

**Additional SIMs
Published 1978 - 1983**

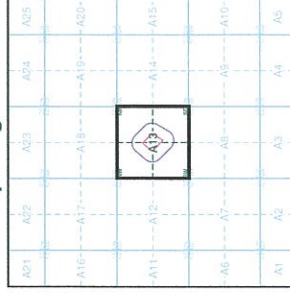
Source map scale - 1:1,250

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

Map Name(s) and Date(s)

TL1214NW 1978 1:1,250	TL1214NE 1979 1:1,250
TL1214SW 1983 1:1,250	TL1214SE 1983 1:1,250

Historical Map - Segment A13

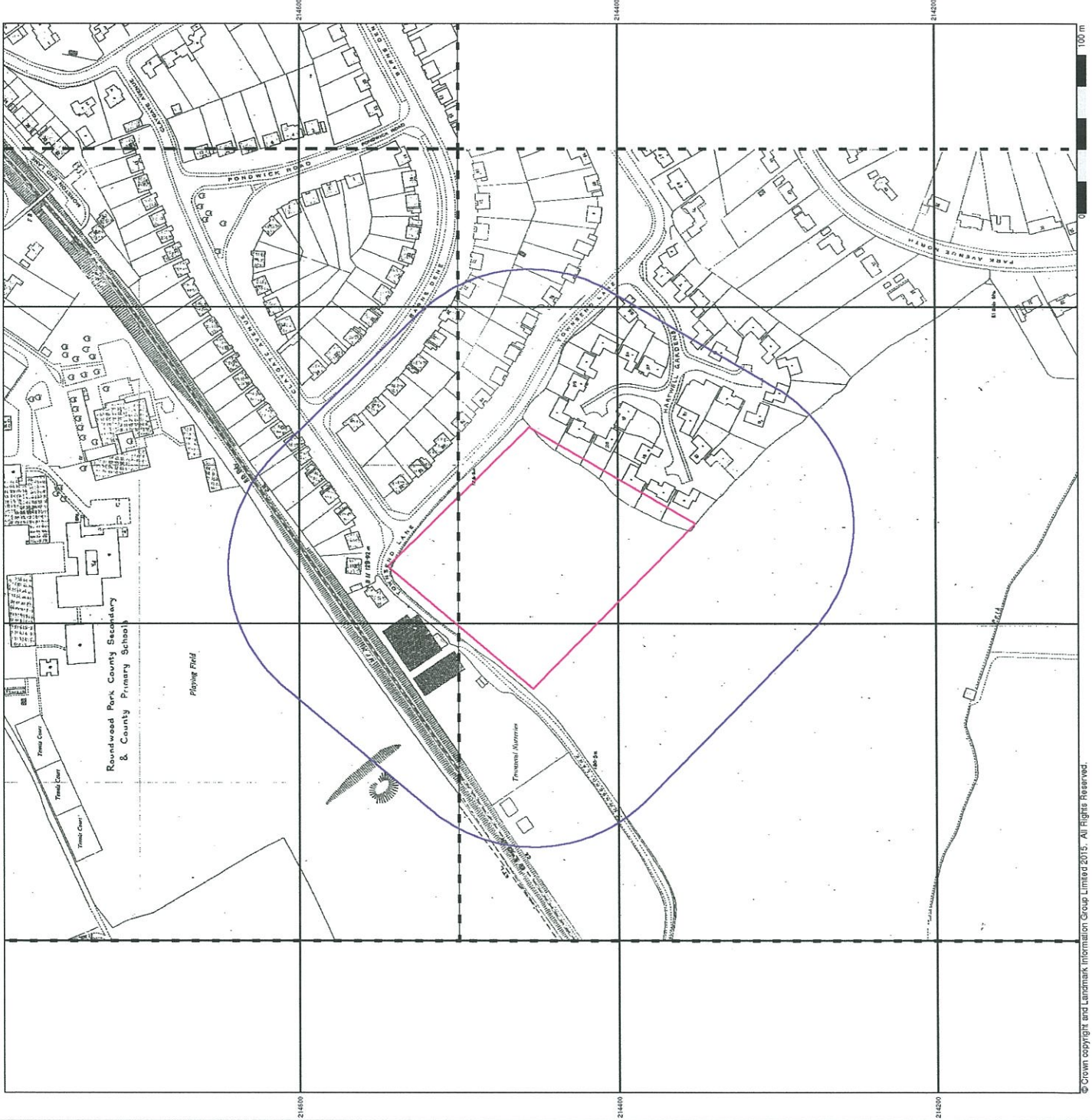


Order Details

Order Number: 70605370_L1
 Customer Ref: hap334
 National Grid Reference: 512240, 214450
 Slice: A
 Site Area (Ha): 1.6
 Search Buffer (m): 100

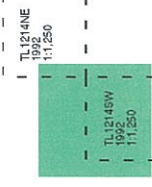
Site Details

94 Townsend Lane, HARPENDEN, Hertfordshire, AL5 2RH

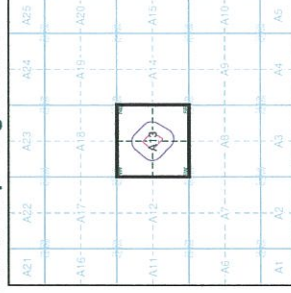


'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the forerunners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number: 70805370_1_1
 Customer Ref: hap334
 National Grid Reference: 512240, 214450
 Slice: A
 Site Area (Ha): 1.6
 Search Buffer (m): 100

Site Details

94 Townsend Lane, HARPENDEN, Hertfordshire, AL5 2RH








Appendix B





***Envirocheck* Geological Maps
and
Mining and Ground Stability Datasheet**

Geology 1:50,000 Maps Legends

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Flandrian
	KGCA	Kesgrave Catchment Subgroup	Sand and Gravel	Pleistocene - Pleistocene
	RTDU	River Terrace Deposits (Undifferentiated)	Sand and Gravel	Quaternary - Quaternary
	HEAD	Head	Clay, Silt, Sand and Gravel	Quaternary - Quaternary
	CWF	Clay-with-flints Formation	Clay, Silt, Sand and Gravel	Quaternary - Pliocene

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	LMBE	Lambeth Group	Clay, Silt and Sand	Paleocene - Paleocene
	LESE	Lewes Nodular Chalk Formation and Seaford Chalk Formation (Undifferentiated)	Chalk	Santonian - Turonian
	CKR	Chalk Rock Member	Chalk	Turonian - Turonian
	HNCK	Holywell Nodular Chalk Formation and New Pit Chalk Formation (Undifferentiated)	Chalk	Turonian - Cenomanian



Geology 1:50,000 Maps

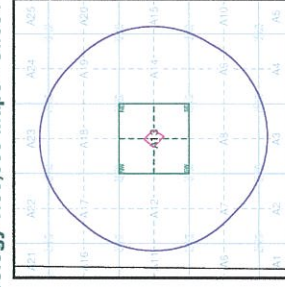
This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around the site. This mapping may be more up to date than previously published paper maps.

The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page. Not all layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:50,000 Maps Coverage

Map ID: 230
 Map Sheet No: Hertford
 Map Name: 1978
 Map Date: Available
 Bedrock Geology: Available
 Superficial Geology: Not Available
 Artificial Geology: Not Supplied
 Landslip: Not Available
 Rock Segments: Not Supplied

Geology 1:50,000 Maps - Slice A



Order Details:

Order Number: 70806370_1_1
 Customer Reference: hab334
 National Grid Reference: 512240, 214450
 Slice: A
 Site Area (Ha): 1.6
 Search Buffer (m): 1000

Site Details:

94 Townsend Lane, HARPENDE, Hertfordshire, AL5 2RH



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

Artificial Ground and Landslip

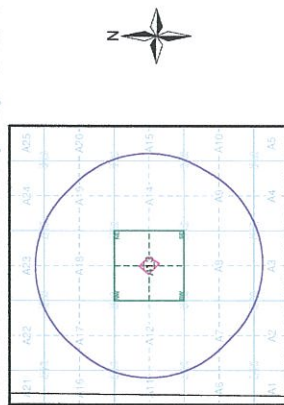
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- In-filled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily heaps of material that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes rounded strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A

