GEOENVIRONMENTAL DESK STUDY REPORT

UK Greetings
Bretton Park
Dewsbury

Reference	**6359-JPG-XX-XX-RP-G-0601-S2-P01**
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CONTENTS

APPENDICES

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DOCUMENT HISTORY

Revision	Date	Revision Details	Status	Author(s)	Approved
P01	11.02.2025	First Issue	Final	EJS	JBW

EXECUTIVE SUMMARY

Site Address	UK Greetings, Dewsbury
National Grid Reference	425278 420001
Current Site Use	The site comprises a rectangular shaped parcel of land, located adjacent to the existing warehouse building to the northwest. The site measures approximately 18m along its northwest to southeast axis and approximately 60m along its northeast to southwest axis, occupying an area of 0.12 hectares. The site comprises a landscaped area with a strip of gravel along the side of the building. The site is flat and level. The wider site area is accessed off Bretton Park Way through a gated access to the west.
Proposed Development	It is proposed to develop the site for an office development associated with the existing warehouse and distribution centre located on the wider site.
Site History	The Dewsbury Corporation Gas Works was located on the wider site from the late nineteenth century. The gasworks was extended in the 1960s before being cleared of buildings and structures by 2002. No buildings or structures associated with the gasworks were located on the site except for a tank that was historically located in the centre-north. Following demolition and remediation, the wider site was developed as an industrial estate with the site proposed for the office extension remaining adjacent landscaping to an industrial unit.
Site Setting	**Geology** – Based on the Groundsure and BGS maps, made ground deposits are shown on the site. The site is shown to be underlain by superficial deposits comprising alluvium (clay, sand and gravel). These alluvial deposits are anticipated to be underlain in turn by undifferentiated river terrace deposits comprising sand and gravel. Bedrock comprises the Pennine Lower Coal Measures Formation (mudstone, siltstone and sandstone). There are 11 faults recorded within 500m of the site, the closest one is located 26m north at its closest point to the site and trends roughly east to west. **Mining** - The site lies within a Mining Remediation Authority Coal Mining Reporting Area. A CON29 mining report has been obtained. **Quarry/Mineral Extraction** – The GS report provides information from the British Pits (BritPits) database. This database includes a mineral storage facility 442m northwest of the site, related to Dewsbury Rail Depot. There are 34 records of surface ground workings recorded within 250m of the site, three of these are recorded to be on-site and relate to 'Unspecified Ground Workings'. **Hydrogeology** - The superficial deposits and bedrock are both classified as Secondary A aquifers. **Hydrology** – The nearest surface water feature and course is a canal (the Calder and Hebble Navigation) located approximately 210m west of the site. The River Calder is also located 222m east of the site at its nearest point to the site. **Landfills and Waste** - There are no recorded active landfill sites located within 1km of the site. There is one historical landfill site recorded approximately 36m northeast of the site. This is referred to as a 'Tipping Site' operated by Hoveringham Gravels and was first recorded in 1970. There is one recorded historical waste site within the site boundary and a further six recorded within 500m based on Local Authority planning records and EA regulations. **Radon** – No radon protective measures are required. **Unexploded Ordnance** – The site is presented as a low unexploded ordnance (UXO) risk.
Environmental Risk Assessment	Based on the proposed residential end use and history of the site, the following potential pollutant linkages may be present: • Development and maintenance workers and future site end could come into contact with soils and groundwater containing elevated concentrations of potential contaminants and hazardous ground gases/soil vapours. • The controlled waters could become contaminated due to leaching and migration of potential contaminants from the made ground. • Buildings and services could be affected by potential contaminants in any made ground; and • Plants in landscaped areas could be affected by phytotoxic elements in any made ground. These are based on current site conditions and do not consider exposure pathways following any remediation of the site. Based on the conceptual site model, the site should be considered to be a low to moderate risk with respect to contamination. This designation will be largely dependent on the nature of the made ground and hazardous ground gases / soil vapours present on or adjacent to the site.
Preliminary Engineering Assessment	**Foundations and Ground Floor Slab** - As part of the adjacent development, vibro stone columns were installed below the site in order to provide a ground bearing pressure of 60kN/m^2. On completion of the vibro works, the formation was proof-rolled. As part of the piling operation, it is anticipated that stone will be imported for a piling mat. On this basis, it is likely that a ground-bearing floor slab on engineered granular fill will be appropriate for the proposed office extension. The requirements of any ground gas protection measures will also need to be taken into

	consideration in relation to ground floor design and construction. Foundation design will be confirmed through information obtained during the ground investigation. **Ground Floor Slab Construction** – As part of the adjacent development, vibro stone columns were installed below the site in order to provide a ground bearing pressure of 60kN/m^2. On completion of the vibro works, the formation was proof-rolled. As part of the piling operation, it is anticipated that stone will be imported for a piling mat. On this basis, it is likely that a ground-bearing floor slab on engineered granular fill will be appropriate for the proposed office extension. The requirements of any ground gas protection measures will also need to be taken into consideration in relation to ground floor design and construction. **Earthworks** – Any earthworks specification should be in general accordance with the Manual of Contract Documents for Highway Works, Volume 1 Specification for Highway Works, Series 600 Earthworks. **Groundwater** – The presence of groundwater will need to be assessed as part of any ground investigation. Based on historical ground investigation, groundwater is anticipated to be approximately 5.00m bgl. **Obstructions** - The presence of obstructions within the natural strata is considered likely. **Roads, Pavements and Hardstanding Surfaces** - It is recommended that, at this stage, a conservative bearing value for the subgrade is assumed until the nature of the subgrade can be physically assessed. Any earthworks should be designed to achieve a suitable CBR value for the proposed development. **Chemical Attack on Buried Ground** - Samples of made and natural ground should be obtained and submitted to the laboratory for testing in order to assess the sulphate content and acidity and hence the concrete class required for buried concrete to the latest standard.
Further Work Required	Based on the findings of the desk study report, we would recommend the following scope of investigative works. • Cable percussive boreholes with rotary core follow on in order to assess the ground conditions at the site and confirm the composition, extent, depth, and nature of any made ground and underlying natural ground. Rotary coring will allow for samples to be taken to inform deep foundation (pile) design. The boreholes will enable the installation of hazardous ground gas and groundwater monitoring wells. • Window sample boreholes in order to assess the shallow ground conditions at the site and confirm the composition, extent, depth and nature of any made ground and underlying natural strata. Window samples will be carried out to provide general coverage and obtain soil samples to submit for chemical analysis. Boreholes will also be installed to enable monitoring of hazardous ground gases and groundwater. • Chemical analysis of soil, soil leachate and groundwater and surface water samples in order to determine the concentrations of potential contamination on the site and classify selected materials for disposal off-site (not including WAC testing). • Geotechnical testing to classify materials and inform foundation design and geochemical testing to assess the Aggressive Chemical Environment for Concrete classification. • Monitoring of gas and groundwater wells for hazardous ground gases, methane, carbon dioxide, oxygen, flow rate and groundwater level. On completion of the above, a Phase 2 geoenvironmental ground investigation report, to include a Tier 2 Generic Quantitative Risk Assessment and engineering recommendations will be prepared.
This sheet is intended as a summary only of the assessment of the site in relation to ground condition. It does not provide a definitive engineering analysis.	

1.0 INTRODUCTION

1.1 Instruction

JPG (Leeds) Limited (JPG) has been instructed by UK Greetings Limited to provide a Geoenvironmental Desk Study report for a proposed office extension on the existing UK Greetings Warehouse, Dewsbury.

1.2 Objectives

The main objective of the Geoenvironmental Desk Study is to identify potential geotechnical and environmental issues that may represent constraints to the proposed development of the site.

1.3 Scope of Works

The scope of works for the desk study includes the following:

- Site inspection and description.
- Review of contemporary and historical Ordnance Survey publications and available aerial photographs.
- Obtain a Coal Authority Mining Report and any relevant abandonment plans/reports, if applicable.
- Consultations with regulatory authorities, where appropriate.
- Review of geological publications (including hydrology, hydrogeology and soil survey publications, where appropriate).
- Review of previous reports, if available.
- Review of the radon status of the site.
- An environmental database search.
- Outline environmental risk assessment.
- Preliminary engineering recommendations with respect to mining, foundations, ground floor and pavement design.
- Recommendations for further work, where appropriate; and
- Presentation of the findings in a tabular non-technical summary.

1.4 Location

The site is located approximately 1.5km south of Dewsbury town centre. The approximate centre of the site is located at NGR 425278 420001.

A site location plan is given as Figure 1 in Appendix A.

1.5 Site Description and Topography

A site walkover was carried out by a JPG engineer on 7 January 2025.

The site comprises a rectangular shaped parcel of land, located adjacent to the existing warehouse building to the northwest. The site measures approximately 18m along its northwest to southeast axis and approximately 60m along its northeast to southwest axis, occupying an area of 0.12 hectares.

The site comprises a landscaped area with a strip of gravel along the side of the building. The site is flat and level.

