

Analytical Report Number : 16-27324

Project / Site name: Newmarket Road, Royston, SG8 7NJ

Water matrix abbreviations: Surface Water (SW) Potable Water (PW) Ground Water (GW)

Analytical Test Name	Analytical Method Description	Analytical Method Reference	Method number	Wet / Dry Analysis	Accreditation Status
Asbestos identification in soil	Asbestos Identification with the use of polarised light microscopy in conjunction with disperion staining techniques.	In house method based on HSG 248	A001-PL	D	ISO 17025
Chloride, water soluble, in soil	Determination of Chloride colorimetrically by discrete analyser.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests. 2:1 extraction.	L082-PL	D	MCERTS
Metals in soil by ICP-OES	Determination of metals in soil by aqua-regia digestion followed by ICP-OES.	In-house method based on MEWAM 2006 Methods for the Determination of Metals in Soil.	L038-PL	D	MCERTS
Moisture Content	Moisture content, determined gravimetrically.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L019-UK/PL	W	NONE
Monohydric phenols in soil	Determination of phenols in soil by extraction with sodium hydroxide followed by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (skalar)	L080-PL	W	MCERTS
pH in soil (automated)	Determination of pH in soil by addition of water followed by automated electrometric measurement.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L099-PL	D	MCERTS
Speciated EPA-16 PAHs in soil	Determination of PAH compounds in soil by extraction in dichloromethane and hexane followed by GC-MS with the use of surrogate and internal standards.	In-house method based on USEPA 8270	L064-PL	D	MCERTS
Stones content of soil	Standard preparation for all samples unless otherwise detailed. Gravimetric determination of stone > 10 mm as % dry weight.	In-house method based on British Standard Methods and MCERTS requirements.	L019-UK/PL	D	NONE
Sulphate, water soluble, in soil (16hr extraction)	Determination of water soluble sulphate by ICP-OES. Results reported directly (leachate equivalent) and corrected for extraction ratio (soil equivalent).	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests, 2:1 water:soil extraction, analysis by ICP-OES.	L038-PL	D	NONE
Sulphide in soil	Determination of sulphide in soil by acidification and heating to liberate hydrogen sulphide, trapped in an alkaline solution then assayed by ion selective electrode.	In-house method	L010-PL	D	MCERTS
Total cyanide in soil	Determination of total cyanide by distillation followed by colorimetry.	In-house method based on Examination of Water and Wastewater 20th Edition: Clesceri, Greenberg & Eaton (Skalar)	L080-PL	W	MCERTS
Total organic carbon in soil	Determination of organic matter in soil by oxidising with potassium dichromate followed by titration with iron (II) sulphate.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L023-PL	D	MCERTS
Total sulphate (as SO4 in soil)	Determination of total sulphate in soil by extraction with 10% HCl followed by ICP-OES.	In-house method based on BS1377 Part 3, 1990, Chemical and Electrochemical Tests	L038-PL	D	MCERTS
TPH in (Soil)	Determination of TPH bands by HS-GC-MS/GC-FID	In-house method, TPH with carbon banding.	L076-PL	D	ISO 17025

For method numbers ending in 'UK' analysis have been carried out in our laboratory in the United Kingdom.

For method numbers ending in 'PL' analysis have been carried out in our laboratory in Poland.

Soil analytical results are expressed on a dry weight basis. Where analysis is carried out on as-received the results obtained are multiplied by a moisture correction factor that is determined gravimetrically using the moisture content which is carried out at a maximum of 30oC.

Site	32 Green Street & 17 Dunraven Street, London W1K 7FL	Job Number J16044
Client	Green Street Developments	Sheet 1 / 2
Engineer	Constructure	

