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TARMAC LIMITED

**OLD QUARRINGTON AND COLD KNUCKLE QUARRY
APPLICATION FOR AN ENVIRONMENTAL PERMIT VARIATION**

ENVIRONMENTAL SETTING AND SITE DESIGN REPORT

OCTOBER 2021

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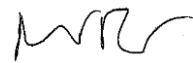
OCTOBER 2021

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CONTENTS

| | | |
|---|---|----|
| 1 | INTRODUCTION..... | 1 |
| 2 | SITE DETAILS..... | 3 |
| 3 | SOURCE..... | 6 |
| 4 | PATHWAY CHARACTERISATION..... | 8 |
| 5 | RECEPTORS AND COMPLIANCE POINTS..... | 20 |
| 6 | POLLUTION CONTROL MEASURES..... | 22 |
| 7 | SITE CONDITION REPORT..... | 26 |
| 8 | SUMMARY OF THE CONCEPTUAL SITE MODEL..... | 27 |
| 9 | CONCLUSIONS..... | 30 |

TABLES

| | |
|--|----|
| Table 2.1: Receptors within 500m..... | 4 |
| Table 4.1: Monthly Average Rainfall at Durham for the Period 1981 - 2010..... | 8 |
| Table 4.2: Monthly Average Windspeed at Durham for the Period 1981 - 2010..... | 8 |
| Table 4.3: Summary of regional geological data..... | 10 |
| Table 4.4: Surface Water Discharges..... | 15 |
| Table 4.5: Groundwater Abstractions..... | 16 |
| Table 4.6: Groundwater Discharge..... | 16 |
| Table 4.7: Summary gas monitoring information..... | 18 |
| Table 8.1: Source-Pathway-Receptor Summary..... | 29 |

FIGURES

| | |
|--|----|
| Figure 1 - Regional Geology. Permian age strata (blue, orange) unconformably overlies Pennine Middle Coal Measures strata (grey, green) forming a west-facing escarpment. Site circled in red..... | 9 |
| Figure 2 – Local Geology. Extract from BGS Sheet NZ33NW. East-west ridge formed by Permian strata. Marl Slate (blue) and Yellow Sands (Yellow) outcropping on flanks of ridge. Site circled in red..... | 10 |
| Figure 3 – Location of site (circled in red) within the northern part of the Croxdale Beck from Source to Wear surface waterbody catchment (orange shading). Turdale Beck (yellow) to the south of the site..... | 11 |

DRAWINGS

| | | |
|---------------|--|---------|
| Q003-00197-1 | Site Location | 1:50000 |
| Q003-00197-47 | Proposed Restoration Profile | 1:5000 |
| Q003-00197-48 | Proposed Permit Extension Area and Cross Section | 1:5000 |

APPENDICES

| | |
|------------|--|
| Appendix 1 | Ordnance Survey (Envirocheck) Data |
| Appendix 2 | Groundwater Monitoring Data |
| Appendix 3 | Borehole Log Analysis |
| Appendix 4 | Groundwater and Spring Quality Results |

1 INTRODUCTION

1.1 Context

- 1.1.1 Wardell Armstrong were appointed by Tarmac Ltd. to prepare an Environmental Setting and Site Design (ESSD) report for an area of land at Quarrington and Cold Knuckle Quarries, henceforth referred to as the 'site'.
- 1.1.2 This report has been prepared to support an application for the variation of Environmental Permit EPR/BB3007CA for Old Quarrington Quarry Landfill to extend the area and the time period of the currently permitted operations.
- 1.1.3 The purpose of the variation is to permit the importation of inert waste into Cold Knuckle Quarry for restoration purposes. The proposed operations would also involve the extraction and sale of the remaining sand within the extension area, which currently separates the Quarrington Quarry and Cold Knuckle Quarry voids.
- 1.1.4 Section 2 provides details of the Site location, the activities that are to be undertaken, the design of the Site and receptors that are present within close proximity to the Site.
- 1.1.5 Section 3 provides details of the historical development of the Site and the proposed development under this permit variation application.
- 1.1.6 Section 4 details potential pathways for pollutants. Information is provided relating to the climatic conditions, geology, soils, hydrology, hydrogeology and landfill gas.
- 1.1.7 Section 5 details potential receptors and compliance points including groundwater and surface water, landfill gas and local amenity.
- 1.1.8 Pollution control measures are set out in Section 6. This includes details of basal and side slope engineering, capping and groundwater, surface water and landfill gas management.
- 1.1.9 Section 7 confirms that there is no requirement for a Site Condition Report.
- 1.1.10 Section 8 provides a summary of the Conceptual Site Model. This discusses potential sources of pollution, pathways that pollutants could follow and receptors that may be affected.
- 1.1.11 Section 9 provides a summary of conclusions arising from the document.

1.2 Sources of Information

1.2.1 The ESSD report is based upon the following sources of information.

- An Envirocheck® environmental data report.
- Published geological mapping of the area (Sheet NZ33NW) from the British Geological Survey (BGS), BGS Onshore GeoIndex.
- Old Quarrington and Cold Knuckle Quarry – Consolidating Application and Environmental Statement – Scoping Report, September 2019, Wardell Armstrong, Ref. NT14345/0001
- Mineral exploration borehole logs dating from 1984 (Q3/84-01-07) and 1999 (Q3/99-01-09).
- Groundwater monitoring borehole logs and reports dating from 2005 (P-01-04) and 2006 (P-05 & 06).
- Monitoring borehole information (Appendix 7 to the HRAR (Appendix 3 to the ESSD) September 2021).
- Hydrogeological Risk Assessment Report v1.1 - Old Quarrington Quarry Landfill, November 2004, Hafren Water, Ref. OQ/HRE.
- Hydrogeological Risk Assessment Review v1.1, September 2021
- Hydrogeological Risk Assessment Review v1 - Old Quarrington Landfill, June 2011, Hafren Water.
- Client supplied environmental monitoring data with respect to groundwater and surface water levels and quality.
- Environment Agency Catchment Data Explorer (online).
- Old Quarrington Quarry – Attenuation Layer, Construction Quality Assurance Plan, September 2016, Wardell Armstrong, Ref. NT12720/0001A.
- Pollution Prevention and Control (PPC) Permit TP3730BA (The original permit issued for Old Quarrington Quarry Landfill).

2 SITE DETAILS

2.1 Site Location

- 2.1.1 The site is located approximately 300m north-west of Quarrington Hill and 7km south-east of the City of Durham, County Durham. The site is centred at National Grid Reference NZ 33140 37820. The site is accessed via Quarrington Quarry, a road off the A688 to the west and a road to the east. The location of the site is shown on drawing Q003-00197-1.
- 2.1.2 The site boundary corresponds to the proposed extension area as shown on Drawing No. Q003-00197-48. The site area encompasses part of the existing Cold Knuckle Quarry void and the remaining area of the dolostone escarpment which separates it from Quarrington Quarry.
- 2.1.3 The site lies on the south of an east-west trending topographical ridge close to the edge of a regional west facing escarpment formed by the underlying Permian age strata. Cold Knuckle Quarry is a linear quarry void which has been excavated into the southern flank of this ridge.
- 2.1.4 The topography of the site is shown on Drawing No. Q003-00197-0048. The remaining dolostone within the site forms a ridge with an east-west running crest at approximately 170m AOD. The base of Cold Knuckle Quarry lies between approximately 150m AOD in the east and 136m AOD in the centre of the site. To the north and west of the site lies the excavations of Quarrington Quarry.

Site Activities

- 2.1.5 The site classification will be a landfill for inert waste in line with the currently permitted activity for the adjacent Old Quarrington Quarry Landfill site. The site operates under Environmental Permit EPR/BB3007CA.
- 2.1.6 The current permit allows for the acceptance of up to 300,000 tonnes of inert waste per year. There will be no change to the list of permitted wastes as part of this variation application.

Site Design

- 2.1.7 The existing landfill permit covers the whole of the existing quarry excavation and extends to 30Ha, the area covered by the proposed permit extension is 2.6Ha. The application area, shown on Drawing Q003-00197-48, measures approximately 550m by 80m.

- 2.1.8 It is proposed to extract the remaining reserves of limestone and sand, prior to the commencement of landfilling operations. The infill works will comprise the placement of waste in layers working up from the base of excavation to produce the agreed restoration profile.
- 2.1.9 The maximum depth of landfill within the extension area will be 20m, although the full restoration profile will extend up to 30m height in total, as part of the wider site area. Typical cross sections through the site are shown on Drawing Q003-00197-48. The cross sections show the existing permit boundary, the proposed permit extension area, and restoration profile. The waste thickness grades out to zero along the southern boundary of the site.
- 2.1.10 The final restoration profile is that of a south facing slope with an overall gradient of 1 in 3 (18°) as shown on Drawing Q003-00197-0048.

Receptors

- 2.1.11 A number of sensitive receptors are located within the vicinity of the site. These are detailed in Table 2.1 below.

| Table 2.1: Receptors within 500m | | |
|--|--------------------|------------|
| Receptor | Distance from Site | Direction |
| Protected Sites | | |
| Crow Trees Local Nature Reserve (LNR) | Adjacent | South |
| Quarrington Hill Grasslands Site of Special Scientific Interest (SSSI) | 250m | South |
| Cassop Vale Site of Special Scientific Interest (SSSI) | 350m | North |
| Cassop Vale National Nature Reserve (NNR) | 350m | North |
| Water | | |
| Pond | 90m | South |
| Tursdale Beck | 250m | South |
| Residential | | |
| Quarrington Hill village | 300m | South East |
| Properties along unnamed road | 400m | West |
| Old Quarrington village | 500m | West |
| Commercial | | |
| Heather Lad Inn | 140m | East |
| Holden's Decorative Gravel | 300m | South |
| Half Moon Pub | 310m | South |
| Quarrington Hill & District Social Club | 440m | South |
| Schools | | |
| Cassop Primary School | 450m | East |
| Infrastructure | | |
| Unnamed road | Adjacent | South |

| Table 2.2: Receptors within 500m | | |
|---|--------------------|------------|
| Receptor | Distance from Site | Direction |
| Infrastructure | | |
| Church Street | 130m | East |
| B6291 Road | 350m | South East |
| B1278 Road | 350m | South |
| Miscellaneous | | |
| St Pauls Graveyard | Adjacent | North East |
| Groundwater | | |
| Site is located within a Source Protection Zone 3 | | |

2.1.12 There are no hospitals or care homes within 500m of the site.

2.1.13 The MAGIC website indicates that lapwing, corn bunting, curlew, yellow wagtail, grey partridge and tree sparrow may be present at or near to the Site. These birds are priority species under the Biodiversity Action Plan.

2.1.14 There are no heritage assets located within the 500m of the Site boundary.

3 SOURCE

3.1 Historical Development

- 3.1.1 A review of historical mapping aerial imagery and supporting information has been undertaken to assist in identifying former land use on and adjacent to the site. Particular attention is paid to identifying potential historical areas of waste activity that do not have a permit or any former or current land-use that may give rise to potential sources of non-waste related contamination. A copy of the Envirocheck Report including historic plans is attached as Appendix 1.
- 3.1.2 In 1857 the eastern end of the site was occupied by a row of miners' cottages called Cold Knuckles, associated with Crow Trees Colliery located immediately south of the site. By 1897 the colliery had closed, with the above ground infrastructure dismantled. Cold Knuckles cottages remained until the early part of the 20th Century following which the site comprised rough pasture.
- 3.1.3 Historical map evidence indicates that Cold Knuckle Quarry was active during the 1970s, falling into disuse by the early 2000s. The eastern end of Cold Knuckle quarry was restored to Magnesian Limestone grassland in 2017 with the placement of 250,000m³ of fill material.
- 3.1.4 Quarrington Quarry is an active quarry site which extracts the Raisby Formation dolostone and the Yellow Sands Formation. Historical quarrying took place in the 19th Century at Old Quarrington Quarry, located in the south-west corner of the present quarry.
- 3.1.5 Quarrington Quarry has been worked in an eastward direction. Due to ongoing operations Quarrington Quarry is now connected with Cold Knuckle Quarry at its western end.
- 3.1.6 Quarrington Quarry is currently being restored by the import of inert waste material under the Environmental Permit for Old Quarrington Landfill Site.
- 3.1.7 There are two historic landfills within 2km of the site. Hill Top Farm is located adjacent to the wider Old Quarrington site to the north east. Kelloe Area D is located approximately 1.8km to the south east.
- 3.1.8 A pollution incident occurred 750m to the west of the site in 1993. The incident was classified as Category 3: Minor Incident and related to pollution to a freshwater body.

3.2 Proposed Development

- 3.2.1 Drawing No. Q003-00197-0048 shows cross-sectional details of the proposed development, including the permit extension area, the size and shape of proposed waste deposition and the approved restoration profile.
- 3.2.2 The dolostone and underlying Yellow Sands within the remaining area of escarpment would be removed, with the base of excavation corresponding to the base of the Yellow Sands at approximately 140m AOD.
- 3.2.3 Inert waste will be imported into the site to replace the dolostone and sand that would now be exported. The restoration will be to a 1 in 3 graded slope profile as shown on Drawing Q003-00197-47.
- 3.2.4 As is consented for Quarrington Quarry, progressive restoration would take place within the existing quarry void and each phase of future working. This phased programme of restoration minimises the extent of un-vegetated areas at any one time thus helping to reduce the duration of visual disturbance. Upon cessation of quarrying activity, the landform is to be re-contoured and Quarrington Quarry would be allowed to naturally establish Magnesian Limestone grassland.
- 3.2.5 The site will accept only inert materials, which by definition will not give rise to environmental pollution and will not generate leachate that will endanger the quality of surface water or groundwater. Therefore, there will be no requirement for the collection and disposal of leachates at the site.

4 PATHWAY CHARACTERISATION

4.1 Climate

4.1.1 Long term monthly rainfall data (1981-2010).¹ has been obtained from the Meteorological Office for the Durham observing site. The site is located at grid reference NZ 26928 41421, approximately 6.6km north west of Old Quarrington Quarry landfill. Average rainfall for this period is detailed in Table 4.1.

| Month | Average Monthly Rainfall (mm) | Month | Average Monthly Rainfall (mm) |
|----------|-------------------------------|-----------|-------------------------------|
| January | 52.3 | July | 54 |
| February | 41.8 | August | 60.8 |
| March | 44.6 | September | 55.4 |
| April | 52.7 | October | 60.9 |
| May | 44.2 | November | 72 |
| June | 55.4 | December | 57 |

4.1.2 The dominant wind direction is from the south west. The monthly mean wind speeds for the location are as follows.

| Month | Average Monthly wind speed at 10 m (knots) | Month | Average Monthly wind speed at 10 m (knots) |
|----------|--|-----------|--|
| January | 8.3 | July | 4.8 |
| February | 7.6 | August | 4.8 |
| March | 7.2 | September | 5.4 |
| April | 5.6 | October | 5.9 |
| May | 5 | November | 6.3 |
| June | 4.8 | December | 6.6 |

4.1.3 The weather forecast will be checked at the start of each day. Staff will maintain an awareness of weather conditions throughout the working day.

4.1.4 Properties and businesses within the vicinity of the site may be affected in the event that high amounts of dust are generated, although this is unlikely due to the stringent control measures that will be implemented. Details relating to the control of dust

¹ Meteorological Office (2021) UK Climate Averages Leeming [online] Accessed: April 2021 <https://www.metoffice.gov.uk/research/climate/maps-and-data/uk-climate-averages/gcwzefp2c>

emissions are provided in the Amenity and Accident Risk Assessment, included in this permit application.

4.2 Geology

4.2.1 The regional geology of the area is shown in Figure 1 below. Permian age strata rests unconformably on the Pennine Middle Coal Measures Formation of Carboniferous age, forming a west-facing escarpment.

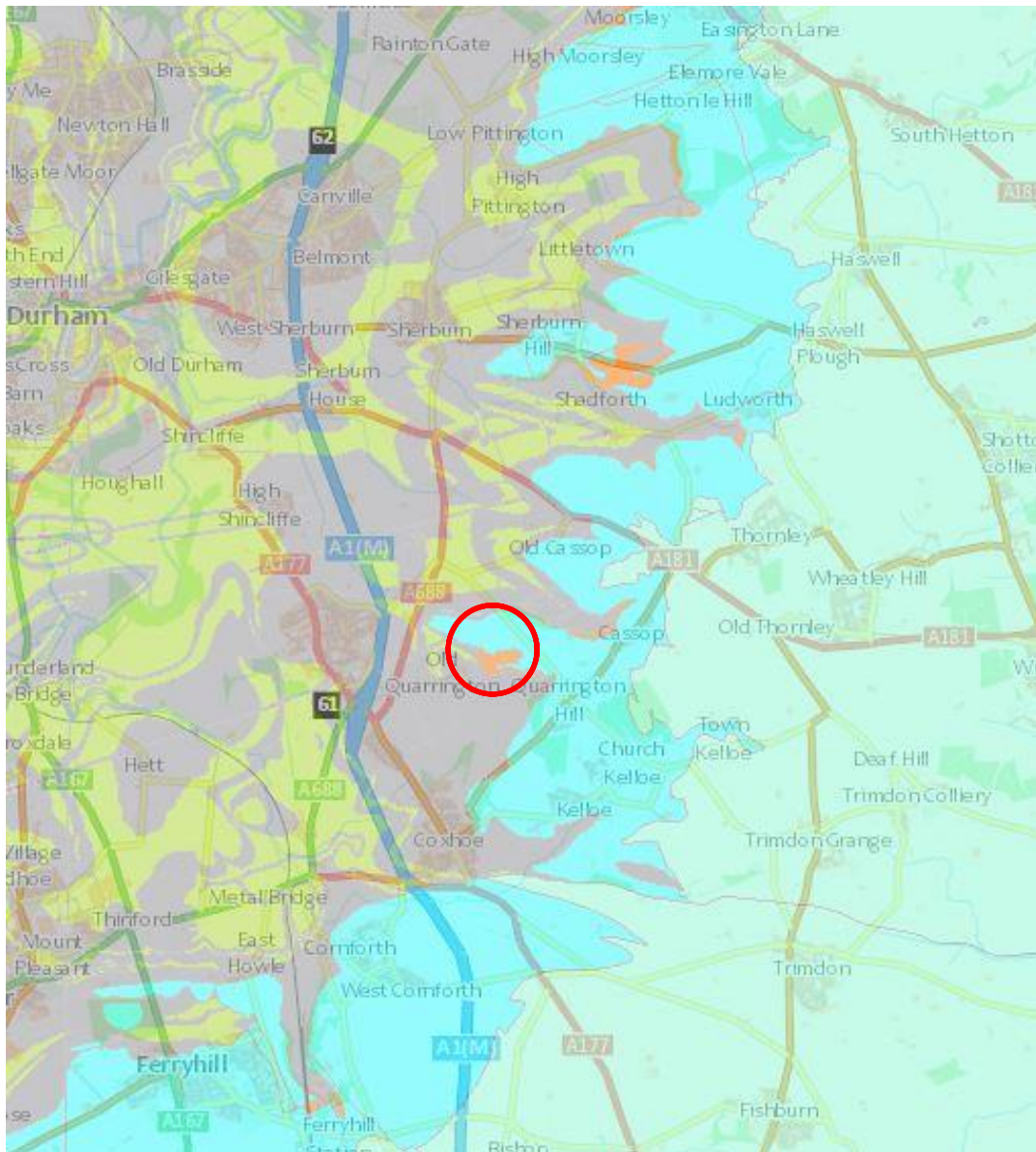


Figure 1 - Regional Geology. Permian age strata (blue, orange) unconformably overlies Pennine Middle Coal Measures strata (grey, green) forming a west-facing escarpment. Site circled in red.

4.2.2 Further details on the strata present beneath the site as inferred from the available information is shown in Table 4.3 below.

| Table 4.3: Summary of regional geological data | |
|--|---|
| Strata | Description |
| Superficial Deposits | Glacial till deposits typically comprising clay with sand and gravel horizons, present to approximately 1m bgl. |
| Bedrock strata | Raisby Formation of Permian age comprising Dolostone (formerly known as the Lower Magnesian Limestone). Present to approximately 150-155m AOD, thickness c.25m. |
| Geological structure | Marl Slate Formation of Permian age comprising thinly laminated dolomitic shales, thickness c. 1.5-2m. |

4.2.3 The Marl Slate and Yellow Sands Formations outcrop on the flanks of the east-west trending topographical ridge (upon which the site is located) is shown in Figure 2 below. The low-lying ground surrounding the ridge and to the south of the site is directly underlain by Coal Measures strata.



Figure 2 – Local Geology. Extract from BGS Sheet NZ33NW. East-west ridge formed by Permian strata. Marl Slate (blue) and Yellow Sands (Yellow) outcropping on flanks of ridge. Site circled in red.

4.3 Soils

4.3.1 Soils at the site are defined as freely drainage lime-rich loamy soils.

4.4 Hydrology

Surface Watercourses

4.4.1 The site lies within the Croxdale Beck from Source to Wear surface waterbody catchment (ID: GB103024077410) as shown in Figure 3 (ID: GB103024077410).

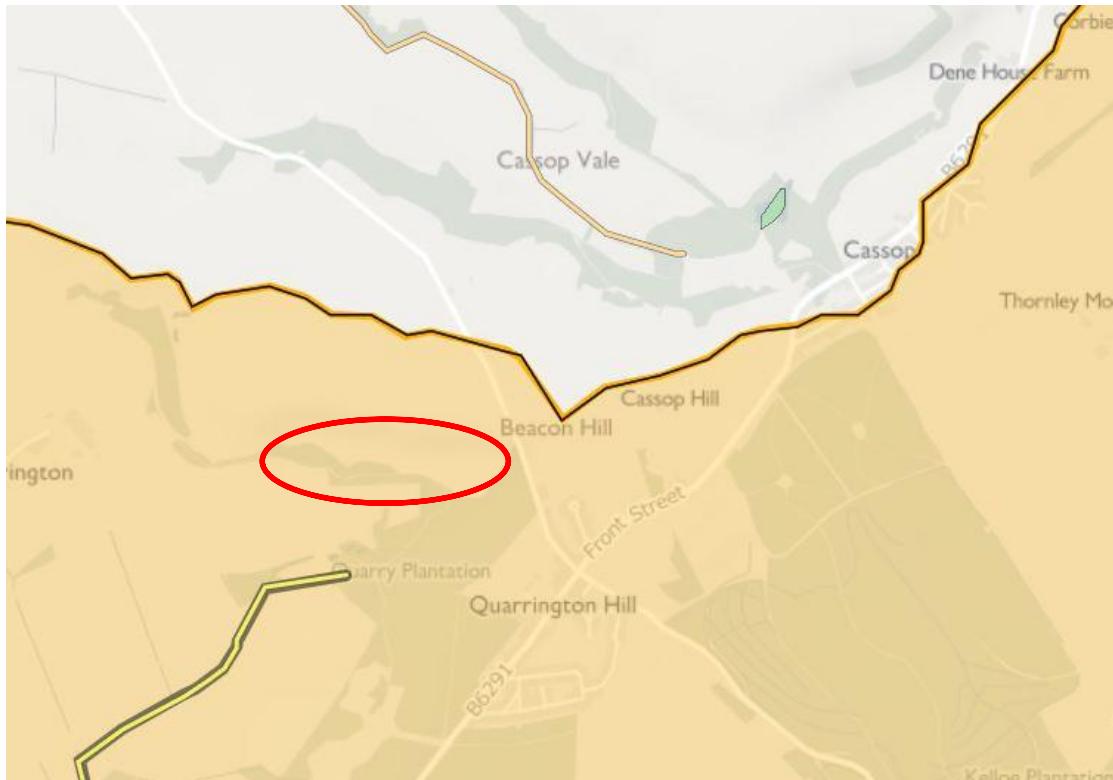


Figure 3 – Location of site (circled in red) within the northern part of the Croxdale Beck from Source to Wear surface waterbody catchment (orange shading). Tursdale Beck (yellow) to the south of the site.

- 4.4.2 There are no watercourses or other water bodies within the site and therefore no watercourses which may influence and/or interact with the site.
- 4.4.3 The Tursdale Beck is the closest watercourse to the site approximately 250m to the south arising from three small spring-fed ponds at the base of the escarpment and flowing in a south-westerly direction. The Tursdale Beck is a tributary of the Croxdale Beck which forms a tributary to the River Wear. Tursdale Beck is located within the Croxdale Beck from Source to Wear surface water catchment and may therefore potentially be affected by discharges from the site.
- 4.4.4 Chapman Beck is located approximately 400m to the north-east, issuing from a large pond and flowing in a north-westerly direction. The Chapman Beck is a tributary of the Whitwell Beck. Chapman Beck and Whitwell Beck are located within a separate

surface water catchment to the site (Old Durham Beck from Chapman Beck to Wear) and are therefore not considered to potentially be affected by discharges from the site.

- 4.4.5 The Croxdale Beck from Source to Wear surface waterbody has an overall 'Moderate' status, with an ecological status of 'Moderate' and a chemical status of 'Fail'. The ecological status has been classified as 'Moderate' by the EA due to biological quality elements and phosphate.

Flood Risk

- 4.4.6 The site lies within a flooding zone designated as 'Very Low Risk' from rivers and the sea. 'Very Low Risk' zones are defined by the Environment Agency (EA) as areas that have a chance of flooding of less than 0.1% per year. The majority of the site lies within a 'Very Low Risk' from flooding from surface water. However, limited areas of the site where deeper voids are present are classified by the EA as 'High Risk' zones from surface water flooding. 'High Risk' zones are defined by the EA as areas that have a chance of flooding of greater than 3.3% each year.
- 4.4.7 There are no natural heritage and/or nature protection zones associated with the Tursdale Beck in the vicinity of the site.

4.5 Hydrogeology

Aquifer Characteristics

Aquifer Status

- 4.5.1 The site is located within a Source Protection Zone 3 (Total Catchment).
- 4.5.2 The Raisby Formation and underlying Yellow Sands Formation are classified as Principal Aquifers. The Raisby Formation is in hydraulic continuity with the underlying Yellow Sands, which together effectively act as one aquifer.
- 4.5.3 Such aquifers are defined as having high intergranular and/or fracture permeability - meaning they usually provide a high level of water storage. They may support water supply and/or river base flow on a strategic scale.
- 4.5.4 The Pennine Middle Coal Measures Formation bedrock is classified as a Secondary A Aquifer. Secondary A aquifers are generally fractured or potentially fractured formations and do not have a high primary permeability. Although not producing large quantities of water for abstraction, they are important for local supplies and may supply base flow to rivers.

- 4.5.5 The Marl Slate Formation is classified as Unproductive strata, defined as “rock layers or drift deposits with low permeability that have negligible significance for water supply or river base flow”.

Geological Interpretation

- 4.5.6 The existing quarry is dry worked and thus the workings and inert landfilling are both situated above the water table. It is thought there is an absence of recharge. Glacial Till deposits reduce rainfall recharge, and the disposition of this area of aquifer in the form of the east-west trending topographical ridge reduces lateral recharge.
- 4.5.7 Infiltration of rainwater into the limestone may occur within the surrounding area, where superficial till is absent. Rainwater will likely infiltrate through the limestone’s secondary permeability, to its boundary with the Marl Slate Formation. The Marl Slate Formation is likely to have very low permeability and therefore will act as an aquitard, limiting further vertical migration.
- 4.5.8 This recharged groundwater is then likely to flow down regional dip, to the east away from Site. The area immediately to the east of the Site is known to be highly fractured from the surface down through the Raisby Formation Dolostone, Yellow Sands Formation and Marl Slate Formation and into Coal Measures strata. Fractures are associated to historical coal mining within the area. Therefore, vertical migration of recharging waters into the Coal Measures strata is highly likely.
- 4.5.9 As the Site sits at the top of the limestone ridge, above an impermeable layer (Marl Slate Formation), groundwater can only enter the limestone via direct rainfall recharge. The limestone at the site has no catchment area.
- 4.5.10 The TurSDale Beck is the closest watercourse to the site, located approximately 250m to the south. It arises from three small spring-fed ponds at the base of the escarpment. It is considered that these features represent the approximate level of groundwater in the vicinity of the site, near the top of the Coal Measures strata.

Groundwater Elevations and Flows

- 4.5.11 As the Site is located at a topographic high, along a Magnesian Limestone ridgeline, dipping to the east, the origin of any water within the Raisby Formation Dolostone will be directly from rainfall recharge.
- 4.5.12 The Raisby Formation Dolostone is reported as dry on-site. This is reported through working conditions experienced within the working area since 1997 and through

monitoring borehole P-05 which is screened at the base of the Limestone Formation. P-05 has been reported as dry on-site since September 2010, except on one occasion when water was reported at the base of the borehole in July 2019. This was at the base of the borehole and could have been a result of recharging rainfall following a high rainfall event or through water seepage down the borehole void.

- 4.5.13 Groundwater elevations recorded within monitoring boreholes on-site are presented in Appendix 2.
- 4.5.14 Any groundwater within the Raisby Formation Dolostone will be confined to the formation's secondary permeability (fractures, fissures and joints) and will likely flow down regional dip, towards the east. Groundwater within this formation is likely to be hydraulically isolated from formations below as a result of the underlying low permeability Marl Slate Formation.
- 4.5.15 As the Site is located at the edge of the Raisby Formation Dolostone outcrop, there is no connectivity to groundwater abstracted within the abstraction boreholes to the west.
- 4.5.16 The Marl Slate Formation is likely to have a very low permeability and therefore will likely act as an aquitard.
- 4.5.17 The Yellow Sands Formation is primarily reported as dry on-site. This is confirmed by borehole P-06 screened at the base of the Yellow Sands Formation and into the Coal Measures. Between April 2017 and December 2020 groundwater was only recorded a small number of times within P-06 at the base of the borehole. This was likely a result of high groundwater elevations within Coal Measures strata rather than groundwater within the Yellow Sands Formation. Since September 2010, P-06 has primarily been reported as dry.
- 4.5.18 Similar to the Raisby Formation Dolostone, the Yellow Sands Formation outcrop along the ridgeline and will likely be primarily fed by recharging rainwaters. As the Site is located at the top of the ridgeline, the Site's surface water drainage system will likely pick up surface waters that would have previously recharged the Yellow Sands Formation. The underlying Coal Measures are water bearing and are likely to be in continuity with the Yellow Sands Formation. Therefore, water seepage at the base of the Yellow Sands Formation may occur occasionally when water levels in the Coal Measures are high. This was reported in the 2004 Conceptual Setting report and more recently within borehole P-06 in January 2020 when water was recorded at the base

of the Yellow Sands Formation. Any groundwater within the Yellow Sands Formation is likely to flow down regional dip, towards the east.

4.5.19 The Coal Measures are water bearing. Regional groundwater flow within Coal Measures strata is south easterly, following the regional bedrock dip. In close proximity to the Site, localised radial groundwater flow is evident towards the east and south as well as down regional gradient to the south east. This is because the Site’s location on top of a hill (recharge mound) with topography falling to the south and east. A sandstone horizon was encountered at the top of the Coal Measures during the March 2021 site investigation and two boreholes (0003-2021(P)-08 and Q0003-2021(P)-09) were screened across this sandstone horizon (see Section 4 of the HRAR).

4.5.20 A hydraulic gradient of 0.02 has been calculated based on groundwater elevation dipping results within the 2021 monitoring boreholes.

4.5.21 Four new monitoring boreholes (Q003-2021(P)-05 – Q003-2021(P)-009) have been installed on site in 2021. Appendix 3 provides details of the newly installed boreholes on-site.

Surface Water Abstractions

4.5.22 There are no recorded surface water abstractions within 500m of the site.

Surface Water Discharges

4.5.23 There are no recorded Discharge Consents within 500m of the site. The nearest to the site are as follows.

| Table 4.4: Surface Water Discharges | | | | | |
|-------------------------------------|-------------------------|-----------------|-----------------------------------|--------------|-------------------------|
| Licence Number | Name | Quantity | Receiving environment | NGR | Distance from Site |
| 243/0981 | Edna Street CSO | N/A | Bowburn Beck | NZ3059037810 | Approximately 700m west |
| 243/0943 | Forge Farm and Bungalow | 1m ³ | Unnamed tributary of Roxdale Beck | NZ3225037810 | |

Groundwater Abstractions

4.5.24 There are no licenced water abstractions within 500m of the site. The nearest groundwater abstractions are as follows.

| Table 4.5: Groundwater Abstractions | | | | | |
|-------------------------------------|----------------------|------------------|--|--------------|--------------------|
| Licence Number | Name | Description | Abstraction name | NGR | Distance from Site |
| 1/24/03/025 | Breedon Northern Ltd | Dust Suppression | Pond GW fed-Magnesian Limestone / Basal Permian Sands-Coxhoe | NZ3473435274 | 3km South |
| 1/24/03/025 | Breedon Northern Ltd | Mineral Washing | Pond GW fed-Magnesian Limestone / Basal Permian Sands-Coxhoe | NZ3473435274 | 3km South |

Groundwater discharges

4.5.25 There are no licenced groundwater discharges within 500m of the site. The nearest to the site is as follows.

| Table 4.6: Groundwater Discharge | | | | | |
|----------------------------------|------------------|------------------|-----------------------|----------------|--------------------|
| Licence Number | Name | Description | Receiving environment | NGR | Distance from Site |
| 243/0695 | Johnson Brothers | Sewage discharge | Land | NZ 32340 37770 | 502m West |

4.6 Groundwater Flow

Groundwater Monitoring

Flow Regime

4.6.1 It is considered that groundwater flow is likely to occur across the upper surface of the Coal Measures strata in a south to south-eastwards direction and discharges to lower ground, probably at, or in the vicinity of the spring-fed ponds to the south of the site.

4.6.2 The Coal Measures strata within north east England is divided into various mine water blocks which are further subdivided into category areas by the NE Mining and Groundwater Constraints screening tool. This screening tool was developed by the Coal Authority and Environment Agency to assist in the identification of specific mining and groundwater related constraints and is based in part on the presence of shallow mine workings, shallow mine water, and nearby controlling outflow.

- 4.6.3 The Coal Authority and Environment Agency both maintain a number of regional groundwater level monitoring points however enquiries have revealed that neither have any monitoring points within mine water blocks beneath or adjacent to the site that also lie within 10km of the site.
- 4.6.4 The site lies on the eastern edge of the Bowburn mine water block, described as being isolated from the main coalfield. Although there are no monitoring points in this block the Coal Authority consider that mine water levels are recovered and that the water level is either connected or overflowing to an adjacent block.
- 4.6.5 The site lies within an area of the Bowburn mine water block classified as Category B by the NE Mining and Groundwater Constraints screening tool. This means that the site lies within the coalfield area but no shallow mine workings, shallow mine water, or nearby controlling outflow is present.

Groundwater Quality

- 4.6.6 Groundwater underlying the Site resides entirely within the SUNO Magnesian Limestone groundwater body (ID: GB40401G701800) and is monitored by the Environment Agency. In 2019, the groundwater body was classified as having a chemical status of 'Good' and a quantitative status of 'Good'.
- 4.6.7 Groundwater monitoring has been undertaken at Old Quarrington and within the surrounding area since 1997. Groundwater samples have been collected from borehole P-03, QUA_Q003-2021(P)-05, QUA_Q003-2021(P)-06, QUA_Q003-2021(P)-07 and SW2 (Spring within Coal Measures Strata). P-03 is an up-gradient borehole, located to the west of the Site installed within Coal Measures Strata. QUA_Q003-2021(P)-05, QUA_Q003-2021(P)-06, QUA_Q003-2021(P)-07 are boreholes drilled in March 2021 and installed in the Coal Measures Strata with monitoring commencing on 30/03/2021. SW2 is a spring located down gradient, to 300m south of the Site located within Coal Measures Strata.
- 4.6.8 Results have been reviewed from September 2010 to July 2021. Groundwater results have been compared with the trigger levels stated within the permit and where absent, to UK Drinking water Standards (UKDWS) and where appropriate Minimum Reporting Values (MRV). Groundwater results are provided within Appendix 4. Groundwater quality results solely relate to Coal Measures groundwater. No other aquifer horizons were able to be sampled.

- 4.6.9 Determinands recorded at concentrations above the UKDWS are described in Section 3.6 of the HRAR.
- 4.6.10 The Site is located within a Nitrate Vulnerable Zone and a Drinking Water safeguard zone for surface water.
- 4.6.11 The Site is not located within a Source Protection Zone. The nearest Source Protection Zone (Zone 2) is located 2km to the south.

4.7 Landfill Gas

- 4.7.1 Waste acceptance procedures ensure that only clean inert materials will be accepted at the extension area. These are unlikely to generate gas and there will be no requirement for gas monitoring during the life of the site.
- 4.7.2 Landfill gas monitoring boreholes will be installed as each phase is being completed. Two gas boreholes will be constructed per hectare. This is considered sufficient as part of the criteria to achieve low risk surrender. Due to the low risk of landfill gas generation, there are no plans for peripheral monitoring boreholes around the extension area.
- 4.7.3 The landfill gas boreholes will be provided with adequate protection to prevent any damage. The boreholes will be maintained and monitored during the post closure period. Given the inert nature of the material it is expected that gas monitoring will continue for 24 months following closure.
- 4.7.4 Ongoing gas monitoring is undertaken with respect to the existing Old Quarrington Quarry Landfill Site. Monitoring results from January 2018 to date have been reviewed and summarised in Table 4.7 below.

| Table 4.7: Summary gas monitoring information | | | | |
|---|-------------|-----|--------------------|-----|
| Borehole | Methane (%) | | Carbon Dioxide (%) | |
| | Min | Max | Min | Max |
| QUA_BH01 | 0.0 | 0.4 | 0.1 | 4.0 |
| QUA_BH02 | 0.0 | 0.4 | 0.1 | 7.2 |
| QUA_BH03 | 0.0 | 0.4 | 0.4 | 5.6 |
| QUA_BH04 | 0.0 | 0.4 | 0.5 | 6.4 |
| QUA_BH05 | 0.0 | 1.6 | 0.0 | 6.0 |
| QUA_BH06 | 0.0 | 0.4 | 0.1 | 7.1 |

- 4.7.5 The monitoring results show that the recent baseline gas regime for Old Quarrington Quarry Landfill Site is for up to 1.6% methane and 7.2% carbon dioxide.
- 4.7.6 Strict pre-acceptance and acceptance procedures ensure that clean inert materials only will be deposited. As a result of this, biodegradation of the material that will be at the extension area will be negligible. If landfill gas is generated the amount will be insignificant. As a result of this, there will be no requirement for gas extraction at the site.

5 RECEPTORS AND COMPLIANCE POINTS

5.1 Groundwater and Surface Water

5.1.1 Potential groundwater and surface water receptors are considered within the HRAR.

5.1.2 Water receptors potentially at risk are provided below:

- water within Secondary A Aquifer – Coal Measures;
- water within Principal Aquifers; Yellow Sands Formation and Raisby Formation Dolostone (perched above Marl Slate Formation);
- surface watercourse (Bowburn Beck) to the south of Site; and
- springs to the south of Site.

5.1.3 Any surface water/precipitation on to the limestone within the Site area is allowed to infiltrate directly into the underlying formation. There is no surface water management system employed on-site.

5.1.4 An expediated monitoring programme within the new monitoring wells (as mentioned in Section 4) is currently underway. During the operational phase, groundwater monitoring is proposed within all current groundwater monitoring boreholes on a six-monthly basis. The proposed monitoring suite is outlined in the HRAR.

5.2 Landfill Gas

5.2.1 The residential receptors that are present within the vicinity of the site are listed within Table 2.2 The closest properties are situated approximately 300m to the south east at Quarrington Village.

5.2.2 Landfill gas generally consists of 60% methane and 40% carbon dioxide. These are greenhouse gasses and may contribute to climate change. For this reason, the air itself is a receptor and uncontrolled releases to the atmosphere should be minimised. Details on the specific consistency of landfill gas at Old Quarrington Landfill are provided in Section 7.

5.2.3 Clean inert materials only will be accepted at the extension area for deposit. Thus, the potential for landfill gas generation is minimal.

5.2.4 Wastes that are accepted at the site meet the list of accepted wastes as detailed in the environmental permit. Records are kept of all materials that are accepted. Further details are provided in the Operating Techniques document, included in this permit application.

Amenity

5.2.5 The following amenity receptors have been identified within influencing distance of the site.

- Quarrington Hill village approximately 300m to the south-east.
- Old Quarrington village approximately 500m to the west.
- St Paul's Graveyard immediately to the north-east.
- Play area and football pitch approximately 200m to the south-east.
- Crow Trees Local Nature Reserve (LNR) immediately to the south.
- Quarrington Hill Grasslands SSSI 250m to the south.
- Cassop Vale SSSI 350m to the north.

5.2.6 The main potential hazards arising from the site to which these receptors may be sensitive will be noise and dust. However, due to the controls that are in place and stringent management techniques, it is anticipated that no significant risks will be presented to the amenity receptors as a consequence of the proposed development.

5.2.7 Similarly, no long-term effects on amenity receptors are anticipated as a result of the proposed development.

6 POLLUTION CONTROL MEASURES

6.1 Site Engineering

Basal and side slope engineering

- 6.1.1 The site engineering will be a continuation of the design approved for the current permit area, namely the construction of an engineered barrier to cover the base and side slopes of the excavation.
- 6.1.2 The landfill facility is constructed with a 1 metre thick basal attenuation layer (geological barrier), comprising either crushed and screened dolomite fines or of clay rich material. The attenuation layer is continuous across the base and up the sides of the excavation, split into 5 phasing areas as shown on Drawing Q003-00197-48. The lining will extend up the quarry side slopes in the form of a 1 in 2.5 batter, with any steeper quarry faces being lined contemporaneously with waste emplacement, 'Christmas Tree' fashion using a series of overlapping horizontally placed bunds, typically 2m to 3m in height.
- 6.1.3 The engineered barrier is to provide a low permeability layer, designed to provide attenuating properties for any small amounts of leachate, which may be generated by the waste. To meet with this aim, the barrier should have a permeability no greater than $1 \times 10^{-7} \text{m/s}$ and be constructed from materials clean of chemical contamination.
- 6.1.4 The material used to construct the attenuation layer will comprise site sourced dolomitic fines (<70mm grading). The material used to construct the attenuation layer will meet the following material properties to be suitable for use:
- maximum particle size 125mm;
 - permeability less than $1.0 \times 10^{-7} \text{m/s}$.
- 6.1.5 The construction and testing of the attenuation layer within the proposed extension area will be in accordance with the approved Construction Quality Assurance Plan for the currently permitted area: "Old Quarrington Quarry – Attenuation Layer, Construction Quality Assurance Plan", September 2016, Wardell Armstrong, Ref. NT12720/0001A.
- 6.1.6 Upon completion of the attenuation layer a verification report will be produced detailing all test results on the barrier material, together with a plan showing the formation, upper surface and isopachytes (thickness) of the attenuation layer. The

report will certify that the Construction Quality Assurance Plan has been fully implemented and that the attenuation layer meets the required specification.

Capping

6.1.7 The Landfill Directive only requires capping where there is a need to minimise leachate formation (i.e. at hazardous and non-hazardous landfills). As the extension area is only going to accept inert wastes no formal cap is required.

6.2 Restoration

6.2.1 The infilling of the quarry void with inert wastes will result in the restoration of the site as shown in Drawing No. Q003-00197-47. The waste is placed in the base of quarry, in horizontal layers not exceeding 2 to 3m in thickness. The waste will form a restoration slope profile no greater than 1 in 3 (18°) from the horizontal along the southern extent of the site.

6.2.2 The restoration profile should be stable in the long term for the inert wastes imported to site. In this respect given the overall height (30m) of the landfill slope and the length of site at 550m, the stability of the overall restoration profile is considered to warrant further assessment. This Stability Risk Assessment is included as part of this permit application.

6.2.3 The restoration profile is to remain the same as that which is currently approved and as such there will be no changes to the pre- or post-settlement contours. The additional quantity of waste to be used in the restoration of the proposed extension area will be approximately 400,000m³.

6.3 Leachate Management

6.3.1 As inert materials only will be deposited at the extension area and strict pre-acceptance and acceptance procedures are in place, it is unlikely that any leachate will be generated.

6.3.2 It is not proposed that any leachate monitoring is undertaken due to the very low risk posed by leachate from the site.

6.4 Landfill Gas Management and Monitoring Infrastructure

6.4.1 Clean inert materials only will be deposited at the site. Due to this, it can be determined with a high level of confidence that biodegradation of the material will be negligible. If landfill gas is generated the amount will be insignificant. As a result of this, there will be no requirement for gas extraction.

6.4.2 As detailed in Section 4, internal landfill gas monitoring boreholes will be installed as each phase is being completed to the full depth of the inert material. Two gas boreholes will be constructed per hectare. This is sufficient to achieve a low risk surrender. Due to the low risk of landfill gas generation, there are no plans for peripheral monitoring boreholes around the site.

6.4.3 The landfill gas boreholes will be provided with adequate protection and maintained and monitored during the post closure period. Given the inert nature of the material it is expected that gas monitoring will continue for up to 24 months following closure.

6.4.4 The design of the boreholes will be agreed with the Environment Agency. Construction of the boreholes will be undertaken in accordance with a CQA Plan.

6.5 Groundwater Management

6.5.1 Groundwater management is not required. The site will be worked dry, and there will be no operations below the water table.

6.5.2 During the operational phase, groundwater monitoring is proposed within all current groundwater monitoring boreholes on a six-monthly basis. The proposed monitoring suite is provided in the HRA.

6.6 Surface Water Management

6.6.1 The elevated position of the landfill on the regional escarpment and the east-west trending topographical ridge means that the local site area receives a very low level of surface water run-off.

6.6.2 Any run-off within the adjacent Quarrington Quarry either collects in the base of the quarry void and is used for dust suppression or freely drains from the site and is not discharged off-site.

6.6.3 Any surface water/precipitation within the extension area will be allowed to infiltrate directly into the underlying formation.

6.7 Post Closure Controls (Aftercare)

6.7.1 A site closure report will be prepared on completion of infilling, when the site has achieved restoration levels. The closure report will be prepared as part of the permit surrender process and will consider the background site monitoring and results of any in waste monitoring and/or testing. A further round of completion monitoring will be undertaken to demonstrate that the infill operations have had no undue impact on identified receptors at the site.

- 6.7.2 Due to the inert nature of the waste no degradation-related settlement will occur. The removal of the dolostone and underlying Yellow Sands within the remaining area of escarpment will further reduce the likelihood of differential settlement. The Coal Authority indicate the not to be underlain by shallow recorded or probable former mine workings.
- 6.7.3 The final restoration profile is that of a south facing slope with an overall gradient of 1 in 3 (18°) as shown on Drawing Q003-00197-47 (Restoration). The restoration profile is designed to be stable in the long term for the inert wastes imported to site.
- 6.7.4 The effects of waste mass settlement have been assessed. Unlike other forms of biodegradable wastes where settlement can be as much as 20%, there is likely to be no appreciable settlement of the subsoils and clays making up the inert wastes mass at this site. Providing that waste materials are adequately layered and tracked in by dozer the estimated extent of settlement will typically be at less than 5%. Much of the waste settlement will occur prior to completion of infilling, through the effects of self-weight settlement and consolidation of the waste material.
- 6.7.5 Any localised areas of increased settlement resulting from variations in waste type can usually be addressed at the time of restoration. It is considered that there is no requirement to form a pre-settlement waste profile at the site.
- 6.7.6 The majority of site settlement will occur concurrently with waste emplacement. The effect of waste mass settlement on the integrity of the lining system is therefore considered to be minimal and will not require further consideration.
- 6.7.7 The restored landform will be allowed to naturally establish Magnesian Limestone grassland.

7 SITE CONDITION REPORT

- 7.1.1 A Site Condition Report (SCR) sets out the condition of the land at permit issue so that at permit surrender it is possible to demonstrate that there has been no deterioration in the quality of the land. In the case of a permanent deposit of waste, the land will not be restored to the same condition that was present at permit issue. Instead surrender of the permit will be based on records of the materials accepted and environmental monitoring carried out during the operational life of the Site and post closure to demonstrate that the clean inert material that has been deposited is not impacting and will not impact the environment.
- 7.1.2 Since the site area will be occupied entirely by areas of waste deposition it is considered that an SCR is not necessary in this instance.

8 SUMMARY OF THE CONCEPTUAL SITE MODEL

8.1 Introduction

8.1.1 A Conceptual Site Model (CSM) has been developed for the site (from the desk study) which is discussed in the form of “Source, Pathway and Receptors” below.

8.2 Source

8.2.1 It is proposed to import clean inert materials to replacement the material that is being removed at the escarpment. The source will therefore be the inert materials that are deposited. Stringent Waste Acceptance Procedures will remove the risk at source.

8.2.2 Some limestone overburden is also proposed to be backfilled within the quarry void as is the current case on-site.

8.3 Pathways

8.3.1 Pathways for potential pollutants include any route from the inert materials to the identified nearby receptors.

8.3.2 Pathways for groundwater contamination are summarised below:

- vertical migration of recharging waters through the unsaturated Lower Raisby Formation Dolostone and Yellow Sands Formation;
- groundwater flow down regional dip, through secondary permeability within the Raisby Formation Dolostone, above the impermeable Marl Slate Formation;
- lateral migration of groundwater within Yellow Sands Formation;
- regional groundwater flow within Coal Measures strata is thought to be towards the south east. However local groundwater flows are thought to follow a flow path towards the east and south, as a result of steep sided topography, towards the spring line and watercourse located to the south of the Site.

8.3.3 Works will not be undertaken within close proximity to a watercourse. Site operations will be monitored on a daily basis to identify any runoff from the Site. Once the deposited materials have been capped using topsoil, any runoff will be from the topsoil rather than the deposited inert materials.

8.3.4 It is unlikely that landfill gas will be generated due to the clean inert nature of the materials that will be deposited.

8.3.5 The design of the geological barrier will minimise any potential migration via infiltration.

8.3.6 Emissions of dust may become airborne and cross the site boundary. No odour or litter is anticipated due to the nature of the materials to be imported. Dust will be managed at the source using the control measures as detailed in the Dust Management Plan attached to this application.

8.4 Receptors

8.4.1 Potential water receptors within close proximity of the site are as follows:

- water within Secondary A Aquifer – Coal Measures;
- water within Principal Aquifers; Yellow Sands Formation and Raisby Formation Dolostone (perched above Marl Slate Formation);
- surface watercourse (Bowburn Beck) to the south of Site; and
- springs to the south of the Site. It is considered that the strict control of the sources of pollution, through waste acceptance procedures and compliance with operational techniques identified in this permit application, will provide adequate protection to sensitive receptors within close proximity of the site.

8.4.2 There are a number of properties near to the site, the closest of which are at Quarrington Hill Village 300m to the south east. A number of commercial properties are also located within close proximity, with the nearest 140m to the east. A school is located 450m to the east.

8.4.3 A number of ecological sites are also located near to the site. An LNR is situated adjacent to the site to the south. The closest SSSI is 350m to the north (also a NNR).

8.4.4 Stringent operational and management procedures that are implemented at the site will provide adequate protection to sensitive receptors within close proximity of the extension area.

8.5 Source Pathway Receptor Summary

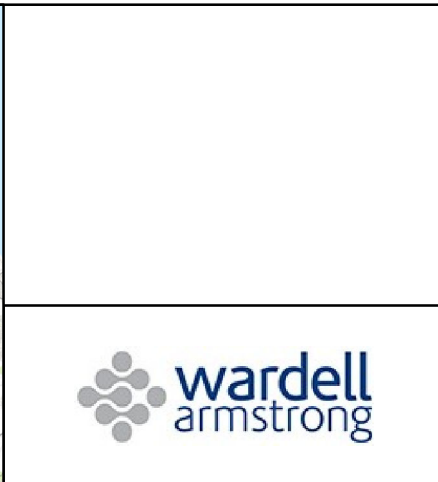
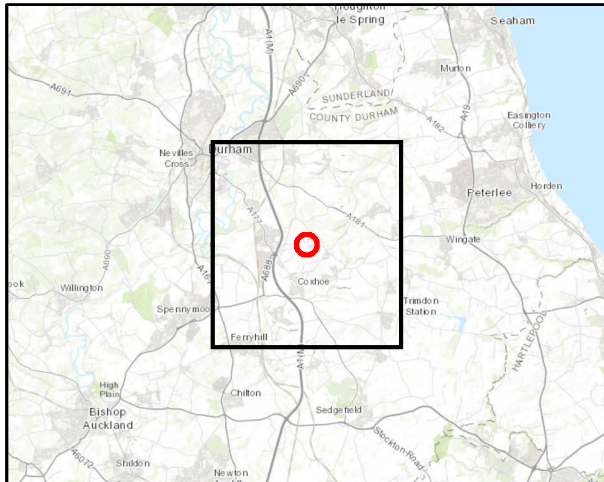
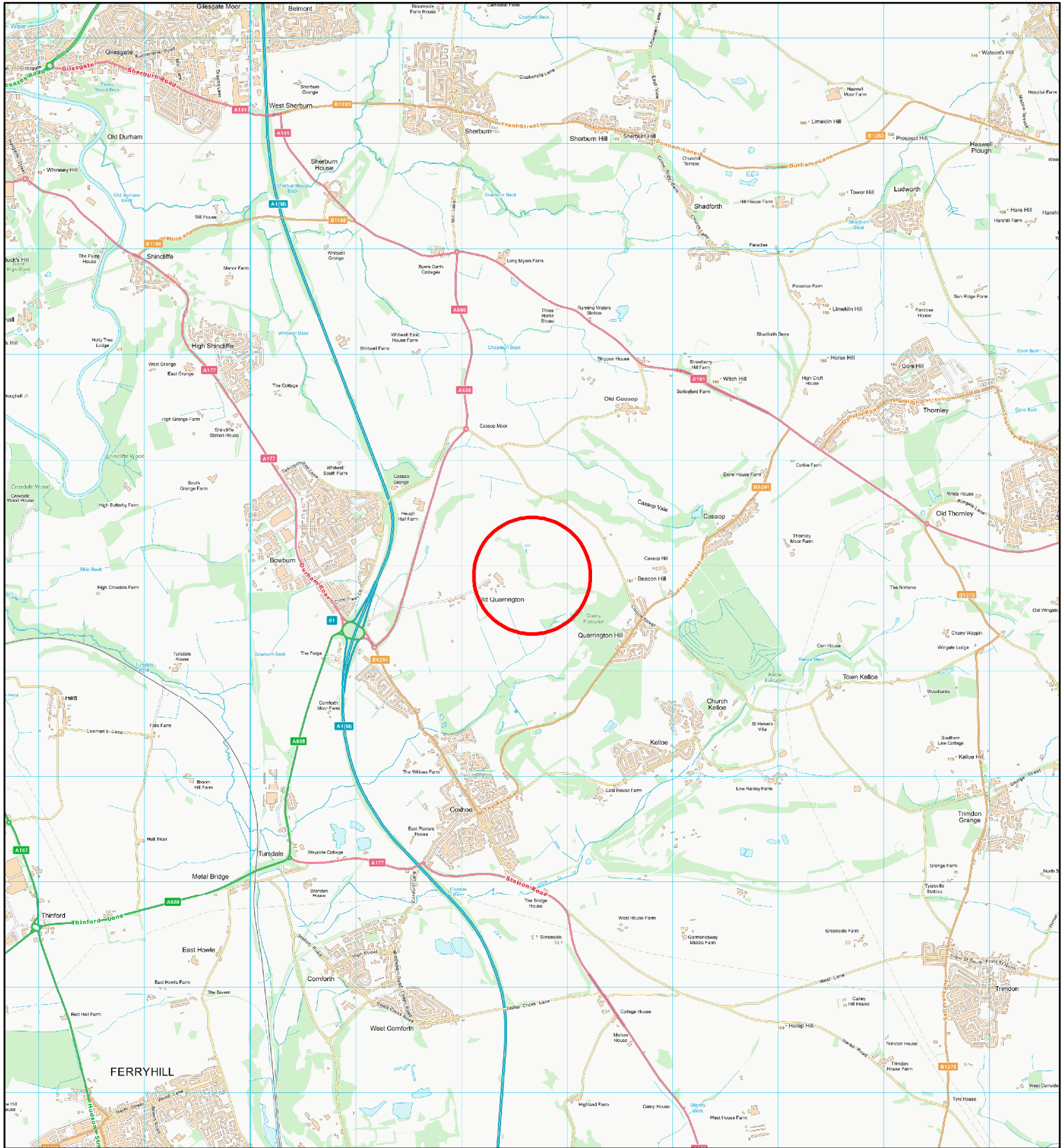
8.5.1 A summary of the source pathway receptor model for the site is provided below.

| Table 8.1: Source-Pathway-Receptor Summary | | | |
|---|-----------------------|---|---|
| Phase | Sources | Pathway | Receptor |
| Operational Phase – deposit of clean inert material | Clean inert materials | Migration through side wall liner or basal liner to bedrock | The Raisby Formation and underlying Yellow Sands Formation (Principal Aquifers) |
| | | Infiltration through unsaturated zone | |
| | | Groundwater flow | |
| | | Airborne | Residential properties and businesses to the west, south and east |
| Post Restoration Phase | Clean inert materials | Infiltration through topsoil into deposited waste | The Raisby Formation and underlying Yellow Sands Formation (Principal Aquifers) |
| | | Groundwater flow | |
| | | Rainfall runoff | |

9 CONCLUSIONS

- 9.1.1 Tarmac Limited operate Old Quarrington Quarry Landfill at Quarrington Hill, Durham. The site operates under permit EPR/BB3007CA, which allows for the import of 300,000 tonnes per annum of inert waste materials for landfilling.
- 9.1.2 The southern boundary of the site is formed of an escarpment and the boundary of Cold Knuckle Quarry. Tarmac Limited are applying for a permit variation to extend the permitted area of Old Quarrington Quarry Landfill to incorporate the escarpment, which is to be removed and the resultant void filled with inert waste.
- 9.1.3 The increased total void is calculated as 400,000m³. There will be no change to the annual permitted inputs.
- 9.1.4 The Site accepts clean inert materials only. This means that they will not undergo any significant physical, chemical or biological transformations and will not generate leachate.
- 9.1.5 The extension area, as for the existing Phase 1 landfill, will be equipped with a 1 metre thick basal attenuation layer (geological barrier), comprising either crushed and screened dolomite fines or of clay rich material. The attenuation layer is continuous across the base and up the sides of the excavation, split into 5 phasing areas.
- 9.1.6 The basal lining system will be constructed in accordance with the requirements of the Landfill Directive, which by default requires a 1m thick layer with a permeability of 1.0x10⁻⁷ m/s.
- 9.1.7 Leachate monitoring is not proposed due to the very low risk posed by leachate from the site.
- 9.1.8 Internal landfill gas monitoring boreholes will be installed as phases are being completed. Gas boreholes will be installed to the full depth of the inert material. Two gas boreholes will be constructed per hectare.
- 9.1.9 Any surface water/precipitation on to the limestone within the extension area will be allowed to infiltrate directly into the underlying formation.
- 9.1.10 The nearest designated site is Crow Trees Local Nature Reserve, situated adjacent to the extension area to the south. The nearest residential properties are located 300m to the south east of the site at Quarrington Village.
- 9.1.11 No potential impacts on the local population, habitats or ecological receptors have been identified.

