

**DESK STUDY
AT
ST MARY'S STREET, PENISTONE
SOUTH YORKSHIRE
FOR
RELIANT BUILDING
CONTRACTORS**

**DESK STUDY NO. NE2938
JUNE 2009**

**SUB SURFACE NORTH EAST LIMITED
AHED HOUSE
DEWSBURY ROAD
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DESK STUDY AT ST. MARY'S STREET, PENISTONE, SOUTH YORKSHIRE

CLIENT: RELIANT BUILDING CONTRACTORS

1. INTRODUCTION

This report has been prepared in accordance with instructions given in an email dated 28th May 2009, from Reliant Building Contractors.

The brief was set out in our estimate given in an email dated 28th May 2009 and comprises a desk study report including a historical, geological and environmental appraisal together with a conceptual ground model.

1.1 Site Location and Description

The site is located off St. Mary's Street in Penistone, South Yorkshire, as indicated on Figure 1. The approximate National Grid Reference of the centre of the site is 424400, 403408.

The site is accessed via St. Mary's Street in its south eastern corner and comprises a long thin irregular shaped area of land. The site itself previously comprised railway lines and sidings which have been dismantled. It now comprises a cycle path trending west to east across the northern part, to the south of which is a small grassed area.

In the southern end of the site are two works buildings, another smaller building and a structure of unknown use is present in the south eastern corner. The north western corner comprises a number of trees with some trees also noted adjacent to the north of the structure of unknown use.

The site is bordered to the north by residential properties fronting onto Talbot Road, to the north west by a gas valve compound which is surrounded by trees, to the south west by a recreation ground and to the south by industrial land comprising a works. To the east and west of the site is a continuation of the cycle path and to the south east is the end of St. Mary's Street.

1.2 Proposed Development and Purpose of the Desk Study

At the time of the desk study report no information regarding the proposed development of the site was available.

The purpose of the desk study is to obtain information on the history of the site and its surroundings together with its environmental setting in order to produce a conceptual ground model and form a preliminary assessment of contamination sources, pathways and receptors relating to potential hazards that exist or will potentially occur on the site. In addition a geological appraisal was required to determine the underlying geology.

2. DESK STUDY

2.1 Historical Appraisal

The past history of the site has been interpreted from the study of old Ordnance Survey plans supplied by GroundSure, as follows:

TABLE 1 SMALL SCALE SURVEY PLANS

Date	Scale
2008	1:10,000
2002	1:10,000
1987	1:10,000
1965 - 1967	1:10,560
1951	1:10,560
1948	1:10,560
1938	1:10,560
1929	1:10,560
1903 - 1904	1:10,560
1891	1:10,560

TABLE 2 LARGE SCALE SURVEY PLANS

Date	Scale
2008	1:2,500
1993	1:2,500
1984	1:2,500
1983	1:2,500
1967	1:2,500
1959	1:2,500
1959	1:2,500
1906	1:2,500

1891

The first historical plan available (1891) shows the site to comprise railway lines and railway sidings of the Manchester, Sheffield and Lincolnshire Railway later known as the Great Central Railway followed by the London and North Eastern Railway. The railway lines and sidings were generally trending west to east through the site.

A couple of the sidings in the south of the site were shown to terminate at a small goods shed in a central area along the southern boundary. Others were noted to terminate at the end of St. Mary's Street in the south eastern corner. Two small buildings were also present along the southern boundary and the north western corner of the site comprises an area of land sloping downwards in a northerly direction as the railway in this area is sitting on an embankment.

Some of the surrounding area was built up particularly to the south east and north with the areas known as Penistone and Bridge End respectively. A gas works, comprising two gasometers and ancillary buildings and a mill (Nether Mill) and its associated mill race were located approximately 40 and 350 metres to the north west and north respectively. A cemetery was also located some 160 metres to the west.

The River Don generally trending west to east with the flow following the same direction is situated some 235 metres to the north. A cluster of small adjoined ponds are located some 225 metres to the west north west and two springs were shown approximately 260 and 500 metres to the north north west and west south west respectively.

1903 – 1906

On the 1903 to 1906 surveys more railway lines and sidings were present and now covered the large majority of the site and a crane was noted close to the southern boundary. Some tanks were shown on the northern side of the railway lines some 75 metres to the east and a grave yard and smithy were present in the surrounding area approximately 175 and 185 metres to the south south east and north north west respectively.

In the surrounding area two more springs were noted some 220 and 280 metres to the south south west and a pump and a well were located approximately 145 and 170 metres to the south and north respectively. A drainage channel was present running in a south to north direction with the flow following the same direction some 50 metres to the west of the site. A sewage farm was also noted some 410 metres to the north west.

1929 - 1951

By the time of the 1929 survey there had been no significant changes to the site but the surrounding area had become slightly more built up. The gas works some 40 metres to the north west now comprised a third gasometer set in a depression and the buildings some 25 metres to the west of the site were shown to be associated with the gas works. The tanks on the northern side of the railway some 75 metres to the east were no longer present.

Also in the surrounding area the springs some 220, 260 and 500 metres to the south south west, north north west and west south west were no longer shown and the cluster of small adjoined ponds some 225 metres to the west north west had been partially backfilled. A cattle market and Stanley Mills were also present on this survey some 95 and 140 metres to the south and north north west.

There appeared to be no significant changes to the site on the 1938 and 1948 surveys and in the surrounding area the only significant change was that a residential development known as Park Avenue was under construction some 150 metres to the south. By the time of the 1951 survey there had again been no significant changes to the site but in the surrounding area more residential development was under construction some 295 metres to the south south west.

1959

The 1959 survey shows the site and the surrounding area in more detail and there had been a change to the site as the crane close to the southern boundary was no longer present. In the surrounding area the gas works, later labelled as a gasholder station, and the three gasometers and its ancillary buildings some 40 and 25 metres to the north west and west were no longer shown. One of the gasometers was positioned in a depression and this has presumably been backfilled.

Also in the surrounding area the residential developments some 150 and 195 metres to the south and south south west were complete and more residential properties were now located some 185 and 225 metres to the north east and south south west respectively. The pump and spring some 145 and 280 metres to the south and south south west were no longer shown.

In the surrounding area a telephone exchange and works were located some 45 and 175 metres to the north and a fire station and abattoir were shown some 60 and 70 metres to the south east. Two electricity sub stations were also noted some 190 and 240 metres to the north east and south respectively. A depot, works and two garages were located some 130, 150, 50 and 250 metres to the south, east south east, north east and north of the site respectively. A gas valve compound was also now present some 25 metres to the north west.

1965 - 1967

By the time of the 1965 to 1967 survey there had been no changes to the site and in the surrounding area the sewage farm some 410 metres to the north west was no longer present and now comprised allotment gardens in some parts. Allotment gardens were also noted some 100 metres to the north north east and the cluster of ponds some 225 metres to the west north west were no longer shown, presumably backfilled.

1983

On the 1983 survey there appeared to be no significant changes to the site but in the surrounding area a telephone exchange was now located some 200 metres to the north west and an ambulance station was now shown some 80 metres to the south east adjacent to the east of the fire station.

The abattoir and smithy some 70 and 185 metres to the south east and north north west were no longer shown and the drainage channel some 50 metres to the west of the site was no longer present south of 100 metres to the south west of the site, presumably backfilled or culverted.

1984

By the time of the 1984 survey there had been no significant changes to the site although the goods shed was no longer labelled as a goods shed and the building approximately 10 metres to the south of the site and the goods shed were now labelled as works.

In the surrounding area two refuse tips were located some 10 and 90 metres to the south west and the telephone exchange some 45 metres to the north was no longer labelled as a telephone exchange. The previous abattoir building some 70 metres to the south west had been demolished and another abattoir was now located adjacent to the north of the previous building.

The works located some 150 metres to the east south east was no longer present, the garage some 50 metres to the north east was now labelled as a depot and the drain some 50 metres to the west of the site had been further backfilled or culverted.

1987

On the 1987 survey there had been some changes to the site as the railway lines crossing through the site were now labelled as disused and had been dismantled further down the line approximately 300 metres to the west. The railway sidings onsite were also noted to have been dismantled. In the surrounding area Nether Mill and its associated mill race some 350 metres to the north were no longer noted to be present and the mill race presumably backfilled.

1993

By the time of the 1993 survey the railway lines crossing the site had all been dismantled and adjacent to the north of the site there was a row of detached and semi detached residential properties.

2002

On the 2002 survey there had again been a change to the site with a works building located along the southern boundary to the west of the existing works building. In the surrounding area the refuse tips some 10 and 90 metres to the south west were no longer shown and the area had been covered and is labelled as a recreation ground. Bridge Mill Works was also now shown some 285 metres to the north.

2008

By the time of the 2008 survey there had been a change to the site as a cycle path was shown to run across the site adjacent to the northern boundary. In the surrounding area the abattoir some 60 metres to the south east was no longer present.

Conclusions

The first historical plan available (1891) shows the site to comprise railway lines and railway sidings and they were generally trending west to east across the site. A couple of the sidings in the south of the site were shown to terminate at a small goods shed in a central area along the southern boundary. Others were noted to terminate at the end of St. Mary's Street in the south eastern corner. Two small buildings were also present along the southern boundary and the north western corner of the site comprised an area of land sloping downwards in a northerly direction as the railway in this area was sitting on an embankment.

On the 1903 to 1906 surveys more railway lines and sidings were present and covered the large majority of the site. A crane was also noted close to the southern boundary but was no longer present on the 1959 survey.

St Mary's Street – NE2938

By the time of the 1987 survey the railway lines were labelled as disused, the railway sidings onsite had been dismantled and by the time of the 1993 survey all of the railway lines onsite had been dismantled. On the 2002 survey a works building was located along the southern boundary to the west of the existing goods shed which was now a works building and on the 2008 survey a cycle path was shown to run across the site in a west to east direction, adjacent to the northern boundary.

Further consideration should be given to the presence of the railway lines and sidings that were present onsite sometime before 1891 and up until sometime between 1987 and 1993. It is possible that ash ballast, sometimes comprising crushed slag from the steel making processes and steam locomotive ash, was placed down beneath the railway lines and sidings and this could contain metals, phenols, sulphates and polynuclear aromatic hydrocarbons.

As part of the railway line was on an embankment it is likely that fill material was used to bring the levels up and this may have involved the use of waste materials for example clinker, ash etc. from the local area. Herbicides may also have been used onsite in the past to prevent the growth of weeds on the tracks and along the lineside and in the past chemicals such as atrazine and simazine were used.

Fuel oils, lubricating oils and greases may cause localised contamination where locomotives, vehicles and machinery have stood over time and possibly leaked. Spillages may also have occurred from the cargoes entering the site, which would have consisted of a variety of potential contaminants. It is likely that lubricant oils were used in the area of the crane for its movement and it is also possible that asbestos fibres may be present onsite as train brakes were and still are made partly of asbestos.

Electrical switching gear and small transformers on locomotives and carriages also contained poly chlorinated biphenyls which may have spilt or been damaged.

Further consideration should also be given to the two refuse tips some 10 and 90 metres to the south west as they have the potential to create landfill gases that could migrate towards the site as well as landfill gases produced by the made ground of the embankment itself.

2.2 Geological Appraisal

The appended GroundSure "GeolInsight Report" has been used in conjunction with the published British Geological Survey (BGS) Glossop Sheet 86, solid and drift edition at 1:50,000 scale, an extract of which is given as Figure 3.

Made Ground

The geological survey indicates that the site is not underlain by made ground, however the site has comprised railway lines and sidings since before 1891 up until sometime between 1987 to 1993 therefore made ground is anticipated to be present across the site.

Drift

The geological survey indicates that the site is not underlain by drift deposits; however we would expect some residual soils of completely weathered bedrock to be present on site.

Solid

The geological survey indicates the site is underlain by the Lower Coal Measures of Westphalian A age of the Carboniferous period. Coal Measures strata normally comprise interbedded mudstones, siltstones and subordinate sandstones with occasional economically important mineral seams of coal and ironstone.

The Penistone Flags, a sandstone, are shown to crop out at the surface across the western two thirds of the site and the very south eastern corner of the site.

The bedded strata are anticipated to down dip to the north east at an unknown angle and are apparently unaffected by geological faults.

The Crow coal seam is shown to crop out to the west of the site, as shown on Figure 3. Due to the dip of strata the seam should be anticipated to be at an increasingly greater depth in a north easterly direction.

Ground Workings

According to the environmental data report there are eighteen historical surface ground working features from small scale mapping within 250 metres of the site. These are associated with refuse heaps, a cemetery and a pond some 7, 160 and 230 metres to the south, west and north west respectively, unspecified pits some 210 and 231 metres to the north and north west respectively, cuttings some 213 and 250 metres to the west and a mortuary some 234 metres to the north west .

There are no historical underground working features from small scale mapping within 1000 metres of the site and there are seven current ground workings within 1000 metres of the site. The current ground workings are located some 132 and 489 metres to the east, 511 and 895 metres to the south west and 637, 933 and 961 metres to the north, south and west of the site respectively and their uses are all noted to be sandstone.

Borehole Records

The environmental data report reveals there are no BGS recorded boreholes within 250 metres of the site.

Mining, Extraction and Natural Cavities

According to the environmental data report there are no historical mining areas within 1000 metres of the site; however the site is situated within a coal mining area with the site being given a low to moderate hazard rating of subsidence relating to shallow mining. This means that the rocks underlying the area are of a type known to have been mined at shallow depth in some parts of the UK, and that such workings may be possible in this area. We would therefore recommend that a Coal Authority Mining Report is obtained.

There are also no non-coal mining cavities or natural cavities within 1000 metres of the site boundary. The environmental data report also reveals that there are no brine or gypsum extractions or tin or clay mining areas within 1000 metres of the site.

3 Environmental Appraisal

An environmental data search has been carried out by GroundSure and the results are given in the "EnviroInsight Report". A summary is as follows:

Integrated Pollution Control (IPC)/ Integrated Pollution Prevention Control (IPPC) Authorisations

The environmental data report indicates that there are no IPC/ IPPC Authorisations within 500 metres of the site boundary.

Local Authority Pollution Control (LAPC)/ Local Authority Pollution Prevention Control (LAPPC) Authorisations

According to the environmental data report there is one LAPC/ LAPPC Authorisation within 500 metres of the site boundary located some 268 metres to the north and the process comprises petrol vapour recovery.

Radioactive Substance Licences

The environmental data report indicates that there are no records of Category 3 or 4 Radioactive Substance Licenses within 500 metres of the site boundary.

Discharges

According to the environmental data report there are no records of Water Industry Referrals (potentially harmful discharges to the public sewer) or records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500 metres of the site boundary. There are however three licensed discharge consents within 500 metres of site boundary located some 276, and two some 330 metres to the north with the discharges comprising sewage discharges.

Pollution Incidents

The environmental data report indicates that there have been five recorded pollution incidents within 250 metres of the site boundary and these are all List 2 incidents. A pollution incident occurred in February 2002 and September 2003 some 66 and 234 metres to the south east and north respectively. The pollutants comprised commercial waste and crude sewage which had a minor land and minor water impact respectively.

Three pollution incidents were noted on the same day in May 2003 all some 110 metres to the north west with the pollutant comprising fumes and smoke which had a minor air impact.

Registered Landfill Sites

According to the environmental data report one Environment Agency historic landfill site is shown to encroach the south western corner of the site. The waste type is noted to be inert industrial and the landfill license was surrendered in 1985.

One non-operational landfill site and one BGS/ DoE non-operational landfill site are located within 250 metres of the site boundary both some 100 metres to the west.

There are also two Local Authority landfill sites within 250 metres of the site boundary, located some 19 and 69 metres to the south.

Other Waste Transfer, Treatment and Disposal

According to the environmental data report there are no waste transfer, treatment and disposal sites within 500 metres of the site boundary.

Current Land Use

Current potentially contaminative industrial land uses are recorded by the environmental data report. Within the site boundary are two and these comprise a construction and tool hire company and a vehicle repair and servicing company.

Within 50 metres of the site boundary there are three potentially contaminative industrial land uses and these comprise a works some 4 metres to the south and a distribution and haulage company and a garage both some 18 metres to the south. Within 50 and 250 metres of the site there are 20 potentially contaminative industrial land uses and these and their distances from the site are listed in the appended environmental data report.

There is one fuel site located within 500 metres of the site boundary and it is Bridge End Service Station located some 292 metres to the north.

Hydrogeology and Hydrology

The Environment Agency Groundwater Vulnerability map of the site area, Sheet 11 dated 1997, forms the basis of the GroundSure Hydrogeology map. The map shows that the site area is underlain by a Minor Aquifer with soils of Low Leaching Potential.

Soils of Low Leaching Potential have the ability to attenuate diffuse source pollutants or pollutants are unlikely to penetrate the soil layer.

According to the environmental data report there are two groundwater abstraction licences within 1000 metres of the site boundary both located some 704 metres to the south east. There are no surface water or potable water abstraction licenses within 1000 metres of the site boundary.

The site is not within a Source Protection Zone set up to protect a water source and there are no Source Protection Zones set up to protect a water source within 500 metres of the site boundary.

Should contamination be present, given the above, there may be a low risk to controlled waters, including groundwater and/ or surface water (ponds, open ditches and water courses).

Flooding

The environmental data report indicates that the site is within 250 metres of an Environment Agency Zone 2 and Zone 3 floodplain and they are located some 219 and 223 metres to the north. These are both associated with the River Don some 235 metres to the north.

There are no flood defences, areas benefiting from flood defences or areas used for flood storage within 250 metres of the site.

According to the environmental data report the British Geological Survey indicate that the site has a moderately low risk from groundwater flooding.

Environmental Sensitivity

According to the environmental data report the site is situated in a Nitrate Vulnerable Zone (NVZ) and another NVZ is located some 499 metres to the east.

Natural Hazards

The environmental data report indicates that the hazard rating on site from landslides and from shrink swell is low and very low respectively and from soluble rocks, compressible ground, collapsible rocks and running sand is negligible.

Radon

The GroundSure "GeoInsight Report" contains information from the Radiation Protection Division of the Health Protection Agency (HPA).

The HPA indicate that the site is unlikely to be affected by radon gas as <1% of surrounding properties are above the Action Level. The Action Level is 200 Becquerels/ m³.

Also the GroundSure "GeoInsight Report" indicates that for new properties or extensions to existing properties, in accordance with the Building Research Establishment (BRE) publication BR211, radon protection measures are not necessary.

2.4 Conceptual Ground Model

A conceptual ground model of a site and its environs uses available information to form a preliminary assessment of contamination sources, pathways and receptors, and the significance of hazards that exist or will potentially exist on the site. Its purpose is to identify the relationships between sources of contamination, pathways and receptors to allow exposure scenarios to be determined and thereby aid in the design of any intrusive investigation. It also forms the basis of the risk assessment.

We have produced a conceptual ground model based upon the available information, as follows:

TABLE 3 CONCEPTUAL GROUND MODEL

Potential Source	Nature of Hazard	Contaminants Associated with the Source	Pathway	Receptor	Preliminary Risk Rating
Made Ground due to railway embankments and ash ballast beneath the railway and sidings	Contaminants in Made Ground	<u>Gen. Contaminants</u> Arsenic Cadmium Chromium Lead Mercury Nickel Selenium Boron Copper Zinc Cyanide Sulphide Sulphate pH Phenols Polynuclear Aromatic Hydrocarbons (PAH) Total Petroleum Hydrocarbons (TPH)	Ingestion of soil	Site Operatives	Very high
			Ingestion of dust	End Users	
			Ingestion of contaminated vegetable produce		
			Dermal contact		
			Inhalation of dust		
			Inhalation of vapours		
			Uptake via contaminated groundwater	Vegetation	
			Vertical and lateral movement of mobile contaminants to surface water and groundwater	Controlled Waters Structures and Services	
			Direct contact	Structures and Services	
Made Ground of the railway embankments	Ground Gas (Asphyxiation, fire and explosion)	Methane Carbon Dioxide	Inhalation of gas Ignition of gas	Site Operatives End Users	Moderate
Railway Sidings/ Tanks/ Machinery/ Vehicles	Fuel/ oil spillage and/or leakage from machinery and/or fuel/oil tanks and/or vehicles	Total Petroleum Hydrocarbons (TPH) Benzene/ Toluene/ Ethylbenzene/ Xylene (BTEX) Chlorinated Solvents Volatile Organic Compounds (VOC's) Semi-Volatile Organic Compounds (SVOC's) Polychlorinated Biphenyls (PCB's)	Ingestion of soil	Site Operatives	High
			Ingestion of dust	End Users	
			Ingestion of contaminated vegetable produce		
			Dermal contact		
			Inhalation of dust		
			Inhalation of vapours		
			Uptake via contaminated groundwater	Vegetation	
			Vertical and lateral movement of mobile contaminants to surface water and groundwater	Controlled Waters Structures and Services	
			Direct contact	Structures and Services	

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Asbestos in insulation and roofing materials and the brakes of trains	Asbestos	Asbestos fibres	Inhalation of fibres	Site Operatives End Users	Moderate
Landfill encroaching the sw corner of the site and the refuse tips some 10 & 90m to the sw.	Ground Gas (Asphyxiation, fire and explosion)	Methane Carbon Dioxide	Inhalation of gas Ignition of gas	Site Operatives End Users	High
Mining (1)	Ground Gas (Asphyxiation, fire and explosion)	Methane Carbon Dioxide	Inhalation of gas Ignition of gas	Site Operatives End Users	Low
Mining (2)	Subsidence	-	-	Structures and services	Low to Moderate
Cemetery some 160 metres to the west	Ground Gas (Asphyxiation, fire and explosion)	Methane Carbon Dioxide	Inhalation of gas Ignition of gas	Site Operatives	Very low
Herbicides used on railway lines to prevent the growth of weeds.	Use of/ spillage/ leachate of Herbicides	Herbicides Atrazine Simazine	Ingestion of soil	Site Operatives End Users	Moderate
			Ingestion of dust		
			Ingestion of contaminated vegetable produce		
			Dermal contact		
			Inhalation of dust		
			Inhalation of vapours		
			Uptake via contaminated groundwater	Vegetation	
			Vertical and lateral movement of mobile contaminants to surface water and groundwater	Controlled Waters Structures and Services	
			Direct contact	Structures and services	

3. RECOMMENDATIONS

From the conceptual ground model given in section 2.4 we would recommend the following investigations:-

1. Intrusive investigation to assess the ground conditions and obtain samples for chemical contamination analysis of soil, leachate and groundwater.
2. Should fibres or friable asbestos material be found on site during the investigation it should also be sampled and analysed.
3. Installation and monitoring of gas standpipes in boreholes for landfill gases.
4. A Coal Authority Mining Report is obtained to assess the risk from shallow mine workings onsite.
5. Rotary boreholes to assess the geology and to establish the risk of shallow mine workings.

We trust that this report fulfils your present requirements but if you have any queries or we can be of further assistance please contact the undersigned or Mr. D. Simpson at our Ossett office.

SUB SURFACE NORTH EAST LIMITED
REPORT No. NE2938
JUNE 2009

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Environmental Scientist
For and on behalf of
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GEOINSIGHT REPORT

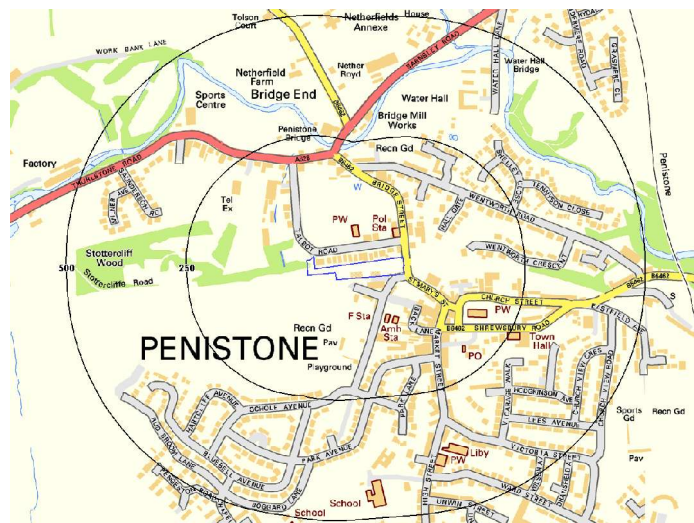
GroundSure GeoInsight

Address: St Mary's Street, Penistone

Date: May 29, 2009

Report Reference: CMAPS-CM-29728-4199-290509GEO

Your Reference: 4199



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Sub Surface Report Number: NE2938

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If you would like any further assistance regarding this report then please contact CENTREMAPS on (T) 01886 832972, (F) 01883 833485, email: groundsure@centremaps.co.uk

Aerial Photograph of Study Site



Aerial photography supplied by Getmapping PLC.
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Site Name: St Mary's Street, Penistone
Grid Reference: 424400,403408

Overview of Findings

The GroundSure GeolInsight provides high quality geo-environmental information that allows geo-environmental professionals and their clients to make informed decisions and be forewarned of potential ground instability problems that may affect the ground investigation, foundation design and possibly remediation options that could lead to possible additional costs.

The report is based on the BGS 1:50,000 Digital Geological Map of Great Britain, BGS Geosure data; BRITPITS database; Shallow Mining data and Borehole Records, Coal Authority data including brine extraction areas, PBA non-coal mining and natural cavities database and GroundSure's unique database including historical surface ground and underground workings.