Proposed End Use Residential with plant uptake

Soil pH 8

Soil Organic Matter content % 2.5

Contaminant	Screening Value mg/kg	Data Source	Contaminant	Screening Value mg/kg	Data Source
Metals			Anions		
Arsenic	37	C4SL	Soluble Sulphate	500 mg/l	Structures
Cadmium	26	C4SL	Sulphide	50	Structures
Chromium (III)	3000	LQM/CIEH	Chloride	400	Structures
Chromium (VI)	21	C4SL	Others		
Copper	2,330	LQM/CIEH	Organic Carbon (%)	6	Methanogenic potential
Lead	200	C4SL	Total Cyanide	140	WRAS
Elemental Mercury	1	SGV	Total Mono Phenols	290	SGV
Inorganic Mercury	170	SGV	PAH		
Nickel	97	LQM/CIEH	Naphthalene	5.30	C4SL exp & LQM/CIEH
Selenium	350	SGV	Acenaphthylene	400	LQM/CIEH
Zinc	3,750	LQM/CIEH	Acenaphthene	480	LQM/CIEH
Hydrocarbons			Fluorene	380	LQM/CIEH
Benzene	0.34	C4SL	Phenanthrene	200	LQM/CIEH
Toluene	320	SGV	Anthracene	4,900	LQM/CIEH
Ethyl Benzene	180	SGV	Fluoranthene	460	LQM/CIEH
Xylene	120	SGV	Pyrene	1,000	LQM/CIEH
Aliphatic C5-C6	55	LQM/CIEH	Benzo(a) Anthracene	6.7	C4SL exp & LQM/CIEH
Aliphatic C6-C8	160	LQM/CIEH	Chrysene	11	C4SL exp & LQM/CIEH
Aliphatic C8-C10	46	LQM/CIEH	Benzo(b) Fluoranthene	9.5	C4SL exp & LQM/CIEH
Aliphatic C10-C12	230	LQM/CIEH	Benzo(k) Fluoranthene	14.1	C4SL exp & LQM/CIEH
Aliphatic C12-C16	1700	LQM/CIEH	Benzo(a) pyrene	4.40	C4SL
Aliphatic C16-C35	64,000	LQM/CIEH	Indeno(1 2 3 cd) Pyrene	5.6	C4SL exp & LQM/CIEH
Aromatic C6-C7	See Benzene	LQM/CIEH	Dibenzo(a h) Anthracene	1.27	C4SL exp & LQM/CIEH
Aromatic C7-C8	See Toluene	LQM/CIEH	Benzo (g h i) Perylene	69	C4SL exp & LQM/CIEH
Aromatic C8-C10	65	LQM/CIEH	Screening value for PAH	62.9	B(a)P / 0.15
Aromatic C10-C12	160	LQM/CIEH	Chlorinated Solvents		
Aromatic C12-C16	310	LQM/CIEH	1,1,1 trichloroethane (TCA)	27.2	LQM/CIEH
Aromatic C16-C21	480	LQM/CIEH	tetrachloroethane (PCA)	1.25	LQM/CIEH
Aromatic C21-C35	1100	LQM/CIEH	tetrachloroethene (PCE)	2.32	LQM/CIEH
PRO (C ₅ -C ₁₀)	646	Calc	trichloroethene (TCE)	0.308	LQM/CIEH
DRO (C ₁₂ -C ₂₈)	66,490	Calc	1,2-dichloroethane (DCA)	0.008	LQM/CIEH
Lube Oil (C ₂₈ -C ₄₄)	65,100	Calc	vinyl chloride (Chloroethene)	0.000184	LQM/CIEH
TPH	1000	Trigger for speciated testing	tetrachloromethane (Carbon tetra)	0.039	LQM/CIEH
			trichloromethane (Chloroform)	1.99	LQM/CIEH

Notes

Concentrations measured below the above values may be considered to represent 'uncontaminated conditions' which pose 'LOW' risk to human health. Concentrations measured in excess of these values indicate a potential risk which require further, site specific risk assessment.

SGV - Soil Guideline Value, derived from the CLEA model and published by Environment Agency 2009

LQM/CIEH - Generic Assessment Criteria for Human Health Risk Assessment 2nd edition (2009) derived using CLEA 1.04 model 2009

C4SL - Defra Category 4 Screening value based on Low Level of Toxicological Risk

C4SL exp & LQM/CIEH calculated using C4SL revisions to exposure assessment but LQM/CIEH health criteria values

Calc - sum of nearest available carbon range specified including BTEX for PRO fraction

B(a)P / 0.15 - GEA experience indicates that Benzo(a) pyrene (one of the most common and most carcinogenic of the PAHs) rarely exceeds 15% of the total PAH concentration, hence this Total PAH threshold is regarded as being conservative

Site	32 Green Street & 17 Dunraven Street, London W1K 7FL	Job Number J16044
Client	Green Street Developments	Sheet 2 / 2
Engineer	Constructure	

Proposed End Use **Residential with plant uptake**

The key generic assumptions for this end use are as follows;

- ☐ that groundwater will not be a critical risk receptor;
- ☐ that the critical receptor for human health will be a young female aged 0 to 6 years old;
- ☐ that the exposure duration will be six years;
- ☐ that the building type equates to a terraced house.
- ☐ that the critical exposure pathways will be direct soil and indoor dust ingestion, consumption of home grown produce, consumption of soil adhering to home grown produce, skin contact with soils and dust, and inhalation of dust and vapours

Where contaminant concentrations are measured at concentrations below the generic screening value it is considered that they pose an acceptable level of risk and thus further consideration of these contaminant concentrations is not required. However, where concentrations are measured in excess of the generic screening value there is considered to be a potential that they could pose an unacceptable risk and thus further action will be required which could include:

- ☐ additional testing to zone the extent of the contaminated material and thus reduce the uncertainty with regard to its potential risk;
- ☐ site specific risk assessment to refine the assessment criteria and allow an assessment to be made as to whether the concentration present would pose an unacceptable risk at this site; or
- ☐ soil remediation or risk management to mitigate the risk posed by the contaminant to a degree that it poses an acceptable risk.