DRAWINGS

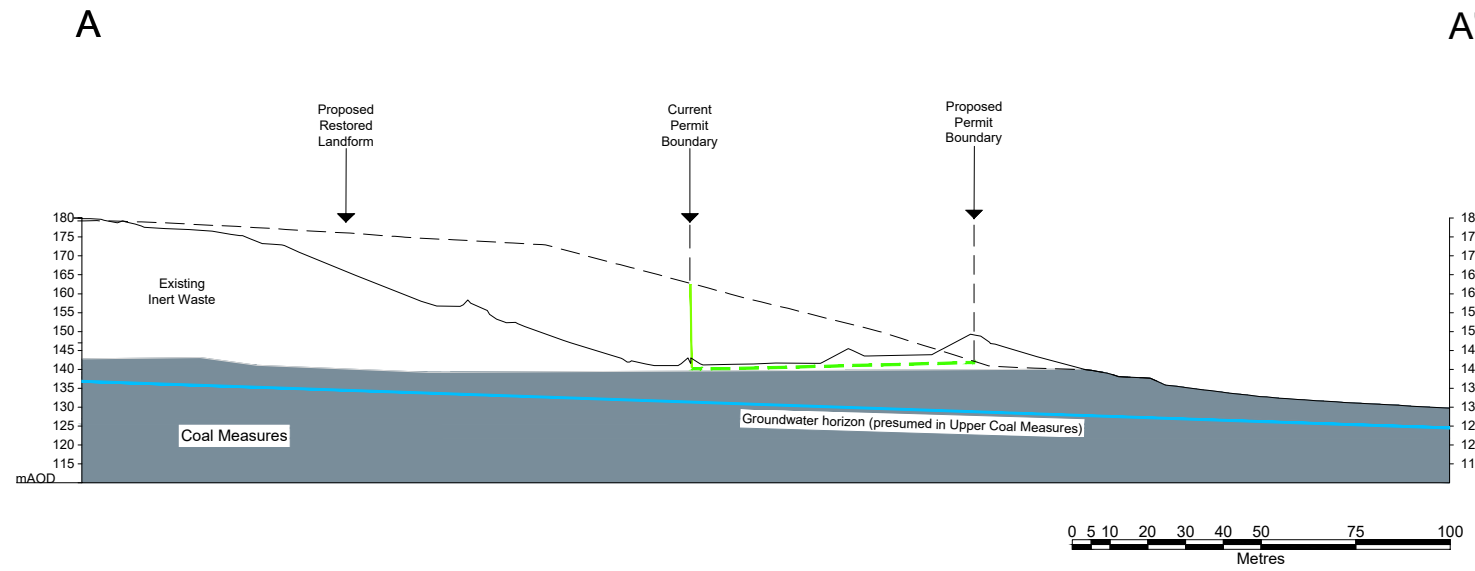


Site Name:
Q003 -
Old Quarrington and Cold Knuckle Quarry

Drawing Name:
Scoping Figure 1
Site Location

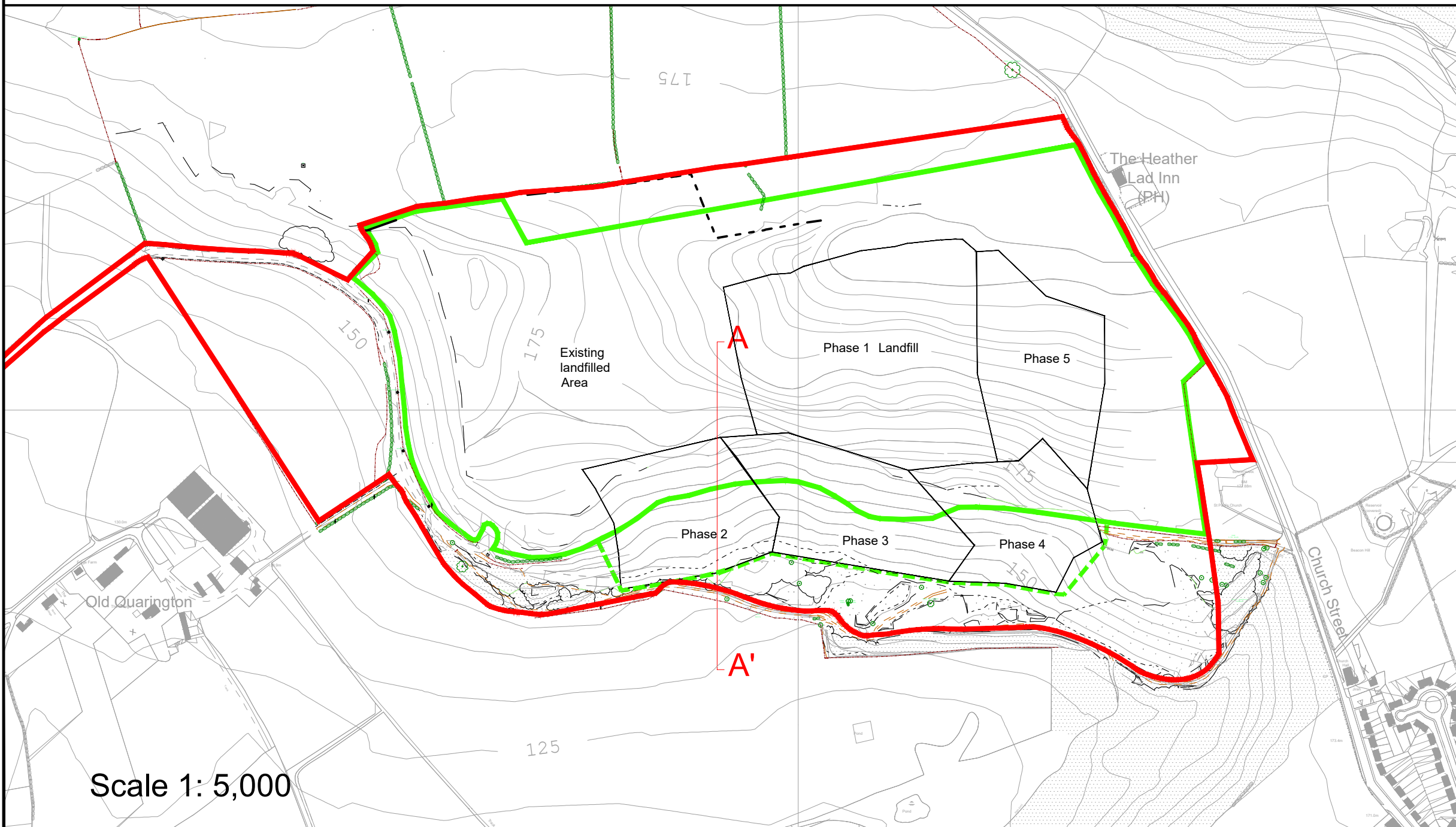
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Legend

- Planning Boundary
- Quarry Extraction Boundary
- Environmental Permit Boundary
- Permit Variation Application Boundary
- Phase 1 Landfill Phasing Boundary



Scale 1: 5,000



Site Name:
Q003 - Old Quarrington

Drawing Name:
Proposed Restoration Contours

Drawn By:
M Donaldson

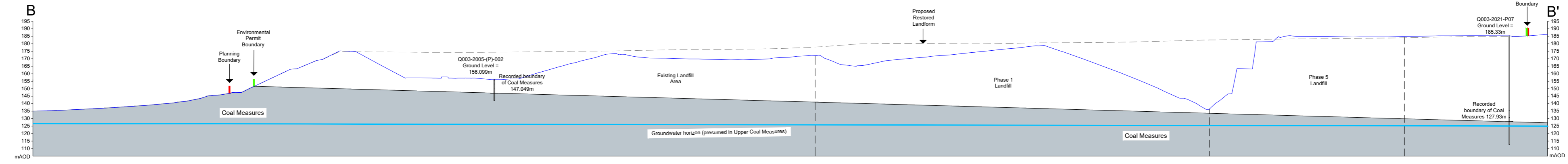
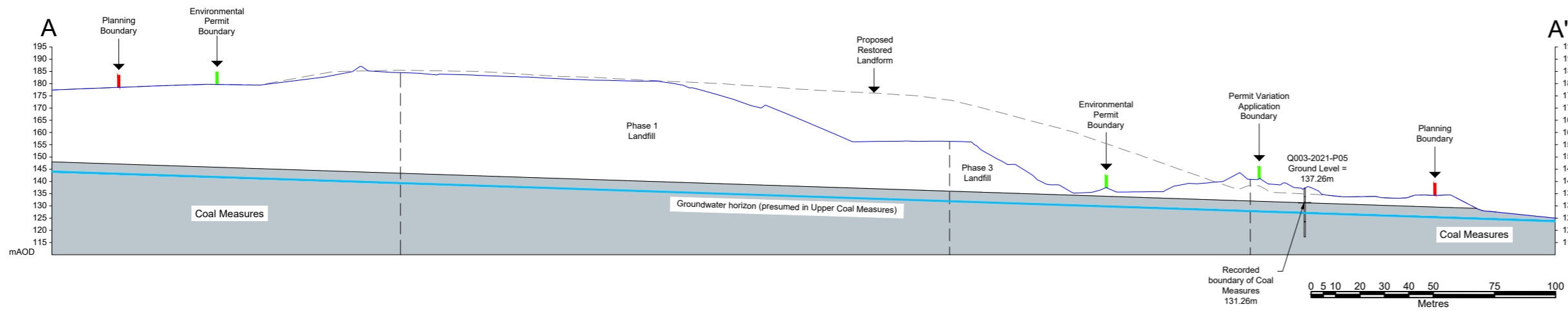
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Date:
March 2021

Drawing Number:
Q003-00197-00

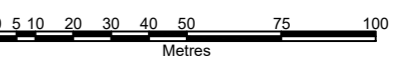
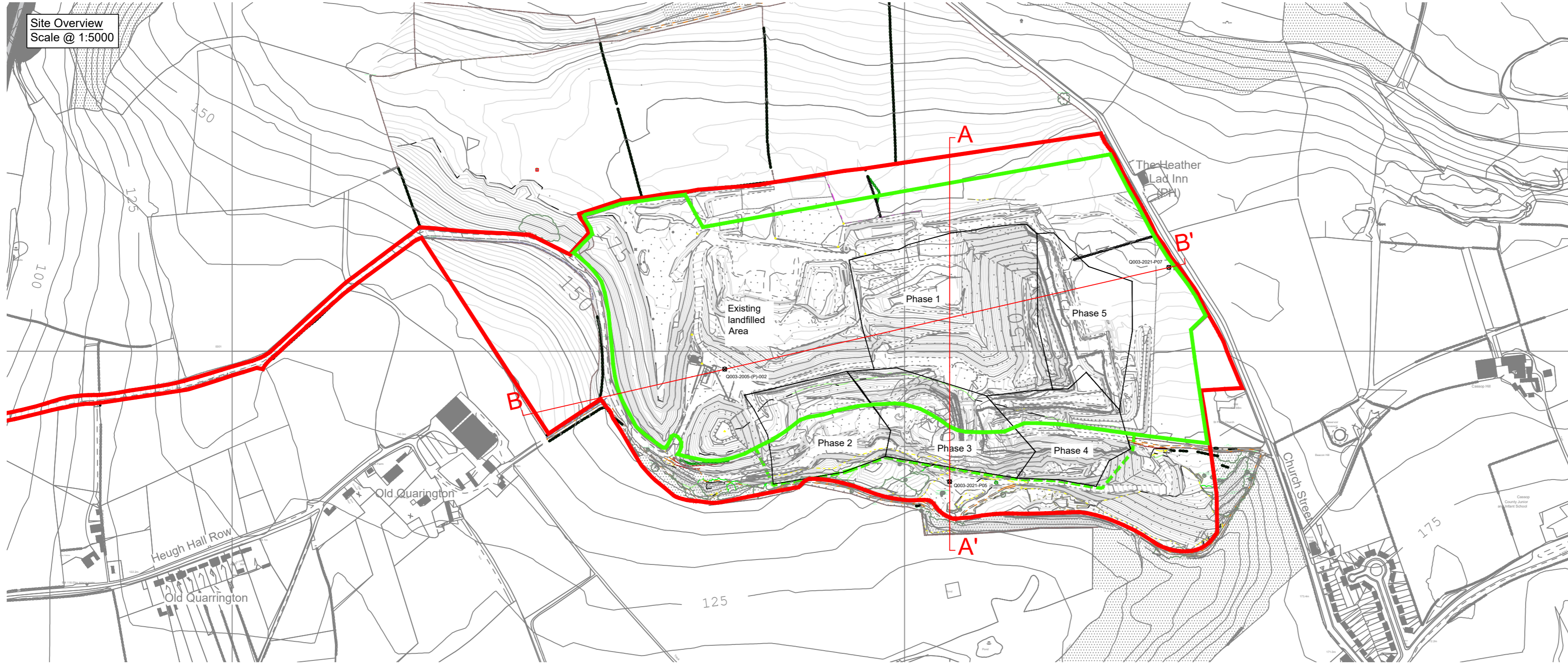



Cross Sections
Scale @ 1:2000




Legend

- Planning Boundary
- Quarry Extraction Boundary
- Environmental Permit Boundary
- Permit Variation Application Boundary
- Phase 1 Landfill Phasing Boundary
- Groundwater Monitoring Borehole








Site Name:
Q003- Old Quarrington Quarry

Drawing Name:
Proposed Permit Extension Area and Cross Section

| | |
|-----------------------------|---|
| Drawn By: P Gill | Scale @ A2: As Shown |
| Date: August 2021 | Drawing Number: Q003-00197-48 |



APPENDICES

APPENDIX 1

Ordnance Survey (Envirocheck) Data

Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

253184316_1_1

Customer Reference:

NT14345

National Grid Reference:

433160, 537810

Slice:

A

Site Area (Ha):

7.97

Search Buffer (m):

1000

Site Details:

Site at 433140, 537820

Client Details:

MR B Whitelaw
Wardell Armstrong LLP
City Quadrant
11 Waterloo Square
Newcastle Upon Tyne
NE1 4DP

| Report Section | Page Number |
|-----------------------|-------------|
| Summary | - |
| Agency & Hydrological | 1 |
| Waste | 18 |
| Hazardous Substances | - |
| Geological | 24 |
| Industrial Land Use | 34 |
| Sensitive Land Use | 38 |
| Data Currency | 39 |
| Data Suppliers | 45 |
| Useful Contacts | 46 |

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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| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|-------------|---------|-----------|-------------|-----------------------------|
| Agency & Hydrological | | | | | |
| BGS Groundwater Flooding Susceptibility | pg 1 | Yes | Yes | Yes | n/a |
| Contaminated Land Register Entries and Notices | | | | | |
| Discharge Consents | pg 2 | | | | 18 |
| Prosecutions Relating to Controlled Waters | | | n/a | n/a | n/a |
| Enforcement and Prohibition Notices | | | | | |
| Integrated Pollution Controls | | | | | |
| Integrated Pollution Prevention And Control | pg 6 | | 2 | | |
| Local Authority Integrated Pollution Prevention And Control | | | | | |
| Local Authority Pollution Prevention and Controls | pg 7 | 1 | | 1 | |
| Local Authority Pollution Prevention and Control Enforcements | | | | | |
| Nearest Surface Water Feature | pg 7 | | Yes | | |
| Pollution Incidents to Controlled Waters | pg 7 | | | | 1 |
| Prosecutions Relating to Authorised Processes | | | | | |
| Registered Radioactive Substances | | | | | |
| River Quality | pg 7 | | 1 | 1 | |
| River Quality Biology Sampling Points | | | | | |
| River Quality Chemistry Sampling Points | | | | | |
| Substantiated Pollution Incident Register | | | | | |
| Water Abstractions | | | | | |
| Water Industry Act Referrals | | | | | |
| Groundwater Vulnerability Map | pg 8 | Yes | n/a | n/a | n/a |
| Groundwater Vulnerability - Soluble Rock Risk | pg 9 | 2 | n/a | n/a | n/a |
| Groundwater Vulnerability - Local Information | | 2 | n/a | n/a | n/a |
| Bedrock Aquifer Designations | pg 9 | Yes | n/a | n/a | n/a |
| Superficial Aquifer Designations | pg 10 | Yes | n/a | n/a | n/a |
| Source Protection Zones | pg 10 | 1 | | | |
| Extreme Flooding from Rivers or Sea without Defences | | | | n/a | n/a |
| Flooding from Rivers or Sea without Defences | | | | n/a | n/a |
| Areas Benefiting from Flood Defences | | | | n/a | n/a |
| Flood Water Storage Areas | | | | n/a | n/a |
| Flood Defences | | | | n/a | n/a |
| OS Water Network Lines | pg 10 | | 1 | 7 | 56 |

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|-------------|---------|-----------|-------------|-----------------------------|
| Waste | | | | | |
| BGS Recorded Landfill Sites | | | | | |
| Historical Landfill Sites | pg 18 | | | 1 | |
| Integrated Pollution Control Registered Waste Sites | | | | | |
| Licensed Waste Management Facilities (Landfill Boundaries) | pg 18 | 1 | 1 | | 1 |
| Licensed Waste Management Facilities (Locations) | pg 18 | | 3 | 1 | 1 |
| Local Authority Landfill Coverage | pg 19 | 2 | n/a | n/a | n/a |
| Local Authority Recorded Landfill Sites | pg 20 | | 1 | 1 | 1 |
| Potentially Infilled Land (Non-Water) | pg 20 | 2 | | 8 | 13 |
| Potentially Infilled Land (Water) | pg 21 | | 3 | | 2 |
| Registered Landfill Sites | pg 22 | | 3 | 1 | |
| Registered Waste Transfer Sites | | | | | |
| Registered Waste Treatment or Disposal Sites | | | | | |
| Hazardous Substances | | | | | |
| Control of Major Accident Hazards Sites (COMAH) | | | | | |
| Explosive Sites | | | | | |
| Notification of Installations Handling Hazardous Substances (NIHHS) | | | | | |
| Planning Hazardous Substance Consents | | | | | |
| Planning Hazardous Substance Enforcements | | | | | |

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|---|-------------|---------|-----------|-------------|-----------------------------|
| Geological | | | | | |
| BGS 1:625,000 Solid Geology | pg 24 | Yes | n/a | n/a | n/a |
| BGS Estimated Soil Chemistry | pg 24 | Yes | Yes | | Yes |
| BGS Recorded Mineral Sites | pg 26 | 2 | 3 | 9 | 12 |
| BGS Urban Soil Chemistry | | | | | |
| BGS Urban Soil Chemistry Averages | | | | | |
| CBSCB Compensation District | | | n/a | n/a | n/a |
| Coal Mining Affected Areas | pg 30 | Yes | n/a | n/a | n/a |
| Mining Instability | pg 31 | Yes | n/a | n/a | n/a |
| Man-Made Mining Cavities | | | | | |
| Natural Cavities | | | | | |
| Non Coal Mining Areas of Great Britain | | | | n/a | n/a |
| Potential for Collapsible Ground Stability Hazards | pg 31 | Yes | | n/a | n/a |
| Potential for Compressible Ground Stability Hazards | | | | n/a | n/a |
| Potential for Ground Dissolution Stability Hazards | pg 31 | Yes | | n/a | n/a |
| Potential for Landslide Ground Stability Hazards | pg 31 | Yes | Yes | n/a | n/a |
| Potential for Running Sand Ground Stability Hazards | pg 32 | Yes | Yes | n/a | n/a |
| Potential for Shrinking or Swelling Clay Ground Stability Hazards | pg 32 | Yes | | n/a | n/a |
| Radon Potential - Radon Affected Areas | | | n/a | n/a | n/a |
| Radon Potential - Radon Protection Measures | | | n/a | n/a | n/a |
| Industrial Land Use | | | | | |
| Contemporary Trade Directory Entries | pg 34 | | | 13 | |
| Fuel Station Entries | | | | | |
| Points of Interest - Commercial Services | pg 35 | | | 3 | |
| Points of Interest - Education and Health | | | | | |
| Points of Interest - Manufacturing and Production | pg 35 | 1 | 6 | 5 | 2 |
| Points of Interest - Public Infrastructure | pg 36 | | 1 | 1 | 3 |
| Points of Interest - Recreational and Environmental | pg 37 | | 1 | | 2 |
| Gas Pipelines | | | | | |
| Underground Electrical Cables | | | | | |

| Data Type | Page Number | On Site | 0 to 250m | 251 to 500m | 501 to 1000m (*up to 2000m) |
|--------------------------------------|-------------|---------|-----------|-------------|-----------------------------|
| Sensitive Land Use | | | | | |
| Ancient Woodland | pg 38 | | | | 1 |
| Areas of Adopted Green Belt | | | | | |
| Areas of Unadopted Green Belt | | | | | |
| Areas of Outstanding Natural Beauty | | | | | |
| Environmentally Sensitive Areas | | | | | |
| Forest Parks | | | | | |
| Local Nature Reserves | pg 38 | | 1 | | 1 |
| Marine Nature Reserves | | | | | |
| National Nature Reserves | pg 38 | | | | 1 |
| National Parks | | | | | |
| Nitrate Sensitive Areas | | | | | |
| Nitrate Vulnerable Zones | pg 38 | 2 | | | |
| Ramsar Sites | | | | | |
| Sites of Special Scientific Interest | pg 38 | | 1 | 1 | |
| Special Areas of Conservation | | | | | |
| Special Protection Areas | | | | | |
| World Heritage Sites | | | | | |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A11SW (S) | 0 | 1 | 433159 537800 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A10NE (W) | 0 | 1 | 433150 537814 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A10SE (SW) | 10 | 1 | 433050 537750 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A11SW (SE) | 12 | 1 | 433200 537750 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A11SW (SE) | 26 | 1 | 433300 537700 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A10SE (SW) | 49 | 1 | 433100 537700 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A11SW (S) | 50 | 1 | 433159 537700 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A10SE (SW) | 84 | 1 | 432950 537700 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding to Occur at Surface | A11SW (S) | 99 | 1 | 433159 537650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A10SE (SW) | 103 | 1 | 433050 537650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A11SW (SE) | 112 | 1 | 433300 537600 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A10SE (SW) | 146 | 1 | 432900 537650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A11SW (SE) | 159 | 1 | 433300 537550 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A11SW (S) | 179 | 1 | 433250 537550 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A10SE (SW) | 197 | 1 | 432850 537600 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A10SW (W) | 205 | 1 | 432700 537650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A11SW (S) | 248 | 1 | 433200 537500 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A11SW (S) | 250 | 1 | 433159 537500 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A7NW (S) | 308 | 1 | 433159 537450 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A6NE (S) | 349 | 1 | 433100 537400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A6NE (S) | 350 | 1 | 433150 537400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A10SW (W) | 357 | 1 | 432500 537700 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A7NW (S) | 357 | 1 | 433159 537400 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A10SW (W) | 374 | 1 | 432500 537650 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A6NE (S) | 400 | 1 | 433150 537350 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A6NE (S) | 449 | 1 | 433100 537300 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Limited Potential for Groundwater Flooding to Occur | A6NE (S) | 450 | 1 | 433150 537300 |
| | BGS Groundwater Flooding Susceptibility Flooding Type: Potential for Groundwater Flooding of Property Situated Below Ground Level | A6NE (S) | 450 | 1 | 433050 537300 |
| 1 | Discharge Consents Operator: Johnson Brothers Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Quarrington Farm Septic Tank, Old Quarrington, Durham, Dh65nn Authority: Environment Agency, North East Region Catchment Area: Wear (Middle) Reference: 243/0695 Permit Version: 1 Effective Date: 31st August 1988 Issued Date: 31st August 1988 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Land/Soakaway Environment: Receiving Water: Land Status: Transferred from COPA 1974 Positional Accuracy: Located by supplier to within 10m | A9SE (W) | 502 | 2 | 432340 537770 |
| 2 | Discharge Consents Operator: Mr And Mrs Cowen Property Type: DOMESTIC PROPERTY (SINGLE) (INCL FARM HOUSE) Location: Rose Cottage And The Orchards, Old Quarrington Authority: Environment Agency, North East Region Catchment Area: Not Given Reference: 243/0945 Permit Version: 1 Effective Date: 10th July 1997 Issued Date: 10th July 1997 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Croxdale Beck Trib Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m | A9SE (W) | 552 | 2 | 432300 537700 |
| 3 | Discharge Consents Operator: Mr R Pringle Property Type: Undefined Or Other Location: Forge Farm And Bungalow, OLD QUARRINGTON Authority: Environment Agency, North East Region Catchment Area: Not Given Reference: 243/0943 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: Not Supplied Revocation Date: Not Supplied Discharge Type: Septic tank Discharge: Freshwater Stream/River Environment: Receiving Water: Croxdale Beck Status: Not Supplied Positional Accuracy: Located by supplier to within 100m | A9SE (W) | 587 | 2 | 432250 537805 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 3 | <p>Discharge Consents</p> <p>Operator: Mr R Pringle Property Type: DOMESTIC PROPERTY (MULTIPLE) (INCL FARM HOUSES) Location: Forge Farm And Bungalow, Old Quarrington Authority: Environment Agency, North East Region Catchment Area: Not Given Reference: 243/0943 Permit Version: 1 Effective Date: 15th April 1997 Issued Date: 15th April 1997 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Unnamed Trib. Of Croxdale Beck Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p> | A9SE (W) | 617 | 2 | 432220 537800 |
| 4 | <p>Discharge Consents</p> <p>Operator: Mr And Mrs Cowen Property Type: Undefined Or Other Location: Rose Cottage And The Orchards, OLD QUARRINGTON Authority: Environment Agency, North East Region Catchment Area: Not Given Reference: 243/0945 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: Not Supplied Revocation Date: Not Supplied Discharge Type: Septic tank Discharge: Freshwater Stream/River Environment: Receiving Water: Croxdale Beck Tributary Status: Not Supplied Positional Accuracy: Located by supplier to within 100m</p> | A9SE (W) | 652 | 2 | 432200 537695 |
| 5 | <p>Discharge Consents</p> <p>Operator: Redundant - Northumbrian Water Ltd Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Cassop Stw, Cassop Authority: Environment Agency, North East Region Catchment Area: Not Supplied Reference: 243/E/0487 Permit Version: 1 Effective Date: 24th July 1964 Issued Date: 24th July 1964 Revocation Date: 13th February 1982 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Chapman Beck, Tributary Of Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p> | A16SW (NE) | 702 | 2 | 433900 538400 |
| 5 | <p>Discharge Consents</p> <p>Operator: Redundant - Northumbrian Water Ltd Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Cassop Stw, Cassop Authority: Environment Agency, North East Region Catchment Area: Not Supplied Reference: 243/E/0488 Permit Version: 1 Effective Date: 24th July 1964 Issued Date: 24th July 1964 Revocation Date: 13th February 1982 Discharge Type: Unspecified Discharge: Freshwater Stream/River Environment: Receiving Water: Chapman Beck, Tributary Of Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961 Positional Accuracy: Located by supplier to within 10m</p> | A16SW (NE) | 702 | 2 | 433900 538400 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 5 | <p>Discharge Consents</p> <p>Operator: Northumbrian Water Limited Property Type: Sewage Disposal Works Location: Cassop Sewage Treatment Works, CASSOP Authority: Environment Agency, North East Region Catchment Area: Wear (Middle) Reference: 243/A/0684/3495 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 13th February 1982 Revocation Date: Not Supplied Discharge Type: Sewage Effluent Discharge-Treated Effluent Discharge: Freshwater Stream/River Environment: Receiving Water: Chapman Beck Status: Not Supplied Positional Accuracy: Located by supplier to within 100m</p> | A16SW (NE) | 705 | 2 | 433905 538400 |
| 6 | <p>Discharge Consents</p> <p>Operator: Northumbrian Water Limited Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Kelloe Sso Manhole No. 18, Kelloe, Co. Durham Authority: Environment Agency, North East Region Catchment Area: Not Supplied Reference: 243/0991 Permit Version: 1 Effective Date: 4th February 2005 Issued Date: 4th February 2005 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Coxhoe Beck, Tributary Of Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p> | A7SE (SE) | 720 | 2 | 433820 537090 |
| 6 | <p>Discharge Consents</p> <p>Operator: Northumbrian Water Limited Property Type: STORM TANK/CSO ON SEWERAGE NETWORK (WATER COMPANY) Location: Kelloe Sso Manhole No. 18, Kelloe, Co. Durham Authority: Environment Agency, North East Region Catchment Area: Wear (Middle) Reference: 243/E/0516 Permit Version: 1 Effective Date: 24th July 1964 Issued Date: 24th July 1964 Revocation Date: 4th February 2005 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Coxhoe Beck, Tributary Of Status: Authorisation revoked Positional Accuracy: Located by supplier to within 10m</p> | A7SE (SE) | 720 | 2 | 433820 537090 |
| 7 | <p>Discharge Consents</p> <p>Operator: Northumbrian Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Cassop Stw, Cassop, County Durham Authority: Environment Agency, North East Region Catchment Area: Not Supplied Reference: 243/1016 Permit Version: 2 Effective Date: 1st January 2010 Issued Date: 24th September 2009 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Chapman Beck Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p> | A16SW (NE) | 839 | 2 | 434120 538370 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 7 | <p>Discharge Consents</p> <p>Operator: Northumbrian Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Cassop Stw, Cassop, County Durham Authority: Environment Agency, North East Region Catchment Area: Not Supplied Reference: 243/1016 Permit Version: 2 Effective Date: 1st January 2010 Issued Date: 24th September 2009 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Chapman Beck Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p> | A16SW (NE) | 839 | 2 | 434120 538370 |
| 7 | <p>Discharge Consents</p> <p>Operator: Northumbrian Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Cassop Stw, Cassop, County Durham Authority: Environment Agency, North East Region Catchment Area: Not Supplied Reference: 243/1016 Permit Version: 1 Effective Date: 1st April 2005 Issued Date: 8th March 2005 Revocation Date: 31st December 2009 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Chapman Beck Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p> | A16SW (NE) | 839 | 2 | 434120 538370 |
| 7 | <p>Discharge Consents</p> <p>Operator: Northumbrian Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Cassop Stw, Cassop, County Durham Authority: Environment Agency, North East Region Catchment Area: Not Supplied Reference: 243/1016 Permit Version: 1 Effective Date: 1st April 2005 Issued Date: 8th March 2005 Revocation Date: 31st December 2009 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Chapman Beck Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p> | A16SW (NE) | 839 | 2 | 434120 538370 |
| 7 | <p>Discharge Consents</p> <p>Operator: Northumbrian Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Cassop Stw, Cassop, Co. Durham Authority: Environment Agency, North East Region Catchment Area: Wear (Middle) Reference: 243/A/0684 Permit Version: 1 Effective Date: 13th February 1982 Issued Date: 13th February 1982 Revocation Date: 31st March 2005 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Chapman Beck Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m</p> | A16SW (NE) | 843 | 2 | 434100 538400 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 7 | <p>Discharge Consents</p> <p>Operator: Northumbrian Water Limited Property Type: WWTW/SEWAGE TREATMENT WORKS (WATER COMPANY) Location: Cassop Stw, Cassop, Co. Durham Authority: Environment Agency, North East Region Catchment Area: Not Given Reference: 243/A/0685 Permit Version: 1 Effective Date: 13th February 1982 Issued Date: 13th February 1982 Revocation Date: 31st March 2005 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Chapman Beck Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m</p> | A16SW (NE) | 843 | 2 | 434100 538400 |
| 8 | <p>Discharge Consents</p> <p>Operator: Northumbrian Water Limited Property Type: PUMPING STATION ON SEWERAGE NETWORK (WATER COMPANY) Location: Cassop Sso No 12, Cassop Authority: Environment Agency, North East Region Catchment Area: Wear (Middle) Reference: 243/E/0489 Permit Version: 1 Effective Date: 24th July 1964 Issued Date: 24th July 1964 Revocation Date: 3rd July 2019 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Chapman Beck, Tributary Of Status: Surrendered under EPR 2010 Positional Accuracy: Located by supplier to within 100m</p> | A16SE (NE) | 921 | 2 | 434200 538400 |
| 9 | <p>Discharge Consents</p> <p>Operator: Northumbrian Water Limited Property Type: Sewage Disposal Works - Water Company Location: Cassop Stw, Cassop, Co. Durham Authority: Environment Agency, North East Region Catchment Area: Not Given Reference: 243/A/0685 Permit Version: 1 Effective Date: 13th February 1982 Issued Date: 13th February 1982 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Chapman Beck Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961 Positional Accuracy: Located by supplier to within 10m</p> | A16SE (NE) | 969 | 2 | 434290 538350 |
| 10 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Tarmac Ltd Location: The Quarry, Old Quarrington, Durham, DH6 5NN Authority: Environment Agency, North East Region Permit Reference: QP3934LZ Original Permit Ref: Tp3730ba Effective Date: 31st March 2008 Status: Revoked Application Type: Variation App. Sub Type: Minor Positional Accuracy: Automatically positioned to the address Activity Code: 5.2 A(1) (B) Activity Description: Waste Landfilling; Any Other Landfill To Which The 2002 Landfill Regulations Apply Primary Activity: Y</p> | A10NW (W) | 160 | 2 | 432673 537861 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 10 | <p>Integrated Pollution Prevention And Control</p> <p>Name: Tarmac Ltd Location: The Quarry, Old Quarrington, DURHAM, DH6 5NN Authority: Environment Agency, North East Region Permit Reference: Tp3730ba Original Permit Ref: Tp3730ba Effective Date: 9th November 2005 Status: Superseded By Variation Application Type: Application App. Sub Type: New Positional Accuracy: Automatically positioned to the address Activity Code: 5.2 A(1) (B) Activity Description: Waste Landfilling; Any Other Landfill To Which The 2002 Landfill Regulations Apply Primary Activity: Y</p> | A10NW (W) | 160 | 2 | 432673 537861 |
| 11 | <p>Local Authority Pollution Prevention and Controls</p> <p>Name: Tarmac Northern Location: Hepplewhite Quarry, Old Quarrington, DURHAM, County Durham, DH6 5NN Authority: Durham County Council (Unitary), Environmental Health Department Permit Reference: DCC/LAPPC/P13 Dated: 22nd January 1993 Process Type: Local Authority Air Pollution Control Description: PG3/8 Quarry processes including roadstone plants and the size reduction of bricks, tiles and concrete Status: Authorised Positional Accuracy: Manually positioned to the address or location</p> | A11SW (SE) | 0 | 3 | 433170 537797 |
| 12 | <p>Local Authority Pollution Prevention and Controls</p> <p>Name: Pja Motors Ltd Location: Front Street North, Quarring Hill, Co Durham, Dh6 4qg Authority: Durham County Council (Unitary), Environmental Health Department Permit Reference: DCC/P216 Dated: 1st October 2012 Process Type: Local Authority Pollution Prevention and Control Description: PG1/1Waste oil burners, less than 0.4MW net rated thermal input Status: Permitted Positional Accuracy: Manually positioned to the address or location</p> | A7NE (SE) | 336 | 3 | 433660 537447 |
| | <p>Nearest Surface Water Feature</p> | A10SE (SW) | 91 | - | 433079 537658 |
| 13 | <p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Government Establishment Location: Sedgelych Stw Authority: Environment Agency, North East Region Pollutant: Not Given Note: Moors Burn Incident Date: 17th April 1993 Incident Reference: 245/003155 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Other Cause Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p> | A9SW (W) | 750 | 2 | 432100 537700 |
| | <p>River Quality</p> <p>Name: Tursdale_Beck GQA Grade: River Quality C Reach: Source_Croxdale_Bec Estimated Distance (km): 1.9 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000</p> | A10SE (S) | 122 | 2 | 433115 537634 |
| | <p>River Quality</p> <p>Name: Chapman_Beck GQA Grade: River Quality A Reach: Source_Whitwell_Bec Estimated Distance (km): 5.3 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000</p> | A15SE (NE) | 467 | 2 | 433592 538310 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| | <p>Groundwater Vulnerability Map</p> <p>Combined Principle Bedrock Aquifer - Low Vulnerability</p> <p>Classification: Low</p> <p>Combined Vulnerability: Low</p> <p>Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer</p> <p>Pollutant Speed: Low</p> <p>Bedrock Flow: Well Connected Fractures</p> <p>Dilution: <300 mm/year</p> <p>Baseflow Index: <40%</p> <p>Superficial >90%</p> <p>Patchiness: >10m</p> <p>Superficial Thickness: >10m</p> <p>Superficial Recharge: Low</p> | A10NE (W) | 0 | 4 | 433000 537846 |
| | <p>Groundwater Vulnerability Map</p> <p>Combined Secondary Bedrock Aquifer - Low Vulnerability</p> <p>Classification: Low</p> <p>Combined Vulnerability: Low</p> <p>Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer</p> <p>Pollutant Speed: Low</p> <p>Bedrock Flow: Well Connected Fractures</p> <p>Dilution: <300 mm/year</p> <p>Baseflow Index: <40%</p> <p>Superficial >90%</p> <p>Patchiness: >10m</p> <p>Superficial Thickness: >10m</p> <p>Superficial Recharge: Low</p> | A10NE (W) | 0 | 4 | 433000 537829 |
| | <p>Groundwater Vulnerability Map</p> <p>Combined Principle Bedrock Aquifer - Medium Vulnerability</p> <p>Classification: Medium</p> <p>Combined Vulnerability: Medium</p> <p>Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer</p> <p>Pollutant Speed: Low</p> <p>Bedrock Flow: Well Connected Fractures</p> <p>Dilution: 300-550 mm/year</p> <p>Baseflow Index: <40%</p> <p>Superficial <90%</p> <p>Patchiness: <3m</p> <p>Superficial Thickness: <3m</p> <p>Superficial Recharge: Low</p> | A11NW (N) | 0 | 4 | 433158 537827 |
| | <p>Groundwater Vulnerability Map</p> <p>Combined Secondary Bedrock Aquifer - Medium Vulnerability</p> <p>Classification: Medium</p> <p>Combined Vulnerability: Medium</p> <p>Combined Aquifer: Productive Bedrock Aquifer, No Superficial Aquifer</p> <p>Pollutant Speed: Low</p> <p>Bedrock Flow: Well Connected Fractures</p> <p>Dilution: 300-550 mm/year</p> <p>Baseflow Index: <40%</p> <p>Superficial <90%</p> <p>Patchiness: <3m</p> <p>Superficial Thickness: <3m</p> <p>Superficial Recharge: Low</p> | A11NW (N) | 0 | 4 | 433159 537814 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| | Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Well Connected Fractures Dilution: <300 mm/year Baseflow Index: <40% Superficial Patchiness: >90% Superficial Thickness: >10m Superficial Recharge: Low | A10NE (W) | 0 | 4 | 432849 537832 |
| | Groundwater Vulnerability Map Combined Classification: Secondary Superficial Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Well Connected Fractures Dilution: <300 mm/year Baseflow Index: <40% Superficial Patchiness: >90% Superficial Thickness: >10m Superficial Recharge: Low | A10NE (W) | 0 | 4 | 433000 537814 |
| | Groundwater Vulnerability Map Combined Classification: Principle Bedrock Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: <40% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: Low | A11NW (NE) | 0 | 4 | 433235 537940 |
| | Groundwater Vulnerability Map Combined Classification: Secondary Bedrock Aquifer - Medium Vulnerability Combined Vulnerability: Medium Combined Aquifer: Productive Bedrock Aquifer, Productive Superficial Aquifer Pollutant Speed: Low Bedrock Flow: Well Connected Fractures Dilution: 300-550 mm/year Baseflow Index: <40% Superficial Patchiness: <90% Superficial Thickness: <3m Superficial Recharge: Low | A11SW (S) | 0 | 4 | 433159 537801 |
| | Groundwater Vulnerability - Soluble Rock Risk Classification: Significant Risk - Problems Unlikely | A10NE (W) | 0 | 4 | 433000 537814 |
| | Groundwater Vulnerability - Soluble Rock Risk Classification: Significant Risk - Problems Unlikely | A11NW (N) | 0 | 4 | 433159 537814 |
| | Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A | A11NW (N) | 0 | 4 | 433159 537814 |
| | Bedrock Aquifer Designations Aquifer Designation: Principal Aquifer | A11NW (N) | 0 | 4 | 433158 537827 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| | Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated | A11SW (S) | 0 | 4 | 433159 537801 |
| | Superficial Aquifer Designations Aquifer Designation: Secondary Aquifer - Undifferentiated | A11NW (NE) | 0 | 4 | 433235 537940 |
| 14 | Source Protection Zones Name: Not Supplied Source: Environment Agency, Head Office Reference: Not Supplied Type: Zone III (Total Catchment): The total area needed to support the discharge from the protected groundwater source. | A11NW (N) | 0 | 2 | 433159 537814 |
| | Extreme Flooding from Rivers or Sea without Defences None | | | | |
| | Flooding from Rivers or Sea without Defences None | | | | |
| | Areas Benefiting from Flood Defences None | | | | |
| | Flood Water Storage Areas None | | | | |
| | Flood Defences None | | | | |
| 15 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 117.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A10SE (SW) | 231 | 5 | 432990 537534 |
| 16 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 217.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A10SE (S) | 266 | 5 | 433081 537483 |
| 17 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 26.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A10SE (SW) | 284 | 5 | 432894 537507 |
| 18 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A10SE (SW) | 304 | 5 | 432881 537490 |
| 19 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 132.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A10SW (SW) | 327 | 5 | 432741 537487 |
| 20 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 106.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A6NE (SW) | 337 | 5 | 432870 537459 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 21 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 329.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A6NW (SW) | 420 | 5 | 432815 537378 |
| 22 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 488.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A9SE (W) | 451 | 5 | 432458 537546 |
| 23 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 601.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Chapman Beck Catchment Name: Wear Primacy: 1 | A15SE (NE) | 646 | 5 | 433697 538480 |
| 24 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 512.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NW (SE) | 671 | 5 | 434065 537419 |
| 25 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 120.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NW (SE) | 679 | 5 | 434069 537411 |
| 26 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 3.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A6NW (SW) | 690 | 5 | 432611 537147 |
| 27 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 5.7 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A6NW (SW) | 692 | 5 | 432608 537146 |
| 28 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 300.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A6NW (SW) | 697 | 5 | 432603 537143 |
| 29 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 64.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NW (SE) | 697 | 5 | 434066 537372 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 30 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 60.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 2 | A8NW (SE) | 697 | 5 | 434066 537372 |
| 31 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 124.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 2 | A8NW (E) | 707 | 5 | 434126 537464 |
| 32 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NW (E) | 707 | 5 | 434126 537464 |
| 33 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 42.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NW (E) | 710 | 5 | 434131 537466 |
| 34 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 2 | A8NW (E) | 710 | 5 | 434131 537466 |
| 35 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 328.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A9SE (W) | 716 | 5 | 432144 537645 |
| 36 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 258.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Chapman Beck Catchment Name: Wear Primacy: 1 | A16SW (NE) | 737 | 5 | 433991 538364 |
| 37 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 105.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NW (SE) | 743 | 5 | 434080 537309 |
| 38 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 31.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NW (SE) | 743 | 5 | 434080 537309 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 39 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 31.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 2 | A8NW (E) | 744 | 5 | 434161 537446 |
| 40 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 36.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A12SE (E) | 744 | 5 | 434171 537476 |
| 41 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 83.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 2 | A8NW (E) | 746 | 5 | 434161 537446 |
| 42 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 62.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 2 | A8NW (E) | 746 | 5 | 434161 537446 |
| 43 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 35.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NW (SE) | 754 | 5 | 434105 537327 |
| 44 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 416.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NW (SE) | 754 | 5 | 434105 537327 |
| 45 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 21.5 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A5NE (W) | 759 | 5 | 432176 537437 |
| 46 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 391.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A5NE (W) | 764 | 5 | 432181 537416 |
| 47 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 38.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NW (SE) | 769 | 5 | 434135 537346 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 48 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 176.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NW (SE) | 769 | 5 | 434135 537346 |
| 49 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 15.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A12SE (E) | 777 | 5 | 434208 537480 |
| 50 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 57.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 2 | A12SE (E) | 777 | 5 | 434208 537480 |
| 51 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 15.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NE (SE) | 788 | 5 | 434168 537365 |
| 52 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.2 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A12SE (E) | 793 | 5 | 434222 537474 |
| 53 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 209.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A12SE (E) | 797 | 5 | 434226 537472 |
| 54 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 59.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NE (SE) | 802 | 5 | 434176 537351 |
| 55 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 236.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NE (SE) | 802 | 5 | 434176 537351 |
| 56 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 54.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 2 | A8NE (E) | 807 | 5 | 434218 537425 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
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| 57 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 484.5 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A6SE (S) | 821 | 5 | 432963 536930 |
| 58 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 39.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NE (SE) | 839 | 5 | 434230 537372 |
| 59 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 86.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NW (SE) | 846 | 5 | 434152 537232 |
| 60 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 383.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NW (SE) | 846 | 5 | 434152 537232 |
| 61 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 129.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A15NE (NE) | 852 | 5 | 433582 538701 |
| 62 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 4.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Chapman Beck Catchment Name: Wear Primacy: 1 | A15NE (NE) | 853 | 5 | 433582 538701 |
| 63 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 1440.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Chapman Beck Catchment Name: Wear Primacy: 1 | A15NE (NE) | 857 | 5 | 433580 538705 |
| 64 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 10.6 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NE (SE) | 898 | 5 | 434172 537172 |
| 65 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 50.2 Watercourse Level: Not Supplied Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A5SE (SW) | 902 | 5 | 432332 537055 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 66 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 13.3 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NE (SE) | 908 | 5 | 434180 537164 |
| 67 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 312.2 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A14NW (NW) | 909 | 5 | 432583 538768 |
| 68 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 85.9 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A8NE (SE) | 921 | 5 | 434190 537156 |
| 69 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 213.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A13NE (NW) | 927 | 5 | 432273 538622 |
| 70 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 34.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A5SE (SW) | 931 | 5 | 432349 537008 |
| 71 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 43.7 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A16SE (NE) | 952 | 5 | 434209 538438 |
| 72 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 73.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A5SE (SW) | 953 | 5 | 432361 536976 |
| 73 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 243.6 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A12SE (E) | 968 | 5 | 434441 537658 |
| 74 | OS Water Network Lines Watercourse Form: Lake Watercourse Length: 41.1 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A6SW (SW) | 979 | 5 | 432512 536876 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 75 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 9.0 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A12SE (E) | 986 | 5 | 434461 537686 |
| 76 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 511.4 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A12SE (E) | 991 | 5 | 434465 537678 |
| 77 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 12.0 Watercourse Level: Underground Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A12SE (E) | 991 | 5 | 434465 537678 |
| 78 | OS Water Network Lines Watercourse Form: Inland river Watercourse Length: 96.8 Watercourse Level: On ground surface Permanent: True Watercourse Name: Not Supplied Catchment Name: Wear Primacy: 1 | A5SE (SW) | 996 | 5 | 432396 536907 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 79 | <p>Historical Landfill Sites</p> <p>Licence Holder: R N Foord and Son Location: Hill Top Farm, Cassop, Durham, County Durham Name: Hill Top Farm Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHL05903 First Input Date: 31st December 1993 Last Input Date: 27th April 1994 Specified Waste: Deposited Waste included Inert Waste Type: EA Waste Ref: 67239 Regis Ref: DUR/L/FOR002 WRC Ref: 1300/0059 BGS Ref: Not Supplied Other Ref: DUR/266</p> | A15SW (NE) | 276 | 2 | 433414 538146 |
| 80 | <p>Licensed Waste Management Facilities (Landfill Boundaries)</p> <p>Name: Old Quarrington Quarry Landfill Licence Number: 210077 Location: Old Quarrington Quarry, Bowburn, County Durham, DH6 5NN Licence Holder: Tarmac Trading Limited Authority: Environment Agency - North East Region, North East Area Site Category: Inert LF Max Input Rate: Not Supplied Licence Status: Modified Issued: 9th November 2005 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied</p> | A10NE (N) | 0 | 2 | 433146 537881 |
| 81 | <p>Licensed Waste Management Facilities (Landfill Boundaries)</p> <p>Name: Coxhoe Quarry Landfill Licence Number: 67124 Location: Coxhoe Quarry Landfill, Coxhoe, Durham, County Durham, DH6 4RT Licence Holder: Durham County Council Authority: Environment Agency - North East Region, North East Area Site Category: Household, Commercial And Industrial Waste Landfills Max Input Rate: Not Supplied Licence Status: Closure Issued: 7th January 1985 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied</p> | A11SW (S) | 233 | 2 | 433288 537495 |
| 82 | <p>Licensed Waste Management Facilities (Landfill Boundaries)</p> <p>Name: Joint Stocks Quarry - Phase 1 Licence Number: 67009 Location: Joint Stocks Quarry - Phase 1, Coxhoe, Durham, County Durham, DH6 4RT Licence Holder: Durham County Council Authority: Environment Agency - North East Region, North East Area Site Category: Household, Commercial And Industrial Waste Landfills Max Input Rate: Not Supplied Licence Status: Closure Issued: 14th March 1977 Positional Accuracy: Positioned by the supplier Boundary Accuracy: As Supplied</p> | A3NW (S) | 944 | 2 | 433192 536781 |
| 83 | <p>Licensed Waste Management Facilities (Locations)</p> <p>Licence Number: 210077 Location: Old Quarrington Quarry, Bowburn, County Durham, DH6 5NN Operator Name: Tarmac Trading Limited Operator Location: Not Supplied Authority: Environment Agency - North East Region, North East Area Site Category: Inert LF Licence Status: Modified Issued: 9th November 2005 Last Modified: 3rd April 2018 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m</p> | A10NW (W) | 163 | 2 | 432670 537860 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 84 | <p>Licensed Waste Management Facilities (Locations)</p> <p>Licence Number: 104233 Location: Old Quarrington Quarry, Old Quarrington, Durham, County Durham, DH6 5NN Operator Name: Tarmac Trading Limited Operator Location: Not Supplied Authority: Environment Agency - North East Region, North East Area Site Category: Physical Treatment Facilities Licence Status: Modified Issued: 3rd September 2012 Last Modified: 8th January 2016 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m</p> | A10NE (NW) | 164 | 2 | 432870 538070 |
| 85 | <p>Licensed Waste Management Facilities (Locations)</p> <p>Licence Number: 67101 Location: Old Quarrington, Coxhoe, Durham, County Durham, DH6 5NN Operator Name: Tarmac Ltd Operator Location: Not Supplied Authority: Environment Agency - North East Region, North East Area Site Category: Landfills Taking Other Wastes (Construction, Demolition, Dredgings) Licence Status: To PPC Issued: 20th August 1981 Last Modified: 1st September 2002 Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: QP3934LZ Positional Accuracy: Located by supplier to within 100m</p> | A10NW (W) | 177 | 2 | 432700 538000 |
| 86 | <p>Licensed Waste Management Facilities (Locations)</p> <p>Licence Number: 67239 Location: Cassop, Durham, County Durham Operator Name: R N Foord & Son Operator Location: Not Supplied Authority: Environment Agency - North East Region, North East Area Site Category: Landfills Taking Non-biodegradable Wastes (Not Construction) Licence Status: Surrendered Issued: 7th March 1994 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: 27th April 1994 IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 100m</p> | A15SW (NE) | 334 | 2 | 433400 538200 |
| 87 | <p>Licensed Waste Management Facilities (Locations)</p> <p>Licence Number: 101318 Location: Quarrington Farm, Old Quarrington, Durham, County Durham, DH6 5NN Operator Name: Johnson Philip Operator Location: Not Supplied Authority: Environment Agency - North East Region, North East Area Site Category: Treatment - Biological Licence Status: Issued Issued: 5th November 2010 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m</p> | A9NE (W) | 605 | 2 | 432270 538106 |
| | <p>Local Authority Landfill Coverage</p> <p>Name: Durham City Council - Has no landfill data to supply</p> | | 0 | 6 | 433159 537814 |
| | <p>Local Authority Landfill Coverage</p> <p>Name: Durham County Council - Has supplied landfill data</p> | | 0 | 7 | 433159 537814 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 88 | Local Authority Recorded Landfill Sites Location: Old Quarrington Reference: WD/4/18 Authority: Durham County Council, Economic Development and Planning Department Last Reported Status: Unknown Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Located by supplier to within 100m Boundary Quality: Not Applicable | A10NE (NW) | 91 | 7 | 432900 538000 |
| 89 | Local Authority Recorded Landfill Sites Location: Hill Top Farm, Near Heather Lad Inn, Quarrington Hill Reference: WD/4/7 Authority: Durham County Council, Economic Development and Planning Department Last Reported Status: Unknown Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Located by supplier to within 100m Boundary Quality: Not Applicable | A15SW (NE) | 334 | 7 | 433400 538200 |
| 90 | Local Authority Recorded Landfill Sites Location: Coxhoe Quarry Reference: WD/4/9 Authority: Durham County Council, Economic Development and Planning Department Last Reported Status: Unknown Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate | A7NW (S) | 509 | 7 | 433166 537244 |
| 91 | Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A10SE (W) | 0 | - | 432845 537795 |
| 92 | Potentially Infilled Land (Non-Water) Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A11SW (E) | 0 | - | 433284 537768 |
| 93 | Potentially Infilled Land (Non-Water) Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A11SW (S) | 256 | - | 433271 537478 |
| 94 | Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A10NW (W) | 285 | - | 432553 537944 |
| 95 | Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A7NW (SE) | 288 | - | 433346 537419 |
| 96 | Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A15SW (NE) | 368 | - | 433398 538235 |
| 97 | Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A15SE (NE) | 394 | - | 433501 538248 |
| 98 | Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A9NE (W) | 410 | - | 432426 537820 |
| 99 | Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A15SE (NE) | 418 | - | 433522 538269 |
| 100 | Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A15SW (N) | 484 | - | 433325 538360 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 101 | Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A15SE (NE) | 546 | - | 433617 538378 |
| 102 | Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A15SE (NE) | 552 | - | 433572 538396 |
| 103 | Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A16SW (NE) | 598 | - | 433861 538296 |
| 104 | Potentially Infilled Land (Non-Water) Bearing Ref: E Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A12NW (E) | 622 | - | 434094 537814 |
| 105 | Potentially Infilled Land (Non-Water) Bearing Ref: SE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A7SE (SE) | 625 | - | 433539 537085 |
| 106 | Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A14NE (N) | 665 | - | 432932 538579 |
| 107 | Potentially Infilled Land (Non-Water) Bearing Ref: SW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A6NW (SW) | 684 | - | 432619 537151 |
| 108 | Potentially Infilled Land (Non-Water) Bearing Ref: W Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A9NW (W) | 712 | - | 432120 537889 |
| 109 | Potentially Infilled Land (Non-Water) Bearing Ref: N Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A14NE (N) | 724 | - | 432845 538632 |
| 110 | Potentially Infilled Land (Non-Water) Bearing Ref: S Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A6SE (S) | 847 | - | 432875 536927 |
| 111 | Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A16NW (NE) | 917 | - | 433881 538670 |
| 112 | Potentially Infilled Land (Non-Water) Bearing Ref: NW Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A13SW (NW) | 945 | - | 432051 538414 |
| 113 | Potentially Infilled Land (Non-Water) Bearing Ref: NE Use: Unknown Filled Ground (Pit, quarry etc) Date of Mapping: 1992 | A16SE (NE) | 968 | - | 434306 538319 |
| 114 | Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1861 | A11SW (S) | 121 | - | 433186 537641 |
| 115 | Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1898 | A11SE (SE) | 153 | - | 433512 537567 |
| 116 | Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1861 | A11SE (SE) | 227 | - | 433650 537595 |
| 117 | Potentially Infilled Land (Water) Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1952 | A15SW (N) | 613 | - | 433410 538480 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 118 | <p>Potentially Infilled Land (Water)</p> <p>Use: Unknown Filled Ground (Pond, marsh, river, stream, dock etc) Date of Mapping: 1861</p> | A15NW (NE) | 662 | - | 433453 538524 |
| 119 | <p>Registered Landfill Sites</p> <p>Licence Holder: Hepplewhite Quarries Ltd Licence Reference: DUR 105E Site Location: Old Quarrington Quarry, Bowburn, Durham, County Durham Licence Easting: 432700 Licence Northing: 538050 Operator Location: PO Box 8, Millfields Road, Ettingshall, WOLVERHAMPTON, West Midlands, WV4 6JP Authority: Environment Agency - North East Region, Northumbria Area Site Category: Landfill Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Operational as far as is knownOperational Dated: 24th March 1997 Preceded By: DUR 105D Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Construction And Demolition Wastes Prohibited Waste: Special Wastes Waste N.O.S.</p> | A10NW (NW) | 214 | 2 | 432700 538050 |
| 119 | <p>Registered Landfill Sites</p> <p>Licence Holder: Hepplewhite Quarries Ltd Licence Reference: DUR 105D Site Location: Quarry Old Quarrington, Bowburn, Durham, County Durham Licence Easting: 432700 Licence Northing: 538050 Operator Location: PO Box 8, Millfields Road, Ettingshall, WOLVERHAMPTON, West Midlands, WV4 6JP Authority: Environment Agency - North East Region, Northumbria Area Site Category: Landfill Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Record supersededSuperseded Dated: 1st March 1994 Preceded By: DUR 105C Licence: Superseded By: DUR 105E Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Construction And Demolition Wastes Prohibited Waste: Liable To Cause Environmental Hazards Poisonous, Noxious, Polluting Wastes Special Wastes Waste N.O.S.</p> | A10NW (NW) | 214 | 2 | 432700 538050 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 119 | <p>Registered Landfill Sites</p> <p>Licence Holder: Hepplewhite Quarries Ltd Licence Reference: DUR 105C Site Location: Quarry At Old Quarrington, Bowburn, Durham, County Durham Licence Easting: 432700 Licence Northing: 538050 Operator Location: PO Box 8, Millfields Road, Ettingshall, WOLVERHAMPTON, West Midlands, WV4 6JP</p> <p>Authority: Environment Agency - North East Region, Northumbria Area Site Category: Landfill Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year)</p> <p>Waste Source: No known restriction on source of waste Restrictions: Status: Record supersededSuperseded Dated: 20th August 1981 Preceded By: Not Given Licence: Superseded By: DUR 105D Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Cement Waste Construction And Demolition Wastes Foundry Sand Glass/Cullet Metal Scrap Mine And Quarry Wastes Pottery Making Waste Silt And Dredgings Slag, Boiler/Flue Cleanings</p> <p>Prohibited Waste: Poisonous, Noxious, Polluting Wastes Special Wastes</p> | A10NW (NW) | 214 | 2 | 432700 538050 |
| 120 | <p>Registered Landfill Sites</p> <p>Licence Holder: R N Foord & Son Licence Reference: DUR 266 Site Location: Hill Top Farm, Cassop, Bowburn, DURHAM, County Durham, DH6 4RB Licence Easting: 433420 Licence Northing: 538180 Operator Location: As Site Address Authority: Environment Agency - North East Region, Northumbria Area Site Category: Landfill Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year)</p> <p>Waste Source: No known restriction on source of waste Restrictions: Status: Licence known to be surrenderedSurrendered Dated: 7th March 1994 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Constr'N/Demol.Waste Non-Flam. Prohibited Waste: Liable To Cause Environmental Hazards Poisonous, Noxious, Polluting Wastes Special Wastes Waste N.O.S.</p> | A15SW (NE) | 316 | 2 | 433420 538180 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| | BGS 1:625,000 Solid Geology Description: Pennine Middle Coal Measures Formation And South Wales Middle Coal Measures Formation (Undifferentiated) | A10SE (S) | 0 | 1 | 433152 537748 |
| | BGS 1:625,000 Solid Geology Description: Zechstein Group | A11NW (N) | 0 | 1 | 433159 537814 |
| | BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil and Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg | A10NE (W) | 0 | 1 | 433000 537867 |
| | BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil and Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <100 mg/kg Nickel Concentration: 15 - 30 mg/kg | A10NE (W) | 0 | 1 | 433000 537814 |
| | BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil and Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 40 - 60 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 15 - 30 mg/kg | A11NW (N) | 0 | 1 | 433160 537834 |
| | BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil and Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 15 - 30 mg/kg | A11NW (N) | 0 | 1 | 433159 537814 |
| | BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil and Sediment Arsenic Concentration: <15 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: 100 - 200 mg/kg Nickel Concentration: 15 - 30 mg/kg | A11NW (NE) | 0 | 1 | 433235 537940 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| | <p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil and Sediment</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 40 - 60 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <100 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p> | A10NE (NW) | 34 | 1 | 432987 537952 |
| | <p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil and Sediment</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 40 - 60 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <100 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p> | A10NE (NW) | 37 | 1 | 432892 537954 |
| | <p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil and Sediment</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 40 - 60 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: 100 - 200 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p> | A10NE (NW) | 64 | 1 | 433000 537979 |
| | <p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil and Sediment</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 40 - 60 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <100 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p> | A11NW (NE) | 149 | 1 | 433292 538029 |
| | <p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil and Sediment</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 40 - 60 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <100 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p> | A11SW (SE) | 200 | 1 | 433392 537499 |
| | <p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil and Sediment</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 40 - 60 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: 100 - 200 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p> | A12SW (E) | 531 | 1 | 433963 537530 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| | <p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil and Sediment</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 40 - 60 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <100 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p> | A12SW (E) | 556 | 1 | 434000 537555 |
| | <p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil and Sediment</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 40 - 60 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <100 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p> | A12SW (E) | 698 | 1 | 434166 537639 |
| | <p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil and Sediment</p> <p>Arsenic <15 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 40 - 60 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <100 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p> | A16NW (NE) | 910 | 1 | 433881 538664 |
| 121 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Quarrington Hill Quarry</p> <p>Location: Coxhoe, Durham, Co Durham</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Reference: 14757</p> <p>Type: Opencast</p> <p>Status: Ceased</p> <p>Operator: Unknown Operator</p> <p>Operator Location: Not Supplied</p> <p>Periodic Type: Permian</p> <p>Geology: Yellow Sands Formation</p> <p>Commodity: Sand</p> <p>Positional Accuracy: Located by supplier to within 10m</p> | A11SW (E) | 0 | 1 | 433225 537790 |
| 121 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Quarrington Hill Quarry</p> <p>Location: Coxhoe, Durham, Co Durham</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Reference: 14757</p> <p>Type: Opencast</p> <p>Status: Ceased</p> <p>Operator: Unknown Operator</p> <p>Operator Location: Not Supplied</p> <p>Periodic Type: Permian</p> <p>Geology: Raisby Formation (Lower Magnesian Limestone)</p> <p>Commodity: Dolomite</p> <p>Positional Accuracy: Located by supplier to within 10m</p> | A11SW (E) | 0 | 1 | 433225 537790 |
| 122 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Crow Trees</p> <p>Location: Quarrington Hill, Kelloe, Durham, Co Durham</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Reference: 107047</p> <p>Type: Opencast</p> <p>Status: Ceased</p> <p>Operator: Unknown Operator</p> <p>Operator Location: Not Supplied</p> <p>Periodic Type: Permian</p> <p>Geology: Yellow Sands Formation (Basal Permian Sands)</p> <p>Commodity: Sand</p> <p>Positional Accuracy: Located by supplier to within 10m</p> | A11SE (SE) | 79 | 1 | 433500 537647 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 123 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Quarrington Quarry Location: Quarrington Hill, Kelloe, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 107050 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Permian Geology: Raisby Formation (Lower Magnesian Limestone) Commodity: Dolomite Positional Accuracy: Located by supplier to within 10m</p> | A10NW (W) | 126 | 1 | 432708 537907 |
| 124 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Quarrington Sand Pit Location: Quarrington Hill, Kelloe, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 107049 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Permian Geology: Yellow Sands Formation (Basal Permian Sands) Commodity: Sand Positional Accuracy: Located by supplier to within 10m</p> | A10NW (W) | 198 | 1 | 432634 537881 |
| 125 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Old Quarrington Quarry Location: Bowburn, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 6496 Type: Opencast Status: Active Operator: Tarmac (A Crh Company) Operator Location: Not Supplied Periodic Type: Permian Geology: Yellow Sands Formation (Basal Permian Sands) Commodity: Sand Positional Accuracy: Located by supplier to within 10m</p> | A14SW (NW) | 265 | 1 | 432800 538160 |
| 126 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Old Quarrington Quarry Location: Bowburn, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 881 Type: Opencast Status: Active Operator: Tarmac (A Crh Company) Operator Location: Not Supplied Periodic Type: Permian Geology: Raisby Formation (Lower Magnesian Limestone) Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p> | A14SE (N) | 268 | 1 | 433150 538150 |
| 127 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Quarrington Hill Location: Quarrington Hill, Kelloe, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 107055 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Permian Geology: Raisby Formation (Lower Magnesian Limestone) Commodity: Dolomite Positional Accuracy: Located by supplier to within 10m</p> | A7NW (SE) | 291 | 1 | 433332 537418 |
| 128 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Quarrington Brick Works Location: Quarrington Hill, Kelloe, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 107048 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Quaternary Geology: Till, Devensian Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m</p> | A10NW (W) | 294 | 1 | 432546 537950 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 129 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Cassop Vale Location: Cassop, Kelloe, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 107043 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Permian Geology: Raisby Formation (Lower Magnesian Limestone) Commodity: Dolomite Positional Accuracy: Located by supplier to within 10m</p> | A15SW (NE) | 371 | 1 | 433382 538239 |
| 130 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Cassop Vale Location: Cassop, Kelloe, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 107044 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Permian Geology: Raisby Formation (Lower Magnesian Limestone) Commodity: Dolomite Positional Accuracy: Located by supplier to within 10m</p> | A15SW (NE) | 394 | 1 | 433486 538250 |
| 130 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Cassop Vale Location: Cassop, Kelloe, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 107045 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Permian Geology: Raisby Formation (Lower Magnesian Limestone) Commodity: Dolomite Positional Accuracy: Located by supplier to within 10m</p> | A15SE (NE) | 421 | 1 | 433512 538274 |
| 131 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Cassop Location: Cassop, Kelloe, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 107073 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Permian Geology: Raisby Formation (Lower Magnesian Limestone) Commodity: Dolomite Positional Accuracy: Located by supplier to within 10m</p> | A15SE (NE) | 406 | 1 | 433702 538180 |
| 132 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Cassop Vale Location: Cassop, Kelloe, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 107040 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Permian Geology: Raisby Formation (Lower Magnesian Limestone) Commodity: Dolomite Positional Accuracy: Located by supplier to within 10m</p> | A15SW (N) | 481 | 1 | 433308 538360 |
| 133 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Cassop Location: Cassop, Kelloe, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 107074 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Permian Geology: Raisby Formation (Lower Magnesian Limestone) Commodity: Dolomite Positional Accuracy: Located by supplier to within 10m</p> | A16SW (NE) | 531 | 1 | 433850 538212 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 134 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Cassop Vale Location: Cassop, Kelloe, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 107039 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Permian Geology: Raisby Formation (Lower Magnesian Limestone) Commodity: Dolomite Positional Accuracy: Located by supplier to within 10m</p> | A15SE (NE) | 550 | 1 | 433603 538386 |
| 135 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Cassop Vale Location: Cassop, Kelloe, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 107046 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Permian Geology: Raisby Formation (Lower Magnesian Limestone) Commodity: Dolomite Positional Accuracy: Located by supplier to within 10m</p> | A16SW (NE) | 616 | 1 | 433921 538261 |
| 136 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Quarrington Hill Location: Bowburn, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 107035 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Permian Geology: Raisby Formation (Lower Magnesian Limestone) Commodity: Dolomite Positional Accuracy: Located by supplier to within 10m</p> | A14NE (N) | 668 | 1 | 432917 538582 |
| 137 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Quarrington Hill Location: Bowburn, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 107036 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Permian Geology: Raisby Formation (Lower Magnesian Limestone) Commodity: Dolomite Positional Accuracy: Located by supplier to within 10m</p> | A14NE (N) | 720 | 1 | 432950 538635 |
| 138 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Cassop Vale Location: Cassop, Kelloe, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 107070 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Permian Geology: Raisby Formation (Lower Magnesian Limestone) Commodity: Dolomite Positional Accuracy: Located by supplier to within 10m</p> | A14NE (N) | 720 | 1 | 432857 538629 |
| 139 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: West Hetton Colliery Location: Coxhoe, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 19629 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p> | A6SW (SW) | 872 | 1 | 432540 538980 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 140 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Coxhoe Location: Coxhoe, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 868 Type: Opencast Status: Ceased Operator: Individual'S Name Withheld Operator Location: Not Supplied Periodic Type: Permian Geology: Zechstein Group (Lower Magnesian Limestone) Commodity: Limestone Positional Accuracy: Located by supplier to within 10m</p> | A6SE (S) | 899 | 1 | 433080 536850 |
| 141 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Cassop Vale Location: Cassop, Kelloe, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 107037 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Permian Geology: Raisby Formation (Lower Magnesian Limestone) Commodity: Dolomite Positional Accuracy: Located by supplier to within 10m</p> | A16NW (NE) | 915 | 1 | 433863 538676 |
| 142 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Coxhoe Location: Coxhoe, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 19098 Type: Opencast Status: Ceased Operator: Premier Waste Management Ltd. Operator Location: Not Supplied Periodic Type: Not Available Geology: Landfill Commodity: Landfill Gas Positional Accuracy: Located by supplier to within 100m</p> | A6SE (S) | 952 | 1 | 433000 538800 |
| 143 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Cassop Vale Location: Cassop, Kelloe, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 107038 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Permian Geology: Raisby Formation (Lower Magnesian Limestone) Commodity: Dolomite Positional Accuracy: Located by supplier to within 10m</p> | A16SE (NE) | 963 | 1 | 434298 538324 |
| 144 | <p>BGS Recorded Mineral Sites</p> <p>Site Name: Quarrington Hill Location: Bowburn, Durham, Co Durham Source: British Geological Survey, National Geoscience Information Service Reference: 107034 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Permian Geology: Raisby Formation (Lower Magnesian Limestone) Commodity: Dolomite Positional Accuracy: Located by supplier to within 10m</p> | A13SW (NW) | 969 | 1 | 432029 538425 |
| | <p>BGS Measured Urban Soil Chemistry</p> <p>No data available</p> | | | | |
| | <p>BGS Urban Soil Chemistry Averages</p> <p>No data available</p> | | | | |
| | <p>Coal Mining Affected Areas</p> <p>Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.</p> | A11NW (N) | 0 | 8 | 433159 537814 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| | Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied | A11NW (N) | 0 | - | 433159 537814 |
| | Non Coal Mining Areas of Great Britain No Hazard | | | | |
| | Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A11NW (N) | 0 | 1 | 433159 537814 |
| | Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A11NW (N) | 0 | 1 | 433159 537814 |
| | Potential for Ground Dissolution Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A11NW (N) | 0 | 1 | 433160 537834 |
| | Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A11NW (N) | 0 | 1 | 433159 537814 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | A11NW (NE) | 0 | 1 | 433319 537881 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | A11NW (N) | 0 | 1 | 433159 537814 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | A11SW (E) | 0 | 1 | 433368 537776 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | A11NW (NE) | 0 | 1 | 433295 537899 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | A11NW (E) | 0 | 1 | 433309 537843 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A11NW (N) | 0 | 1 | 433158 537827 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | A11NW (S) | 0 | 1 | 433160 537809 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | A10NE (NW) | 5 | 1 | 433040 537928 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | A10NE (NW) | 12 | 1 | 433051 537934 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A10NE (NW) | 34 | 1 | 432987 537952 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A10NE (NW) | 40 | 1 | 432892 537954 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | A10NW (W) | 50 | 1 | 432798 537918 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | A10NE (N) | 61 | 1 | 433090 537994 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | A11NE (E) | 63 | 1 | 433521 537853 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | A11SE (E) | 77 | 1 | 433554 537763 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | A11NW (N) | 84 | 1 | 433188 537968 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A10NE (NW) | 86 | 1 | 432924 538002 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service | A10NE (NW) | 98 | 1 | 432888 538022 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | A10NE (N) | 162 | 1 | 433119 538047 |
| | Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | A14SE (NW) | 239 | 1 | 432936 538197 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A10NE (N) | 0 | 1 | 433150 537866 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A11NW (N) | 0 | 1 | 433159 537814 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | A11NW (N) | 0 | 1 | 433158 537827 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A11SW (S) | 0 | 1 | 433159 537801 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A11NW (NE) | 0 | 1 | 433235 537940 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A10NE (NW) | 34 | 1 | 432987 537952 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | A10NE (NW) | 40 | 1 | 432892 537954 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | A10NE (NW) | 43 | 1 | 432999 537967 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service | A10NE (N) | 137 | 1 | 433116 538047 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A11NW (NE) | 149 | 1 | 433292 538029 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A10NE (N) | 168 | 1 | 433119 538047 |
| | Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A10NW (W) | 228 | 1 | 432605 537861 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service | A11NW (N) | 0 | 1 | 433159 537814 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A11NW (N) | 0 | 1 | 433158 537827 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A10NE (NW) | 34 | 1 | 432987 537952 |
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A10NE (NW) | 40 | 1 | 432892 537954 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| | Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service | A11NW (NE) | 149 | 1 | 433292 538029 |
| | Radon Potential - Radon Affected Areas Affected Area: The property is in a Lower probability radon area (less than 1% of homes are estimated to be at or above the Action Level). Source: British Geological Survey, National Geoscience Information Service | A11NW (N) | 0 | 1 | 433159 537814 |
| | 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 | A11NW (N) | 0 | 1 | 433159 537814 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 145 | <p>Contemporary Trade Directory Entries</p> <p>Name: W H Holden & Son Location: 2, Church Street, Quarrington Hill, Durham, DH6 4QF Classification: Coal & Smokeless Fuel Merchants & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | A11SE (SE) | 266 | - | 433656 537538 |
| 145 | <p>Contemporary Trade Directory Entries</p> <p>Name: Holden & Son D I Y Location: 2, Church Street, Quarrington Hill, Durham, DH6 4QF Classification: Sand, Gravel & Other Aggregates Status: Active Positional Accuracy: Automatically positioned to the address</p> | A11SE (SE) | 266 | - | 433655 537537 |
| 145 | <p>Contemporary Trade Directory Entries</p> <p>Name: P J A Motors Location: Front Street North, Quarrington Hill, Durham, County Durham, DH6 4QG Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address</p> | A11SE (SE) | 293 | - | 433652 537496 |
| 146 | <p>Contemporary Trade Directory Entries</p> <p>Name: Reeve Transport Services Location: Front Street North, Quarrington Hill, Durham, DH6 4QG Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | A11SE (SE) | 318 | - | 433707 537516 |
| 147 | <p>Contemporary Trade Directory Entries</p> <p>Name: Wellfield Transport Location: The Old Chapel, Front Street North, Quarrington Hill, Durham, DH6 4QG Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | A7NE (SE) | 334 | - | 433665 537453 |
| 148 | <p>Contemporary Trade Directory Entries</p> <p>Name: Craggs Commercial Paintshop Location: The Old Business Depot, Steetley Terrace, Quarrington Hill, Durham, County Durham, DH6 4QJ Classification: Car Body Repairs Status: Inactive Positional Accuracy: Manually positioned to the address or location</p> | A7NE (SE) | 354 | - | 433571 537374 |
| 148 | <p>Contemporary Trade Directory Entries</p> <p>Name: N D Y Coach Sales Ltd Location: Top Garage, Front Street South, Quarrington Hill, Durham, DH6 4QQ Classification: Commercial Vehicle Bodybuilders & Repairers Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | A7NE (SE) | 360 | - | 433564 537364 |
| 148 | <p>Contemporary Trade Directory Entries</p> <p>Name: N D Y Coach Sales Location: Top Garage, Front Street South, Quarrington Hill, Durham, County Durham, DH6 4QQ Classification: Commercial Vehicle Bodybuilders & Repairers Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | A7NE (SE) | 360 | - | 433564 537364 |
| 148 | <p>Contemporary Trade Directory Entries</p> <p>Name: Whitwell Green Location: 1, Steetley Terrace, Quarrington Hill, Durham, DH6 4QJ Classification: Musical Instrument - Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address</p> | A7NE (SE) | 389 | - | 433593 537345 |
| 148 | <p>Contemporary Trade Directory Entries</p> <p>Name: D Kelly Location: 1d, Steetley Terrace, Quarrington Hill, Durham, DH6 4QJ Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address</p> | A7NE (SE) | 389 | - | 433593 537345 |
| 149 | <p>Contemporary Trade Directory Entries</p> <p>Name: A D J Forge Location: Unit 2b Steetley Terr, Quarrington Hill, Durham, DH6 4QJ Classification: Wrought Ironwork Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location</p> | A7NE (SE) | 420 | - | 433530 537292 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 150 | Contemporary Trade Directory Entries Name: Hepplewhite Quarries & Plant Hire Ltd Location: The Quarry, Old Quarrington, Durham, DH6 5NN Classification: Quarries Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address | A9SE (W) | 437 | - | 432402 537802 |
| 151 | Contemporary Trade Directory Entries Name: Q-Hill Motors Location: Crossroads Garage, Quarrington Hill, Durham, DH6 4QZ Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned within the geographical locality | A7NE (SE) | 445 | - | 433657 537314 |
| 152 | Points of Interest - Commercial Services Name: R S Express Distribution & Haulage Ltd Location: Unit 2a Quarrington Hill Industrial Estate, Quarrington Hill, Durham, DH6 4QG Category: Transport, Storage and Delivery Class Code: Distribution and Haulage Positional Accuracy: Positioned to address or location | A11SE (SE) | 268 | 9 | 433597 537484 |
| 152 | Points of Interest - Commercial Services Name: P J A Motors Location: The Chapel Workshop, Front Street North, Quarrington Hill, Durham, DH6 4QG Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location | A7NE (SE) | 334 | 9 | 433664 537452 |
| 153 | Points of Interest - Commercial Services Name: Craggs Commercial Paintshop Location: The Old Business Depot, Steetley Terrace, Quarrington Hill, Durham, DH6 4QJ Category: Repair and Servicing Class Code: Vehicle Repair, Testing and Servicing Positional Accuracy: Positioned to address or location | A7NE (SE) | 354 | 9 | 433571 537374 |
| 154 | Points of Interest - Manufacturing and Production Name: Quarry (Disused) Location: DH6 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location | A11NW (NE) | 0 | 9 | 433189 537861 |
| 155 | Points of Interest - Manufacturing and Production Name: Quarry (Disused) Location: DH6 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location | A10NW (W) | 61 | 9 | 432778 537825 |
| 155 | Points of Interest - Manufacturing and Production Name: Quarrington Quarry (Sand) Location: DH6 Category: Extractive Industries Class Code: Sand, Gravel and Clay Extraction and Merchants Positional Accuracy: Positioned to an adjacent address or location | A10NW (W) | 101 | 9 | 432731 537869 |
| 156 | Points of Interest - Manufacturing and Production Name: Quarrington Quarry Location: DH6 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location | A10NE (NW) | 131 | 9 | 432988 538046 |
| 157 | Points of Interest - Manufacturing and Production Name: Quarrington Hill Industrial Estate Location: DH6 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location | A11SE (SE) | 229 | 9 | 433549 537501 |
| 158 | Points of Interest - Manufacturing and Production Name: Mine (Disused) Location: DH6 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location | A11SW (S) | 240 | 9 | 433160 537521 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 158 | Points of Interest - Manufacturing and Production Name: Mine (Disused) Location: DH6 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to address or location | A11SW (S) | 257 | 9 | 433157 537504 |
| 159 | Points of Interest - Manufacturing and Production Name: Quarrington Hill Industrial Estate Location: DH6 Category: Industrial Features Class Code: Business Parks and Industrial Estates Positional Accuracy: Positioned to an adjacent address or location | A11SE (SE) | 240 | 9 | 433580 537506 |
| 159 | Points of Interest - Manufacturing and Production Name: Workshop Location: Not Supplied Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location | A7NE (SE) | 325 | 9 | 433649 537452 |
| 159 | Points of Interest - Manufacturing and Production Name: Workshop Location: DH6 Category: Industrial Features Class Code: Unspecified Works Or Factories Positional Accuracy: Positioned to an adjacent address or location | A7NE (SE) | 330 | 9 | 433643 537441 |
| 160 | Points of Interest - Manufacturing and Production Name: Wind Turbine Location: DH6 Category: Industrial Features Class Code: Energy Production Positional Accuracy: Positioned to an adjacent address or location | A12SW (E) | 421 | 9 | 433894 537791 |
| 161 | Points of Interest - Manufacturing and Production Name: Johnson Brothers Location: Quarrington Farm, Old Quarrington, Durham, DH6 5NN Category: Farming Class Code: Arable Farming Positional Accuracy: Positioned to address or location | A9SE (W) | 479 | 9 | 432359 537808 |
| 162 | Points of Interest - Manufacturing and Production Name: Biogas Power Station Location: DH6 Category: Industrial Features Class Code: Energy Production Positional Accuracy: Positioned to an adjacent address or location | A9NE (W) | 626 | 9 | 432248 538108 |
| 163 | Points of Interest - Manufacturing and Production Name: Quarry Location: DH6 Category: Extractive Industries Class Code: Unspecified Quarries Or Mines Positional Accuracy: Positioned to an adjacent address or location | A6SE (S) | 805 | 9 | 432947 536955 |
| 164 | Points of Interest - Public Infrastructure Name: Cemetery Location: DH6 Category: Infrastructure and Facilities Class Code: Cemeteries and Crematoria Positional Accuracy: Positioned to an adjacent address or location | A11NW (NE) | 115 | 9 | 433448 537973 |
| 165 | Points of Interest - Public Infrastructure Name: Slurry Bed Location: DH6 Category: Infrastructure and Facilities Class Code: Waste Storage, Processing and Disposal Positional Accuracy: Positioned to an adjacent address or location | A12NW (E) | 399 | 9 | 433830 537994 |
| 166 | Points of Interest - Public Infrastructure Name: Landfill (Deposit) Location: DH6 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location | A7SW (S) | 647 | 9 | 433172 537095 |
| 166 | Points of Interest - Public Infrastructure Name: Tip Location: DH6 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location | A7SW (S) | 671 | 9 | 433168 537071 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|--|--|------------------------------|---------|------------------|
| 167 | Points of Interest - Public Infrastructure Name: Refuse Tip (Public) Location: DH6 Category: Infrastructure and Facilities Class Code: Refuse Disposal Facilities Positional Accuracy: Positioned to an adjacent address or location | A6SE (S) | 900 | 9 | 433063 536849 |
| 168 | Points of Interest - Recreational and Environmental Name: Play Area Location: DH6 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location | A11SE (SE) | 174 | 9 | 433587 537599 |
| 169 | Points of Interest - Recreational and Environmental Name: Playground Location: Malcolm Avenue, DH6 Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location | A7NE (SE) | 539 | 9 | 433747 537258 |
| 169 | Points of Interest - Recreational and Environmental Name: Playground Location: Not Supplied Category: Recreational Class Code: Playgrounds Positional Accuracy: Positioned to an adjacent address or location | A7NE (SE) | 546 | 9 | 433762 537260 |

