Technical Note

Project: 16 Knossington Road

Subject: Phase I Geo-environmental Desk Study

Client:	Habitat+ Architects	Version:	DRAFT
Project No:	07697	Author:	K. McGeoch
Date:	15th November 2023	Approved:	M Poland

I Introduction

I.I General

PJA has been instructed by Habitat+ Architects (the Client) to prepare a Phase 1 geoenvironmental Desk Study to satisfy a pre-planning condition (ref. 2023/0657/PEC) for the site known as "Little Acre, 16 Knossington Road", herein referred to as 'the Site'.

The pre-planning advice from Rutland County Council states "Public Protection (Environmental Health) have advised that a phase 1 contaminated report would be required to be submitted with any application, especially if there has been oil fired central heating which can cause localised contamination".

The proposed works at the Site are to demolish an existing bungalow and replace with a passive house. Photographs provided by the Client, copies of which are provided in Appendix B, indicate that an oil fired boiler and external oil storage tank is present within the Site boundary.

I.2 Scope of Works

The preparation of this Phase 1 geo-environmental desk study includes:

- Review of geo-environmental and regulatory information and historical maps in a Groundsure report;
- Establishing the geo-environmental setting, historical development, geology, hydrogeology, hydrology and regulatory context;
- Identification of sources, pathways and receptors and preparation of a conceptual site model (CSM) to establish potential contaminant linkages; and
- Recommendations where appropriate.

I.3 Limitations

Where third party information and data has been used in preparation of this report and has been either provided to PJA or prepared by third parties, PJA accepts no responsibility for the accuracy or completeness of that information.

Further details of the report limitations are presented in Appendix E.

2 Sources of Information

The sources of information used in preparing this desk study are listed in Table 2-1.

Table 2-1: Sources of Information	
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Description	Author	Date	Reference
Groundsure Insight Report	Groundsure Limited	14 th November 2023	GS-L4V-H75-E4P-JII GS-JKY-NRC-84B-WSN_largeScale GS-JKY-NRC-84B-WSN_smallScale
Geoindex	British Geological Survey	Accessed November 2023	GeoIndex - British Geological Survey (bgs.ac.uk)
UXO Risk Maps	Zetica	Accessed November 2023	Risk Maps Zetica UXO
MAGIC Interactive Maps	DEFRA	Accessed November 2023	Magic Map Application (defra.gov.uk)
Photographs of the oil storage tank, oil fired- boiler and other important site aspects	Habitat+ Architects	November 2023	Client supplied photographs
Topographical Survey	Midland Survey Limited	April 2023	43674/1

3 Site Location and Description

The Site covers approximately 0.2 hectares and is located in Braunston, approximately 3.3km to the southwest of Oakham town centre. The Site is approximately 20m wide by 80m.

The grid reference of the approximate centre of the Site is 483030 306682. The Site is presented on Midland Survey Limited's Topographical Survey (ref. 43674/1, dated April 2023), a copy of which is presented in Appendix A.

3.1.1 Current Site Use

The Site is roughly rectangular in shape a comprises a single storey dwelling with associated parking, occasional trees and a garden directly south of the building. The Site is delineated by fencing and hedgerows and a small pond is located in the southeast corner of the garden. An above ground oil storage tank is located in the northwestern corner of the Site and two gas bottles are located next to the southern wall of the building. A greenhouse is located in the southern half of the Site within the garden.

These features are located on the survey in Appendix A including the oil tank adjacent the driveway from Knossington Road.

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3.1.2 Topography

Midland Survey Limited's Topographical Survey (ref. 43674/1, dated April 2023) for the Site indicates the lowest topographical levels of 119.68mAOD in the southeast corner (the pond bed lies at 119.33mAOD). The highest topographical levels are located in the northeast of the Site at 123.28mAOD. The survey suggests a fall of circa 4m from north to south across the property. A copy of the topographical survey is presented in Appendix A.

3.1.3 Surrounding Area

The Site is bound to the north by Knossington Road, beyond which lie further residences; to the east and west by residential properties and gardens and to the south by pastoral farmland. The River Gwash is located circa 170m south of the Site running through the adjacent farmland.

4 Historical Development

4.1 Historical Maps

Historical maps included in the Groundsure Report, presented in Appendix B, have been reviewed to establish the historical development of the Site and surrounding area to a distance of 250m. The findings are summarised in Table 4-1.

Date (Scale)	On Site	Off Site					
1884 (1:10,560) 1888 (1:10,560)	The Site comprises open fields. It should be noted that the 1888 historical map is incomplete.	The surrounding area largely consists of open fields. A road runs parallel to the northern boundary of the Site and a large area of trees if present adjacent to the eastern/southeaster boundary of the site. The village of Braunston lies approximately 70m to the east of the Site and two small ponds are located approximately 145m and 160m to the west of the Site. The River Gwash is shown circa 170 south of the Site.					
1902-1904 (1:2,500) 1902-1904 (1:10,560) 1904 (1:10,560)	A small depression/pond appears to be present in the southeastern corner of the Site.	A vicarage is present approximately 110m to the west of the Ste and a grave yard is located approximately 250m to the southeast of the Site. It should be noted that the 1904 historical map is incomplete.					
1930 (1:2,500) 1928 – 1931 (1:10,560)	There are no significant changes on the Site.	A school is located approximately 50m to the northeast of the Site and residences have been built on the opposite side of the road running parallel to the northern boundary.					
1949 – 1950 (1:10,560)	There are no significant changes on the Site.	Further residences have bee built to the north of the Site on the opposite side of					

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Date (Scale)	On Site	Off Site
1950 (1:10,560)		the road running parallel to the northern boundary.
1963 (1:2,500)	A building is now present in the northern half of the Site and the depression in the southeast corner of the Site is labelled as a pond.	Chapter Farm, including a sheep dip and silo, is present approximately 175m to the southeast of the Site. The area of trees adjacent to the eastern boundary of the Site have been labelled as an orchard and has an associated yard. The road running parallel to the northern boundary has been labelled as Knossington Road and residential expansion has continued to the north of Knossington Road. It should be noted that the historical map is incomplete.
1968 (1:2,500)	There are no significant changes on the Site.	Sheep pens, part of Chapter Farm, are located approximately 150m to the southeast of the Site. The pond located approximately 160m to the west of the Site is no longer present
1979 (1:2,500)	There are no significant changes on the Site.	There are no significant changes to the surrounding area. It should be noted that the historical map is incomplete.
1992 – 1994 (1:2,500) 1994 (1:2,500)	There are no significant changes on the Site.	A residence has been built adjacent to the western boundary of the Site and a further two residences have been built approximately 50m and 75m to the west of the Site. The orchard adjacent to the eastern boundary is no longer labelled. It should be noted that the 1994 historical map is incomplete.
2001 (1:10,000)	There are no significant changes on the Site.	There are no significant changes to the surrounding area.
2003 (1:2,500)	There are no significant changes on the Site.	There are no significant changes to the surrounding area.
2010 (1:10,000)	There are no significant changes on the Site.	There are no significant changes to the surrounding area.
2023 (1:10,000)	There are no significant changes on the Site.	There are no significant changes to the surrounding area.

4.2 Unexploded Ordnance

Unexploded ordnance (UXO) risk maps published by Zetica indicate that the Site is in a low risk zone based on recorded World War II bombing densities.

5 Geo-environmental Setting

5.1 Published Geology

5.1.1 Made Ground

Published British Geological Survey (BGS) records do not indicate the presence of Made Ground at the Site. However, based on the current and historical use of the Site, it considered possible that Made Ground will be present locally, for example in the vicinity of the buildings.

5.1.2 Superficial Deposits

Published BGS records indicate that superficial deposits are absent from the Site.

5.1.3 Bedrock

Published BGS records indicate that the northern third of the Site is underlain by ferruginous limestone of the Marlstone Rock Formation, which is described by the BGS as *"sandy, shell-fragmental and ooidal ferruginous limestone interbedded with ferruginous calcareous sandstone, and generally subordinate ferruginous mudstone beds".*

The remainder of the Site is underlain by interbedded siltstone and mudstone of the Dyrham Formation. These deposits are described by the BGS as *"pale to dark get and greenish grey, silty and sandy mudstone, with interbeds of silt or very fine-grained sand"*.

5.2 Mining

The Groundsure report indicates that the Site does not lie within a coal mining reporting area and there are no recorded mine shafts on the Site or in the vicinity of the Site.

5.3 Radon

The Groundsure report indicates that the northern half of the Site lies within an area where between 1% and 3% of homes are estimated to be at or above the Radon Action Level. The southern half of the Site is indicated to lie within an area where <1% of homes are estimated to be at or above the Radon Action Level. It is therefore considered that radon protective measures are unlikely to be required in new buildings at the Site.

5.4 Potential for Geological Hazards

The Groundsure Report presents the following geological hazard potential within the Site boundary:

- Potential for Shrinking or Swelling Clay Ground Stability Hazards: Negligible to low hazard potential;
- Potential for Running Sands Ground Stability Hazards: Negligible hazard potential;
- Potential for Compressible Ground Stability Hazards: Negligible hazard potential;
- Potential for Landslide Ground Stability Hazards: Very low hazard potential;
- Potential for Collapsible Ground Stability Hazards: Very Low hazard potential; and
- Potential for Ground Dissolution Ground Stability Hazards: Negligible hazard potential.

5.5 Hydrogeology

5.5.1 Aquifer Classification

The Marlstone Rock Formation is classified by the Environment Agency as a Secondary A Aquifer whereas the Dyrham Formation is classified as a Secondary (Undifferentiated) Aquifer.

A Secondary A Aquifer are aquifers that *"comprise permeable layers that can support local water supplies, and may form an important source of base flow to rivers".*

A Secondary (Undifferentiated) Aquifer are aquifers where *"it is not possible to apply either a Secondary A or B definition because of the variable characteristics of the rock type"*.

5.5.2 Licensed Groundwater Abstractions

The Groundsure report indicates that there are no active licensed groundwater abstractions within 2km of the Site.

5.5.3 Source Protection Zones

The Groundsure report indicates that the Site does not lie within a source protection zone.

5.6 Hydrology

5.6.1 Nearest Surface Water Features

The nearest surface water feature is a small pond located in the southeastern corner of the Site. Two small streams are located approximately 133m and 150m to the northeast

and west respectively. The River Gwash is located approximately 170m to the south of the Site at its closest point.

5.6.2 Licensed Surface Water Abstractions

The Groundsure report indicates that there are no licensed surface water abstractions within 2km of the Site.

5.6.3 Fluvial and Surface Water Flood Risk

The Groundsure Report indicates that the Site lies within Flood Zone 1, which means that there is less than 0.1% chance of flooding from rivers or seas each year. The Site is also indicated to have a negligible risk of surface water flooding.

6 Regulatory Review

6.1 Environmental Permits, Incidents and Registers

6.1.1 Discharge Consents

The Groundsure report indicates that there are two historical licensed discharges to controlled waters within 500m of the Site. The closest of these is located 70 to the northwest of the Site at the Vicarage however the effluent type is unspecified.

6.1.2 Pollution Incidents

The Groundsure report indicates that one pollution incident has occurred withing 500m of the Site. This incident occurred 242m to the southeast of the Site in March 2003 and the pollutant was described as 'gas and fuel oils'. This incident had Category 4 (no impact) to air and a Category 3 (minor) impact to water and land. This incident was not recorded as being connected to the Site.

6.2 Landfill and Other Waste Sites

The Groundsure report indicates there are no authorised or historical landfills within 500m of the Site.

A historical waste site is recorded 57m to the east of the Site where vehicles and equipment were prepared for scrap disposal.

6.2.1 Waste Exemptions

Eight waste exemptions are recorded at Wood Lane Farm approximately 300m to the southeast of the Site. These exemptions are associated with the deposit of waste from

dredging of inland water, burning waste in the open, spreading waste on agricultural land, use of waste in construction and burning of waste as a fuel in a small appliance.

6.3 Current Land Use

6.3.1 Potentially Contaminative Land Uses

Information provided indicates the presence of an oil-fired boiler within the property and an external oil storage tank located near the driveway in the north of the property. The oil tank is understood to be a double skinned HDPE top filled plastic facility located on a raised slab plinth. The connecting feeder pipe to the boiler is not observed although is understood to be below ground level, located between the tank and the internal boiler.

There are no reported incidents of fuel spillage or leakage and it is understood there are no observations of fuel oil leakage currently in the vicinity of the tank or feeder pipe.

6.3.2 Potentially Contaminative Industrial Land Uses (Groundsure)

The Groundsure report and current mapping have been reviewed to identify potentially contaminative land uses, as summarised below:

No potentially contaminative land uses are recorded associated with the Site are recorded within the Groundsure report.

Off Site

- A sheep dip 158m to the southeast of the Site.
- A silo 192m to the southeast of the Site.

6.3.3 Petrol Stations

The Groundsure report indicates that there are no current or recent petrol stations within 500m of the Site.

6.4 Designated Environmentally Sensitive Areas

The Groundsure report indicates that the Site within a Nitrate Vulnerable Zone.

The Groundsure report also indicates that the Site lies within a conservation area and records nine Grade II listed buildings within 250m of the Site.

7 Preliminary Conceptual Site Model

Based on the information summarised in the preceding sections of this report, this section presents the sources of potential contamination, receptors to potential contamination and pathways between the two. The Conceptual Site Model has been developed using this commonly adopted source-pathway-receptor model, as recommended in Land Contamination: Risk Management published by the Environmental Agency in 2020.

Where contamination sources, receptors, and pathways are present, these are referred to as potential contaminant linkages.

A preliminary assessment of the risk posed to identified receptors from potential on-Site and off-Site contamination sources has been made for each potential contaminant linkage, based on the information available at the time of writing this report.

It is understood that the proposed development of this Site will include the demolition of the current one storey dwelling and the construction of a passive house.

7.1 Potential Sources of Contamination

7.1.1 On-Site

On-Site potential sources of contamination are considered to comprise:

• Fuels and oils associated with the oil storage tank and boiler system in the northwestern corner of the Site if spills and leaks have occurred;

The above source assessment excludes incidental disturbance and Made Ground associated with the original residential development of the property which is considered unlikely to be a significant source of potential contaminants.

There are no recorded sources of contamination adjacent to the Site or in the immediate vicinity.

The key off-Site potential sources of contamination in the wider area are considered to comprise:

- A sheep dip 158m to the southeast of the Site;
- A silo 192m to the southeast of the Site;
- Chapter Farm approximately 175m to the southeast of the Site which may use and store pesticides, fertilisers, fuels and oils;
- A historical waste site 57m to the east of the Site;

- Pastoral farm land directly to the south of the Site;
- Made Ground associated with Knossington Road adjacent to the northern boundary of the Site;
- Surface run-off from Knossington Road.

Potential contaminants could include metals and other inorganics, fuels, oils and greases, TPHs, PAHs and nitrate and phosphates associated with potential pesticide and fertiliser usage.

The generation of methane, carbon dioxide and other gases may be ongoing if putrescible materials are present in Made Ground and the historic waste material.

The above sources are considered generic to the land uses within the wider area. Although they are potential contamination sources to the wider environment it is considered they are unlikely to directly affect the proposed development at the property and therefore are not considered further.

7.2 Potential Pathways

7.2.1 Human Health

Regarding the assessment of risk to human health, the following pathways are considered to be potential exposure routes with respect to the identified source of contamination:

- Ingestion of contaminants in soil and soil-derived dust;
- Indoor and outdoor inhalation of organic vapours
- Dermal contact with contaminants in soils and soil-derived dusts where soils (and contaminants) are exposed at the surface;

7.2.2 Controlled Waters

The following pathways for the migration of contamination to controlled waters are considered applicable:

- Leaching and migration of contaminants from soils in the unsaturated zone into groundwater;
- Migration of contaminants via preferential pathways to groundwater;
- Lateral migration of contaminants in groundwater through soils and bedrock with discharge to surface water as base flow; and
- Migration of contaminants along preferential pathways such as installed services followed by discharge to surface watercourses.

7.2.3 Property

The following pathways are considered applicable for property receptors:

- Direct contact of on-Site property with contaminants in soils, perched water and/or groundwater;
- Odours and atmospheric taint;
- Tainting of water supplies through direct contact with contaminated soils
- Direct contact of off-Site property with contaminants in migrating perched water and/or groundwater; and
- Lateral/vertical migration through soils followed by accumulation in enclosed spaces and potentially explosive conditions.

7.3 Potential Receptors

Potential receptors to contamination are presented in Table 7-1.

Receptor	Additional information
Human Health	Future occupants of the residential property
	Occupants/users of off-site adjacent residential properties
	Construction workers and future maintenance workers.
Controlled Waters	Groundwater in Secondary A Aquifer and Secondary Undifferentiated Aquifer.
	On-Site pond and off-Site streams and ponds and the River Gwash located approximately 170m to the south of the Site.
Property	Future on-Site buildings, foundations and services.
	Off-Site buildings, foundations and services.