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

95900613_1_1

Customer Reference:

J16202

National Grid Reference:

536910, 240650

Slice:

A

Site Area (Ha):

14.65

Search Buffer (m):

1000

Site Details:

2 Burloes Cottages
Newmarket Road
ROYSTON
Hertfordshire
SG8 7NJ

Client Details:

Mr S Branch
GEA Ltd
Widbury Barn
Widbury Hill
Ware
Herts
SG12 7QE

Report Section	Page Number
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Agency & Hydrological	1
Waste	9
Hazardous Substances	-
Geological	10
Industrial Land Use	13
Sensitive Land Use	18
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Data Suppliers	25
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Introduction

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

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

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Report Version v50.0

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1	Yes		Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents					
Prosecutions Relating to Controlled Waters			n/a	n/a	n/a
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 1				1
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 1		Yes		
Pollution Incidents to Controlled Waters					
Prosecutions Relating to Authorised Processes	pg 1				1
Registered Radioactive Substances					
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 1		1		4 (*19)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 7	Yes	n/a	n/a	n/a
Drift Deposits			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 7	Yes	n/a	n/a	n/a
Superficial Aquifer Designations	pg 7	Yes	n/a	n/a	n/a
Source Protection Zones	pg 7	1	1		3
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
Detailed River Network Lines					n/a
Detailed River Network Offline Drainage	pg 8		Yes		n/a

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage	pg 9	2	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 9				1
Potentially Infilled Land (Water)	pg 9				1
Registered Landfill Sites					
Registered Waste Transfer Sites					
Registered Waste Treatment or Disposal Sites					
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 10	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 10	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 11				1
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
Brine Compensation Area			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities	pg 11				2
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 11	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 11	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 11	Yes	Yes	n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 11	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 12	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 12	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 13		2		24
Fuel Station Entries	pg 15				1
Points of Interest - Commercial Services	pg 15				2
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production	pg 15				7
Points of Interest - Public Infrastructure	pg 16				9
Points of Interest - Recreational and Environmental	pg 16		2	2	4
Gas Pipelines	pg 17				1
Underground Electrical Cables					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Ancient Woodland					
Areas of Adopted Green Belt					
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 18	2			
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					
World Heritage Sites					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A10NE (E)	0	2	536913 240649
	BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur	A6NE (S)	422	2	536913 240000
1	Local Authority Pollution Prevention and Controls Name: H Precious & Son Location: Melbourn Road, ROYSTON, Hertfordshire, . Authority: North Hertfordshire District Council, Environmental Health Department Permit Reference: Not Given Dated: 19th March 1999 Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station Status: Authorised Positional Accuracy: Manually positioned to the road within the address or location	A13NE (NW)	879	3	535969 241309
	Nearest Surface Water Feature	A15SW (NE)	186	-	537181 241015
2	Prosecutions Relating to Authorised Processes Location: Garden Walk, Royston, Hertfordshire, SG8 7HP Prosecution Text: EA Data 02/11/1998, Supplying a radioactive source on hire to a person not registered to hold one; not having a person competent to ensure compliance with registration conditions; and failing to keep adequate records Prosecution Act: RSA93 s32(1b) Hearing Date: 6th October 1998 Verdict: Guilty Fine: 15000 Costs: 1305 Positional Accuracy: Manually positioned to the road within the address or location	A14SW (NW)	577	4	536391 241298
3	Water Abstractions Operator: Sir G Newman Licence Number: 6/33/30/*G/0093 Permit Version: 100 Location: Well E Of Royston Authority: Environment Agency, Anglian Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: C Chalk 3; Status: Perpetuity Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st December 1970 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A11SE (E)	141	4	537300 240500
4	Water Abstractions Operator: Stanley Hoy & Sons Licence Number: 6/33/30/*G/0078 Permit Version: 100 Location: Well At Hyde Fam Ne Of Royston Authority: Environment Agency, Anglian Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: C Chalk 3; Status: Perpetuity Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st June 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A15SE (NE)	605	4	537600 241200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Rayner Brothers, Licence Number: 6/33/30/*g/107 Permit Version: Not Supplied Location: Well At Mile End Farm, ROYSTON Authority: Environment Agency, Anglian Region Abstraction: Domestic & Agriculture Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 1 Yearly Rate (m3): 2050 Details: C Chalk 3; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(SW)	1872	4	536000 238700
	Water Abstractions Operator: J. Dodkin Limited, Licence Number: 6/33/30/*g/050 Permit Version: Not Supplied Location: Well At Muncey's Farm, MELBOURN Authority: Environment Agency, Anglian Region Abstraction: Domestic & Agriculture Abstraction Type: Not Supplied Source: Well And Borehole Daily Rate (m3): 1 Yearly Rate (m3): 4550 Details: C Chalk 3; Status: Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(NE)	1987	4	538200 242500
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (H1) - Soils which readily transmit liquid discharges because they are either shallow, or susceptible to rapid by-pass flow directly to rock, gravel or groundwater Map Sheet: Sheet 32 North Essex Scale: 1:100,000	A10NE (E)	0	4	536913 240649
	Groundwater Vulnerability Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 32 North Essex Scale: 1:100,000	A10NE (NW)	0	4	536810 240771
	Drift Deposits None				
	Bedrock Aquifer Designations Aquifer Designation: Principal Aquifer	A10NE (E)	0	2	536913 240649
	Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated	A10NE (NW)	0	2	536881 240685
6	Source Protection Zones Name: Various Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source.	A10NE (E)	0	4	536913 240649
7	Source Protection Zones Name: Various Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone II (Outer Protection Zone): Either 25% of the source area or a 400 day travel time whichever is greater.	A11SW (E)	64	4	537241 240557
8	Source Protection Zones Name: Eagle Tavern Source: Environment Agency, Head Office Reference: An080 Type: Zone I (Inner Protection Zone): Travel time of 50 days or less to the groundwater source.	A7NE (SE)	568	4	537309 240015