The wider site area is accessed off Bretton Park Way through a gated access to the west.

The boundaries to the wider site area are formed by post and mesh fencing.

The site is located within an industrial estate. Land to the north comprises the existing UK Greetings warehouse and offices. Car parking associated with the existing warehouse building is located to the south and west. There is a large water tank located approximately 15m to the southeast. An engineering works is located approximately 65m to the southeast. The River Calder is located approximately 185m to the east.

A medium pressure gas main runs parallel to the building below the car park to the south before extending to the northeast. The location is marked on the edge of the wider site perimeter by a gas marker. The gas main does not encroach onto the development site.

It is understood that as part of the previous adjacent development, pad foundations were installed below the site for an anticipate warehouse extension that was not built.

An aerial photograph of the site is provided as Figure 2 in Appendix A. A selection of photographs is provided in Appendix B.

1.6 Development Proposals

It is proposed to develop the site for an office development associated with the existing warehouse and distribution centre located on the wider site.

A proposed site layout plan showing the location of the proposed extension is referenced below, a copy of which is presented in Appendix A of this report.

KPP Architects. Proposed Site Plan. Bretton Park. Job no. 2157-01. Project 2003. Dated January 2025.

1.7 Limitations

The general limitations to the nature of the investigation are outlined in Appendix E.

2.0 SITE HISTORY

2.1 Ordnance Survey Mapping

Historical maps for the site were obtained from Landmark Information Group (LIG). These have been reviewed to establish the previous uses of the site and identify any potentially contaminative historical uses or potential geotechnical constraints to the proposed development.

A summary of the relevant map information is provided in Table 2.1 and copies of the Ordnance Survey (OS) maps are provided in Appendix C.

Table 2.1 – Summary of Relevant Historical Map Information

Date(s) & Scale	Description
1855 1:10,560	**The site is within open land with no development or land use indicated.** Adjacent land is also undeveloped. The Lancashire and Yorkshire Railway (L&YR) extends east to west approximately 200m south of the site. The Calder and Hebble Navigation extends northwest to southeast approximately 250m south and west of the site. A river, later annotated as the River Calder, extends northwest to southeast approximately 300m north of the site at its closest point.
1892 1:10,560 **1894 1:10,560** **1893 1:2,500**	**The site is located within the boundary of 'Dewsbury Corporation Gas Works'. Raised earthworks are indicated to occupy the majority of the site.** Buildings associated with the gasworks, an air shaft and multiple tanks are located approximately 120m to the west. Two gasholders and a well are indicated approximately 200m to the north. A chemical works is shown approximately 210m to the south.
1905 1:10,560 **1907 1:2,500** **1922 1:2,500**	**No significant changes are shown on or adjacent to the site.**
1931 1:10,560 **1933 1:2,500** **1938 1:10,560** **1937-39 1:2,500**	**No significant changes are shown on or adjacent to the site.**
1948 1:10,560 **1951-55 1:10,560** **1957 1:10,560** **1953, 1954, 1955 1:2,500**	**Some infilling of ground is indicated onsite.** Possible infilling of ground indicated to the north. A pond is shown approximately 20m to the southwest.
1966-67 1:10,560 **1969 1:2,500** **1967-72 1:2,500** **1971-74 1:10,560**	**The wider gasworks site is annotated as a hydrocarbon reforming works (refinery).** Buildings, tanks, substations and other ancillary buildings associated with the hydrocarbon works are located within 100m of the site, but not on or abutting.
1978 1:2,500 **1980-83 1:10,000** **1988-93 1:10,000**	**A tank is present in the centre-north of the site.** No significant changes are indicated adjacent to the site.
2001 1:10,000 **2003 1:2,500**	**The tank is no longer shown.** All above-ground buildings and structures associated with the former gasworks are shown to have been cleared with only access roads remaining.
2010 1:10,000	**No development is indicated on the site.** A large building is shown adjacent to the northwest boundary. Bretton Park Way extends north to southeast approximately 50m south of the site. Multiple buildings are shown along Bretton Park Way, including Dewsbury East Junction approximately 100m to the south.
2024 1:10,000	**No significant changes are shown on or adjacent to the site.**

2.2 Historical Aerial Imagery

Available aerial imagery dating from December 2002 to June 2023 has been reviewed on Google Earth Pro.

A summary of the aerial photography is provided in Table 2.2.

Table 2.2 – Summary of Aerial Photography Viewed within the Groundsure Report

Date(s) Source	**Feature and Source**
December 2002	**The site comprises disused land.** Adjacent land is shown as disused including a road extending north to south and a tank to the south. The Calder and Hebble Navigation extends north to south to the west of the site, beyond which there is an industrial estate.
June 2009	**The site comprises soft landscaping within an industrial estate.** The existing industrial unit is shown adjacent to the northwest boundary and a car park associated with the warehouse to the southeast and west of the site.
September 2011	**No significant changes are shown on or off the site.**
April 2015	**No significant changes are shown on the site.** A tank is shown to the east of the site. A road is shown extending northwest to southeast and then across the River Calder to the north and east of the site.
April 2018	**No significant changes are shown on or off the site.**
June 2023	**No significant changes are shown on or off the site.**

2.3 Summary of Site History

The Dewsbury Corporation Gas Works was located on the wider site from the late nineteenth century. The gasworks was extended in the 1960s before being cleared of buildings and structures by 2002. No buildings or structures associated with the gasworks were located on the site except for a tank that was historically located in the centre-north.

Following demolition and remediation, the wider site was developed as an industrial estate with the site proposed for the office extension remaining adjacent landscaping to an industrial unit.

3.0 SITE SETTING

3.1 Geology

The Groundsure Report and the following geological publications have been consulted:

- British Geological Survey (BGS), Sheet 77 and 78, Huddersfield and Wakefield 1:50,000 Scale, Solid and Drift Edition, dated 1997.
- British Geological Survey (BGS), Sheet SE 22 SE, Ossett. 1:10,000 Scale, Solid and Drift Edition, dated 1997.
- BGS Onshore GeoIndex (http://mapapps2.bgs.ac.uk/geoindex/home.html).
- BGS, Lexicon of Named Rock Units.

Based on the Groundsure and BGS maps, made ground deposits are shown on the site.

The site is shown to be underlain by superficial deposits comprising alluvium (clay, sand and gravel). These alluvial deposits are anticipated to be underlain in turn by undifferentiated river terrace deposits comprising sand and gravel. Bedrock comprises the Pennine Lower Coal Measures Formation (mudstone, siltstone and sandstone).

There are 11 faults recorded within 500m of the site, the closest one is located 26m north at its closest point to the site and trends roughly east to west.

3.2 Historical Boreholes

Historical borehole records have been obtained from the BGS Onshore GeoIndex. There are 54 BGS borehole records located within 250m of the site. A summary of the records within 50m and over 3m in depth are presented in Tables 3.2.1 to 3.2.5 and copies are contained in Appendix D.

Table 3.2.1 BGS Borehole Record Summary – SE22SE28/H (on site)

Strata Description	Depth Range (m bgl)	Strata Thickness (m)
Fill – Ashes	0.00 to 3.66	3.66
Large Gravel and Coarse Sand	3.66 to 9.14	5.49
Medium Gravel and Coarse Sand	9.14 to 11.89	2.74
Grey Shale	11.89 – 12.80	0.91

Table 3.2.2 BGS Borehole Record Summary – SE22SE28/K (24m northeast of the site)

Strata Description	Depth Range (m bgl)	Strata Thickness (m)
Fill – Ashes and Rubble	0.00 to 3.66	3.66
Soft brown silty sandy CLAY	3.66 to 4.11	0.45
Large Gravel and Coarse Sand	4.11 to 9.14	5.03
Medium Gravel and Coarse Sand	9.14 to 12.04	2.90
Grey Mudstone	12.04 to 12.95	0.91
Grey Shale	12.95 to 13.41	0.46

Table 3.2.3 BGS Borehole Record Summary – SE22SE28/E (34m west)

Strata Description	Depth Range (m bgl)	Strata Thickness (m)
Fill – Ashes	0.00 to 3.81	3.81
Grey sandy CLAY	3.81 to 5.18	1.37
Large Gravel	5.18 to 7.62	2.44
Large Gravel and Coarse Sand	7.62 to 10.67	3.05
Medium Gravel and Coarse Sand	10.67 to 12.19	1.52
Grey Mudstone	12.19 to 13.24	1.07
Grey Shale	13.24 to 15.25	1.98

Table 3.2.4 BGS Borehole Record Summary – SE22SE28/H (44m west)

Strata Description	Depth Range (m bgl)	Strata Thickness (m)
Made Ground – Ashes, Bricks	0.00 to 3.96	3.96
Brown sandy CLAY	3.96 to 5.18	1.22
Gravel and Sand	5.18 to 6.09	0.91

Table 3.2.5 BGS Borehole Record Summary – SE22SE28/L (50m north)

Strata Description	Depth Range (m bgl)	Strata Thickness (m)
Fill, Ashes, Brick & Stones	0.00 to 3.35	3.35
Large Gravel	3.35 to 6.09	2.74
Medium Gravel and Coarse Sand	6.09 to 7.01	0.92
Large Gravel and Coarse Sand	7.01 to 10.82	3.81
Soft Brown Mudstone	10.82 to 11.43	0.61
Hard Grey Mudstone	11.43 to 12.19	0.76

Table 3.2.6 BGS Borehole Record Summary – SE22SE28/J (50m northwest)

Strata Description	Depth Range (m bgl)	Strata Thickness (m)
Fill – Ashes and some brick	0.00 to 3.66	3.66
Large Gravel and Coarse Sand	3.66 to 7.92	4.27
Medium Gravel and Coarse Sand	7.92 to 8.53	0.61
Large Gravel and Coarse Sand	8.53 to 11.28	2.74
Grey Mudstone	11.28 to 11.73	0.46
Grey Shale	11.73 to 12.50	0.76

The boreholes indicate that the made ground typically comprises ash fill and anthropogenic material and extends to depths of between 3.35m and 3.96m bgl. The made ground is underlain by granular superficial deposits to depths of between 10.82m and 12.19m bgl. Weathered bedrock of mudstone is encountered beneath superficial deposits.