Whilst construction and maintenance workers are considered to be potential receptors to contamination, their exposure is considered to be acute based on the generally short duration of their work.

Land contaminated risk assessment is based on chronic risks associated with exposure to contamination over a longer period of time, therefore risks to construction and maintenance workers are not considered in the conceptual site model.

7.4 Preliminary Conceptual Site Model and Risk Assessment

Based on the information currently available, potential contaminant linkages have been identified and a preliminary risk assessment has been undertaken for the Site. The estimation of the potential significance of each linkage is based on the nature of the proposed development, the presence and mobility of potential contaminants and the plausibility of the identified migration/exposure pathways.

The preliminary risk assessment was undertaken in accordance with the risk matrix set out in CIRIA C552 (See Appendix D) and is presented in Table 7-2.

Table 7-2: Preliminary Assessment of Risks Associated with the Site Under Present Conditions								
Pollutant Linkage	Potential Source	Key Contaminants	Pathway	Receptor	Probability	Consequence	Risk	Comment/Mitigation Measures
1	<u>On-Site</u> Fuels and oils associated with the oil storage	On-SiteFuels and oilsassociated withthe oil storagetank and boilersystem in thenorthwesterncorner of theSite if spills andleaks haveoccurred.	Ingestion of contaminants in soil and soil-derived dust; Indoor and outdoor inhalation of organic vapours Dermal contact with contaminants in soils and soil-derived dusts where soils (and contaminants) are exposed at the surface	Human – Future occupants of the residential property	Low Likelihood	Mild	Low	The Site comprises a one storey dwelling with associated parking, garden, oil-fired boiler and external oil storage tank. Potential on-Site contamination sources are considered to be relatively mild and localised. There is considered to be a low likelihood for contamination to be present across the majority of the Site based on its current and historical use.
2	tank and boiler system in the northwestern corner of the Site if spills and leaks have occurred.		Ingestion of contaminants in soil and soil-derived dust; Indoor and outdoor inhalation of organic vapours Dermal contact with contaminants in soils and soil-derived dusts where soils (and contaminants) are exposed at the surface	Human – Occupants/users of off-site residential and education properties and public open space.	Low Likelihood	Mild	Low	The Site comprises a one storey dwelling with associated parking, garden, oil-fired boiler and external oil storage tank. Potential on-Site contamination sources are considered to be relatively mild and localised. Contamination, if present, is considered unlikely to be migrating to off- Site receptors.
3			Leaching and migration of contaminants from	Controlled waters – Secondary A Aquifer and Secondary	Low Likelihood	Medium	Moderate/Low	The Site comprises a one storey dwelling with associated parking, garden, oil-fired boiler and external oil storage tank. Potential on-Site

Table 7-2: Preliminary Assessment of Risks Associated with the Site Under Present Conditions								
Pollutant Linkage	Potential Source	Key Contaminants	Pathway	Receptor	Probability	Consequence	Risk	Comment/Mitigation Measures
			soils in the unsaturated zone into groundwater; Migration of contaminants via preferential pathways to groundwater	(Undifferentiated) Aquifer				contamination sources are considered to be relatively mild. Contamination, if present, is considered likely to be localised so the likelihood of contamination migrating to groundwater at unacceptable levels is considered to be low.
4			Lateral migration of contaminants in groundwater through soils and bedrock with discharge to surface water as base flow Migration of contaminants along preferential pathways such as installed services followed by discharge to surface watercourses	Controlled waters – On-Site pond and off- Site streams and ponds and the River Gwash located approximately 170m to the south of the Site.	Low likelihood	Mild	Low	Based on the current and historical use of the Site, potential contamination, if present, is likely to be localised so the likelihood of migration of contamination to surface water receptors is considered to be low.
5			Direct contact with contaminants in soils, perched water and/or groundwater Tainting of water supplies through direct contact with contaminated soils	Property – Future on- Site buildings, foundations and services.	Low Likelihood	Medium	Moderate/Low	Contamination, if present, is likely to be localised and organic contaminants are considered unlikely to be present at concentrations which could present a risk to new services and potable water supply networks.
6			Direct contact with contaminants in migrating groundwater	Property – Off-Site buildings, foundations and services	Unlikely	Medium	Low	Potential on-Site contamination sources are considered to be relatively mild. Contamination, if present, is considered likely to be localised. It is



Table 7-2: Preliminary Assessment of Risks Associated with the Site Under Present Conditions								
Pollutant Linkage	Potential Source	Key Contaminants	Pathway	Receptor	Probability	Consequence	Risk	Comment/Mitigation Measures
								considered unlikely that contamination is migrating to off-Site property receptors.



8 Conclusions and Recommendations

8.1 Summary and Conclusions

Published BGS records indicate that superficial deposits are absent from the Site and that the northern third of the Site is underlain by ferruginous limestone of the Marlstone Rock Formation and the remainder of the Site is underlain by interbedded siltstone and mudstone of the Dyrham Formation.

Surface water features include a small pond in the southeast corner of the Site, streams approximately 133m and 150m to the northeast and west respectively and the River Gwash approximately 170m to the south of the Site.

It is not inconceivable that localised contamination may be present associated with the oil storage and boiler system. However, given the recorded observations and the environmental setting the risks are considered general low to very low. Where recorded as moderate this relates to the plausibility of localised residue remaining from unrecorded leakages and spills (See 8.2).

Receptor Type	Description	Preliminary Risk Level
Human Health	Future occupants of the residential property	Low to Moderate
	Occupants/users of off-site residential and education properties and public open space.	Low to Moderate
Controlled Waters	Groundwater in Secondary A Aquifer and Secondary Undifferentiated Aquifer.	Low to Moderate
	On-Site pond and off-Site streams and ponds and the River Gwash located approximately 170m to the south of the Site.	Low
Property	Future on-Site buildings, foundations and services.	Low to Moderate
	Off-Site buildings, foundations and services.	Low to Moderate

Table 8-1: Preliminary Risks to Identified Receptors

8.2 Recommendations

Given the generally low risks identified no specific remedial works or pre-works ground investigations are recommended.

During the proposed redevelopment of the Site the following actions are considered appropriate:



- Where upgrade of the oil and boiler system is undertaken the opportunity should be taken to inspect the area for leaks and evidence of fuel oil contamination. This can be supplemented by shallow hand dug pits and observations within utility trenches and where below ground elements are removed.
- Where localised small scale impacts are recorded soils can be removed for disposal based on a visual or olfactory basis by the contractor. Where more extensive impacts are recorded including any evidence of contamination extending under the proposed structure the advice of a geo-environmental specialist should be sought.



Appendix A Drawings



arable land

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GENERA	l notes :			
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this df	RAWING HAS BEE	EN PRODUCED	WITH A PLO	T SCALE ACCURACY OF 1:200
SERVICE INSPECT	COVERS INDIC/ ION ONLY. GENE	ATED WHERE V ERALLY DAMAGE	ISIBLE. PIPE D COVERS A	INVERTS / DETAILS SURVEYED FROM SURFACE ND COVERS WITHIN HIGHWAYS WILL NOT BE LIFTED
TREE SI	PECIES SHOULD	BE CONFIRME	D BY TREE	SPECIALIST IF CRITICAL.
OVERHE	AD CABLES ARE	INDICATED USI	NG REMOTE	SURVEY METHODS AND ARE SUBJECT TO SEASONAL
VARIATIC	ON, AND SHOULI	D BE TREATED	AS APPRO	XIMATE.
THE SUF RICS PF	RVEYOR WILL NOT ROFESSIONAL ST	BE RESPONSIBI ANDARDS 3RD	LE FOR THE	OMISSION OF DETAILS OBSCURED DURING SITE SURVEY LE 1.19 APPLIES TO THIS SURVEY.
TO	POGRAPHICAL	SURVEY/UTIL	ITY KEY :-	
	(ht) - height ϕ - diameter ϕ - pea trap a/g - above ga/r - assumed a/r - air valve bb - belisha bbd - back dro bl - bed level boll - bed revel br - cover leve c/bx - contre cr - cable rise cws - combine cvs - combine cvs - combine cvs - combine $cvs - combine d/chan - draine ejb - electricelec - electricelec$ - electric elec - electric fl - fire switc fws - foul wat g - gully gr - gas riser h/chestnut - $hh/thorn$ - haw ic - inspection il - intercept: p - lamp pos mh - manhole mkr - marker o/h - over he	ground d route beacon P of shaft closeboard fenc ol box elevision al er ad water sewer d water sewer ijunction box trace bed ont bed ont t run horse chestnut thorn cover d cover t t	:e	ol - off let osa - off survey area OSBM - ordnance survey bench mark p & r fence - post & rail fence pd - pit depth pr - pipe to ground pts - pipe to surface re - rodding eye ret wall - retaining wall rs - road sign rwp - rain water pipe s/birch - silver birch s/p - safety paving scp - sapling scc fence - security fence sfc - soil filled chamber si - stop tap sv - stop tap sv - stop valve syp - soil vent pipe sws - storm water sewer TBM - temporary bench mark tfr - taken from records tl - threshold level toc - top of cap top - top of pipe tot - top of tank tp - telecom pole ts - traffic signal t/s - trench scar u/s - unable to survey utt - unable to survey utt - unable to trace yp - vent pipe wfc - water filled chamber wf - water meter wp - water meter wp - water riser
SURVEY	CONTROL :-			NORTH POINT
TATION	EASTINGS	NORTHINGS	LEVEL	
ST01	483039.469	306729.296	123.551	NODTH
ST02	483035.424	306710.718	123.035	NUKIH
ST03	483049.942	306705.465	122.894	
ST04	483033.230	306698.177	122.861	
ST05	483032.375	306691.595	122.601	
ST06	483041.475	306673.678	121.504	
ST07	483050.103	306689.336	122.416	
ST08	483036.407	306667.579	121.479	
ST09	483030.757	306633.807	120.737	
STID	483038 467	306635.730	120.656	*

3<u>06650N</u> 12 20 8 16 4 **MIDLAND SURVEY LTD** HEAD OFFICE Cromwell House, Westfield Road, Southam, Warwickshire, CV47 0JH. Tel: 01926 810811 Fax 01926 810812 E-Mail: mail@midlandsurvey.co.uk www.midlandsurvey.co.uk RTK STAMFORD Client Project 16 KNOSSINGTON ROAD, BRAUNSTON, OAKHAM, LE15 8QR Title TOPOGRAPHICAL SURVEY Date APRIL 2023 Revisions 1:200@A2 Scale Dwg No 43674/1 Surveyor J.Y Checked M.F TOPOGRAPHICAL (LAND) SURVEYORS / UTILITY SURVEYORS **BUILDING MEASUREMENT SURVEYORS / 3D LASER SCANNING** GUALIT H/

THE SURVEY ASSOCIATION QUAY AUBHT-ETD Contractor constructionLine

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Appendix B Photographs



Site Photographs- 16 Knossington Road

Photo	Description
	Oil storage tank next to the property boundary.
	Internal oil fired boiler.
	Front of the external oil storage tank.

LOCATION

Park Point 17 High Street Longbridge B31 2UQ TELEPHONE EMAIL +44 (0) 121 475 0234 birmingham@pja.co.uk WEBSITE pja.co.uk







Appendix C Groundsure Report



Order Details

Date:	14/11/2023
Your ref:	Knossington_RoadPO23627
Our Ref:	GS-L4V-H75-E4P-JII

Site Details

 Location:
 483030 306682

 Area:
 0.2 ha

 Authority:
 Rutland County Council ↗



OS MasterMap site plan

p.14 > groundsure.com/insightuserguide *∧*





Summary of findings

Page	Section	Past land use >	On site	0-50m	50-250m	250-500m	500-2000m
<u>15</u> >	<u>1.1</u> >	Historical industrial land uses >	0	0	0	3	-
<u>16</u> >	<u>1.2</u> >	Historical tanks >	0	0	0	2	-
<u>16</u> >	<u>1.3</u> >	Historical energy features >	0	0	0	3	-
17	1.4	Historical petrol stations	0	0	0	0	-
<u>17</u> >	<u>1.5</u> >	Historical garages >	0	0	3	0	-
17	1.6	Historical military land	0	0	0	0	-
Page	Section	Past land use - un-grouped >	On site	0-50m	50-250m	250-500m	500-2000m
<u>18</u> >	<u>2.1</u> >	Historical industrial land uses >	0	0	0	4	-
<u>19</u> >	<u>2.2</u> >	Historical tanks >	0	0	0	5	-
<u>19</u> >	<u>2.3</u> >	Historical energy features >	0	0	0	4	-
20	2.4	Historical petrol stations	0	0	0	0	-
<u>20</u> >	<u>2.5</u> >	Historical garages >	0	0	4	0	-
Page	Section	Waste and landfill >	On site	0-50m	50-250m	250-500m	500-2000m
21	3.1	Active or recent landfill	0	0	0	0	-
21	3.2	Historical landfill (BGS records)	0	0	0	0	-
22	3.3	Historical landfill (LA/mapping records)	0	0	0	0	-
22	3.4	Historical landfill (EA/NRW records)	0	0	0	0	-
<u>22</u> >	<u>3.5</u> >	Historical waste sites >	0	0	1	0	-
22	3.6	Licensed waste sites	0	0	0	0	-
<u>23</u> >	<u>3.7</u> >	<u>Waste exemptions</u> >	0	0	0	8	-
Page	Section	<u>Current industrial land use</u> >	On site	0-50m	50-250m	250-500m	500-2000m
<u>24</u> >	<u>4.1</u> >	Recent industrial land uses >	0	0	2	-	-
25	4.2	Current or recent petrol stations	0	0	0	0	-
25	4.3	Electricity cables	0	0	0	0	-
25	4.4	Gas pipelines	0	0	0	0	-
25	4.5	Sites determined as Contaminated Land	0	0	0	0	-