For further details on each dataset, please refer to each individual section in the report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Report Section	Number of records found within (X) m of the study site boundary
1. Geology	
Description	
1.1 Artificial Ground,	
1.1.1 Is there any Artificial Ground /Made Ground present beneath the study site? *	No
1.1.2 Are there any records relating to permeability of artificial ground within the study site* boundary?	No
1.2 Superficial Geology & Landslips	
1.2.1 Is there any Superficial Ground /Drift Geology present beneath the study site? *	No
1.2.2 Are there any records relating to permeability of superficial geology within the study site* boundary?	No
1.2.3 Are there any records of landslip within 500m of the study site boundary?	No
1.2.4 Are there any records relating to permeability of landslips within the study site* boundary?	No
1.3 Bedrock, Solid Geology & Faults	
1.3.1 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	
1.3.2 Are there any records relating to permeability of bedrock within the study site* boundary?	Yes
1.3.3 Are there any records of faults within 500m of the study site boundary?	Yes
1.3.4 Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?	The property is not in a radon Affected Area, as less than 1% of properties are above the Action Level
1.3.5 Is the property in an area where Radon Protection Measures are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?	No radon protective measures are necessary

* This includes an automatically generated 50m buffer zone around the site

Source:Scale 1:50,000 BGS Sheet No:086

2. Ground Workings	on-site	0-50	51-250	251-500	501-1000
2.1 Historical Surface Ground Working Features from Small Scale Mapping	0	1	17	-	-
2.2 Historical Underground Workings Features from Small Scale Mapping	0	0	0	0	0
2.3 Current Ground Workings	0	0	1	1	5

3. Mining, Extraction & Natural Cavities	on-site	0-50	51-250	251-500	501-1000
3.1 Historical Mining	0	0	0	0	0
3.2 Coal Mining	1	0	0	0	0
3.3 Shallow Mining*	2	-	-	-	-
3.4 Non – Coal Mining Cavities	0	0	0	0	0
3.5 Natural Cavities	0	0	0	0	0
3.6 Brine Extraction	0	0	0	0	0
3.7 Gypsum Extraction	0	0	0	0	0
3.8 Tin Mining	0	0	0	0	0
3.9 Clay Mining	0	0	0	0	0

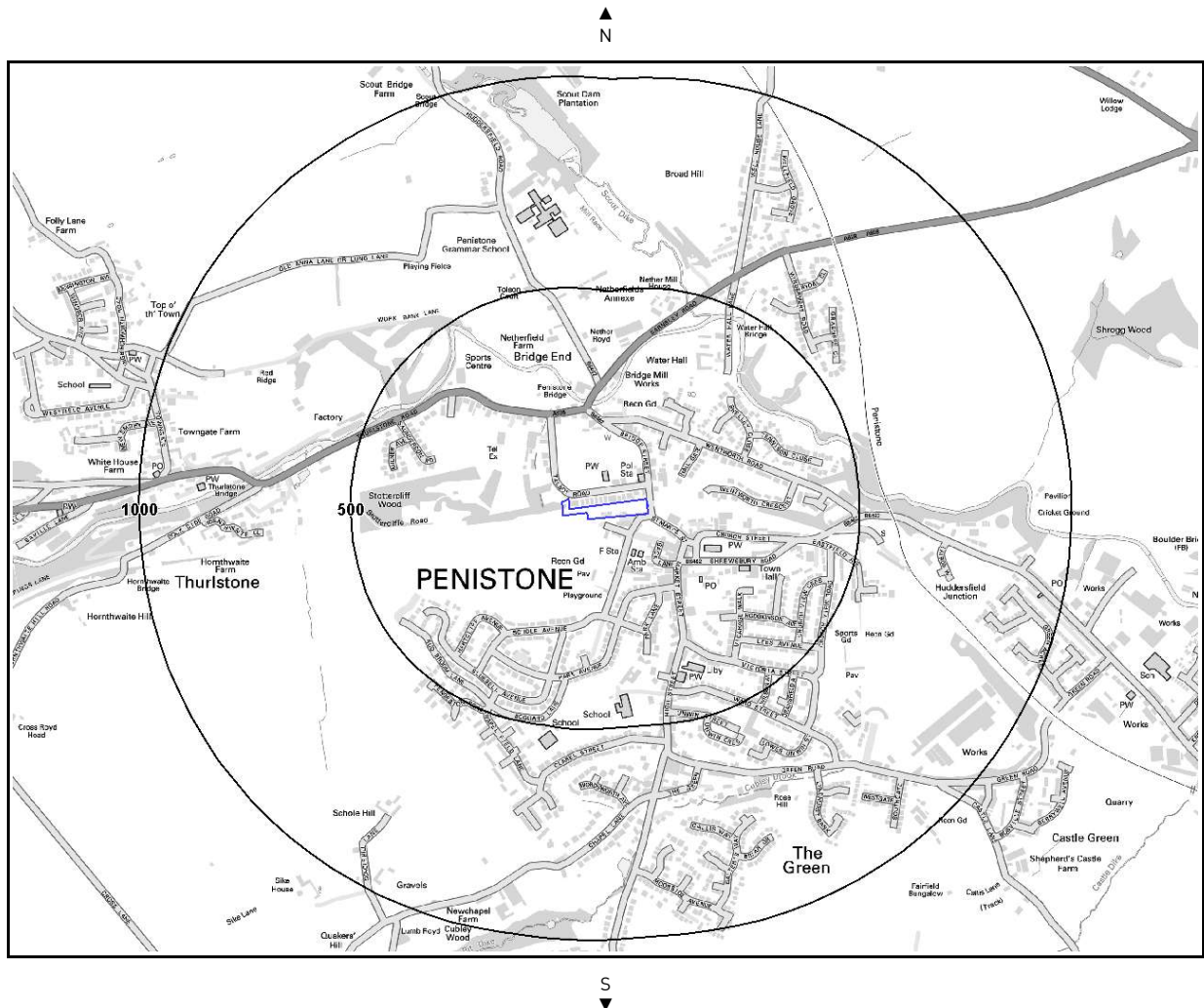
*This includes an automatically generated 150m buffer zone around the site

4. Natural Ground Subsidence	on-site*	0-50	51-250	251-500	501-1000
4.1 Shrink-Swell Clay	Very Low	-	-	-	-
4.2 Landslides	Low	-	-	-	-
4.3 Ground Dissolution of Soluble Rocks	Negligible	-	-	-	-
4.4 Compressible Deposits	Negligible	-	-	-	-
4.5 Collapsible Deposits	Negligible	-	-	-	-
4.6 Running Sand	Negligible	-	-	-	-

* This includes an automatically generated 50m buffer zone around the site

5. Borehole Records	on-site	0-50	51-250	251-500	501-1000
5.1 BGS Recorded Boreholes	0	0	0	-	-




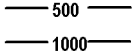




1.1 Artificial Ground Map



Artificial Ground Legend



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	Site Outline		Made Ground (undivided)		Disturbed Ground (undivided)
	Search Buffers (m)		Worked Ground (undivided)		Landscaped Ground (undivided)
			Infilled Ground		Reclaimed Ground

Geological information represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

1.1 Artificial Ground

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:086

1.1.1 Artificial/Made Ground

Are there any records of Artificial/Made Ground within 500m of the study site boundary: **No**

Database searched and no data found.

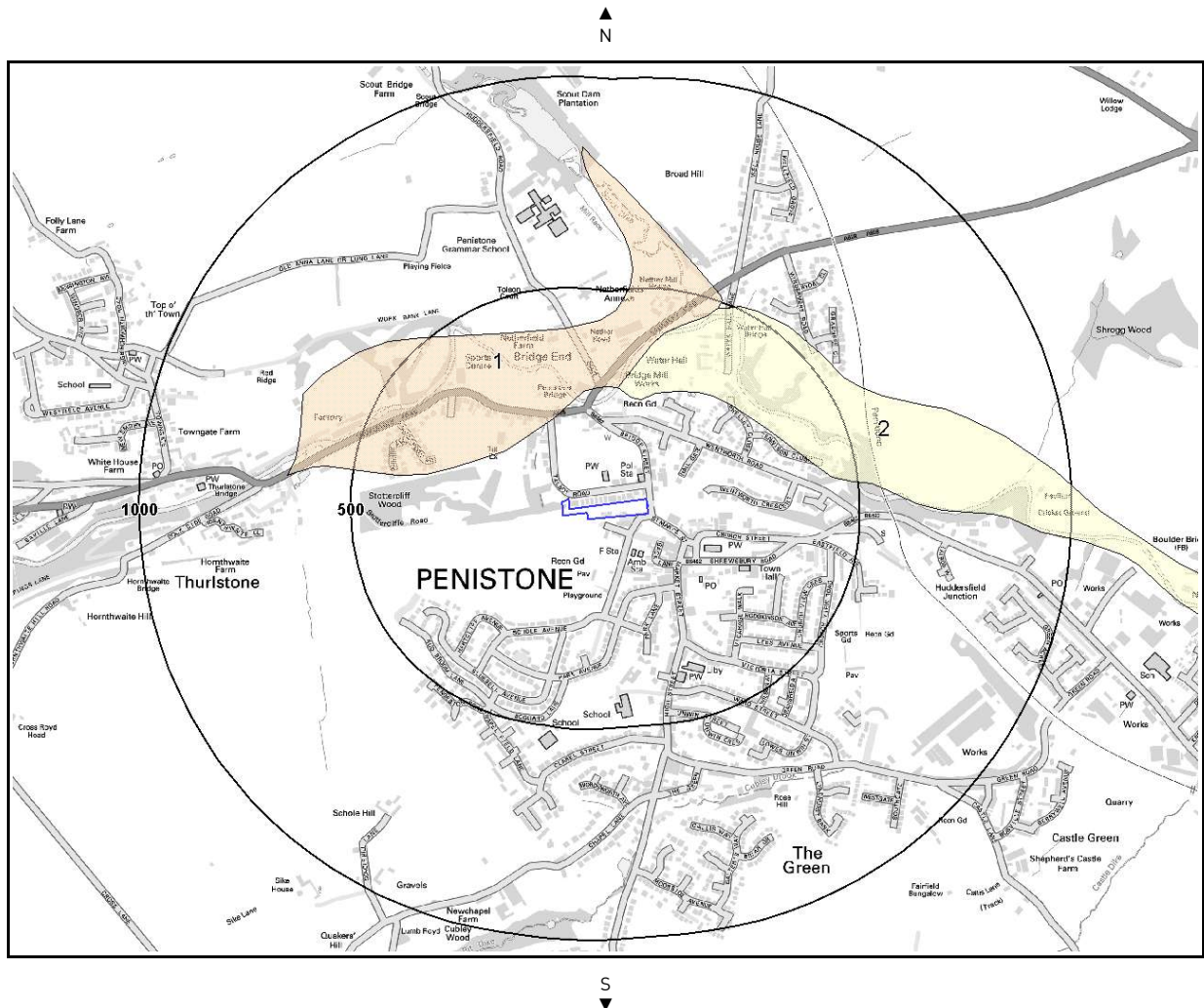
1.1.2 Permeability of Artificial Ground

Are there any records relating to permeability of artificial ground within the study site* boundary: **No**

Database searched and no data found.

* This includes an automatically generated 50m buffer zone around the site.

1.2 Superficial Deposits and Landslips Map



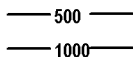
Superficial and Landslips Legend



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Site Outline



Search Buffers (m)

Geological information represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

1.2 Superficial Deposits and Landslips

1.2.1 Superficial Deposits/Drift Geology

Are there any records of Superficial Deposits/Drift Geology within 500m of the study site boundary: **Yes**

ID	Distance (m)	Direction	Lex Code	Description	Rock Description
1	176.0	NW	RTDU-SAGR	RIVER TERRACE DEPOSITS (UNDIFFERENTIATED)	SAND AND GRAVEL
2	237.0	N	ALV-CSSG	ALLUVIUM	CLAY, SILT, SAND AND GRAVEL

1.2.2 Permeability of Superficial Ground

Are there any records relating to permeability of superficial ground within the study site* boundary: **No**

Database searched and no data found.

1.2.3 Landslip

Database searched and no data found.

Are there any records of Landslip within 500m of the study site boundary? **No**

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discreet layers, these are: Artificial / Made Ground, Superficial / Drift Geology and Landslips. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

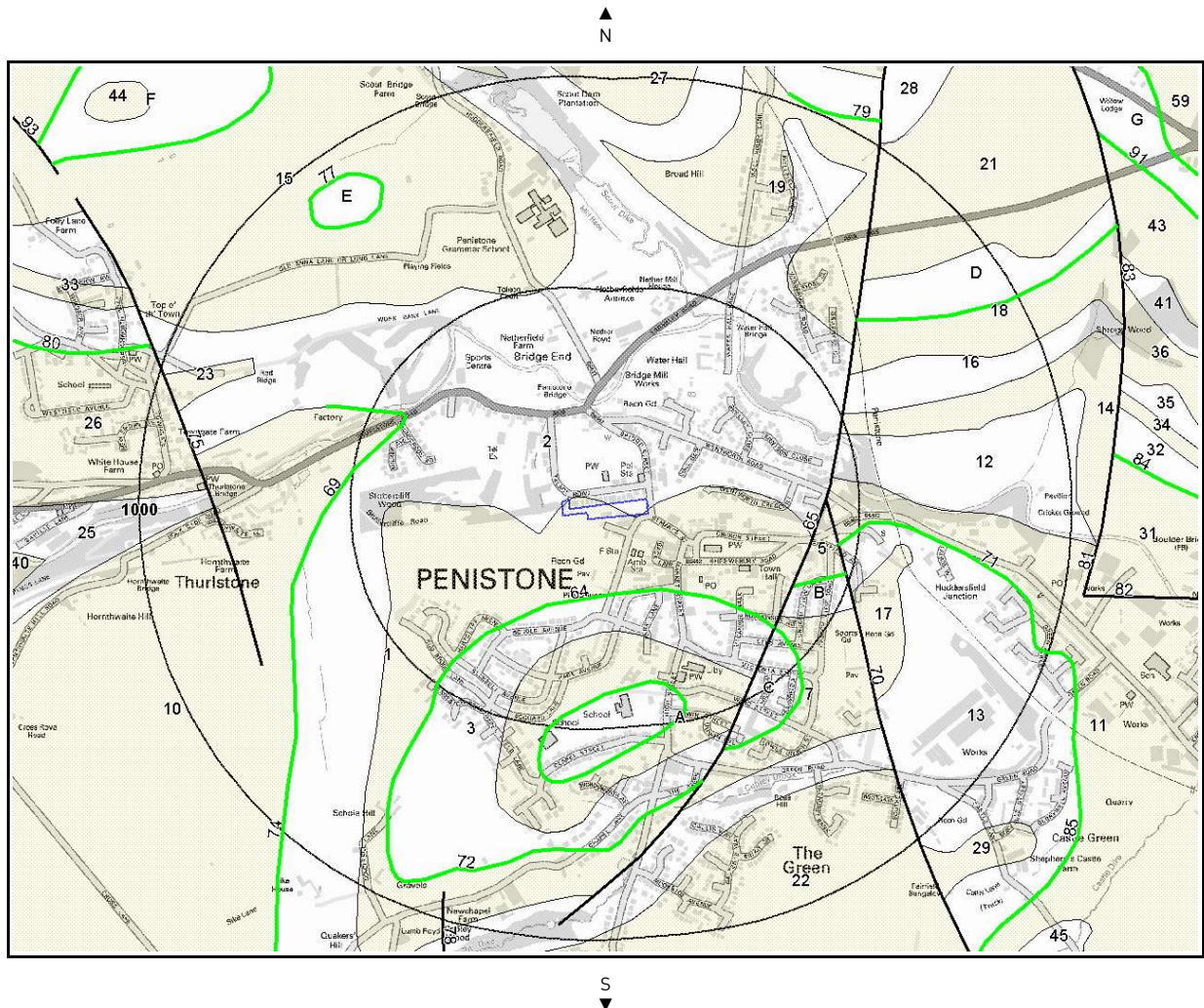
1.2.4 Landslip Permeability

Are there any records relating to permeability of landslips within the study site* boundary: **No**

Database searched and no data found.

* This includes an automatically generated 50m buffer zone around the site.

1.3 Bedrock and Faults Map



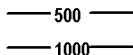
Bedrock & Faults Deposits Legend



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Site Outline



Search Buffers (m)

Geological information represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

1.3 Bedrock, Solid Geology & Faults

The following geological information represented on the mapping is derived from 1:50,000 scale BGS Geological mapping, Sheet No:086

1.3.1 Bedrock/Solid Geology

Records of Bedrock/Solid Geology within 500m of the study site boundary:

ID	Distance [m]	Direction	LEX Code	Rock Description	Rock Age
1	0.0	On Site	PF-SDST	Penistone Flags - Sandstone	Langsettian (westphalian A)
2	0.0	On Site	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian (westphalian A)
3	181.0	S	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian (westphalian A)
4A	270.0	S	PF-SDST	Penistone Flags - Sandstone	Langsettian (westphalian A)
5	381.0	SE	PF-SDST	Penistone Flags - Sandstone	Langsettian (westphalian A)
6B	381.0	SE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian (westphalian A)
7	394.0	SE	PF-SDST	Penistone Flags - Sandstone	Langsettian (westphalian A)
8A	397.0	S	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian (westphalian A)
9C	403.0	SE	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian (westphalian A)
10	420.0	NW	GR-SDST	Grenoside Sandstone - Sandstone	Langsettian (westphalian A)
11	421.0	E	PF-SDST	Penistone Flags - Sandstone	Langsettian (westphalian A)
12	439.0	E	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian (westphalian A)
13	456.0	E	PLCM-MDSS	Pennine Lower Coal Measures Formation - Mudstone, Siltstone And Sandstone	Langsettian (westphalian A)
14	480.0	E	PF-SDST	Penistone Flags - Sandstone	Langsettian (westphalian A)
15	492.0	N	PF-SDST	Penistone Flags - Sandstone	Langsettian (westphalian A)

1.3.2 Permeability of Bedrock Ground

Are there any records relating to permeability of bedrock ground within the study site* boundary:

Yes

Distance [m]	Direction	Flow type	Maximum Permeability	Minimum Permeability
0.0	On Site	Fracture	High	Moderate
0.0	On Site	Fracture	High	Low

1.3.3 Faults

Are there any records of Faults within 500m of the study site boundary?

Yes

ID	Distance [m]	Direction	Category Description	Feature Description
64	181.0	S	ROCK	Coal seam, inferred
65	381.0	SE	FAULT	Normal fault, inferred
66B	381.0	SE	ROCK	Coal seam, inferred
67A	397.0	S	ROCK	Coal seam, inferred
68C	403.0	SE	ROCK	Coal seam, inferred
69	420.0	NW	ROCK	Coal seam, inferred
70	421.0	E	FAULT	Normal fault, inferred
71	456.0	E	ROCK	Coal seam, inferred

* This includes an automatically generated 50m buffer zone around the site.

Report Reference: [CMAPS-CM-29728-4199-290509GEO](#)

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If you would like any further assistance regarding this report then please contact CENTREMAPS on (T) 01886 832972, (F) 01883 833485, email: groundsure@centremaps.co.uk

The geology map for the site and surrounding area are extracted from the BGS Digital Geological Map of Great Britain at 1:50,000 scale.

This Geology shows the main components as discreet layers, these are: Bedrock/ Solid Geology and linear features such as Faults. These are all displayed with the BGS Lexicon code for the rock unit and BGS sheet number. Not all of the main geological components have nationwide coverage.

1.3.4 Radon Affected Areas

Is the property in a Radon Affected Area as defined by the Health Protection Agency (HPA) and if so what percentage of homes are above the Action Level?

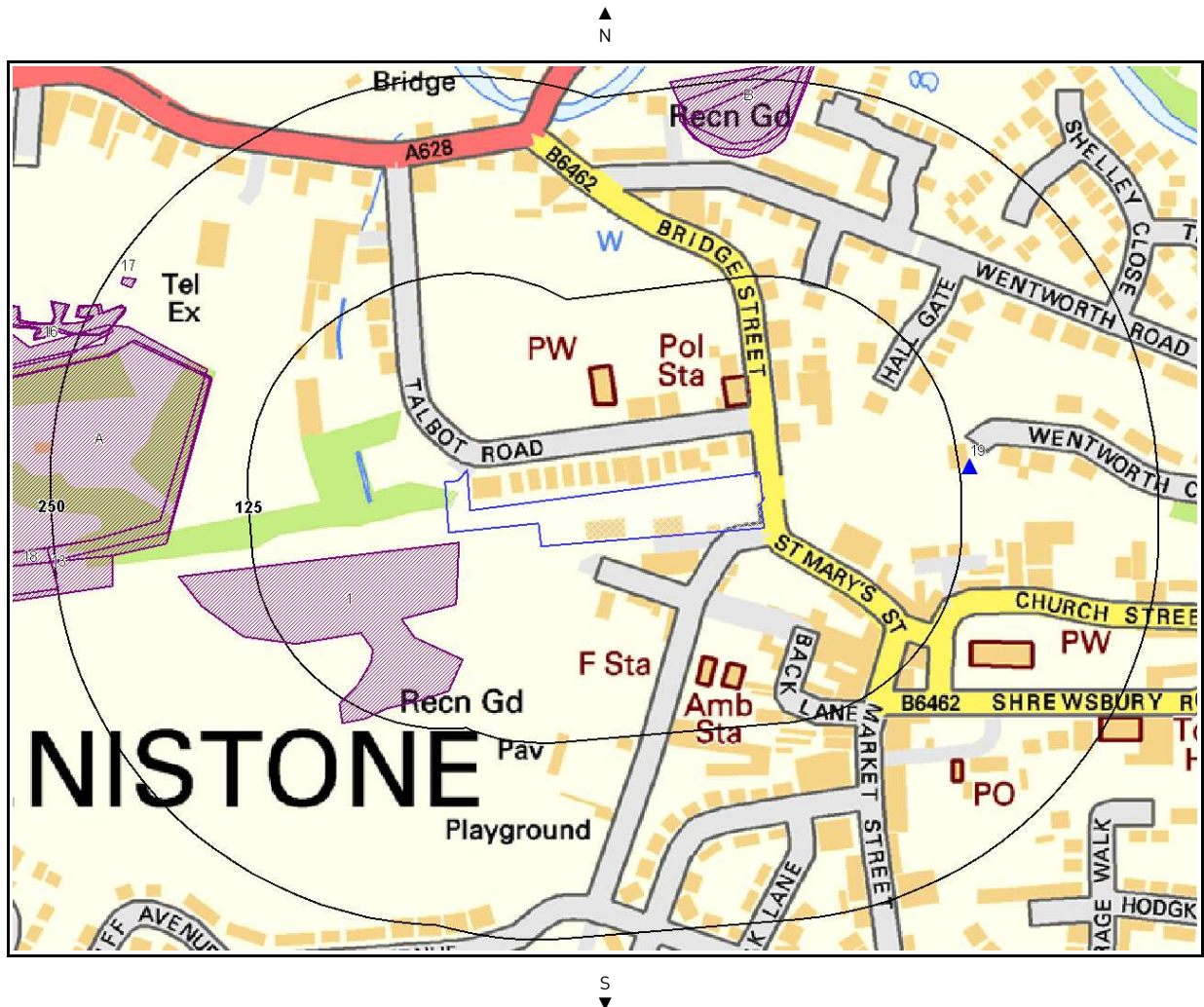
The property is not in a radon Affected Area, as less than 1% of properties are above the Action Level

1.3.5 Radon Protection

Is the property in an area where Radon Protection are required for new properties or extensions to existing ones as described in publication BR211 by the Building Research Establishment?

No radon protective measures are necessary





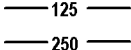
2. Ground Workings Map



Ground Workings Legend



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-  Site Outline
-  Historic Surface Ground Workings
-  Historic Underground Workings
-  Current Ground Workings
-  Search Buffers (m)
125
250

2. Ground Workings

2.1 Historical Surface Ground Working Features derived from the Historical Mapping

This dataset is based on GroundSure's unique Historical Land Use Database derived from 1:10,560 and 1:10,000 scale historical mapping.

Are there any Historical Surface Ground Working Features within 250m of the study site boundary? **Yes**

The following Historical Surface Ground Working Features are provided by GroundSure:

ID	Distance (m)	Direction	NGR	Use	Date
1	7.0	S	424220,403329	Refuse Heaps	1987
2A	160.0	W	424051,403442	Cemetery	1891
3A	161.0	W	424049,403441	Cemetery	1903
4A	161.0	W	424049,403441	Cemetery	1948
5A	165.0	W	424048,403451	Cemetery	1987
6A	165.0	W	424048,403451	Cemetery	1951
7A	165.0	W	424048,403451	Cemetery	1967
8B	201.0	N	424490,403664	Unspecified Pit	1903
9B	201.0	N	424490,403664	Unspecified Pit	1948
10B	205.0	N	424490,403664	Unspecified Pit	1987
11B	205.0	N	424490,403664	Unspecified Pit	1967
12B	210.0	N	424484,403667	Unspecified Pit	1951
13	213.0	W	423929,403351	Cuttings	1891
14C	230.0	NW	424023,403528	Pond	1891
15C	231.0	NW	424023,403528	Pond	1903
16	231.0	NW	424014,403513	Unspecified Pit	1948
17	234.0	NW	424099,403552	Mortuary	1948
18	250.0	W	424026,403367	Cuttings	1967

2.2 Historical Underground Workings Features derived from the Historical Mapping

This data is derived from the GroundSure unique Historical Land Use Database. It contains data derived from 1:10,000 and 1:10,560 historical Ordnance Survey Mapping and includes some natural topographical features (Shake Holes for example) as well as manmade features that may have implications for ground stability. Underground and mining features have been identified from surface features such as shafts. The distance that these extend underground is not shown.

Are there any Historical Underground Working Features within 1000m of the study site boundary? **No**

Database searched and no data found.

2.3 Current Ground Workings

This dataset is derived from the BGS BRITPITS database covering active; inactive mines; quarries; oil wells; gas wells and mineral wharves; and rail deposits throughout the British Isles.

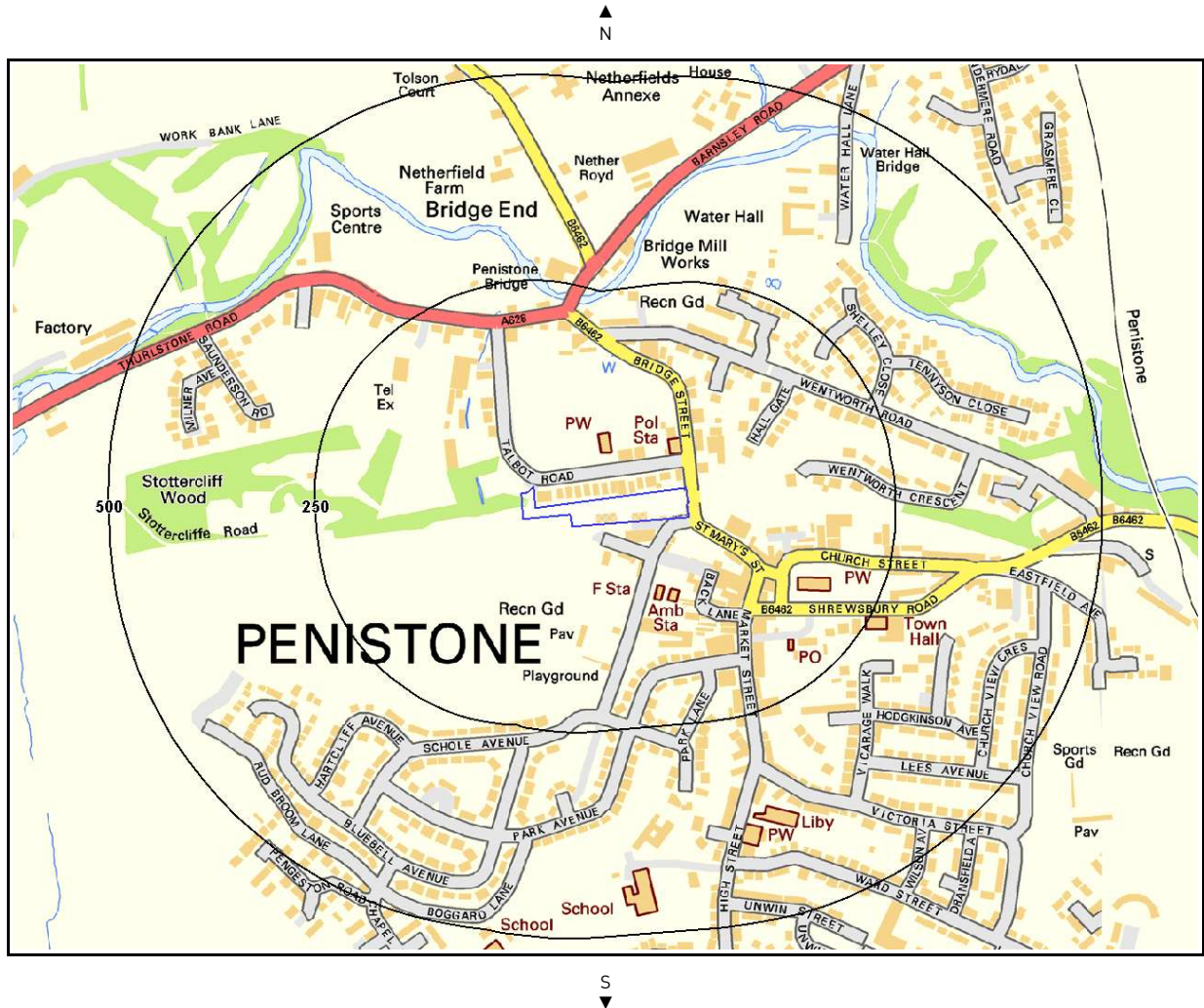
Are there any BGS Current Ground Workings within 1000m of the study site boundary? **Yes**

The following Current Ground Workings information is provided by British Geological Society:

ID	Distance (m)	Direction	NGR	Use	Date Updated
19	132.0	E	424631.0,403435.0	Sandstone	
Not shown	489.0	E	424987.0,403339.0	Sandstone	
Not shown	511.0	SW	424006.0,402976.0	Sandstone	

Not shown	637.0	N	424697.0,404036.0	Sandstone
Not shown	895.0	SW	423850.0,402620.0	Sandstone
Not shown	933.0	S	424448.0,402455.0	Sandstone
Not shown	961.0	W	423341.0,403346.0	Sandstone




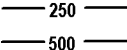

3. Mining, Extraction & Natural Cavities Map



Mining, Extraction & Natural Cavities Legend



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-  Site Outline
-  Historical Mining
-  Non-Coal Mining Cavities
-  Search Buffers (m)
-  Natural Cavities

3. Mining, Extraction & Natural Cavities

3.1 Historical Mining

This dataset is derived from GroundSure unique Historical Land-use Database that are indicative of mining or extraction activities.

Are there any Historical Mining areas within 1000m of the study site boundary? **No**

Database searched and no data found.

3.2 Coal Mining

This dataset provides information as to whether the study site lies within a known coal mining affected area as defined by the coal authority.

Are there any Coal Mining areas within 1000m of the study site boundary? **Yes**

The following Coal Mining information provided by the Coal Authority is not represented on Mapping:

Distance (m)	Direction	Details
0.0	On Site	The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848.