| Map ID | Details | Quadrant Reference (Compass Direction) | Estimated Distance From Site | Contact | NGR |
|--------|---|--|------------------------------|---------|------------------|
| 170 | Ancient Woodland Name: Not Supplied Reference: 1416272 Area(m ²): 88785.01 Type: Ancient and Semi-Natural Woodland | A15SW (N) | 526 | 10 | 433340 538417 |
| 171 | Local Nature Reserves Name: Crow Trees Multiple Area: N Area (m2): 413638.68 Source: Natural England Designation Date: 16th December 2004 | A11SW (S) | 2 | 10 | 433167 537733 |
| 172 | Local Nature Reserves Name: Little Wood Multiple Area: N Area (m2): 26366.06 Source: Natural England Designation Date: 1st June 1999 | A12SW (E) | 506 | 10 | 433967 537620 |
| 173 | National Nature Reserves Name: Cassop Vale Multiple Areas: Y Total Area (m2): 246958.68 Source: Natural England Reference: 1006180 Designation Date: Not Supplied | A16SW (NE) | 572 | 10 | 433864 538258 |
| 174 | Nitrate Vulnerable Zones Name: Durham Description: Groundwater Source: Environment Agency, Head Office | A11NW (N) | 0 | 4 | 433159 537814 |
| 175 | Nitrate Vulnerable Zones Name: Croxdale Beck From Source To Wear Nvz Description: Surface Water Source: Environment Agency, Head Office | A11NW (N) | 0 | 4 | 433159 537814 |
| 176 | Sites of Special Scientific Interest Name: Quarrington Hill Grasslands Multiple Areas: Y Total Area (m2): 45897.11 Source: Natural England Reference: 2000386 Designation Details: Site Of Special Scientific Interest Designation Date: 5th January 2000 Date Type: Notified | A11SW (S) | 239 | 10 | 433281 537492 |
| 177 | Sites of Special Scientific Interest Name: Cassop Vale Multiple Areas: Y Total Area (m2): 411605.59 Source: Natural England Reference: 1003063 Designation Details: Nature Conservation Review Designation Date: 1st January 1985 Date Type: Notified Designation Details: National Nature Reserve Designation Date: 1st January 1985 Date Type: Notified Designation Details: Site Of Special Scientific Interest Designation Date: 1st January 1985 Date Type: Notified Designation Details: Water Framework Directive (WFD) Designation Date: 1st January 1985 Date Type: Notified | A15SW (N) | 356 | 10 | 433294 538353 |

| Agency & Hydrological | Version | Update Cycle |
|--|---|--|
| Contaminated Land Register Entries and Notices Sedgfield Borough Council (now part of Durham County Council) - Environmental Health Department Durham County Council (Unitary) - Environmental Health Department Environment Agency - Head Office Durham City Council (now part of Durham County Council) - Environmental Health Department Easington District Council (now part of Durham County Council) - Environmental Health Department | February 2009 January 2015 June 2020 November 2008 October 2008 | Not Applicable Annually Annually Not Applicable Not Applicable |
| Discharge Consents Environment Agency - North East Region | July 2020 | Quarterly |
| Enforcement and Prohibition Notices Environment Agency - North East Region | March 2013 | Annual Rolling Update |
| Integrated Pollution Controls Environment Agency - North East Region | October 2008 | Variable |
| Integrated Pollution Prevention And Control Environment Agency - North East Region | July 2020 | Quarterly |
| Local Authority Integrated Pollution Prevention And Control Durham County Council (Unitary) - Environmental Health Department Sedgfield Borough Council (now part of Durham County Council) - Environmental Health Department Durham City Council (now part of Durham County Council) - Environmental Health Department Easington District Council (now part of Durham County Council) - Environmental Health Department | April 2015 July 2008 March 2009 October 2008 | Variable Not Applicable Not Applicable Not Applicable |
| Local Authority Pollution Prevention and Controls Durham County Council (Unitary) - Environmental Health Department Sedgfield Borough Council (now part of Durham County Council) - Environmental Health Department Durham City Council (now part of Durham County Council) - Environmental Health Department Easington District Council (now part of Durham County Council) - Environmental Health Department | April 2015 July 2008 March 2009 October 2008 | Annually Not Applicable Not Applicable Not Applicable |
| Local Authority Pollution Prevention and Control Enforcements Durham County Council (Unitary) - Environmental Health Department Sedgfield Borough Council (now part of Durham County Council) - Environmental Health Department Durham City Council (now part of Durham County Council) - Environmental Health Department Easington District Council (now part of Durham County Council) - Environmental Health Department | April 2015 July 2008 March 2009 October 2008 | Variable Not Applicable Not Applicable Not Applicable |
| Nearest Surface Water Feature Ordnance Survey | June 2020 | |
| Pollution Incidents to Controlled Waters Environment Agency - North East Region | December 1998 | Not Applicable |
| Prosecutions Relating to Authorised Processes Environment Agency - North East Region | March 2013 | Annual Rolling Update |
| Prosecutions Relating to Controlled Waters Environment Agency - North East Region | March 2013 | Annual Rolling Update |
| Registered Radioactive Substances Environment Agency - North East 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 |

| Agency & Hydrological | Version | Update Cycle |
|--|-------------------------------------|-------------------------------------|
| River Quality Chemistry Sampling Points Environment Agency - Head Office | July 2012 | Annually |
| Substantiated Pollution Incident Register Environment Agency - North East Region - Dales Area Environment Agency - North East Region - North East Area Environment Agency - North East Region - Northumbria Area | July 2020 July 2020 July 2020 | Quarterly Quarterly Quarterly |
| Water Abstractions Environment Agency - North East Region | July 2020 | Quarterly |
| Water Industry Act Referrals Environment Agency - North East Region | October 2017 | Quarterly |
| Groundwater Vulnerability Map Environment Agency - Head Office | June 2018 | As notified |
| Groundwater Vulnerability - Soluble Rock Risk Environment Agency - Head Office | June 2018 | As notified |
| Bedrock Aquifer Designations Environment Agency - Head Office | January 2018 | Annually |
| Superficial Aquifer Designations Environment Agency - Head Office | January 2018 | Annually |
| Source Protection Zones Environment Agency - Head Office | October 2019 | Quarterly |
| Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office | June 2020 | Quarterly |
| Flooding from Rivers or Sea without Defences Environment Agency - Head Office | June 2020 | Quarterly |
| Areas Benefiting from Flood Defences Environment Agency - Head Office | June 2020 | Quarterly |
| Flood Water Storage Areas Environment Agency - Head Office | June 2020 | Quarterly |
| Flood Defences Environment Agency - Head Office | June 2020 | Quarterly |
| OS Water Network Lines Ordnance Survey | June 2020 | 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 | October 2019 | Quarterly |
| Integrated Pollution Control Registered Waste Sites Environment Agency - North East Region | October 2008 | Not Applicable |
| Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - North East Region - Dales Area Environment Agency - North East Region - North East Area Environment Agency - North East Region - Northumbria Area | July 2020 July 2020 July 2020 | Quarterly Quarterly Quarterly |
| Licensed Waste Management Facilities (Locations) Environment Agency - North East Region - Dales Area Environment Agency - North East Region - North East Area Environment Agency - North East Region - Northumbria Area | July 2020 July 2020 July 2020 | Quarterly Quarterly Quarterly |
| Local Authority Landfill Coverage Durham City Council (now part of Durham County Council) Durham County Council - Economic Development and Planning Department Easington District Council (now part of Durham County Council) - Environmental Health Department Sedgefield Borough Council (now part of Durham County Council) - Environmental Health Department | May 2000 May 2000 May 2000 May 2000 | Not Applicable Not Applicable Not Applicable Not Applicable |
| Local Authority Recorded Landfill Sites Easington District Council (now part of Durham County Council) - Environmental Health Department Durham City Council (now part of Durham County Council) Durham County Council - Economic Development and Planning Department Sedgefield Borough Council (now part of Durham County Council) - Environmental Health Department | June 2003 May 2000 May 2000 May 2000 | Not Applicable Not Applicable Not Applicable 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 - North East Region - Dales Area Environment Agency - North East Region - North East Area Environment Agency - North East Region - Northumbria Area | March 2003 March 2003 March 2003 | Not Applicable Not Applicable Not Applicable |
| Registered Waste Transfer Sites Environment Agency - North East Region - Dales Area Environment Agency - North East Region - North East Area Environment Agency - North East Region - Northumbria Area | March 2003 March 2003 March 2003 | Not Applicable Not Applicable Not Applicable |
| Registered Waste Treatment or Disposal Sites Environment Agency - North East Region - Dales Area Environment Agency - North East Region - North East Area Environment Agency - North East Region - Northumbria Area | March 2003 March 2003 March 2003 | Not Applicable Not Applicable 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 Durham City Council (now part of Durham County Council) Sedgefield Borough Council (now part of Durham County Council) - Development Control Durham County Council (Unitary) - Planning Department Durham County Council - Economic Development and Planning Department Easington District Council (now part of Durham County Council) | December 2008 December 2008 February 2016 July 2007 July 2008 | Not Applicable Not Applicable Variable Annual Rolling Update Not Applicable |
| Planning Hazardous Substance Consents Durham City Council (now part of Durham County Council) Sedgefield Borough Council (now part of Durham County Council) - Development Control Durham County Council (Unitary) - Planning Department Durham County Council - Economic Development and Planning Department Easington District Council (now part of Durham County Council) | December 2008 December 2008 February 2016 July 2007 July 2008 | Not Applicable Not Applicable Variable Annual Rolling Update Not Applicable |
| 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 | June 2020 | 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 | April 2020 | 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 2020 | Quarterly |
| Fuel Station Entries Catalist Ltd - Experian | June 2020 | Quarterly |
| Gas Pipelines National Grid | July 2014 | |
| Points of Interest - Commercial Services PointX | June 2020 | Quarterly |
| Points of Interest - Education and Health PointX | June 2020 | Quarterly |
| Points of Interest - Manufacturing and Production PointX | June 2020 | Quarterly |
| Points of Interest - Public Infrastructure PointX | June 2020 | Quarterly |
| Points of Interest - Recreational and Environmental PointX | June 2020 | Quarterly |
| Underground Electrical Cables National Grid | October 2019 | |

| Sensitive Land Use | Version | Update Cycle |
|--|--|--|
| Ancient Woodland Natural England | April 2020 | Bi-Annually |
| Areas of Adopted Green Belt Durham City Council (now part of Durham County Council) Durham County Council (Unitary) - Planning Department Easington District Council (now part of Durham County Council) Sedgefield Borough Council (now part of Durham County Council) - Development Control | June 2020 June 2020 June 2020 June 2020 | As notified As notified As notified As notified |
| Areas of Unadopted Green Belt Durham City Council (now part of Durham County Council) Durham County Council (Unitary) - Planning Department Easington District Council (now part of Durham County Council) Sedgefield Borough Council (now part of Durham County Council) - Development Control | June 2020 June 2020 June 2020 June 2020 | As notified As notified As notified As notified |
| 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 | April 2020 | 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 Sensitive Areas Natural England | April 2016 | Not Applicable |
| Nitrate Vulnerable Zones Environment Agency - Head Office Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA) | December 2017 October 2015 | Bi-Annually |
| Ramsar Sites Natural England | April 2019 | Bi-Annually |
| Sites of Special Scientific Interest Natural England | May 2020 | Bi-Annually |
| Special Areas of Conservation Natural England | June 2019 | Bi-Annually |
| Special Protection Areas Natural England | April 2019 | Bi-Annually |

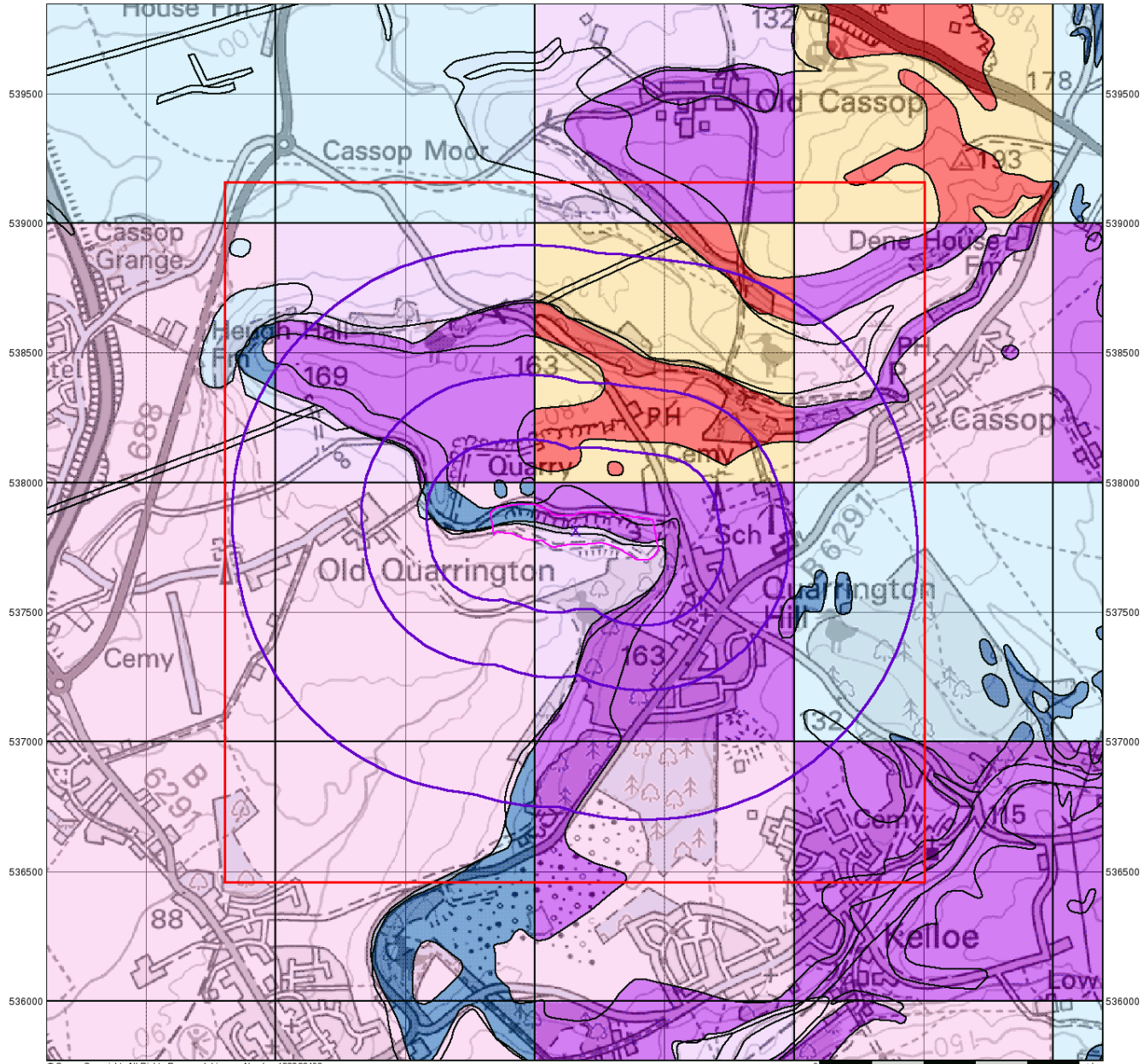
A selection of organisations who provide data within this report

| Data Supplier | Data Supplier Logo |
|--|--|
| Ordnance Survey |  |
| Environment Agency |  |
| Scottish Environment Protection Agency |  |
| The Coal Authority |  |
| British Geological Survey |  British Geological Survey <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small> |
| Centre for Ecology and Hydrology |  Centre for Ecology & Hydrology <small>NATURAL ENVIRONMENT RESEARCH COUNCIL</small> |
| Natural Resources Wales |  |
| Scottish Natural Heritage |  |
| Natural England |  |
| Public Health England |  |
| Ove Arup |  |
| Peter Brett Associates |  |

| 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 | Durham County Council (Unitary) - Environmental Health Department Civic Centre, Medomsley Road, Consett, Durham, DH8 5JA | Telephone: 0300 123 7070 Website: www.durham.gov.uk |
| 4 | Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD | Telephone: 01454 624400 Fax: 01454 624409 |
| 5 | Ordnance Survey Adanac Drive, Southampton, Hampshire, SO16 0AS | Telephone: 03456 05 05 05 Email: customerservices@ordnancesurvey.co.uk Website: www.ordnancesurvey.gov.uk |
| 6 | Durham City Council (now part of Durham County Council) County Hall, Durham, County Durham, DH1 5UL | Telephone: 03000 26 0000 Website: www.durham.gov.uk |
| 7 | Durham County Council - Economic Development and Planning Department County Hall, Durham, County Durham, DH1 5UL | Telephone: 0191 383 4751 Fax: 0191 383 3657 Website: www.durham.gov.uk |
| 8 | The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG | Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk Website: www2.groundstability.com |
| 9 | PointX 7 Abbey Court, Eagle Way, Sowton, Exeter, Devon, EX2 7HY | Website: www.pointx.co.uk |
| 10 | Natural England County Hall, Spetchley Road, Worcester, WR5 2NP | Telephone: 0300 060 3900 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk |
| - | Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ | Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org |
| - | Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD | Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk |

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

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Groundwater Vulnerability

General

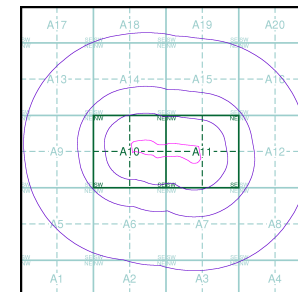
- ◇ Specified Site
- Specified Buffer(s)
- ✕ Bearing Reference Point
- Slice
- B Map ID

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: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000

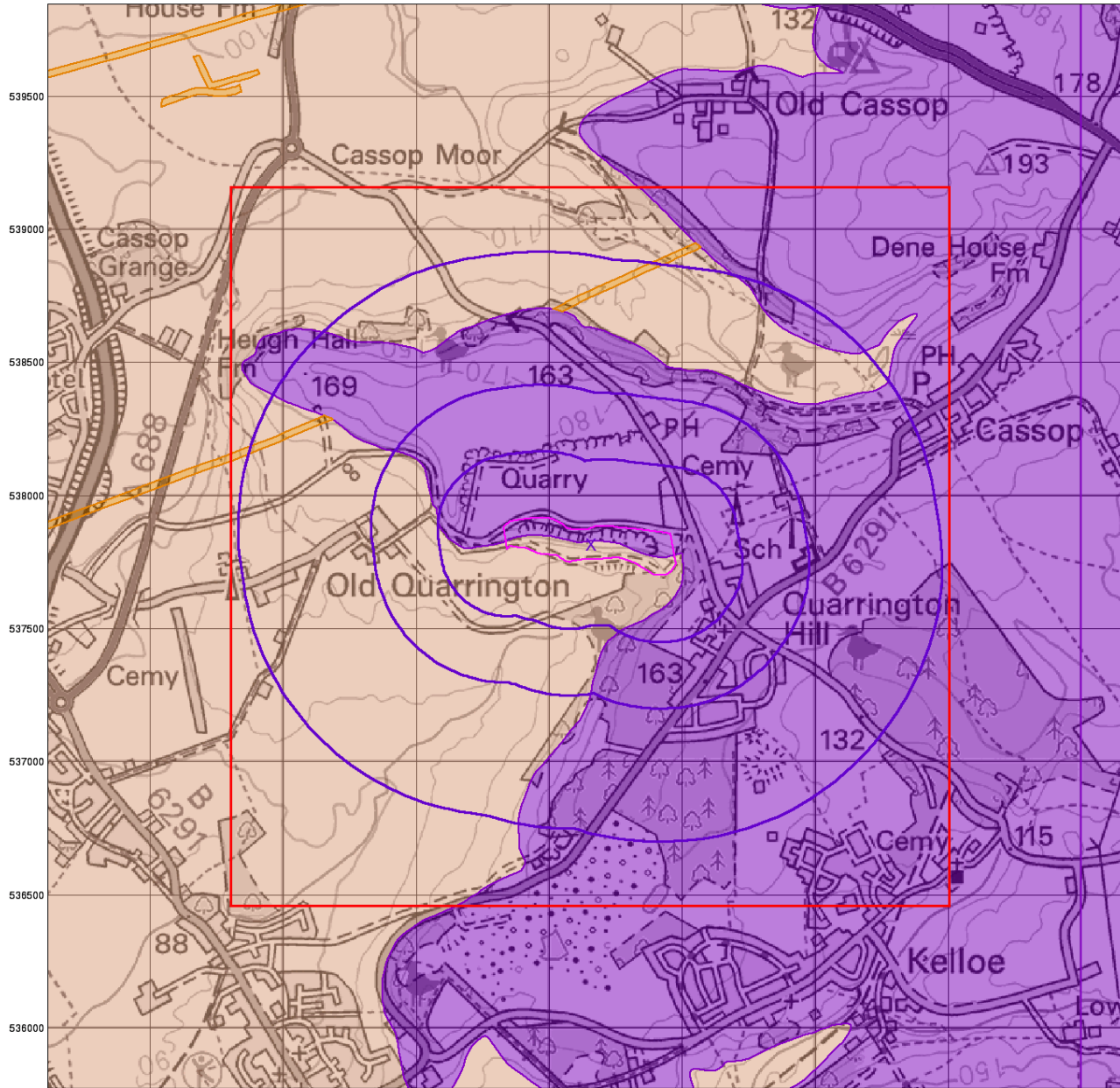
Site Details

Site at 433140, 537820



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0 1 km



Bedrock Aquifer Designation

General

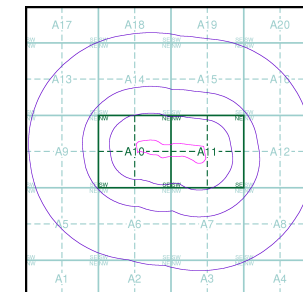
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

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: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000

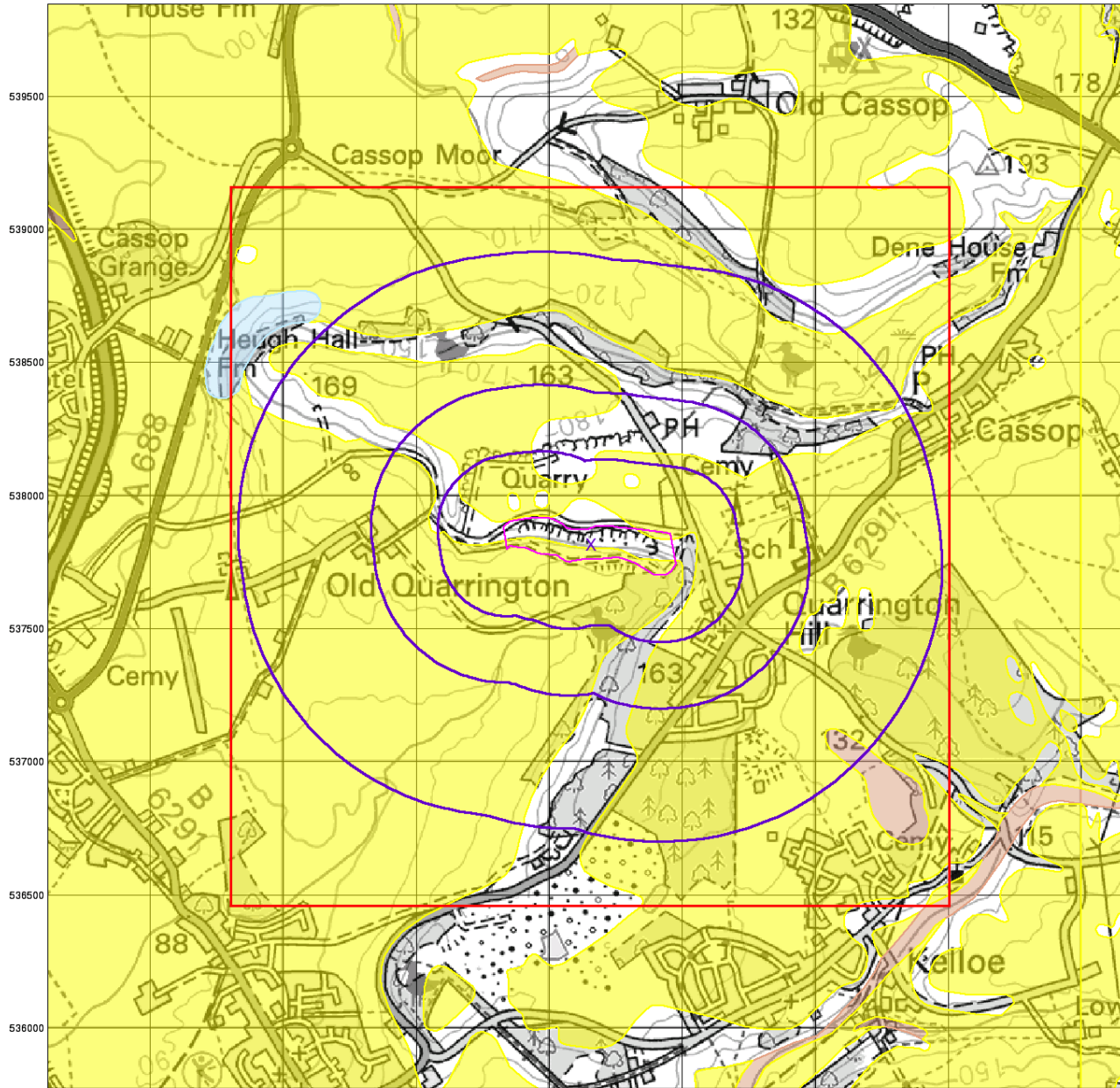
Site Details

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Superficial Aquifer Designation