3.3 Coal Mining

The site lies within a Mining Remediation Authority Coal Mining Reporting Area. A CON29 mining report has been obtained. This is referenced below and included in Appendix E of this report.

- CON29 Coal Mining Report. UK Greetings Ltd, Unit 800, Bretton Park Industrial Estate, Bretton Park Way, Savile Town, Dewsbury, WF12 9BS. Reference: 51003469567001, Dated 17 December 2024.

The CON29 mining report states:

'The property is in a surface area that could be affected by underground mining in 1 seam of coal at 250m depth, and last worked in 1947. Any movement in the ground due to coal mining activity associated with these workings should have stopped by now.'

'The property is not within a surface area that could be affected by present underground mining.'

'The property is not in an area where the Coal Authority has received an application for and is currently considering whether to grant a licence to remove or work coal by underground methods.'

'There are no recorded coal mine entries known to the Coal Authority within, or within 20 metres of the boundary of the property.'

'The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.'

In addition, the Mining Remediation Authority Interactive Map does not indicate that the site lies within a development high risk area.

3.4 Quarrying/Mineral Extraction

The GS report provides information from the British Pits (BritPits) database. This database includes a mineral storage facility 442m northwest of the site, related to Dewsbury Rail Depot.

There are 34 records of surface ground workings recorded within 250m of the site, three of these are recorded to be on site and relate to 'Unspecified Ground Workings'. The accompanying plan indicates that the surface ground workings encroach onto the centre-north of the site. Other records close to the site include ponds, refuse heaps, unspecified heaps and unspecified ground workings.

3.5 Hydrogeology

The superficial deposits and bedrock are both classified as Secondary A aquifers. These comprise permeable layers that can support local water supplies and may form an important source of base flow to rivers.

Groundwater vulnerability is classified as Medium – High risk of pollution.

The Groundsure report indicates that there is low potential risk of groundwater flooding occurring on the site. However, the risk of groundwater flooding occurring at the site should be assessed based on site specific information.

The site does not lie within 500m of an Environment Agency Groundwater Source Protection Zone (SPZ).

There are no records of active groundwater abstraction licenses within 500m of the site.

There are no active potable water abstraction licences within 2km of the site.

3.6 Hydrology

The nearest surface water feature and course is a canal (the Calder and Hebble Navigation) located approximately 210m west of the site. The River Calder is also located 222m east of the site at its nearest point to the site.

There are no active surface water abstraction licences within 500m of the site.

There are three recorded active discharge consents to controlled waters within 500m of the site. These are summarised in Table 3.6.

Table 3.6 – Summary of Active Discharge Consents

Distance and Direction from the Site	Location	Type	Discharge	Receiving
249m northeast	Thornhill syphoncso, Scarr End Land	Sewage Discharges	Sewer Storm Water Overflow	Calder and Hebble Navigation
252m southwest	British Waterways Board, Thornhill Lees Lock House, Thornhill, Dewsbury	Sewage Discharges	Final / Treated Effluent	River Calder
281m northeast	Thornhill Dewsbury NO1 CSO, Scarr End Lane	Sewage Discharges	Sewer Storm Water Overflow	River Calder

Information on the gov.uk website and provided in the Groundsure report indicates that the majority of the site lies within Flood Zone 2 with a 1 in 1000 (0.1%) chance of flooding each year. Flood Zone 3 is indicated 42m to the north east. The site has a negligible risk of surface water flooding.

3.7 Pollution Incidents to Controlled Waters

There are seven Environment Agency Recorded Pollution Incidents within 500m of the site, two of which recorded a significant impact on land, these are summarised in Table 3.7 below.

Table 3.7 – Summary of Environment Agency Recorded Pollution Incidents with Significant Impacts

Distance and Direction from the Site	Incident Date	Incident Identification	Pollutant	Impacts
223m south	26/08/2003	184987	Materials – Asbestos	Water Impact: Category 4 (No Impact) Land Impact – Category 2 (Significant Impact) Air Impact – Category 4 (No Impact)
383n northwest	15/05/2002	78897	Waste Materials – Commercial Waste	Water Impact: Category 4 (No Impact) Land Impact – Category 2 (Significant Impact) Air Impact – Category 4 (No Impact)

3.8 Environmental Permits and Registers

There are no recorded active Control of Major Accidents Hazard (COMAH) sites within 1km of the site.

There are no historical records of Integrated Pollution Control (IPC) authorisations within 1km of the site.

There are no records of Part A(1) licensed industrial activities within 500m of the site.

There is four records of Part A(2) licensed pollutant releases within 500m of the site. They are located 111m, 300m, 324m and 371m west of the site and relate to timber manufacturing, use of bulk cement, oil burner and printing respectively.

There are no records of sites determined as Contaminated Land under Part 2A of the Environmental Protection Act (EPA) 1990 within 500m of the site.

3.9 Landfills and Waste

The Groundsure report includes information on active and former landfill sites supplied by the EA, the Local Authority and the BGS.

There is no recorded active landfill sites located within 1km of the site.

There is one historical landfill site recorded approximately 36m northeast of the site. This is referred to as a 'Tipping Site' operated by Hoveringham Gravels and was first recorded in 1970.

There is one recorded historical waste site within the site boundary and a further six recorded within 500m based on Local Authority planning records and EA regulations. The recorded waste site on the site relates to 'Ground Workings and a Refuse Heap' in the east of the site as indicated on 1955 historical mapping.

There are no recorded historical licenced waste sites within 250m of the site.

3.10 Industrial Land Use

Ten potentially contaminative industrial sites (active) are recorded within 250m of the site. These are summarised in Table 3.10 below.

Table 3.10 – Summary of Active Potentially Contaminative Industrial Land Use

Distance and Direction from the Site	Company	Address	Activity	Category
62m south	Electricity Sub Station	West Yorkshire WF12	Electrical Features	Infrastructure and Facilities
82m southwest	Gas Valve Compound	West Yorkshire WF12	Gas Features	Infrastructure and Facilities
131m southwest	Tank	West Yorkshire WF12	Tanks (Generic)	Industrial Features
147m west	Thermovac Plastics Ltd	Unit 402 Bretton Park Industrial Estate WF12 9BS	Rubber, Silicones and Plastics	Industrial Products
171m west	Tank	West Yorkshire WF12	Tanks (Generic)	Industrial Features
217m east	Outfall	West Yorkshire WF12	Waste Storage, Processing and Disposal	Infrastructure and Facilities
227m west	Hempal Special Metals	Unit 403 Bretton Park Industrial Estate, WF12 9BS	Metals Manufacturers, Fabricators and Stockholders	Industrial Products
237m south	Sheikh Fabrication	Unit 18 Lock Street Units, WF12 9BZ	Fences, Gates and Railings	Industrial Products
240m southwest	Mooring Posts	West Yorkshire WF12	Moorings and Unloading Facilities	Water
240m northwest	Electricity Sub Station	West Yorkshire WF12	Electrical Features	Infrastructure and Facilities

There are no records of current or recent petrol stations within 500m of the site.

3.11 Radon Risks

The site is not in a radon affected area as defined by Public Health England with less than 1% of properties above the action level. In accordance with the Building Research Establishment (BRE) publication BR211, no radon protective measures are required for new properties constructed on the site.

3.12 Unexploded Ordnance

The site is presented as a low UXO risk on online mapping[1].

[1] https://zeticauxo.com/guidance/risk-maps/

3.13 Previous Reports

In 2003, FWS Consultants Ltd (FWS) carried out a review of a contaminated land report for the wider site area of Bretton Park Way, formally referred to as 'Unit 800'. Following this in 2004 a ground investigation was carried out by FWS followed by supplementary gas and water investigations. A brief summary of each is given below, with only the parts deemed relevant to the site area discussed.