3.3 Shallow Mining

This dataset refers to the (largely very old) extraction of mineral deposits by means of near surface underground workings.

What is the maximum hazard rating of subsidence relating to shallow mining within the study site* boundary? **Low - Moderate**

*This includes an automatically generated 150m buffer zone around the study site boundary

The following Shallow Mining information provided by the British Geological Survey is not represented on Mapping:

Distance (m)	Direction	Hazard Rating	Details
0.0	On Site	Low - Moderate	Where low-moderate potential is indicated, this means that the rocks underlying the area are of a type known to have been mined at shallow depth in some parts of the UK, and that such working may be possible in your area. In these cases it is recommended that you seek further advice from a Royal Institute Chartered Surveyor (RICS), the local Building Control Officer, or by ordering a Geological Report from the BGS. It is also recommended that you obtain a Coal Authority mining search, which will provide a comprehensive search of former mining activity, including coal mining at deeper levels.
0.0	On Site	Low	Where low potential is indicated, this means that the rocks underlying the area are of a type known to have been mined at shallow depth in some parts of the UK, but that it is unlikely to be of significant concern in this area. However, it is recommended that you do obtain a Coal Authority mining search in this area, which will provide a comprehensive search of former mining activity, including coal mining at deeper levels.

3.4 Non – Coal Mining Cavities

This dataset provides information from the Peter Brett Associates (PBA) mining cavities database (compiled for the national study entitled "Review of mining instability in Great Britain, 1990" PBA has also continued adding to this database) on mineral extraction by mining.

Are there any Non-Coal Mining cavities within 1000m of the study site boundary? **No**

Database searched and no data found.

3.5 Natural Cavities

This dataset provides information based on Peter Brett Associates natural cavities database.

Are there any Natural Cavities within 1000m of the study site boundary? **No**

Database searched and no data found.

3.6 Brine Extraction

This dataset provides information from the Brine compensation board which has been discontinued and is now covered by the Coal Authority.

Are there any Brine Extraction areas within 1000m of the study site boundary?

No

Database searched and no data found.

3.7 Gypsum Extraction

This dataset provides information on Gypsum extraction from British Gypsum records.

Are there any Gypsum Extraction areas within 1000m of the study site boundary?

No

Database searched and no data found.

3.8 Tin Mining

This dataset provides information on tin mining areas and is derived from tin mining records.

Are there any Tin Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

3.9 Clay Mining

This dataset provides information on Kalin and Ball Clay mining from relevant mining records.

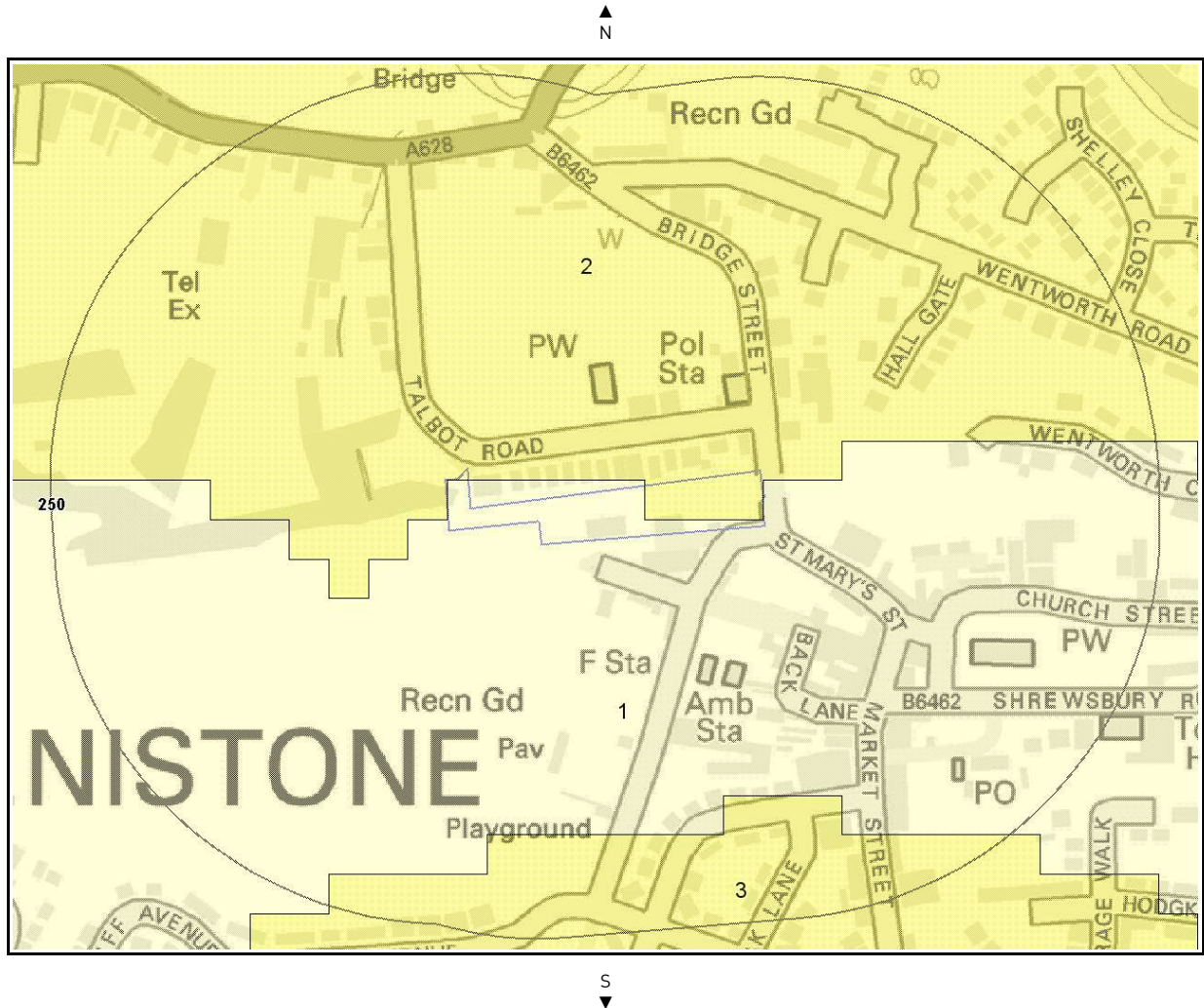
Are there any Clay Mining areas within 1000m of the study site boundary?

No

Database searched and no data found.

4. Natural Ground Subsidence

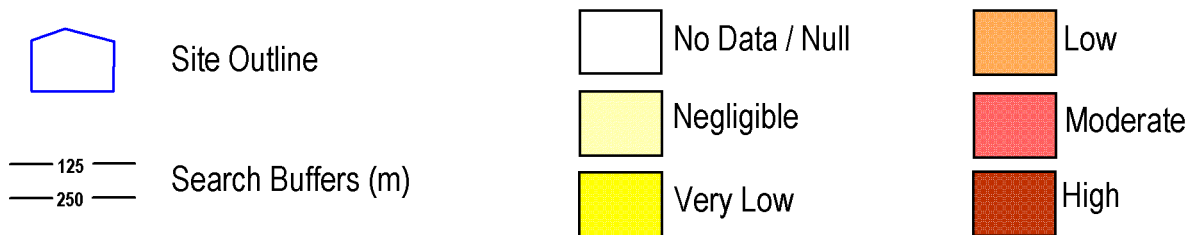
4.1 Shrink-Swell Clay Map



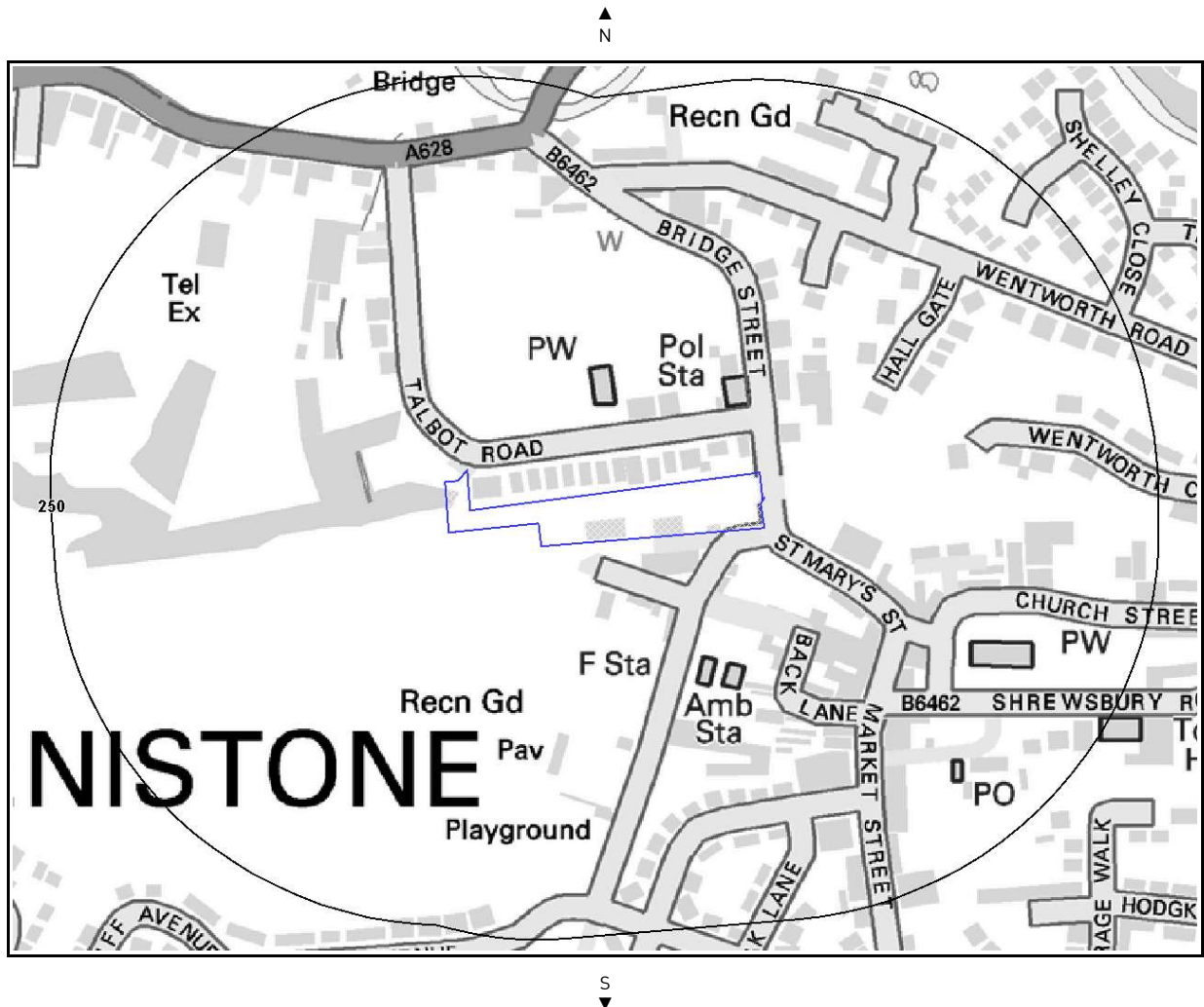
Shrink-Swell Clay Legend



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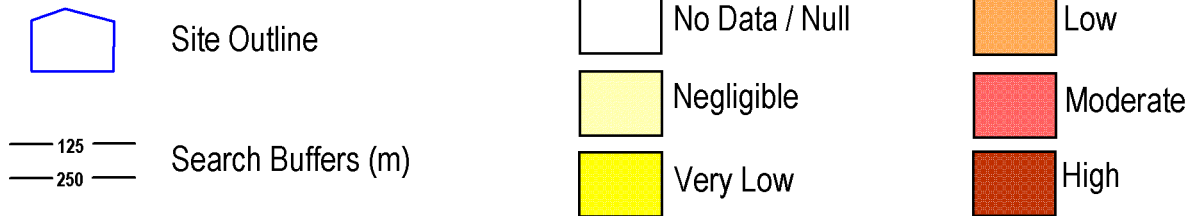
4.3 Ground Dissolution Soluble Rocks Map



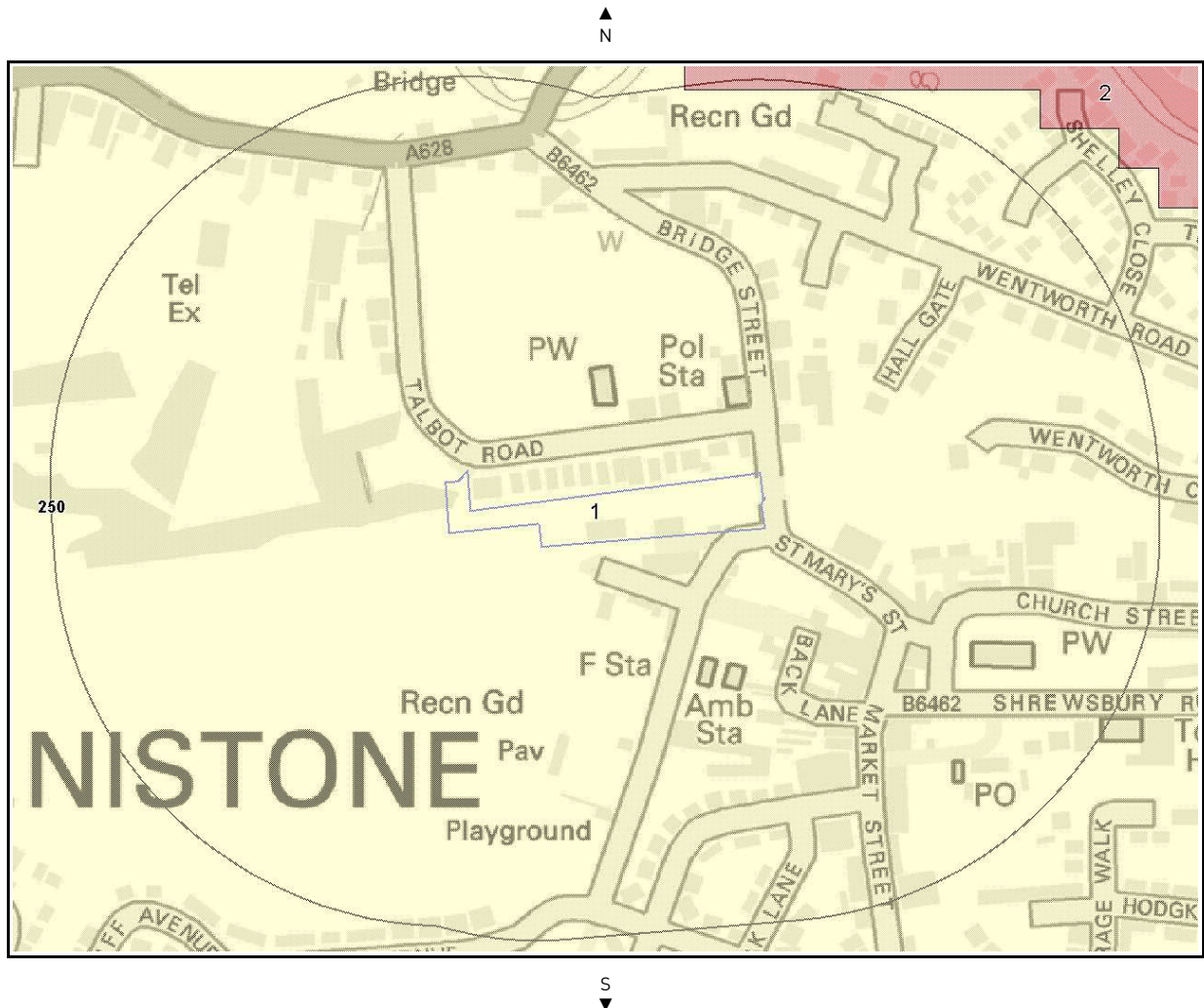
Ground Dissolution Soluble Rocks Legend



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4.4 Compressible Deposits Map



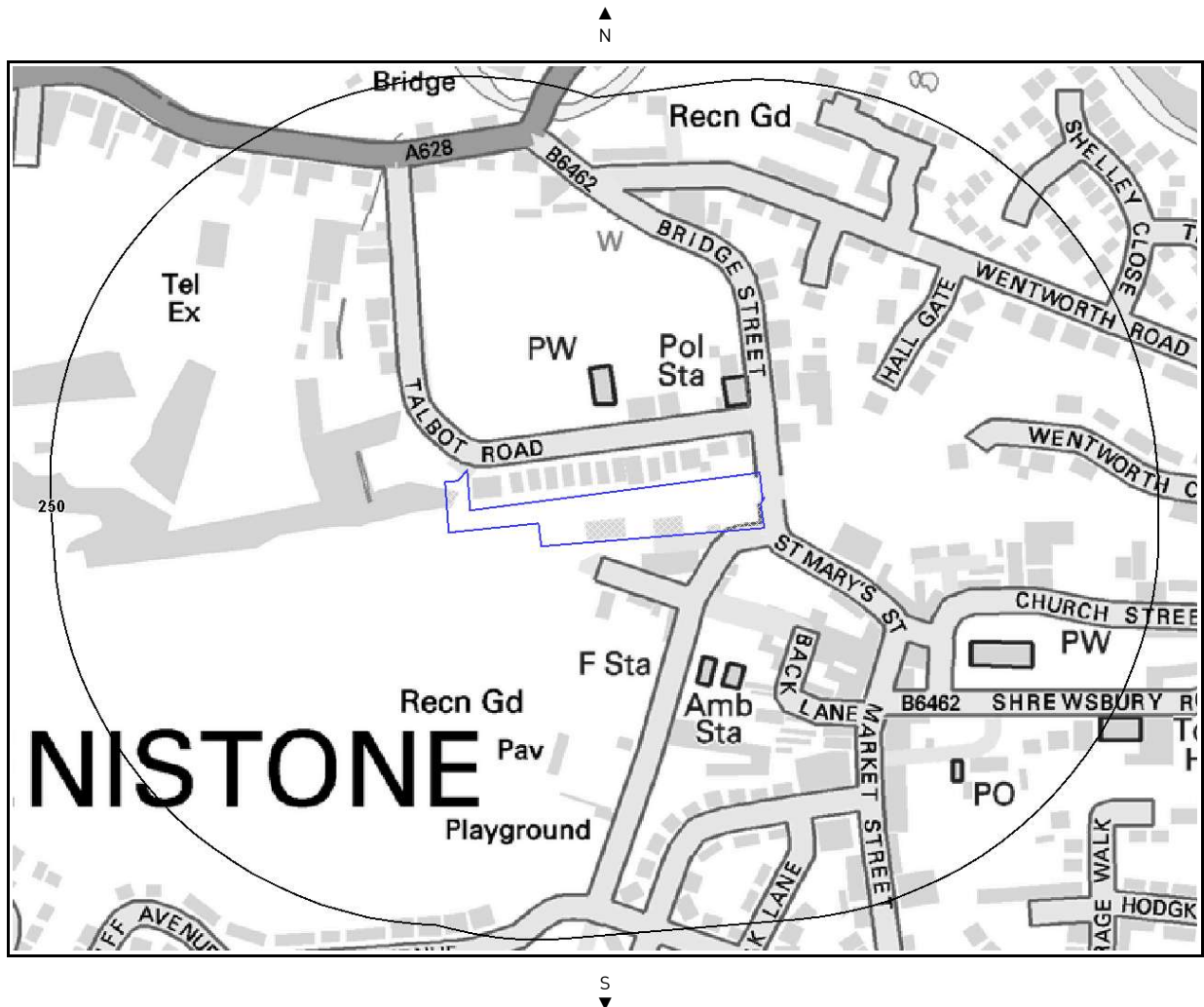
Compressible Deposits Legend



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- 125
- 250
- Site Outline
- Search Buffers (m)
- No Data / Null
- Negligible
- Very Low
- Low
- Moderate
- High



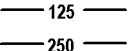

4.5 Collapsible Deposits Map



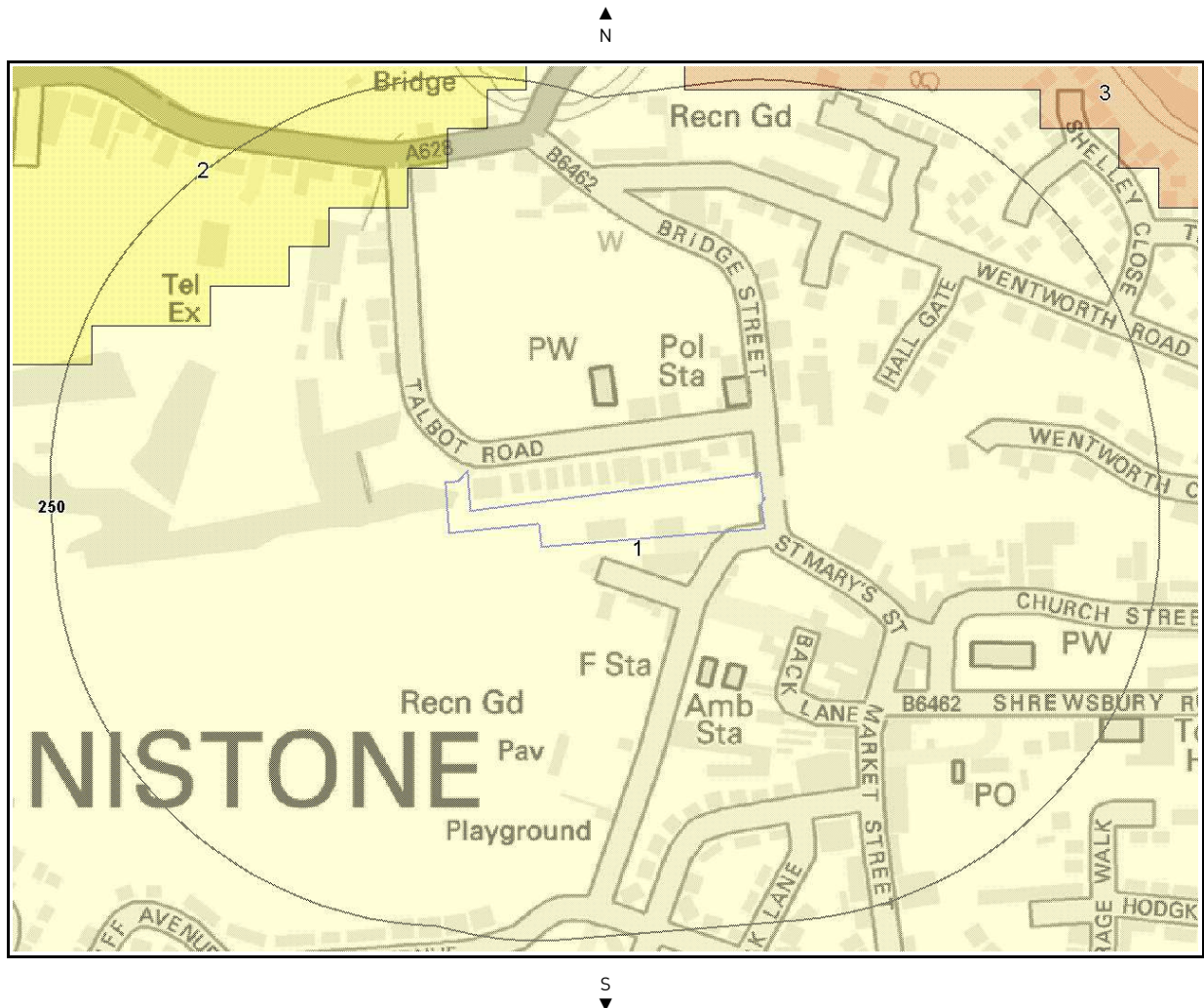
Collapsible Deposits Legend



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-  Site Outline
-  No Data / Null
-  Search Buffers (m)
-  Significant




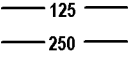




4.6 Running Sand Map



Running Sand Legend



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	Site Outline		No Data / Null		Low
	Search Buffers (m)		Negligible		Moderate
			Very Low		High

4. Natural Ground Subsidence

The National Ground Subsidence rating is obtained through the 6 natural ground stability hazard datasets, which are supplied by the British Geological Survey (BGS)

The following GeoSure data represented on the mapping is derived from the BGS Digital Geological map of Great Britain at 1:50,000 scale.

What is the maximum hazard rating of natural subsidence within the study site* boundary?

Low

*This includes an automatically generated 50m buffer zone around the study site boundary.

4.1 Shrink – Swell Clays

The following Shrink Swell information provided by the British Geological Survey:

ID	Distance (m)*	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	Ground conditions predominantly non-plastic. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely likely due to potential problems with shrink-swell clays.
2	0.0	On Site	Very Low	Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

4.2 Landslides

The following Landslides information provided by the British Geological Survey:

ID	Distance (m)*	Direction	Hazard Rating	Details
1	0.0	On Site	Low	Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to drainage or excavations take place. Possible increase in construction cost to reduce potential slope stability problems. Existing property – no significant increase in insurance risk due to natural slope instability problems.
2	0.0	On Site	Very Low	Slope instability problems are unlikely to be present. No special actions required to avoid problems due to landslides. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with landslides.

4.3 Ground Dissolution of Soluble Rocks

The following Soluble Rocks information provided by the British Geological Survey:

Distance (m)*	Direction	Hazard Rating	Details
0	On site	Null-Negligible	Soluble rocks are present, but unlikely to cause problems except under exceptional conditions. No special actions required to avoid problems due to soluble rocks. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with soluble rocks.

4.4 Compressible Deposits

The following Compressible Ground information provided by the British Geological Survey:

ID	Distance (m)*	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

4.5 Collapsible Deposits

The following Collapsible Rocks information is provided by the British Geological Survey:

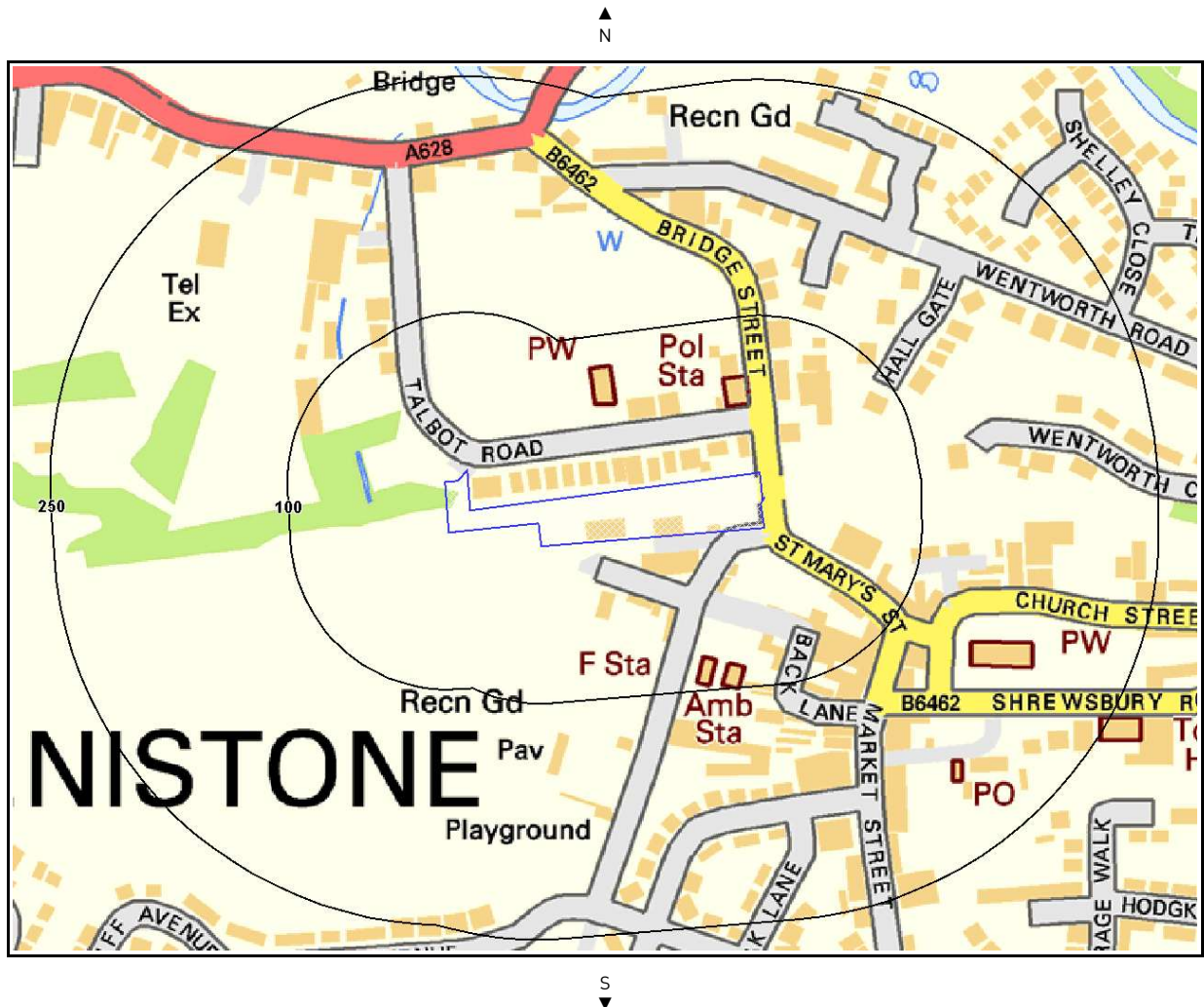
Distance (m)*	Direction	Hazard Rating	Details
0	On site	Null-Negligible	No Indicators for collapsible deposits identified. No Special actions required to avoid problems due to collapsible deposit.