General

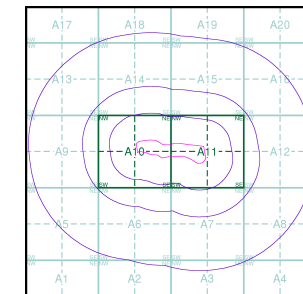
- Specified Site
- Specified Buffer(s)
- Bearing Reference Point
- Slice
- Map ID

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

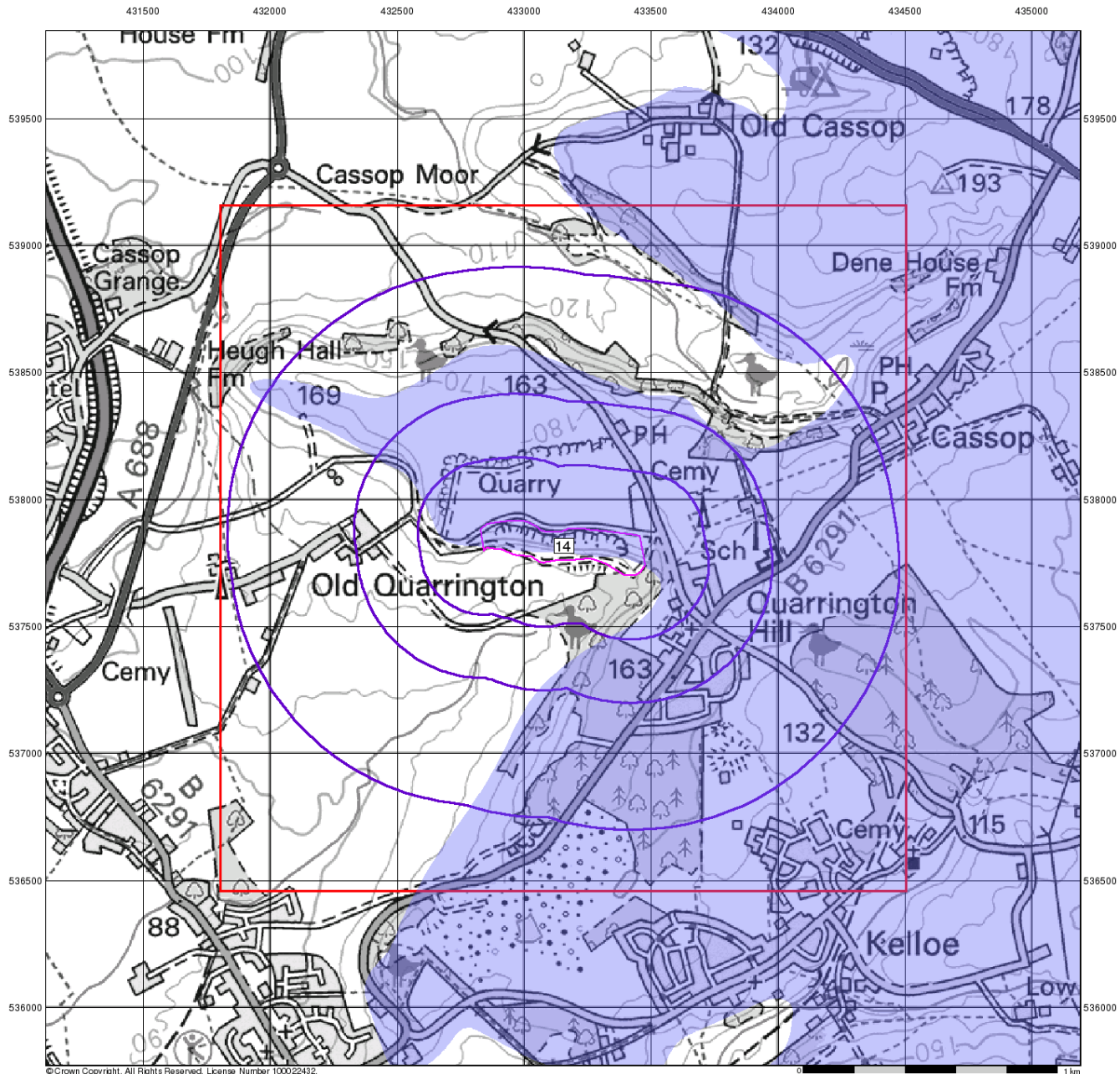
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 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000

Site Details

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Source Protection Zones

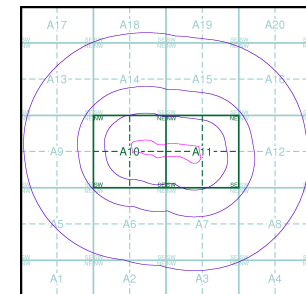
General

- ◊ Specified Site
- Specified Buffer(s)
- ✕ Bearing Reference Point
- Slice
- B 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

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000

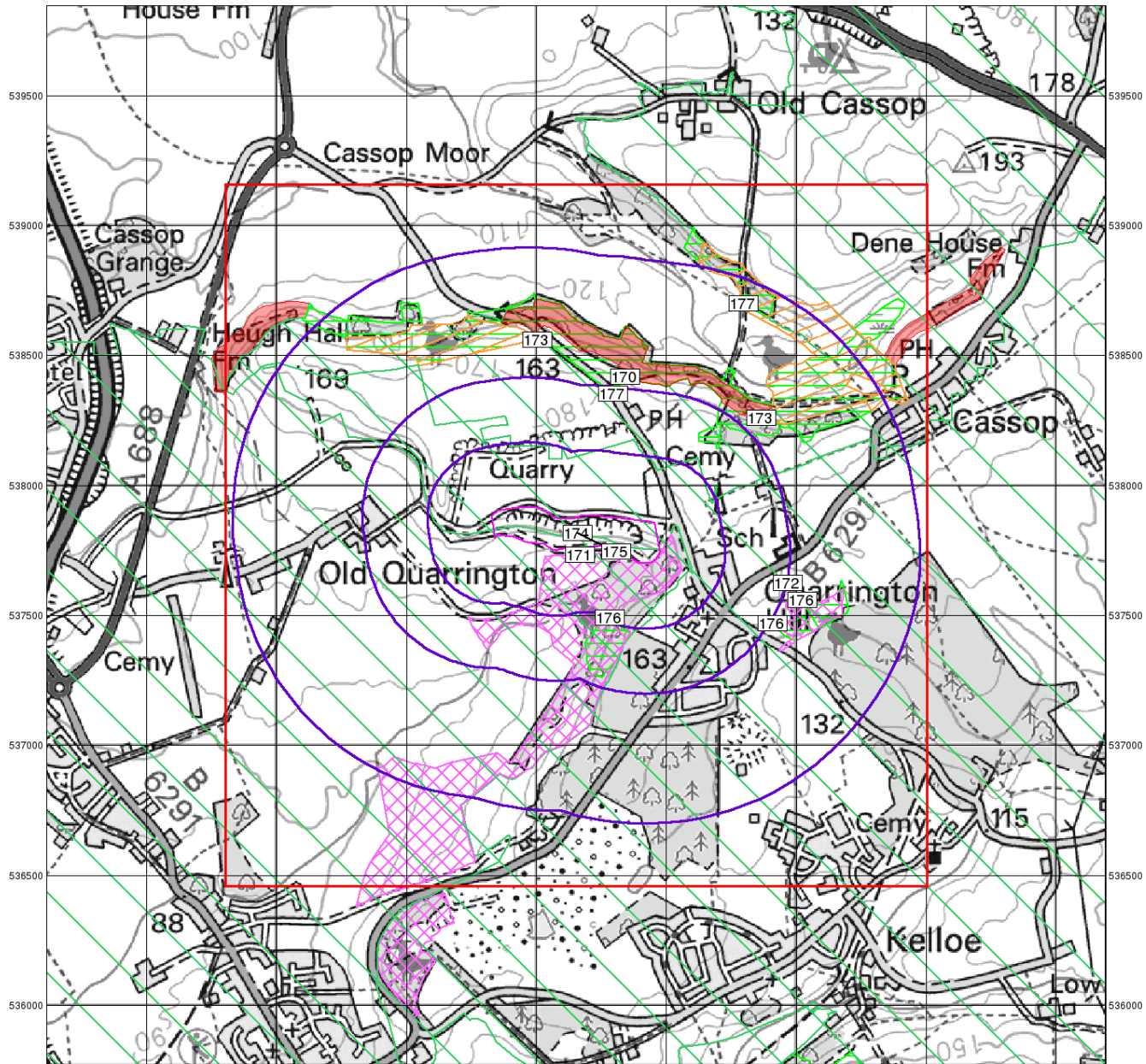
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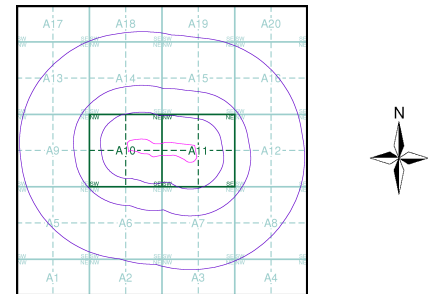
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Sensitive Land Uses

- 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

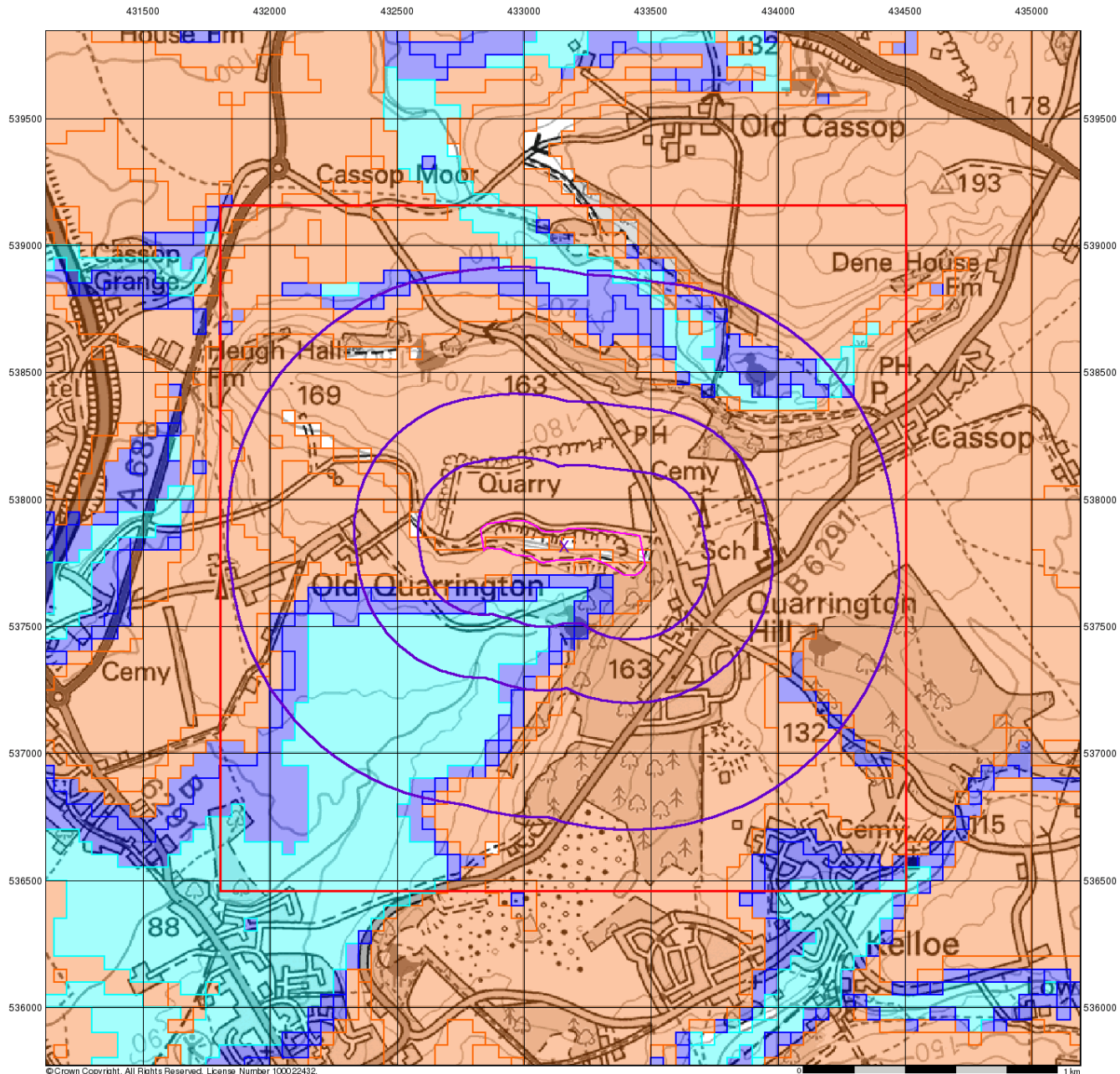
Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000

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BGS Flood GFS Data

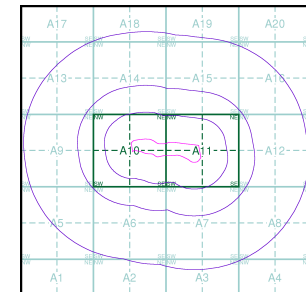
General

- 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: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000

Site Details

Site at 433140, 537820



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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 | | Minor Roads | | |
| | 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 | | | | |
| | County Borough Boundary (England) | | | | |
| | County Burgh Boundary (Scotland) | | | | |
| | 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 | | Glasshouse |
| | Sloping Masonry | | Pylon |
| | Electricity Transmission Line | | Pole |
| | Cutting | | Embankment |
| | Standard Gauge Multiple Track | | 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

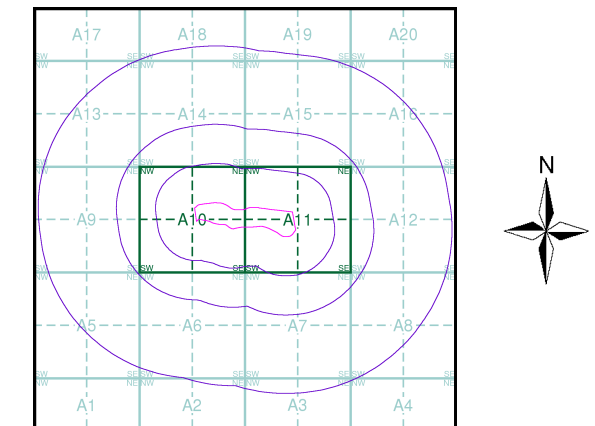
| | | | |
|--|--|--|--|
| | Gravel Pit | | Refuse tip or slag heap |
| | Rock | | Rock (scattered) |
| | Boulders | | Boulders (scattered) |
| | Shingle | | Mud |
| | Sand | | Sand Pit |
| | Slopes | | Top of cliff |
| | General detail | | Underground detail |
| | Overhead detail | | Narrow gauge railway |
| | 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) |
| | 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 |



Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|----------------------|----------|------|----|
| Durham | 1:10,560 | 1861 | 2 |
| Durham | 1:10,560 | 1898 | 3 |
| Durham | 1:10,560 | 1923 | 4 |
| Durham | 1:10,560 | 1923 | 5 |
| Ordnance Survey Plan | 1:10,000 | 1952 | 6 |
| Ordnance Survey Plan | 1:10,000 | 1967 | 7 |
| Ordnance Survey Plan | 1:10,000 | 1980 | 8 |
| Ordnance Survey Plan | 1:10,000 | 1992 | 9 |
| 10K Raster Mapping | 1:10,000 | 2000 | 10 |
| 10K Raster Mapping | 1:10,000 | 2006 | 11 |
| VectorMap Local | 1:10,000 | 2020 | 12 |

Historical Map - Slice A



Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000

Site Details

Site at 433140, 537820



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

Durham

Published 1861

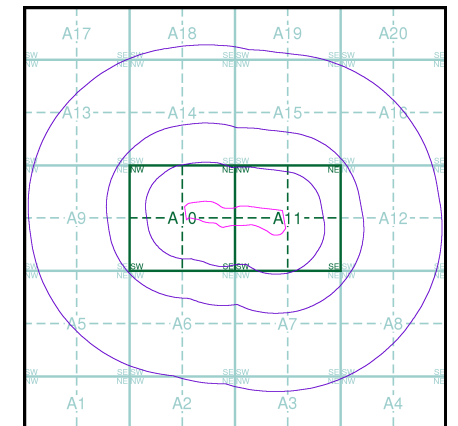
Source map scale - 1:10,560

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)

| | | |
|-------|------|----------|
| 02700 | 1861 | 1:10,560 |
| 03500 | 1861 | 1:10,560 |

Historical Map - Slice A

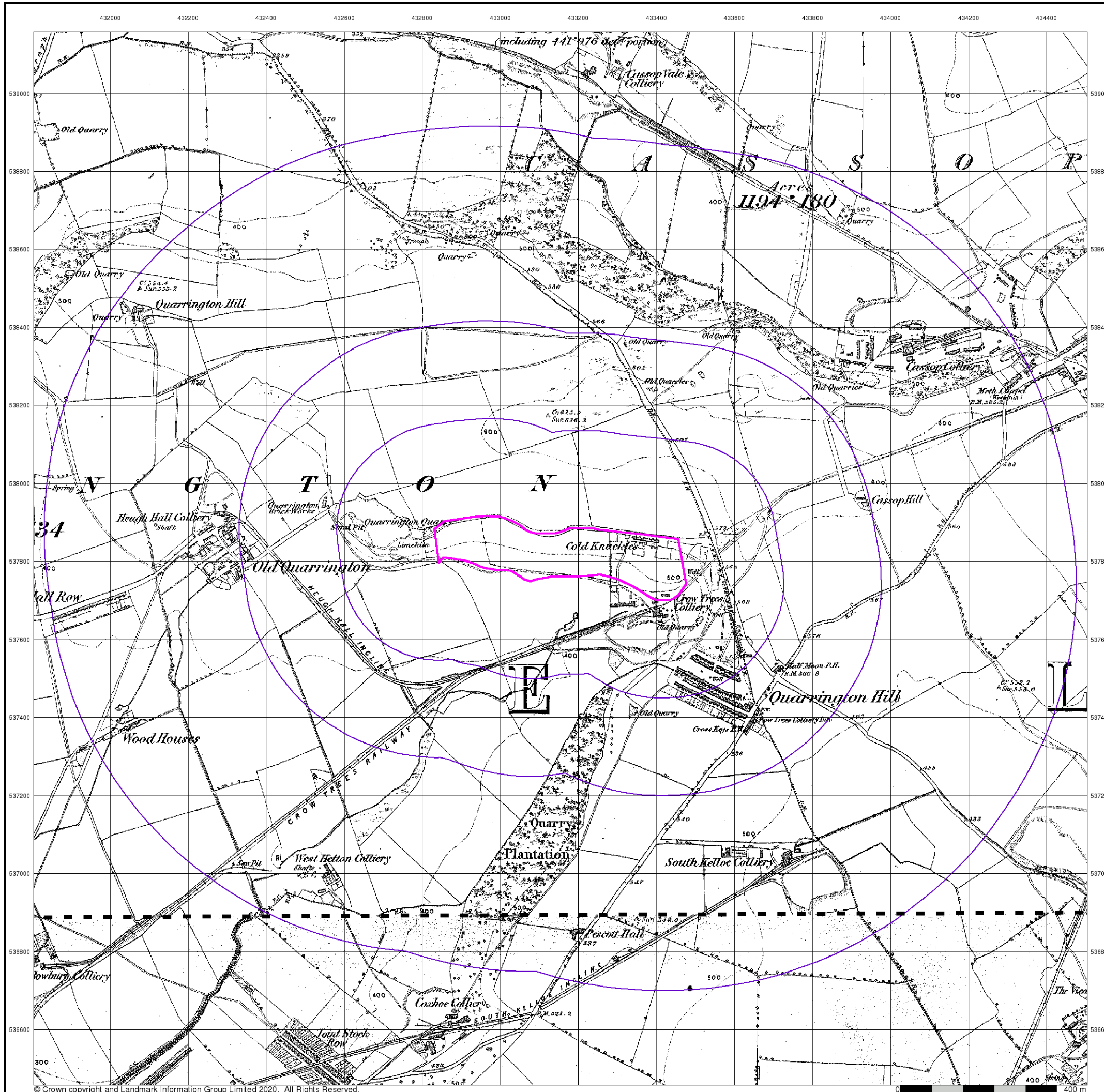


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000

Site Details

Site at 433140, 537820



Durham

Published 1898

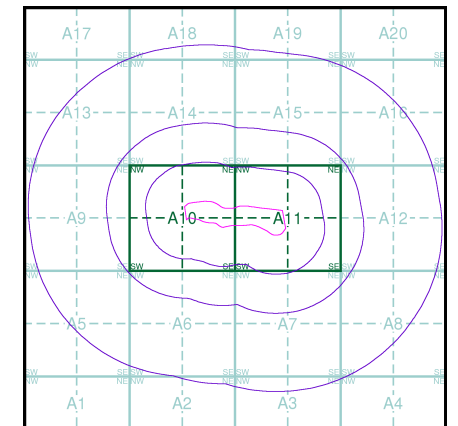
Source map scale - 1:10,560

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)

| | | |
|-------|------|----------|
| 027SE | 1898 | 1:10,560 |
| 035NE | 1898 | 1:10,560 |

Historical Map - Slice A

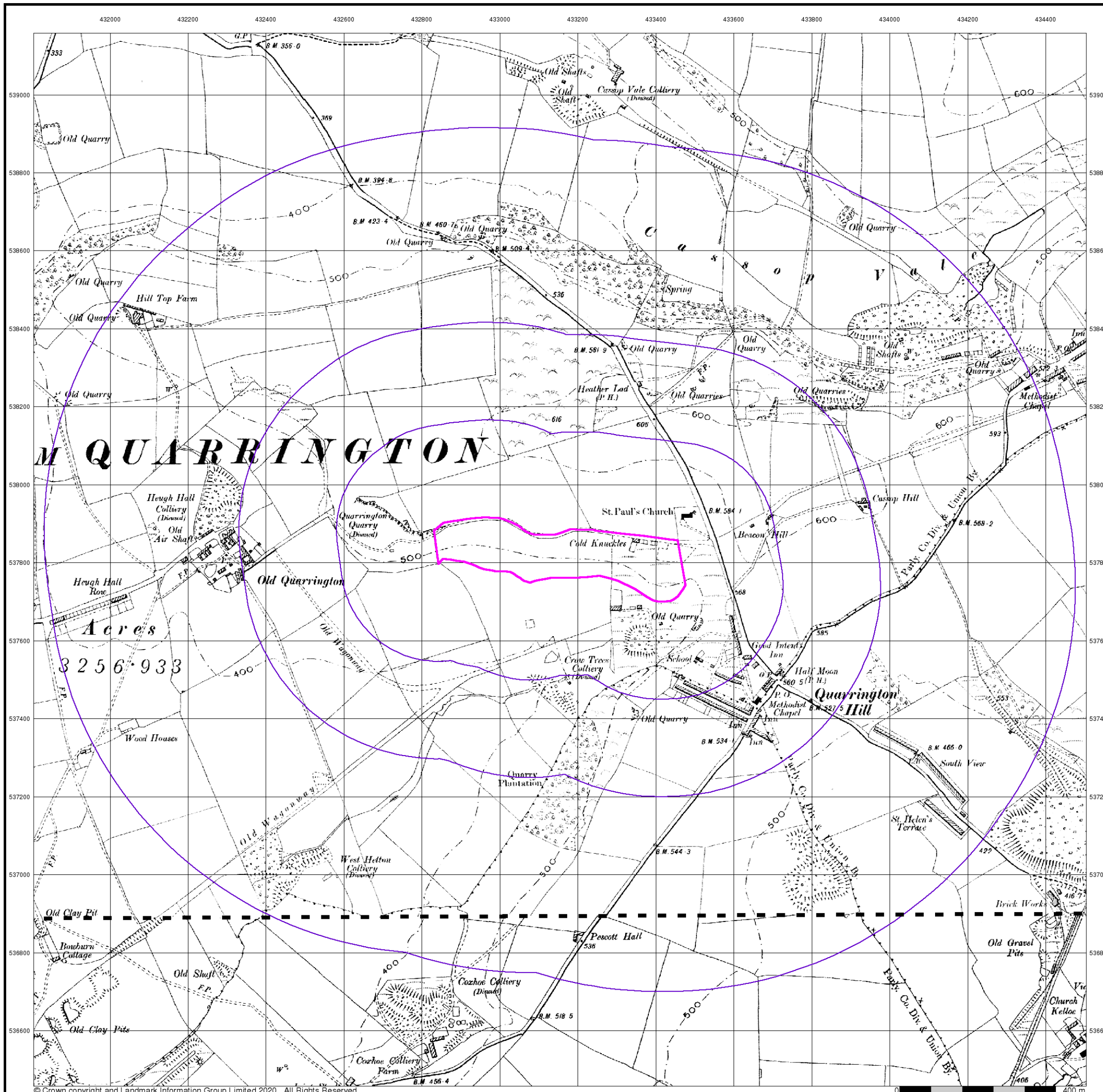


Order Details

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 Slice: A
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Site Details

Site at 433140, 537820



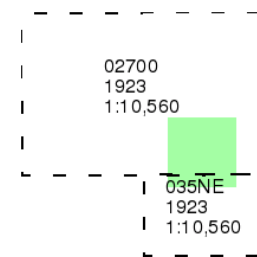
Durham

Published 1923

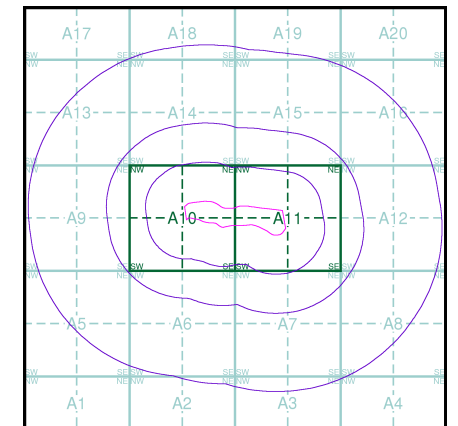
Source map scale - 1:10,560

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

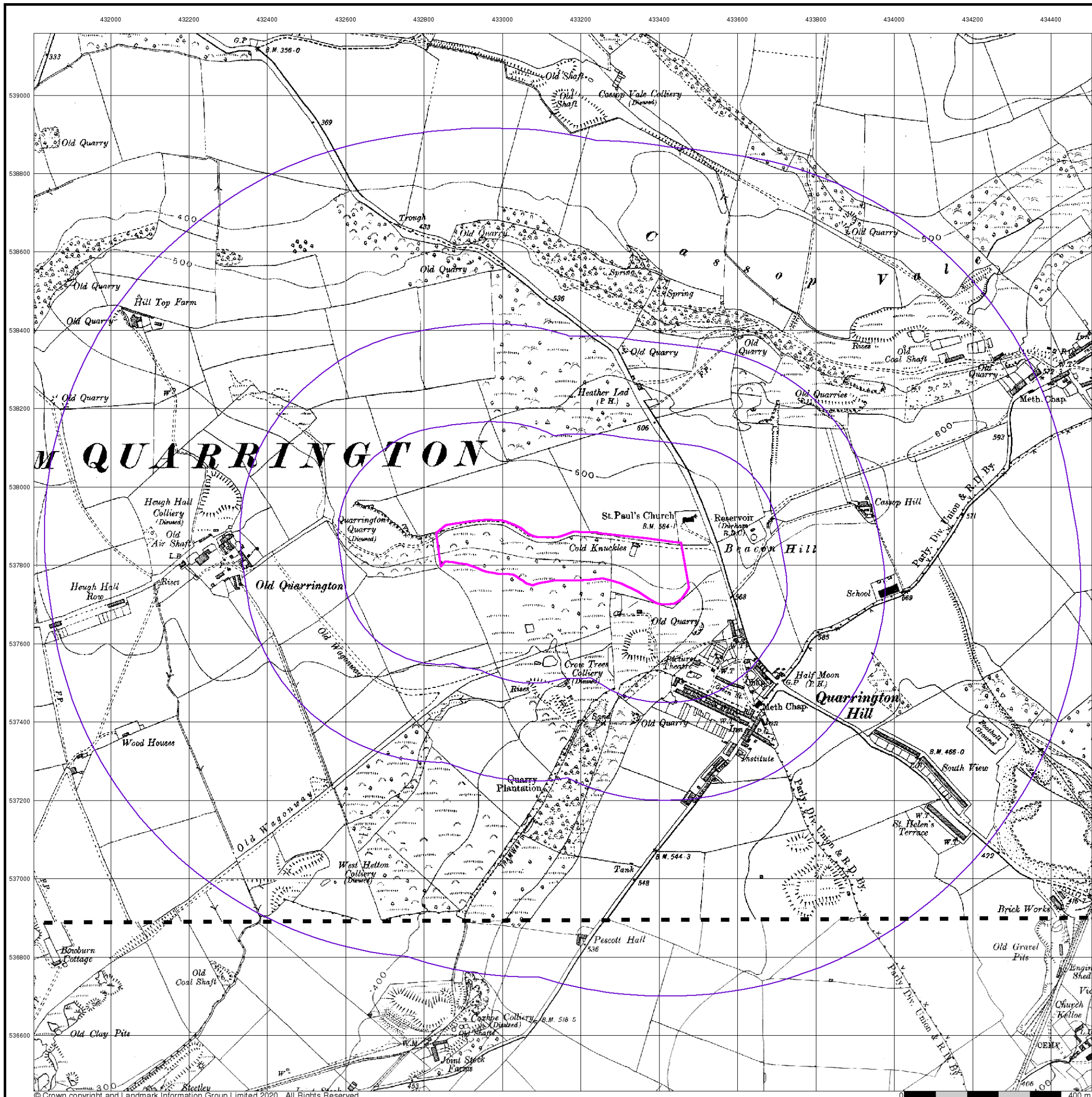


Order Details

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 Slice: A
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Site Details

Site at 433140, 537820



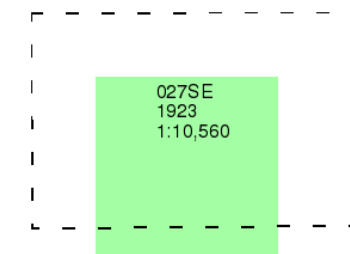
Durham

Published 1923

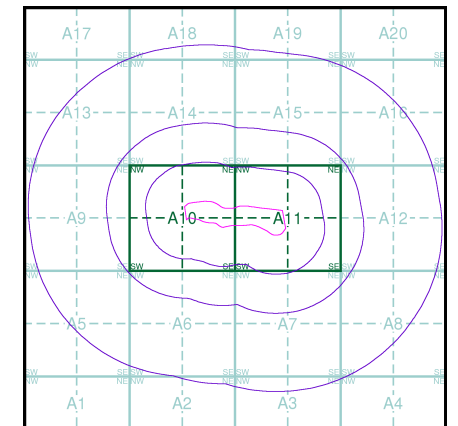
Source map scale - 1:10,560

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

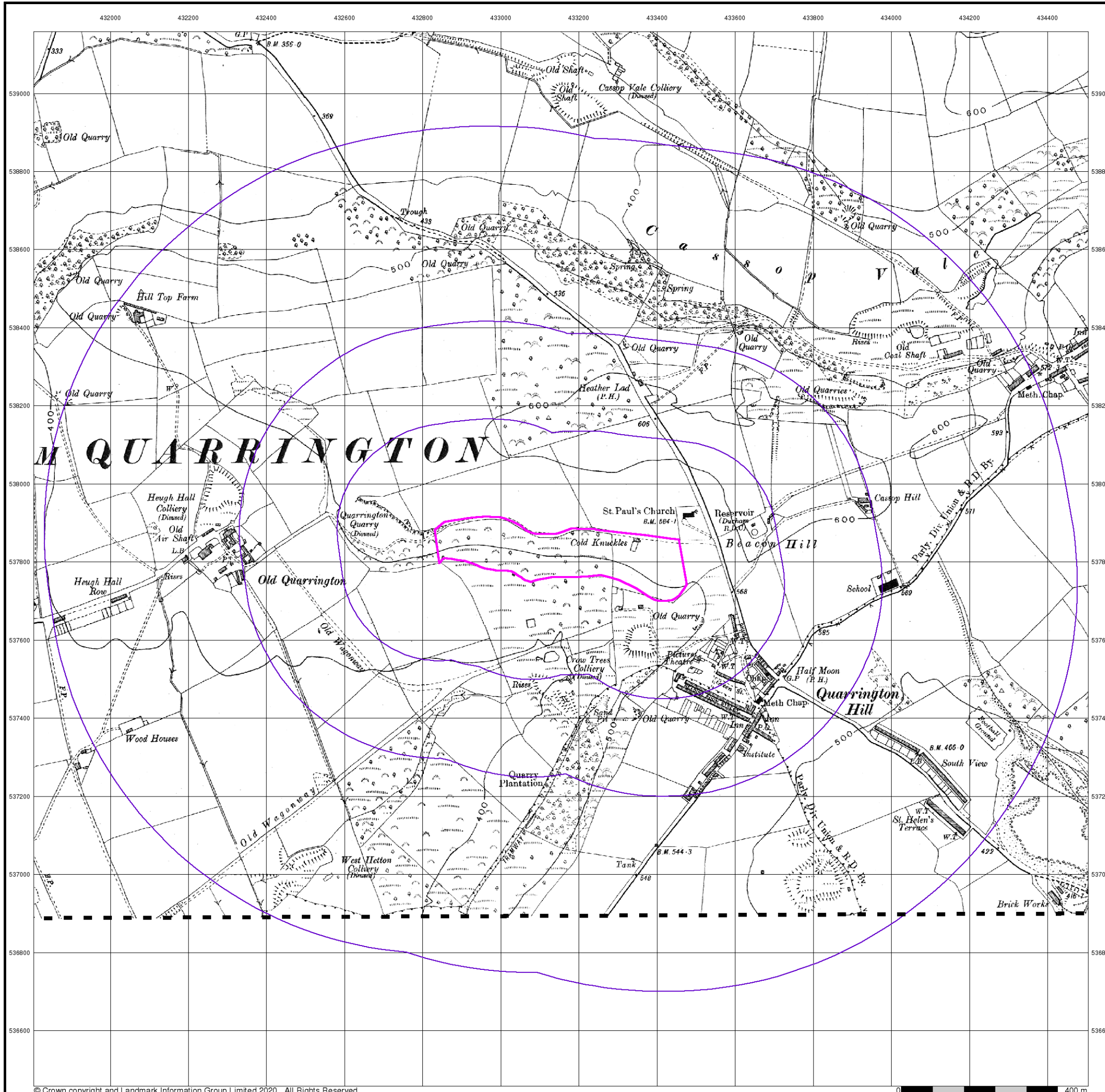


Order Details

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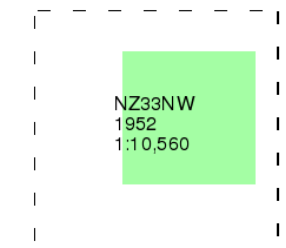
Site Details

Site at 433140, 537820

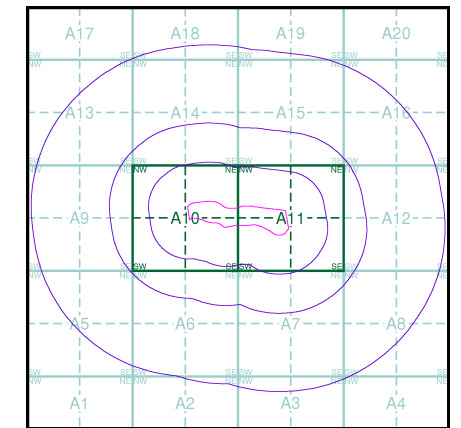


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some 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

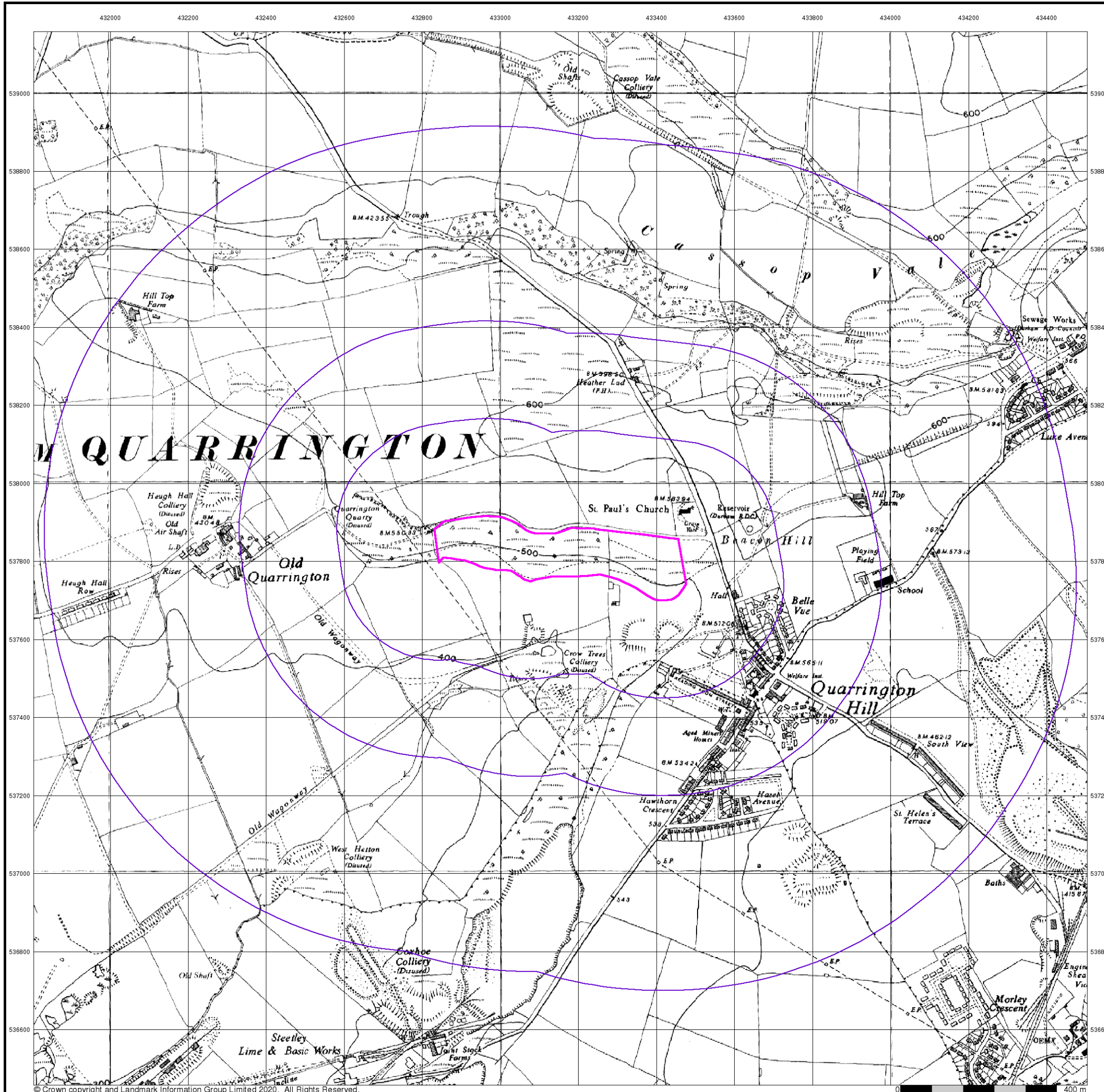


Order Details

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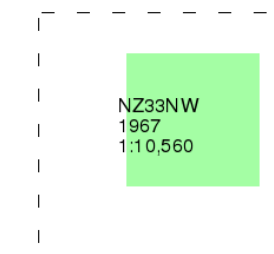
Site Details

Site at 433140, 537820

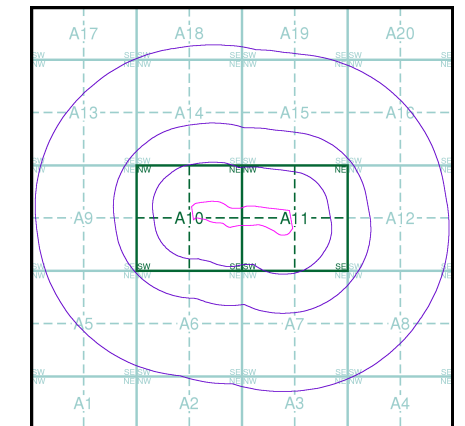


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some 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

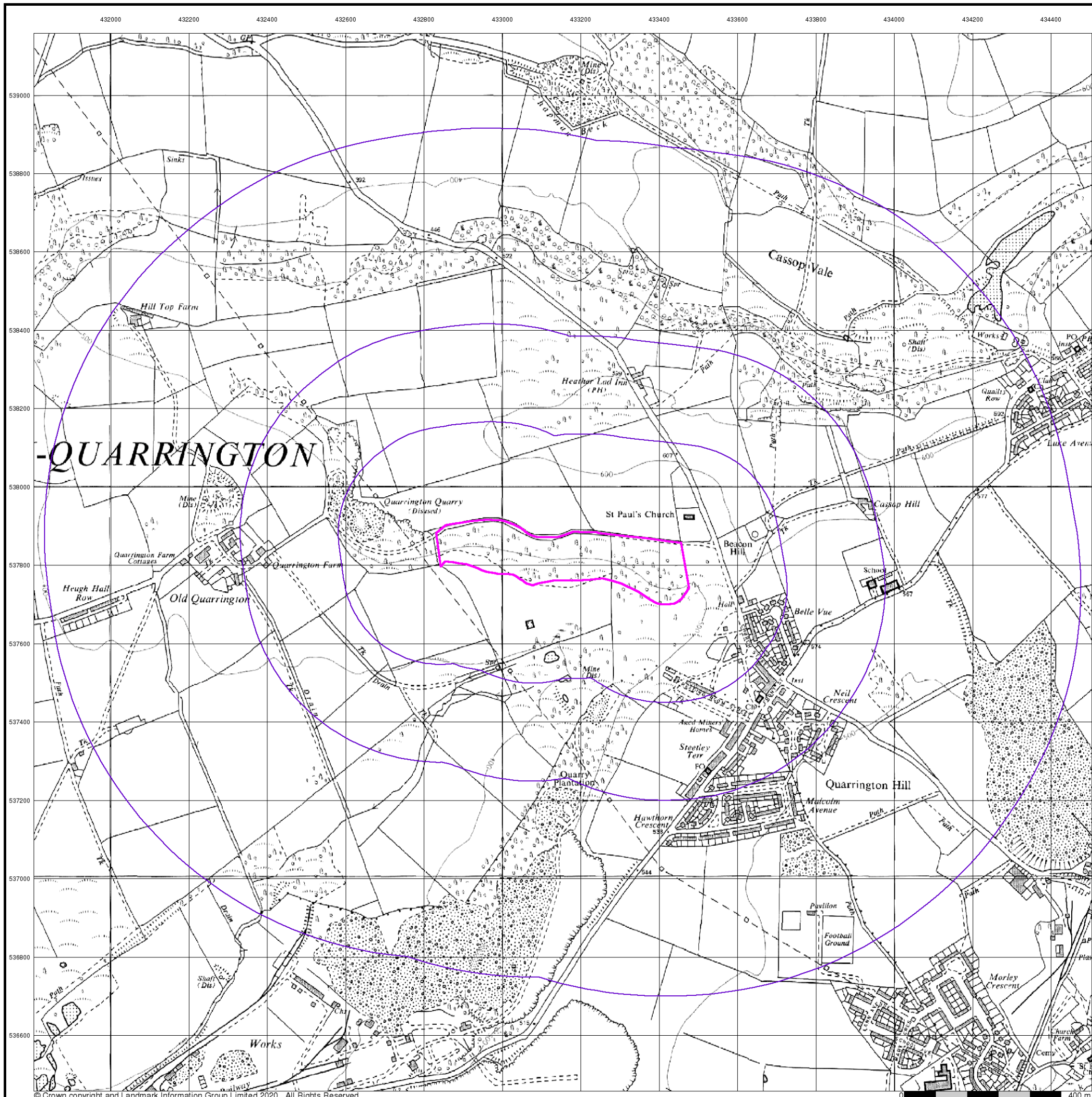


Order Details

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Site Details

Site at 433140, 537820



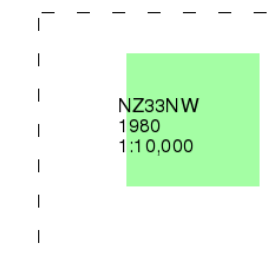
Ordnance Survey Plan

Published 1980

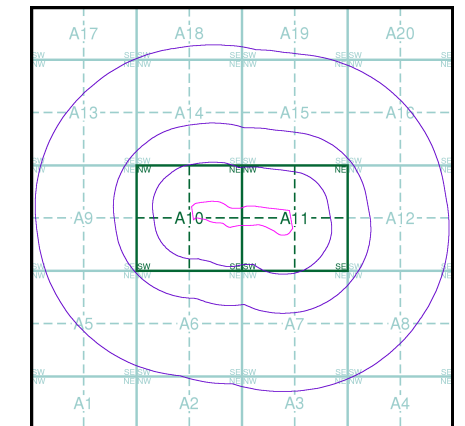
Source map scale - 1:10,000

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

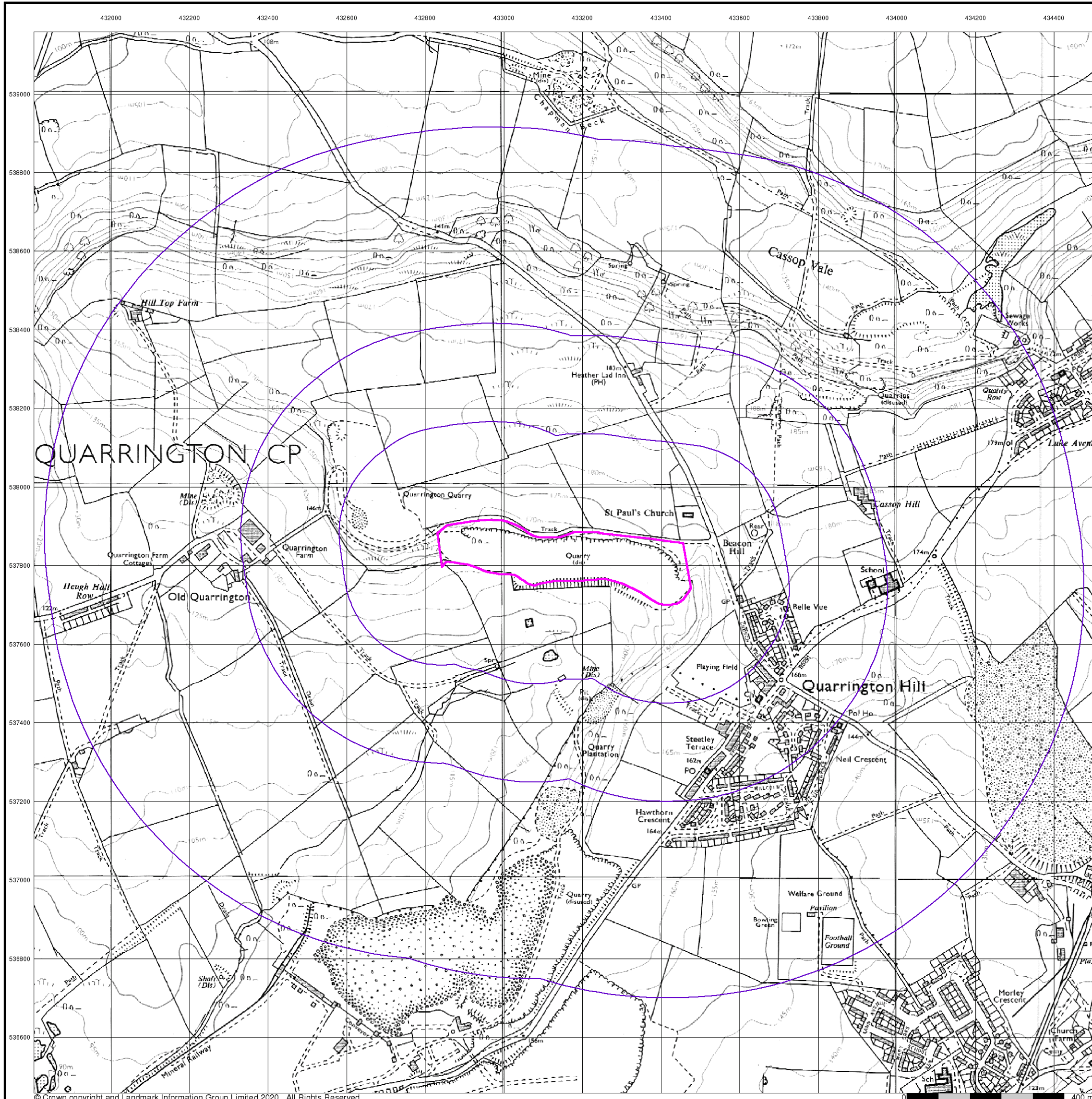


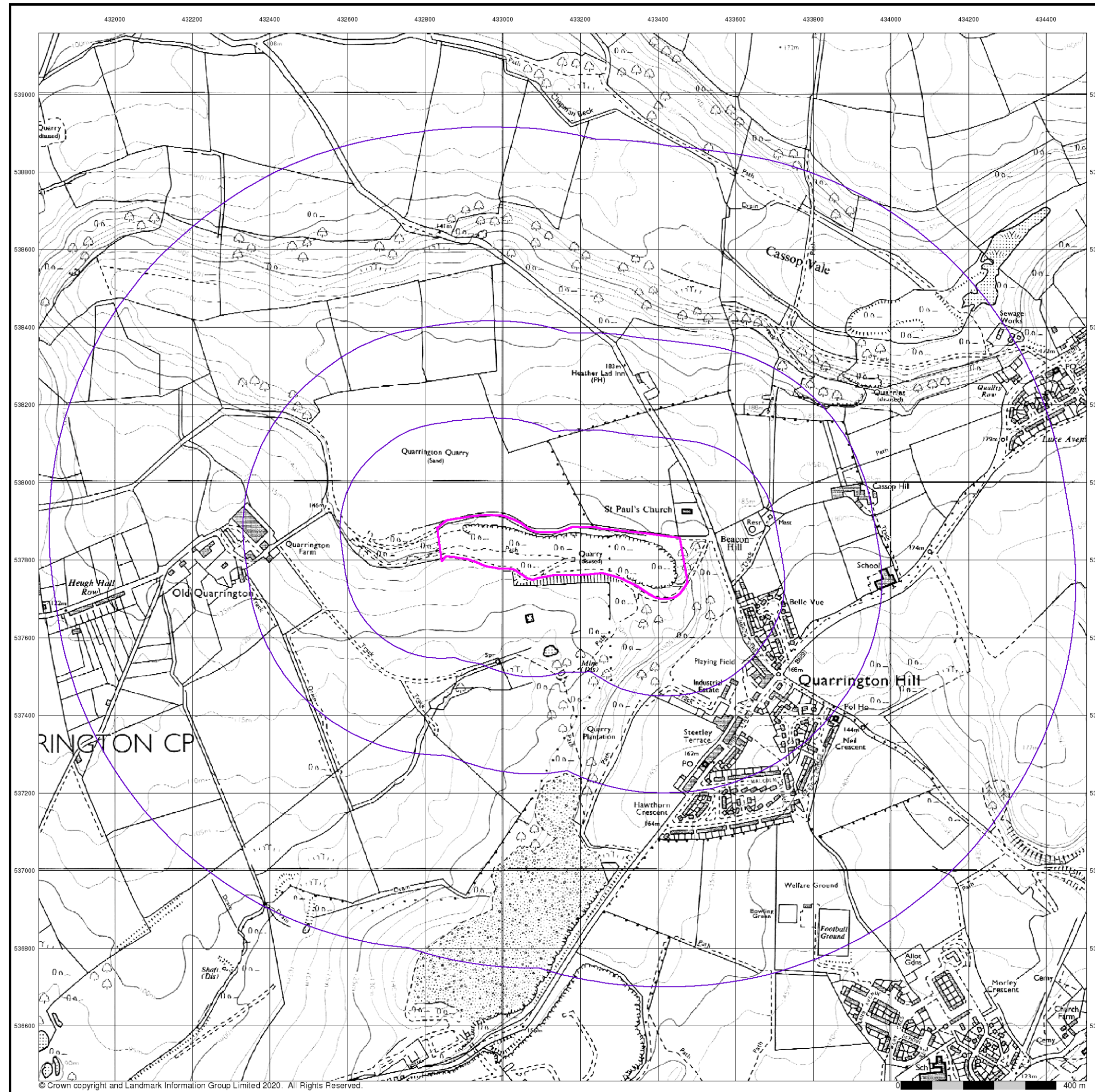
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 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000

Site Details

Site at 433140, 537820

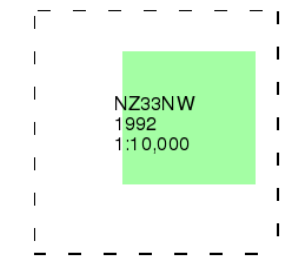




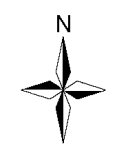
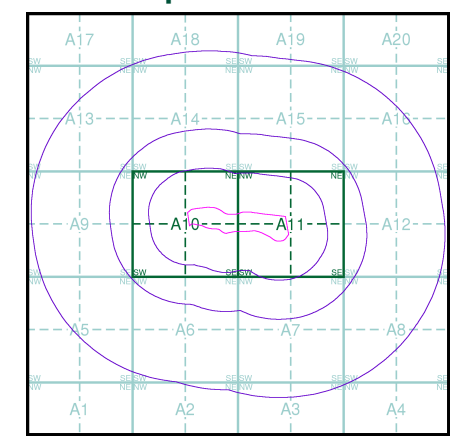
Ordnance Survey Plan
Published 1992
Source map scale - 1:10,000

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Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000