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	Source Protection Zones Name: Various Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone 1 (Inner Protection Zone); Travel time of 50 days or less to the groundwater source.	A5NE (SW)	715	4	536034 240258
10	Source Protection Zones Name: Eagle Tavern Source: Environment Agency, Head Office Reference: An080 Type: Groundwater Source	A7SE (SE)	895	4	537400 239700
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
	Detailed River Network Lines None				
11	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D005	A15SW (NE)	186	4	537182 241014
12	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D005	A15SW (NE)	227	4	537194 241055

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: Hertfordshire County Council - Has supplied landfill data		0	5	536913 240649
	Local Authority Landfill Coverage Name: North Hertfordshire District Council - Has supplied landfill data		0	3	536913 240649
	Local Authority Landfill Coverage Name: South Cambridgeshire District Council - Has supplied landfill data		251	6	537228 241064
	Local Authority Landfill Coverage Name: Cambridgeshire County Council - Has not been able to supply Landfill data		251	7	537228 241064
13	Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1990	A9SE (W)	583	10	536150 240382
14	Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1899	A9SW (W)	874	10	535831 240593

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: White Chalk Subgroup	A10NE (E)	0	2	536913 240649
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 20 - 40 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: <15 mg/kg	A10NE (E)	0	2	536913 240649
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A10NE (NW)	0	2	536881 240685
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A10NW (W)	203	2	536482 240706
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A7NW (S)	277	2	537071 240243
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A6SW (SW)	719	2	536504 239741
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A16NW (NE)	981	2	537708 241618

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
15	BGS Recorded Mineral Sites Site Name: Stile Plantation Chalk Pit Location: , Royston, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 165882 Type: Opencast Status: Ceased Operator: Not Supplied Operator Location: Not Supplied Periodic Type: Cretaceous Geology: New Pit Chalk Formation Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A9SE (W)	632	2	536101 240378
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Man-Made Mining Cavities Easting: 536200 Northing: 240300 Distance: 547 Quadrant Reference: A9 Quadrant Reference: SE Bearing Ref: SW Cavity Type: Historical Lime Kiln-Potential Chalk Mining Commodity: Chalk Solid Geology Detail: Middle Chalk Formation Superficial Geology No Details Detail:	A9SE (SW)	547	8	536200 240300
	Man-Made Mining Cavities Easting: 536000 Northing: 239800 Distance: 961 Quadrant Reference: A5 Quadrant Reference: SE Bearing Ref: SW Cavity Type: Chalkwell/Denehole Commodity: Chalk Solid Geology Detail: Middle Chalk Formation Superficial Geology Glacial Till Detail:	A5SE (SW)	961	8	536000 239800
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A10NE (E)	0	2	536913 240649
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (E)	0	2	536913 240649
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10NE (E)	0	2	536913 240649
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (NW)	0	2	536881 240685
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10NE (E)	0	2	536913 240649
	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NW (W)	203	2	536482 240706
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A10NE (N)	0	2	536875 240774
	Potential for Landslide Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10NE (E)	0	2	536913 240649