4.6 Running Sands

The following Running Sands information is provided by the British Geological Survey:

ID	Distance (m)*	Direction	Hazard Rating	Details
1	0.0	On Site	Negligible	No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

5. Borehole Records Map



Borehole Records Legend



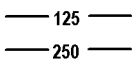
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Site Outline



Borehole Locations



Search Buffers (m)

5. Borehole Records

The systematic analysis of data extracted from the BGS Borehole Records database provides the following information.

Records of boreholes within 250m of the study site boundary: **0**

Database searched and no data found.

Contacts

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Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143. Fax: 0115 936 3276.
Email: enquiries@bgs.ac.uk
Web: www.bgs.ac.uk
BGS Geological Hazards Reports and general geological
enquiries

centremapslive.com
the mapping portal from Laser Surveys



British Gypsum

British Gypsum Ltd, East Leake, Loughborough,
Leicestershire, LE12 6HX
Tel: www.british-gypsum.bpb.com



The Coal Authority

200 Lichfield Lane, Mansfield, Notts NG18 4RG
Tel: 0845 762 6848
DX 716176 Mansfield 5 www.coal-authority.co.uk



Ordnance Survey

Romsey Road, Southampton SO16 4GU
Tel: 08456 050505



Getmapping PLC

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Acknowledgements

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ENVIROINSIGHT REPORT

Aerial Photograph of Study Site



Aerial photography supplied by Getmapping PLC.
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Site Name: St Mary's Street, Penistone
Grid Reference: 424400,403408

Overview of Findings

For further details on each dataset, please refer to each individual section in the main report as listed. Where the database has been searched a numerical result will be recorded. Where the database has not been searched '-' will be recorded.

Report Section	Number of records found within (X) m of the study site boundary					
	on-site	0-50	51-250	251-500	501-1000	1000-1500
1. Authorisations, Incidents and Registers						
1.1 Industrial Sites Holding Licences and/or Authorisations						
Records of IPC Authorisations	0	0	0	0	-	-
Records of IPPC Authorisations	0	0	0	0	-	-
Records of Water Industry Referrals (potentially harmful discharges to the public sewer)	0	0	0	0	-	-
Records of Red List Discharge Consents (potentially harmful discharges to controlled waters)	0	0	0	0	-	-
Records of List 1 Dangerous Substances Inventory sites	0	0	0	0	-	-
Records of List 2 Dangerous Substances Inventory sites	0	0	0	0	-	-
Records of LAPPC Authorisations	0	0	0	1	-	-
Records of Category 3 or 4 Radioactive Substances Authorisations	0	0	0	0	-	-
Records of Licensed Discharge Consents	0	0	0	3	-	-
Records of Planning Hazardous Substance Consents	0	0	0	0	-	-
1.2 Records of COMAH and NIHHS sites	0	0	0	0	-	-
1.3 Environment Agency Recorded Pollution Incidents						
National Incidents Recording System, List 2	0	0	5	-	-	-
National Incidents Recording System, List 1	0	0	0	-	-	-
1.4 Sites Determined as Contaminated Land under Part IIA EPA 1990	0	0	0	0	-	-
1.5 Planning Hazardous Substance Enforcements	0	0	0	0	-	-
2. Landfill and Other Waste Sites						
2.1 Landfill Sites						
Environment Agency Registered landfill Sites	0	0	0	0	0	-
Landfill Data – Operational Landfill Sites	0	0	0	0	0	-
Environment Agency Historic Landfill Sites	1	0	0	3	3	0
Landfill Data – Non-Operational Landfill Sites	0	0	1	0	2	-
BGS/DoE Landfill Site Survey	0	0	1	0	1	0
GroundSure Local Authority Landfill Sites Data	0	1	1	0	0	1
2.2 Landfill and Other Waste Sites Findings						
Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	-	-
Non-Operational Waste Treatment, Transfer and Disposal Sites	0	0	0	0	-	-
Environment Agency (REGIS) Waste Sites	0	0	0	0	0	5
3. Current Land Uses						
3.1 Current Industrial Sites Data						
	2	3	20	-	-	-
3.2 Records of Petrol and Fuel Sites						
	0	0	0	1	-	-

3.3 Underground High Pressure Oil and Gas Pipelines	0	0	0	0	-	-
---	---	---	---	---	---	---

4. Geology	Description
4.1 Are there any records of Artificial Ground and Made Ground present beneath the study site? *	No
4.2 Are there any records of Superficial Ground and Drift Geology present beneath the study site? *	No
4.3 For records of Bedrock and Solid Geology beneath the study site* see the detailed findings section.	

Source: Scale: 1:50,000 BGS Sheet 086

* This includes an automatically generated 50m buffer zone around the site.

5. Hydrogeology and Hydrology	on-site	0-50	51-250	251-500	501-1000	1001-2000
5.1 Environment Agency Groundwater Vulnerability and Soil Classification						
Is a Minor Aquifer present on site?	Yes	-	-	-	-	-
Is a Major Aquifer present on site?	No	-	-	-	-	-
Are there any Soil Classification records present on site?	Yes	-	-	-	-	-
5.2 Groundwater Abstraction Licences (within 1000m of the study site).	0	0	0	0	2	-
5.3 Surface Water Abstraction Licences (within 1000m of the study site).	0	0	0	0	0	-
5.4 Potable Water Abstraction Licences (within 2000m of the study site).	0	0	0	0	0	0
5.5 Are there any Source Protection Zones within 500m of the study site?			No			
5.6 River Quality						
Is there any Environment Agency information on river quality within 500m of the study site?	No	No	Yes	Yes	-	-
5.7 Main Rivers within 500m of the study site.	0	0	1	0	-	-
5.8 Surface water features within 250m of the study site	No	Yes	Yes	-	-	-

6. Flooding	Description
6.1 Are there any Environment Agency indicative Zone 2 floodplains within 250m of the study site?	Yes
6.2 Are there any Environment Agency indicative Zone 3 floodplains within 250m of the study site?	Yes
6.3 Are there any Flood Defences within 250m of the study site?	No
6.4 Are there any areas benefiting from Flood Defences within 250m of the study site?	No
6.5 Are there any areas used for Flood Storage within 250m of the study site?	No
6.6 What is the maximum BGS Groundwater Flooding susceptibility within 50m of the study site?	Not Applicable
6.7 What is the BGS confidence rating for the Groundwater Flooding susceptibility areas?	Moderately Low

7. Designated Environmentally Sensitive Sites	on-site	0-50	51-250	251-500	501-1000	1001-1500
7.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	-	-
7.2 Records of National Nature Reserves (NNR)	0	0	0	0	-	-
7.3 Records of Local Nature Reserves (LNR)	0	0	0	0	-	-
7.4 Records of Special Areas of Conservation (SAC)	0	0	0	0	-	-
7.5 Records of Special Protection Areas (SPA)	0	0	0	0	-	-
7.6 Records of Ramsar sites	0	0	0	0	-	-
7.7 Records of World Heritage Sites	0	0	0	0	-	-
7.8 Records of Environmentally Sensitive Areas	0	0	0	0	-	-
7.9 Records of Areas of Outstanding Natural Beauty (AONB)	0	0	0	0	-	-
7.10 Records of National Parks	0	0	0	0	-	-

7.1 Records of Sites of Special Scientific Interest (SSSI)	0	0	0	0	-	-
7.11 Records of Nitrate Sensitive Areas	0	0	0	0	-	-
7.12 Records of Nitrate Vulnerable Zones	1	0	0	1	-	-

8. Natural Hazards

8.1 What is the maximum risk of natural ground subsidence? Very Low

9. Mining

9.1 Are there any coal mining areas within 75m of the study site? Yes

9.2 What is the risk of subsidence relating to shallow mining within 150m of the study site? Low-Moderate

9.3 Are there any brine affected areas within 75m of the study site? No

Using this Report

The following report is designed by Environmental Consultants for Environmental Professionals bringing together the most up-to-date market leading environmental data. This report is provided under and subject to the Terms & Conditions agreed between GroundSure and the Client. The document contains the following sections:

1. Authorisations, Incidents and Registers

Provides information on Regulated Industrial Activities and Pollution Incidents as recorded by Regulatory Authorities, and sites determined as Contaminated Land. This search is conducted using radii up to 500m.

2. Landfills and Other Waste Sites

Provides information on landfills and other waste sites that may pose a risk to the study site. This search is conducted using radii up to 1500m.

3. Current Land Uses

Provides information on current land uses that may pose a risk to the study site in terms of potential contamination from activities or processes. These searches are conducted using radii of up to 500m. This includes information on potentially contaminative industrial sites, petrol stations and fuel sites as well as high pressure underground oil and gas pipelines.

4. Geology

Provides information on artificial and superficial deposits and bedrock beneath the study site.

5. Hydrogeology and Hydrology

Provides information on groundwater vulnerability, soil leaching potential, abstraction licenses, Source Protection Zones (SPZ) and river quality. These searches are conducted using radii of up to 2000m.

6. Flooding

Provides information on surface water flooding, flood defences, flood storage areas and groundwater flood areas. This search is conducted using radii of up to 250m.

7. Designated Environmentally Sensitive Sites

Provides information on the Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR), Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, Local Nature Reserves (LNR), Areas of Outstanding Natural Beauty (AONB), National Parks (NP), Environmentally Sensitive Areas, Nitrate Sensitive Areas, Nitrate Vulnerable Zones and World Heritage Sites. These searches are conducted using radii of up to 500m.

8. Natural Hazards

Provides information on a range of natural hazards that may pose a risk to the study site. These factors include natural ground subsidence.

9. Mining

Provides information on areas of coal and shallow mining.

10. Contacts

This section of the report provides contact points for statutory bodies and data providers that may be able to provide further information on issues raised within this report. Alternatively, GroundSure provide a free Technical Helpline (01273 819700) for further information and guidance.

Note: Maps

Only certain features are placed on the maps within the report. All features represented on maps found within this search are given an identification number. This number identifies the feature on the mapping and correlates it to the additional information provided below. This identification number precedes all other information and takes the following format -Id: 1, Id: 2, etc. Where numerous features on the same map are in such close proximity that the numbers would obscure each other a letter identifier is used instead to represent the features. (e.g. Three features which overlap may be given the identifier "A" on the map and would be identified separately as features 1A, 3A, 10A on the data tables provided).

Where a feature is reported in the data tables to a distance greater than the map area, it is noted in the data table as "Not Shown".

All distances given in this report are in Metres (m). Directions are given as compass headings such as N: North, E: East, NE: North East from the nearest point of the study site boundary.

1. Authorisations, Incidents and Registers Map

NW

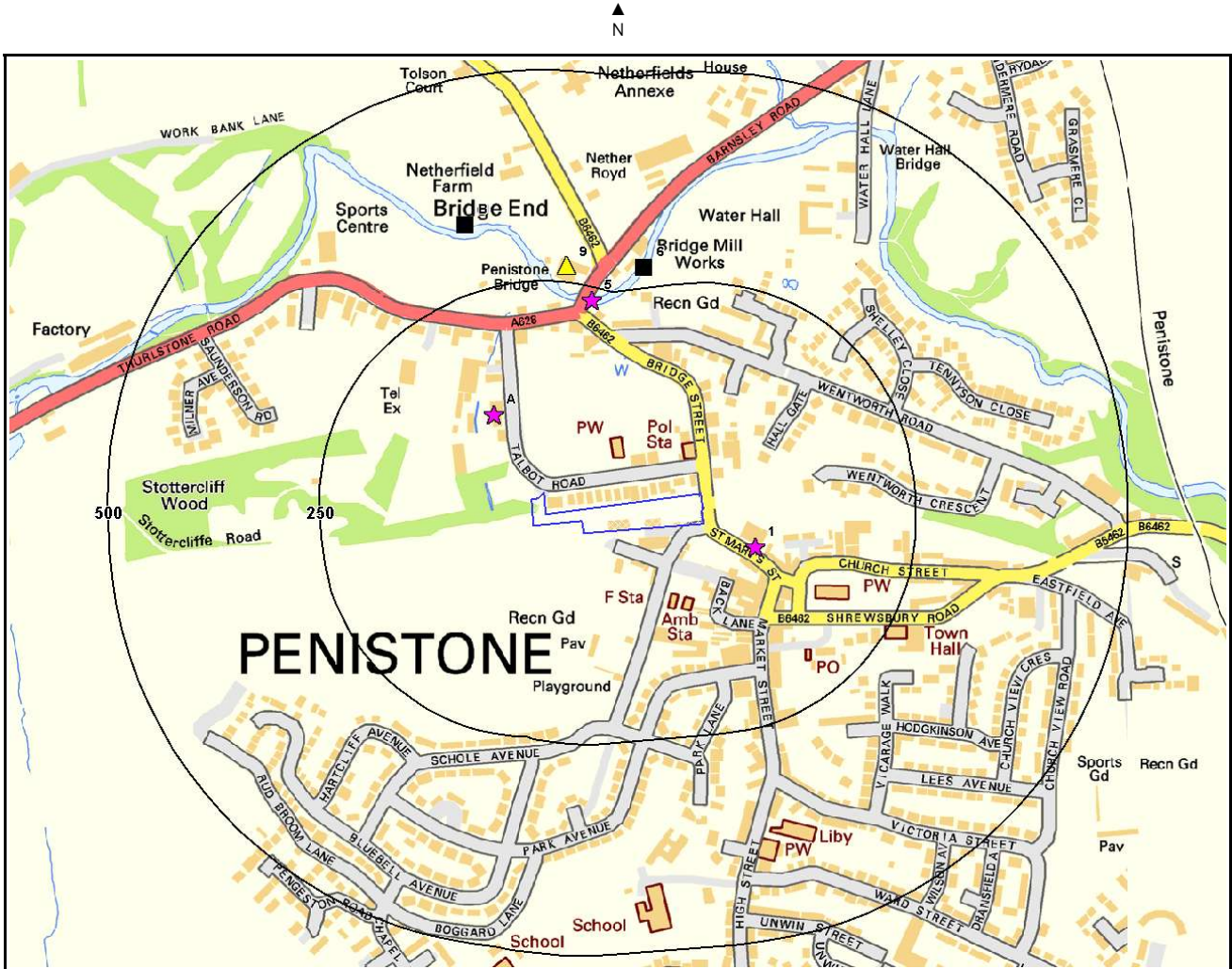
NE

W

E

SW

SE



Authorisations, Incidents and Registers Legend



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- | | | | |
|--|-------------------------------|--|---------------------------------------|
| | Recorded Pollution Incident | | IPPC & IPC Authorisations |
| | Dangerous Substances (List 1) | | LAPPC Authorisations |
| | Dangerous Substances (List 2) | | COMAH / NIHHS Sites |
| | Site Outline | | Sites Determined as Contaminated Land |
| | Search Buffers (m) | | Water Industry Referrals |
| | | | Licensed Discharge Consents |
| | | | Red List Discharge Consents |
| | | | RAS 3 & 4 Authorisations |
| | | | Hazardous Substance Enforcements |
| | | | Hazardous Substance Consents |

1. Authorisations, Incidents and Registers

1.1 Industrial Sites Holding Licences and/or Authorisations

Searches of information provided by the Environment Agency and Local Authorities reveal the following information:

Records of IPC Authorisations within 500m of the study site: 0

Database searched and no data found.

Records of IPPC Authorisations within 500m of the study site: 0

Database searched and no data found.

Records of Water Industry Referrals (potentially harmful discharges to the public sewer) within 500m of the study site: 0

Database searched and no data found.

Records of Red List Discharge Consents (potentially harmful discharges to controlled waters) within 500m of the study site: 0

Database searched and no data found.

Records of List 1 Dangerous Substances Inventory Sites within 500m of the study site: 0

Database searched and no data found.

Records of List 2 Dangerous Substance Inventory Sites within 500m of the study site: 0

Database searched and no data found.

Records of LAPPC Authorisations within 500m of the study site: 1

The following LAPPC (LAPC) Authorisations are represented as points on the Authorisations, Incidents and Registers map:

ID	Distance	Direction	NGR	Details
9	268.0	N	424340, 403700	Address: Bridge And Garage, Barnsley Road,penistone, Sheffield,s36 8af Process: Petrol Vapour Recovery Status: Current Date: Not given

Records of Category 3 or 4 Radioactive Substance Licences within 500m of the study site: 0

Database searched and no data found.

Records of Licensed Discharge Consents within 500m of the study site: 3

The following Licensed Discharge Consents records are represented as points on the Authorisations, Incidents and Registers map:

ID	Distance	Direction	NGR	Details
----	----------	-----------	-----	---------

6	276.0	N	424430, 403700	Address: Wentworth/bridge End Cso, Wentworth Road, Penistone, Sheffield, South Yorkshire Effluent Type: Sewage Discharges - Sewer Storm Overflow - Water Company Permit Number: C4960 Permit Version: 2	Receiving Water: River Don Status: Modified - (wra 91 Sched 10 - As Amended By Env Act 1995) Issue date: 4/6/2007 Effective Date: 4/6/2007 Revocation Date: -
7B	330.0	N	424220, 403750	Address: Ingbirchworth Stw, Huddersfield Road, Penistone, Barnsley, South Yorkshire Effluent Type: Sewage Discharges - Final/treated Effluent - Water Company Permit Number: WRA7365 Permit Version: 5	Receiving Water: River Don & Ingbirchworth Dyke Status: Modified - (wra 91 Sched 10 - As Amended By Env Act 1995) Issue date: - Effective Date: 1/4/2009 Revocation Date: -
8B	330.0	N	424220, 403750	Address: Ingbirchworth Stw, Huddersfield Road, Penistone, Barnsley, South Yorkshire Effluent Type: Sewage Discharges - Stw Storm Overflow/storm Tank - Water Company Permit Number: WRA7365 Permit Version: 5	Receiving Water: River Don & Ingbirchworth Dyke Status: Modified - (wra 91 Sched 10 - As Amended By Env Act 1995) Issue date: - Effective Date: 1/4/2009 Revocation Date: -

Records of Planning Hazardous Substance Consents within 500m of the study site

0

Database searched and no data found.

1.2 Dangerous or Hazardous Sites

Records of COMAH & NIHHS sites within 500m of the study site:

0

Database searched and no data found.

1.3 Environment Agency Recorded Pollution Incidents

Records of National Incidents Recording System, List 2 within 250m of the study site:

5

The following NIRS List 2 records are represented as points on the Authorisations, Incidents and Registers Map:

ID	Distance	Direction	NGR	Details
1	66.0	SE	424561,403368	Incident Date: 11/2/2002 Incident Identification: 57675 Pollutant: Specific Waste Materials Pollutant Description: Commercial Waste Water Impact: Category 4 (No Impact) Land Impact: Category 3 (Minor) Air Impact: Category 4 (No Impact)
2A	110.0	NW	424253,403525	Incident Date: 10/5/2003 Incident Identification: 157261 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Smoke Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
3A	110.0	NW	424253,403525	Incident Date: 10/5/2003 Incident Identification: 157261 Pollutant: Atmospheric Pollutants and Effects Pollutant Description: Fumes Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
4A	110.0	NW	424253,403525	Incident Date: 10/5/2003 Incident Identification: 157261 Pollutant: Atmospheric Pollutants and Effects: Atmospheric Pollutants and Effects Pollutant Description: Fumes: Smoke Water Impact: Category 4 (No Impact) Land Impact: Category 4 (No Impact) Air Impact: Category 3 (Minor)
5	234.0	N	424369,403660	Incident Date: 14/9/2003 Incident Identification: 189690 Pollutant: Sewage Materials Pollutant Description: Crude Sewage Water Impact: Category 3 (Minor) Land Impact: Category 4 (No Impact) Air Impact: Category 4 (No Impact)

Records of National Incidents Recording System, List 1 within 250m of the study site:

0

Database searched and no data found.

1.4 Sites Determined as Contaminated Land under Part IIA EPA 1990¹

How many records of sites determined as contaminated land under Section 78R of the Environmental Protection Act 1990 are there within 500m of the study site? **0**

Database searched and no data found.

1.5 Planning Hazardous Substance Enforcements

Records of planning hazardous substance enforcements within 500m of the study site: **0**

Database searched and no data found.

¹Further information on sites that have been determined under the Contaminated Land Regime is maintained by Local Authorities under Section 78R of the Environmental Protection Act 1990. Information should be available on both sites currently determined as Contaminated Land and Special Sites.

2. Landfill and Other Waste Sites Map

NW

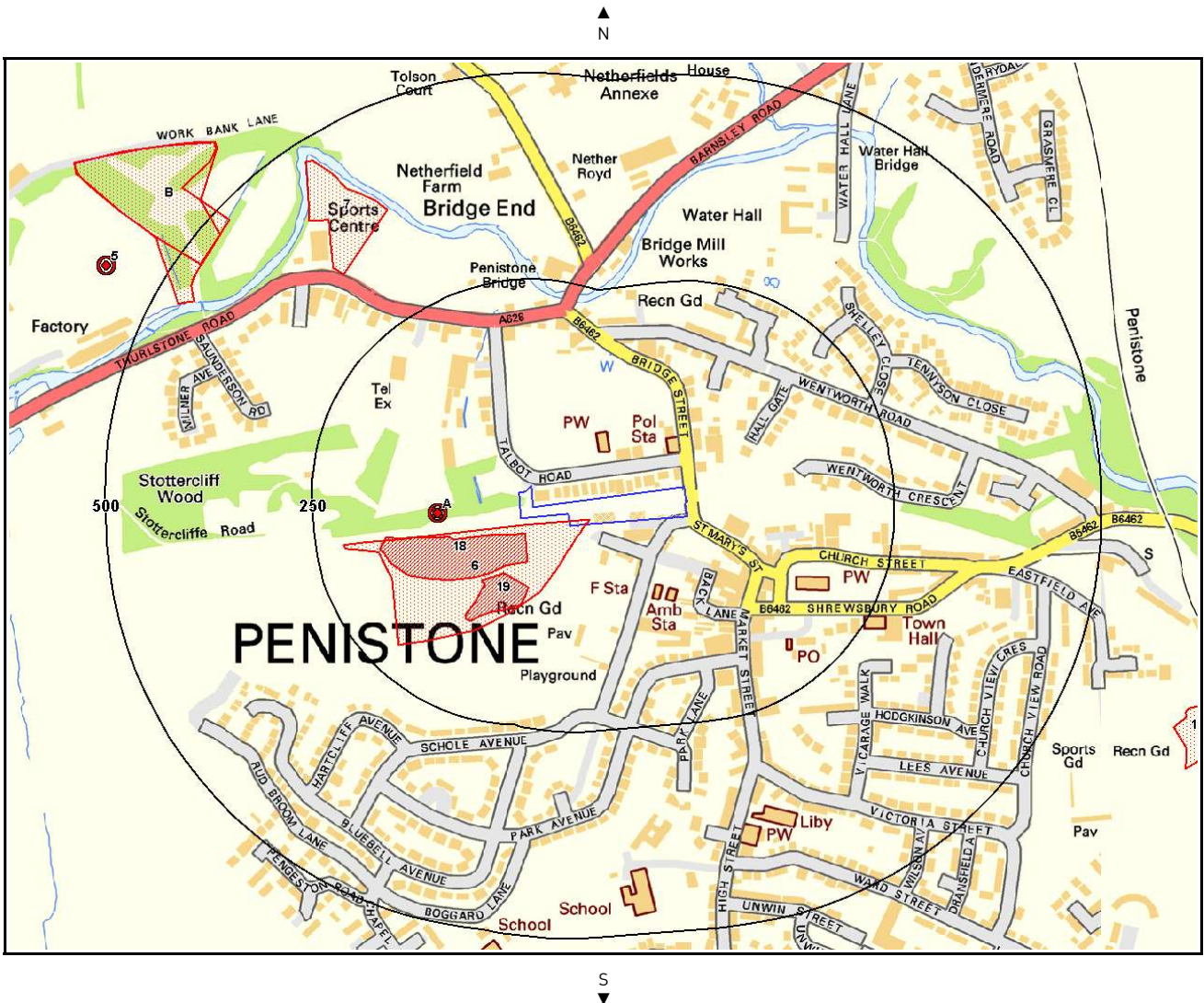
NE

W

E

SW

SE



Landfill & Other Waste Sites Legend



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- E.A. Active Landfill
- E.A. Historic Landfill (Area Data)
- E.A. Historic Landfill (Point Data)
- BGS / DoE Survey Landfill
- Local Authority Landfill (Area Data)
- Local Authority Landfill (Point Data)
- Operational Waste Treatment Licence
- Closed Waste Treatment Licence
- REGIS Waste Licence
- Operational Landfill
- Closed Landfill

Site Outline

Search Buffers (m)

2. Landfill and Other Waste Sites

2.1 Landfill Sites

Records from Environment Agency landfill data within 1000m of the study site: 0

Database searched and no data found.

Records of operational landfill sites sourced from Landmark within 1000m of the study site: 0

Database searched and no data found.