Site Details

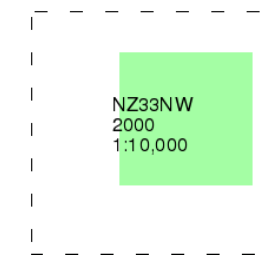
Site at 433140, 537820



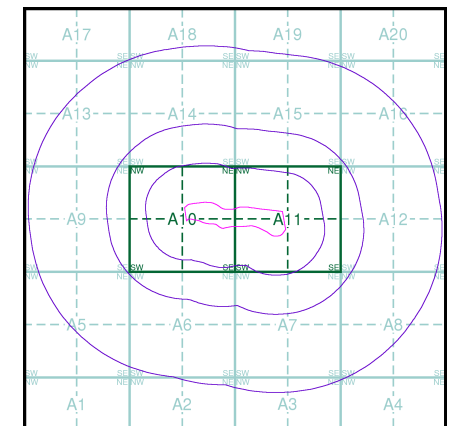
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

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

Map Name(s) and Date(s)



Historical Map - Slice A

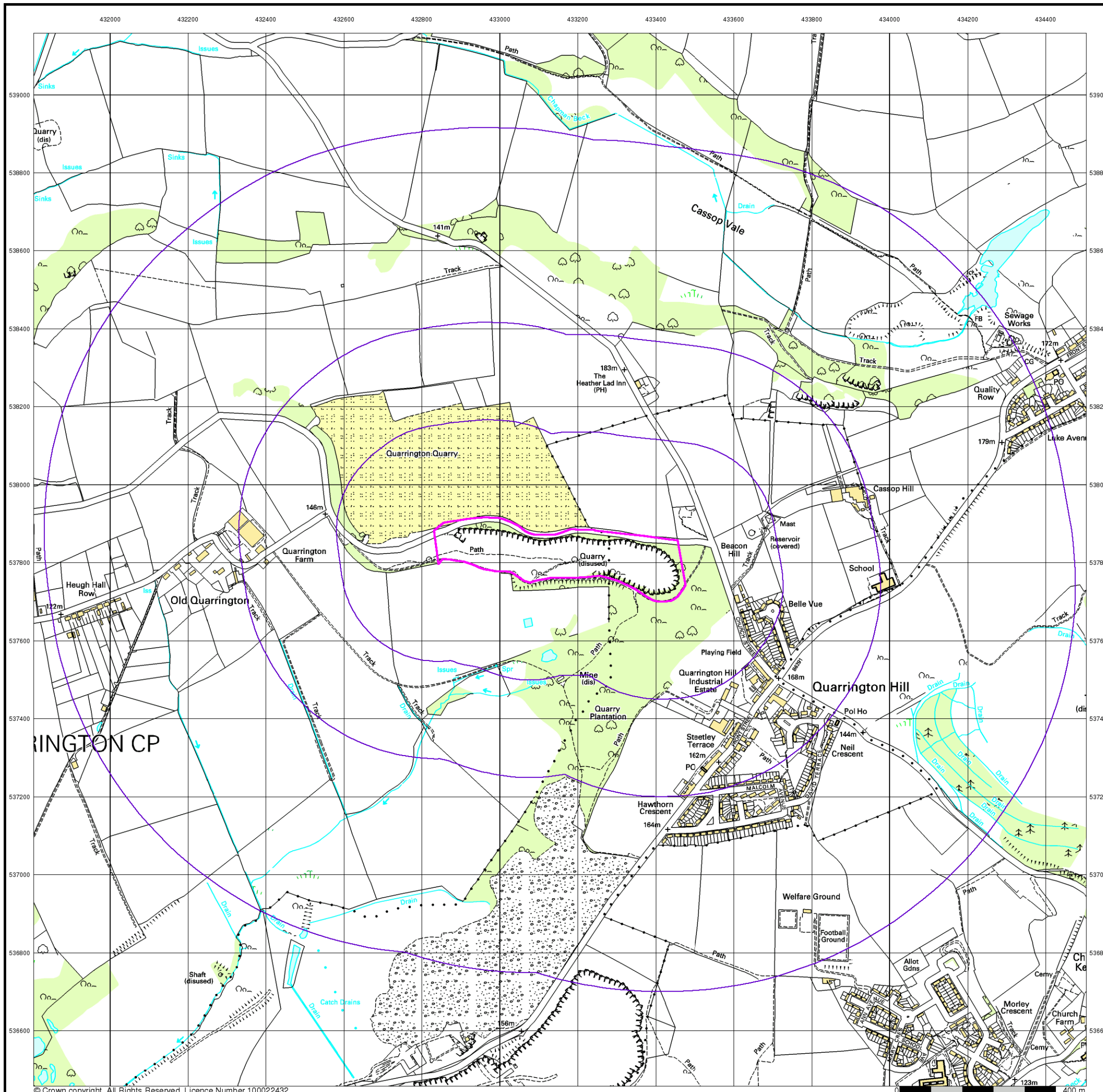


Order Details

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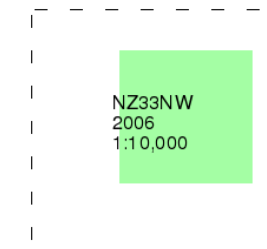
Site at 433140, 537820



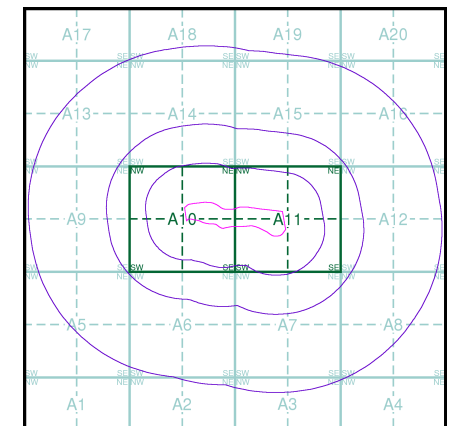
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The historical maps shown were produced from the Ordnance Survey's 1:10,000 colour raster mapping. These maps are derived from Landplan which replaced the old 1:10,000 maps originally published in 1970. The data is highly detailed showing buildings,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

Map Name(s) and Date(s)



Historical Map - Slice A

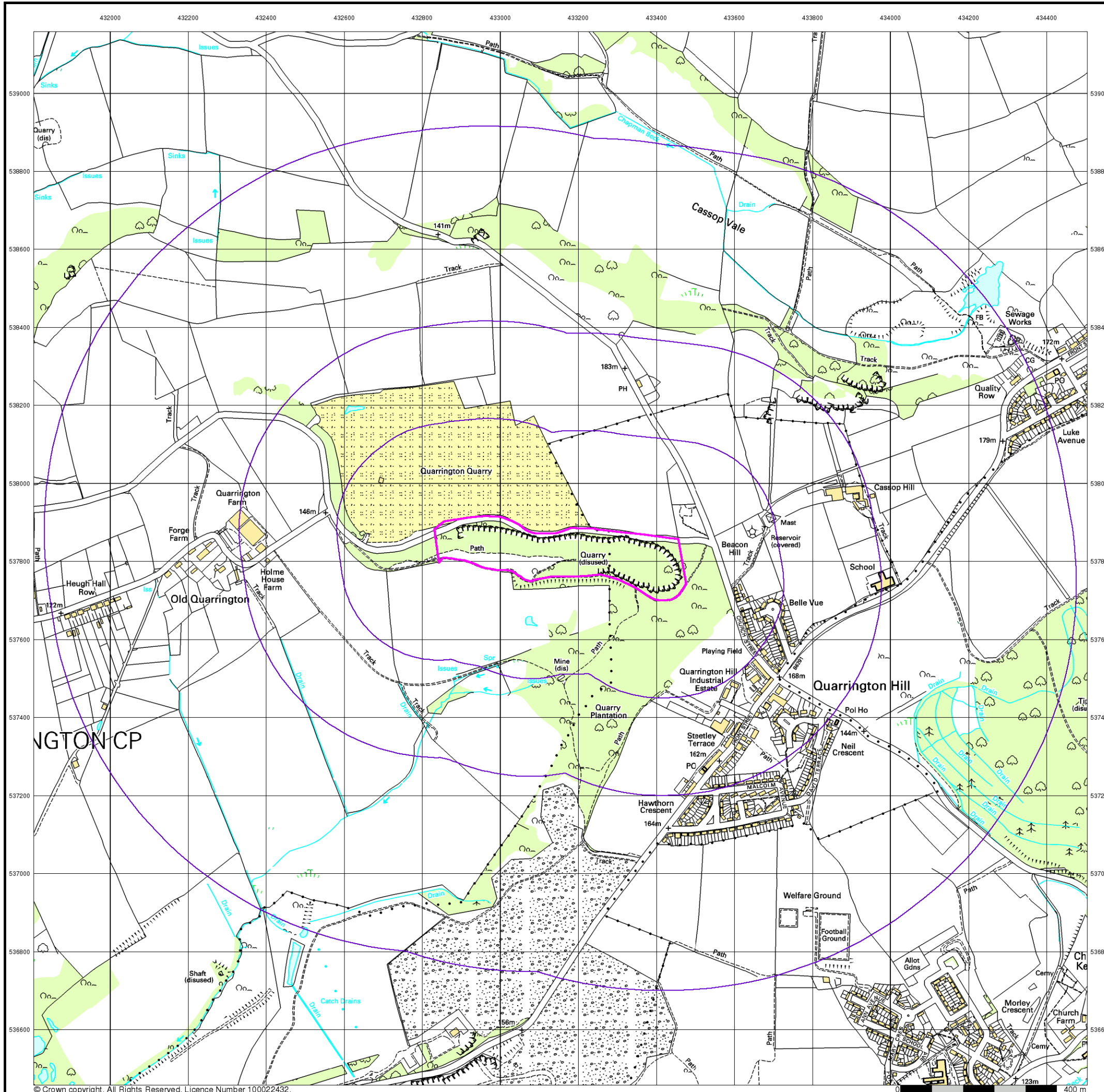


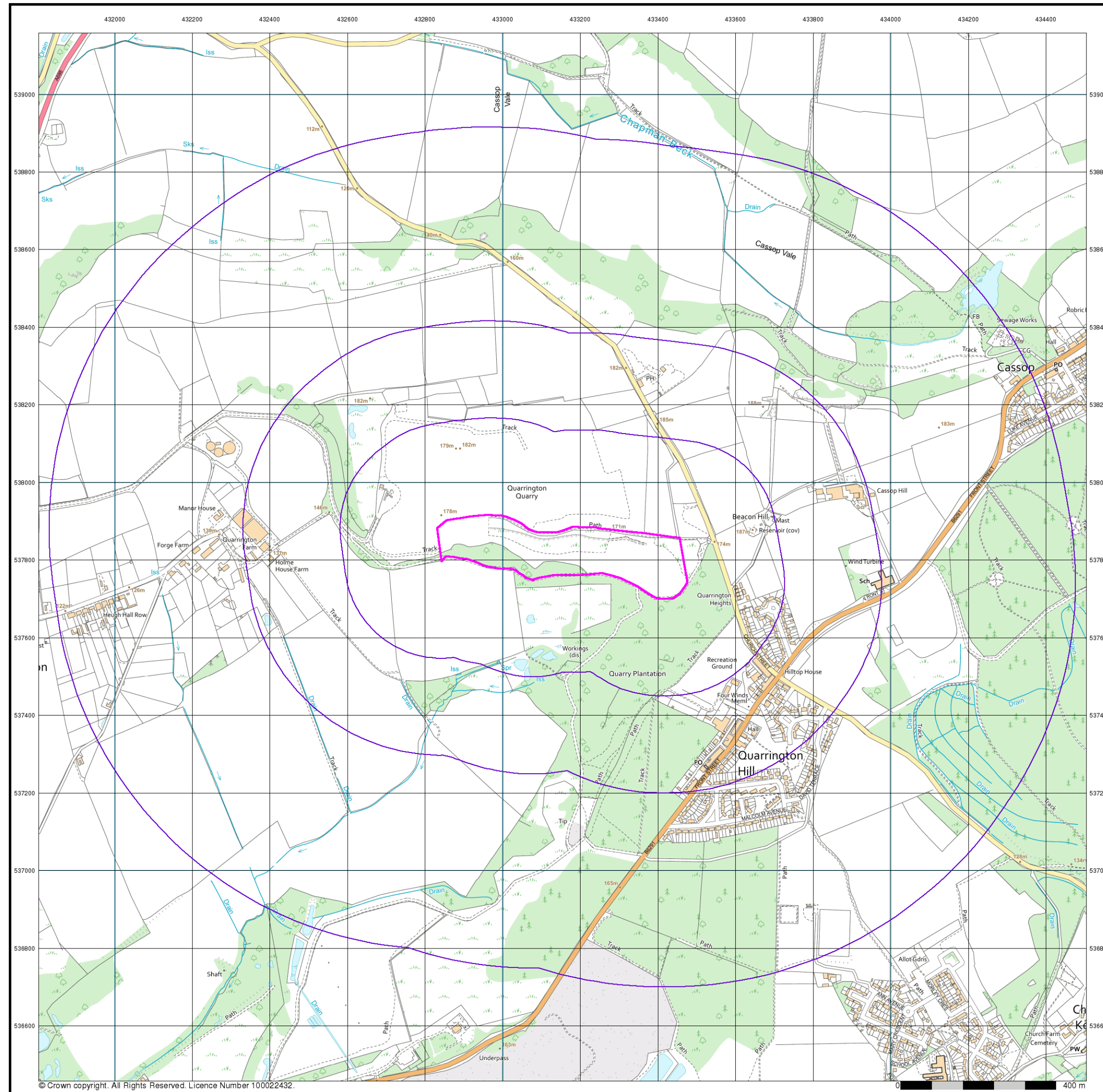
Order Details

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 Slice: A
 Site Area (Ha): 7.97
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Site Details

Site at 433140, 537820





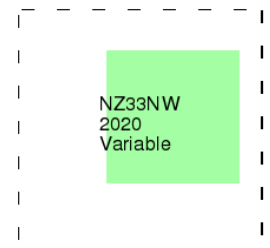
© Crown copyright. All Rights Reserved. Licence Number 100022432.



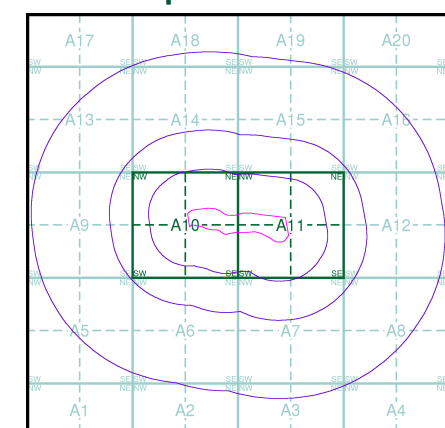
VectorMap Local
Published 2020
Source map scale - 1:10,000

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

Map Name(s) and Date(s)



Historical Map - Slice A



Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
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 Search Buffer (m): 1000

Site Details

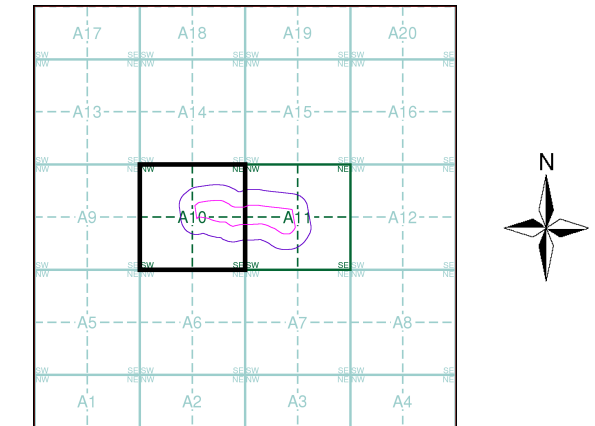
Site at 433140, 537820



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 Web: www.envirocheck.co.uk

- 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 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
- 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 (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
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
- Geological**
- BGS Recorded Mineral Site

Site Sensitivity Map - Segment A10

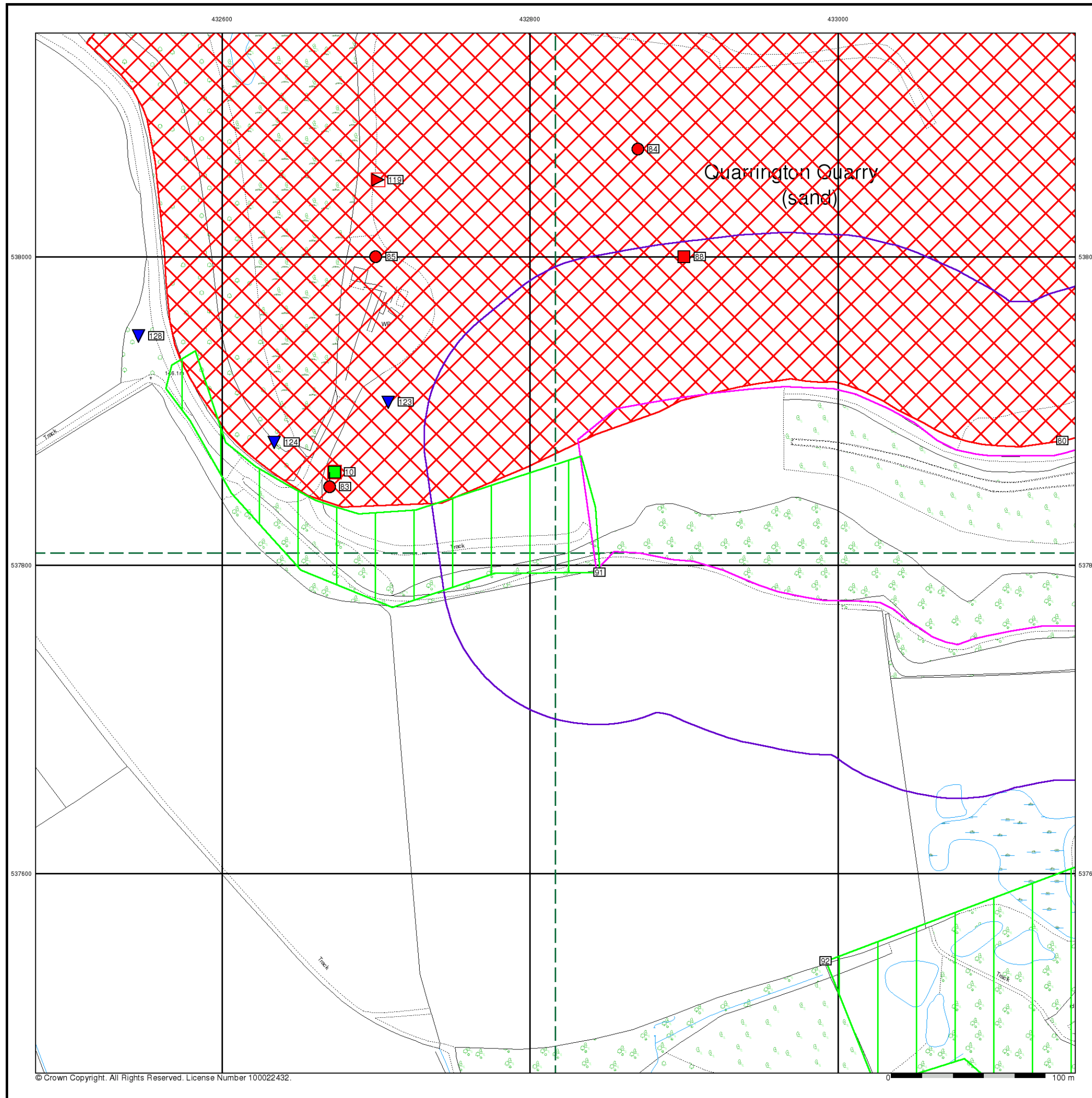


Order Details

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 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Plot Buffer (m): 100

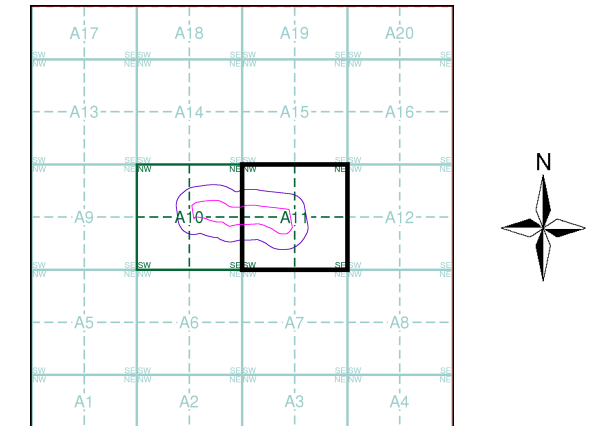
Site Details

Site at 433140, 537820



- 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
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 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- 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 (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
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
- Geological**
- BGS Recorded Mineral Site

Site Sensitivity Map - Segment A11

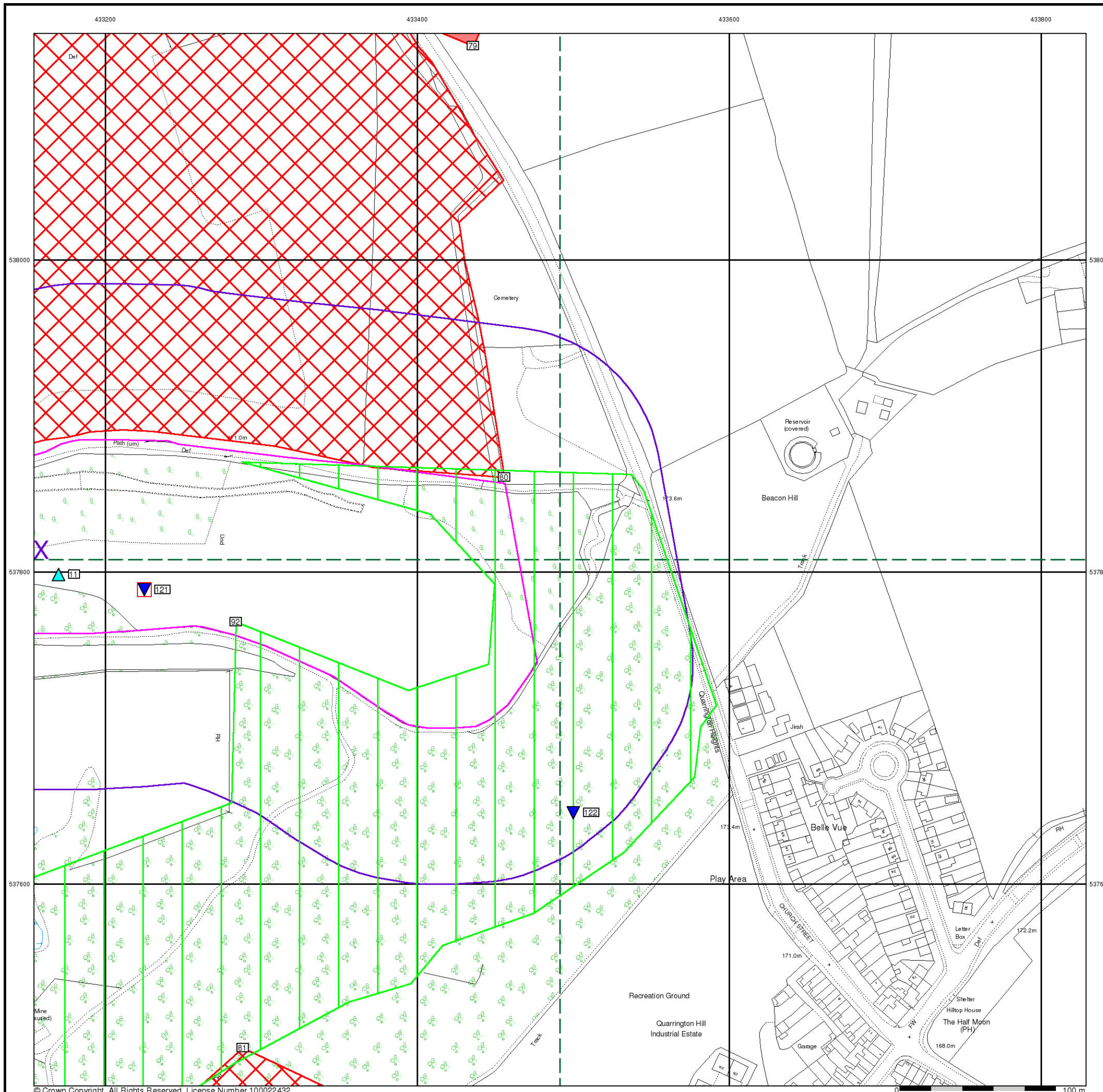


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Plot Buffer (m): 100

Site Details

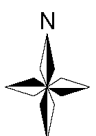
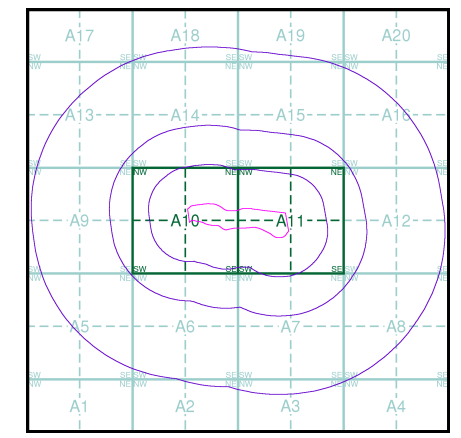
Site at 433140, 537820



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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
- 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)
 - Potentially Infilled Land (Water)
 - 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
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
- Geological**
- BGS Recorded Mineral Site

Site Sensitivity Map - Slice A

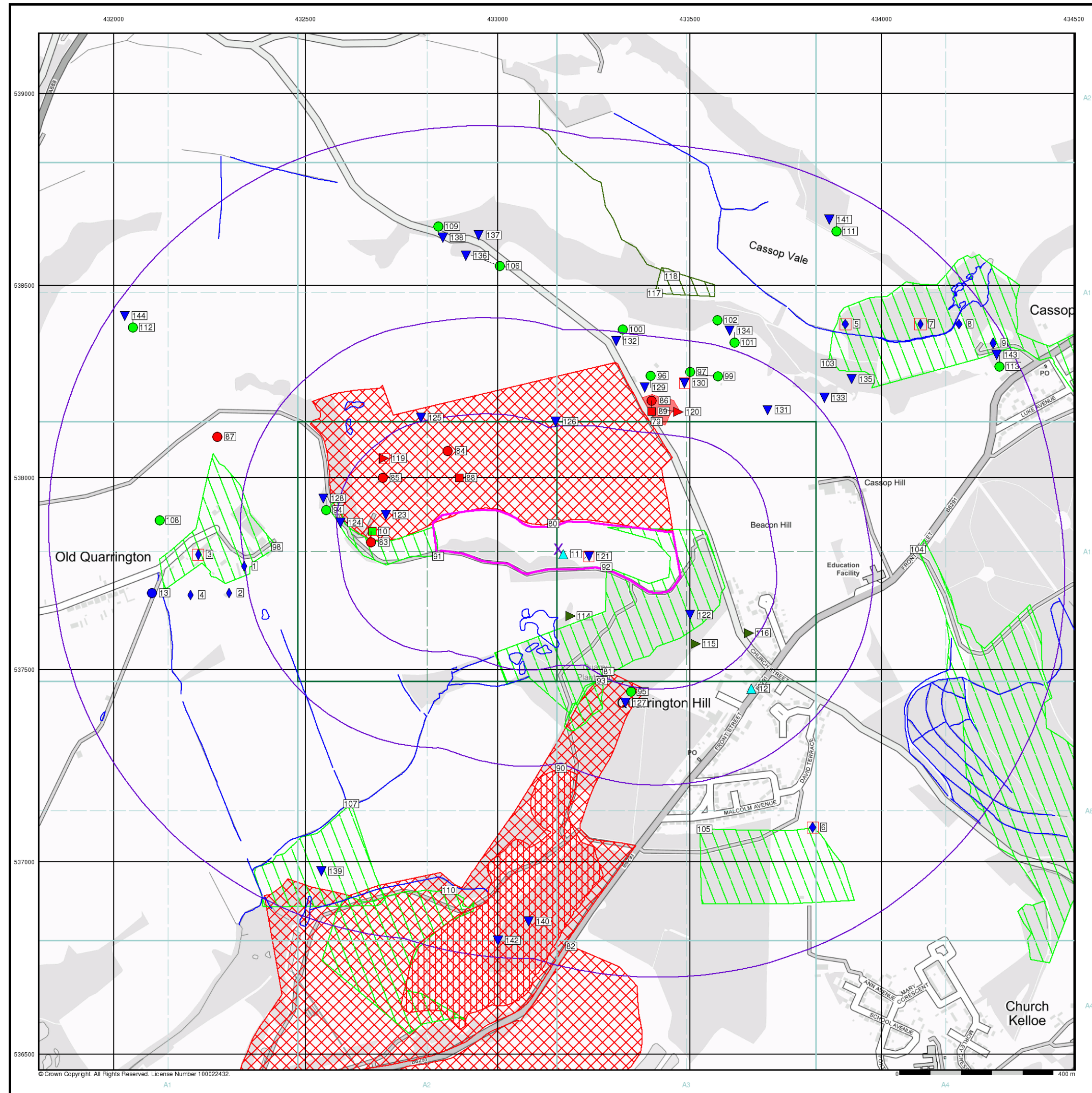


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000






Site Details

Site at 433140, 537820












Industrial Land Use Map

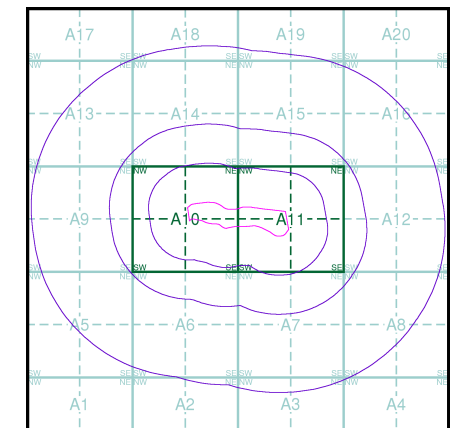
General

-  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

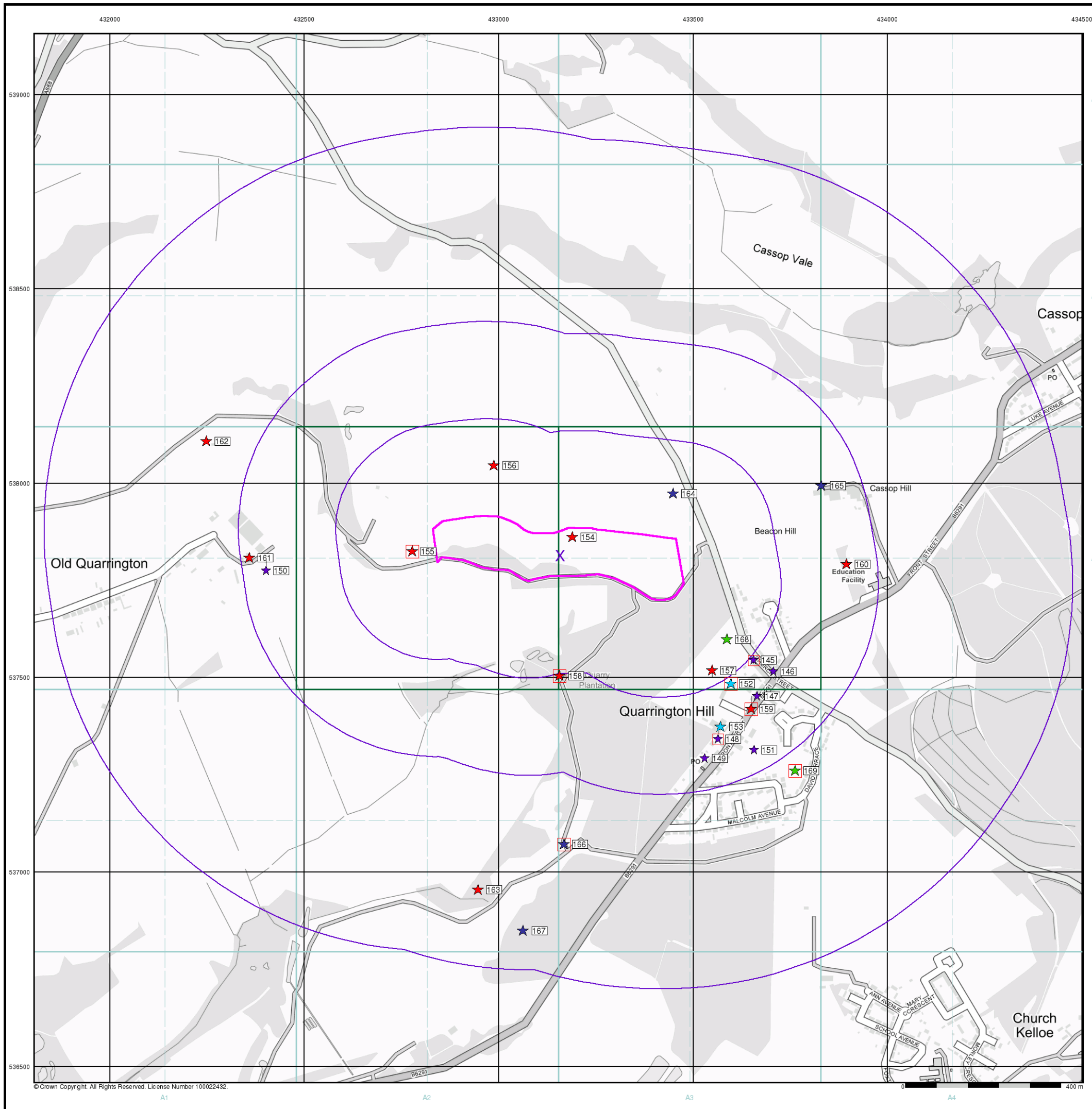


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000

Site Details






Site at 433140, 537820

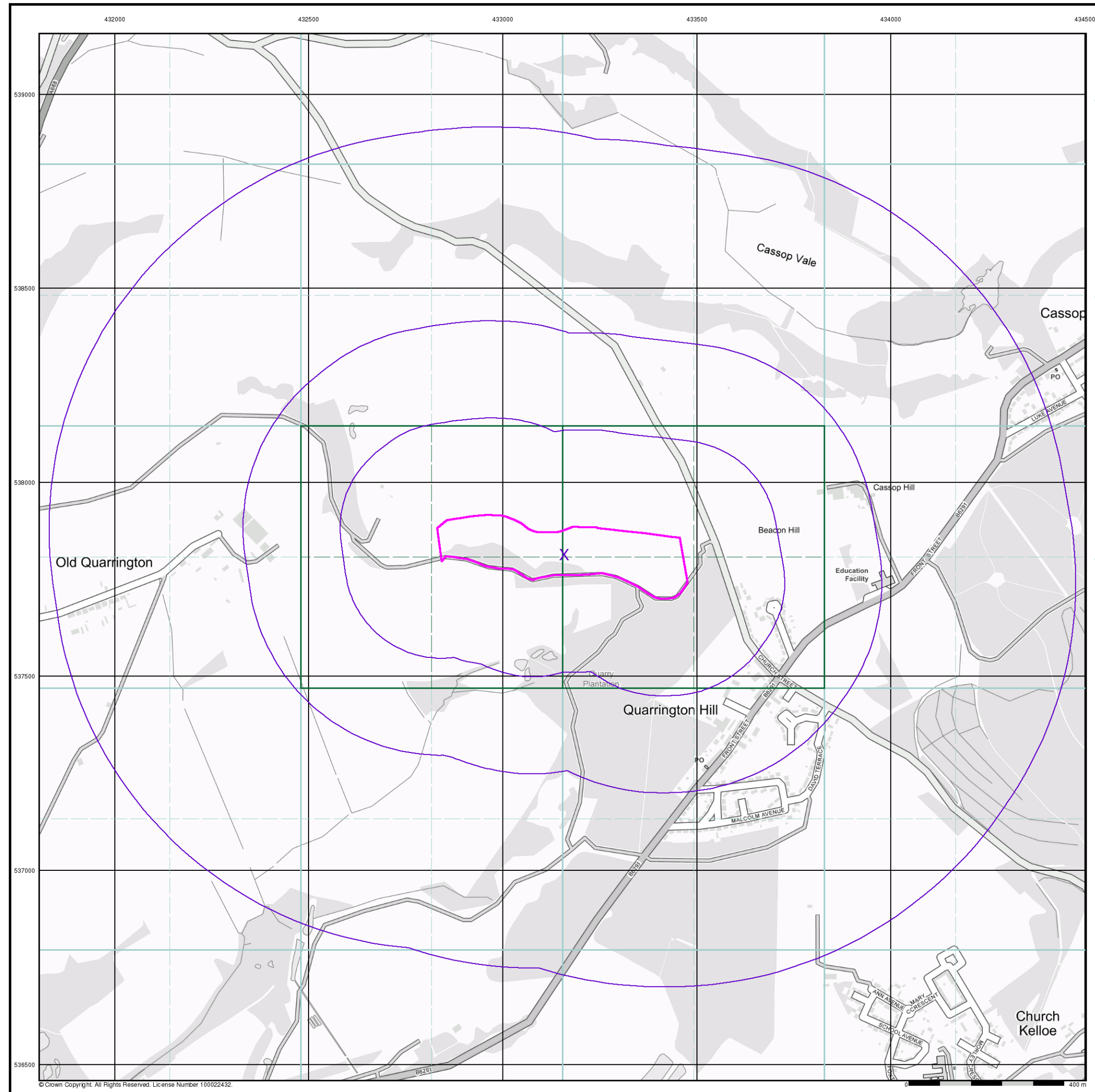


General

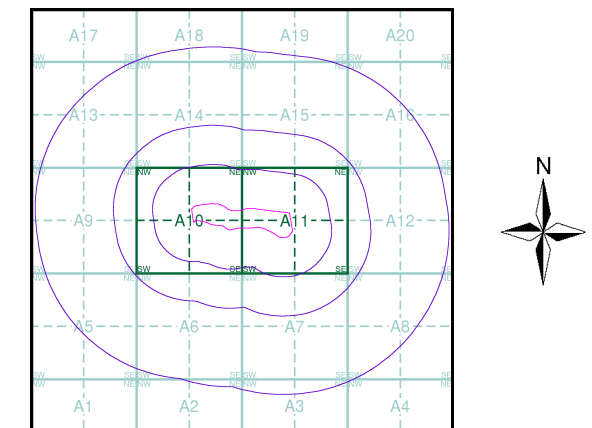
-  Specified Site
-  Specified Buffer(s)
-  Bearing Reference Point

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: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000






Site Details

Site at 433140, 537820

General

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

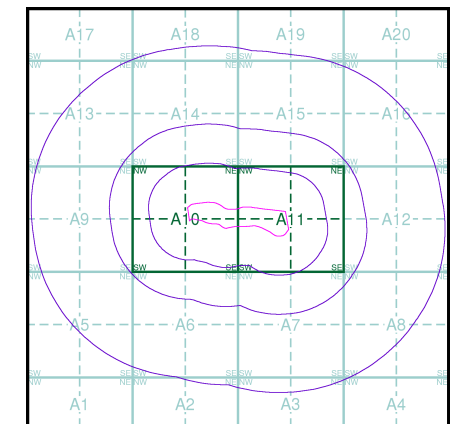
Agency and Hydrological (Boreholes)

-  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

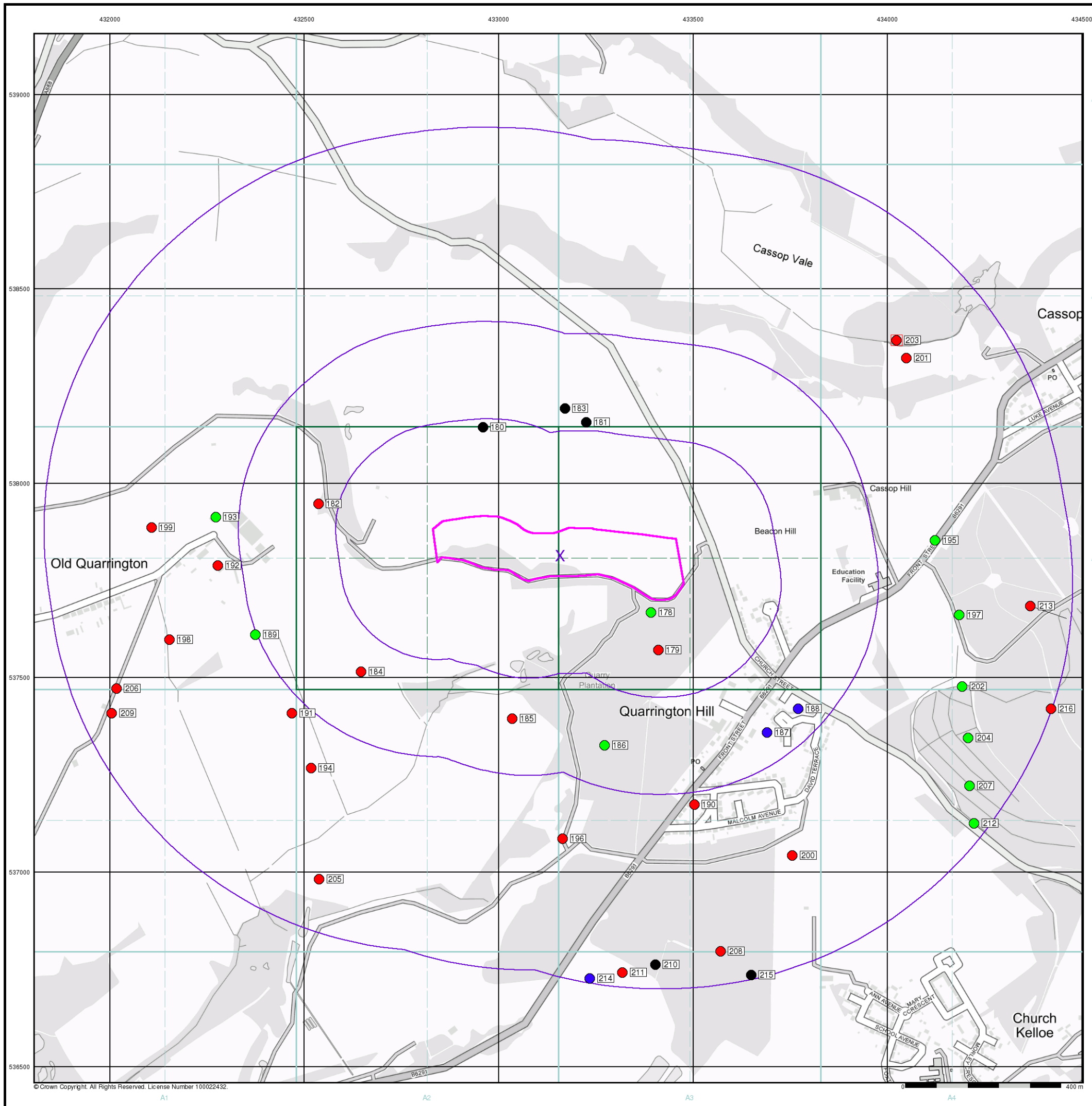


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000




Site Details

Site at 433140, 537820



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
General

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

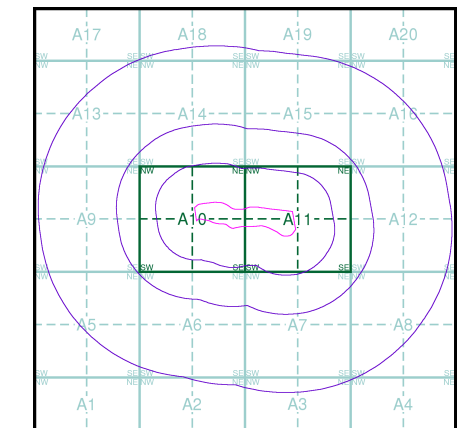
OS Water Network Data

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

Contours (height in meters)

- Standard Contour   Mean Low Water
- Master Contour   Mean High Water
- Spot Height  167.3

OS Water Network Map - Slice A

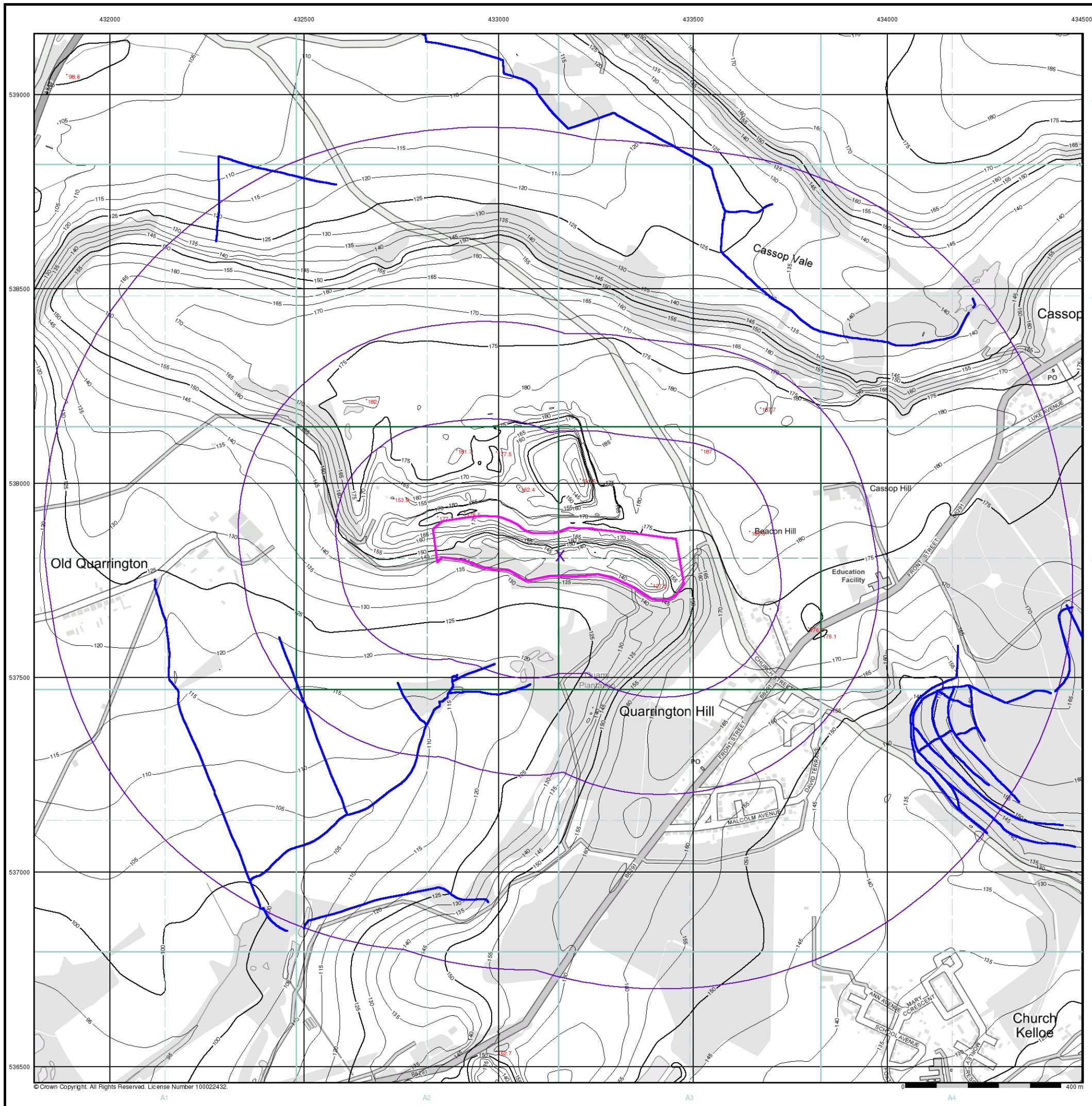


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000




Site Details

Site at 433140, 537820



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General

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

Risk of Flooding from Surface Water

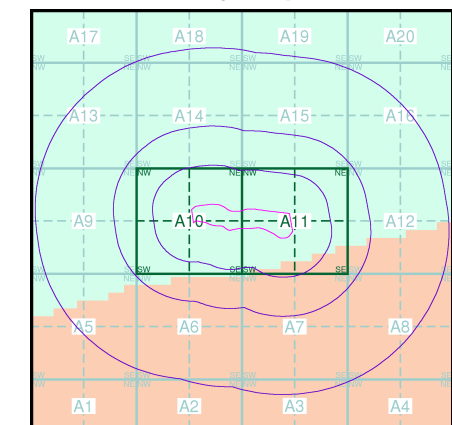
-  High - 30 Year Return
-  Medium - 100 Year Return
-  Low - 1000 Year Return

Suitability

See the suitability map below

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

EANRW Suitability Map - Slice A

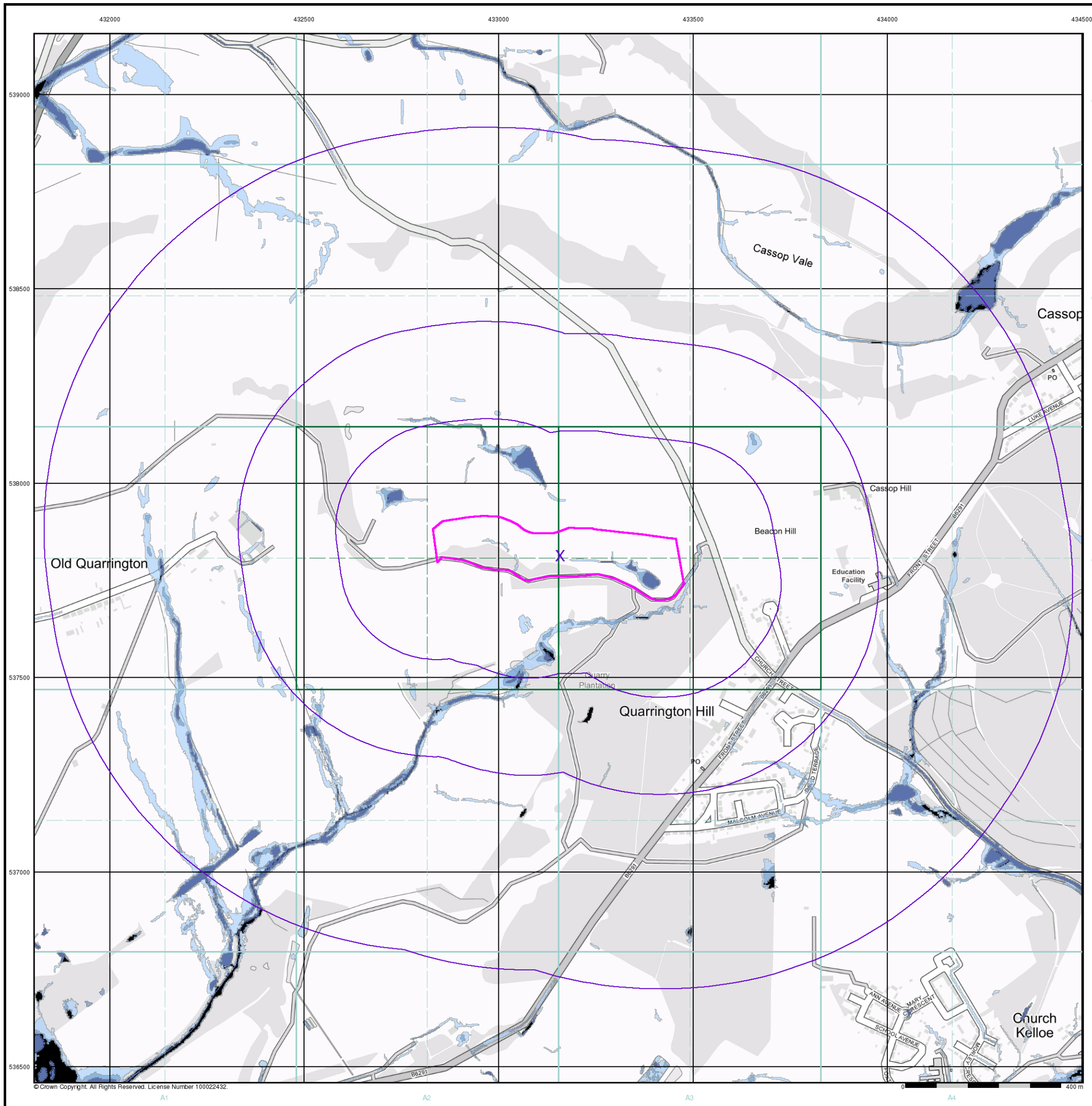


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000

Site Details

Site at 433140, 537820

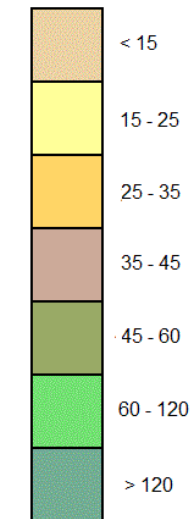


General

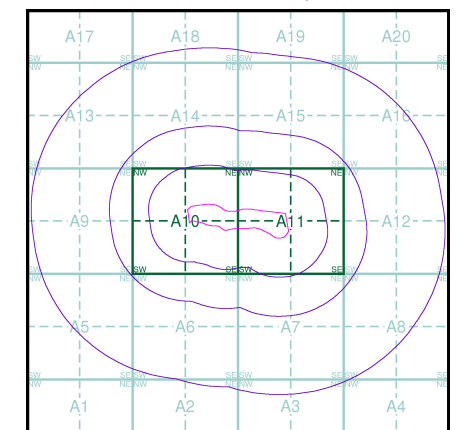
✱ Specified Site
 ○ Specified Buffer(s)
 ✕ Bearing Reference Point