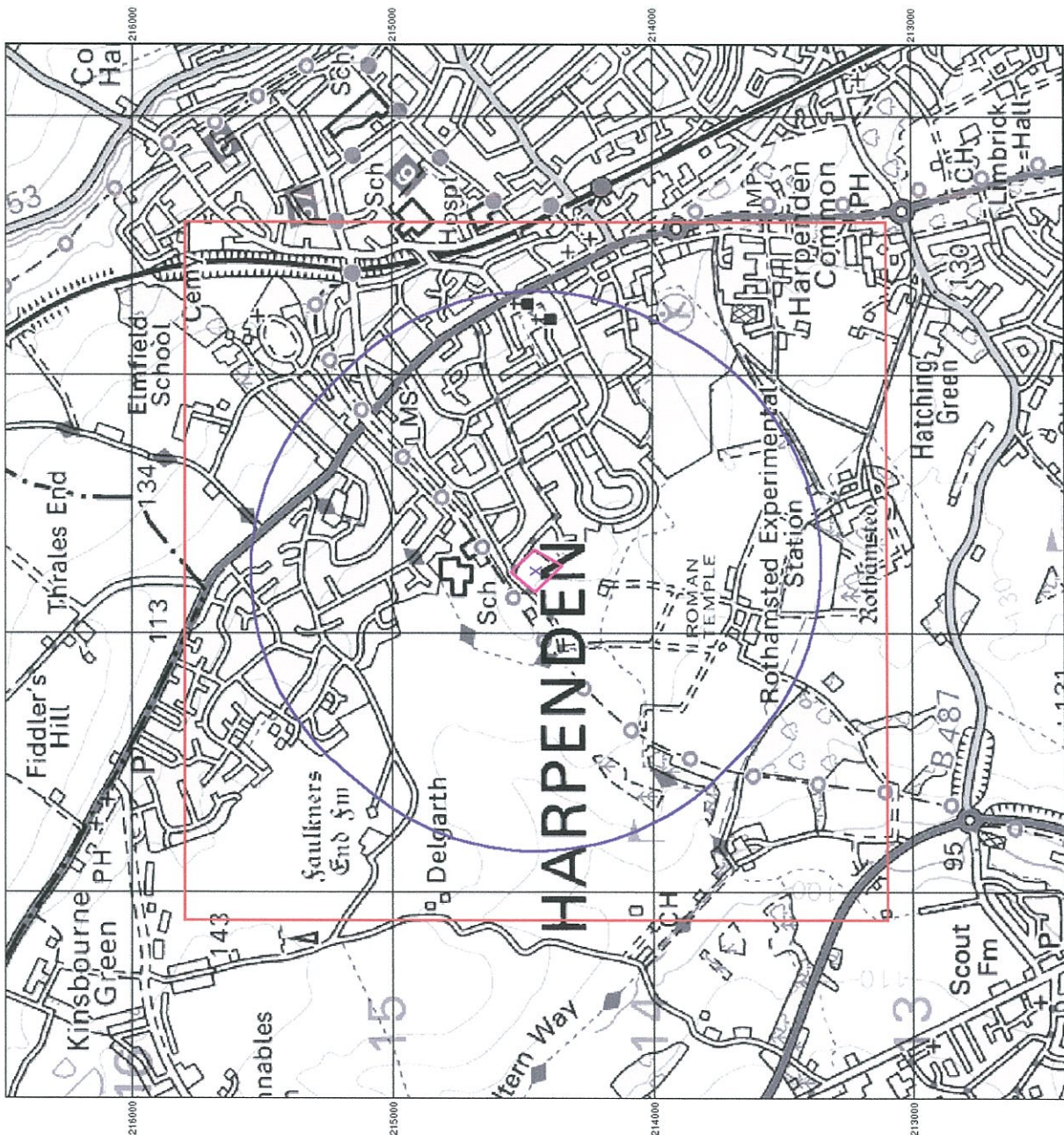


Order Details:

Order Number: 70806370_1_1
 Customer Reference: hap334
 National Grid Reference: 512240, 214450
 Slice: A
 Site Area (Ha): 1.6
 Search Buffer (m): 1000

Site Details:

94 Townsend Lane, HARPENDEN, Hertfordshire, AL5 2RH



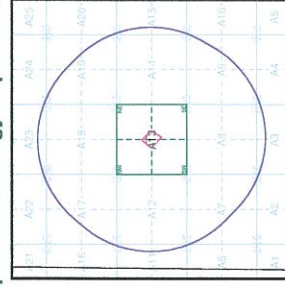
Superficial Geology

Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, the Quaternary, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial Deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A

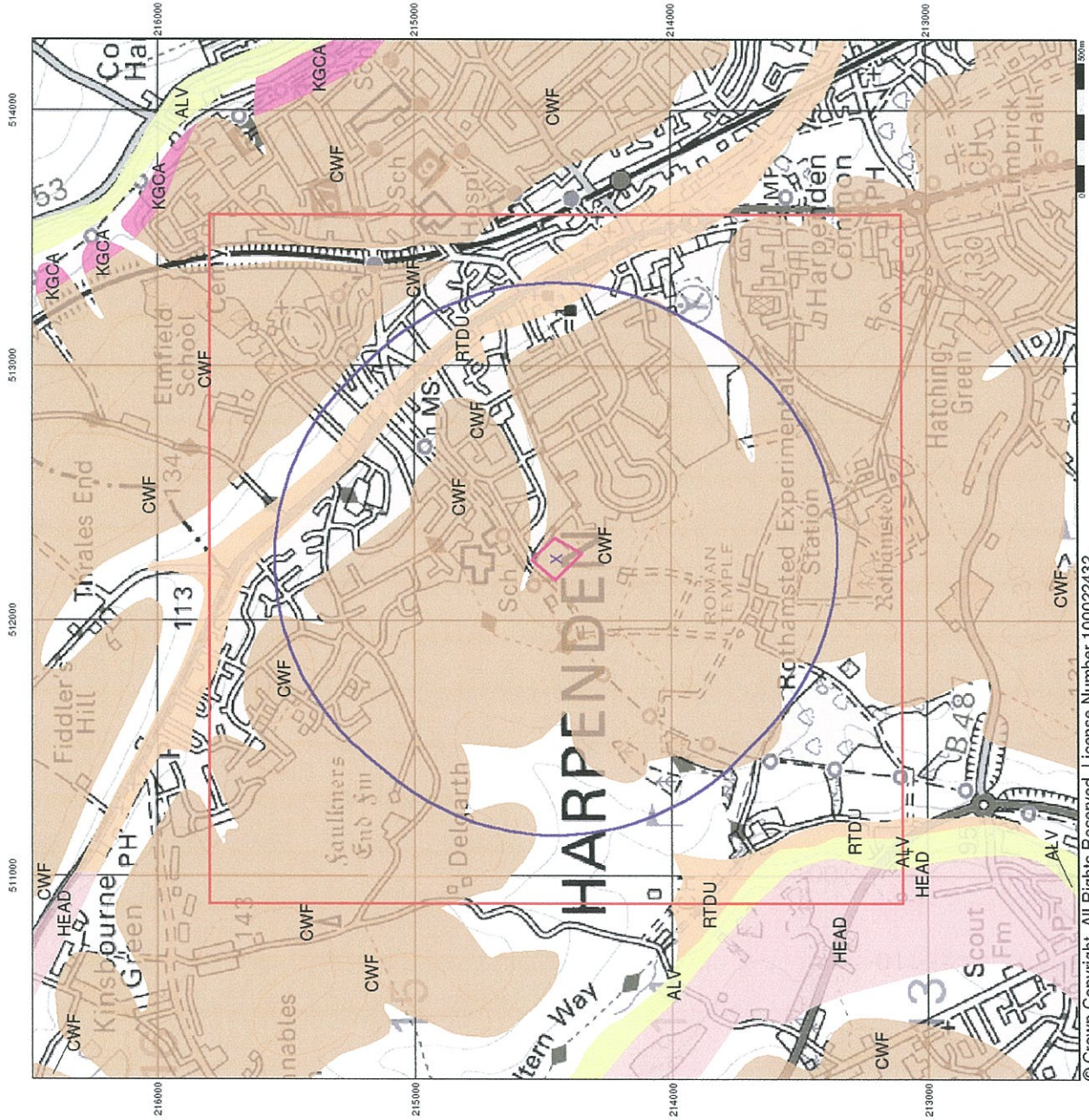


Order Details:

Order Number: 70805370_1_1
 Customer Reference: hap334
 National Grid Reference: 512240, 214450
 Slice: A
 Site Area (Ha): 1.6
 Search Buffer (m): 1000

Site Details:

94 Townsend Lane, HARPENDEN, Hertfordshire, AL5 2RH



Bedrock and Faults

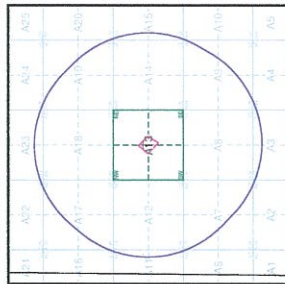
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time, ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults (e.g. normal, thrust), and thin beds mapped as lines (e.g. coal seam, gypsum bed). Some of these are linked to other particular 1:50,000 Geology datasets, for example, coal seams are part of the bedrock sequence, most faults and mineral veins primarily affect the bedrock but cut across the strata and post date its deposition.