4.6	Control of Major Accident Hazards (COMAH)	0	0	0	0	-
4.7	Regulated explosive sites	0	0	0	0	-
4.8	Hazardous substance storage/usage	0	0	0	0	_
4.9	Historical licensed industrial activities (IPC)	0	0	0	0	-
4.10	Licensed industrial activities (Part A(1))	0	0	0	0	-
4.11	Licensed pollutant release (Part A(2)/B)	0	0	0	0	_
4.12	Radioactive Substance Authorisations	0	0	0	0	-
<u>4.13</u> >	Licensed Discharges to controlled waters >	0	0	1	1	-
4.14	Pollutant release to surface waters (Red List)	0	0	0	0	-
4.15	Pollutant release to public sewer	0	0	0	0	_
4.16	List 1 Dangerous Substances	0	0	0	0	-
4.17	List 2 Dangerous Substances	0	0	0	0	_
<u>4.18</u> >	Pollution Incidents (EA/NRW) >	0	0	1	0	_
				-	0	_
4.19	Pollution inventory substances	0	0	0	0	
4.19 4.20	Pollution inventory substances Pollution inventory waste transfers	0 0	0	0	0	_
4.19 4.20 4.21	Pollution inventory substances Pollution inventory waste transfers Pollution inventory radioactive waste	0 0 0	0 0 0	0 0 0	0	-
4.19 4.20 4.21 Section	Pollution inventory substances Pollution inventory waste transfers Pollution inventory radioactive waste Hydrogeology >	0 0 0 On site	0 0 0 0-50m	0 0 0 50-250m	0 0 250-500m	- - 500-2000m
4.19 4.20 4.21 Section 5.1 >	Pollution inventory substances Pollution inventory waste transfers Pollution inventory radioactive waste <u>Hydrogeology</u> > <u>Superficial aquifer</u> >	0 0 0 On site Identified (0 0 0-50m within 500m	0 0 0 50-250m	0 0 250-500m	- - 500-2000m
4.19 4.20 4.21 Section 5.1 > 5.2 >	Pollution inventory substancesPollution inventory waste transfersPollution inventory radioactive wasteHydrogeology >Superficial aquifer >Bedrock aquifer >	0 0 0 On site Identified (Identified (0 0 0-50m within 500m within 500m	0 0 0 50-250m)	0 0 250-500m	- - 500-2000m
4.19 4.20 4.21 Section 5.1 > 5.2 > 5.3 >	Pollution inventory substancesPollution inventory waste transfersPollution inventory radioactive wasteHydrogeology >Superficial aquifer >Bedrock aquifer >Groundwater vulnerability >	0 0 0 On site Identified (Identified (0 0 0-50m within 500m within 500m within 50m)	0 0 50-250m)	0 0 250-500m	- - 500-2000m
4.19 4.20 4.21 Section 5.1 > 5.2 > 5.3 >	Pollution inventory substancesPollution inventory waste transfersPollution inventory radioactive wasteHydrogeology >Superficial aquifer >Bedrock aquifer >Groundwater vulnerability >Groundwater vulnerability - soluble rock risk >	0 0 0 On site Identified (Identified (Identified (0 0 0-50m within 500m within 500m within 50m) within 0m)	0 0 50-250m)	0 0 250-500m	- - 500-2000m
4.19 4.20 4.21 Section 5.1 > 5.2 > 5.3 > 5.4 >	Pollution inventory substancesPollution inventory waste transfersPollution inventory radioactive wasteHydrogeology >Superficial aquifer >Bedrock aquifer >Groundwater vulnerability >Groundwater vulnerability- soluble rock risk >Groundwater vulnerability- local information	0 0 0 On site Identified (Identified (Identified (None (with	0 0 0-50m within 500m within 500m within 50m) within 0m)	0 0 50-250m)	0 0 250-500m	- - 500-2000m
4.19 4.20 4.21 Section 5.1 > 5.2 > 5.3 > 5.4 > 5.5 5.5	Pollution inventory substancesPollution inventory waste transfersPollution inventory radioactive wasteHydrogeology >Superficial aquifer >Bedrock aquifer >Groundwater vulnerability >Groundwater vulnerability- soluble rock risk >Groundwater vulnerability >Groundwater vulnerability >Groundwater vulnerability >Groundwater vulnerability >Groundwater vulnerability >Superficial aguifer >Bedrock risk >	0 0 0 On site Identified (Identified (Identified (Identified (None (with 0	0 0 0-50m within 500m within 500m within 50m) within 0m) in 0m)	0 0 50-250m))	0 0 250-500m	- - 500-2000m
4.19 4.20 4.21 Section 5.1 > 5.2 > 5.3 > 5.4 > 5.5 5.6 >	Pollution inventory substancesPollution inventory waste transfersPollution inventory radioactive wastePollution inventory radioactive wasteHydrogeology >Superficial aquifer >Bedrock aquifer >Groundwater vulnerability >Groundwater vulnerability- local informationGroundwater abstractions >Surface water abstractions	0 0 0 On site Identified (Identified (Identified (Identified (None (with 0 0	0 0 0-50m within 500m within 500m within 50m) within 0m) in 0m) 0 0	0 0 50-250m)))	0 0 250-500m 1 0	- - 500-2000m 3 0
4.19 4.20 4.21 Section 5.1 > 5.2 > 5.3 > 5.5 5.5 5.5 5.7 5.8	Pollution inventory substancesPollution inventory waste transfersPollution inventory radioactive wastePollution inventory radioactive wasteHydrogeology >Superficial aquifer >Bedrock aquifer >Groundwater vulnerability >Groundwater vulnerability - local informationGroundwater abstractions >Surface water abstractionsPotable abstractions	0 0 0 On site Identified (Identified (Identified (None (with 0 0 0	0 0 0-50m within 500m within 500m within 500m) within 0m) in 0m) 0 0 0	0 0 50-250m))))	0 0 250-500m 1 0 0	- - 500-2000m 3 0 0
4.19 4.20 4.21 Section 5.1 > 5.2 > 5.3 > 5.5 5.5 5.5 5.7 5.8 5.9	Pollution inventory substancesPollution inventory waste transfersPollution inventory radioactive wastePollution inventory radioactive wasteHydrogeology >Superficial aquifer >Bedrock aquifer >Groundwater vulnerability >Groundwater vulnerability- soluble rock risk >Groundwater vulnerability- local informationGroundwater abstractions >Surface water abstractionsPotable abstractionsSource Protection Zones	0 0 0 On site Identified (Identified (Identified (None (with 0 0 0 0	0 0 0-50m within 500m within 500m within 500m within 0m) in 0m) 0 0 0 0	0 0 50-250m)))) 0 0 0 0 0	0 0 250-500m 1 0 0	- - 500-2000m 3 0 0 0
4.19 4.20 4.21 Section 5.1 > 5.2 > 5.3 > 5.5 5.5 5.5 5.5 5.7 5.8 5.9 5.10	Pollution inventory substancesPollution inventory waste transfersPollution inventory radioactive wastePollution inventory radioactive wasteHydrogeology >Superficial aquifer >Bedrock aquifer >Groundwater vulnerability >Groundwater vulnerability - local informationGroundwater abstractions >Surface water abstractionsPotable abstractionsSource Protection ZonesSource Protection Zones (confined aquifer)	0 0 0 On site Identified (Identified (Identified (None (with 0 0 0 0 0 0	0 0 0-50m within 500m within 500m within 500m within 0m) in 0m) 0 0 0 0 0	0 0 50-250m)))) 0 0 0 0 0 0	0 0 250-500m 1 0 0 0	- 500-2000m 3 0 0 - -
4.19 4.20 4.21 5ection 5.1 > 5.2 > 5.3 > 5.5 5.5 5.5 5.7 5.8 5.9 5.9 5.10 Section	Pollution inventory substancesPollution inventory waste transfersPollution inventory radioactive wastePollution inventory radioactive wasteHydrogeology >Superficial aquifer >Bedrock aquifer >Groundwater vulnerability >Groundwater vulnerability - soluble rock risk >Groundwater vulnerability - local informationGroundwater abstractions >Surface water abstractionsPotable abstractionsSource Protection ZonesSource Protection Zones (confined aquifer)	0 0 0 0 1 On site 1 dentified (1 dentified (1 dentified (1 dentified (0 0 0 0 0 0 0 0 0 0	0 0 0-50m within 500m within 500m within 500m within 50m) within 0m) 0 0 0 0 0 0	0 0 0 50-250m)))))))))))))))))))	0 0 250-500m 1 0 0 0 0 0 250-500m	- 500-2000m 3 0 0 - - 500-2000m
	4.6 4.7 4.8 4.9 4.10 4.11 4.12 4.13 > 4.14 4.15 4.16 4.17 4.18 >	 4.6 Control of Major Accident Hazards (COMAH) 4.7 Regulated explosive sites 4.8 Hazardous substance storage/usage 4.9 Historical licensed industrial activities (IPC) 4.10 Licensed industrial activities (Part A(1)) 4.11 Licensed pollutant release (Part A(2)/B) 4.12 Radioactive Substance Authorisations 4.13 Licensed Discharges to controlled waters > 4.14 Pollutant release to surface waters (Red List) 4.15 Pollutant release to public sewer 4.16 List 1 Dangerous Substances 4.17 List 2 Dangerous Substances 4.18 Pollution Incidents (EA/NRW) > 	4.6Control of Major Accident Hazards (COMAH)04.7Regulated explosive sites04.8Hazardous substance storage/usage04.9Historical licensed industrial activities (IPC)04.10Licensed industrial activities (Part A(1))04.11Licensed pollutant release (Part A(2)/B)04.12Radioactive Substance Authorisations04.13 >Licensed Discharges to controlled waters >04.14Pollutant release to surface waters (Red List)04.15Pollutant release to public sewer04.16List 1 Dangerous Substances04.17List 2 Dangerous Substances04.18 >Pollution Incidents (EA/NRW) >0	4.6Control of Major Accident Hazards (COMAH)004.7Regulated explosive sites004.8Hazardous substance storage/usage004.9Historical licensed industrial activities (IPC)004.10Licensed industrial activities (Part A(1))004.11Licensed pollutant release (Part A(2)/B)004.12Radioactive Substance Authorisations004.13Licensed Discharges to controlled waters >004.14Pollutant release to surface waters (Red List)004.15Ist 1 Dangerous Substances004.17List 2 Dangerous Substances004.18 >Pollution Incidents (EA/NRW) >00	4.6Control of Major Accident Hazards (COMAH)0004.7Regulated explosive sites0004.8Hazardous substance storage/usage0004.9Historical licensed industrial activities (IPC)0004.10Licensed industrial activities (Part A(1))0004.11Licensed pollutant release (Part A(2)/B)0004.12Radioactive Substance Authorisations0004.13Licensed Discharges to controlled waters >0004.14Pollutant release to surface waters (Red List)0004.15Pollutant release to public sewer0004.16List 1 Dangerous Substances0004.17List 2 Dangerous Substances0004.18 >Pollution Incidents (EA/NRW) >000	4.6Control of Major Accident Hazards (COMAH)00004.7Regulated explosive sites00004.8Hazardous substance storage/usage000004.9Historical licensed industrial activities (IPC)000004.10Licensed industrial activities (Part A(1))0000004.11Licensed pollutant release (Part A(2)/B)0000004.12Radioactive Substance Authorisations0000004.13Licensed Discharges to controlled waters >0000004.14Pollutant release to surface waters (Red List)0000004.15Ist 1 Dangerous Substances00000004.18Pollution Incidents (EA/NRW) >0000000





<u>42</u> >	<u>6.2</u> >	Surface water features >	0	0	8	-	-
<u>42</u> >	<u>6.3</u> >	WFD Surface water body catchments >	1	-	-	-	-
<u>42</u> >	<u>6.4</u> >	WFD Surface water bodies >	0	0	1	_	-
<u>43</u> >	<u>6.5</u> >	WFD Groundwater bodies >	1	-	-	-	-
Page	Section	River and coastal flooding	On site	0-50m	50-250m	250-500m	500-2000m
44	7.1	Risk of flooding from rivers and the sea	None (with	in 50m)			
44	7.2	Historical Flood Events	0	0	0	-	-
44	7.3	Flood Defences	0	0	0	_	-
45	7.4	Areas Benefiting from Flood Defences	0	0	0	-	-
45	7.5	Flood Storage Areas	0	0	0	-	-
46	7.6	Flood Zone 2	None (with	in 50m)			
46	7.7	Flood Zone 3	None (with	in 50m)			
Page	Section	Surface water flooding					
47	8.1	Surface water flooding	Negligible (within 50m)			
Page	Section	Groundwater flooding >					
<u>48</u> >	<u>9.1</u> >	<u>Groundwater flooding</u> >	Negligible (within 50m)			
<u>48</u> > Page	<u>9.1</u> > Section	Groundwater flooding > Environmental designations >	Negligible (On site	within 50m) ^{0-50m}	50-250m	250-500m	500-2000m
<u>48</u> > Page <u>49</u> >	<u>9.1</u> > Section <u>10.1</u> >	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) >	Negligible (On site	within 50m) 0-50m 0	50-250m O	250-500m 0	500-2000m 1
<u>48</u> > Page <u>49</u> > 50	9.1 > Section 10.1 > 10.2	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites)	Negligible (On site 0 0	within 50m) 0-50m 0 0	50-250m 0 0	250-500m 0 0	500-2000m 1 0
48 Page 49 50 50	9.1 > Section 10.1 > 10.2 10.3	Groundwater flooding > Environmental designations > Sites of Special Scientific Interest (SSSI) > Conserved wetland sites (Ramsar sites) Special Areas of Conservation (SAC)	Negligible (On site 0 0 0	within 50m) 0-50m 0 0 0	50-250m 0 0 0	250-500m 0 0 0	500-2000m 1 0 0
48 Page 49 50 50 50	9.1 > Section 10.1 > 10.2 10.3 10.4	Groundwater flooding >Environmental designations >Sites of Special Scientific Interest (SSSI) >Conserved wetland sites (Ramsar sites)Special Areas of Conservation (SAC)Special Protection Areas (SPA)	Negligible (On site 0 0 0 0	within 50m) 0-50m 0 0 0 0	50-250m 0 0 0	250-500m 0 0 0	500-2000m 1 0 0 0
48 Page 49 50 50 50 50 50 50	<pre>9.1 > Section 10.1 > 10.2 10.3 10.4 10.5</pre>	Groundwater flooding >Environmental designations >Sites of Special Scientific Interest (SSSI) >Conserved wetland sites (Ramsar sites)Special Areas of Conservation (SAC)Special Protection Areas (SPA)National Nature Reserves (NNR)	Negligible (On site 0 0 0 0 0 0	within 50m) 0-50m 0 0 0 0 0 0	50-250m 0 0 0 0 0	250-500m 0 0 0 0	500-2000m 1 0 0 0 0 0 0 0 0
<pre>48 > Page 49 > 50 50 50 50 50 50 50 50 50 50</pre>	9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6	Groundwater flooding >Environmental designations >Sites of Special Scientific Interest (SSSI) >Conserved wetland sites (Ramsar sites)Special Areas of Conservation (SAC)Special Protection Areas (SPA)National Nature Reserves (NNR)Local Nature Reserves (LNR)	Negligible (On site 0 0 0 0 0 0 0 0	within 50m) 0-50m 0 0 0 0 0 0 0	50-250m 0 0 0 0 0 0	250-500m 0 0 0 0 0	500-2000m 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
<pre>48 > Page 49 > 50 50 50 50 50 50 51 51</pre>	<pre>9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6 10.7 ></pre>	Groundwater flooding >Environmental designations >Sites of Special Scientific Interest (SSSI) >Conserved wetland sites (Ramsar sites)Special Areas of Conservation (SAC)Special Protection Areas (SPA)National Nature Reserves (NNR)Local Nature Reserves (LNR)Designated Ancient Woodland >	Negligible (On site 0 0 0 0 0 0 0 0 0	within 50m) 0-50m 0 0 0 0 0 0 0 0 0 0 0 0 0	50-250m 0 0 0 0 0 0 0	250-500m 0 0 0 0 0 0 0	500-2000m 1 0 0 0 0 0 0 0 3
<pre>48 > Page 49 > 50 50 50 50 50 51 51 51</pre>	<pre>9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6 10.6 10.7 > 10.8</pre>	Groundwater flooding >Environmental designations >Sites of Special Scientific Interest (SSSI) >Conserved wetland sites (Ramsar sites)Special Areas of Conservation (SAC)Special Protection Areas (SPA)National Nature Reserves (NNR)Local Nature Reserves (LNR)Designated Ancient Woodland >Biosphere Reserves	Negligible (On site 0 0 0 0 0 0 0 0 0	within 50m) 0-50m 0 0 0 0 0 0 0 0 0 0 0 0 0	50-250m 0 0 0 0 0 0 0 0 0 0	250-500m 0 0 0 0 0 0 0 0 0 0 0 0 0	500-2000m 1 0 0 0 0 0 0 0 3 0 0 0 0 0 0 0 0 0 0 0
48 > Page 49 > 50 50 50 50 51 51 51 51 52	<pre>9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6 10.7 > 10.8 10.9</pre>	Groundwater flooding >Environmental designations >Sites of Special Scientific Interest (SSSI) >Conserved wetland sites (Ramsar sites)Conserved wetland sites (Ramsar sites)Special Areas of Conservation (SAC)Special Protection Areas (SPA)National Nature Reserves (NNR)Local Nature Reserves (LNR)Designated Ancient Woodland >Biosphere ReservesForest Parks	Negligible (On site 0 0 0 0 0 0 0 0 0	within 50m) 0-50m 0 0 0 0 0 0 0 0 0 0 0 0 0	50-250m 0 0 0 0 0 0 0 0 0 0 0 0 0	250-500m 0 0 0 0 0 0 0 0 0 0 0 0 0	500-2000m
<pre>48 > Page 49 > 50 50 50 50 50 50 51 51 51 52 52</pre>	<pre>9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6 10.7 > 10.8 10.9 10.10</pre>	Groundwater flooding >Environmental designations >Sites of Special Scientific Interest (SSSI) >Conserved wetland sites (Ramsar sites)Special Areas of Conservation (SAC)Special Protection Areas (SPA)National Nature Reserves (NNR)Local Nature Reserves (LNR)Designated Ancient Woodland >Biosphere ReservesForest ParksMarine Conservation Zones	Negligible (On site 0 0 0 0 0 0 0 0 0	within 50m) 0-50m 0 0 0 0 0 0 0 0 0 0 0 0 0	50-250m 0 0 0 0 0 0 0 0 0 0 0 0 0	250-500m 0 0 0 0 0 0 0 0 0 0 0 0 0	500-2000m
48 > Page 49 > 50 50 50 50 50 51 51 51 52 52	<pre>9.1 > Section 10.1 > 10.2 10.3 10.4 10.5 10.6 10.7 > 10.8 10.9 10.10 10.11</pre>	Groundwater flooding >Environmental designations >Sites of Special Scientific Interest (SSSI) >Conserved wetland sites (Ramsar sites)Special Areas of Conservation (SAC)Special Protection Areas (SPA)National Nature Reserves (NNR)Local Nature Reserves (LNR)Designated Ancient Woodland >Biosphere ReservesForest ParksMarine Conservation ZonesGreen Belt	On site On site 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	within 50m) 0-50m 0 0 0 0 0 0 0 0 0 0 0 0 0	50-250m 0 0 0 0 0 0 0 0 0 0 0 0 0	250-500m 0 0 0 0 0 0 0 0 0 0 0 0 0	500-2000m