Estimated Soil Chemistry Arsenic

Arsenic Concentrations mg/kg



Estimated Soil Chemistry Arsenic - Slice A

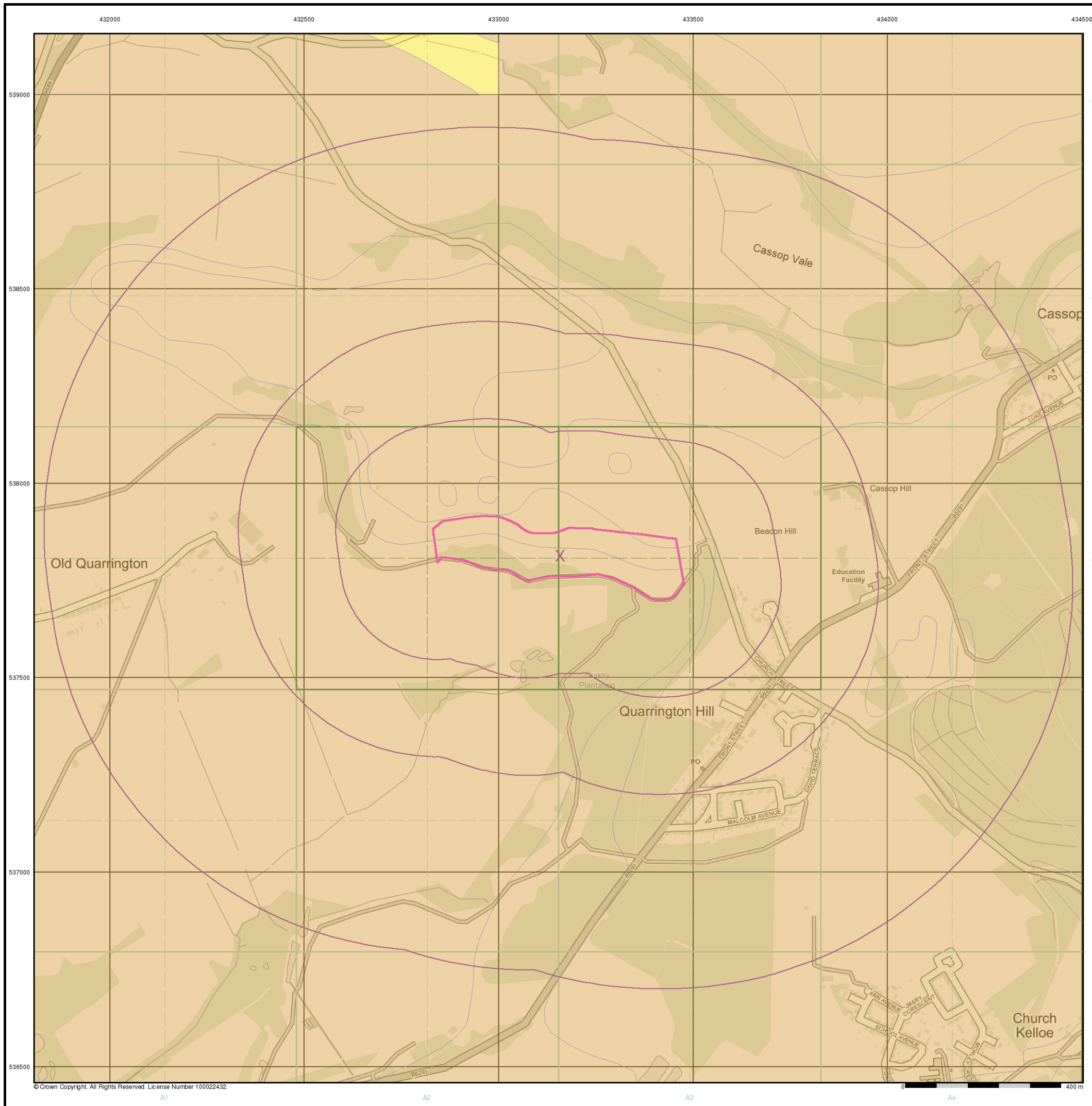


Order Details

Order Details: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000

Site Details

Site at 433140, 537820



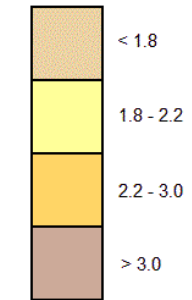
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General

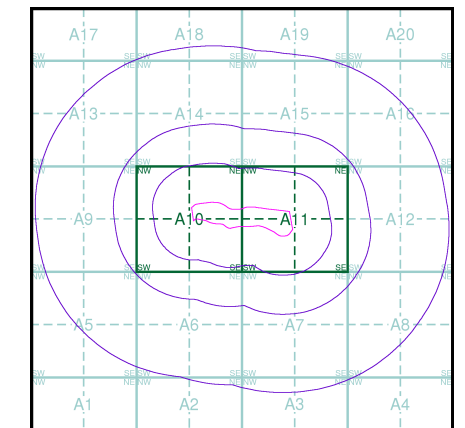
✱ Specified Site
 ○ Specified Buffer(s)
 ✕ Bearing Reference Point

Estimated Soil Chemistry Cadmium

Cadmium Concentrations mg/kg



Estimated Soil Chemistry Cadmium - Slice A

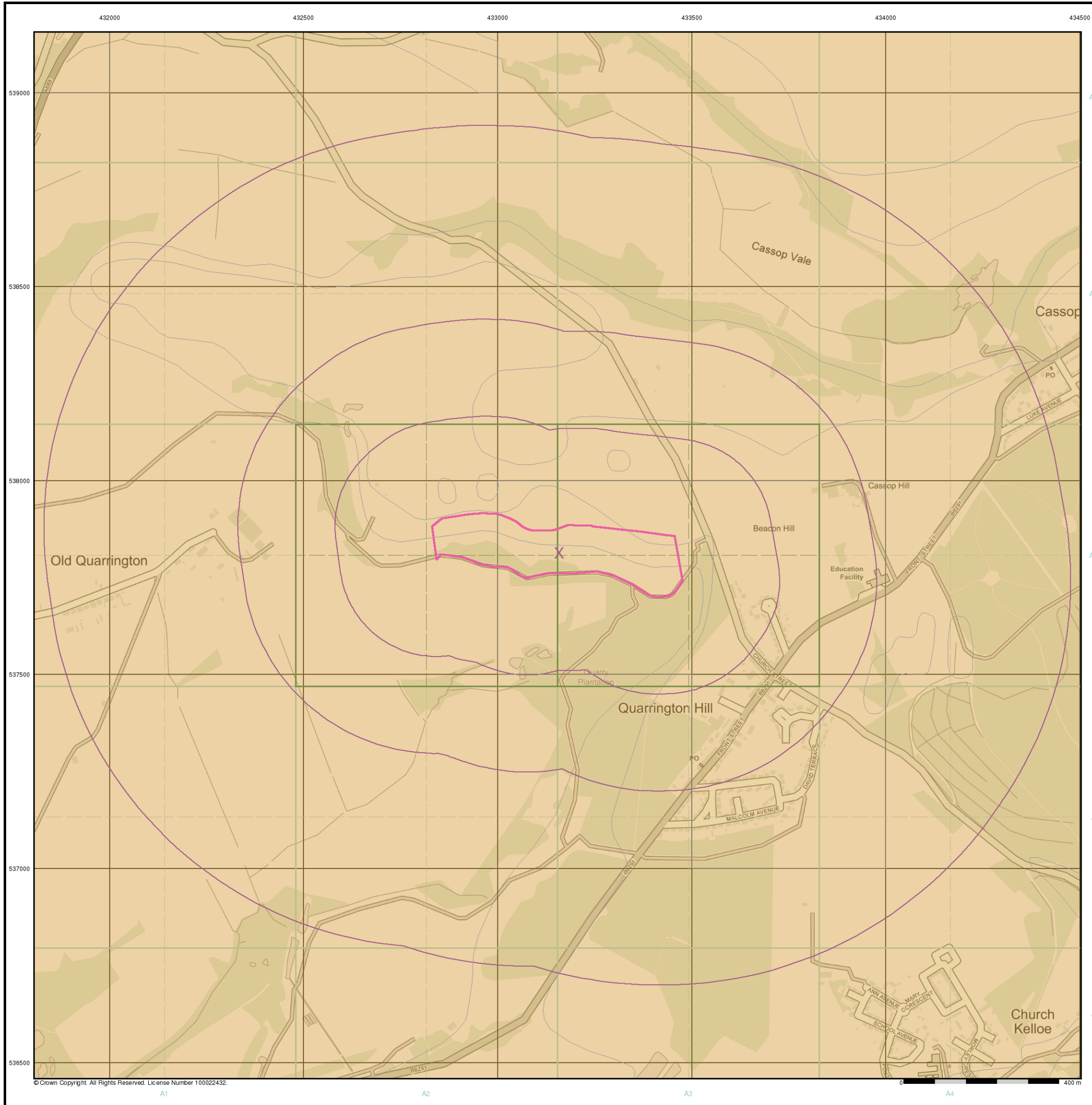


Order Details

Order Details: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000

Site Details

Site at 433140, 537820



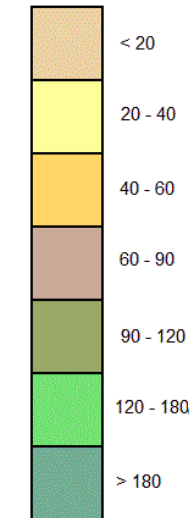
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General

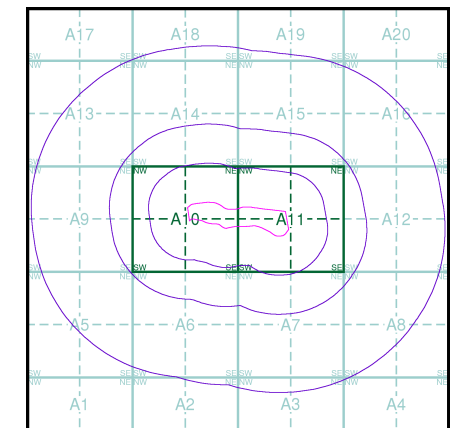
✱ Specified Site
 ○ Specified Buffer(s)
 ✕ Bearing Reference Point

Estimated Soil Chemistry Chromium

Chromium Concentrations mg/kg



Estimated Soil Chemistry Chromium - Slice A

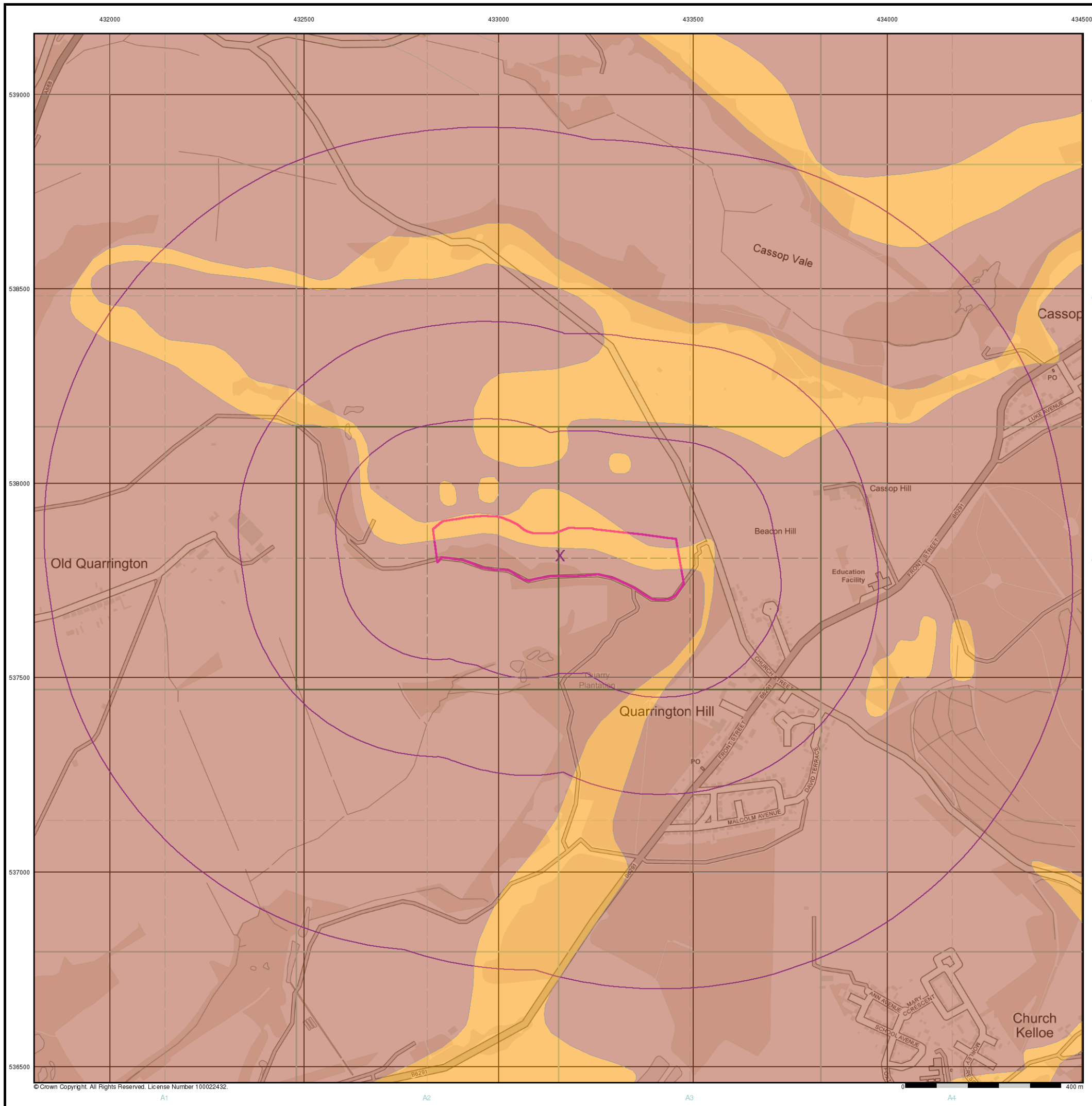


Order Details

Order Details: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000

Site Details

Site at 433140, 537820



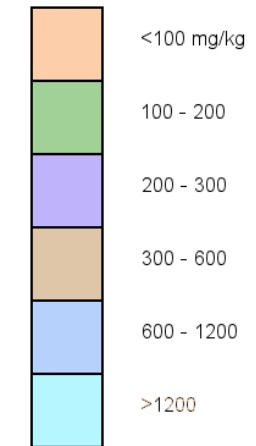
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General

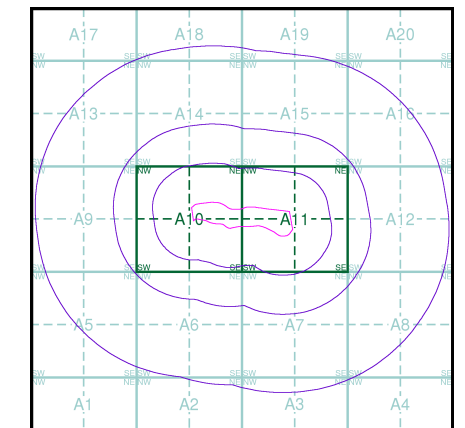
✱ Specified Site
 ○ Specified Buffer(s)
 ✕ Bearing Reference Point

Estimated Soil Chemistry Lead

Lead Concentrations mg/kg



Estimated Soil Chemistry Lead - Slice A

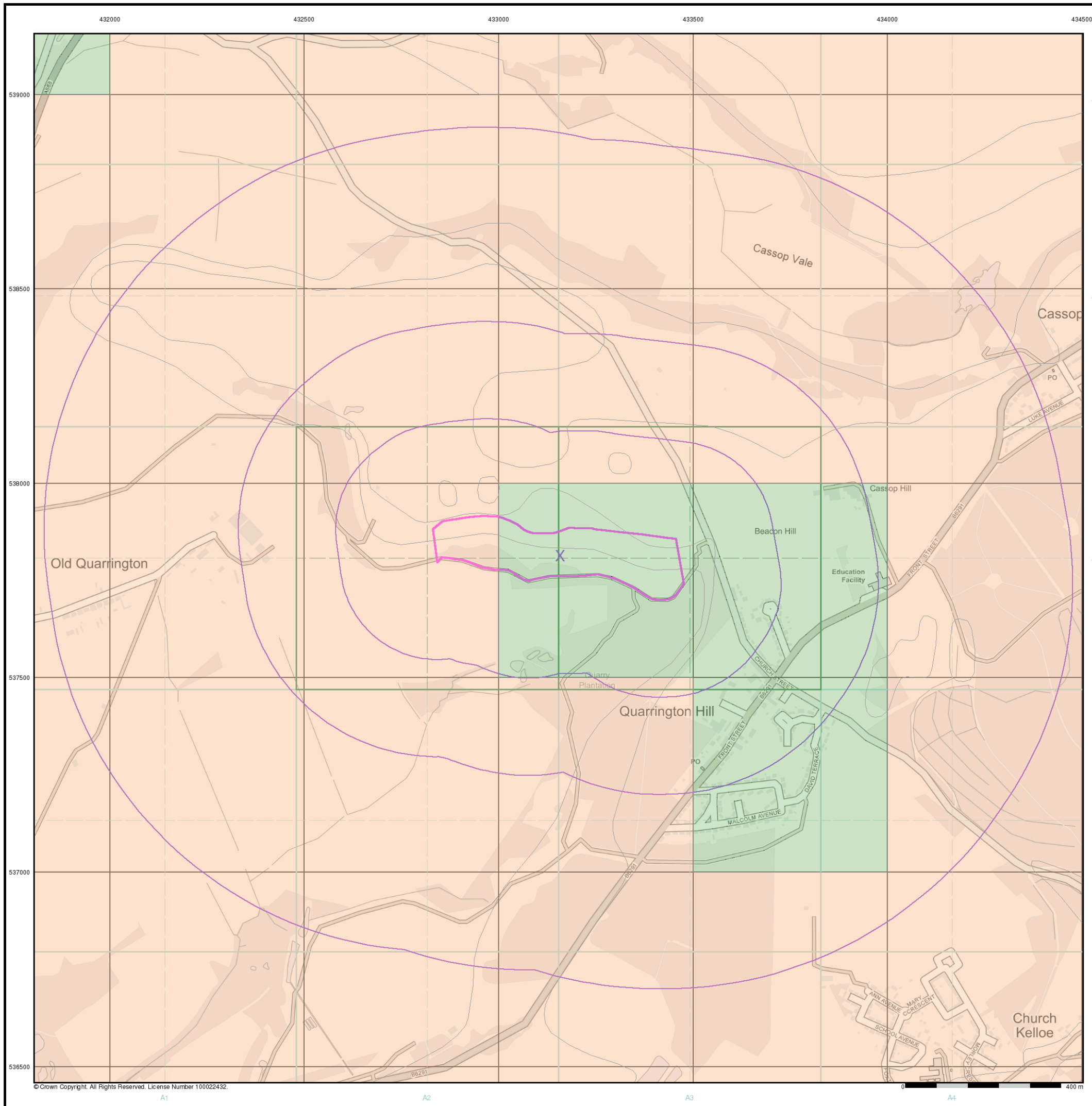


Order Details

Order Details: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000

Site Details

Site at 433140, 537820



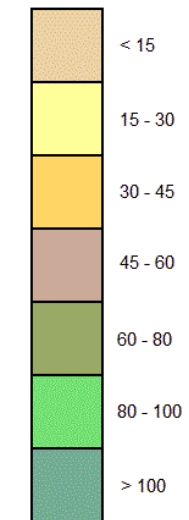
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General

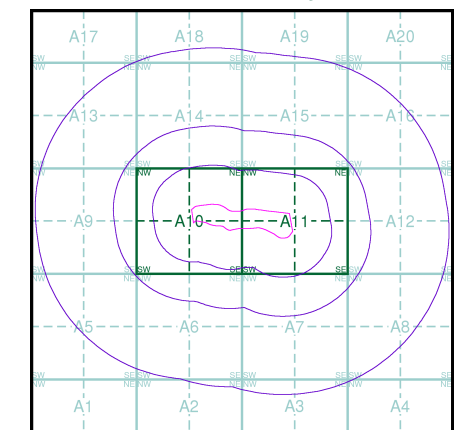
✱ Specified Site
 ○ Specified Buffer(s)
 ✕ Bearing Reference Point

Estimated Soil Chemistry Nickel

Nickel Concentrations mg/kg



Estimated Soil Chemistry Nickel - Slice A

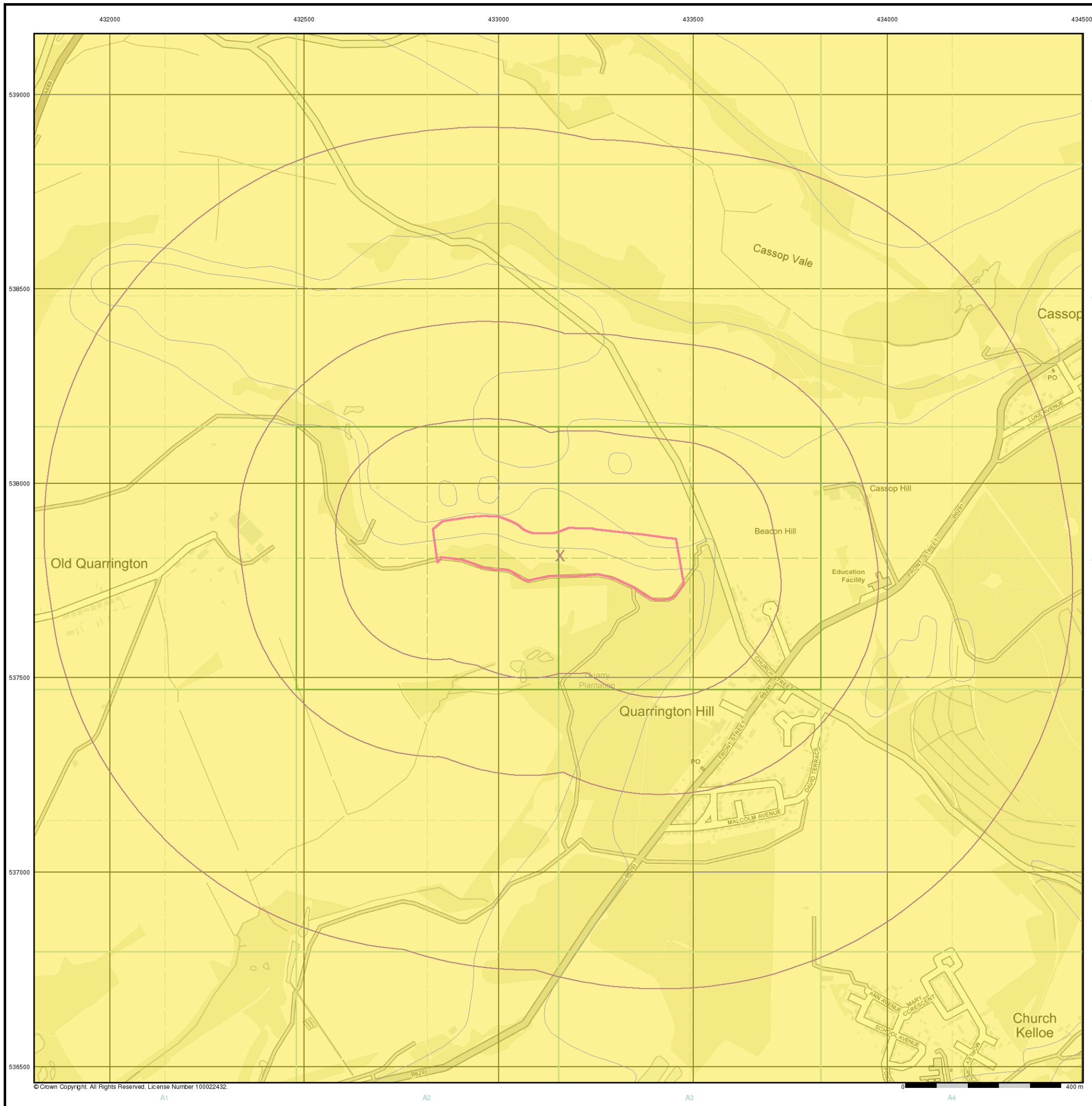


Order Details

Order Details: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 1000

Site Details

Site at 433140, 537820



Historical Mapping Legends

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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
Co. Boro. Bdy.
County Burgh Boundary (Scotland)
Co. Burgh Bdy.
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 **Sl.** 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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
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
EI 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

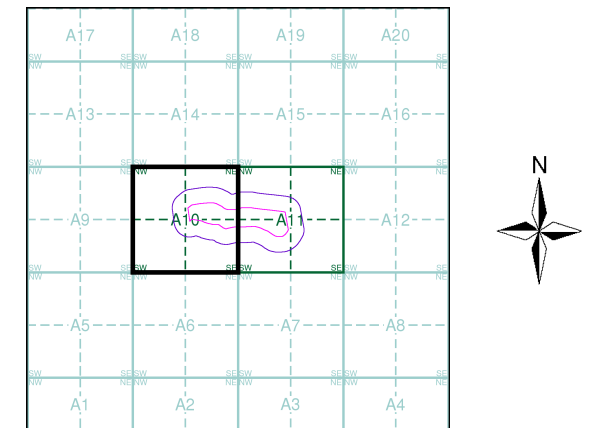
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
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
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI 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 Governor **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



Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|--------------------------------|---------|-------------|----|
| Durham | 1:2,500 | 1881 | 2 |
| Durham | 1:2,500 | 1897 | 3 |
| Durham | 1:2,500 | 1919 | 4 |
| Ordnance Survey Plan | 1:2,500 | 1960 - 1961 | 5 |
| Additional SIMs | 1:2,500 | 1960 - 1972 | 6 |
| Ordnance Survey Plan | 1:2,500 | 1978 | 7 |
| Additional SIMs | 1:2,500 | 1985 - 1990 | 8 |
| Additional SIMs | 1:2,500 | 1990 | 9 |
| Large-Scale National Grid Data | 1:2,500 | 1993 | 10 |
| Large-Scale National Grid Data | 1:2,500 | 1996 | 11 |
| Historical Aerial Photography | 1:2,500 | 1999 | 12 |

Historical Map - Segment A10



Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

Site Details

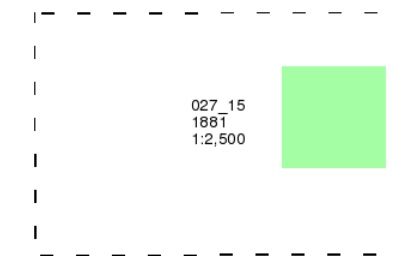
Site at 433140, 537820



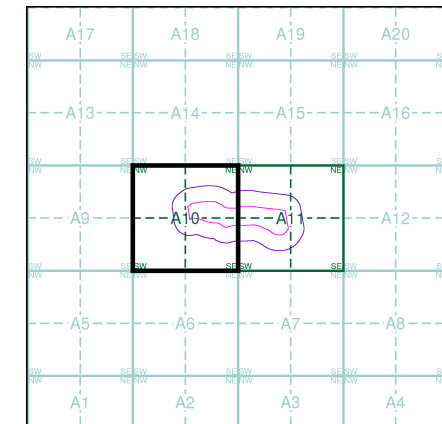
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

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 A10

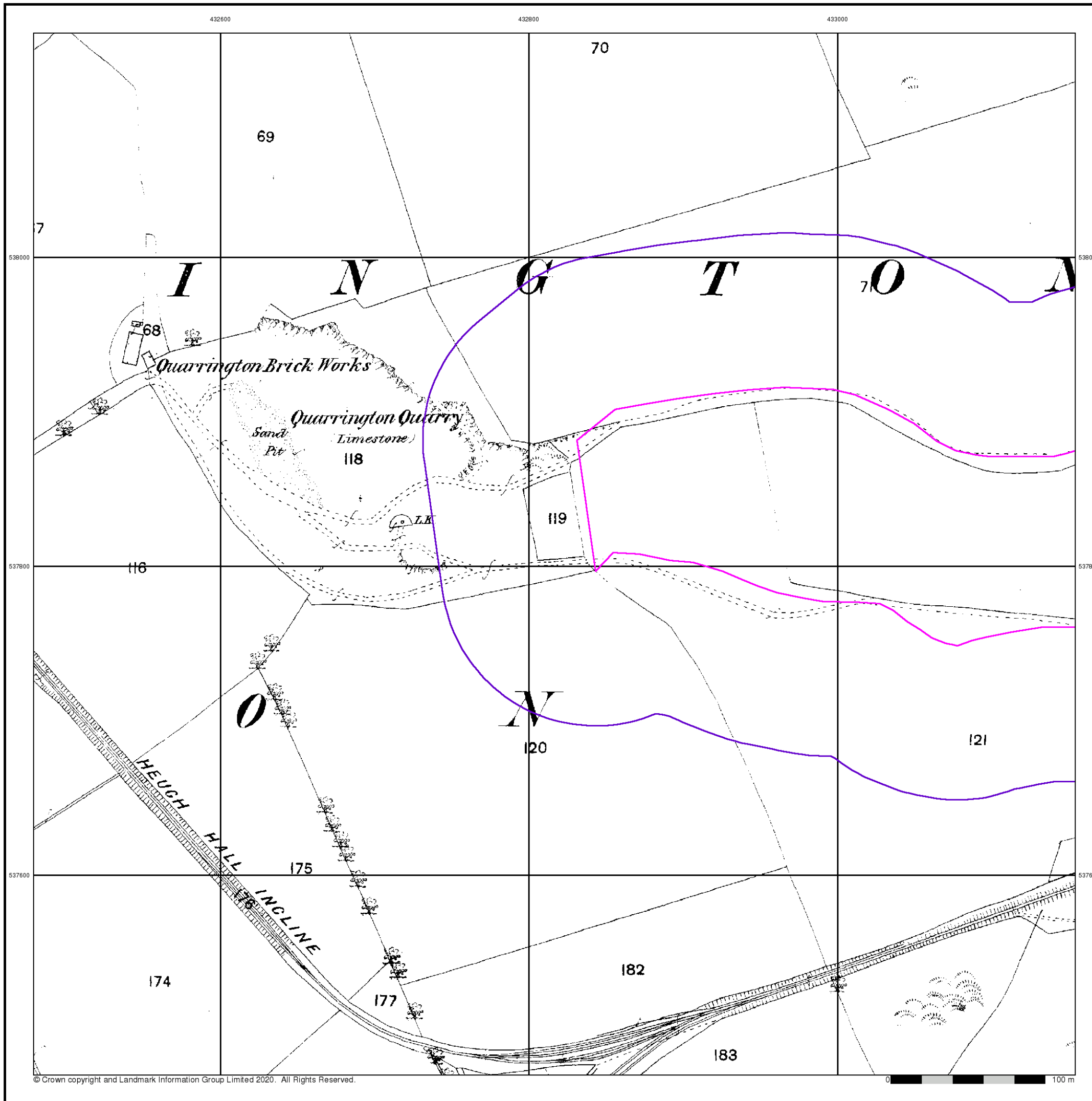


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

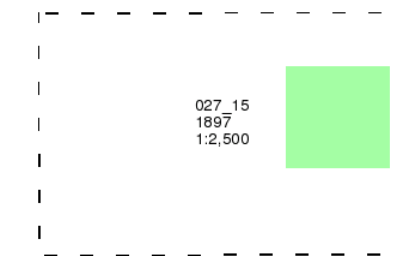
Site Details

Site at 433140, 537820

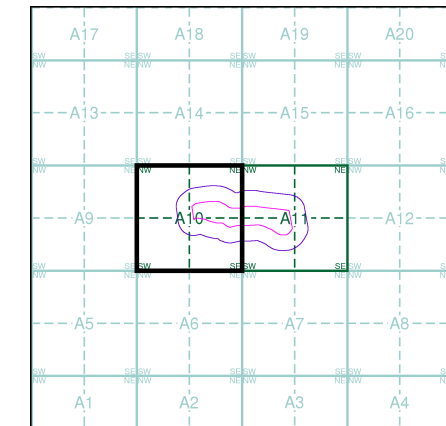


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. 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 A10

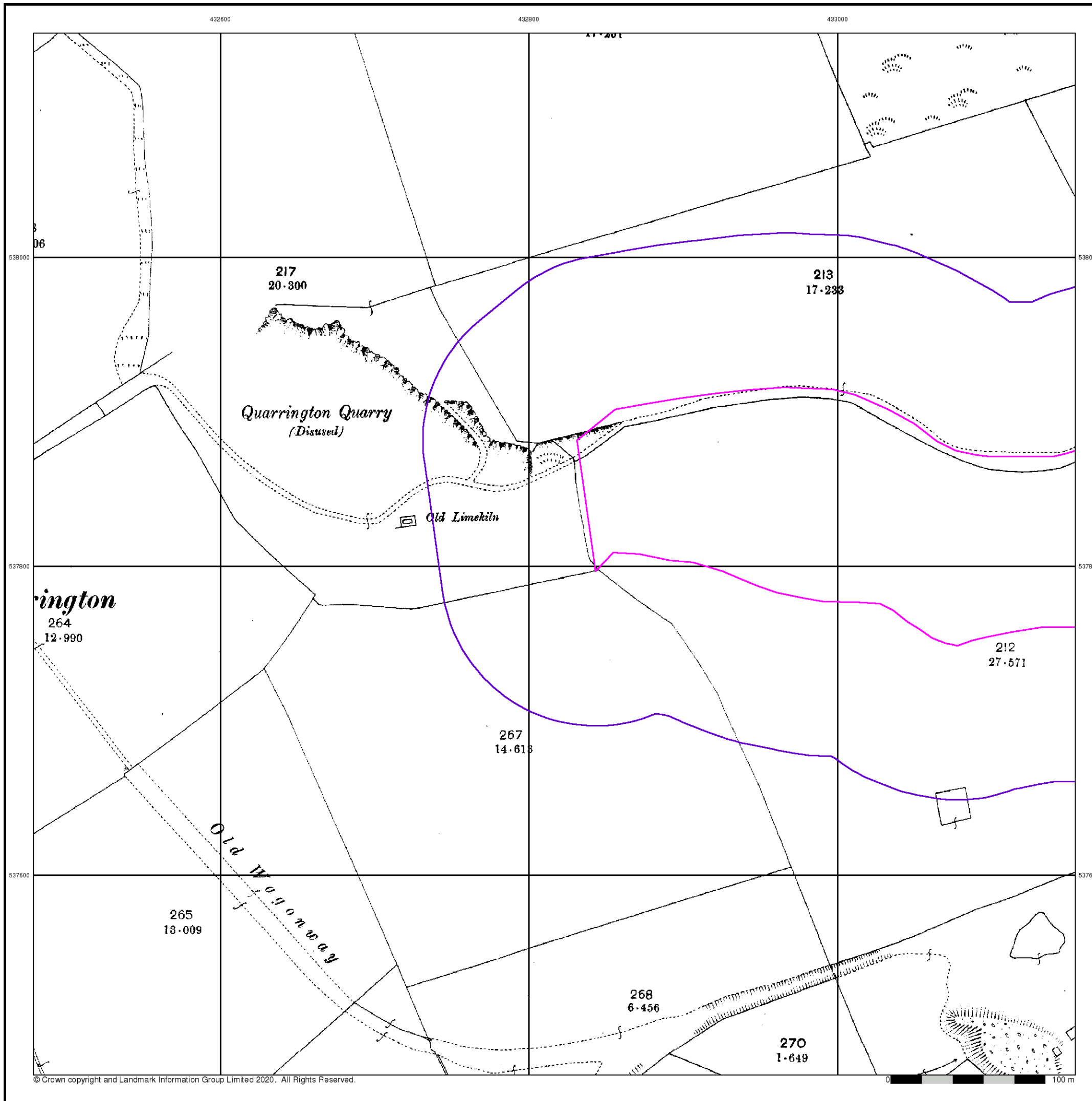


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

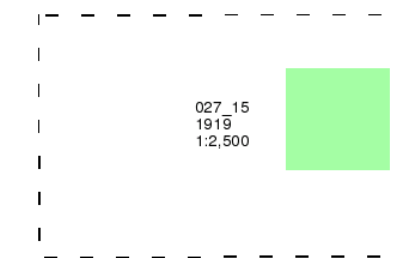
Site Details

Site at 433140, 537820

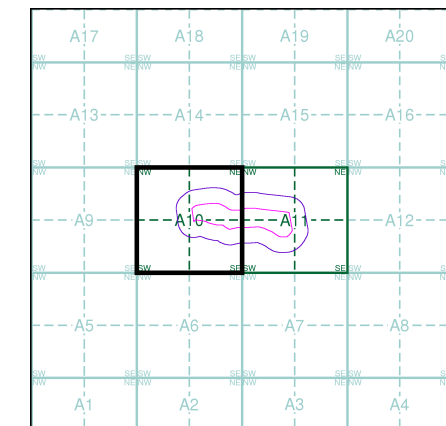


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. 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 A10

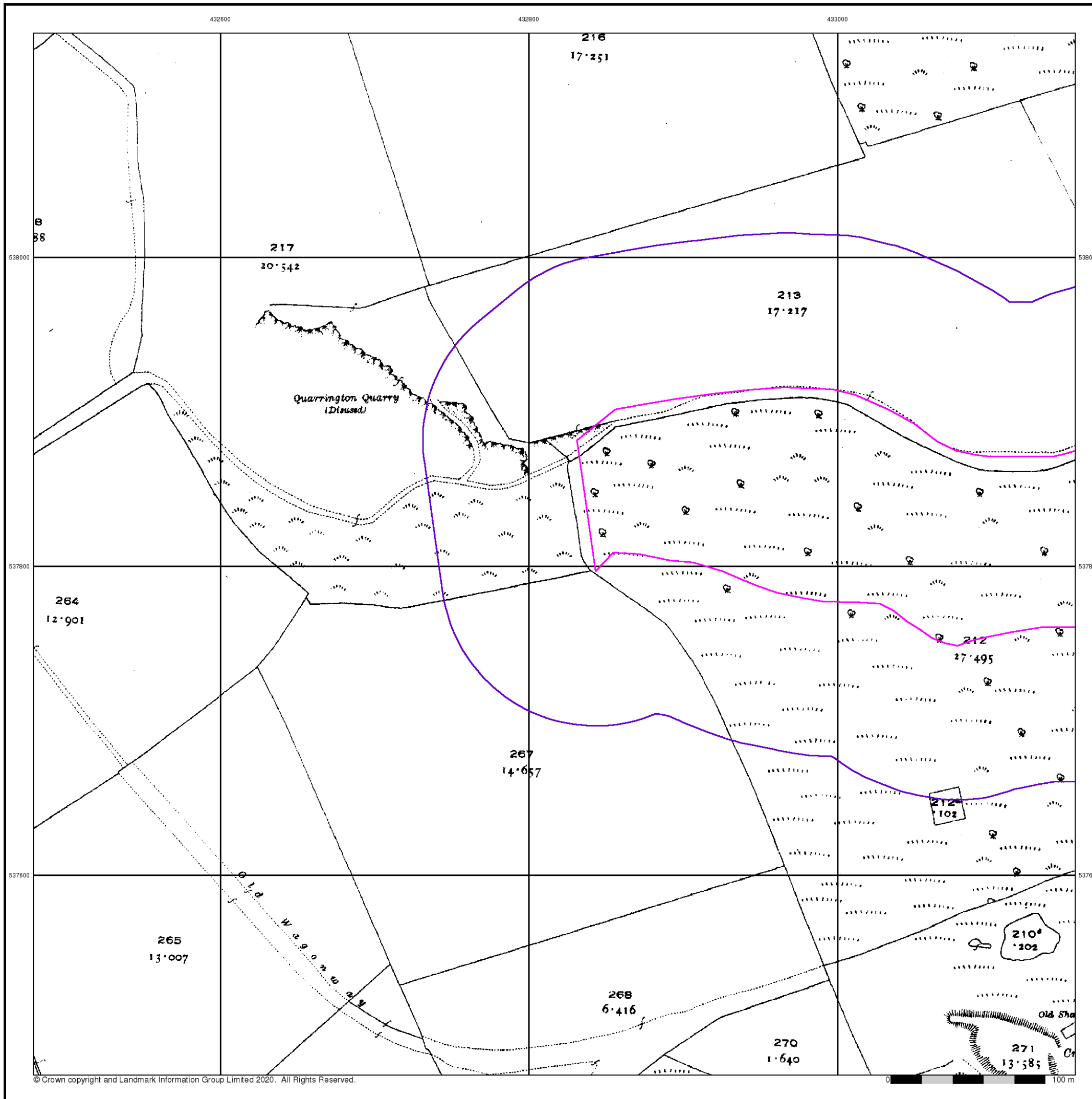


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

Site Details

Site at 433140, 537820



Ordnance Survey Plan

Published 1960 - 1961

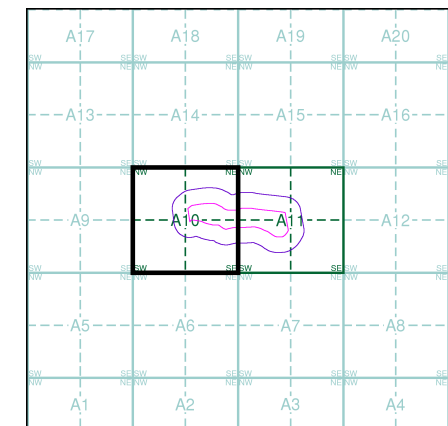
Source map scale - 1:2,500

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)

| | |
|---------------------------|---------------------------|
| NZ3238 1960 1:2,500 | NZ3338 1960 1:2,500 |
| NZ3237 1961 1:2,500 | NZ3337 1961 1:2,500 |

Historical Map - Segment A10

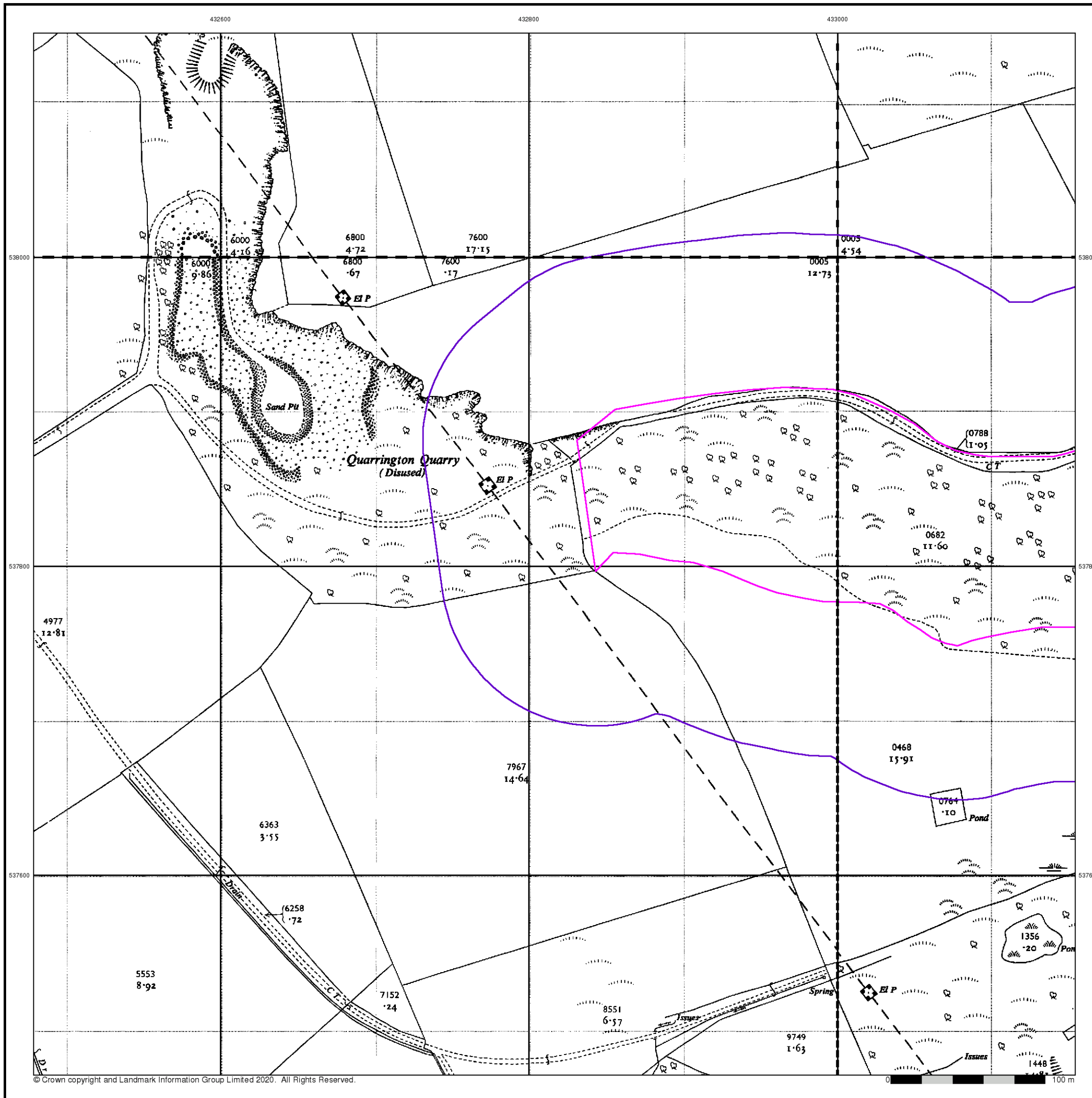


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

Site Details

Site at 433140, 537820



Additional SIMs

Published 1960 - 1972

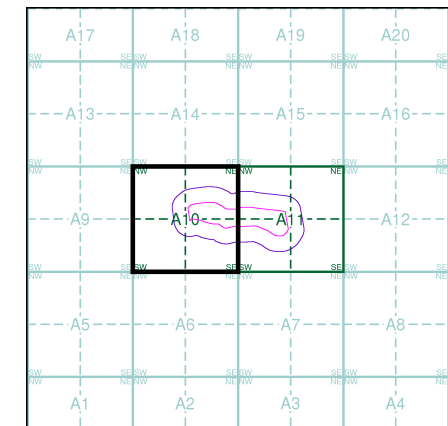
Source map scale - 1:2,500

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)

| | |
|--------------------------|--------------------------|
| NZ3238 1960 12,500 | NZ3338 1960 12,500 |
| NZ3237 1961 12,500 | NZ3337 1972 12,500 |

Historical Map - Segment A10

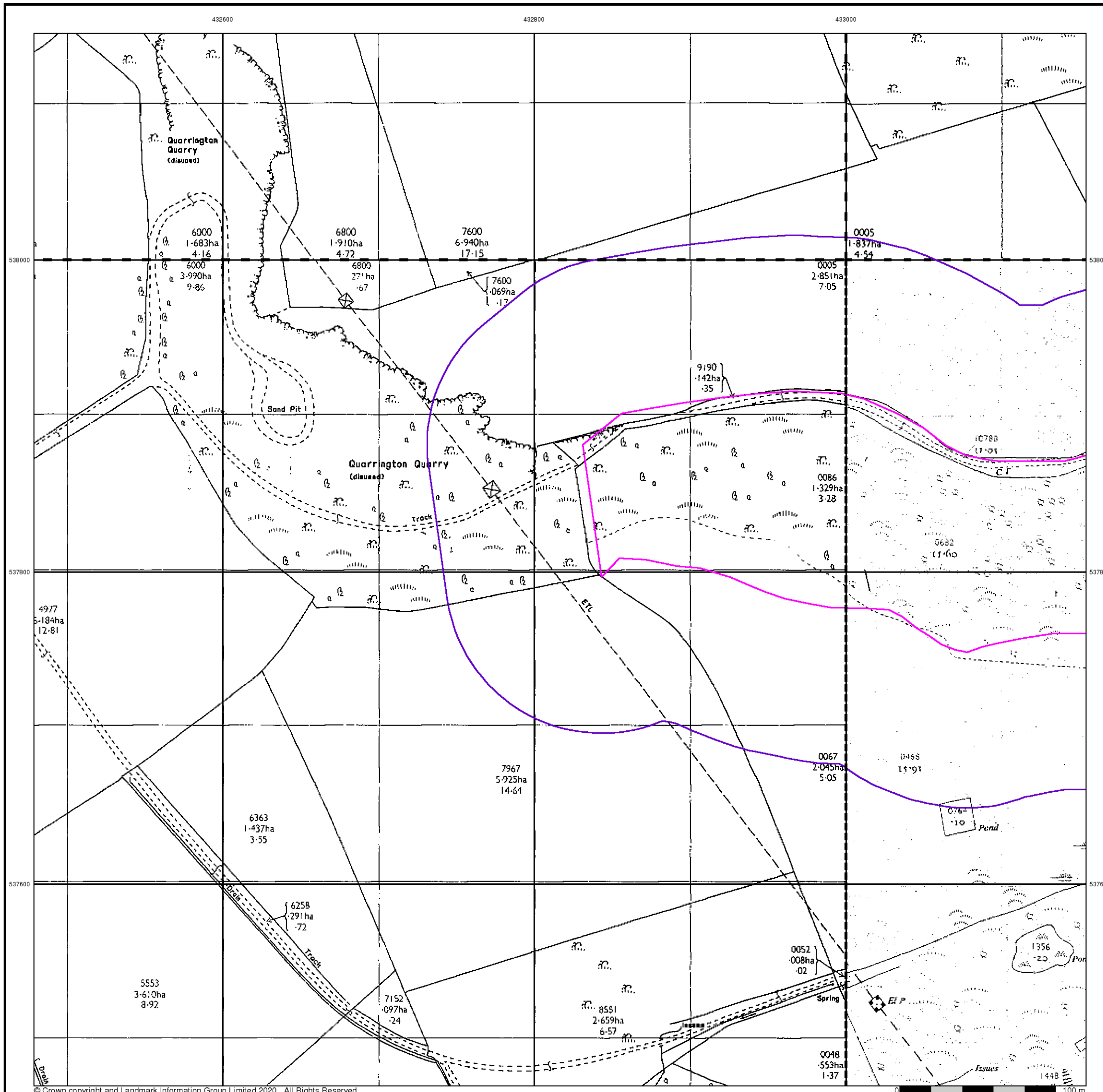


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

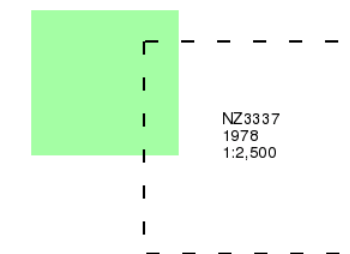
Site Details

Site at 433140, 537820

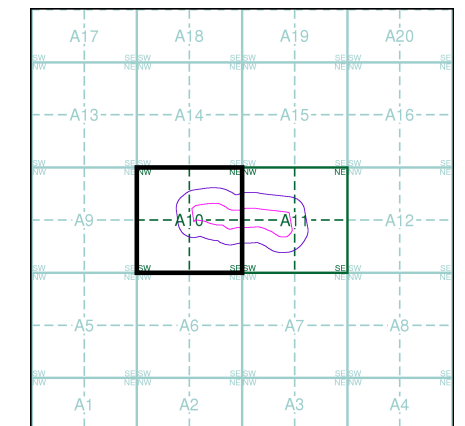


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Map Name(s) and Date(s)



Historical Map - Segment A10

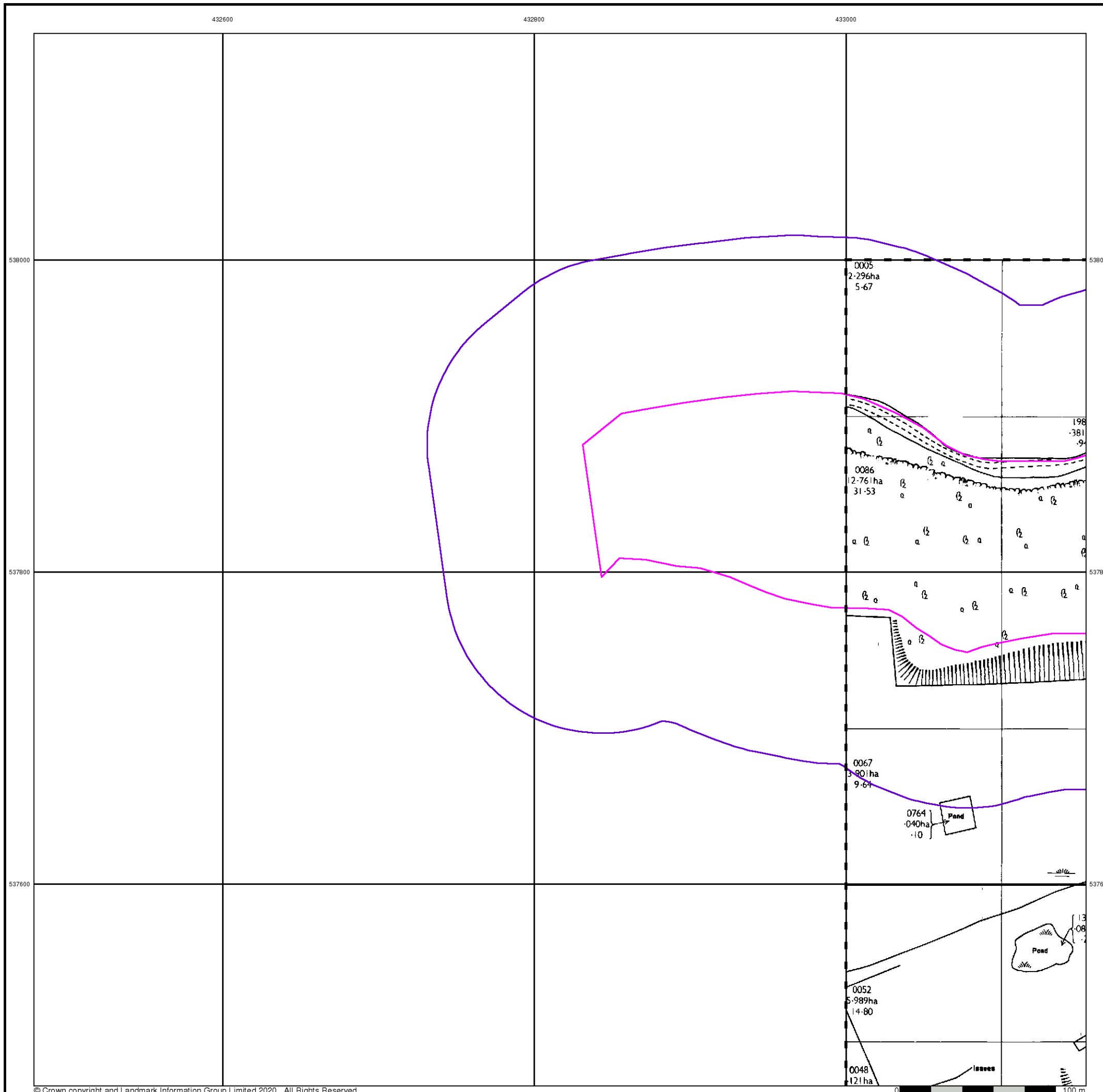


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

Site Details

Site at 433140, 537820



Additional SIMs

Published 1985 - 1990

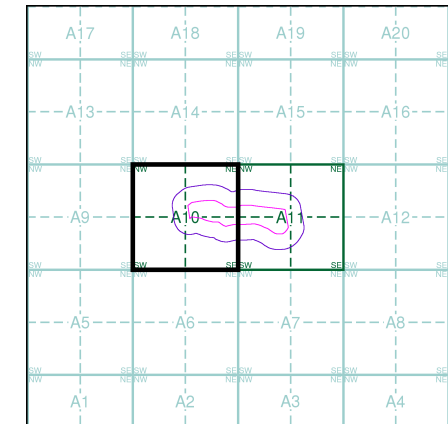
Source map scale - 1:2,500

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)

| | |
|---------------------------|---------------------------|
| NZ3238 1990 1:2,500 | NZ3338 1990 1:2,500 |
| NZ3237 1985 1:2,500 | NZ3337 1990 1:2,500 |