Bedrock and Faults Map - Slice A

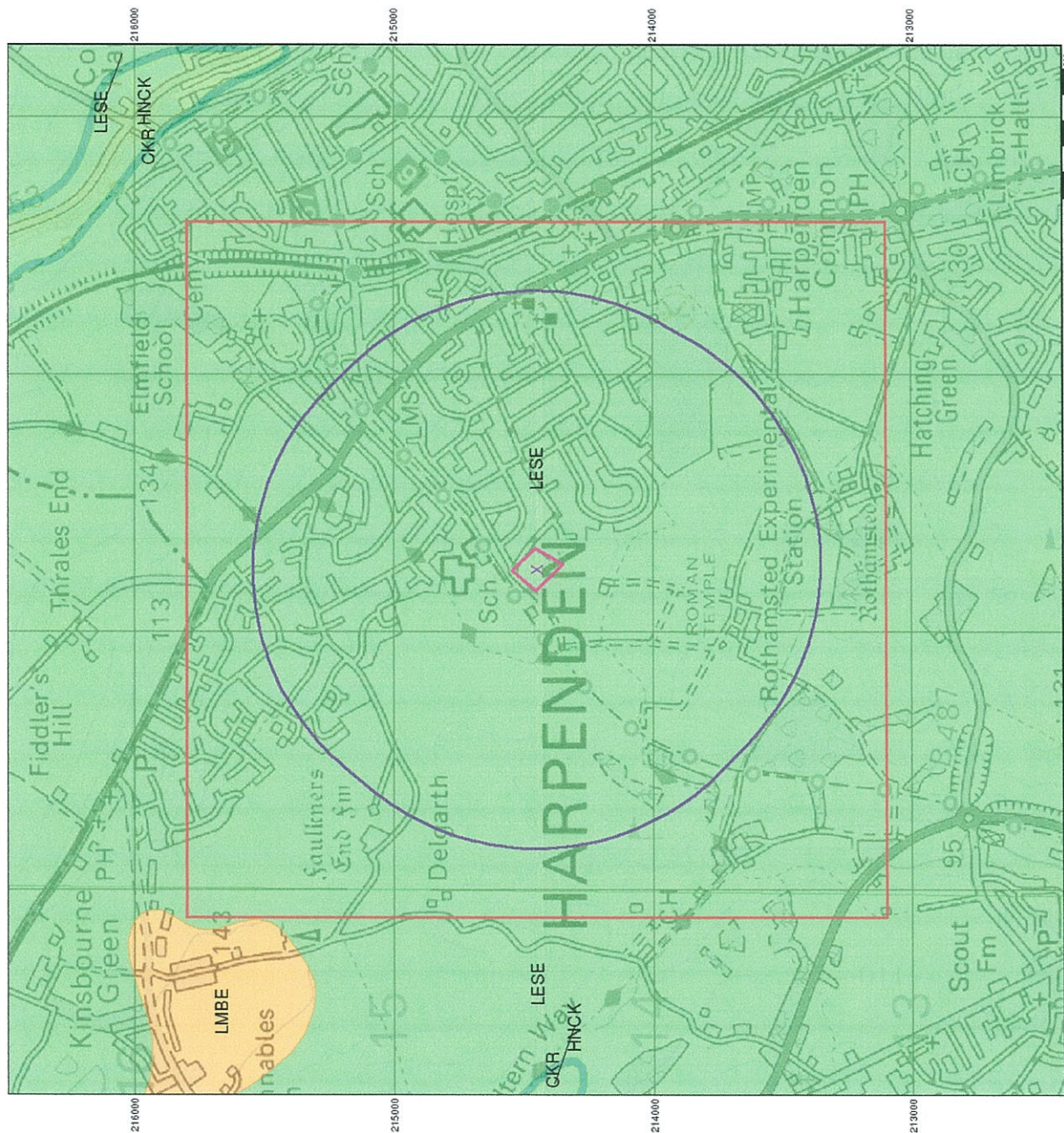


Order Details:

Order Number: 70805370_1_1
 Customer Reference: hap334
 National Grid Reference: 512240, 214450
 Slice: A
 Site Area (Ha): 1.6
 Search Buffer (m): 1000

Site Details:

94 Townsend Lane, HARPENDEN, Hertfordshire, AL5 2RH



Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

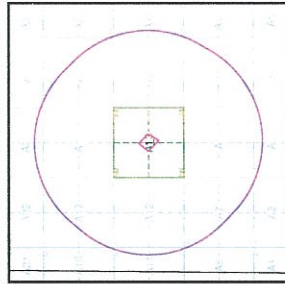
Additional Information

More information on 1:50,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey
 Kingsley Dunham Centre
 Keyworth
 Nottingham
 NG12 5GG
 Telephone: 0115 936 3143
 Fax: 0115 936 3276
 email: enquiries@bgs.ac.uk
 website: www.bgs.ac.uk

Combined Geology Map - Slice A



Order Details:

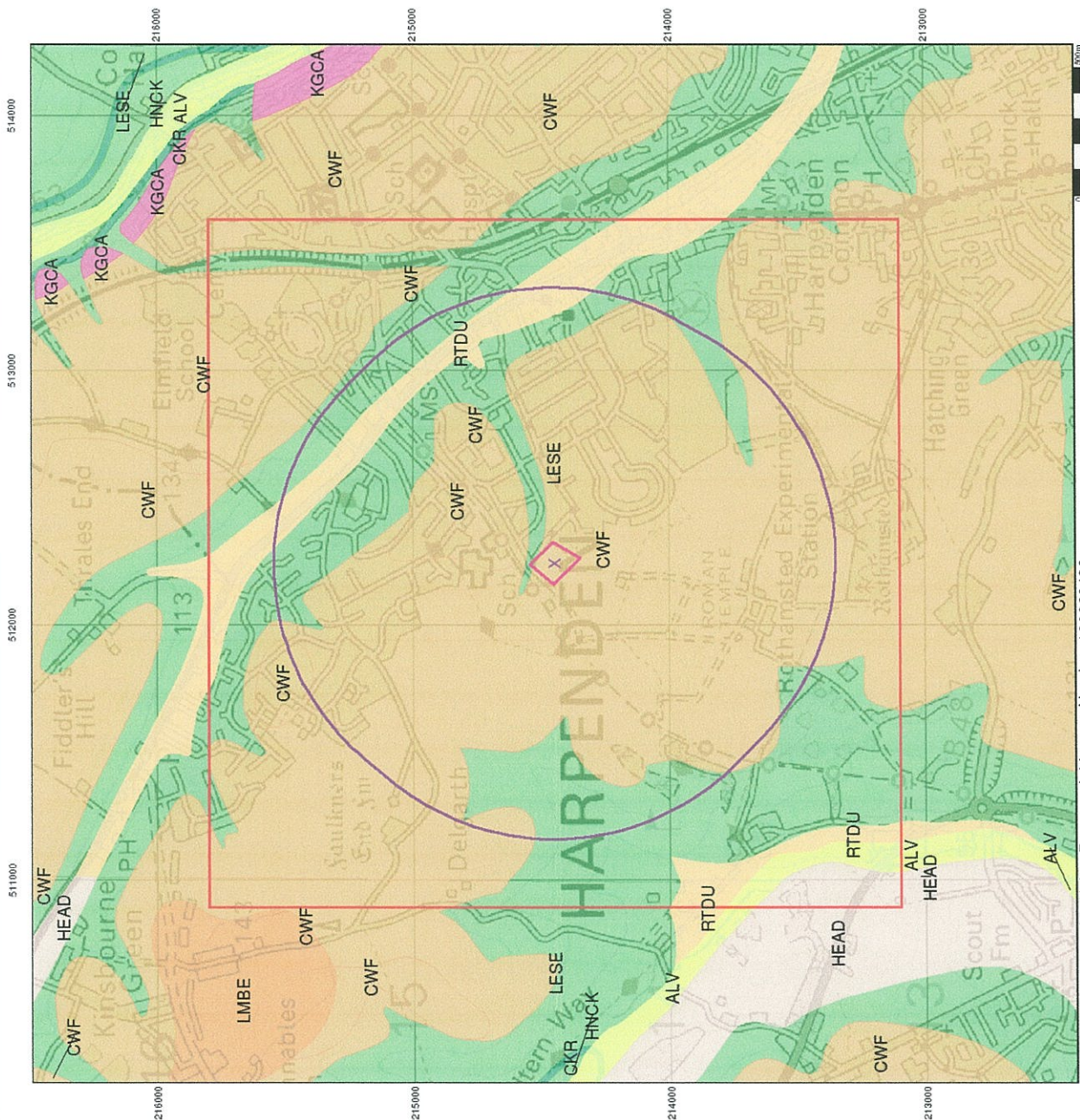
Order Number: 70806970_1_1
 Reps: 334
 National Grid Reference: 512240, 214450
 Slice: A
 Site Area (Ha): 1.6
 Search Buffer (m): 1000