Records of Environment Agency historic landfill sites within 1500m of the study site: 7

The following landfill records are represented as either points or polygons on the Landfill and Other Waste Sites map:

ID	Distance	Direction	NGR	Details
6	0.0	On Site	424200,403300	<p>Site Address: Stottercliffe Road, Penistone, South Yorkshire Waste Licence: Yes Site Reference: 20B60(10), 4400/B60, WD20 B60 Waste Type: Inert, Industrial Regis Reference: -</p> <p>Licence Issue: 03-Apr-1978 Licence Surrendered: 09-Dec-1985 Licence Hold Address: 12/18 Eldon Street, Barnsley Operator: Penistone Urban District Council</p>
7	338.0	NW	424000,403700	<p>Site Address: T.A. Centre, Thurlstone Road, Penistone, Sheffield Waste Licence: Yes Site Reference: 4400/(33), WD20 B261 Waste Type: Inert, Commercial Regis Reference: -</p> <p>Licence Issue: 07-May-1982 Licence Surrendered: 29-Apr-1994 Licence Hold Address: Nethfield Farm, Huddersfield Road, Penistone Operator: A Gill</p>
8B	455.0	NW	423800,403700	<p>Site Address: Thurlstone Road, Penistone, South Yorkshire Waste Licence: - Site Reference: - Waste Type: Industrial, Commercial, Liquid sludge Regis Reference: -</p> <p>Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: Penistone Urban District Council</p>
9B	474.0	NW	423800,403700	<p>Site Address: Thurlstone Road, Penistone, South Yorkshire Waste Licence: Yes Site Reference: 20B261(33), 4400/B261, (117) B Waste Type: Household Regis Reference: -</p> <p>Licence Issue: 07-May-1982 Licence Surrendered: Licence Hold Address: - Operator: -</p>
10	640.0	SE	425100,403100	<p>Site Address: Penistone Church, Churchfield Road, Penistone Waste Licence: Yes Site Reference: WD20 B546, 4400/B546, 20B546(104) Waste Type: Inert, Industrial Regis Reference: -</p> <p>Licence Issue: 02-Feb-1987 Licence Surrendered: 28-Sep-1993 Licence Hold Address: Foundries Fabrication Divisions, Penistone, Sheffield Operator: David Brown Gear Industries Limited</p>
Not shown	907.0	S	424700,402400	<p>Site Address: Mortimer Road, Cubley, Sheffield Waste Licence: - Site Reference: 4400/(34) Waste Type: - Regis Reference: -</p> <p>Licence Issue: Licence Surrendered: Licence Hold Address: - Operator: G Longden Homes Limited</p>
Not shown	977.0	S	424500,402300	<p>Site Address: Moorside Avenue, Cubley Waste Licence: Yes Site Reference: 4400/B65 Waste Type: - Regis Reference: -</p> <p>Licence Issue: 21-Jul-1995 Licence Surrendered: Licence Hold Address: - Operator: -</p>

Records of non-operational landfill sites sourced from Landmark within 1000m of the study site: 3

The following landfill records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance	Direction	NGR	Details	
1A	100.0	W	424200,403400	Site Address: Stottercliffe Road, Penistone, SHEFFIELD, South Yorkshire, Landfill Licence: 37AAHDAL Agency Reference: Waste Type: Difficult Waste Description: Difficult Landfill Known Restrictions: No known restriction on source of waste	Record Date: 01-Apr-1978 Transfer Date: Modification Date: 01-Jul-1983 Status: Licence lapsed/cancelled/defunct/not applicable/surrendered Category: LANDFILL Regulator: EA - North East Region - Ridings Area (Rotherham) Size: Large (← 250,000 tonnes/year)
Not shown	648.0	NW	424000,404000	Site Address: adj. T.A. Centre, Thurlston Road, Penistone, SHEFFIELD, South Yorkshire, Landfill Licence: 37AAKLAL Agency Reference: Waste Type: Non-Hazardous Waste Description: Non-Hazardous Landfill Known Restrictions: No known restriction on source of waste	Record Date: 01-May-1982 Transfer Date: Modification Date: 01-Sep-1993 Status: Licence lapsed/cancelled/defunct/not applicable/surrendered Category: LANDFILL Regulator: EA - North East Region - Ridings Area (Rotherham) Size: Medium (← 75,000 tonnes/year)
Not shown	759.0	SE	425200,403100	Site Address: Churchfield Road, Penistone, SHEFFIELD, South Yorkshire, Landfill Licence: 37AAWEAL Agency Reference: Waste Type: Difficult Waste Description: Difficult Landfill Known Restrictions: Waste produced/controlled by licence holder	Record Date: 01-Feb-1987 Transfer Date: 01-Dec-1988 Modification Date: 01-Jun-1992 Status: Licence lapsed/cancelled/defunct/not applicable/surrendered Category: LANDFILL Regulator: EA - North East Region - Ridings Area (Rotherham) Size: Medium (← 75,000 tonnes/year)

Records of BGS/DoE non-operational landfill sites within 1500m of the study site:

2

The following landfill records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance	Direction	NGR	Details	
4A	100.0	W	424200,403400	Address: Stottercliffe Road, Penistone, S Yorkshire BGS Number: 714.0	Risk: No risk to aquifer Waste Type: N/A
5	570.0	NW	423800,403700	Address: Thurlstone Road, Penistone, S Yorkshire BGS Number: 715.0	Risk: Risk to minor aquifer Waste Type: N/A

Records of Local Authority landfill sites within 1500m of the study site:

3

The following landfill records are represented as points or polygons on the Landfill and Other Waste Sites map:

ID	Distance	Direction	Site Address	Source	Data Type
18	19.0	S	Refuse Tip	1993 mapping	Polygon
19	69.0	S	Refuse Tip	1993 mapping	Polygon
Not shown	1209.0	W	Refuse Tip	1996 mapping	Polygon

2.2 Other Waste Sites

Records of operational waste treatment, transfer or disposal sites within 500m of the study site:

0

Database searched and no data found.

Records of non-operational waste treatment, transfer or disposal sites within 500m of the study site:

0

Database searched and no data found.

Records of Environment Agency (REGIS) waste sites within 1500m of the study site:

5

Report Reference: [CMAPS-CM-29728-4199-290509EDR](#)

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If you would like any further assistance regarding this report then please contact CENTREMAPS on (T) 01886 832972, (F) 01883 833485, email: groundsure@centremaps.co.uk

The following waste treatment, transfer or disposal sites records are represented as points on the Landfill and Other Waste Sites map:

ID	Distance	Direction	NGR	Details
Not shown	1177.0	E	425670,403260	<p>Site Address: Springvale, Penistone, Barnsley, S Yorks</p> <p>Type: Household, Commercial and Industrial transfer stations</p> <p>Size: < 25000 tonnes</p> <p>Regis Licence Number: REG005</p> <p>Operator: Regional Waste Recycling Plc</p> <p>Surrendered Date: -</p> <p>Waste Management licence No: 60607</p> <p>Annual Tonnage: 5000.0</p> <p>Issue Date: 14/06/1993</p> <p>Expiry Date: -</p> <p>Effective Date: 08/12/2006</p> <p>Status: Transferred</p> <p>Modified: -</p> <p>Site Name: Springvale Civic Amenity Site</p> <p>Cancelled Date: -</p> <p>Correspondence Address: 2 Cecil Court, 49-55, London Road, Enfield, Middlesex, EN2 6DE</p>
Not shown	1177.0	E	425670,403260	<p>Site Address: Sheffield Road, Springvale, Penistone, Barnsley, South Yorkshire, S36 6HJ</p> <p>Type: Household, Commercial and Industrial transfer stations</p> <p>Size: < 25000 tonnes</p> <p>Regis Licence Number: WAS068</p> <p>Operator: Waste Recycling Ltd</p> <p>Surrendered Date: -</p> <p>Waste Management licence No: 60607</p> <p>Annual Tonnage: 24999.0</p> <p>Issue Date: 14/06/1993</p> <p>Expiry Date: -</p> <p>Effective Date: 26/01/2009</p> <p>Status: Transferred</p> <p>Modified: -</p> <p>Site Name: Springvale H W R C Site</p> <p>Cancelled Date: -</p> <p>Correspondence Address: Ground Floor West, 900, Pavilion Drive, Northampton Business Park, Northampton, NN4 7RG</p>
Not shown	1177.0	E	425670,403260	<p>Site Address: Springvale, Penistone, Barnsley, S Yorks</p> <p>Type: Household, Commercial and Industrial transfer stations</p> <p>Size: < 25000 tonnes</p> <p>Regis Licence Number: BDR011</p> <p>Operator: South Herts Waste Management Ltd</p> <p>Surrendered Date: -</p> <p>Waste Management licence No: 60607</p> <p>Annual Tonnage: 0.0</p> <p>Issue Date: 14/06/1993</p> <p>Expiry Date: -</p> <p>Effective Date: -</p> <p>Status: Issued</p> <p>Modified: -</p> <p>Site Name: Springvale Civic Amenity Site</p> <p>Cancelled Date: -</p> <p>Correspondence Address: 48, Cardigan Road, Stanion, Northants, NN14 1BY</p>
Not shown	1308.0	SE	425670,402810	<p>Site Address: Unit 1, Sheffield Road, Penistone, Sheffield, South Yorkshire, S36 6HF</p> <p>Type: Household, Commercial and Industrial transfer stations</p> <p>Size: →= 25000 tonnes ← 75000 tonnes</p> <p>Regis Licence Number: PEN005</p> <p>Operator: Penistone Waste Management Ltd</p> <p>Surrendered Date: -</p> <p>Waste Management licence No: 65406</p> <p>Annual Tonnage: 25000.0</p> <p>Issue Date: 04/05/2005</p> <p>Expiry Date: -</p> <p>Effective Date: -</p> <p>Status: Issued</p> <p>Modified: -</p> <p>Site Name: -</p> <p>Cancelled Date: -</p> <p>Correspondence Address: Unit 1, Sheffield Road, Penistone, Sheffield, South Yorkshire, S36 6HF</p>
Not shown	1308.0	SE	425670,402810	<p>Site Address: Unit 1, Sheffield Road, Penistone, Sheffield, South Yorkshire, S36 6HF</p> <p>Type: Household, Commercial and Industrial transfer stations</p> <p>Size: < 25000 tonnes</p> <p>Regis Licence Number: PEN005</p> <p>Operator: Penistone Waste Management Ltd</p> <p>Surrendered Date: -</p> <p>Waste Management licence No: 65406</p> <p>Annual Tonnage: 25000.0</p> <p>Issue Date: 04/05/2005</p> <p>Expiry Date: -</p> <p>Effective Date: -</p> <p>Status: Issued</p> <p>Modified: -</p> <p>Site Name: -</p> <p>Cancelled Date: -</p> <p>Correspondence Address: Unit 1, Sheffield Road, Penistone, Sheffield, South Yorkshire, S36 6HF</p>

3. Current Land Uses

3.1 Current Industrial Data

Records of potentially contaminative industrial sites within 250m of the study site:

25

The following records are represented as points on the Current Land Uses map.

ID	Distance	Direction	Company	Address	Activity	Category
1A	0.0	On Site	Its for Hire	St. Marys Street, Penistone, Sheffield, S36 6DT	Construction and Tool Hire	Hiring And Contract Services
2A	0.0	On Site	C D Autos	St. Marys Street, Penistone, Sheffield, S36 6DT	Vehicle Repair and Servicing	Repair And Servicing
3	4.0	S	Works	-	Unspecified Works Or Factories	Industrial Features
4B	18.0	S	Eric Vines Ltd	Stottercliffe Road, Penistone, Sheffield, S36 6EB	Distribution and Haulage	Transport, Storage And Delivery
5B	18.0	S	Stottercliffe Garage	Stottercliffe Road, Penistone, Sheffield, S36 6EB	Vehicle Repair and Servicing	Repair And Servicing
6	51.0	NE	Depot	-	Container and Storage	Transport, Storage And Delivery
7	53.0	NW	Gas Valve Compound	-	Gas Features	Infrastructure And Facilities
8	66.0	NE	Penistone Engineering Supplies	Bridge Street, Penistone, Sheffield, S36 6AJ	General Purpose Machinery	Industrial Products
9	84.0	S	Penistone Fire Station	Fire Station, The Markets, Penistone, Sheffield, S36 6BY	Fire Brigade Stations	Central And Local Government
10	90.0	S	Penistone Ambulance Station	Market Street, Penistone, S30 6BZ	Ambulance Services	Health Support Services
11	117.0	S	Cattle Market	-	Livestock Markets	Food, Drink And Multi Item Retail
12C	118.0	SE	Minder Alarms Ltd	1, Market Place, Penistone, Sheffield, S36 6DA	Electronic Equipment	Industrial Products
13C	118.0	SE	A M Clark Ltd	1, Market Place, Penistone, Sheffield, S36 6DA	Chemists and Pharmacies	Health Practitioners And Establishments
14D	155.0	SE	Frank Platt Ltd	Shrewsbury Road, Penistone, Sheffield, S36 6DY	Electrical Goods and Components	Household, Office, Leisure And Garden
15D	158.0	SE	National Co-Operative Chemists Ltd	11, Market Street, Penistone, Sheffield, S36 6BZ	Chemists and Pharmacies	Health Practitioners And Establishments
16D	160.0	SE	Big Limo Co	11a, Market Street, Penistone, Sheffield, S36 6BZ	Clothing	Clothing And Accessories
17	161.0	E	James H Wood Printers Ltd	9, Church Street, Penistone, Sheffield, S36 6AR	Published Goods	Industrial Products
18	172.0	NW	Penistone Reinforcements Ltd	Stanley Mills, Talbot Road, Penistone, Sheffield, S36 9ED	Cable, Wire and Fibre Optics	Industrial Products
19	177.0	N	Works	-	Unspecified Works Or Factories	Industrial Features
20	177.0	SE	Zeanti Fashion Shops	15, Market Street, Penistone, Sheffield, S36 6BZ	Clothing	Clothing And Accessories
21E	185.0	N	Penistone Logistics Ltd	1, Wentworth Road, Penistone, Sheffield, S36 6ET	Distribution and Haulage	Transport, Storage And Delivery
22E	185.0	N	Penistone Motor Spares	1, Wentworth Road, Penistone, Sheffield, S36 6ET	Vehicle Parts and Accessories	Motoring
23	196.0	NE	Electricity Sub Station	-	Electrical Features	Infrastructure And Facilities
24	215.0	NW	Telephone Exchange	-	Telecommunications Features	Infrastructure And Facilities
25	248.0	S	Electricity Sub Station	-	Electrical Features	Infrastructure And Facilities

3.2 Petrol and Fuel Sites

Records of petrol or fuel sites within 500m of the study site:

1

Report Reference: CMAPS-CM-29728-4199-290509EDR

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If you would like any further assistance regarding this report then please contact CENTREMAYS on (T) 01886 832972, (F) 01883 833485, email: groundsure@centremaps.co.uk

The following petrol or fuel site records provided by Catalist are represented as points on the Current Land Use map:

ID	Distance	Direction	NGR	Company	Address	LPG	Status
26	292.0	N	424225, 403698	Jet	Bridge End Service Station, Barnsley Road, Barnsley Road, Huddersfield Road, Penistone, Sheffield, South Yorkshire, S36 8AF	No	Open

3.3 Underground High Pressure Oil and Gas Pipelines

Records of high pressure underground pipelines within 500m of the study site:

0

Database searched and no data found.

4. Geology

4.1 Artificial Ground and Made Ground

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

4.2 Superficial Ground and Drift Geology

Database searched and no data found.

The database has been searched on site, including a 50m buffer.

4.3 Bedrock and Solid Geology

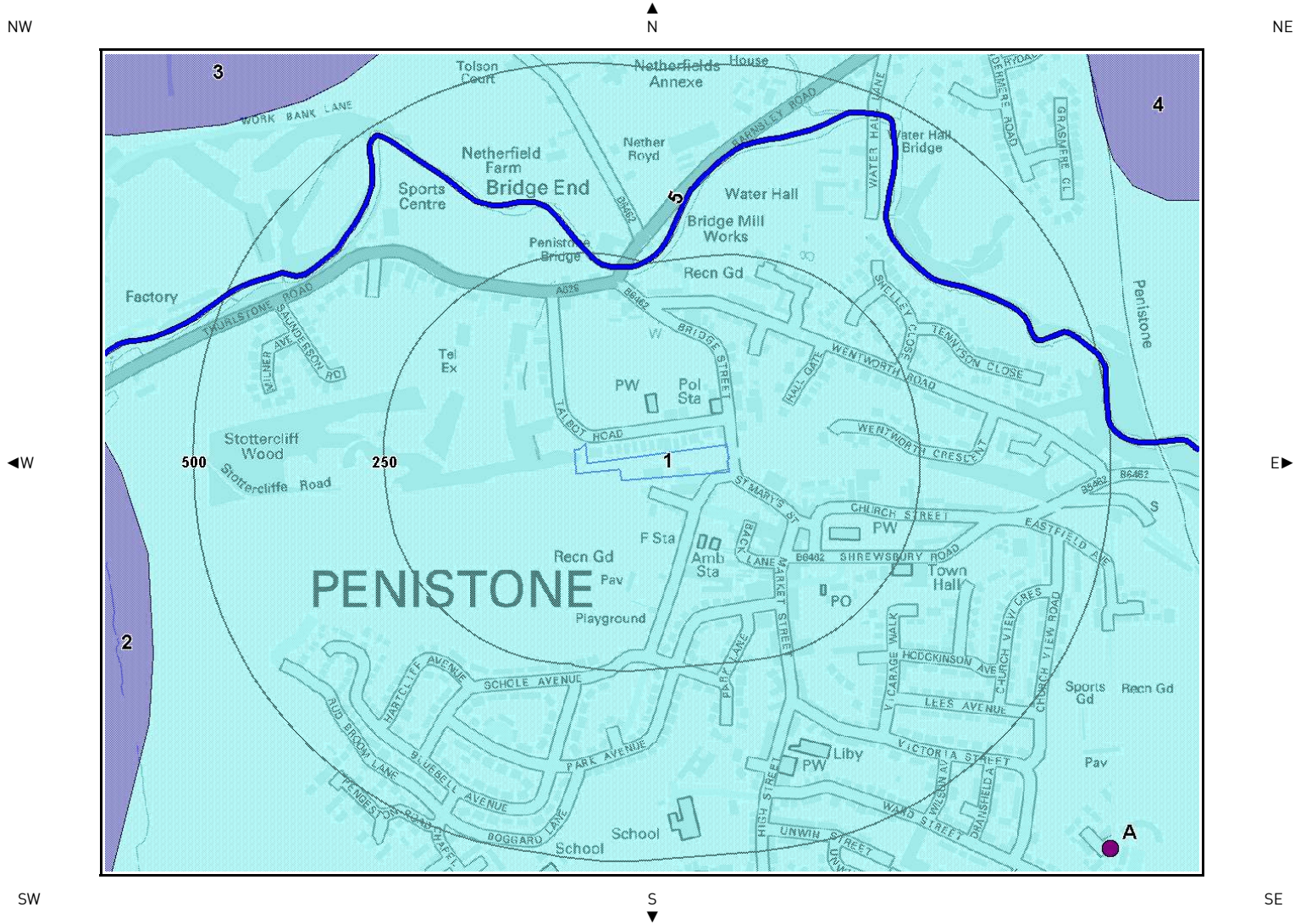
The database has been searched on site, including a 50m buffer.

LEX Code	Description	Rock Type
PF-SDST	PENISTONE FLAGS	SANDSTONE
PLCM-MDSS	PENNINE LOWER COAL MEASURES FORMATION	MUDSTONE, SILTSTONE AND SANDSTONE

(Derived from the BGS 1:50,000 Digital Geological Map of Great Britain)

For more detailed geological and ground stability data please refer to the "GroundSure GeolInsight". Available from our website.

5. Hydrogeology and Hydrology - Aquifer and Abstraction Licence Map



Hydrogeology and Hydrology Legend



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- Site Outline
- Search Buffers (m)
- Minor Aquifer - Low Leaching Potential
- Minor Aquifer - Intermediate Leaching Potential
- Minor Aquifer - High Leaching Potential
- Major Aquifer - Low Leaching Potential
- Major Aquifer - Intermediate Leaching Potential
- Major Aquifer - High Leaching Potential
- Main River
- Groundwater Abstraction Licence
- Surface Water Abstraction Licence

5b. Hydrogeology and Hydrology - SPZ and Potable Water Abstraction Map

NW

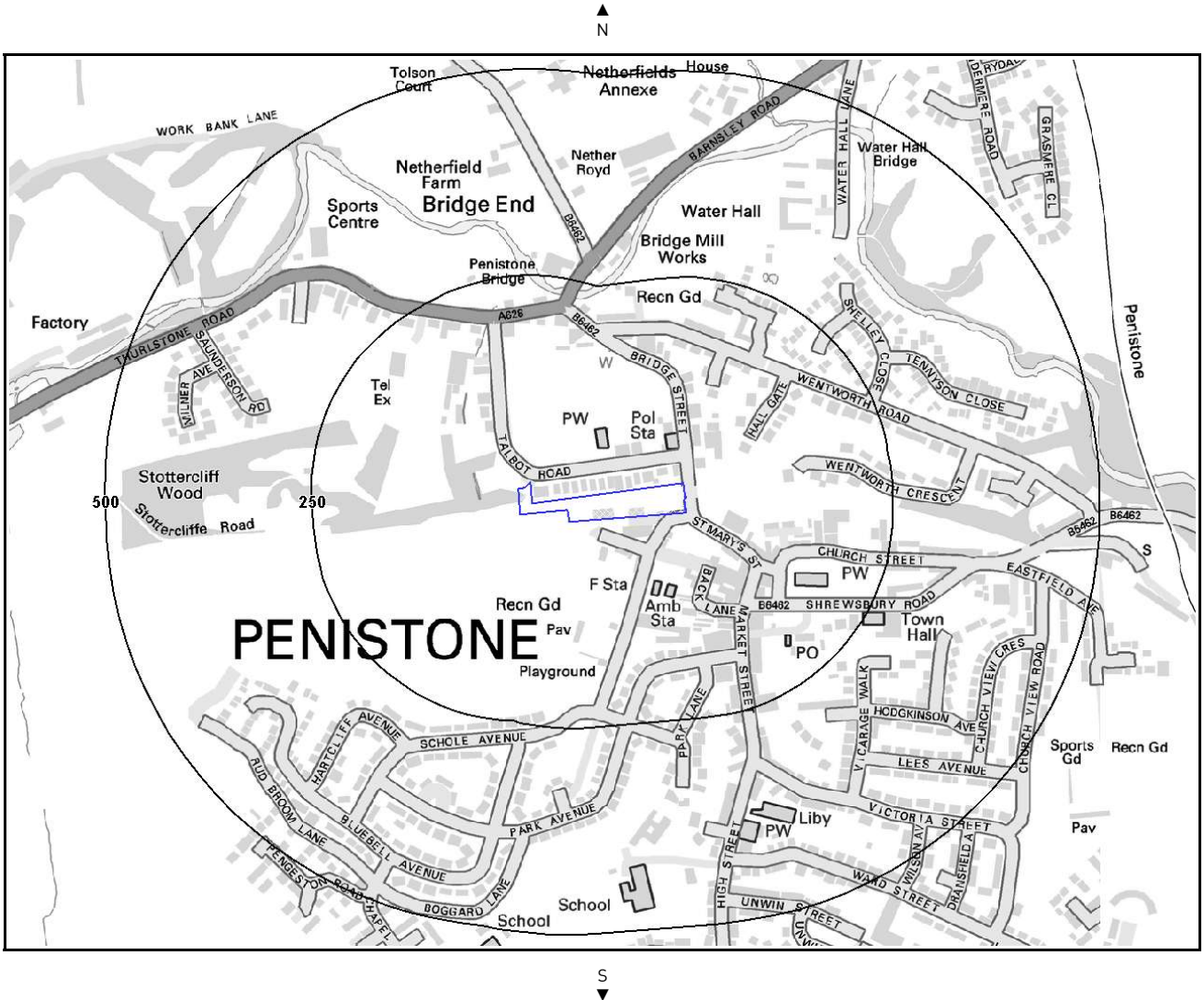
NE

W

E

SW

SE



Hydrogeology and Hydrology Legend



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- Site Outline
- Source Protection Zone 1 - Inner Catchment
- Source Protection Zone 2 - Outer Catchment
- Source Protection Zone 3 - Total Catchment
- Source Protection Zone 4 - Zone of Special Interest
- Search Buffers (m)
- Potable Water Abstraction Licence

5. Hydrogeology and Hydrology

5.1 Groundwater Vulnerability and Soil Classification

Records of aquifer and soil classification within 200m of the study site:

Yes

The following groundwater information is represented as polygons on the Aquifer and Abstraction Licence Map:

ID	Distance	Direction	Classification
1	0.0	On Site	Minor Aquifer/Low Leaching Potential

5.2 Groundwater Abstraction Licences

Are there any Groundwater Abstraction Licences within 1000m of the study site?

Yes

The following Abstraction Licences records are represented as points, lines and regions on the Aquifer and Abstraction Licence Map:

ID	Distance	Direction	NGR	Details
6A	704.0	SE	425000,402900	Licence No: 2/27/05/010 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Groundwaters Point: Borehole X2 Data Type: Point
7A	704.0	SE	425000,402900	Licence No: 2/27/05/010 Details: General use relating to Secondary Category (Medium Loss) Direct Source: Groundwaters Point: Borehole X2 - Coal Measures - Penistone Data Type: Point

5.3 Surface Water Abstraction Licences

Are there any Surface Water Abstraction Licences within 1000m of the study site?

No

Database searched and no data found.

5.4 Potable Water Abstraction Licences

Are there any Potable Water Abstraction Licences within 2000m of the study site?

No

Database searched and no data found.

5.5 Source Protection Zones

Are there any Source Protection Zones within 500m of the study site?

No

Database searched and no data found.

5.6 River Quality

Is there any Environment Agency information on river quality within 500m of the study site?

Yes

The following river quality records are not represented on mapping:

Distance	Direction	River	Reach	Chemical Grade	Biological Grade
248.0	N	Don	Split Scout Dyke	B	D
361.0	NE	Don	Scout Dyke Cubley Brook	B	D

Report Reference: CMAPS-CM-29728-4199-290509EDR

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454.0	NE	Scout Dike	Fox Hill River Don	C	C
-------	----	------------	--------------------	---	---

5.7 Main Rivers

Are there any Main Rivers within 500m of the study site? **Yes**

The following main river records are represented on the Aquifer and Abstractions Map:

ID	Distance	Direction
5	235.0	N

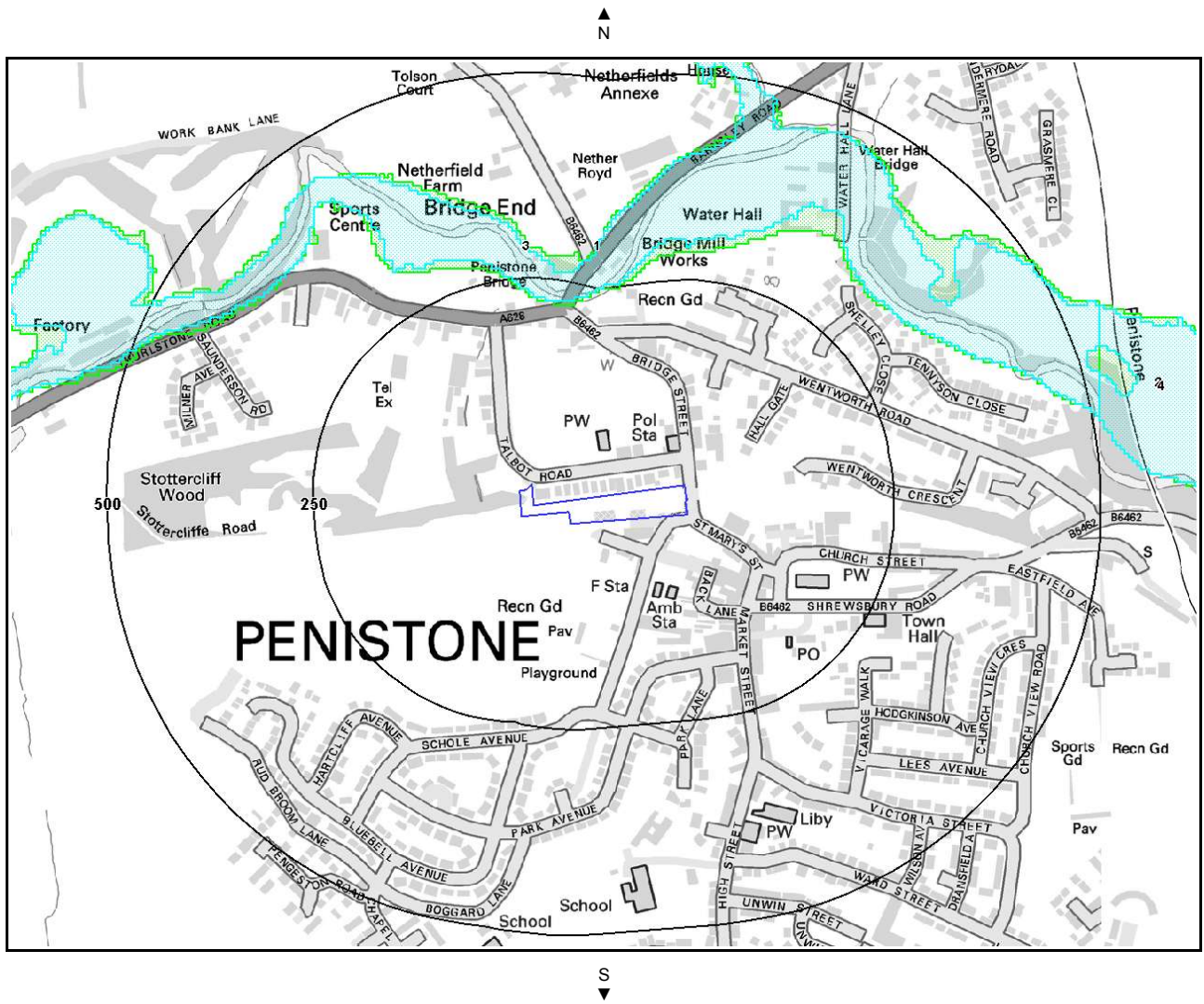
5.8 Surface Water Features

Are there any surface water features within 250m of the study site? **Yes**

The following surface water records are not represented on mapping:

Distance to Surface Water (m)	on-site	0-50	51-250
Surface water features within 250m of the study site	No	Yes	Yes







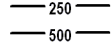
6. Surface Water Flood Map



Surface Water Flood Legend



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-  Site Outline
-  Zone 2 Floodplain
-  Zone 3 Floodplain
-  Flood Storage Area
-  Area Benefiting from Flood Defences
-  Flood Defences
-  Search Buffers (m)

6. Flooding

6.1 Zone 2 Flooding

Zone 2 floodplain estimates the annual probability of flooding as one in one thousand (0.1%) or greater from rivers and the sea but less than 1% from rivers or 0.5% from the sea. Alternatively, where information is available they may show the highest known flood level.

