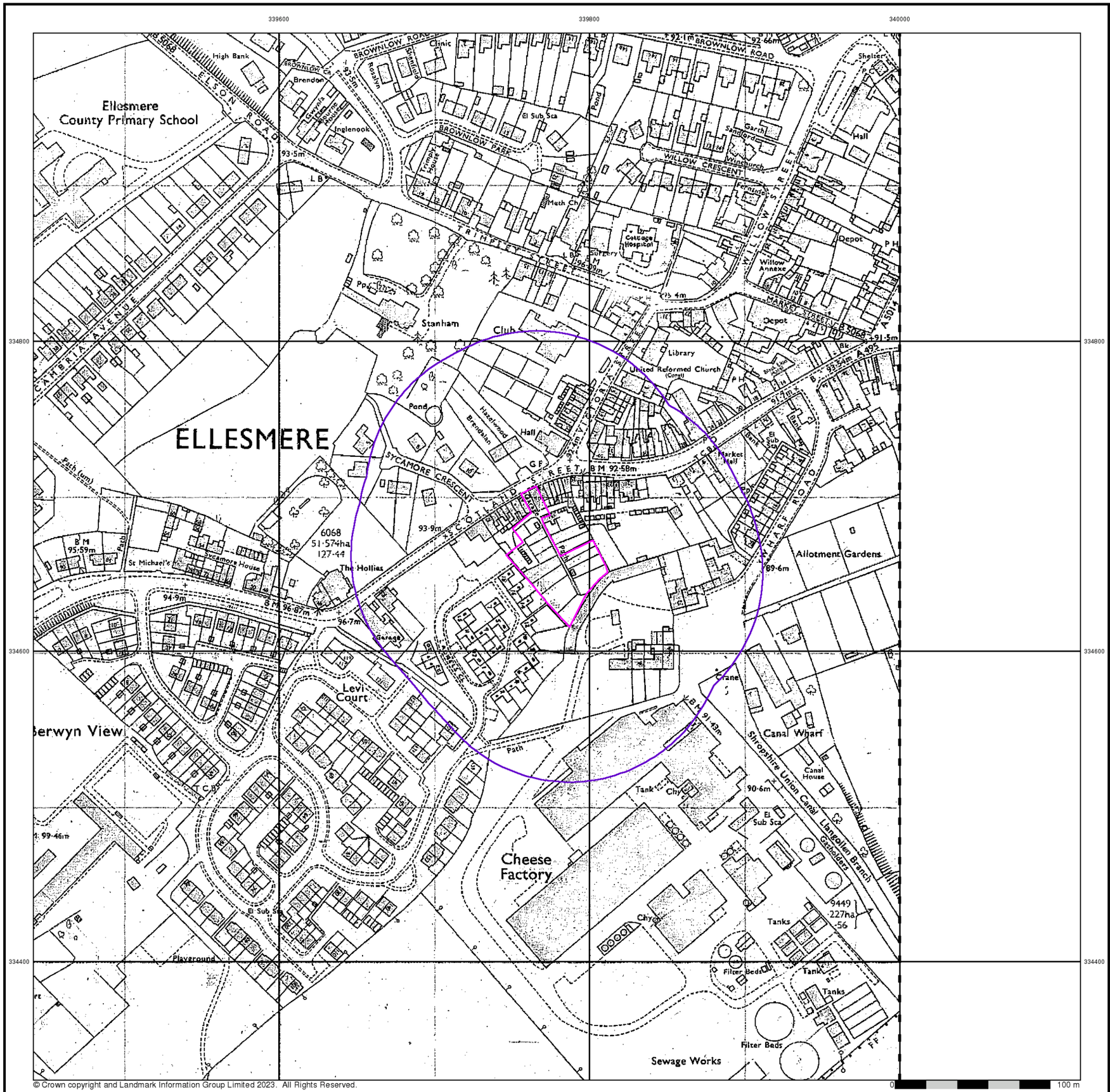
Web: www.envirocheck.co.uk



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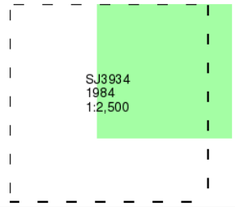
Additional SIMs

Published 1984

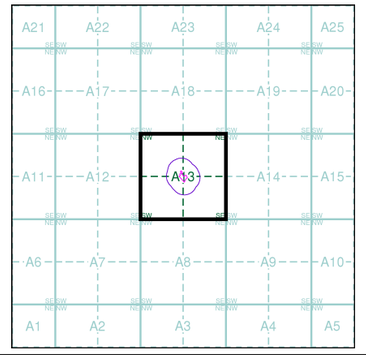
Source map scale - 1:2,500

The SIM cards (Ordnance Survey's `Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	308085532_1_1
Customer Ref:	22360
National Grid Reference:	339780, 334660
Slice:	A
Site Area (Ha):	0.25
Search Buffer (m):	100

Site Details

Scotland Street, ELLESMERE, SY12 0DG

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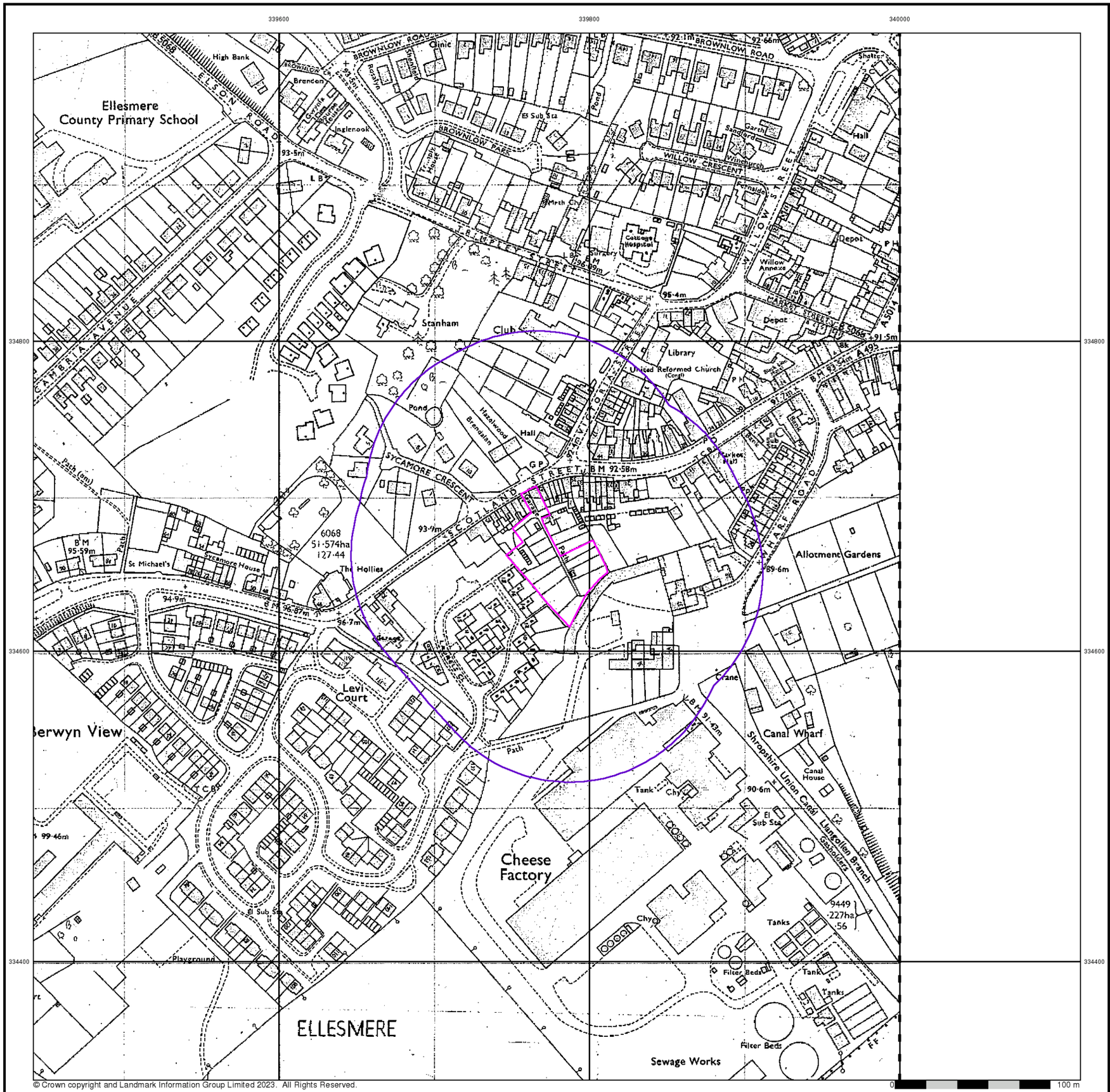

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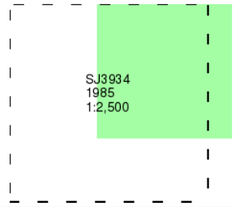
Additional SIMs

Published 1985

Source map scale - 1:2,500

The SIM cards (Ordnance Survey's `Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



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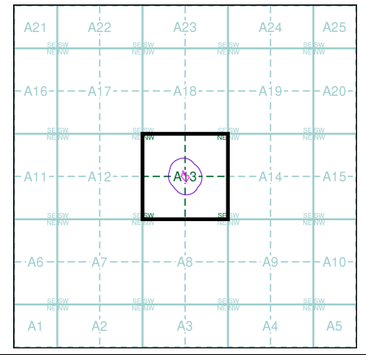

Order Details

Order Number:	308085532_1_1
Customer Ref:	22360
National Grid Reference:	339780, 334660
Slice:	A
Site Area (Ha):	0.25
Search Buffer (m):	100

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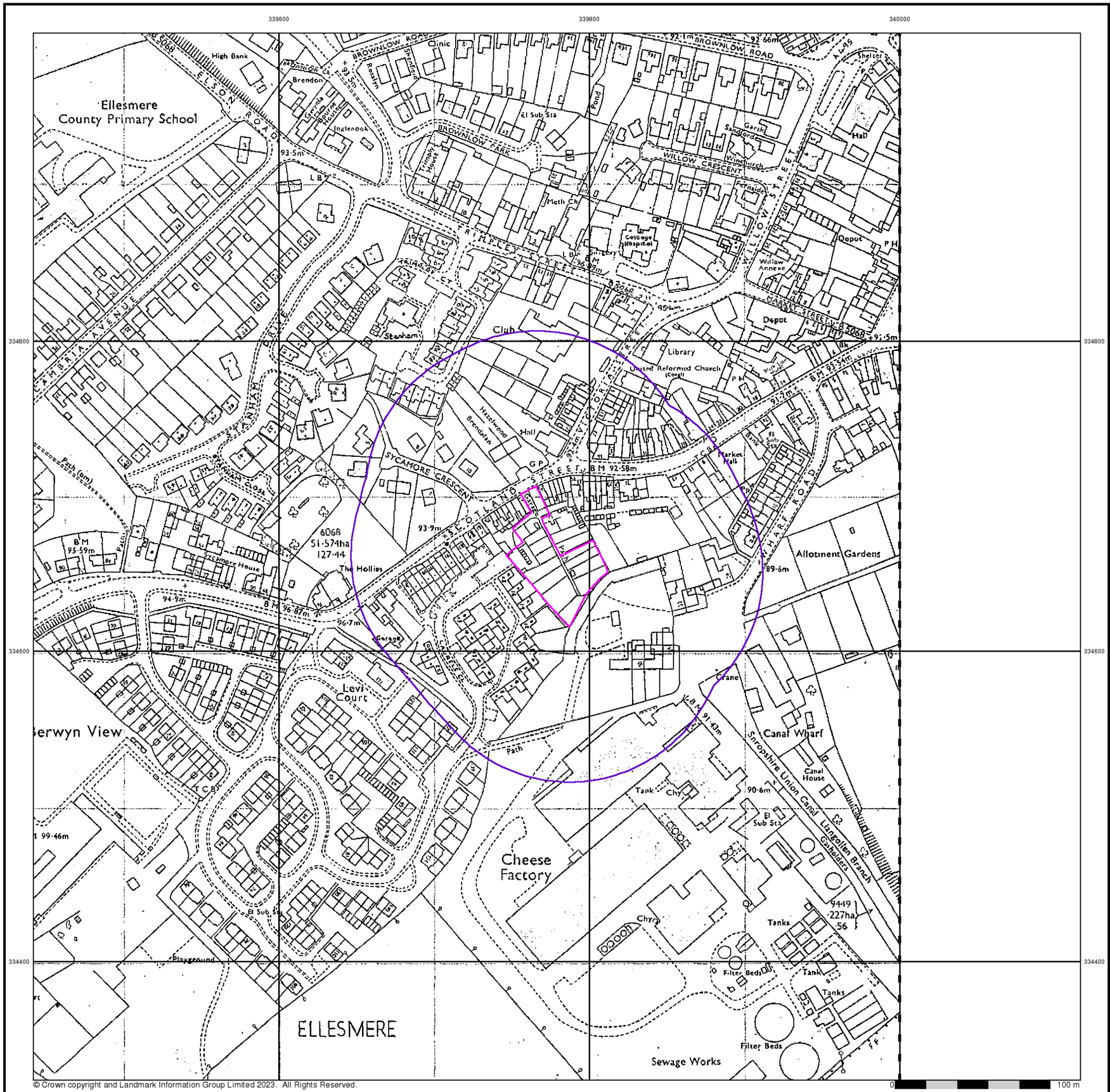

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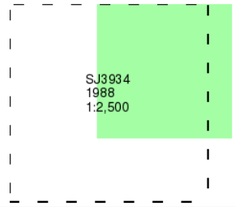
Additional SIMs

Published 1988

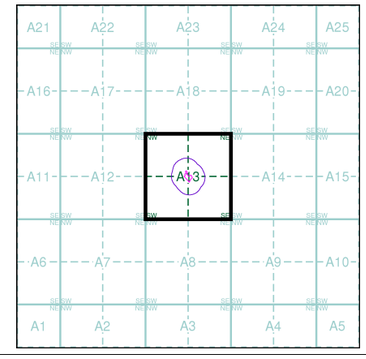
Source map scale - 1:2,500

The SIM cards (Ordnance Survey's `Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

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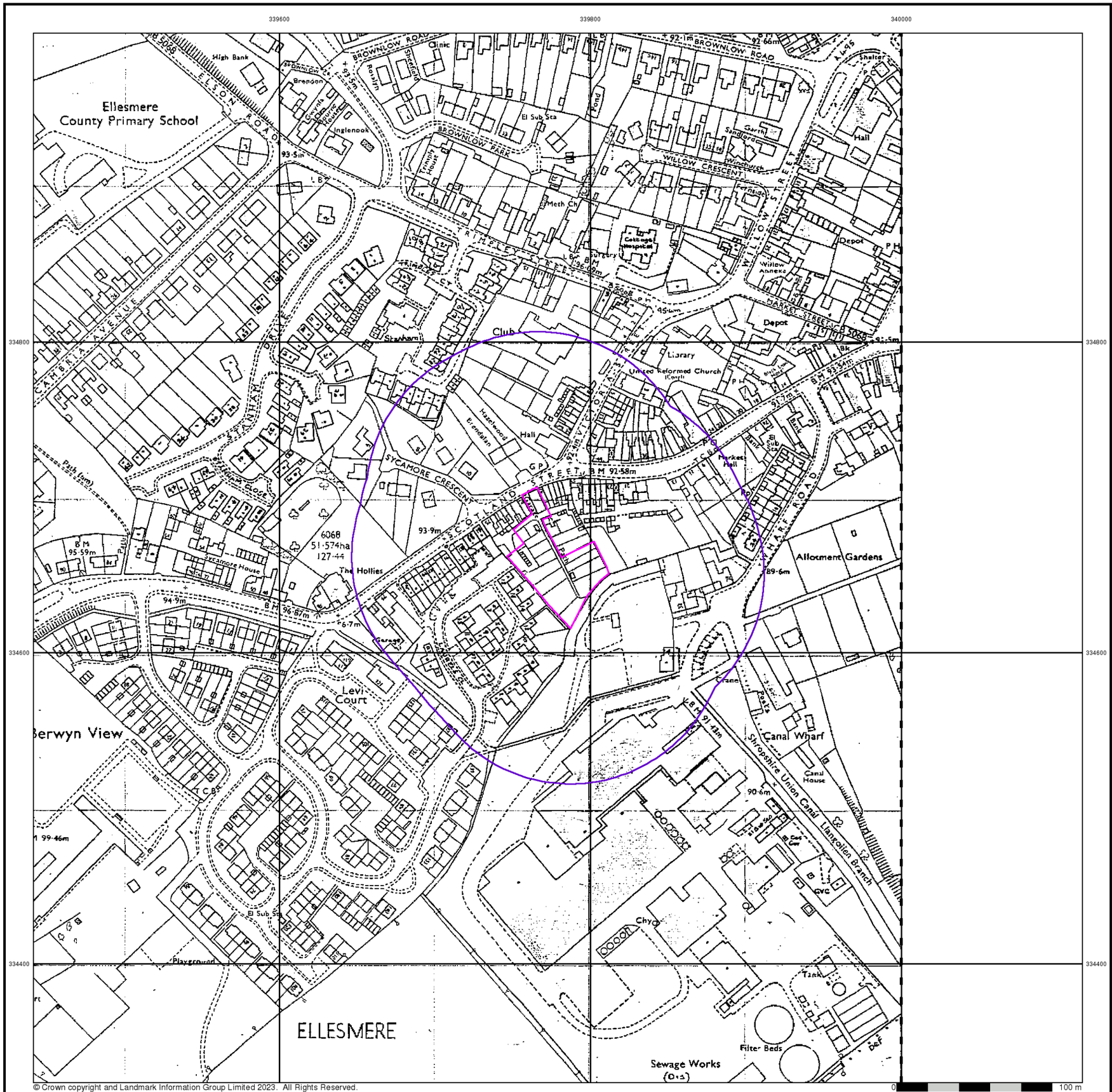

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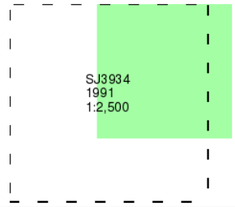
Additional SIMs

