Horizon Consulting Engineers

Transport, Environment & Design

Trevozah Barton Inert Landfill Environmental Setting and Site Design Report

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Revision	Author	Description	Date
1	Alex Large	Minor edits to take into account updated Environment Agency guidance published January 2020.	12-May-2020

1. Introduction

1.1 Commission

1.1.1 Horizon Consulting Engineers Limited (Horizon) was commissioned by Associated Landfill Ltd ("the Client") to prepare an Environmental Setting and Site Design Report (ESSD) in support of an Environmental Permit submission to operate an inert landfill at Trevozah Barton Farm (the Site).

1.1.2 This project was undertaken in accordance with Horizon's fee proposal dated 04 April 2019, reference HCE0312.TB.Proposal.

1.2 Report Context

1.2.1 A copy of the planning permission (PA17/09902, Cornwall County Council) for the proposed works "*to relocate inert soil from nearby development sites to restore a deep sided depression back to agriculturally productive land*" is presented in **Appendix A**. The planning permission notes that:

- "*The deposit of waste will require an Environmental Permit from the Environment Agency under the Environmental Permitting Regulations 2010, unless an exemption applies. No waste deposit can be made without the correct permit being in place."*

1.2.2 As part of the permit application, an ESSD must be produced to assess potential risks that the inert landfill might pose to the environment and how these will be prevented / minimised.

1.2.3 This ESSD sets out the details of the conceptual model developed for the Site along with proposed installation design, control measures and monitoring based on the Site's environmental setting. This report should be read in conjunction with relevant supporting documents including the Environmental Risk Assessment (ERA)[1] which incorporates the Hydrogeological Risk Assessment (HRA) for this project plus the Slope Stability Risk Assessment (SSRA)[2].

1.2.4 This ESSD has been prepared with reference to Environment Agency guidance and report template for ESSD reports[3,4,5].

[1] Horizon (November 2019) Trevozah Barton Farm Landfill. Environmental Risk Assessment. Ref: HCE0312.ERA

[2] GCE (November 2019) Trevozah Barton Landfill. Slope Stability Risk Assessment. Ref: GCE01010/SSRA

[3] https://www.gov.uk/guidance/landfill-operators-environmental-permits/landfills-for-inert-waste#management-plans [Accessed 26 April 2020]

[4] https://www.gov.uk/guidance/landfill-operators-environmental-permits/plan-the-environmental-setting-of-your-site [Accessed 26 April 2020]

[5] https://www.gov.uk/government/publications/report-template-environmental-setting-and-site-design [Accessed 26 April 2020]

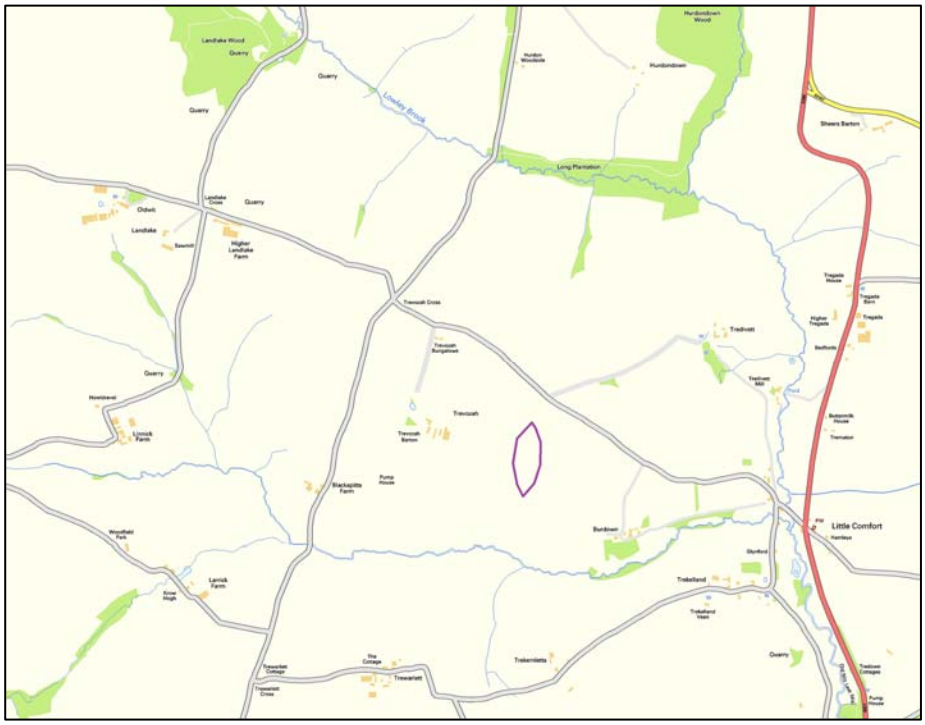
2. Site

2.1 Site Location and Access

2.1.1 The Site is surrounded by arable farmland, located approximately 1 km west of the A388 road and 3.5 km south of Launceston. The Site is roughly oval-shaped, circa 250 m long by 70 m wide (at the widest part), covering an area of approximately 1.2 Ha. The Site is located within a large arable field associated within Trevozah Barton Farm.

2.1.2 The approximate centre of the Site is located at Ordnance Survey grid reference: 233665E 080892N.

2.1.3 A Site location map is provided as **Figure 2-1** with the approximate boundary of the deposition area shown in purple.



Contains Ordnance Survey data © Crown Copyright and database right 2019
Figure 2-1: Site Location Plan

2.1.4 The Site, which was historically quarried, is an un-used area of agricultural land which is sparsely covered by low-level vegetation. A plan showing the proposed extent of the Site is presented as **Appendix B**.

2.1.5 Access to the Site is currently via a gate off a narrow unnamed public highway located to the north of the Site. The proposed access and traffic routes are set out in the Construction Traffic Management Plan[6].

2.1.6 **Table 2-1** below summarises the surrounding land uses as illustrated on **Figure 1** in **Appendix B**.

[6] Maria Bailey Planning (23 March 2018) Construction Traffic Management Plan.

Direction From Site	Approximate Distance (m)
North	Agricultural land. The town of Launceston is located 2 km to the north.
East	Agricultural land, farm buildings and sparse residential properties. The nearest residential property is Burdown located 240 m east of the Site. The small hamlet of Trekelland and the Lowley Brook are located approximately 750 m east. Greystone Quarry (also a SSSI) is located 2.5 km east.
South	Agricultural land. An unnamed stream is located 200 m south.
West	Agricultural land, farm buildings and sparse residential properties. Trevozah Barton farm located 250 m west. Ancient and semi-natural woodland located 3 km to the north-west.
Notes: Distances are approximate from the nearest boundary of the proposed filling area.	

Table 2-1*:* Land Uses in the Surrounding Area

2.2 Site Classification

2.2.1 The proposed inert landfill at the site is considered a waste disposal activity and will be regulated as a bespoke waste operation under the Environmental Permitting (England and Wales) Regulations 2016.

2.3 Specified Waste Management Activities

2.3.1 The waste disposal activities that will be carried out at the Site as defined under Annex II of the Waste Framework Directive can be summarised as follows:

- D01: Deposit into or on to land (e.g. landfill, etc).

2.3.2 Drawings from the planning permission showing the extent of the proposed infilling are included in **Appendix C**.

2.4 Application Boundaries and Site Security

2.4.1 The permitted area boundary is to be kept secure throughout the works to prevent unauthorised access. Access to the permitted area will be through gates located in the north of the Site which will be kept locked at all times outside operational hours or in the event the permitted area is unmanned.

2.4.2 All equipment and tools are to be left in a locked container located in the north of the Site situated at the top of the access track leading down into the void (see Site Infrastructure Plan in **Appendix B**). Doors and windows will be reinforced against vandalism as necessary.

2.4.3 The Site is bordered by steep sides. Access will be restricted by post and wire fencing surrounding the void. The fence will be inspected weekly and maintained if necessary.

2.4.4 As set out in the EMS[7], security measures at the Site are to include out of hours checks by the Site Manager and Site staff who live in the locality.

2.4.5 All Site visitors will be required to sign a visitors book on entry, and again on exiting the Site.

2.5 Site Context

2.5.1 The Site comprises a steep-sided void which slopes down towards the south. A plan showing the Site plus surrounding land uses is included in **Appendix B**.

2.5.2 The Site is not located within the vicinity of environmentally sensitive sites with the nearest to the Site located 2.5 km to the east (Graystone Quarry SSSI). There are no other historic environmental or built heritage assets within the immediate vicinity.

[7] Horizon (April 2020) Trevozah Barton Farm Landfill. Environmental Management System Ref: HCE0312.EMS.Rev2

2.5.3 A Nature and Heritage Conservation Screening Report from the Environment Agency (reproduced in **Appendix D**) indicates that there are no nature and heritage conservations interests that may impact the proposed development.

2.5.4 Potential receptors identified within a 2 km radius of the Site, that may be affected by the works at the Site, have been summarised in **Table 2-2** below and shown on the drawing in **Appendix B**. An Envirocheck search report (Reference: 213208610_1_1) is included in **Appendix E**.

Receptor	Receptor Type	Location
Unnamed Stream	Environmental / Hydrological	Located 200 m south. Stream runs in a west to east direction towards the Lowley Brook.
Burdown Farm	Residential	Located 240 m east.
Trevozah Barton Farm	Residential	Located 260 m west.
Groundwater Abstractions	Environmental / Residential	Many local properties including Trevozah Barton Farm (260 m west) are not mains supplied. Additional details relating to groundwater abstractions included in Section 4.3.
Numerous farmsteads	Residential	Trewarlett, Trekelland, Blackpitts Farm, Tredivett – located approximately 750 m to 1 km from the Site.
Lowley Brook	Environmental / Hydrological	Located 750 m east. Brook runs from north to south and discharges to the River Tamar 3.5 km to the south-east.
Numerous disused quarries	Heritage / Geological	Numerous small disused quarries (assumed to quarry local slate / shillet) are present within 1 to 2 km of the Site.

Table 2-2: Sensitive Receptors

2.5.5 There are no National Nature Reserves, Local Nature Reserves or Local Wildlife Sites within a 1 km radius of the Site.

2.6 EA's Position Statement on Location of Landfills

2.6.1 Environment Agency Guidance on Groundwater Protection[8] sets out the Environment Agency's preferred approach to landfills and their location. The guidance notes that "*the Environment Agency will normally object to any proposed landfill site in groundwater SPZ1*." The Site is not located in a groundwater Source Protection Zone (SPZ), see Section 4.3 of this report, therefore this requirement is met.

2.6.2 The Environment Agency's guidance[8] goes on to state that "*for all other proposed landfill site locations, a risk assessment must be conducted based on the nature and quantity of the wastes and the natural setting and properties of the location. Where this risk assessment demonstrates that active long-term site management is essential to prevent long-term groundwater pollution, the Environment Agency will object to sites:*

- *below the water table in any strata where the groundwater provides an important contribution to river flow, or other sensitive receptors*
- *within SPZ2 or 3*
- *on or in a principal aquifer."*

[8] Environment Agency (February 2018) The Environment Agency's Approach to Groundwater Protection. Version 1.2

2.6.3 An assessment of whether a potential landfill site poses a potential hazard to groundwater will take account of the waste types proposed for disposal the natural geology of the Site. The guidance[8] notes that "*an inert landfill does not pose a potential hazard to groundwater (and hence it is not necessary to collect leachate and no drainage system is required*)." On the basis that the Environmental Permit application is for an inert landfill, which has already been granted planning permission, the conditions of the Environment Agency's Position Statement on Location of Landfills are considered to be met.

3. Source

3.1 Historical Development

3.1.1 The Site history has been assessed based on Ordnance Survey historical maps from various scales (reproduced in **Appendix F**) and Google Earth historical aerial photographs.

3.1.2 In summary, the Site has remained undeveloped since earliest mapping records from 1884 which show the Site to contain issues running through the centre of the Site to the stream located 200 m south of the Site. It is unknown when (or if) the Site was quarried however historical maps indicate that the void was formed between 1954 and 1999. Apart from vegetation changes, the Site remains unchanged since 1999 until the present day. Mapping from 1983 onwards (1:10,000 scale) shows the issues no longer present.

3.1.3 Based on the information from the Envirocheck report (**Appendix E**) there are no potentially polluting historical land uses identified on the Site. No pollution incidents to controlled waters have been recorded on-Site. Based on the history of the Site and its surroundings it is not anticipated that the Site is contaminated.

3.2 Naturally Occurring Contaminants

3.2.1 Drawings from the BGS's UK Soil Observatory showing background concentrations of selected metals are presented in **Appendix G** (topsoil) and **Appendix H** (subsoil).

3.2.2 The South-West is a highly mineralised area due to the geological history of the region. Elevated concentrations of naturally occurring metals occur in many soils across the South-West; with extraction and mining of minerals undertaken at a number of locations across Devon and Cornwall. The BGS maps show significantly elevated concentrations of naturally occurring arsenic, antimony and manganese may be present on-Site and nearby.

3.3 Proposed Development

3.3.1 Plans showing the proposed development are included in **Appendix C** with photographs of the Site included in **Appendix I**. In summary, it is proposed to import waste topsoil and subsoil from local development projects to the Site to bring the land back into agricultural use. In addition, the works will allow land immediately adjacent to the depression, which is currently under-utilised due to access and safe working constraints, to be brought back into beneficial use.

3.3.2 Only the required volume of waste will be imported with full records retained on completion of the re-profiling.

3.3.3 Flood maps are reproduced in the Envirocheck Report (**Appendix E)**. The Site currently forms a pathway for overland flow of water to the unnamed water course to the south, which ultimately discharges into Lowley Brook. As part of the works two attenuation ponds are to be constructed at either end of the existing depression to capture overland flow and allow the water to be re-used for agricultural purposes. Therefore, it is perceived there should be a net benefit to the downstream watercourse in terms of flood risk.

3.3.4 The construction of the attenuation ponds, which are to be re-profiled using existing material, is outside the scope of this Environmental Permit application.

3.3.5 In relation to the preferred works the outline sequencing is as follows:

- Prior to the commencement of filling the void, the existing topsoil, Made Ground / Fill will be stripped and stockpiled.
- Two perimeter drains are to be constructed (see Site Infrastructure Plan in Appendix B and drawings in SSRA[2]).
- An artificially engineered geological barrier is to be constructed beneath the sides and base of the void. This will be constructed using suitable Site-won Made Ground / Fill with any shortfall made up using imported materials. The artificially engineered geological barrier will be constructed beneath the northern end of the Site initially, then worked in a southerly direction as filling progresses.
- A drainage blanket is proposed beneath the artificially engineered geological barrier at the southern end of the Site (see drawings in SSRA[2]). This will be constructed using suitable Site-won Made Ground / Fill with any shortfall made up using imported materials.
- Suitable waste, predominantly soil, will be sourced from local development sites and imported to Site using sheeted lorries. The lorries will enter and exit the Site using the access located to the north of the Site adhering to the requirements of the Traffic Management Plan[6].
- Suitable aggregates / hardcore will be deposited to provide vehicle access to the working area where waste deposition is being undertaken.
- During the proposed works lorries are to deposit the imported waste soil as close to the working area as possible. This will then be placed in accordance with the requirements of the Construction Phasing Plan[9].
- Upon completion of infilling of the void, the previously stripped topsoil is to be replaced, with any shortfall made up from imported topsoil.
- The land is to be seeded with grass and returned to agricultural use upon completion.
- All works are to be undertaken in accordance with any requirements of the Planning Permission (**Appendix A**).

3.3.6 The estimated volume of material required to infill the void, as set out in **Appendix C**, is 53,000 m^3.

3.4 Proposed Operations

3.4.1 Only inert wastes meeting the specified waste types set out in Section 3.3 of the EMS[7] are to be used for the filling operation:

3.4.2 Material will be brought to Site and checked in accordance with a stringent waste acceptance procedure, as detailed in Appendix D of the EMS[7].

3.4.3 The works will also be undertaken in accordance with MAFF's Good Practice Guide for Soils[10] and DEFRA's Construction Code of Practice for the Sustainable Use of Soils on Construction Sites[11]. The aim is to adopt appropriate management techniques when using earthmoving equipment to avoid over-compaction (for example if too wet) or loss (for example as dust in dry windy weather) of the imported material.

3.4.4 Where necessary measures will be taken to control or destroy weeds.

[9] GCE (November 2019) Trevozah Barton Landfill. Construction Phasing Plan. Ref: GCE01010/CPP

[10] MAFF (April 2000) Good Practice Guide for Handling Soils

[11] DEFRA (2009) Construction Code of Practice for the Sustainable Use of Soils on Construction Sites.

4. Pathways and Receptors

4.1 Geology

4.1.1 Review of British Geological Survey[12] (BGS) records indicates no superficial deposits are present beneath the Site, however a mantle of locally derived Head deposits may be anticipated. The Site is underlain by bedrock of intersecting geological strata which are interpreted by BGS to meet at faulted boundaries.

4.1.2 The northern and southern end of the depression is underlain by bedrock of the Brendon Formation, whilst the centre of the depression is underlain by bedrock of the Lezant Slate Formation. The Site is bordered to the south by the Crackington Formation.

4.1.3 Details of the geological formations are presented in **Table 4-1** below with a figure showing the bedrock geology included in **Appendix B**.

4.1.4 No mass movement deposits or artificial ground is mapped in the vicinity of the Site however Horizon's ground investigation (reported in Section 3 of the ERA[1]) identified reworked superficial deposits, interpreted as Made Ground in places across the void, in particular the base. The Made Ground / fill material within the base of the void is interpreted to comprise predominantly overburden and re-worked superficial deposits with limited volumes of imported fill material.

4.1.5 There nearest available BGS borehole log is located approximately 650 m south of the Site (BGS reference: SX38SW85). The log describes the underlying geology to be "slate" to 54 m bgl with groundwater encountered at 17 m, 20 m ,29 m, 35 m, 38 m, 40 m and 44 m below ground level below ground level (bgl).

[12] http://mapapps.bgs.ac.uk/geologyofbritain/home.html [Accessed 1 August 2019]

Bedrock Formation	Period	Epoch	Age	Approximate Thickness	Depositional Environment	BGS Description
Crackington Formation	Carboniferous	Pennsylvanian	Bashkirian	250 m - >1,000 m	Distal basin.	Rhythmically bedded, dark blue-grey mudstones and subordinate predominantly grey sandstones and siltstones. Sandstone percentage varies from 20-75%, both vertically and geographically.
Brendon Formation	Carboniferous	Mississippian	Visean	450 m+, but more or less due to thrusting.	Distal basin.	Dark grey, locally siliceous, mudstone with laminae and thin beds of siltstone. Scattered packets of blue-grey to grey-green coarse grained greywacke sandstone with interbedded dark grey mudstone. There are locally distributed units of tuff and basaltic lava.
Lezant Slate Formation	Devonian	Late	Famennian	Unknown	Sedimentary	Greenish grey slate.
Notes: Bedrock presented in stratigraphic order (i.e. oldest at bottom)						

Table 4-1: Summary of Bedrock Formations

4.2 Hydrology

4.2.1 For additional details of the Hydrology relating to the Site, reference should be made to Section 6 of the ERA[1]. A summary is presented below.

4.2.2 The nearest surface water feature is an unnamed stream located approximately 200 m south of the Site which discharges to the Lowley Brook. This river ultimately discharges into the River Tamar 3.5 km to the south-east of the Site.

4.2.3 Other surface water features in the vicinity of the Site include:

- A pond associated with Trevozah Barton farm, located approximately 390 m to the west-north-west.
- South West Water (SWW) mapping (included in Appendix M of the ERA[1]) identifies the presence of a covered reservoir approximately 500 m north-west of the Site. This reservoir is not shown on historical mapping included in **Appendix F** up to and including 2006, however is shown on mapping dated 2019 indicating it is relatively new. No further details in relation to this covered reservoir have been determined. No SWW water supply pipes are shown connecting to this reservoir, nor are water supply pipes mapped to nearby properties.

4.2.4 To the north of the Site, road gullies were observed on the unnamed public highway in the vicinity of the access gate. These are not shown on SWW mapping and are assumed to be highway drainage, discharging to soakaway, likely at the top of the field above the Site.

4.2.5 Historical maps (**Appendix F**) suggest the presence of a ditch, orientated in a north-south direction, passing through the Site and discharging to a stream 200 m south of the Site. The ditch is shown on the earliest available mapping (1884) however is no longer shown on mapping dated 1983. Notwithstanding this a partial ditch was observed by Horizon within the void during walkover surveys (see Photograph 8 in **Appendix I**). At the time of the walkover surveys this ditch was observed to be dry and discontinuous along the length of the void.

4.2.6 Historically, an issues was mapped approximately 30 m to the north of the Site (shown on historical mapping from 1953, **Appendix F**) however no evidence of the issues was noted by Horizon during walkover surveys.

4.2.7 Towards the southern end of the void, the ground conditions were observed to be wet and boggy in October 2019, following a period of heavy rain (see Photograph 12 in **Appendix I**). Other than the saturated soils in this area, no standing water was observed within the void.

4.2.8 A surface water drainage ditch which runs from southern boundary of the Site towards the water course 200 m south of the Site was observed during Horizon's walkover surveys. In August 2019 low levels of standing water were observed within the drainage ditch however there no evidence that this ditch was discharging to the stream. Higher levels of flow were observed in October 2019, following a period of heavy rainfall, with water from the ditch discharging to the stream.

4.2.9 Photographs showing the drainage ditch and discharge point are included in **Appendix I**. Of note, the ditch was observed to be dry immediately south of the Site in October 2019, with flow noted, assumed as a result of groundwater discharge, approximately 80 m to the south of the Site (see Photograph 19 in **Appendix I**).

4.2.10 According to the Environment Agency flood maps (included in the Envirocheck in **Appendix E**) the Site is located in Zone 1 and therefore the probability of flooding is low; i.e. less than 1 in 1,000 annual probability of river and sea flooding.

4.2.11 The maps identify a potential risk from surface water flooding (i.e. overland flow) at the Site. These indicate the approximate flow paths of overland flow, and in this instance are considered to relate to the general topography.

4.3 Hydrogeology

4.3.1 For additional details of the Hydrogeology relating to the Site, reference should be made to Section 5 of the ERA[1]. A summary is presented below.

4.3.2 The bedrock beneath the Site is classified as a Secondary A aquifer. A Secondary A aquifer is defined as "*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.*"

4.3.3 The Site is not located within a Groundwater Source Protection Zone as classified by the Environment Agency.

4.3.4 The Envirocheck report (**Appendix E**) identifies no groundwater abstractions within a 500 m radius of the Site. Four active licensed groundwater abstractions are located within a 1 km radius of the Site, as summarised in **Table 4-2** below, with a further 19 groundwater abstractions within a 2 km radius of the Site.

Operator	Location	Location	Rate (m^3)	Permit Dates
Messrs L&RI Goodman	Trekemletts Farm	562 m south	Not stated	Start 31 March 1966
J A Basire & Partners*	Trekelland Farm, Lezant	636 m south-east	Not stated	26th November 2004
Mr & Mrs L O Picot	The Cottage, Trewarlett, Lezant	754 m south-west	Not stated	25 February 1976
Mr F Northey**	Trekelland Farm, Lezant	846 m south-east	3.2 m^3 / day	Not stated

Notes:
* Considered to be a variation of an older abstraction at this location which was originally permitted in 1968.
** Considered to be a variation of an older abstraction at this location which was originally permitted in 1975.

Table 4-2*:* Abstractions Within 500 m Radius Identified in Envirocheck Report

4.3.5 All licensed abstractions within a 1 km radius of the Site are licensed for general farming and domestic purposes. The licensed abstractions within a 2 km radius are used for general farming and domestic purposes or for general agriculture purposes.

4.3.6 In addition to the abstractions listed in **Table 4-2**, research by Horizon has identified the presence of two shallow boreholes utilised for general agriculture and domestic purposes associated with Trevozah Barton Farm. It is understood from the farmer that other similar abstractions exist at nearby farms, supporting the premise that local properties are not mains supplied.

4.3.7 The Groundwater Vulnerability is described as High, defined as "*areas able to easily transmit pollution to groundwater. They are characterised by high-leaching soils and the absence of low-permeability superficial deposits*."

4.3.8 Groundwater monitoring wells have not been installed at the Site to date and given the history of the Site the risk of contaminated groundwater beneath the Site is considered to be low. There are no nearby potential sources of groundwater pollution. There are no discharges to groundwater proposed as part of the works and only acceptable material would be imported for waste deposition.

4.4 Man-Made Subsurface Pathways

4.4.1 There are no boreholes, shafts or adits located at the Site nor within the immediate vicinity of the Site which would act as a potential preferential pathway for contamination, nor is the Site located in a Coal or Non-Coal Mining Area.

4.5 Receptors

4.5.1 Groundwater at the Site is a potential receptor. However, the risk from contamination associated with the import of the material is considered to be low as only acceptable materials that do not pose a risk to the environment and human health would be used and point emissions to these receptors are not proposed as part of the works.

4.5.2 There are other potential receptors including on-Site workers and persons living and working in the surrounding area as described in previous sections. These receptors could be affected by odour, noise and vibration, dust, acts of vandalism and accidents. However, these will continue to be mitigated through appropriate site management protocols.

5. Pollution Control Measures

5.1 Site Engineering

5.1.1 The proposed works do not fall into a category where significant engineering works are required in order to carry out the waste disposal activity. The Site Engineering is principally to comprise use of basal and side slope engineering measures, including localised regrading of slopes plus installation of an artificially enhanced geological barrier (permeability no greater than $1x10^{-7}$ m/s). The Engineering measures are set out below:

- The Site compound including offices, welfare facility and storage areas are to be constructed to the north of the deposition area (see Site Infrastructure Plan in **Appendix B**).
- Perimeter drains (shown on Site Infrastructure Plan in **Appendix B** and drawings in SSRA[2]) are to be constructed along the eastern and western edges of the deposition area. These may be lined dependent on the strata encountered.
- An on-site settlement and storage basin is to be constructed at the bottom (southern) end of the Site. This on-Site settlement and storage basin will be converted into an attenuation pond on completion of the filling activities as part of the restoration works. The pond construction is to include a temporary bund to the south of the pond to manage any surface water runoff.
- An artificially engineered geological barrier is to be constructed beneath the sides and base of the void (see requirements in SSRA[2]). This will be constructed using suitable Site-won Made Ground / Fill with any shortfall made up using imported materials. The artificially engineered geological barrier will be constructed beneath the northern end of the Site initially, then worked in a southerly direction as filling progresses.
- A drainage blanket is proposed beneath the Artificially Engineered Geological Barrier at the southern end of the Site (see drawings in SSRA[2]) and elsewhere where signs of groundwater egress of the subgrade are observed. This will be constructed using suitable Site-won Made Ground / Fill with any shortfall made up using imported materials.
- Suitable waste, predominantly soil, will be sourced from local development sites and imported to Site using sheeted lorries. The lorries will enter and exit the Site using the access located to the north of the Site adhering to the requirements of the Traffic Management Plan[6].
- Suitable aggregates / hardcore will be deposited to provide vehicle access to the working area where waste deposition is being undertaken.
- During the proposed works lorries are to deposit the imported waste soil as close to the working area as possible. This would then be placed with reference to the Construction Phasing Plan[9].

5.1.2 No individual cells are proposed within the landfill, however for ease of reference the Site has been divided into five separate areas (A to E inclusive as shown on the Site Infrastructure Plan, **Appendix B**).

5.2 Capping

5.2.1 Only clean inert materials are to be imported onto Site meeting the criteria outlined in Section 3.2, in order to allow the Site to return to beneficial use as agricultural land. A capping layer is not required

over and above the placement of topsoil to allow the long-term use of the Site for agricultural purposes.

5.2.2 Any topsoil stripped prior to the commencement of works will be used to form the topsoil cover over the waste materials, with the shortfall made up with imported topsoil. A minimum thickness of 0.3 m topsoil is to be placed, with ground levels not to exceed the agreed elevations in the Planning Permission (see cross-sections in **Appendix C**). The topsoil minimum thickness is based on a typical agricultural plough depth (i.e. excluding deep ploughing) of up to 0.2 m.

5.2.3 The placed topsoil will be not be compacted to minimise the potential for over-compaction but will placed and bladed. The placed topsoil will then either be seeded or alternatively completed areas of the landfill will be incorporated into cropping cycle of the wider field.

5.3 Restoration

5.3.1 The proposed operation is designed to facilitate the return of the land to agricultural use in accordance with the planning permission (**Appendix A**). A plan showing the proposed restoration is included in **Appendix J**.

5.3.2 Reprofiling the depression is intended to make it suitable for agricultural use along with wider environmental benefits including:

- additional revenue in terms of crop yields both from the land within the depression and the land immediately adjacent to the depression.
- gain in land value;
- mitigation of safety risks through creating of safe working angles for machinery;
- additional revenue in terms of crop yields from the wider field resulting from the storage of water within the proposed attenuation ponds, thereby allowing re-use for irrigation purposes during periods of dry weather; and
- Capture of surface water runoff generated by the field, allowing re-use for irrigation purposes during periods of dry weather. Therefore, it is perceived there should be a net benefit to the downstream watercourse in terms of flood risk.

5.3.3 Monitoring wells installed within the waste mass are to be protected to allow monitoring during the aftercare period. Any wells damaged during the restoration works are to be replaced.

5.4 Quarantine Area

5.4.1 Any waste deemed unacceptable based on visual inspection following importation and deposition at the Site (i.e. prior to material being compacted by excavator or bulldozer) will be excavated and placed in a dedicated quarantine area in the north of the Site (location shown on Site Infrastructure Plan included in **Appendix B**).

5.4.2 On the basis of the visual or olfactory observations (i.e. the rationale for moving material to the Quarantine area) a plan of action will be determined for the quarantined material. This may involve consultation with the Environment Agency and/or additional chemical testing of the material.

5.4.3 Should the Quarantine area become full, then the Site will cease to accept waste for deposition until such time as space is available within the Quarantine area and/or a course of action is agreed with the Environment Agency.

5.5 Surface Water Management

5.5.1 Operational phases of the Site where tipping is taking place shall be graded to encourage surface water run-off and control overland flow. Given the relatively small area, existing topography and restoration proposals it is that surface water be drained to an on-site settlement and storage basin at the bottom (southern) end of the Site. This on-Site settlement and storage basin will be converted into an attenuation pond on completion of the filling activities as part of the restoration works.

5.5.2 No long-term water management system is proposed for the Site other than installation of two attenuation ponds (as per the restoration drawing, **Appendix J**) with a perimeter drain connecting the ponds, to be constructed along the western side of the landfill. A second perimeter drain is proposed along the eastern side of the landfill. Any ditches or basins installed during the operational phase of the works will be decommissioned as part of the Site restoration.

5.6 Post Closure Controls

5.6.1 Provided the material is placed as set out in the Construction Phasing Plan[9], no post closure controls or after care is required for the Site.

6. Monitoring

6.1.1 The monitoring plan has been developed with reference to the CSM developed and Environment Agency guidance[13] on monitoring and reporting performance to demonstrate compliance with permit conditions. James Smith from ALL has overarching responsibility for delivering the requirements of this monitoring plan, maintaining records (including qualifications and experience of personnel undertaking monitoring and results of monitoring) and issuing data on a timely basis to the Environment Agency.

6.1.2 This monitoring plan is to be reviewed annually and revised as appropriate to ensure it remains fit for purpose and delivers suitable data to evaluate against monitoring objectives.

6.2 Weather

6.2.1 A dust and particulate management plan (EMP[14]) has been prepared to show how the Site intends to:

- prevent dust and particulate migration beyond the Site permit boundary; and
- control dust within the Site to reduce associated potential health risks and the likelihood of off-site migration.

6.2.2 Monitoring weather conditions is a requirement of the EMP[14] to assess if dust control measures, such as damping down exposed surfaces, are required during the works.

6.2.3 During periods of particularly inclement weather (e.g. heavy snow) the ALL Site Manager has the authority to shut the Site to minimise potential for trafficking dust / mud off-Site.

6.3 Daily Inspections

6.3.1 The ALL Site Manager is to undertake routine inspections of the Site on all days waste is being imported. These are to include:

- Visual inspection along Site boundary (e.g. litter, dust);
- Visual inspection of deposited materials for evidence of non-compliance; and
- Inspection of settlement and storage basin at southern end of Site for visual/olfactory evidence of contamination.

6.3.2 The Site diary is to be updated with any notable observations or issues recorded plus actions undertaken.

6.4 Topographical Surveys

6.4.1 A topographic survey of the Site in its current, pre-infilling, condition is included in **Appendix C**. Additional topographical surveys of the Site will be obtained as follows:

- Following placement of the artificially enhanced geological barrier, and prior to the deposition of waste, in each individual phase;
- Annually during operation of the landfill;
- Upon completion of restoration works; and

[13] https://www.gov.uk/guidance/landfill-operators-environmental-permits/monitor-and-report-your-performance [Accessed 26 April 2020]
[14] Horizon (November 2019) Trevozah Barton Farm Landfill. Dust & Particulate Management Plan. Ref: HCE0312.EMP.Rev1

- As a minimum annually during the aftercare period.

6.4.2 The existing topographic survey is surveyed to Ordnance Datum; future surveys are to continue to be to Ordnance Datum and must:

- be an appropriate scale (such as 1:1250) to show the surveyed features of the landfill;
- include 1 metre contours;
- include the land immediately adjacent to the landfill;
- include all roads, engineering structures, boundaries, monitoring points, extraction points, landform features and all other relevant site features in the permitted area; and
- include significant landform changes such as embankments or stockpiles.

6.4.3 Written agreement will be obtained from the Environment Agency in the event topographical surveys are no longer obtained or the schedule set out above is amended.

6.5 Surface Water

6.5.1 Given the hydrogeological regime at the Site, as discussed in the ERA[1], monitoring surface water quality is considered to represent the primary data source through which performance and effectiveness of the landfill design is evaluated. It is proposed to obtain water samples from four locations, as shown on **Figure 2** of **Appendix B** and set out in **Table 6-1** below.

Monitoring Point ID	Location	Rationale
HSW01	Settlement and Storage Basin at southern end of Site	Surface water run off quality.
HSW02	Drainage ditch between Site and unnamed surface water feature to south. Monitoring location approximately 80 m south of Site, where groundwater appears to discharge into ditch.	Groundwater quality at point it discharges into ditch.
HSW03	Monitoring point located upstream of location where drainage ditch discharges into unnamed stream.	Hydraulically upstream monitoring location.
HSW04	Monitoring point located downstream of location where drainage ditch discharges into unnamed stream.	Downstream monitoring location to evaluate any change in water quality.

Table 6-1*:* Proposed Surface Water Monitoring Locations

6.5.2 The proposed monitoring surface water monitoring regime is presented in **Table 6-2** below:

Monitoring Point	Parameter	Monitoring Frequency	Method
Baseline			
HSW02, HSW03 and HSW04	Water quality*	3No. Monitoring Visits [*Minimum one month apart*]	As specified in Environment Agency Guidance LFTGN02[15].
During Infilling			
HSW01 & HSW02	Water quality*	Quarterly	As specified in Environment Agency Guidance LFTGN02[15].
HSW03 and HSW04		Six-monthly	
Aftercare Monitoring			
HBH01 & HBH02.	Water quality*	3No. Monitoring Visits [*Minimum one month apart*]	As specified in Environment Agency Guidance LFTGN02[15].
Notes: * Water quality monitoring for parameters set out in **Table 6-3**.			

Table 6-2*:* Proposed Surface Water Monitoring

6.5.3 Baseline surface water monitoring results obtained prior to infilling commencing (minimum three sampling events) are to be used in conjunction with data from hydraulically upgradient location HBH01 to develop trigger values for contaminants of concern. These statistical trigger values will be calculated on a contaminant specific basis to evaluate any changes in water chemistry as a result of the waste deposition at the Site.

6.5.4 Assessment levels will be derived based on the baseline mean plus two standard deviations.

6.5.5 Compliance limits will be established based on the greater of the following:

- 130% of the Environmental Quality Standard (EQS); or
- Baseline mean plus three standard deviations.

6.5.6 In addition to the above, the data from monitoring point HSW03 will be used to provide background quality compared with downstream monitoring point HSW04. A compliance limit will not be considered to have been breached if the relative percentage difference (RPD) between the upstream and downstream samples is within the following limits:

Reported Concentration	Acceptable Limit
One or Both Results greater than ten times the laboratory reporting limit (LRL)	Up to 50% RPD
If both results between five times and ten times the LRL	Up to 75% RPD
If one or both results less than five times the LRL	Up to 100% RPD

Table 6-3*:* Proposed Surface Water Monitoring Acceptable Limits

6.5.7 **Table 6-4** presents the adopted EQS proposed to provide an initial screen of baseline surface water chemistry. All testing to be undertaken at a UKAS accredited laboratory.

[15] Environment Agency (February 2003) Guidance on Monitoring of Landfill, Leachate, Groundwater and Surface Water. Ref: LFTGN02

Parameter	Adopted EQS	Rationale
Calcium Carbonate	-	Inform selection of relevant EQS where criteria is water hardness banded.
Sulphate	400,000 µg/l	UK Non-Statutory EQS. Standard is an Annual Average.
Chloride	250,000 µg/l	UK Non-Statutory EQS. Standard is an Annual Average.
Fe	1,000 µg/l	UK EQS for Protection of Surface Water Quality. Standard refers to the dissolved metal, is an Annual Average and is water hardness banded.
Mn	30 µg/l	UK Non-Statutory EQS. Standard refers to the dissolved metal and is an Annual Average.
Cd	<40 mg $CaCO_3$/l: </= 0.08 µg/l 40-<50 mg $CaCO_3$/l: 0.08 µg/l 50-<100 mg $CaCO_3$/l: 0.09 µg/l 100-<200 mg $CaCO_3$/l: 0.15 µg/l >/= 200 mg $CaCO_3$/l: 0.25 µg/l	UK EQS for Protection of Surface Water Quality. Standard refers to dissolved concentration and is an Annual Average. Natural background concentrations that prevent compliance with the EQS value, and hardness, pH or other water quality parameters that affect the bioavailability of the metal may be taken into account before applying the EQS.
Cr III	4.7 ug/l	UK EQS for Protection of Surface Water Quality. Standard refers to dissolved concentration and is an Annual Average.
Cr VI	3.4 ug/l	UK EQS for Protection of Surface Water Quality. Standard refers to dissolved concentration and is an Annual Average.
Cu	0-50 mg $CaCO_3$/l: 1 µg/l 50-100 $CaCO_3$/l: 6 µg/l 100-250 mg $CaCO_3$/l: 10 µg/l >250 mg $CaCO_3$/l: 28 µg/l	UK EQS for Protection of Surface Water Quality. Standard refers to the dissolved metal, is an Annual Average and is water hardness banded.
Ni	20 µg/l	UK EQS for Protection of Surface Water Quality. Standard refers to dissolved concentration and is an Annual Average. Natural background concentrations that prevent compliance with the EQS value, and hardness, pH or other water quality parameters that affect the bioavailability of the metal may be taken into account before applying the EQS.
Pb	7.2 µg/l	UK EQS for Protection of Surface Water Quality. Standard refers to dissolved concentration and is an Annual Average.
Zn	0-50 mg $CaCO_3$/l: 8 µg/l 50-100 mg $CaCO_3$/l: 50 µg/l 100-250 mg $CaCO_3$/l: 75 µg/l >250 mg $CaCO_3$/l: 125 µg/l	UK EQS for Protection of Surface Water Quality. Standard refers to the dissolved metal, is an Annual Average and is water hardness banded.
Ammonia	<10 mg $CaCO_3$/l: 300 µg/l 10-<50 mg $CaCO_3$/l: 300 µg/l 50-<100 $CaCO_3$/l: 600 µg/l 100-200 mg $CaCO_3$/l: 600 µg/l >200 mg $CaCO_3$/l: 600 µg/l	UK EQS. Standard refers to Total Ammonia as Nitrogen.
Notes: All monitoring to take place with reference to LFTGN02[15].		

Table 6-4*:* Proposed Surface Water Quality Regime

6.7 Groundwater Monitoring Infrastructure & Groundwater Monitoring

6.7.1 Given only inert material, primarily soil and stones, is to be placed at the Site the groundwater monitoring regime is proposed to comprise two sentinel boreholes (locations HBH01 and HBH02). The indicative well locations are shown on **Figure 2** of **Appendix B**. Environment Agency guidance[15] suggests a minimum requirement of three monitoring points for a Site poising a low risk to water receptors. This is considered to be achieved through the use of surface water monitoring point HSW02 which is located where groundwater discharges into the surface water ditch.

6.7.2 The specification and construction quality assurance (CQA) plan for the construction of the groundwater monitoring wells (also to be used for gas monitoring, see Section 10) is summarised as follows:

- The monitoring wells will be constructed of 50 mm or 100 mm ID PVC pipe.
- Factory slotted screen (1 mm) will extend from the base of the well to 0.5 m below the restoration ground surface level. Blank casing (screw threaded to the screen) will be used to bring the monitoring well to the surface.
- A slip cap will be placed at the bottom of the screen. No glue will be used. A bung with integral gas tap and valve (which is to be left in the closed position) will be placed on top of the monitoring well.
- A sock is to be placed around the well pipe prior to filling the annulus around the well screen.
- Washed and graded silica sand or gravel will be used to fill the annulus around the well screen and will extend 0.2 m above the uppermost slot.
- Bentonite granules will be used to backfill the annulus from the top of the sand pack to ground surface.
- The top of each monitoring well casing will be secured with a lockable, watertight cap. Suitable protection measures will be installed around the cap (e.g. concrete ring, wooden fencing) by the Operator.

6.7.3 The proposed in-waste gas monitoring wells will either be drilled (anticipated rotary drilling rig) or installed with an excavator with records of the ground conditions maintained, including photographs, to document waste deposited historically in these locations.

6.7.4 If required, a tremmie pipe will be used to ensure the sand pack gets to the bottom of the hole and surrounds the well screen.

6.7.5 Bentonite granules used to backfill the annulus from the top of the sand pack to ground surface will also be inserted using a tremmie pipe to ensure no bridging of granules takes place. The bentonite will be hydrated using clean water.

6.7.6 Once the well has been installed, the ground level, top of casing level and top of monitoring well cover level is to be surveyed. The information is to be included on future survey drawings and a Monitoring Point Plan, to be included with the Site's annual report.

6.7.7 It is proposed that well installation take place when the CQA Engineer or suitably qualified geologist / geoenvironmental engineer is on-Site. The arisings are to be logged with reference to BS5930[16] with an exploratory hole record produced following installation. The exploratory hole record is to include details of the encountered geology, as-built well construction details and photosheets.

6.7.8 The proposed groundwater monitoring regime is presented in **Table 6-5** below. Baseline groundwater monitoring results obtained prior to infilling commencing (minimum three sampling events) are to be used to develop trigger values for contaminants of concern as per the approach set out in Section 4 above but using drinking water standards (DWS) instead of EQS. These statistical trigger values will be calculated on a contaminant specific basis to evaluate any changes in water chemistry as a result of the waste deposition at the Site.

6.7.9 **Table 6-6** presents the DWS proposed to be adopted to evaluate the quality of groundwater.

Monitoring Point	Parameter	Monitoring Frequency	Method
Baseline			
HBH01 & HBH02.	Water Level Water quality*	3No. Monitoring Visits [*Minimum one month apart*]	As specified in Environment Agency Guidance LFTGN02[15].
During Infilling			
HBH01 & HBH02.	Water Level Water quality*	Quarterly	As specified in Environment Agency Guidance LFTGN02[15].
Aftercare Monitoring			
HBH01 & HBH02.	Water Level Water quality*	3No. Monitoring Visits [*Minimum one month apart*]	As specified in Environment Agency Guidance LFTGN02[15].
* Water quality monitoring for parameters set out in **Table 6-6**.			

Table 6-5*:* External Groundwater Monitoring

[16] BSI (2015) Code of Practice for Ground Investigations. BS5930

Parameter	Adopted DWS	Rationale	Field Measurement / Laboratory
Water Level	-	Field measurement utilised to confirm representative sample obtained.	Field
Well Base	-	Field measurement to assess well condition.	
pH	6.5 – 9.5	EU Standard for Ensuring the Quality of Water Intended for Human Consumption	
Dissolved Oxygen		Field measurement utilised to confirm representative sample obtained.	
ORP	-	Field measurement utilised to confirm representative sample obtained.	
Conductivity	-	Field measurement utilised to confirm representative sample obtained.	
Ammoniacal Nitrogen	-	List II substance. No interim criteria proposed.	UKAS-accredited Laboratory
Sulphate	250 mg/l	Drinking Water Standard (indicator parameter).	
Chloride	-	No interim criteria proposed.	
TOC	-	No interim criteria proposed.	
Mg	-	No interim criteria proposed.	
Na	200 mg/l	Drinking Water Standard (indicator parameter).	
K	-	No interim criteria proposed.	
Fe	200 µg/l	Drinking Water Standard	
Mn	50 µg/l	Drinking Water Standard (indicator parameter).	
Cd	5 µg/l	List I substance. Drinking Water Standard	
Cr	50 µg/l	List II substance. Drinking Water Standard	
Cu	2.0 mg/l	List II substance. Drinking Water Standard	
Ni	20 µg/l	List II substance. Drinking Water Standard	
Pb	10 µg/l	Drinking Water Standard	
Zn	3 mg/l	List II substance. Criteria based on Surface Water direct abstraction to potable supply.	

Notes:
All monitoring to take place with reference to LFTGN02[15].

Table 6-6*:* Proposed Groundwater Quality Regime

6.9 Leachate

6.9.1 The proposed monitoring regime for in-waste leachate level and quality monitoring is summarised in **Tables 6-7** below.

Monitoring Point	Parameter	Monitoring Frequency	Method	Notes
HG01 to HG03 inclusive*	Level	Quarterly [*In conjunction with gas monitoring*]	As specified in Environment Agency Guidance LFTGN02[15].	-
	Leachate Quality**			Leachate samples to be obtained in event discernible thicknesses (i.e. greater than 0.5 m) of leachate are present. In event discernible thicknesses of leachate consistently recorded in monitoring well network, written Leachate Management Plan to be developed and agreed with Environment Agency.

Table 6-7*:* In-Waste Leachate Level Monitoring

6.10 Gas Monitoring Infrastructure & Gas Monitoring

6.10.1 A separate Gas Risk Assessment (GRA[17]) has been prepared to evaluate the potential risks associated with landfill gases generated from the deposited waste. Based on the proposed deposition of inert materials, the absence of identified off-Site sources of ground gas plus the underlying ground conditions, which include cohesive materials, the risk from potential landfill gas is considered to be low.

6.10.2 It is proposed to install three gas monitoring wells within the waste mass following completion of deposition in that area; the use of searchers bars is not applicable given the waste thickness is greater than 4 m in places.

6.10.3 The specification and CQA plan for the construction of the in-waste gas monitoring wells is summarised as follows:

- The gas monitoring wells will be constructed of 50 mm ID PVC pipe.
- Factory slotted screen (1 mm) will extend from the base of the well to 0.5 m below the restoration ground surface level. Blank casing (screw threaded to the screen) will be used to bring the gas monitoring well to the surface.
- A slip cap will be placed at the bottom of the screen. No glue will be used. A bung with integral gas tap and valve (which is to be left in the closed position) will be placed on top of the monitoring well.
- A sock is to be placed around the well pipe prior to filling the annulus around the well screen.
- Washed and graded silica sand or gravel will be used to fill the annulus around the well screen and will extend 0.2 m above the uppermost slot.
- Bentonite granules will be used to backfill the annulus from the top of the sand pack to ground surface.

[17] Horizon (November 2019) Trevozah Barton Inert Landfill. Gas Risk Assessment. Ref: HCE0312.GRA

- The top of each monitoring well casing will be secured with a lockable, watertight cap. Suitable protection measures will be installed around the cap (e.g. concrete ring, wooden fencing) by the Operator.

6.10.4 The proposed in-waste gas monitoring wells will either be drilled (anticipated cable percussion drilling rig) or installed with an excavator with records of the ground conditions maintained, including photographs, to document waste deposited historically in these locations.

6.10.5 If required, a tremmie pipe will be used to ensure the sand pack gets to the bottom of the hole and surrounds the well screen.

6.10.6 Bentonite granules used to backfill the annulus from the top of the sand pack to ground surface will also be inserted using a tremmie pipe to ensure no bridging of granules takes place. The bentonite will be hydrated using clean water.

6.10.7 Once the gas well has been installed, the ground level, top of casing level and top of monitoring well cover level is to be surveyed. The information is to be included on future survey drawings and revision of the MPP.

6.10.8 It is proposed that gas well installation take place when the CQA Engineer or suitably qualified geologist / geoenvironmental engineer is on-Site. The arisings are to be logged with reference to BS5930[16] with an exploratory hole record produced following installation. The exploratory hole record is to include details of the encountered geology, as-built well construction details and photosheets.

6.10.9 Gas monitoring will be conducted on a quarterly basis commencing with locations HBH01 and HBH02 with locations HG01, HG02 and HG03 (as shown on **Figure 2** in **Appendix B**) included following installation (i.e. once waste deposition is complete in proposed well location).

Monitoring Point	Parameter (s)	Monitoring Frequency	Method	Notes
Baseline				
HBH01 & HBH02.	Atmospheric Pressures	Monthly [*Minimum 3No. monitoring events prior to infilling commencing*]	As specified in Environment Agency Guidance TGN03[18].	Record ground conditions (e.g. whether ground is waterlogged, frozen or snow covered) plus meteorological conditions at time of monitoring.
	Differential Pressure			
	Flow Rate**			
	Methane**			
	Carbon Dioxide**			
	Carbon Monoxide**			
	Hydrogen Sulphide**			
	Oxygen**			
During Infilling				
HBH01 & HBH02 plus HG01, HG02 & HG03*	As per Baseline Monitoring Above	Quarterly	As specified in Environment Agency Guidance TGN03[18].	Record ground conditions (e.g. whether ground is waterlogged, frozen or snow covered) plus meteorological conditions at time of monitoring.
Aftercare Monitoring				
HBH01, HBH02, HG01, HG02 & HG03	As per Baseline Monitoring Above	3No. Monitoring Visits [*Minimum one month apart*]	As specified in Environment Agency Guidance TGN03[18].	Record ground conditions (e.g. whether ground is waterlogged, frozen or snow covered) plus meteorological conditions at time of monitoring.
Notes: * Wells HG01, HG02 and HG03 to be installed and monitored when deposition in area of well is complete. ** Conditions to be monitored until steady state is reached.				

Table 6-8*:* Ground Gas Monitoring

6.11 Baseline Monitoring

6.11.1 Given the relatively low sensitivity of the Site, the small scale of the proposed operation and the permitted waste types (i.e. inert materials only which should not contain hazardous substances or non-hazardous pollutants in quantities that pose a risk to groundwater) it is proposed to undertake the baseline monitoring over a minimum three month period to establish baseline conditions prior to waste deposition commencing. Should the data show significant variation, the need to extend this timeframe would be agreed with the Environment Agency.

6.12 Communication

6.12.1 The results of monitoring undertaken will be communicated to the Environment Agency as per the requirements of the Environmental Permit.

[18] Environment Agency (September 2004) Guidance on the Management of Landfill Gas. Ref: LFTGN03

7. Site Condition Report

7.1.1 The requirement to submit a Site Condition Report (SCR) does not apply to areas that are subject to permanent deposition of waste. Given the restoration of the Site involves permanent deposition of waste a SCR is not considered necessary for this application.

Appendix A Planning Permission

Cornwall Council

Chy Trevail Beacon Technology Park Bodmin Cornwall PL31 2FR
Email: planning@cornwall.gov.uk
Tel: 0300 1234151
Web: www.cornwall.gov.uk

Application number: PA17/09902

Agent:
Maria Bailey Planning
Unit 6 Clarke Estate
Clovelly Road Industrial Estate
Bideford
EX39 3HN

Applicant:
Mr Roger Kneebone
Trevozah Barton
South Petherwin
LAUNCESTON
PL15 9LT

Town And Country Planning Act 1990 (As Amended)
Town And Country Planning (Development Management Procedure) (England) Order 2015

Grant of Conditional Planning Permission

CORNWALL COUNCIL, being the Local Planning Authority, **HEREBY GRANTS CONDITIONAL PERMISSION,** subject to the conditions set out on the attached schedule, for the development proposed in the following application received on 18 October 2017 and accompanying plan(s):

Description of Development: To relocate inert soil from nearby development sites to restore a deep sided depression back to agriculturally productive land

Location of Development: Land East Of Trevozah Barton
South Petherwin
Launceston
Cornwall

Parish: South Petherwin

YOUR ATTENTION IS DRAWN TO THE ATTACHED NOTES.

DATED: 27 March 2018

Phil Mason
Service Director Planning and Sustainable Development

ACFULZ

SCHEDULE ATTACHED TO APPLICATION & DECISION NO: PA17/09902

CONDITIONS:

1 The development hereby permitted shall be begun before the expiration of 3 years from the date of this permission.

Reason: In accordance with the requirements of Section 91 of the Town and Country Planning Act 1990 (as amended by Section 51 of the Planning and Compulsory Purchase Act 2004).

2 The development hereby permitted shall be carried out in accordance with the plans listed below under the heading "Plans Referred to in Consideration of this Application".

Reason: For the avoidance of doubt and in the interests of proper planning.

3 The development shall be undertaken in accordance with the conclusions and recommendations reported in the 'Wildlife Survey' dated 29th August 2017 (prepared by Butler Ecology and received 18.10.17).

Reason: To enable the local planning authority to retain control over development, in order to safeguard protected species, and improve habitat in accordance with Policy 23 of the Cornwall Local Plan Strategic Policies 2010-2030 (Adopted 22nd November 2016) and in accordance with section 11 of the National Planning Policy Framework 2012.

4 The development shall be undertaken in accordance with the Construction-phase Traffic Management Plan (CTMP) (prepared by Maria Bailey Planning Ltd and received 23.03.18).

Reason: In the interests of maintaining a safe and efficient highway network and in accordance with the aims and intentions of paragraphs 32 and 35 of the National Planning Policy Framework 2012 and Policy 27 of the Cornwall Local Plan Strategic Policies 2010-2030 (Adopted 22nd November 2016).

DATED: 27 March 2018 **Phil Mason**

Service Director Planning and Sustainable Development

ACFULZ

SCHEDULE ATTACHED TO APPLICATION & DECISION NO: PA17/09902

PLANS REFERRED TO IN CONSIDERATION OF THIS APPLICATION:

Proposed RK_SEC17_001 received 18/10/17
Existing DES5-OGLJUL17 A received 18/10/17
Proposed OGLJUL17A received 18/10/17
Proposed RK_LSEC17_001 received 07/11/17
Site/location Plan 09902-01 received 07/11/17

ANY ADDITIONAL INFORMATION:

- The deposit of waste will require an Environmental Permit from the Environment Agency (EA) under the Environmental Permitting Regulations 2010, unless an exemption applies. No waste deposit can be made without the correct permit being in place.

  The applicant is advised to contact the National Permitting Service on 03708 506 506 for further advice and to discuss the issues likely to be raised. The applicant should be aware that the permit may not be granted and the EA particularly highlight that the grant of planning permission does not constitute acceptance that the proposed activity will be considered as a recovery of waste.

  Additional 'Environmental Permitting Guidance' can be accessed online at: https://www.gov.uk/topic/environmental-management/environmental-permits

In dealing with this application, the local planning authority have worked with the applicant in a positive and proactive manner based on seeking solutions to problems arising in relation to dealing with a planning application, on this occasion this has included :

Discussions/negotiations ongoing with LPA throughout determination of planning application
Dedicated phone number of the case officer for the Applicant/Agent

DATED: 27 March 2018 **Phil Mason**
Service Director Planning and Sustainable Development

ACFULZ

NOTES

Appeals to the Secretary of State

If the applicant is aggrieved by the decision of the local planning authority to refuse permission for the proposed development or to grant it subject to conditions, then they may appeal to the Secretary of State under section 78 of the Town and Country Planning Act 1990. If you want to appeal, then you must do so within 6 months of the date of this notice (or 12 weeks from the date of this notice in the case of householder appeals made in relation to applications submitted on or after 6 April 2009). Appeals must be made to the Planning Inspectorate using a form which can be obtained from the Planning Inspectorate at Temple Quay House, 2 The Square, Temple Quay, Bristol BS1 6PN or online at http://www.planningportal.co.uk . A copy of the completed appeal form must also be submitted to the Council.

The Secretary of State can allow a longer period for giving notice of an appeal, but he will not normally be prepared to use this power unless there are special circumstances which excuse the delay in giving notice of appeal. The Secretary of State need not consider an appeal if it seems to him that the local planning authority could not have granted planning permission for the proposed development or could not have granted it without the conditions they imposed, having regard to the statutory requirements, to the provisions of any development order and to any directions given under a development order.

In practice, the Secretary of State does not refuse to consider appeals solely because the local planning authority based their decision on a direction given by him.

Purchase Notices

If either the local planning authority or the Secretary of State refuses permission to develop land or grants it subject to conditions, the owner may claim that he can neither put the land to a reasonably beneficial use in its existing state nor render the land capable of a reasonably beneficial use by the carrying out of any development which has been or would be permitted.

In these circumstances, the owner may serve a purchase notice on Cornwall Council. This notice will require the Council to purchase his interest in the land in accordance with the provisions of Part VI of the Town and Country Planning Act 1990.

If this is a decision on a planning application relating to the same or substantially the same land and development as is already the subject of an enforcement notice, if you want to appeal against your local planning authority's decision on your application, then you must do so within 28 days of the date of this notice. If an enforcement notice is served relating to the same or substantially the same land and development as in your application and if you want to appeal against your local planning authority's decision on your application, then you must do so within 28 days of the date of service of the enforcement notice.

If this approval is for the erection of new buildings please refer to the note below.

Registering addresses for new properties prior to commencement

You must apply officially to register the name of any new street or the address of any new property through Cornwall Council's Street Naming and Numbering process. You are required to submit an application form, plan and appropriate fee all details of which can be found on our website at http://www.cornwall.gov.uk/streetnaming. For any further assistance please contact addressmanagement@cornwall.gov.uk or telephone 0300 1234 100.

Maria Bailey Planning
Unit 6 Clarke Estate
Clovelly Road Industrial Estate
Bideford
EX39 3HN

Your ref: Land infill at Trevozah Barto...

My ref: PA17/09902

Date: 27 March 2018

Dear Sir/Madam

To relocate inert soil from nearby development sites to restore a deep sided depression back to agriculturally productive land
Land East Of Trevozah Barton South Petherwin Launceston Cornwall

With reference to this planning application, I enclose the Decision Notice granting permission.

If conditions have been included that must be complied with before the commencement of the development, e.g. "No development shall commence before ….", and this is not done, the development cannot be validly commenced even if it is within the time limit set by Condition.

If details are required I look forward to receiving them. Application forms can be found on http://planningportal.co.uk/ . Your attention is drawn to the fees to discharge planning conditions under The Town and Country Planning (Fees for Applications, Deemed Applications, Requests and Site Visits) (England) Regulations 2012:

£116 (*per request)* for applications not falling within fee categories 6 or 7 (non-householder applications)

£34 (*per request*) where the request relates to an application for works to an existing dwelling, or within the curtilage of such, falling within fee categories 6 or 7 (householder applications only)

You may wish to take the opportunity to submit details to discharge more than one condition per request.