Historical Map - Segment A10

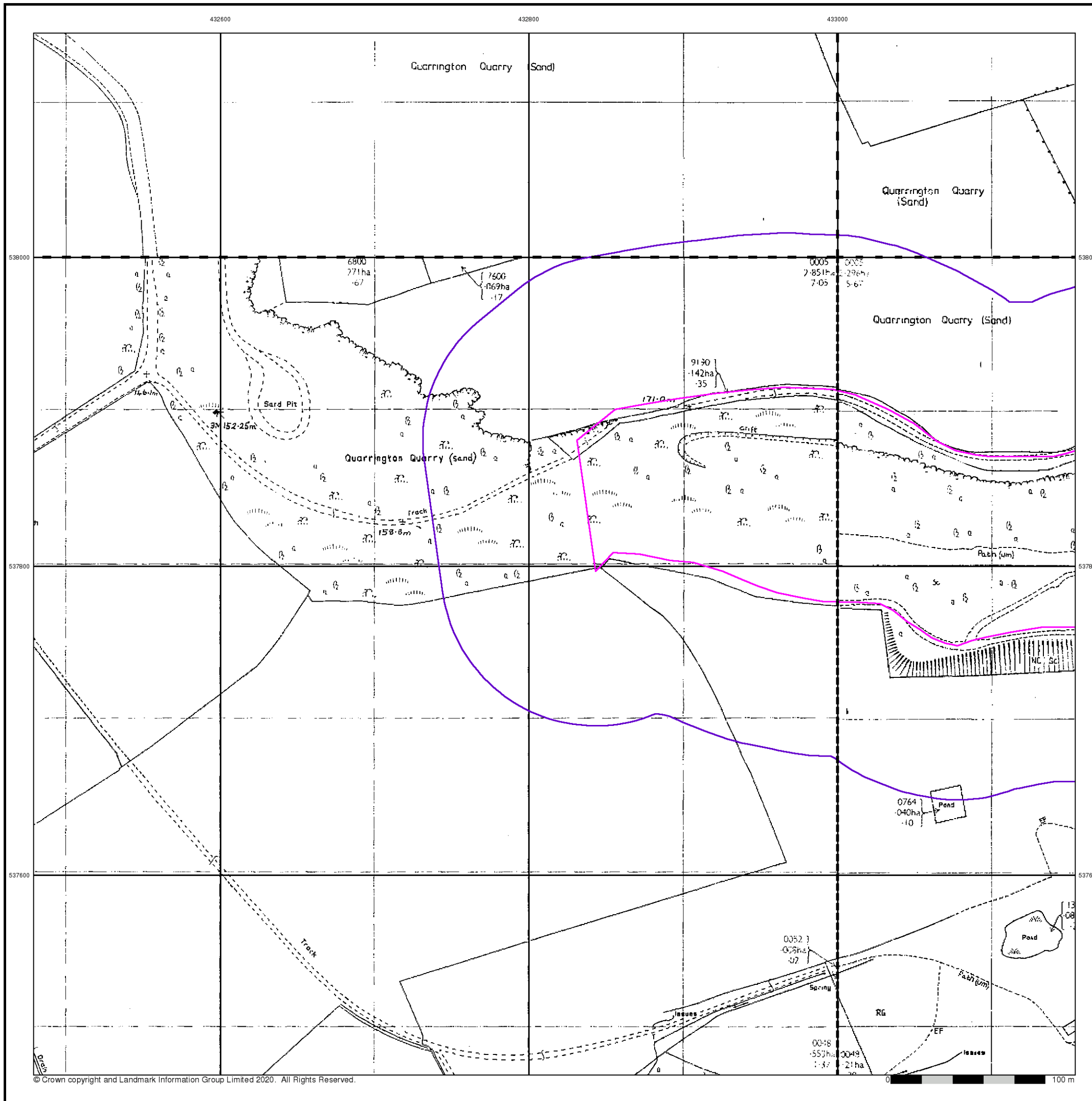


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

Site Details

Site at 433140, 537820



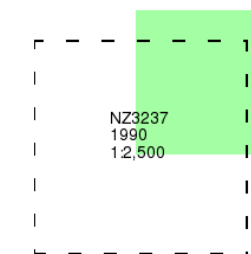
Additional SIMs

Published 1990

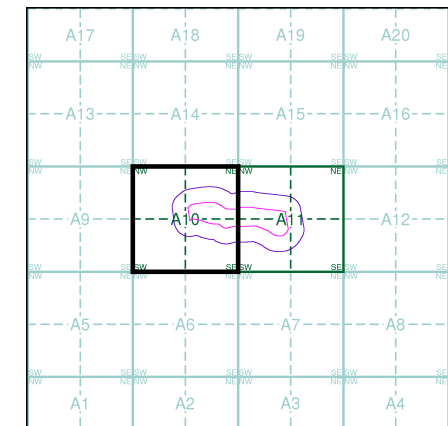
Source map scale - 1:2,500

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 A10

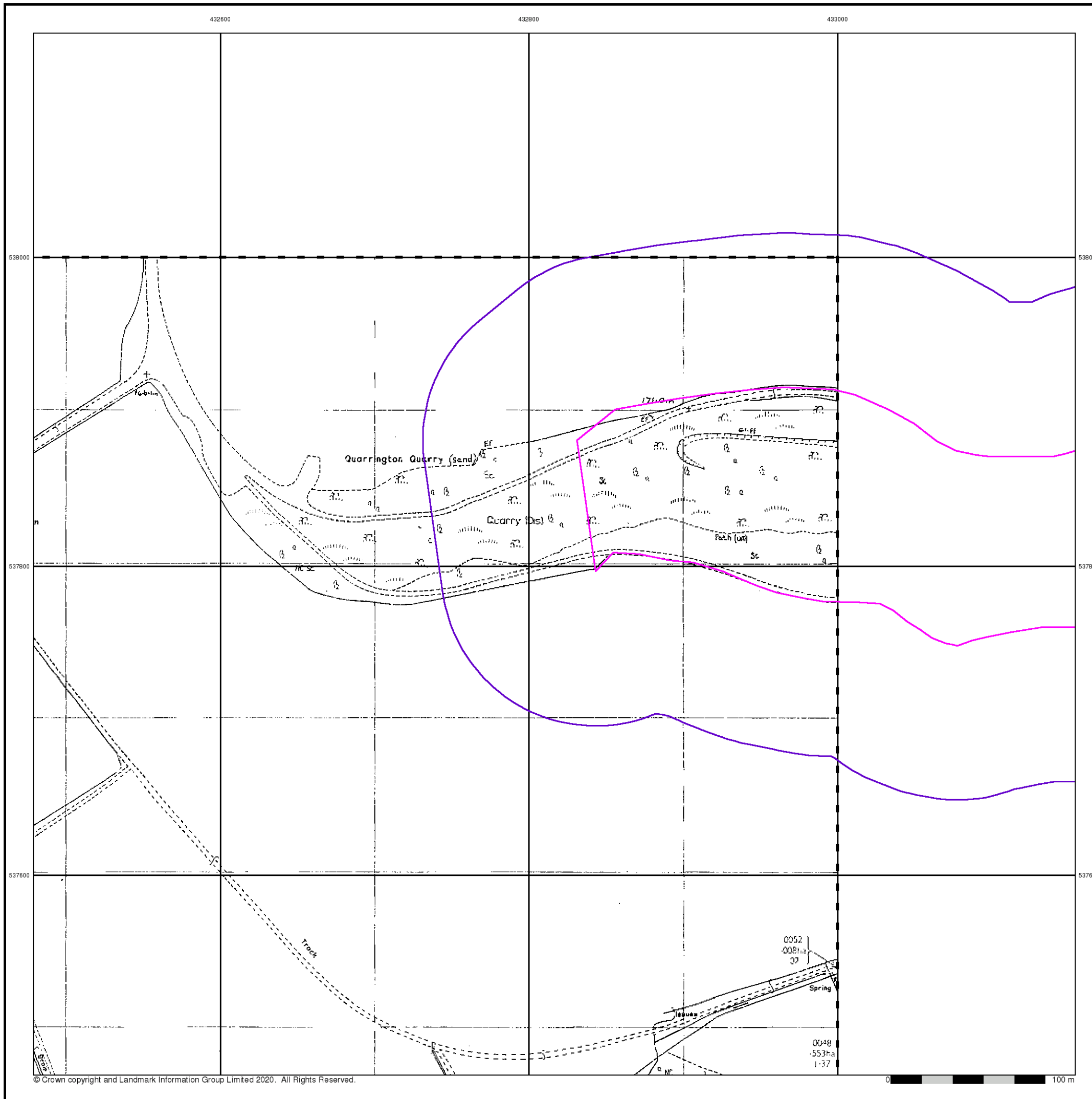


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

Site Details

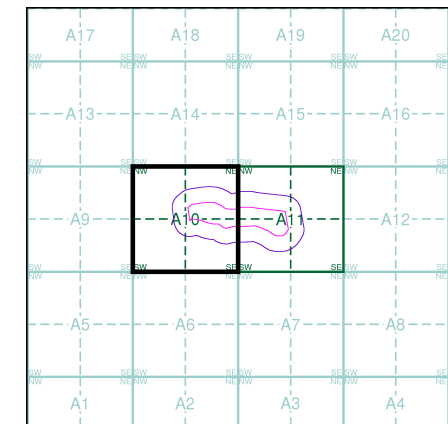
Site at 433140, 537820



Map Name(s) and Date(s)

| | |
|---------------------------|---------------------------|
| NZ3238 1993 1:2,500 | NZ3338 1993 1:2,500 |
| NZ3237 1993 1:2,500 | NZ3337 1993 1:2,500 |

Historical Map - Segment A10

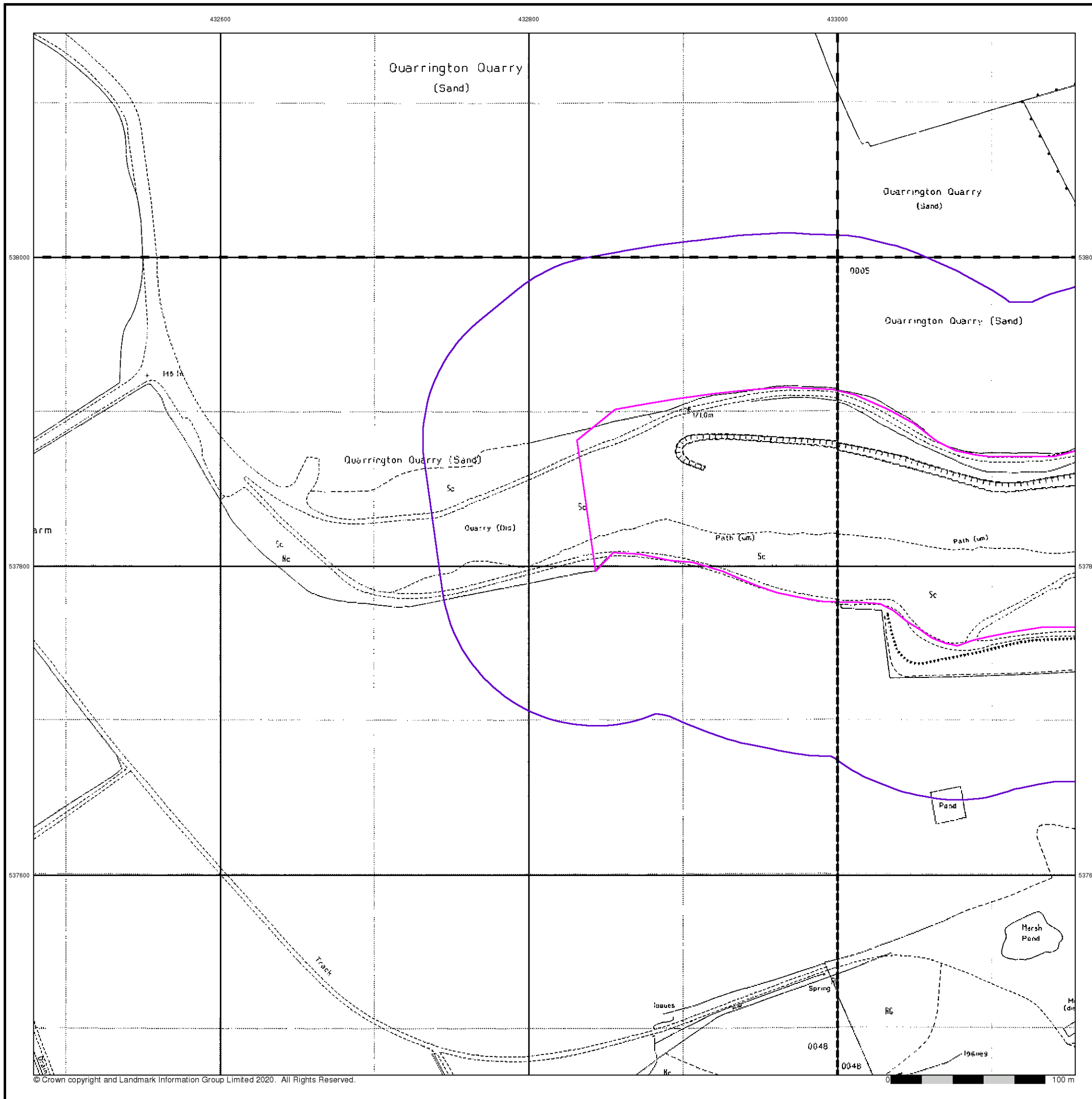


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

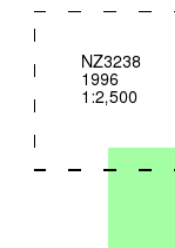
Site Details

Site at 433140, 537820

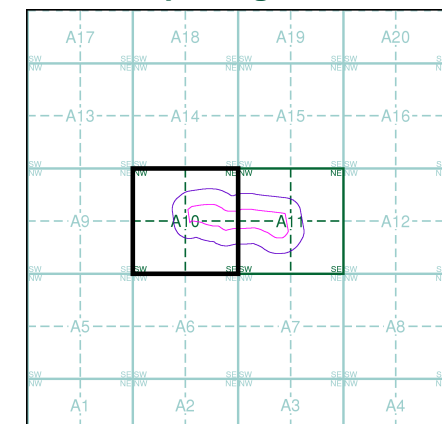


'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic 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 A10

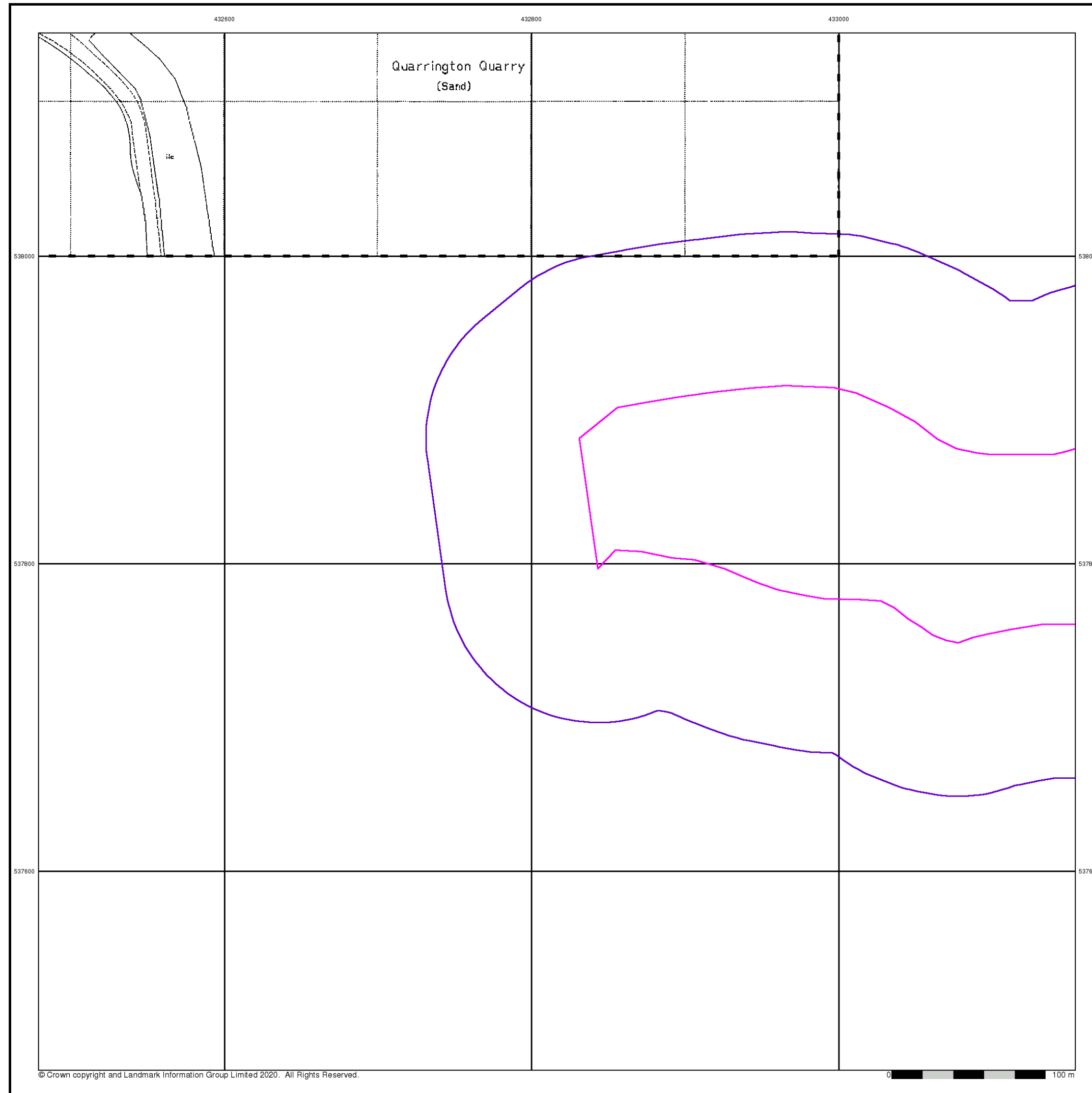


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

Site Details

Site at 433140, 537820



432600

432800

433000



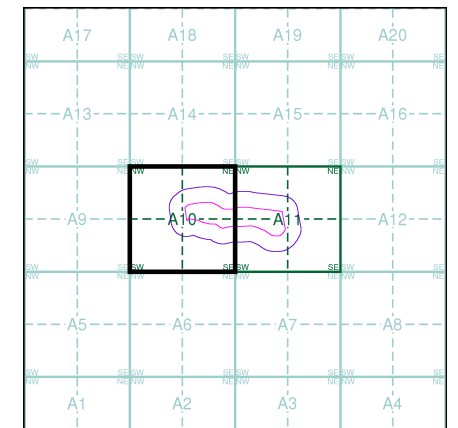
Historical Aerial Photography

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 A10



Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

Site Details

Site at 433140, 537820



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

Historical Mapping Legends

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

Quarry **Gravel Pit** **Sand Pit**
Clay Pit **Shingle** **Refuse Heap**
Sloping Masonry **Flat Rock**
Marsh **Reeds** **Osiers**
Rough Pasture **Furze** **Wood**
Mixed Wood **Brushwood** **Orchard**
Fir **Ford** **Stepping Stones**
Ferry **Waterfall** **Lock**
Trig. Station **Altitude at Trig. Station**
B.M. 325.9 **Bench Mark** **Surface Level**
Arrow denotes flow of water **Antiquities (site of)**
Cutting **Embankment**
Railway crossing Road **Level Crossing** **Road crossing Railway**
Railway crossing River or Canal **Road over single stream** **Road over River or Canal**
County Boundary (Geographical)
County & Civil Parish Boundary
Administrative County & Civil Parish Boundary
County Borough Boundary (England)
County Burgh Boundary (Scotland)
Co. Boro. Bdy.
Co. Burgh Bdy.
BP BS 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 **Sl** 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

Inactive Quarry, Chalk Pit or Clay Pit **Active Quarry, Chalk Pit or Clay Pit**
Rock **Boulders**
Cliff **Slopes** **Top**
Roofed Building **Glazed Roof Building**
Sloping Masonry **Archway**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Bench Mark** **Antiquity (site of)**
Cave Entrance **Triangulation Station** **Electricity Pylon**
Electricity Transmission Line
County Boundary (Geographical)
County & Civil Parish Boundary
Civil Parish Boundary
Admin. County or County Bor. Boundary
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
EI 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

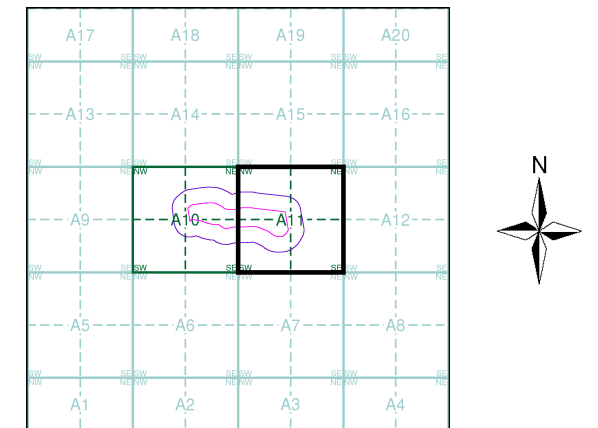
Cliff **Slopes** **Top**
Rock **Rock (scattered)**
Boulders **Boulders (scattered)**
Positioned Boulder **Scree**
Non-Coniferous Tree (surveyed) **Coniferous Tree (surveyed)**
Non-Coniferous Trees (not surveyed) **Coniferous Trees (not surveyed)**
Orchard Tree **Scrub** **Bracken**
Coppice, Osier **Reeds** **Marsh, Saltings**
Rough Grassland **Heath** **Culvert**
Direction of water flow **Triangulation Station** **Antiquity (site of)**
Electricity Transmission Line **Electricity Pylon**
B.M. 231.60m Bench Mark **Buildings with Building Seed**
Roofed Building **Glazed Roof Building**
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
EI Gen Sta Electricity Generating Station **Sewage Ppg Sta** Sewage Pumping Station
EI P Electricity Pole, Pillar **SB, S Br** Signal Box or Bridge
EI 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 Governor **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



Historical Mapping & Photography included:

| Mapping Type | Scale | Date | Pg |
|--------------------------------|---------|-------------|----|
| Durham | 1:2,500 | 1857 - 1881 | 2 |
| Durham | 1:2,500 | 1897 | 3 |
| Durham | 1:2,500 | 1919 - 1920 | 4 |
| Durham | 1:2,500 | 1939 | 5 |
| Ordnance Survey Plan | 1:2,500 | 1960 - 1961 | 6 |
| Additional SIMs | 1:2,500 | 1960 - 1972 | 7 |
| Ordnance Survey Plan | 1:2,500 | 1978 | 8 |
| Additional SIMs | 1:2,500 | 1990 | 9 |
| Large-Scale National Grid Data | 1:2,500 | 1993 | 10 |
| Historical Aerial Photography | 1:2,500 | 1999 | 11 |

Historical Map - Segment A11



Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

Site Details

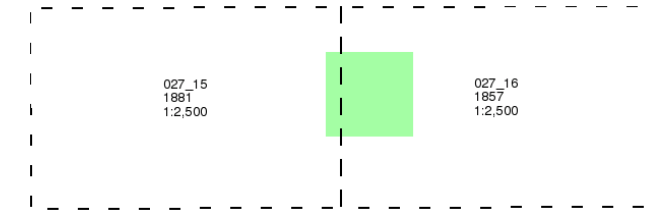
Site at 433140, 537820



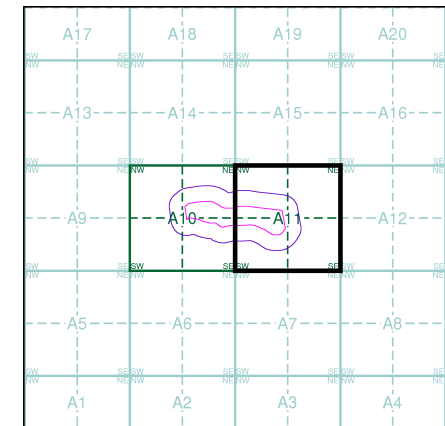
Tel: 0844 844 9952
 Fax: 0844 844 9951
 Web: www.envirocheck.co.uk

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 A11

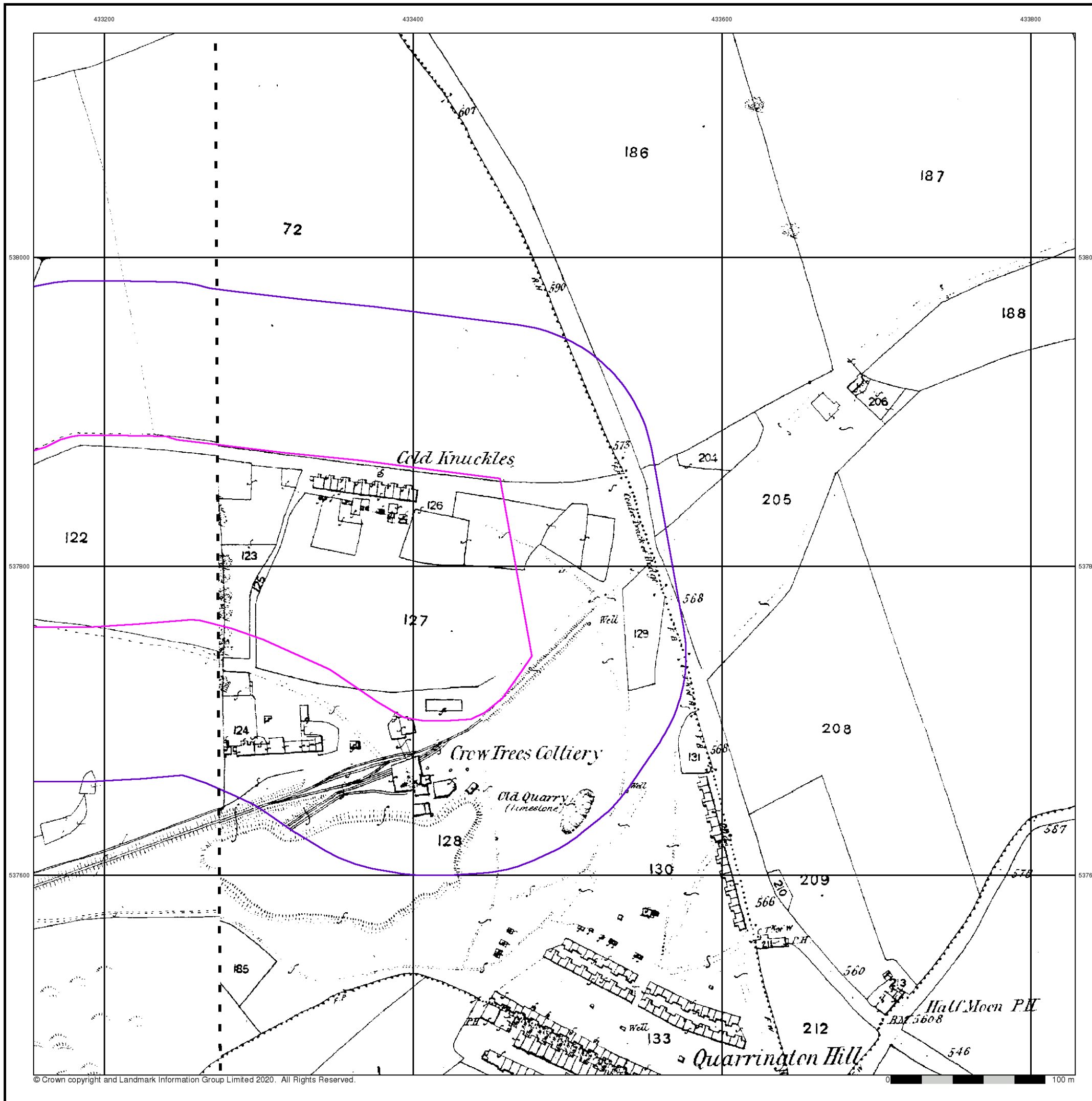


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

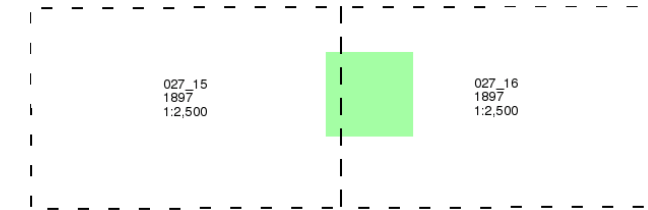
Site Details

Site at 433140, 537820

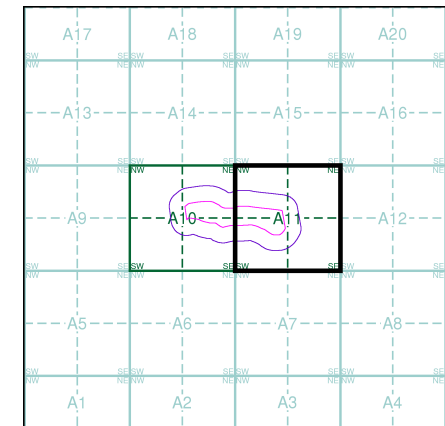


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Map Name(s) and Date(s)



Historical Map - Segment A11

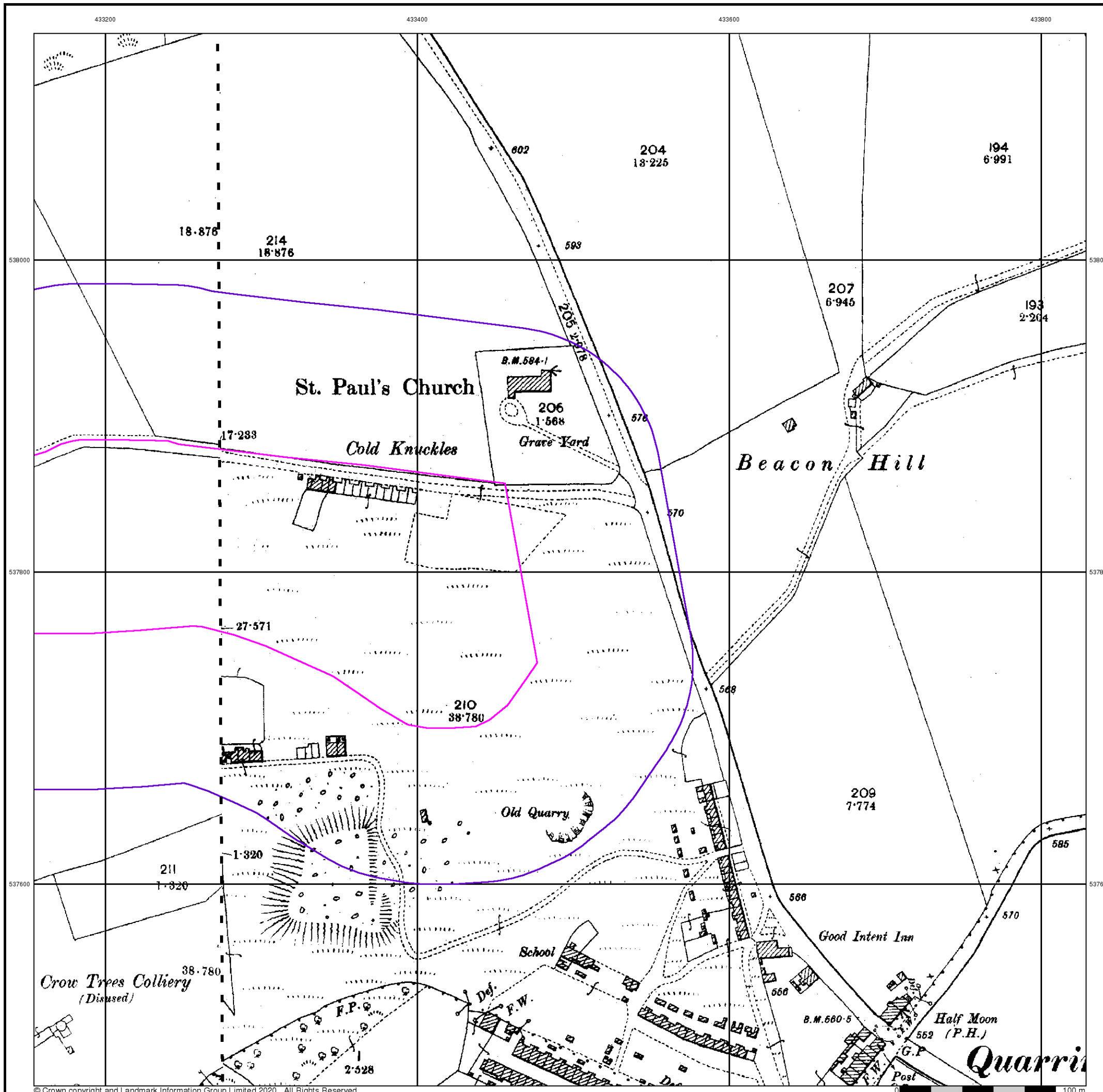


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

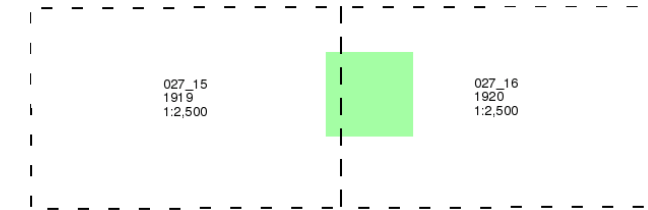
Site Details

Site at 433140, 537820

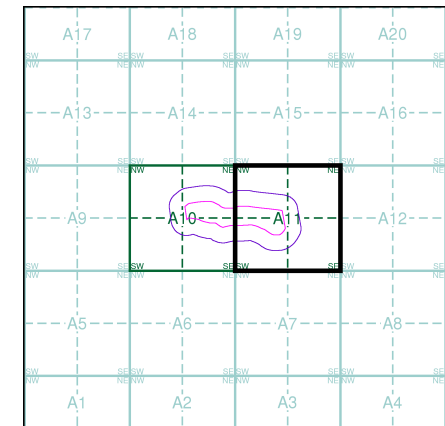


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Map Name(s) and Date(s)



Historical Map - Segment A11

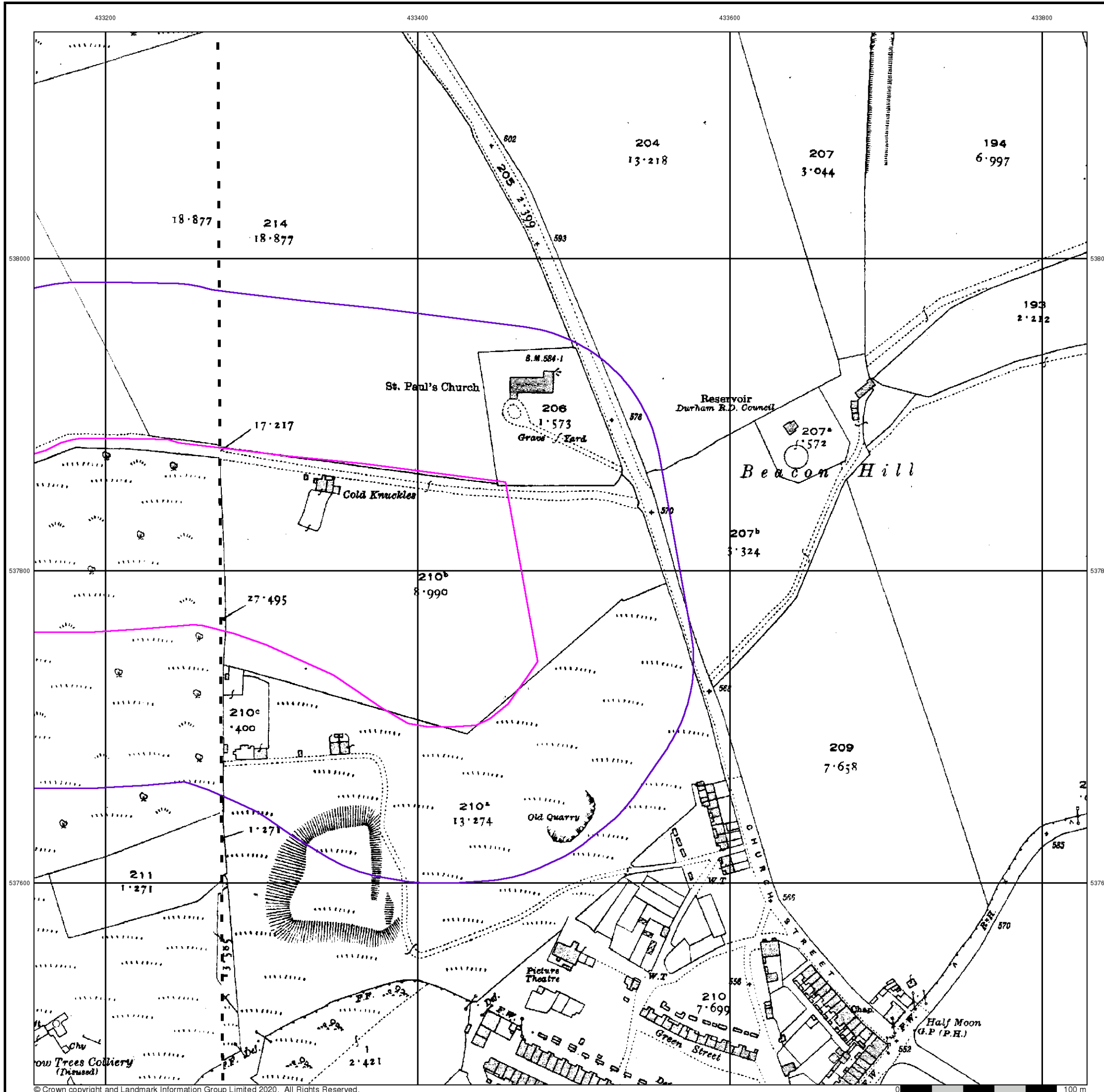


Order Details

Order Number: 253184316_1_1
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 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

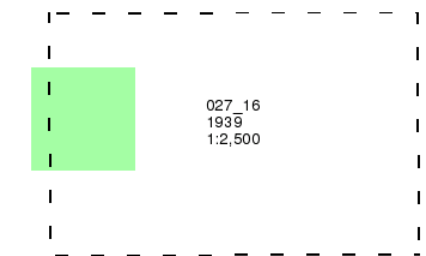
Site Details

Site at 433140, 537820

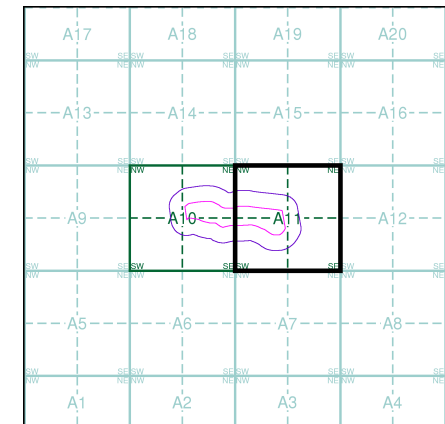


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Map Name(s) and Date(s)



Historical Map - Segment A11

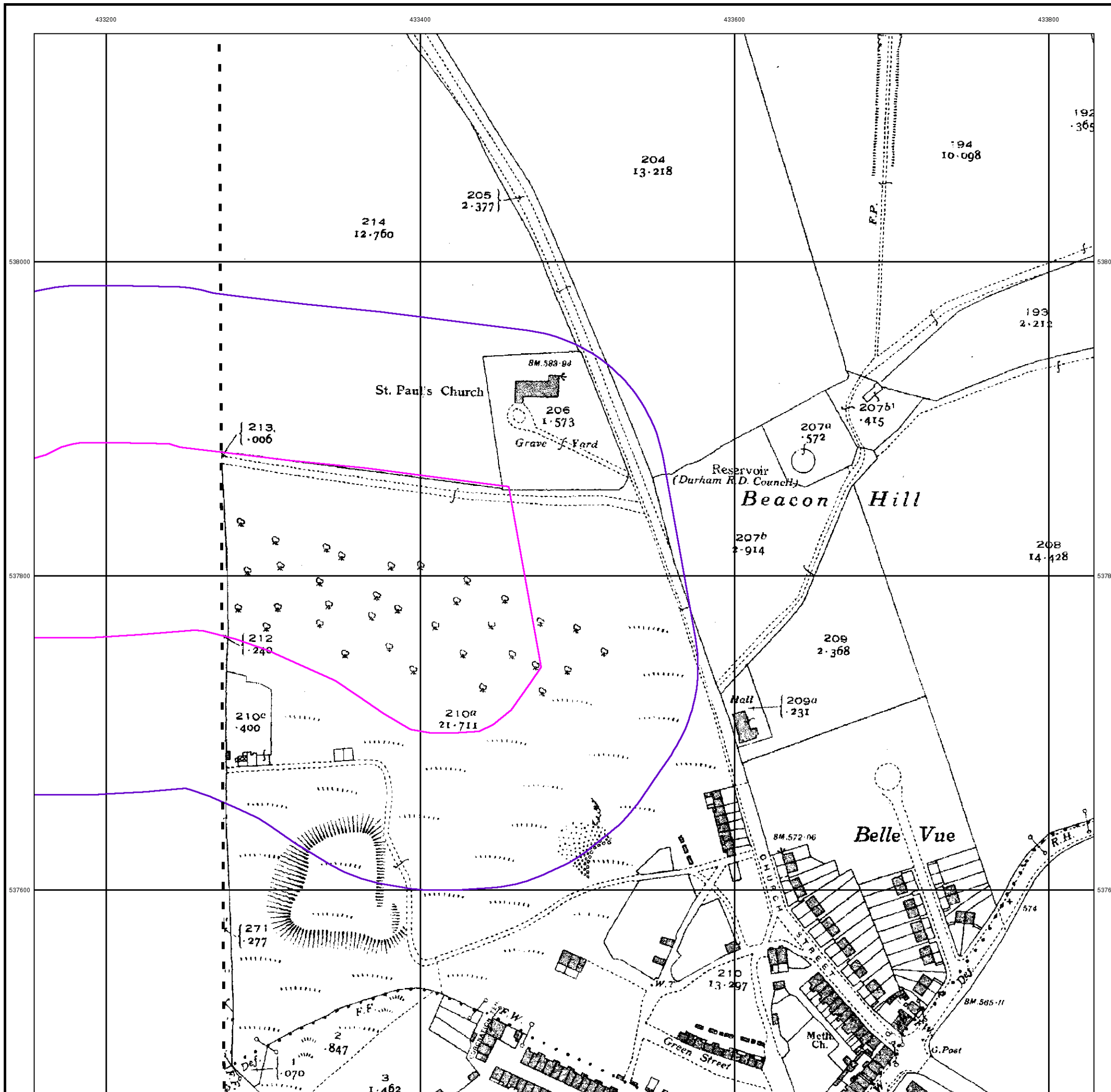


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 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

Site Details

Site at 433140, 537820



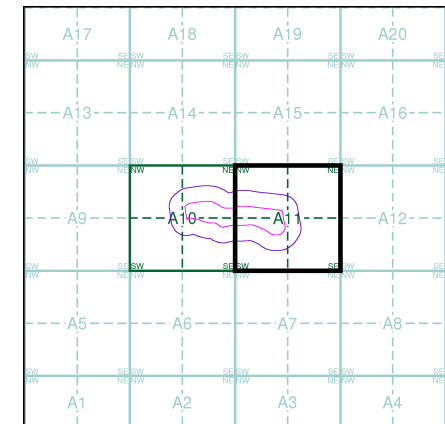
Ordnance Survey Plan
Published 1960 - 1961
Source map scale - 1:2,500

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)

| | | |
|--------|------|---------|
| NZ3338 | 1960 | 1:2,500 |
| NZ3337 | 1961 | 1:2,500 |

Historical Map - Segment A11

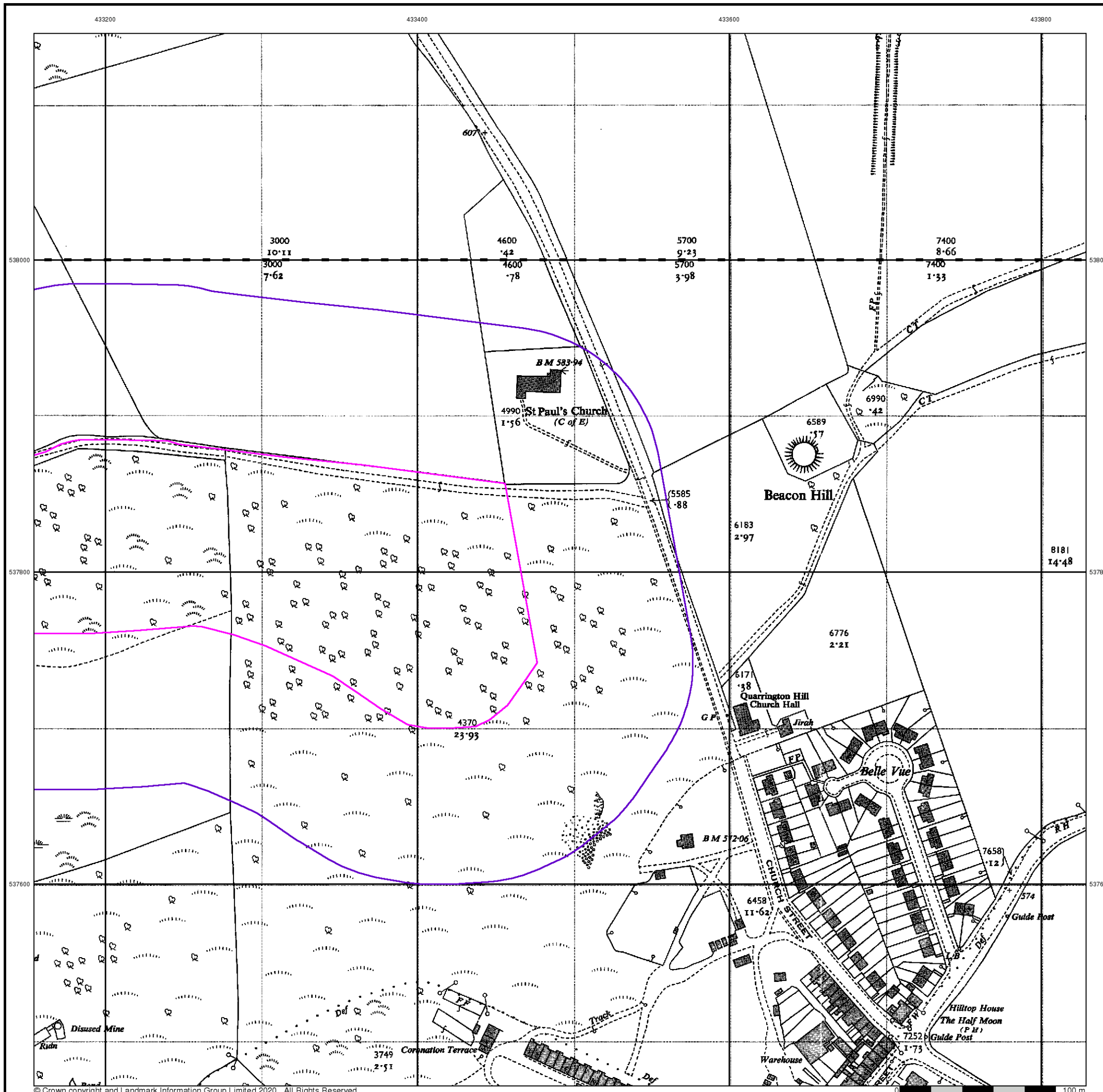


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 Site Area (Ha): 7.97
 Search Buffer (m): 100

Site Details

Site at 433140, 537820



Additional SIMs

Published 1960 - 1972

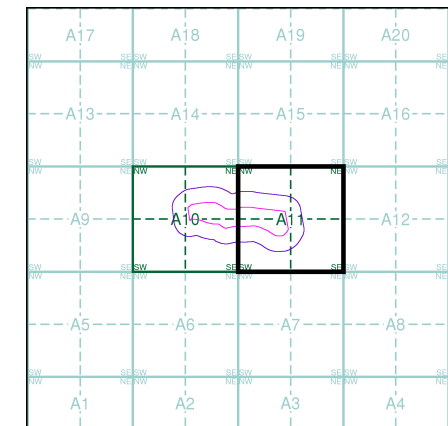
Source map scale - 1:2,500

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)

| | | |
|--------|------|---------|
| NZ3338 | 1960 | 1:2,500 |
| NZ3337 | 1972 | 1:2,500 |

Historical Map - Segment A11

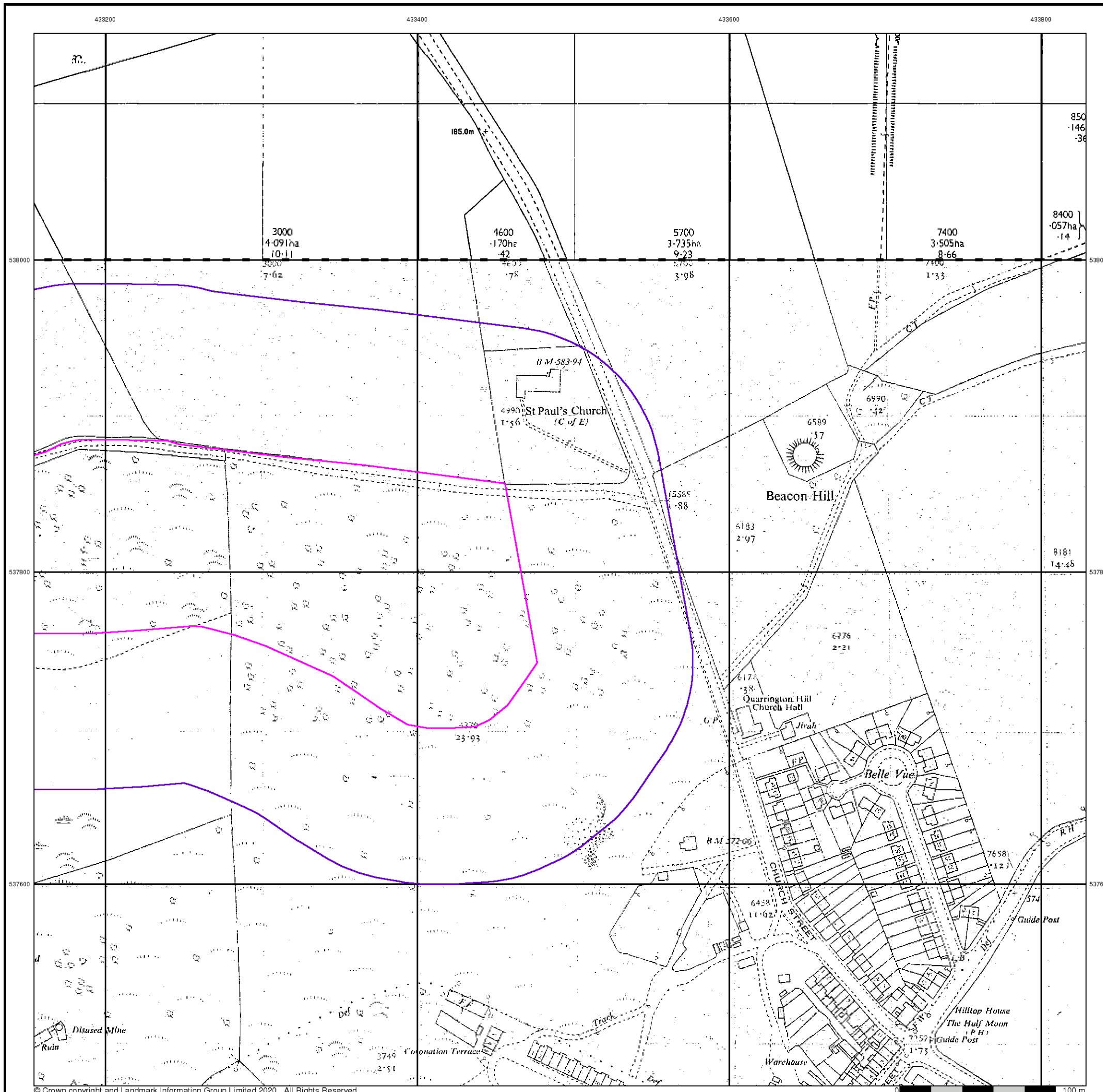


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

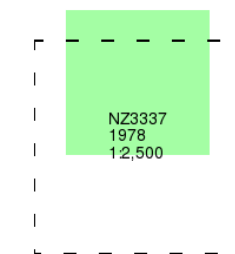
Site Details

Site at 433140, 537820

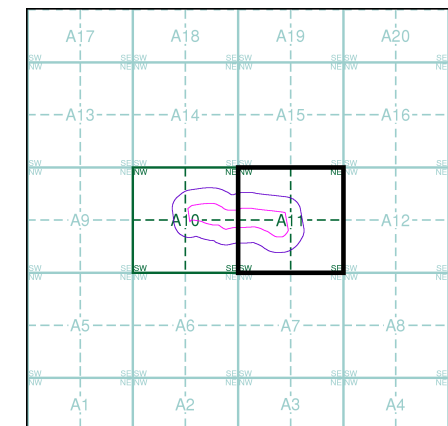


The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1896 it covered the whole of what were considered to be the cultivated parts of Great Britain. 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 A11