Published 1991

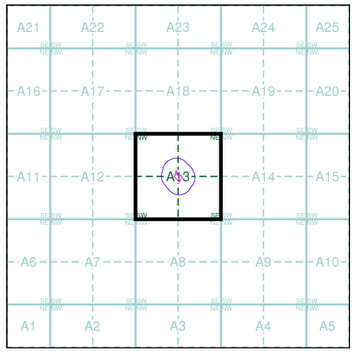
Source map scale - 1:2,500

The SIM cards (Ordnance Survey's `Survey of Information on Microfilm') are further, minor editions of mapping which were produced and published in between the main editions as an area was updated. They date from 1947 to 1994, and contain detailed information on buildings, roads and land-use. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	308085532_1_1
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National Grid Reference:	339780, 334660
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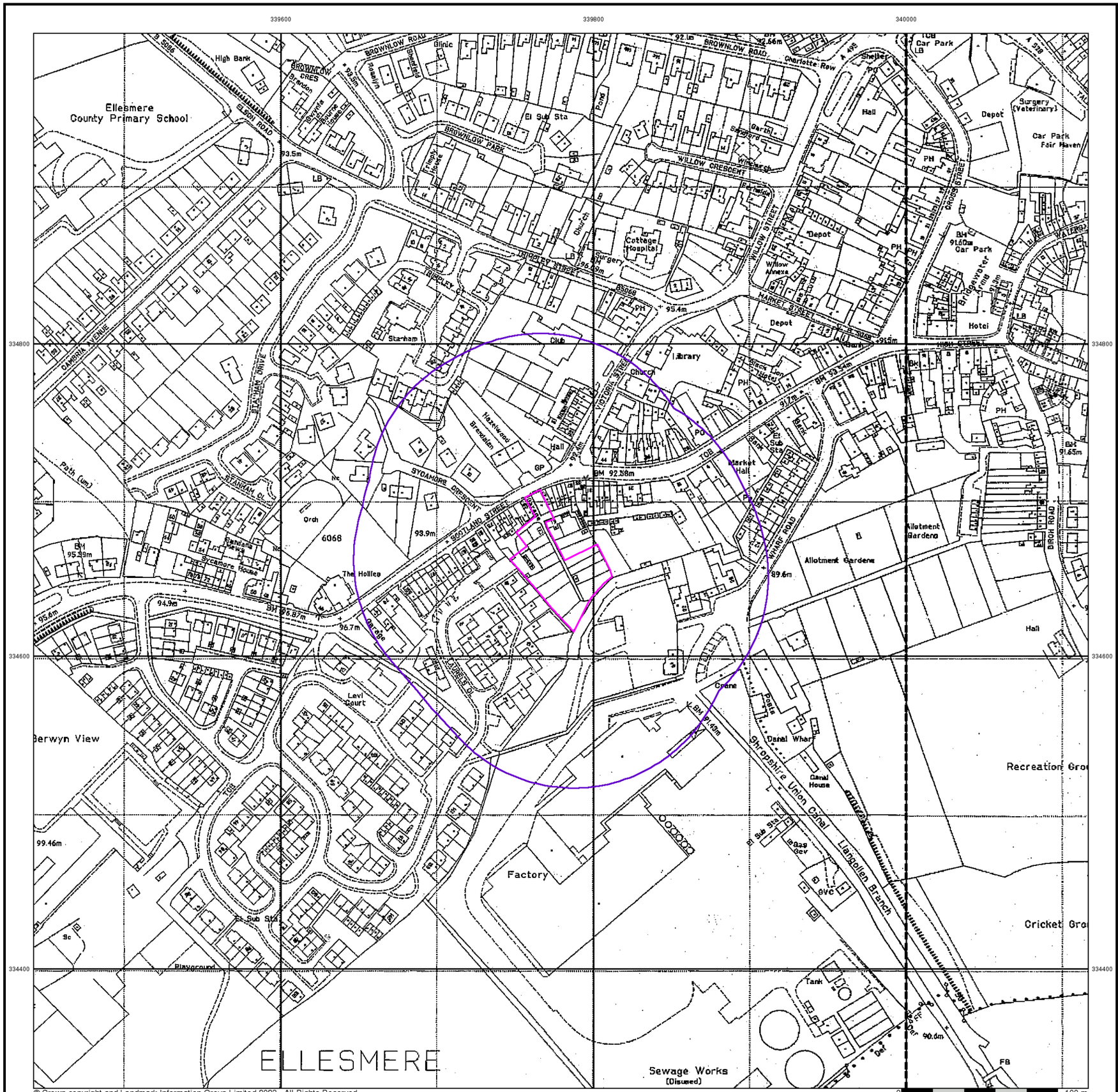

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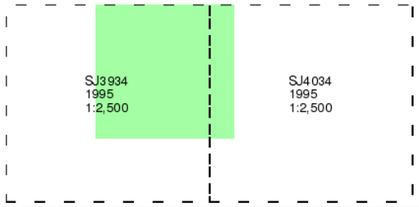
Large-Scale National Grid Data

Published 1995

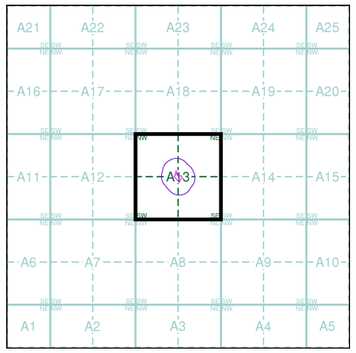
Source map scale - 1:2,500

'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	308085532_1_1
Customer Ref:	22360
National Grid Reference:	339780, 334660
Slice:	A
Site Area (Ha):	0.25
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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

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

Ordnance Survey Plan 1:10,000

Chalk Pit, Clay Pit or Quarry
Gravel Pit
Sand Pit
Disused Pit or Quarry
Refuse or Slag Heap
Lake, Loch or Pond
Dunes
Boulders
Coniferous Trees
Non-Coniferous Trees
Orchard
Scrub
Coppice
Bracken
Heath
Rough Grassland
Marsh
Reeds
Saltings
Building
Direction of Flow of Water
Shingle
Sand
Glasshouse
Pylon
Pylon
Electricity Transmission Line
Sloping Masonry
Cutting
Embankment
Standard Gauge Multiple Track
Road Under
Road Over
Level Crossing
Foot Bridge
Standard Gauge Single Track
Siding, Tramway or Mineral Line
Narrow Gauge
Geographical County
Administrative County, County Borough or County of City
Municipal Borough, Urban or Rural District, Burgh or District Council
Borough, Burgh or County Constituency
Shown only when not coincident with other boundaries
Civil Parish
Shown alternately when coincidence of boundaries occurs

BP, BS	Boundary Post or Stone	Pol Sta	Police Station
Ch	Church	PO	Post Office
CH	Club House	PC	Public Convenience
F E Sta	Fire Engine Station	PH	Public House
FB	Foot Bridge	SB	Signal Box
Fn	Fountain	Spr	Spring
GP	Guide Post	TCB	Telephone Call Box
MP	Mile Post	TCP	Telephone Call Post
MS	Mile Stone	W	Well

1:10,000 Raster Mapping

Gravel Pit
Refuse tip or slag heap
Rock
Rock (scattered)
Boulders
Boulders (scattered)
Shingle
Mud
Sand
Sand Pit
Slopes
Top of cliff
General detail
Underground detail
Overhead detail
Narrow gauge railway
Multi-track railway
Single track railway
County boundary (England only)
Civil, parish or community boundary
District, Unitary, Metropolitan, London Borough boundary
Constituency boundary
Area of wooded vegetation
Non-coniferous trees
Non-coniferous trees (scattered)
Coniferous trees
Coniferous trees (scattered)
Positioned tree
Orchard
Coppice or Osiers
Rough Grassland
Heath
Scrub
Marsh, Salt Marsh or Reeds
Water feature
Flow arrows
MHW(S) Mean high water (springs)
MLW(S) Mean low water (springs)
Telephone line (where shown)
Electricity transmission line (with poles)
BM 123.45 m Bench mark (where shown)
Triangulation station
Point feature (e.g. Guide Post or Mile Stone)
Pylon, flare stack or lighting tower
Site of (antiquity)
Glasshouse
General Building
Important Building

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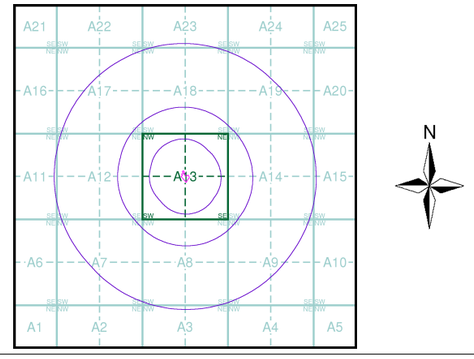
Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Flintshire	1:10,560	1878	2
Shropshire	1:10,560	1884	3
Flintshire	1:10,560	1900	4
Shropshire	1:10,560	1902	5
Flintshire	1:10,560	1914	6
Shropshire	1:10,560	1929	7
Shropshire	1:10,560	1929	8
Shropshire	1:10,560	1929	9
Shropshire	1:10,560	1938	10
Ordnance Survey Plan	1:10,000	1954	11
Ordnance Survey Plan	1:10,000	1966	12
Ordnance Survey Plan	1:10,000	1970	13
Ordnance Survey Plan	1:10,000	1980 - 1981	14
10K Raster Mapping	1:10,000	2000	15
10K Raster Mapping	1:10,000	2006	16
VectorMap Local	1:10,000	2022	17

Historical Map - Slice A



Order Details

Order Number:	308085532_1_1
Customer Ref:	22360
National Grid Reference:	339780, 334660
Slice:	A
Site Area (Ha):	0.25
Search Buffer (m):	1000

Site Details

Scotland Street, ELLESMERE, SY12 0DG

Landmark INFORMATION GROUP
Tel: 0844 844 9952
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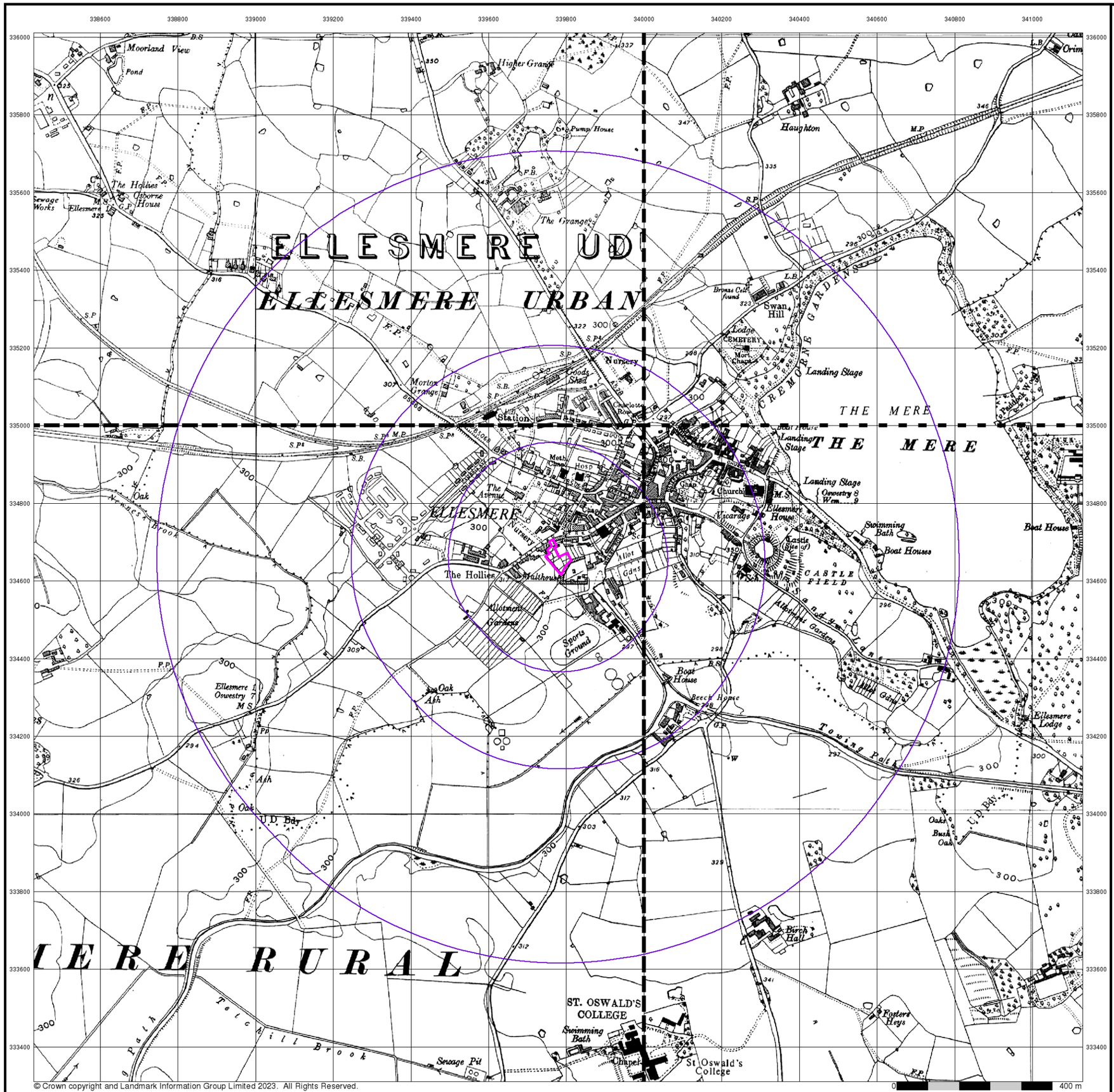

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Ordnance Survey Plan

Published 1954

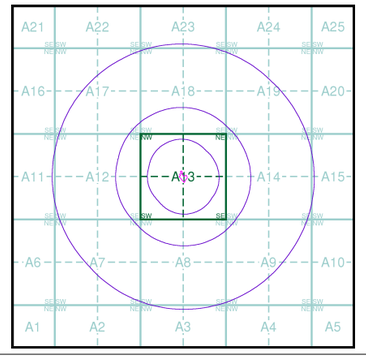
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SJ33NE 1954 1:10,560	SJ43NW 1954 1:10,560
SJ33SE 1954 1:10,560	SJ43SW 1954 1:10,560

Historical Map - Slice A



Order Details

Order Number:	308085532_1_1
Customer Ref:	22360
National Grid Reference:	339780, 334660
Slice:	A
Site Area (Ha):	0.25
Search Buffer (m):	1000

Site Details

Scotland Street, ELLESMERE, SY12 0DG

Landmark INFORMATION GROUP

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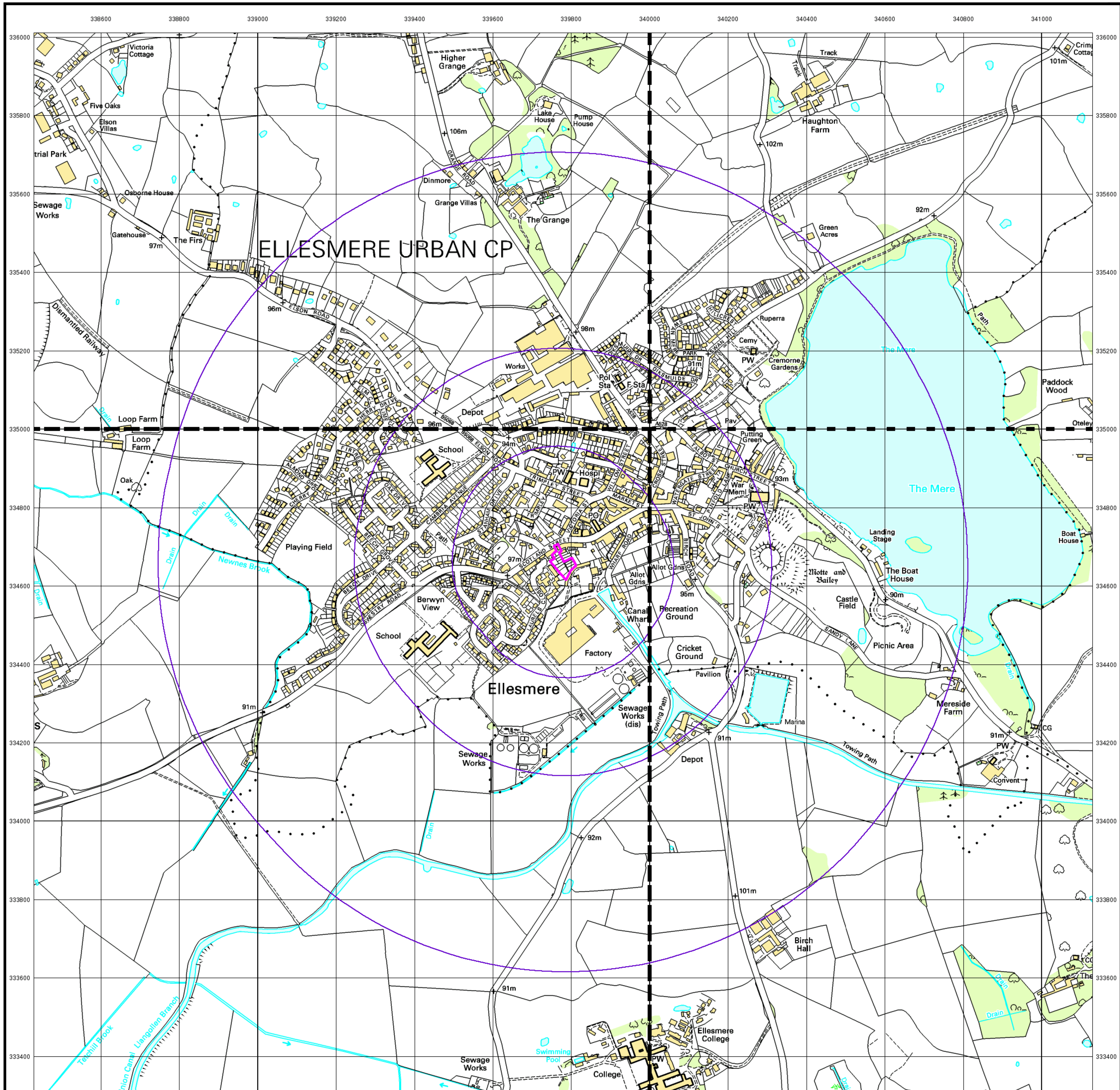

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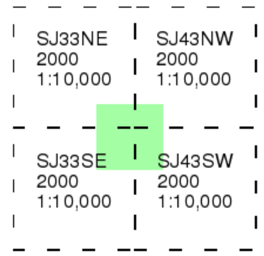
10k Raster Mapping

Published 2000

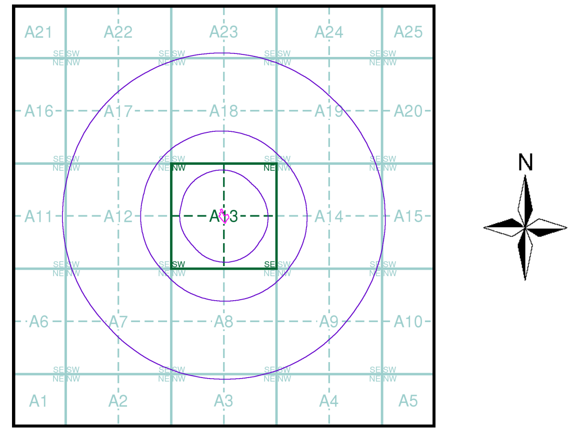
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

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Site Area (Ha): 0.25
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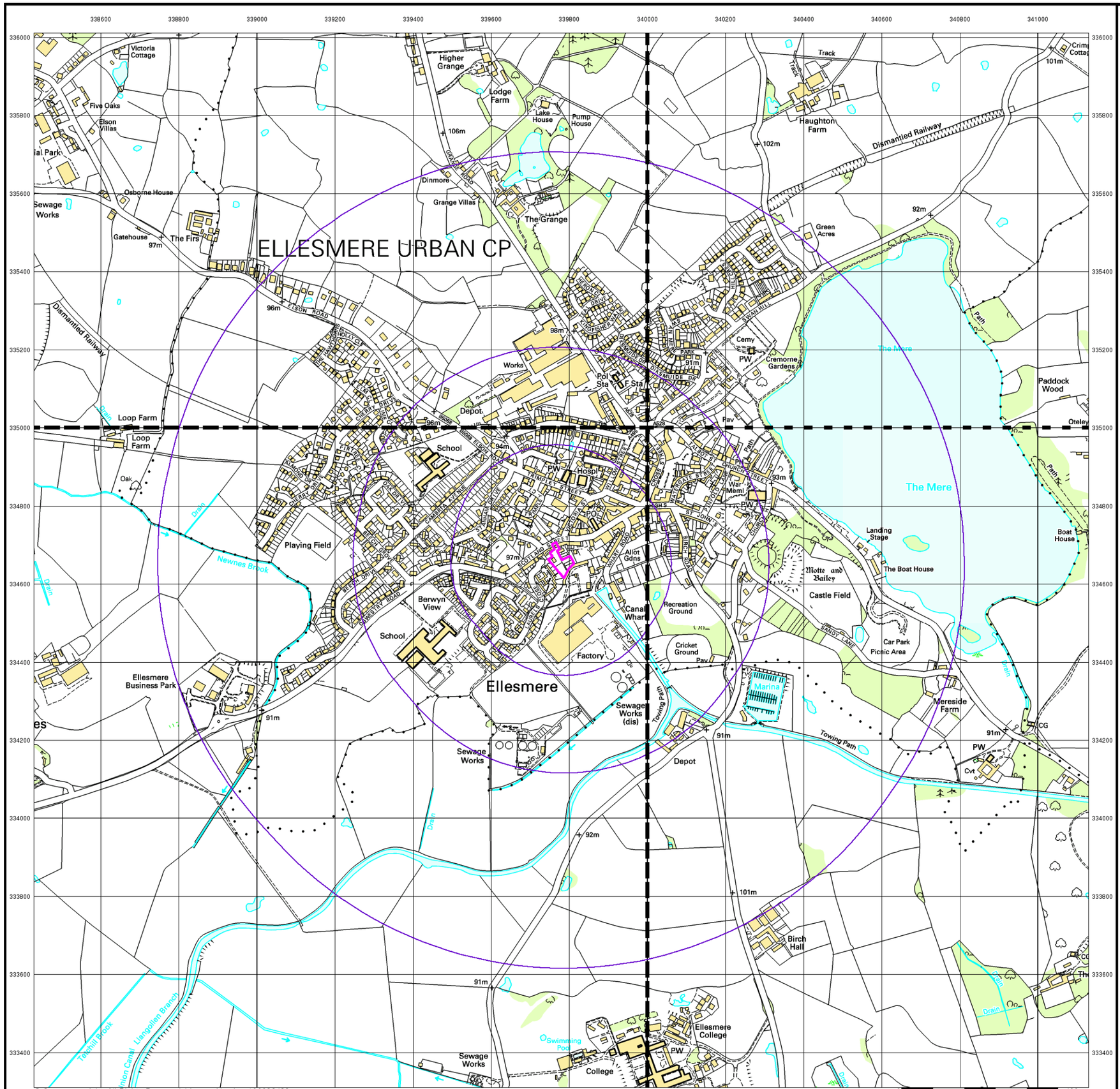
Site Details

Scotland Street, ELLESMERE, SY12 0DG



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10k Raster Mapping

Published 2006

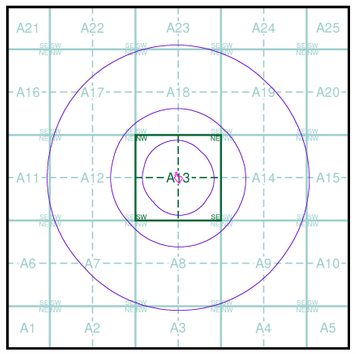
Source map scale - 1:10,000

The historical maps shown were produced from the Ordnance Survey`s 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings, fences and field boundaries as well as all roads, tracks and paths. Road names are also included together with the relevant road number and classification. Boundary information depiction includes county, unitary authority, district, civil parish and constituency.