Site Details:

94 Townsend Lane, HARPENDEN, Hertfordshire, AL5 2RH



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Envirocheck[®] Report:

Mining and Ground Stability Datasheet

Order Details:

Order Number:

70805370_1_1

Customer Reference:

hap334

National Grid Reference:

512240, 214450

Slice:

A

Site Area (Ha):

1.6

Search Buffer (m):

1000

Site Details:

94 Townsend Lane

HARPENDEN

Hertfordshire

AL5 2RH

Client Details:

Mr A Prince

Geo-Environmental Investigations Ltd

78 Beckenham Road

Beckenham

BR3 4RH

Report Section and Details	Page Number
Summary	-
<p>The Summary section provides an overview of the data contained within the report, detailing the number of data set features or the existence of a data set in relation to the buffer selected.</p> <p>For ease of reference, the report is broken down into 4 sections of data; Mining and Natural Cavities Data, Historical Land Use Information (1:2,500), Historical Land Use Information (1:10,000) and Ground Stability Data (1:50,000).</p>	
Mining and Natural Cavities Data	1
<p>The Mining and Natural Cavities Data section features data sets related to the existence of mining areas and their potential hazards; and details of naturally formed cavities.</p> <p>Data sets within this section are not plotted, with the exception of BGS Recorded Mineral Sites and Potential Mining Areas which feature on the Historical Land Use Information (1:10,000) map.</p>	
Historical Land Use Information (1:2,500)	2
<p>The Historical Land Use Information (1:2,500) section contains data captured from analysis carried out by Landmark of 1:1,250 and 1:2,500 scale historical Ordnance Survey mapping, identifying areas where, historically, the land uses were potentially contaminative.</p> <p>For the purpose of this Envirocheck module, only historical data relating to mining and ground stability has been included and plotted on the corresponding Historical Land Use Information (1:2,500) map. This section also includes the Subterranean Features data set, which details various man-made and man-used underground spaces obtained from the Subterranea Britannica society.</p>	
Historical Land Use Information (1:10,000)	3
<p>The Historical Land Use (1:10,000) section covers data captured from the systematic analysis carried out by Landmark of 1:10, 560 and 1:10,000 scale historical Ordnance Survey mapping dating back to the mid-19th century, identifying potentially contaminative past industrial land uses.</p> <p>For the purpose of this Envirocheck module, only data relating to mining and ground stability has been included and plotted on the accompanying Historical Land Use Information (1:10,000) map.</p>	
Ground Stability Data (1:50,000)	4
<p>The Ground Stability (1:50,000) section includes the BGS Geosure data suite, reporting features to 250m and plotted onto 3 separate maps. Also reported is brine subsidence, brine mining and salt mining data sets, of which Brine Pumping and Salt Mining Related Features are plotted, and subsidence insurance claims and insurance investigations data, which is not plotted.</p>	
Motion Map Data (1:2,500)	5
<p>The Motion Map Data (1:2,500) section contains data which is plotted to indicate long-term stability trends from analysis of satellite radar data.</p>	
Historical Map List	6
<p>The Historical Map List section details the historical mapping that has been analysed for your site, in relation to the Historical Land Use Information sections.</p>	
Data Currency	7
Data Suppliers	9
Useful Contacts	10

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The brine subsidence data relating to the Driotwich area as provided in this report is derived from JPB studies and physical monitoring undertaken annually over more than 35 years. For more detailed interpretation contact enquiries@jpb.co.uk. JPB retain the copyright and intellectual rights to this data and accept no liability for any loss or damage, including in direct or consequential loss, arising from the use of this data.

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Mining and Natural Cavities Data					
BGS Recorded Mineral Sites	pg 1		1		3
Coal Mining Affected Areas			n/a	n/a	n/a
Man Made Mining Cavities					
Mining Instability			n/a	n/a	n/a
Natural Cavities	pg 1		1		
Non Coal Mining Areas of Great Britain	pg 1	Yes	Yes	n/a	n/a
Potential Mining Areas					
Historical Land Use Information (1:2,500)					
Extractive Industries or Potential Excavations from 1855-1909 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1893-1915 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1906-1937 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1924-1949 (100m)				n/a	n/a
Extractive Industries or Potential Excavations from 1950-1980 (100m)	pg 2		2	n/a	n/a
Subterranean Features (100m)				n/a	n/a
Historical Land Use Information (1:10,000)					
Air Shafts					
Disturbed Ground					
General Quarrying					
Heap, unknown constituents					
Mineral Railway					
Mining & quarrying general					
Mining of coal & lignite					
Quarrying of sand & clay, operation of sand & gravel pits	pg 3		1		2
Former Marshes					
Potentially Infilled Land (Non-Water)	pg 3		1		2
Potentially Infilled Land (Water)					

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m
Ground Stability Data (1:50,000)					
Brine Compensation Area			n/a	n/a	n/a
Brine Pumping Related Features					
Brine Subsidence Solution Area					
Potential for Collapsible Ground Stability Hazards	pg 4	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 4	Yes		n/a	n/a
Potential for Ground Dissolution Stability Hazards	pg 4	Yes		n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 4	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 4	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 4	Yes		n/a	n/a
Salt Mining Related Features					
Subsidence Insurance Claims				n/a	n/a
Subsidence Investigations				n/a	n/a
Motion Map Data (1:2,500)					
Motion Map (100m)	pg 5		18	n/a	n/a

Report Version v49.0

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	BGS Recorded Mineral Sites Site Name: Fatcomersend Farm Gravel Pit Location: , Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 168845 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Pliocene - Pleistocene - Quaternary Geology: Clay-With-Flints Formation Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A13NW (NW)	108	1	512105 214556
2	BGS Recorded Mineral Sites Site Name: Harpenden Gravel Pit Location: , Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 168852 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Quaternary Geology: River Terrace Deposits (Undifferentiated) Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	838	1	512802 215162
3	BGS Recorded Mineral Sites Site Name: Harpenden Gravel Pit Location: , Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 168850 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Quaternary Geology: River Terrace Deposits (Undifferentiated) Commodity: Sand and Gravel Positional Accuracy: Located by supplier to within 10m	A18NE (N)	882	1	512467 215395
4	BGS Recorded Mineral Sites Site Name: Harpenden Gravel Pit Location: , Harpenden, Hertfordshire Source: British Geological Survey, National Geoscience Information Service Reference: 168851 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Cretaceous Geology: White Chalk Subgroup Commodity: Chalk Positional Accuracy: Located by supplier to within 10m	A19NW (NE)	905	1	512782 215265
	Coal Mining Affected Areas In an area which may not be affected by coal mining				
	Natural Cavities Cavity Type: Sinkhole x 1, Solution Pipe x 1 Solid Geology Detail: Chalk Group Superficial Geology: Clay with flints Detail:	A13NW (N)	67	2	512200 214600
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	512271 214515
	Non Coal Mining Areas of Great Britain Risk: Unlikely Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	512244 214449
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	14	1	512250 214550
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13NE (E)	33	1	512350 214475

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	Extractive Industries or Potential Excavations from 1950-1980 Use: Railway Embankment First Map Published 1965 Date: Last Map Published 1965 Date:	A13NW (NW)	31	-	512180 214542
6	Extractive Industries or Potential Excavations from 1950-1980 Use: Unspecified Pit First Map Published 1965 Date: Last Map Published N/A Date:	A13NW (NW)	100	-	512106 214545

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	Quarrying of sand & clay, operation of sand & gravel pits Use: Not Supplied Date of Mapping: 1901	A13NW (NW)	101	-	512111 214553
8	Quarrying of sand & clay, operation of sand & gravel pits Use: Not Supplied Date of Mapping: 1901	A19NW (NE)	840	-	512790 215176
9	Quarrying of sand & clay, operation of sand & gravel pits Use: Not Supplied Date of Mapping: 1901	A19NW (NE)	909	-	512781 215271
10	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A13NW (NW)	101	-	512111 214553
11	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1974	A19NW (NE)	840	-	512790 215176
12	Potentially Infilled Land (Non-Water) Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1974	A19NW (NE)	909	-	512781 215271