52	10.13	Possible Special Areas of Conservation (pSAC)	0	0	0	0	0
53	10.14	Potential Special Protection Areas (pSPA)	0	0	0	0	0
53	10.15	Nitrate Sensitive Areas	0	0	0	0	0
<u>53</u> >	<u>10.16</u> >	<u>Nitrate Vulnerable Zones</u> >	1	0	0	0	4
<u>54</u> >	<u>10.17</u> >	SSSI Impact Risk Zones >	1	-	-	-	-
<u>55</u> >	<u>10.18</u> >	<u>SSSI Units</u> >	0	0	0	0	3
Page	Section	Visual and cultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
57	11.1	World Heritage Sites	0	0	0	-	-
58	11.2	Area of Outstanding Natural Beauty	0	0	0	-	-
58	11.3	National Parks	0	0	0	-	-
<u>58</u> >	<u>11.4</u> >	<u>Listed Buildings</u> >	0	0	9	-	-
<u>59</u> >	<u>11.5</u> >	<u>Conservation Areas</u> >	1	0	0	-	-
59	11.6	Scheduled Ancient Monuments	0	0	0	-	-
59	11.7	Registered Parks and Gardens	0	0	0	-	-
Dago	Section	Agricultural designations >	On site	0-50m	50-250m	250-500m	500-2000m
Fage	Section	Agricultural designations					
<u>61</u> >	<u>12.1</u> >	Agricultural Land Classification >	Grade 3 (w	ithin 250m)			
62	<u>12.1</u> > 12.2	Agricultural Land Classification > Open Access Land	Grade 3 (wi	ithin 250m) 0	0	-	-
61 > 62	12.1 > 12.2 12.3	Agricultural Land Classification > Open Access Land Tree Felling Licences	Grade 3 (wi	ithin 250m) 0 0	0	-	-
61 62 62 62 62	12.1 12.2 12.3 12.4	Agricultural Land Classification > Open Access Land Tree Felling Licences Environmental Stewardship Schemes >	Grade 3 (wi	ithin 250m) 0 0 0	0 0 1	-	-
61 62 62 62 62 62 62 62	12.1 12.2 12.3 12.4 12.5	Agricultural Land Classification Open Access Land Tree Felling Licences Environmental Stewardship Schemes Countryside Stewardship Schemes	Grade 3 (wi	ithin 250m) 0 0 0 0	0 0 1 0	-	-
61 > 62 62 62 62 62 62 62 62 9 62 62 62 62 9	12.1 12.2 12.3 12.4 12.5 Section	Agricultural Land Classification Open Access Land Tree Felling Licences Environmental Stewardship Schemes Countryside Stewardship Schemes Habitat designations	Grade 3 (wi 0 0 0 0 0 0 0	ithin 250m) 0 0 0 0 0 0	0 0 1 0 50-250m	- - - - 250-500m	- - - 500-2000m
61 > 62 62 62 > 62 > 62 > 62 > 62 > 62 > 62 > 62 > 62 > 62 > 63 >	12.1 12.2 12.3 12.4 12.5 Section 13.1	Agricultural Land Classification > Open Access Land Tree Felling Licences Environmental Stewardship Schemes > Countryside Stewardship Schemes Habitat designations > Priority Habitat Inventory >	Grade 3 (wi 0 0 0 0 0 0 0 0 0 0	ithin 250m) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 1 0 50-250m 2	- - - 250-500m	- - - 500-2000m
61 > 62 62 62 62 > 62 > 62 > 62 > 62 > 62 > 62 > 63 > 64 >	12.1 12.2 12.3 12.4 12.5 Section 13.1	Agricultural Land Classification > Open Access Land Tree Felling Licences Environmental Stewardship Schemes > Countryside Stewardship Schemes Habitat designations > Priority Habitat Inventory > Habitat Networks	Grade 3 (wi 0 0 0 0 0 0 0 0 0 0 0	ithin 250m) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 1 0 50-250m 2 0	- - - 250-500m -	- - - 500-2000m -
Fage 61 62 62 62 62 62 62 62 62 62 62 62 62 62 62 62 63 64 64	12.1 12.2 12.3 12.4 12.5 Section 13.1 13.2 13.3	Agricultural Land Classification > Open Access Land Tree Felling Licences Environmental Stewardship Schemes > Countryside Stewardship Schemes Habitat designations > Priority Habitat Inventory > Habitat Networks Open Mosaic Habitat	Grade 3 (wi 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ithin 250m) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 1 0 50-250m 2 0 0	- - - 250-500m - - -	- - - 500-2000m - - -
Fage 61 62 62 62 62 62 62 62 62 62 62 62 62 62 62 62 63 64 64 64 64	12.1 12.2 12.3 12.4 12.5 Section 13.1 13.2 13.3 13.4	Agricultural Land Classification > Open Access Land Tree Felling Licences Environmental Stewardship Schemes > Countryside Stewardship Schemes Habitat designations > Priority Habitat Inventory > Habitat Networks Open Mosaic Habitat Limestone Pavement Orders	Grade 3 (wi 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ithin 250m) 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 1 0 50-250m 2 0 0 0	- - - - 250-500m - - - -	- - - 500-2000m - - -
Fage 61 62 63 64 64 64 64 64 64	12.1 12.2 12.3 12.4 12.5 Section 13.1 13.2 13.3 13.4	Agricultural Land Classification > Open Access Land Tree Felling Licences Environmental Stewardship Schemes > Countryside Stewardship Schemes Habitat designations > Priority Habitat Inventory > Habitat Networks Open Mosaic Habitat Limestone Pavement Orders Geology 1:10,000 scale >	Grade 3 (w) 0 0 0 0 0 0 0 0 0	ithin 250m) 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 1 0 50-250m 0 0 0 0	- - - - - 250-500m - - - - - - - - - - - - - - - - - -	- - - 500-2000m - - - - - - - - - - - - - - - - - -
Fage 61 62 63 64 64 64 64 64 64 64 64 64 64 64 64 64 65	12.1 12.2 12.3 12.4 12.5 Section 13.1 13.2 13.3 13.4 Section 14.1	Agricultural Land Classification > Open Access Land Tree Felling Licences Environmental Stewardship Schemes > Countryside Stewardship Schemes Habitat designations > Priority Habitat Inventory > Habitat Networks Open Mosaic Habitat Limestone Pavement Orders 10k Availability >	Grade 3 (wi 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ithin 250m) 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 1 0 50-250m 2 0 0 0 0 0 0 0 50-250m	- - - - - - 250-500m - - - - - - - - - - - - - - - - - -	- - - 500-2000m - - - - 500-2000m
Fage 61 62 62 62 62 62 62 62 62 62 62 62 62 62 62 62 62 63 64 65 65 66	12.1 12.2 12.3 12.4 12.5 Section 13.2 13.3 13.4 Section 14.1	Agricultural Land Classification > Open Access Land Tree Felling Licences Environmental Stewardship Schemes > Countryside Stewardship Schemes Habitat designations > Priority Habitat Inventory > Habitat Networks Open Mosaic Habitat Limestone Pavement Orders Geology 1:10,000 scale > 10k Availability > Artificial and made ground (10k)	Grade 3 (wi 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ithin 250m) 0 0 0 0 0 0 0 0 0 0 0 0 0	0 0 1 0 50-250m 0 0 0 0 0 0 50-250m	- - - - 250-500m - - - - 250-500m	- - - - 500-2000m - - - - - - 500-2000m



68	14.4	Landslip (10k)	0	0	0	0	-
<u>69</u> >	<u>14.5</u> >	Bedrock geology (10k) >	2	0	1	0	-
70	14.6	Bedrock faults and other linear features (10k)	0	0	0	0	-
Page	Section	Geology 1:50,000 scale >	On site	0-50m	50-250m	250-500m	500-2000m
<u>71</u> >	<u>15.1</u> >	<u>50k Availability</u> >	Identified (within 500m)		
72	15.2	Artificial and made ground (50k)	0	0	0	0	-
72	15.3	Artificial ground permeability (50k)	0	0	-	-	-
<u>73</u> >	<u>15.4</u> >	Superficial geology (50k) >	0	0	6	1	-
74	15.5	Superficial permeability (50k)	None (with	in 50m)			
74	15.6	Landslip (50k)	0	0	0	0	-
74	15.7	Landslip permeability (50k)	None (with	in 50m)			
<u>75</u> >	<u>15.8</u> >	Bedrock geology (50k) >	2	0	4	0	_
<u>76</u> >	<u>15.9</u> >	Bedrock permeability (50k) >	Identified (within 50m)			
76	15.10	Bedrock faults and other linear features (50k)	0	0	0	0	-
Page	Section	Boreholes	On site	0-50m	50-250m	250-500m	500-2000m
77	16.1	BGS Boreholes	0	0	0	-	-
Page	Section	Natural ground subsidence >					
<u>78</u> >	<u>17.1</u> >	Shrink swell clays >	Low (within	n 50m)			
<u>79</u> >	<u>17.2</u> >	<u>Running sands</u> >	Negligible (within 50m)			
<u>80</u> >	<u>17.3</u> >	<u>Compressible deposits</u> >	Negligible (within 50m)			
<u>81</u> >	<u>17.4</u> >	<u>Collapsible deposits</u> >	Very low (w	vithin 50m)			
<u>82</u> >	<u>17.5</u> >	Landslides >	Very low (w	vithin 50m)			
<u>83</u> >	<u>17.6</u> >	Ground dissolution of soluble rocks >	Negligible (within 50m)			
Page	Section	Mining and ground workings >	On site	0-50m	50-250m	250-500m	500-2000m
85	18.1	BritPits	0	0	0	0	-
<u>86</u> >	<u>18.2</u> >	Surface ground workings >	0	1	2	-	-
86	18.3	Underground workings	0	0	0	0	0
86	18.4	Underground mining extents	0	0	0	0	-
86	18.5	Historical Mineral Planning Areas	0	0	0	0	-



87	18.6	Non-coal mining	0	0	0	0	0		
87	18.7	JPB mining areas	None (within 0m)						
87	18.8	The Coal Authority non-coal mining	0	0	0	0	-		
87	18.9	Researched mining	0	0	0	0	-		
88	18.10	Mining record office plans	0	0	0	0	-		
88	18.11	BGS mine plans	0	0	0	0	-		
88	18.12	Coal mining	None (with	in Om)					
88	18.13	Brine areas	None (with	in Om)					
88	18.14	Gypsum areas	None (with	in Om)					
89	18.15	Tin mining	None (with	in Om)					
89	18.16	Clay mining	None (with	in Om)					
Page	Section	Ground cavities and sinkholes	On site	0-50m	50-250m	250-500m	500-2000m		
90	19.1	Natural cavities	0	0	0	0	-		
90	19.2	Mining cavities	0	0	0	0	0		
90	19.3	Reported recent incidents	0	0	0	0	-		
90	19.4	Historical incidents	0	0	0	0	-		
91	19.5	National karst database	0	0	0	0	-		
Page	Section	Radon >							
<u>92</u> >	<u>20.1</u> >	Radon >	Between 19	% and 3% (w	ithin 0m)				
Page	Section	<u>Soil chemistry</u> >	On site	0-50m	50-250m	250-500m	500-2000m		
<u>94</u> >	<u>21.1</u> >	BGS Estimated Background Soil Chemistry >	2	4	-	-	-		
94	21.2	BGS Estimated Urban Soil Chemistry	0	0	-	-	-		
95	21.3	BGS Measured Urban Soil Chemistry	0	0	-	-	-		
Page	Section	Railway infrastructure and projects	On site	0-50m	50-250m	250-500m	500-2000m		
96	22.1	Underground railways (London)	0	0	0	-	-		
96	22.2	Underground railways (Non-London)	0	0	0	-	-		
96	22.3	Railway tunnels	0	0	0	-	-		
96	22.4	Historical railway and tunnel features	0	0	0	-	-		
96	22.5	Royal Mail tunnels	0	0	0	-	-		





97	22.6	Historical railways	0	0	0	-	-
97	22.7	Railways	0	0	0	-	-
97	22.8	Crossrail 1	0	0	0	0	-
97	22.9	Crossrail 2	0	0	0	0	-
97	22.10	HS2	0	0	0	0	-







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Recent aerial photograph



Capture Date: 11/07/2022 Site Area: 0.2ha





Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

Recent site history - 2019 aerial photograph



Capture Date: 28/03/2019 Site Area: 0.2ha







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

Recent site history - 2016 aerial photograph



Capture Date: 07/06/2016 Site Area: 0.2ha







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

Recent site history - 2011 aerial photograph



Capture Date: 09/10/2011 Site Area: 0.2ha






Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

Recent site history - 1999 aerial photograph



Capture Date: 11/07/1999 Site Area: 0.2ha



Contact us with any questions at: <u>info@groundsure.com</u> ↗ 01273 257 755





Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

OS MasterMap site plan



Site Area: 0.2ha







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

1 Past land use



1.1 Historical industrial land uses

Records within 500m

3

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 1:10,560 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on page 15 >

ID	Location	Land use	Dates present	Group ID
С	340m SE	Unspecified Tank	1928 - 1949	1679180







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2

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ID	Location	Land use	Dates present	Group ID
С	340m SE	Unspecified Tank	1903	1713326
С	342m SE	Unspecified Tank	1950	1744608

This data is sourced from Ordnance Survey / Groundsure.

1.2 Historical tanks

Records within 500m

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on page 15 >

ID	Location	Land use	Dates present	Group ID
С	339m SE	Unspecified Tank	1904 - 1992	269617
С	339m SE	Unspecified Tank	1997	275260

This data is sourced from Ordnance Survey / Groundsure.

1.3 Historical energy features

Records within 500m

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on page 15 >

ID	Location	Land use	Dates present	Group ID
В	300m E	Electricity Substation	1963 - 1992	166435
В	300m E	Electricity Substation	1997	160513
1	407m NE	Electricity Substation	1963	150249

This data is sourced from Ordnance Survey / Groundsure.



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Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

1.4 Historical petrol stations

Records within 500m

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Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

1.5 Historical garages

Records within 500m

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale, intelligently grouped into contiguous features. To prevent misrepresentation of the size of historical features at any given time, features are only grouped if they have similar geometries within immediately preceding or succeeding map editions. See section 2 for a breakdown of grouping if required. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use map on page 15 >

ID	Location	Land use	Dates present	Group ID
А	159m NE	Garage	1963 - 1992	53075
А	159m NE	Garage	1997	48952
А	164m NE	Garage	1968	49303

This data is sourced from Ordnance Survey / Groundsure.

1.6 Historical military land

Records within 500m	0
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Areas of military land digitised from multiple sources including the National Archives, local records, MOD records and verified other sources, intelligently grouped into contiguous features.

This data is sourced from Ordnance Survey / Groundsure / other sources.







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

2 Past land use - un-grouped



2.1 Historical industrial land uses

Records within 500m

Potentially contaminative land use features digitised from historical Ordnance Survey mapping at 1:10,000 and 10,560 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original ungrouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on page 18 >

ID	Location	Land Use	Date	Group ID
С	340m SE	Unspecified Tank	1949	1679180
С	340m SE	Unspecified Tank	1903	1713326
С	340m SE	Unspecified Tank	1928	1679180







ID	Location	Land Use	Date	Group ID
С	342m SE	Unspecified Tank	1950	1744608

This data is sourced from Ordnance Survey / Groundsure.

2.2 Historical tanks

Records within 500m	5

Tank features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on page 18 >

ID	Location	Land Use	Date	Group ID
С	339m SE	Unspecified Tank	1963	269617
С	339m SE	Unspecified Tank	1992	269617
С	339m SE	Unspecified Tank	1997	275260
С	340m SE	Unspecified Tank	1968	269617
С	340m SE	Unspecified Tank	1904	269617

This data is sourced from Ordnance Survey / Groundsure.

2.3 Historical energy features

Records within 500m

Energy features digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on page 18 >

ID	Location	Land Use	Date	Group ID
В	300m E	Electricity Substation	1963	166435
В	300m E	Electricity Substation	1992	166435
В	300m E	Electricity Substation	1997	160513
1	407m NE	Electricity Substation	1963	150249

This data is sourced from Ordnance Survey / Groundsure.







2.4 Historical petrol stations

Records within 500m

Petrol stations digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

This data is sourced from Ordnance Survey / Groundsure.

2.5 Historical garages

Records within 500m

Garages digitised from historical Ordnance Survey mapping at high-detail 1:1,250 and 1:2,500 scale. Any records shown are available intelligently grouped in section 1. Grouped and the original un-grouped features can be cross-referenced across sections 1 and 2 using the 'Group ID'.

Features are displayed on the Past land use - un-grouped map on page 18 >

ID	Location	Land Use	Date	Group ID
А	159m NE	Garage	1963	53075
А	159m NE	Garage	1992	53075
А	159m NE	Garage	1997	48952
А	164m NE	Garage	1968	49303

This data is sourced from Ordnance Survey / Groundsure.





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3 Waste and landfill



3.1 Active or recent landfill

Records within 500m

Active or recently closed landfill sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.2 Historical landfill (BGS records)

Records within 500m

Landfill sites identified on a survey carried out on behalf of the DoE in 1973. These sites may have been closed or operational at this time.

This data is sourced from the British Geological Survey.





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3.3 Historical landfill (LA/mapping records)

Records within 500m

Landfill sites identified from Local Authority records and high detail historical mapping.