Map Name(s) and Date(s)

SJ33NE 2006 1:10,000	SJ43NW 2006 1:10,000
SJ33SE 2006 1:10,000	SJ43SW 2006 1:10,000

Historical Map - Slice A



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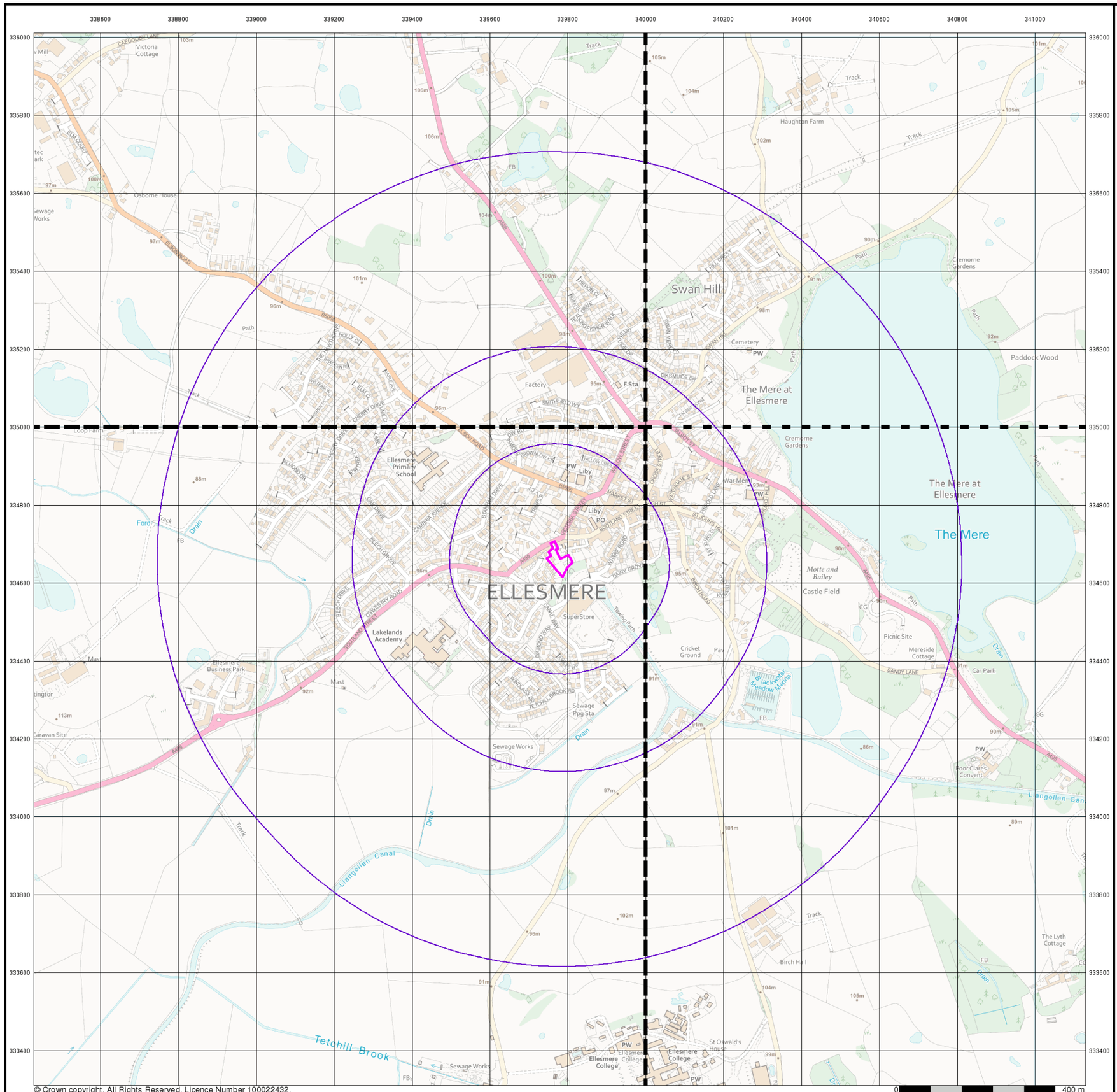

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VectorMap Local

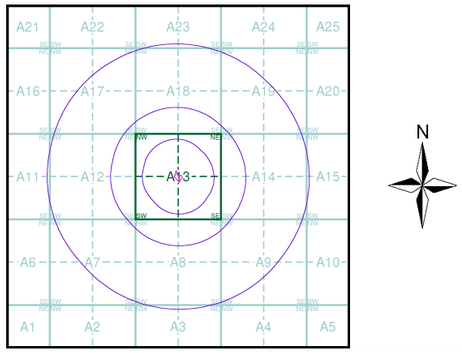
Published 2022

Source map scale - 1:10,000

VectorMap Local (Raster) is Ordnance Survey's highest detailed 'backdrop' mapping product. These maps are produced from OS's VectorMap Local, a simple vector dataset at a nominal scale of 1:10,000, covering the whole of Great Britain, that has been designed for creating graphical mapping. OS VectorMap Local is derived from large-scale information surveyed at 1:1250 scale (covering major towns and cities),1:2500 scale (smaller towns, villages and developed rural areas), and 1:10 000 scale (mountain, moorland and river estuary areas).

Map Name(s) and Date(s)

Historical Map - Slice A



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APPENDIX C
EXPLORATORY HOLE RECORDS

Georisk Management Ltd.
Tel: 0121 553 4044
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Borehole No. **WS1** Sheet 1 of 1

Project Name Scotland Street, Ellesmere	**Project No.** 22360	**Co-ords:** 339759.00 E 334697.00 N	**Hole Type** WLS
Equipment: Dynamic Percussive Sampling Rig		**Level:** 92.41 m AOD	**Scale** 1:25
Client: Landfind (Services) Ltd		**Dates:** 08-03-2023	**Logged By** RC

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.10	92.31		MADE GROUND: Tarmac.
								MADE GROUND: Dark grey very gravelly sand. Gravel is subrounded to angular fine to coarse quartzite, brick and tarmac.
					0.40	92.01		
		0.50	D1					MADE GROUND: Dark brown very gravelly sand. Gravel is subrounded to angular fine to coarse quartzite and brick.
					0.60	91.81		MADE GROUND: Very soft brown very sandy gravelly clay. Gravel is subrounded to angular fine to coarse quartzite, brick, coal and slate.
		1.00	SPT	N=0 (0,0/0,0,0,0)				
		1.20	D2					
					1.50	90.91		Brown and orangish brown clayey gravelly SAND. Gravel is subrounded to angular fine to coarse quartzite and sandstone.
		1.70	D3					(GLACIAL TILL)
	▼	2.00	SPT	N=12 (3,3/3,3,3,3)	2.00	90.41		Medium dense light brown becoming brown from 2.4 m begl SAND. No recovery below 3.0 m begl; continuous SPT carried out.
								(GLACIAL TILL)
		3.00	SPT	N=10 (2,2/2,2,3,3)				
		4.00	SPT	N=9 (2,2/2,2,2,3)				
		4.45	SPT	N=22 (3,4/4,5,6,7)				
		4.90	SPT	N=28 (7,7/7,7,7,7)	4.90	87.51		End of Borehole at 4.90 m
			Type	Results				

Remarks: Groundwater encountered at approximately 2.0 m begl during drilling.
Soil-gas and groundwater monitoring point installed on completion.

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Borehole No. **WS2** Sheet 1 of 1

Project Name Scotland Street, Ellesmere	**Project No.** 22360	**Co-ords:** 339764.00 E 334687.00 N	**Hole Type** WLS
Equipment: Dynamic Percussive Sampling Rig		**Level:** 91.94 m AOD	**Scale** 1:25
Client: Landfind (Services) Ltd		**Dates:** 08-03-2023	**Logged By** RC

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.10	91.84		MADE GROUND: Tarmac.
		0.30	D1					MADE GROUND: Brown gravelly sand with occasional cobble of brick and quartzite. Gravel is subrounded to angular fine to coarse quartzite and brick.
					0.60	91.34		MADE GROUND: Very soft brown very sandy clay with occasional gravel of quartzite and brick.
		1.00	SPT	N=1 (0,0/0,0,0,1)				
					1.30	90.64		MADE GROUND: Very soft brown very sandy clay.
		1.50	D2					
					1.80	90.14		MADE GROUND: Soft dark greyish brown very sandy clay with occasional gravel of brick.
					1.90	90.04		Medium dense light brown clayey slightly gravelly SAND. Gravel is subrounded to subangular fine to coarse quartzite.
	▼	2.00	SPT	N=10 (1,1/1,3,3,3)				(GLACIAL TILL)
		2.30	D3					
					2.60	89.34		Medium dense light brown SAND with occasional gravel of quartzite.
								(GLACIAL TILL)
		3.00	SPT	N=20 (4,4/4,5,5,6)				
		4.00	SPT	N=25 (3,4/5,6,7,7)	4.00	87.94		End of Borehole at 4.00 m

Type	Results

Remarks: Groundwater encountered at approximately 2.0 m begl during drilling.
Backfilled with arisings on completion.

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Borehole No. **WS3** Sheet 1 of 1

Project Name Scotland Street, Ellesmere	**Project No.** 22360	**Co-ords:** 339759.00 E 334677.00 N	**Hole Type** WLS
Equipment: Dynamic Percussive Sampling Rig		**Level:** 92.14 m AOD	**Scale** 1:25
Client: Landfind (Services) Ltd		**Dates:** 08-03-2023	**Logged By** RC

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.00	92.14		MADE GROUND: Dark grey gravelly sand. Gravel is subrounded to angular fine to coarse quartzite, sandstone, tarmac and brick.
		0.30	D1		0.20	91.94		MADE GROUND: Dark brown clayey slightly gravelly sand. Gravel is subrounded to angular fine to coarse quartzite and brick.
					0.40	91.74		Brown very clayey SAND with ocasional gravel of quartzite. (GLACIAL TILL)
		1.00	SPT	N=4 (1,0/1,1,1,1)	0.90	91.24		Soft orangish brown very sandy CLAY. (GLACIAL TILL)
		1.20	D2					
		1.60	D3		1.50	90.64		Loose light brown to cream very clayey SAND. (GLACIAL TILL)
	▼	2.00	SPT	N=10 (1,1/1,3,3,3)	2.00	90.14		Firm reddish brown silty CLAY. (GLACIAL TILL)
		2.30	D4					
		3.00	SPT	N=20 (4,4/4,5,5,6)	3.00	89.14		Medium dense light brown SAND. (GLACIAL TILL)
		4.00	SPT	N=25 (3,4/5,6,7,7)	4.00	88.14		End of Borehole at 4.00 m
			Type	Results				

Remarks: Groundwater encountered at approximately 2.1 m begl during drilling.
Backfilled with arisings on completion.

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Borehole No. **WS4** Sheet 1 of 1

Project Name Scotland Street, Ellesmere	**Project No.** 22360	**Co-ords:** 339756.00 E 334657.00 N	**Hole Type** WLS
Equipment: Dynamic Percussive Sampling Rig		**Level:** 92.00 m AOD	**Scale** 1:25
Client: Landfind (Services) Ltd		**Dates:** 08-03-2023	**Logged By** RC

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
					0.30	91.70		MADE GROUND: Dark grey gravelly sand. Gravel is subrounded to angular fine to coarse brick.
		0.40	D1					MADE GROUND: Soft dark brown very sandy gravelly clay. Gravel is subrounded to angular fine to coarse quartzite and brick.
					0.80	91.20		Very soft reddish brown very sandy CLAY with occasional gravel or quartzite and cobble of quartzite and sandstone.
		1.00	SPT	N=3 (0,0/0,1,1,1)	1.00	91.00		(GLACIAL TILL)
								Soft orangish brown and light grey very sandy CLAY.
		1.40	D2					(GLACIAL TILL)
					1.60	90.40		Very soft brown very sandy CLAY.
	▼				1.80	90.20		(GLACIAL TILL)
		2.00	SPT	N=16 (1,2/3,5,4,4)				Firm to stiff brown silty sandy CLAY.
					2.30	89.70		(GLACIAL TILL)
								Reddish brown clayey silty SAND.
					2.50	89.50		(GLACIAL TILL)
		2.80	D3					Firm becoming stiff below 3.45 m begl reddish brown and light grey silty CLAY. No recovery below 3.0 m begl; continuous SPT carried out.
		3.00	SPT	N=13 (3,3/3,3,3,4)				(GLACIAL TILL)
		3.45	SPT	N=19 (4,4/4,5,5,5)				
		3.90	SPT	N=29 (7,7/7,7,7,8)				
		4.35	SPT	N=36 (8,9/9,9,9,9)				
		4.80	SPT	N=40 (9,9/9,10,10,11)	4.80	87.20		End of Borehole at 4.80 m
			Type	Results				

Remarks: Groundwater encountered at approximately 1.8 m begl during drilling.
Backfilled with arisings on completion.

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Borehole No. **WS5** Sheet 1 of 1

Project Name Scotland Street, Ellesmere	**Project No.** 22360	**Co-ords:** 339770.00 E 334658.00 N	**Hole Type** WLS
Equipment: Dynamic Percussive Sampling Rig		**Level:** 92.05 m AOD	**Scale** 1:25
Client: Landfind (Services) Ltd		**Dates:** 08-03-2023	**Logged By** RC

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
								MADE GROUND: Dark greyish brown very gravelly sand. Gravel is subrounded to angular fine to coarse sandstone, slate and brick.
					0.30	91.75		
		0.40	D1					MADE GROUND: Dark greyish brown clayey slightly gravelly sand. Gravel is subrounded to angular fine to coarse quartzite and brick.
					0.50	91.55		MADE GROUND: Dark brown very clayey sand with occasional gravel of brick.
					0.70	91.35		MADE GROUND: Soft brown very sandy slightly gravelly clay. Gravel is subrounded to angular fine to coarse quartzite, lignite and brick.
					0.80	91.25		Very soft brown very sandy slightly gravelly CLAY. Gravel is subrounded to angular fine to coarse quartzite and lignite.
		1.00	SPT	N=0 (0,0/0,0,0,0)				(GLACIAL TILL)
		1.50	D2					
					1.80	90.25		Firm light greyish brown very sandy CLAY with rare gravel of sandstone.
	▼	2.00	SPT	N=11 (2,4/4,4,2,1)	2.00	90.05		(GLACIAL TILL) Medium dense reddish brown very clayey SAND.
								(GLACIAL TILL)
					2.40	89.65		Stiff reddish brown silty sandy CLAY with bands of sand. Poor recovery between 3.0 to 4.0 m begl.
		2.60	D3					(GLACIAL TILL)
		3.00	SPT	N=17 (3,3/3,3,4,7)				
		4.00	SPT	N=30 (6,6/6,6,8,10)	4.00	88.05		End of Borehole at 4.00 m
			Type	Results				

Remarks: Groundwater encountered at approximately 2.0 m begl during drilling.
Backfilled with arisings on completion.

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Borehole No. **WS6** Sheet 1 of 1

Project Name Scotland Street, Ellesmere	**Project No.** 22360	**Co-ords:** 339770.00 E 334640.00 N	**Hole Type** WLS
Equipment: Dynamic Percussive Sampling Rig		**Level:** 91.75 m AOD	**Scale** 1:25
Client: Landfind (Services) Ltd		**Dates:** 09-03-2023	**Logged By** RC

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
		0.10	D1					TOPSOIL: Grass over dark brown clayey sand with rootlets and occasional gravel of brick.
					0.30	91.45		Soft to firm orangish brown very sandy CLAY. (GLACIAL TILL)
					0.80	90.95		Stiff becoming very stiff at 2.0 m begl reddish brown sandy slightly gravelly CLAY. Gravel is subrounded to subangular fine to coarse quartzite. (GLACIAL TILL)
		1.00	SPT	N=14 (2,2/2,4,4,4)				
		1.10	D2					
		1.90	D3					
		2.00	SPT	N=48 (6,6/48 for 295mm)	2.00	89.75		End of Borehole at 2.00 m
			Type	Results				

Remarks: Groundwater not encountered during drilling.
Refusal at a depth of 2.0 m begl on very stiff clay.
Backfilled with arisings on completion.

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Borehole No. **WS7** Sheet 1 of 1

Project Name Scotland Street, Ellesmere	**Project No.** 22360	**Co-ords:** 339781.00 E 334626.00 N	**Hole Type** WLS
Equipment: Dynamic Percussive Sampling Rig		**Level:** 91.55 m AOD	**Scale** 1:25
Client: Landfind (Services) Ltd		**Dates:** 09-03-2023	**Logged By** RC

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
		0.20	D1		0.30	91.25		TOPSOIL: Grass over dark brown clayey sand with rootlets and occasional gravel of brick.
		1.00	SPT	N=14 (2,2/3,3,4,4)				Medium dense becoming very dense at 3.9 m orangish brown becoming light brown at 1.5 m and dark brown at 2.0 m SAND with occasional gravel of quartzite. No recovery below 3.0 m begl; continuous SPT carried out. (GLACIAL TILL)
		1.60	D3					
	▼	2.00	SPT	N=12 (2,3/3,3,3,3)				
		3.00	SPT	N=7 (1,1/1,2,2,2)				
		3.45	SPT	N=20 (3,3/4,4,6,6)				
		3.90	SPT	N=50 (6,7/10,12,12,16)	3.90	87.65		End of Borehole at 3.90 m
			Type	Results				

Remarks: Groundwater encountered at approximately 2.0 m begl during drilling.
Backfilled with arisings on completion.