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Brine Compensation Area The site does not fall within the brine compensation area.				
	Brine Subsidence Solution Area The site does not fall within the brine subsidence solution area.				
13	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	512244 214449
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	512244 214449
14	Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	512271 214515
15	Potential for Ground Dissolution Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	512244 214449
16	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	512244 214449
	Potential for Landslide Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	512271 214515
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	512244 214449
17	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	0	1	512244 214449
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	1	512271 214515

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
18	Motion Map Average Velocity 0.0 Gradient (mmyear):	A13SE (S)	5	-	512274 214361
18	Motion Map Average Velocity -0.1 Gradient (mmyear):	A13SE (S)	6	-	512272 214357
19	Motion Map Average Velocity 0.0 Gradient (mmyear):	A13SE (SE)	8	-	512286 214375
19	Motion Map Average Velocity -0.3 Gradient (mmyear):	A13SE (SE)	9	-	512285 214371
20	Motion Map Average Velocity 0.0 Gradient (mmyear):	A13SE (E)	10	-	512317 214425
20	Motion Map Average Velocity 0.0 Gradient (mmyear):	A13SE (E)	11	-	512316 214421
20	Motion Map Average Velocity -0.1 Gradient (mmyear):	A13SE (E)	14	-	512322 214424
20	Motion Map Average Velocity -0.2 Gradient (mmyear):	A13SE (E)	15	-	512320 214420
21	Motion Map Average Velocity -0.3 Gradient (mmyear):	A13SE (E)	11	-	512325 214436
21	Motion Map Average Velocity -0.2 Gradient (mmyear):	A13SE (E)	12	-	512324 214432
22	Motion Map Average Velocity -0.6 Gradient (mmyear):	A13NW (NW)	25	-	512181 214517
22	Motion Map Average Velocity -0.3 Gradient (mmyear):	A13NW (NW)	28	-	512180 214521
22	Motion Map Average Velocity -0.3 Gradient (mmyear):	A13NW (NW)	32	-	512178 214525
23	Motion Map Average Velocity 0.1 Gradient (mmyear):	A13SE (SE)	51	-	512328 214362
24	Motion Map Average Velocity 0.0 Gradient (mmyear):	A13SE (SE)	70	-	512367 214391
24	Motion Map Average Velocity 0.4 Gradient (mmyear):	A13SE (SE)	71	-	512370 214395
25	Motion Map Average Velocity -0.6 Gradient (mmyear):	A13NE (E)	76	-	512399 214454
25	Motion Map Average Velocity -1.0 Gradient (mmyear):	A13NE (E)	76	-	512399 214449

The following mapping has been analysed for Historical Land Use Information (1:2,500):

1:2,500	Mapsheet	Published Date
Hertfordshire	027_07	1879
Hertfordshire	027_07	1898
Hertfordshire	027_07	1924
Ordnance Survey Plan	TL1114	1975

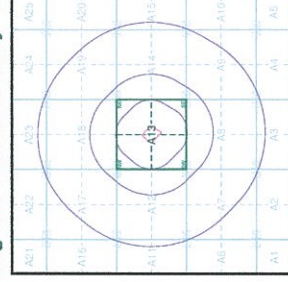
The following mapping has been analysed for Historical Land Use Information (1:10,000):

1:10,560	Mapsheet	Published Date
Hertfordshire	027_00	1884
Bedfordshire	035_NE	1890
Bedfordshire	035_NW	1892
Hertfordshire	027_SE	1899
Hertfordshire	027_SW	1899
Hertfordshire	027_NE	1901
Hertfordshire	027_NW	1901
Bedfordshire	035_NE	1901
Bedfordshire	035_NW	1901
Hertfordshire	027_SE	1925
Hertfordshire	027_SW	1925
Bedfordshire	035_NE	1925
Bedfordshire	035_NW	1925
Hertfordshire	027_NE	1938
Hertfordshire	027_NW	1938
Hertfordshire	027_SE	1938
Hertfordshire	027_SW	1938
Bedfordshire	035_NE	1938
Bedfordshire	035_NW	1938
Ordnance Survey Plan	TL11NW	1960
Ordnance Survey Plan	TL11SW	1960
1:10,000	Mapsheet	Published Date
Ordnance Survey Plan	TL11NW	1974
Ordnance Survey Plan	TL11SW	1993

Ground Stability Data (1:50,000)

- General**
- Specified Site
 - Specified Butters (S)
 - Slice
 - Map ID
 - Bearing Reference Point
- Potential for Compressible Ground Stability Hazards**
- High
 - Moderate
 - Low
 - Very Low
- Potential for Collapsible Ground Stability Hazards**
- High
 - Moderate
 - Very Low
- Brine Pumping and Salt Mining**
- Brine Pumping Related Feature
 - Salt Mining Related Feature
- Point**
- Point
 - Polygon

Mining and Ground Stability - Slice A

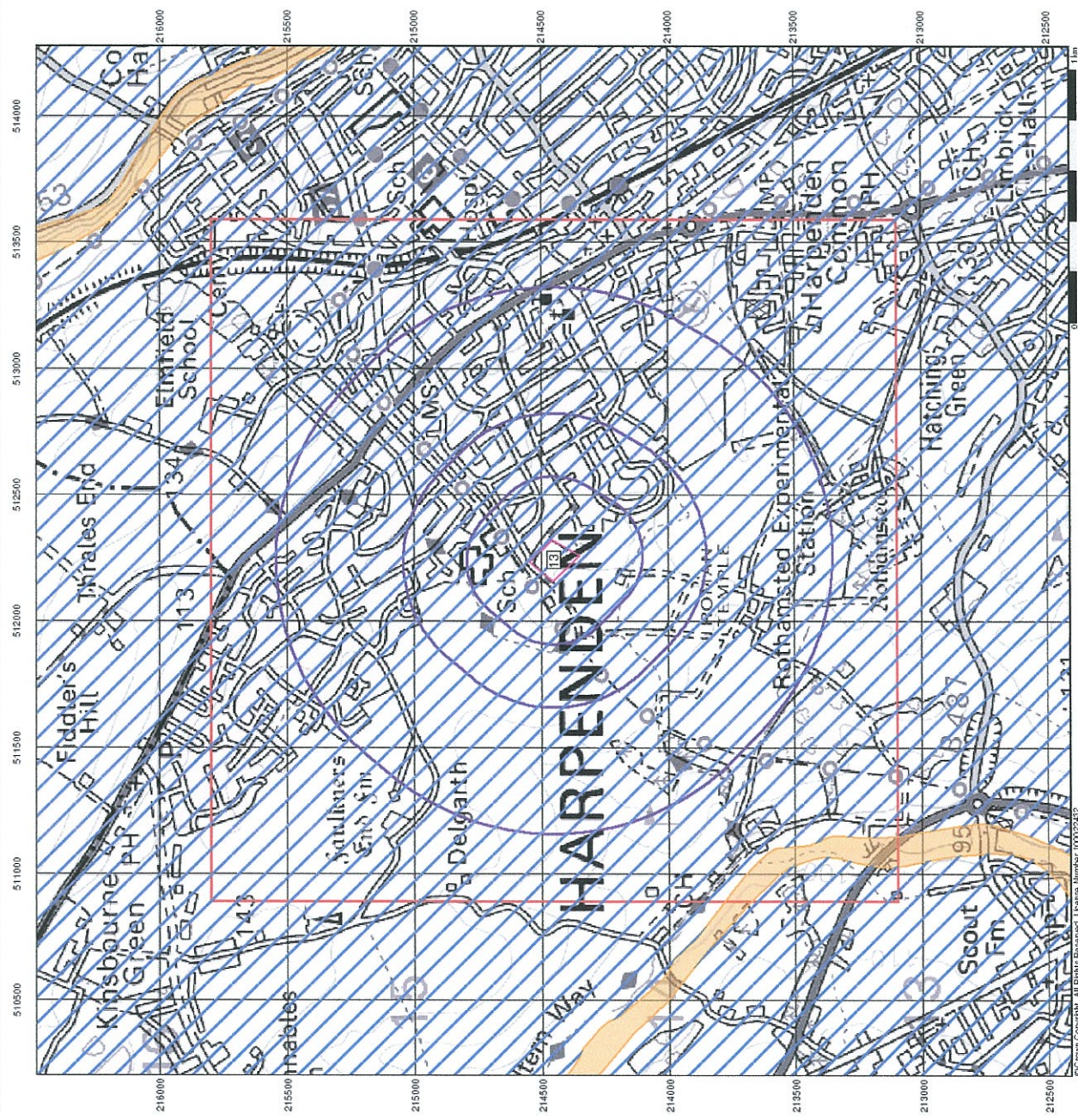


Order Details

Order Number: 70805370_1_1
 Customer Ref: hap334
 National Grid Reference: 512240, 214450
 Slice: A
 Site Area (Ha): 1.6
 Search Buffer (m): 1000