This data is sourced from the Ordnance Survey/Groundsure and Local Authority records.

3.4 Historical landfill (EA/NRW records)

Records within 500m

Known historical (closed) landfill sites (e.g. sites where there is no PPC permit or waste management licence currently in force). This includes sites that existed before the waste licensing regime and sites that have been licensed in the past but where a licence has been revoked, ceased to exist or surrendered and a certificate of completion has been issued.

This data is sourced from the Environment Agency and Natural Resources Wales.

3.5 Historical waste sites

Records within 500m

Waste site records derived from Local Authority planning records and high detail historical mapping.

Features are displayed on the Waste and landfill map on page 21 >

ID	Location	Address	Further Details	Date
1	57m E	Site Address: The Maples, Knossington Road, Knossington, Oakham, Leicestershire, LE15 8LY	Type of Site: Vehicle Preparation/Disposal Building Planning application reference: 14/00464/FUL Description: Scheme comprises construction of building to prepare vehicles and equipment for scrap disposal. Data source: Historic Planning Application Data Type: Point	30/07/201 4

This data is sourced from Ordnance Survey/Groundsure and Local Authority records.

3.6 Licensed waste sites

Records within 500m	0	

Active or recently closed waste sites under Environment Agency/Natural Resources Wales regulation.

This data is sourced from the Environment Agency and Natural Resources Wales.





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3.7 Waste exemptions

Records within 500m

Activities involving the storage, treatment, use or disposal of waste that are exempt from needing a permit. Exemptions have specific limits and conditions that must be adhered to.

Features are displayed on the Waste and landfill map on page 21 >

ID	Location	Site	Reference	Category	Sub-Category	Description
A	300m SE	Wood Lane Farm Wood Lane Braunston Rutland LE15 8QZ	EPR/RH0679E D/A001	Disposing of waste exemption	Both agricultural and non-agricultural waste	Deposit of waste from dredging of inland waters
А	300m SE	Wood Lane Farm Wood Lane Braunston Rutland LE15 8QZ	EPR/RH0679E D/A001	Disposing of waste exemption	Both agricultural and non-agricultural waste	Burning waste in the open
A	300m SE	Wood Lane Farm Wood Lane Braunston Rutland LE15 8QZ	EPR/RH0679E D/A001	Using waste exemption	Both agricultural and non-agricultural waste	Spreading waste on agricultural land to confer benefit
A	300m SE	Wood Lane Farm Wood Lane Braunston Rutland LE15 8QZ	EPR/RH0679E D/A001	Using waste exemption	Both agricultural and non-agricultural waste	Burning of waste as a fuel in a small appliance
В	301m SE	Wood Lane Farm, Wood Lane, Braunston, Oakham, LE15 8QZ	WEX036009	Disposing of waste exemption	On a farm	Deposit of waste from dredging of inland waters
В	301m SE	Wood Lane Farm, Wood Lane, Braunston, Oakham, LE15 8QZ	WEX036009	Disposing of waste exemption	On a farm	Burning waste in the open
В	301m SE	Wood Lane Farm, Wood Lane, Braunston, Oakham, LE15 8QZ	WEX036009	Using waste exemption	On a farm	Use of waste in construction
В	301m SE	Wood Lane Farm, Wood Lane, Braunston, Oakham, LE15 8QZ	WEX036009	Using waste exemption	On a farm	Spreading waste on agricultural land to confer benefit

This data is sourced from the Environment Agency and Natural Resources Wales.







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4 Current industrial land use



4.1 Recent industrial land uses

Records within 250m

Current potentially contaminative industrial sites.

Features are displayed on the Current industrial land use map on page 24 >

ID	Location	Company	Address	Activity	Category
А	158m SE	Sheep Dip	Rutland, LE15	Sheep Dips and Washes	Farming
А	192m SE	Silo	Rutland, LE15	Hoppers and Silos	Farming

This data is sourced from Ordnance Survey.







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4.2 Current or recent petrol stations

Records within 500m	0
Open, closed, under development and obsolete petrol stations.	
This data is sourced from Experian.	
4.3 Electricity cables	
Records within 500m	0
High voltage underground electricity transmission cables.	
This data is sourced from National Grid.	
4.4 Gas pipelines	
Records within 500m	0
High pressure underground gas transmission pipelines.	
This data is sourced from National Grid.	

4.5 Sites determined as Contaminated Land

Records within 500m	0
Contaminated Land Register of sites designated under Part 2a of the Environmental Protection Act 19	990.

This data is sourced from Local Authority records.

4.6 Control of Major Accident Hazards (COMAH)

Records within 500m

Control of Major Accident Hazards (COMAH) sites. This data includes upper and lower tier sites, and includes a historical archive of COMAH sites and Notification of Installations Handling Hazardous Substances (NIHHS) records.

This data is sourced from the Health and Safety Executive.







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4.7 Regulated explosive sites

Records within 500m

Sites registered and licensed by the Health and Safety Executive under the Manufacture and Storage of Explosives Regulations 2005 (MSER). The last update to this data was in April 2011.

This data is sourced from the Health and Safety Executive.

4.8 Hazardous substance storage/usage

Records within 500m

Consents granted for a site to hold certain quantities of hazardous substances at or above defined limits in accordance with the Planning (Hazardous Substances) Regulations 2015.

This data is sourced from Local Authority records.

4.9 Historical licensed industrial activities (IPC)

Records within 500m

Integrated Pollution Control (IPC) records of substance releases to air, land and water. This data represents a historical archive as the IPC regime has been superseded.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.10 Licensed industrial activities (Part A(1))

Records within 500m

Records of Part A(1) installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.11 Licensed pollutant release (Part A(2)/B)

Records within 500m

Records of Part A(2) and Part B installations regulated under the Environmental Permitting (England and Wales) Regulations 2016 for the release of substances to the environment.

This data is sourced from Local Authority records.





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4.12 Radioactive Substance Authorisations

Records within 500m

Records of the storage, use, accumulation and disposal of radioactive substances regulated under the Radioactive Substances Act 1993.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.13 Licensed Discharges to controlled waters

Records within 500m

Discharges of treated or untreated effluent to controlled waters under the Water Resources Act 1991. Features are displayed on the Current industrial land use map on <u>page 24</u> >

ID	Location	Address	Details	
1	70m NW	VICARAGE AT BRAUNSTON, OAKHAM, RUTLAND	Effluent Type: UNSPECIFIED Permit Number: PR5LF3194 Permit Version: 1 Receiving Water: Land	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 20/08/1973 Effective Date: 20/08/1973 Revocation Date: 01/10/1996
3	450m E	BROOKE HOUSE, BROOKE ROAD, BRAUNSTON, RUTLAND, LE15 8QT	Effluent Type: UNSPECIFIED Permit Number: PR5NF2186 Permit Version: 1 Receiving Water: -	Status: PRE NRA LEGISLATION WHERE ISSUE DATE 01-SEP-89 (HISTORIC ONLY) Issue date: 31/05/1963 Effective Date: 31/05/1963 Revocation Date: 28/05/1991

This data is sourced from the Environment Agency and Natural Resources Wales.

4.14 Pollutant release to surface waters (Red List)

Records within 500m O Discharges of specified substances under the Environmental Protection (Prescribed Processes and Substances)

Regulations 1991.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.15 Pollutant release to public sewer

Records within 500m

Discharges of Special Category Effluents to the public sewer.

This data is sourced from the Environment Agency and Natural Resources Wales.





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4.16 List 1 Dangerous Substances

Record	s within	500m
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Discharges of substances identified on List I of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.17 List 2 Dangerous Substances

Records within 500m

Discharges of substances identified on List II of European Directive E 2006/11/EC, and regulated under the Environmental Damage (Prevention and Remediation) Regulations 2015.

This data is sourced from the Environment Agency and Natural Resources Wales.

4.18 Pollution Incidents (EA/NRW)

Records within 500m

Records of substantiated pollution incidents. Since 2006 this data has only included category 1 (major) and 2 (significant) pollution incidents.

Features are displayed on the Current industrial land use map on page 24 >

ID	Location	Details	
2	242m SE	Incident Date: 05/03/2003 Incident Identification: 141290 Pollutant: Oils and Fuel Pollutant Description: Gas and Fuel Oils	Water Impact: Category 3 (Minor) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)

This data is sourced from the Environment Agency and Natural Resources Wales.

4.19 Pollution inventory substances

Records within 500m

The pollution inventory (substances) includes reporting on annual emissions of certain regulated substances to air, controlled waters and land. A reporting threshold for each substance is also included. Where emissions fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.





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4.20 Pollution inventory waste transfers

Records within 500m

The pollution inventory (waste transfers) includes reporting on annual transfers and recovery/disposal of controlled wastes from a site. A reporting threshold for each waste type is also included. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.

4.21 Pollution inventory radioactive waste

Records within 500m

The pollution inventory (radioactive wastes) includes reporting on annual releases of radioactive substances from a site, including the means of release. Where releases fall below the reporting threshold, no value will be given. The data is given for the most recent complete year available.

This data is sourced from the Environment Agency and the Scottish Environment Protection Agency.







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5 Hydrogeology - Superficial aquifer



5.1 Superficial aquifer

Records within 500m
Aquifer status of groundwater held within superficial geology.
Features are displayed on the Hydrogeology map on page 30 >

ID	Location	Designation	Description
1	120m S	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	143m W	Secondary B	Predominantly lower permeability layers which may store/yield limited amounts of groundwater due to localised features such as fissures, thin permeable horizons and weathering. These are generally the water-bearing parts of the former non-aquifers







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ID	Location	Designation	Description
3	176m S	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type
4	229m N	Secondary Undifferentiated	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non-aquifer in different locations due to the variable characteristics of the rock type.

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.







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Bedrock aquifer



5.2 Bedrock aquifer

Records within 500m

Aquifer status of groundwater held within bedrock geology.

Features are displayed on the Bedrock aquifer map on page 32 >

ID	Location	Designation	Description
1	On site	Secondary A	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers. These are generally aquifers formerly classified as minor aquifers
2	On site	Secondary (undifferentiated)	Assigned where it is not possible to attribute either category A or B to a rock type. In general these layers have previously been designated as both minor and non- aquifer in different locations due to the variable characteristics of the rock type





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ID	Location	Designation	Description
3	67m N	Unproductive	These are rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.







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Groundwater vulnerability



5.3 Groundwater vulnerability

Records within 50m

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An assessment of the vulnerability of groundwater to a pollutant discharged at ground level based on the hydrological, geological, hydrogeological and soil properties within a one kilometre square grid. Groundwater vulnerability is described as High, Medium or Low as follows:

- High Areas able to easily transmit pollution to groundwater. They are likely to be characterised by high leaching soils and the absence of low permeability superficial deposits.
- Medium Intermediate between high and low vulnerability.
- Low Areas that provide the greatest protection from pollution. They are likely to be characterised by low leaching soils and/or the presence of superficial deposits characterised by a low permeability.

Features are displayed on the Groundwater vulnerability map on page 34 >







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

ID	Location	Summary	Soil / surface	Superficial geology	Bedrock geology
1	On site	Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: 3-10m Patchiness value: <90% Recharge potential: Low	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures
2	On site	Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: 3-10m Patchiness value: <90% Recharge potential: Low	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures
3	22m SW	Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: 3-10m Patchiness value: <90% Recharge potential: Low	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures
4	28m NW	Summary Classification: Secondary bedrock aquifer - Medium Vulnerability Combined classification: Productive Bedrock Aquifer, No Superficial Aquifer	Leaching class: Low Infiltration value: <40% Dilution value: <300mm/year	Vulnerability: - Aquifer type: - Thickness: 3-10m Patchiness value: <90% Recharge potential: Low	Vulnerability: Medium Aquifer type: Secondary Flow mechanism: Well connected fractures

This data is sourced from the British Geological Survey, the Environment Agency and Natural Resources Wales.

5.4 Groundwater vulnerability- soluble rock risk

Records on site

This dataset identifies areas where solution features that enable rapid movement of a pollutant may be present within a 1km grid square.

ID	Maximum soluble risk category	Percentage of grid square covered by maximum risk
Α	Significant soluble rocks are likely to be present. Problems unlikely except with considerable surface or subsurface water flow.	6.0%

This data is sourced from the British Geological Survey and the Environment Agency.







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5.5 Groundwater vulnerability- local information

Records on site

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This dataset identifies areas where additional local information affecting vulnerability is held by the Environment Agency. Further information can be obtained by contacting the Environment Agency local Area groundwater team through the Environment Agency National Customer Call Centre on 03798 506 506 or by email on enquiries@environment-agency.gov.uk <a>?.

This data is sourced from the British Geological Survey and the Environment Agency.







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Abstractions and Source Protection Zones



5.6 Groundwater abstractions

Records within 2000m

Licensed groundwater abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, between two points (line data) or a larger area.

Features are displayed on the Abstractions and Source Protection Zones map on page 37 >







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

ID	Location	Details	
1	295m NW	Status: Historical Licence No: 5/31/10/*G/0042 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: WELL AT BRAUNSTON Data Type: Point Name: COLLIN Easting: 482800 Northing: 306900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/12/1970 Version End Date: -
-	1579m SE	Status: Historical Licence No: 5/31/10/*G/0002 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BOREHOLE AT BROOKE Data Type: Point Name: CURWEN Easting: 483900 Northing: 305300	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/02/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/02/1966 Version End Date: -
-	1879m SW	Status: Historical Licence No: 5/31/08/*G/0041 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: BORE 2 AT LEIGHFIELD 1 Data Type: Point Name: SHARLOWES & MOONSHINE Easting: 481800 Northing: 305200	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/03/1993 Version End Date: -
-	1936m NW	Status: Historical Licence No: 5/31/10/*G/0025 Details: General Farming & Domestic Direct Source: GROUND WATER SOURCE OF SUPPLY Point: WELL, LADYWOOD FM KNOSSINGTON Data Type: Point Name: HUSSITE LTD Easting: 481500 Northing: 307900	Annual Volume (m ³): - Max Daily Volume (m ³): - Original Application No: - Original Start Date: 01/03/1966 Expiry Date: - Issue No: 100 Version Start Date: 01/02/1979 Version End Date: -

This data is sourced from the Environment Agency and Natural Resources Wales.

5.7 Surface water abstractions

Records within 2000m

Licensed surface water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.



Contact us with any questions at: info@groundsure.com ↗ 01273 257 755





5.8 Potable abstractions

Records within 2000m

Licensed potable water abstractions for sites extracting more than 20 cubic metres of water a day and includes active and historical records. The data may be for a single abstraction point, a stretch of watercourse or a larger area.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.9 Source Protection Zones

Records within 500m

Source Protection Zones define the sensitivity of an area around a potable abstraction site to contamination.

This data is sourced from the Environment Agency and Natural Resources Wales.

5.10 Source Protection Zones (confined aquifer)

Records within 500m

Source Protection Zones in the confined aquifer define the sensitivity around a deep groundwater abstraction to contamination. A confined aquifer would normally be protected from contamination by overlying geology and is only considered a sensitive resource if deep excavation/drilling is taking place.

This data is sourced from the Environment Agency and Natural Resources Wales.





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6 Hydrology



6.1 Water Network (OS MasterMap)

Records within 250m

Detailed water network of Great Britain showing the flow and precise central course of every river, stream, lake and canal.

Features are displayed on the Hydrology map on page 40 >

ID	Location	Type of water feature	Ground level	Permanence	Name
В	133m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-







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ID	Location	Type of water feature	Ground level	Permanence	Name
2	146m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Gwash
3	148m E	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
4	150m W	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
В	159m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
9	195m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
С	195m S	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Gwash
В	213m NE	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
В	213m NE	Lake, loch or reservoir.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
В	217m NE	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	-
С	225m SW	Inland river not influenced by normal tidal action.	Not provided	Watercourse contains water year round (in normal circumstances)	-
11	230m SW	Inland river not influenced by normal tidal action.	On ground surface	Watercourse contains water year round (in normal circumstances)	River Gwash

This data is sourced from the Ordnance Survey.







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6.2 Surface water features

Records within 250m

Covering rivers, streams and lakes (some overlap with OS MasterMap Water Network data in previous section) but additionally covers smaller features such as ponds. Rivers and streams narrower than 5m are represented as a single line. Lakes, ponds and rivers or streams wider than 5m are represented as polygons.

Features are displayed on the Hydrology map on page 40 >

This data is sourced from the Ordnance Survey.

6.3 WFD Surface water body catchments

Records on site

The Water Framework Directive is an EU-led framework for the protection of inland surface waters, estuaries, coastal waters and groundwater through river basin-level management planning. In terms of surface water, these basins are broken down into smaller units known as management, operational and water body catchments.

Features are displayed on the Hydrology map on page 40 >

ID	Location	Туре	Water body catchment	Water body ID	Operational catchment	Management catchment
Α	On site	River	South Gwash	GB105031050480	Welland Upper	Welland

This data is sourced from the Environment Agency and Natural Resources Wales.