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Borehole No. **WS8** Sheet 1 of 1

Project Name	**Project No.**	**Co-ords:**	**Hole Type**
Scotland Street, Ellesmere	22360	339785.00 E 334642.00 N	WLS
Equipment: Dynamic Percussive Sampling Rig		**Level:** 91.41 m AOD	**Scale** 1:25
Client: Landfind (Services) Ltd		**Dates:** 09-03-2023	**Logged By** RC

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
		0.10	D1					TOPSOIL: Grass over dark brown slightly clayey sand with rootlets.
					0.30	91.11		Light brown becoming yellowish brown at 0.7 m clayey slightly gravelly SAND. Gravel is subrounded to subangular fine to coarse quartzite. (GLACIAL TILL)
		1.00	SPT	N=9 (1,2/2,2,2,3)	1.00	90.41		Loose reddish brown very clayey SAND with occasional gravel of quartzite. (GLACIAL TILL)
					1.60	89.81		Stiff reddish brown sandy gravelly CLAY. Gravel is subrounded to subangular fine to coarse quartzite. (GLACIAL TILL)
		1.70	D2					
	▼	2.00	SPT	N=22 (3,3/4,6,6,6)				
		2.50	D3					
					2.70	88.71		Medium dense reddish brown SAND with occasional gravel of quartzite. (GLACIAL TILL)
		3.00	SPT	N=16 (3,3/3,3,5,5)				
		4.00	SPT	N=16 (2,2/4,4,4,4)	4.00	87.41		End of Borehole at 4.00 m
			Type	Results				

Remarks: Groundwater encountered at approximately 2.0 m begl during drilling.
Soil-gas and groundwater monitoring point installed on completion.

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Borehole No. **WS9** Sheet 1 of 1

Project Name Scotland Street, Ellesmere	**Project No.** 22360	**Co-ords:** 339798.00 E 334649.00 N	**Hole Type** WLS
Equipment: Dynamic Percussive Sampling Rig		**Level:** 90.82 m AOD	**Scale** 1:25
Client: Landfind (Services) Ltd		**Dates:** 09-03-2023	**Logged By** RC

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
								TOPSOIL: Grass over dark greyish brown clayey sand with rootlets and occasional gravel of brick and sandstone.
		0.30	D1		0.30	90.52		MADE GROUND: Dark brown slightly clayey sand with occasional gravel of brick and sandstone.
					0.50	90.32		Brown clayey SAND. (GLACIAL TILL)
	▼	1.00	SPT	N=6 (1,1/1,1,2,2)	1.00	89.82		Loose light brown and reddish brown clayey SAND. (GLACIAL TILL)
		1.40	D2					
		2.00	SPT	N=9 (1,1/1,2,2,4)				
		2.50	D3		2.40	88.42		Stiff reddish brown sandy gravelly CLAY. Gravel is subrounded to subangular fine to coarse quartzite. No recovery below 3.0 m begl; continuous SPT carried out. (GLACIAL TILL)
		3.00	SPT	N=15 (2,2/3,4,4,4)				
		3.45	SPT	N=26 (4,6/6,6,7,7)				
		3.90	SPT	N=33 (7,7/7,8,9,9)				
		4.35	SPT	N=40 (9,9/9,10,10,11)				
		4.80	SPT	N=49 (11,11/11,12,12,14)	4.80	86.02		End of Borehole at 4.80 m
			Type	Results				

Remarks: Groundwater encountered at approximately 1.0 m begl during drilling.
Backfilled with arisings on completion.

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Borehole No. **WS10** Sheet 1 of 1

Project Name Scotland Street, Ellesmere	**Project No.** 22360	**Co-ords:** 339799.00 E 334664.00 N	**Hole Type** WLS
Equipment: Dynamic Percussive Sampling Rig		**Level:** 90.80 m AOD	**Scale** 1:25
Client: Landfind (Services) Ltd		**Dates:** 09-03-2023	**Logged By** RC

Well	Water Strikes	Samples & In Situ Testing Depth (m)	Type	Results	Depth (m)	Level (m AOD)	Legend	Stratum Description
		0.40	D1		0.60	90.20		MADE GROUND: Grass over dark greyish brown slightly clayey sand with frequent gravel of brick and glass.
		1.00	SPT	N=1 (0,0/0,0,1,0)				Very soft brown sandy CLAY. (GLACIAL TILL)
		1.50	D2		1.40	89.40		Very soft to soft dark brown sandy CLAY with organic material and slight organic odour. (GLACIAL TILL)
	▼	1.90	D3		1.80	89.00		Soft becoming firm at 3.0 m and stiff at 3.45 m grey becoming reddish brown at a depth of 2.0 m begl sandy slightly gravelly CLAY. Gravel is subrounded to subangular fine to coarse quartzite. No recovery below 3.0 m begl; continuous SPT carried out. (GLACIAL TILL)
		2.00	SPT	N=3 (0,1/0,1,1,1)				
		2.90	D4					
		3.00	SPT	N=11 (1,1/2,2,3,4)				
		3.45	SPT	N=23 (4,4/4,6,6,7)				
		3.90	SPT	N=50 (7,7/10,12,13,15)	3.90	86.90		End of Borehole at 3.90 m
			Type	Results				

Remarks: Groundwater encountered at approximately 2.0 m begl during drilling.
Backfilled with arisings on completion.

APPENDIX D
SOIL-GAS AND GROUNDWATER MONITORING RESULTS

Soil-Gas and Groundwater Monitoring Results

Monitoring Visit No.	**1**	Date	17/03/2023	Barometric Pressure (mb) -	991
Weather Conditions:		Sunny		Equipment Used -	
Surface Ground Conditions:		Damp		**GA2000 and In-Situ dip meter**	
Ambient Concentration (% Volume):	**Bal:**	79	**CH_4:** 0.1	**CO_2:** 0.0	**O_2:** 21.0

Monitoring Point		Gas Concentration											Gas Flow	
		Highest					Steady					(Lowest)	Gas Flow Rate	Relative Pressure
Ref:	**GWL**	**CH_4**		**CO_2**	**CO**	**H_2S**	**CH_4**		**CO_2**	**CO**	**H_2S**	**O_2**		
	(m) bgl	**% lel**	**% v/v**	**(%)**	**ppm**	**ppm**	**% lel**	**% v/v**	**(%)**	**ppm**	**ppm**	**(%)**	**litre/hr**	**mb**
WS1	2.22	0.0	0.0	1.4	-	-	0.0	0.0	1.4	-	-	19.5	-0.0	0.02
WS8	2.38	0.0	0.0	1.3	-	-	0.0	0.0	1.3	-	-	17.8	0.0	-0.04
WS10	0.84	5	0.3	3.2	-	-	5	0.3	3.2	-	-	18.7	0.0	0.01

Monitoring Visit No.	**2**	Date	31/03/2023	Barometric Pressure (mb) -	976
Weather Conditions:		Overcast		Equipment Used -	
Surface Ground Conditions:		Wet		**GA2000 and In-Situ dip meter**	
Ambient Concentration (% Volume):	**Bal:**	78.7	**CH_4:** 0.2	**CO_2:** 0.0	**O_2:** 21.1

Monitoring Point		Gas Concentration											Gas Flow	
		Highest					Steady					(Lowest)	Gas Flow Rate	Relative Pressure
Ref:	**GWL**	**CH_4**		**CO_2**	**CO**	**H_2S**	**CH_4**		**CO_2**	**CO**	**H_2S**	**O_2**		
	(m) bgl	**% lel**	**% v/v**	**(%)**	**ppm**	**ppm**	**% lel**	**% v/v**	**(%)**	**ppm**	**ppm**	**(%)**	**litre/hr**	**mb**
WS1	2.14	0.0	0.0	1.6	-	-	0.0	0.0	1.6	-	-	19.7	0.0	0.03
WS8	2.52	0.0	0.0	1.9	-	-	0.0	0.0	1.9	-	-	18.0	0.0	0.05
WS10	0.53	0.0	0.0	2.6	-	-	0.0	0.0	2.6	-	-	18.8	-0.05	0.89

Monitoring Visit No.	**3**	Date	13/04/2023	Barometric Pressure (mb) -	992
Weather Conditions:		Overcast/raining		Equipment Used -	
Surface Ground Conditions:		Damp		**GA2000 and In-Situ dip meter**	
Ambient Concentration (% Volume):	**Bal:**	78.5	**CH_4:** 0.3	**CO_2:** 0.1	**O_2:** 21.1

Monitoring Point		Gas Concentration											Gas Flow	
		Highest					Steady					(Lowest)	Gas Flow Rate	Relative Pressure
Ref:	**GWL**	**CH_4**		**CO_2**	**CO**	**H_2S**	**CH_4**		**CO_2**	**CO**	**H_2S**	**O_2**		
	(m) bgl	**% lel**	**% v/v**	**(%)**	**ppm**	**ppm**	**% lel**	**% v/v**	**(%)**	**ppm**	**ppm**	**(%)**	**litre/hr**	**mb**
WS1	2.19	0.0	0.0	1.7	-	-	0.0	0.0	1.7	-	-	19.4	0.0	0.01
WS8	2.73	0.0	0.0	2.2	-	-	0.0	0.0	2.2	-	-	18.5	0.0	-0.48
WS10	0.57	0.0	0.0	1.8	-	-	0.0	0.0	1.8	-	-	19.5	0.0	-0.01

Monitoring Visit No.	**4**	Date	28/04/2023	Barometric Pressure (mb) -	1001
Weather Conditions:		Overcast		Equipment Used -	
Surface Ground Conditions:		Wet		**GA2000 and In-Situ dip meter**	
Ambient Concentration (% Volume):	**Bal:**	78.4	**CH_4:** 0.4	**CO_2:** 0.1	**O_2:** 21.1

Monitoring Point		Gas Concentration											Gas Flow	
		Highest					Steady					(Lowest)	Gas Flow Rate	Relative Pressure
Ref:	**GWL**	**CH_4**		**CO_2**	**CO**	**H_2S**	**CH_4**		**CO_2**	**CO**	**H_2S**	**O_2**		
	(m) bgl	**% lel**	**% v/v**	**(%)**	**ppm**	**ppm**	**% lel**	**% v/v**	**(%)**	**ppm**	**ppm**	**(%)**	**litre/hr**	**mb**
WS1	2.22	0.0	0.0	2.0	-	-	0.0	0.0	2.0	-	-	19.3	-0.2	0.01
WS8	2.77	0.0	0.0	2.5	-	-	0.0	0.0	2.5	-	-	18.7	0.0	1.08
WS10	0.84	0.0	0.0	1.1	-	-	0.0	0.0	1.1	-	-	20.4	0.0	-0.02

Notes:
(m) bgl - metres below ground level GWL - groundwater level

georisk MANAGEMENT	**Job Title:** Scotland Street, Ellesmere	**Job No:** 22360
	Client: Landfind (Services) Ltd	**Table Number:** 1

APPENDIX E
CHEMICAL TEST RESULTS

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Analytical Report Number : 23-22545

Project / Site name:	Scotland Street, Ellesmere	**Samples received on:**	13/03/2023
Your job number:	22360	**Samples instructed on/ Analysis started on:**	13/03/2023
Your order number:	22360	**Analysis completed by:**	21/03/2023
Report Issue Number:	1	**Report issued on:**	21/03/2023
Samples Analysed:	16 soil samples		

Signed:

Dominika Warjan
Junior Reporting Specialist
For & on behalf of i2 Analytical Ltd.

Standard Geotechnical, Asbestos and Chemical Testing Laboratory located at: ul. Pionierów 39, 41-711 Ruda Śląska, Poland.

Accredited tests are defined within the report, opinions and interpretations expressed herein are outside the scope of accreditation.

Standard sample disposal times, unless otherwise agreed with the laboratory, are :

soils - 4 weeks from reporting
leachates - 2 weeks from reporting
waters - 2 weeks from reporting
asbestos - 6 months from reporting

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Any assessments of compliance with specifications are based on actual analytical results with no contribution from uncertainty of measurement.
Application of uncertainty of measurement would provide a range within which the true result lies.
An estimate of measurement uncertainty can be provided on request.

Analytical Report Number: 23-22545
Project / Site name: Scotland Street, Ellesmere
Your Order No: 22360

Lab Sample Number				2614455	2614456	2614457	2614458	2614459
Sample Reference				WS1	WS1	WS1	WS2	WS2
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	1.20	1.70	0.30	1.50
Date Sampled				08/03/2023	08/03/2023	08/03/2023	08/03/2023	08/03/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	12	14	13	10	13
Total mass of sample received	kg	0.001	NONE	0.3	0.3	0.3	0.3	0.3
Asbestos in Soil	Type	N/A	ISO 17025	-	-	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	-	-	-	-	-
Total Cyanide	mg/kg	1	MCERTS	-	-	-	-	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	-	-	-	-
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	-	-	-	-	-
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	-	-	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Fluorene	mg/kg	0.05	MCERTS	-	-	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	-	-	-	-	-
Pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Chrysene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	-	-	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	-	-	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	-	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	-	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	-	-	-	-
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	-	-	-	-	-
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Boron (water soluble)	mg/kg	0.2	MCERTS	-	-	-	-	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	-	-	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	-	-	-	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	-	-	-	-

Analytical Report Number: 23-22545
Project / Site name: Scotland Street, Ellesmere
Your Order No: 22360

Lab Sample Number				2614455	2614456	2614457	2614458	2614459
Sample Reference				WS1	WS1	WS1	WS2	WS2
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.50	1.20	1.70	0.30	1.50
Date Sampled				08/03/2023	08/03/2023	08/03/2023	08/03/2023	08/03/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics & Oxygenates								
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	77	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	< 10	< 10	< 10	85	< 10
TPH-CWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10	22	< 10
TPH-CWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	31	< 10	< 10	160	< 10
TPH-CWG - Aromatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	37	< 10	< 10	180	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 23-22545
Project / Site name: Scotland Street, Ellesmere
Your Order No: 22360

Lab Sample Number				2614460	2614461	2614462	2614463	2614464
Sample Reference				WS2	WS3	WS4	WS5	WS7
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				2.30	0.30	0.40	0.40	0.20
Date Sampled				08/03/2023	08/03/2023	08/03/2023	09/03/2023	09/03/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	12	12	14	17	19
Total mass of sample received	kg	0.001	NONE	0.3	0.8	0.8	0.8	0.8
Asbestos in Soil	Type	N/A	ISO 17025	-	Not-detected	Not-detected	Not-detected	Not-detected
Asbestos Analyst ID	N/A	N/A	N/A	N/A	EC	EC	EC	EC

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	-	7.9	7.9	6.7	5.5
Total Cyanide	mg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	1.7
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	-	0.01	0.0053	0.006	0.006

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	< 1.0

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-	0.37	< 0.05	0.18	< 0.05
Acenaphthylene	mg/kg	0.05	MCERTS	-	0.14	< 0.05	0.16	0.13
Acenaphthene	mg/kg	0.05	MCERTS	-	< 0.05	< 0.05	< 0.05	< 0.05
Fluorene	mg/kg	0.05	MCERTS	-	0.07	< 0.05	0.09	0.1
Phenanthrene	mg/kg	0.05	MCERTS	-	0.98	0.34	1.3	2.3
Anthracene	mg/kg	0.05	MCERTS	-	0.37	0.14	0.38	0.48
Fluoranthene	mg/kg	0.05	MCERTS	-	2.8	0.82	3.8	4.3
Pyrene	mg/kg	0.05	MCERTS	-	2.2	0.67	3.1	3.6
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-	2.1	0.61	2.6	2
Chrysene	mg/kg	0.05	MCERTS	-	1.5	0.45	2	1.6
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	-	2.1	0.49	2.6	1.9
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	-	0.67	0.22	0.76	0.65
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-	1.7	0.42	2.1	1.6
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-	0.74	0.18	1	0.76
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-	0.23	< 0.05	0.27	0.21
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-	0.79	0.16	0.99	0.82

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	-	16.7	4.5	21.1	20.4

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-	15	13	18	10
Boron (water soluble)	mg/kg	0.2	MCERTS	-	1.1	0.3	0.5	0.3
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-	0.8	< 0.2	0.9	0.8
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-	16	15	17	14
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-	49	37	62	40
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-	230	180	190	180
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-	0.7	0.5	0.3	0.3
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-	21	20	24	16
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-	< 1.0	< 1.0	< 1.0	< 1.0
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-	230	96	290	300

Analytical Report Number: 23-22545
Project / Site name: Scotland Street, Ellesmere
Your Order No: 22360

Lab Sample Number				2614460	2614461	2614462	2614463	2614464
Sample Reference				WS2	WS3	WS4	WS5	WS7
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				2.30	0.30	0.40	0.40	0.20
Date Sampled				08/03/2023	08/03/2023	08/03/2023	09/03/2023	09/03/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics & Oxygenates								
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	< 8.0	< 8.0	< 8.0
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
TPH-CWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0
TPH-CWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
TPH-CWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10	< 10	< 10
TPH-CWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10	< 10	17	< 10
TPH-CWG - Aromatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	< 10	< 10	< 10	24	< 10

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 23-22545
Project / Site name: Scotland Street, Ellesmere
Your Order No: 22360

Lab Sample Number				2614465	2614466	2614467	2614468	2614469
Sample Reference				WS8	WS10	WS3	WS5	WS6
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.40	1.60	1.50	1.10
Date Sampled				09/03/2023	09/03/2023	08/03/2023	09/03/2023	09/03/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Stone Content	%	0.1	NONE	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1
Moisture Content	%	0.01	NONE	14	20	11	16	15
Total mass of sample received	kg	0.001	NONE	0.8	0.8	0.5	0.5	0.5
Asbestos in Soil	Type	N/A	ISO 17025	Not-detected	Not-detected	-	-	-
Asbestos Analyst ID	N/A	N/A	N/A	EC	EC	N/A	N/A	N/A
General Inorganics								
pH - Automated	pH Units	N/A	MCERTS	7	7.8	8	8	7.3
Total Cyanide	mg/kg	1	MCERTS	< 1.0	1.1	-	-	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0044	0.0056	0.013	0.0095	0.016
Total Phenols								
Total Phenols (monohydric)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
Speciated PAHs								
Naphthalene	mg/kg	0.05	MCERTS	< 0.05	0.15	-	-	-
Acenaphthylene	mg/kg	0.05	MCERTS	< 0.05	0.09	-	-	-
Acenaphthene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Fluorene	mg/kg	0.05	MCERTS	< 0.05	< 0.05	-	-	-
Phenanthrene	mg/kg	0.05	MCERTS	0.35	0.35	-	-	-
Anthracene	mg/kg	0.05	MCERTS	0.15	0.14	-	-	-
Fluoranthene	mg/kg	0.05	MCERTS	0.8	1.1	-	-	-
Pyrene	mg/kg	0.05	MCERTS	0.66	1	-	-	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	0.63	1.1	-	-	-
Chrysene	mg/kg	0.05	MCERTS	0.51	0.78	-	-	-
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	0.67	1.2	-	-	-
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	0.24	0.44	-	-	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	0.55	1.1	-	-	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	0.26	0.59	-	-	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	0.07	0.14	-	-	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	0.27	0.75	-	-	-
Total PAH								
Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	5.16	8.87	-	-	-
Heavy Metals / Metalloids								
Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	13	22	-	-	-
Boron (water soluble)	mg/kg	0.2	MCERTS	0.8	1.3	-	-	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	0.8	3.5	-	-	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	24	48	-	-	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	86	180	-	-	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	180	620	-	-	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	0.5	0.9	-	-	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	20	38	-	-	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	210	1700	-	-	-

Analytical Report Number: 23-22545
Project / Site name: Scotland Street, Ellesmere
Your Order No: 22360

Lab Sample Number				2614465	2614466	2614467	2614468	2614469
Sample Reference				WS8	WS10	WS3	WS5	WS6
Sample Number				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Depth (m)				0.10	0.40	1.60	1.50	1.10
Date Sampled				09/03/2023	09/03/2023	08/03/2023	09/03/2023	09/03/2023
Time Taken				None Supplied	None Supplied	None Supplied	None Supplied	None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**					
Monoaromatics & Oxygenates								
Benzene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	-	-
Toluene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	-	-
Ethylbenzene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	-	-
p & m-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	-	-
o-xylene	µg/kg	5	MCERTS	< 5.0	< 5.0	-	-	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	< 5.0	< 5.0	-	-	-
Petroleum Hydrocarbons								
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.001	NONE	< 0.001	< 0.001	-	-	-
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	< 2.0	< 2.0	-	-	-
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	< 8.0	-	-	-
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	< 8.0	250	-	-	-
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	< 10	250	-	-	-
TPH-CWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	-	-	-
TPH-CWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	-	-	-
TPH-CWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	< 0.001	< 0.001	-	-	-
TPH-CWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	< 1.0	< 1.0	-	-	-
TPH-CWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	< 2.0	< 2.0	-	-	-
TPH-CWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	< 10	-	-	-
TPH-CWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	< 10	40	-	-	-
TPH-CWG - Aromatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	< 10	43	-	-	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number: 23-22545
Project / Site name: Scotland Street, Ellesmere
Your Order No: 22360