Site Details

94 Townsend Lane, HARPENDEN, Hertfordshire, AL5 2RH



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Ground Stability Data (1:50,000)

General

- Specified Site
- Specified Barrier(s)
- Bearing Reference Point
- Map ID

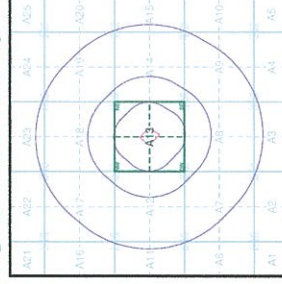
Potential for Landslide Ground Stability Hazards

- High
- Moderate
- Low
- Very Low

Potential for Ground Dissolution Stability Hazards

- High
- Moderate
- Low
- Very Low

Mining and Ground Stability - Slice A

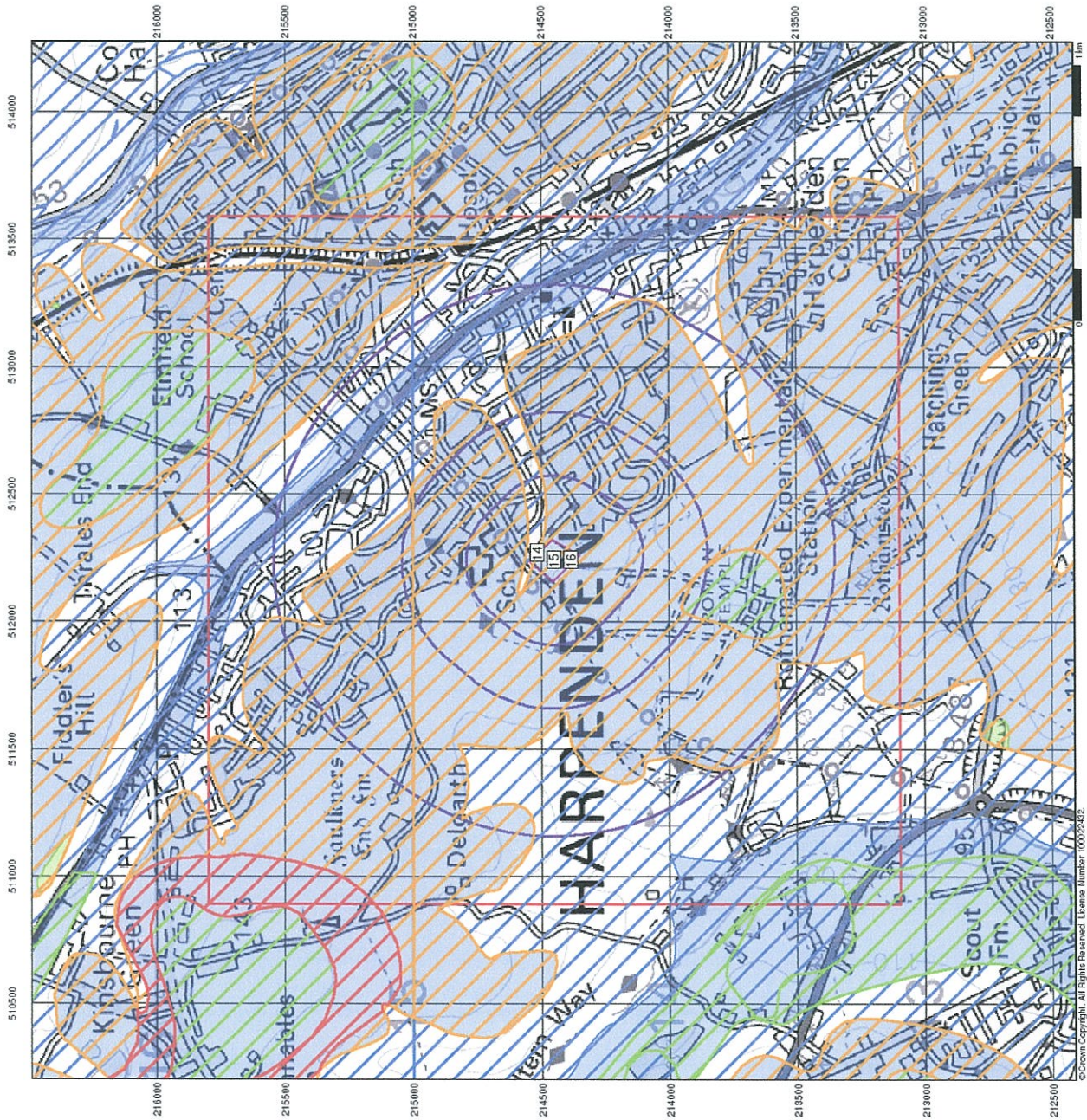


Order Details

Order Number: 70805370_1_1
 Customer Ref: hap334
 National Grid Reference: 512240, 214450
 Slice: A
 Site Area (Ha): 1.6
 Search Buffer (m): 1000

Site Details

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Ground Stability Data (1:50,000)

General

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

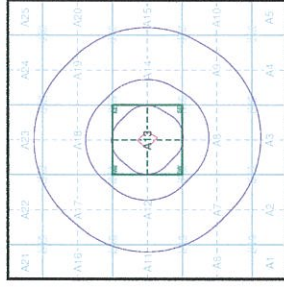
Potential for Running Sand Ground Stability Hazards