6.4 WFD Surface water bodies

Records identified

Surface water bodies under the Directive may be rivers, lakes, estuary or coastal. To achieve the purpose of the Directive, environmental objectives have been set and are reported on for each water body. The progress towards delivery of the objectives is then reported on by the relevant competent authorities at the end of each six-year cycle. The river water body directly associated with the catchment listed in the previous section is detailed below, along with any lake, canal, coastal or artificial water body within 250m of the site. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each water body listed.

Features are displayed on the Hydrology map on page 40 >

ID	Location	Туре	Name	Water body ID	Overall rating	Chemical rating	Ecological rating	Year
7	155m S	River	South Gwash	<u>GB105031050480</u> 7	Bad	Fail	Bad	2019

This data is sourced from the Environment Agency and Natural Resources Wales.





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6.5 WFD Groundwater bodies

Records on site 1

Groundwater bodies are also covered by the Directive and the same regime of objectives and reporting detailed in the previous section is in place. Click on the water body ID in the table to visit the EA Catchment Explorer to find out more about each groundwater body listed.

Features are displayed on the Hydrology map on page 40 >

ID	Location	Name	Water body ID	Overall rating	Chemical rating	Quantitative	Year
Α	On site	Welland Lower Jurassic Unit	<u>GB40502G304000</u> オ	Good	Good	Good	2019

This data is sourced from the Environment Agency and Natural Resources Wales.







7 River and coastal flooding

7.1 Risk of flooding from rivers and the sea

Records within 50m

The chance of flooding from rivers and/or the sea in any given year, based on cells of 50m within the Risk of Flooding from Rivers and Sea (RoFRaS)/Flood Risk Assessment Wales (FRAW) models. Each cell is allocated one of four flood risk categories, taking into account flood defences and their condition. The risk categories for RoFRaS for rivers and the sea and FRAW for rivers are; Very low (less than 1 in 1000 chance in any given year), Low (less than 1 in 100 but greater than or equal to 1 in 1000 chance). The risk categories for FRAW for the sea are; Very low (less than 0 requal to 1 in 30 but greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 200 but greater than or equal to 1 in 1000 chance in any given year), Low (less than 1 in 200 but greater than or equal to 1 in 30 but greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance), Medium (less than 1 in 200 but greater than or equal to 1 in 30 chance). The risk categories for FRAW for the sea are; Very low (less than 1 in 1000 chance), Medium (less than 1 in 200 but greater than or equal to 1 in 1000 chance), Medium (less than 1 in 30 but greater than or equal to 1 in 200 chance) or High (greater than or equal to 1 in 30 chance).

This data is sourced from the Environment Agency and Natural Resources Wales.

7.2 Historical Flood Events

Records within 250m

Records of historic flooding from rivers, the sea, groundwater and surface water. Records began in 1946 when predecessor bodies started collecting detailed information about flooding incidents, although limited details may be included on flooding incidents prior to this date. Takes into account the presence of defences, structures, and other infrastructure where they existed at the time of flooding, and includes flood extents that may have been affected by overtopping, breaches or blockages.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.3 Flood Defences

Records within 250m

Records of flood defences owned, managed or inspected by the Environment Agency and Natural Resources Wales. Flood defences can be structures, buildings or parts of buildings. Typically these are earth banks, stone and concrete walls, or sheet-piling that is used to prevent or control the extent of flooding.

This data is sourced from the Environment Agency and Natural Resources Wales.





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7.4 Areas Benefiting from Flood Defences

Records within 250m

Areas that would benefit from the presence of flood defences in a 1 in 100 (1%) chance of flooding each year from rivers or 1 in 200 (0.5%) chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.5 Flood Storage Areas

Records within 250m

Areas that act as a balancing reservoir, storage basin or balancing pond to attenuate an incoming flood peak to a flow level that can be accepted by the downstream channel or to delay the timing of a flood peak so that its volume is discharged over a longer period.

This data is sourced from the Environment Agency and Natural Resources Wales.







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River and coastal flooding - Flood Zones

7.6 Flood Zone 2

Records within 50m

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land between Flood Zone 3 (see next section) and the extent of the flooding from rivers or the sea with a 1 in 1000 (0.1%) chance of flooding each year.

This data is sourced from the Environment Agency and Natural Resources Wales.

7.7 Flood Zone 3

Records within 50m

Areas of land at risk of flooding, when the presence of flood defences are ignored. Covering land with a 1 in 100 (1%) or greater chance of flooding each year from rivers or a 1 in 200 (0.5%) or greater chance of flooding each year from the sea.

This data is sourced from the Environment Agency and Natural Resources Wales.







Negligible

8 Surface water flooding

8.1 Surface water flooding

Highest risk on site	Negligible

Highest risk within 50m

Ambiental Risk Analytics surface water (pluvial) FloodMap identifies areas likely to flood as a result of extreme rainfall events, i.e. land naturally vulnerable to surface water ponding or flooding. This data set was produced by simulating 1 in 30 year, 1 in 100 year, 1 in 250 year and 1 in 1,000 year rainfall events. Modern urban drainage systems are typically built to cope with rainfall events between 1 in 20 and 1 in 30 years, though some older ones may flood in a 1 in 5 year rainfall event.

The data shown on the map and in the table above shows the highest likelihood of flood events happening at the site. Lower likelihood events may have greater flood depths and hence a greater potential impact on a site. The table below shows the maximum flood depths for a range of return periods for the site.

Return period	Maximum modelled depth
1 in 1000 year	Negligible
1 in 250 year	Negligible
1 in 100 year	Negligible
1 in 30 year	Negligible

This data is sourced from Ambiental Risk Analytics.







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9 Groundwater flooding



9.1 Groundwater flooding

Highest risk on site	Negligible
Highest risk within 50m	Negligible
Highest risk within 50m	Negligible

Groundwater flooding is caused by unusually high groundwater levels. It occurs when the water table rises above the ground surface or within underground structures such as basements or cellars. Groundwater flooding tends to exhibit a longer duration than surface water flooding, possibly lasting for weeks or months, and as a result it can cause significant damage to property. This risk assessment is based on a 1 in 100 year return period and a 5m Digital Terrain Model (DTM).

Features are displayed on the Groundwater flooding map on page 48 >

This data is sourced from Ambiental Risk Analytics.






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10 Environmental designations



10.1 Sites of Special Scientific Interest (SSSI)

Records within 2000m

Sites providing statutory protection for the best examples of UK flora, fauna, or geological or physiographical features. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs were renotified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and (in Scotland) by the Nature Conservation (Scotland) Act 2004 and the Wildlife and Natural Environment (Scotland) Act 2010.

Features are displayed on the Environmental designations map on page 49 >

ID	Location	Name	Data source
А	1202m S	Prior's Coppice	Natural England







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This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.2 Conserved wetland sites (Ramsar sites)

Records within 2000m

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. They cover all aspects of wetland conservation and wise use, recognizing wetlands as ecosystems that are extremely important for biodiversity conservation in general and for the well-being of human communities. These sites cover a broad definition of wetland; marsh, fen, peatland or water, whether natural or artificial, permanent or temporary, with water that is static or flowing, fresh, brackish or salt, and even some marine areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.3 Special Areas of Conservation (SAC)

Records within 2000m

Areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.4 Special Protection Areas (SPA)

Records within 2000m

Sites classified by the UK Government under the EC Birds Directive, SPAs are areas of the most important habitat for rare (listed on Annex I to the Directive) and migratory birds within the European Union.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.5 National Nature Reserves (NNR)

Records within 2000m

Sites containing examples of some of the most important natural and semi-natural terrestrial and coastal ecosystems in Great Britain. They are managed to conserve their habitats, provide special opportunities for scientific study or to provide public recreation compatible with natural heritage interests.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.





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10.6 Local Nature Reserves (LNR)

Records within 2000m

Sites managed for nature conservation, and to provide opportunities for research and education, or simply enjoying and having contact with nature. They are declared by local authorities under the National Parks and Access to the Countryside Act 1949 after consultation with the relevant statutory nature conservation agency.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.7 Designated Ancient Woodland

Records within 2000m

Ancient woodlands are classified as areas which have been wooded continuously since at least 1600 AD. This includes semi-natural woodland and plantations on ancient woodland sites. 'Wooded continuously' does not mean there is or has previously been continuous tree cover across the whole site, and not all trees within the woodland have to be old.

Features are displayed on the Environmental designations map on page 49 >

ID	Location	Name	Woodland Type
А	1202m S	Priors Coppice	Ancient & Semi-Natural Woodland
-	1641m NW	Lady Wood	Ancient & Semi-Natural Woodland
-	1855m NW	Unknown	Ancient & Semi-Natural Woodland

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.8 Biosphere Reserves

Records within 2000m

Biosphere Reserves are internationally recognised by UNESCO as sites of excellence to balance conservation and socioeconomic development between nature and people. They are recognised under the Man and the Biosphere (MAB) Programme with the aim of promoting sustainable development founded on the work of the local community.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.





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10.9 Forest Parks

Records within 2000m

These are areas managed by the Forestry Commission designated on the basis of recreational, conservation or scenic interest.

This data is sourced from the Forestry Commission.

10.10 Marine Conservation Zones

Records within 2000m

A type of marine nature reserve in UK waters established under the Marine and Coastal Access Act (2009). They are designated with the aim to protect nationally important, rare or threatened habitats and species.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

10.11 Green Belt

Records within 2000m

Pocords within 2000m

Areas designated to prevent urban sprawl by keeping land permanently open.

This data is sourced from the Ministry of Housing, Communities and Local Government.

10.12 Proposed Ramsar sites

Records	VVILIIII	2000111	

Ramsar sites are areas listed as a Wetland of International Importance under the Convention on Wetlands of International Importance especially as Waterfowl Habitat (the Ramsar Convention) 1971. The sites here supplied have a status of 'Proposed' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.13 Possible Special Areas of Conservation (pSAC)

Records within 2000m

Special Areas of Conservation are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the EC Habitats Directive. Those sites supplied here are those with a status of 'Possible' having been identified for potential adoption under the framework.

This data is sourced from Natural England and Natural Resources Wales.





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10.14 Potential Special Protection Areas (pSPA)

Records within 2000m

Special Protection Areas (SPAs) are areas designated (or 'classified') under the European Union Wild Birds Directive for the protection of nationally and internationally important populations of wild birds. Those sites supplied here are those with a status of 'Potential' having been identified for potential adoption under the framework.

This data is sourced from Natural England.

10.15 Nitrate Sensitive Areas

Records within 2000m

Areas where nitrate concentrations in drinking water sources exceeded or was at risk of exceeding the limit of 50 mg/l set by the 1980 EC Drinking Water Directive. Voluntary agricultural measures as a means of reducing the levels of nitrate were introduced by DEFRA as MAFF, with payments being made to farmers who complied. The scheme was started as a pilot in 1990 in ten areas, later implemented within 32 areas. The scheme was closed to further new entrants in 1998, although existing agreements continued for their full term. All Nitrate Sensitive Areas fell within the areas designated as Nitrate Vulnerable Zones (NVZs) in 1996 under the EC Nitrate Directive (91/676/EEC).

This data is sourced from Natural England.

10.16 Nitrate Vulnerable Zones

Records within 2000m

Areas at risk from agricultural nitrate pollution designated under the EC Nitrate Directive (91/676/EEC). These area areas of land that drain into waters polluted by nitrates. Farmers operating within these areas have to follow mandatory rules to tackle nitrate loss from agriculture.

Location	Name	Туре	NVZ ID	Status
On site	River Welland NVZ	Surface Water	832	Existing
645m S	River Welland NVZ	Surface Water	832	Existing
1034m E	River Welland NVZ	Surface Water	832	Existing
1231m SE	River Welland NVZ	Surface Water	832	Existing
1641m N	SOAR R NVZ	Surface Water	309	Existing

This data is sourced from Natural England and Natural Resources Wales.





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SSSI Impact Zones and Units



10.17 SSSI Impact Risk Zones

Records on site

Developed to allow rapid initial assessment of the potential risks to SSSIs posed by development proposals. They define zones around each SSSI which reflect the particular sensitivities of the features for which it is notified and indicate the types of development proposal which could potentially have adverse impacts.

Features are displayed on the SSSI Impact Zones and Units map on page 54 >







ID	Location	Type of developments requiring consultation
1	On site	Infrastructure - Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals. Minerals, Oil and Gas - Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction.
		processes, livestock & poultry units with floorspace > 500m ² , slurry lagoons & digestate stores > 200m ² , manure stores > 250t).
		Combustion - General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion
		Waste - Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill.
		Composting - Any composting proposal with more than 75000 tonnes maximum annual operational
		throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management
		Discharges - Any discharge of water or liquid waste of more than 20m ³ /day to ground (ie to seep away) or to surface water, such as a beck or stream
		Water supply - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m ² or more.

This data is sourced from Natural England.

10.18 SSSI Units

Records within 2000m

Divisions of SSSIs used to record management and condition details. Units are the smallest areas for which Natural England gives a condition assessment, however, the size of units varies greatly depending on the types of management and the conservation interest.

Features are displayed on the SSSI Impact Zones and Units map on page 54 >

ID:	9		
Location:	1202m S		
SSSI name:	Prior's Coppice		
Unit name:	Semi Natural Woodland		
Broad habitat:	Broadleaved, Mixed And Yew Woodland -	Lowland	
Condition:	Unfavourable - Declining		
Reportable features:			

Feature name	Feature condition	Date of assessment
Wet woodland	Favourable	11/01/2010







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1207m S
Prior's Coppice
Semi Natural Woodland
Broadleaved, Mixed And Yew Woodland - Lowland
Unfavourable - Declining

Feature name	Feature condition	Date of assessment
Wet woodland	Favourable	11/01/2010

ID:	11
Location:	1301m S
SSSI name:	Prior's Coppice
Unit name:	Semi Natural Woodland
Broad habitat:	Broadleaved, Mixed And Yew Woodland - Lowland
Condition:	Unfavourable - Declining
Reportable features:	

Feature name	Feature condition	Date of assessment
Wet woodland	Favourable	11/01/2010

This data is sourced from Natural England and Natural Resources Wales.







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

11 Visual and cultural designations



11.1 World Heritage Sites

Records within 250m

Sites designated for their globally important cultural or natural interest requiring appropriate management and protection measures. World Heritage Sites are designated to meet the UK's commitments under the World Heritage Convention.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.







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11.2 Area of Outstanding Natural Beauty

Records within 250m

Areas of Outstanding Natural Beauty (AONB) are conservation areas, chosen because they represent 18% of the finest countryside. Each AONB has been designated for special attention because of the quality of their flora, fauna, historical and cultural associations, and/or scenic views. The National Parks and Access to the Countryside Act of 1949 created AONBs and the Countryside and Rights of Way Act, 2000 added further regulation and protection. There are likely to be restrictions to some developments within these areas.

This data is sourced from Natural England, Natural Resources Wales and Scottish Natural Heritage.

11.3 National Parks

Records within 250m

In England and Wales, the purpose of National Parks is to conserve and enhance landscapes within the countryside whilst promoting public enjoyment of them and having regard for the social and economic wellbeing of those living within them. In Scotland National Parks have the additional purpose of promoting the sustainable use of the natural resources of the area and the sustainable social and economic development of its communities. The National Parks and Access to the Countryside Act 1949 established the National Park designation in England and Wales, and The National Parks (Scotland) Act 2000 in Scotland.

This data is sourced from Natural England, Natural Resources Wales and the Scottish Government.

11.4 Listed Buildings

Records within 250m

Buildings listed for their special architectural or historical interest. Building control in the form of 'listed building consent' is required in order to make any changes to that building which might affect its special interest. Listed buildings are graded to indicate their relative importance, however building controls apply to all buildings equally, irrespective of their grade, and apply to the interior and exterior of the building in its entirety, together with any curtilage structures.

Features are displayed on the Visual and cultural designations map on page 57 >

ID	Location	Name	Grade	Reference Number	Listed date
2	170m E	The Old Bakehouse		1214997	09/08/1984
3	172m NE	4, High Street		1215073	09/08/1984
4	202m E	Norman Cottage		1215056	14/06/1954
А	204m E	K6 Telephone Kiosk		1394067	04/10/2010
5	210m E	Wall And Gate Piers At Quaintree Hall		1288309	09/08/1984
6	213m E	Church Of All Saints	*	1214996	14/06/1954







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

ID	Location	Name	Grade	Reference Number	Listed date
А	227m E	1, High Street		1215072	09/08/1984
7	230m E	Quaintree Hall	*	1214995	14/06/1954
8	230m SE	Hall Farmhouse	*	1215077	14/06/1954

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.5 Conservation Areas

Records within 250m

Local planning authorities are obliged to designate as conservation areas any parts of their own area that are of special architectural or historic interest, the character and appearance of which it is desirable to preserve or enhance. Designation of a conservation area gives broader protection than the listing of individual buildings. All the features within the area, listed or otherwise, are recognised as part of its character. Conservation area designation is the means of recognising the importance of all factors and of ensuring that planning decisions address the quality of the landscape in its broadest sense.