Yours faithfully

Richard White

Senior Development Officer
Planning and Sustainable Development Service
Tel: 01208 265668

Planning and Sustainable Development Service
Cornwall Council
Chy Trevail Beacon Technology Park Bodmin Cornwall PL31 2FR
planning@cornwall.gov.uk

Appendix B Horizon Drawings

NOTES: GENERAL

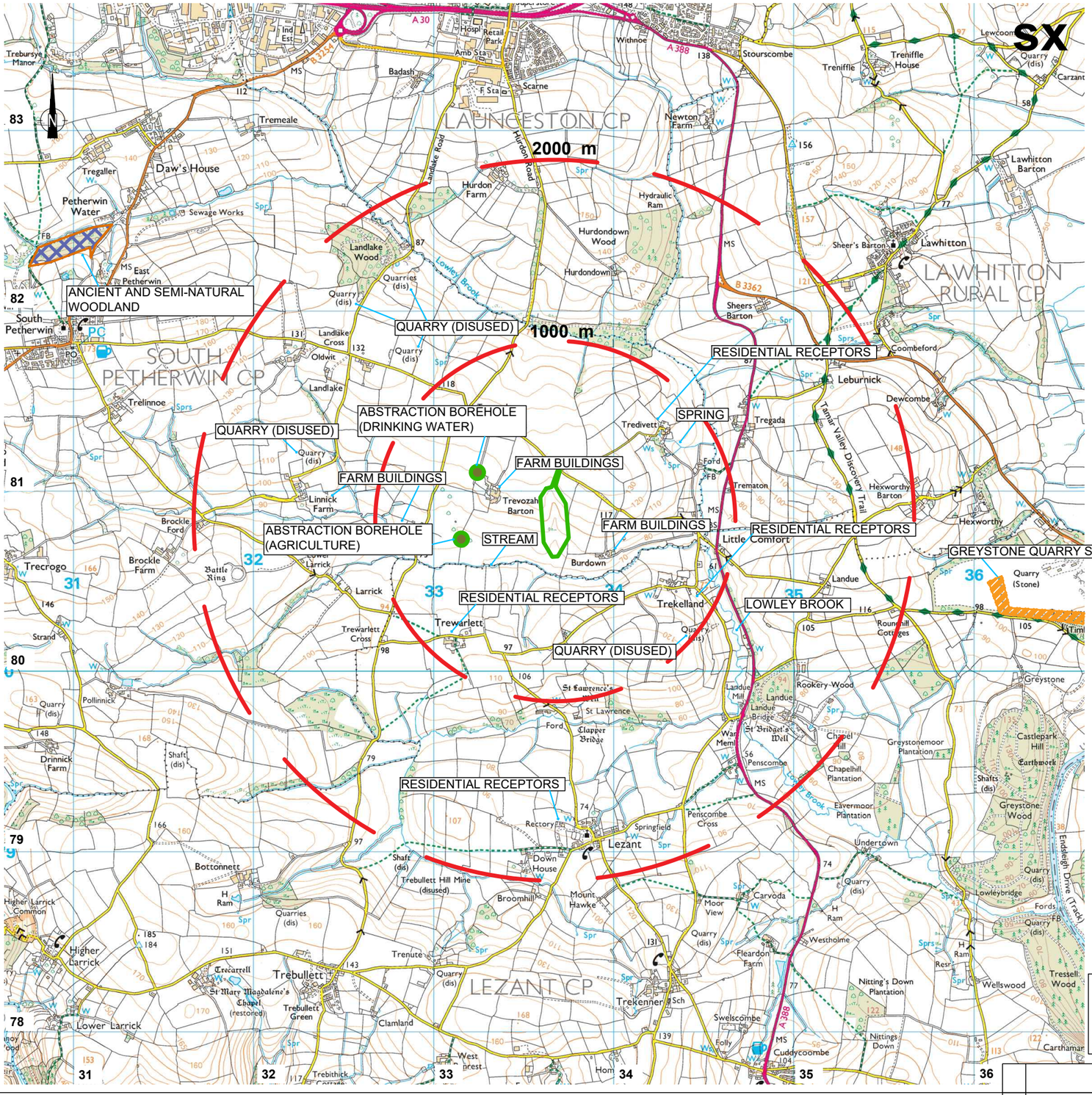
1. DO NOT SCALE FROM THIS DRAWING.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT SCHEME DRAWINGS AND SPECIFICATIONS.

Data sourced from:
https://www.windfinder.com/windstatistics/launceston

KEY:

- APPLICATION SITE BOUNDARY
- SITE OF SPECIAL SCIENTIFIC INTEREST (SSSI)
- ANCIENT WOODLAND

1000 m



Horizon Consulting Engineers
The Dairy Barn, Westpoint Crt, Sidmouth Rd, Exeter EX5 1DJ
T: 01392 363364 www.horizon-ce.co.uk

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JOB TITLE
TREVOZAH BARTON LANDFILL
CORNWALL

DRAWING TITLE
PROXIMITY PLAN FOR SENSITIVE RECEPTORS

Rev	Description	Drn	Chk	Date
	REVISIONS			

Preliminary	04.10.19	Approval		Tender		Const.	

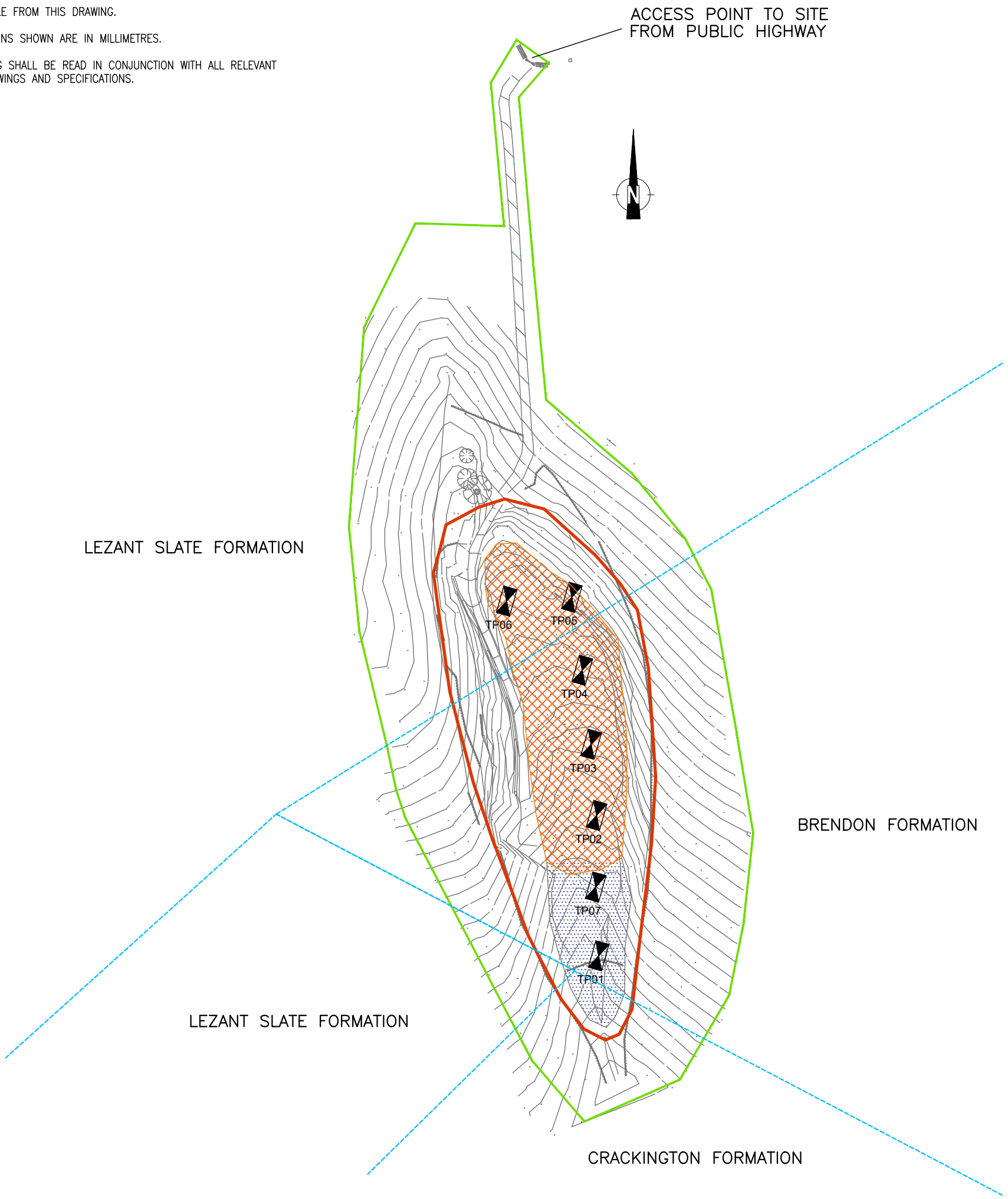
DRAWING STATUS

DATE OCT '19 DRAWN JH CHECKED .

DRAWING No. 0312.101 REV . SCALE 1:25,000 @ A3

NOTES: GENERAL

1. DO NOT SCALE FROM THIS DRAWING.
2. ALL DIMENSIONS SHOWN ARE IN MILLIMETRES.
3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT SCHEME DRAWINGS AND SPECIFICATIONS.



KEY:

- APPROXIMATE PERMITTED AREA BOUNDARY (FENCELINE)
- APPROXIMATE BOUNDARY OF DEPOSITION
- INFERRED FAULTED GEOLOGICAL BOUNDARY
- HORIZON TRIAL PIT LOCATIONS (AUGUST 2019)
- APPROXIMATE EXTENT OF SUPERFICIAL SHALLOW LOOSE FILL
- APPROXIMATE EXTENT OF SUPERFICIAL ORGANIC CLAY DEPOSITS

20 50 100 200 m

Rev	Description	Drn	Chk	Date
A				

REVISIONS

Preliminary	04.10.19	Approval		Tender		Const.	

DRAWING STATUS

ASSOCIATED LANDFILL LIMITED

Horizon Consulting Engineers
The Dairy Barn, Westpoint Crt, Sidmouth Rd, Exeter EX5 1DJ
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JOB TITLE

TREVOZAH BARTON LANDFILL
CORNWALL

DRAWING TITLE

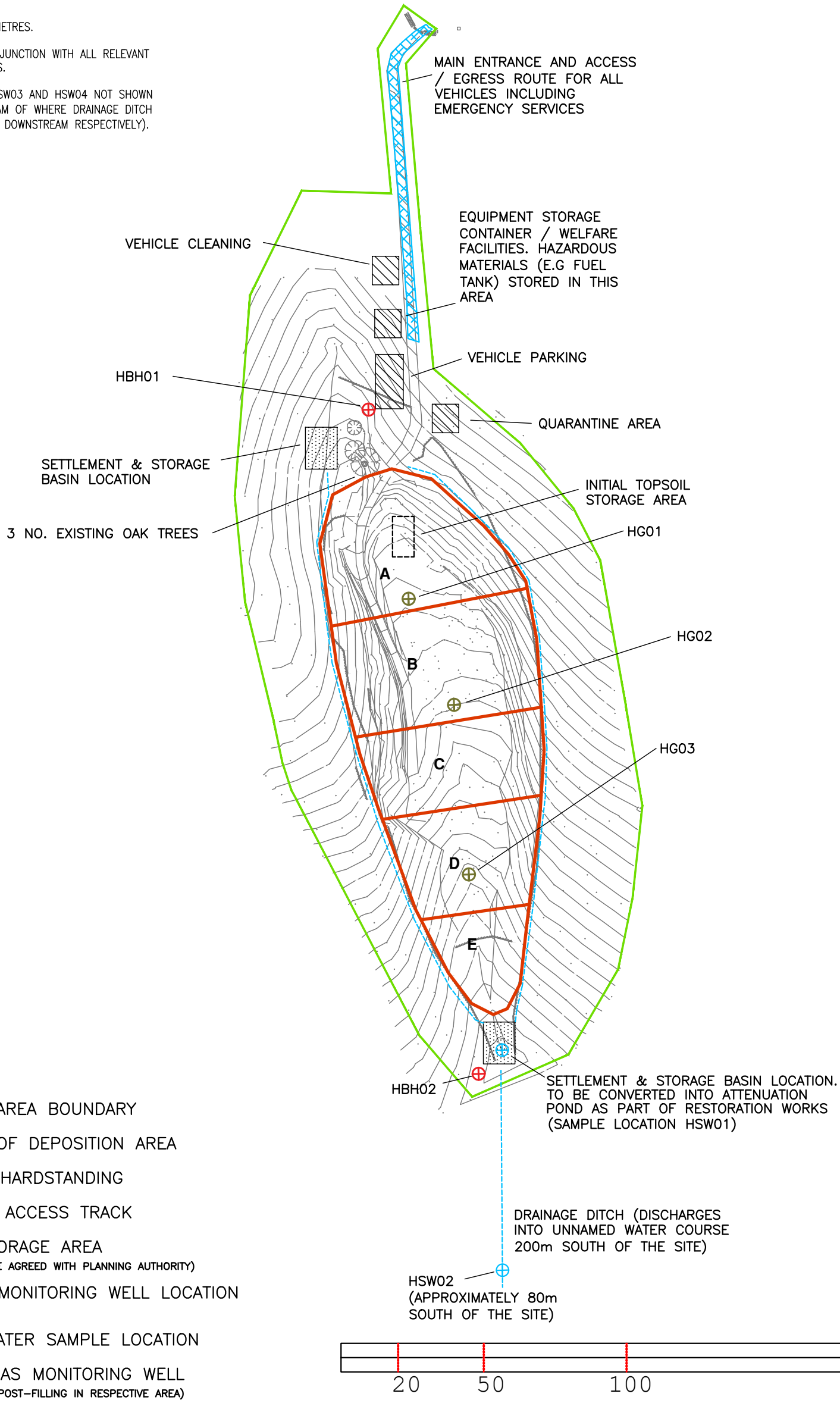
EXISTING GROUND CONDITIONS
HYDROGEOLOGICAL RISK ASSESSMENT

DATE OCT '19 DRAWN JH CHECKED .

DRAWING No. 0312.103 REV . SCALE . @ A3

NOTES: GENERAL

1. DO NOT SCALE FROM THIS DRAWING.
2. ALL DIMENSIONS SHOWN ARE IN MILLIMETRES.
3. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL RELEVANT SCHEME DRAWINGS AND SPECIFICATIONS.
4. SURFACE WATER SAMPLE LOCATIONS HSW03 AND HSW04 NOT SHOWN (MONITORING POINTS LOCATED UPSTREAM OF WHERE DRAINAGE DITCH DISCHARGES IN UNNAMED STREAM AND DOWNSTREAM RESPECTIVELY).



KEY:

- PERMITTED AREA BOUNDARY
- BOUNDARY OF DEPOSITION AREA
- EXTENT OF HARDSTANDING
- TEMPORARY ACCESS TRACK
- TOPSOIL STORAGE AREA (UNLESS OTHERWISE AGREED WITH PLANNING AUTHORITY)
- PERIMETER MONITORING WELL LOCATION (PROPOSED)
- SURFACE WATER SAMPLE LOCATION
- IN–WASTE GAS MONITORING WELL (TO BE INSTALLED POST–FILLING IN RESPECTIVE AREA)
- PERIMETER DRAINS (LINED SUBJECT TO STRATA ENCOUNTERED)

Rev	Description	Drn	Chk	Date
A				

REVISIONS

Preliminary	04.10.19	Approval		Tender		Const.	

dwg

DATE OCT '19 DRAWN JH CHECKED AL

DRAWING No. 0312.102 REV . SCALE . @ A3

ASSOCIATED LANDFILL LIMITED

Horizon Consulting Engineers
The Dairy Barn, Westpoint Crt, Sidmouth Rd, Exeter EX5 1DJ
T: 01392 363364 www.horizon-ce.co.uk

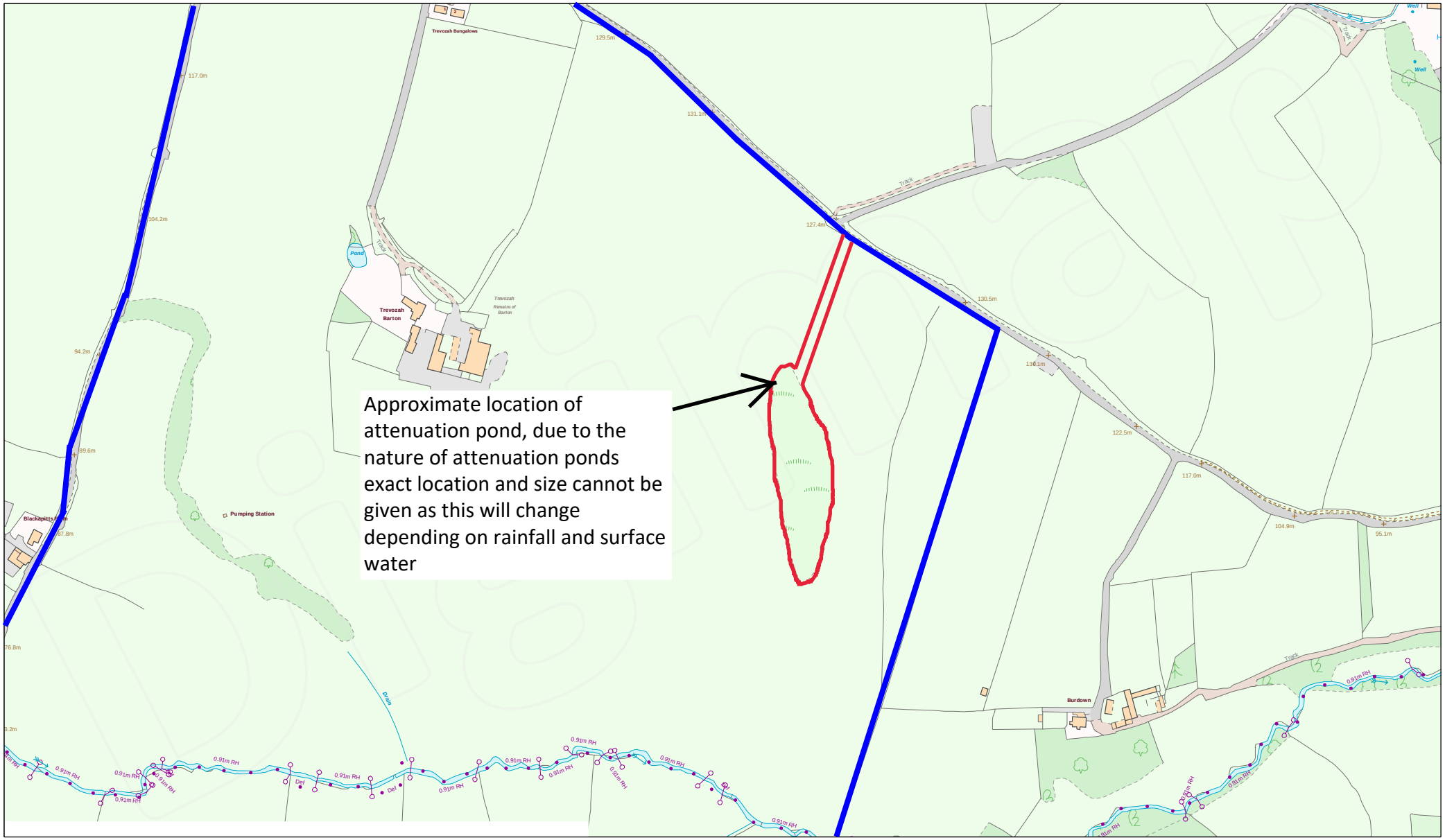
JOB TITLE

TREVOZAH BARTON LANDFILL
CORNWALL

DRAWING TITLE

PRELIMINARY SITE INFRASTRUCTURE PLAN
HYDROGEOLOGICAL RISK ASSESSMENT

Appendix C Drawings from Planning Permission



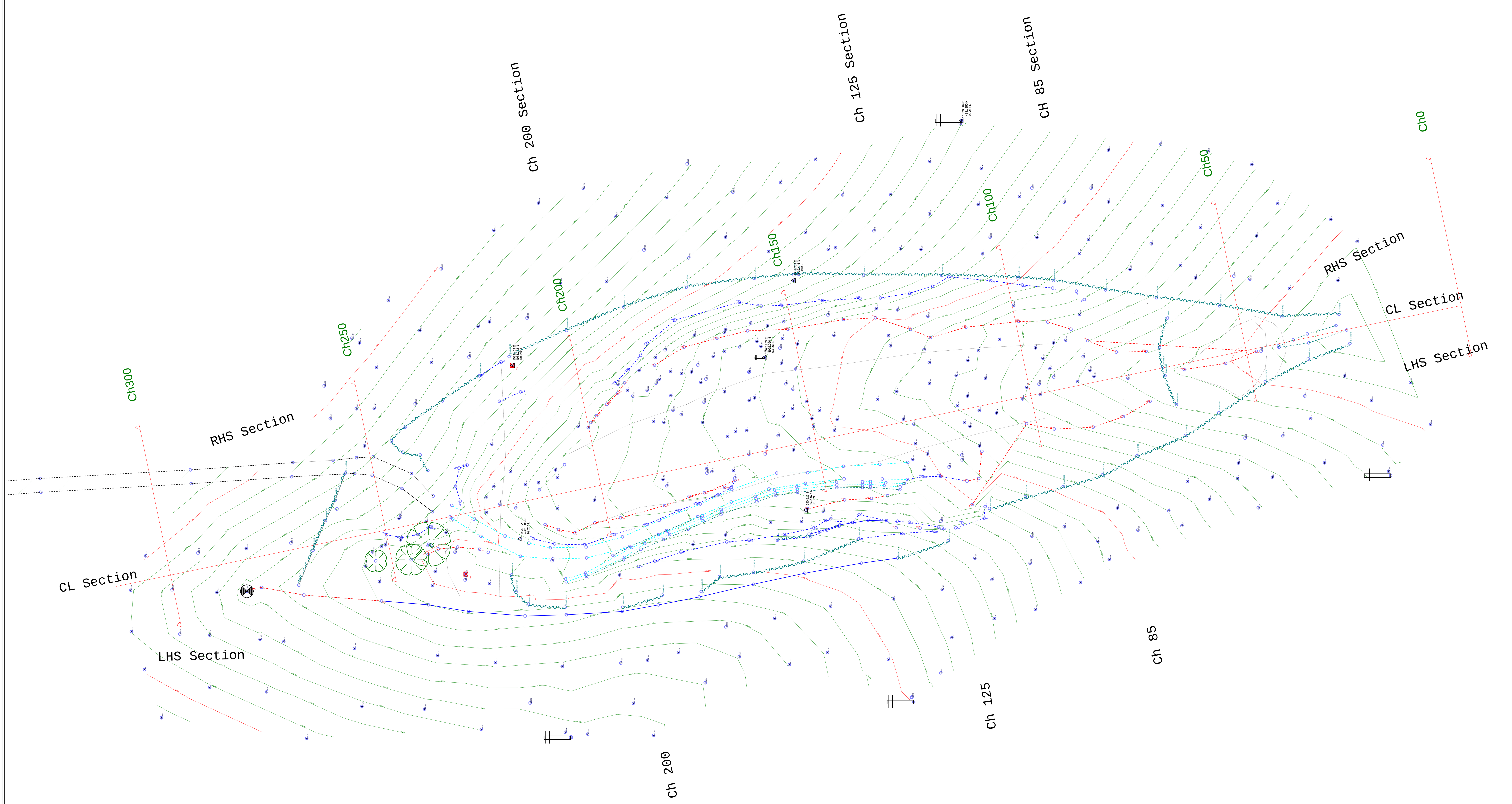
Digimap®

Ordnance Survey

Scale 1:5000

0 50 100 150 200 250 300 350 400 450 500 m

Projection: British National Grid



Used Point Features

Feat.	Code	Layer
	PEC	SpotHeights
	PGL	OGL
	PGUL	Miscellaneous
	PSH	OGL
	PSTN	ManholesAndGullies
	PTP	Control
	PTR	Cross
	SOP	SpotHeights

Used Line Features

Feature	Code	Layer
	DB	Blinding
	DT	Blinding
	S	Roads
	UGR	CLTrack
	tb	BottomBatter
	TBAT	BottomBatter
	BB	Balcony
	EOT	Roads
	BD	Blinding
	UGL	CLTrack
	GTE	Gates
	HL	CLTrack
	PIPE	Overheads
	D	Roads
	TRK	Tracks
	F	Lining

Point Features (Where Applicable)

Water Meter
Gully
Fire Hydrant
Telecom Box
Telecom Cover
Inspection Cover (Circular)
Inspection Cover (Square)
Inspection Cover (Rectang
Inspection Cover (Triangular
Electricity Pole
Lamp Post
Telegraph Pole
Electricity Box
Stop Valve
Gas Valve
Litter Bin
Seat
Reeds
Marsh
Tree
Undergrowth
Hedge

Fences (Solid)
Fences (Open)
Stile
Gate
Gate (No Posts)
Overhead Cable
Pylon
Road Sign
Wall
Retaining wall
Permanent Ground Marker
Permanent Benchmark
Temporary Benchmark
Trig Station
Point Level
Post
Invert Level
Cover Level
Phone Kiosk

Additional Notes For Fencing

P/W	Post and Wire
P/C	Post and Chain
P/R	Post and Rail
I/R	Iron Railing
PAL	Palisade
W/P	Wooden Panel
C/P	Concrete Panel
C/B	Crash Barrier

Building And Floorplan Features

Floor Level
Damp Proof Course Level
Soffit Level
Eaves Level
Ridge Level
Threshold Level

Notes

NRG Engineering
Services Ltd

Castle View
Station Road
Llanfairfechan
Conwy
LL33 OAN

Tel: 01248 681240
Fax: 01248 680914
email: nrg@nrgsurveys.co.uk
www.nrgsurveys.co.uk

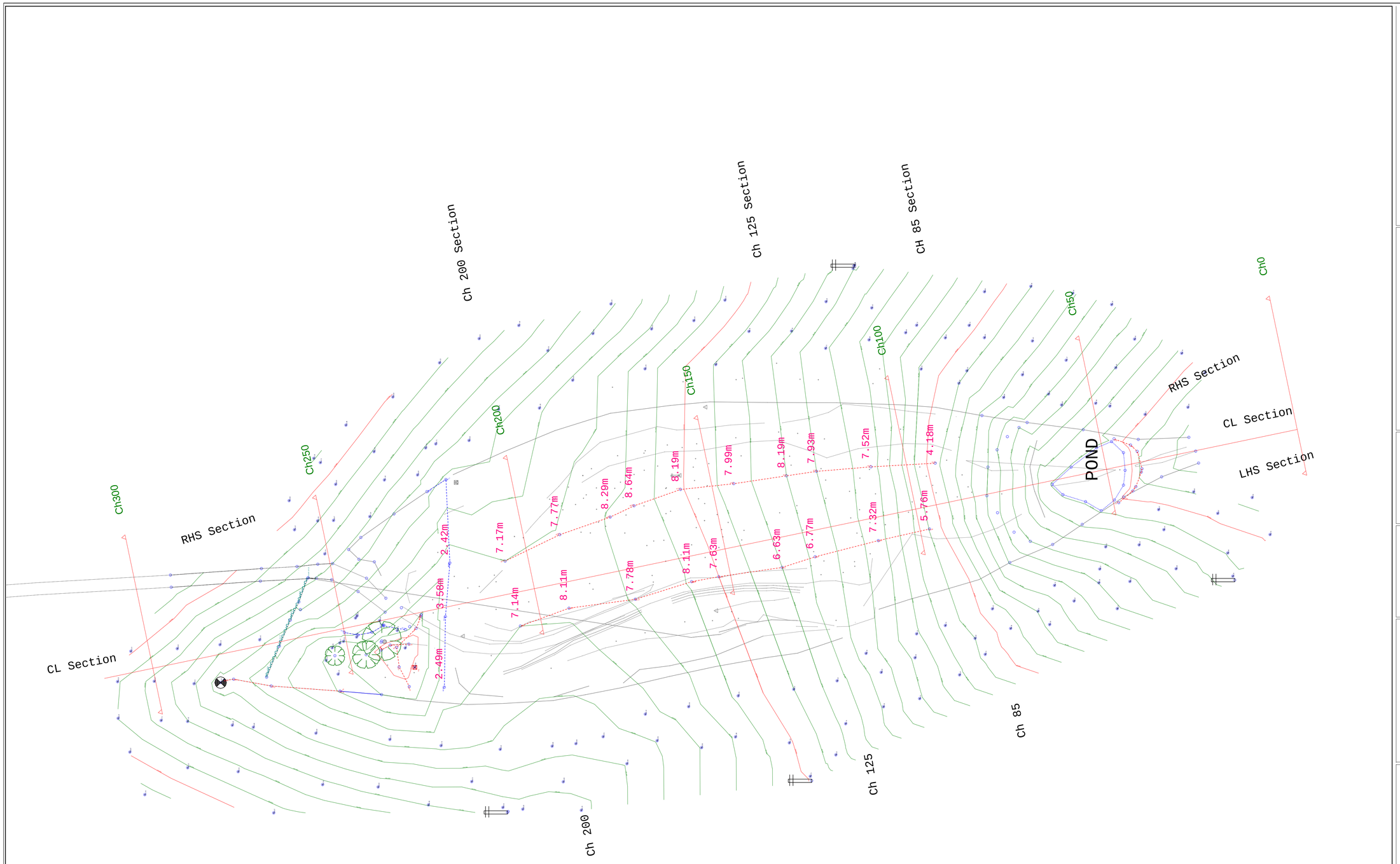
CLIENT
R Kneebone

PROJECT
002 rk trevozah

TITLE
OGL Survey July 2017

SCALE	DATUM	GRID
1 : 500.	Site	Local
SURVEYED BY	DRAWN BY	DATE
DW	Dave Wallington	24/07/2017

DRAWING REFERENCE #	ISSUE #
OGLjul17	A



Point Features (Where Applicable)

- Water Meter
- Gully
- Fire Hydrant
- Telecom Box
- Telecom Cover
- Inspection Cover (Circular)
- Inspection Cover (Square)
- Inspection Cover (Rectang
- Inspection Cover (Triangular
- Electricity Pole
- Lamp Post
- Telegraph Pole
- Electricity Box
- Stop Valve
- Gas Valve
- Litter Bin
- Seat
- Reeds
- Marsh
- Tree
- Undergrowth
- Hedge
- Fences (Solid)
- Fences (Open)
- Stile
- Gate
- Gate (No Posts)
- Overhead Cable
- Pylon
- Road Sign
- Wall
- Retaining wall
- Permanent Ground Marker
- Permanent Benchmark
- Temporary Benchmark
- Trig Station
- Point Level
- Post
- Invert Level
- Cover Level
- Phone Kiosk

Additional Notes For Fencing

P/W	Post and Wire
P/C	Post and Chain
P/R	Post and Rail
I/R	Iron Railing
PAL	Palisade
W/P	Wooden Panel
C/P	Concrete Panel
C/B	Crash Barrier

Building And Floorplan Features

- Floor Level
- Damp Proof Course Level
- Soffit Level
- Eaves Level
- Ridge Level
- Threshold Level

Notes

NRG Engineering
Services Ltd

Castle View
Station Road
Llanfairfechan
Conwy
LL33 OAN

Tel: 01248 681240
Fax: 01248 680914
email: nrg@nrgsurveys.co.uk
www.nrgsurveys.co.uk

CLIENT
R Kneebone

PROJECT
002 rk trevozah

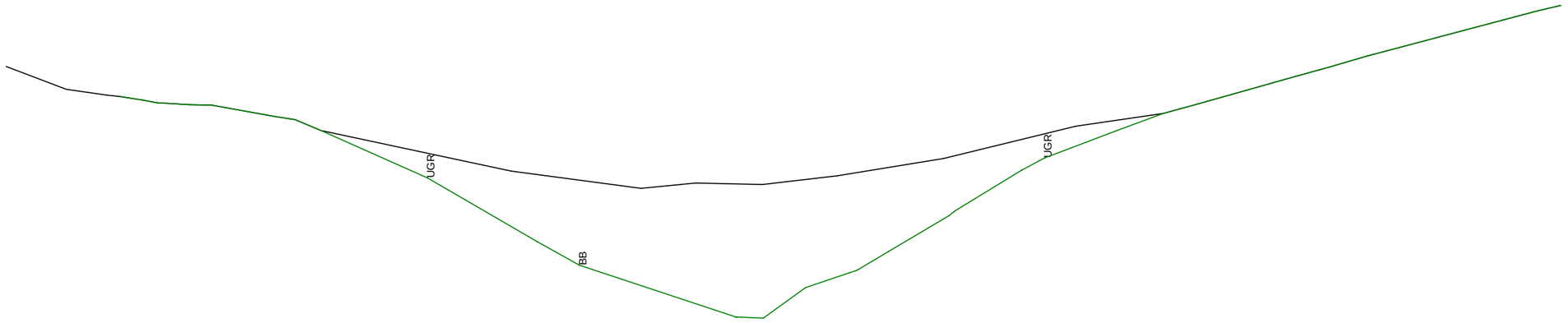
TITLE
Des MK5 Dips to OGL _Dips 2017OGL

SCALE	DATUM	GRID
1 : 500.	Site	Local

SURVEYED BY	DRAWN BY	DATE
DW	Dave Wallington	24/07/2017

DRAWING REFERENCE #	ISSUE #
DES5_OGLjul17	A

String: rkn | 002 rk trevozah | Ch: 85.000



Datum: 74.500

Hz 1:350 V: 1:175

Level 1: DesignMk5 Level 2: Original Ground Level

OFFSET	LEVEL 2	LEVEL 1	DIFF.
-49.431	90.101	91.147	0.000
-45.255	89.983	90.353	0.000
-42.453	89.885	90.149	0.000
-41.512	89.818	90.101	0.000
-39.995	89.806	89.983	0.000
-38.959	89.404	89.885	0.000
-36.713	89.297	89.818	0.000
-35.160	88.924	89.806	0.000
-30.716	87.275	89.404	0.000
-29.368	85.066	89.297	0.000
-27.587	84.245	88.924	0.000
-20.182	82.440	87.516	-0.860
-14.378	82.411	86.918	-1.923
-12.561	83.467	87.097	-2.329
-9.634	84.109	87.045	-2.956
-5.362	84.729	87.350	-3.380
-1.567	85.984	87.951	-4.187
1.280	87.542	89.068	-1.069
3.074	87.552	89.519	-1.063
3.132	87.967	89.850	-0.837
6.062	88.925	90.828	-0.689
8.296	89.519	91.133	-0.356
9.762	89.850	91.509	0.000
11.853	90.828	91.829	0.000
15.652	91.133	93.069	0.000
21.062	91.509	93.068	0.000
21.096	91.829	93.264	0.000
22.644	93.069		
24.809	93.068		
27.684	93.264		
30.901			
33.331			
40.268			
42.477			
45.052			
47.462			
56.838			
56.839			
58.482			

Max CH:85.000

Min CH:85.000

Notes: Survey to oS
Levels to OS
See RK_OGL_001A
and RK_Prop_001A
For Section Location

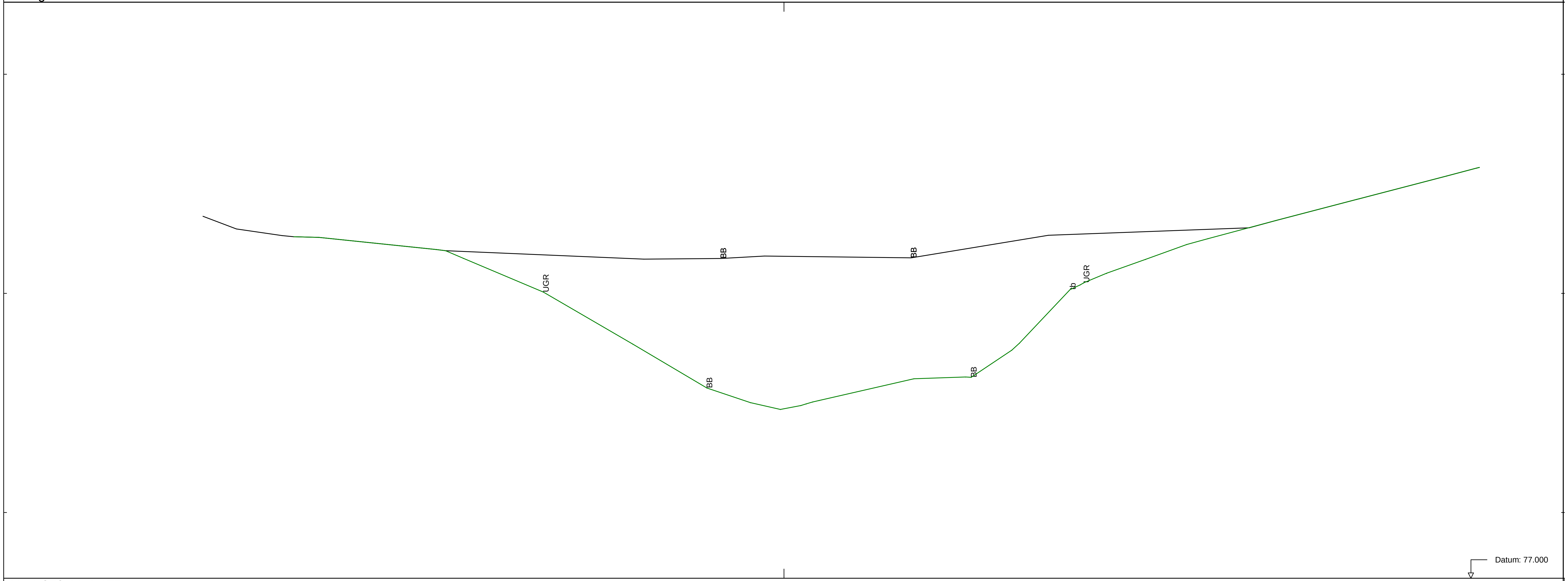
Survey and Engineering Software
www.nrgsurveys.co.uk

Project: 002 rk trevozah

Title: RK Field survey
Trevozah Barton
Original /Proposed Ground Level Survey

Date: 24/07/2017
Hz:1:350. V: 1:175.
Operator Dave Wallington
Drawing No. RK_SEC17_001

String: rkn | 002 rk trevozah | Ch: 100.000



Hz 1:350 V: 1:175

Level 1: DesignMk5 Level 2: Original Ground Level

OFFSET	LEVEL 1	LEVEL 2	DIFF.
-53.059	93.523		
-50.013	92.943		
-45.829	92.639		
-44.770	92.585	92.585	0.000
-42.475	92.558	92.558	0.000
-31.738	92.001	92.001	0.000
-30.919	91.946	91.946	0.000
-29.281		91.601	-0.310
-21.980		90.061	-1.695
-13.806		87.684	-3.899
-12.807	91.562		-4.174
-7.044		85.682	-5.908
-5.768	91.596		-6.129
-3.074		85.013	-6.658
-1.790	91.707		-6.838
-0.333		84.705	-6.993
1.528		84.883	-6.803
2.612 / 2.815		85.044 / 84.958	-6.636 / -6.725
3.189		85.113	-6.563
11.607	91.624		-5.549
11.855		86.103	-5.541
16.570		86.187	-5.843
17.092		86.171	-5.902
20.789		87.409	-4.966
21.489		87.725	-4.708
24.143	92.650		-3.523
26.130		90.176	-2.511
27.033 / 27.394		90.385 / 90.488	-2.319 / -2.223
27.345		90.472	-2.238
29.454		90.916	-1.833
32.996		91.546	-1.269
36.764		92.232	-0.654
38.706		92.494	-0.428
42.465	92.992		0.004
44.916	93.324	93.324	0.000
52.300	94.289	94.289	0.000
52.529	94.321	94.321	0.000
60.509	95.359	95.359	0.000
63.240	95.720	95.720	0.000
63.247 / 63.496	95.740 / 95.749	95.740 / 95.749	0.000 / 0.000

Max CH:100.000

Min CH:100.000

Notes: Survey to oS
Levels to OS
See RK_OGL_001A
and RK_Prop_001A
For Section Location

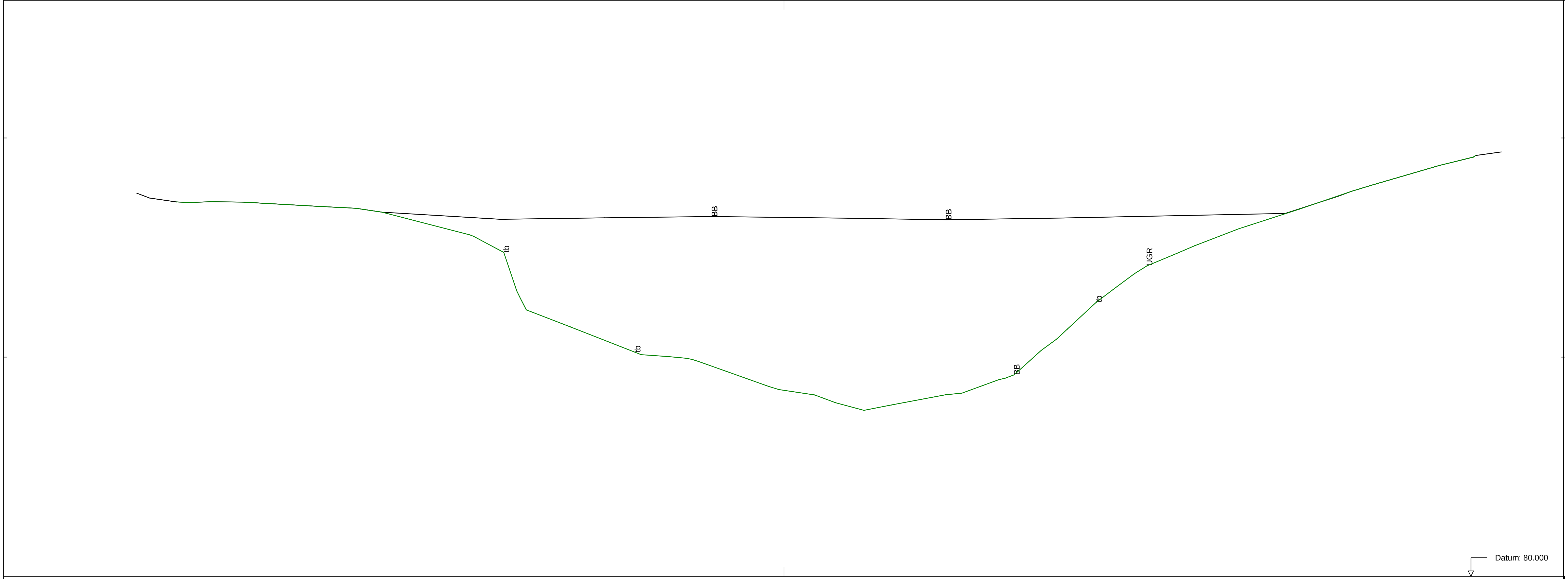
Survey and Engineering Software
www.nrgsurveys.co.uk

Project: 002 rk trevozah

Title: RK Field survey
Trevozah Barton
Original /Proposed Ground Level Survey

Date: 24/07/2017
Hz:1:350. V: 1:175.
Operator Dave Wallington
Drawing No. RK_SEC17_001

String: rkn | 002 rk trevozah | Ch: 125.000



Hz 1:350 V: 1:175

Level 1: DesignMk5 Level 2: Original Ground Level

OFFSET	LEVEL 1	LEVEL 2	DIFF.
-59.104	97.481		
-57.944	97.260		
-55.489	97.082	97.082	0.000
-54.348	97.062	97.062	0.000
-52.303	97.090	97.090	0.000
-49.421	97.072	97.072	0.000
-42.328	96.874	96.874	0.000
-39.108	96.793	96.793	0.000
-36.717	96.619	96.619	0.000
-28.696		95.579	-0.796
-28.359		95.510	-0.855
-25.899	96.290		-1.433
-25.599		94.777	-1.515
-24.410		93.020	-3.280
-23.531		92.155	-4.151
-24.048		92.662	-3.641
-19.504		91.379	-4.955
-16.395	96.355		-5.588
-13.612		90.219	-6.154
-13.044		90.112	-6.265
-10.534		90.020	-6.373
-8.958		89.945	-6.459
-7.797		89.797	-6.614
-8.412		89.893	-6.514
-6.592	96.419		-6.835
-1.382		88.661	-7.725
-0.473		88.519	-7.861
2.798		88.272	-8.087
4.711		87.916	-8.430
5.562	96.341		-8.539
7.294		87.570	-8.757
9.783		87.813	-8.493
14.746		88.278	-7.986
14.801	96.264		-7.983
16.244		88.359	-7.916
19.614		88.971	-7.330
20.086		89.099	-7.200
20.186		89.091	-7.100
23.471		90.307	-6.023
24.913		90.833	-5.508
25.887		91.286	-5.064
25.532	96.346		-5.225
28.520		92.502	-3.875
30.159		93.128	-3.266
31.997		93.805	-2.608
33.142		94.163	-2.262
36.018		94.765	-1.690
37.487		95.081	-1.390
41.535		95.857	-0.656
45.757	96.557		-0.013
47.035		96.752	-0.011
50.556	97.331		0.019
51.854	97.570	97.570	0.000
53.557	97.830	97.830	0.000
59.809	98.743	98.743	0.000
62.937	99.124	99.124	0.000
63.154	99.199	99.199	0.000
65.499	99.362		

Max CH:125.000

Min CH:125.000

Notes: Survey to oS
Levels to OS
See RK_OGL_001A
and RK_Prop_001A
For Section Location

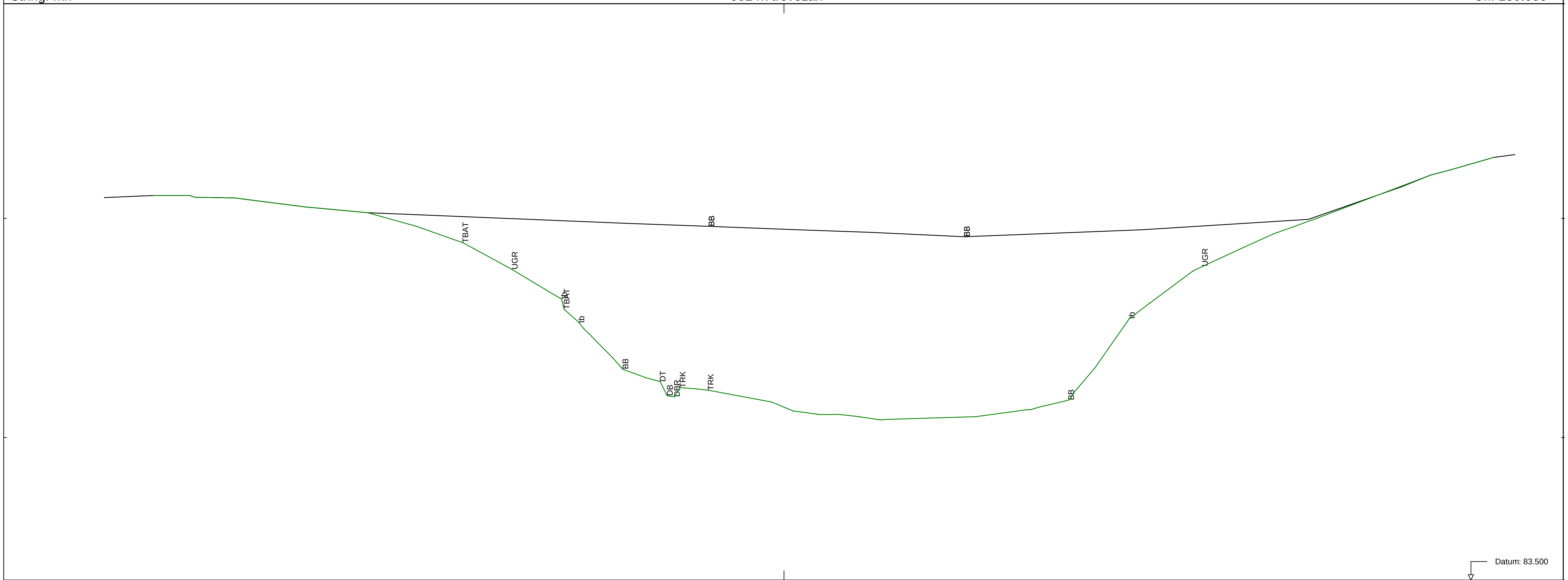
Survey and Engineering Software
www.nrgsurveys.co.uk

Project: 002 rk trevozah

Title: RK Field survey
Trevozah Barton
Original /Proposed Ground Level Survey

Date: 24/07/2017
Hz:1:350. V: 1:175.
Operator Dave Wallington
Drawing No. RK_SEC17_001

String: rkn	002 rk trevozah	Ch: 150.000



Hz 1:350 V: 1:175

Level 1: DesignMk5 Level 2: Original Ground Level

DIFF.	0.000 0.000 0.000 0.000 0.000 0.000 -0.530 -1.187 -1.426 -2.322 -3.279 [illegible] -5.075 -6.159 -6.664 -6.748 -7.003 -7.166 [illegible] -7.663 -7.427 -7.475 -7.481 -7.903 -8.272 -8.290 -8.376 -8.394 -8.355 -8.358 -8.429 -8.486 -8.531 -8.496 -8.222 -8.227 -8.068 -8.012 -8.011 -8.002 -7.906 [illegible] -7.640 -7.245 -6.214 -4.043 -3.617 -3.381 -3.381 -2.039 -1.845 -1.129 -0.558 -0.092 -0.089 0.030 0.000 0.000 0.000
LEVEL 1	100.947 101.043 101.044 100.959 100.931 100.523 100.253 99.768 99.632 99.476 99.358 99.158 99.482 99.951 101.428 101.977 102.196 102.774 102.912
LEVEL 2	101.043 101.044 100.959 100.931 100.523 100.253 99.632 98.889 98.631 97.662 96.635 [illegible] 94.768 93.639 93.114 92.736 92.549 91.904 [illegible] 92.024 92.229 92.159 91.618 91.212 91.069 91.047 91.053 91.048 90.948 90.806 90.829 90.951 91.179 [illegible] 91.272 91.388 [illegible] 91.708 92.115 93.182 95.416 96.122 96.122 97.586 97.807 98.634 99.295 99.994 101.977 102.196 102.774
OFFSET	-62.073 -57.599 -54.267 -53.788 -50.176 -43.771 -38.022 -33.570 -29.328 -28.381 -24.826 -21.400 -20.333 -20.078 [illegible] -17.882 -15.659 -14.722 -14.207 -12.661 -11.313 [illegible] -9.801 -8.143 -6.932 -6.849 -1.114 0.830 1.223 2.996 3.195 5.089 5.174 6.841 7.907 8.827 9.329 16.468 17.489 20.910 21.536 22.088 22.282 23.298 25.641 26.138 25.976 26.576 28.395 31.517 32.687 33.369 33.357 37.317 38.200 41.784 44.709 47.874 48.631 56.323 59.047 60.770 64.769 66.744

Max CH:150.000

Min CH:150.000

Notes: Survey to oS
Levels to OS
See RK_OGL_001A
and RK_Prop_001A
For Section Location

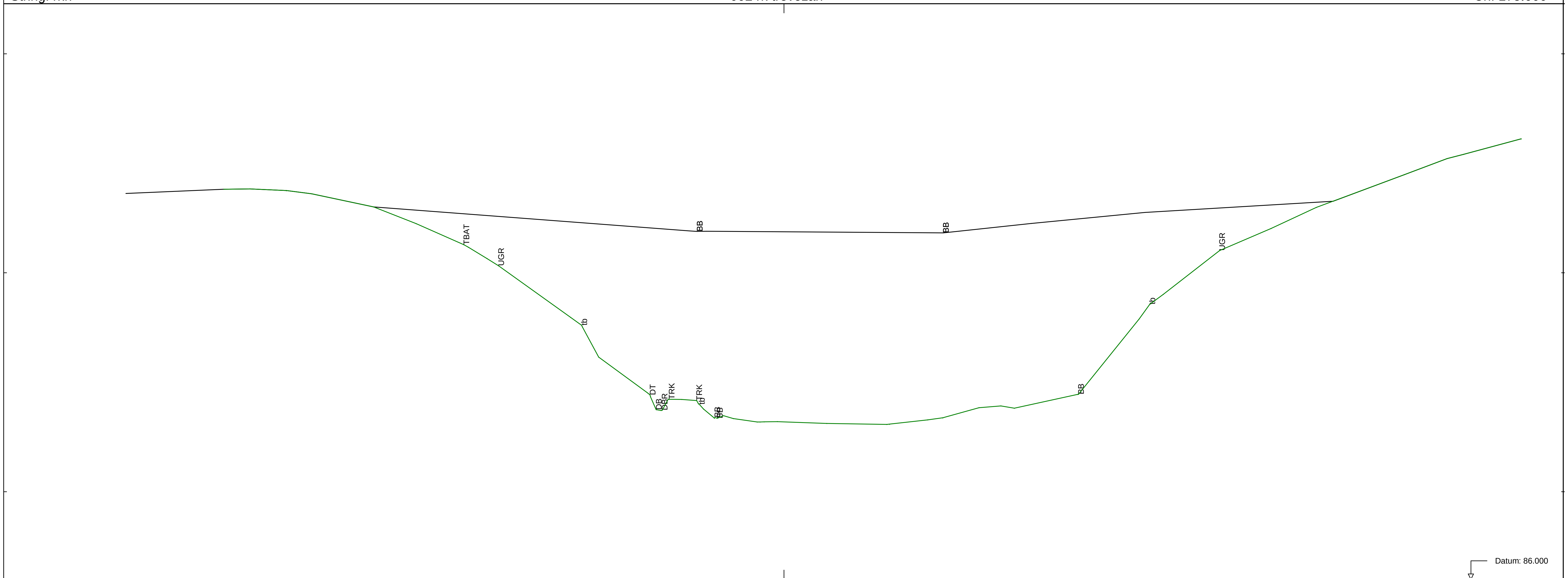
Survey and Engineering Software
www.nrgsurveys.co.uk

Project: 002 rk trevozah

Title: RK Field survey
Trevozah Barton
Original /Proposed Ground Level Survey

Date: 24/07/2017
Hz:1:350. V: 1:175.
Operator Dave Wallington
Drawing No. RK_SEC17_001

String: rkn | 002 rk trevozah | Ch: 175.000



Hz 1:350 V: 1:175

Level 1: DesignMk5 Level 2: Original Ground Level

DIFF.	LEVEL 1	LEVEL 2	OFFSET
	103.623		-60.106
0.000	103.815	103.815	-51.163
0.000	103.834	103.834	-48.770
0.000	103.753	103.753	-45.442
0.000	103.605	103.605	-43.139
0.000	103.010	103.010	-37.481
-0.619		102.243	-33.597
-1.414		101.283	-29.241
-1.509		101.173	-28.841
-1.967		100.650	-27.131
-2.254		100.322	-26.067
-4.362		97.964	-19.490
-4.685		97.603	-18.484
-4.753		97.533	-18.420
-6.083		96.146	-16.935
-7.553		94.597	-12.444
-7.710		94.359	-12.195
[illegible]		[illegible]	[illegible]
-7.767		94.221	-10.587
-7.724		94.217	-9.341
[illegible]	101.913	[illegible]	[illegible]
[illegible]	101.892	[illegible]	[illegible]
[illegible]	101.895	[illegible]	[illegible]
-8.544		93.343	-4.630
-8.693		93.186	-2.451
-8.686		93.191	-1.808
-8.692		93.186	-2.183
-8.670		93.203	-0.613
-8.738		93.119	3.902
-8.766		93.073	9.385
-8.753		93.085	9.645
-8.544		93.282	13.117
-8.446		93.375	14.497
-8.441	101.821		14.536
-8.155		93.840	17.795
-8.187		93.916	19.804
-8.355		93.813	21.030
-8.269	102.251		22.578
[illegible]		[illegible]	[illegible]
-8.008		94.453	26.893
-4.844		97.887	32.421
-4.213		98.557	33.382
-4.496	102.757		32.958
-3.790		99.017	34.637
-1.943		101.018	39.778
-1.079		102.022	44.470
-0.239		102.985	48.601
0.003	103.270		50.147
0.000	104.481	104.481	56.645
0.000	105.218	105.218	60.549
0.000	105.406	105.406	62.050
0.000	106.117	106.117	67.315

Max CH:175.000

Min CH:175.000

Notes: Survey to oS
Levels to OS
See RK_OGL_001A
and RK_Prop_001A
For Section Location

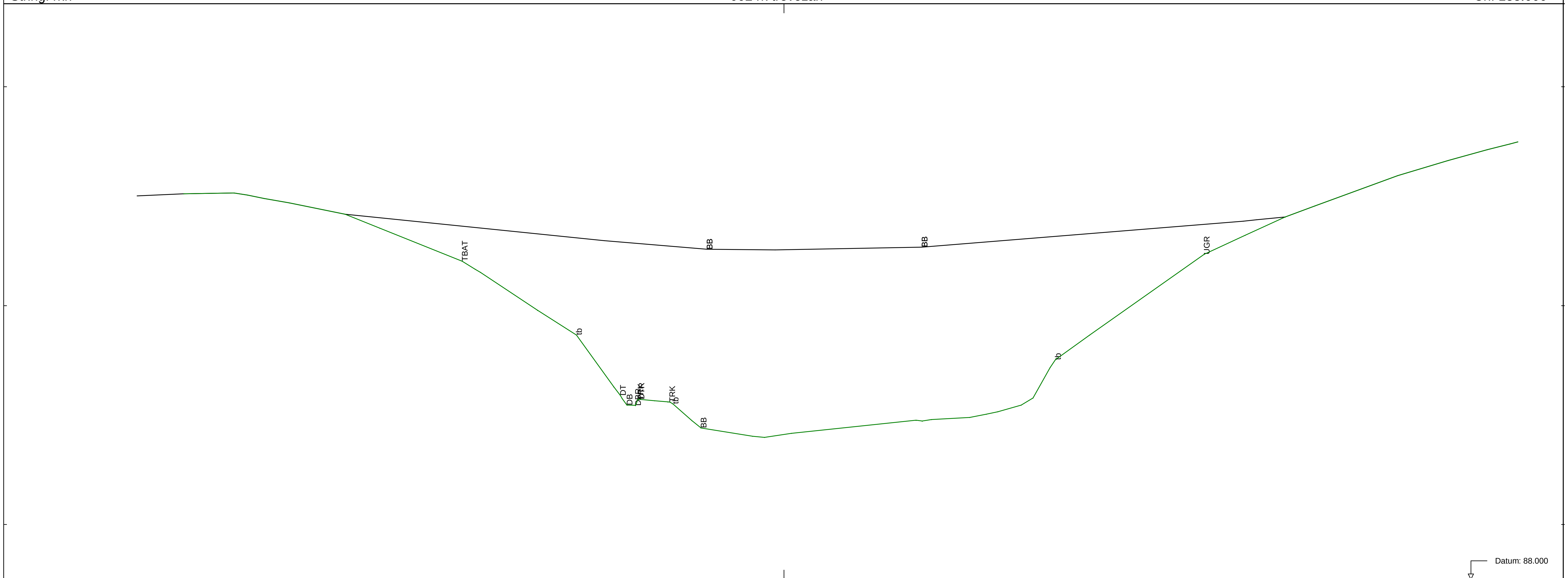
Survey and Engineering Software
www.nrgsurveys.co.uk