Is the site within 250m of an Environment Agency indicative Zone 2 floodplain? **Yes**

Guidance: More detailed information may be available from the Environment Agency through their floodline (0845 988 1188) or by ordering an Environment Agency Flood Report from the local Environment Agency Office.

The following floodplain records are represented as green shading on the Flood Map:

ID	Distance	Direction	Update	Type
1	219.0	N	12-Jan-2009	Zone 2 - (Fluvial)

6.2 Zone 3 Flooding

Zone 3 estimates the annual probability of flooding as one in one hundred (1%) or greater from rivers and a one in two hundred (0.5%) or greater from the sea. Alternatively, where information is available they may show the highest known flood level.

Is the site within 250m of an Environment Agency indicative Zone 3 floodplain? **Yes**

Guidance: More detailed information may be available from the Environment Agency through their floodline (0845 988 1188) or by ordering an Environment Agency Flood Report from the local Environment Agency Office.

The following floodplain records are represented as blue shading on the Flood Map:

ID	Distance	Direction	Update	Type
3	223.0	N	12-Jan-2009	Zone 3 - (Fluvial)

6.3 Flood Defences

Are there any Flood Defences within 250m of the study site ? **No**

6.4 Areas benefiting from Flood Defences

Are there any areas benefiting from Flood Defences within 250m of the study site? **No**

Guidance: More detailed information may be available from the Environment Agency through their floodline (0845 988 1188) or by ordering an Environment Agency Flood Report from the local Environment Agency Office.

6.5 Areas used for Flood Storage

Are there any areas used for Flood Storage within 250m of the study site? **No**

Guidance: More detailed information may be available from the Environment Agency through their floodline (0845 988 1188) or by ordering an Environment Agency Flood Report from the local Environment Agency Office.

6.6 Groundwater Flooding Susceptibility Areas

Are there any British Geological Survey groundwater flooding susceptibility flood areas within 50m of the boundary of the study site?

Yes

What is the highest susceptibility to groundwater flooding in the search area based on the underlying geological conditions?

Not Applicable

Guidance: Where groundwater flooding susceptibility is not applicable, this means that you need take no further action in relation to groundwater hazard in this area.

6.7 Groundwater Flooding Confidence Areas

What is the British Geological Survey confidence rating in this result?

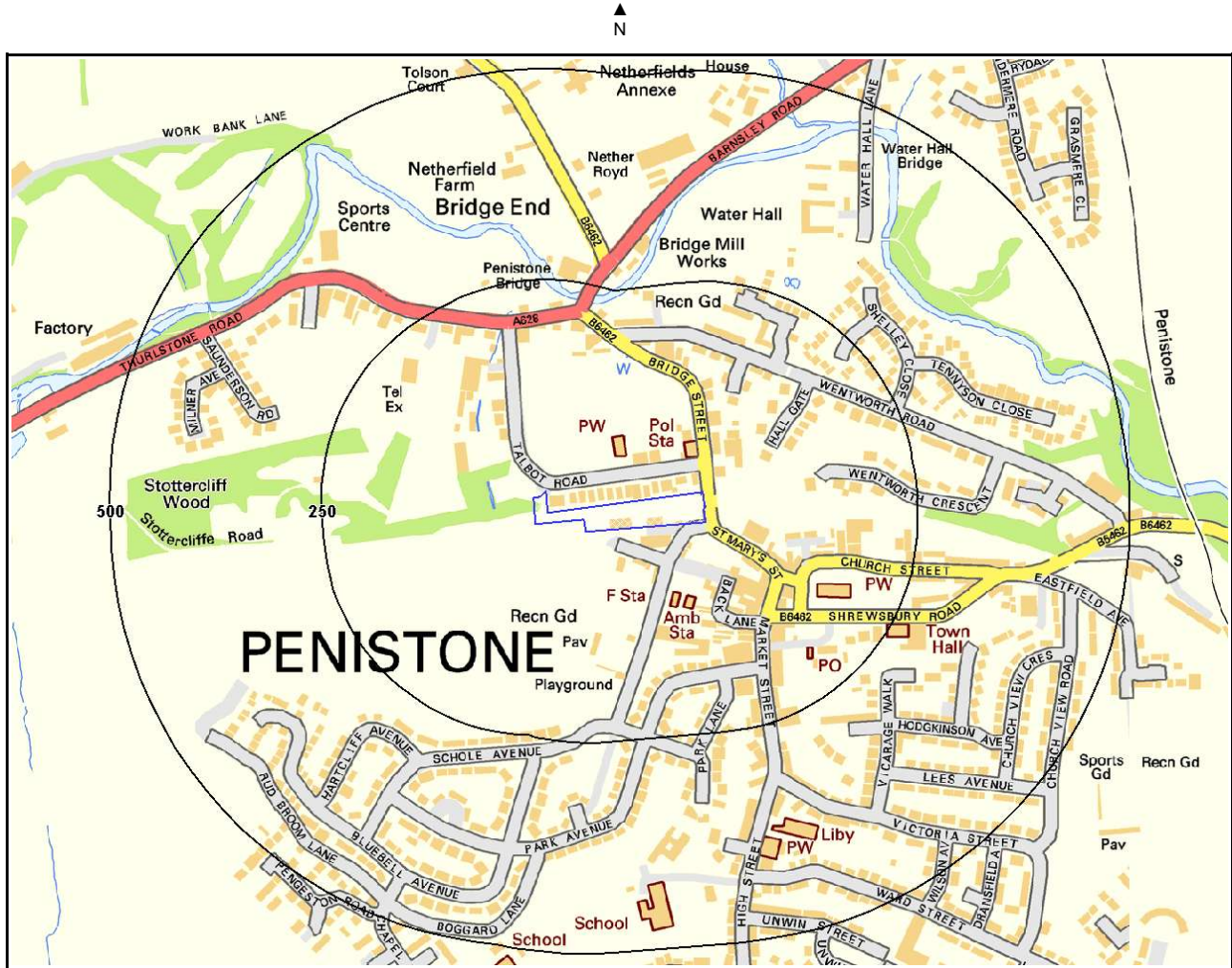
Moderately Low

Notes:

Groundwater flooding is defined as the emergence of groundwater at the ground surface or the rising of groundwater into man-made ground under conditions where the normal range of groundwater levels is exceeded.

The confidence rating is on a fivefold scale - Low, Moderately Low, Moderate, Moderately High and High. This provides a relative indication of the BGS confidence in the accuracy of the susceptibility result for groundwater flooding. This is based on the amount and precision of the information used in the assessment. In areas with a relatively lower level of confidence the susceptibility result should be treated with more caution. In other areas with higher levels of confidence the susceptibility result can be used with more confidence.

7. Designated Environmentally Sensitive Sites Map



Designated Environmentally Sensitive Sites Legend

Enabled by Ordnance Survey

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- Site Outline
- Search Buffers (m)
— 250 —
— 500 —
- SAC
- SSSI
- NNR
- World Heritage Sites
- SPA
- Ramsar
- LNR
- Environmentally Sensitive Areas
- Areas of Outstanding Natural Beauty
- Nitrate Sensitive Areas
- National Parks

7. Designated Environmentally Sensitive Sites

Presence of Designated Environmentally Sensitive Sites within 500m of the study site?	Yes
Records of Sites of Special Scientific Interest (SSSI) within 500m of the study site:	0
Database searched and no data found.	
Records of National Nature Reserves (NNR) within 500m of the study site:	0
Database searched and no data found.	
Records of Special Areas of Conservation (SAC) within 500m of the study site:	0
Database searched and no data found.	
Records of Special Protection Areas (SPA) within 500m of the study site:	0
Database searched and no data found.	
Records of Ramsar sites within 500m of the study site:	0
Database searched and no data found.	
Records of Local Nature Reserves (LNR) within 500m of the study site:	0
Database searched and no data found.	
Records of World Heritage Sites within 500m of the study site:	0
Database searched and no data found.	
Records of Environmentally Sensitive Areas within 500m of the study site:	0
Database searched and no data found.	
Records of Areas of Outstanding Natural Beauty (AONB) within 500m of the study site:	0
Database searched and no data found.	
Records of National Parks (NP) within 500m of the study site:	0
Database searched and no data found.	
Records of Nitrate Sensitive Areas within 500m of the study site:	0
Database searched and no data found.	
Records of Nitrate Vulnerable Zones within 500m of the study site:	2

The following Nitrate Vulnerable Zone records produced by DEFRA are not represented as polygons on the Designated Environmentally Sensitive Sites Map:

ID	Distance	Direction	NVZ Name	Data Source
	0.0	On Site	No place name provided	DEFRA
	499.0	E	No place name provided	DEFRA

8. Natural Hazards Findings

8.1 Detailed BGS GeoSure Data

BGS GeoSure Data has been searched to 50m. The data is included in tabular format. If you require further information, please obtain a GroundSure Geolnsight. Available from our website. The following information has been found:

8.1.1 Shrink Swell

What is the maximum Shrink-Swell* hazard rating identified on the study site?

Very Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Ground conditions predominantly low plasticity. No special actions required to avoid problems due to shrink-swell clays. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with shrink-swell clays.

8.1.2 Landslides

What is the maximum Landslide* hazard rating identified on the study site?

Low

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

Possibility of slope instability problems after major changes in ground conditions. Consideration should be given to stability if changes to drainage or excavations take place. Possible increase in construction cost to reduce potential slope stability problems. Existing property – no significant increase in insurance risk due to natural slope instability problems.

8.1.3 Soluble Rocks

What is the maximum Soluble Rocks* hazard rating identified on the study site?

Null - Negligible

Database searched and no data found.

8.1.4 Compressible Ground

What is the maximum Compressible Ground* hazard rating identified on the study site?

Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

No indicators for compressible deposits identified. No special actions required to avoid problems due to compressible deposits. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with compressible deposits.

8.1.5 Collapsible Rocks

What is the maximum Collapsible Rocks* hazard rating identified on the study site?

Null - Negligible

Database searched and no data found.

8.1.6 Running Sand

What is the maximum Running Sand* hazard rating identified on the study site?

Negligible

The following natural subsidence information provided by the British Geological Survey is not represented on mapping:

Hazard

No indicators for running sand identified. No special actions required to avoid problems due to running sand. No special ground investigation required, and increased construction costs or increased financial risks are unlikely due to potential problems with running sand.

* This indicates an automatically generated 50m buffer and site.

9. Mining

9.1 Coal Mining

Are there any coal mining areas within 75m of the study site?

Yes

The following coal mining information provided by the Coal Authority is not represented on Mapping:

Distance	Direction	Details
0.0	On Site	The study site is located within the specified search distance of an identified mining area. Further details concerning this can be obtained from the Coal Authority Helpline on 0845 762 6848.

9.2 Shallow Mining

What is the hazard of subsidence relating to shallow mining on-site (including a 150m buffer) ?

Low-Moderate

Guidance: Where low-moderate potential is indicated, this means that the rocks underlying the area are of a type known to have been mined at shallow depth in some parts of the UK, and that such working may be possible in your area. In these cases it is recommended that you seek further advice from a Royal Institute Chartered Surveyor (RICS), the local Building Control Officer, or by ordering a Geological Report from the BGS. It is also recommended that you obtain a Coal Authority mining search, which will provide a comprehensive search of former mining activity, including coal mining at deeper levels.

9.3 Brine Affected Areas

Are there any brine affected areas within 75m of the study site?

No

Database searched and no data found.

10. Contacts

CENTREMAPS

Telephone: 01886 832972
groundsure@centremaps.co.uk
CENTREMAPS, Brockamin House, Leigh, Worcester, London, WR6 5JU

Directors: M C Walker, MInst C.E.S., C M Walker,
S J Hawkins BSc (Hons), S E Stewart BSc (Hons)
Registered No. 1890261 Registered in England and Wales
Registered Company: Laser Surveys Limited
Brockamin House, Leigh, Worcester, WR6 5JU.

British Geological Survey (England & Wales)

Kingsley Dunham Centre
Keyworth, Nottingham NG12 5GG
Tel: 0115 936 3143. Fax: 0115 936 3276. Email: enquiries@bgs.ac.uk
Web: www.bgs.ac.uk
BGS Geological Hazards Reports and general geological enquiries

centremapslive.com
the mapping portal from Laser Surveys



Environment Agency

National Customer Contact Centre
PO Box 544
Rotherham
S60 1BY
Tel: 08708 506 506
Web: www.environment-agency.gov.uk
Email: enquiries@environment-agency.gov.uk



Health Protection Agency

Chilton, Didcot, Oxon, OX11 0RQ
Tel: 01235 822622 www.hpa.org.uk/radiation
Radon measures and general radon information and guidance



The Coal Authority

200 Lichfield Lane, Mansfield, Notts NG18 4RG
Tel: 0845 762 6848. DX 716176 Mansfield 5
www.coal-authority.co.uk
Coal mining reports and related enquiries



Ordnance Survey

Romsey Road
Southampton SO16 4GU
Tel: 08456 050505



Local Authority

Authority: Barnsley Metropolitan Borough Council
Phone: 01226 770770
Web: www.barnsley.gov.uk/index.asp
Address: Town Hall, Barnsley, South Yorkshire, S70 2TA

Get Mapping PLC

Virginia Villas, High Street, Hartley Witney, Hampshire RG27 8NW
Tel: 01252 845444

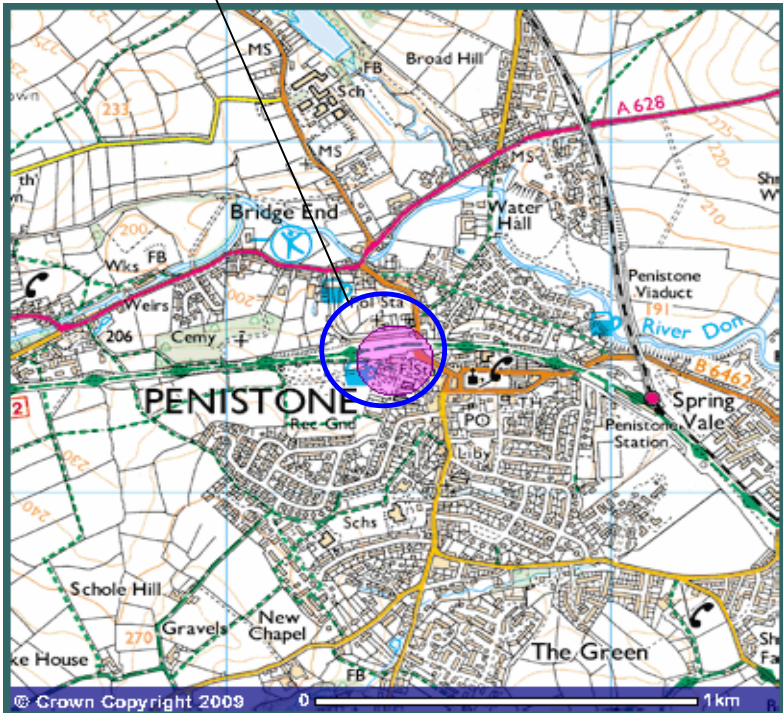
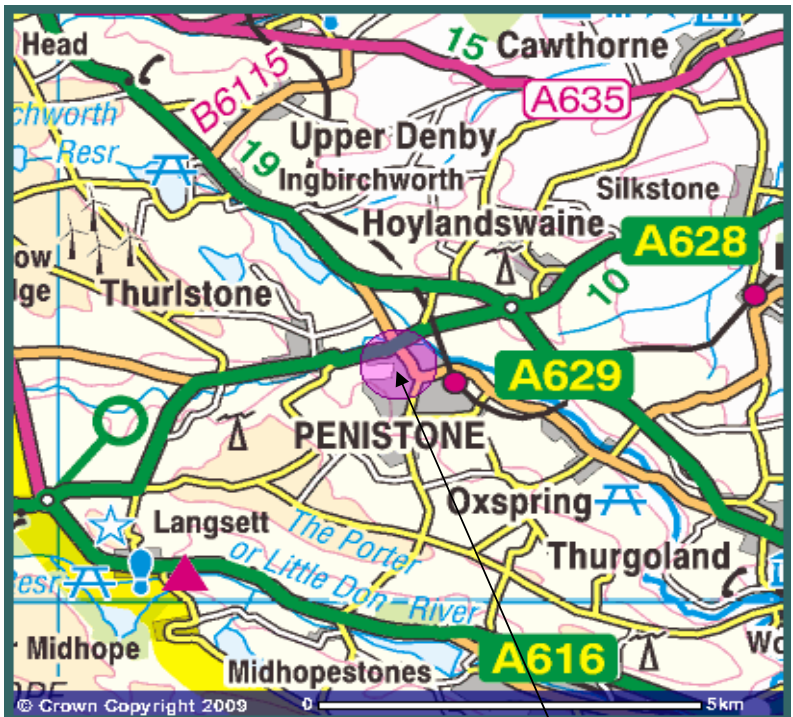


Acknowledgements



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Site of Special Scientific Interest, National Nature Reserve, Ramsar Site, Special Protection Area, Special Area of Conservation data is provided by, and used with the permission of, English Nature who retain the Copyright and Intellectual Property Rights for the data.

FIGURES



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 SUB SURFACE SITE INVESTIGATION AND SPECIALIST GEOTECHNICAL CONSULTANTS 3 Peel Street, Preston, PR2 2QS. Tel. (01772) 561135 Fax (01772) 204907	General Site Location Plan			
	Site ST MARY'S STREET, PENISTONE, SOUTH YORKSHIRE	Date Drawn 01-Jun-09	Date Checked	Orientation 
Client RELIANT BUILDING CONTRACTORS	Drawn By ALM	Checked By	Scale As Shown	Figure No. 1



SUB SURFACE

SITE INVESTIGATION AND SPECIALIST GEOTECHNICAL CONSULTANTS
 3 Peel Street, Preston, PR2 2OS, Tel. (01772) 561135 Fax (01772) 204807

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Site Location Plan

Site	ST MARY'S STREET, PENISTONE, SOUTH YORKSHIRE			
Client	RELIANT BUILDING CONTRACTORS			
Date Drawn	01-Jun-09	Date Checked		
Drawn By	ALM	Checked By		
Orientation			Job No.	NE2938
Scale	NTS	Figure No.	2	

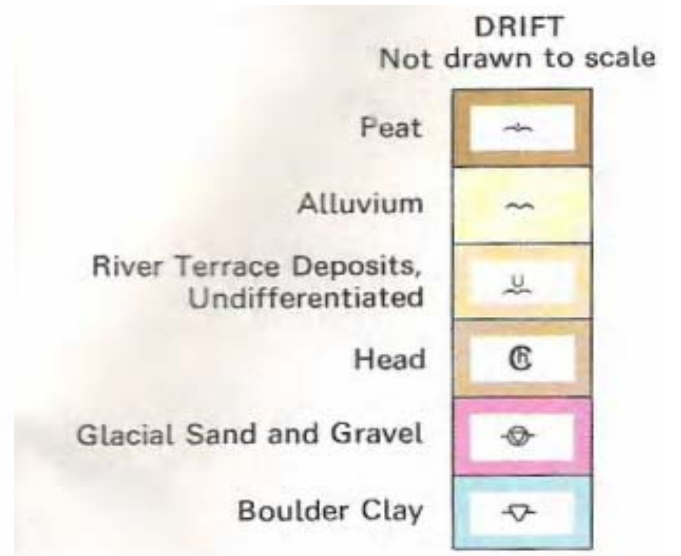
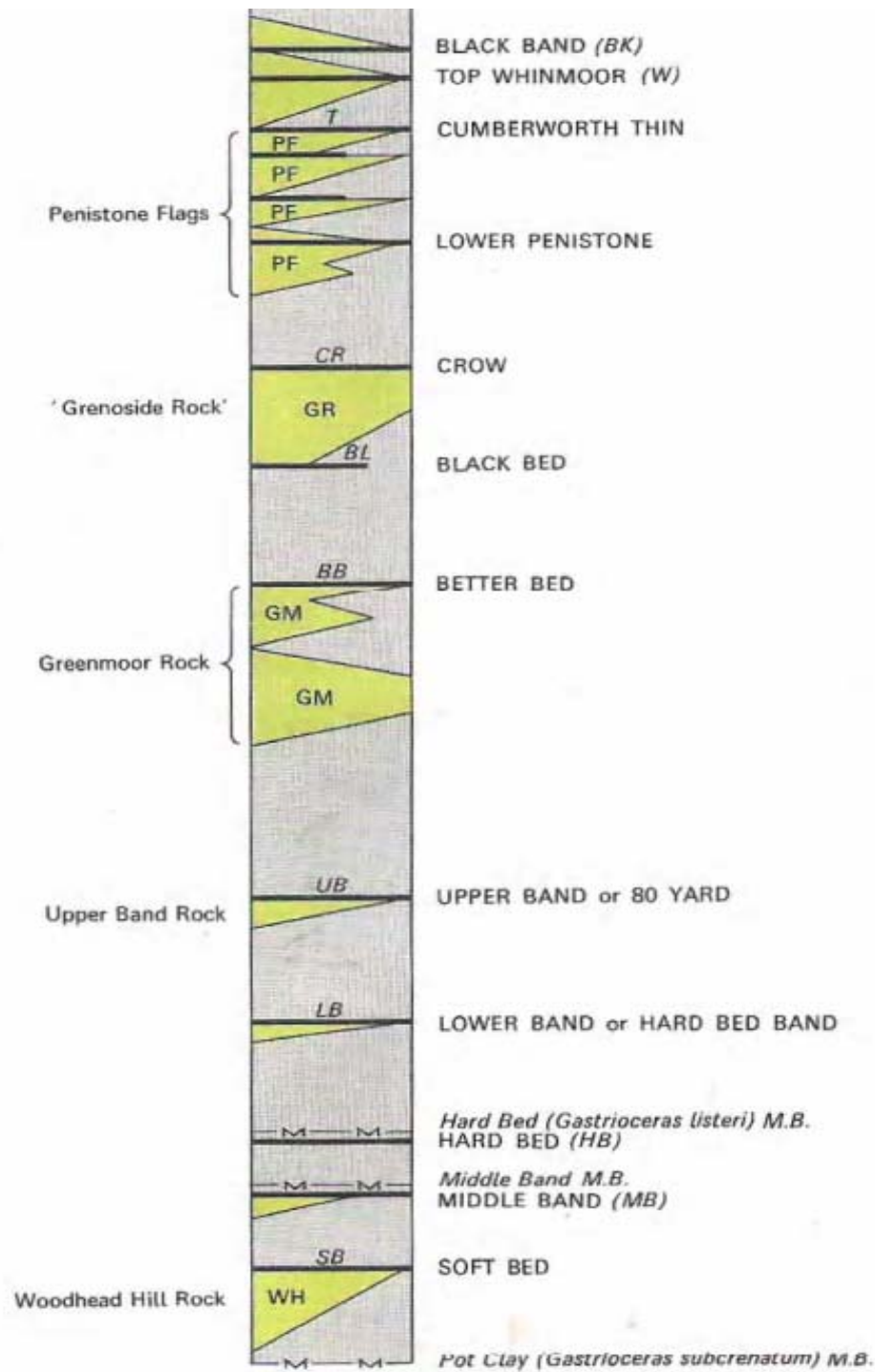


1:3,000

CARBONIFEROUS

WESTPHALIAN A

LOWER COAL MEASURES



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SUB SURFACE

SITE INVESTIGATION AND SPECIALIST GEOTECHNICAL CONSULTANTS
3 Peel Street, Preston, PR2 2QS. Tel. (01772) 561135 Fax (01772) 204907

Geology
Solid and Drift Sheet 86 Glossop

Site
ST MARY'S STREET, PENISTONE, SOUTH YORKSHIRE

Date Drawn
01-Jun-09

Date Checked

Orientation

Job No.
NE2938

Client
RELIANT BUILDING CONTRACTORS

Drawn By
ALM

Checked By

Scale
1:50,000
at A3

Figure No.
3

SMALL SCALE SURVEY PLANS

Ordnance Survey® Historical Mapping Extract

www.centremapslive.com

Site Details:

St Mary's Street, Penistone

SUB SURFACE CONSULTANTS
3 Peel Street, Preston, PR2 2OS
Tel: 01772 561135 Fax: 01772 204907
email: preston@subsurface.co.uk

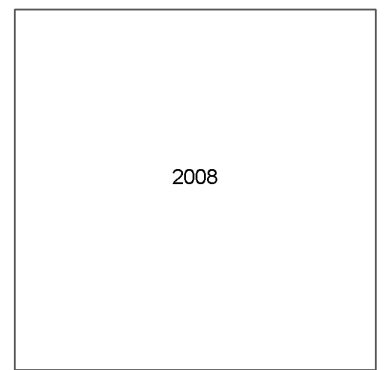
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Report Ref: CMAPS-CM-29728-4199-290509HIS
Grid Ref: 424400, 403408

Map Name: National Grid

Map date: 2008

Scale: 1:10,000

Printed at: 1:10,000



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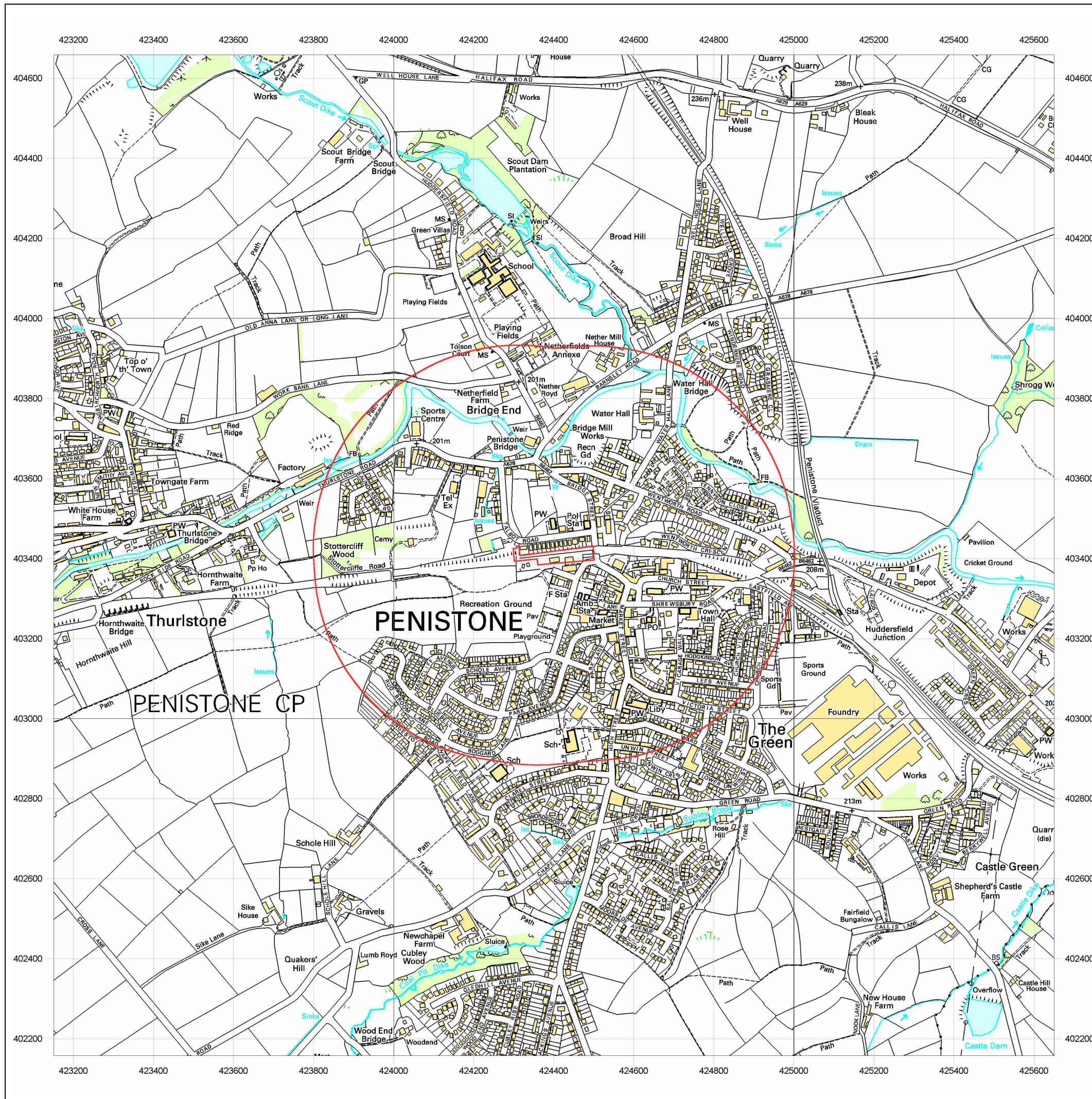
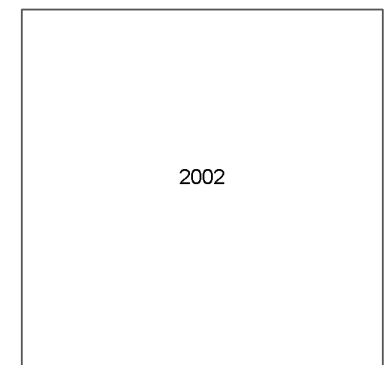
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Report Ref: CMAPS-CM-29728-4199-290509HIS
Grid Ref: 424400, 403408