Lab Sample Number				2614470
Sample Reference				WS9
Sample Number				None Supplied
Depth (m)				1.40
Date Sampled				09/03/2023
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Stone Content	%	0.1	NONE	< 0.1
Moisture Content	%	0.01	NONE	13
Total mass of sample received	kg	0.001	NONE	0.5

Asbestos in Soil	Type	N/A	ISO 17025	-
Asbestos Analyst ID	N/A	N/A	N/A	N/A

General Inorganics

pH - Automated	pH Units	N/A	MCERTS	7.9
Total Cyanide	mg/kg	1	MCERTS	-
Water Soluble SO4 16hr extraction (2:1 Leachate Equivalent)	g/l	0.00125	MCERTS	0.0095

Total Phenols

Total Phenols (monohydric)	mg/kg	1	MCERTS	-

Speciated PAHs

Naphthalene	mg/kg	0.05	MCERTS	-
Acenaphthylene	mg/kg	0.05	MCERTS	-
Acenaphthene	mg/kg	0.05	MCERTS	-
Fluorene	mg/kg	0.05	MCERTS	-
Phenanthrene	mg/kg	0.05	MCERTS	-
Anthracene	mg/kg	0.05	MCERTS	-
Fluoranthene	mg/kg	0.05	MCERTS	-
Pyrene	mg/kg	0.05	MCERTS	-
Benzo(a)anthracene	mg/kg	0.05	MCERTS	-
Chrysene	mg/kg	0.05	MCERTS	-
Benzo(b)fluoranthene	mg/kg	0.05	ISO 17025	-
Benzo(k)fluoranthene	mg/kg	0.05	ISO 17025	-
Benzo(a)pyrene	mg/kg	0.05	MCERTS	-
Indeno(1,2,3-cd)pyrene	mg/kg	0.05	MCERTS	-
Dibenz(a,h)anthracene	mg/kg	0.05	MCERTS	-
Benzo(ghi)perylene	mg/kg	0.05	MCERTS	-

Total PAH

Speciated Total EPA-16 PAHs	mg/kg	0.8	ISO 17025	-

Heavy Metals / Metalloids

Arsenic (aqua regia extractable)	mg/kg	1	MCERTS	-
Boron (water soluble)	mg/kg	0.2	MCERTS	-
Cadmium (aqua regia extractable)	mg/kg	0.2	MCERTS	-
Chromium (aqua regia extractable)	mg/kg	1	MCERTS	-
Copper (aqua regia extractable)	mg/kg	1	MCERTS	-
Lead (aqua regia extractable)	mg/kg	1	MCERTS	-
Mercury (aqua regia extractable)	mg/kg	0.3	MCERTS	-
Nickel (aqua regia extractable)	mg/kg	1	MCERTS	-
Selenium (aqua regia extractable)	mg/kg	1	MCERTS	-
Zinc (aqua regia extractable)	mg/kg	1	MCERTS	-

Analytical Report Number: 23-22545
Project / Site name: Scotland Street, Ellesmere
Your Order No: 22360

Lab Sample Number				2614470
Sample Reference				WS9
Sample Number				None Supplied
Depth (m)				1.40
Date Sampled				09/03/2023
Time Taken				None Supplied
Analytical Parameter (Soil Analysis)	**Units**	**Limit of detection**	**Accreditation Status**	
Monoaromatics & Oxygenates				
Benzene	µg/kg	5	MCERTS	-
Toluene	µg/kg	5	MCERTS	-
Ethylbenzene	µg/kg	5	MCERTS	-
p & m-xylene	µg/kg	5	MCERTS	-
o-xylene	µg/kg	5	MCERTS	-
MTBE (Methyl Tertiary Butyl Ether)	µg/kg	5	NONE	-
Petroleum Hydrocarbons				
TPH-CWG - Aliphatic >EC5 - EC6 $_{HS\_1D\_AL}$	mg/kg	0.001	NONE	-
TPH-CWG - Aliphatic >EC6 - EC8 $_{HS\_1D\_AL}$	mg/kg	0.001	NONE	-
TPH-CWG - Aliphatic >EC8 - EC10 $_{HS\_1D\_AL}$	mg/kg	0.001	NONE	-
TPH-CWG - Aliphatic >EC10 - EC12 $_{EH\_CU\_1D\_AL}$	mg/kg	1	MCERTS	-
TPH-CWG - Aliphatic >EC12 - EC16 $_{EH\_CU\_1D\_AL}$	mg/kg	2	MCERTS	-
TPH-CWG - Aliphatic >EC16 - EC21 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	-
TPH-CWG - Aliphatic >EC21 - EC35 $_{EH\_CU\_1D\_AL}$	mg/kg	8	MCERTS	-
TPH-CWG - Aliphatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AL}$	mg/kg	10	NONE	-
TPH-CWG - Aromatic >EC5 - EC7 $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	-
TPH-CWG - Aromatic >EC7 - EC8 $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	-
TPH-CWG - Aromatic >EC8 - EC10 $_{HS\_1D\_AR}$	mg/kg	0.001	NONE	-
TPH-CWG - Aromatic >EC10 - EC12 $_{EH\_CU\_1D\_AR}$	mg/kg	1	MCERTS	-
TPH-CWG - Aromatic >EC12 - EC16 $_{EH\_CU\_1D\_AR}$	mg/kg	2	MCERTS	-
TPH-CWG - Aromatic >EC16 - EC21 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	-
TPH-CWG - Aromatic >EC21 - EC35 $_{EH\_CU\_1D\_AR}$	mg/kg	10	MCERTS	-
TPH-CWG - Aromatic (EC5 - EC35) $_{EH\_CU+HS\_1D\_AR}$	mg/kg	10	NONE	-

U/S = Unsuitable Sample I/S = Insufficient Sample ND = Not detected

Analytical Report Number : 23-22545
Project / Site name: Scotland Street, Ellesmere

* These descriptions are only intended to act as a cross check if sample identities are questioned. The major constituent of the sample is intended to act with respect to MCERTS validation. The laboratory is accredited for sand, clay and loam (MCERTS) soil types. Data for unaccredited types of solid should be interpreted with care.

Stone content of a sample is calculated as the % weight of the stones not passing a 10 mm sieve. Results are not corrected for stone content.

Lab Sample Number	Sample Reference	Sample Number	Depth (m)	Sample Description *
2614455	WS1	None Supplied	0.5	Brown sand with gravel.
2614456	WS1	None Supplied	1.2	Brown sand.
2614457	WS1	None Supplied	1.7	Brown clay and sand.
2614458	WS2	None Supplied	0.3	Brown sand with brick and gravel
2614459	WS2	None Supplied	1.5	Brown clay and sand with gravel.
2614460	WS2	None Supplied	2.3	Brown sand with gravel.
2614461	WS3	None Supplied	0.3	Brown clay and sand with gravel.
2614462	WS4	None Supplied	0.4	Brown clay and sand with gravel.
2614463	WS5	None Supplied	0.4	Brown clay and sand with gravel.
2614464	WS7	None Supplied	0.2	Brown loam and sand with vegetation.
2614465	WS8	None Supplied	0.1	Brown loam and sand with gravel and vegetation.
2614466	WS10	None Supplied	0.4	Brown loam and sand with gravel and vegetation.
2614467	WS3	None Supplied	1.6	Brown clay and sand.
2614468	WS5	None Supplied	1.5	Brown clay and sand.
2614469	WS6	None Supplied	1.1	Brown clay.
2614470	WS9	None Supplied	1.4	Brown clay and sand.

Analytical Report Number : 23-22545
Project / Site name: Scotland Street, Ellesmere

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In house method.	L038-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with dispersion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Boron, water soluble, in soil	Determination of water soluble boron in soil by hot water extract followed by ICP-OES.	In-house method based on Second Site Properties version 3	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically. (30 oC)	In house method.	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In house method.	L099-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
BTEX and MTBE in soil (Monoaromatics)	Determination of BTEX in soil by headspace GC-MS. Individual components MCERTS accredited	In-house method based on USEPA8260	L073B-PL	W	MCERTS
TPHCWG (Soil)	Determination of hexane extractable hydrocarbons in soil by GC-MS/GC-FID.	In-house method with silica gel split/clean up.	L088/76-PL	W	MCERTS

Analytical Report Number : 23-22545
Project / Site name: Scotland Street, Ellesmere

Water matrix abbreviations:
Surface Water (SW) Potable Water (PW) Ground Water (GW) Process Waters (PrW) Final Sewage Effluent (FSE) Landfill Leachate (LL)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
D.O. for Gravimetric Quant if Screen/ID positive	Dependent option for Gravimetric Quant if Screen/ID positive scheduled.	In house asbestos methods A001 & A006.	A006-PL	D	NONE

For method numbers ending in 'UK or A' analysis have been carried out in our laboratory in the United Kingdom (WATFORD).
For method numbers ending in 'F' analysis have been carried out in our laboratory in the United Kingdom (East Kilbride).
For method numbers ending in 'PL or B' analysis have been carried out in our laboratory in Poland.
Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC
Unless otherwise indicated, site information, order number, project number, sampling date, time, sample reference and depth are provided by the client. The instructed on date indicates the date on which this information was provided to the laboratory.

Information in Support of Analytical Results

List of HWOL Acronyms and Operators

Acronym	Descriptions
HS	Headspace Analysis
MS	Mass spectrometry
FID	Flame Ionisation Detector
GC	Gas Chromatography
EH	Extractable Hydrocarbons (i.e. everything extracted by the solvent(s))
CU	Clean-up - e.g. by Florisil®, silica gel
1D	GC - Single coil/column gas chromatography
2D	GC-GC - Double coil/column gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics
AR	Aromatics
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
_	Operator - understore to separate acronyms (exception for +)
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total

APPENDIX F
GEOTECHNICAL TEST RESULTS

SOCOTEC UK Limited
SOCOTEC Central
Leofric Business Park
Progress Close
Coventry
West Midlands
CV3 2TF
Telephone: +44(0) 2475 310700

SOCOTEC

UKAS TESTING
0001

TEST REPORT

Liquid and Plastic Limits and Plasticity Indices

Report No: **DAM0089426/558/M1**

Report Date: **28 March 2023**

Our Contract Ref: 51074274

Client: GEORISK MANAGEMENT

Tested By: SOCOTEC Central

Address: Varney House
91 Spon Lane
West Bromwich
B70 6AB
GB

Date Sampled: 8 Mar 2023

Date Received: 16 Mar 2023

Client Contact: Not Advised

Date Tested: 23 Mar 2023

Site: 22360-Scotland Street, Ellesmere

Sample Type: BULK BAGS

Sampling Certificate: Not Received

Samples Submitted by: SOCOTEC Central

Method of preparation: BS1377-1:1990 7.4.3 & BS 1377-2:1990 4.2

Sampled by: Client

Results:

Sample Reference	Client's Ref	Location	Description	Moisture Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	% Passing on 425 µm
45417552	1	WS4 @1.4m	Brown Slightly Sandy Silty CLAY	29	55	24	31	**100
45417553	2	WS4 @2.0m	Brown Slightly Sandy Silty CLAY	20	42	20	22	**100
45417554	3	WS6 @1.90m	Brown Slightly Sandy Silty CLAY	17	42	20	22	**100
45417555	4	WS8 @1.7m	Brown Slightly Sandy Silty CLAY	18	36	18	18	**100
45417556	5	WS9 @2.50m	Brown Slightly Sandy Silty CLAY	17	35	18	17	**71
45417557	6	WS10 @1.50m	Dark Brown Slightly Clayey PEAT	231	268	162	106	**100
45417558	7	WS10 @1.90m	Grey Brown Silty CLAY	28	43	25	18	**100

*** Washed over 425µm BS Test Sieve**
**** As received, coarse particles removed by hand prior to test**

Certified that the Liquid and Plastic Limits and Plasticity Indices were determined in accordance with BS1377-2:1990 Clauses 4.4, 5.0 and 5.4 respectively
Certified that the Moisture Content was determined in accordance with BS1377-2:1990 3.2

Signed:

Hannah Wortley - Senior Reporting Officer
for and on behalf of SOCOTEC UK Limited

Form S1 v9 7/06

APPENDIX G
ENVIROCHECK SUPPORTING INFORMATION

Envirocheck® Report:

Datasheet

Order Details:

Order Number:
308085532_1_1

Customer Reference:
22360

National Grid Reference:
339780, 334660

Slice:
A

Site Area (Ha):
0.25

Search Buffer (m):
1000

Site Details:

Scotland Street
ELLESMERE
SY12 0DG

Client Details:

Mr M Gill
Georisk Management Limited
Varney House
91 Spon Lane
West Bromwich
B70 6AB

Envirocheck®
LANDMARK INFORMATION GROUP®

Contents

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	18
Hazardous Substances	21
Geological	22
Industrial Land Use	28
Sensitive Land Use	35
Data Currency	36
Data Suppliers	42
Useful Contacts	43

Introduction

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

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Scottish Natural Heritage Copyright

Ove Arup Copyright Notice

Stantec Copyright Notice

Radon Potential dataset Copyright Notice

Natural Resources Wales Copyright Notice

Report Version v53.0

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes	Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 2		5	4	24
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 10			3	1
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 10		Yes		
Pollution Incidents to Controlled Waters	pg 10		3	2	8
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 13		1	2	
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 13			1	1
Water Abstractions	pg 13		2	1	(*3)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 15	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk			n/a	n/a	n/a
Groundwater Vulnerability - Local Information			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 15	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 15	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 15	Yes	Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 15	Yes	Yes	n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 16		1	3	14

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 18			1	2
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage	pg 18	2	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)					
Potentially Infilled Land (Water)	pg 18		1	7	17
Registered Landfill Sites	pg 20				1
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents	pg 21			1	
Planning Hazardous Substance Enforcements					

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 22	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 22	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 26			1	
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain				n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 26	Yes	Yes	n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 27		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 27	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 27	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 27	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 28	1	10	11	11
Fuel Station Entries	pg 30			1	
Points of Interest - Commercial Services	pg 31	2	1	3	4
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 31		2	7	1
Points of Interest - Public Infrastructure	pg 32		1	12	4
Points of Interest - Recreational and Environmental	pg 34			3	5
Gas Pipelines					
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland					
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves	pg 35		1		
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 35	1		1	
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (E)	0	1	339800 334662
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NW (SW)	0	1	339777 334662
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (E)	139	1	339950 334662
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (E)	189	1	340000 334650
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (E)	189	1	340000 334662
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (E)	195	1	340000 334700
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (E)	212	1	340000 334750
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13NE (E)	258	1	340050 334750
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (SE)	270	1	340000 334450
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13SE (S)	289	1	339900 334350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (E)	293	1	340100 334600
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SW (N)	294	1	339777 335000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A13SE (SE)	304	1	340000 334400
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (N)	306	1	339850 335000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A13NE (NE)	373	1	340050 334950
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (NE)	376	1	340000 335000
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A18SE (NE)	409	1	340050 335000
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A14SW (SE)	450	1	340150 334350
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NE (SE)	468	1	340000 334200
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A8NE (S)	480	1	339900 334150
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A18SE (N)	481	1	339950 335150
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level	A14NW (NE)	486	1	340200 334950

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Ellesmere - Wharf Road Sps Wharf Road, Ellesmere, ., Shropshire, Sy12 0el Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/09296/O Permit Version: 1 Effective Date: 18th July 1984 Issued Date: 18th July 1984 Revocation Date: 3rd January 2018 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: Tetchill Brook **Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989** Positional Accuracy: Located by supplier to within 10m	A13SE (E)	159	2	339970 334650
1	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Ellesmere - Wharf Road Sps Wharf Road, Ellesmere, ., Shropshire, Sy12 0el Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/09296/O Permit Version: 4 Effective Date: 13th November 2019 Issued Date: 13th November 2019 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: Newnes Brook **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 10m	A13SE (E)	162	2	339973 334649
1	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Ellesmere - Wharf Road Sps Wharf Road, Ellesmere, ., Shropshire, Sy12 0el Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/09296/O Permit Version: 4 Effective Date: 13th November 2019 Issued Date: 13th November 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Newnes Brook **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 10m	A13SE (E)	162	2	339973 334649
1	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Ellesmere - Wharf Road Sps Wharf Road, Ellesmere, ., Shropshire, Sy12 0el Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/09296/O Permit Version: 3 Effective Date: 31st March 2018 Issued Date: 4th January 2018 Revocation Date: 12th November 2019 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: Newnes Brook **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 10m	A13SE (E)	162	2	339973 334649

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Ellesmere - Wharf Road Sps Wharf Road, Ellesmere, ., Shropshire, Sy12 0el Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/09296/O Permit Version: 2 Effective Date: 4th January 2018 Issued Date: 4th January 2018 Revocation Date: 30th March 2018 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: Newnes Brook **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 10m	A13SE (E)	162	2	339973 334649
2	**Discharge Consents** Operator: British Waterways Board Property Type: Sewage Disposal Works Location: British Waterways Ellesmere, Office & Beech Houses, Birch Road, ELLESMERE, Shropshire Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: CS/03/55204/S/1 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 12th March 1998 Revocation Date: Not Supplied Discharge Type: Sewage Treatment Works - Final Effluent Discharge Environment: Unknown Receiving Water: Receiving Water Not Defined **Status: Not Supplied** Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	329	2	339950 334330
2	**Discharge Consents** Operator: Canal And River Trust. Property Type: WWTW (NOT WATER CO) (NOT STP AT A PRIVATE PREMISES) Location: British Waterways Ellesmere Office, British Waterways, Birch Road, Ellesmere Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/55204/S Permit Version: 1 Effective Date: 12th March 1998 Issued Date: 12th March 1998 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Tetchill Brook **Status: Post National Rivers Authority Legislation where issue date > 31/08/1989** Positional Accuracy: Located by supplier to within 10m	A13SE (SE)	329	2	339950 334330
3	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Ellesmere Wharf Meadow Stw Laurels Close, Wharf Road, Ellesmere, Shropshire, Sy12 0by Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/07490/R Permit Version: 1 Effective Date: 16th October 1980 Issued Date: 16th October 1980 Revocation Date: 13th February 2005 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Tetchill Brook **Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A8NW (S)	468	2	339750 334150

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Ellesmere Wharf Meadow Stw Laurels Close, Wharf Road, Ellesmere, Shropshire, Sy12 0by Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/07490/R Permit Version: 1 Effective Date: 16th October 1980 Issued Date: 16th October 1980 Revocation Date: 13th February 2005 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Tetchill Brook **Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A8NW (S)	468	2	339750 334150
4	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: Sewage Disposal Works - Water Company Location: Ellesmere Wharf Meadow Stw, Nr Wharf Road, Ellesmere, Shropshire Authority: Environment Agency, Midlands Region Catchment Area: Uncategorised Up Severn Reference: S/03/56028/R Permit Version: 1 Effective Date: 14th February 2005 Issued Date: 14th February 2005 Revocation Date: Not Supplied Discharge Type: Discharge Of Other Matter-Crude Effluent Discharge Environment: Freshwater Stream/River Receiving Water: Tetchill Brook **Status: Consent without application (Water Resources Act 1991, Schedule 10)** Positional Accuracy: Located by supplier to within 10m	A8NW (S)	522	2	339660 334110
4	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Ellesmere Wharf Meadow Stw Laurels Close, Wharf Road, Ellesmere, Shropshire, Sy12 0by Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/56028/R Permit Version: 2 Effective Date: 1st January 2010 Issued Date: 14th October 2008 Revocation Date: 17th February 2019 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Tetchill Brook **Status: Consent without application (Water Resources Act 1991, Schedule 10)** Positional Accuracy: Located by supplier to within 10m	A8NW (S)	529	2	339670 334100
4	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Ellesmere Wharf Meadow Stw Laurels Close, Wharf Road, Ellesmere, Shropshire, Sy12 0by Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/56028/R Permit Version: 1 Effective Date: 14th February 2005 Issued Date: 14th February 2005 Revocation Date: 31st December 2009 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Tetchill Brook **Status: Consent without application (Water Resources Act 1991, Schedule 10)** Positional Accuracy: Located by supplier to within 10m	A8NW (S)	529	2	339670 334100