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (NW)	0	2	536881 240685
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (N)	1	2	536897 240818
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NW (W)	203	2	536482 240706
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10NE (E)	0	2	536913 240649
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (NW)	0	2	536881 240685
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NW (W)	203	2	536482 240706
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A10NE (E)	0	2	536913 240649
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NE (NW)	0	2	536881 240685
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A10NW (W)	203	2	536482 240706
	Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A10NE (E)	0	2	536913 240649
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A10NE (E)	0	2	536913 240649

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
16	Contemporary Trade Directory Entries Name: Email Mum Location: 20, Ascot Road, Royston, Hertfordshire, SG8 9JD Classification: Cleaning Services - Domestic Status: Active Positional Accuracy: Automatically positioned to the address	A10SW (W)	206	-	536502 240613
17	Contemporary Trade Directory Entries Name: P S B Carpet Care Location: 9, Newman Avenue, Royston, SG8 7LE Classification: Carpet, Curtain & Upholstery Cleaners Status: Active Positional Accuracy: Automatically positioned to the address	A14SE (NW)	209	-	536661 241010
18	Contemporary Trade Directory Entries Name: Ironing Angel Location: Parklands, Royston, Hertfordshire, SG8 9HJ Classification: Ironing & Home Laundry Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A9SE (W)	513	-	536201 240539
19	Contemporary Trade Directory Entries Name: Mark Weatherhead Location: Garden Walk, Royston, Hertfordshire, SG8 7HT Classification: Agricultural Vehicles Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (NW)	562	-	536215 241107
19	Contemporary Trade Directory Entries Name: Mark Weatherhead Ltd Location: Garden Walk, Royston, Hertfordshire, SG8 7HT Classification: Agricultural Machinery - Sales & Service Status: Active Positional Accuracy: Automatically positioned to the address	A13SE (NW)	562	-	536215 241107
20	Contemporary Trade Directory Entries Name: Metrology Sales & Services Location: 45, Garden Walk, Royston, Hertfordshire, SG8 7HT Classification: Testing, Inspection & Calibration Equipment Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (NW)	635	-	536146 241136
21	Contemporary Trade Directory Entries Name: Harry Collins Location: Barkway Rd, Royston, Hertfordshire, SG8 9NB Classification: Radio Communication Equipment Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A7SW (S)	637	-	536940 239820
22	Contemporary Trade Directory Entries Name: Aladdin Cleaning Services Location: 24, Grange Bottom, Royston, Hertfordshire, SG8 9UQ Classification: Carpet, Curtain & Upholstery Cleaners Status: Active Positional Accuracy: Automatically positioned to the address	A5NE (SW)	643	-	536127 240205
23	Contemporary Trade Directory Entries Name: Cleaning Assurance Ltd Location: 34, Priory Close, Royston, SG8 7DU Classification: Commercial Cleaning Services Status: Active Positional Accuracy: Automatically positioned to the address	A9SE (W)	687	-	536043 240403
24	Contemporary Trade Directory Entries Name: P & G Logistics Location: 32, Kingston Vale, Royston, Hertfordshire, SG8 9UG Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A5NE (SW)	695	-	536153 240040
25	Contemporary Trade Directory Entries Name: Proctor Engineering Location: Meridian Works, Barkway Rd, Royston, Hertfordshire, SG8 9NB Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A7SW (S)	776	-	537133 239738
25	Contemporary Trade Directory Entries Name: The Royston M O T Centre Location: Wickstead Park, Barkway Road, Royston, Hertfordshire, SG8 9NB Classification: Mot Testing Centres Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A7SW (S)	818	-	537162 239703