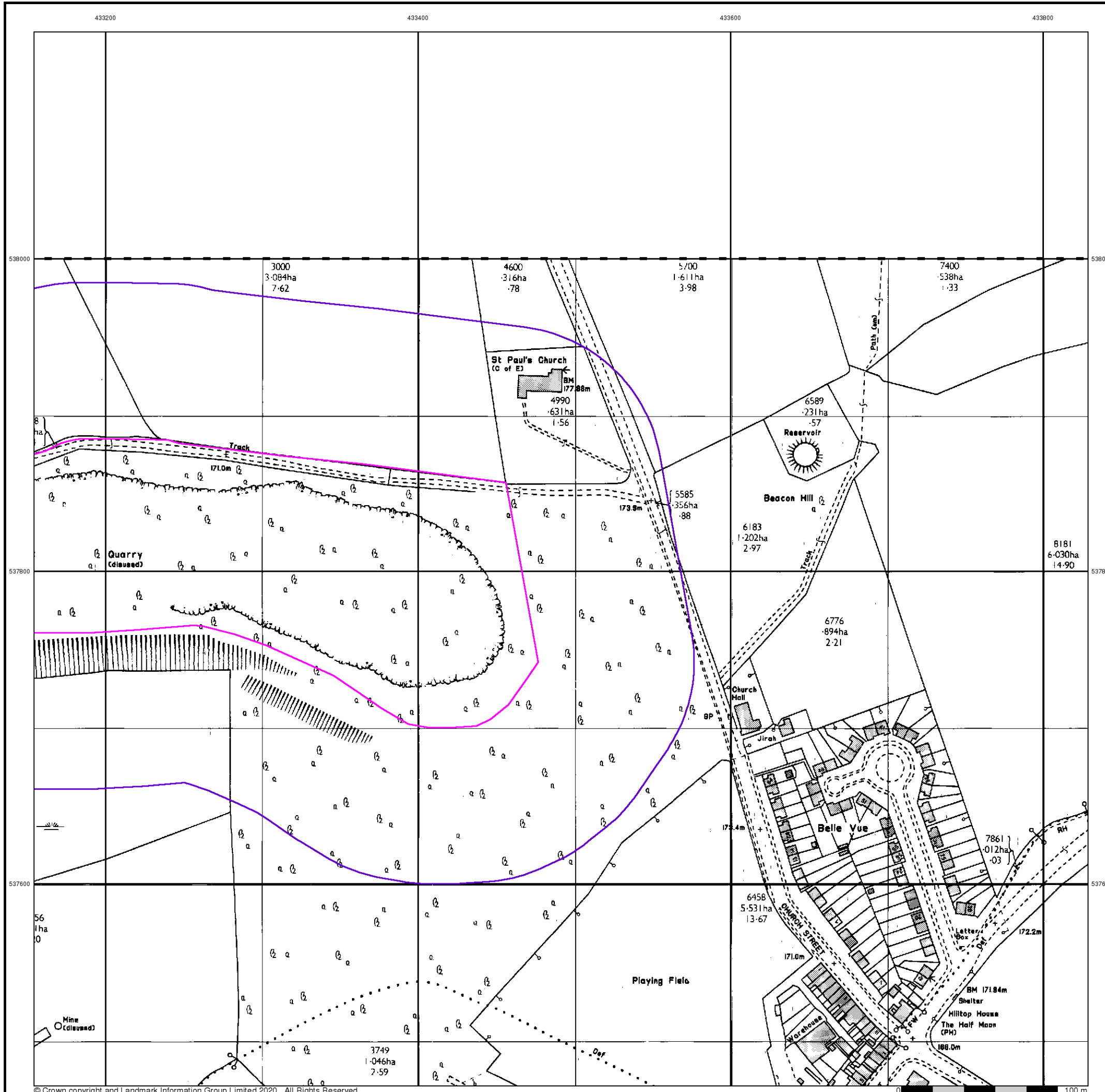


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

Site Details

Site at 433140, 537820



Additional SIMs

Published 1990

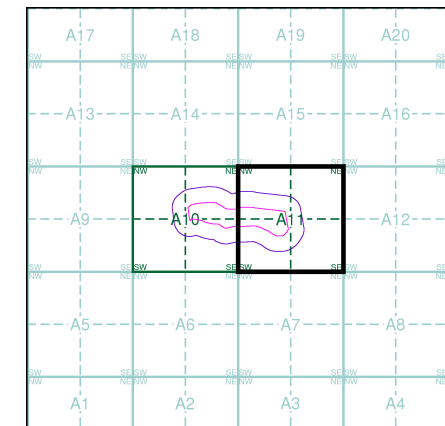
Source map scale - 1:2,500

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)

| | | |
|--------|------|---------|
| NZ3338 | 1990 | 1:2,500 |
| NZ3337 | 1990 | 1:2,500 |

Historical Map - Segment A11

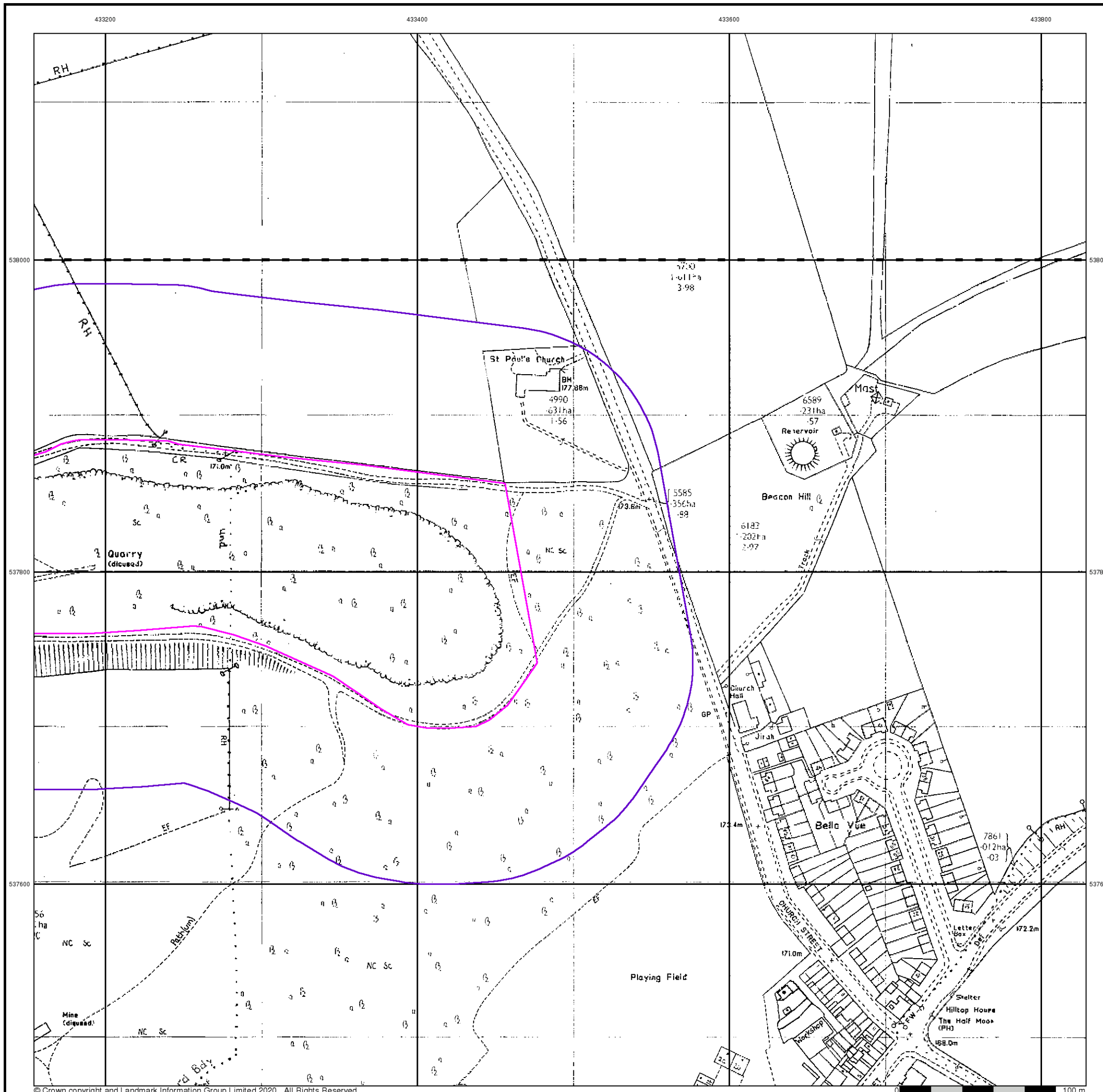


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

Site Details

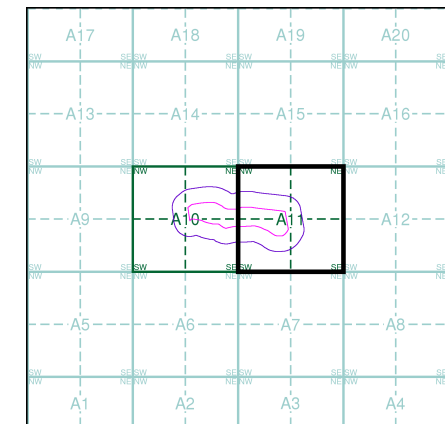
Site at 433140, 537820



Map Name(s) and Date(s)

| | | |
|--------|------|---------|
| NZ3338 | 1993 | 1:2,500 |
| NZ3337 | 1993 | 1:2,500 |

Historical Map - Segment A11

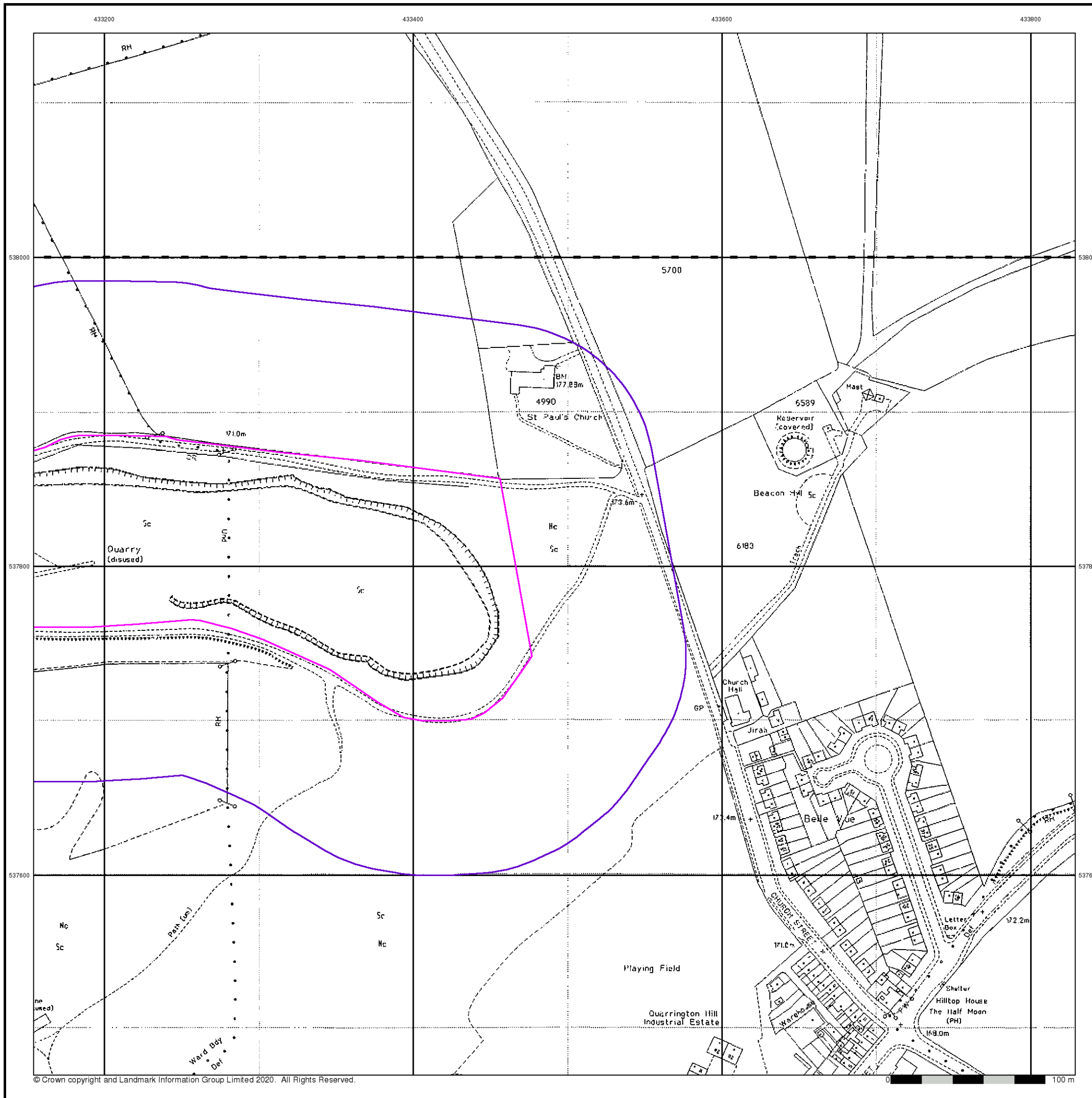


Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

Site Details

Site at 433140, 537820



433200

433400

433600

433800



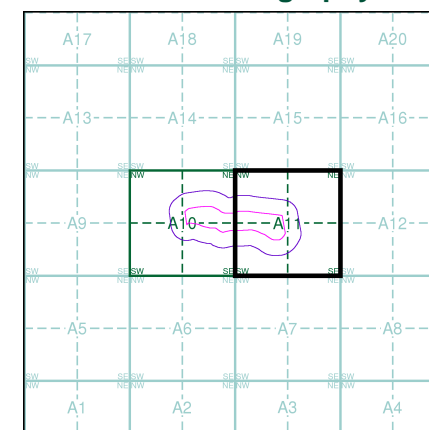
Historical Aerial Photography

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 A11



Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433160, 537810
 Slice: A
 Site Area (Ha): 7.97
 Search Buffer (m): 100

Site Details

Site at 433140, 537820



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

Index Map

For ease of identification, your site and buffer have been split into Slices, Segments and Quadrants. These are illustrated on the Index Map opposite and explained further below.

Slice

Each slice represents a 1:10,000 plot area (2.7km x 2.7km) for your site and buffer. A large site and buffer may be made up of several slices (represented by a red outline), that are referenced by letters of the alphabet, starting from the bottom left corner of the slice "grid". This grid does not relate to National Grid lines but is designed to give best fit over the site and buffer.

Segment

A segment represents a 1:2,500 plot area. Segments that have plot files associated with them are shown in dark green, others in light blue. These are numbered from the bottom left hand corner within each slice.

Quadrant

A quadrant is a quarter of a segment. These are labelled as NW, NE, SW, SE and are referenced in the datasheet to allow features to be quickly located on plots. Therefore a feature that has a quadrant reference of A7NW will be in Slice A, Segment 7 and the NW Quadrant.

A selection of organisations who provide data within this report:



Envirocheck reports are compiled from 136 different sources of data.

Client Details

MR B Whitelaw, Wardell Armstrong LLP, City Quadrant, 11 Waterloo Square, Newcastle Upon Tyne, NE1 4DP

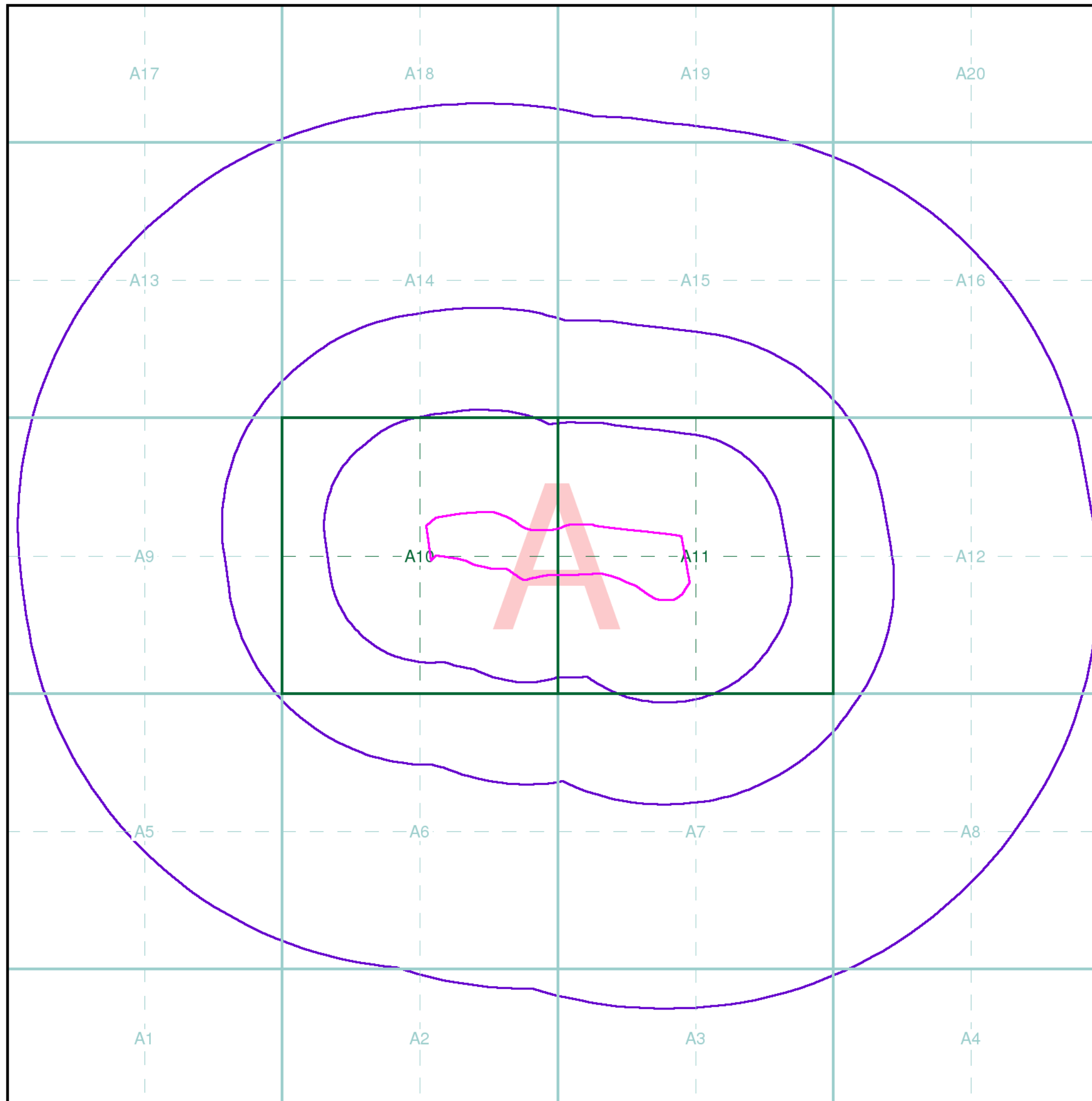
Order Details

Order Number: 253184316_1_1
 Customer Ref: NT14345
 National Grid Reference: 433170, 537820
 Site Area (Ha): 7.97
 Search Buffer (m): 1000

Site Details

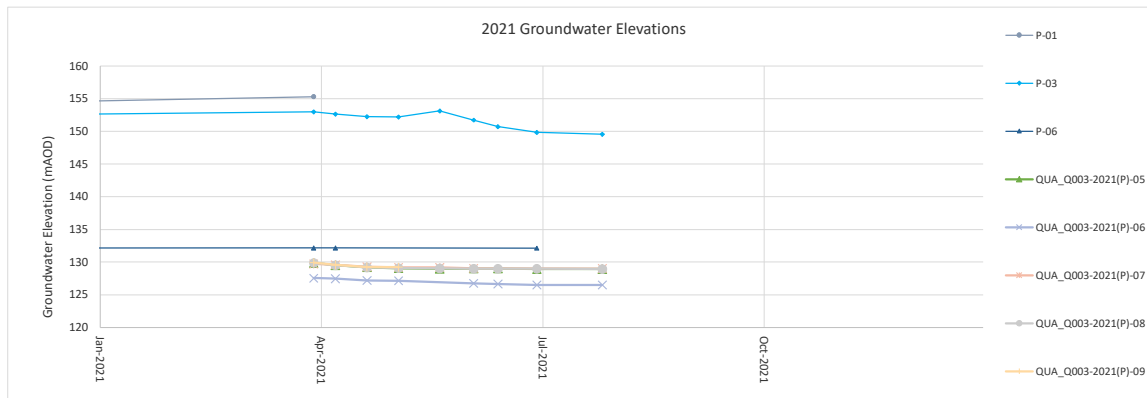
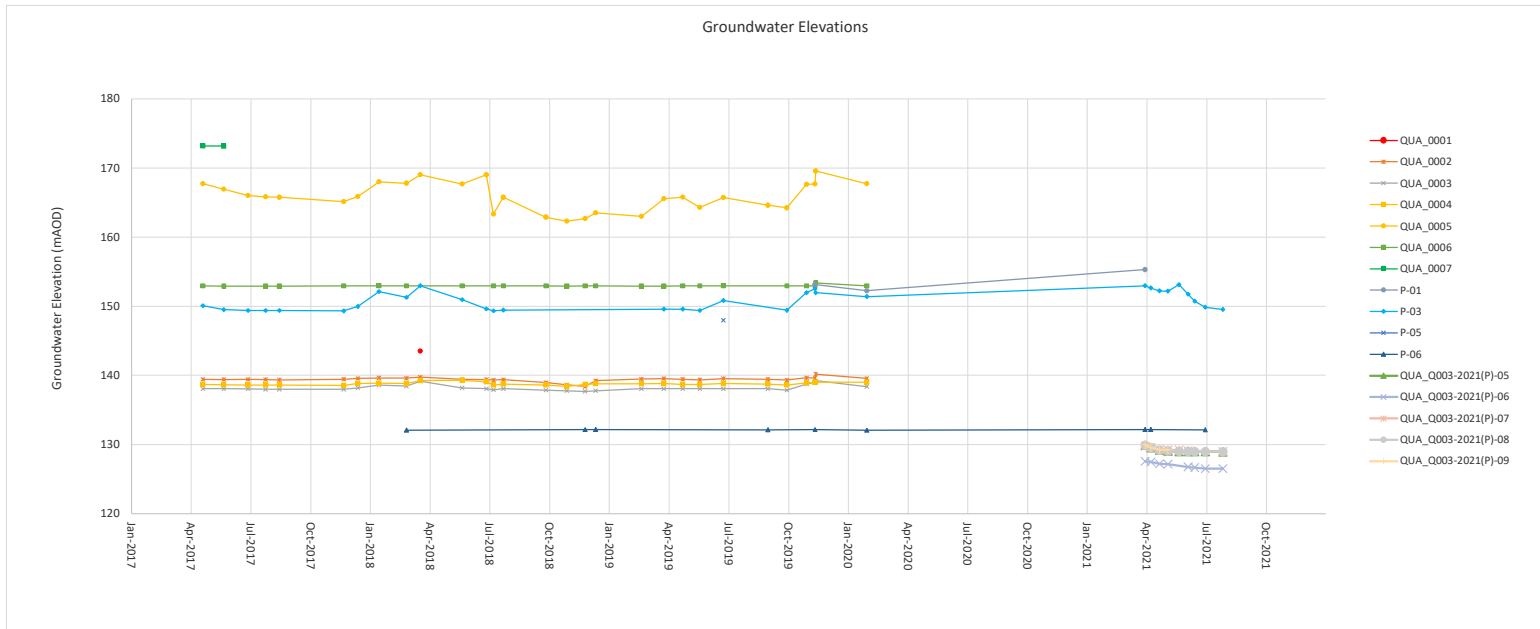
Site at 433140, 537820

Full Terms and Conditions can be found on the following link:
<http://www.landmarkinfo.co.uk/Terms/Show/515>



APPENDIX 2

Groundwater Monitoring Data



| | | | |
|--------------|--|-------------|----------------|
| | | | |
| CLIENT | Tarmac Ltd | | |
| PROJECT | Environmental Setting and Site Design Report | | |
| FIGURE TITLE | Groundwater Elevations | | |
| FIGURE NO. | DRAWN BY | APPROVED BY | DATE |
| Appendix 2 | JS | LB | September 2021 |

APPENDIX 3

Borehole Log Analysis

| Borehole (PO/OP) | Year | Current Groundwater Elevation Monitoring Borehole | Borehole Log | Location (NGR) | | Ground Level (mAOD) | Base of Borehole | | Top of Screened Section | | Base of Screened Section | | Geology / Depth (m BGL) | Install geology | Notes | Average Groundwater Level (mAOD) |
|----------------------------|------|---|--------------|---------------------|----------|---------------------|------------------|-------|-------------------------|-------|--------------------------|-------|---|-----------------------|--------------------------------|----------------------------------|
| | | | | Easting | Northing | | mbgl | mAOD | mbgl | mAOD | mbgl | mAOD | | | | |
| P-0 Borehole Series | | | | | | | | | | | | | | | | |
| P-01 | 2021 | Yes | Yes | 433418 | 538105 | 185.2 | 63 | 122.2 | 56 | 129.2 | 59 | 126.2 | 0 - 1.0 - Top Soil 1 - 36.0 - Permian Limestone 36.0 - 38.6 - Permian Marl 38.6 - 61.3 - Permian Sand 61.3 - 63.0 - Coal Measures | Permian Sand | Used for Mont Scheme | 152.7 |
| P-02 | 2021 | No | Yes | 432733 | 537973 | 156.1 | 13.9 | 142.2 | 10.9 | 145.2 | 13.9 | 142.2 | 0 - 6.2 - Fill and Made Ground 6.2 - 9.05 - Permian Sand 9.05 - 13.9 - Coal Measures | Coal Measures | BH Destroyed | - |
| P-03 | 2021 | Yes | Yes | 432505 | 538142 | 155.9 | 6.7 | 149.2 | 3.7 | 152.2 | 6.7 | 149.2 | 0 - 1.5 - Permian Limestone/Marl 1.5 - 2.75 - Permian Sand 2.75 - 6.7 - Coal Measures | Coal Measures | Used for Mont Scheme | 150.4 |
| P-04 | 2021 | No | Yes | 432745 | 537966 | 155.1 | 11.5 | 143.6 | 6.95 | 148.2 | 9.95 | 145.2 | 0 - 1.0 - Fill Material 1.0 - 4.5 - Permian Marl 4.5 - 10 - Permian Sand 10 - 11.5 - Coal Measures | Permian Sand | BH Destroyed | - |
| P-05 | 2021 | Yes | No | 433364 | 538102 | 185.0 | 38 | 147.0 | 35 | 150.0 | 38 | 147.0 | 0 - 36.8 Limestone 36.8 - 38 Marl Slate | limestone | Used for Mont Scheme | 148.0 |
| P-06 | 2021 | No | No | 433384 | 538074 | 185.0 | 56.2 | 128.8 | 53 | 132.0 | 56 | 129.0 | 0 - 36.7 Limestone 36.7 - 38.7 Marl Slate 38.7 - 55.3 Permian Sands 55.3 - 56.2 Coal Measures | Sand and CM Interface | Used for Mont Scheme | 132.0 |
| QUA Borehole Series | | | | | | | | | | | | | | | | |
| QUA_0001 | 2021 | No | No | 432560 | 538093 | 154.7 | n/a | 142.9 | Information Not Held | | | | | Dry | 143.5 | |
| QUA_0002 | 2021 | No | No | 432576 | 538015 | 151.7 | n/a | 138.3 | Information Not Held | | | | | | 138.2 | |
| QUA_0003 | 2021 | No | No | 432585 | 537947 | 149.6 | n/a | 135.4 | Information Not Held | | | | | | 138.8 | |
| QUA_0004 | 2021 | No | No | 432603 | 537895 | 150.9 | n/a | 136.6 | Information Not Held | | | | | | 165.9 | |
| QUA_0005 | 2021 | No | No | 432654 | 538187 | 179.1 | n/a | 160.2 | Information Not Held | | | | | | 153.0 | |
| QUA_0006 | 2021 | No | No | 432599 | 538130 | 179.0 | n/a | 152.8 | Information Not Held | | | | | | 173.2 | |
| QUA_0007 | 2021 | No | No | 432684 | 538061 | 177.9 | n/a | 173.3 | Information Not Held | | | | | Dry | Dry / Occasionally wet at base | |
| QUA_0008 | 2021 | No | No | BH too steep access | | | | | | | | | | | | |
| QUA_0009 | 2021 | No | No | BH Missing | | | | | | | | | | | | |
| QUA_0010 | 2021 | No | No | BH Missing | | | | | | | | | | | | |
| QUA_0011 | 2021 | No | No | BH Missing | | | | | | | | | | | | |
| QUA_0012 | 2021 | No | No | Buried/Destroyed | | | | | | | | | | | | |
| QUA_0012 | 2021 | No | No | Buried/Destroyed | | | | | | | | | | | | |

APPENDIX 4

Groundwater and Spring Quality Results

| P-03 | Unit | Trigger Level | Guideline Values for Environmental Screening Criteria | | Date | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|----------|---------------|---|--------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|--|
| | | | UKDWS | Minimum Reporting Values (MRV) | 16/12/2010 | 10/03/2011 | 15/06/2012 | 28/09/2012 | 14/12/2012 | 14/06/2013 | 22/03/2013 | 14/06/2013 | 14/03/2014 | 20/06/2014 | 09/12/2015 | 10/03/2016 | 14/12/2016 | 15/03/2017 | 14/12/2017 | 19/03/2018 | 28/06/2018 | 25/06/2019 | 11/12/2019 | 30/03/2021 | 08/04/2021 | 21/04/2021 | 04/05/2021 | 21/05/2021 | 04/06/2021 | 14/06/2021 | | |
| Ammoniacal Nitrogen | mg/l | 0.39 | 0.39 | | 0.19 | 0.19 | 0.27 | 0.27 | 0.03 | 0.01 | | | 0.04 | <0.01 | <0.41 | <0.41 | <0.05 | <0.05 | 0.1 | <0.05 | 0.06 | <0.05 | 0.03 | <0.02 | <0.02 | 0.03 | <0.02 | <0.02 | <0.02 | <0.02 | | |
| Chloride | mg/l | 250 | 250 | | 293 | 249 | 279 | | 23 | | 34 | 66 | 104 | 97 | 144 | 76.1 | 110 | 170 | 82 | 76 | 100 | 91 | 73 | 22 | 21 | 21 | 30 | 36 | 35 | 42 | | |
| pH | pH units | | | | 7.6 | 8.4 | 7.2 | | 8 | | 8.2 | 7.5 | 7.4 | 7.5 | 7.6 | 8.7 | 8.1 | 7.6 | 7.7 | 7.99 | 7.73 | 7.84 | 7.3 | 7.8 | 7.3 | 7.4 | 7.8 | 7.4 | 7.8 | 7.6 | | |
| Electrical Conductivity | uS/cm | | 2500 | | 532 | 1210 | 1280 | | | 738 | 736 | 857 | 893 | 902 | 966 | 720 | 1100 | 1200 | 1000 | 940 | 960 | 930 | 927 | 774 | 787 | 876 | 818 | 821 | 803 | 784 | | |
| Chemical Oxygen Demand | mg/l | | | | 65 | 59 | 52 | | 9 | | 17 | | 10 | <5 | | 77 | <20.0 | 21 | 27 | <20.0 | <20.0 | <20.0 | 9 | 6 | 6 | 6 | <5 | <5 | 7 | 7 | | |
| Total Organic Carbon | mg/l | | | | 1.25 | 1.09 | 2.2 | | | | | | | | | 4.6 | 10 | 9 | 10 | 15 | 18 | 9 | 3 | 3.1 | 3.2 | 2.9 | 2.6 | 2.6 | 2.4 | 2.3 | | |
| Total Oxidised Nitrogen | mg/l | | | | 3.1 | 3.37 | 3.67 | 2.5 | 4.1 | | | 4.8 | 3.4 | 1.7 | 3.1 | <0.7 | 1.9 | 2.4 | 0.6 | 0.7 | 0.5 | 0.6 | 0.8 | 12.5 | 12 | 11.4 | 10.6 | 10.3 | 9.7 | 8.6 | | |
| Calcium | mg/l | | 250 | | 177 | | | 278 | | | 139 | | 90 | | 166 | | 120 | 110 | 120 | 86 | 90 | 92 | | 108 | 108 | 112 | 113 | 108 | 106 | 100 | | |
| Magnesium | mg/l | | 50 | | 75 | | | 119 | | | 56 | | 41 | | 86.2 | | 51 | 55 | 49 | 38 | 41 | 36 | | 39 | 38 | 40 | 42 | 40 | 42 | 41 | | |
| Sodium | mg/l | | 200 | | 37.7 | | | 27.4 | | | 16 | | 19 | | 25.5 | | 34 | 36 | 37 | 64 | 40 | 48 | | 13 | 11 | 14 | 15 | 17 | 17 | 18 | | |
| Potassium | mg/l | | 12 | | 10.9 | | | 7.33 | | | 3 | | 4 | | 6.92 | | 8.5 | 6.6 | 7.3 | 3.3 | 4 | 4 | | 2 | 2 | 2 | 2 | 2 | 3 | 3 | | |
| Sulphate | mg/l | | 250 | | 85.2 | | | 51.8 | | | 24 | | 60 | | 55.1 | | 58 | 53 | 66 | 29 | 60 | 48 | | 22 | 18 | 19 | 28 | 30 | 40 | 41 | | |
| Iron | mg/l | | 0.2 | | | | | 3.04 | | | 4.38 | | <0.01 | | 1.85 | | 8 | 0.06 | <0.005 | <0.005 | <0.005 | 0.033 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | |
| Manganese | mg/l | | 0.05 | | | | | 0.595 | | | 0.002 | | | 0.002 | 0.269 | | 19 | 0.005 | 1 | 0.001 | 0.044 | 0.015 | | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | <0.002 | | |
| Cadmium | mg/l | | 0.005 | 0.0001 | | | | 0.0006 | | | 0.0002 | | <0.0001 | | <0.0006 | | 0.00007 | 0.00009 | 0.00006 | 0.00006 | 0.00004 | 0.00005 | | <0.00002 | 0.00008 | 0.00005 | 0.00007 | 0.00005 | 0.00007 | 0.00004 | | |
| Chromium | mg/l | | 0.05 | | | | 0.004 | | | | 0.002 | | 0.001 | | 0.008 | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | | |
| Copper | mg/l | | 2 | | | | 0.016 | | | | 0.003 | | 0.002 | | | | 0.0017 | 0.002 | 0.0021 | 0.003 | 0.0017 | 0.0043 | | 0.003 | 0.003 | 0.002 | 0.002 | 0.002 | 0.002 | 0.002 | | |
| Nickel | mg/l | | 0.02 | | | | 0.019 | | | | 0.003 | | 0.002 | | 0.019 | | 0.003 | 0.003 | 0.018 | 0.002 | 0.008 | 0.003 | | 0.002 | 0.002 | 0.002 | 0.001 | 0.001 | 0.001 | 0.001 | | |
| Lead | mg/l | | 0.01 | | | | 0.037 | | | | 0.001 | | <0.001 | | 0.033 | | <0.0003 | 0.0004 | <0.0003 | <0.0003 | <0.0003 | 0.0004 | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | | |
| Zinc | mg/l | | 5 | | | 3.37 | 0.08 | | | | 0.018 | | 0.004 | | 0.06 | | 0.012 | 0.012 | 0.016 | 0.011 | 0.005 | 0.007 | | 0.005 | 0.151 | 0.003 | 0.006 | 0.005 | 0.004 | 0.122 | | |
| Antimony | mg/l | | 0.005 | | | | | | | | 0.02 | | <0.001 | | | | <1.0 | <1.0 | | | | <1.0 | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | | |
| Selenium | mg/l | | 0.01 | | | | | | | | 0.001 | | | | | | | | | | | | | 0.001 | <0.001 | 0.001 | 0.001 | 0.002 | 0.002 | 0.002 | | |
| Molybdenum | mg/l | | | | | | 0.003 | | | | 0.001 | | 0.083 | <0.003 | | | 0.001 | <0.001 | 0.003 | 0.002 | 0.003 | 0.002 | | | | | | | | | | |

Key
 *UKDWS - UK Drinking Water Standards (UKDWS) or Minimum Reporting Value.
 **Red highlighted text boxes indicate exceedances of UKDWS.
 Groundwater quality sampling was entirely carried out within Coal Measures strata

| SW2 | Unit | Trigger Level | Guideline Values for Environmental Screening Criteria | | Guideline Values for Environmental Screening Criteria | | | | | | | | | | | | | | | | | |
|-------------------------|----------|---------------|---|--------------------------|---|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|---------|
| | | | UKDWS | Minimum Recordable Value | 24/09/2010 | 22/10/2010 | 25/11/2010 | 16/12/2010 | 14/01/2011 | 24/02/2011 | 10/03/2011 | 03/06/2011 | 23/09/2011 | 09/12/2011 | 09/03/2012 | 15/06/2012 | 28/09/2012 | 14/12/2012 | 22/03/2013 | 14/06/2013 | 25/10/2013 | |
| Ammoniacal Nitrogen | mg/l | 0.39 | 0.39 | | 0.19 | 0.19 | 0.28 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.19 | 0.2 | 0.22 | | 0.27 | 0.27 | 0.02 | 0.03 | 0.07 | 0.03 |
| Chloride | mg/l | 250 | 250 | | 63.5 | 76.7 | 61.1 | 49.1 | 53.4 | 62.6 | 67 | 72 | 65.5 | 71.8 | | 55 | 39.8 | 45 | 45 | 53 | 48 | |
| pH | pH units | | | | | 8.4 | 8.2 | 7.8 | 8.2 | 8.1 | 8.4 | 8.4 | 8.3 | 8.1 | 8.2 | 8 | 8 | 8.2 | 8.3 | 7.6 | 7.7 | |
| Electrical Conductivity | uS/cm | | 2500 | | 1000 | 1050 | 934 | 986 | 890 | 947 | 1030 | 959 | 986 | 1060 | 981 | 922 | 778 | 1060 | 962 | 1050 | 928 | |
| Chemical Oxygen Demand | mg/l | | | | 11 | 15 | 16 | 53 | 39 | 11 | 18 | 26 | 39 | 21 | | 18 | 70 | 12 | 13 | 5 | 8 | |
| Total Organic Carbon | mg/l | | | | | | | | | | | | | | | | | | | | | |
| Total Oxidised Nitrogen | mg/l | | | | | | | | | | | | | | | | | | | | | 7.6 |
| Suspended Solids | | | | | 4 | 1 | 7 | 3 | 2 | 6 | 13.5 | 9 | 6 | 2.5 | | 1 | 5 | 5 | 5 | 5 | | |
| Calcium | mg/l | | 250 | | 152 | 130 | 130 | 133 | 127 | 159 | 147 | 126 | 112 | 134 | 139 | 119 | 105 | 130 | 131 | 122 | | |
| Magnesium | mg/l | | 50 | | 63 | 64 | 54 | 47 | 46 | 55 | 52 | 64 | 51 | 62 | 51.2 | 56 | 40.4 | 55 | 56 | 54 | 48 | |
| Sodium | mg/l | | 200 | | 36.9 | 44.6 | 33.6 | 30.4 | 29.2 | 36.7 | 36.4 | 46.2 | 32.8 | 40.7 | 38.1 | 30.9 | 22 | 26 | 28 | 28 | 27 | |
| Potassium | mg/l | | 12 | | 3.87 | 3.82 | 3.42 | 2.78 | 3.19 | 3.57 | 3.24 | 3.56 | 3.03 | 4.94 | 2.98 | 4.18 | 3.07 | 3 | 4 | 3 | 2 | |
| Sulphate | mg/l | | 250 | | 281 | 267 | 233 | 198 | 215 | 254 | 287 | 272 | 253 | 275 | | 261 | 204 | 219 | 204 | 215 | 211 | |
| Iron | mg/l | | 0.2 | | | | | | | | | | | | | | | | | | | 0.16 |
| Manganese | mg/l | | 0.05 | | | | | | | | | | | | | | | | | | | |
| Cadmium | mg/l | | 0.005 | 0.0001 | | | | | | | | | 0.0034 | | | | 0.0006 | | | | | <0.0001 |
| Chromium | mg/l | | 0.05 | | | | | | | | | | 0.0007 | | | | 0.002 | | | | | 0.001 |
| Copper | mg/l | | 2 | | | | | | | | | | 0.006 | | | | 0.009 | | | | | <0.001 |
| Nickel | mg/l | | 0.02 | | | | | | | | | | 0.002 | | | | 0.003 | | | | | 0.001 |
| Lead | mg/l | | 0.01 | | | | | | | | | | 0.039 | | | | 0.006 | | | | | <0.001 |
| Zinc | mg/l | | 5 | | | | | | | | | | | | | | | | | | | |
| Antimony | mg/l | | 0.005 | | | | | | | | | | | | | | | | | | | <0.001 |
| Selenium | mg/l | | 0.01 | | | | | | | | | | | | | | | | | | | 0.006 |
| Molybdenum | mg/l | | | | | | | | | | | | 0.007 | | | | 0.003 | | | | | 0.001 |

Key
 *UKDWS - UK Drinking Water Standards (UKDWS) or Minimum Reporting Value.
 **Red highlighted text boxes indicate exceedances of UKDWS.
 Groundwater quality sampling was entirely carried out within Coal Measures strata

| Date | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|-------|
| 14/03/2014 | 20/06/2014 | 19/09/2014 | 12/12/2014 | 20/03/2015 | 18/06/2015 | 17/09/2015 | 09/12/2015 | 10/03/2016 | 16/06/2016 | 15/09/2016 | 14/12/2016 | 15/03/2017 | 29/06/2017 | 20/09/2017 | 14/12/2017 | 19/03/2018 | 28/06/2018 | 27/09/2018 | 12/12/2018 | 26/03/2019 | 25/06/2019 | 30/09/2019 | 11/12/2019 | 30/03/2021 | 08/04/2021 | 21/04/2021 | 04/05/2021 | 21/05/2021 | |
| 0.08 | 0.16 | 0.08 | 0.03 | <0.01 | <0.27 | <0.41 | <0.41 | <0.41 | 0.19 | 0.15 | <0.05 | 0.08 | 0.13 | 0.38 | 0.09 | <0.05 | 0.1 | 0.05 | 0.12 | <0.05 | 0.15 | 0.07 | 0.03 | 0.51 | <0.02 | 0.06 | 0.05 | 0.06 | |
| 57 | 58 | 69 | 68 | 71 | 90.8 | 87.5 | 70.4 | 68.2 | 83.1 | 92 | 80 | 80 | 92 | 180 | 100 | 110 | 110 | 110 | 94 | 100 | 110 | 109 | 82 | 107 | 108 | 108 | 99 | 97 | |
| 7.9 | 7.89 | 7.9 | 8.2 | 7.8 | 8.7 | 8.4 | 8.3 | 8.41 | 8.32 | 8.4 | 8.6 | 8.2 | 8 | 7.8 | 8 | 8 | 8.3 | 8.2 | 8.3 | 8.3 | 8 | 7.9 | 7.9 | 7.9 | 7.8 | 7.5 | 8.1 | 7.7 | |
| 1080 | 993 | 976 | 1240 | 1220 | 1080 | 1190 | 1010 | 991 | 1230 | 1200 | 1284 | 1200 | 1200 | 1500 | 1400 | 1200 | 1300 | 1300 | 1300 | 1300 | 1200 | 1150 | 1160 | 1160 | 1160 | 1280 | 1120 | 1100 | |
| 6 | 5 | 8 | 13 | 7 | 29 | 22 | | <11.0 | <20.0 | <20.0 | 44 | <20.0 | <20.0 | <20.0 | <20.0 | 26 | 32 | <20.0 | <20.0 | 21 | 12 | 6 | 10 | 9 | 10 | 7 | 13 | | |
| | | | | | 5.7 | 4.1 | 2.8 | 2.5 | 5.4 | 12 | 9 | 11 | 16 | 10 | 8 | 5 | 16 | 13 | 7 | 6 | 11 | 4.3 | 2.5 | 2.4 | 2.5 | 3.2 | 3.3 | 3.4 | |
| | | | | | | | | | | 1.1 | | | | | | | | | | | | 0.8 | 5.3 | 6.2 | 6.9 | 6.2 | 5.8 | 5.3 | |
| 5 | 10 | <5 | <5 | 11 | 2 | 1 | 2 | 7 | 22 | | <10.0 | <10.0 | <10.0 | <10.0 | | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | <10.0 | | 13 | <5 | <5 | 5 | 5 | | |
| 151 | 136 | 135 | 145 | 155 | 122 | 121 | 131 | 123 | 126 | | 140 | | | 150 | | | | | | | | 108 | | 130 | 128 | 131 | 122 | 122 | |
| 65 | 61 | 63 | 59 | 66 | 62.1 | 57.9 | 55.5 | 55.7 | 60.8 | | 60 | | | 75 | | | | | | | | 56 | | 53 | 53 | 56 | 53 | 52 | |
| 36 | 33 | 40 | 34 | 40 | 40.3 | 40.5 | 32.2 | 36.1 | 37.3 | | 42 | | | 92 | | | | | | | | 56 | | 51 | 49 | 54 | 49 | 49 | |
| 5 | 4 | 5 | 4 | 5 | 3.64 | 4.62 | 4.04 | 3.98 | 5.33 | | 5.2 | 4.9 | 4.9 | 7 | 7.7 | 4.1 | 4.5 | 7.7 | 5.2 | 5.4 | 4.2 | 6 | 4 | 4 | 4 | 4 | 3 | | |
| 247 | 239 | 250 | 245 | 275 | 297 | 260 | 251 | 250 | 272 | | 240 | 230 | 290 | 230 | 330 | 190 | 260 | 260 | 260 | 290 | 230 | | | 229 | 220 | 221 | 222 | 219 | |
| | | | | | | | | | | | | | | 0.09 | | | | | | | | | | 0.01 | 0.02 | 0.03 | 0.02 | 0.04 | |
| | | | | | | | | | | | | | | | | | | | | | | 0.005 | | <0.002 | <0.002 | 0.004 | 0.009 | <0.002 | |
| | | | | | | | | | | | | | | 0.00003 | | | | | | | | | | <0.00002 | <0.00002 | 0.00003 | <0.00002 | <0.00002 | |
| | | | | | | | | | | | | | | <0.001 | | | | | | | | | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | |
| | | | | | | | | | | | | | | <0.001 | | | | | | | | | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | |
| | | | | | | | | | | | | | | | | | | | | | | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | |
| | | | | | | | | | | | | | | | | | | | | | | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | |
| | | | | | | | | | | | | | | | | | | | | | | | 0.002 | <0.002 | 0.003 | <0.002 | <0.002 | <0.002 | |
| | | | | | | | | | | | | | | | | | | | | | | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | |
| | | | | | | | | | | | | | | | | | | | | | | | 0.023 | | 0.022 | 0.026 | 0.026 | 0.029 | 0.027 |
| | | | | | | | | | | | | | | | | | | | | | | | <0.001 | | | | | | |

| QUA_Q003-2021(P)-05 | Unit | Trigger Level | Guideline Values for Environmental Screening Criteria | | | | | | | | | | | |
|-------------------------|----------|---------------|---|--------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
| | | | UKDWS | Minimum Reporting Values (MRV) | 30/03/2021 | 08/04/2021 | 21/04/2021 | 04/05/2021 | 21/05/2021 | 04/06/2021 | 14/06/2021 | 30/06/2021 | 27/07/2021 | |
| Determinand | | | | | | | | | | | | | | |
| Ammoniacal Nitrogen | mg/l | 0.39 | 0.39 | | 0.26 | 0.04 | 0.14 | 0.12 | 0.15 | 0.13 | 0.1 | 0.05 | 0.12 | |
| Chloride | mg/l | 250 | 250 | | 218 | 156 | 107 | 68 | 64 | 83 | 84 | 81 | 69 | |
| pH | pH units | | | | 7.7 | 7.2 | 7.3 | 7.5 | 7.4 | 7.6 | 7.4 | 7.5 | 7.3 | |
| Electrical Conductivity | uS/cm | | 2500 | | 1500 | 1430 | 1370 | 1330 | 1310 | 1330 | 1330 | 1280 | 1310 | |
| Chemical Oxygen Demand | mg/l | | | | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | <5 | |
| Total Organic Carbon | mg/l | | | | 0.83 | 0.71 | 0.54 | 0.46 | 0.28 | 0.7 | 0.56 | 0.49 | 0.36 | |
| Total Oxidised Nitrogen | mg/l | | | | 3.2 | 2.8 | 1.3 | <0.2 | <0.2 | 10.7 | 0.8 | 0.6 | <0.2 | |
| Calcium | mg/l | | 250 | | 140 | 141 | 167 | 183 | 176 | 187 | 181 | 171 | 191 | |
| Magnesium | mg/l | | 50 | | 58 | 59 | 73 | 79 | 76 | 79 | 77 | 73 | 81 | |
| Sodium | mg/l | | 200 | | 106 | 76 | 49 | 20 | 24 | 32 | 32 | 29 | 21 | |
| Potassium | mg/l | | 12 | | 6 | 5 | 6 | 6 | 5 | 6 | 6 | 6 | 6 | |
| Sulphate | mg/l | | 250 | | 218 | 219 | 249 | 274 | 252 | 287 | 273 | 253 | 274 | |
| Iron | mg/l | | 0.2 | | <0.01 | <0.01 | <0.01 | <0.01 | 0.01 | <0.01 | <0.01 | <0.01 | <0.01 | |
| Manganese | mg/l | | 0.05 | | 0.081 | 0.116 | 0.198 | 0.282 | 0.251 | 0.228 | 0.227 | 0.246 | 0.27 | |
| Cadmium | mg/l | | 0.005 | 0.0001 | <0.00002 | <0.00002 | <0.00002 | <0.00002 | <0.00002 | 0.00003 | <0.00002 | 0.00002 | <0.00002 | |
| Chromium | mg/l | | 0.05 | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | |
| Copper | mg/l | | 2 | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | |
| Nickel | mg/l | | 0.02 | | 0.002 | 0.001 | 0.002 | 0.002 | 0.002 | 0.003 | 0.002 | 0.002 | 0.003 | |
| Lead | mg/l | | 0.01 | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | |
| Zinc | mg/l | | 5 | | 0.007 | 0.004 | <0.002 | 0.003 | <0.002 | 0.005 | 0.003 | <0.002 | 0.003 | |
| Antimony | mg/l | | 0.005 | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | |
| Selenium | mg/l | | 0.01 | | 0.01 | 0.008 | 0.004 | <0.001 | <0.001 | 0.003 | 0.003 | 0.003 | <0.001 | |
| Molybdenum | mg/l | | - | | | | | | | | | | | |

Key
 *UKDWS - UK Drinking Water Standards (UKDWS) or Minimum Reporting Value.
 **Red highlighted text boxes indicate exceedances of UKDWS.
 Groundwater quality sampling was entirely carried out within Coal Measures strata

| QUA_Q003-2021(P)-06 | Unit | Trigger Level | Guideline Values for Environmental Screening Criteria | | | | | | | | | | | |
|-------------------------|----------|---------------|---|--------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|--|
| | | | UKDWS | Minimum Reporting Values (MRV) | 30/03/2021 | 08/04/2021 | 21/04/2021 | 04/05/2021 | 21/05/2021 | 04/06/2021 | 14/06/2021 | 30/06/2021 | 27/07/2021 | |
| Determinand | | | | | | | | | | | | | | |
| Ammoniacal Nitrogen | mg/l | 0.39 | 0.39 | | 0.39 | 0.08 | 0.12 | 0.09 | | 0.1 | 0.1 | 0.05 | 0.09 | |
| Chloride | mg/l | 250 | 250 | | 21 | 20 | 20 | 21 | | 18 | 19 | 21 | 20 | |
| pH | pH units | | | | 7.7 | 7.4 | 7.4 | 7.7 | | 7.8 | 7.6 | 7.8 | 7.5 | |
| Electrical Conductivity | uS/cm | | 2500 | | 1030 | 1020 | 1070 | 1050 | | 1030 | 1030 | 975 | 1030 | |
| Chemical Oxygen Demand | mg/l | | | | <5 | <5 | <5 | <5 | | <5 | <5 | <5 | <5 | |
| Total Organic Carbon | mg/l | | | | 0.34 | 0.23 | 0.24 | 0.38 | | 0.36 | 0.43 | 0.35 | 0.25 | |
| Total Oxidised Nitrogen | mg/l | | | | <0.2 | <0.2 | 5 | <0.2 | | <0.2 | <0.2 | <0.2 | <0.2 | |
| Calcium | mg/l | | 250 | | 140 | 137 | 145 | 143 | | 139 | 144 | 138 | 151 | |
| Magnesium | mg/l | | 50 | | 65 | 62 | 66 | 66 | | 63 | 66 | 63 | 68 | |
| Sodium | mg/l | | 200 | | 13 | 12 | 14 | 13 | | 12 | 12 | 12 | 13 | |
| Potassium | mg/l | | 12 | | 4 | 4 | 4 | 5 | | 4 | 4 | 4 | 4 | |
| Sulphate | mg/l | | 250 | | 214 | 210 | 203 | 209 | | 204 | 216 | 203 | 219 | |
| Iron | mg/l | | 0.2 | | <0.01 | <0.01 | <0.01 | <0.01 | | <0.01 | <0.01 | <0.01 | <0.01 | |
| Manganese | mg/l | | 0.05 | | 0.112 | 0.11 | 0.119 | 0.105 | | 0.099 | 0.102 | 0.11 | 0.107 | |
| Cadmium | mg/l | | 0.005 | 0.0001 | <0.00002 | <0.00002 | 0.00004 | <0.00002 | | 0.00004 | <0.00002 | <0.00002 | <0.00002 | |
| Chromium | mg/l | | 0.05 | | <0.001 | <0.001 | <0.001 | <0.001 | | <0.001 | <0.001 | <0.001 | <0.001 | |
| Copper | mg/l | | 2 | | <0.001 | <0.001 | <0.001 | <0.001 | | <0.001 | <0.001 | <0.001 | <0.001 | |
| Nickel | mg/l | | 0.02 | | 0.001 | <0.001 | <0.001 | <0.001 | | <0.001 | <0.001 | <0.001 | <0.001 | |
| Lead | mg/l | | 0.01 | | <0.001 | <0.001 | <0.001 | <0.001 | | <0.001 | <0.001 | <0.001 | <0.001 | |
| Zinc | mg/l | | 5 | | <0.002 | <0.002 | 0.012 | <0.002 | | 0.002 | <0.002 | <0.002 | <0.002 | |
| Antimony | mg/l | | 0.005 | | <0.001 | <0.001 | <0.001 | <0.001 | | <0.001 | <0.001 | <0.001 | <0.001 | |
| Selenium | mg/l | | 0.01 | | <0.001 | <0.001 | <0.001 | <0.001 | | <0.001 | <0.001 | <0.001 | <0.001 | |
| Molybdenum | mg/l | | - | | | | | | | | | | | |

Key
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 Groundwater quality sampling was entirely carried out within Coal Measures strata

| QUA_Q003-2021(P)-07 | Unit | Trigger Level | Guideline Values for Environmental Screening Criteria | | | | | | | | | | |
|-------------------------|----------|---------------|---|--------------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| | | | UKDWS | Minimum Reporting Values (MRV) | 30/03/2021 | 08/04/2021 | 21/04/2021 | 04/05/2021 | 21/05/2021 | 04/06/2021 | 14/06/2021 | 30/06/2021 | 27/07/2021 |
| Ammoniacal Nitrogen | mg/l | 0.39 | 0.39 | | 0.26 | 0.03 | 0.06 | 0.04 | <0.02 | <0.02 | | | <0.02 |
| Chloride | mg/l | 250 | 250 | | 24 | 26 | 44 | 54 | 50 | 47 | | | 44 |
| pH | pH units | | | | 7.8 | 7.6 | 7.7 | 7.9 | 7.7 | 7.9 | | | 7.7 |
| Electrical Conductivity | uS/cm | | 2500 | | 593 | 572 | 671 | 731 | 703 | 702 | | | 681 |
| Chemical Oxygen Demand | mg/l | | | | <5 | <5 | <5 | <5 | <5 | <5 | | | <5 |
| Total Organic Carbon | mg/l | | | | 0.51 | 0.35 | 0.34 | 0.36 | 0.38 | 0.4 | | | 0.21 |
| Total Oxidised Nitrogen | mg/l | | | | 11.4 | 7.5 | 8.8 | 11.1 | 11.5 | 11 | | | 10.2 |
| Calcium | mg/l | | 250 | | 75 | 70 | 81 | 83 | 84 | 82 | | | 82 |
| Magnesium | mg/l | | 50 | | 31 | 28 | 32 | 33 | 33 | 32 | | | 32 |
| Sodium | mg/l | | 200 | | 10 | 10 | 18 | 21 | 21 | 19 | | | 17 |
| Potassium | mg/l | | 12 | | 2 | 1 | 2 | 2 | 2 | 2 | | | 2 |
| Sulphate | mg/l | | 250 | | 69 | 55 | 65 | 75 | 71 | 74 | | | 70 |
| Iron | mg/l | | 0.2 | | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | <0.01 | | | <0.01 |
| Manganese | mg/l | | 0.05 | | 0.02 | 0.012 | 0.015 | 0.013 | 0.007 | 0.006 | | | <0.002 |
| Cadmium | mg/l | | 0.005 | 0.0001 | <0.00002 | 0.00005 | <0.00002 | 0.00004 | <0.00002 | 0.00008 | | | <0.00002 |
| Chromium | mg/l | | 0.05 | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | | | <0.001 |
| Copper | mg/l | | 2 | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | | | <0.001 |
| Nickel | mg/l | | 0.02 | | 0.002 | 0.002 | 0.002 | 0.003 | 0.002 | 0.002 | | | 0.002 |
| Lead | mg/l | | 0.01 | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | | | <0.001 |
| Zinc | mg/l | | 5 | | <0.002 | 0.002 | <0.002 | <0.002 | <0.002 | 0.003 | | | 0.003 |
| Antimony | mg/l | | 0.005 | | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | <0.001 | | | <0.001 |
| Selenium | mg/l | | 0.01 | | 0.011 | 0.003 | 0.002 | 0.003 | 0.002 | 0.002 | | | 0.002 |
| Molybdenum | mg/l | | - | | | | | | | | | | |

Key
 *UKDWS - UK Drinking Water Standards (UKDWS) or Minimum Reporting Value.
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 Groundwater quality sampling was entirely carried out within Coal Measures strata

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