- FWS Consultants Ltd. Review of Contaminated Land Report. Bretton Street Gasworks Site, Dewsbury. Dated July 2004.

The report reviewed five reports by Celtic, dated between March 1996 and June 2000, these included a ground investigation, remediation strategies and validation reports.

Two further reports including a ground investigation report and redevelopment strategy by White Young Green dated September 2001 were also reviewed. None of the seven reports reviewed within the FWS report are available.

Exploratory hole location plans and logs for the ground investigations above have not been provided for this review. The Celtic investigations identified hot spots of contamination and potentially leachable contaminants within both the made and natural ground.

Celtic's remedial works included removal of contaminated hotspots and bioremediation/reuse, despite being carried out as proposed, sides and base of hots spot excavations still had contaminant exceedances. In addition, it was agreed with the Environment Agency (EA) that groundwater pumping was to occur over six months to reduce the levels of ammonia going in to the River Calder, this was not completed.

FWS concluded that previous remedial attempts were somewhat successful, however, a requirement for further investigation was required due to potential issues such as, potential unidentified contamination hotspots and water contamination associated with the River Calder.

- FWS Consultants Ltd. Ground Investigation Report. Bretton Street Gasworks Site, Dewsbury. Dated July 2004.

The FWS investigation included 12 cable percussive boreholes, eight rotary boreholes, 10 window sample boreholes and 26 trial pits, of which only one cable percussive borehole (BH04) is within the site area. One window sample and one trial pit are within close proximity to our site and have also been assessed as part of this review.

Made ground was encountered from ground level to depths of between 2.50m and 2.80m bgl. Made ground comprised a 100mm layer of bitmac underlain by gas works waste with hydrocarbon odour and staining. Superficial deposits of granular alluvial material were encountered beneath the made ground to a depth of 11.30m bgl as proven in BH4 on site. Black staining and a hydrocarbon odour was also recorded within the natural ground. Superficial deposits were underlain by bedrock comprising a weathered mudstone.

'Low' level contamination was encountered throughout the wider site in chemical test results. Boreholes specifically on or close to the site encountered contamination in the made ground, natural ground and water for the following: lead, cyanide, TPH, chromium and calorific value. In addition, BH4 (on site) recorded elevated methane during the gas monitoring, considered to be associated with the alluvial deposits.

- FWS Consultants Ltd. Additional Gas Investigation Report. Bretton Street Gasworks Site, Dewsbury. Dated November 2004.

FWS installed an additional ten boreholes to carry out further monitoring of the ground gas on site at the request of Bretton Street Developments. In total 30 standpipes were monitored on four occasions for methane, carbon dioxide, oxygen and total gas flow. One of these standpipes was within the site boundary relevant to this report (BH4).

Additional monitoring confirmed findings from the previous investigation, elevated methane was detected site wide within the sands and gravels. The report recommended gas protection measures of CS2 in accordance with Wilson and Card (1999).

- FWS Consultants Ltd. Additional Water Investigation Report. Bretton Steet Gasworks Site, Dewsbury. Dated November 2004.

FWS installed an additional ten boreholes to carry out further monitoring of the groundwater quality at the request of the EA. Boreholes were installed along the northwest and western boundaries, not within the site area. During the further investigation, samples were taken from the existing boreholes from the initial investigation as well as the additional, including BH4 within the site boundary.

The further analysis of groundwater on site concluded that despite the presence of contamination within made ground and alluvial soils on site, there has been a significant improvement in groundwater since the Celtic investigation referred to above. This is as a result of the remedial works carried out during 1997, as well as leaching, dilution and dispersion of contaminants over time.

Despite this, it was recommended that BH4 within the site boundary along with other boreholes in the wider site were protected and maintained to assess potential impact during remedial works.

Following detailed investigation works in 2004, FWS were commission to carry out a remediation strategy and method statement for the site in November 2004, followed by a proposal for treating contaminated soil arisings in April 2005. The following are referenced and summarised below. The reports cover the wider site area for Unit 800. Summaries below are for remedial works carried out site wide, in which the site for this report is covered.

- FWS Consultants Ltd. Remediation Strategy and Method Statement. Bretton Street Gasworks, Dewsbury. Dated, November 2004.

Remedial works propose removal of hotspots, notably beneath TP23 close to the boundary of the site specific to this report, as well as in the north of the wider site area and anywhere else encountered.

The strategy generally relies on visual inspection and validation testing to ensure gross contamination is removed from the footprint of the development. It was recommended that where contaminated soils did not meet site-specific target values during validation testing, they are consequently removed from site and where a shortfall occurs, clean material is imported.

There was also a requirement to locate and investigate former air shaft on site.

- FWS Consultants Ltd. Proposal for Treating Contaminated Soil Arisings. Bretton Street Gasworks, Dewsbury. Dated, April 2005.

A stockpile of contaminated arisings was present on site from the 'land reclamation', awaiting disposal to landfill after recommendations from the remedial strategy. However, initial cost estimates prompted the requirement for an alternate strategy, hence the reason for this report.

After screening of oversized material and contamination, the material was characterised into the following stockpiles.

1. Screened fines and unscreened soil.
2. Screened oversize (brick, concrete, etc).
3. Heavily hydrocarbon-contaminated soils.
4. Tarmac arisings.

Sampling carried out by FWS identified elevated PAH and TPH, consequently material that would be classified as hazardous waste was sent to landfill.

Four remediation specialist companies were approached to design strategies that would avoid the removal of arisings from site and ultimately reduce costs of remedial works.

The report recommended the use of bioremediation due to timescale, cost and robust validations for soil stockpiles. For the tarmac arisings it was recommended removal off site to landfill due to classification of hazardous waste.

Remedial works and validation was carried out by Celtic during 2005 following the design to treat contaminated soils on site. The validation report for these works is referenced and summarised below.

- Celtic. Validation Report for the ex situ Bio-remediation of Contaminated Soil. Bretton Street, Dewsbury. Report number. R978/06/2891, Dated March 2006.

Bioremediation was designed to target TPH and PAH, with thresholds set at 2,000mg/kg and 1,000mg/kg respectively. These targets were set by FWS. The volume of soils requiring treatment was estimated as 7,500m^3.

The bioremediation process was split to two phases. Phase 1, located south of the site area, comprised a volume of 3,000m^3 placed in to 16 biopiles in 1.0m by 3.5m strips of differing lengths. Remediation of Phase 1 was carried out between 20 September and 6 October 2005.

The Phase 2 remediation area included the site on its south-eastern flank. A volume of 4,346m^3 from Phase 2 was placed into 13 biopiles comprising 1.0m by 3.5m strips between 85m to 95m in length. Remediation of Phase 2 was carried out between 21 October and 28 November 2005.

In both phases a Celtic proprietary mix of 'organic and inorganic amendments' were added to the biopiles, along with the control of temperature and moisture content. The treatment took place over six-week periods and biopiles were physically aerated during this time to encourage further degradation of contaminants. Phase 2 also had a free draining platform.

Baseline testing was carried out prior to treatment within both phases. Phase 1 then underwent six further rounds of remediation progress testing, followed by validation testing. Phase 2 underwent only two rounds of testing, baseline and validation after the evidence provided as part of the Phase 1 remediation that confirmed the effectiveness of the treatment.

The final validation test results indicated that the treated soils had concentrations below the target of 2,000mg/kg for TPH and 1,000mg/kg for PAH with average concentrations of 887mg/kg and 708mg/kg respectively.

4.0 ENVIRONMENTAL RISK ASSESSMENT

4.1 Introduction

The statutory definition of contaminated land is given in the Environmental Protection Act, Part 2A, Section 78, 1990, which was introduced by the Environment Act, Section 57, Department of Environment, 1995 and is defined as:

Land, which appears to the Local Authority in whose area it is situated, to be in such a condition, by reason of substances in, on or under the land that:

- Significant harm is being caused or there is a significant possibility of such harm being caused (where harm is defined as harm to health of living organisms or other interference with the ecological systems of which they form a part and, in the case of man, includes harm to his property); and/or
- Significant pollution of controlled waters is being caused, or there is a significant possibility of such pollution being caused (by the land).

The presence of contaminated materials on a site is generally only of concern if an actual or potentially unacceptable risk exists. The potential for harm to occur requires three conditions to be satisfied:

- Sources – The presence of substances (potential contaminants/pollutants), in or under the ground, that may cause harm or pollution.
- Receptors - The presence of a receptor which may be harmed, e.g. the water environment or humans, buildings, fauna and flora; and
- Pathway - The existence of a linkage between the Source and the Receptor.

In summary, the presence of measurable concentrations of contaminants within the ground and subsurface environment does not automatically imply that a contamination problem exists, since contamination must be defined in terms of pollutant linkages and an unacceptable risk of harm to available receptors.

The nature and importance of both pathways and receptors, which are relevant to a particular site, will vary according to the sensitivity of the intended end use of the site and the site's characteristics and environmental setting.

Legislation and guidance on the assessment of contaminated sites acknowledges the need for a tiered risk-based approach. This is set out in the Environment Agency's manual Land Contamination: Risk Management (LCRM), published in October 2020 and last updated on 20 July 2023.