Project: 002 rk trevozah

Title: RK Field survey
Trevozah Barton
Original /Proposed Ground Level Survey

Date: 24/07/2017
Hz:1:350. V: 1:175.
Operator Dave Wallington
Drawing No. RK_SEC17_001

String: rkn | 002 rk trevozah | Ch: 188.000



Hz 1:350 V: 1:175

Level 1: DesignMk5 Level 2: Original Ground Level

DIFF.	LEVEL 1	LEVEL 2	OFFSET
	105.014		-59.083
0.000	105.106	105.106	-54.827
0.000	105.143	105.143	-50.240
0.000	105.049	105.049	-48.990
0.000	104.893	104.893	-47.474
0.000	104.697	104.697	-45.176
0.000	104.176	104.176	-40.084
-0.474		103.540	-36.917
-1.603		102.026	-29.383
-1.905		101.664	-28.211
-2.025		101.519	-27.719
-3.492		99.786	-22.510
-4.441		98.655	-18.953
-6.069	102.967		-16.427
-6.639		96.292	-15.556
-7.146		95.753	-14.783
-7.016		95.890	-14.947
[illegible]		[illegible]	[illegible]
-7.117		95.659	-11.830
[illegible]		[illegible]	[illegible]
-7.893		94.741	-8.410
-8.209	102.577		-7.939
-8.187		94.413	-7.588
-8.521		94.033	-2.865
-8.567		93.981	-1.789
-8.488	102.543		-0.802
-8.392		94.165	0.675
-7.905		94.764	12.049
-7.948		94.727	12.611
-7.946 -7.916	102.674	94.793	[illegible]
-7.958		94.891	16.960
-7.870		95.040	18.465
-7.801		95.151	19.521
-7.582		95.456	21.650
-7.298		95.783	22.729
-5.975		97.169	24.288
-5.631		97.533	24.780
-4.632		98.658	27.903
-1.368		102.342	38.363
-0.682	103.854		41.940
-0.653 -0.468	103.920	103.210	43.105 43.164
0.000	104.046	104.046	45.764
0.000	104.551	104.551	48.470
0.000	105.940	105.940	56.044
0.000	106.629	106.629	60.643
0.000	107.122	107.122	64.225
0.000	107.380	107.380	66.286
0.000	107.478	107.478	67.009

Max CH:188.000

Min CH:188.000

Notes: Survey to oS
Levels to OS
See RK_OGL_001A
and RK_Prop_001A
For Section Location

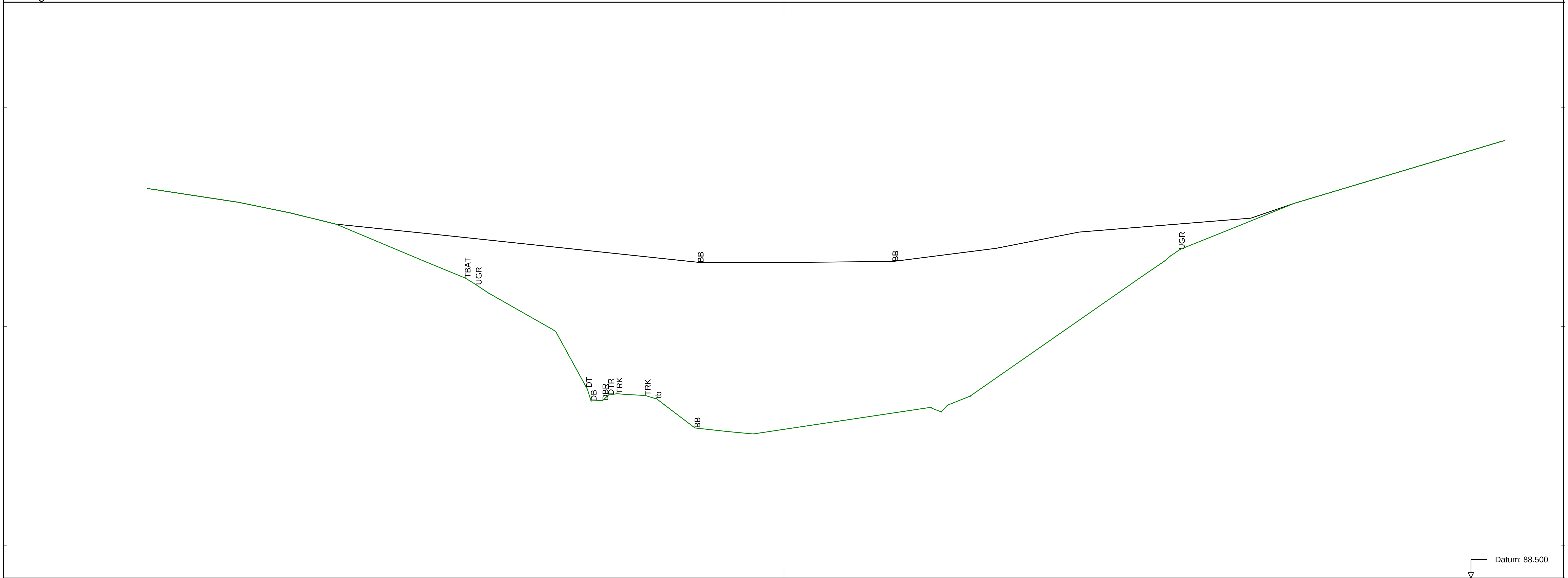
Survey and Engineering Software
www.nrgsurveys.co.uk

Project: 002 rk trevozah

Title: RK Field survey
Trevozah Barton
Original /Proposed Ground Level Survey

Date: 24/07/2017
Hz:1:350. V: 1:175.
Operator Dave Wallington
Drawing No. RK_SEC17_001

String: rkn | 002 rk trevozah | Ch: 200.000



Hz 1:350 V: 1:175

Level 1: DesignMk5   Level 2: Original Ground Level

OFFSET	DIFF.	LEVEL 1	LEVEL 2
-58.120	0.000	106.282	106.282
[illegible]	[illegible]	[illegible]	[illegible]
-58.110	0.000	106.279	106.279
-49.850	0.000	105.659	105.659
-45.142	0.000	105.174	105.174
-40.909	0.000	104.660	104.660
-32.900	-1.265		102.977
-31.434	-1.492	104.165	
-29.118	-1.849		102.194
-28.111	-2.104		101.885
-28.290	-2.057		101.942
-27.600	-2.415		101.516
-21.160	-3.767		99.855
-20.860	-3.846		99.760
-18.033	-6.265		97.192
[illegible]	[illegible]		[illegible]
-16.716	-6.780		96.607
[illegible]	[illegible]		[illegible]
-16.042	-6.495		96.856
[illegible]	[illegible]		[illegible]
-12.670	-6.338		96.835
-11.760	-6.433		96.692
[illegible]	[illegible]		[illegible]
-8.136	-7.579		95.354
-7.844	-7.580	102.918	
-5.177	-7.725		95.192
-2.827	-7.837		95.079
1.874	-7.483	102.914	
9.929	-6.917	102.950	
[illegible]	[illegible]		[illegible]
14.913	-6.880		96.390
16.994	-6.602		96.801
19.362	-5.929	103.555	
26.933	-4.031	104.294	
32.952	-2.180		102.359
34.677	-1.663		102.947
35.626	-1.333		103.315
[illegible]	[illegible]		[illegible]
36.107	-1.183		103.485
41.389	-0.331		104.552
42.636	-0.129	104.934	
46.615	0.000	105.611	105.611
47.423	0.000	105.733	105.733
53.814	0.000	106.683	106.683
65.415	0.000	108.421	108.421
65.796	0.000	108.473	108.473

Max CH:200.000

Min CH:200.000

Notes: Survey to oS
Levels to OS
See RK_OGL_001A
and RK_Prop_001A
For Section Location

Survey and Engineering Software
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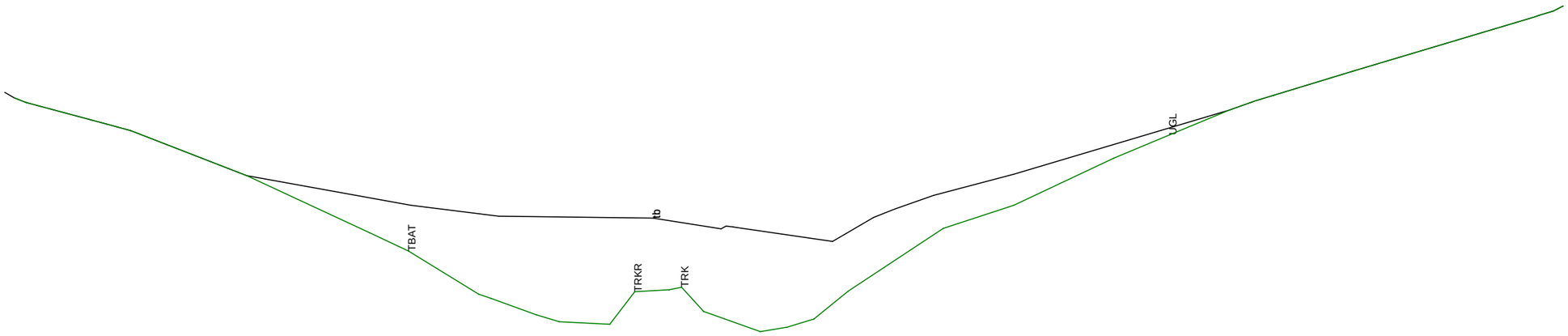
Project: 002 rk trevozah

Title: RK Field survey
Trevozah Barton
Original /Proposed Ground Level Survey

Date: 24/07/2017
Hz:1:350. V: 1:175.
Operator Dave Wallington
Drawing No. RK_SEC17_001

String: rkn | 002 rk trevozah | Ch: 225.000



Datum: 91.000

Hz 1:350 V: 1:175

Level 1: DesignMk5 Level 2: Original Ground Level

OFFSET	LEVEL 2	LEVEL 1	DIFF.
-53.467		106.923	
-52.904	106.574	106.574	0.000
-46.264	105.808	105.808	0.000
-44.574	105.577	105.577	0.000
-36.396	103.992	103.992	0.000
-27.744	101.989		-1.223
-24.980	101.330		-1.633
-24.808		102.947	-1.670
-20.031	99.813		-2.837
-19.151	99.663		-2.932
-18.619		102.562	-2.995
-15.971	99.092		-3.455
-14.332	98.847		-3.691
-10.783	98.756		-3.761
-9.023	99.903		-2.604
-7.724		102.500	-2.563
-6.595	99.967		-2.444
-5.711	100.060		-2.281
-4.154	99.208		-3.010
-2.924		102.121	-3.132
-2.088		102.184	-3.344
-2.043		102.173	-3.387
-2.002		102.178	-3.353
-0.153	98.495		-3.549
1.724	98.649		-3.259
3.619	98.937		-2.833
4.946		101.674	-2.198
6.057	99.927		-2.072
7.829		102.518	-2.007
9.334		102.812	-1.805
12.063		103.298	-1.391
12.747	102.132		-1.256
17.721	102.951		-1.090
17.741		104.044	-1.088
24.774	104.610		-0.481
28.725	105.428		-0.250
32.942	106.306	106.306	0.000
34.786	106.627	106.627	0.000
36.060	106.821	106.821	0.000
41.764	107.693	107.693	0.000
54.380	109.574	109.574	0.000
54.809	109.643	109.643	0.000
56.487	109.970	109.970	0.000

Max CH:225.000

Min CH:225.000

Notes: Survey to oS
Levels to OS
See RK_OGL_001A
and RK_Prop_001A
For Section Location

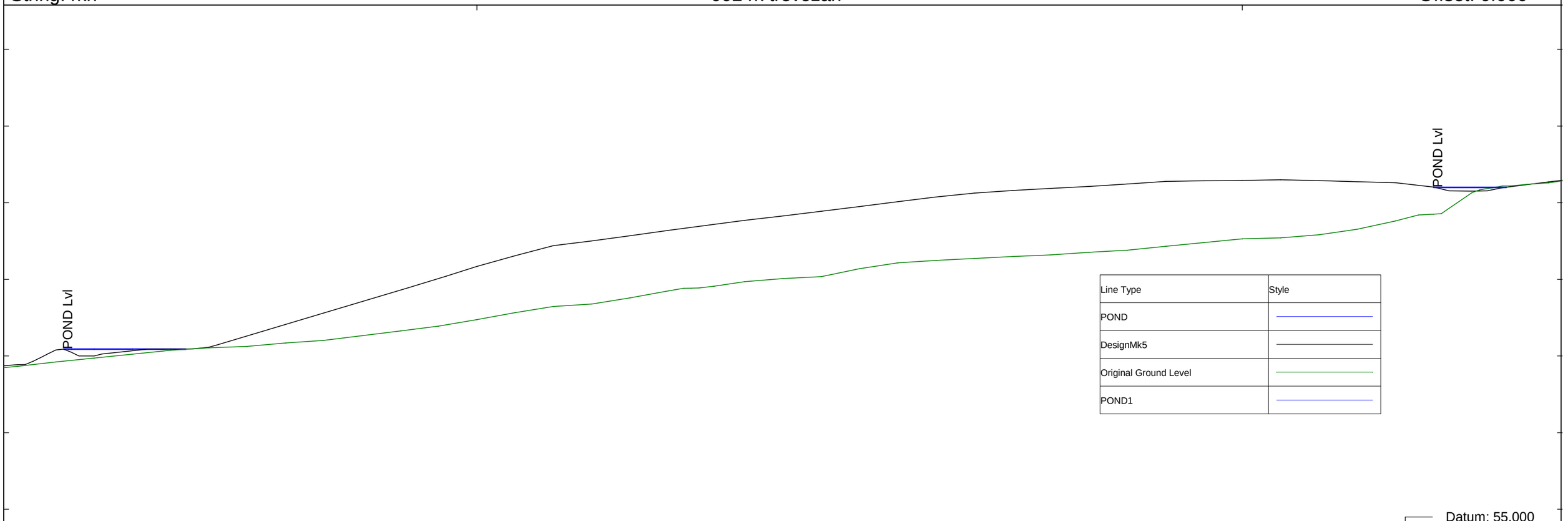
Survey and Engineering Software
www.nrgsurveys.co.uk

Project: 002 rk trevozah

Title: RK Field survey
Trevozah Barton
Original /Proposed Ground Level Survey

Date: 24/07/2017
Hz:1:350. V: 1:175.
Operator Dave Wallington
Drawing No. RK_SEC17_001

String: rkn | 002 rk trevozah | Offset: 0.000



Line Type	Style
POND	
DesignMk5	
Original Ground Level	
POND1	

Hz 1:500 V: 1:500

CHAINAGE	DesignMk 5	Original Ground L
41.000	79.794	79.213
43.000	80.788	79.724
45.000	80.500	80.243
47.000	80.000	80.736
50.000	80.900	81.059
55.000	80.900	81.245
57.000	80.900	81.692
60.000	80.924	82.032
61.000	81.139	82.651
63.000	81.430	83.268
65.000	85.604	83.903
70.000	85.901	84.737
75.000	88.899	85.662
80.000	90.418	86.453
81.000	91.696	86.783
85.000	93.076	87.585
90.000	94.394	88.483
91.000	95.005	88.825
95.000	95.691	88.842
96.000	96.377	89.099
100.000	97.039	89.706
105.000	97.704	90.091
110.000	98.268	90.348
115.000	98.884	91.385
120.000	99.500	92.163
125.000	100.135	92.479
127.000	100.738	92.728
128.000	101.252	92.983
130.000	101.587	93.192
132.000	101.871	93.532
135.000	102.115	93.801
140.000	102.433	94.311
145.000	102.772	94.801
150.000	102.859	95.291
155.000	102.915	95.410
160.000	102.989	95.816
165.000	102.880	96.530
170.000	102.743	97.618
175.000	102.605	98.393
180.000	102.033	98.508
185.000	101.543	98.575
190.000	101.500	101.287
195.000	101.548	101.678
200.000	101.959	102.001
205.000	102.075	102.185
210.000	102.722	102.387
215.000		
220.000		
223.000		
225.000		
226.000		
230.000		
231.000		
233.000		
235.000		
237.000		

Notes: Section Along CL String
Chainages as per plan
See RK_OGL_001A
and RK_Prop_001A
For Section Location
Survey & Levels to oS

Survey and Engineering Software
www.nrgsurveys.co.uk

Project: 002 rk trevozah

Date: 06/11/2017
Hz:1:500. V: 1:500.
Operator Dave Wallington
Drawing No. RK_LSEC17_001

Appendix D Nature and Heritage Conservation Screening Report

Alex Large

From: Conservation pre-application screen <ConsScreen@environment-agency.gov.uk>
Sent: 29 March 2018 12:25
To: 'alexl@horizon-ce.co.uk'
Subject: Conservation pre-application EPR/GB3108KF/A001

Hello

Thank you for requesting a nature and heritage conservation screen for the following:

Permit type: SR2015 No39
Application Reference: EPR/GB3108KF/A001
NGR: SX 33666 80878
Date screen completed: 28 March 2018

The screen did not identify any nature and heritage conservation interests that could be impacted by your current proposal. *The screening results indicate that you are eligible to apply for Standard Rule 2015 No39.*

Please note we have screened this application for protected and priority sites, habitats and species for which we have information. It is however your responsibility to comply with all environmental and planning legislation, this information does not imply that no other checks or permissions will be required.

We advise that you have a pre-application discussion with us before preparing and submitting an application. This should help you get your permit application right first time and raise issues early, ultimately saving you time and money.

In these discussions we can give you advice on:

- how to prepare your application;
- what guidance is available;
- what type of information you need to provide to show us that your proposals will protect the environment and will not harm human health.

For pre-application advice please call 03708 506506 and speak to your local area office.

Kind regards

Hayley Korczynski

Permitting Support Advisor
Permitting and Support Centre
National Permitting Service (part of National Services E&B)

Land Team Phone
☎ Internal 53898 External 0203 025 3898

☎ Internal: 53763 External: 0203 025 3763
✉ Email: hayley.korczynski@environment-agency.gov.uk
Environment Agency, Permitting & Support Centre Land Team, Quadrant 2, 99 Parkway Avenue, Parkway Business Park, Sheffield, S9 4WF

Help us to improve our service and complete our customer survey
http://www.smartsurvey.co.uk/s/NPScustomer/

Appendix E Envirocheck

Envirocheck®
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Envirocheck® Report:

Datasheet

Order Details:

Order Number:
213208610_1_1

Customer Reference:
HCE0312

National Grid Reference:
233660, 80870

Slice:
A

Site Area (Ha):
1.19

Search Buffer (m):
1000

Site Details:

Trevozah Barton
LAUNCESTON
PL15 9LT

Client Details:

Mr A Large
Horizon Consulting Engineers
Suite 2, The Dairy Barn
Westpoint Centre
Sidmouth Road
Exeter
Devon
EX5 1DJ

Envirocheck®
LANDMARK INFORMATION GROUP®

Contents

Introduction

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

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Scottish Natural Heritage Copyright

Ove Arup Copyright Notice

Peter Brett Associates Copyright Notice

Radon Potential dataset Copyright Notice

Natural Resources Wales Copyright Notice

Report Version v53.0

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
BGS Groundwater Flooding Susceptibility	pg 1		Yes	Yes	n/a
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1				1
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					
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 1		Yes		
Pollution Incidents to Controlled Waters	pg 1				2
Prosecutions Relating to Authorised Processes					
Registered Radioactive Substances					
River Quality	pg 1				1
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register					
Water Abstractions	pg 2				6 (*19)
Water Industry Act Referrals					
Groundwater Vulnerability Map	pg 8	Yes	n/a	n/a	n/a
Groundwater Vulnerability - Soluble Rock Risk			n/a	n/a	n/a
Groundwater Vulnerability - Local Information			n/a	n/a	n/a
Bedrock Aquifer Designations	pg 8	Yes	n/a	n/a	n/a
Superficial Aquifer Designations			n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences	pg 8		Yes	n/a	n/a
Flooding from Rivers or Sea without Defences	pg 8		Yes	n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
OS Water Network Lines	pg 8		3	5	41

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites					
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)					
Local Authority Landfill Coverage	pg 15	2	n/a	n/a	n/a
Local Authority Recorded Landfill Sites					
Potentially Infilled Land (Non-Water)	pg 15				3
Potentially Infilled Land (Water)					
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					

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Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Geological					
BGS 1:625,000 Solid Geology	pg 16	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 16	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 20			1	5
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
CBSCB Compensation District			n/a	n/a	n/a
Coal Mining Affected Areas			n/a	n/a	n/a
Mining Instability			n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 21	Yes	Yes	n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 21	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 22		Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 22	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 22		Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 22	Yes		n/a	n/a
Radon Potential - Radon Affected Areas	pg 22	Yes	n/a	n/a	n/a
Radon Potential - Radon Protection Measures	pg 22	Yes	n/a	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries					
Fuel Station Entries					
Points of Interest - Commercial Services					
Points of Interest - Education and Health					
Points of Interest - Manufacturing and Production					
Points of Interest - Public Infrastructure	pg 23				3
Points of Interest - Recreational and Environmental					
Gas Pipelines					
Underground Electrical Cables					

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Summary

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					
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: Potential for Groundwater Flooding to Occur at Surface	A13SW (S)	161	1	233662 80600
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SW (SW)	196	1	233500 80650
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SE (S)	226	1	233750 80550
	BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface	A13SE (SE)	358	1	234000 80600
1	**Discharge Consents** Operator: Mr & Mrs J A Basire Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Trekelland Farm, Lezant, Launceston, Cornwall, Pl15 9lz Authority: Environment Agency, South West Region Catchment Area: Lower Tamar, Cornwall Reference: Nra-Sw-5538 Permit Version: 1 Effective Date: 16th April 1993 Issued Date: 16th April 1993 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge Environment: Land/Soakaway Receiving Water: Soakaway **Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 100m	A14SW (E)	633	2	234300 80620
	Nearest Surface Water Feature	A13SW (S)	200	-	233558 80591
2	**Pollution Incidents to Controlled Waters** Property Type: Cattle (Dairy) Farming: Yards Location: Location Description Not Available Authority: Environment Agency, South West Region Pollutant: Animal Waste/Slurry Note: Deliberate Act Incident Date: 4th March 1993 Incident Reference: 62004852 Catchment Area: Lower Tamar, Cornwall Receiving Water: Freshwater Stream/River Cause of Incident: Effluent Discharge Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	689	2	233200 80250
3	**Pollution Incidents to Controlled Waters** Property Type: Other Farming Location: Location Description Not Available Authority: Environment Agency, South West Region Pollutant: Animals Note: Miscellaneous/Other Pollution Type Incident Date: 28th April 1993 Incident Reference: 62004930 Catchment Area: Lower Tamar, Cornwall Receiving Water: Freshwater Stream/River Cause of Incident: Other Cause Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A19SW (NE)	752	2	234200 81500
	River Quality Name: Lowley B GQA Grade: River Quality A Reach: Landlake Bridge-Landue Bridge Estimated Distance (km): 4 Flow Rate: Flow less than 0.62 cumecs Flow Type: River Year: 2000	A14NE (E)	790	2	234481 81009

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	**Water Abstractions** Operator: Messrs L&Rl Goodman Licence Number: 15/47/013/G/060 Permit Version: 100 Location: Trekemletts Farm, Trewarlett - Well Authority: Environment Agency, South West 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: Trekimletts Farm, Trewarlett Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 31st March 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A8NE (S)	562	2	233700 80200
5	**Water Abstractions** Operator: J A Basire & Partners Licence Number: 15/47/013/G/078 Permit Version: 101 Location: Trekelland Farm, Lezant - Borehole Authority: Environment Agency, South West 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: Trekelland Farm, Lezant Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 26th November 2004 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	636	2	234250 80480
5	**Water Abstractions** Operator: Mr J A Basire Licence Number: 15/47/013/G/078 Permit Version: 100 Location: Trekelland Farm, Lezant - Borehole Authority: Environment Agency, South West 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: Trekelland Farm, Lezant Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 29th February 1968 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	636	2	234250 80480
6	**Water Abstractions** Operator: Mr & Mrs L O Picot Licence Number: 15/47/013/G/081 Permit Version: 100 Location: The Cottage, Trewarlett, Lezant Authority: Environment Agency, South West 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: Trewerlett Cottage, Lezant, Launceston, Cornwall PI15 9ly Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 25th February 1976 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	754	2	233170 80190

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	**Water Abstractions** Operator: Mr F Northey Licence Number: 15/47/013/G/079 Permit Version: 100 Location: Trekelland Farm, Lezant - Borehole Authority: Environment Agency, South West 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: Trekelland, Lezant, Launceston, Cornwall PI15 Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 1st April 1975 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A9NE (SE)	846	2	234440 80390
8	**Water Abstractions** Operator: MR F NORTHEY Licence Number: 1547013G079 Permit Version: Not Supplied Location: PL15 Authority: Environment Agency, South West Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Borehole Daily Rate (m3): 3.20 Yearly Rate (m3): 1161.00 Details: Not Supplied 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	A9NE (SE)	856	2	234400 80300
	Water Abstractions Operator: Mr C R G Parsons Licence Number: 15/47/013/G/040 Permit Version: 100 Location: Lezant - Borehole Authority: Environment Agency, South West 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: Spindlewood, Lezant Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 31st March 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A3NW (S)	1075	2	233500 79700
	Water Abstractions Operator: Mr J R Bastard Licence Number: 15/47/013/G/045 Permit Version: 100 Location: Bedfords, Tregada - Well Authority: Environment Agency, South West 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: Bedfords, Tregada Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 31st March 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A20SW (E)	1078	2	234700 81300

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Mr R H Dingle Licence Number: 15/47/013/G/035 Permit Version: 100 Location: Trewarlett, Lezant - Borehole Authority: Environment Agency, South West 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: Trewerlett, Lezant. Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 31st March 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A7SE (SW)	1087	2	233000 79900
	Water Abstractions Operator: Mr J R Bastard Licence Number: 15/47/013/G/046 Permit Version: 100 Location: Bedfords, Tregada - Well Authority: Environment Agency, South West 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: Bedfords, Tregada Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 31st March 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A20SW (NE)	1116	2	234700 81400
	Water Abstractions Operator: AGRICULTURAL LICENCE BUT Licence Number: 1547013G074 Permit Version: Not Supplied Location: Deerpark Farm, Canworthy Water, LAUNCESTON, Cornwall Authority: Environment Agency, South West Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Well Daily Rate (m3): 1.40 Yearly Rate (m3): 455.00 Details: Poss Ref 17600300100015 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	A23SE (N)	1265	2	234000 82200
	Water Abstractions Operator: MR W L PETHERICK Licence Number: 1547013G054 Permit Version: Not Supplied Location: Higher Landlake Farm, South Petherwin, Offlands To Hurdon Farm, LAUNCESTON Authority: Environment Agency, South West Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Well Daily Rate (m3): 0.50 Yearly Rate (m3): 166.00 Details: (Os 733 714 715 716) (Os 732 713) 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	A16NE (NW)	1266	2	232600 81700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Mr K B Tucker Licence Number: 15/47/013/G/055 Permit Version: 100 Location: Larrick Farm, South Petherwin - Borehole Authority: Environment Agency, South West 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: Larrick Farm, South Petherwin Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 16th December 1975 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A6NE (SW)	1290	2	232500 80200
	Water Abstractions Operator: Mr K B Tucker Licence Number: Unknown Licence Number Permit Version: Not Supplied Location: Larrick Farm, Trewarlett, South Petherwin , LAUNCESTON, Cornwall, Pl15 Authority: Environment Agency, South West Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Borehole Daily Rate (m3): 11 Yearly Rate (m3): 4161 Details: Not Supplied 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	A6NE (SW)	1290	2	232500 80200
	Water Abstractions Operator: Mr K B Tucker Licence Number: 15/47/013/G/055 Permit Version: 100 Location: Larrick Farm, South Petherwin - Well Authority: Environment Agency, South West 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: Larrick Farm, South Petherwin Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 16th December 1975 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A6NE (W)	1309	2	232400 80400
	Water Abstractions Operator: Mr S C B Gillbard Licence Number: 15/47/013/G/052 Permit Version: 100 Location: Lower Larrick Farm, Lezant - Borehole Authority: Environment Agency, South West 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: Lower Larrick Farm, Lezant Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 31st March 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	A11SW (W)	1383	2	232280 80580

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Mr K B Tucker Licence Number: Unknown Licence Number Permit Version: Not Supplied Location: Larrick Farm, Trewarlett, South Petherwin , LAUNCESTON, Cornwall, Pl15 Authority: Environment Agency, South West Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Well Daily Rate (m3): 11 Yearly Rate (m3): 4161 Details: Not Supplied 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	A6NW (W)	1405	2	232300 80400
	Water Abstractions Operator: Mr E C Chudleigh Licence Number: 15/47/013/G/004 Permit Version: 100 Location: Field O.S 332, Leburnick Cross - Well Authority: Environment Agency, South West 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: Leburnick Cross Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 31st December 1965 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	A20NE (NE)	1563	2	235100 81600
	Water Abstractions Operator: HAS BEEN ALLOCATED FOR Licence Number: 1547013G063 Permit Version: Not Supplied Location: Lands At Landue Barton, LEZANT Authority: Environment Agency, South West Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Borehole Daily Rate (m3): 4.50 Yearly Rate (m3): 1659.00 Details: Depth 43M 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	A15SE (E)	1618	2	235300 80600
	Water Abstractions Operator: MR E C CHUDLEIGH Licence Number: 1547013G005 Permit Version: Not Supplied Location: Field O S 327, LAWHITTON Authority: Environment Agency, South West Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Well Daily Rate (m3): 0.70 Yearly Rate (m3): 249.00 Details: Not Supplied 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	A20NE (NE)	1654	2	235200 81600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: HAS BEEN ALLOCATED FOR Licence Number: 1547013G025 Permit Version: Not Supplied Location: Lands At Lezant Authority: Environment Agency, South West Region Abstraction: Private Water Supplies (Domestic) Abstraction Type: Not Supplied Source: Well Daily Rate (m3): 1.40 Yearly Rate (m3): 455.00 Details: Depth 6M 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	(S)	1694	2	234000 79100
	Water Abstractions Operator: HAS BEEN ALLOCATED FOR Licence Number: 1547013G047 Permit Version: Not Supplied Location: Lands At Springfield Farm , LEZANT Authority: Environment Agency, South West Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Well Daily Rate (m3): 0.10 Yearly Rate (m3): 33.00 Details: Daily Actually 0.09; Depth 6M 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	(S)	1699	2	234000 79095
	Water Abstractions Operator: Mr F E Smith Licence Number: 15/47/013/G/076 Permit Version: 100 Location: Hurdon Farm, Launceston - Well Authority: Environment Agency, South West 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: Hurdon Farm, Launceston Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 30th June 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(N)	1735	2	233400 82700
	Water Abstractions Operator: Mr F E Smith Licence Number: 15/47/013/G/076 Permit Version: 100 Location: Hurdon Farm, Launceston - Well Authority: Environment Agency, South West Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 4 Yearly Rate (m3): 1591 Details: Hurdon Farm, Launceston Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 30th June 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(N)	1752	2	233300 82700

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: MR E C CHUDLEIGH Licence Number: 1547013G003 Permit Version: Not Supplied Location: Lands At Old Rectory, Farm , LAWHITTON Authority: Environment Agency, South West Region Abstraction: Agriculture (General) Abstraction Type: Not Supplied Source: Borehole Daily Rate (m3): 4.50 Yearly Rate (m3): 1659.00 Details: Depth 67M 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	(NE)	1967	2	235400 81900
	Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - High Vulnerability Combined Vulnerability: High Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer Pollutant Speed: Intermediate Bedrock Flow: Well Connected Fractures Dilution: >550 mm/year Baseflow Index: 40-70% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: No Data	A13SW (E)	0	3	233662 80872
	Groundwater Vulnerability - Soluble Rock Risk None				
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A13SW (E)	0	3	233662 80872
	Superficial Aquifer Designations No Data Available				
	Extreme Flooding from Rivers or Sea without Defences Type: Extent of Extreme Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (SW)	181	2	233535 80615
	Flooding from Rivers or Sea without Defences Type: Extent of Flooding from Rivers or Sea without Defences Flood Plain Type: Fluvial Models Boundary Accuracy: As Supplied	A13SW (S)	181	2	233610 80590
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
9	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 371.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A13SW (S)	201	4	233552 80591
10	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 286.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A13SW (S)	226	4	233621 80541

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
11	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1118.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A13SW (S)	226	4	233621 80541
12	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 119.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A12SE (SW)	403	4	233273 80646
13	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 9.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A12SE (SW)	405	4	233291 80598
14	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 438.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A12SE (SW)	406	4	233293 80589
15	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A8NW (S)	480	4	233510 80308
16	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 114.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A8NW (S)	485	4	233507 80303
17	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 119.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A19SW (NE)	595	4	234144 81323
18	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 150.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A8SW (S)	596	4	233517 80185
19	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A8SW (S)	598	4	233490 80190

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
20	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 5.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A8SW (S)	602	4	233490 80186
21	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 51.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A8SW (S)	607	4	233491 80180
22	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 148.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A14NW (NE)	638	4	234284 81158
23	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 240.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A18NE (N)	647	4	233803 81613
24	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 55.1 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A19SW (NE)	684	4	234273 81289
25	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 116.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A19SW (NE)	685	4	234273 81289
26	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 182.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A19SE (NE)	751	4	234371 81243
27	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 3.9 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A12SW (W)	773	4	232897 80615
28	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 61.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A12SW (W)	776	4	232893 80616

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
29	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 570.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Lowley Brook Catchment Name: River Tamar Primacy: 1	A14SE (E)	776	4	234478 80826
30	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 151.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A12NW (W)	811	4	232817 80934
31	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 90.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Lowley Brook Catchment Name: River Tamar Primacy: 1	A14SE (E)	811	4	234506 80750
32	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 59.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A14SE (E)	820	4	234518 80785
33	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 285.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A12SW (W)	835	4	232833 80617
34	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 421.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A12SW (W)	835	4	232833 80617
35	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 763.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Lowley Brook Catchment Name: River Tamar Primacy: 1	A14SE (E)	839	4	234520 80660
36	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 54.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Lowley Brook Catchment Name: River Tamar Primacy: 1	A14SE (E)	839	4	234530 80709
37	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 8.0 Watercourse Level: Underground Permanent: True Watercourse Name: Lowley Brook Catchment Name: River Tamar Primacy: 1	A14SE (E)	840	4	234531 80717

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
38	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 390.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Lowley Brook Catchment Name: River Tamar Primacy: 1	A18NE (N)	874	4	233830 81840
39	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 8.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A14SE (E)	879	4	234578 80783
40	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 4.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A18NE (N)	886	4	233856 81847
41	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 578.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A14SE (E)	887	4	234586 80783
42	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 35.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Lowley Brook Catchment Name: River Tamar Primacy: 1	A18NE (N)	889	4	233853 81850
43	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 371.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Lowley Brook Catchment Name: River Tamar Primacy: 1	A18NE (N)	909	4	233902 81858
44	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 337.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A18NE (N)	909	4	233873 81866
45	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 2.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A19SE (NE)	919	4	234548 81253
46	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 144.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A12SW (W)	920	4	232708 80852

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
47	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 427.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Lowley Brook Catchment Name: River Tamar Primacy: 1	A19SE (NE)	921	4	234550 81252
48	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 315.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Lowley Brook Catchment Name: River Tamar Primacy: 1	A23SW (N)	932	4	233549 81909
49	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 56.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A23SW (N)	932	4	233549 81909
50	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 23.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A17NE (NW)	941	4	233080 81732
51	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 11.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A17NE (NW)	960	4	233069 81748
52	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 350.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A17NE (NW)	961	4	233077 81755
53	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 493.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A17SW (NW)	964	4	232768 81395
54	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 403.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Lowley Brook Catchment Name: River Tamar Primacy: 1	A19NW (NE)	972	4	234177 81802
55	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 1025.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A19NW (NE)	973	4	234174 81806

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
56	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 13.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A23SW (N)	982	4	233557 81961
57	**OS Water Network Lines** Watercourse Form: Inland river Watercourse Length: 19.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: River Tamar Primacy: 1	A23SW (N)	987	4	233544 81965

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Local Authority Landfill Coverage Name: North Cornwall District Council - Has no landfill data to supply		0	5	233662 80872
	Local Authority Landfill Coverage Name: Cornwall County Council - Had landfill data but passed it to the relevant environment agency		0	6	233662 80872
58	**Potentially Infilled Land (Non-Water)** Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A9NW (SE)	577	-	234139 80416
59	**Potentially Infilled Land (Non-Water)** Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A18NW (N)	683	-	233544 81658
60	**Potentially Infilled Land (Non-Water)** Bearing Ref: SW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1993	A7SE (SW)	851	-	233239 80024

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Teign Valley Group	A13SW (E)	0	1	233662 80872
	BGS 1:625,000 Solid Geology Description: Upper Devonian Rocks (Undifferentiated)	A13NW (NW)	0	1	233656 80882
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 45 - 60 mg/kg	A13SW (E)	0	1	233662 80872
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13NW (NW)	0	1	233636 80915
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SE (S)	0	1	233673 80778
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (NE)	115	1	233782 81021
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13SW (S)	147	1	233645 80616

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13SW (S)	215	1	233547 80576
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8NE (SE)	284	1	233825 80524
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13SE (SE)	304	1	233913 80570
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 45 - 60 mg/kg	A8NE (SE)	365	1	233959 80530
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A13SE (SE)	369	1	234000 80579
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A13NE (NE)	408	1	234000 81203

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18SW (NW)	468	1	233363 81353
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 45 - 60 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 45 - 60 mg/kg	A9NW (SE)	595	1	234142 80390
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NW (N)	614	1	233568 81591
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17SE (NW)	668	1	233062 81318
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 45 - 60 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 45 - 60 mg/kg	A8SE (S)	737	1	233880 80055
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A17NE (NW)	741	1	233226 81591

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 35 - 45 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A14NE (E)	781	1	234473 81000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 45 - 60 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 45 - 60 mg/kg	A8SW (S)	782	1	233554 79988
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8SW (S)	812	1	233609 79952
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 45 - 60 mg/kg	A14SE (E)	816	1	234518 80871
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NE (N)	821	1	233822 81787
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 45 - 60 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NE (N)	833	1	233769 81808

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A18NW (N)	837	1	233581 81817
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg	A3NE (S)	914	1	233692 79848
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 45 - 60 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 45 - 60 mg/kg	A9NE (E)	927	1	234579 80526
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 25 - 35 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 90 - 120 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 30 - 45 mg/kg	A9NE (SE)	946	1	234503 80296
61	**BGS Recorded Mineral Sites** Site Name: Burdown Location: Little Comfort, Launceston, Cornwall Source: British Geological Survey, National Geoscience Information Service Reference: 80591 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brendon Formation Commodity: Slate Positional Accuracy: Located by supplier to within 10m	A14SW (E)	368	1	234054 80729
62	**BGS Recorded Mineral Sites** Site Name: Trekelland Location: Little Comfort, Launceston, Cornwall Source: British Geological Survey, National Geoscience Information Service Reference: 80593 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Brendon Formation Commodity: Slate Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	575	1	234139 80419

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
63	**BGS Recorded Mineral Sites** Site Name: Trevozah Cross Location: Hurdon, Launceston, Cornwall Source: British Geological Survey, National Geoscience Information Service Reference: 80590 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Teign Chert Formation Commodity: Chert Positional Accuracy: Located by supplier to within 10m	A18NW (N)	690	1	233539 81664
64	**BGS Recorded Mineral Sites** Site Name: Trewarlett Location: Little Comfort, Launceston, Cornwall Source: British Geological Survey, National Geoscience Information Service Reference: 80592 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Devonian Geology: Lezant Slate Formation Commodity: Slate Positional Accuracy: Located by supplier to within 10m	A7SE (SW)	850	1	233235 80027
65	**BGS Recorded Mineral Sites** Site Name: Trewarlett Location: Lezant, Launceston, Cornwall Source: British Geological Survey, National Geoscience Information Service Reference: 80722 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Teign Chert Formation Commodity: Chert Positional Accuracy: Located by supplier to within 10m	A8SW (S)	899	1	233380 79909
66	**BGS Recorded Mineral Sites** Site Name: St Lawrences Chapel Location: Lezant, Launceston, Cornwall Source: British Geological Survey, National Geoscience Information Service Reference: 80723 Type: Opencast **Status: Ceased** Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Crackington Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A3NE (S)	998	1	233728 79765
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	Coal Mining Affected Areas In an area that might not be affected by coal mining				
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	233662 80872
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	1	233673 80778
	Non Coal Mining Areas of Great Britain Risk: Rare Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	115	1	233782 81021
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	233662 80872
	Potential for Collapsible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	147	1	233645 80616

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	233662 80872
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	147	1	233645 80616
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	233662 80872
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	233662 80872
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	1	233673 80778
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	115	1	233782 81021
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	215	1	233547 80576
	Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (SE)	247	1	233830 80571
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	233662 80872
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SW (S)	147	1	233645 80616
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	233662 80872
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	1	233673 80778
	Radon Potential - Radon Affected Areas Affected Area: The property is in an Intermediate probability radon area (5 to 10% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	0	1	233662 80923
	Radon Potential - Radon Affected Areas Affected Area: The property is an Intermediate probability radon area (3 to 5% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	233662 80872
	Radon Potential - Radon Affected Areas Affected Area: The property is in an Intermediate probability radon area (1 to 3% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	0	1	233697 80872
	Radon Potential - Radon Protection Measures Protection Measure: Basic radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NW (N)	0	1	233662 80923
	Radon Potential - Radon Protection Measures Protection Measure: Basic radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13SW (E)	0	1	233662 80872
	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	A13SE (E)	0	1	233697 80872

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
67	**Points of Interest - Public Infrastructure** Name: Weir Location: PL15 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	803	7	234501 80781
67	**Points of Interest - Public Infrastructure** Name: Sluice Location: PL15 Category: Water Class Code: Weirs, Sluices and Dams Positional Accuracy: Positioned to an adjacent address or location	A14SE (E)	830	7	234529 80788
68	**Points of Interest - Public Infrastructure** Name: Slurry Pit Location: PL15 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to address or location	A7SE (SW)	853	7	233052 80166

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
North Cornwall District Council (now part of Cornwall Council) - Environmental Health Department	August 2009	Not Applicable
West Devon Borough Council - Environmental Health Department	December 2014	Annual Rolling Update
Torridge District Council - Environmental Health Department	January 2015	Annual Rolling Update
Caradon District Council (now part of Cornwall Council) - Environmental Health Department	November 2008	Not Applicable
Cornwall Council - Environmental Health Department	October 2017	Annually
Discharge Consents		
Environment Agency - South West Region	April 2019	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - South West Region	March 2013	Annual Rolling Update
Integrated Pollution Controls		
Environment Agency - South West Region	October 2008	Variable
Integrated Pollution Prevention And Control		
Environment Agency - South West Region	April 2019	Quarterly
Local Authority Integrated Pollution Prevention And Control		
West Devon Borough Council - Environmental Health Department	April 2014	Variable
North Cornwall District Council (now part of Cornwall Council) - Environmental Health Department	December 2008	Not Applicable
Caradon District Council (now part of Cornwall Council) - Environmental Health Department	March 2008	Not Applicable
Torridge District Council - Environmental Health Department	October 2014	Variable
Cornwall Council - Environmental Health Department	September 2014	Variable
Local Authority Pollution Prevention and Controls		
West Devon Borough Council - Environmental Health Department	April 2014	Annual Rolling Update
North Cornwall District Council (now part of Cornwall Council) - Environmental Health Department	December 2008	Not Applicable
Caradon District Council (now part of Cornwall Council) - Environmental Health Department	March 2008	Not Applicable
Torridge District Council - Environmental Health Department	October 2014	Annual Rolling Update
Cornwall Council - Environmental Health Department	September 2014	Annually
Local Authority Pollution Prevention and Control Enforcements		
West Devon Borough Council - Environmental Health Department	April 2014	Variable
North Cornwall District Council (now part of Cornwall Council) - Environmental Health Department	December 2008	Not Applicable
Caradon District Council (now part of Cornwall Council) - Environmental Health Department	March 2008	Not Applicable
Torridge District Council - Environmental Health Department	October 2014	Variable
Cornwall Council - Environmental Health Department	September 2014	Variable
Nearest Surface Water Feature		
Ordnance Survey	January 2019	
Pollution Incidents to Controlled Waters		
Environment Agency - South West Region	September 1999	Not Applicable
Prosecutions Relating to Authorised Processes		
Environment Agency - South West Region	March 2013	Annual Rolling Update
Prosecutions Relating to Controlled Waters		
Environment Agency - South West Region	March 2013	Annual Rolling Update
Registered Radioactive Substances		
Environment Agency - South West Region	June 2016	
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points		
Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points		
Environment Agency - Head Office	July 2012	Annually

Data Currency

Agency & Hydrological	Version	Update Cycle
Substantiated Pollution Incident Register		
Environment Agency - South West Region - Cornwall Area	April 2019	Quarterly
Environment Agency - South West Region - Devon Area	April 2019	Quarterly
Environment Agency - South West Region - Devon and Cornwall Area	April 2019	Quarterly
Water Abstractions		
Environment Agency - South West Region	July 2019	Quarterly
Water Industry Act Referrals		
Environment Agency - South West Region	October 2017	Quarterly
Groundwater Vulnerability Map		
Environment Agency - Head Office	June 2018	Annually
Groundwater Vulnerability - Soluble Rock Risk		
Environment Agency - Head Office	June 2018	Annually
Bedrock Aquifer Designations		
Environment Agency - Head Office	January 2018	Annually
Superficial Aquifer Designations		
Environment Agency - Head Office	January 2018	Annually
Source Protection Zones		
Environment Agency - Head Office	July 2019	Quarterly
Extreme Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	May 2019	Quarterly
Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	May 2019	Quarterly
Areas Benefiting from Flood Defences		
Environment Agency - Head Office	May 2019	Quarterly
Flood Water Storage Areas		
Environment Agency - Head Office	May 2019	Quarterly
Flood Defences		
Environment Agency - Head Office	May 2019	Quarterly
OS Water Network Lines		
Ordnance Survey	April 2019	Quarterly
Surface Water 1 in 30 year Flood Extent		
Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 100 year Flood Extent		
Environment Agency - Head Office	October 2013	Annually
Surface Water 1 in 1000 year Flood Extent		
Environment Agency - Head Office	October 2013	Annually
Surface Water Suitability		
Environment Agency - Head Office	October 2013	Annually
BGS Groundwater Flooding Susceptibility		
British Geological Survey - National Geoscience Information Service	May 2013	Annually

Waste	Version	Update Cycle
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites		
Environment Agency - Head Office	July 2019	Quarterly
Integrated Pollution Control Registered Waste Sites		
Environment Agency - South West Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency - South West Region - Cornwall Area	July 2018	Quarterly
Environment Agency - South West Region - Devon Area	July 2018	Quarterly
Environment Agency - South West Region - Devon and Cornwall Area	July 2018	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency - South West Region - Cornwall Area	April 2019	Quarterly
Environment Agency - South West Region - Devon Area	April 2019	Quarterly
Environment Agency - South West Region - Devon and Cornwall Area	April 2019	Quarterly
Local Authority Landfill Coverage		
Caradon District Council (now part of Cornwall Council)	May 2000	Not Applicable
Cornwall County Council (now part of Cornwall Council)	May 2000	Not Applicable
Devon County Council	May 2000	Not Applicable
North Cornwall District Council (now part of Cornwall Council)	May 2000	Not Applicable
Torridge District Council - Environmental Health Department	May 2000	Not Applicable
West Devon Borough Council - Environmental Health Department	May 2000	Not Applicable
Local Authority Recorded Landfill Sites		
Caradon District Council (now part of Cornwall Council)	May 2000	Not Applicable
Cornwall County Council (now part of Cornwall Council)	May 2000	Not Applicable
Devon County Council	May 2000	Not Applicable
North Cornwall District Council (now part of Cornwall Council)	May 2000	Not Applicable
Torridge District Council - Environmental Health Department	May 2000	Not Applicable
West Devon Borough Council - Environmental Health Department	May 2000	Not Applicable
Potentially Infilled Land (Non-Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Potentially Infilled Land (Water)		
Landmark Information Group Limited	December 1999	Not Applicable
Registered Landfill Sites		
Environment Agency - South West Region - Cornwall Area	March 2003	Not Applicable
Environment Agency - South West Region - Devon Area	March 2003	Not Applicable
Environment Agency - South West Region - Devon and Cornwall Area	March 2003	Not Applicable
Registered Waste Transfer Sites		
Environment Agency - South West Region - Cornwall Area	March 2003	Not Applicable
Environment Agency - South West Region - Devon Area	March 2003	Not Applicable
Environment Agency - South West Region - Devon and Cornwall Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites		
Environment Agency - South West Region - Cornwall Area	March 2003	Not Applicable
Environment Agency - South West Region - Devon Area	March 2003	Not Applicable
Environment Agency - South West Region - Devon and Cornwall Area	March 2003	Not Applicable

Hazardous Substances	Version	Update Cycle
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	April 2018	Bi-Annually
Explosive Sites		
Health and Safety Executive	March 2017	Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements		
Torridge District Council - Planning and Technical Services	February 2016	Variable
West Devon Borough Council - Planning and Development	February 2016	Variable
Cornwall County Council (now part of Cornwall Council)	January 2009	Annual Rolling Update
North Cornwall District Council (now part of Cornwall Council) - Planning Department	January 2009	Not Applicable
Caradon District Council (now part of Cornwall Council) - Planning Department	March 2009	Not Applicable
Cornwall Council - Planning Department	May 2016	Variable
Devon County Council	September 2008	Annual Rolling Update
Planning Hazardous Substance Consents		
Torridge District Council - Planning and Technical Services	February 2016	Variable
West Devon Borough Council - Planning and Development	February 2016	Variable
Cornwall County Council (now part of Cornwall Council)	January 2009	Annual Rolling Update
North Cornwall District Council (now part of Cornwall Council) - Planning Department	January 2009	Not Applicable
Caradon District Council (now part of Cornwall Council) - Planning Department	March 2009	Not Applicable
Cornwall Council - Planning Department	May 2016	Variable
Devon County Council	September 2008	Annual Rolling Update

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	October 2015	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2019	Bi-Annually
CBSCB Compensation District Cheshire Brine Subsidence Compensation Board (CBSCB)	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	Annual Rolling Update
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	January 2019	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	Annually
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	Annually
Industrial Land Use	**Version**	**Update Cycle**
Contemporary Trade Directory Entries Thomson Directories	April 2019	Quarterly
Fuel Station Entries Catalist Ltd - Experian	May 2019	Quarterly
Gas Pipelines National Grid	July 2014	
Points of Interest - Commercial Services PointX	July 2019	Quarterly
Points of Interest - Education and Health PointX	July 2019	Quarterly
Points of Interest - Manufacturing and Production PointX	July 2019	Quarterly
Points of Interest - Public Infrastructure PointX	July 2019	Quarterly
Points of Interest - Recreational and Environmental PointX	July 2019	Quarterly
Underground Electrical Cables National Grid	December 2015	

Sensitive Land Use	Version	Update Cycle
Ancient Woodland Natural England	August 2018	Bi-Annually
Areas of Outstanding Natural Beauty Natural England	June 2019	Bi-Annually
Environmentally Sensitive Areas Natural England	January 2017	
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	March 2019	Bi-Annually
Marine Nature Reserves Natural England	July 2019	Bi-Annually
National Nature Reserves Natural England	July 2019	Bi-Annually
National Parks Natural England	April 2017	Bi-Annually
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	October 2015	
Ramsar Sites Natural England	April 2019	Bi-Annually
Sites of Special Scientific Interest Natural England	March 2019	Bi-Annually
Special Areas of Conservation Natural England	June 2019	Bi-Annually
Special Protection Areas Natural England	April 2019	Bi-Annually

Data Suppliers

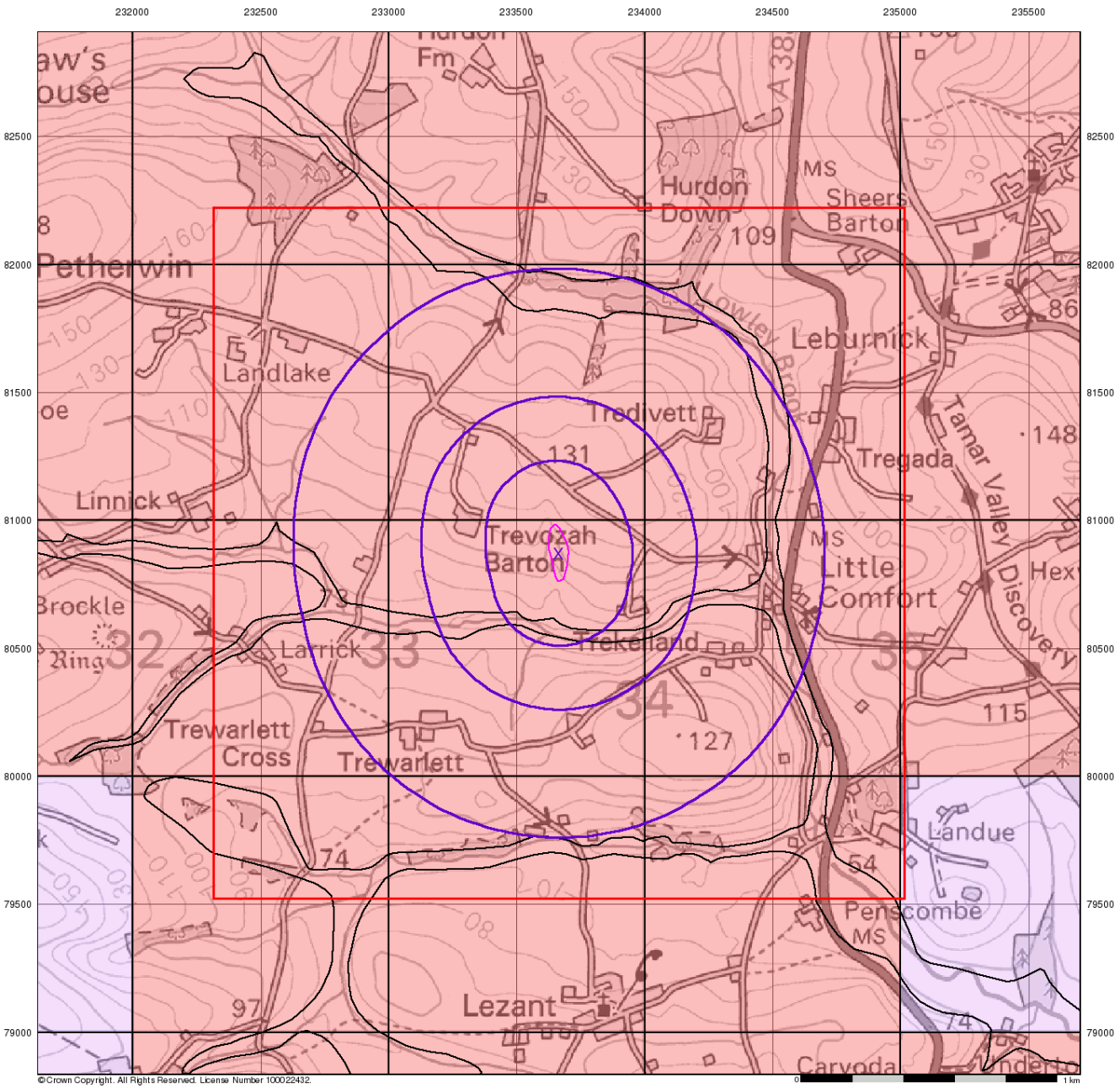
A selection of organisations who provide data within this report

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

Useful Contacts

Contact	Name and Address	Contact Details
1	**British Geological Survey - Enquiry Service** British Geological Survey, Environmental Science Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
2	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	**Environment Agency - Head Office** Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
4	**Ordnance Survey** Adanac Drive, Southampton, Hampshire, SO16 0AS	Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk
5	**North Cornwall District Council (now part of Cornwall Council)** County Hall, Treyew Road, Truro, Cornwall, TR1 3AY	Telephone: 0300 1234 100 Email: enquiries@cornwall.gov.uk Website: www.cornwall.gov.uk
6	**Cornwall County Council (now part of Cornwall Council)** County Hall, Treyew Road, Truro, Cornwall, TR1 3AY	Telephone: 0300 1234 100 Email: enquiries@cornwall.gov.uk Website: www.cornwall.gov.uk
7	**PointX** 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY	Website: www.pointx.co.uk
8	**Natural England** County Hall, Spetchley Road, Worcester, WR5 2NP	Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
-	**Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards** Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	**Landmark Information Group Limited** Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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



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Groundwater Vulnerability

General

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

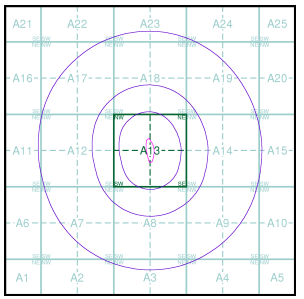
Agency and Hydrological

Bedrock Aquifers	Superficial Aquifers
High Vulnerability, Principal Aquifer	High Vulnerability, Principal Aquifer
High Vulnerability, Secondary Aquifer	High Vulnerability, Secondary Aquifer
Medium Vulnerability, Principal Aquifer	Medium Vulnerability, Principal Aquifer
Medium Vulnerability, Secondary Aquifer	Medium Vulnerability, Secondary Aquifer
Low Vulnerability, Principal Aquifer	Low Vulnerability, Principal Aquifer
Low Vulnerability, Secondary Aquifer	Low Vulnerability, Secondary Aquifer