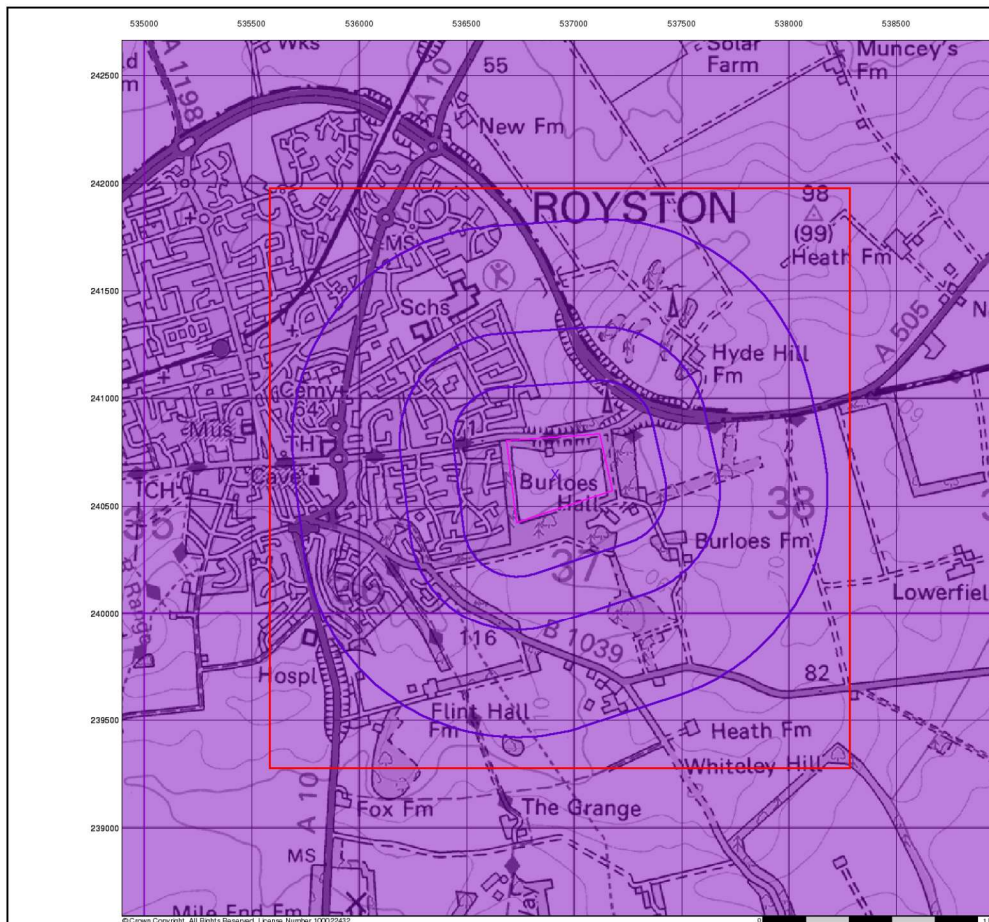
Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
40	Points of Interest - Manufacturing and Production Name: Works Location: SG8 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location	A13SW (W)	996	9	535738 241105
41	Points of Interest - Public Infrastructure Name: Cemetery Location: SG8 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A13SE (NW)	807	9	536023 241261
41	Points of Interest - Public Infrastructure Name: Cemetery Location: SG8 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A13SE (NW)	830	9	535995 241261
41	Points of Interest - Public Infrastructure Name: Cemetery Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A13SE (NW)	836	9	535984 241256
42	Points of Interest - Public Infrastructure Name: Hertfordshire Constabulary Location: Melbourn Street, Royston, SG8 7BZ Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A9NW (W)	868	9	535821 240741
42	Points of Interest - Public Infrastructure Name: Royston Police Station Location: Melbourn Street, Royston, SG8 7BZ Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A9NW (W)	868	9	535821 240741
42	Points of Interest - Public Infrastructure Name: Royston Police Station Location: Melbourn Street, Royston, SG8 7BZ Category: Central and Local Government Class Code: Police Stations Positional Accuracy: Positioned to address or location	A9NW (W)	868	9	535821 240741
43	Points of Interest - Public Infrastructure Name: Cemetery Location: Not Supplied Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A13SW (NW)	911	9	535844 241147
43	Points of Interest - Public Infrastructure Name: Cemetery Location: SG8 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location	A13SW (NW)	911	9	535844 241147
44	Points of Interest - Public Infrastructure Name: Bus Station Location: SG8 Category: Public Transport, Stations and Infrastructure Class Code: Bus and Coach Stations, Depots and Companies Positional Accuracy: Positioned to address or location	A9SW (W)	974	9	535753 240404
45	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14SE (NW)	235	9	536726 241040
45	Points of Interest - Recreational and Environmental Name: Playground Location: Newman Avenue, SG8 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A14SE (NW)	235	9	536726 241040

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
46	Points of Interest - Recreational and Environmental Name: Play Area Location: Furze Grove, SG8 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A10SW (SW)	453	9	536281 240383
46	Points of Interest - Recreational and Environmental Name: Play Area Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A10SW (W)	455	9	536278 240392
47	Points of Interest - Recreational and Environmental Name: Playground Location: Priory Lane, SG8 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A9SW (W)	864	9	535848 240540
47	Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location	A9SW (W)	865	9	535846 240542
47	Points of Interest - Recreational and Environmental Name: Playground Location: Fish Hill, SG8 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A9SW (W)	901	9	535809 240555
47	Points of Interest - Recreational and Environmental Name: Playground Location: SG8 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to address or location	A9SW (W)	906	9	535802 240566
48	Gas Pipelines Name: FM03 - Gt Wilbraham to Whitwell Nat Grid: Owned By National Grid Diameter (mm): 900 Building Proximity: 78 Distance (m): Status: Active Pipe Length (m): 54620.4 Pipe Number: Feeder 3	A8SW (SE)	841	10	537759 239952

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
49	Nitrate Vulnerable Zones Name: Not Supplied Description: Surface Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A10NE (E)	0	12	536913 240649
50	Nitrate Vulnerable Zones Name: Not Supplied Description: Groundwater Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A10NE (E)	0	12	536913 240649