The LCRM outlines the following stages of risk assessment:

Tier 1: Preliminary risk assessment (PRA)	As part of this assessment, the overall site objectives are defined. Current and historical information about the site and the potential contaminants expected to be present are assessed and an outline conceptual model (CM) is developed. The risks are assessed qualitatively, and the findings reported in the PRA (or desk study). The report recommends what further works would be required in order to assess whether the site is suitable for its proposed use.
Tier 2: Generic quantitative risk assessment (GQRA)	The GQRA uses Generic Assessment Criteria, and a standard set of generic assumptions based on specific end uses in order to assess the risks to receptors. It includes the collection of more detailed information including laboratory analysis of soil and water samples in order to inform and assess the risks.
Tier 3: Detailed quantitative risk assessment (DQRA)	If pollutant linkages are confirmed as part of the GQRA, these are known as relevant pollutant linkages (RPLs) and further detailed assessment is required. At this tier, detailed site-specific information is collected to estimate the risk or to develop site-specific assessment criteria (SSAC). This may include collecting information about the receptor.

This desk study report represents a Tier 1 Preliminary Risk Assessment.

4.2 Potential Sources

The following potentially contaminative sources may be present on or adjacent to the site:

- Made ground associated with former land use, i.e. gasworks, remediated land and unidentified contamination.
- Potential leaks and/or spills from fuel storage tanks and vehicles associated with former/current uses.
- Made ground associated with infilled land and offsite sources, e.g. adjacent road and adjacent land use.

Potential contaminants which could be present on the site are listed below:

- Metals, metalloids and their compounds.
- Inorganic compounds, e.g. arsenic.
- Asbestos fibres/asbestos containing materials.
- Organic compounds including polycyclic aromatic hydrocarbons (PAH) and petroleum hydrocarbons (TPH).
- Volatile organic contaminants (VOCs).
- Hazardous ground gases/soil vapours.

4.3 Potential Pathways

Based on the available information and the proposed development of the site for a commercial (office) end use, the following potential exposure pathways will require consideration, both during the development works and on completion of construction:

- Ingestion, inhalation and/or dermal contact with contaminated soil and groundwater.
- Inhalation of hazardous ground gases/soil vapours/asbestos fibres.
- Leaching/migration of potential contaminants from soil into groundwater and surface water via surface infiltration, drainage and/or groundwater flow.
- Permeation of water supply pipes and other services by organic and aggressive contaminants; and
- Uptake of contaminants by planting in landscape areas.

4.4 Potential Receptors

The potential receptors considered are:

- Development workers and future maintenance workers involved in excavations, e.g. foundations or where services are being installed or repaired following development.
- Future end users of the site, i.e. office staff and maintenance.
- Controlled waters, i.e. River Calder and underlying Principal and Secondary A Aquifer.
- Buildings and infrastructure; and
- Planting in landscaped areas.

4.5 Pollutant Linkage Assessment

A potential pollutant linkage assessment has been completed and is summarised in the Conceptual Site Model (CSM), which is provided in Section 4.6. This is based on the proposed development of the site for a commercial end use (office development).

Based on the proposed a commercial end use (office development) and history of the site, the following potential pollutant linkages may be present:

- Development and maintenance workers and future site end users (employees) could come into contact with soils and groundwater containing elevated concentrations of potential contaminants and hazardous ground gases/soil vapours.
- The underlying Secondary A Aquifers could become contaminated due to the leaching and migration of potential contaminants in the made ground.

- Controlled waters could become contaminated due to leaching and migration of potential contaminants from the made ground.
- Buildings and services could be affected by potential contaminants in the made ground.
- Plants in landscaped areas could be affected by phytotoxic elements in the made ground.

These are based on current site conditions and do not consider exposure pathways following any remediation of the site as part of the proposed development.

4.6 Conceptual Site Model & Risk Rating

The conceptual model is summarised in Table 4.6.

Table 4.6 Preliminary Conceptual Model

Source	Pathway	Receptor	Risk Rating	Comments
On-site Sources Residual contamination within the made ground associated with former and current land uses. Contamination from off-site historical industry. Spills/leaks from historical tanks/ vehicles on and off site. **Off-site Sources** Made ground associated with off-site sources.	Inhalation. Ingestion. Dermal contact.	**Future Site Users.** **Development Workers.**	Low to Moderate	Ground investigation to confirm the thicknesses and nature of the made ground and establish the concentrations of potential contamination present.
	Leaching of mobilised contaminants. Migration via surface water and groundwater flow.	**Controlled Waters.** **Surface Water.** Calder and Hebble Navigation & River Calder. **Groundwater.** Secondary A Aquifers.	Low to Moderate	**Controlled Waters** There are three recorded active discharge consents to controlled waters within 250m of the site. **Surface Water** There are no active licenced surface water abstractions within 500m of the site. **Groundwater** There are no active licenced groundwater abstractions within 500m of the site.
Hazardous Ground Gases/Soil Vapours.	Inhalation.	**Future End Users.** **Development Workers.**	Low to Moderate	Gas monitoring to be undertaken as part of ground investigation. Appropriate health and safety procedures to be in place during the construction phase of the development.
Areas of Phytotoxic Contamination.	Root uptake.	**Vegetation.** Landscaping.	Low	Ground investigation and sampling to establish levels of any phytotoxic contamination present.
Aggressive Contaminants in Soil/Water.	Direct contact.	**Construction Materials.** Concrete and Services.	Low to Moderate	Samples of made and natural ground should be obtained and submitted to the laboratory for testing in order to assess the sulphate content and acidity.

4.7 Risk Classification

Based on the conceptual site model, the site is considered to be **low to moderate risk** with respect to contamination in soils and hazardous ground gases. This designation will be largely dependent on the nature of any made ground and hazardous ground gases present on or adjacent to the site.

In order to assess further and classify the risks to human health, groundwater, surface water and buildings/services, a Phase 2 geoenvironmental ground investigation, to include a Tier 2 Generic Quantitative Risk Assessment, will be required. The Phase 2 geoenvironmental ground investigation will include chemical testing of soils, leachate and groundwater, as well as hazardous ground gas monitoring.

5.0 PRELIMINARY ENGINEERING ASSESSMENT

5.1 Development Proposals

It is proposed to develop the site for an office development associated with the existing warehouse and distribution centre located on the wider site.

A proposed site layout plan showing the location of the proposed extension is referenced below, a copy of which is presented in Appendix A of this report.

- KPP Architects. Proposed Site Plan. Bretton Park. Job no. 2157-01. Project 2003. Dated January 2025.

5.2 Foundations

Based on the information provided in the Groundsure report, BGS maps and historical ground investigations, the ground conditions below the site are likely to comprise made ground topsoil, underlain by made ground placed during the remedial works associated with the former gasworks located on the wider site area.

The made ground is recorded to be underlain by superficial deposits comprising clay, sand and gravel of alluvium. A previous borehole record (FWS BH04) indicates medium dense sand and gravel (probable alluvium) extending to 5.30m bgl, which is in turn underlain by dense sandy gravel to 11.30m bgl, at which depth mudstone bedrock was encountered.

The selection of foundation type will be governed by the nature of the proposed development and the thickness, strength and settlement characteristics of the underlying natural strata.

Based on the thickness of made ground and the adjacent existing development, a piled foundation solution will be required for the office development.

5.3 Ground Floor Slab Construction

As part of the adjacent development, vibro stone columns were installed below the site in order to provide a ground bearing pressure of 60kN/m^2. On completion of the vibro works, the formation was proof-rolled.

As part of the piling operation, it is anticipated that stone will be imported for a piling mat. On this basis, it is likely that a ground-bearing floor slab on engineered granular fill will be appropriate for the proposed office extension.

The requirements of any ground gas protection measures will also need to be taken into consideration in relation to ground floor design and construction.

5.4 Earthworks

Any earthworks specification should be in general accordance with the Manual of Contract Documents for Highway Works, Volume 1 Specification for Highway Works, Series 600 Earthworks.

It is anticipated that earthworks will be limited to the import of granular materials to form a piling mat and the removal of surplus arisings.

5.5 Groundwater

The presence of groundwater will need to be assessed as part of any ground investigation. Based on historical ground investigation, groundwater is anticipated to be approximately 5.00m bgl.

5.6 Obstructions

The presence of obstructions within the natural strata is considered likely. During the construction of the original warehouse unit, the site area was prepared for a proposed warehouse extension. This comprised the installation of vibro stone columns and pad foundations across the footprint of the site. Based on construction drawings, it is anticipated that six pad foundations are located below the proposed development site. These will need breaking out as part of the enabling works.

5.7 Roads, Pavements and Hardstanding Surfaces

It is recommended that, at this stage, a conservative bearing value for the subgrade is assumed until the nature of the subgrade can be physically assessed.

Any earthworks should be designed to achieve a suitable CBR value for the proposed development.