- High
- Moderate
- Low
- Very Low

Potential for Shrinking or Swelling Clay Ground Stability Hazards

- High
- Moderate
- Low
- Very Low

Mining and Ground Stability - Slice A

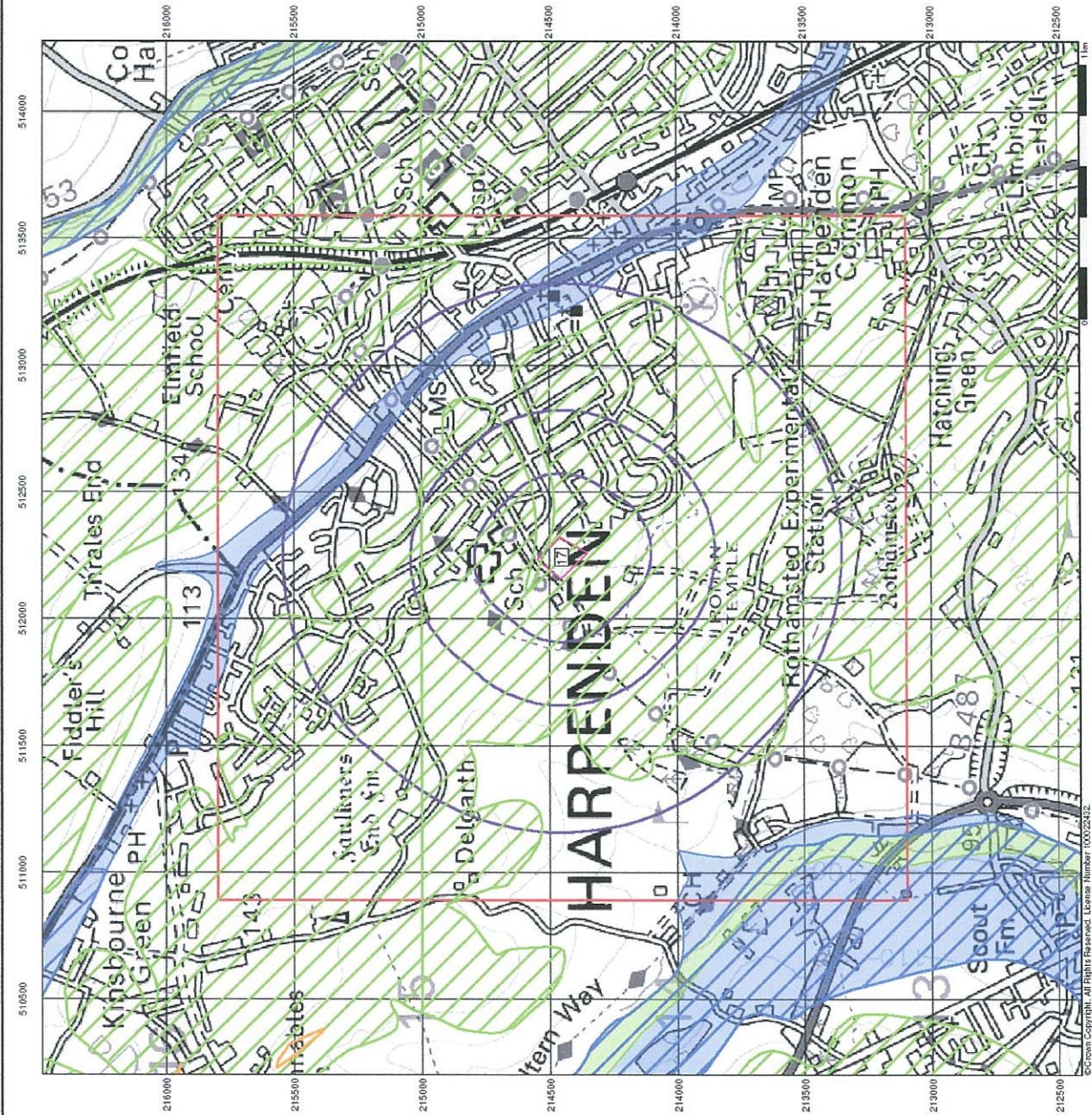


Order Details

Order Number: 70805370_1_1
 Customer Ref: hap334
 National Grid Reference: 512240, 214450
 Slice: A
 Site Area (Ha): 1.6
 Search Buffer (m): 1000

Site Details

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General
 Specified Site Bearing Reference Point Map D
 Several of Type at Location

Potentially Contaminative Industrial Uses (Past Land Uses - Mining)

- | | |
|---|---------|
| Air Shafts | Polygon |
| Disturbed Ground | Line |
| General Quarrying | Line |
| Heap, Untreated Constituents | Line |
| Mineral Railway | Line |
| Mining and Quarrying General | Line |
| Mining of Coal & Lignite | Line |
| Quarrying of Sandstone, Clay, Operation of Sandstone Gravel Pit | Line |

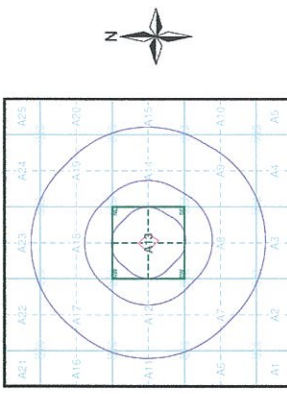
Historical Land Use

- | | |
|---------------------------------------|---------|
| Potentially Infilled Land (Non-Water) | Polygon |
| Potentially Infilled Land (Water) | Polygon |
| Former Marsh | Polygon |

Mining Data

- | | |
|---------------------------|--|
| Potential Mining Area | |
| BGS Recorded Mineral Site | |

Mining and Ground Stability - Slice A

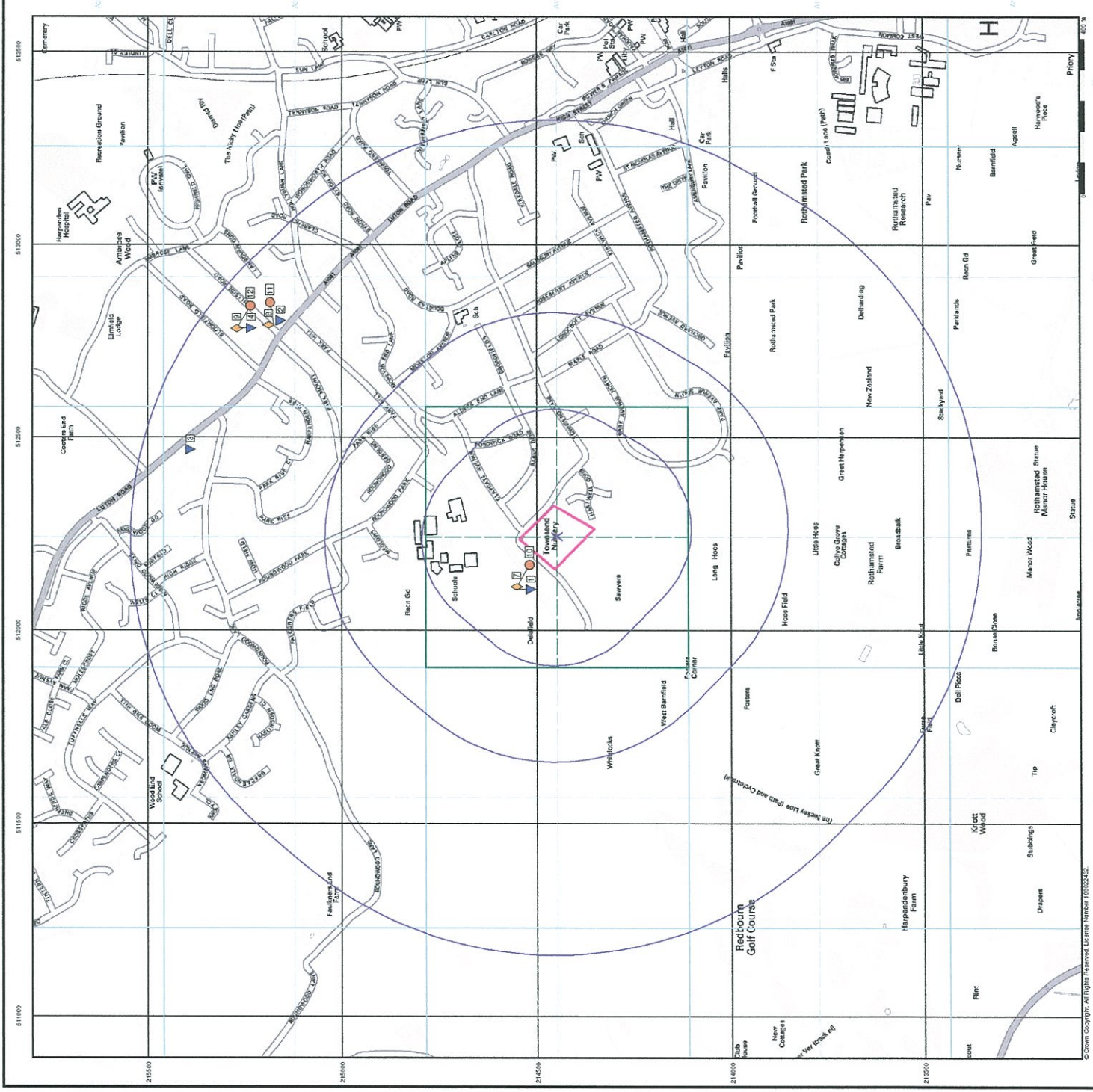


Order Details

Order Number: 70805370_1_1
 Customer Ref: Hep334
 National Grid Reference: 512240, 214450
 Site: A
 Site Area (Ha): 1.6
 Search Buffer (m): 1000

Site Details

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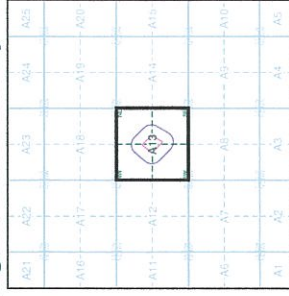
Historical Land Use Information (1:2,500)

- General**
- Specified Site
 - Specified Buffer(s)
 - ✕ Bearing Reference Point
 - Map ID
 - Several of Type at Location

Potentially Contaminative Industrial Uses (Extractive Industries Activity)

- | Point | Line | Polygon |
|---|------|---------|
| ▲ Extractive Industries Activity from 1855 - 1939 | — | □ |
| ▲ Extractive Industries Activity from 1893 - 1915 | — | □ |
| ▲ Extractive Industries Activity from 1936 - 1937 | — | □ |
| ▲ Extractive Industries Activity from 1924 - 1949 | — | □ |
| ▲ Extractive Industries Activity from 1950 - 1980 | — | □ |
-
- | Point | Line | Polygon |
|-------------------------|------|---------|
| ▲ Subterranean Features | — | □ |