Map Name: 1:10,000 Raster

Map date: 2002

Scale: 1:10,000

Printed at: 1:10,000



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Grid Ref: 424400, 403408

Map Name: National Grid

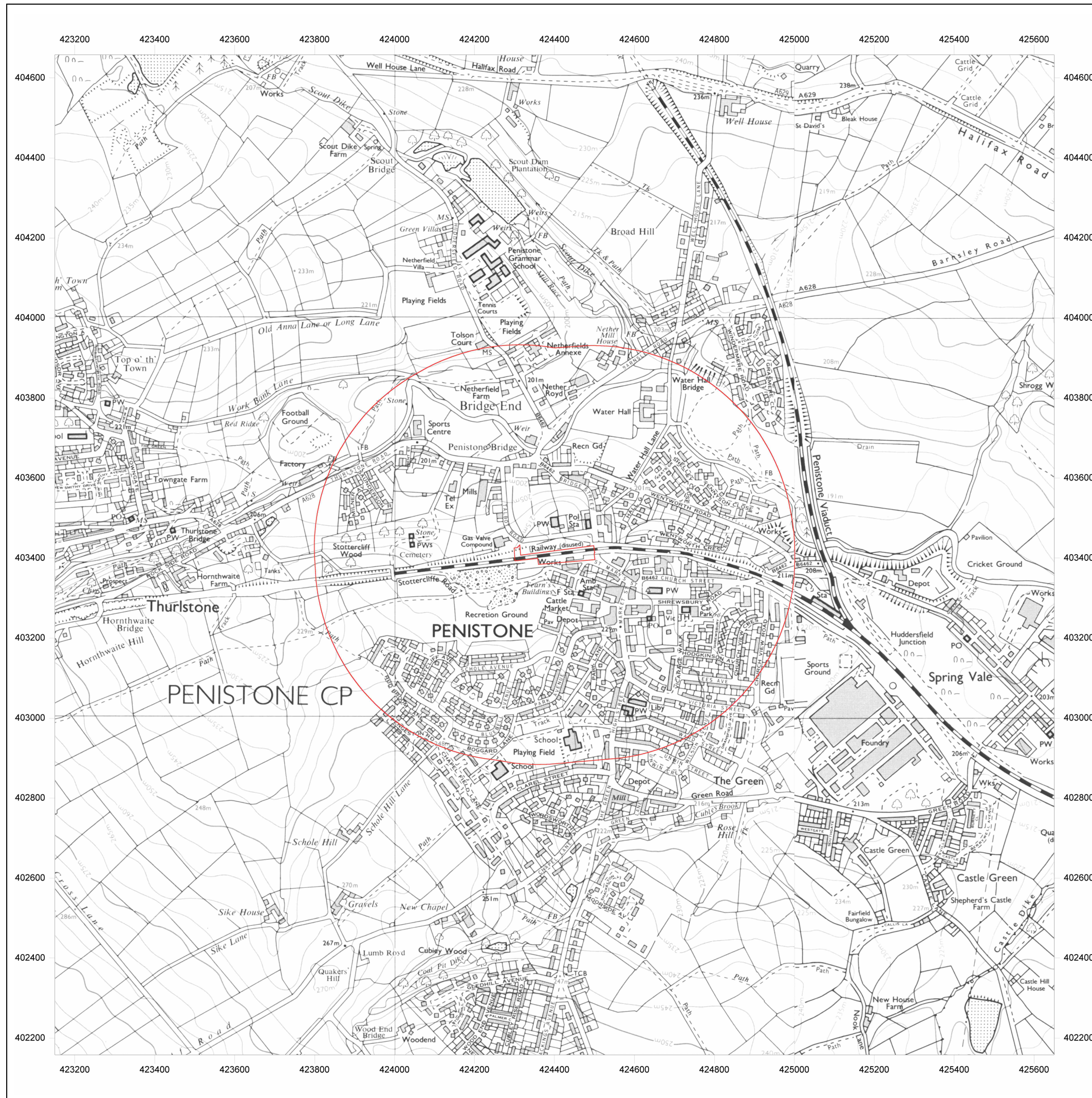
Map date: 1987

Scale: 1:10,000

Printed at: 1:10,000

Surveyed 1984
Revised 1987
Edition NA
Copyright NA
Levelled NA

Surveyed 1984
Revised 1987
Edition NA
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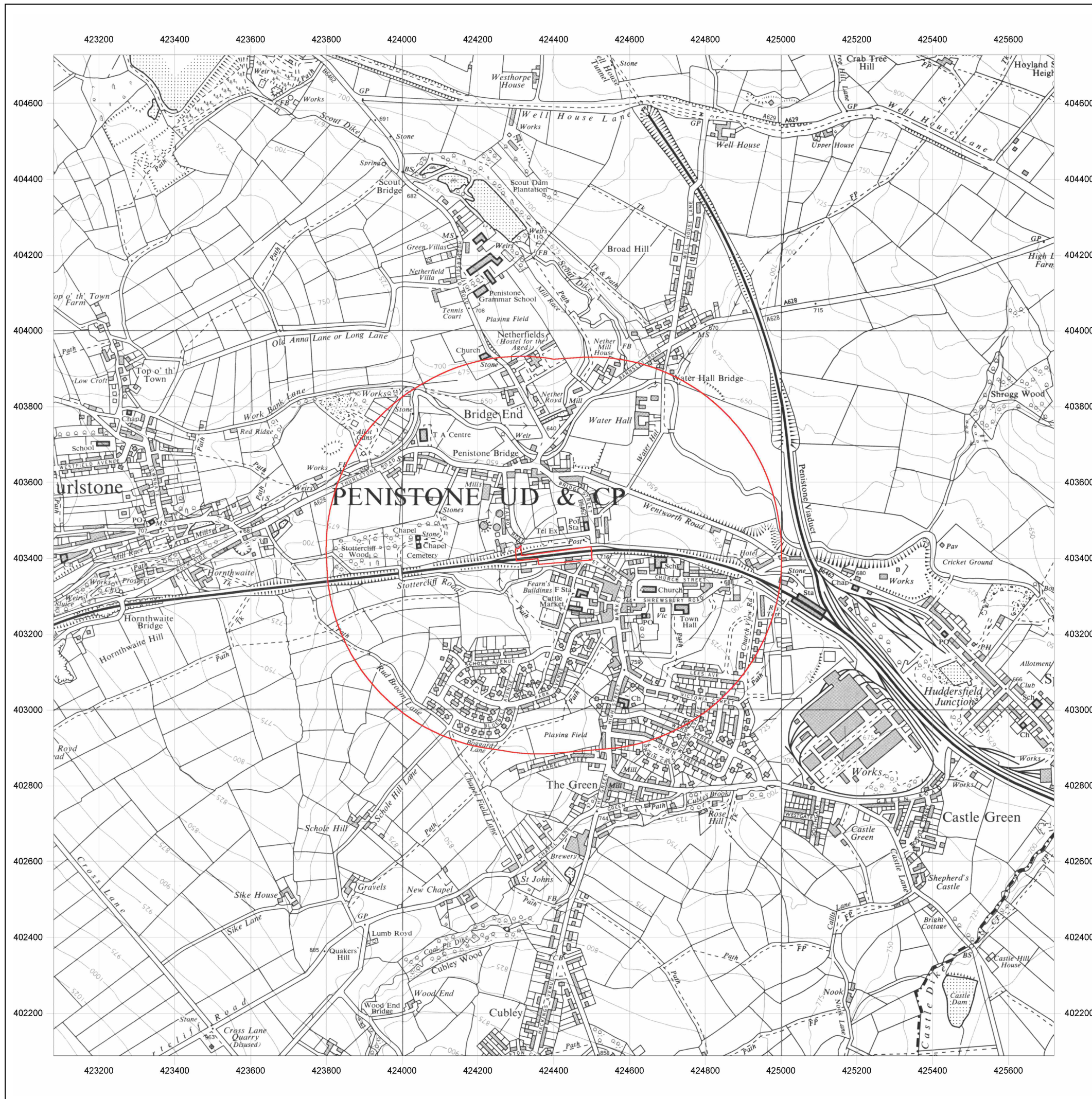
Client Ref: 4199
Report Ref: CMAPS-CM-29728-4199-290509HIS
Grid Ref: 424400, 403408

Map Name: Provisional

Map date: 1965-1967

Scale: 1:10,560

Printed at: 1:10,560



Surveyed 1967
Revised 1967
Edition NA
Copyright NA
Levelled NA

Surveyed 1965
Revised 1965
Edition NA
Copyright NA
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Client Ref: 4199
Report Ref: CMAPS-CM-29728-4199-290509HIS
Grid Ref: 424400, 403408

Map Name: Provisional

Map date: 1951

Scale: 1:10,560

Printed at: 1:10,560

Surveyed 1951
Revised 1951
Edition NA
Copyright NA
Levelled NA

Surveyed 1951
Revised 1951
Edition NA
Copyright NA
Levelled NA



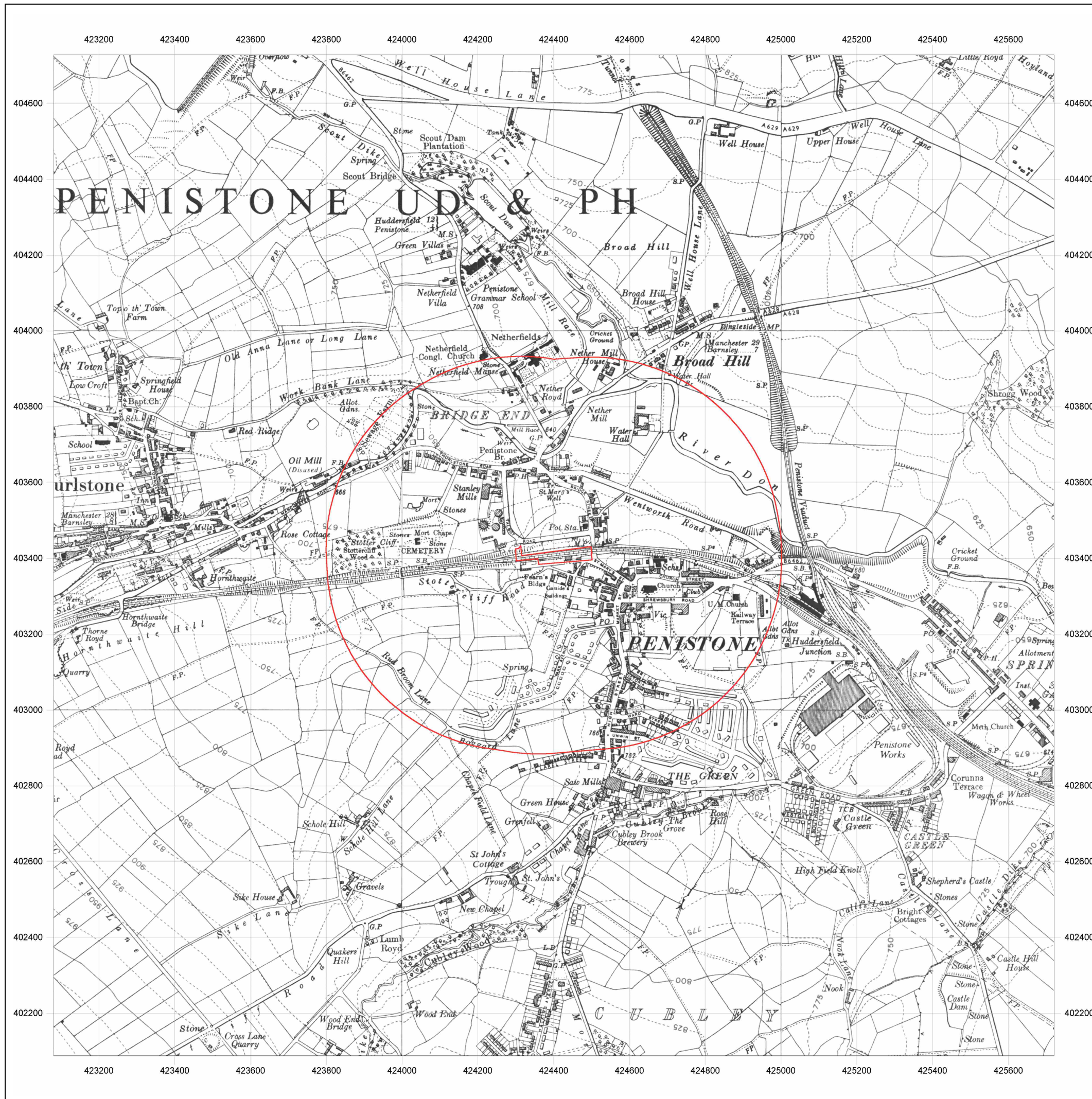
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Client Ref: 4199
Report Ref: CMAPS-CM-29728-4199-290509HIS
Grid Ref: 424400, 403408

Map Name: County Series

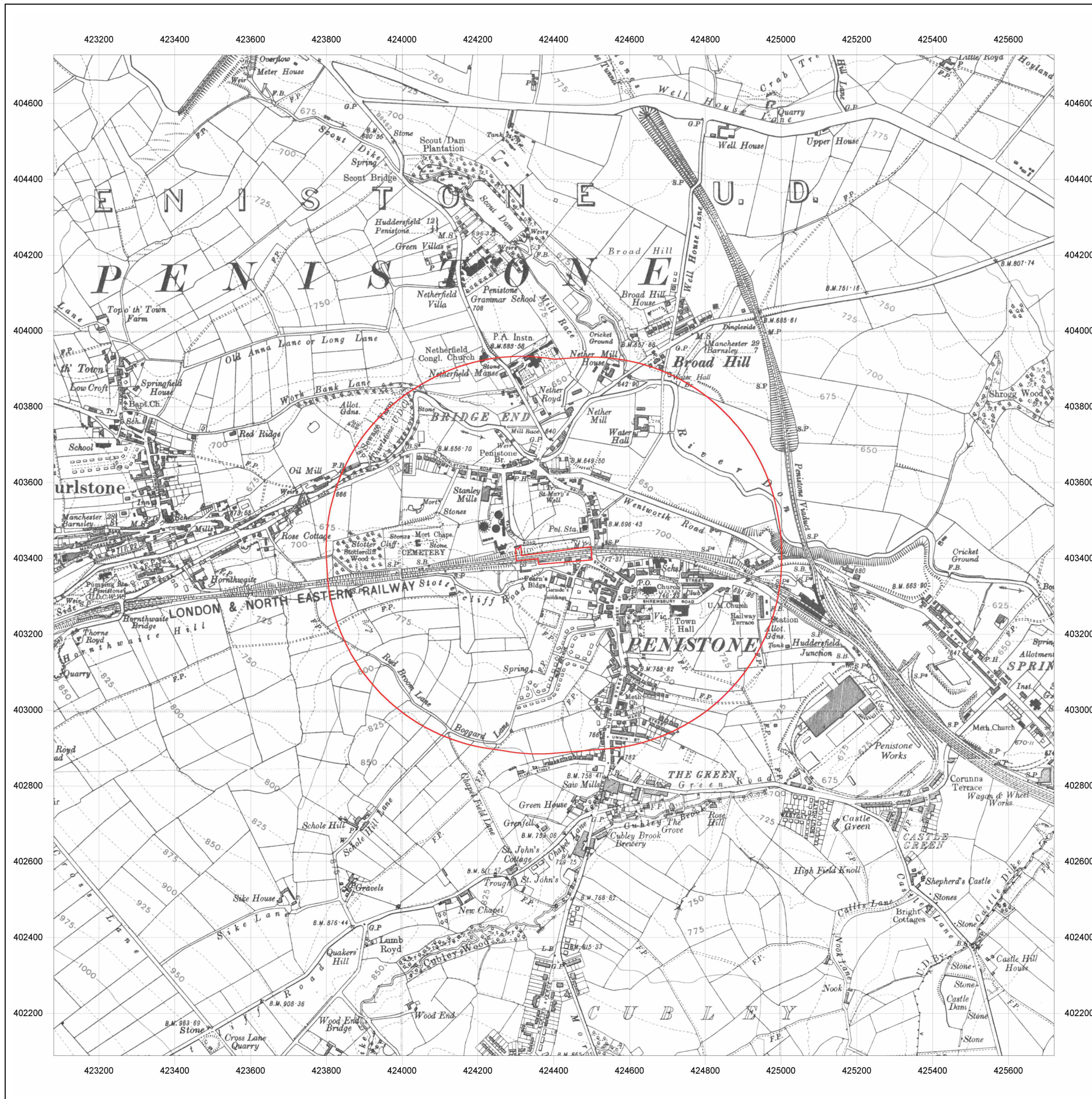
Map date: 1948

Scale: 1:10,560

Printed at: 1:10,560

Surveyed 1851
Revised 1948
Edition NA
Copyright NA
Levelled NA

Surveyed 1851
Revised 1948
Edition NA
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Client Ref: 4199
Report Ref: CMAPS-CM-29728-4199-290509HIS
Grid Ref: 424400, 403408

Map Name: County Series

Map date: 1938

Scale: 1:10,560

Printed at: 1:10,560

Surveyed 1851
Revised 1938
Edition 1938
Copyright NA
Levelled NA

Surveyed 1851
Revised 1938
Edition 1938
Copyright NA
Levelled NA



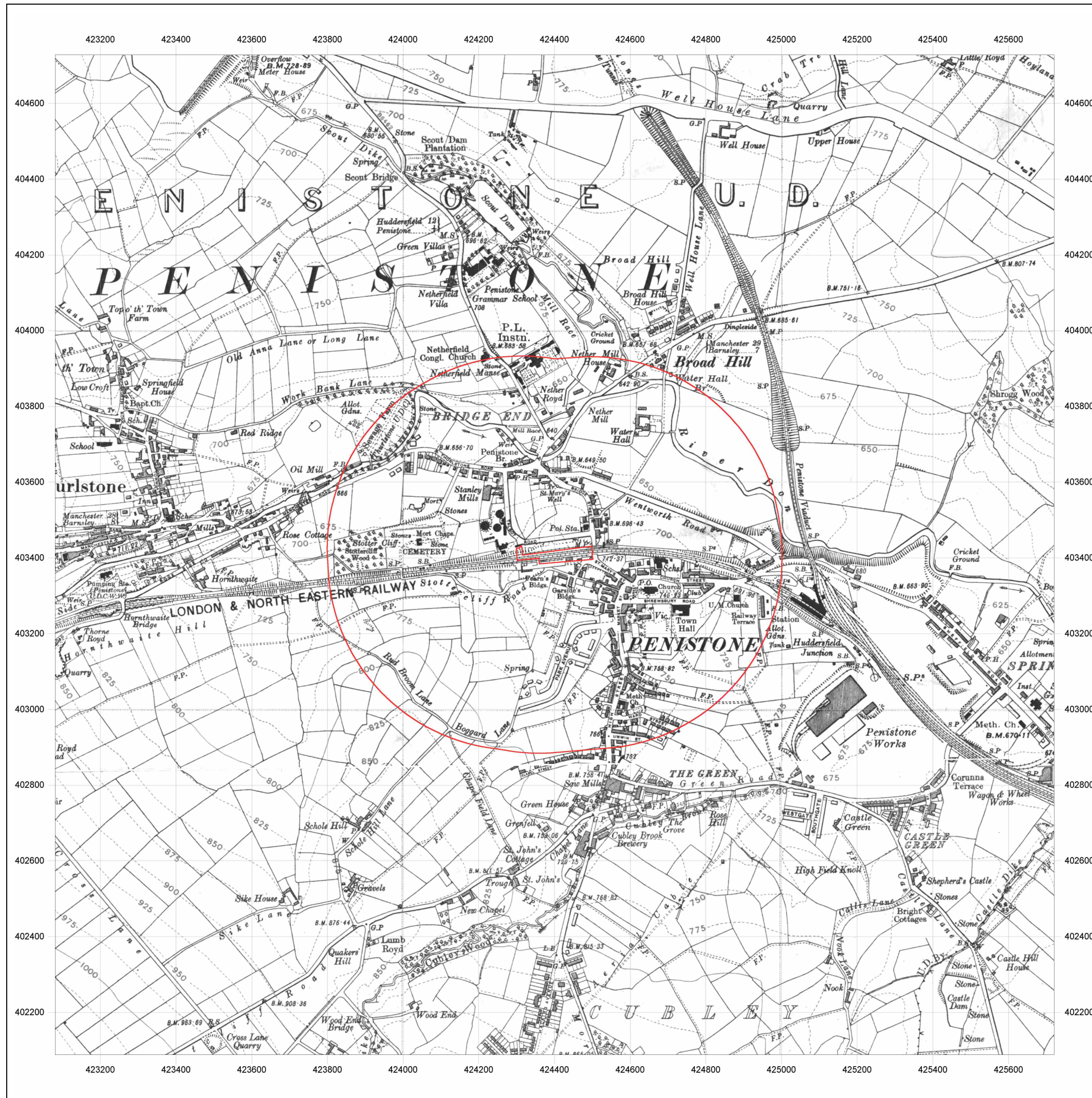
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Client Ref: 4199
Report Ref: CMAPS-CM-29728-4199-290509HIS
Grid Ref: 424400, 403408

Map Name: County Series

Map date: 1929

Scale: 1:10,560

Printed at: 1:10,560

Surveyed 1851
Revised 1929
Edition NA
Copyright NA
Levelled NA

Surveyed 1851
Revised 1929
Edition NA
Copyright NA
Levelled NA



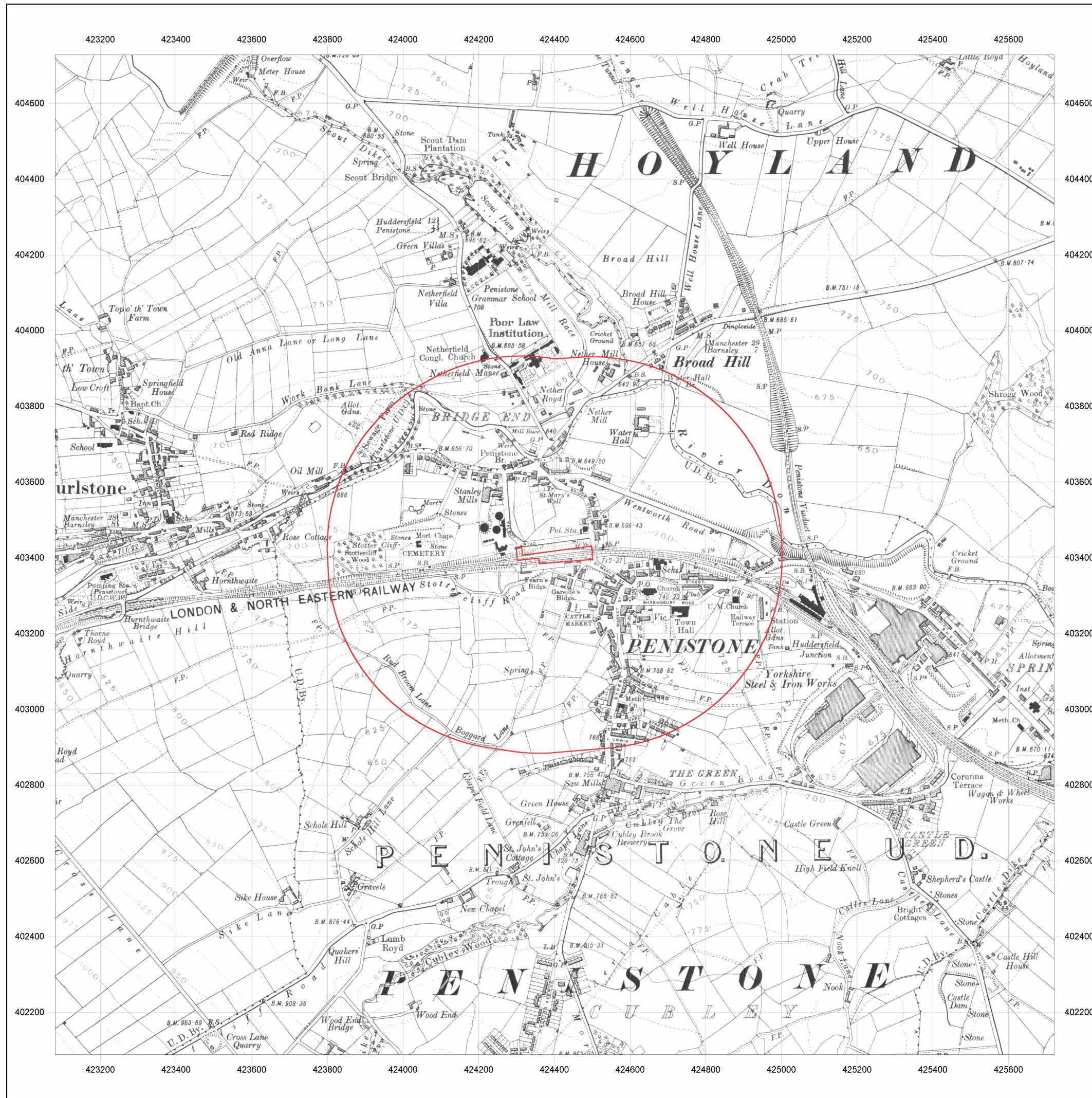
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Client Ref: 4199
Report Ref: CMAPS-CM-29728-4199-290509HIS
Grid Ref: 424400, 403408