Unproductive Aquifer

Soluble Rock

Site Sensitivity Context Map - Slice A



Order Details

Order Number:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	1000

Site Details

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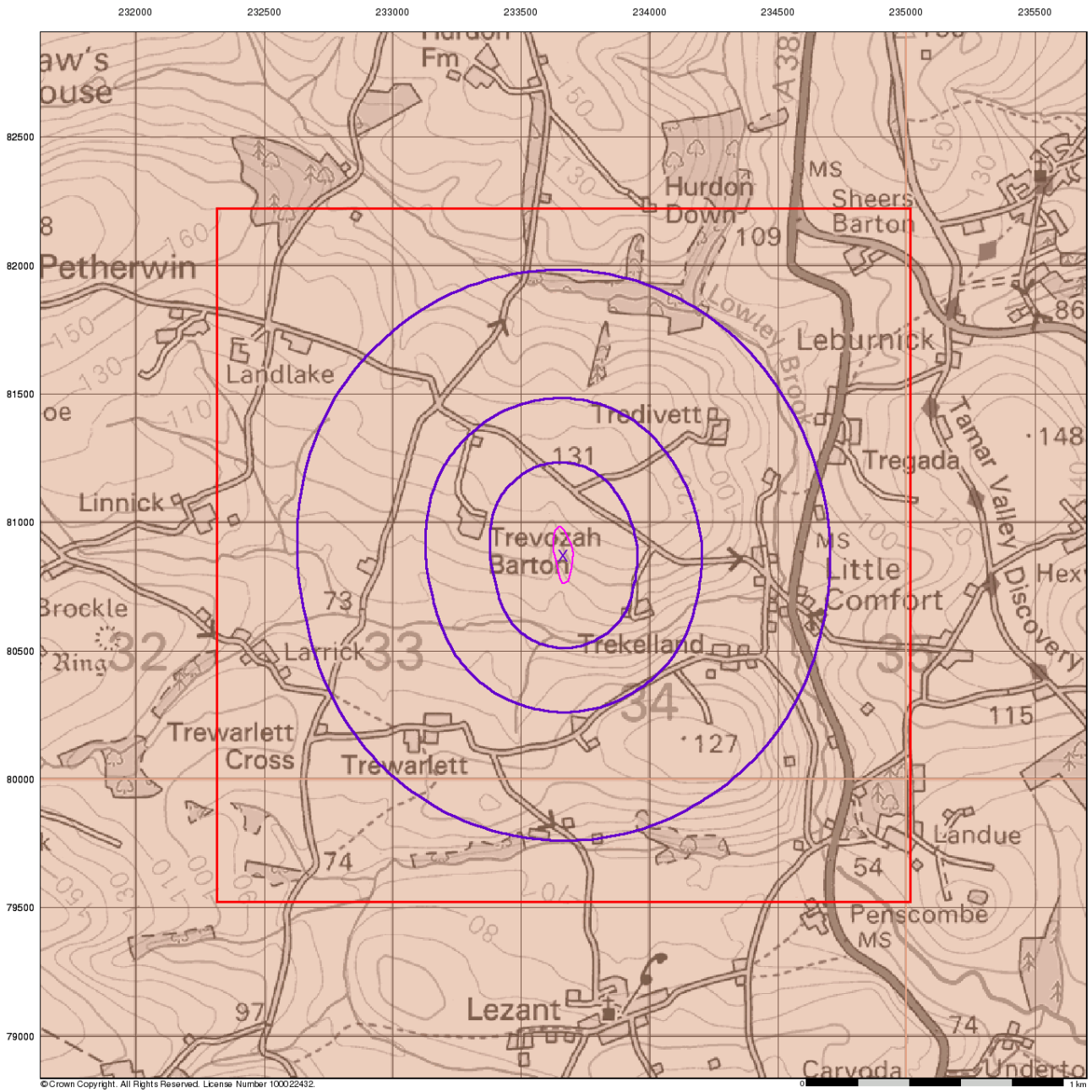

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Bedrock Aquifer Designation

General

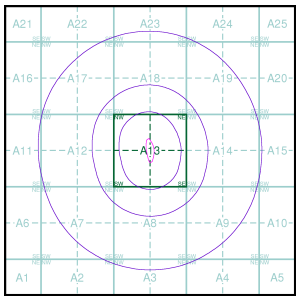
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

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:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	1000

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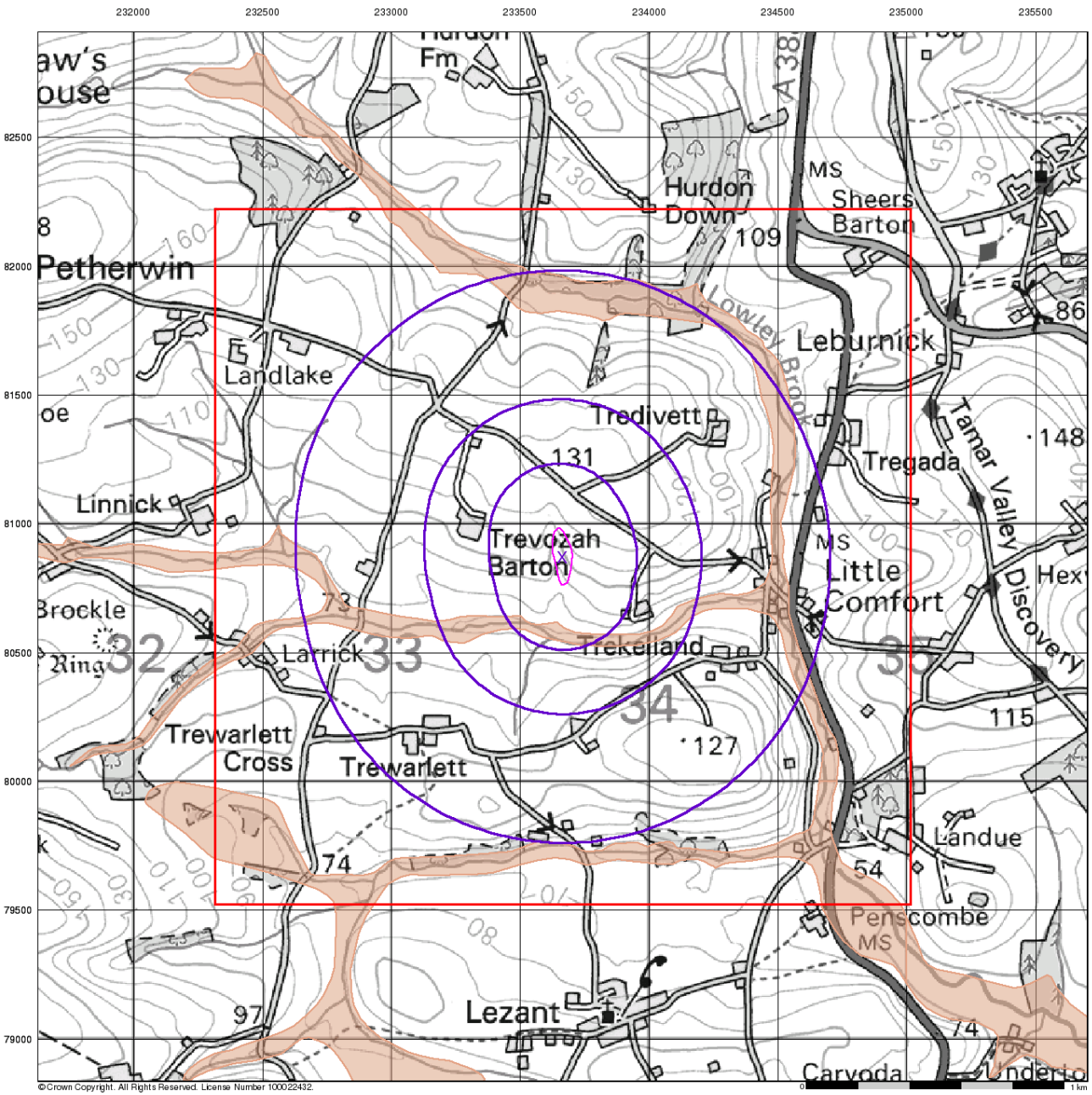

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Superficial Aquifer Designation

General

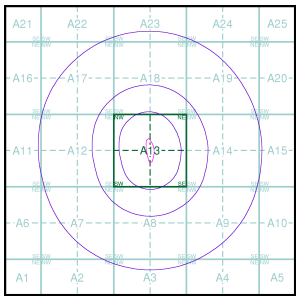
Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice | Map ID

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:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	1000

Site Details

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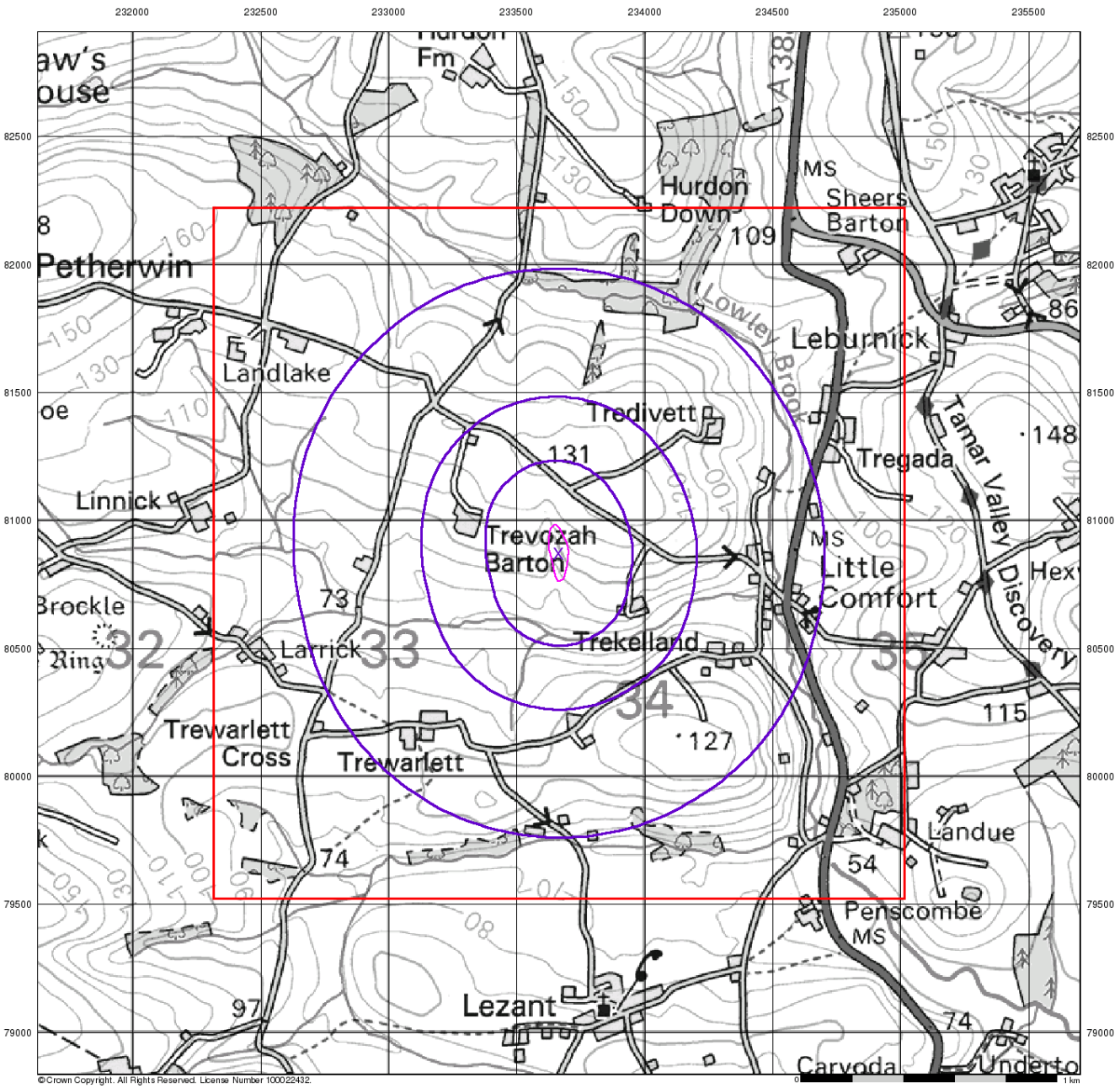

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Source Protection Zones

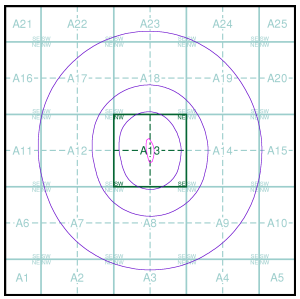
General

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

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)

Site Sensitivity Context Map - Slice A



Order Details

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Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	1000

Site Details

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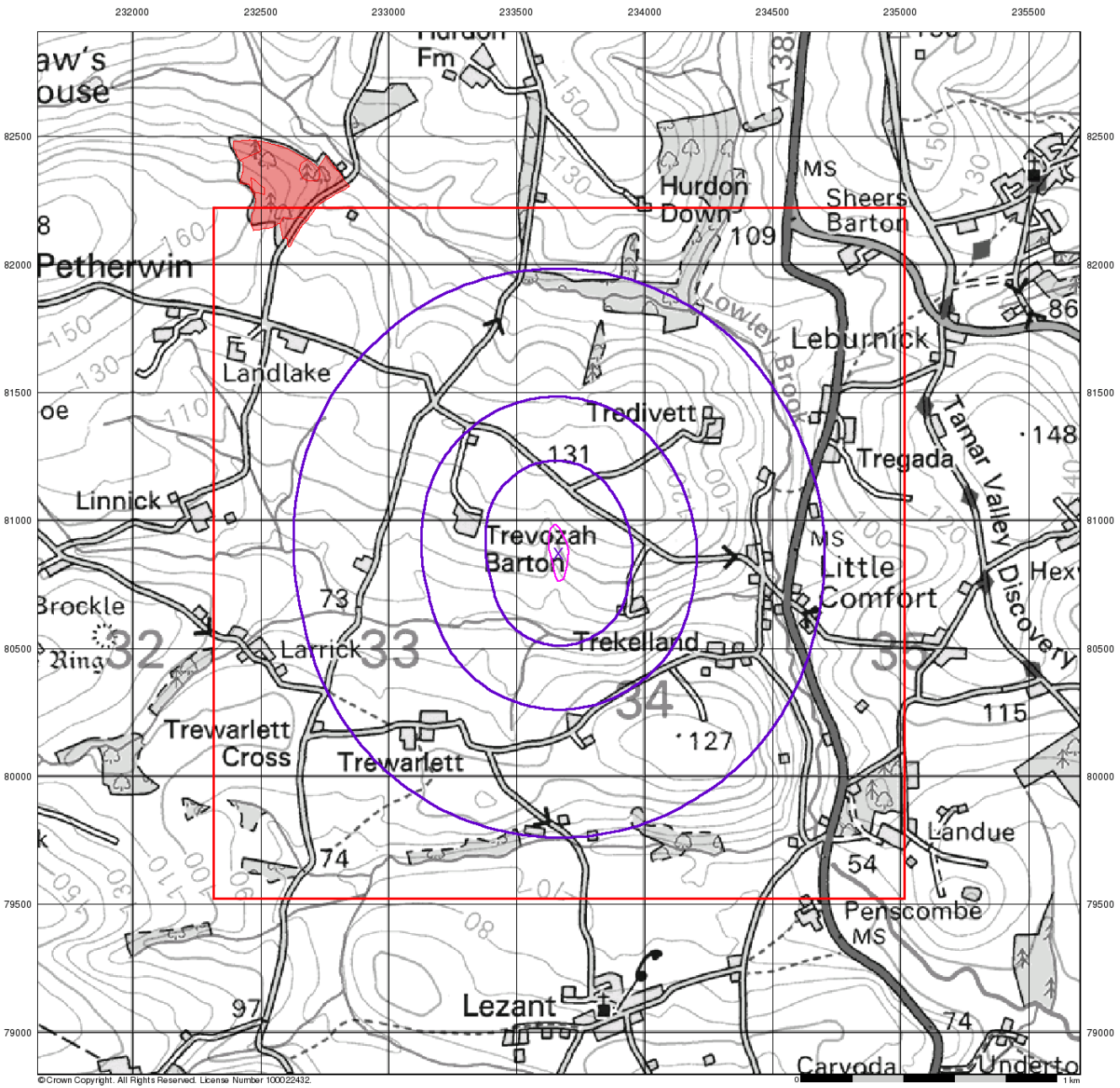

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Sensitive Land Uses

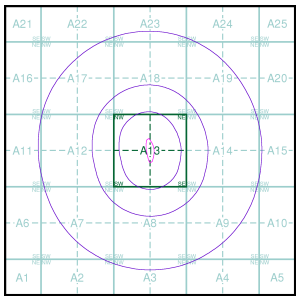
General

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

Sensitive Land Uses

- Ancient Woodland
- Area of Adopted Green Belt
- Area of Unadopted Green Belt
- Area of Outstanding Natural Beauty
- Environmentally Sensitive Area
- Forest Park
- Local Nature Reserve
- Marine Nature Reserve
- National Nature Reserve
- National Park
- Nitrate Sensitive Area
- Nitrate Vulnerable Zone
- Ramsar Site
- Site of Special Scientific Interest
- Special Area of Conservation
- Special Protection Area
- World Heritage Sites

Site Sensitivity Context Map - Slice A



Order Details

Order Number:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	1000

Site Details

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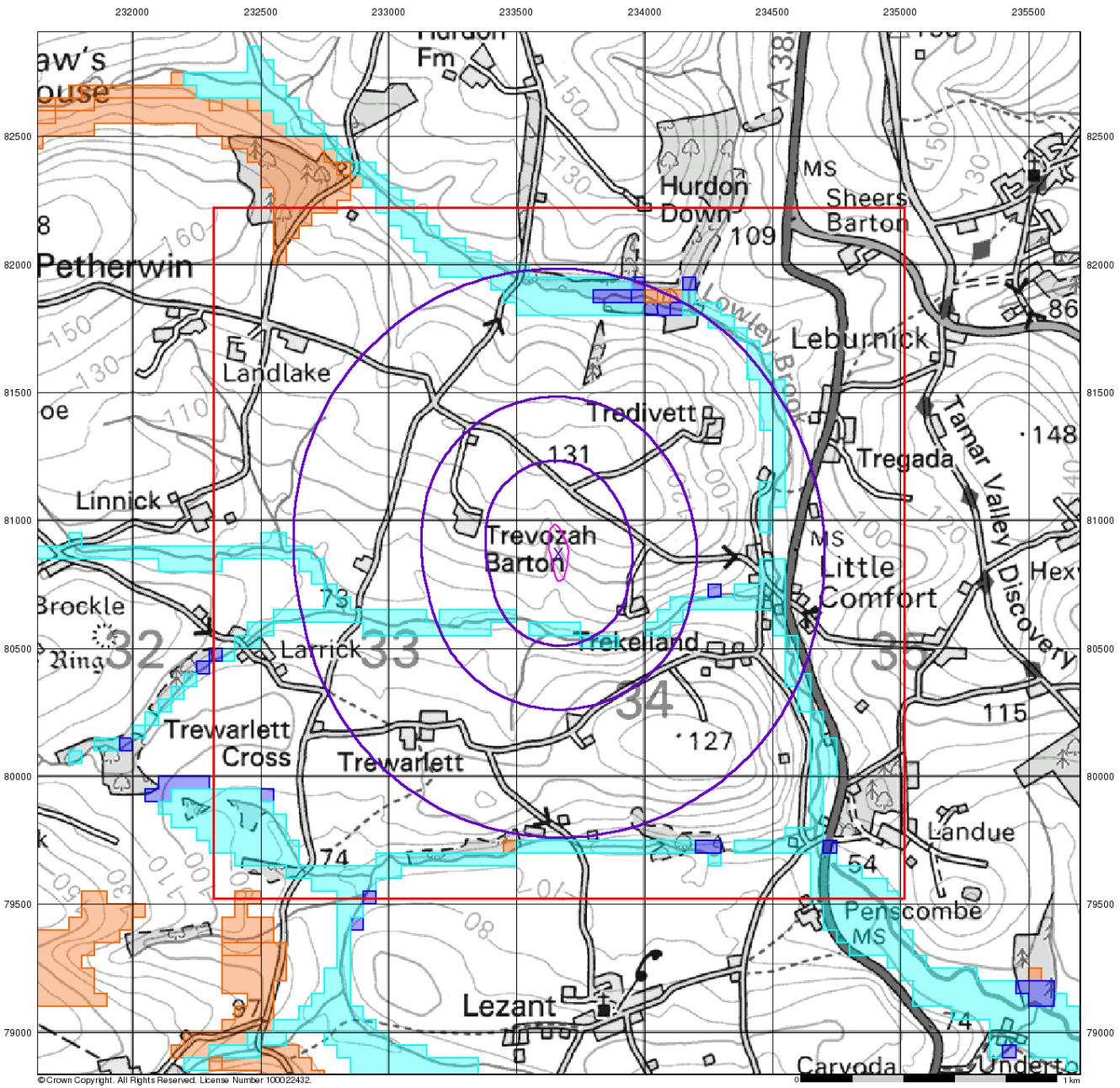

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BGS Flood GFS Data

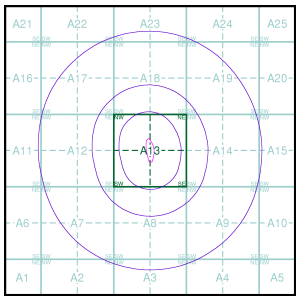
General

Specified Site | Specified Buffer(s) | Bearing Reference Point | Slice

Agency and Hydrological (Flood)

- Limited Potential for Groundwater Flooding to Occur
- Potential for Groundwater Flooding of Property Situated Below Ground Level
- Potential for Groundwater Flooding to Occur at Surface

Site Sensitivity Context Map - Slice A



Order Details

Order Number:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	1000

Site Details

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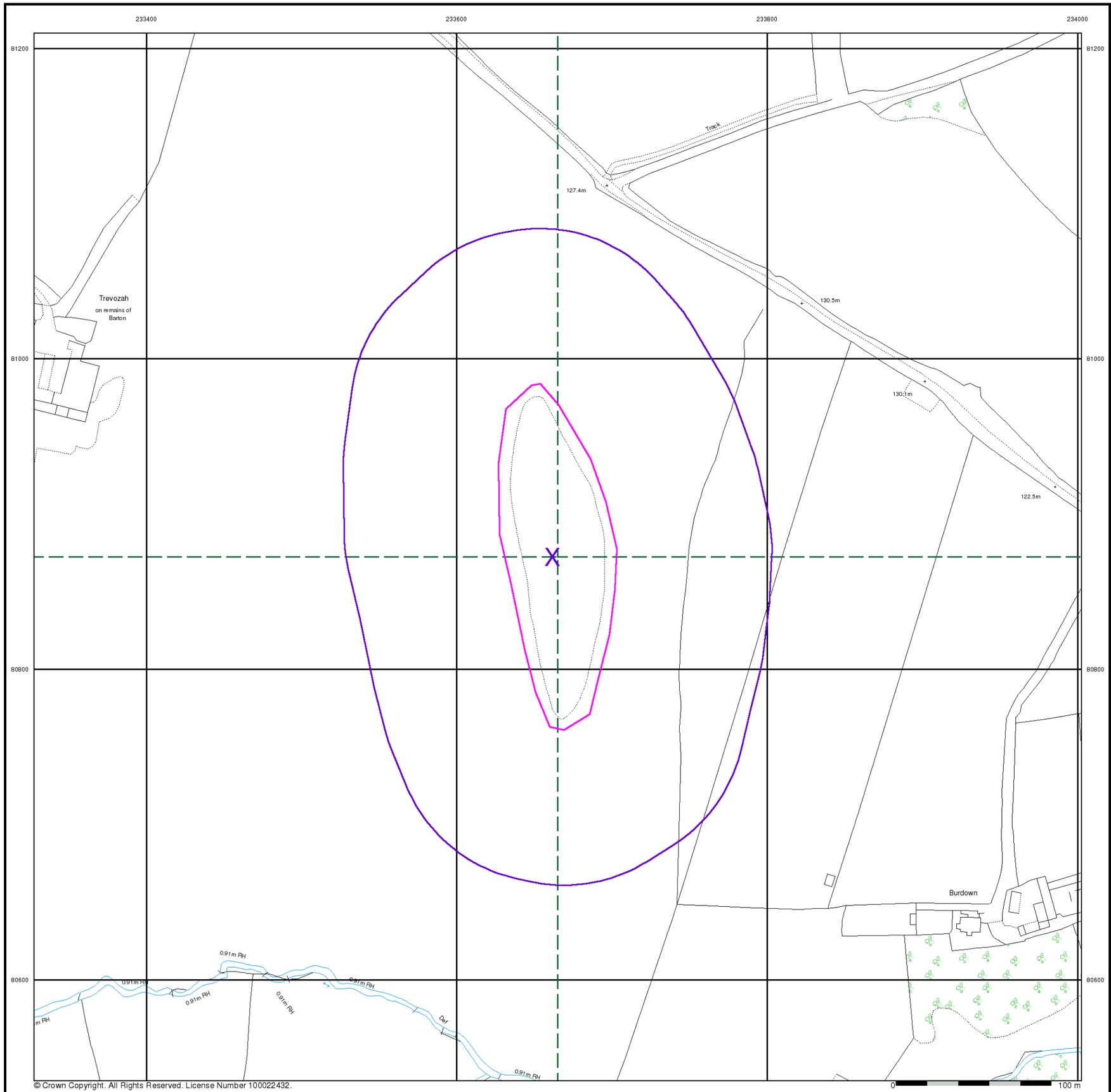

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General

- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Map ID
- Several of Type at Location
- Pylon
- Overhead Transmission Line

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

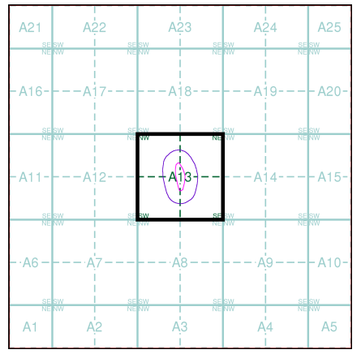
Geological

- BGS Recorded Mineral Site

Waste

- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
- EA Historic Landfill (Buffered Point)
- EA Historic Landfill (Polygon)
- Integrated Pollution Control Registered Waste Site
- Licensed Waste Management Facility (Landfill Boundary)
- Licensed Waste Management Facility (Location)
- Local Authority Recorded Landfill Site (Location)
- Local Authority Recorded Landfill Site
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Site Sensitivity Map - Segment A13



Order Details

Order Number:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Plot Buffer (m):	100

Site Details

Trevozah Barton, LAUNCESTON, PL15 9LT

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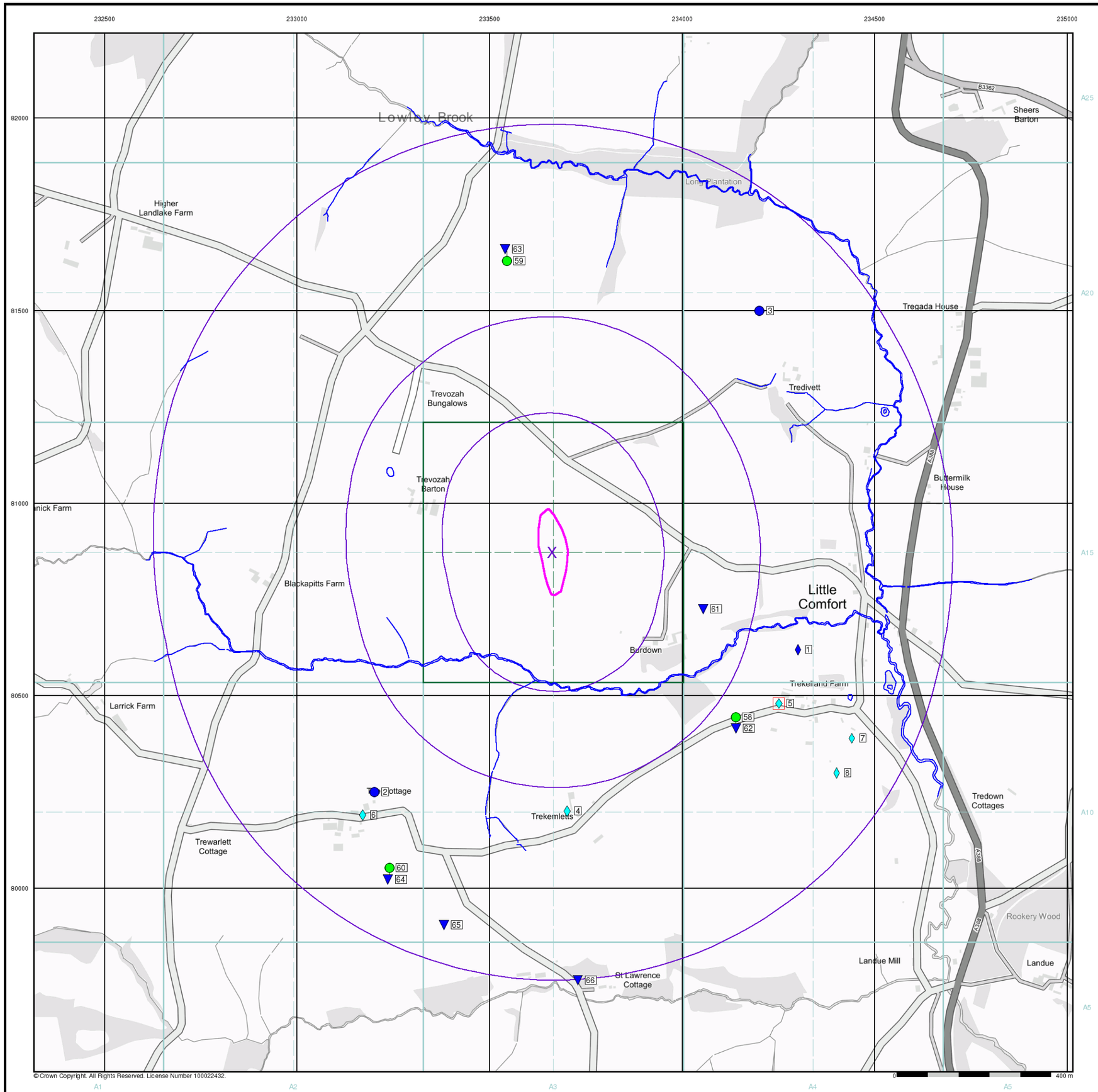

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General

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

Agency and Hydrological

- Contaminated Land Register Entry or Notice (Location)
- Contaminated Land Register Entry or Notice
- Discharge Consent
- Enforcement or Prohibition Notice
- Integrated Pollution Control
- Integrated Pollution Prevention Control
- Local Authority Integrated Pollution Prevention and Control
- Local Authority Pollution Prevention and Control
- Local Authority Pollution Prevention and Control Enforcement
- Pollution Incident to Controlled Waters
- Prosecution Relating to Authorised Processes
- Prosecution Relating to Controlled Waters
- Registered Radioactive Substance
- River Network or Water Feature
- River Quality Sampling Point
- Substantiated Pollution Incident Register
- Water Abstraction
- Water Industry Act Referral

Hazardous Substances

- COMAH Site
- Explosive Site
- NIHHS Site
- Planning Hazardous Substance Consent
- Planning Hazardous Substance Enforcement

Geological

- BGS Recorded Mineral Site

Waste

- BGS Recorded Landfill Site (Location)
- BGS Recorded Landfill Site
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- EA Historic Landfill (Polygon)
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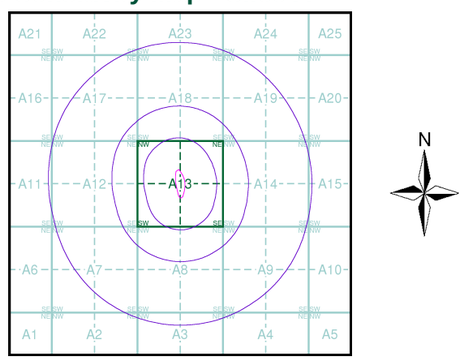
- Potentially Infilled Land (Non-water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Potentially Infilled Land (Water)
- Registered Landfill Site
- Registered Landfill Site (Location)
- Registered Landfill Site (Point Buffered to 100m)
- Registered Landfill Site (Point Buffered to 250m)
- Registered Waste Transfer Site (Location)
- Registered Waste Transfer Site
- Registered Waste Treatment or Disposal Site (Location)
- Registered Waste Treatment or Disposal Site

Site Sensitivity Map - Slice A



Order Details

Order Number:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	1000

Site Details

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Landmark® INFORMATION GROUP

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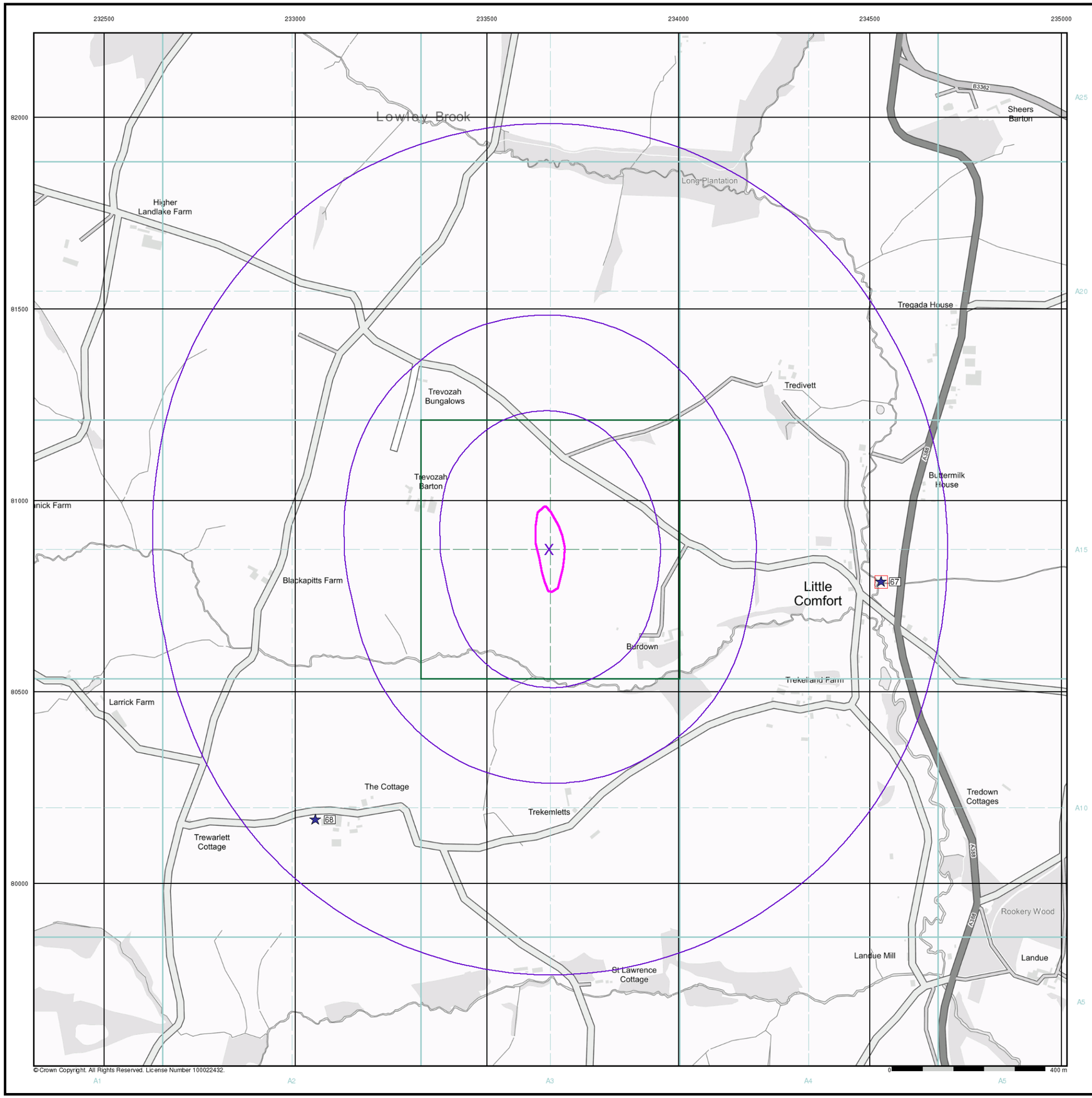

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Industrial Land Use Map

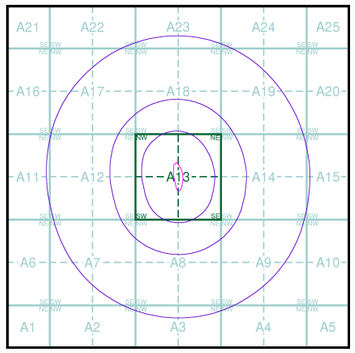
General

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

Industrial Land Use

- Contemporary Trade Directory Entry
- Fuel Station Entry
- Gas Pipeline
- Points of Interest - Commercial Services
- Points of Interest - Education and Health
- Points of Interest - Manufacturing and Production
- Points of Interest - Public Infrastructure
- Points of Interest - Recreational and Environmental
- Underground Electrical Cables

Industrial Land Use Map - Slice A



Order Details

Order Number:	213208610_1_1
Customer Ref:	HCE0312
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Slice:	A
Site Area (Ha):	1.19
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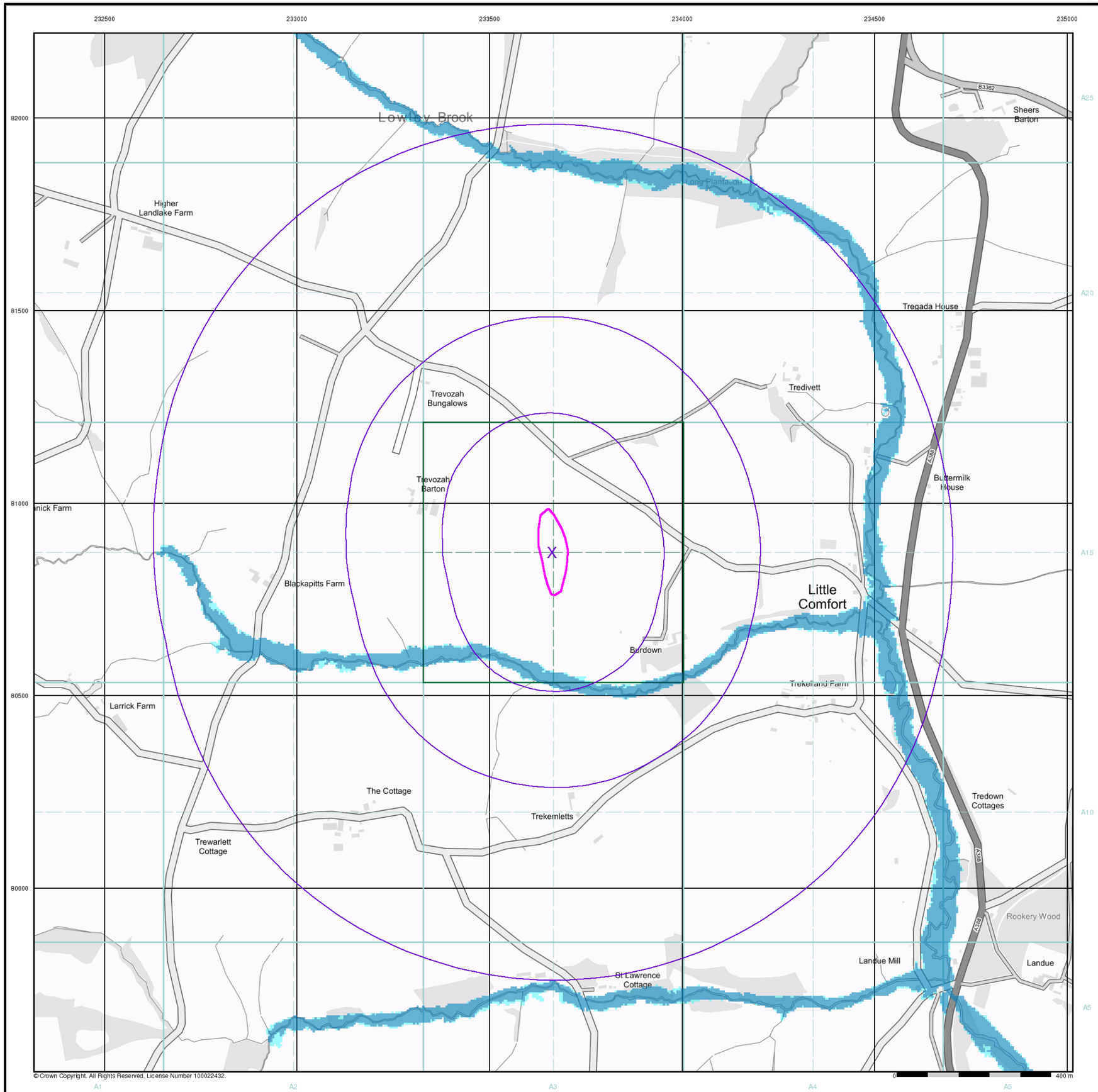

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LANDMARK INFORMATION GROUP®

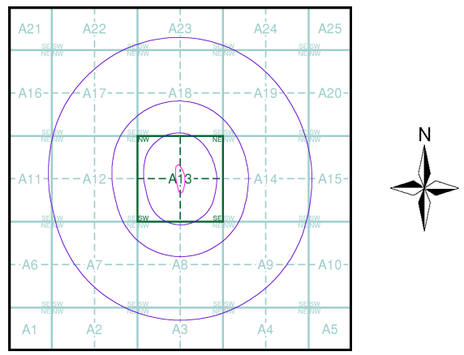
General

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

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A



Order Details

Order Number:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	1000

Site Details

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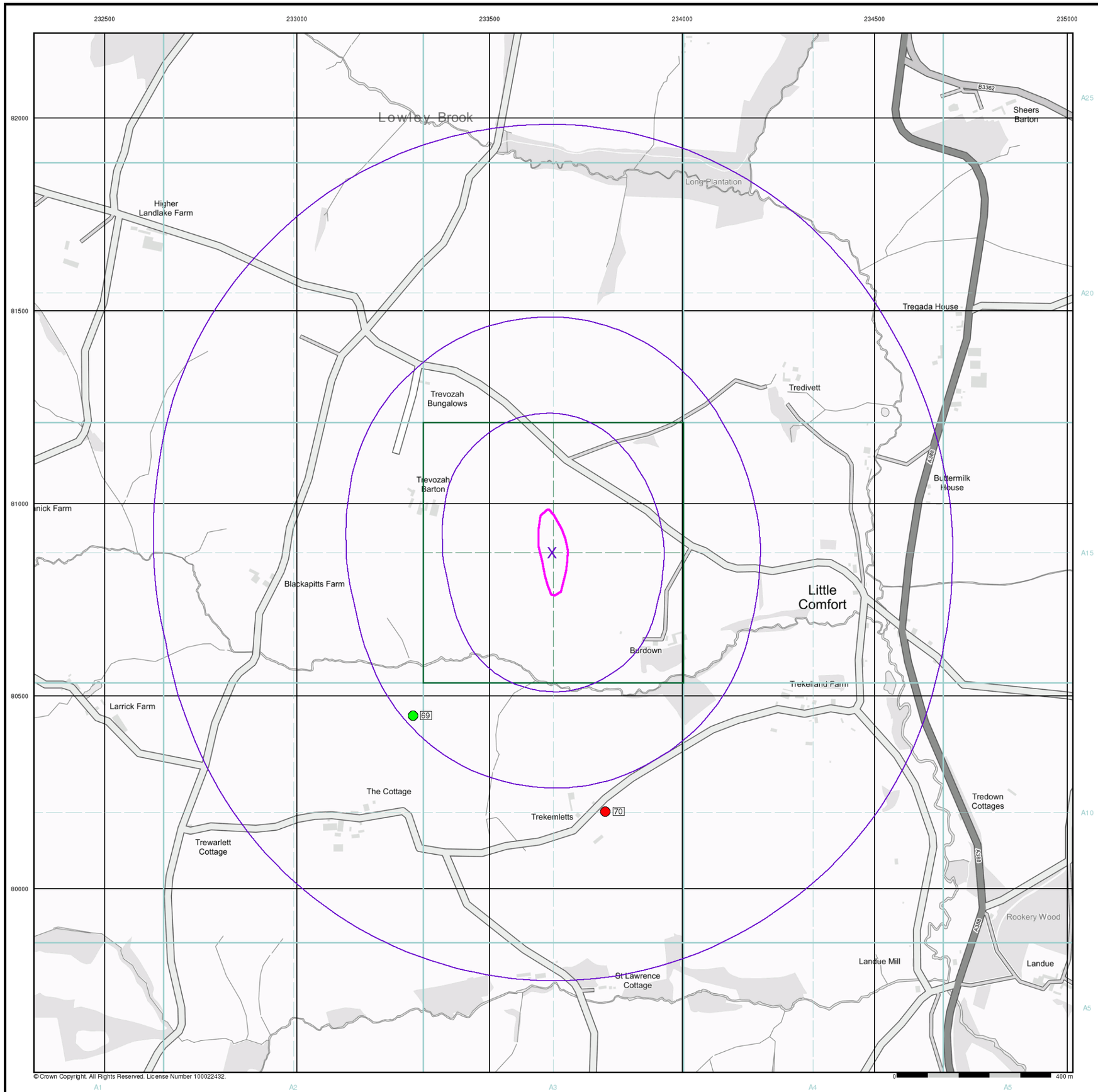

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LANDMARK INFORMATION GROUP®

General

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

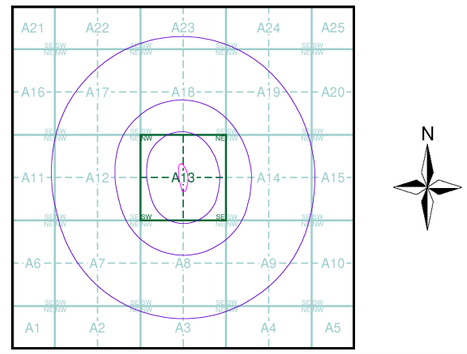
Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

For Borehole information please refer to the Borehole .csv file which accompanied this slice.

A copy of the BGS Borehole Ordering Form is available to download from the Support section of www.envirocheck.co.uk.

Borehole Map - Slice A



Order Details

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Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	1000

Site Details

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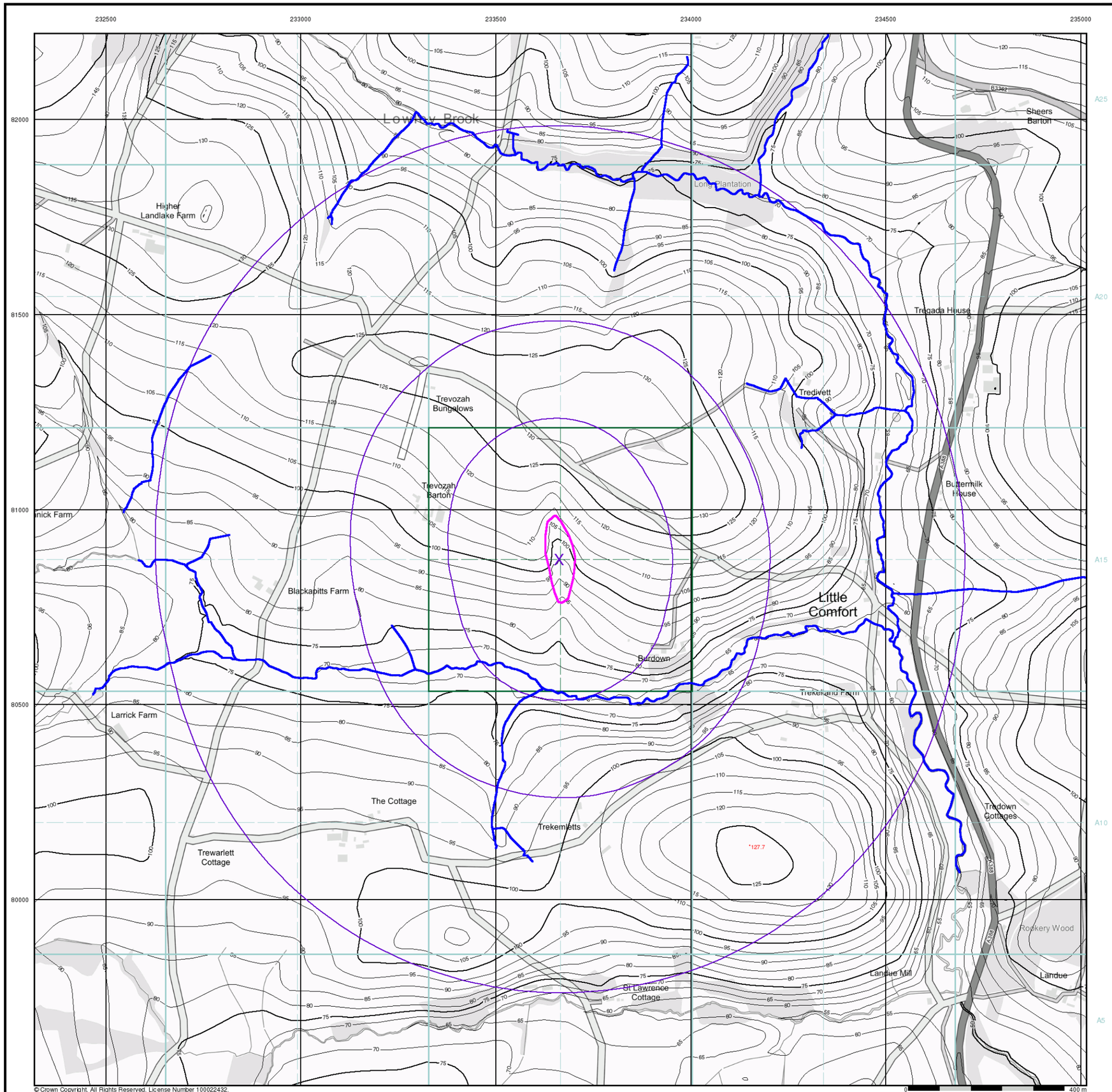

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LANDMARK INFORMATION GROUP®

General

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

OS Water Network Data

- Canal
- Reservoir
- Foreshore
- Marsh
- Tidal River
- Inland River
- Drain
- Other
- Lake
- Transfer
- Lock Or Flight Of Locks
- Sea

Contours (height in meters)

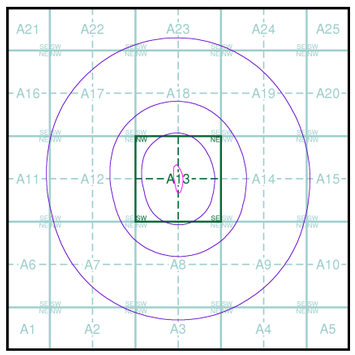
Standard Contour 105 100 95

Master Contour

Spot Height *167.3

- MLW Mean Low Water
- MHW Mean High Water

OS Water Network Map - Slice A



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Order Number:	213208610_1_1
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National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	1000

Site Details

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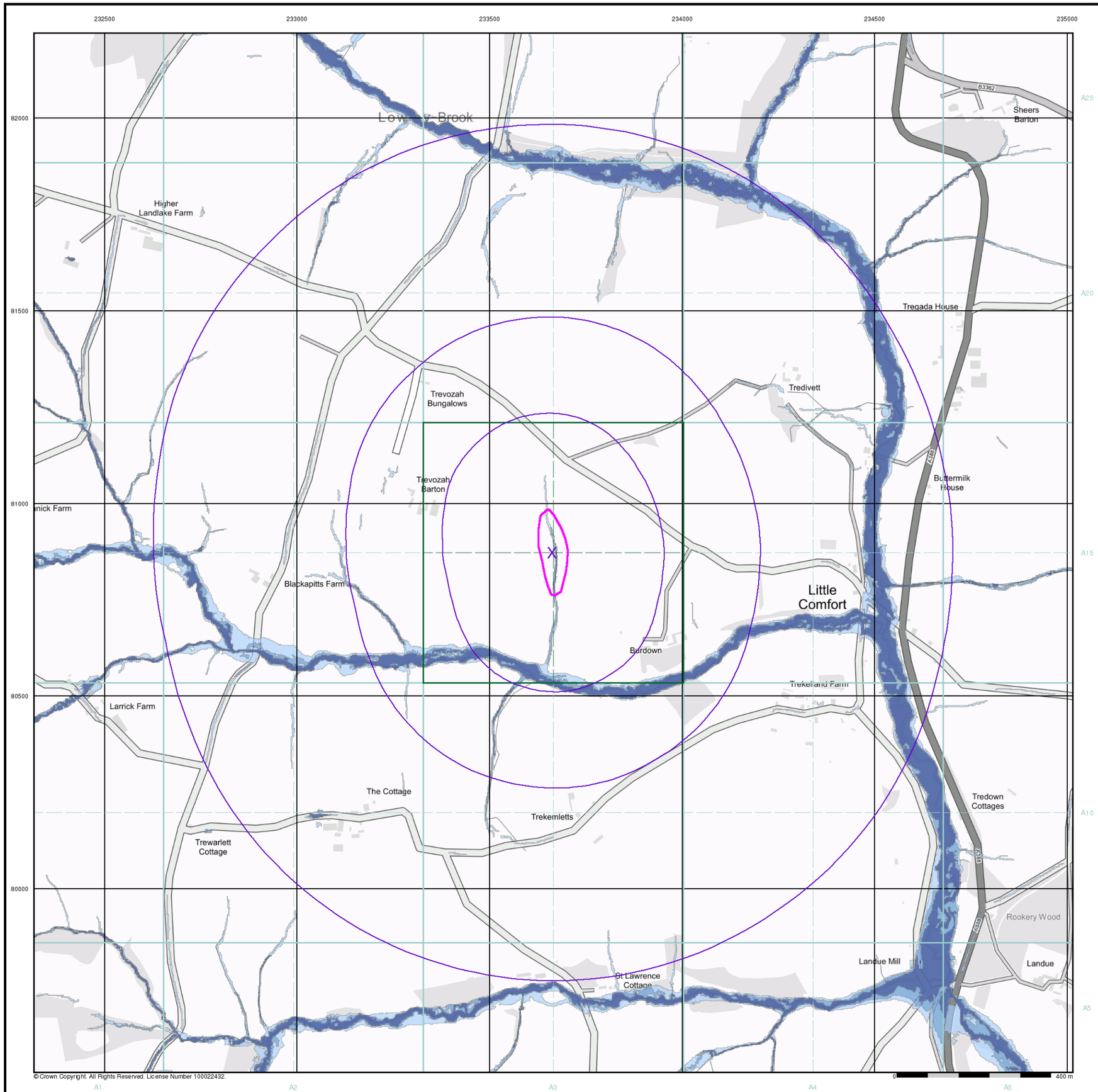

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LANDMARK INFORMATION GROUP®

General

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

Risk of Flooding from Surface Water

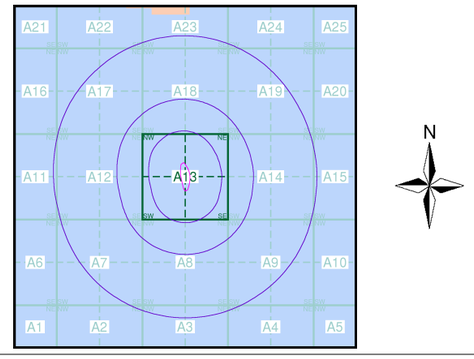
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

See the suitability map below

- National to county
- County to town
- Town to street
- Street to parcels of land
- Property

EA/NRW Suitability Map - Slice A



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Slice:	A
Site Area (Ha):	1.19
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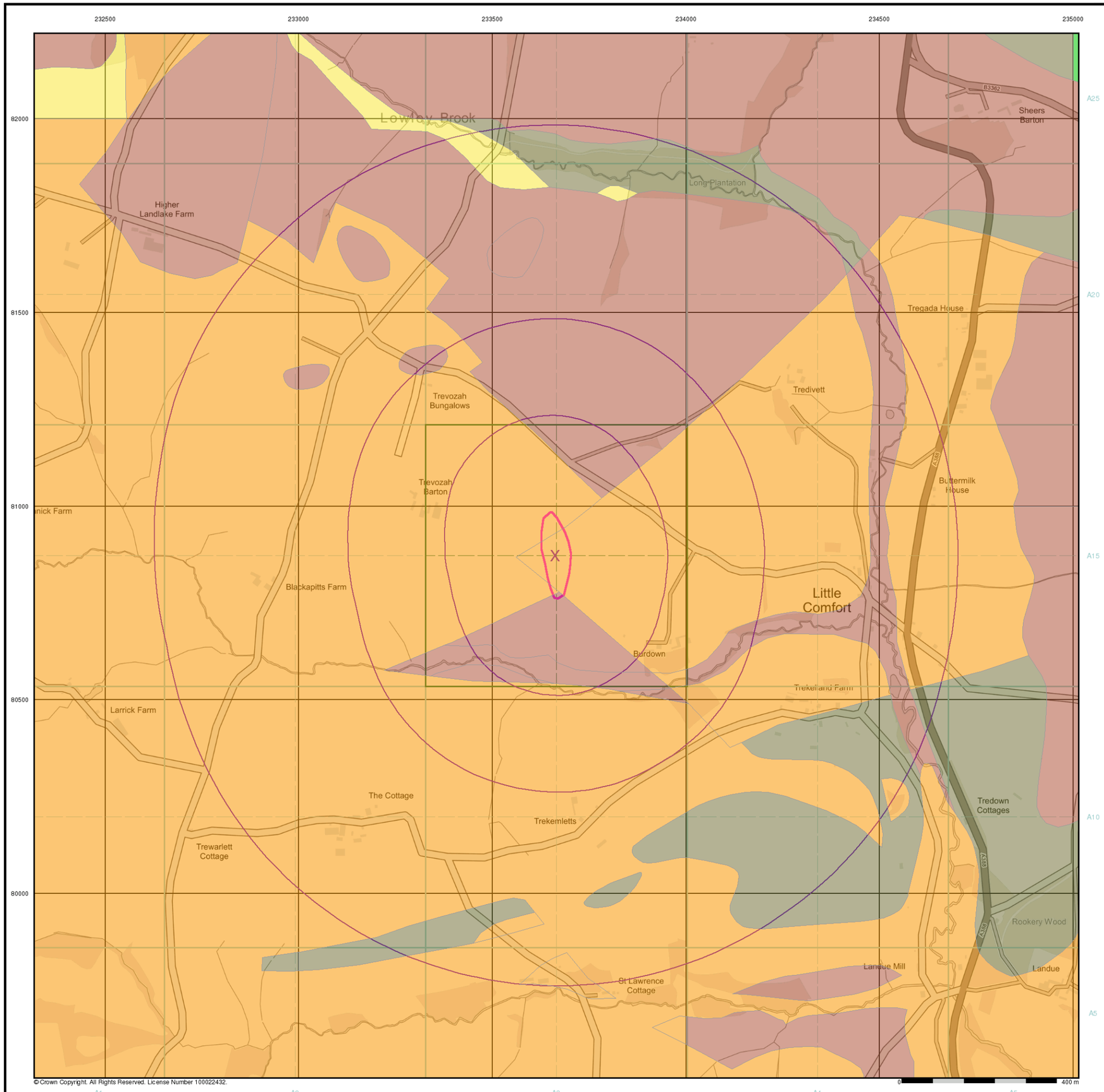


[redacted]

General

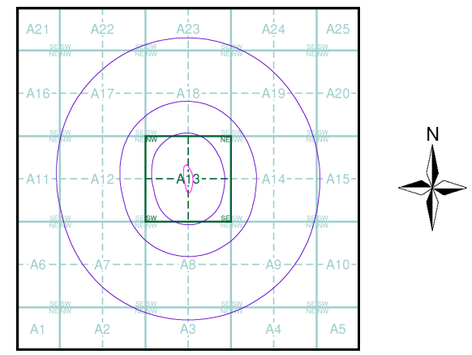
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg

- < 15
- 15 - 25
- 25 - 35
- 35 - 45
- 45 - 60
- 60 - 120
- > 120

Estimated Soil Chemistry Arsenic - Slice A



Order Details

Order Details:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
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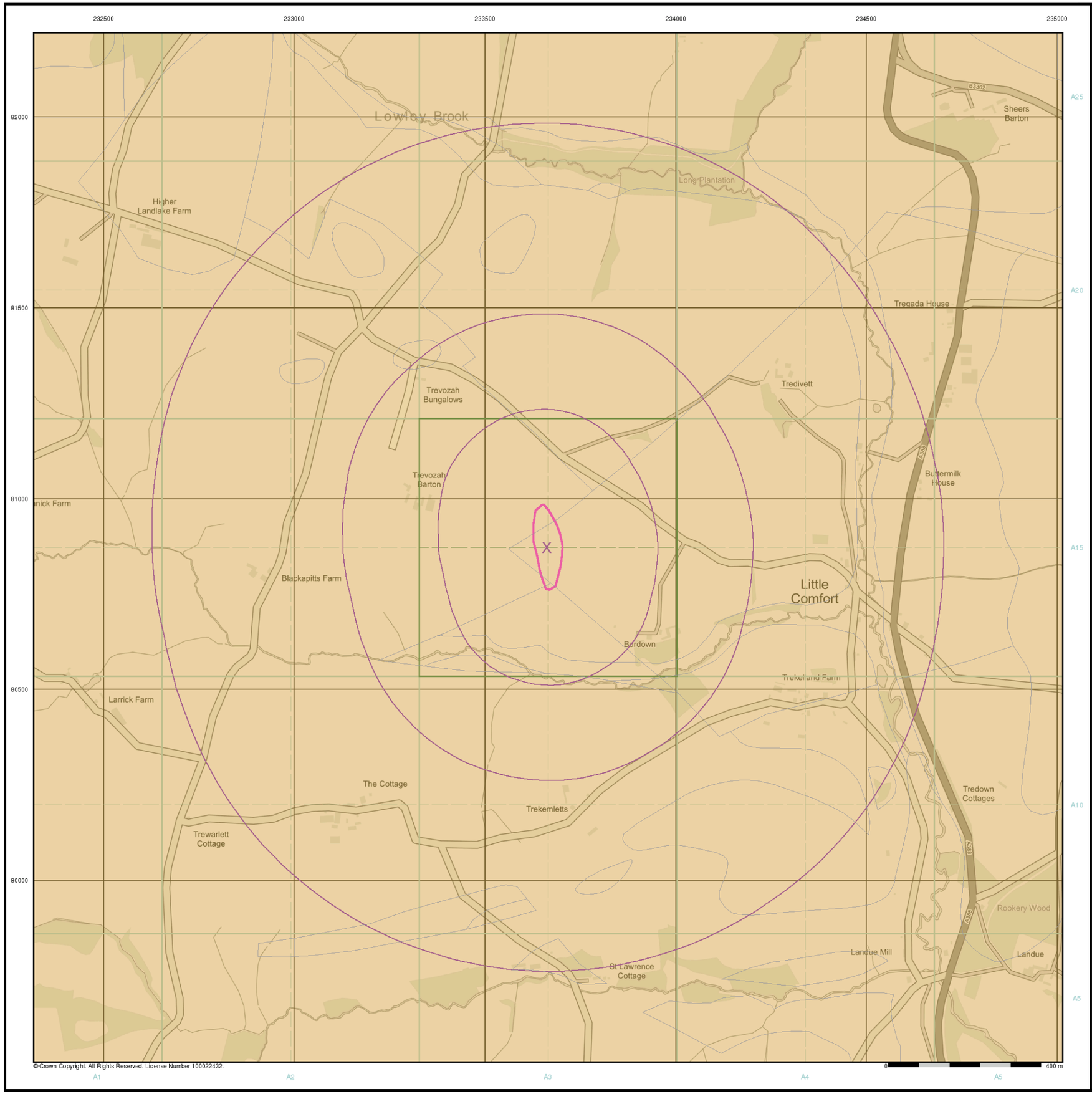


General

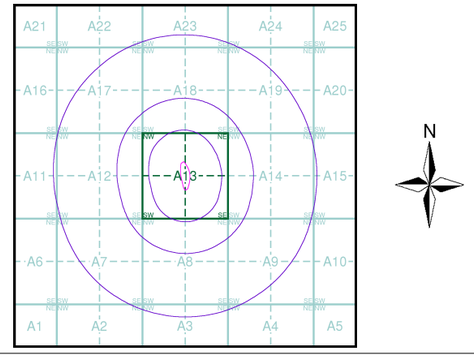
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg

	< 1.8
	1.8 - 2.2
	2.2 - 3.0
	> 3.0

Estimated Soil Chemistry Cadmium - Slice A



Order Details

Order Details:	213208610_1_1
Customer Ref:	HCE0312
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Slice:	A
Site Area (Ha):	1.19
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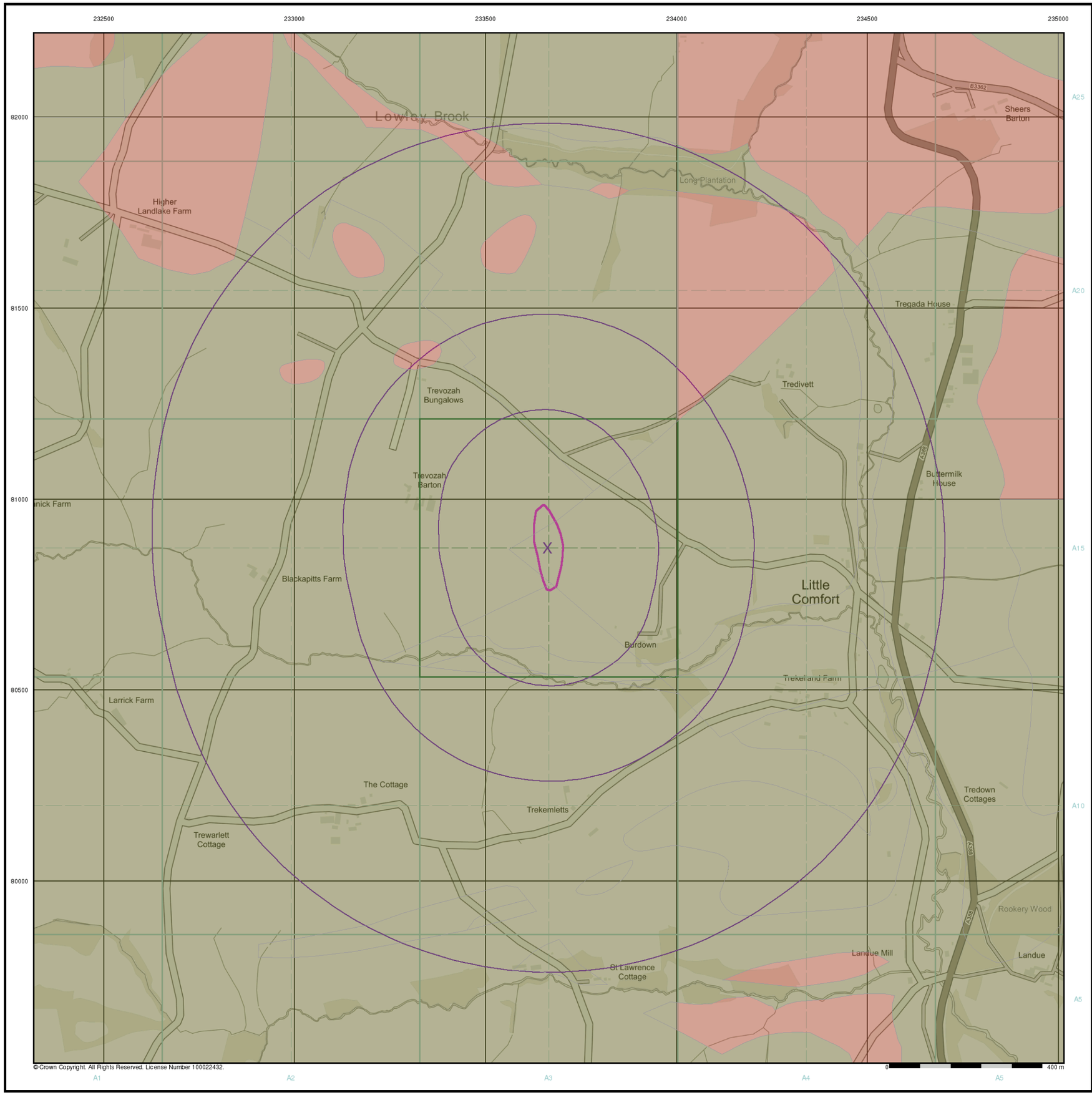


[redacted]

General

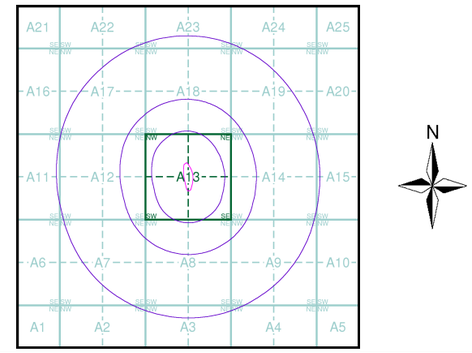
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg

- < 20
- 20 - 40
- 40 - 60
- 60 - 90
- 90 - 120
- 120 - 180
- > 180

Estimated Soil Chemistry Chromium - Slice A



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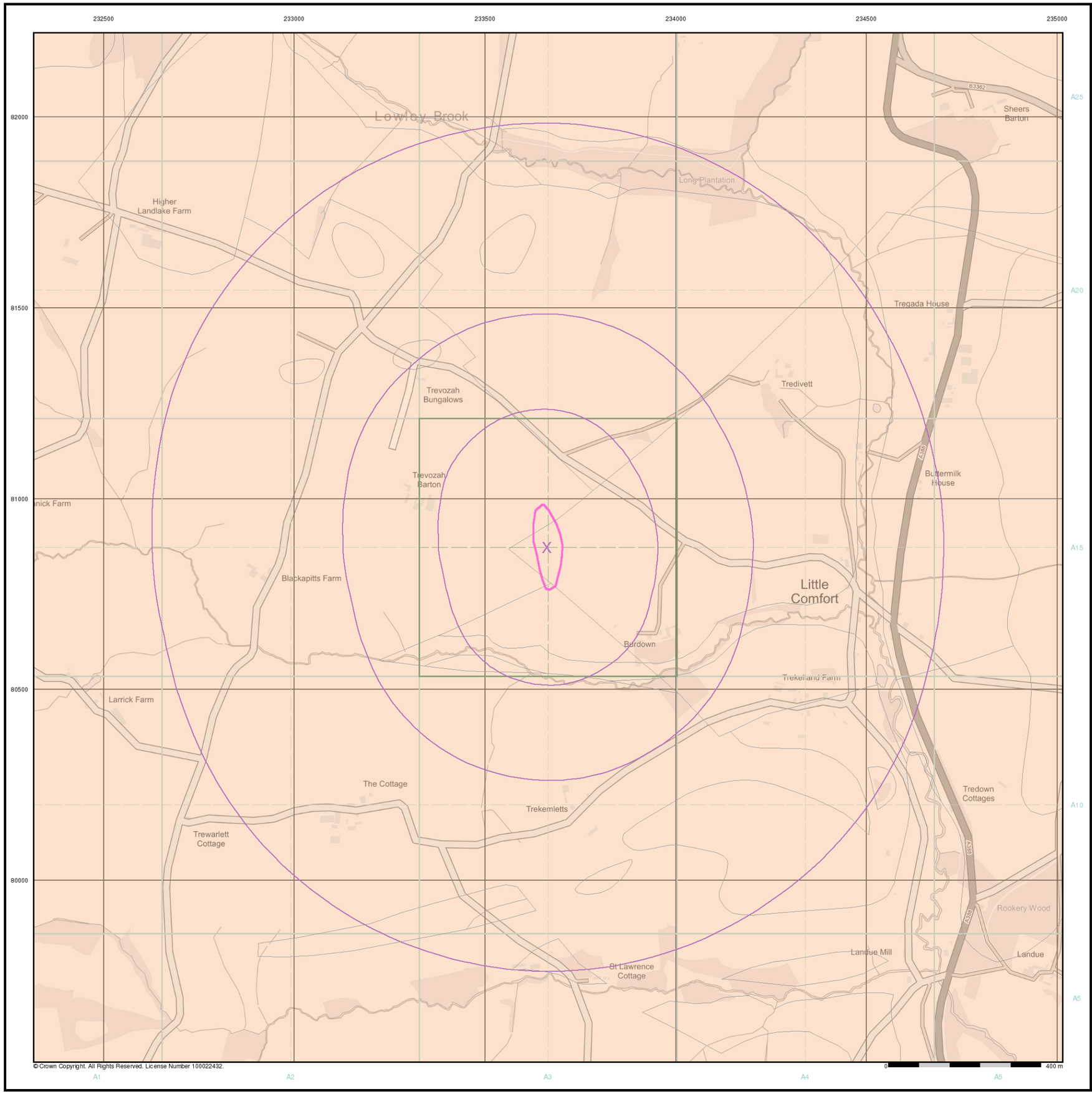


[redacted]

General

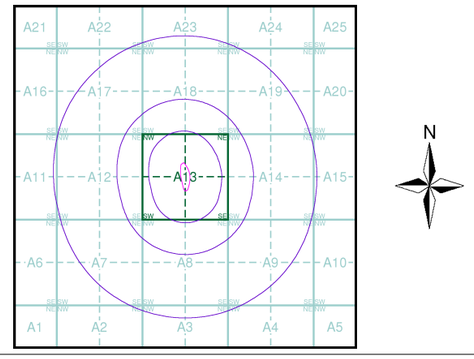
Specified Site | Specified Buffer(s) | X Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg

- <100 mg/kg
- 100 - 200
- 200 - 300
- 300 - 600
- 600 - 1200
- >1200

Estimated Soil Chemistry Lead - Slice A



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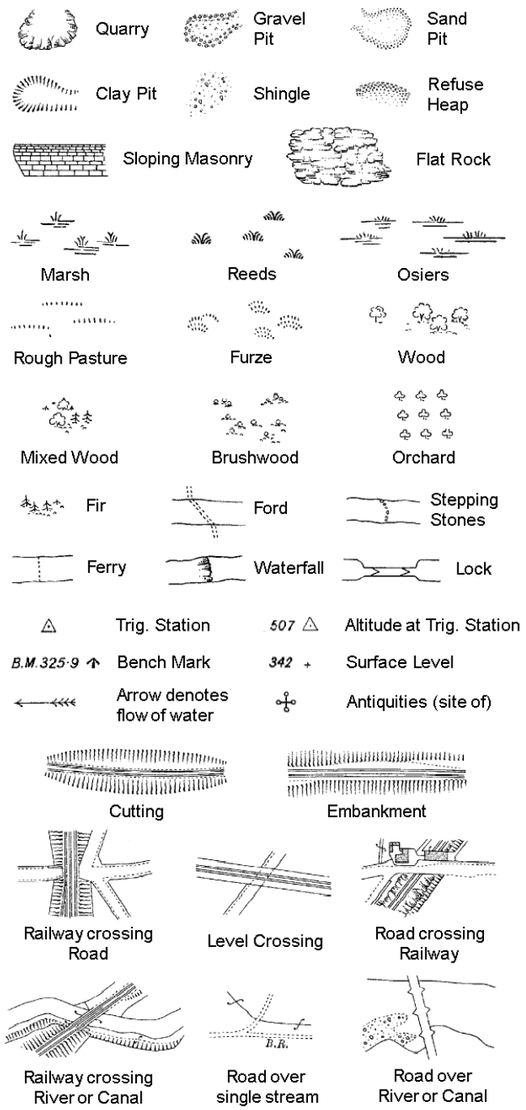
Appendix F Historical Maps

Historical Mapping Legends

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



County Boundary (Geographical)

County & Civil Parish Boundary

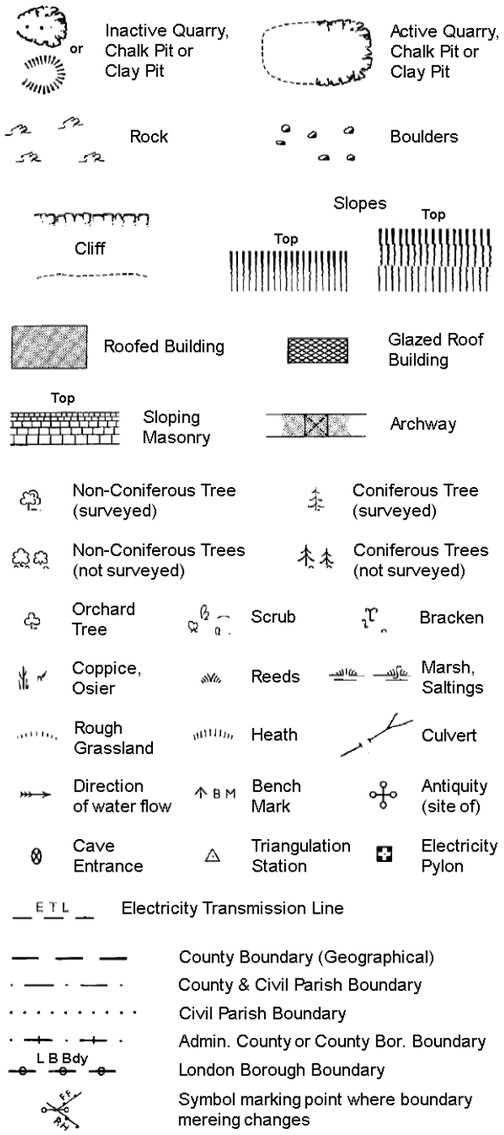
Administrative County & Civil Parish Boundary

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

Co. Burgh Bdy. County Burgh Boundary (Scotland)

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

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



County Boundary (Geographical)

County & Civil Parish Boundary

Civil Parish Boundary

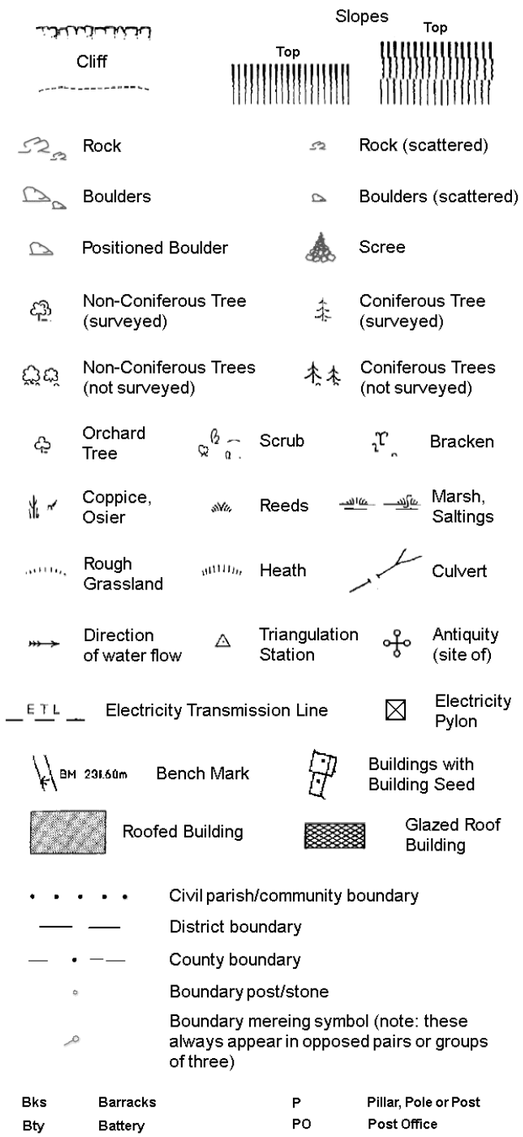
Admin. County or County Bor. Boundary

L B Bdy London Borough Boundary

Symbol marking point where boundary mereing changes

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

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



Civil parish/community boundary

District boundary

County boundary

Boundary post/stone

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

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

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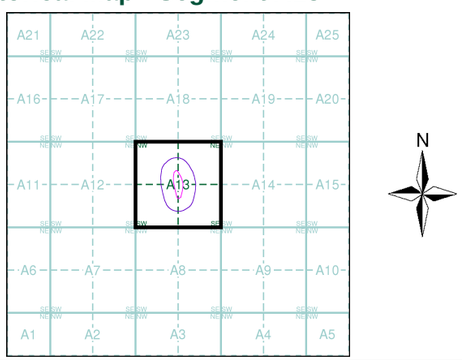
Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Cornwall & Isles Of Scilly	1:2,500	1884	2
Cornwall & Isles Of Scilly	1:2,500	1906	3
Ordnance Survey Plan	1:2,500	1953	4
Additional SIMs	1:2,500	1953 - 1988	5
Additional SIMs	1:2,500	1988	6
Large-Scale National Grid Data	1:2,500	1994	7
Historical Aerial Photography	1:2,500	1999	8

Historical Map - Segment A13



Order Details

Order Number:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	100

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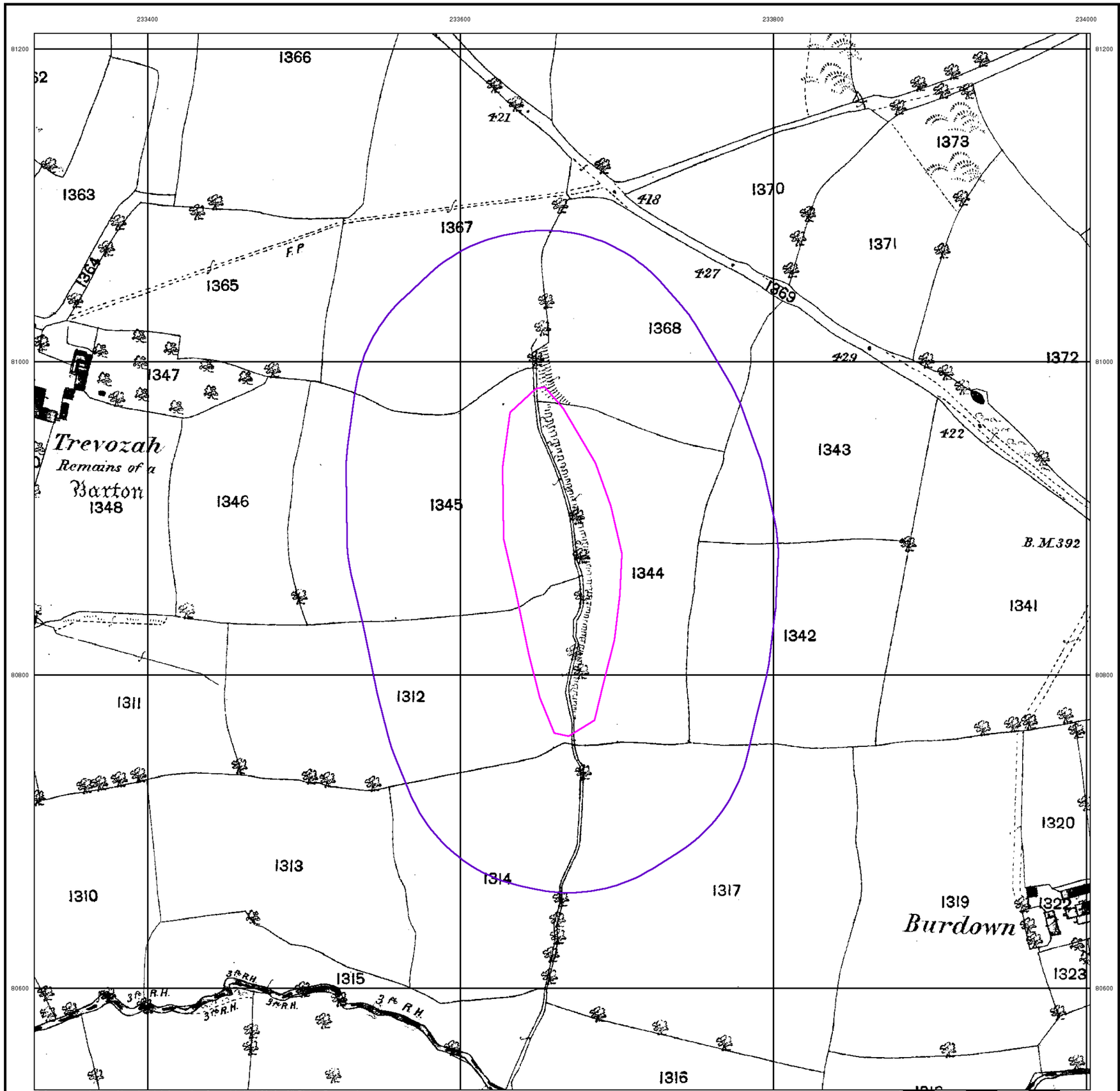

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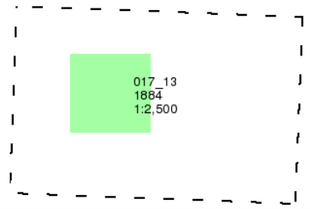
Cornwall & Isles Of Scilly

Published 1884

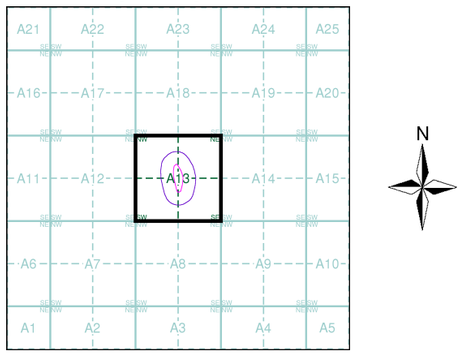
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



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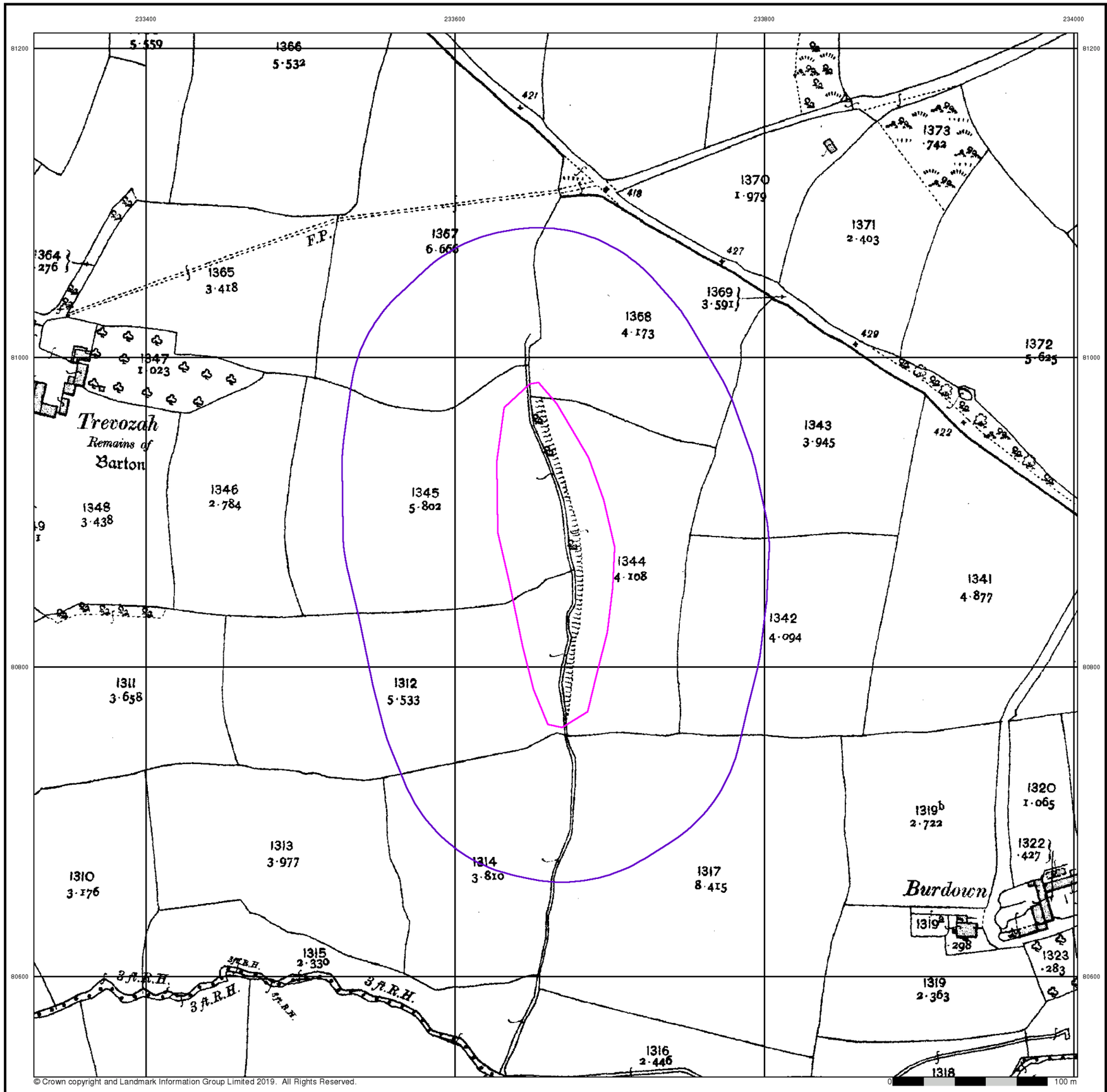

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Cornwall & Isles Of Scilly

Published 1906

Source map scale - 1:2,500

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

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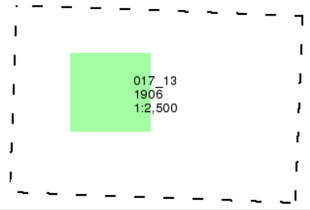
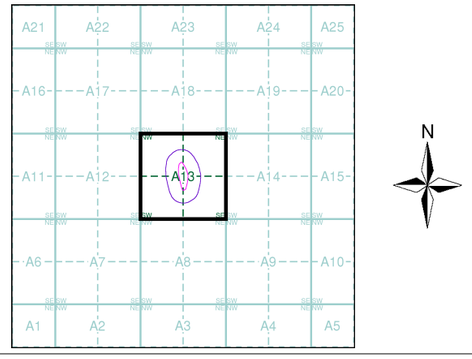


Historical Map - Segment A13



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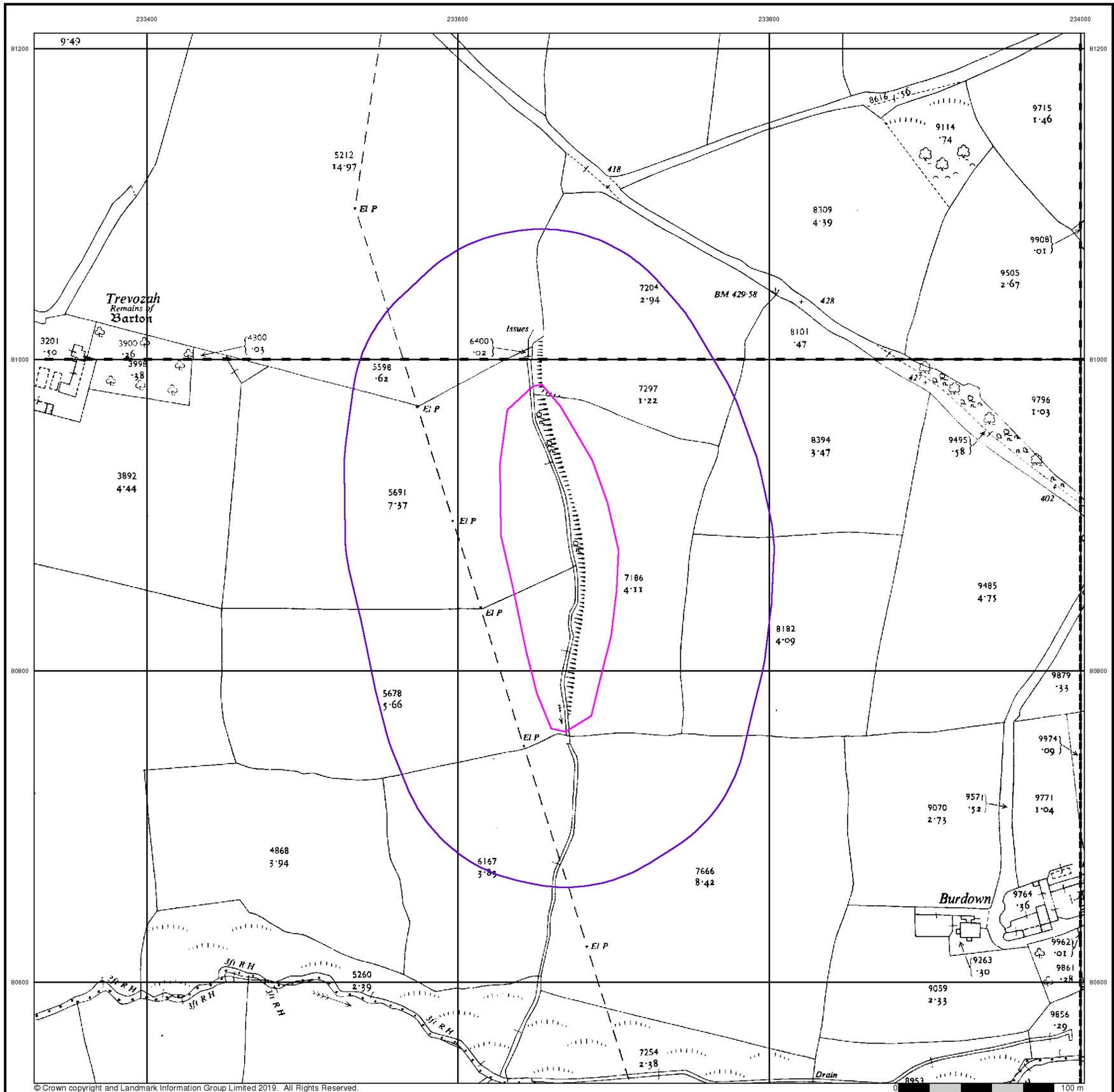

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Ordnance Survey Plan

Published 1953

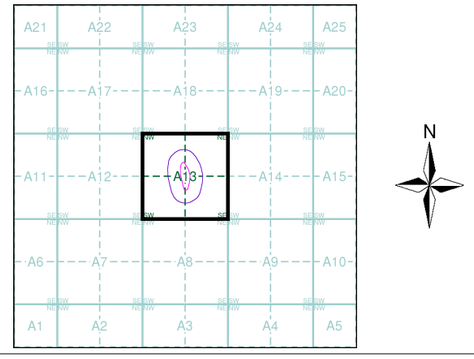
Source map scale - 1:2,500

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

Map Name(s) and Date(s)

SX3381 1953 1:2,500	SX3481 1953 1:2,500
SX3380 1953 1:2,500	SX3480 1953 1:2,500

Historical Map - Segment A13



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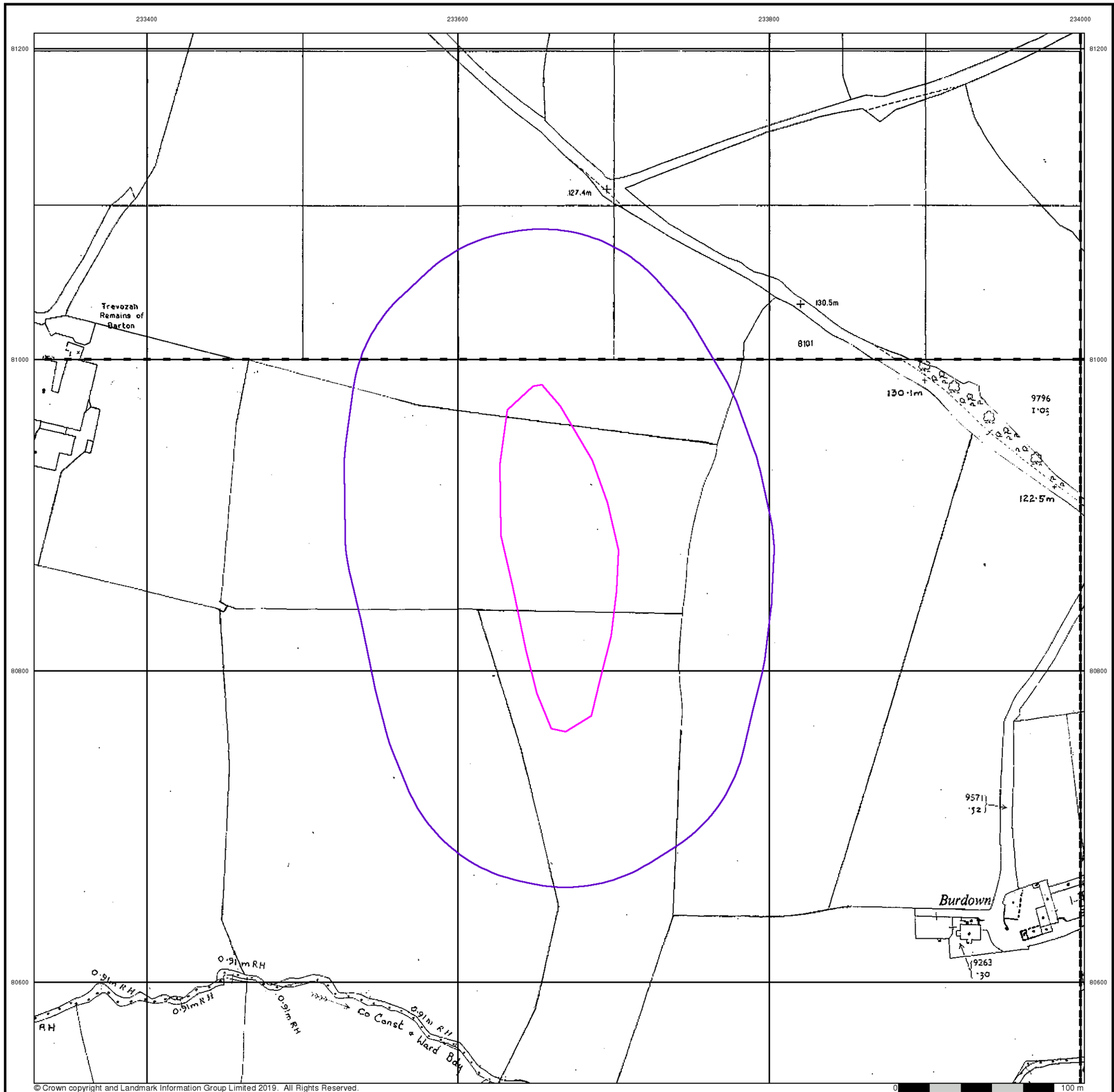

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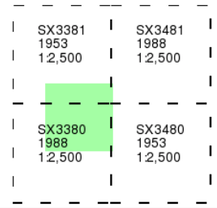
Additional SIMs

Published 1953 - 1988

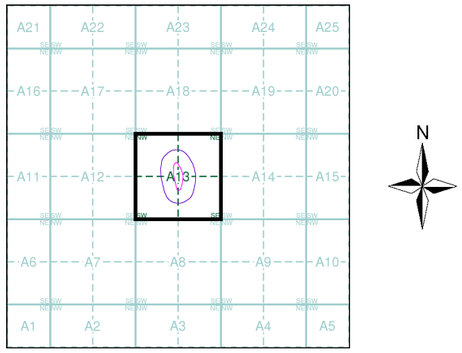
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



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Search Buffer (m):	100

Site Details

Trevozah Barton, LAUNCESTON, PL15 9LT

Landmark® INFORMATION GROUP

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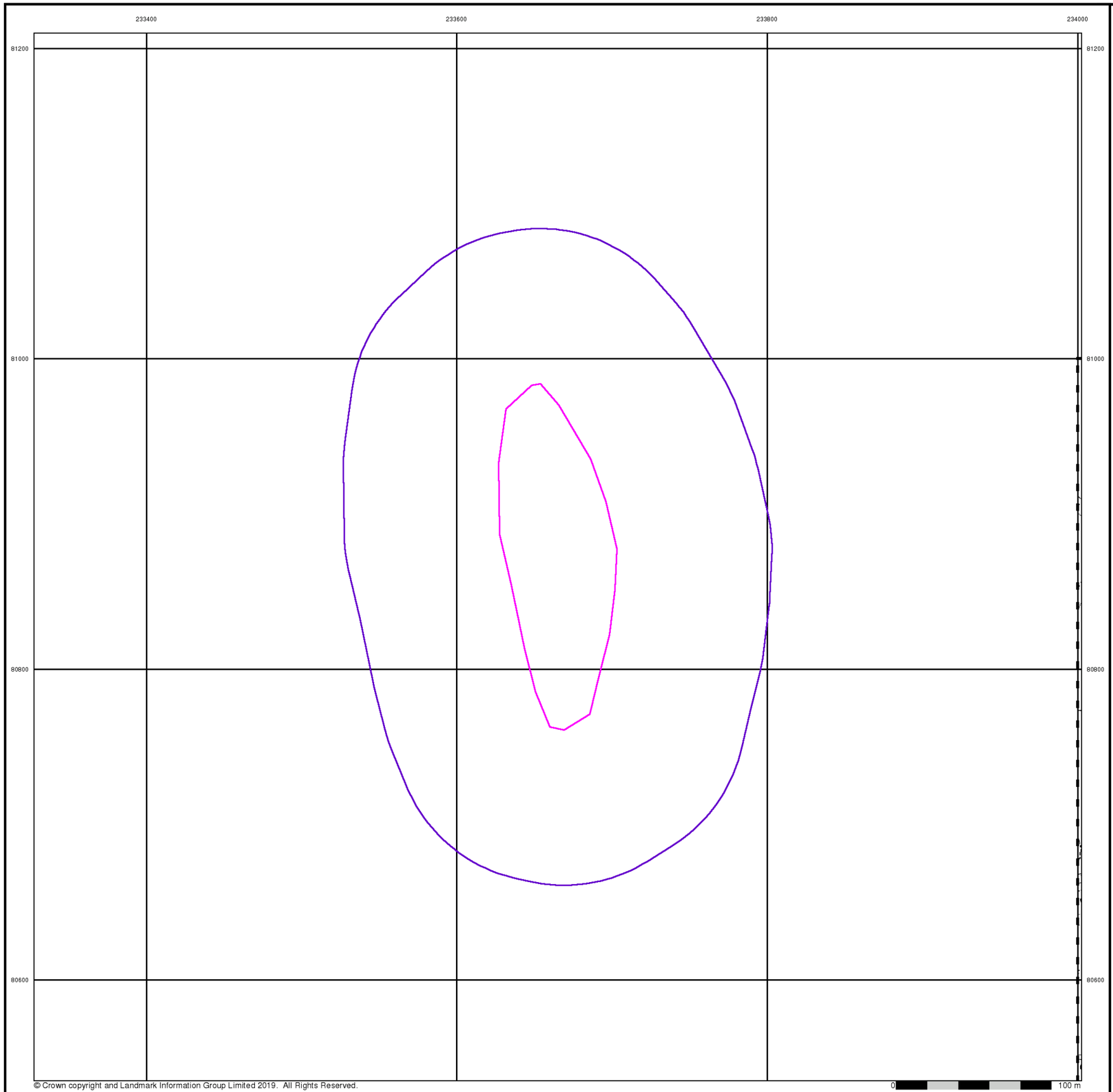
Fax: 0844 844 9951
Web: www.envirocheck.co.uk



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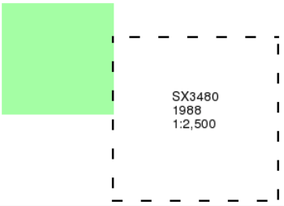
Additional SIMs

Published 1988

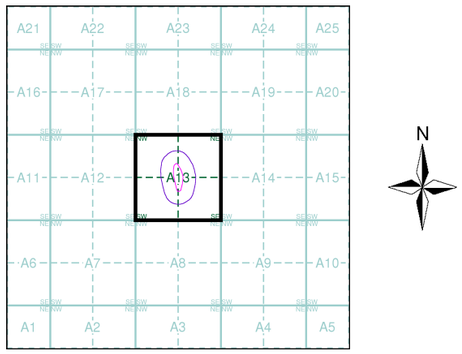
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	100

Site Details

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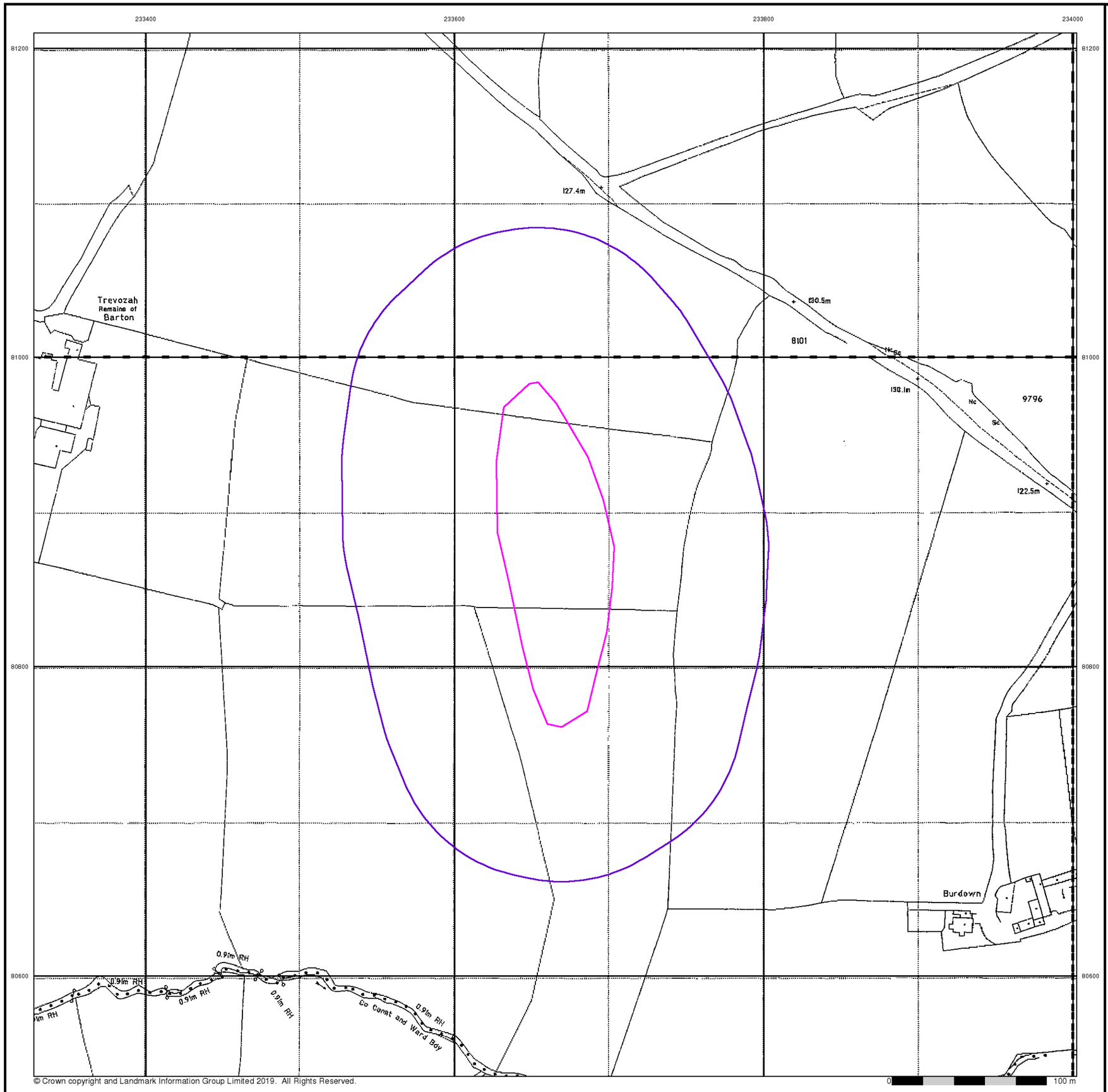

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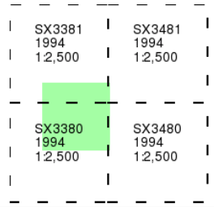
Large-Scale National Grid Data

Published 1994

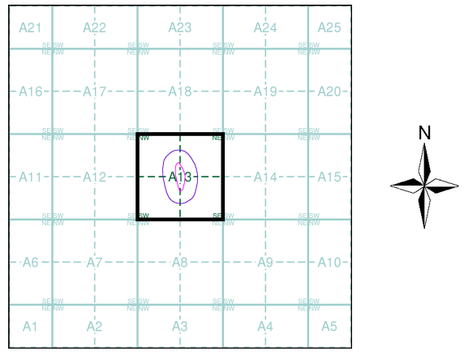
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

Order Number:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	100

Site Details

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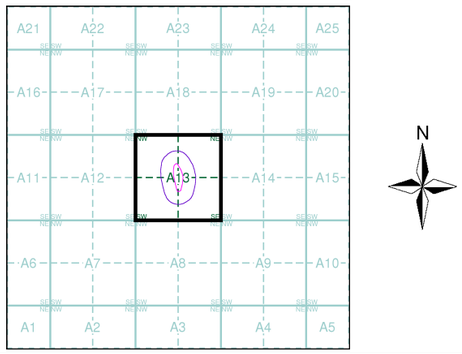
Historical Aerial Photography

Published 1999

This aerial photography was produced by Getmapping, these vertical aerial photographs provide a seamless, full colour survey of the whole of Great Britain

Historical Aerial Photography - Segment A13



Order Details

Order Number:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	100

Site Details

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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

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

Ordnance Survey Plan 1:10,000

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

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

1:10,000 Raster Mapping

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

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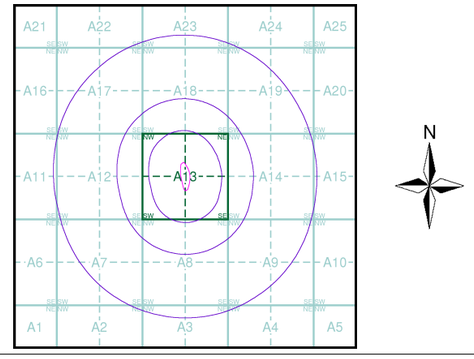
Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Cornwall & Isles Of Scilly	1:10,560	1883 - 1884	2
Cornwall & Isles Of Scilly	1:10,560	1907	3
Ordnance Survey Plan	1:10,000	1956 - 1957	4
Ordnance Survey Plan	1:10,000	1963	5
Ordnance Survey Plan	1:10,000	1983 - 1989	6
Ordnance Survey Plan	1:10,000	1993	7
10K Raster Mapping	1:10,000	1999 - 2000	8
10K Raster Mapping	1:10,000	2006	9
VectorMap Local	1:10,000	2019	10

Historical Map - Slice A



Order Details

Order Number: 213208610_1_1
Customer Ref: HCE0312
National Grid Reference: 233660, 80870
Slice: A
Site Area (Ha): 1.19
Search Buffer (m): 1000

Site Details

Trevozah Barton, LAUNCESTON, PL15 9LT

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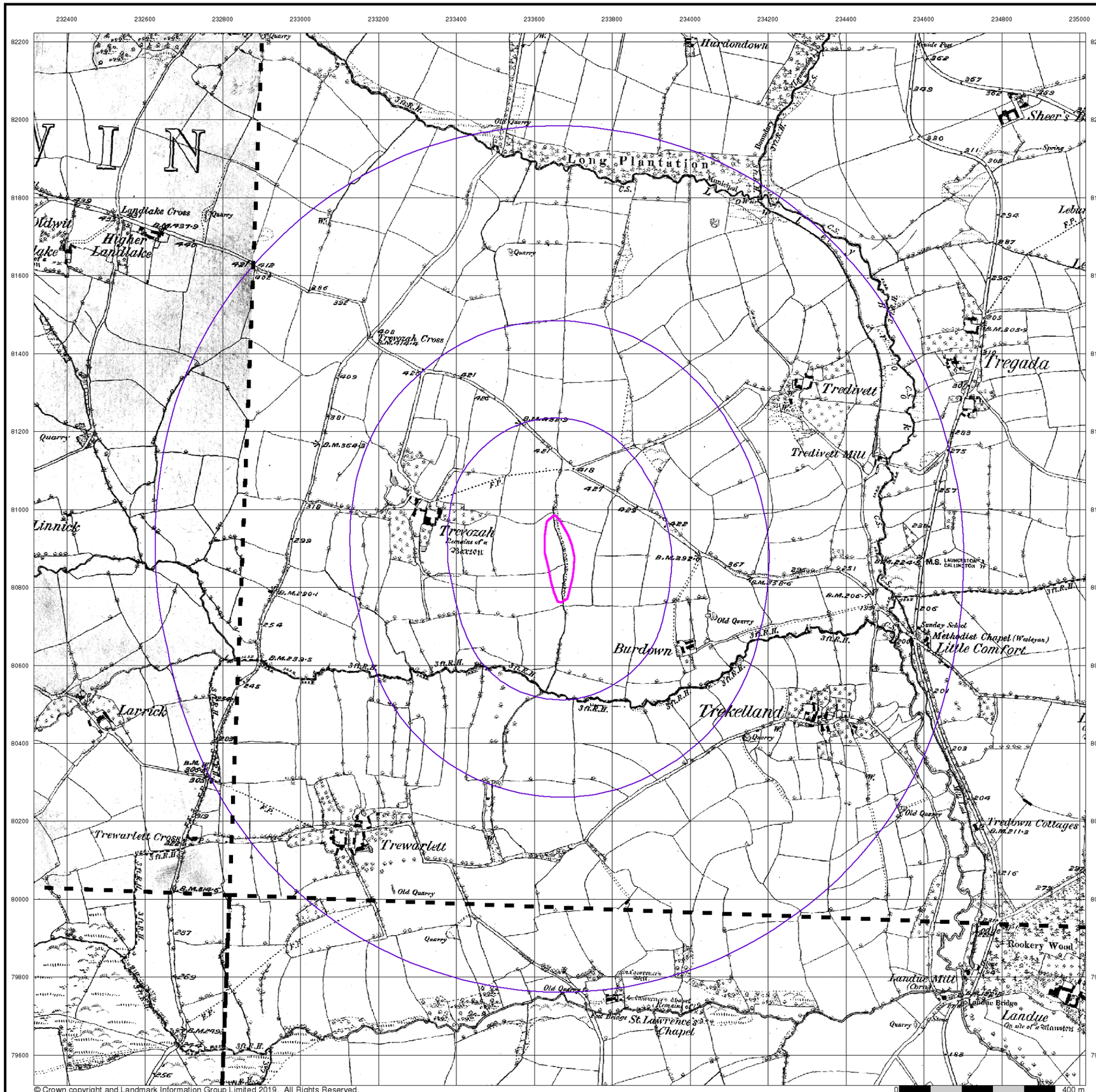

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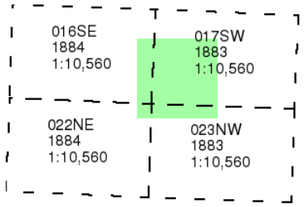
Cornwall & Isles Of Scilly

Published 1883 - 1884

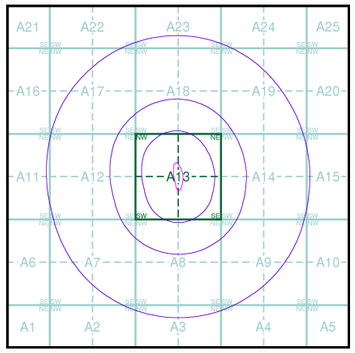
Source map scale - 1:10,560

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	1000

Site Details

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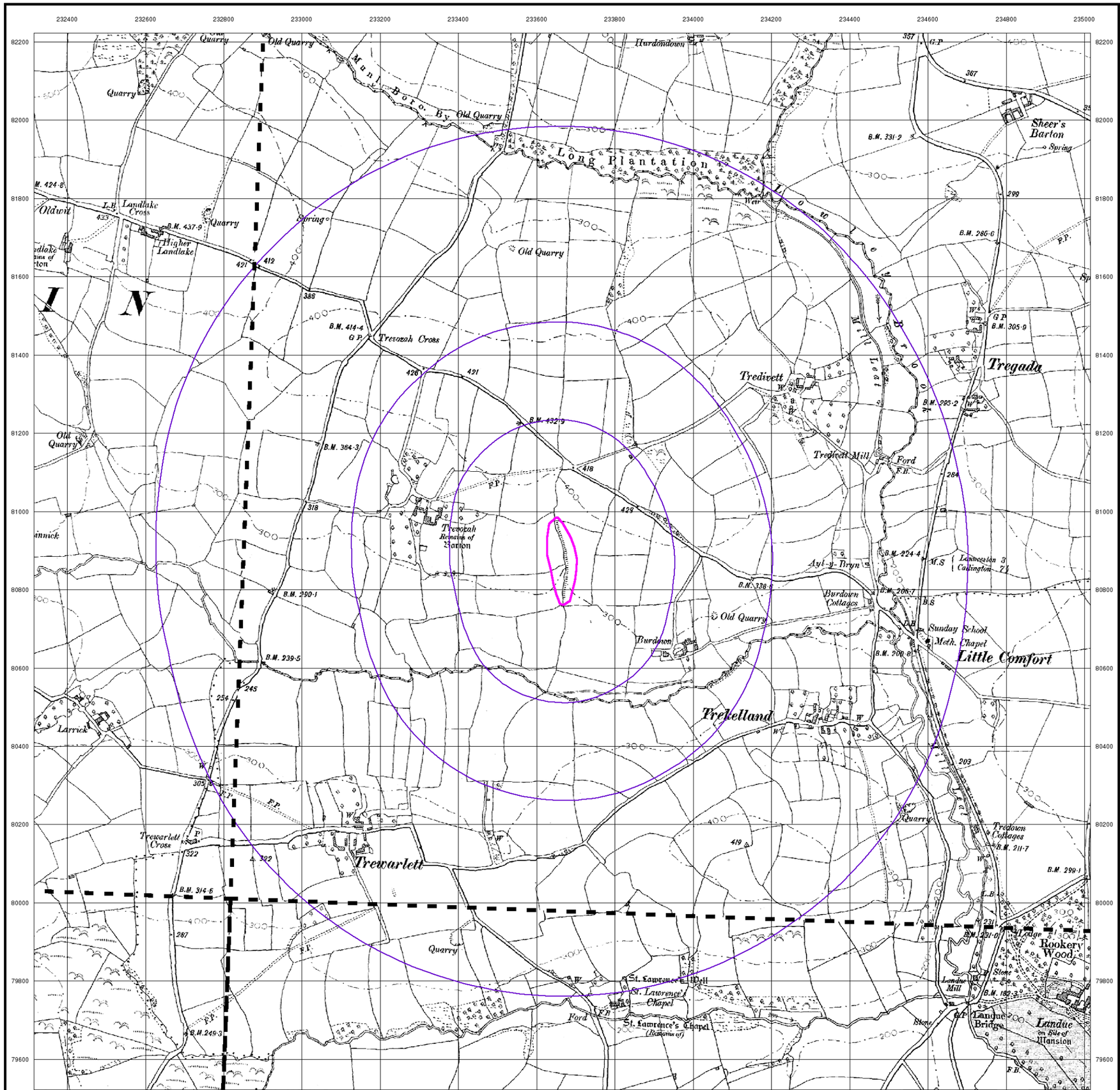

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Cornwall & Isles Of Scilly

Published 1907

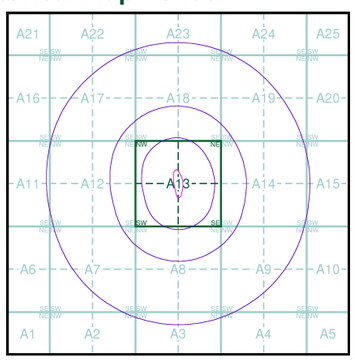
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