Contact	Name and Address	Contact Details
2	British Geological Survey - Enquiry Service British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
3	North Hertfordshire District Council - Environmental Health Department Council Offices, Gernon Road, Letchworth, Hertfordshire, SG6 3JF	Telephone: 01462 474000 Fax: 01462 474559 Website: www.north-herts.gov.uk
4	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
5	Hertfordshire County Council - Spatial Planning and Economy Unit County Hall, Hertford, Hertfordshire, SG13 8DN	Telephone: 01992 556266 Fax: 01992 556015 Email: spatialplanning@hertfordshire.gov.uk Website: www.hertsdirect.org
6	South Cambridgeshire District Council South Cambridgeshire Hall, Cambourne Business Park, Cambourne, Cambridgeshire, CB23 6EA	Telephone: 08450 450 500 Website: www.scambs.gov.uk
7	Cambridgeshire County Council Shire Hall, Castle Hill, Cambridge, Cambridgeshire, CB3 0AP	Telephone: 01223 717111 Fax: 01223 717201 Website: www.camcnty.gov.uk
8	Peter Brett Associates Caversham Bridge House, Waterman Place, Reading, Berkshire, RG1 8DN	Telephone: 0118 950 0761 Fax: 0118 959 7498 Email: reading@pba.co.uk Website: www.pba.co.uk
9	PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
10	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmark.co.uk Website: www.landmark.co.uk
11	Natural England County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
12	Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) Government Buildings, Otley Road, Lawnswood, Leeds, West Yorkshire, LS16 5QT	Telephone: 0113 2613333 Fax: 0113 230 0879
13	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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



Bedrock Aquifer Designation

General

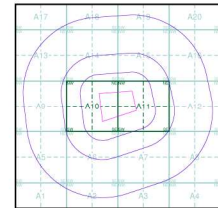
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A

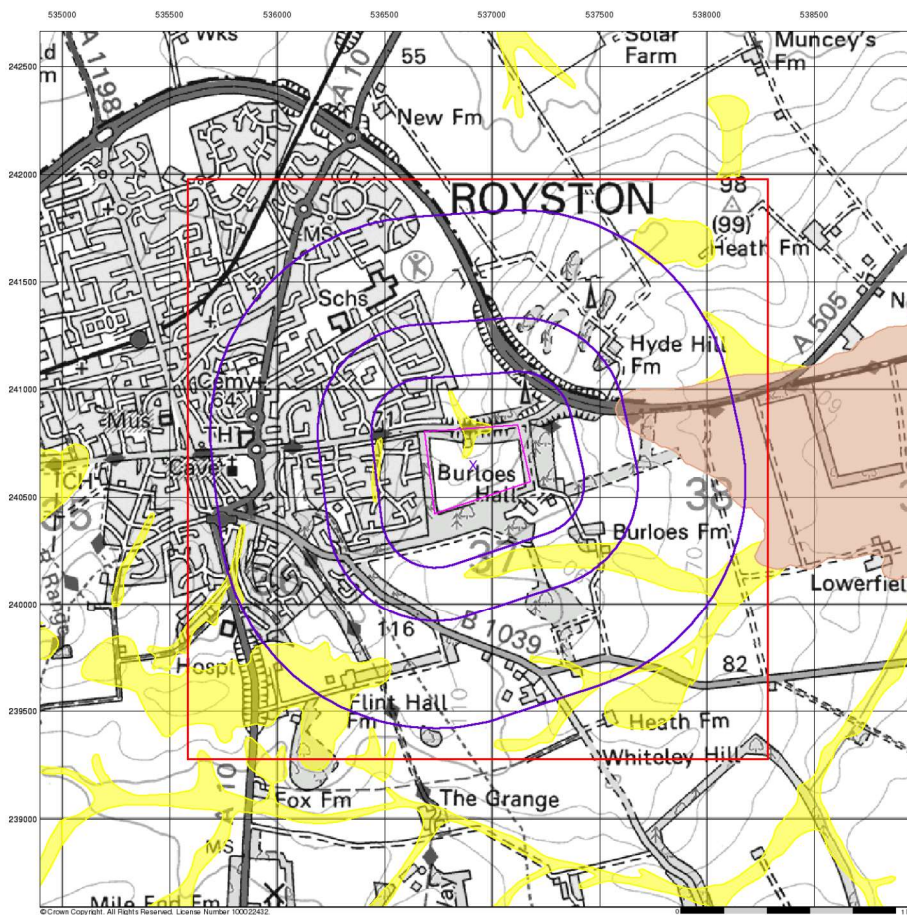


Order Details

Order Number: 95900613_1.1
 Customer Ref: J16202
 National Grid Reference: 536910, 240650
 Slice: A
 Site Area (Ha): 14.65
 Search Buffer (m): 1000