5.8 Chemical Attack on Buried Ground

Samples of made and natural ground should be obtained and submitted to the laboratory for testing in order to assess the sulphate content and acidity and hence the concrete class required for buried concrete to the latest standard.

6.0 FURTHER INVESTIGATIONS

Based on the findings of the desk study report, we would recommend the following scope of investigative works.

- Cable percussive boreholes with rotary core follow on in order to assess the ground conditions at the site and confirm the composition, extent, depth, and nature of any made ground and underlying natural ground. Rotary coring will allow for samples to be taken to inform deep foundation (pile) design. The boreholes will enable the installation of hazardous ground gas and groundwater monitoring wells.
- Window sample boreholes in order to assess the shallow ground conditions at the site and confirm the composition, extent, depth and nature of any made ground and underlying natural strata. Window samples will be carried out to provide general coverage and obtain soil samples to submit for chemical analysis. Boreholes will also be installed to enable monitoring of hazardous ground gases and groundwater.
- Chemical analysis of soil, soil leachate and groundwater samples in order to determine the concentrations of potential contamination on the site and classify selected materials for disposal off-site (not including WAC testing).
- Geotechnical testing to classify materials and inform foundation design and geochemical testing to assess the Aggressive Chemical Environment for Concrete classification.
- Monitoring of gas and groundwater wells for hazardous ground gases, methane, carbon dioxide, oxygen, flow rate and groundwater level.

On completion of the above, a Phase 2 Geoenvironmental Ground Investigation Report, to include a Tier 2 Generic Quantitative Risk Assessment, and engineering recommendations will be prepared.

Appendix A Figures & Drawings

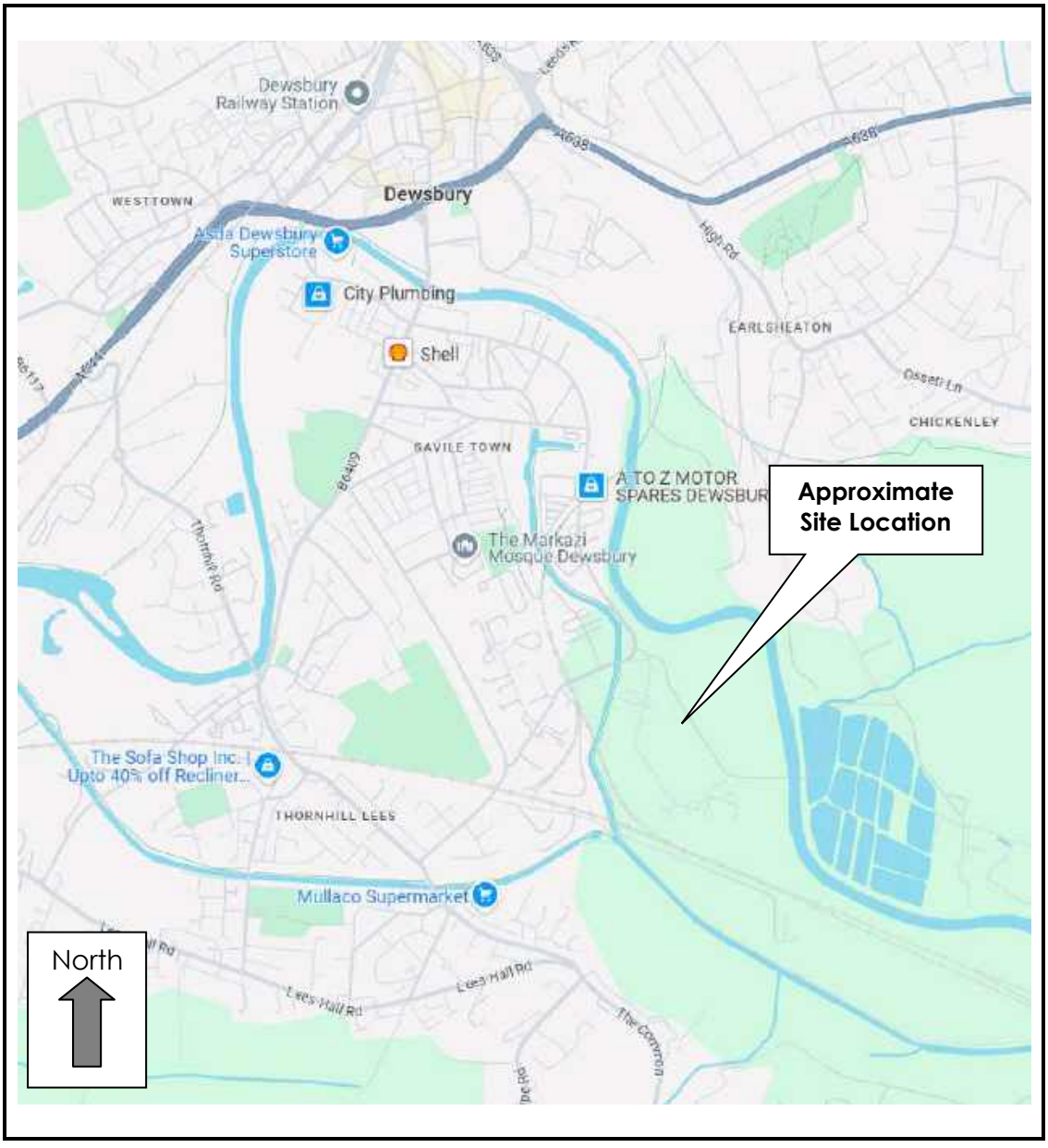
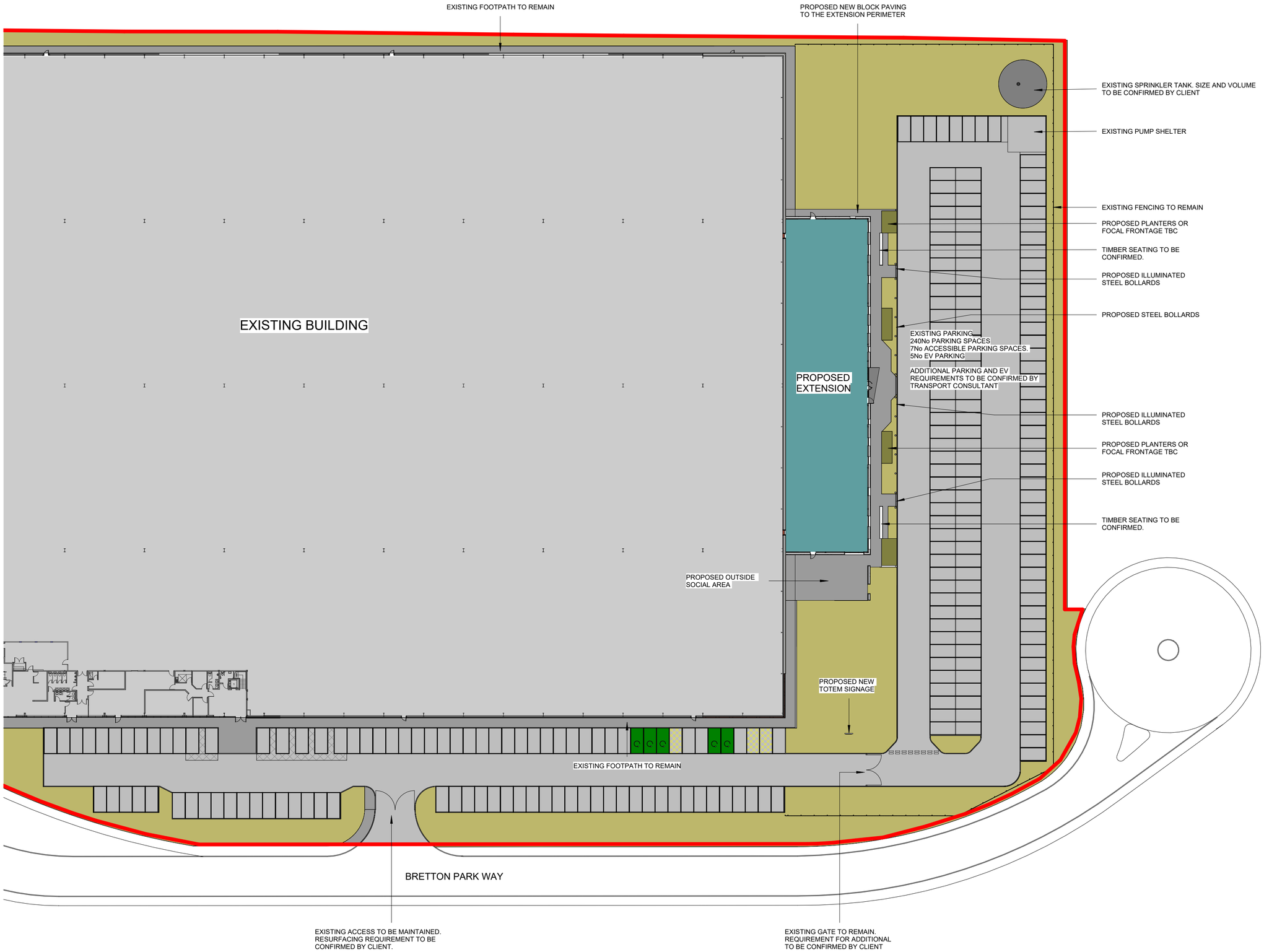