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Ellesmere Wharf Meadow Stw Laurels Close, Wharf Road, Ellesmere, Shropshire, Sy12 0by Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/56028/R Permit Version: 4 Effective Date: 31st March 2019 Issued Date: 18th February 2019 Revocation Date: 30th December 2019 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Tetchill Brook **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 10m	A8NW (S)	538	2	339667 334092
4	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Ellesmere Wharf Meadow Stw Laurels Close, Wharf Road, Ellesmere, Shropshire, Sy12 0by Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/56028/R Permit Version: 5 Effective Date: 31st December 2019 Issued Date: 18th February 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Tetchill Brook **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 10m	A8NW (S)	538	2	339667 334092
4	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Ellesmere Wharf Meadow Stw Laurels Close, Wharf Road, Ellesmere, Shropshire, Sy12 0by Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/56028/R Permit Version: 3 Effective Date: 18th February 2019 Issued Date: 18th February 2019 Revocation Date: 30th March 2019 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Tetchill Brook **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 10m	A8NW (S)	538	2	339667 334092
4	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Ellesmere Wharf Meadow Stw Laurels Close, Wharf Road, Ellesmere, Shropshire, Sy12 0by Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/56028/R Permit Version: 4 Effective Date: 31st March 2019 Issued Date: 18th February 2019 Revocation Date: 30th December 2019 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Tetchill Brook **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 10m	A8NW (S)	561	2	339632 334077

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Ellesmere Wharf Meadow Stw Laurels Close, Wharf Road, Ellesmere, Shropshire, Sy12 0by Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/56028/R Permit Version: 3 Effective Date: 18th February 2019 Issued Date: 18th February 2019 Revocation Date: 30th March 2019 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Tetchill Brook **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 10m	A8NW (S)	561	2	339632 334077
4	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Ellesmere Wharf Meadow Stw Laurels Close, Wharf Road, Ellesmere, Shropshire, Sy12 0by Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/56028/R Permit Version: 5 Effective Date: 31st December 2019 Issued Date: 18th February 2019 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Tetchill Brook **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 10m	A8NW (S)	561	2	339632 334077
5	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Ellesmere Wharf Meadow Stw Laurels Close, Wharf Road, Ellesmere, Shropshire, Sy12 0by Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/56028/R Permit Version: 2 Effective Date: 1st January 2010 Issued Date: 14th October 2008 Revocation Date: 17th February 2019 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Tetchill Brook **Status: Consent without application (Water Resources Act 1991, Schedule 10)** Positional Accuracy: Located by supplier to within 10m	A8NW (S)	577	2	339600 334070
5	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Ellesmere Wharf Meadow Stw Laurels Close, Wharf Road, Ellesmere, Shropshire, Sy12 0by Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/56028/R Permit Version: 1 Effective Date: 14th February 2005 Issued Date: 14th February 2005 Revocation Date: 31st December 2009 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Tetchill Brook **Status: Consent without application (Water Resources Act 1991, Schedule 10)** Positional Accuracy: Located by supplier to within 10m	A8NW (S)	577	2	339600 334070

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
6	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Beech Drive Ellesmere Cso, Rear Of Beech Drive, Ellesmere, Shropshire, Sy12 0bx Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/50085/O Permit Version: 3 Effective Date: 31st March 2018 Issued Date: 4th December 2017 Revocation Date: Not Supplied Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: Newnes Brook **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 10m	A12SE (W)	624	2	339139 334522
6	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Beech Drive Ellesmere Cso, Rear Of Beech Drive, Ellesmere, Shropshire, Sy12 0bx Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/50085/O Permit Version: 2 Effective Date: 4th December 2017 Issued Date: 4th December 2017 Revocation Date: 30th March 2018 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: Newnes Brook **Status: Varied under EPR 2010** Positional Accuracy: Located by supplier to within 10m	A12SE (W)	624	2	339139 334522
6	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Beech Drive Ellesmere Cso, Rear Of Beech Drive, Ellesmere, Shropshire, Sy12 0bx Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/50085/O Permit Version: 1 Effective Date: 10th April 1995 Issued Date: 10th April 1995 Revocation Date: 3rd December 2017 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: Newnes Brook **Status: Post National Rivers Authority Legislation where issue date > 31/08/1989** Positional Accuracy: Located by supplier to within 10m	A12SE (W)	638	2	339130 334500
6	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: Sewerage Network - Sewers - Water Company Location: Beech Drive Ellesmere Storm Of, Rear Of Beech Drive, Ellesmere Authority: Environment Agency, Midlands Region Catchment Area: Uncategorised Up Severn Reference: S350085o Permit Version: 1 Effective Date: 10th April 1995 Issued Date: Not Supplied Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Newnes Brook **Status: Post National Rivers Authority Legislation where issue date > 31/08/1989** Positional Accuracy: Located by supplier to within 100m	A12SE (W)	638	2	339130 334500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	**Discharge Consents** Operator: R K Mainwaring Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Otley House, Ellesmere, Shropshire Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: S/03/04466/S Permit Version: 1 Effective Date: 27th August 1959 Issued Date: 27th August 1959 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Tetchill Brook Trib **Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989** Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	993	2	339000 334008
7	**Discharge Consents** Operator: J E Richardson & Sons Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Newnes Farm, Ellesmere, Shropshire Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: Ds/5419 Permit Version: 1 Effective Date: 31st May 1963 Issued Date: 31st May 1963 Revocation Date: 9th February 2001 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Not Defined **Status: Application refused - 1961 Rivers (Prevention of Pollution) Act** Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	994	2	339000 334006
7	**Discharge Consents** Operator: Severn Trent Water Limited Property Type: Undefined Or Other Location: Cambria Avenue, Ellesmere, Shropshire Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: Ds/5494 Permit Version: 1 Effective Date: 31st May 1963 Issued Date: 31st May 1963 Revocation Date: 23rd January 2001 Discharge Type: Public Sewage: Storm Sewage Overflow Discharge Environment: Freshwater Stream/River Receiving Water: Not Defined **Status: Application refused - 1961 Rivers (Prevention of Pollution) Act** Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	994	2	339000 334007
7	**Discharge Consents** Operator: Mr M Edwards Property Type: DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) Location: 1 & 2 Kenwick Cottages, Ellesmere, Shropshire Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: Ds/5428 Permit Version: 1 Effective Date: 31st May 1963 Issued Date: 31st May 1963 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Not Defined **Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989** Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	995	2	339000 334005

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	**Discharge Consents** Operator: W & J W Jones Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Lyneal Hall Farm, Ellesmere, Shropshire Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: Ds/3980 Permit Version: 1 Effective Date: 29th May 1963 Issued Date: 29th May 1963 Revocation Date: Not Supplied Discharge Type: Trade Discharge - Process Water Discharge Environment: Freshwater Stream/River Receiving Water: River Roden (Trib) **Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989** Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	996	2	339000 334003
7	**Discharge Consents** Operator: E J Clay Property Type: Undefined Or Other Location: New Crickett, Ellesmere, Shropshire Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: Ds/5456 Permit Version: 1 Effective Date: 24th May 1963 Issued Date: 24th May 1963 Revocation Date: 15th December 2000 Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Newnes Brook **Status: Application refused - 1961 Rivers (Prevention of Pollution) Act** Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	996	2	339000 334004
7	**Discharge Consents** Operator: H W Benson Property Type: Undefined Or Other Location: Bagley Hall, Ellesmere, Shropshire Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: Ds/2903 Permit Version: 1 Effective Date: 28th May 1963 Issued Date: 28th May 1963 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Canal Receiving Water: Shropshire Union Canal **Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989** Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	997	2	339000 334002
7	**Discharge Consents** Operator: R C D Owen Property Type: Undefined Or Other Location: Plas Yn Grove, Ellesmere, Shropshire Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: Ds/2866 Permit Version: 1 Effective Date: 27th May 1963 Issued Date: 27th May 1963 Revocation Date: 10th January 2001 Discharge Type: Trade Discharge - Process Water Discharge Environment: Freshwater Stream/River Receiving Water: Not Defined **Status: Application refused - 1961 Rivers (Prevention of Pollution) Act** Positional Accuracy: Located by supplier to within 10m	A7NW (SW)	998	2	339000 334001

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	**Discharge Consents** Operator: Mr K Davis Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: The Buildings Farm, Ellesmere, Shropshire Authority: Environment Agency, Midlands Region Catchment Area: Perry Catchment Reference: Ds/2568 Permit Version: 1 Effective Date: 20th May 1963 Issued Date: 20th May 1963 Revocation Date: Not Supplied Discharge Type: Trade Discharge - Process Water Discharge Environment: Freshwater Stream/River Receiving Water: Receiving Water Not Defined **Status: Pre National Rivers Authority Legislation where issue date < 01/09/1989** Positional Accuracy: Approximate location provided by supplier	A7NW (SW)	998	2	339000 334000
8	**Local Authority Pollution Prevention and Controls** Name: Partek Cargotec Limited Location: Cargotec Industrial Park, ELLESMERE, Shropshire, SY12 9JW Authority: Shropshire Council, Environmental Health Department Permit Reference: 96/00001/EPAPPS Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG6/34 Respraying of road vehicles **Status: Not Supplied** Positional Accuracy: Manually positioned to the road within the address or location	A18SW (N)	428	3	339726 335132
9	**Local Authority Pollution Prevention and Controls** Name: Mere Motors Ltd Location: Church Street, ELLESMERE, Shropshire, SY12 0HF Authority: Shropshire Council, Environmental Health Department Permit Reference: B120 Dated: 21st December 1998 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station **Status: Permitted** Positional Accuracy: Manually positioned to the address or location	A14NW (NE)	437	3	340188 334876
10	**Local Authority Pollution Prevention and Controls** Name: Fabdec Limited Location: Grange Road, ELLESMERE, Shropshire, SY12 9DG Authority: Shropshire Council, Environmental Health Department Permit Reference: PPA/94/0001 Dated: 7th January 1992 Process Type: Local Authority Air Pollution Control Description: PG6/29 Di-isocyanate processes **Status: Not Supplied** Positional Accuracy: Automatically positioned to the address	A18SE (N)	449	3	339806 335153
11	**Local Authority Pollution Prevention and Controls** Name: Fabdec Ltd Location: Grange Road, ELLESMERE, Shropshire, SY12 9DG Authority: Shropshire Council, Environmental Health Department Permit Reference: B103 Dated: 15th September 1994 Process Type: Local Authority Pollution Prevention and Control Description: PG6/29 Di-isocyanate processes **Status: Permitted** Positional Accuracy: Manually positioned to the address or location	A18SW (N)	529	3	339731 335234
	Nearest Surface Water Feature	A13SE (SE)	92	-	339870 334577
12	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Pumping Station Location: Location Description Not Available Authority: Environment Agency, Midlands Region Pollutant: Crude Sewage Note: Other Adverse Effects Incident Date: 13th August 1997 Incident Reference: 2502397 Catchment Area: Severn Catchment : Perry Receiving Water: Watercourse Cause of Incident: Mechanical Failure Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NE (E)	100	2	339900 334700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
13	**Pollution Incidents to Controlled Waters** Property Type: Miscellaneous Premises: Other Location: Location Description Not Available Authority: Environment Agency, Midlands Region Pollutant: Miscellaneous - Natural Note: Fish Effected; Amenity Effected Incident Date: 19th August 1997 Incident Reference: 2502297 Catchment Area: Severn Catchment : Perry Receiving Water: Canal Cause of Incident: Algal Bloom Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (SE)	113	2	339890 334570
14	**Pollution Incidents to Controlled Waters** Property Type: Ships/Boats Location: Location Description Not Available Authority: Environment Agency, Midlands Region Pollutant: Oils - Diesel (Including Agricultural) Note: Amenity Effected Incident Date: 12th January 1998 Incident Reference: 2502678 Catchment Area: Severn Catchment : Perry Receiving Water: Canal Cause of Incident: Other Incident/Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SE (S)	117	2	339800 334500
15	**Pollution Incidents to Controlled Waters** Property Type: Miscellaneous Premises: Other Location: Location Description Not Available Authority: Environment Agency, Midlands Region Pollutant: Oils - Waste Oil Note: Other Adverse Effects Incident Date: 9th September 1997 Incident Reference: 2501904 Catchment Area: Severn Catchment : Perry Receiving Water: Not Given Cause of Incident: Deliberate Disposal To Drain Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13NE (NE)	367	2	340020 334970
16	**Pollution Incidents to Controlled Waters** Property Type: Power Generation/Distribution Location: Birch Road, ELLESMERE Authority: Environment Agency, Midlands Region Pollutant: Oils - Other Oil Note: Hydraulic Oil Spill From Truck Incident Date: 8th February 1999 Incident Reference: 2504951 Catchment Area: Severn Catchment : Perry Receiving Water: Not Given Cause of Incident: Accidental Spillage/Leakage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m	A14SW (E)	417	2	340200 334500
17	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Surface Water Outfall Location: Location Details Not Specified Authority: Environment Agency, Midlands Region Pollutant: Storm Sewage Note: Amenity Affected Incident Date: 28th November 1996 Incident Reference: 2501269 Catchment Area: Severn Catchment : Perry Receiving Water: Watercourse Cause of Incident: Wrong Connection Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12SW (W)	667	2	339100 334500
18	**Pollution Incidents to Controlled Waters** Property Type: Miscellaneous Premises: Unknown Location: Near Football Field, ELLESMERE Authority: Environment Agency, Midlands Region Pollutant: Miscellaneous - Unknown Note: Amenity Affected; Creamy Thick Liquid Discharging To Brook Incident Date: 30th September 1998 Incident Reference: 2503524 Catchment Area: Severn Catchment : Perry Receiving Water: Watercourse Cause of Incident: Other Incident/Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NW (SW)	741	2	339100 334300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
18	**Pollution Incidents to Controlled Waters** Property Type: Construction Location: ELLESMERE Authority: Environment Agency, Midlands Region Pollutant: Miscellaneous - Inert Suspended Solids Note: Amenity Affected; Muck And Rubbish In Water Incident Date: 24th November 1998 Incident Reference: 2504299 Catchment Area: Severn Catchment : Upper Mid Severn (Montford - Bewdley) Receiving Water: Watercourse Cause of Incident: Vandalism Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NW (SW)	744	2	339100 334295
19	**Pollution Incidents to Controlled Waters** Property Type: Road (Road Traffic Accident) Location: Location Details Not Specified Authority: Environment Agency, Midlands Region Pollutant: Oils - Diesel (Including Agricultural) Note: Wildlife Affected; Amenity Affected Incident Date: 18th March 1997 Incident Reference: 2501628 Catchment Area: Severn Catchment : Perry Receiving Water: Pond/Lake Cause of Incident: Accidental Spillage/Leakage Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A14NE (E)	790	2	340600 334700
20	**Pollution Incidents to Controlled Waters** Property Type: Construction Location: ELLESMERE Authority: Environment Agency, Midlands Region Pollutant: Miscellaneous - Other Note: Amenity Affected; Brook Running Dark Brown Incident Date: 13th November 1998 Incident Reference: 2504286 Catchment Area: Severn Catchment : Perry Receiving Water: Watercourse Cause of Incident: Land Runoff Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NW (SW)	830	2	339000 334300
21	**Pollution Incidents to Controlled Waters** Property Type: Private Sewage (Non-PLC): Septic Tank Location: ELLESMERE Authority: Environment Agency, Midlands Region Pollutant: Sewage Sludge Note: Amenity Affected; Sewage Fungus In Brook Incident Date: 20th November 1998 Incident Reference: 2504275 Catchment Area: Severn Catchment : Perry Receiving Water: Watercourse Cause of Incident: Poor Operational Practice Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NW (SW)	878	2	339000 334200
21	**Pollution Incidents to Controlled Waters** Property Type: Water Company Sewage: Combined Sewer Overflow Location: Location Description Not Available Authority: Environment Agency, Midlands Region Pollutant: Storm Sewage Note: Amenity Affected Incident Date: 20th July 1998 Incident Reference: 2503866 Catchment Area: Severn Catchment : Perry Receiving Water: Watercourse Cause of Incident: Weather Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NW (SW)	881	2	339000 334195
22	**Pollution Incidents to Controlled Waters** Property Type: Not Given Location: The Lake Authority: Environment Agency, Welsh Region Pollutant: Unknown Note: Not Supplied Incident Date: 10th March 1996 Incident Reference: 27915 Catchment Area: Not Given Receiving Water: Not Given Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SE (NE)	940	2	340500 335300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	River Quality Name: Tetchill Bk GQA Grade: River Quality C Reach: The Mere Outfall To Conf. Newnwes Bk Estimated Distance (km): 2 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A13SE (SE)	111	2	339880 334552
	River Quality Name: Shrop. Union (Llangollen) GQA Grade: River Quality A Reach: Ellesmere Basin To A495 Maes-Termyn Estimated Distance (km): 7 Flow Rate: Flow greater than 80 cumecs Flow Type: Canal Year: 2000	A8NE (SE)	444	2	340097 334297
	River Quality Name: Shrop. Union (Llangollen) GQA Grade: River Quality B Reach: Platt Lane Br To Ellesmere Basin Estimated Distance (km): 13.5 Flow Rate: Flow greater than 80 cumecs Flow Type: Canal Year: 2000	A8NE (SE)	445	2	340100 334300
23	**Substantiated Pollution Incident Register** Authority: Environment Agency - Midlands Region, West Area Incident Date: 6th March 2014 Incident Reference: 1214824 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Oils And Fuel: Gas And Fuel Oils	A18SE (N)	435	2	339797 335140
24	**Substantiated Pollution Incident Register** Authority: Environment Agency - Midlands Region, West Area Incident Date: 28th November 2001 Incident Reference: 45367 Water Impact: Category 2 - Significant Incident Air Impact: Category 4 - No Impact Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Agricultural Materials And Wastes: Other Agricultural Material Or Waste	A7NW (SW)	799	2	339040 334290
25	**Water Abstractions** Operator: British Waterways Board Licence Number: 18/54/03/0122 Permit Version: 100 Location: Shropshire Union Canal Authority: Environment Agency, Midlands Region Abstraction: Dairies: General Washing/Process Washing Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Shropshire Union Canal Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 24th January 1967 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A13SE (SE)	185	2	339900 334470