016SE 1907 1:10,560	017SW 1907 1:10,560
022NE 1907 1:10,560	023NW 1907 1:10,560

Historical Map - Slice A



Order Details

Order Number:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	1000

Site Details

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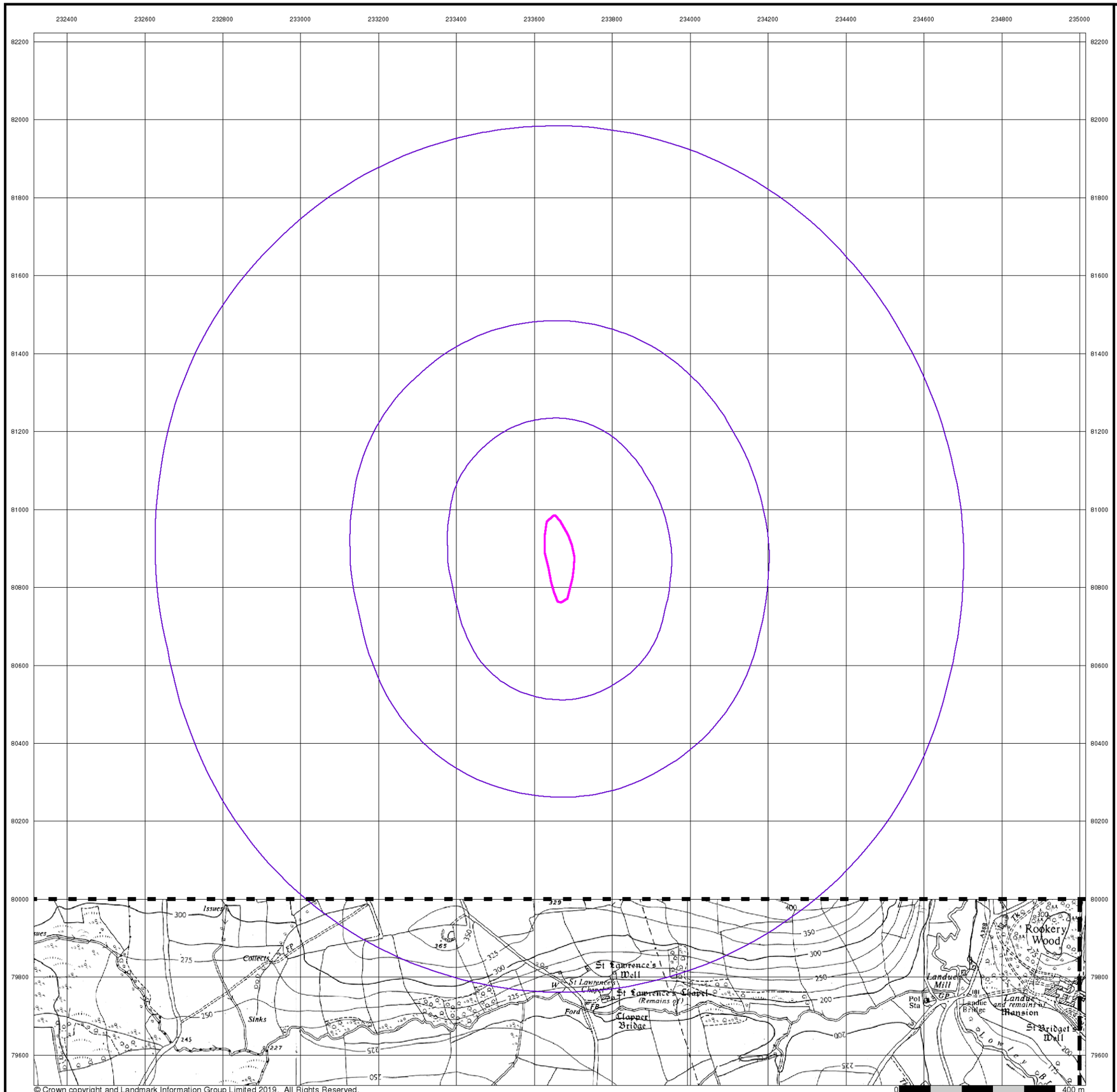

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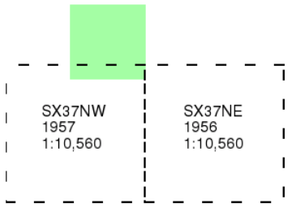
Ordnance Survey Plan

Published 1956 - 1957

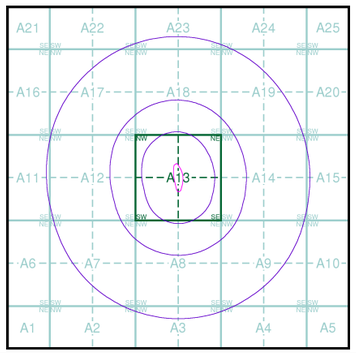
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
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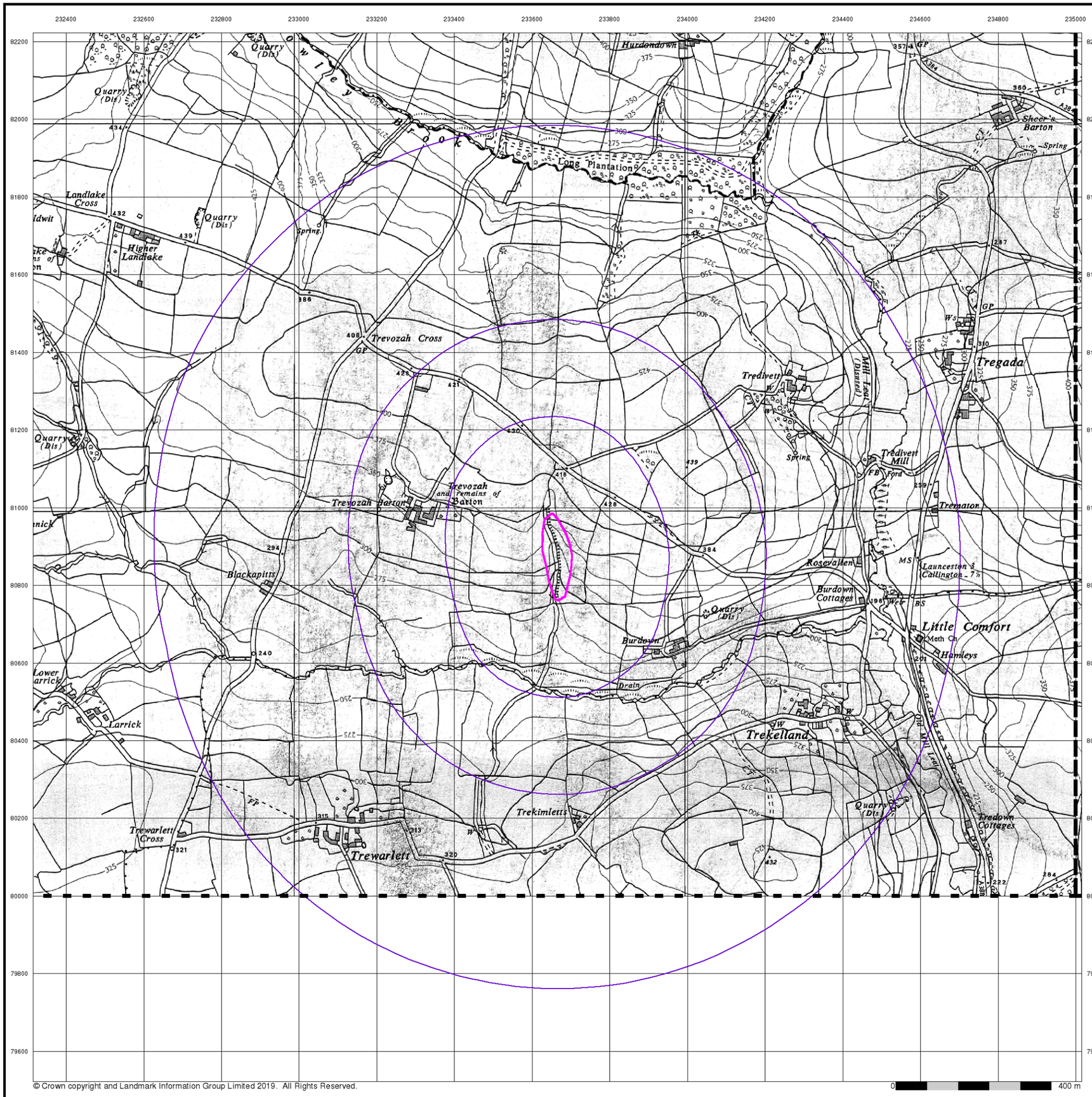

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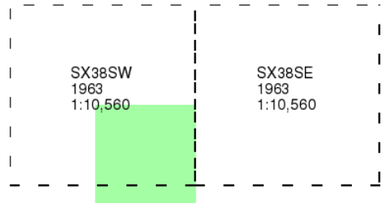
Ordnance Survey Plan

Published 1963

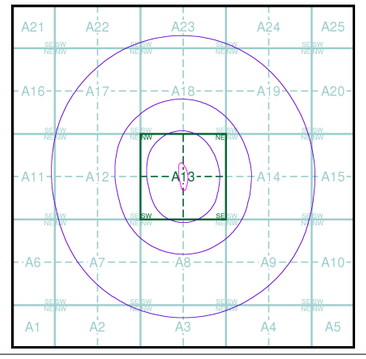
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
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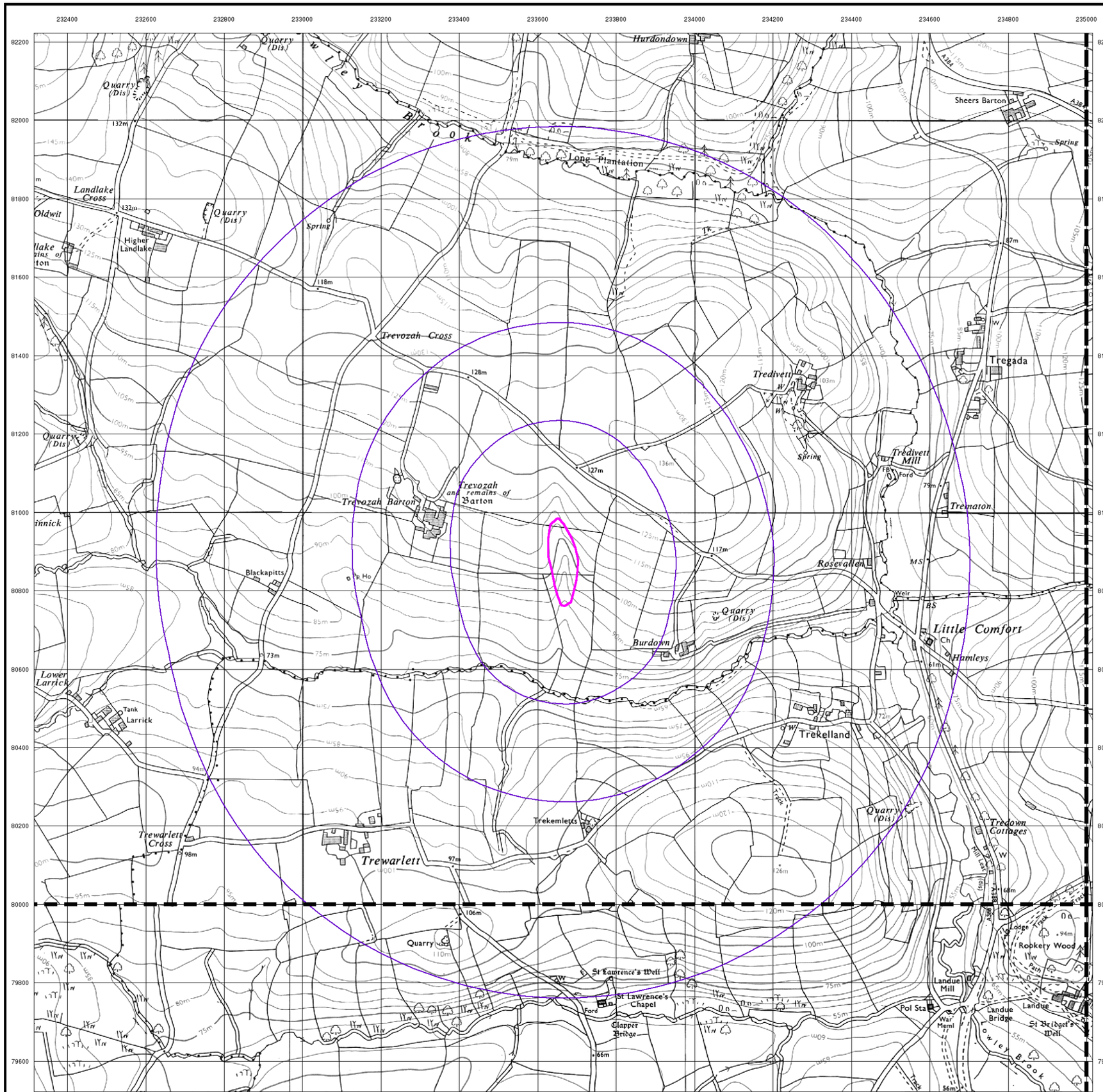

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Ordnance Survey Plan

Published 1983 - 1989

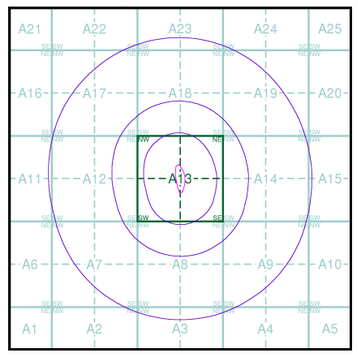
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SX38SW 1983 1:10,000	SX38SE 1989 1:10,000
SX37NW 1983 1:10,000	SX37NE 1983 1:10,000

Historical Map - Slice A



Order Details

Order Number:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	1000

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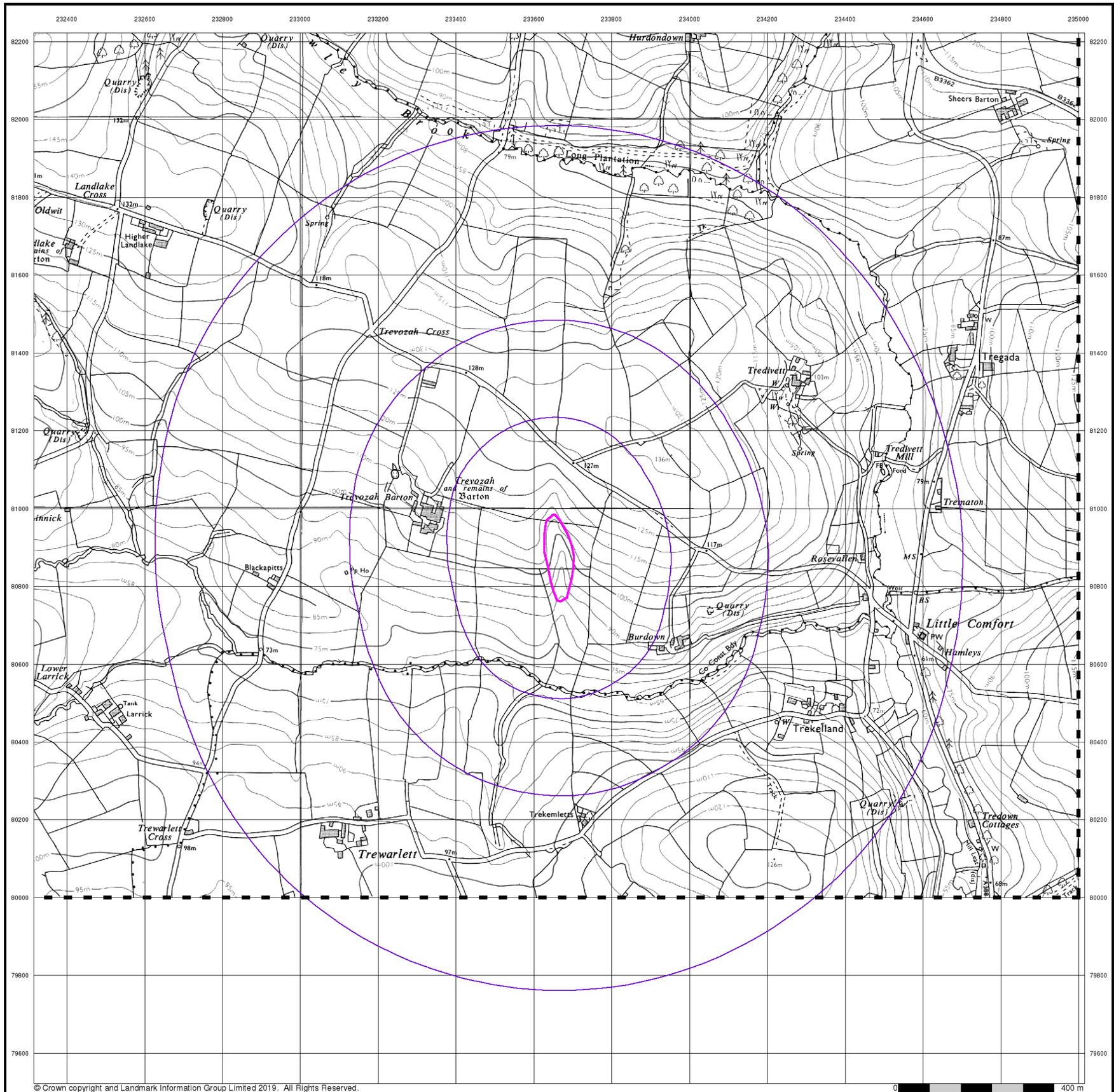

0 400 m

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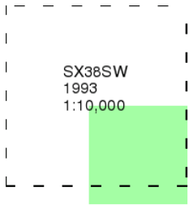
Ordnance Survey Plan

Published 1993

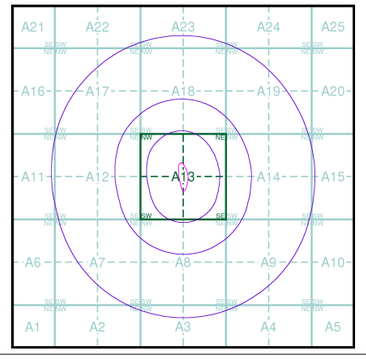
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

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Slice:	A
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Search Buffer (m):	1000

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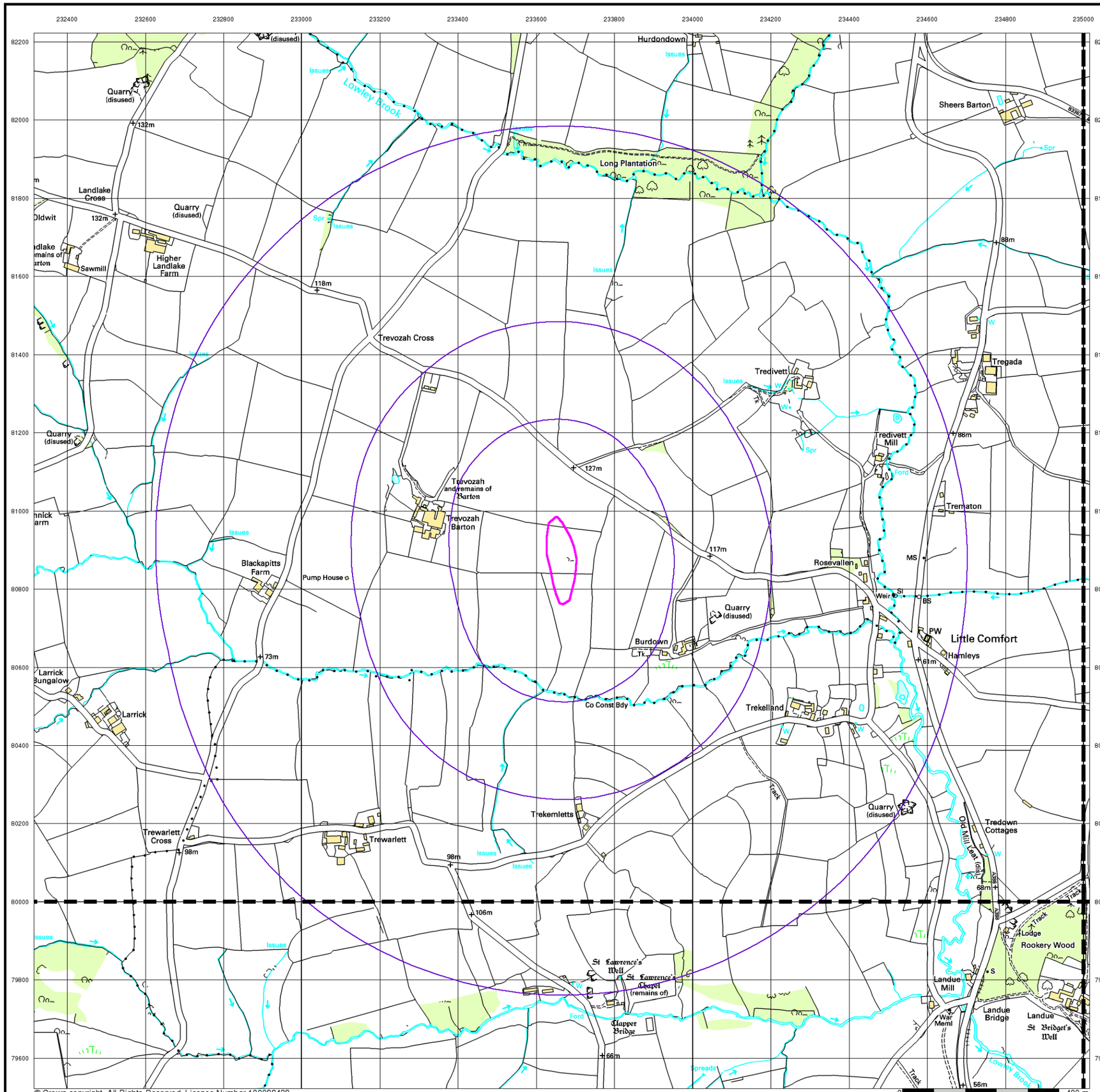

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10k Raster Mapping

Published 1999 - 2000

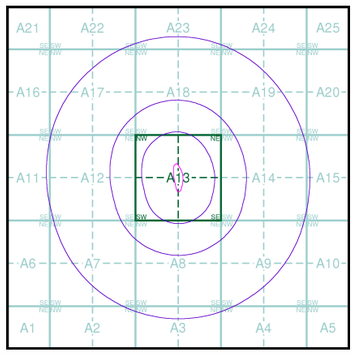
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SX38SW 2000 1:10,000	SX38SE 1999 1:10,000
SX37NW 2000 1:10,000	SX37NE 1999 1:10,000

Historical Map - Slice A



Order Details

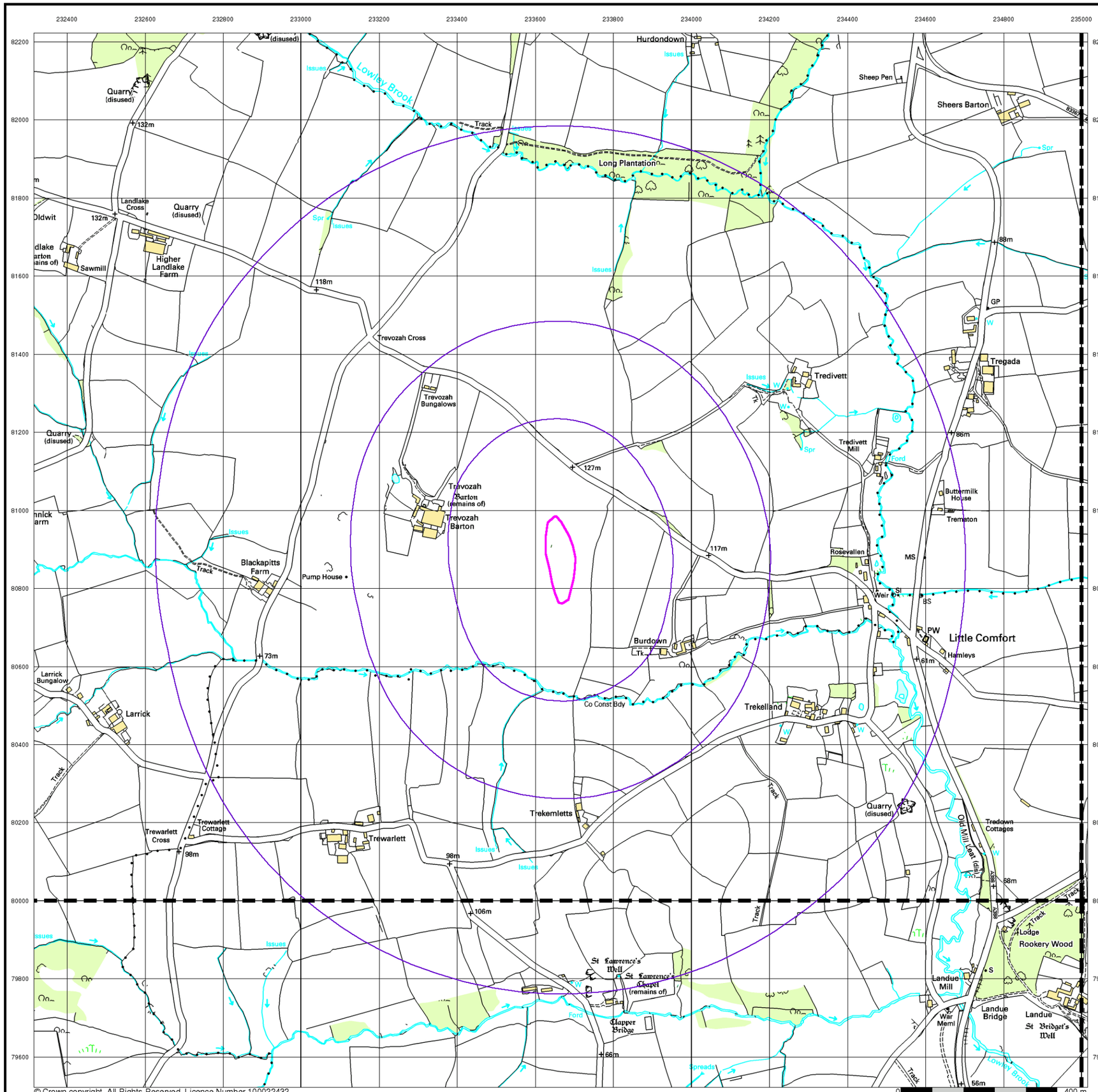
Order Number:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	1000

Site Details

Trevozah Barton, LAUNCESTON, PL15 9LT

Landmark INFORMATION GROUP

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



Envirocheck®

LANDMARK INFORMATION GROUP®

10k Raster Mapping

Published 2006

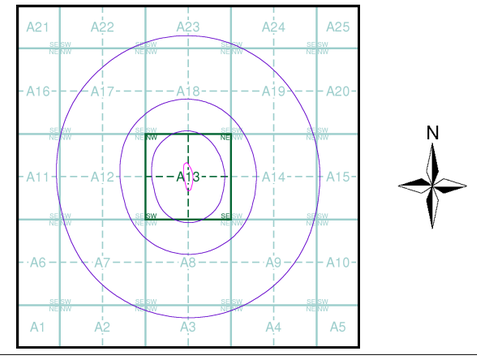
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SX38SW 2006 1:10,000	SX38SE 2006 1:10,000
SX37NW 2006 1:10,000	SX37NE 2006 1:10,000

Historical Map - Slice A



Order Details

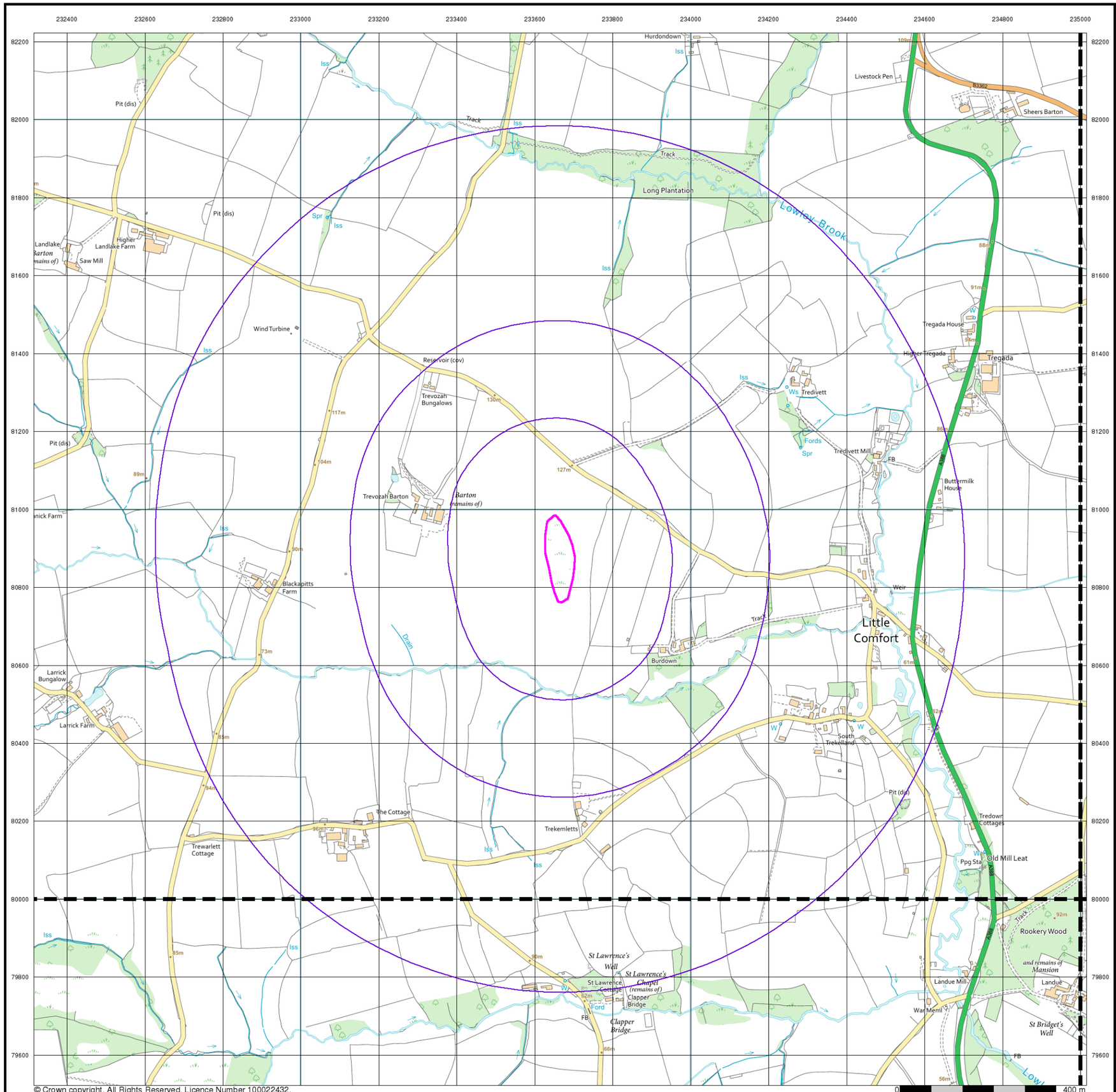
Order Number:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	1000

Site Details

Trevozah Barton, LAUNCESTON, PL15 9LT

Landmark® INFORMATION GROUP

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



Envirocheck®

LANDMARK INFORMATION GROUP®

VectorMap Local

Published 2019

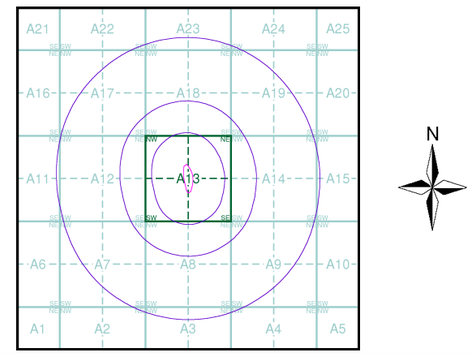
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SX38SW 2019 Variable	SX38SE 2019 Variable
SX37NW 2019 Variable	SX37NE 2019 Variable

Historical Map - Slice A



Order Details

Order Number:	213208610_1_1
Customer Ref:	HCE0312
National Grid Reference:	233660, 80870
Slice:	A
Site Area (Ha):	1.19
Search Buffer (m):	1000

Site Details

Trevozah Barton, LAUNCESTON, PL15 9LT

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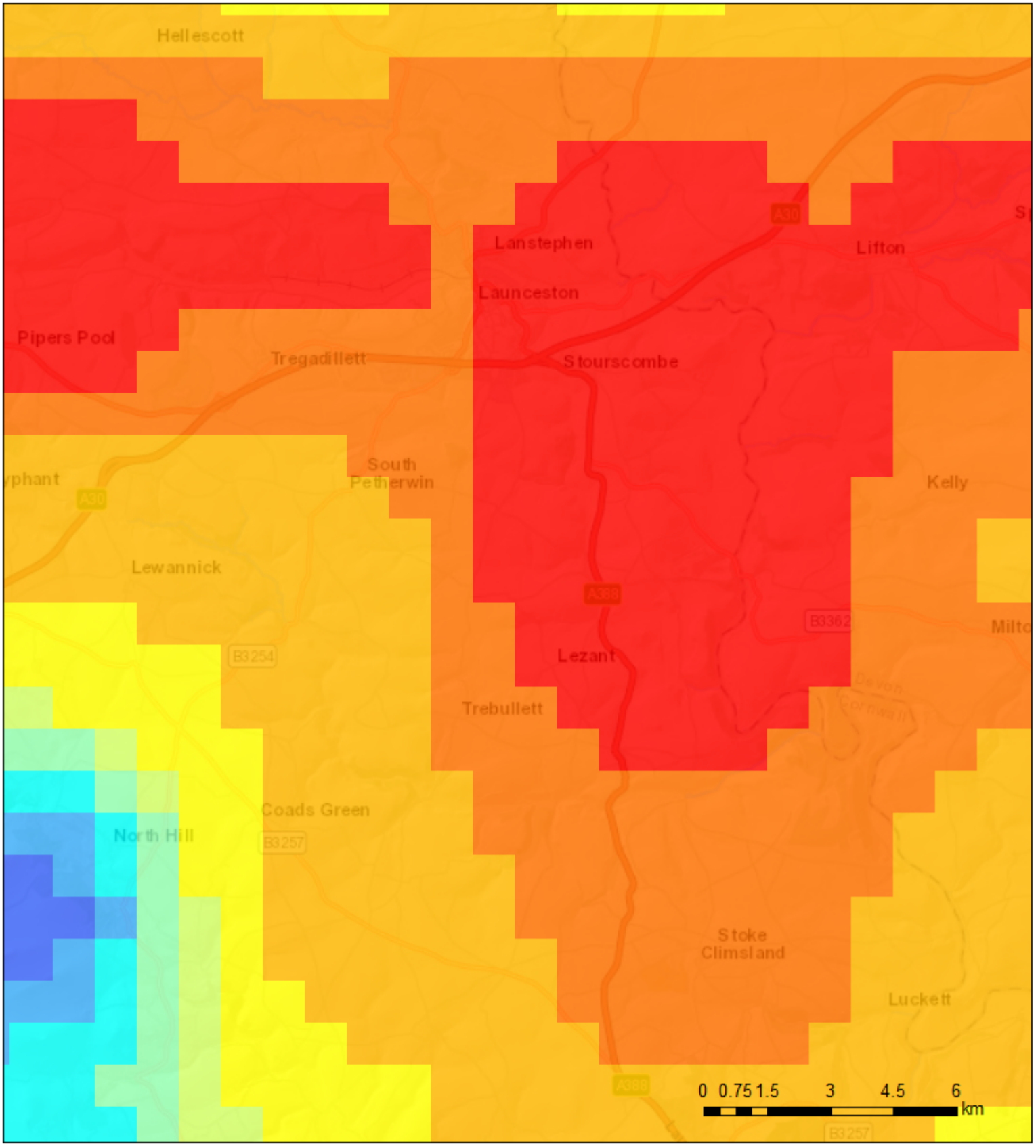
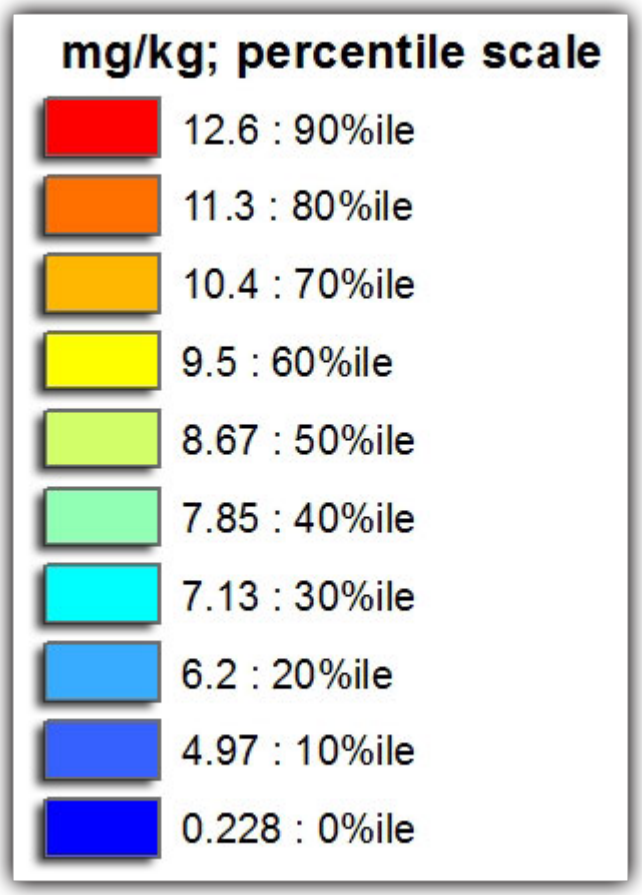
Appendix G UKSO (Topsoil)