Figure 1 – Site Location Plan	
Site	**UK Greetings, Bretton Park, Dewsbury**
Client	**UK Greetings Limited**
Job Number	**6359**
Scale	**NTS**

Figure 2 – Aerial Photograph	
Site	**UK Greetings, Bretton Park, Dewsbury**
Client	**UK Greetings Limited**
Job Number	**6359**
Scale	**NTS**



TOTAL SITE AREA - 9.9 ACRES

PROPOSED EXTENSION:

GROUND FLOOR 10,000sq.ft

FIRST FLOOR 10,000sq.ft

SECOND FLOOR 10,000sq.ft

TOTAL - 30,000sq.ft

Rev	Description	By	Chkd	Date

Client

UK GREETINGS

Project Title

BRETTON PARK

Drawing Title

PROPOSED SITE PLAN

KPP ARCHITECTS

Lodge House
12 Town Street
Horsforth, Leeds LS18 4RJ

T : +44 (0) 113 2390460
E : architects@kpp-leeds.co.uk
W : www.kpp-leeds.co.uk

Scale	Size	Date	Drawn	Checked
1 : 500	A2	JAN'25	JB	DR

Status

PLANNING

KPP Job No. **2157-01** Revision

Project	Originator	Level	Type	Role	Class	Number
2003						

DRAFT

Appendix B Site Photographs

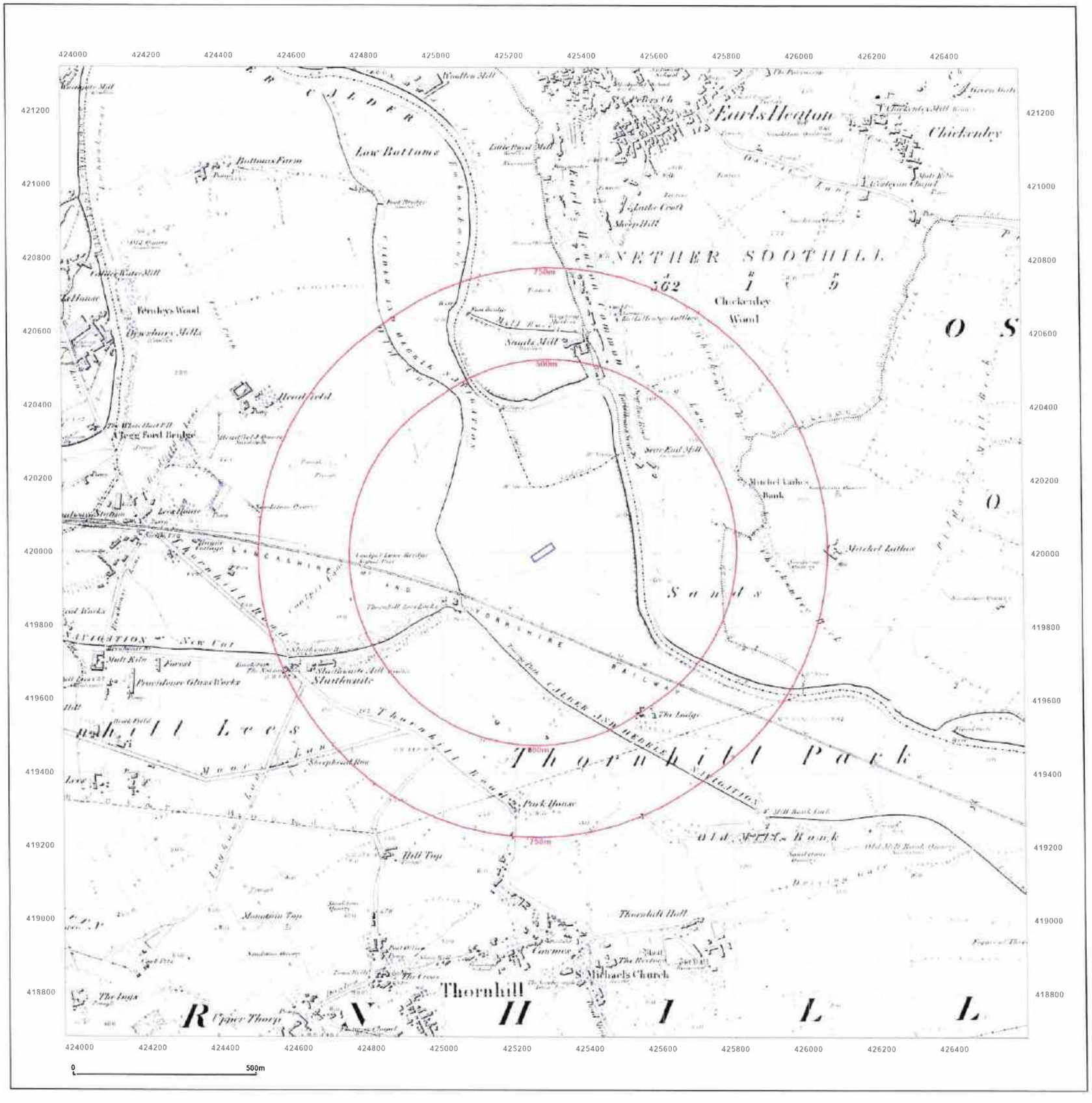
Photograph 1: Looking North East from the Southwest

Photograph 2: Looking South from the Centre of the Site

Photograph 3: Access to the Main Site

Photograph 4: Land Adjacent to the Southeast Boundary

Appendix C Historical Maps



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Report Ref: CMAPS-JPG-1199577-65579-171224HIS
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Surveyed 1851
Revised N/A
Edition 1855
Copyright N/A
Levelled N/A

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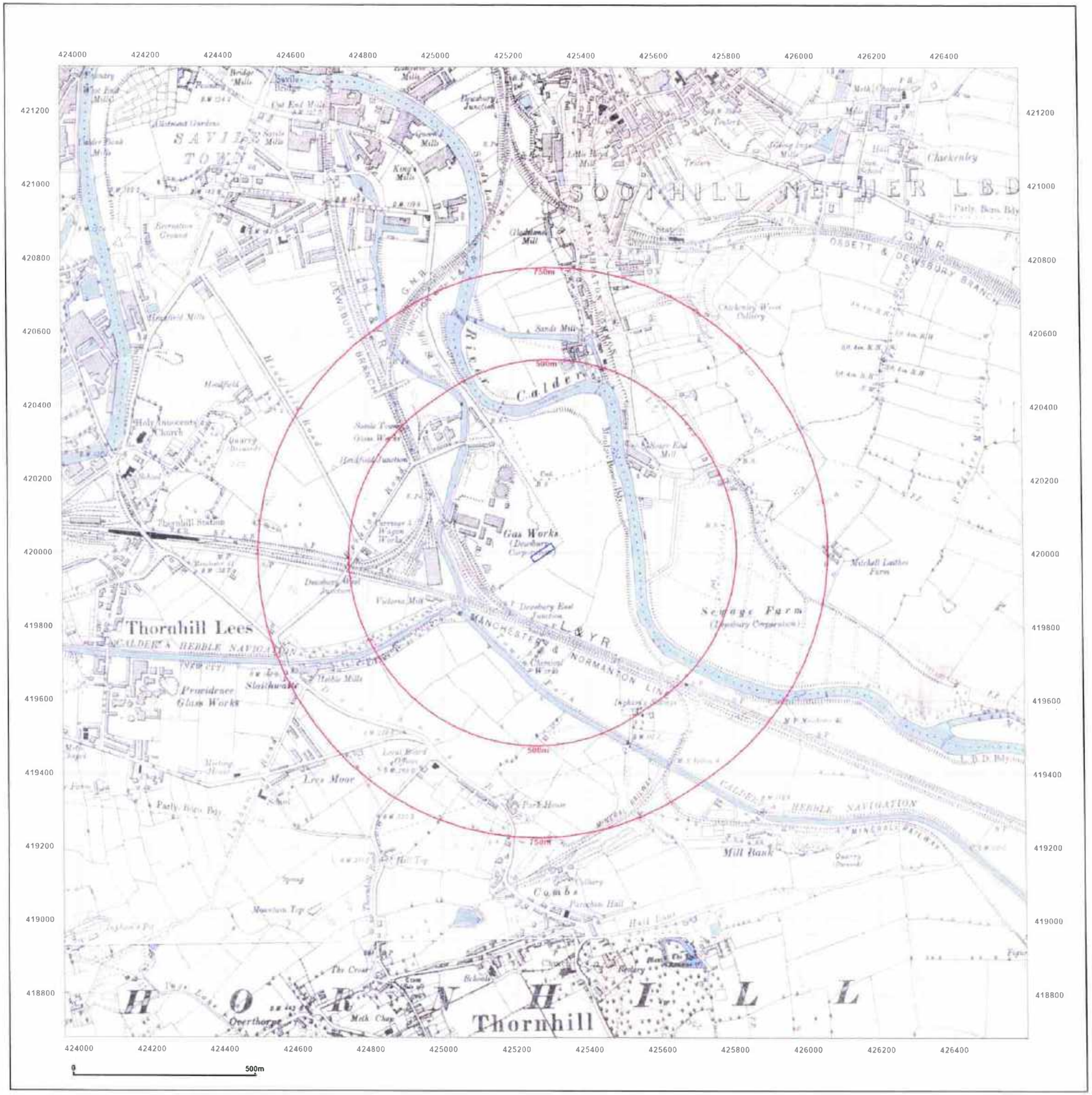