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
25	**Water Abstractions** Operator: British Waterways Board Licence Number: 18/54/03/0122 Permit Version: 100 Location: Shropshire Union Canal Authority: Environment Agency, Midlands Region Abstraction: Other Industrial/Commercial/Public Services: Evaporative Cooling Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Shropshire Union Canal Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 24th January 1967 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A13SE (SE)	185	2	339900 334470
26	**Water Abstractions** Operator: Canal And River Trust Licence Number: Md/054/0003/009 Permit Version: 1 Location: Point A - Llangollen Dry Dock, Ellesmere, Shropshire Authority: Environment Agency, Midlands Region Abstraction: Navigation: Supply to a Canal for Throughflow Abstraction Type: Water may be abstracted from a single point Source: Surface Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Not Supplied Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 25th March 2021 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A8NE (SE)	474	2	340067 334234
	Water Abstractions Operator: The School Council Of Ellesmere Licence Number: 18/54/03/0157 Permit Version: 100 Location: Ellesmere College - 2 Boreholes Authority: Environment Agency, Midlands Region Abstraction: Schools And Colleges: Drinking; Cooking; Sanitary; Washing; (Small Garden) Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Ellesmere College & 7 Houses - 2 B'Holes Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 3rd July 1972 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A3SW (S)	1528	2	339600 333100
	Water Abstractions Operator: Mr Jebb Licence Number: 18/54/03/0147 Permit Version: 101 Location: Thelyth Authority: Environment Agency, Midlands Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Thelyth Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 29th September 1985 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A5NW (SE)	1660	2	341100 333600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Mr P Edwards Licence Number: 18/54/03/0147 Permit Version: 100 Location: Thelyth Authority: Environment Agency, Midlands Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Thelyth Authorised Start: 01 April Authorised End: 31 March Permit Start Date: 2nd August 1968 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A5NW (SE)	1660	2	341100 333600
	Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: High Bedrock Flow: Intergranular Dilution: 300-550 mm/year Baseflow Index: >70% Superficial Patchiness: >90% Superficial Thickness: >10m Superficial Recharge: Low	A13NW (SW)	0	4	339777 334662
	Groundwater Vulnerability - Soluble Rock Risk None				
	Bedrock Aquifer Designations Aquifer Designation: Principal Aquifer	A13NW (SW)	0	4	339777 334662
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A13NW (SW)	0	4	339777 334662
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NW (SW)	0	2	339777 334662
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	99	2	339836 334530
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NW (SW)	0	2	339777 334662
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SE (SE)	101	2	339840 334530
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13NW (NW)	160	2	339630 334804
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
27	**OS Water Network Lines** Watercourse Form: Canal Watercourse Length: 345.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13SE (SE)	97	5	339878 334582
28	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 450.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A13SE (SE)	333	5	339964 334335
29	**OS Water Network Lines** Watercourse Form: Canal Watercourse Length: 892.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Llangollen Canal Catchment Name: Dee Primacy: 1	A8NE (SE)	428	5	340076 334300
30	**OS Water Network Lines** Watercourse Form: Canal Watercourse Length: 218.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Llangollen Canal Catchment Name: Dee Primacy: 1	A8NE (SE)	428	5	340076 334300
31	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 151.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A8NW (S)	575	5	339605 334071
32	**OS Water Network Lines** Watercourse Form: Lake Watercourse Length: 17.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 2	A9NW (SE)	615	5	340288 334260
33	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 691.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Newnes Brook Catchment Name: Severn Primacy: 1	A12SE (W)	619	5	339134 334581
34	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 12.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 2	A9NW (SE)	620	5	340282 334243
35	**OS Water Network Lines** Watercourse Form: Canal Watercourse Length: 925.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Llangollen Canal Catchment Name: Dee Primacy: 1	A9NW (SE)	626	5	340279 334231

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
36	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 158.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A8NW (SW)	635	5	339453 334076
37	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 18.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A7SE (SW)	786	5	339419 333921
38	**OS Water Network Lines** Watercourse Form: Canal Watercourse Length: 6.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A7SE (SW)	804	5	339415 333904
39	**OS Water Network Lines** Watercourse Form: Canal Watercourse Length: 4067.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Llangollen Canal Catchment Name: Dee Primacy: 1	A7SE (SW)	811	5	339411 333898
40	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 145.7 Watercourse Level: Underground Permanent: True Watercourse Name: Newnes Brook Catchment Name: Severn Primacy: 1	A7NW (SW)	816	5	339022 334288
41	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 136.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A12NW (W)	862	5	338901 334830
42	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 266.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Newnes Brook Catchment Name: Severn Primacy: 1	A7NW (SW)	921	5	338984 334148
43	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Severn Primacy: 1	A12NW (W)	933	5	338816 334725
44	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1727.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Newnes Brook Catchment Name: Severn Primacy: 1	A12NW (W)	934	5	338815 334722

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
45	**Historical Landfill Sites** Licence Holder: Not Supplied Location: Birch Road, Ellesmere, Shropshire Name: Birch Road, Ellesmere Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD30453 First Input Date: Not Supplied Last Input Date: 31st December 1974 Specified Waste Type: Deposited Waste included Household Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 3200/0284 BGS Ref: Not Supplied Other Ref: PL/134	A13SE (E)	277	2	340074 334564
46	**Historical Landfill Sites** Licence Holder: Shropshire County Council Location: Ellesmere, Shropshire Name: The Moors Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD24223 First Input Date: 30th September 1984 Last Input Date: 7th November 1984 Specified Waste Type: Deposited Waste included Inert Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 3200/0030 BGS Ref: Not Supplied Other Ref: A25/30/SL/CC/19	A14SE (E)	786	2	340596 334612
47	**Historical Landfill Sites** Licence Holder: Not Supplied Location: Strawberry Fields, Ellesmere, Shropshire Name: Ellesmere Swanhill Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD24191 First Input Date: Not Supplied Last Input Date: 31st December 1985 Specified Waste Type: Deposited Waste included Household Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: Not Supplied BGS Ref: Not Supplied Other Ref: UL74, LF040, 3200/0407	A19NW (NE)	884	2	340204 335473
	Local Authority Landfill Coverage Name: North Shropshire District Council - Had landfill data but passed it to the relevant environment agency		0	6	339777 334662
	Local Authority Landfill Coverage Name: Shropshire County Council - Has supplied landfill data		0	7	339777 334662
48	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A13NW (NW)	158	-	339640 334807
49	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A13NE (N)	286	-	339825 334986
50	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A13NW (NW)	352	-	339565 334996
51	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1902	A14SW (E)	367	-	340177 334620
52	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1929	A12SE (W)	407	-	339341 334632
53	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A8NW (S)	432	-	339607 334224

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
54	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A12NE (W)	446	-	339308 334743
55	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1902	A18SE (NE)	495	-	340013 335134
56	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1929	A12NE (W)	527	-	339247 334836
57	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A17SE (NW)	545	-	339309 335012
58	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A18SE (N)	573	-	339927 335256
59	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A18SW (NW)	583	-	339450 335197
60	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1890	A18SW (N)	586	-	339745 335291
61	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A7NE (SW)	657	-	339222 334267
62	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A19SW (NE)	682	-	340243 335193
63	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A18NE (N)	770	-	339920 335460
64	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A18NE (N)	832	-	339975 335511
65	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A12SW (W)	849	-	338945 334384
66	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A18NW (N)	878	-	339573 335563
67	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1938	A17SE (NW)	880	-	339142 335330
68	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A18NE (N)	896	-	339907 335591
69	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A18NE (N)	928	-	339906 335624
70	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A18NW (N)	950	-	339498 335618
71	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A19NW (NE)	977	-	340241 335559
72	**Potentially Infilled Land (Water)** Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1954	A18NE (N)	998	-	340037 335666

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
73	**Registered Landfill Sites** Licence Holder: Shropshire C.C. Licence Reference: A25/30/SL/CC/19 Site Location: The Moors, Ellesmere, Shropshire Licence Easting: 340650 Licence Northing: 334550 Operator Location: As Site Address Authority: Environment Agency - Midlands Region, Upper Severn Area Site Category: Landfill Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: Not Supplied Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Soil,Subsoil,Inert Excav.Materials	A14SE (E)	845	2	340650 334550

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
74	**Planning Hazardous Substance Consents** Name: Fabdec Ltd Location: Grange Road, Ellesmere, Sy12 9ds Authority: Shropshire Council, Planning Department Application Ref: NS/92/00186/HAZ Hazardous Substance: Unknown at time of report Maximum Quantity: 0 Application date: 16th November 1992 **Decision: Withdrawn** Positional Accuracy: Manually positioned to the address or location	A18SE (N)	449	8	339806 335153

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Triassic Rocks (Undifferentiated)	A13NW (SW)	0	1	339777 334662
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NW (SW)	0	1	339777 334662
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: <15 mg/kg	A13NE (NE)	64	1	339815 334750
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (SE)	174	1	339964 334568
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (E)	189	1	340000 334662
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (E)	194	1	340000 334607
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: <15 mg/kg	A13SE (E)	250	1	340061 334641

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (SE)	266	1	340000 334458
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 200 - 300 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SW (SW)	295	1	339500 334500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: <15 mg/kg	A12SE (W)	514	1	339234 334631
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14SW (SE)	546	1	340297 334403
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: <15 mg/kg	A18SW (N)	549	1	339583 335224
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 200 - 300 mg/kg Nickel Concentration: <15 mg/kg	A12SE (W)	603	1	339167 334500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NW (NE)	616	1	340336 334978
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 200 - 300 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12SE (W)	623	1	339150 334485
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 200 - 300 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12SE (W)	623	1	339150 334485
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12SE (W)	630	1	339135 334513
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: <15 mg/kg	A8SE (SE)	721	1	340111 333972
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12NW (W)	724	1	339023 334665

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14SE (E)	731	1	340533 334534
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12NW (W)	747	1	339000 334662
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: <15 mg/kg	A12NW (W)	750	1	339000 334733
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: <15 mg/kg	A8SE (S)	751	1	339926 333879
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 15 - 30 mg/kg	A12SW (W)	764	1	339000 334500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 200 - 300 mg/kg Nickel Concentration: <15 mg/kg	A12SW (W)	771	1	339032 334373

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: <15 mg/kg	A12SW (W)	800	1	339000 334377
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 15 - 30 mg/kg	A7NW (SW)	834	1	339000 334290
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: <15 mg/kg	A12SW (W)	881	1	338881 334500
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 15 - 30 mg/kg	A7NW (SW)	933	1	339000 334103
75	**BGS Recorded Mineral Sites** Site Name: Castle Field Sand Pit Location: Welshampton, Ellesmere, Shropshire Source: British Geological Survey, National Geoscience Information Service Reference: 53006 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Glaciofluvial Deposits, Devensian Commodity: Sand Positional Accuracy: Located by supplier to within 10m	A14SW (E)	468	1	340248 334484
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain No Hazard				
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (SW)	0	1	339777 334662

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	174	1	339964 334568
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	189	1	340000 334662
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	194	1	340000 334607
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (SW)	0	1	339777 334662
	Potential for Compressible Ground Stability Hazards Hazard Potential: High Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	174	1	339964 334568
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	189	1	340000 334662
	Potential for Compressible Ground Stability Hazards Hazard Potential: High Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	194	1	340000 334607
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (SW)	0	1	339777 334662
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	189	1	340000 334662
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (SW)	0	1	339777 334662
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	189	1	340000 334662
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (SW)	0	1	339777 334662
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	189	1	340000 334662
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NW (SW)	0	1	339777 334662
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	64	1	339815 334750
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	174	1	339964 334568
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	189	1	340000 334662
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	194	1	340000 334607
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13NW (SW)	0	1	339777 334662
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NW (SW)	0	1	339777 334662

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
76	**Contemporary Trade Directory Entries** Name: Scott'S Victoria Garage Location: Scotland Street, Ellesmere, SY12 0DG Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NW (N)	0	-	339767 334698
77	**Contemporary Trade Directory Entries** Name: Lobos Location: Unit 6, Ellesmere Business Park, Oswestry Road, Ellesmere, Shropshire, SY12 0EW Classification: Electrical Engineers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SE (S)	85	-	339819 334538
78	**Contemporary Trade Directory Entries** Name: Brett & Collins Location: Crescent Garage, Scotland Street, Ellesmere, Shropshire, SY12 0DH Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13SW (W)	93	-	339665 334618
79	**Contemporary Trade Directory Entries** Name: Big Pig Orginal Sculpture Location: Old Chapel, Victoria Street, Ellesmere, Shropshire, SY12 0AA Classification: Mirrors & Decorative Glass **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	94	-	339831 334774
79	**Contemporary Trade Directory Entries** Name: The Tornado Stripping Co Location: Old Chapel, Victoria Street, Ellesmere, Shropshire, SY12 0AA Classification: Furniture - Repairing & Restoring **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	94	-	339831 334774
79	**Contemporary Trade Directory Entries** Name: Pets Pantry Location: 24, Scotland Street, Ellesmere, Shropshire, SY12 0EG Classification: Pet Foods & Animal Feeds **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	109	-	339874 334753
79	**Contemporary Trade Directory Entries** Name: Maxwell Printing Service Location: The Cambrian, Trimpley Street, Ellesmere, Shropshire, SY12 0AD Classification: Printers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NE (N)	132	-	339828 334822
80	**Contemporary Trade Directory Entries** Name: Sandycroft Dry Cleaners Location: Flat 2, Bonton, 22, Scotland Street, Ellesmere, Shropshire, SY12 0EG Classification: Dry Cleaners **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	114	-	339879 334756
81	**Contemporary Trade Directory Entries** Name: Nexgen Computers Ltd Location: 5a, Scotland Street, Ellesmere, Shropshire, SY12 0DE Classification: Computer Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	178	-	339958 334757
82	**Contemporary Trade Directory Entries** Name: J T Davies Ltd Location: 18, Market Street, Ellesmere, Shropshire, SY12 0AN Classification: Coal & Smokeless Fuel Merchants & Distributors **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	200	-	339916 334839
82	**Contemporary Trade Directory Entries** Name: North Shropshire Tyre Service Location: Willow Garage, Willow Street, Ellesmere, Shropshire, SY12 0AL Classification: Garage Services **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	238	-	339937 334871

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
83	**Contemporary Trade Directory Entries** Name: Barlows Electrical - Euronics Location: 11-13, Cross Street, Ellesmere, Shropshire, SY12 0AW Classification: Electrical Goods Sales, Manufacturers & Wholesalers **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	254	-	339992 334839
84	**Contemporary Trade Directory Entries** Name: Tornado Stripping Co Location: 20, Brownlow Road, Ellesmere, Shropshire, SY12 0BA Classification: Paint & Varnish Stripping **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (N)	286	-	339872 334972
85	**Contemporary Trade Directory Entries** Name: Manx Raad Tayrn Location: 28, Brownlow Road, Ellesmere, Shropshire, SY12 0BA Classification: Road Haulage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	299	-	339922 334961
86	**Contemporary Trade Directory Entries** Name: T G Builders Merchants Ltd Location: Talbot Street, Ellesmere, Shropshire, SY12 0HQ Classification: Builders' Merchants **Status: Active** Positional Accuracy: Automatically positioned to the address	A13NE (NE)	399	-	340046 334990
87	**Contemporary Trade Directory Entries** Name: Londis Location: Church Street, Ellesmere, Shropshire, SY12 0HF Classification: Petrol Filling Stations **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NW (NE)	438	-	340189 334876
87	**Contemporary Trade Directory Entries** Name: Texaco Location: Church Street, Ellesmere, Shropshire, SY12 0HF Classification: Petrol Filling Stations **Status: Active** Positional Accuracy: Automatically positioned to the address	A14NW (NE)	438	-	340189 334876
87	**Contemporary Trade Directory Entries** Name: Mere Motors Ltd Location: Church Street, Ellesmere, Shropshire, SY12 0HF Classification: Petrol Filling Stations **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NW (NE)	438	-	340189 334876
87	**Contemporary Trade Directory Entries** Name: Printed Images Location: 4, Church Street, Ellesmere, Shropshire, SY12 0HD Classification: Printers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NW (NE)	441	-	340182 334896
87	**Contemporary Trade Directory Entries** Name: Mowrite Location: 3, Church Street, Ellesmere, Shropshire, SY12 0HD Classification: Lawnmowers & Garden Machinery - Sales & Service **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14NW (NE)	467	-	340194 334924
88	**Contemporary Trade Directory Entries** Name: Fabdec Ltd Location: Grange Road, Ellesmere, Shropshire, SY12 9DG Classification: Sheet Metal Work **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SE (N)	449	-	339806 335153
88	**Contemporary Trade Directory Entries** Name: Fabdec Ltd Location: Grange Road, Ellesmere, Shropshire, SY12 9DG Classification: Metal Products - Fabricated **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SE (N)	449	-	339806 335153
89	**Contemporary Trade Directory Entries** Name: Maxwell-Toro Imports Ltd Location: 7, Cygnet Close, Ellesmere, Shropshire, SY12 9QB Classification: Leather Merchants & Wholesalers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SE (N)	510	-	339877 335204

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
90	**Contemporary Trade Directory Entries** Name: Fullwood Ltd Location: Grange Road, Ellesmere, Shropshire, SY12 9DF Classification: Agricultural Machinery - Sales & Service **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A18SW (N)	525	-	339726 335229
91	**Contemporary Trade Directory Entries** Name: Parishes Joint Burial Committee Location: Swan Hill, Ellesmere, Shropshire, SY12 0LZ Classification: Cemeteries & Crematoria **Status: Inactive** Positional Accuracy: Manually positioned to the road within the address or location	A19SW (NE)	654	-	340176 335215
92	**Contemporary Trade Directory Entries** Name: De Raat Security Location: Unit 11-12, Ellesmere Business Park, Oswestry Road, Ellesmere, SY12 0EW Classification: Safes & Vaults - Suppliers & Installers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (SW)	839	-	338979 334324
93	**Contemporary Trade Directory Entries** Name: Tudor Quality Products Location: Unit 3-4, Ellesmere Business Park, Oswestry Road, Ellesmere, Shropshire, SY12 0EW Classification: Engineers - General **Status: Active** Positional Accuracy: Automatically positioned to the address	A7NW (SW)	885	-	338948 334281
93	**Contemporary Trade Directory Entries** Name: Solutex Location: Unit 1, Ellesmere Business Park, Oswestry Road, Ellesmere, Shropshire, SY12 0EW Classification: Waste Processing Machinery **Status: Active** Positional Accuracy: Automatically positioned to the address	A7NW (SW)	910	-	338923 334276
94	**Contemporary Trade Directory Entries** Name: Richard'S Auto Services Location: Ellesmere Business Park, Oswestry Road, Ellesmere, SY12 0EW Classification: Mot Testing Centres **Status: Active** Positional Accuracy: Automatically positioned to the address	A12SW (W)	890	-	338907 334367
94	**Contemporary Trade Directory Entries** Name: Ellesmere Mot & Service Location: Ellesmere Business Park, Oswestry Road, Ellesmere, SY12 0EW Classification: Garage Services **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	890	-	338907 334367
95	**Contemporary Trade Directory Entries** Name: Lakeside Coaches Ltd Location: Ellesmere Business Park, Oswestry Road, Ellesmere, SY12 0EW Classification: Bus & Coach Operators & Stations **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A12SW (W)	951	-	338853 334338
96	**Contemporary Trade Directory Entries** Name: Spunhill Location: Langshaw House, Ellesmere Business Park, Oswestry Road, Ellesmere, SY12 0EW Classification: Agricultural Merchants **Status: Active** Positional Accuracy: Automatically positioned to the address	A7NW (SW)	967	-	338874 334247
97	**Contemporary Trade Directory Entries** Name: Stokes Of Ellesmere Location: Mereside Farm, Mereside, Ellesmere, SY12 0PA Classification: Food Products - Manufacturers **Status: Inactive** Positional Accuracy: Automatically positioned to the address	A14SE (E)	994	-	340763 334365
98	**Fuel Station Entries** Name: Mere Motors Location: Church Street , , Ellesmere, Shropshire, SY12 0HF Brand: Texaco Premises Type: Petrol Station **Status: Open** Positional Accuracy: Automatically positioned to the address	A14NW (NE)	438	-	340189 334876

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
99	**Points of Interest - Commercial Services** Name: Scott's Victoria Location: Scotts Victoria Garage, Scotland Street, Ellesmere, SY12 0DG Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (N)	0	9	339767 334698
99	**Points of Interest - Commercial Services** Name: Scott's Victoria Garage Location: Scotland Street, Ellesmere, SY12 0DG Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NW (N)	0	9	339767 334698
100	**Points of Interest - Commercial Services** Name: North Shropshire Tyre Service Location: Willow Garage, Willow Street, Ellesmere, SY12 0AL Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A13NE (NE)	238	9	339937 334871
101	**Points of Interest - Commercial Services** Name: Ken Dyke & Son Ltd Location: 1 Oak Drive, Ellesmere, SY12 0BL Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location	A12NE (W)	393	9	339364 334750
102	**Points of Interest - Commercial Services** Name: Car Wash Location: Church Street, Ellesmere, SY12 0HF Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A14NW (NE)	437	9	340188 334876
102	**Points of Interest - Commercial Services** Name: Mere Motors Location: Church Street, Ellesmere, SY12 0HF Category: Personal, Consumer and other Services Class Code: Vehicle Cleaning Services Positional Accuracy: Positioned to address or location	A14NW (NE)	438	9	340189 334876
103	**Points of Interest - Commercial Services** Name: Richard's Auto Services Location: Unit 14 Ellesmere Business Park, Oswestry Road, Ellesmere, SY12 0EW Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	890	9	338907 334367
104	**Points of Interest - Commercial Services** Name: Ellesmere Garage M O T & Servicing Location: Ellesmere Business Park, Oswestry Road, Ellesmere, SY12 0EW Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	893	9	338906 334361
104	**Points of Interest - Commercial Services** Name: Ellesmere MOT & Service Location: Ellesmere Business Park, Oswestry Road, Ellesmere, SY12 0EW Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location	A12SW (W)	893	9	338906 334361
104	**Points of Interest - Commercial Services** Name: Solutex Chemicals Location: Unit 1 Ellesmere Business Park, Oswestry Road, Ellesmere, SY12 0EW Category: Recycling Services Class Code: Recycling, Reclamation and Disposal Positional Accuracy: Positioned to address or location	A7NW (SW)	910	9	338923 334276
105	**Points of Interest - Manufacturing and Production** Name: Factory Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SW (S)	157	9	339759 334462
106	**Points of Interest - Manufacturing and Production** Name: Works Location: SY12 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13NE (NE)	170	9	339895 334816