Map Name: County Series

Map date: 1903-1904

Scale: 1:10,560

Printed at: 1:10,560

Surveyed 1892
Revised 1903
Edition NA
Copyright NA
Levelled NA

Surveyed 1891
Revised 1904
Edition NA
Copyright NA
Levelled NA



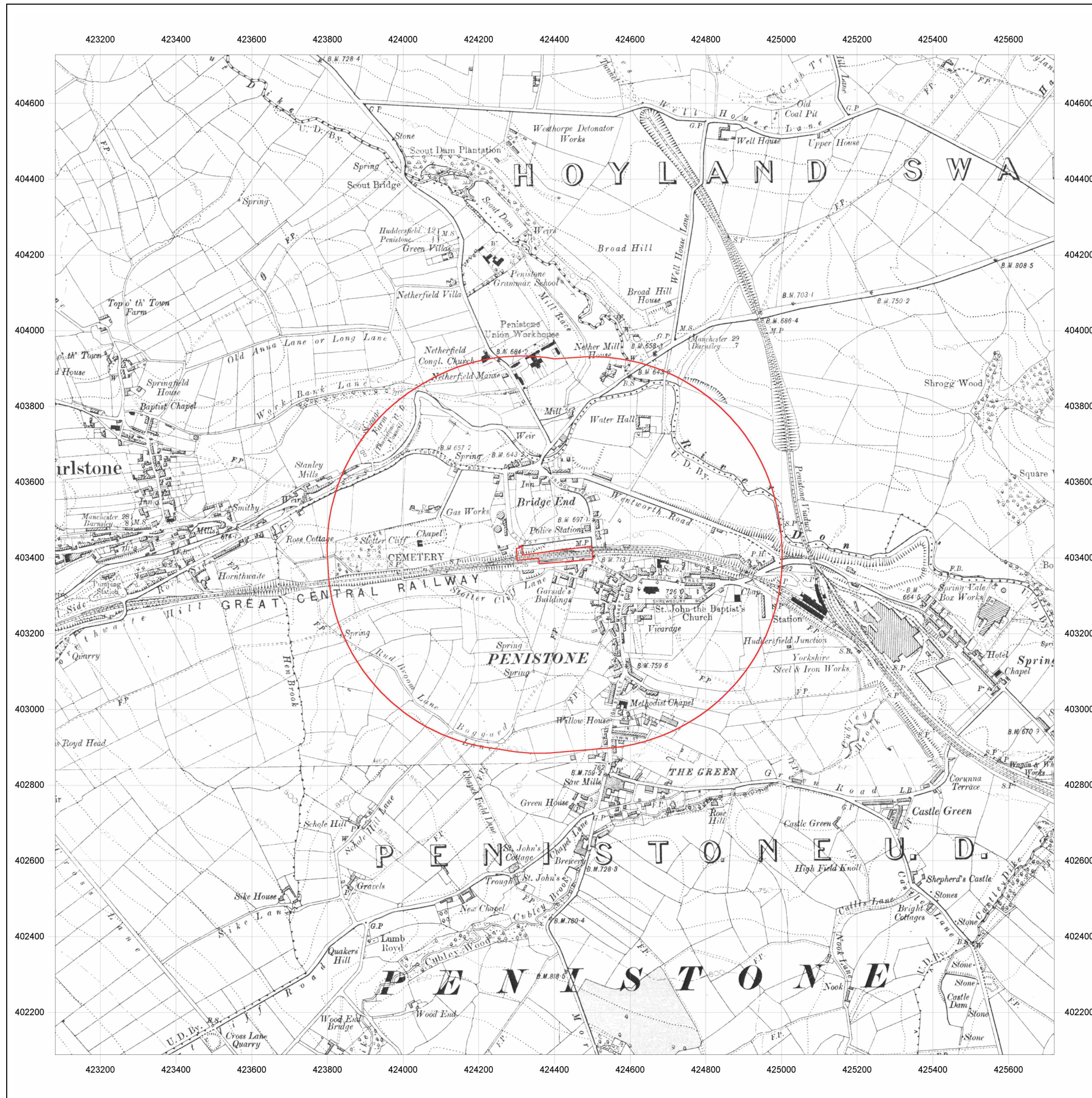
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Client Ref: 4199
Report Ref: CMAPS-CM-29728-4199-290509HIS
Grid Ref: 424400, 403408

Map Name: County Series


Map date: 1891

Scale: 1:10,560

Printed at: 1:10,560

Surveyed 1891
Revised 1891
Edition NA
Copyright NA
Levelled NA

Surveyed 1891
Revised 1891
Edition NA
Copyright NA
Levelled NA

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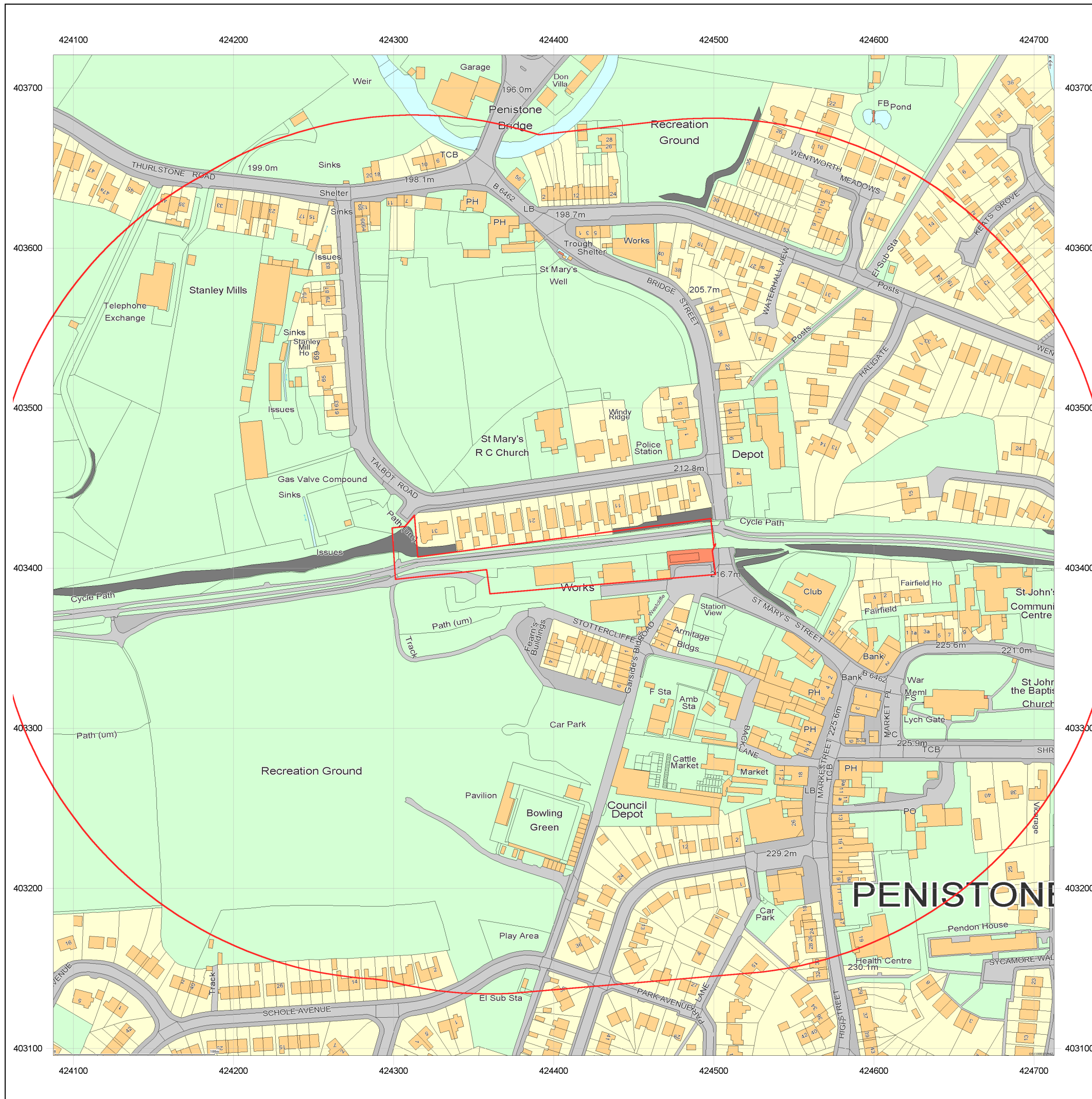
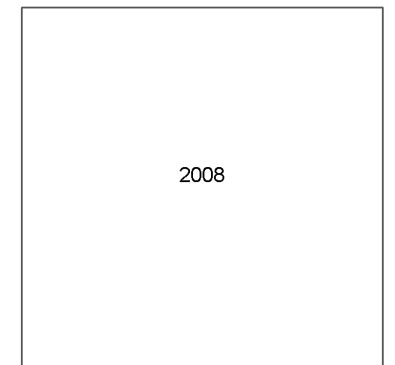
Client Ref: 4199
Report Ref: CMAPS-CM-29728-4199-290509HIS
Grid Ref: 424400, 403408

Map Name: MasterMap

Map date: 2008

Scale: 1:2,500

Printed at: 1:2,500



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Client Ref: 4199
Report Ref: CMAPS-CM-29728-4199-290509HIS
Grid Ref: 424400, 403408


Map Name: National Grid

Map date: 1993

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1993
Revised 1993
Edition NA
Copyright 1993
Levelled NA

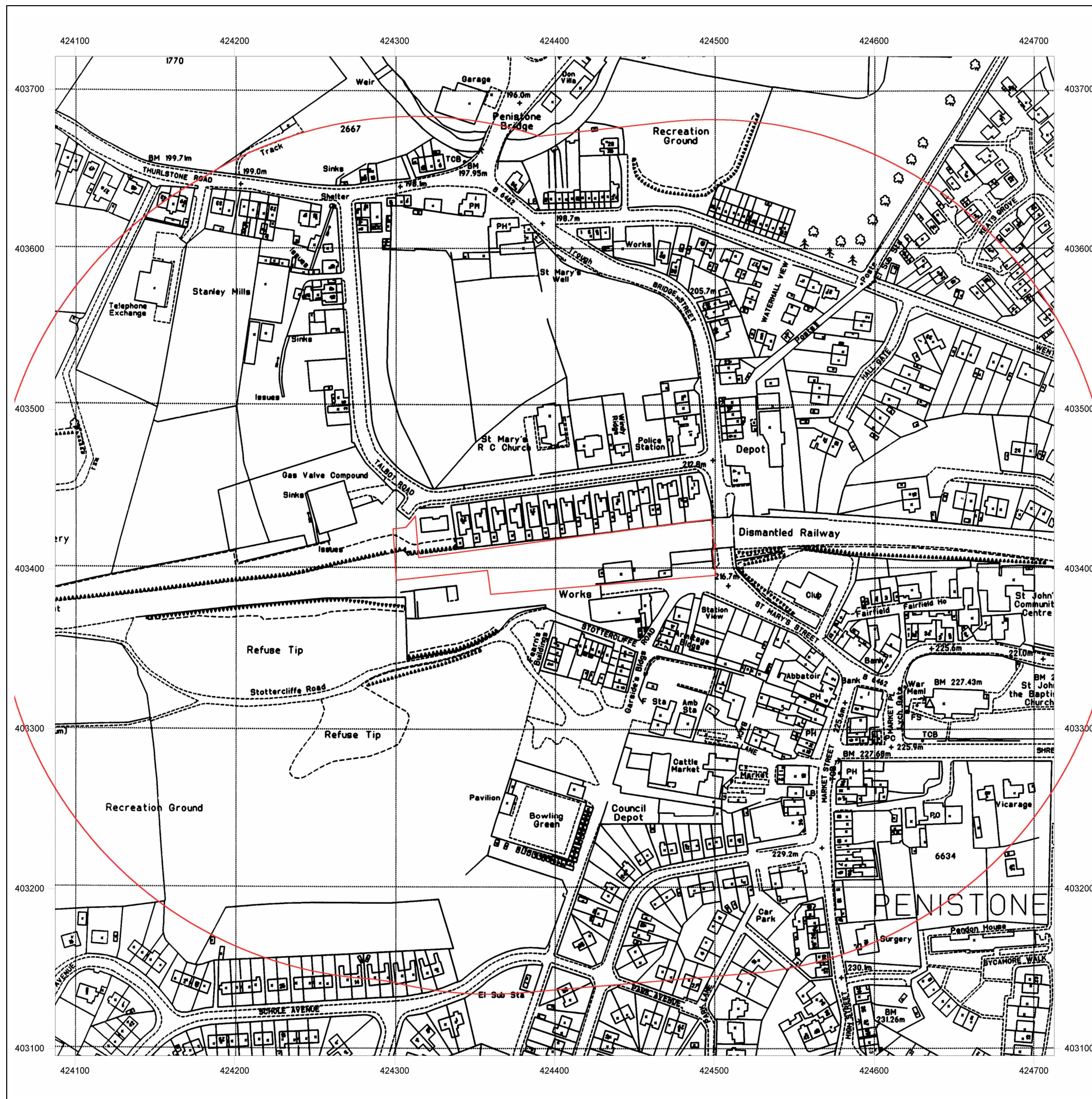
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Client Ref: 4199
Report Ref: CMAPS-CM-29728-4199-290509HIS
Grid Ref: 424400, 403408


Map Name: National Grid

Map date: 1984

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1984
Revised 1984
Edition NA
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Client Ref: 4199
Report Ref: CMAPS-CM-29728-4199-290509HIS
Grid Ref: 424400, 403408

Map Name: National Grid

Map date: 1983

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1959
Revised 1983
Edition NA
Copyright 1983
Levelled 1959



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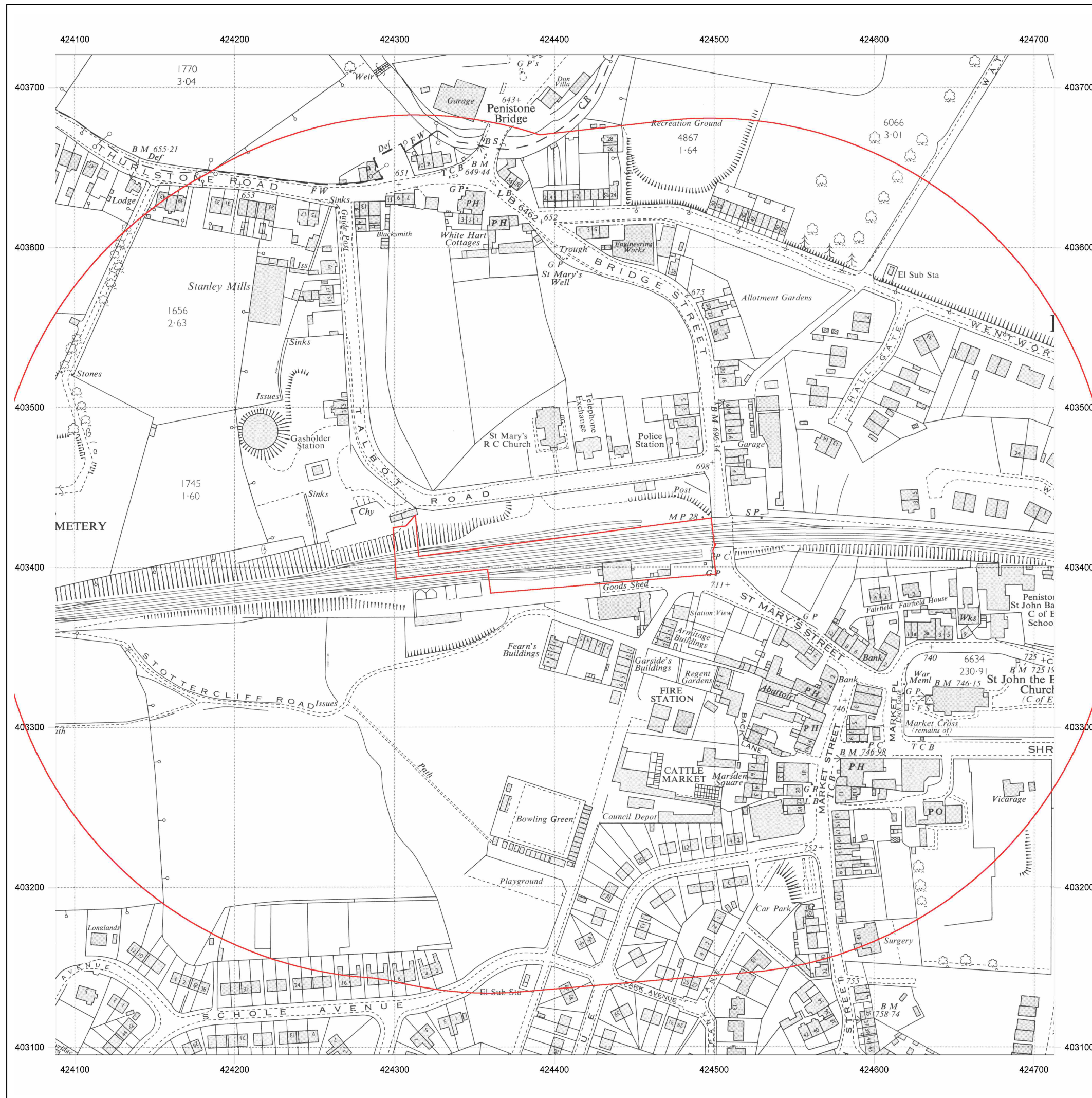
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Grid Ref: 424400, 403408

Map Name: National Grid

Map date: 1967

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1967
Revised 1967
Edition NA
Copyright 1968
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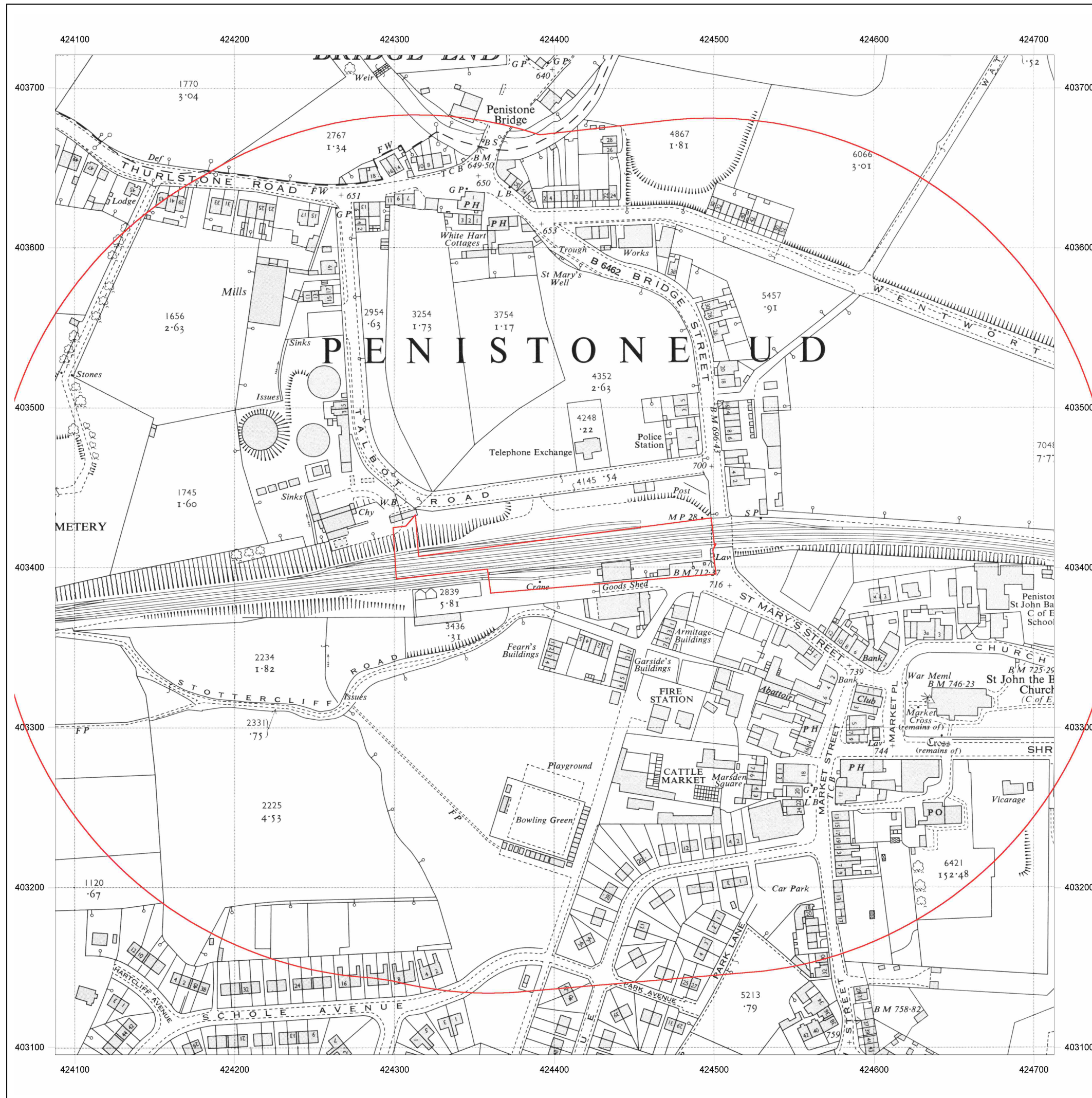
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Grid Ref: 424400, 403408

Map Name: National Grid

Map date: 1959

Scale: 1:2,500

Printed at: 1:2,500



Surveyed 1959
Revised 1959
Edition NA
Copyright 1960
Levelled 1930



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Client Ref: 4199
Report Ref: CMAPS-CM-29728-4199-290509HIS
Grid Ref: 424400, 403408


Map Name: National Grid

Map date: 1959

Scale: 1:2,500

Printed at: 1:2,500

Surveyed ?
Revised ?
Edition NA
Copyright NA
Levelled 1959

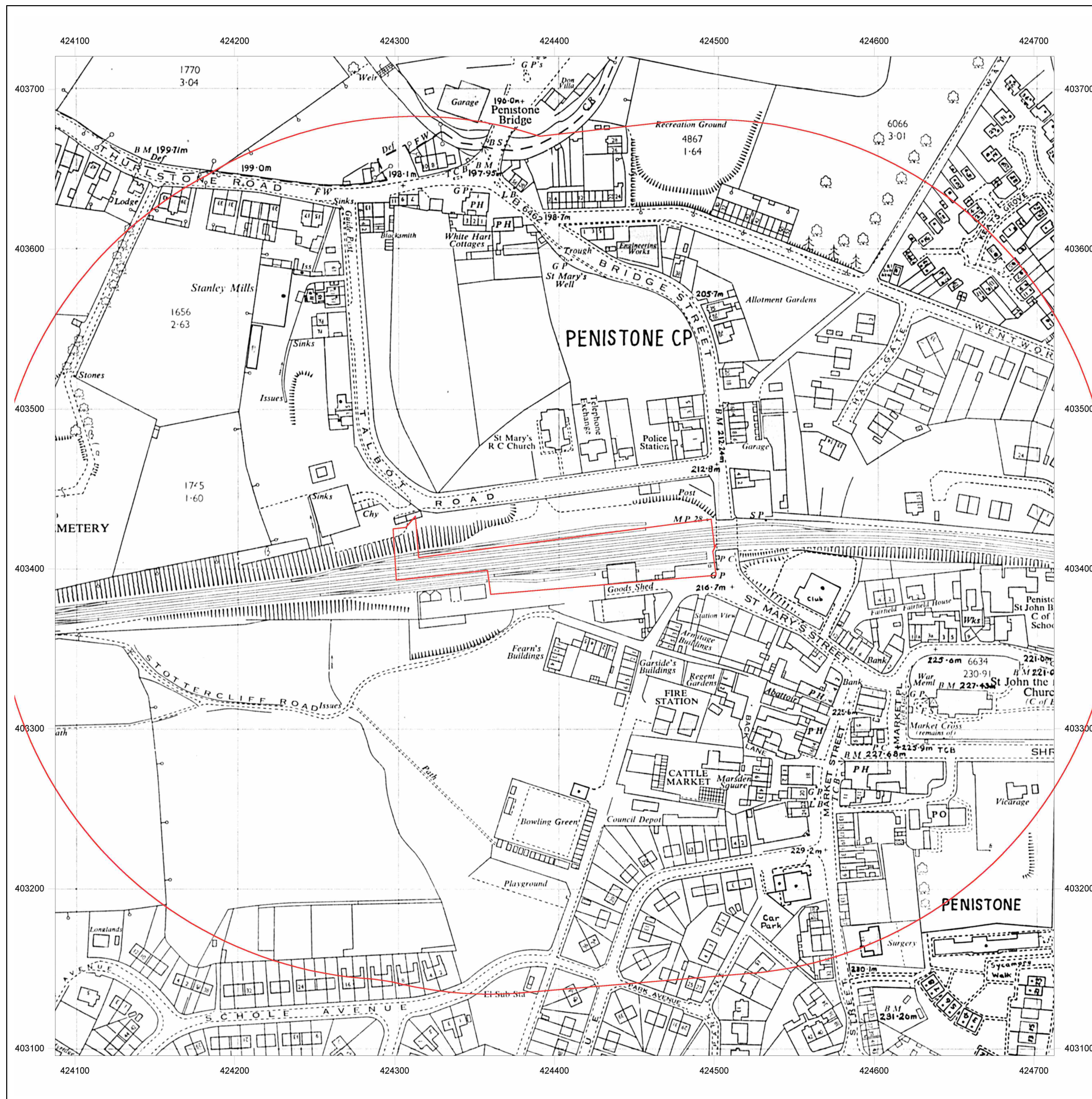
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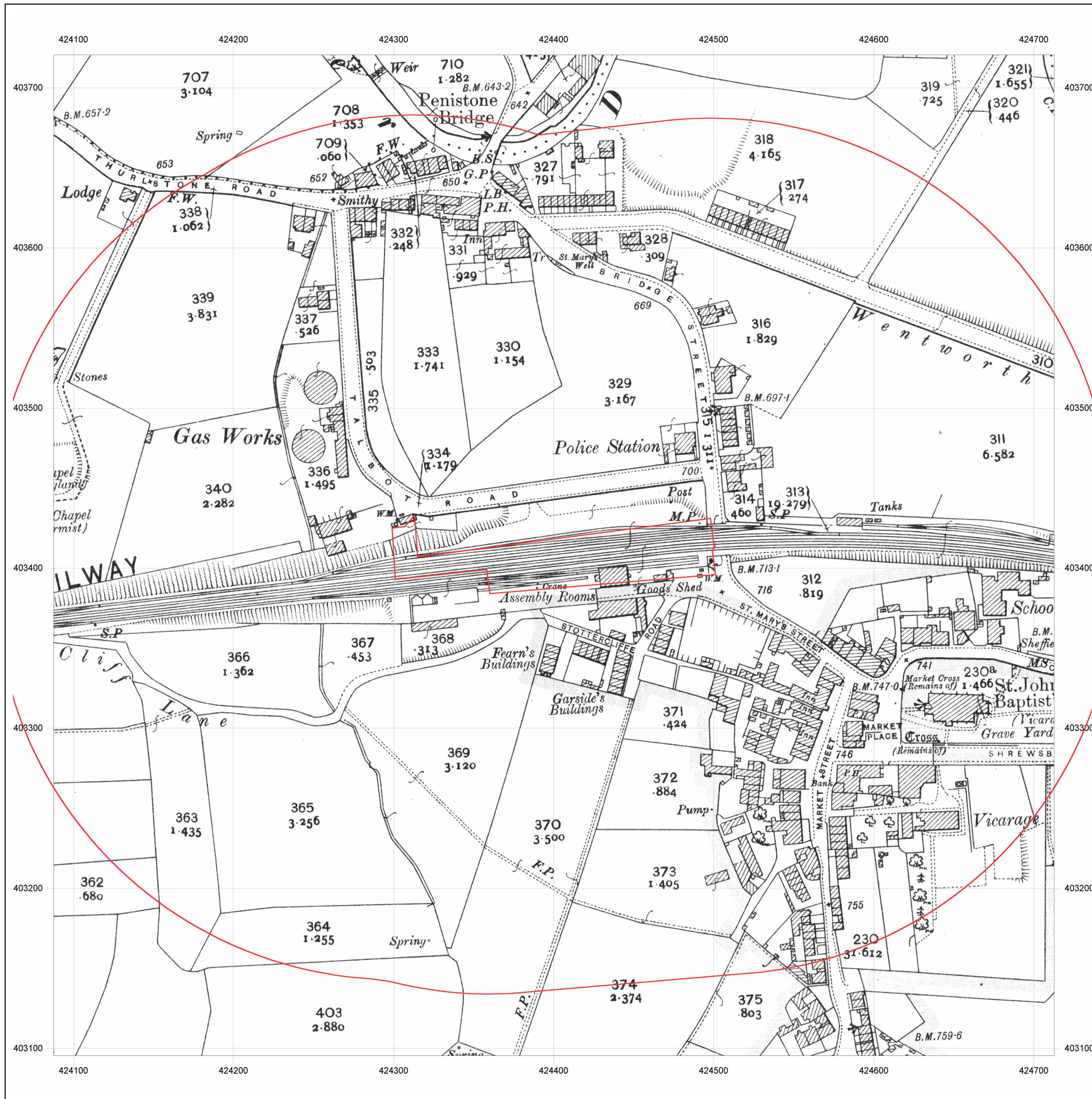
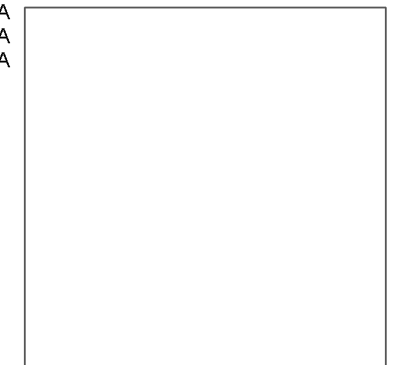
Map Name: County Series


Map date: 1906

Scale: 1:2,500

Printed at: 1:2,500

Surveyed 1906
Revised 1906
Edition NA
Copyright NA
Levelled NA



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