Site Details

2 Burloes Cottages, Newmarket Road, ROYSTON, Hertfordshire, SG8 7NJ



Superficial Aquifer Designation

General

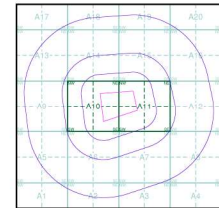
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

Agency and Hydrological

Geological Classes

- Principal Aquifer
- Secondary A Aquifer
- Secondary B Aquifer
- Secondary Undifferentiated
- Unproductive Strata
- Unknown
- Unknown (Lakes and Landslip)

Site Sensitivity Context Map - Slice A

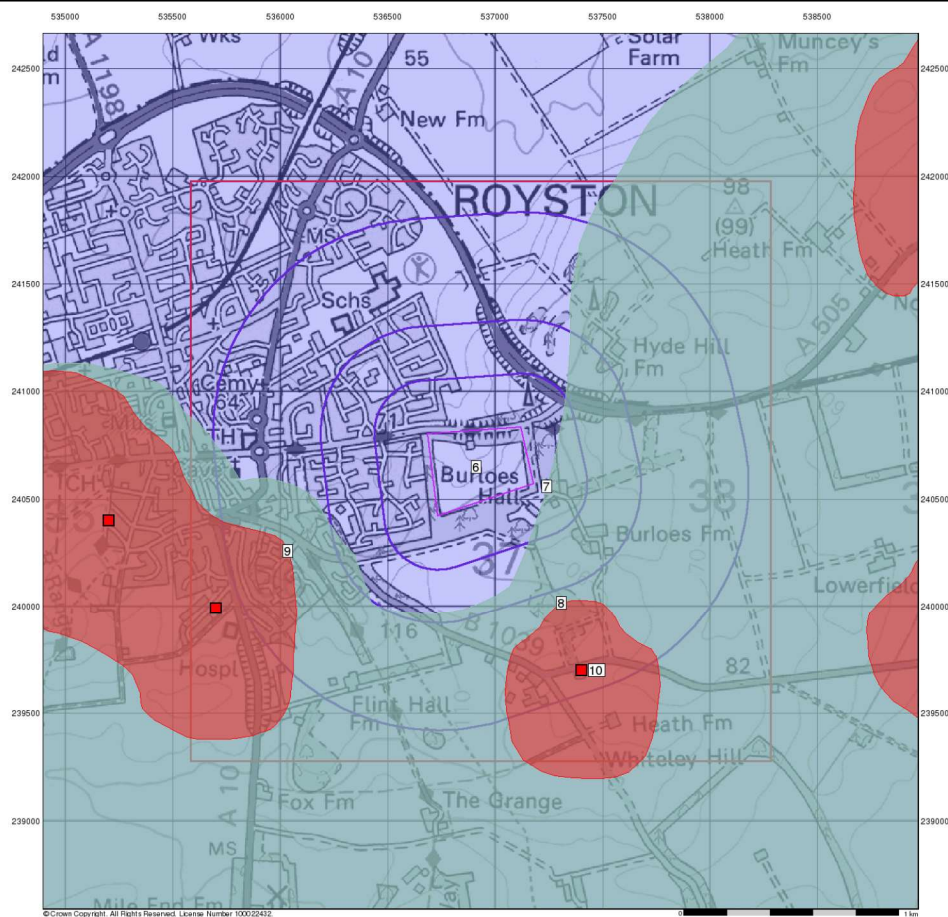


Order Details

Order Number: 95900613_1.1
 Customer Ref: J16202
 National Grid Reference: 536910, 240650
 Slice: A
 Site Area (Ha): 14.65
 Search Buffer (m): 1000

Site Details

2 Burloes Cottages, Newmarket Road, ROYSTON, Hertfordshire, SG8 7NJ



Source Protection Zones

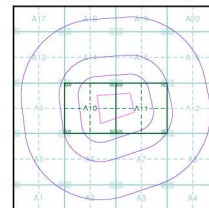
General

-  Specified Site
  Specified Buffer(s)
  Bearing Reference Point

Agency and Hydrological

-  Inner zone (Zone 1)
-  Inner zone - subsurface activity only (Zone 1c)
-  Outer zone (Zone 2)
-  Outer zone - subsurface activity only (Zone 2c)
-  Total catchment (Zone 3)
-  Total catchment - subsurface activity only (Zone 3c)
-  Special interest (Zone 4)
-  Source Protection Zone Borehole

Site Sensitivity Context Map - Slice A



Order Details

Order Number: 95900613_1_1
Customer Ref: J16202
National Grid Reference: 536910, 240650
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Site Details

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