Features are displayed on the Visual and cultural designations map on page 57 >

ID	Location	Name	District	Date of designation
1	On site	Braunston	Rutland	08/10/1979

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.6 Scheduled Ancient Monuments

Records within 250m	0
A scheduled monument is an historic building or site that is included in the Schedule of Monument	s kept by
the Courstany of State for Digital Culture Media and Sport. The regime is set out in the Ansient Me	

the Secretary of State for Digital, Culture, Media and Sport. The regime is set out in the Ancient Monuments and Archaeological Areas Act 1979. The Schedule of Monuments has c.20,000 entries and includes sites such as Roman remains, burial mounds, castles, bridges, earthworks, the remains of deserted villages and industrial sites. Monuments are not graded, but all are, by definition, considered to be of national importance.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.

11.7 Registered Parks and Gardens

Records within 250m

Parks and gardens assessed to be of particular interest and of special historic interest. The emphasis being on 'designed' landscapes, rather than on planting or botanical importance. Registration is a 'material consideration' in the planning process, meaning that planning authorities must consider the impact of any





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proposed development on the special character of the landscape.

This data is sourced from Historic England, Cadw and Historic Environment Scotland.







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12 Agricultural designations



12.1 Agricultural Land Classification

Records within 250m

Classification of the quality of agricultural land taking into consideration multiple factors including climate, physical geography and soil properties. It should be noted that the categories for the grading of agricultural land are not consistent across England, Wales and Scotland.

Features are displayed on the Agricultural designations map on page 61 >

ID	Location	Classification	Description
1	On site	Grade 3	Good to moderate quality agricultural land. Land with moderate limitations which affect the choice of crops, timing and type of cultivation, harvesting or the level of yield. Where more demanding crops are grown yields are generally lower or more variable than on land in Grades 1 and 2.

This data is sourced from Natural England.







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12.2 Open Access Land

Records within 250m

The Countryside and Rights of Way Act 2000 (CROW Act) gives a public right of access to land without having to use paths. Access land includes mountains, moors, heaths and downs that are privately owned. It also includes common land registered with the local council and some land around the England Coast Path. Generally permitted activities on access land are walking, running, watching wildlife and climbing.

This data is sourced from Natural England and Natural Resources Wales.

12.3 Tree Felling Licences

Records within 250m

Felling Licence Application (FLA) areas approved by Forestry Commission England. Anyone wishing to fell trees must ensure that a licence or permission under a grant scheme has been issued by the Forestry Commission before any felling is carried out or that one of the exceptions apply.

This data is sourced from the Forestry Commission.

12.4 Environmental Stewardship Schemes

Records within 250m

Environmental Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. The schemes identified may be historical schemes that have now expired, or may still be active.

Location	Reference	Scheme	Start Date	End date
179m NW	AG00688010	Entry Level plus Higher Level Stewardship	01/10/2009	30/09/2023

This data is sourced from Natural England.

12.5 Countryside Stewardship Schemes

Records within 250m	0

Countryside Stewardship covers a range of schemes that provide financial incentives to farmers, foresters and land managers to look after and improve the environment. Main objectives are to improve the farmed environment for wildlife and to reduce diffuse water pollution.

This data is sourced from Natural England.





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13 Habitat designations





13.1 Priority Habitat Inventory

Records within 250m

Habitats of principal importance as named under Natural Environment and Rural Communities Act (2006) Section 41.

Features are displayed on the Habitat designations map on page 63 >

ID	Location	Main Habitat	Other habitats
1	209m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)
2	211m NE	Deciduous woodland	Main habitat: DWOOD (INV > 50%)

This data is sourced from Natural England.







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13.2 Habitat Networks

Records within 250m

Habitat networks for 18 priority habitat networks (based primarily, but not exclusively, on the priority habitat inventory) and areas suitable for the expansion of networks through restoration and habitat creation.

This data is sourced from Natural England.

13.3 Open Mosaic Habitat

Records within 250m

Sites verified as Open Mosaic Habitat. Mosaic habitats are brownfield sites that are identified under the UK Biodiversity Action Plan as a priority habitat due to the habitat variation within a single site, supporting an array of invertebrates.

This data is sourced from Natural England.

13.4 Limestone Pavement Orders

Records within 250m

Limestone pavements are outcrops of limestone where the surface has been worn away by natural means over millennia. These rocks have the appearance of paving blocks, hence their name. Not only do they have geological interest, they also provide valuable habitats for wildlife. These habitats are threatened due to their removal for use in gardens and water features. Many limestone pavements have been designated as SSSIs which affords them some protection. In addition, Section 34 of the Wildlife and Countryside Act 1981 gave them additional protection via the creation of Limestone Pavement Orders, which made it a criminal offence to remove any part of the outcrop. The associated Limestone Pavement Priority Habitat is part of the UK Biodiversity Action Plan priority habitat in England.

This data is sourced from Natural England.





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14 Geology 1:10,000 scale - Availability



14.1 10k Availability

Records within 500m

An indication on the coverage of 1:10,000 scale geology data for the site, the most detailed dataset provided by the British Geological Survey. Either 'Full', 'Partial' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:10,000 scale - Availability map on page 65 >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	SK80NW

This data is sourced from the British Geological Survey.







Geology 1:10,000 scale - Artificial and made ground

14.2 Artificial and made ground (10k)

Records within 500m

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Details of made, worked, infilled, disturbed and landscaped ground at 1:10,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

Geology 1:10,000 scale - Superficial



14.3 Superficial geology (10k)

Records within 500m

Superficial geological deposits at 1:10,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:10,000 scale - Superficial map on page 67 >

ID	Location	LEX Code	Description	Rock description
1	120m S	ALV-XCZSV	Alluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
2	125m W	COLV-XCZSV	Colluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
3	175m S	ODT-DMTN	Oadby Member - Diamicton	Diamicton
4	227m S	COLV-XCZSV	Colluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel



Contact us with any questions at: info@groundsure.com ↗ 01273 257 755





Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

ID	Location	LEX Code	Description	Rock description
5	230m N	ODT-DMTN	Oadby Member - Diamicton	Diamicton
6	251m S	COLV-XCZSV	Colluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
7	390m SE	COLV-XCZSV	Colluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
8	460m E	COLV-XCZSV	Colluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel
9	464m N	COLV-XCZSV	Colluvium - Clay, Silt, Sand And Gravel	Clay, Silt, Sand And Gravel

This data is sourced from the British Geological Survey.

14.4 Landslip (10k)

Records wit	thin 500m				0

Mass movement deposits on BGS geological maps at 1:10,000 scale. Primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground.

This data is sourced from the British Geological Survey.







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

Geology 1:10,000 scale - Bedrock



14.5 Bedrock geology (10k)

Records within 500m

Bedrock geology at 1:10,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:10,000 scale - Bedrock map on page 69 >

ID	Location	LEX Code	Description	Rock age
1	On site	DYS-SIMD	Dyrham Formation - Siltstone And Mudstone, Interbedded	Pliensbachian Age
2	On site	MRB-FLMST	Marlstone Rock Formation - Ferruginous Limestone	Toarcian Age - Pliensbachian Age







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This data is sourced from the British Geological Survey.

14.6 Bedrock faults and other linear features (10k)

Records within 500m

Linear features at the ground or bedrock surface at 1:10,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

15 Geology 1:50,000 scale - Availability



15.1 50k Availability

Records within 500m

An indication on the coverage of 1:50,000 scale geology data for the site. Either 'Full' or 'No coverage' for each geological theme.

Features are displayed on the Geology 1:50,000 scale - Availability map on page 71 >

ID	Location	Artificial	Superficial	Bedrock	Mass movement	Sheet No.
1	On site	Full	Full	Full	Full	EW157_stamford_v4
2	117m W	Full	Full	Full	No coverage	EW156_leicester_v4

This data is sourced from the British Geological Survey.







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Geology 1:50,000 scale - Artificial and made ground

15.2 Artificial and made ground (50k)

Records within 500m

Details of made, worked, infilled, disturbed and landscaped ground at 1:50,000 scale. Artificial ground can be associated with potentially contaminated material, unpredictable engineering conditions and instability.

This data is sourced from the British Geological Survey.

15.3 Artificial ground permeability (50k)

Records within 50m

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any artificial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

Geology 1:50,000 scale - Superficial



15.4 Superficial geology (50k)

Records within 500m

Superficial geological deposits at 1:50,000 scale. Also known as 'drift', these are the youngest geological deposits, formed during the Quaternary. They rest on older deposits or rocks referred to as bedrock.

Features are displayed on the Geology 1:50,000 scale - Superficial map on page 73 >

ID	Location	LEX Code	Description	Rock description
1	120m S	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
2	143m W	COLV-XCZSV	COLLUVIUM	CLAY, SILT, SAND AND GRAVEL
3	163m SW	ALV-XCZSV	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL
4	176m S	ODT-DMTN	OADBY MEMBER	DIAMICTON







ID	Location	LEX Code	Description	Rock description
5	227m SW	ODT-DMTN	OADBY MEMBER	DIAMICTON
6	229m N	ODT-DMTN	OADBY MEMBER	DIAMICTON
7	348m N	ODT-DMTN	OADBY MEMBER	DIAMICTON

This data is sourced from the British Geological Survey.

15.5 Superficial permeability (50k)

Records within 50m

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any superficial deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.

15.6 Landslip (50k)

Records within 500m	0
Mass movement deposits on BGS geological maps at 1:50,000 scale. Primarily superficial deposits t moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits	hat have and
artificial ground.	

This data is sourced from the British Geological Survey.

15.7 Landslip permeability (50k)

Records within 50m

A qualitative classification of estimated rates of vertical movement of water from the ground surface through the unsaturated zone of any landslip deposits (the zone between the land surface and the water table).

This data is sourced from the British Geological Survey.







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

Geology 1:50,000 scale - Bedrock



15.8 Bedrock geology (50k)

Records within 500m

Bedrock geology at 1:50,000 scale. The main mass of rocks forming the Earth and present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

Features are displayed on the Geology 1:50,000 scale - Bedrock map on page 75 >

ID	Location	LEX Code	Description	Rock age
1	On site	DYS-SIMD	DYRHAM FORMATION - SILTSTONE AND MUDSTONE, INTERBEDDED	PLIENSBACHIAN
2	On site	MRB-FLMST	MARLSTONE ROCK FORMATION - LIMESTONE, FERRUGINOUS	PLIENSBACHIAN
2 3	On site 67m N	MRB-FLMST	MARLSTONE ROCK FORMATION - LIMESTONE, FERRUGINOUS WHITBY MUDSTONE FORMATION - MUDSTONE	PLIENSBACHIAN TOARCIAN







ID	Location	LEX Code	Description	Rock age
4	117m W	DYS-SIMD	DYRHAM FORMATION - SILTSTONE AND MUDSTONE, INTERBEDDED	PLIENSBACHIAN
5	125m W	MRB-FLMST	MARLSTONE ROCK FORMATION - LIMESTONE, FERRUGINOUS	PLIENSBACHIAN
6	210m NW	WHM-MDST	WHITBY MUDSTONE FORMATION - MUDSTONE	TOARCIAN

This data is sourced from the British Geological Survey.

15.9 Bedrock permeability (50k)

Pacarda within E0m

Records within Som		۷
qualitative classification of estimated	rates of vertical movement of water f	from the ground surface through

A qualitative classification of estimated rates of vertical movement of water from the ground surface throug the unsaturated zone of bedrock (the zone between the land surface and the water table).

Location	Flow type	Maximum permeability	Minimum permeability
On site	Fracture	Very High	High
On site	Mixed	Moderate	Low

This data is sourced from the British Geological Survey.

15.10 Bedrock faults and other linear features (50k)

Records within 500m	0
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Linear features at the ground or bedrock surface at 1:50,000 scale of six main types; rock, fault, fold axis, mineral vein, alteration area or landform. Features are either observed or inferred, and relate primarily to bedrock.

This data is sourced from the British Geological Survey.







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16 Boreholes

16.1 BGS Boreholes

Records within 250m

The Single Onshore Boreholes Index (SOBI); an index of over one million records of boreholes, shafts and wells from all forms of drilling and site investigation work held by the British Geological Survey. Covering onshore and nearshore boreholes dating back to at least 1790 and ranging from one to several thousand metres deep.

This data is sourced from the British Geological Survey.







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

17 Natural ground subsidence - Shrink swell clays



17.1 Shrink swell clays

Records within 50m

The potential hazard presented by soils that absorb water when wet (making them swell), and lose water as they dry (making them shrink). This shrink-swell behaviour is controlled by the type and amount of clay in the soil, and by seasonal changes in the soil moisture content (related to rainfall and local drainage).

Features are displayed on the Natural ground subsidence - Shrink swell clays map on page 78 >

Location	Hazard rating	Details
On site	Negligible	Ground conditions predominantly non-plastic.
On site	Low	Ground conditions predominantly medium plasticity.

This data is sourced from the British Geological Survey.







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

Natural ground subsidence - Running sands



17.2 Running sands

Records within 50m

The potential hazard presented by rocks that can contain loosely-packed sandy layers that can become fluidised by water flowing through them. Such sands can 'run', removing support from overlying buildings and causing potential damage.

Features are displayed on the Natural ground subsidence - Running sands map on page 79 >

Location	Hazard rating	Details
On site	Negligible	Running sand conditions are not thought to occur whatever the position of the water table. No identified constraints on lands use due to running conditions.

This data is sourced from the British Geological Survey.







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

Natural ground subsidence - Compressible deposits



17.3 Compressible deposits

Records within 50m

The potential hazard presented by types of ground that may contain layers of very soft materials like clay or peat and may compress if loaded by overlying structures, or if the groundwater level changes, potentially resulting in depression of the ground and disturbance of foundations.

Features are displayed on the Natural ground subsidence - Compressible deposits map on page 80 >

Location	Hazard rating	Details
On site	Negligible	Compressible strata are not thought to occur.

This data is sourced from the British Geological Survey.







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

Natural ground subsidence - Collapsible deposits



17.4 Collapsible deposits

Records within 50m

The potential hazard presented by natural deposits that could collapse when a load (such as a building) is placed on them or they become saturated with water.

Features are displayed on the Natural ground subsidence - Collapsible deposits map on page 81 >

Location	Hazard rating	Details
On site	Very low	Deposits with potential to collapse when loaded and saturated are unlikely to be present.

This data is sourced from the British Geological Survey.







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

Natural ground subsidence - Landslides



17.5 Landslides

Records within 50m

The potential for landsliding (slope instability) to be a hazard assessed using 1:50,000 scale digital maps of superficial and bedrock deposits, combined with information from the BGS National Landslide Database and scientific and engineering reports.

Features are displayed on the Natural ground subsidence - Landslides map on page 82 >

Location	Hazard rating	Details
On site	Very low	Slope instability problems are not likely to occur but consideration to potential problems of adjacent areas impacting on the site should always be considered.

This data is sourced from the British Geological Survey.







Natural ground subsidence - Ground dissolution of soluble rocks



17.6 Ground dissolution of soluble rocks

Records within 50m

The potential hazard presented by ground dissolution, which occurs when water passing through soluble rocks produces underground cavities and cave systems. These cavities reduce support to the ground above and can cause localised collapse of the overlying rocks and deposits.

Features are displayed on the Natural ground subsidence - Ground dissolution of soluble rocks map on page 83 >

Location	Hazard rating	Details
On site	Negligible	Soluble rocks are either not thought to be present within the ground, or not prone to dissolution. Dissolution features are unlikely to be present.







This data is sourced from the British Geological Survey.






Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

18 Mining and ground workings



18.1 BritPits

Records within 500m

BritPits (an abbreviation of British Pits) is a database maintained by the British Geological Survey of currently active and closed surface and underground mineral workings. Details of major mineral handling sites, such as wharfs and rail depots are also held in the database.

This data is sourced from the British Geological Survey.







Ref: GS-L4V-H75-E4P-JII Your ref: Knossington_Road_-_PO23627 Grid ref: 483030 306682

18.2 Surface ground workings

Records within 250m	3

Historical land uses identified from Ordnance Survey mapping that involved ground excavation at the surface. These features may or may not have been subsequently backfilled.

Features are displayed on the Mining and ground workings map on page 85 >

ID	Location	Land Use	Year of mapping	Mapping scale
1	20m N	Pond	1950	1:10560
А	133m W	Pond	1950	1:10560
А	155m W	Pond	1950	1:10560

This is data is sourced from Ordnance Survey/Groundsure.

18.3 Underground workings

Historical land uses identified from Ordnance Survey mapping that indicate the presence of underground workings e.g. mine shafts.

This is data is sourced from Ordnance Survey/Groundsure.