UK Soil Observatory

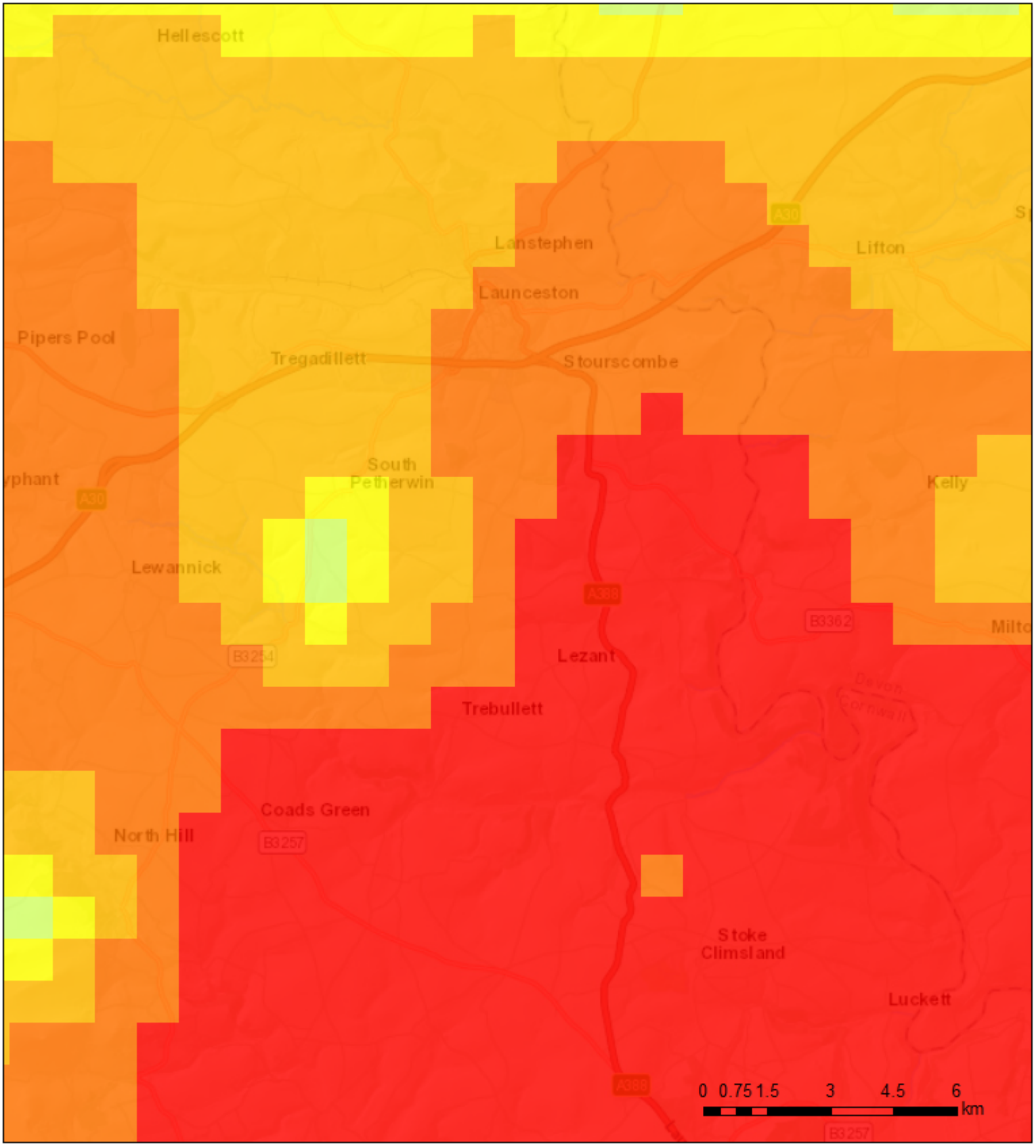


Map Key

NSI Topsoil Antimony

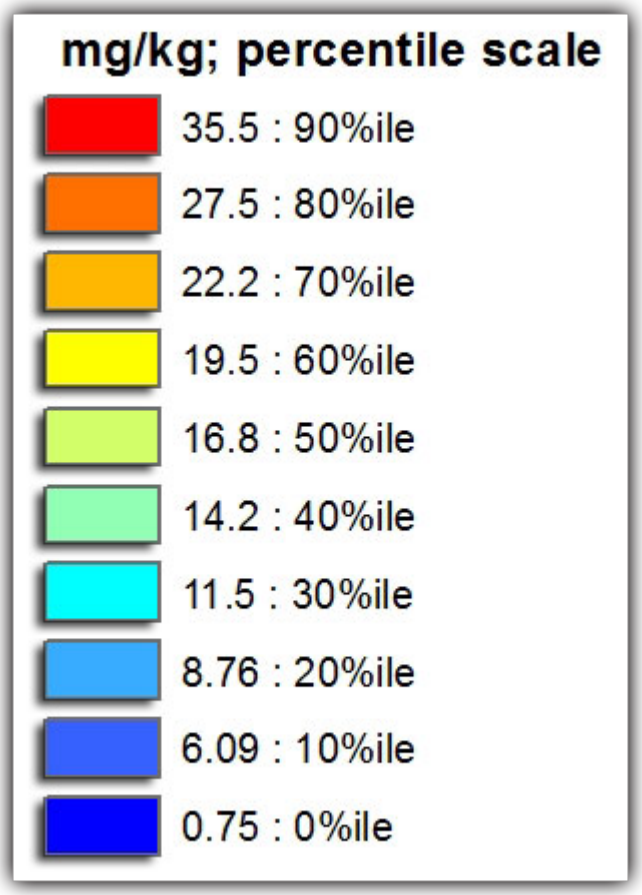


UK Soil Observatory

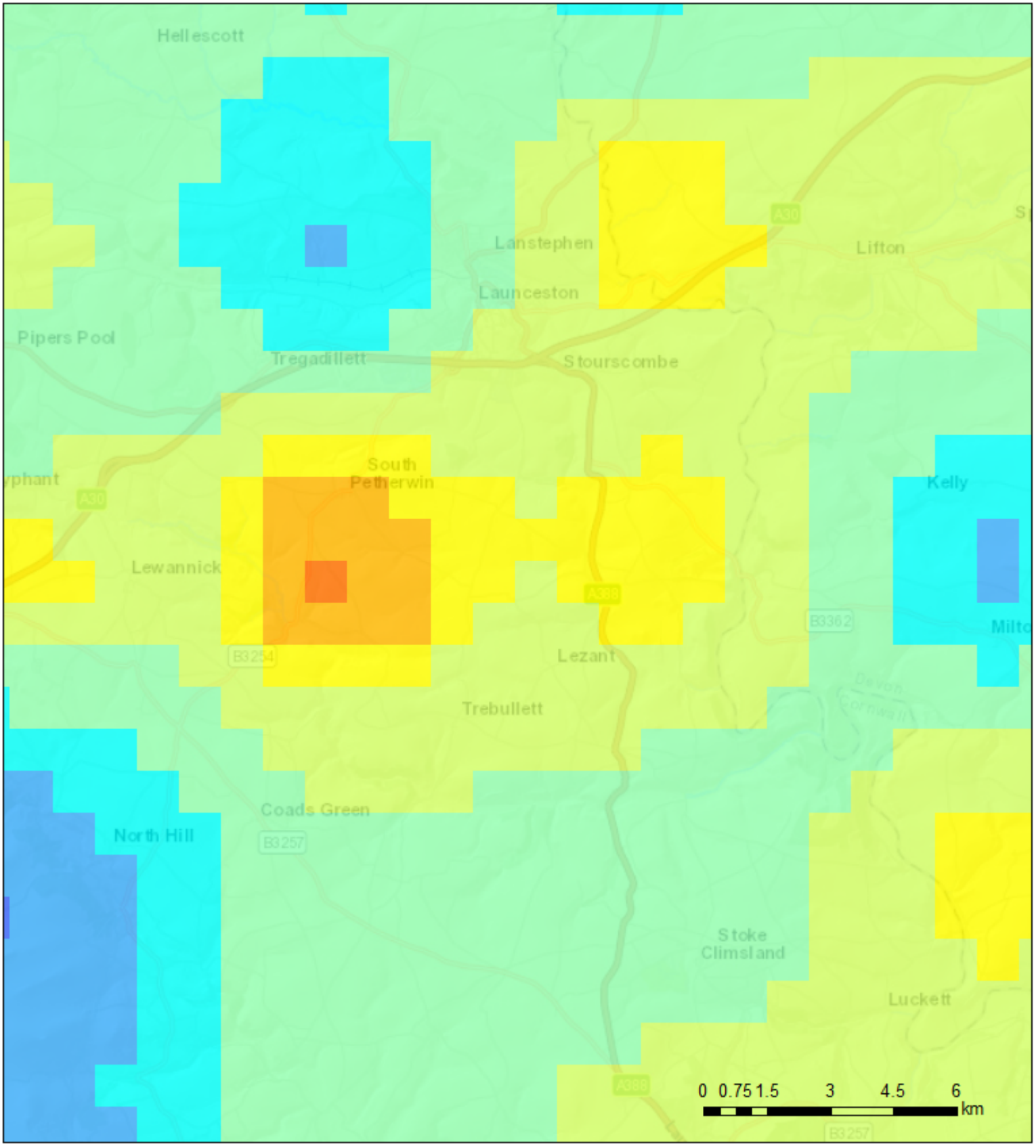


Map Key

NSI Topsoil Arsenic

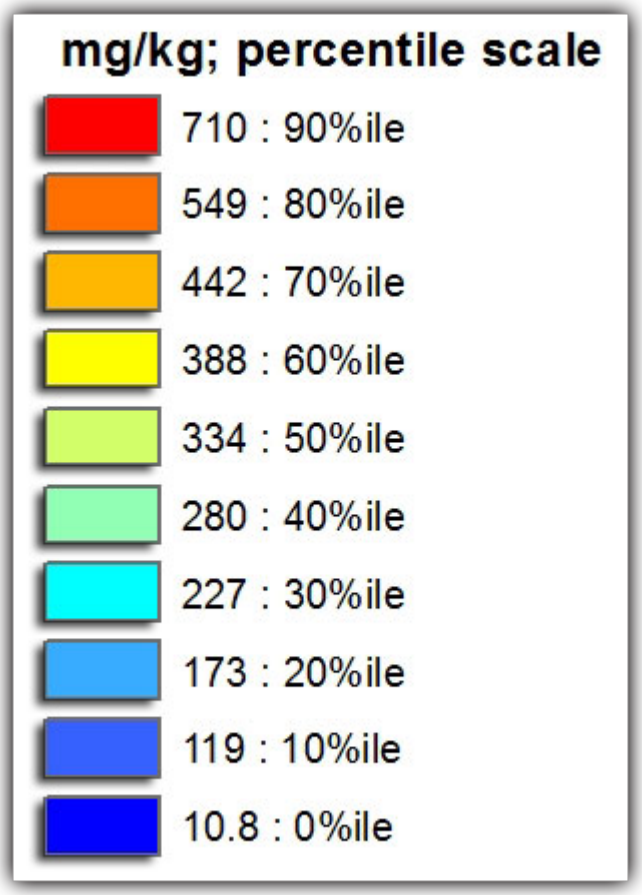


UK Soil Observatory

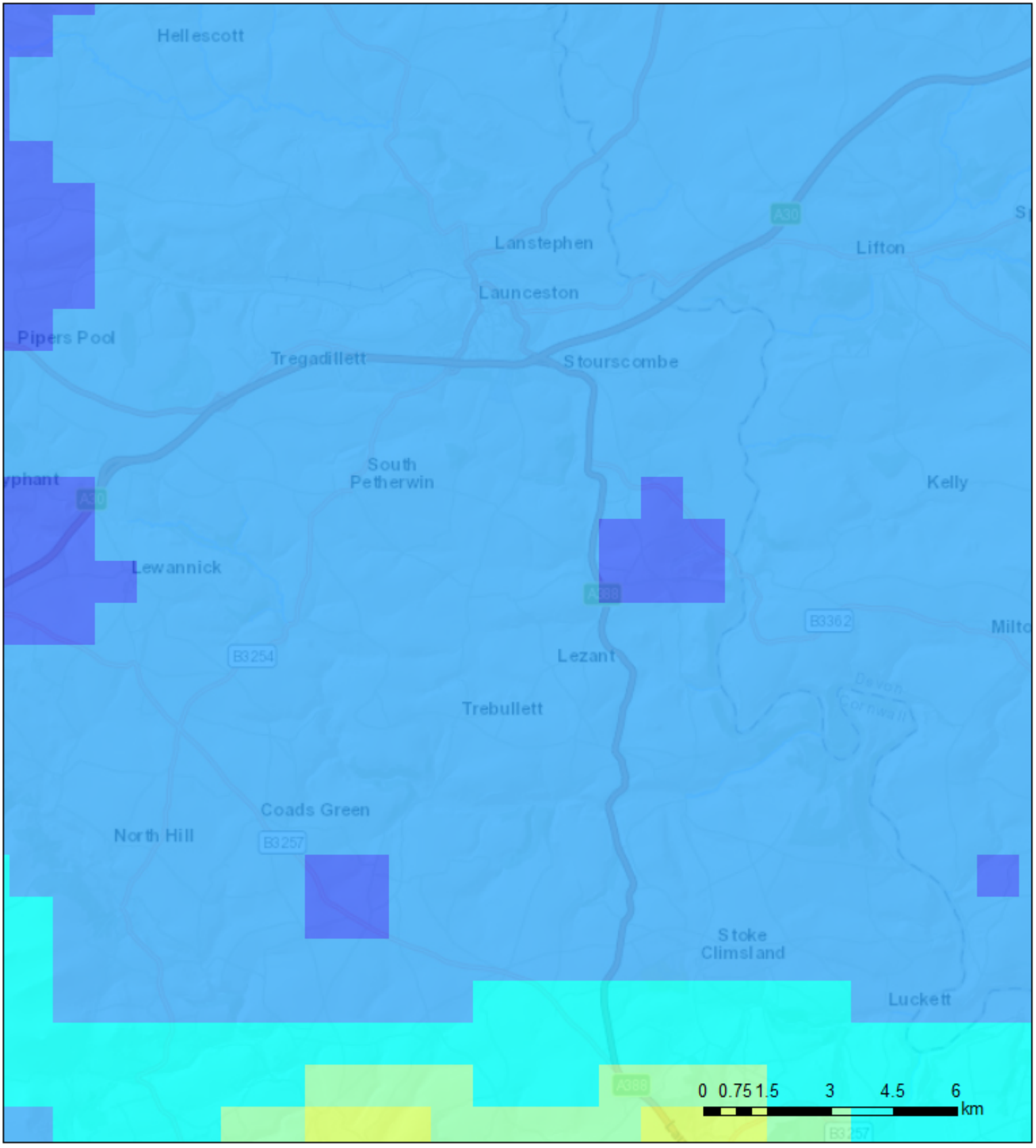


Map Key

NSI Topsoil Barium

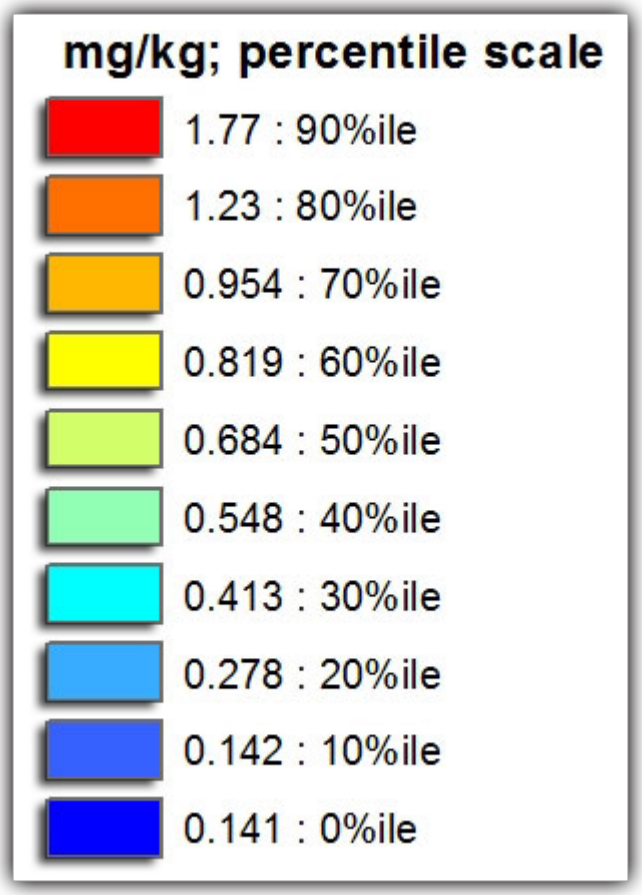


UK Soil Observatory

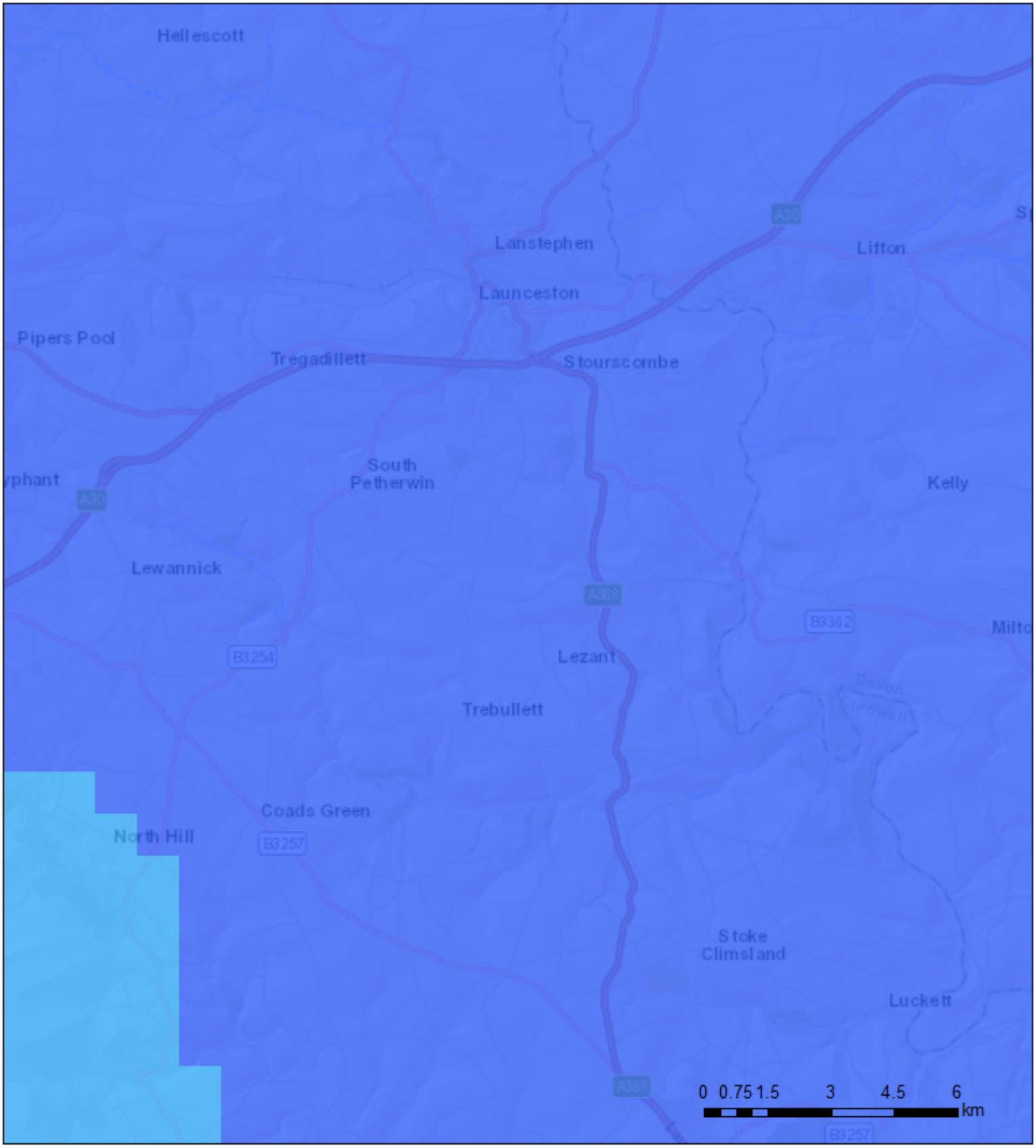


Map Key

NSI Topsoil Cadmium

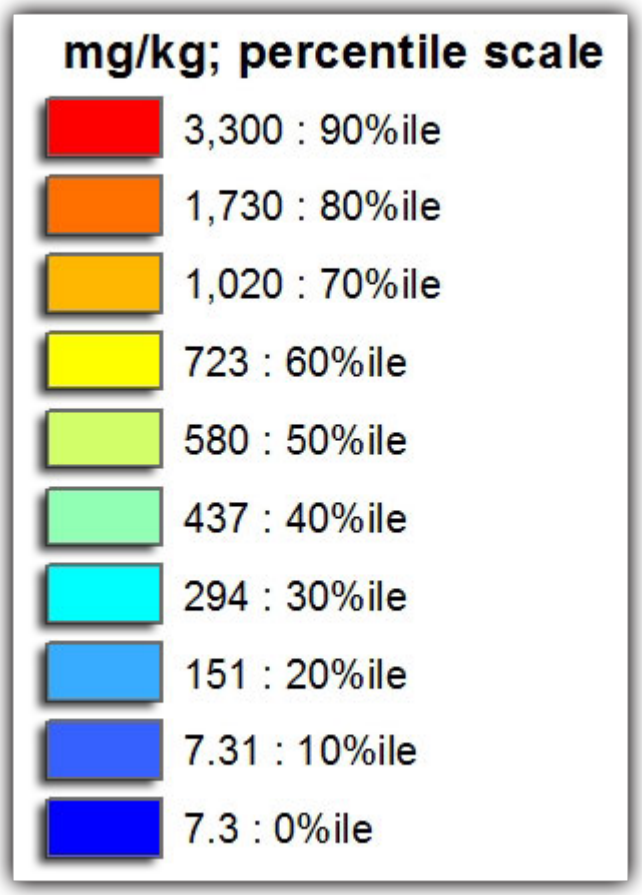


UK Soil Observatory



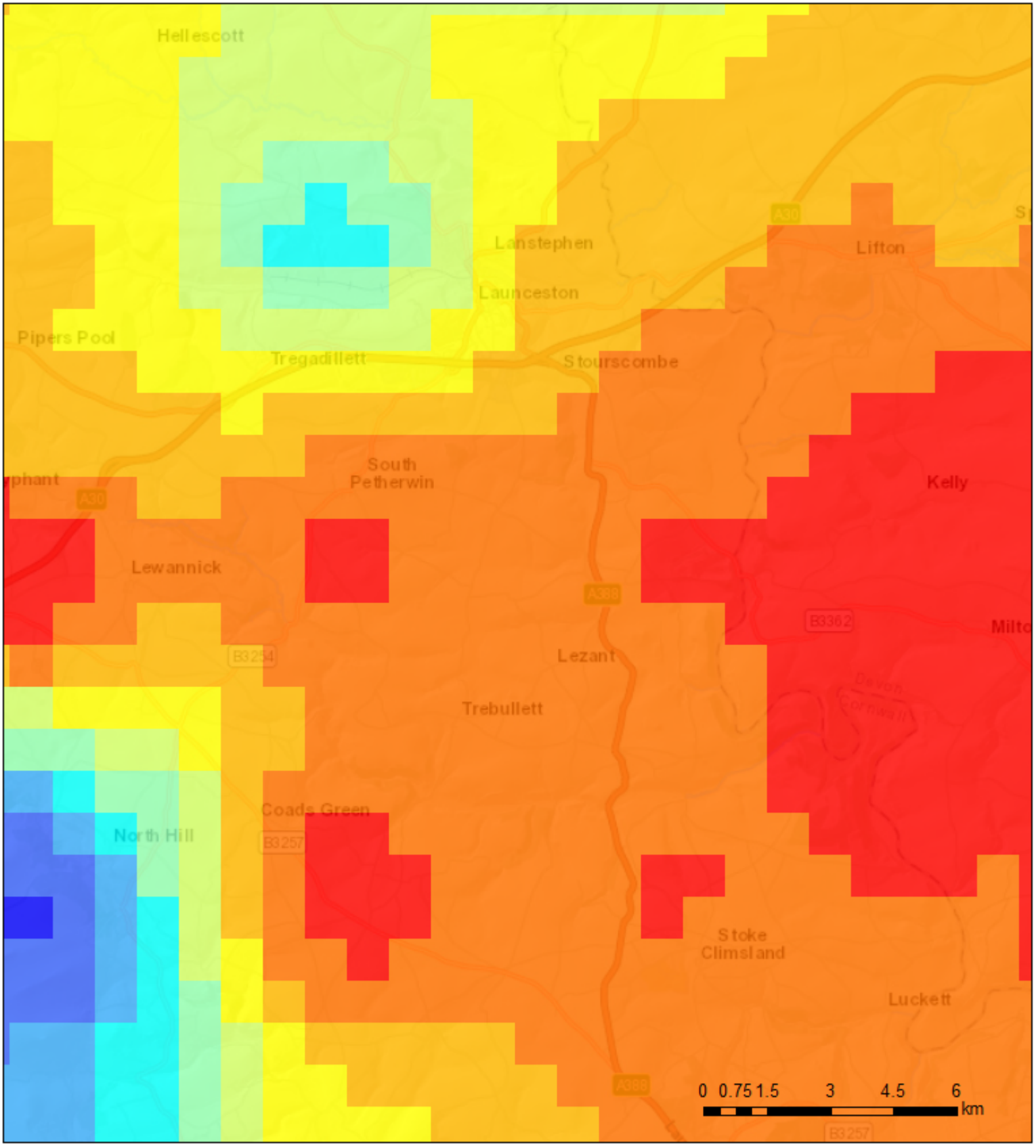
Map Key

NSI Topsoil Chlorine



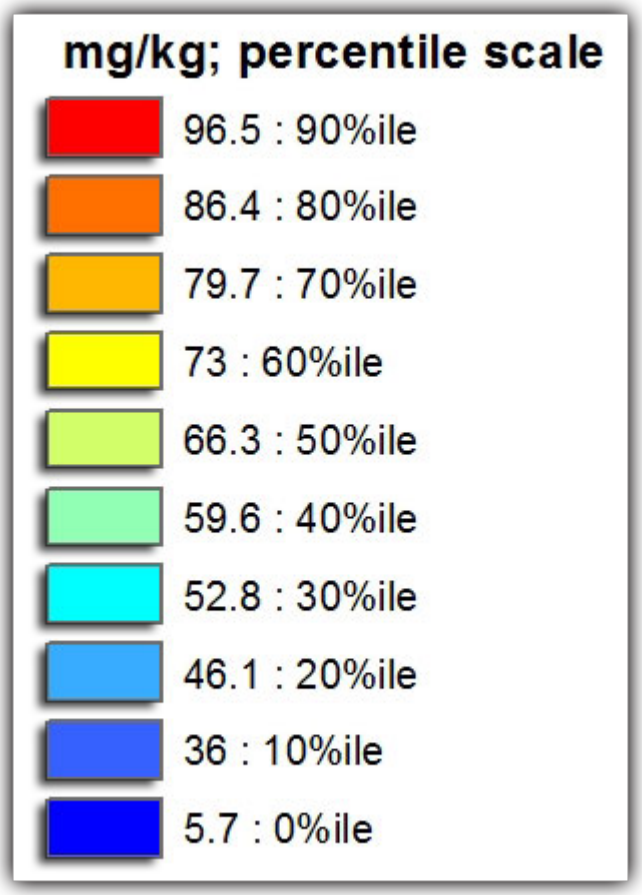
UKSO

UK Soil Observatory

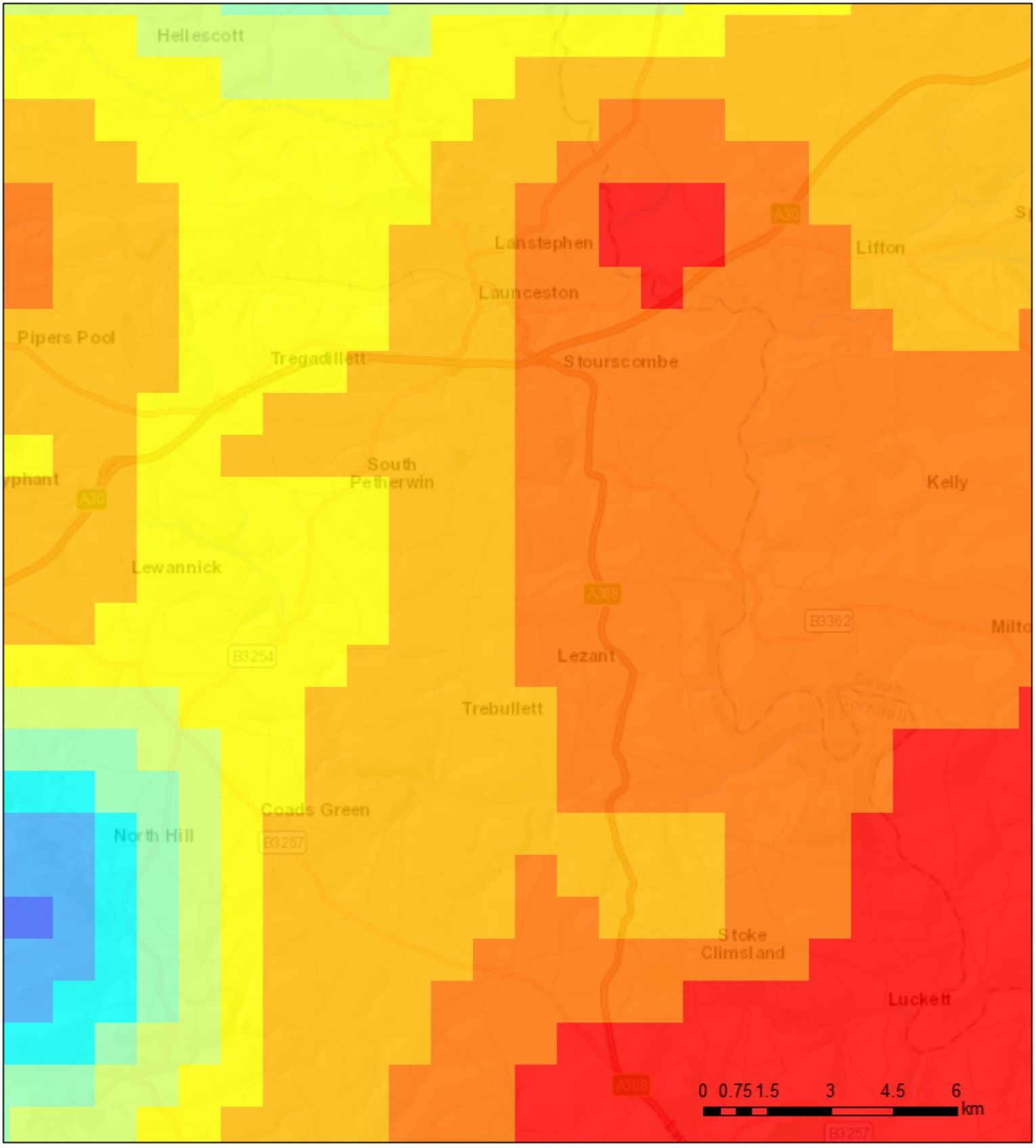


Map Key

NSI Topsoil Chromium

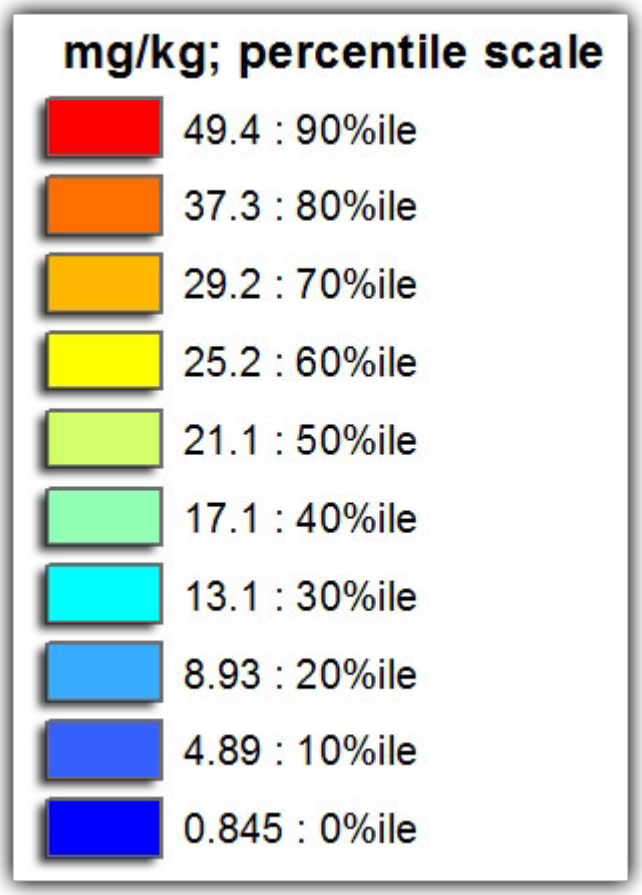


UK Soil Observatory



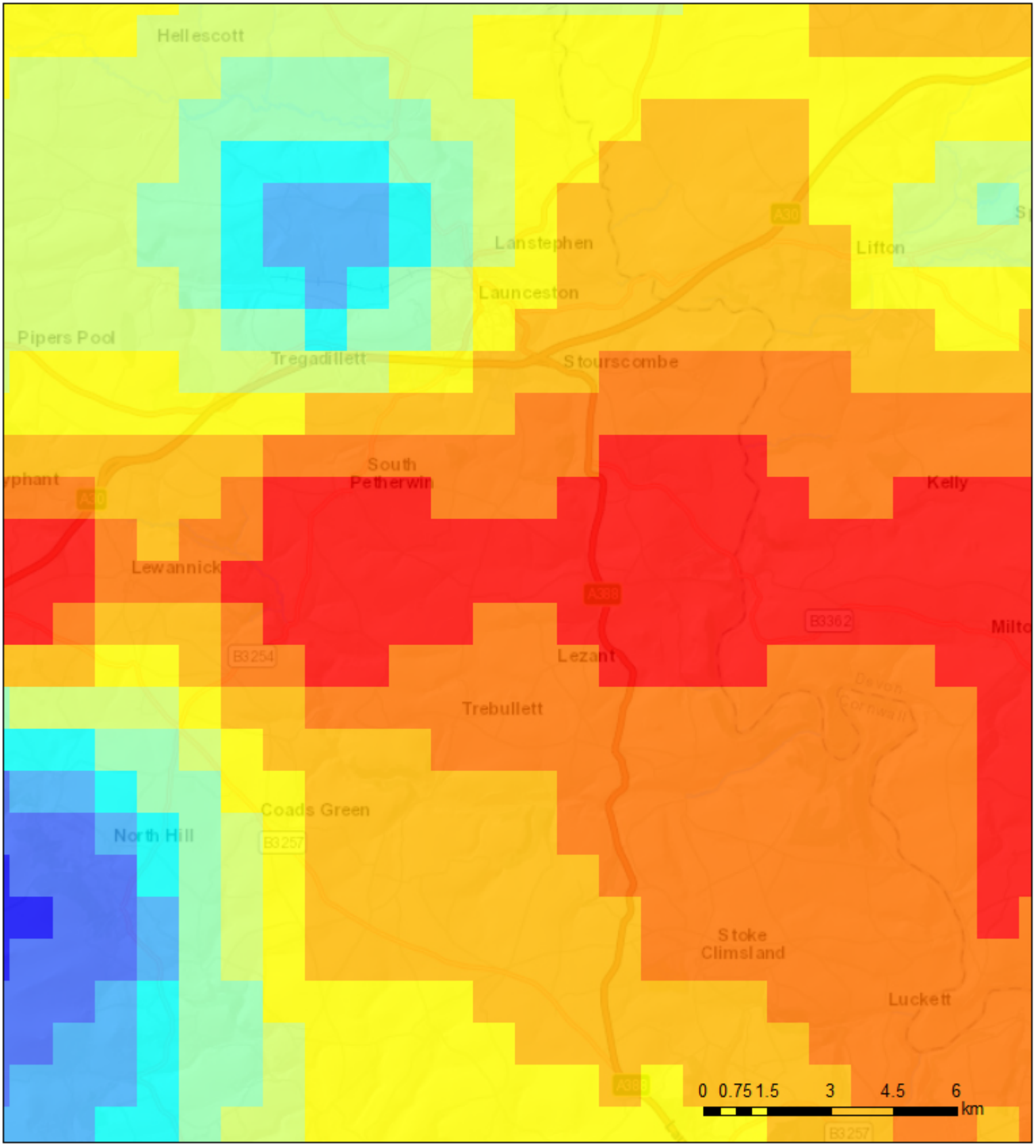
Map Key

NSI Topsoil Copper



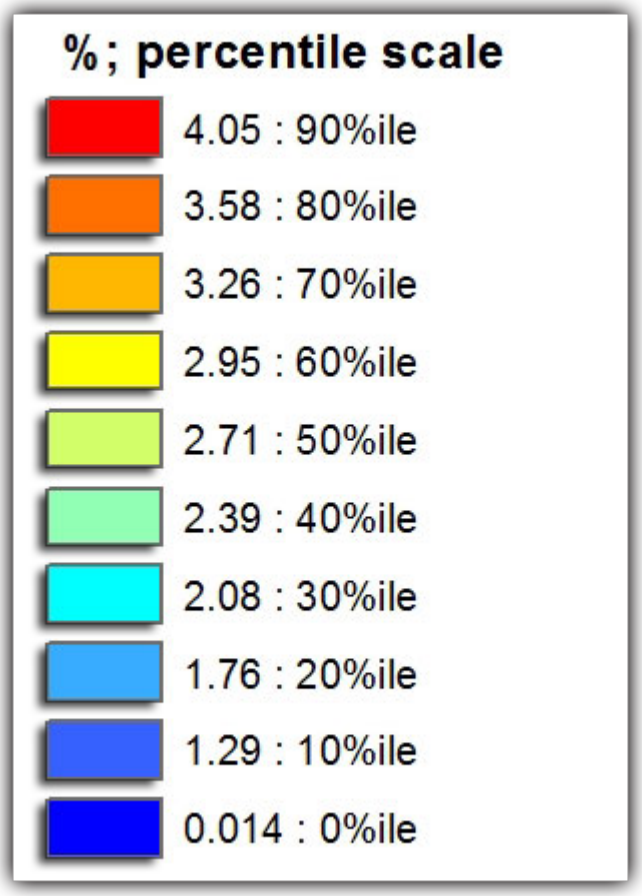
UKSO

UK Soil Observatory

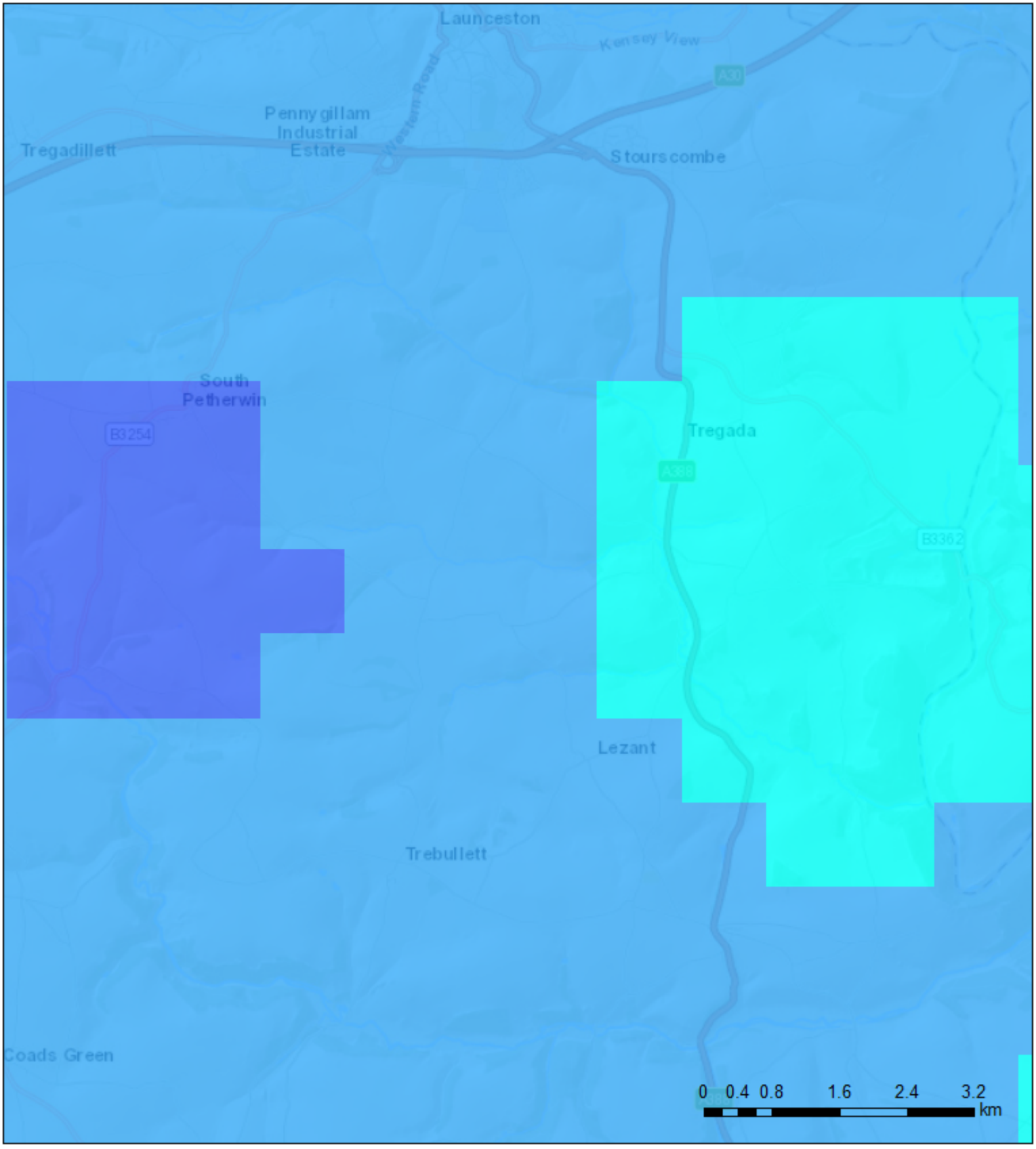


Map Key

NSI Topsoil Iron

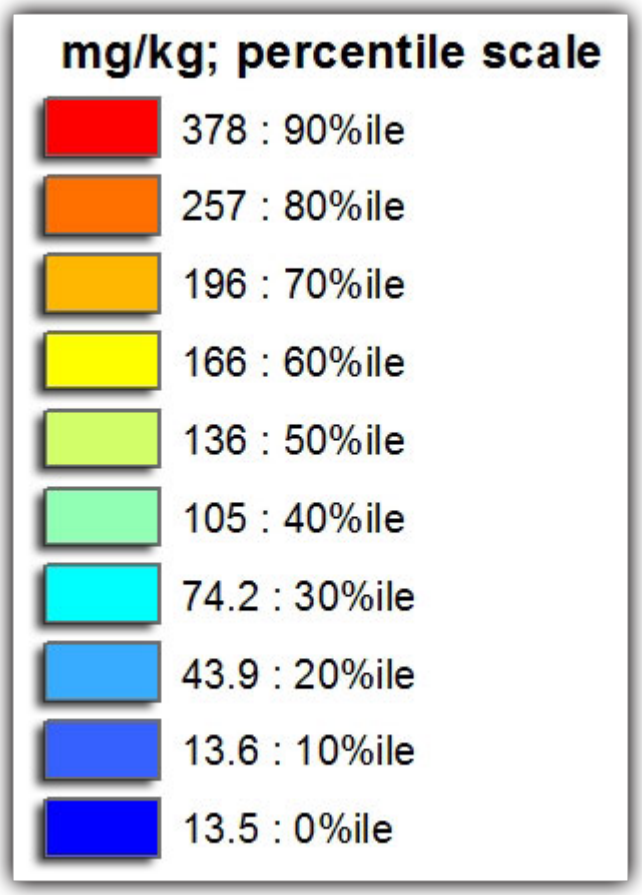


UK Soil Observatory

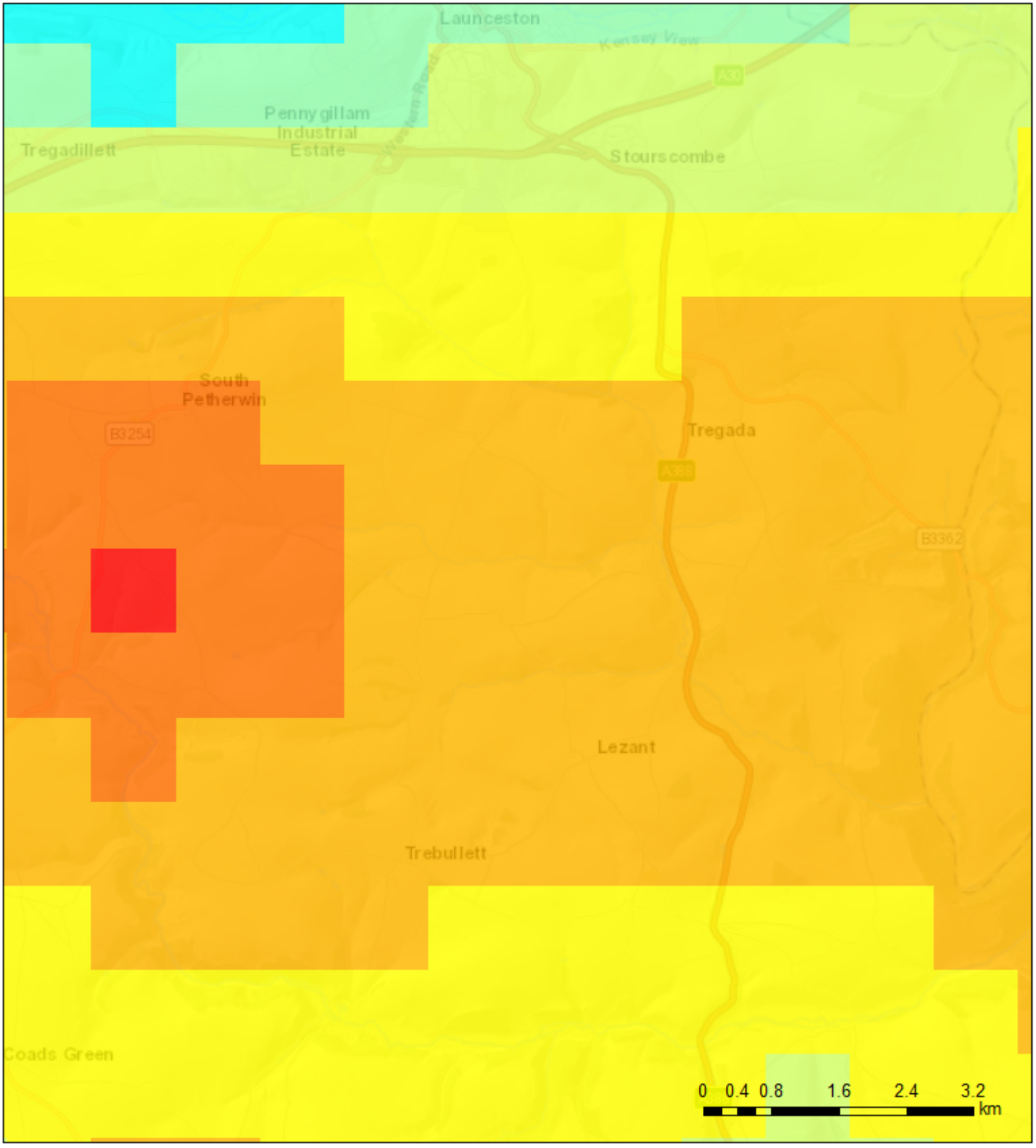


Map Key

NSI Topsoil Lead

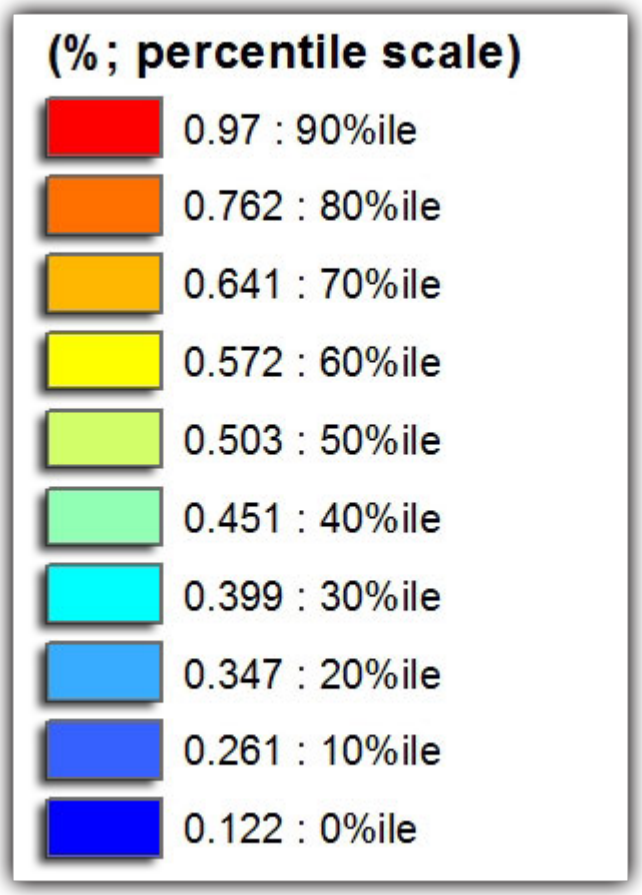


UK Soil Observatory



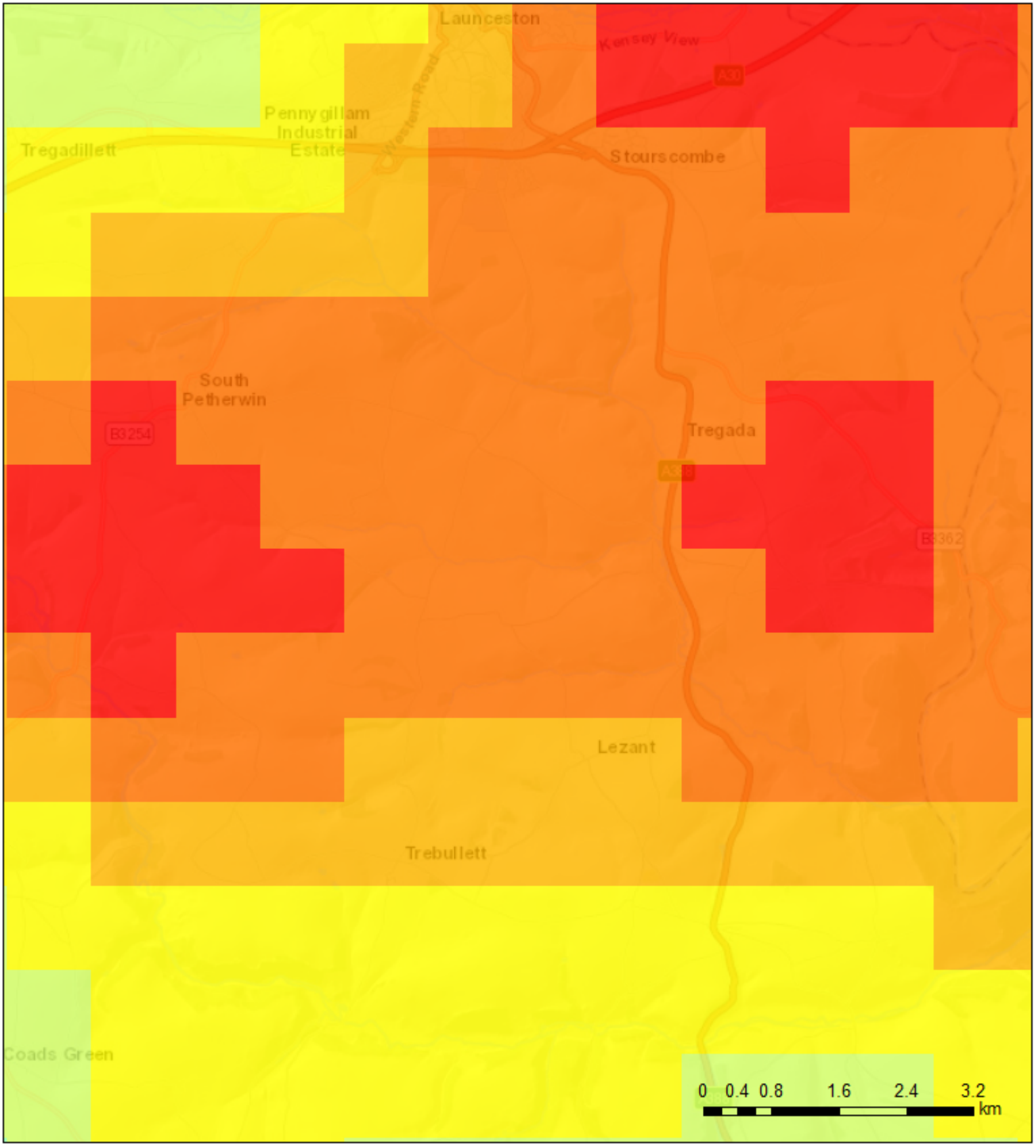
Map Key

NSI Topsoil Magnesium



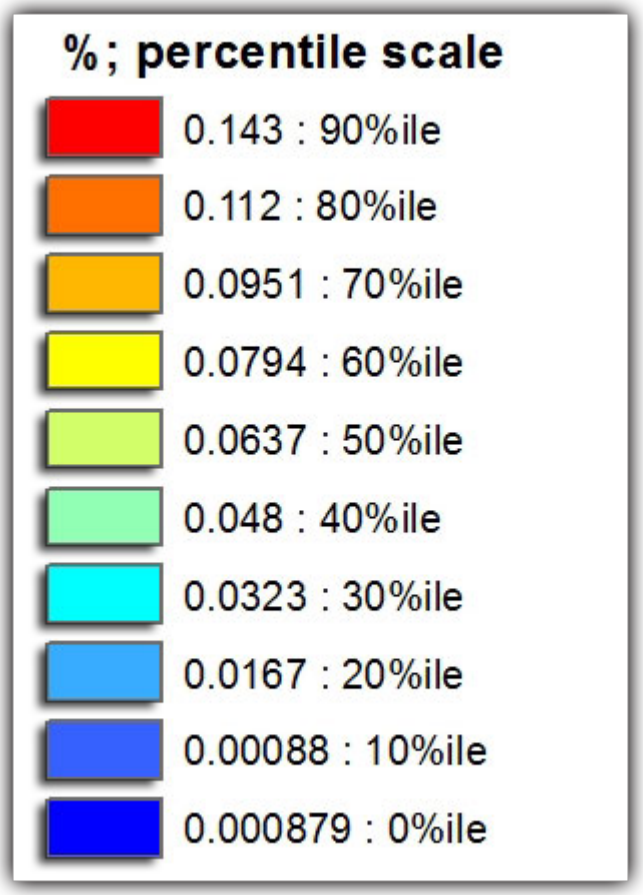
UKSO

UK Soil Observatory

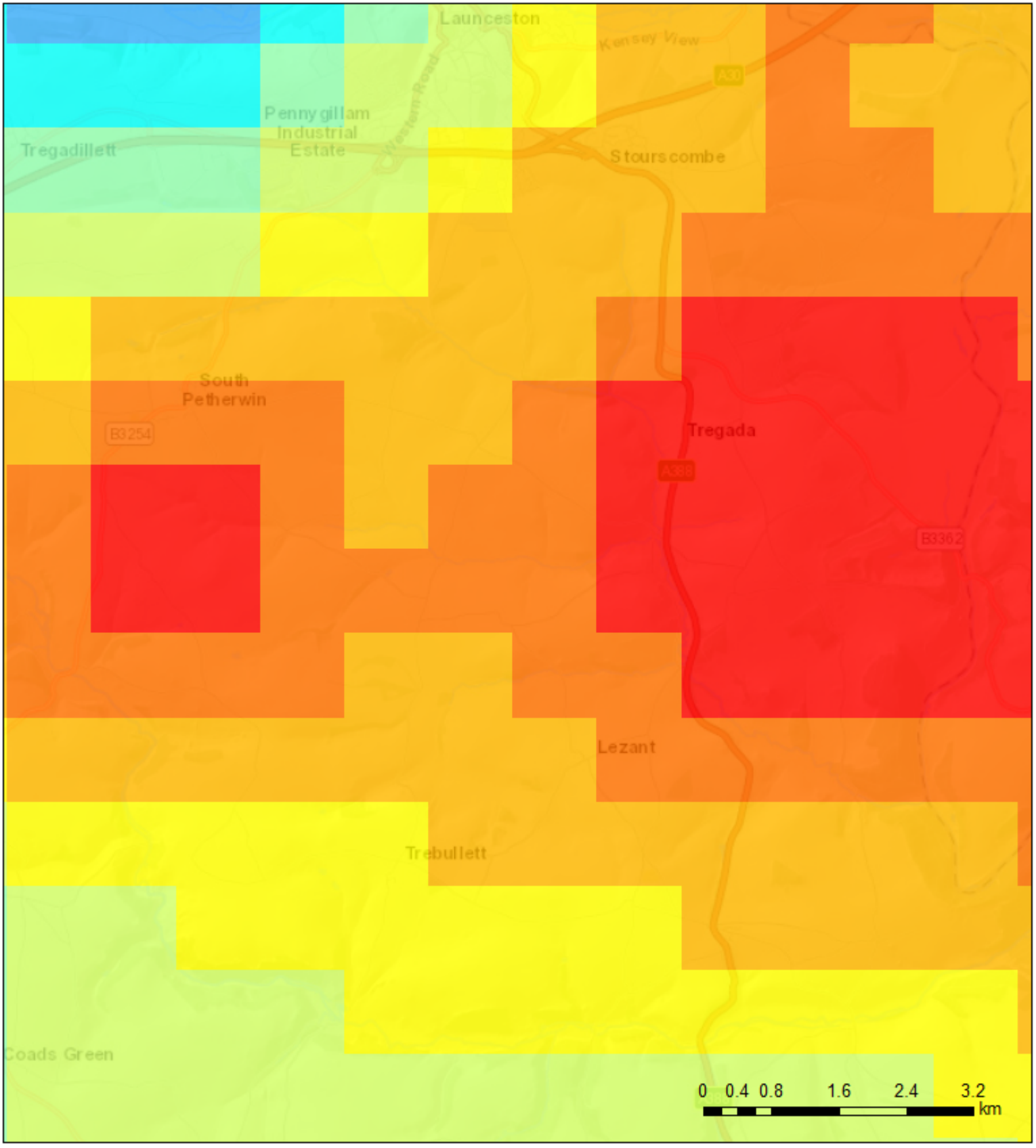


Map Key

NSI Topsoil Manganese

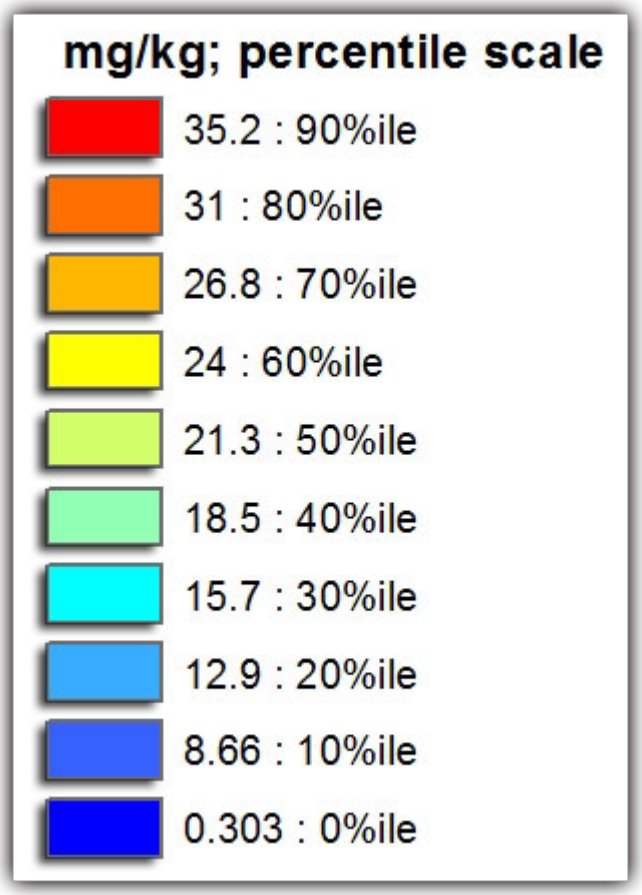


UK Soil Observatory

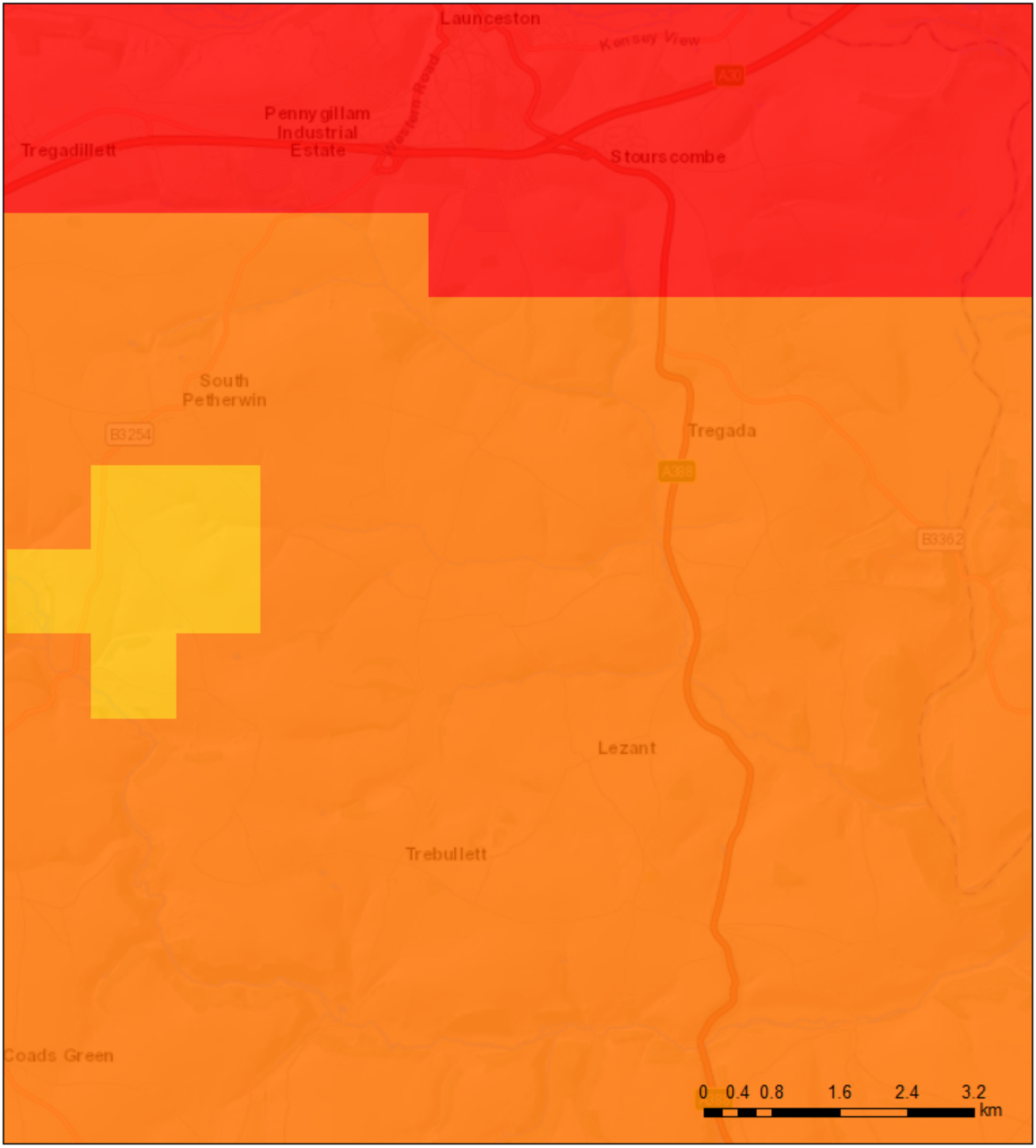


Map Key

NSI Topsoil Nickel

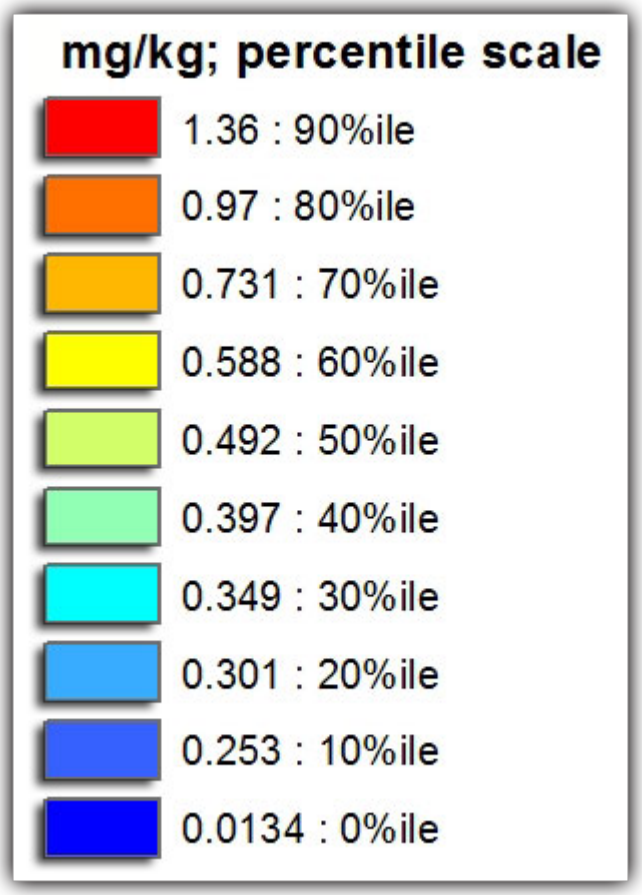


UK Soil Observatory



Map Key

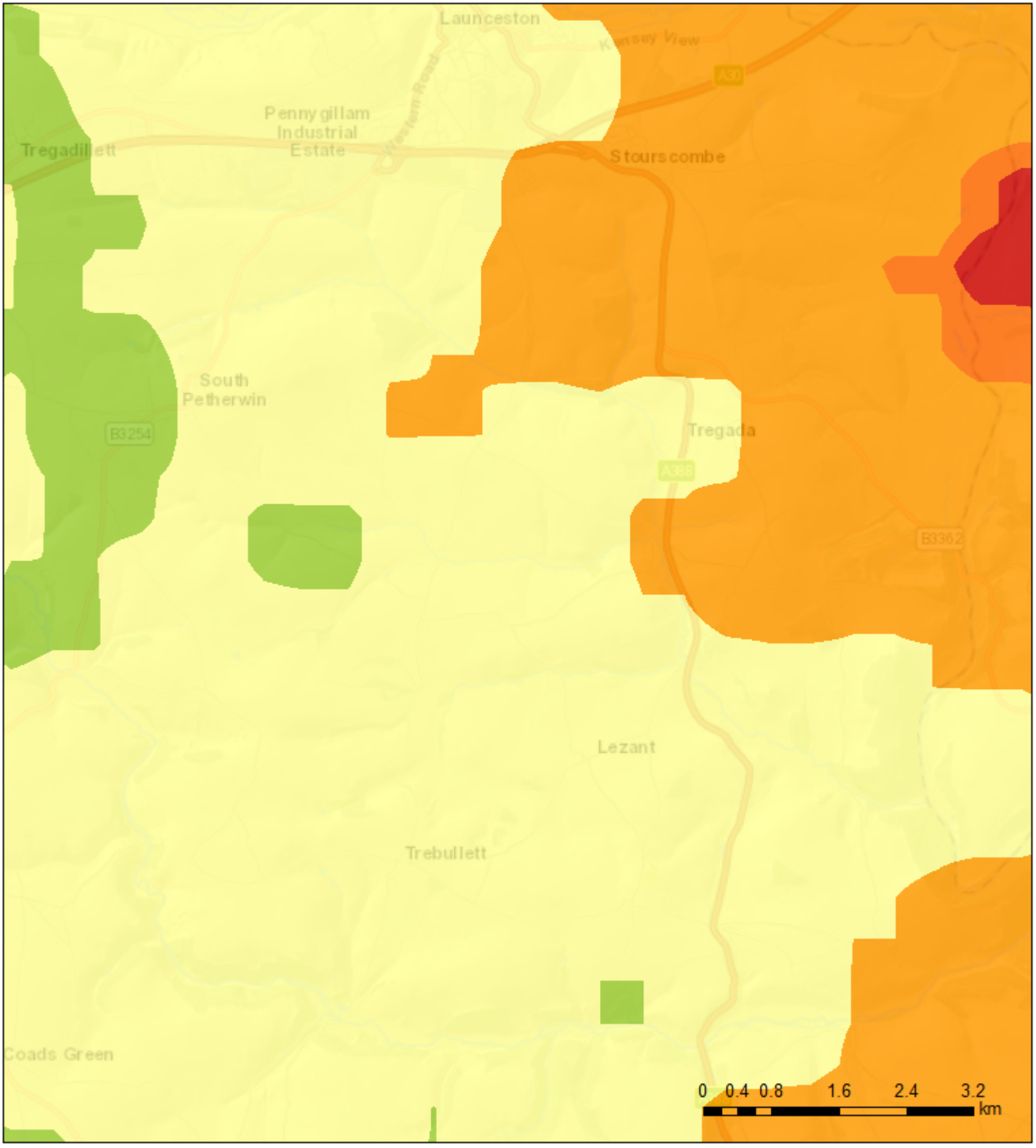
NSI Topsoil Selenium



Appendix H UKSO (Subsoil)

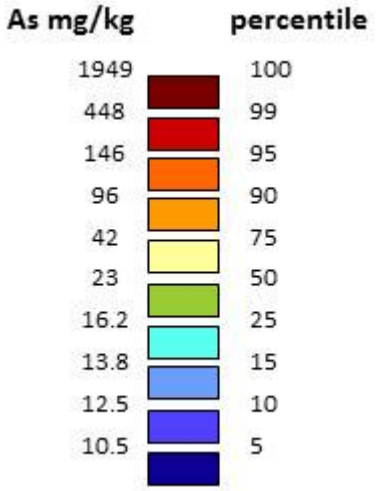
UKSO

UK Soil Observatory

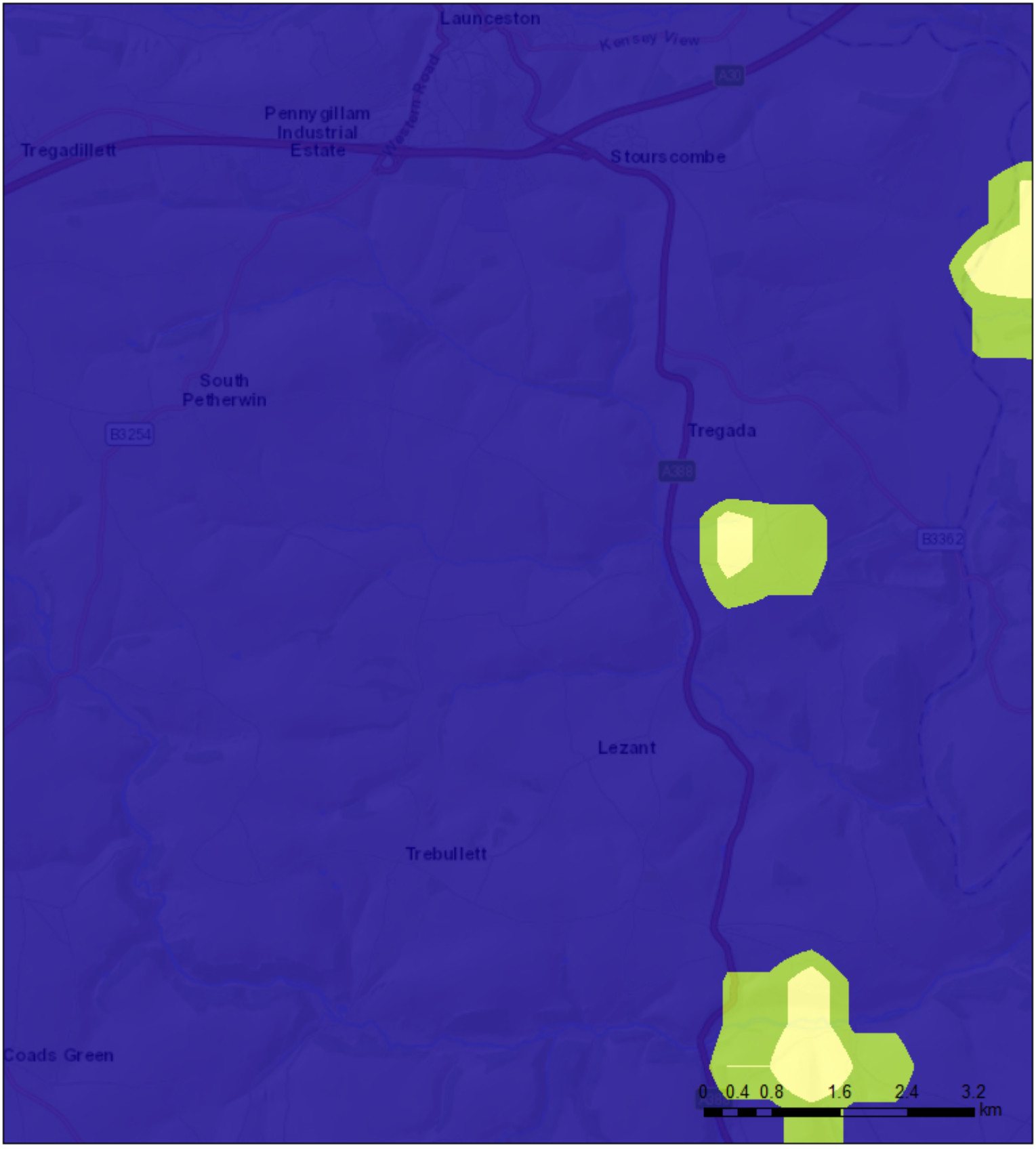


Map Key

Arsenic (As) in soils (SW only)

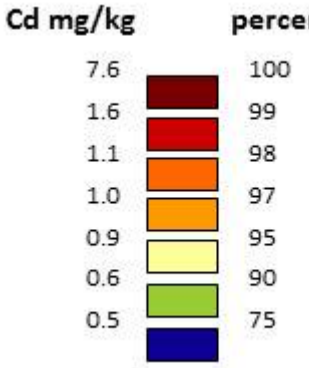


UK Soil Observatory



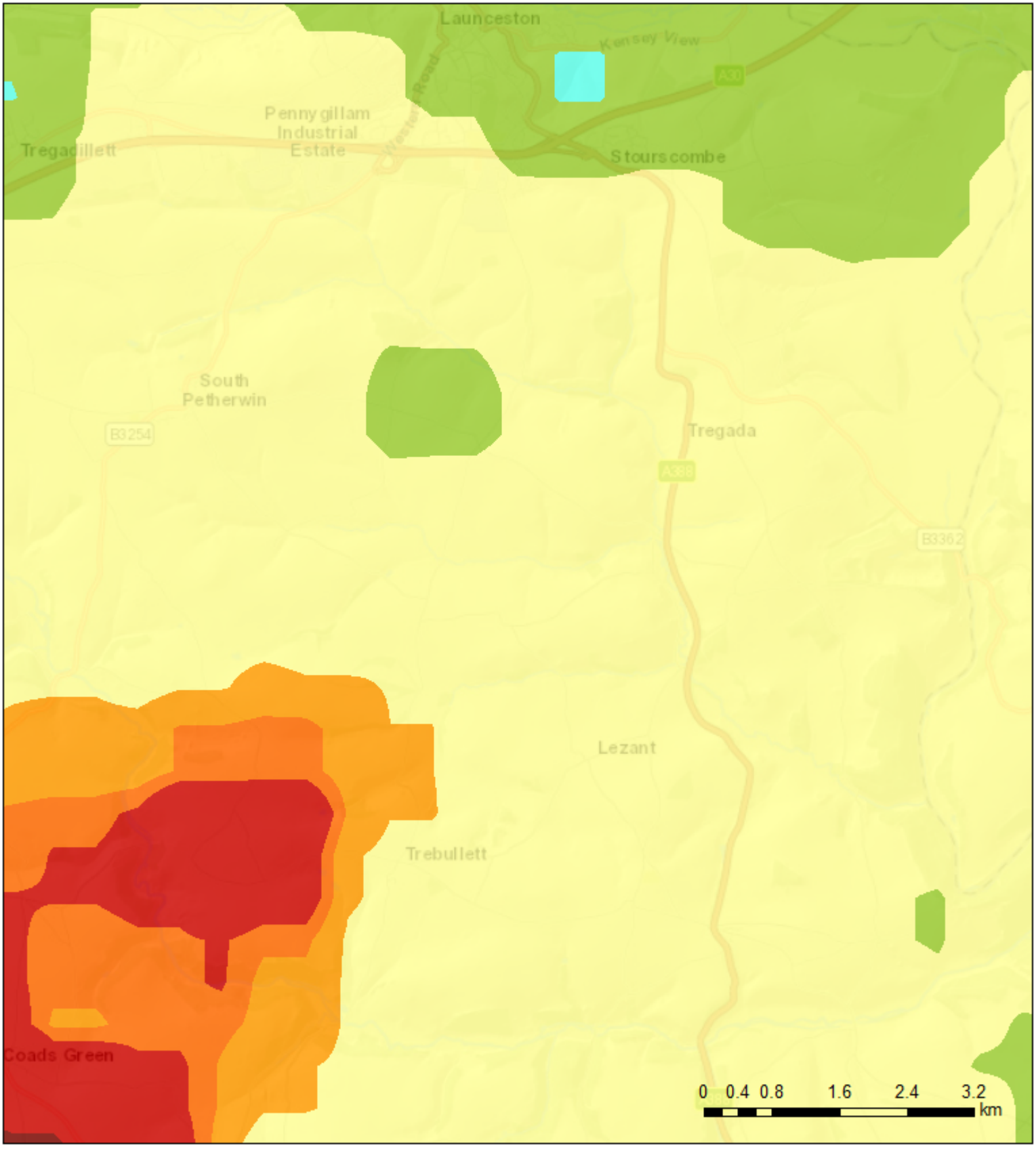
Map Key

Cadmium (Cd) in soils (SW only)



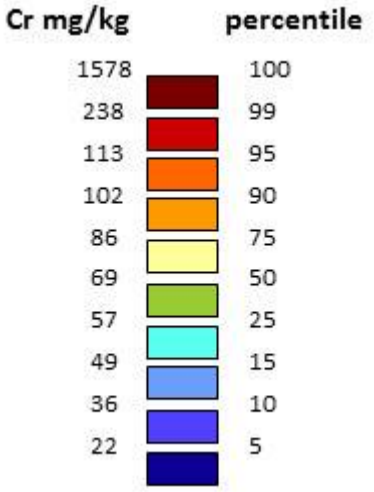
UKSO

UK Soil Observatory



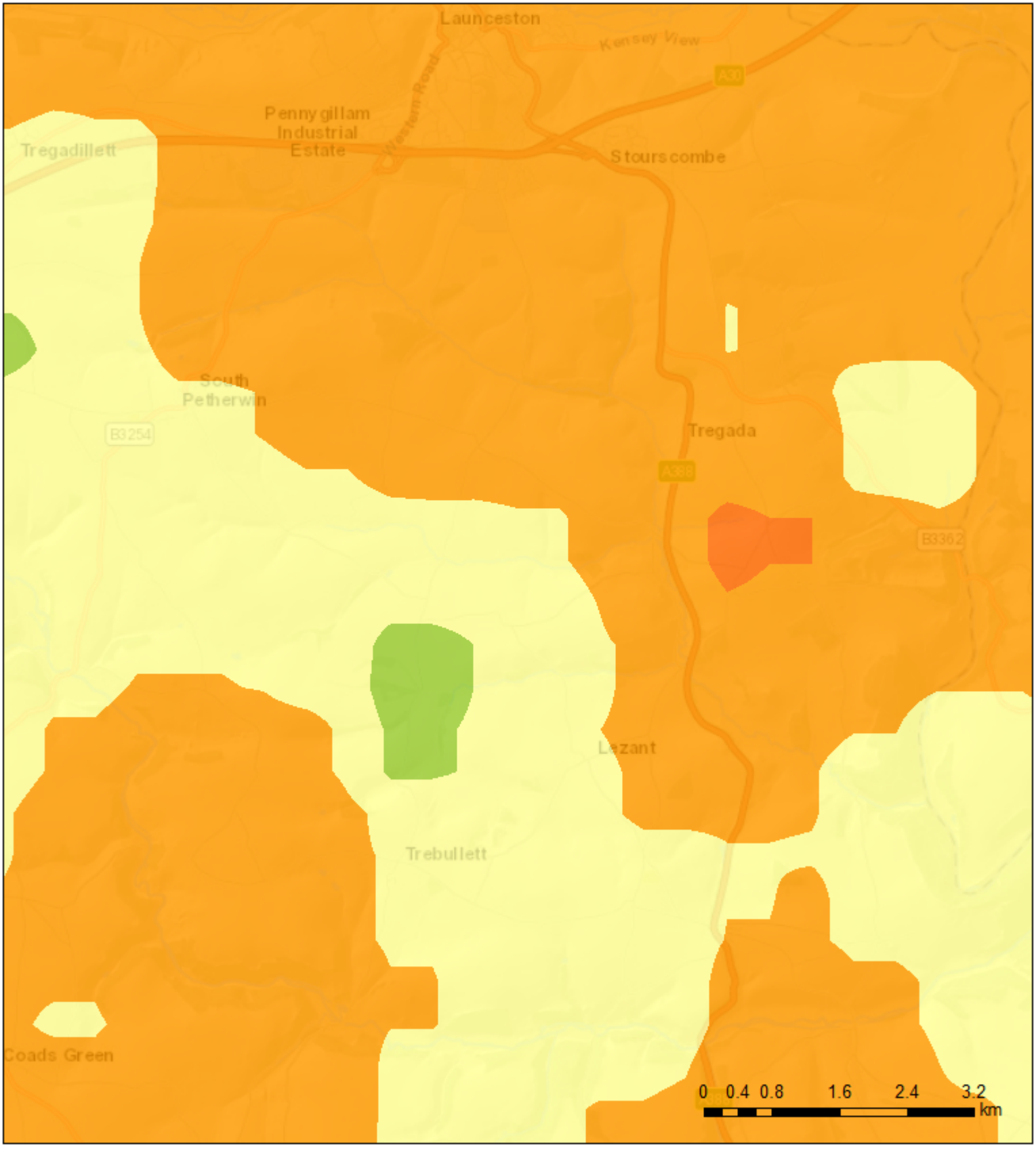
Map Key

Chromium (Cr) in soils (SW only)