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
107	**Points of Interest - Manufacturing and Production** Name: Tank Location: SY12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A13SE (SE)	271	9	339942 334394
108	**Points of Interest - Manufacturing and Production** Name: Works Location: SY12 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	426	9	339709 335128
108	**Points of Interest - Manufacturing and Production** Name: Works Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	430	9	339719 335133
108	**Points of Interest - Manufacturing and Production** Name: Tank Location: SY12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	440	9	339728 335144
108	**Points of Interest - Manufacturing and Production** Name: Tank Location: SY12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to address or location	A18SW (N)	493	9	339664 335188
108	**Points of Interest - Manufacturing and Production** Name: Tanks Location: SY12 Category: Industrial Features Class Code: Tanks (Generic) Positional Accuracy: Positioned to an adjacent address or location	A18SW (N)	493	9	339664 335188
109	**Points of Interest - Manufacturing and Production** Name: Works Location: SY12 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A8NW (S)	428	9	339763 334189
110	**Points of Interest - Manufacturing and Production** Name: Ellesmere Business Park Location: SY12 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location	A12SW (W)	938	9	338867 334336
111	**Points of Interest - Public Infrastructure** Name: Sewage Pumping Station Location: SY12 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A13SE (E)	110	9	339921 334643
112	**Points of Interest - Public Infrastructure** Name: Sewage Works (Disused) Location: SY12 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A13SE (S)	293	9	339861 334333
112	**Points of Interest - Public Infrastructure** Name: Sewage Pumping Station Location: SY12 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A8NE (S)	335	9	339833 334284
113	**Points of Interest - Public Infrastructure** Name: Sewage Works Location: SY12 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A8NW (S)	409	9	339774 334207

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
113	**Points of Interest - Public Infrastructure** Name: Sewage Works Location: SY12 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A8NW (S)	445	9	339733 334175
114	**Points of Interest - Public Infrastructure** Name: Lakeside Coaches Ltd Location: Talbot Street, Ellesmere, SY12 0HQ Category: Public Transport, Stations and Infrastructure Class Code: Bus and Coach Stations, Depots and Companies Positional Accuracy: Positioned to address or location	A14NW (NE)	411	9	340129 334920
114	**Points of Interest - Public Infrastructure** Name: Texaco Location: Church Street, Ellesmere, SY12 0HF Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A14NW (NE)	437	9	340188 334876
114	**Points of Interest - Public Infrastructure** Name: Mere Motors Location: Church Street, Ellesmere, SY12 0HF Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A14NW (NE)	437	9	340188 334876
114	**Points of Interest - Public Infrastructure** Name: Mere Motors Ltd Location: Church Street, Ellesmere, SY12 0HF Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A14NW (NE)	438	9	340189 334876
114	**Points of Interest - Public Infrastructure** Name: Mere Motors Location: Church Street, Ellesmere, SY12 0HF Category: Road And Rail Class Code: Petrol and Fuel Stations Positional Accuracy: Positioned to address or location	A14NW (NE)	438	9	340189 334876
115	**Points of Interest - Public Infrastructure** Name: Ellesmere Fire Station Location: Fire Station, Grange Road, Ellesmere, SY12 0AU Category: Central and Local Government Class Code: Fire Brigade Stations Positional Accuracy: Positioned to address or location	A18SE (N)	434	9	339930 335108
115	**Points of Interest - Public Infrastructure** Name: Ellesmere Police Station - No Public Service Counter Location: Police Station, Grange Road, Ellesmere, SY12 0AU Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A18SE (N)	455	9	339920 335134
116	**Points of Interest - Public Infrastructure** Name: Sewage Works Location: SY12 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location	A8NW (S)	464	9	339631 334179
117	**Points of Interest - Public Infrastructure** Name: Cemetery Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	705	9	340254 335215
117	**Points of Interest - Public Infrastructure** Name: Cemetery Location: SY12 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	705	9	340254 335215
118	**Points of Interest - Public Infrastructure** Name: Solutex Chemicals Location: Unit 1 Ellesmere Business Park, Oswestry Road, Ellesmere, SY12 0EW Category: Infrastructure and Facilities Class Code: Recycling Centres Positional Accuracy: Positioned to address or location	A7NW (SW)	910	9	338923 334276

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
118	**Points of Interest - Public Infrastructure** Name: Lakeside Coaches Ltd Location: Ellesmere Business Park, Oswestry Road, Ellesmere, SY12 0EW Category: Public Transport, Stations and Infrastructure Class Code: Bus and Coach Stations, Depots and Companies Positional Accuracy: Positioned to address or location	A12SW (W)	951	9	338853 334337
119	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	327	9	339543 334399
119	**Points of Interest - Recreational and Environmental** Name: Playground Location: Nr Diamond Way, SY12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A13SW (SW)	328	9	339543 334397
120	**Points of Interest - Recreational and Environmental** Name: Play Area Location: SY12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18SE (N)	361	9	339851 335057
121	**Points of Interest - Recreational and Environmental** Name: Play Area Location: SY12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A18SE (N)	549	9	339883 335242
122	**Points of Interest - Recreational and Environmental** Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A19SW (NE)	603	9	340243 335082
122	**Points of Interest - Recreational and Environmental** Name: Playground Location: Nr Talbot Gardens, SY12 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A19SW (NE)	606	9	340243 335086
123	**Points of Interest - Recreational and Environmental** Name: Picnic Area Location: SY12 Category: Recreational Class Code: Picnic Areas Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	813	9	340599 334452
123	**Points of Interest - Recreational and Environmental** Name: Picnic Area Location: Sandy Lane, SY12 Category: Recreational Class Code: Picnic Areas Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	837	9	340625 334455

Sensitive Land Use

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
124	**Local Nature Reserves** Name: Ellesmere Multiple Area: N Area (m2): 5735.92 Source: Natural England Designation Date: Not Supplied	A13SE (E)	185	10	339989 334602
125	**Nitrate Vulnerable Zones** Name: Tetchill Bk - Source To Conf R Perry Nvz Description: Surface Water Source: Environment Agency, Head Office	A13NW (SW)	0	4	339777 334662
126	**Nitrate Vulnerable Zones** Name: Ellesmere Eutrophic Lake Nvz Description: Eutrophic Water Source: Environment Agency, Head Office	A14NW (E)	415	4	340225 334675

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
Oswestry Borough Council (now part of Shropshire Council) - Environmental Health Department	December 2008	
Environment Agency - Head Office	June 2020	Annually
North Shropshire District Council (now part of Shropshire Council) - Environmental Health Department	October 2008	
Shropshire Council - Environmental Health Department	October 2017	Annually
Wrexham County Borough Council - Public Protection Department	October 2017	Annually
Discharge Consents		
Environment Agency - Welsh Region	August 2014	Quarterly
Environment Agency - Midlands Region	January 2023	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - Midlands Region	March 2013	
Environment Agency - Welsh Region	March 2013	
Integrated Pollution Controls		
Environment Agency - Midlands Region	January 2009	
Environment Agency - Welsh Region	January 2009	
Integrated Pollution Prevention And Control		
Environment Agency - Welsh Region	January 2021	Quarterly
Environment Agency - Midlands Region	January 2023	Quarterly
Local Authority Integrated Pollution Prevention And Control		
Wrexham County Borough Council - Environmental Health Department	April 2014	Variable
North Shropshire District Council (now part of Shropshire Council) - Environmental Health Department	June 2008	Not Applicable
Shropshire Council - Environmental Health Department	October 2014	Variable
Oswestry Borough Council (now part of Shropshire Council) - Environmental Health Department	September 2008	Not Applicable
Local Authority Pollution Prevention and Controls		
Wrexham County Borough Council - Environmental Health Department	April 2014	Annual Rolling Update
North Shropshire District Council (now part of Shropshire Council) - Environmental Health Department	June 2008	Not Applicable
Shropshire Council - Environmental Health Department	October 2014	Annually
Oswestry Borough Council (now part of Shropshire Council) - Environmental Health Department	September 2008	Not Applicable
Local Authority Pollution Prevention and Control Enforcements		
Wrexham County Borough Council - Environmental Health Department	April 2014	Variable
North Shropshire District Council (now part of Shropshire Council) - Environmental Health Department	June 2008	Not Applicable
Shropshire Council - Environmental Health Department	October 2014	Variable
Oswestry Borough Council (now part of Shropshire Council) - Environmental Health Department	September 2008	Not Applicable
Nearest Surface Water Feature		
Ordnance Survey	December 2022	
Pollution Incidents to Controlled Waters		
Environment Agency - Welsh Region	December 1998	
Environment Agency - Midlands Region	December 1999	
Prosecutions Relating to Authorised Processes		
Environment Agency - Midlands Region	July 2015	
Environment Agency - Welsh Region	July 2015	
Prosecutions Relating to Controlled Waters		
Environment Agency - Midlands Region	March 2013	
Environment Agency - Welsh Region	March 2013	
Registered Radioactive Substances		
Environment Agency - Midlands Region	June 2016	As notified
Environment Agency - Welsh Region	June 2016	As notified

Agency & Hydrological	Version	Update Cycle
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points		
Environment Agency - Head Office	April 2012	
River Quality Chemistry Sampling Points		
Environment Agency - Head Office	April 2012	
Substantiated Pollution Incident Register		
Environment Agency Wales - North Area	January 2021	Quarterly
Environment Agency - Midlands Region - Upper Severn Area	January 2023	Quarterly
Environment Agency - Midlands Region - West Area	January 2023	Quarterly
Water Abstractions		
Environment Agency - Midlands Region	January 2023	Quarterly
Environment Agency - Welsh Region	January 2023	Quarterly
Water Industry Act Referrals		
Environment Agency - Midlands Region	October 2017	
Environment Agency - Welsh Region	October 2017	
Groundwater Vulnerability Map		
Environment Agency - Head Office	June 2018	As notified
Bedrock Aquifer Designations		
Environment Agency - Head Office	January 2018	Annually
Superficial Aquifer Designations		
Environment Agency - Head Office	January 2018	Annually
Source Protection Zones		
Environment Agency - Head Office	September 2022	Bi-Annually
Extreme Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	February 2023	Quarterly
Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	February 2023	Quarterly
Areas Benefiting from Flood Defences		
Environment Agency - Head Office	February 2023	Quarterly
Flood Water Storage Areas		
Environment Agency - Head Office	February 2023	Quarterly
Flood Defences		
Environment Agency - Head Office	August 2022	Quarterly
OS Water Network Lines		
Ordnance Survey	January 2023	Quarterly
Surface Water 1 in 30 year Flood Extent		
Environment Agency - Head Office	May 2018	Annually
Surface Water 1 in 100 year Flood Extent		
Environment Agency - Head Office	May 2018	Annually
Surface Water 1 in 1000 year Flood Extent		
Environment Agency - Head Office	May 2018	Annually
Surface Water Suitability		
Environment Agency - Head Office	February 2016	Annually
BGS Groundwater Flooding Susceptibility		
British Geological Survey - National Geoscience Information Service	May 2013	As notified

Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	November 2002	As notified
Historical Landfill Sites		
Environment Agency - Head Office	November 2022	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - Midlands Region	January 2009	Not Applicable
Environment Agency - Welsh Region	January 2009	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency - Midlands Region - Upper Severn Area	January 2023	Quarterly
Environment Agency - Midlands Region - West Area	January 2023	Quarterly
Environment Agency Wales - North Area	January 2023	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency - Midlands Region - Upper Severn Area	January 2023	Quarterly
Environment Agency - Midlands Region - West Area	January 2023	Quarterly
Environment Agency Wales - North Area	July 2021	Quarterly
Local Authority Landfill Coverage		
North Shropshire District Council (now part of Shropshire Council)	February 2003	Not Applicable
Oswestry Borough Council (now part of Shropshire Council) - Environmental Health Department	February 2003	Not Applicable
Shropshire County Council (now part of Shropshire Council) - Shropshire Records And Research Centre	February 2003	Not Applicable
Wrexham County Borough Council	February 2003	Not Applicable
Local Authority Recorded Landfill Sites		
North Shropshire District Council (now part of Shropshire Council)	October 2018	
Oswestry Borough Council (now part of Shropshire Council) - Environmental Health Department	October 2018	
Shropshire County Council (now part of Shropshire Council) - Shropshire Records And Research Centre	October 2018	
Wrexham County Borough Council	October 2018	
Potentially Infilled Land (Non-Water)		
Landmark Information Group Limited	December 1999	
Potentially Infilled Land (Water)		
Landmark Information Group Limited	December 1999	
Registered Landfill Sites		
Environment Agency - Midlands Region - Upper Severn Area	March 2006	Not Applicable
Environment Agency - Midlands Region - West Area	March 2006	Not Applicable
Environment Agency Wales - North Area	March 2006	Not Applicable
Registered Waste Transfer Sites		
Environment Agency - Midlands Region - Upper Severn Area	April 2018	
Environment Agency - Midlands Region - West Area	April 2018	
Environment Agency Wales - North Area	April 2018	
Registered Waste Treatment or Disposal Sites		
Environment Agency - Midlands Region - Upper Severn Area	June 2015	
Environment Agency - Midlands Region - West Area	June 2015	
Environment Agency Wales - North Area	June 2015	

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	January 2022	Bi-Annually
Explosive Sites		
Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	August 2001	
Planning Hazardous Substance Enforcements		
North Shropshire District Council (now part of Shropshire Council)	February 2009	Not Applicable
Shropshire Council - Planning Department	February 2016	Variable
Wrexham County Borough Council - Planning Department	February 2016	Variable
Shropshire County Council (now part of Shropshire Council)	March 2009	Annual Rolling Update
Oswestry Borough Council (now part of Shropshire Council)	October 2008	Not Applicable
Planning Hazardous Substance Consents		
North Shropshire District Council (now part of Shropshire Council)	February 2009	Not Applicable
Shropshire Council - Planning Department	February 2016	Variable
Wrexham County Borough Council - Planning Department	February 2016	Variable
Shropshire County Council (now part of Shropshire Council)	March 2009	Annual Rolling Update
Oswestry Borough Council (now part of Shropshire Council)	October 2008	Not Applicable

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology		
British Geological Survey - National Geoscience Information Service	January 2009	As notified
BGS Estimated Soil Chemistry		
British Geological Survey - National Geoscience Information Service	December 2015	As notified
BGS Recorded Mineral Sites		
British Geological Survey - National Geoscience Information Service	November 2022	Bi-Annually
CBSCB Compensation District		
Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	
Cheshire Brine Subsidence Compensation Board (CBSCB)	November 2020	As notified
Coal Mining Affected Areas		
The Coal Authority - Property Searches	February 2023	Annual Rolling Update
Mining Instability		
Ove Arup & Partners	June 1998	Not Applicable
Non Coal Mining Areas of Great Britain		
British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	April 2020	As notified
Potential for Compressible Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Ground Dissolution Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Landslide Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Running Sand Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2019	As notified
Potential for Shrinking or Swelling Clay Ground Stability Hazards		
British Geological Survey - National Geoscience Information Service	January 2019	As notified
Radon Potential - Radon Affected Areas		
British Geological Survey - National Geoscience Information Service	September 2022	Annually
Radon Potential - Radon Protection Measures		
British Geological Survey - National Geoscience Information Service	September 2022	Annually

Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	January 2023	Quarterly
Fuel Station Entries Catalist Ltd - Experian	January 2023	Quarterly
Gas Pipelines National Grid	October 2021	Bi-Annually
Points of Interest - Commercial Services PointX	March 2023	Quarterly
Points of Interest - Education and Health PointX	March 2023	Quarterly
Points of Interest - Manufacturing and Production PointX	March 2023	Quarterly
Points of Interest - Public Infrastructure PointX	March 2023	Quarterly
Points of Interest - Recreational and Environmental PointX	March 2023	Quarterly
Underground Electrical Cables National Grid	February 2023	Bi-Annually

Sensitive Land Use	Version	Update Cycle
Ancient Woodland		
Natural England	February 2021	Bi-Annually
Areas of Adopted Green Belt		
North Shropshire District Council (now part of Shropshire Council)	July 2022	Quarterly
Oswestry Borough Council (now part of Shropshire Council)	July 2022	Quarterly
Shropshire Council - Planning Department	July 2022	Quarterly
Wrexham County Borough Council	July 2022	Quarterly
Areas of Unadopted Green Belt		
North Shropshire District Council (now part of Shropshire Council)	July 2022	Quarterly
Oswestry Borough Council (now part of Shropshire Council)	July 2022	Quarterly
Shropshire Council - Planning Department	July 2022	Quarterly
Wrexham County Borough Council	July 2022	Quarterly
Areas of Outstanding Natural Beauty		
Natural England	August 2022	Bi-Annually
Environmentally Sensitive Areas		
Natural England	January 2017	
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Local Nature Reserves		
Wrexham County Borough Council	August 2018	Bi-Annually
Natural England	February 2021	Bi-Annually
Marine Nature Reserves		
Natural England	July 2019	Bi-Annually
National Nature Reserves		
Natural England	February 2023	Bi-Annually
National Parks		
Natural England	February 2018	Bi-Annually
Nitrate Sensitive Areas		
Natural England	April 2016	Not Applicable
Nitrate Vulnerable Zones		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	April 2016	
Environment Agency - Head Office	June 2017	Bi-Annually
Ramsar Sites		
Natural England	August 2020	Bi-Annually
Sites of Special Scientific Interest		
Natural England	February 2021	Bi-Annually
Special Areas of Conservation		
Natural England	July 2020	Bi-Annually
Special Protection Areas		
Natural England	February 2021	Bi-Annually

Data Suppliers

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	
Environment Agency	
Scottish Environment Protection Agency	
The Coal Authority	
British Geological Survey	
Centre for Ecology and Hydrology	
Natural Resources Wales	
Scottish Natural Heritage	
Natural England	
Public Health England	
Ove Arup	
Stantec UK Ltd	

Useful Contacts

Contact	Name and Address	Contact Details
1	**British Geological Survey - Enquiry Service** British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	**Shropshire Council - Environmental Health Department** Development Services, Shirehall, Abbey Foregate, Shrewsbury, Shropshire, SY2 6ND	Telephone: 0345 678 9000 Email: publicprotection@shropshire.gov.uk Website: www.shropshire.gov.uk
4	**Environment Agency - Head Office** Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
5	**Ordnance Survey** Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
6	**North Shropshire District Council (now part of Shropshire Council)** Shirehall, Abbey Foregate, Shrewsbury, Shropshire, SY2 6ND	Telephone: 0345 678 9000 Email: customer.service@shropshire.gov.uk Website: www.shropshire.gov.uk
7	**Shropshire County Council (now part of Shropshire Council) - Shropshire Records And Research Centre** Shirehall, Abbey Foregate, Shrewsbury, Shropshire, SY2 6ND	Telephone: 01743 255356 Email: customer.service@shropshire.gov.uk Website: www.shropshire.gov.uk
8	**Shropshire Council - Planning Department** Development Services, Shirehall, Abbey Foregate, Shrewsbury, Shropshire, SY2 6ND	Telephone: 0345 678 9004 Email: customer.service@shropshire.gov.uk Website: www.shropshire.gov.uk
9	**PointX** 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
10	**Natural England** County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
-	**Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards** Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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