18.4 Underground mining extents

Records within 500m

This data identifies underground mine workings that could present a potential risk, including adits and seam workings. These features have been identified from BGS Geological mapping and mine plans sourced from the BGS and various collections and sources.

This data is sourced from Groundsure.

18.5 Historical Mineral Planning Areas

Records within 500m

Boundaries of mineral planning permissions for England and Wales. This data was collated between the 1940s (and retrospectively to the 1930s) and the mid 1980s. The data includes permitted, withdrawn and refused permissions.

This data is sourced from the British Geological Survey.





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18.6 Non-coal mining

Records within 1000m

The potential for historical non-coal mining to have affected an area. The assessment is drawn from expert knowledge and literature in addition to the digital geological map of Britain. Mineral commodities may be divided into seven general categories - vein minerals, chalk, oil shale, building stone, bedded ores, evaporites and 'other' commodities (including ball clay, jet, black marble, graphite and chert).

This data is sourced from the British Geological Survey.

18.7 JPB mining areas

Records on site

Areas which could be affected by former coal and other mining. This data includes some mine plans unavailable to the Coal Authority.

This data is sourced from Johnson Poole and Bloomer.

18.8 The Coal Authority non-coal mining

Records within 500m

This data provides an indication of the potential zone of influence of recorded underground non-coal mining workings. Any and all analysis and interpretation of Coal Authority Data in this report is made by Groundsure, and is in no way supported, endorsed or authorised by the Coal Authority. The use of the data is restricted to the terms and provisions contained in this report. Data reproduced in this report may be the copyright of the Coal Authority and permission should be sought from Groundsure prior to any re-use.

This data is sourced from The Coal Authority.

18.9 Researched mining

Records within 500m

This data indicates areas of potential mining identified from alternative or archival sources, including; BGS Geological paper maps, Lidar data, aerial photographs (from World War II onwards), archaeological data services, websites, Tithe maps, and various text/plans from collected books and reports. Some of this data is approximate and Groundsure have interpreted the resultant risk area and, where possible, specific areas of risk have been captured.

This data is sourced from Groundsure.





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18.10 Mining record office plans

Records within 500m

This dataset is representative of Mining Record Office and/or plan extents held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.11 BGS mine plans

Records within 500m

This dataset is representative of BGS mine plans held by Groundsure and should be considered approximate. Where possible, plans have been located and any specific areas of risk they depict have been captured.

This data is sourced from Groundsure.

18.12 Coal mining

Records on site

Areas which could be affected by past, current or future coal mining.

This data is sourced from the Coal Authority.

18.13 Brine areas

Records on site

The Cheshire Brine Compensation District indicates areas that may be affected by salt and brine extraction in Cheshire and where compensation would be available where damage from this mining has occurred. Damage from salt and brine mining can still occur outside this district, but no compensation will be available.

This data is sourced from the Cheshire Brine Subsidence Compensation Board.

18.14 Gypsum areas

Records on site

Generalised areas that may be affected by gypsum extraction.

This data is sourced from British Gypsum.

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18.15 Tin mining

Records on site

Generalised areas that may be affected by historical tin mining.

This data is sourced from Groundsure.

18.16 Clay mining

Records on site

Generalised areas that may be affected by kaolin and ball clay extraction.

This data is sourced from the Kaolin and Ball Clay Association (UK).





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19 Ground cavities and sinkholes

19.1 Natural cavities

Records within 500m

Industry recognised national database of natural cavities. Sinkholes and caves are formed by the dissolution of soluble rock, such as chalk and limestone, gulls and fissures by cambering. Ground instability can result from movement of loose material contained within these cavities, often triggered by water.

This data is sourced from Stantec UK Ltd.

19.2 Mining cavities

Records within 1000m

Industry recognised national database of mining cavities. Degraded mines may result in hazardous subsidence (crown holes). Climatic conditions and water escape can also trigger subsidence over mine entrances and workings.

This data is sourced from Stantec UK Ltd.

19.3 Reported recent incidents

Records within 500m

This data identifies sinkhole information gathered from media reports and Groundsure's own records. This data goes back to 2014 and includes relative accuracy ratings for each event and links to the original data sources. The data is updated on a regular basis and should not be considered a comprehensive catalogue of all sinkhole events. The absence of data in this database does not mean a sinkhole definitely has not occurred during this time.

This data is sourced from Groundsure.

19.4 Historical incidents

Records within 500m

This dataset comprises an extract of 1:10,560, 1:10,000, 1:2,500 and 1:1,250 scale historical Ordnance Survey maps held by Groundsure, dating back to the 1840s. It shows shakeholes, deneholes and other 'holes' as noted on these maps. Dene holes are medieval chalk extraction pits, usually comprising a narrow shaft with a number of chambers at the base of the shaft. Shakeholes are an alternative name for suffusion sinkholes, most commonly found in the limestone landscapes of North Yorkshire but also extensively noted around the Brecon Beacons National Park.

Not all 'holes' noted on Ordnance Survey mapping will necessarily be present within this dataset.







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This data is sourced from Groundsure.

19.5 National karst database

Records within 500m

This is a comprehensive database of national karst information gathered from a wide range of sources. BGS have collected data on five main types of karst feature: Sinkholes, stream links, caves, springs, and incidences of associated damage to buildings, roads, bridges and other engineered works.

Since the database was set up in 2002 data covering most of the evaporite karst areas of the UK have now been added, along with data covering about 60% of the Chalk, and 35% of the Carboniferous Limestone outcrops. Many of the classic upland karst areas have yet to be included. Recorded so far are: Over 800 caves, 1300 stream sinks, 5600 springs, 10,000 sinkholes.

The database is not yet complete, and not all records have been verified. The absence of data does not mean that karst features are not present at a site. A reliability rating is included with each record.

This data is sourced from the British Geological Survey.







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20 Radon



20.1 Radon

Records on site

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The Radon Potential data classifies areas based on their likelihood of a property having a radon level at or above the Action Level in Great Britain. The dataset is intended for use at 1:50,000 scale and was derived from both geological assessments and indoor radon measurements (more than 560,000 records). A minimum 50m buffer should be considered when searching the maps, as the smallest detectable feature at this scale is 50m. The findings of this section should supersede any estimations derived from the Indicative Atlas of Radon in Great Britain (1:100,000 scale).

Features are displayed on the Radon map on page 92 >

Location	Estimated properties affected	Radon Protection Measures required
On site	Less than 1%	None







Location	Estimated properties affected	Radon Protection Measures required
On site	Between 1% and 3%	None

This data is sourced from the British Geological Survey and UK Health Security Agency.







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21 Soil chemistry

21.1 BGS Estimated Background Soil Chemistry

Records within 50m

The estimated values provide the likely background concentration of the potentially harmful elements Arsenic, Cadmium, Chromium, Lead and Nickel in topsoil. The values are estimated primarily from rural topsoil data collected at a sample density of approximately 1 per 2 km². In areas where rural soil samples are not available, estimation is based on stream sediment data collected from small streams at a sampling density of 1 per 2.5 km²; this is the case for most of Scotland, Wales and southern England. The stream sediment data are converted to soil-equivalent concentrations prior to the estimation.

Location	Arsenic	Bioaccessible Arsenic	Lead	Bioaccessible Lead	Cadmium	Chromium	Nickel
On site	25 - 35 mg/kg	1 - 2 mg/kg	100 mg/kg	60 mg/kg	1.8 mg/kg	120 - 180 mg/kg	45 - 60 mg/kg
On site	45 - 60 mg/kg	2 - 3 mg/kg	100 mg/kg	60 mg/kg	1.8 mg/kg	>180 mg/kg	60 - 80 mg/kg
22m SW	25 - 35 mg/kg	1 - 2 mg/kg	100 mg/kg	60 mg/kg	1.8 mg/kg	120 - 180 mg/kg	45 - 60 mg/kg
26m W	45 - 60 mg/kg	2 - 3 mg/kg	100 mg/kg	60 mg/kg	1.8 mg/kg	>180 mg/kg	60 - 80 mg/kg
31m N	15 - 25 mg/kg	1 mg/kg	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg
38m NW	15 - 25 mg/kg	1 mg/kg	100 mg/kg	60 mg/kg	1.8 mg/kg	90 - 120 mg/kg	30 - 45 mg/kg

This data is sourced from the British Geological Survey.

21.2 BGS Estimated Urban Soil Chemistry

Records within 50m

Estimated topsoil chemistry of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc and bioaccessible Arsenic and Lead in 23 urban centres across Great Britain. These estimates are derived from interpolation of the measured urban topsoil data referred to above and provide information across each city between the measured sample locations (4 per km²).

This data is sourced from the British Geological Survey.







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21.3 BGS Measured Urban Soil Chemistry

Records within 50m

The locations and measured total concentrations (mg/kg) of Arsenic, Cadmium, Chromium, Copper, Nickel, Lead, Tin and Zinc in urban topsoil samples from 23 urban centres across Great Britain. These are collected at a sample density of 4 per km².

This data is sourced from the British Geological Survey.







22 Railway infrastructure and projects

22.1 Underground railways (London)

Records within 250m

Details of all active London Underground lines, including approximate tunnel roof depth and operational hours.

This data is sourced from publicly available information by Groundsure.

22.2 Underground railways (Non-London)

Records within 250m

Details of the Merseyrail system, the Tyne and Wear Metro and the Glasgow Subway. Not all parts of all systems are located underground. The data contains location information only and does not include a depth assessment.

This data is sourced from publicly available information by Groundsure.

22.3 Railway tunnels

Records within 250m

Railway tunnels taken from contemporary Ordnance Survey mapping.

This data is sourced from the Ordnance Survey.

22.4 Historical railway and tunnel features

Records within 250m

Railways and tunnels digitised from historical Ordnance Survey mapping as scales of 1:1,250, 1:2,500, 1:10,000 and 1:10,560.

This data is sourced from Ordnance Survey/Groundsure.

22.5 Royal Mail tunnels

Records within 250m

The Post Office Railway, otherwise known as the Mail Rail, is an underground railway running through Central London from Paddington Head District Sorting Office to Whitechapel Eastern Head Sorting Office. The line is 10.5km long. The data includes details of the full extent of the tunnels, the depth of the tunnel, and the depth to track level.





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This data is sourced from Groundsure/the Postal Museum.

22.6 Historical railways

Records within 250m0Former railway lines, including dismantled lines, abandoned lines, disused lines, historic railways and razed
lines.

This data is sourced from OpenStreetMap.

22.7 Railways

Records within 250m

Currently existing railway lines, including standard railways, narrow gauge, funicular, trams and light railways. This data is sourced from Ordnance Survey and OpenStreetMap.

22.8 Crossrail 1

Records within 500m

The Crossrail railway project links 41 stations over 100 kilometres from Reading and Heathrow in the west, through underground sections in central London, to Shenfield and Abbey Wood in the east.

This data is sourced from publicly available information by Groundsure.

22.9 Crossrail 2

Records within 500m

Crossrail 2 is a proposed railway linking the national rail networks in Surrey and Hertfordshire via an underground tunnel through London.

This data is sourced from publicly available information by Groundsure.

22.10 HS2

Records within 500m

HS2 is a proposed high speed rail network running from London to Manchester and Leeds via Birmingham. Main civils construction on Phase 1 (London to Birmingham) of the project began in 2019, and it is currently anticipated that this phase will be fully operational by 2026. Construction on Phase 2a (Birmingham to Crewe) is anticipated to commence in 2021, with the service fully operational by 2027. Construction on Phase 2b (Crewe to Manchester and Birmingham to Leeds) is scheduled to begin in 2023 and be operational by 2033.

This data is sourced from HS2 ltd.







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Data providers

Groundsure works with respected data providers to bring you the most relevant and accurate information. To find out who they are and their areas of expertise see <u>https://www.groundsure.com/sources-reference</u> \nearrow .

Terms and conditions

Groundsure's Terms and Conditions can be accessed at this link: <u>https://www.groundsure.com/terms-and-conditions-april-2023/</u> 7.







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Map legend available at: www.groundsure_legend.pdf









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16 LITTLE A KNOSSING BRAUNSTO LE15 8QX	ACRE, TON ROAD, DN IN RUTLAND,	
Client Ref: Report Ref: Grid Ref:	Knossington_RoadPO2362 GS-JKY-NRC-84B-WSN 483040, 306672	7
Map Name:	Provisional	N
Map date:	1950	
Scale:	1:10,560	Υ
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Client Ref: Report Ref: Grid Ref:	Knossington_RoadPO23627 GS-JKY-NRC-84B-WSN 483040, 306672	
Map Name:	LandLine	N
Map date:	2003	
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Appendix D Risk Matrix

The approach to risk evaluation is a qualitative method in general accordance with the CIRIA C552 2001 document. It involves the classification of the potential consequence of risk occurring and the probability of the risk occurring.

Classification of Consequence

The terms and definitions relating to the classification of consequence are summarised in Table D1:

Table D1: Classification of Consequence

Classification	Definition	Example
Severe	Short term (acute) risk to human health likely to result in "significant harm" as defined by the Environment Protection Act 1990, Part IIA. Short term risk of pollution (note: Water Resources Act contains no scope for considering significance of pollution) of sensitive water resource. Catastrophic damage to buildings/property. A short-term risk to a particular ecosystem, or organism forming part of such ecosystem (note: the definitions of ecological systems within the Circular on Contaminated Land, DETR, 2000).	 High concentrations of cyanide on the surface of an informal recreation area. Major spillage of contaminants from site into controlled water. Explosion, causing building collapse (can also equate to a short term human health risk if buildings are occupied.)
Medium	Chronic damage to Human Health ("significant harm" as defined in the DETR, 2000). Pollution of sensitive water resources (note: Water Resources Act contains no scope for considering significance of pollution). A significant change in a particular ecosystem, or organism forming part of such ecosystem. (note: the definitions of ecological systems within Circular on Contaminated Land, DETR, 2000).	 Concentrations of a contaminant from site exceed the generic, or site-specific assessment criteria. Leaching of contaminants from a site to a major or minor aquifer (renamed principal, secondary and significant drift under the Water Framework Directive). Death of a species within a designated nature reserve.
Mild	Pollution of non-sensitive water resources. Significant damage to buildings/structures and crops ("significant harm" as defined in the Circular on Contaminated Land, DETR, 2000). Damage to sensitive buildings/structures or the environment.	 Pollution of non-classified groundwater. Damage to building rendering it unsafe to occupy (e.g. foundation damage resulting in instability).
Minor	Harm, although not necessarily significant harm, which may result in a financial loss, or expenditure to resolve. Non-permanent health effects to human health (easily prevented by means such as Personal Protective Clothing, etc.). Easily repairable effects of damage to buildings/structures.	 The presence of contaminants at such concentrations that protective equipment is required during site works. The loss of plants in a landscaping scheme. Discolouration of concrete.

Classification of Probability

Probability is classified based on the following terms and definitions:



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

Table D2: Classification of Probability

Risk Matrix

The risk matrix based on probability and consequence is presented in Table D3:

Table D3: Risk Matrix

		Consequences			
		Severe	Medium	Mild	Minor
Probability	High Likelihood	Very high	High	Moderate	Moderate / Low
	Moderate Likelihood	High	Moderate	Moderate / Low	Low
	Low likelihood	Moderate	Moderate / Low	Low	Very Low
	Unlikely	Moderate / Low	Low	Very Low	Very Low

Risk Descriptions

Definitions of the risk categories are presented in Table D4:

Table D4: Description of the classified risks and likely action required

Classification	Definition
Very High Risk	There is a high probability that severe harm could arise to a designated receptor from an identified hazard, or there is evidence that severe harm to a designated receptor is currently happening. This risk, if realised, is likely to result in a substantial liability. Urgent investigation (if not undertaken already) and remediation are likely to be required.
High Risk	Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short term and are likely over the longer term.
Moderate Risk	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either 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. Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer term.



Classification	Definition
Low Risk	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Very Low Risk	There is a low probability that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.



Appendix E Limitations

All conclusions and recommendations made within this report are based upon and limited to the factual information obtained as part of this study. PJA will state where it has utilised and relied upon information obtained by others. It has been assumed that all third-party information provided is true and accurate. No responsibility is accepted by PJA for the accuracy or completeness of such information.

There is a possibility that there may exist on site conditions that could not be identified within the scope of the assessment, or which were not reasonably identifiable from the available information. The conclusions drawn in the report are considered correct, although any subsequent additional information may allow refinement of the conclusions.

The findings of this report represent the professional opinion of experienced environmental scientists and contaminated land specialists. All advice, opinions, assessments and views set out in this Phase 1 report are based on relevant UK standards, codes, construction practices and legislation understood to be current and applicable at the date of this report. Further assessment and a revision of the report may be required should new information come to light or legislation/changes to best practice be introduced after the date of issue of the report.

PJA confirms it offers no duty to update the report in the light of any such information or changes to regulation and / or guidance. PJA does not provide legal advice and the advice of solicitors may also be required.

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