Mining and Ground Stability - Segment A13

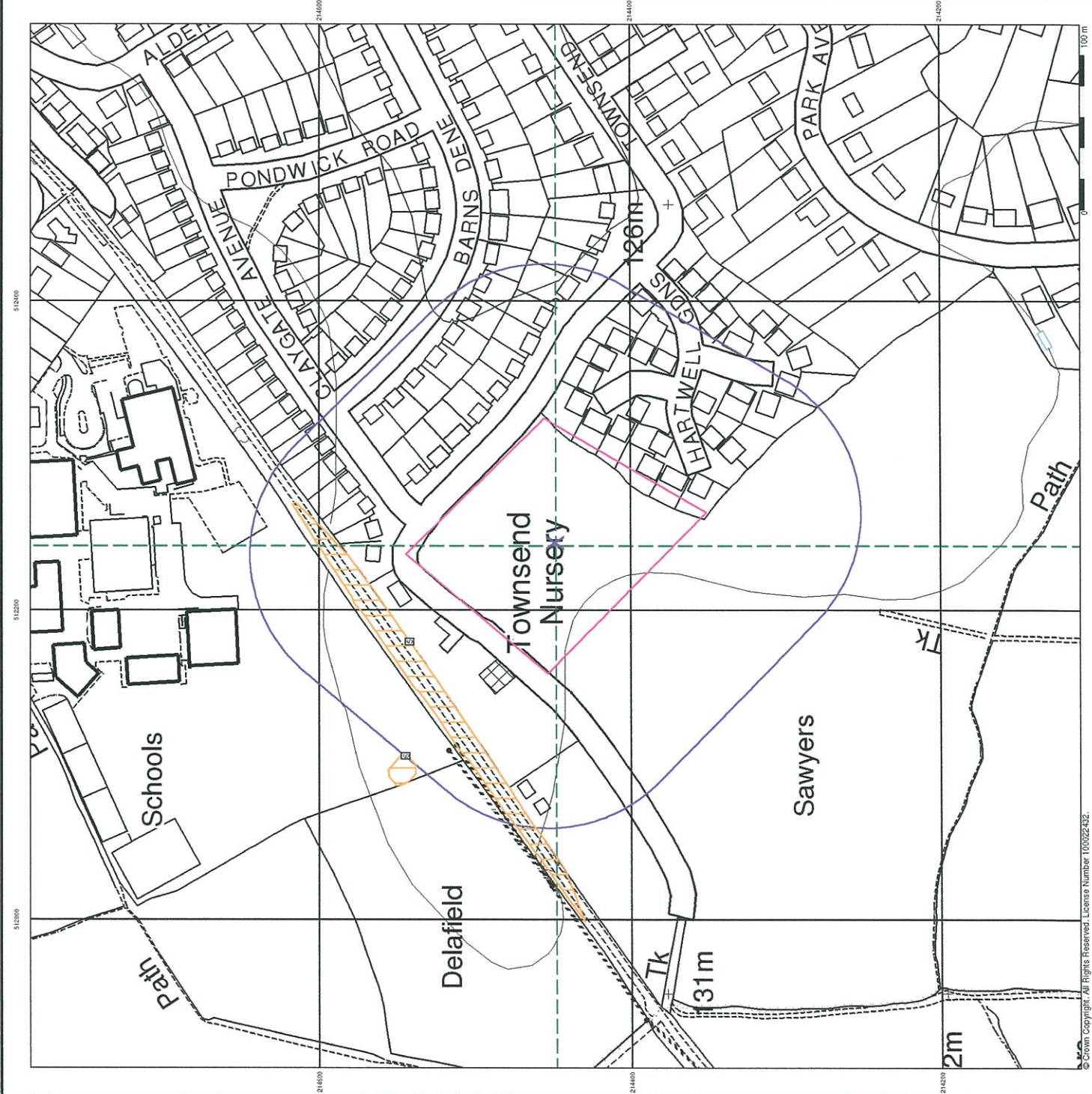


Order Details

Order Number: 70805370_1_1
 Customer Ref: hap334
 National Grid Reference: 512240, 214450
 Slice: A
 Site Area (Ha): 1.6
 Plot Buffer (m): 100

Site Details

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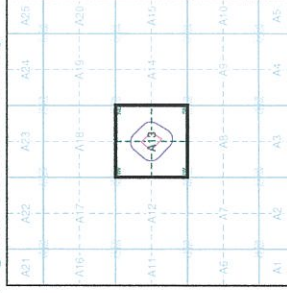
Motion Map Data (1:2,500)

- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map D
 - Severed of Type at Location

Average Velocity Gradient

- Upward Movement > 3.5mm per year
- Upward Movement 1.5mm to 3.5mm per year
- Stable 1.5mm to -1.5mm per year
- Downward Movement -1.5mm to -3.5mm per year
- Downward Movement > -3.5mm per year

Mining and Ground Stability - Segment A13

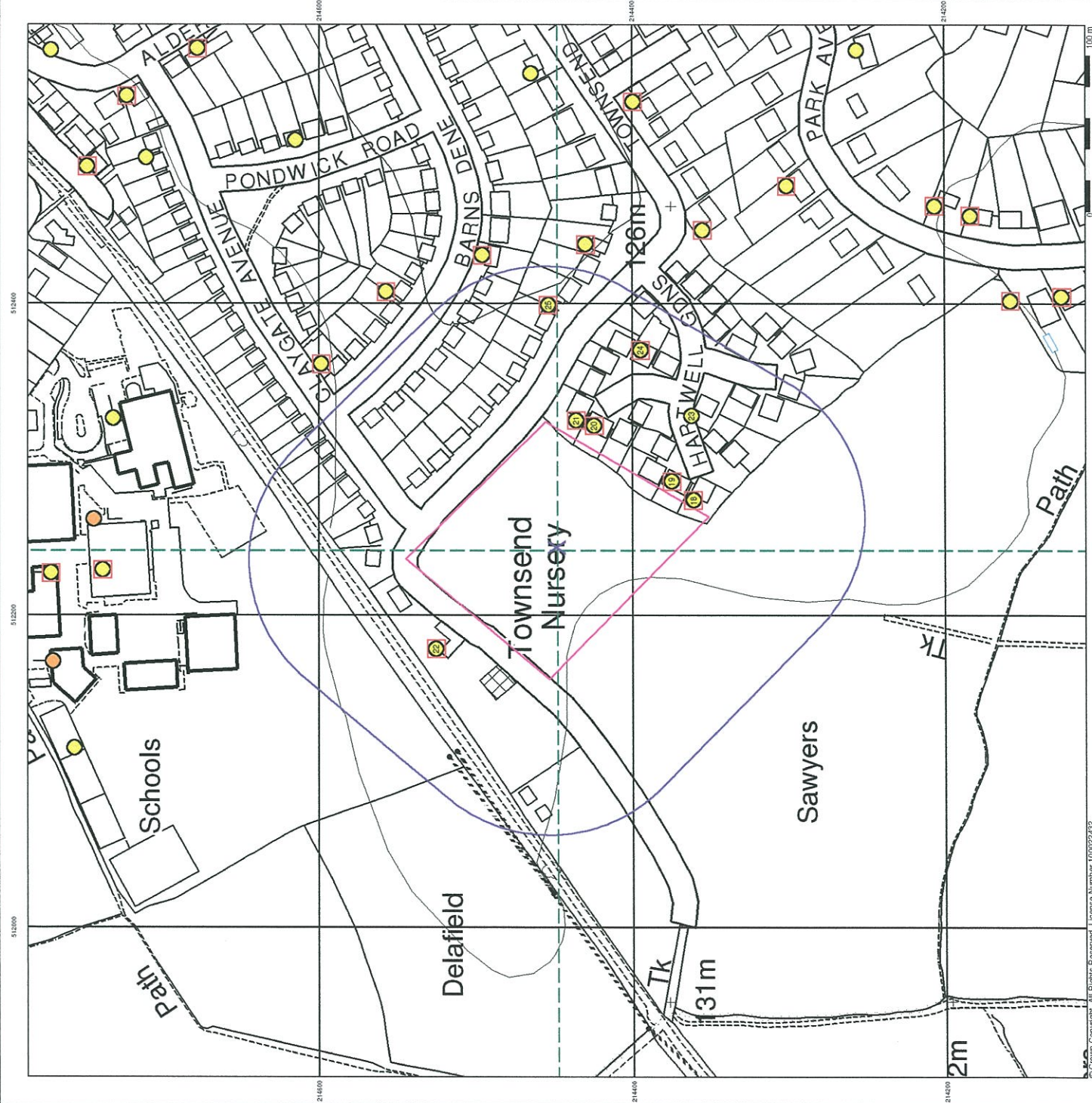


Order Details

Order Number: 70805370_1_1
 Customer Ref: hap334
 National Grid Reference: 512240, 214450
 Slice: A
 Site Area (Ha): 1.6
 Plot Buffer (m): 100

Site Details

94 Townsend Lane, HARPENDEN, Hertfordshire, AL5 2RH



Appendix C
Groundsure Geinsight Report