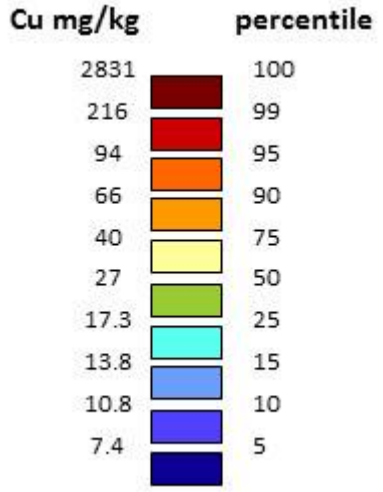
UKSO

UK Soil Observatory



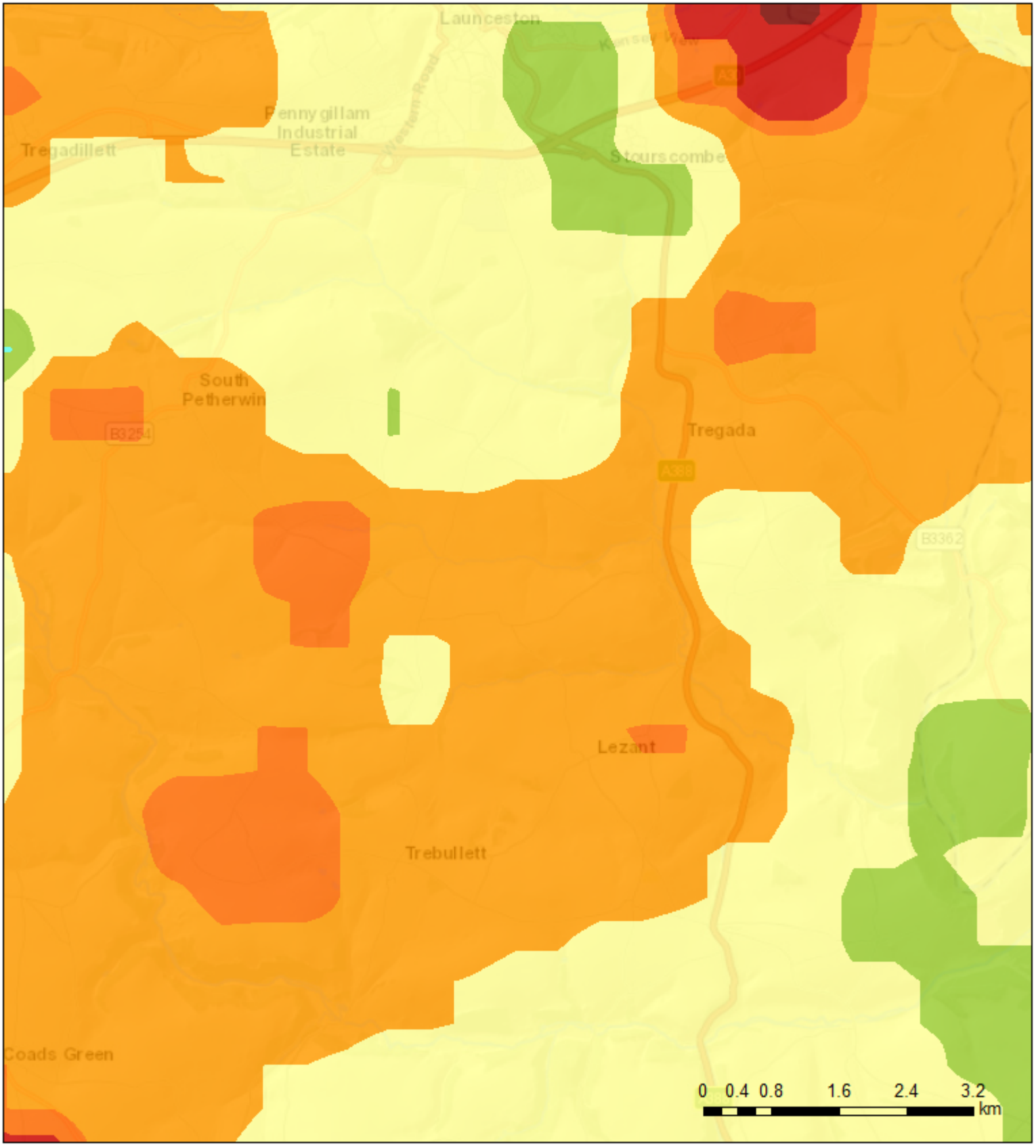
Map Key

Copper (Cu) in soils (SW only)



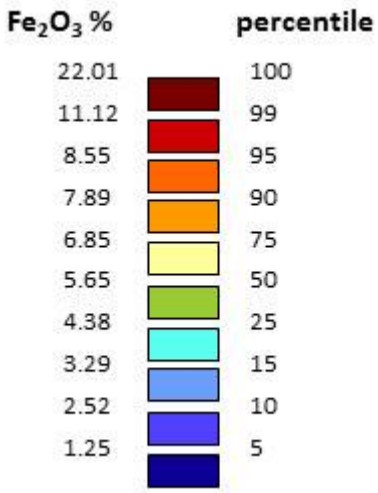
UKSO

UK Soil Observatory



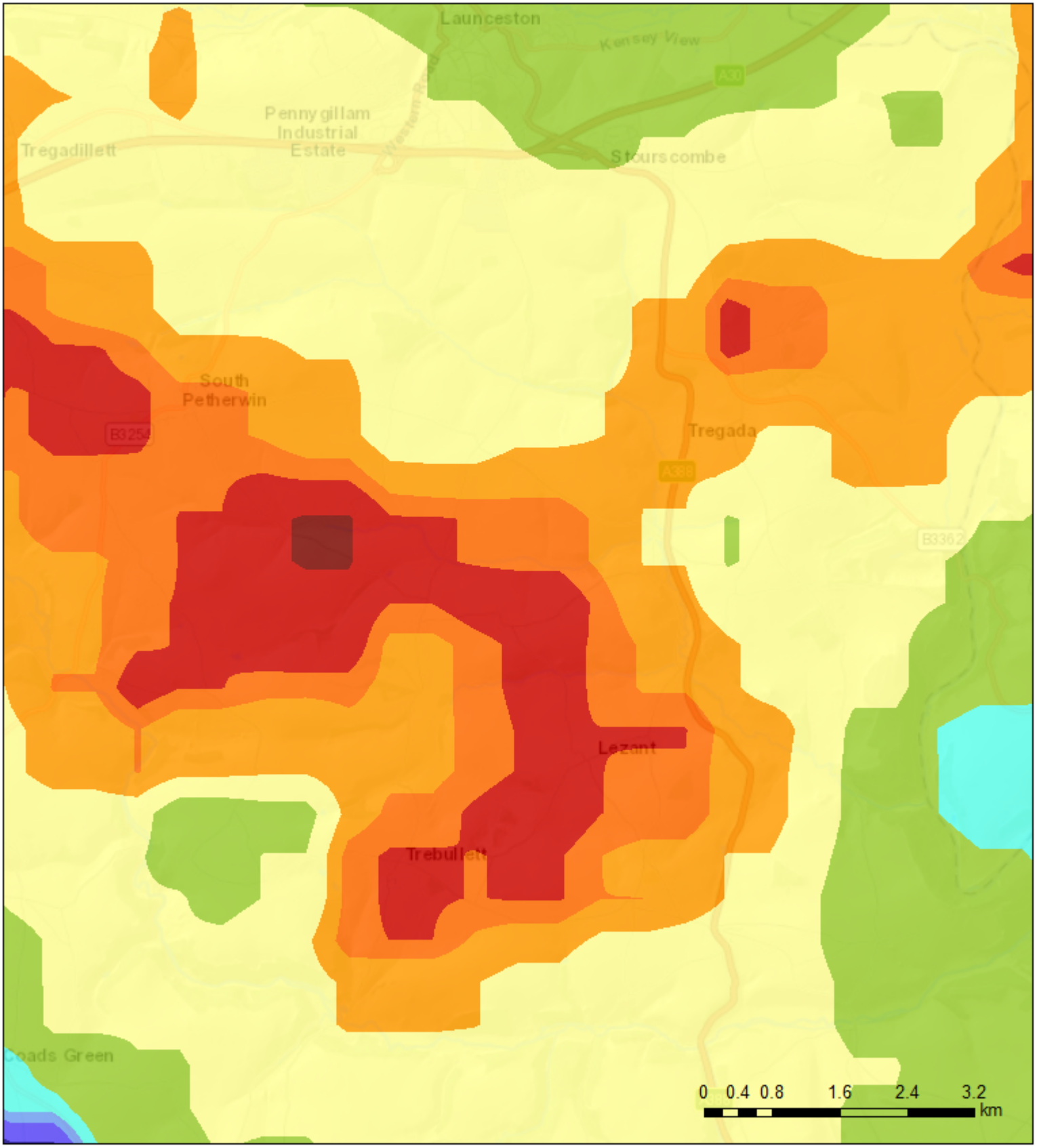
Map Key

Iron (Fe) in soils (SW only)



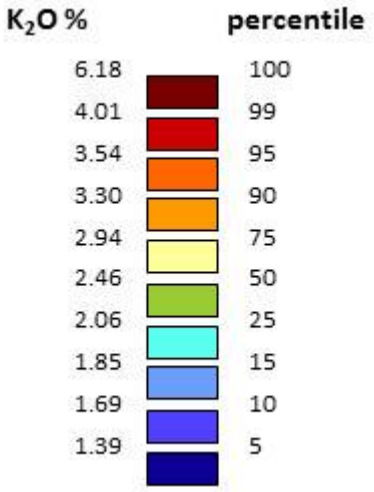
UKSO

UK Soil Observatory



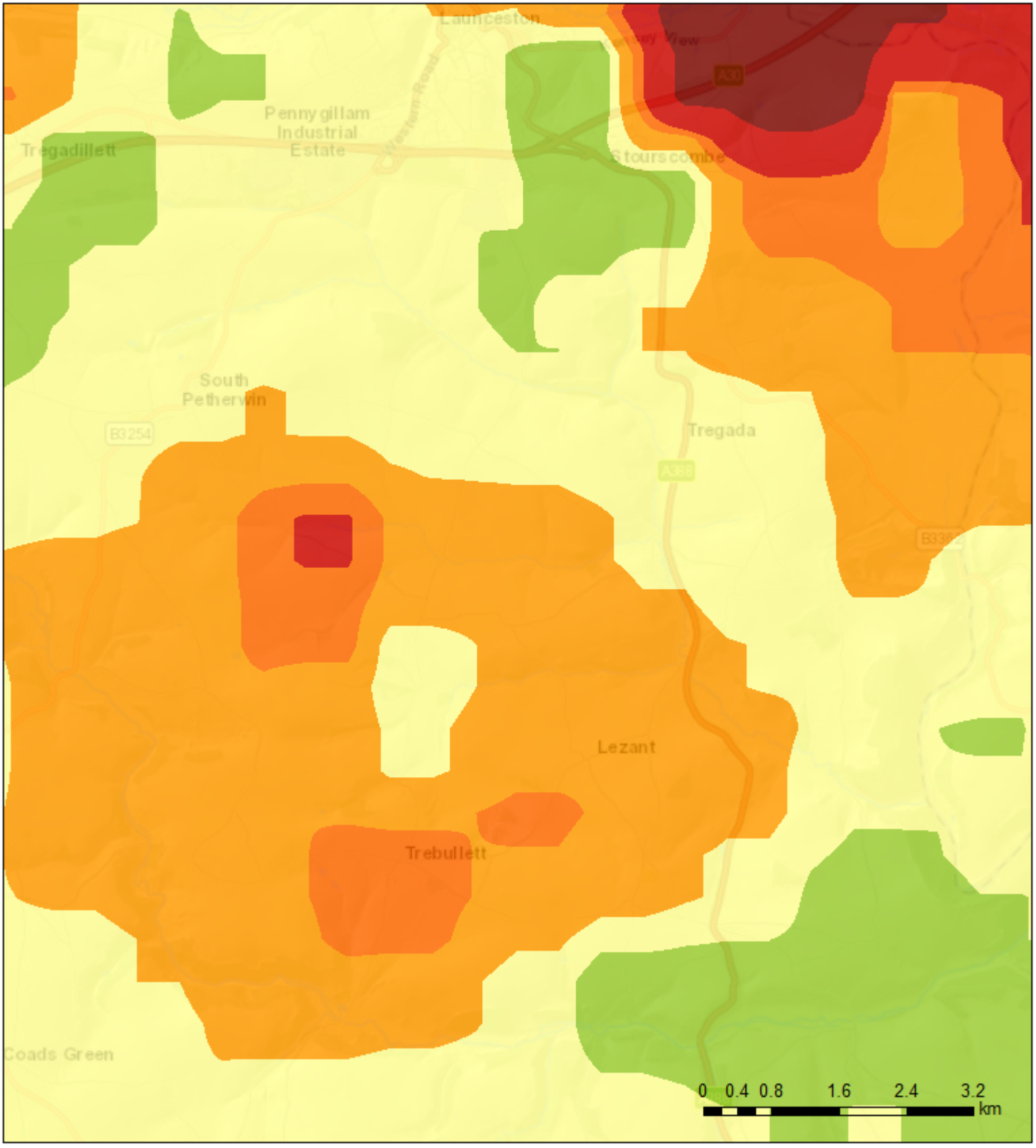
Map Key

Potassium (K) in soils (SW only)



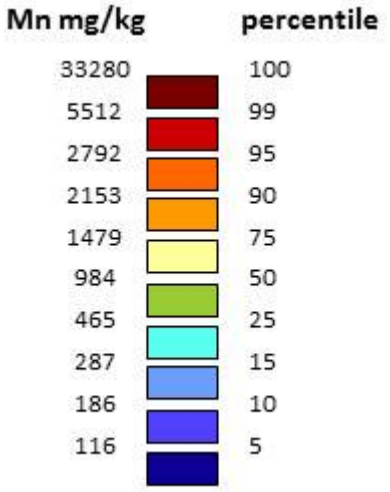
UKSO

UK Soil Observatory



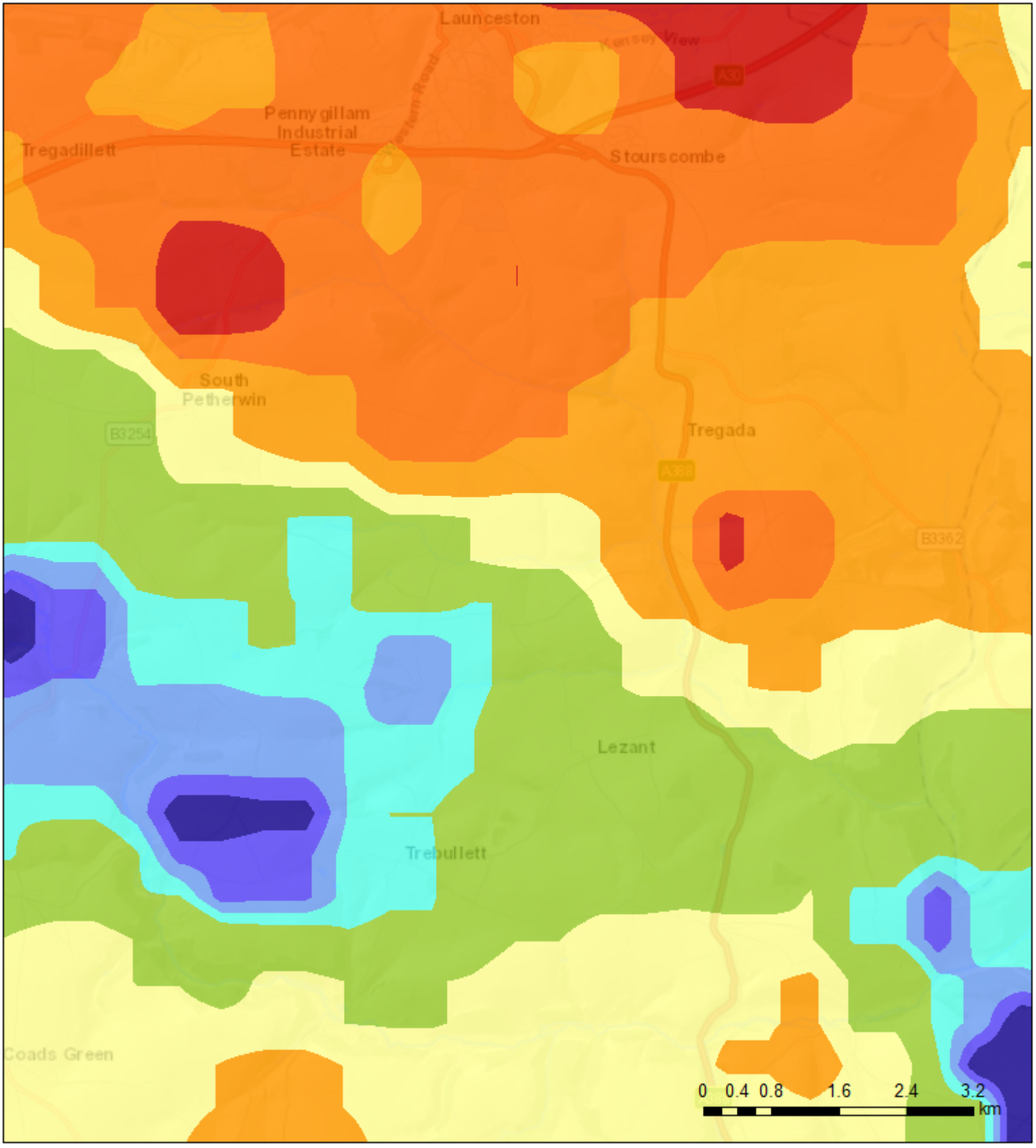
Map Key

Manganese (Mn) in soils (SW only)



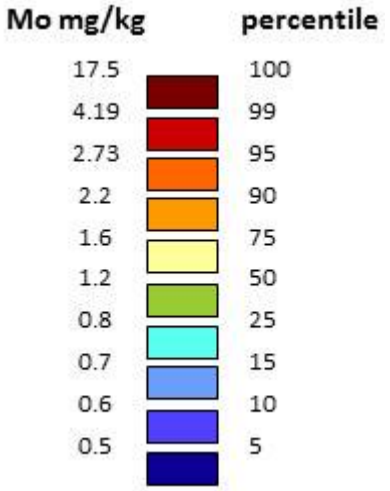
UKSO

UK Soil Observatory



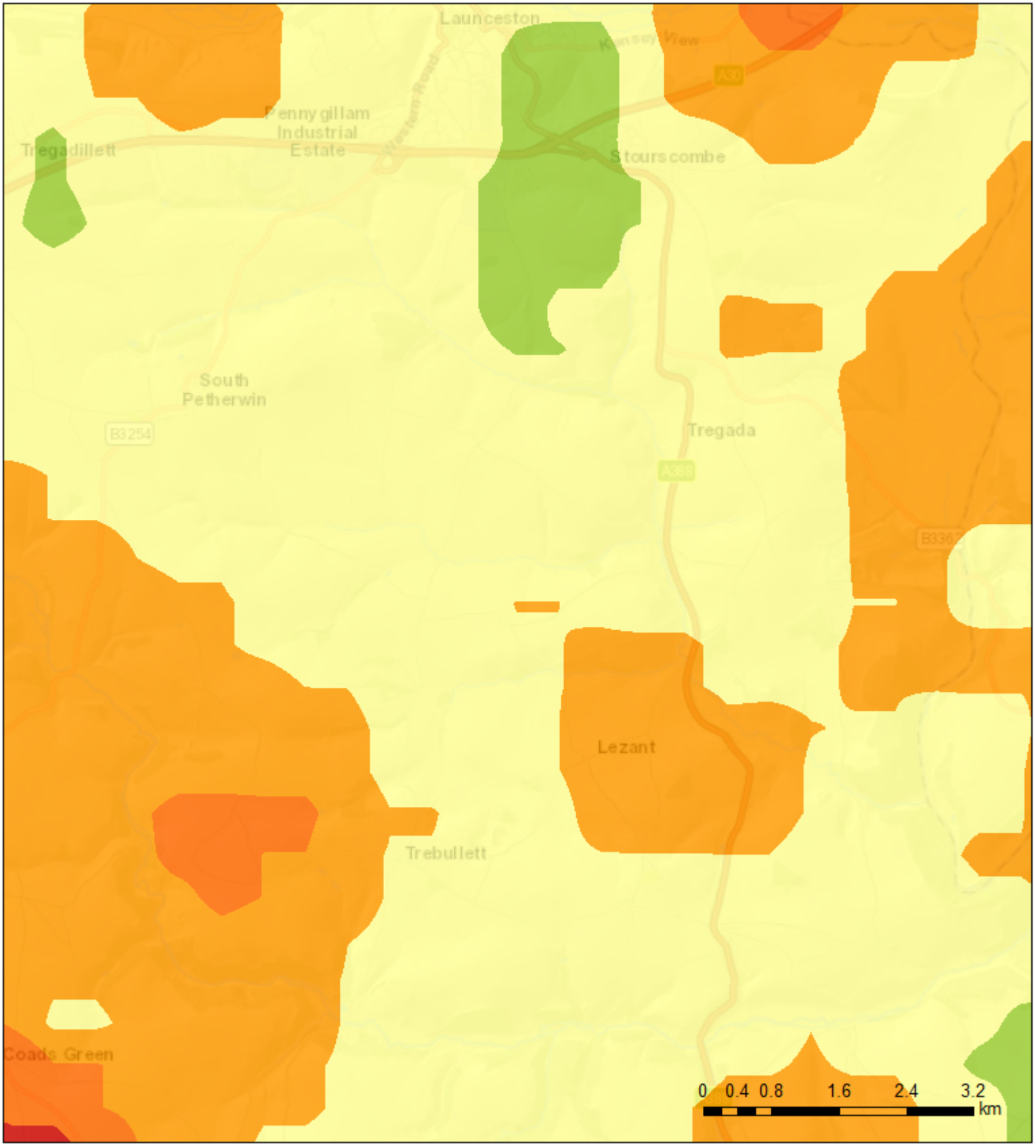
Map Key

Molybdenum (Mo) in soils (SW only)



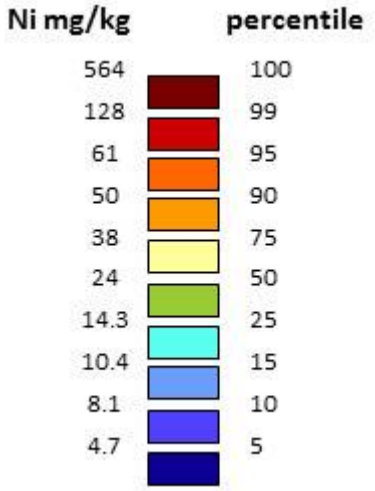
UKSO

UK Soil Observatory



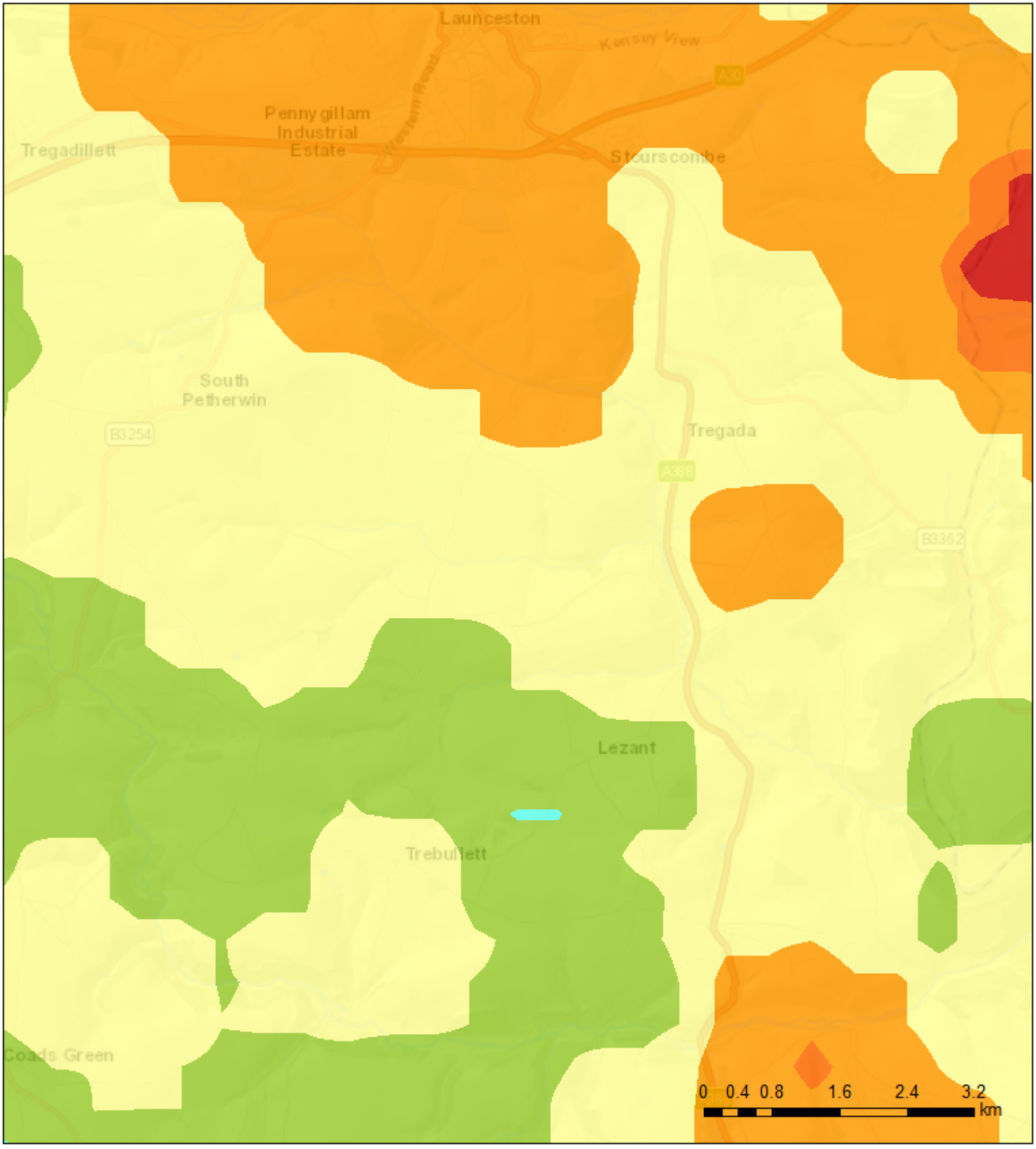
Map Key

Nickel (Ni) in soils (SW only)



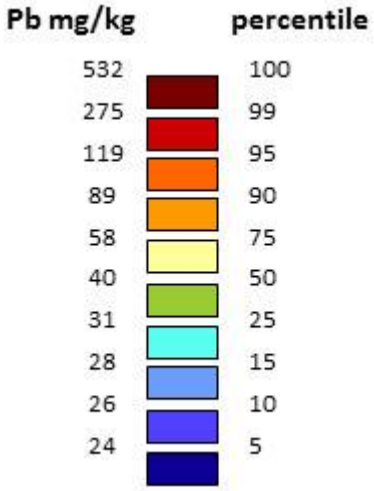
UKSO

UK Soil Observatory



Map Key

Lead (Pb) in soils (SW only)

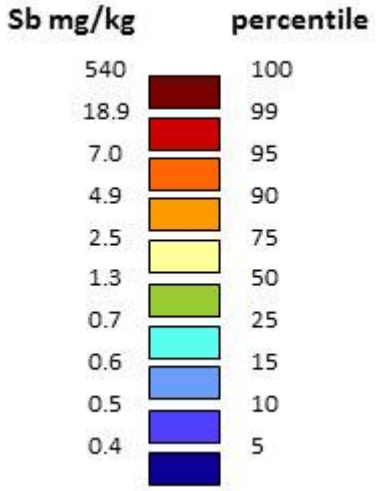


UKSO

UK Soil Observatory

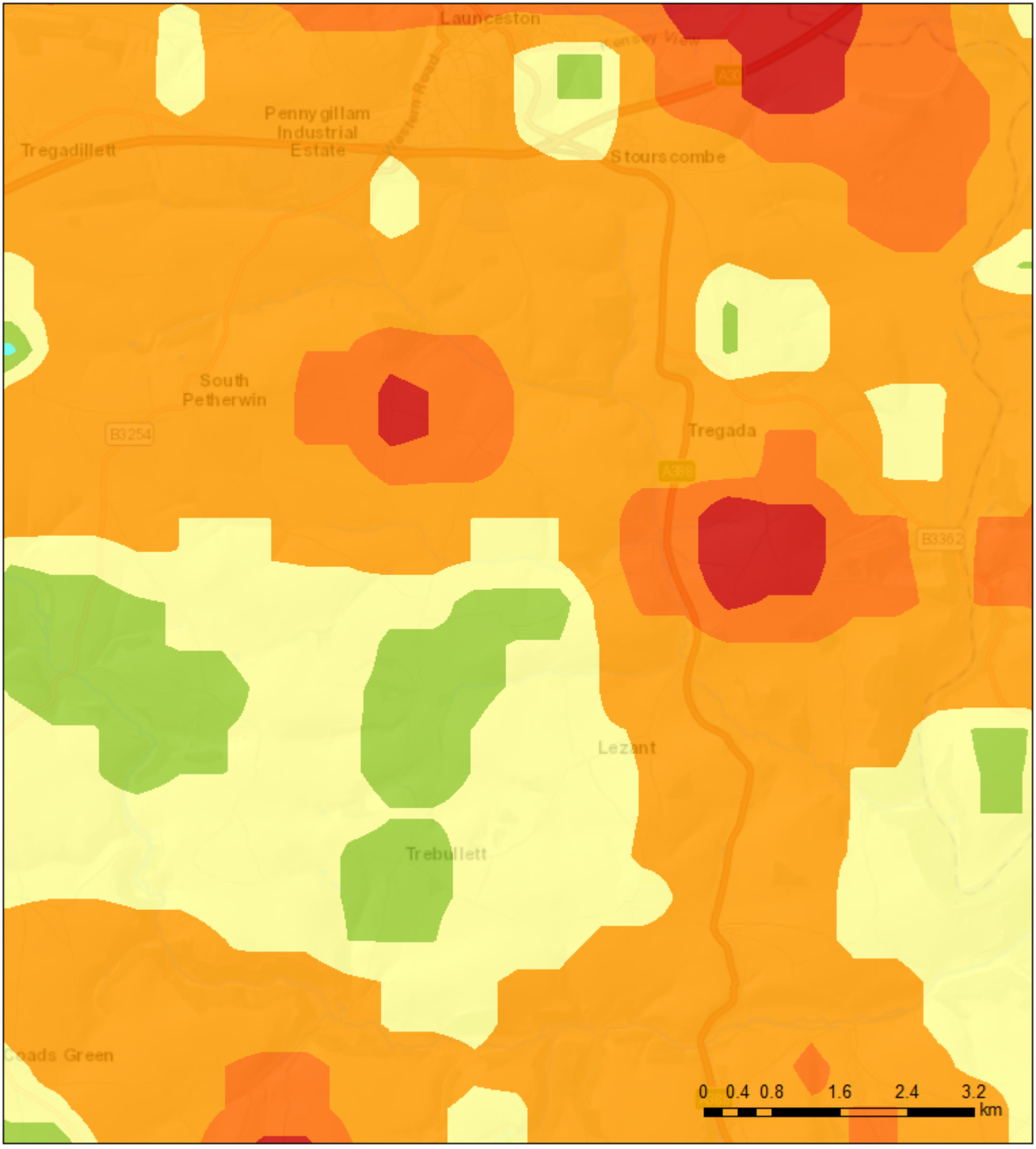
Map Key

Antimony (Sb) in soils (SW only)



UKSO

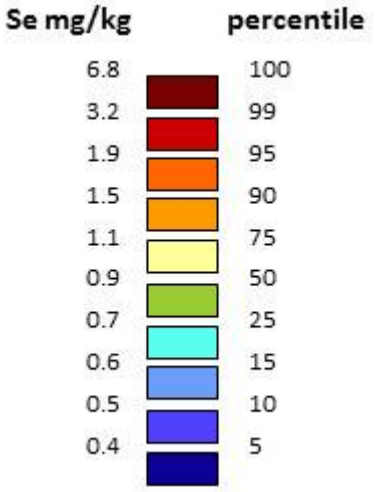
UK Soil Observatory



Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User

Map Key

Selenium (Se) in soils (SW only)



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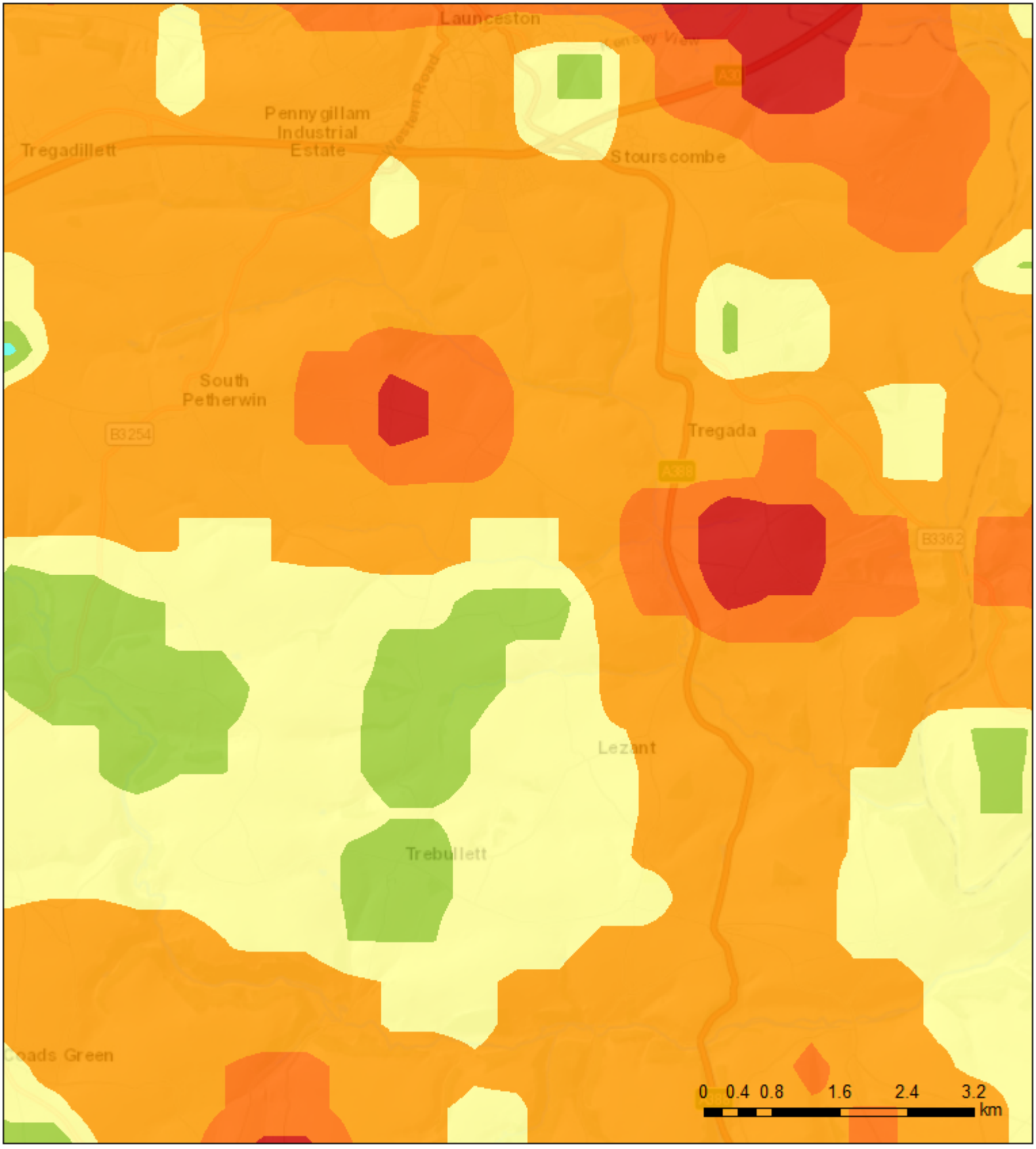

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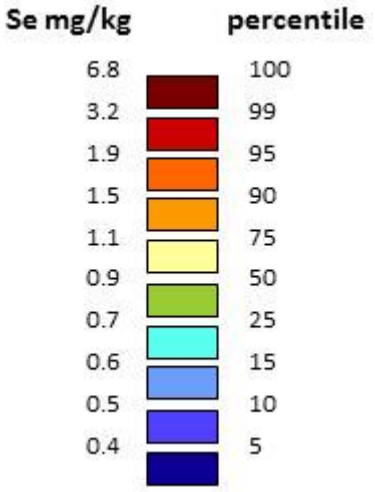
Map Key

Selenium (Se) in soils (SW only)



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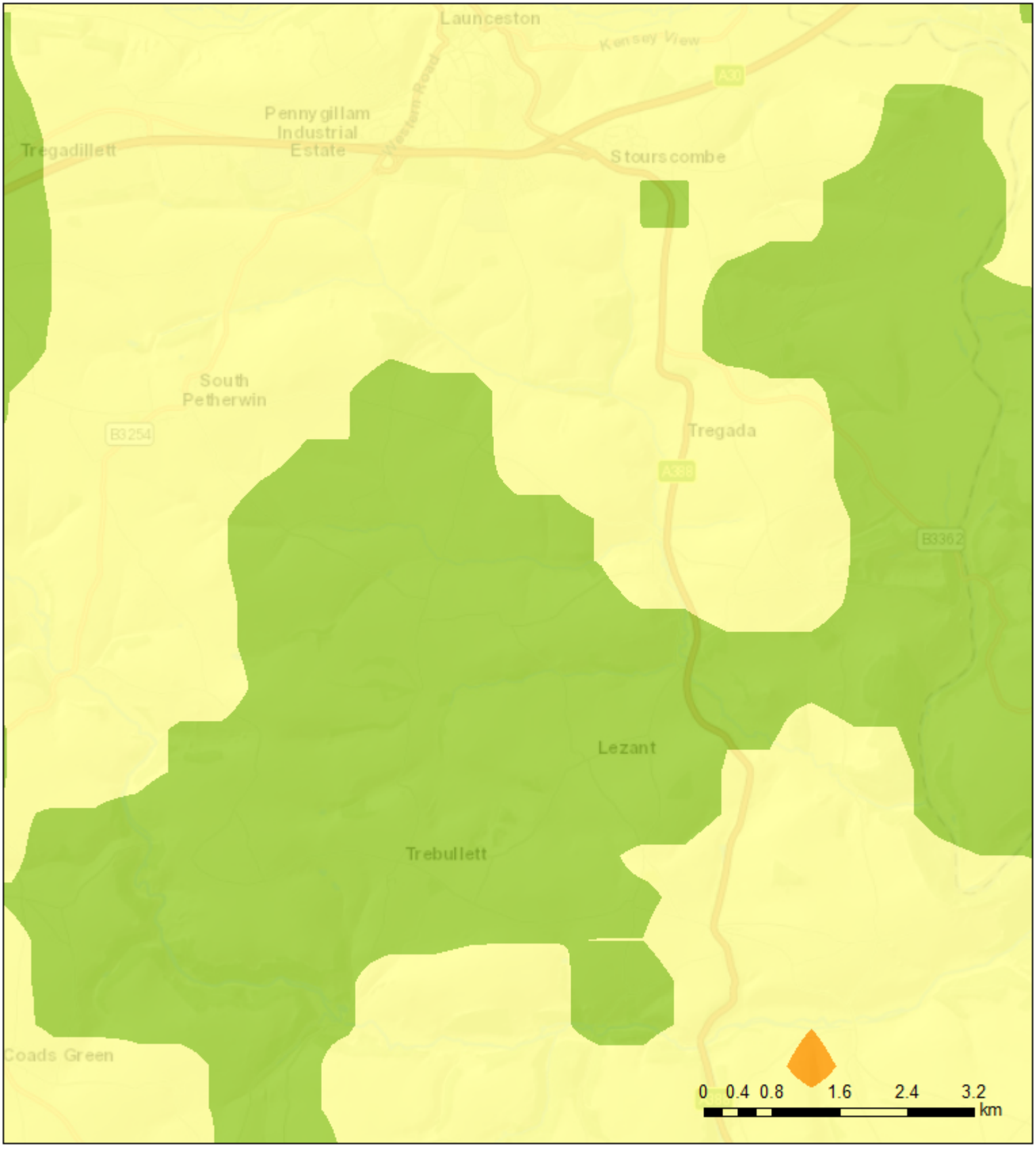
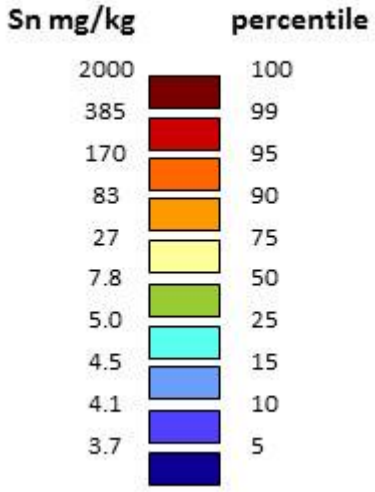
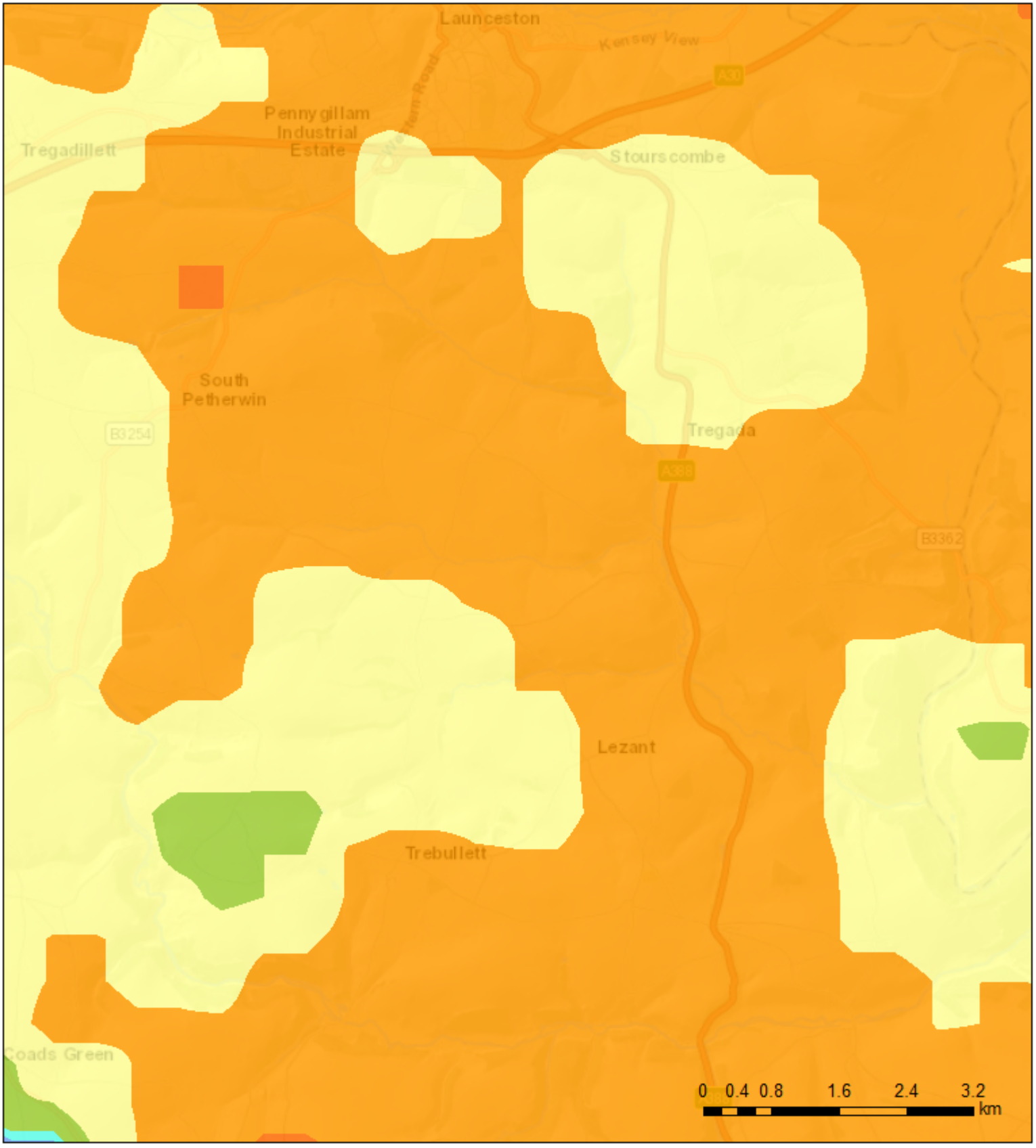


Map Key

Tin (Sn) in soils (SW only)

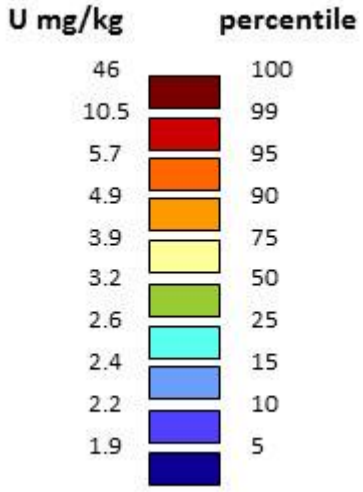


UK Soil Observatory

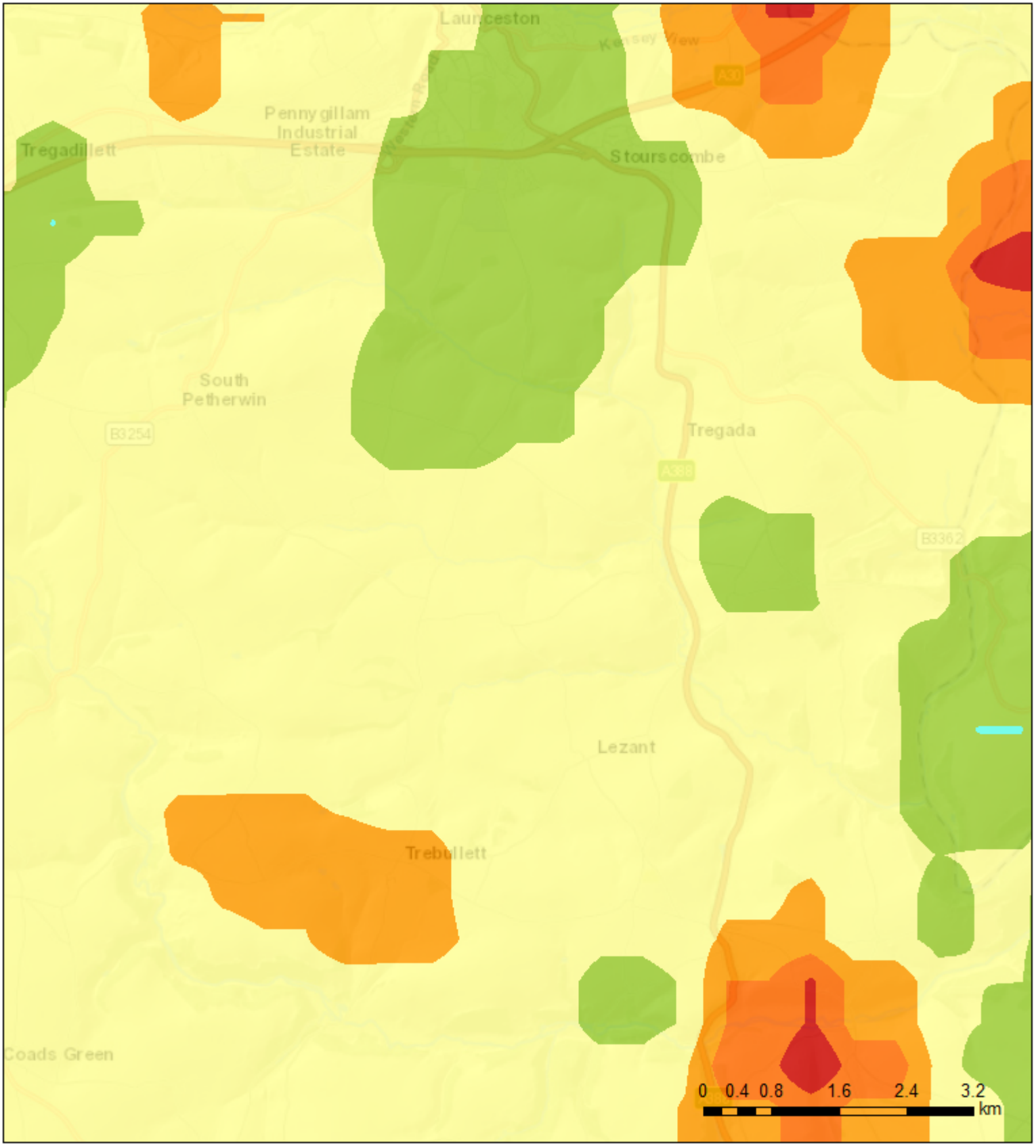


Map Key

Uranium (U) in soils (SW only)



UK Soil Observatory



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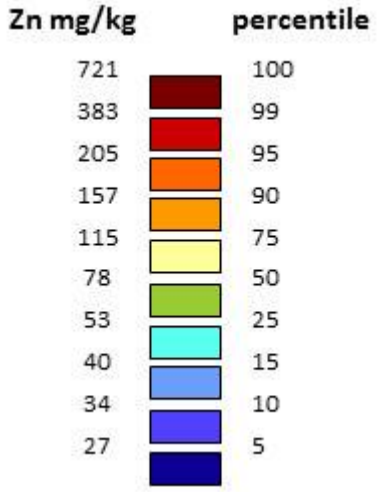
Map Key

Zinc (Zn) in soils (SW only)



Appendix I Photosheet

Photo Sheet 1

Project Reference: HCE0312

Project Title: Trevozah Barton Inert Landfill

Photograph 1: View of access track route looking in a northerly direction. [01 October 2019]

Photograph 2: View of proposed compound and welfare unit area immediately north of deposition area. [01 October 2019]

Photo Sheet 2

Project Reference: HCE0312

Project Title: Trevozah Barton Inert Landfill

Photograph 3: Existing oak trees immediately north-west of deposition area. Northern attenuation pond to be excavated adjacent to these trees. [01 October 2019].

Photograph 4: View of deposition area looking in a southerly direction. [01 October 2019]

Photo Sheet 3

Project Reference: HCE0312

Project Title: Trevozah Barton Inert Landfill

Photograph 5: View of deposition area looking in a southerly direction. [01 October 2019]

Photograph 6: View of deposition area looking in a northerly direction. [01 October 2019]

Photo Sheet 4

Project Reference: HCE0312

Project Title: Trevozah Barton Inert Landfill

Photograph 7: View of deposition area, looking in a southerly direction. [20 August 2019]

Photograph 8: View of deposition area, looking in a northerly direction. Dry existing ditch along western side of deposition area to be infilled. [20 August 2019].

Photo Sheet 5

Project Reference: HCE0312

Project Title: Trevozah Barton Inert Landfill

Photograph 9: View of deposition area, looking in a north-easterly direction. [20 August 2019]

Photograph 10: View of south-western end of deposition area, looking in a westerly direction. [01 October 2019]

Photo Sheet 6

Project Reference: HCE0312

Project Title: Trevozah Barton Inert Landfill

Photograph 11: View of deposition area, looking in a northerly direction. [01 October 2019].

Photograph 12: Saturated surface soils towards southern end of deposition area looking in a southerly direction [01 October 2019].

Photo Sheet 7

Project Reference: HCE0312

Project Title: Trevozah Barton Inert Landfill

Photograph 13: View of southern end of deposition area looking in a northerly direction. [01 October 2019]

Photograph 14: View of southern end of deposition area, looking in a north-easterly direction. [01 October 2019]

Photo Sheet 8

Project Reference: HCE0312

Project Title: Trevozah Barton Inert Landfill

Photograph 15: Location of proposed attenuation pond at southern end of deposition area looking in a southerly direction. Line of surface water ditch leading down to unnamed water course visible towards top of photograph [01 October 2019].

Photograph 16: Southern end of deposition area looking in a north-easterly direction. [20 August 2019].

Photo Sheet 9

Project Reference: HCE0312

Project Title: Trevozah Barton Inert Landfill

Photograph 17: Surface water ditch heading in a southerly direction towards unnamed water course to south of Site. Ditch observed to have been cleared subsequent to 20 August 2019 walkover Ditch dry adjacent to deposition area despite heavy rainfall in period prior to walkover survey. [01 October 2019].

Photograph 18 View of surface water ditch looking in a northerly direction towards deposition area. Ditch observed to be dry in this area. [01 October 2019]

Photo Sheet 10

Project Reference: HCE0312

Project Title: Trevozah Barton Inert Landfill

Photograph 19: Water first observed in surface water ditch approximately 80 m south of deposition area [01 October 2019].

Photograph 20: Water first observed in surface water ditch approximately 80 m south of deposition area [01 October 2019].

Photo Sheet 11

Project Reference: HCE0312

Project Title: Trevozah Barton Inert Landfill

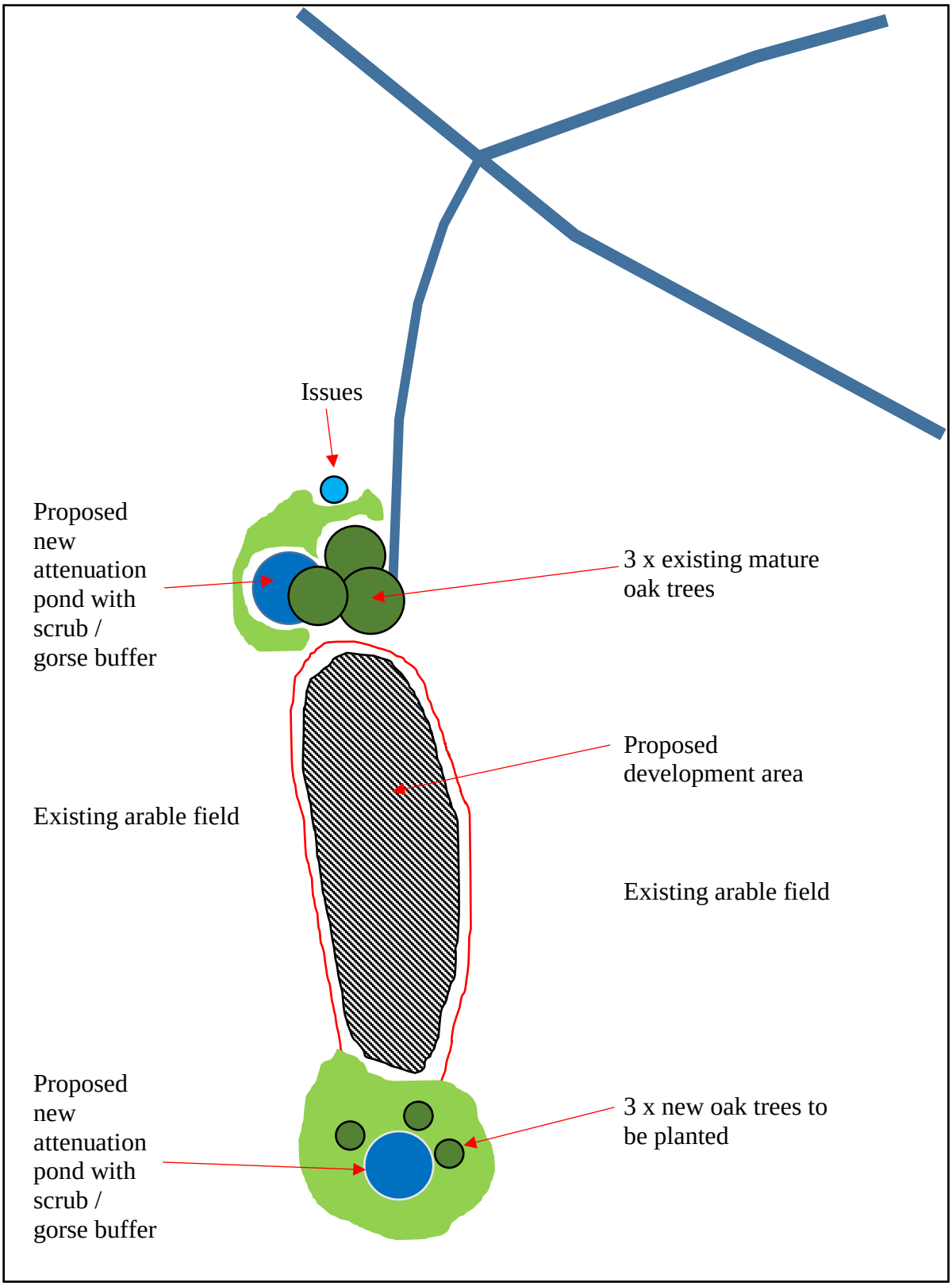
Photograph 21: Increased water flow observed in ditch towards south, nearer unnamed surface water course [01 October 2019].

Photograph 22: Unnamed water course to south of Site, looking in a westerly direction upstream of point where surface water discharges. [01 October 2019].

Appendix J Restoration Plan

3.2 Proposals

It is understood it is intended to fill the existing hollow to bring the land back into agricultural cultivation, the maximum fill not to exceed the existing land level to the east and west at any point. Existing trees at the north end of the site will be retained and the area at the top of the site not affected by the proposed fill. Two groups of 3 oak trees are to be planted around the proposed new pond at the south end, and a small attenuation pond is to be created at the north end. The ponds will be surrounded by buffer zones of scrub (including gorse).



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