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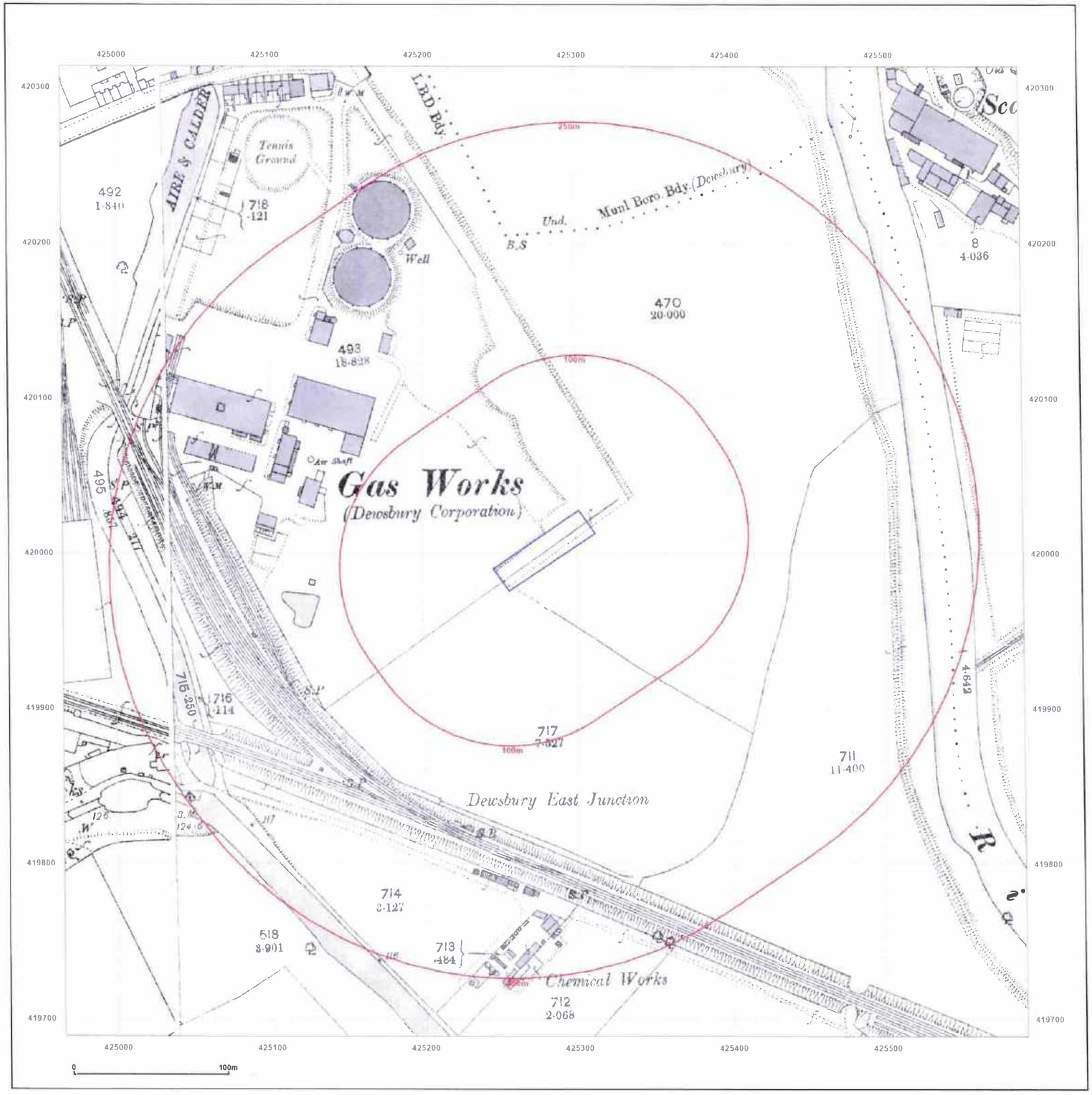

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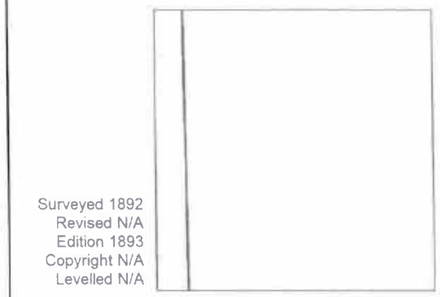

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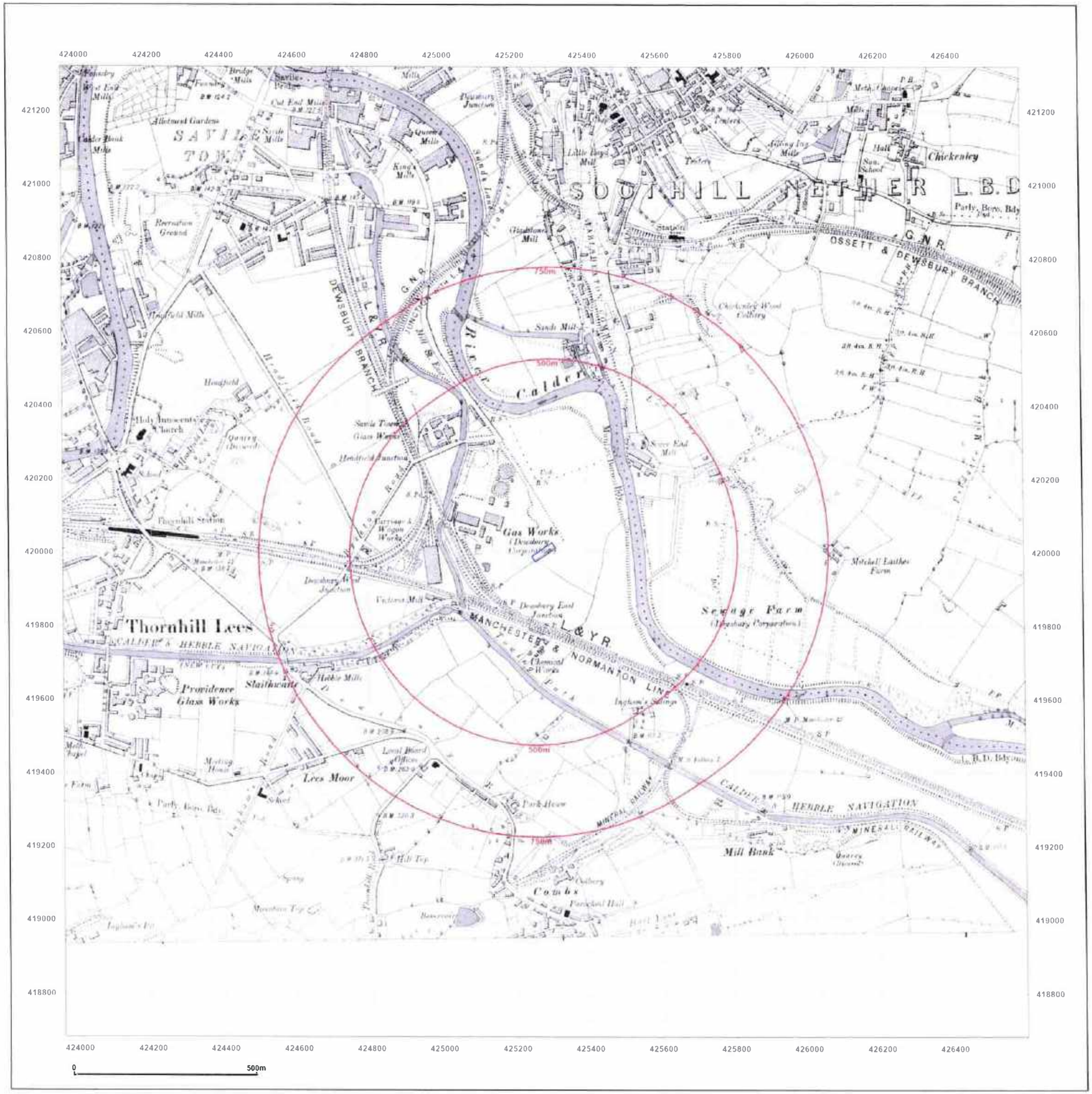

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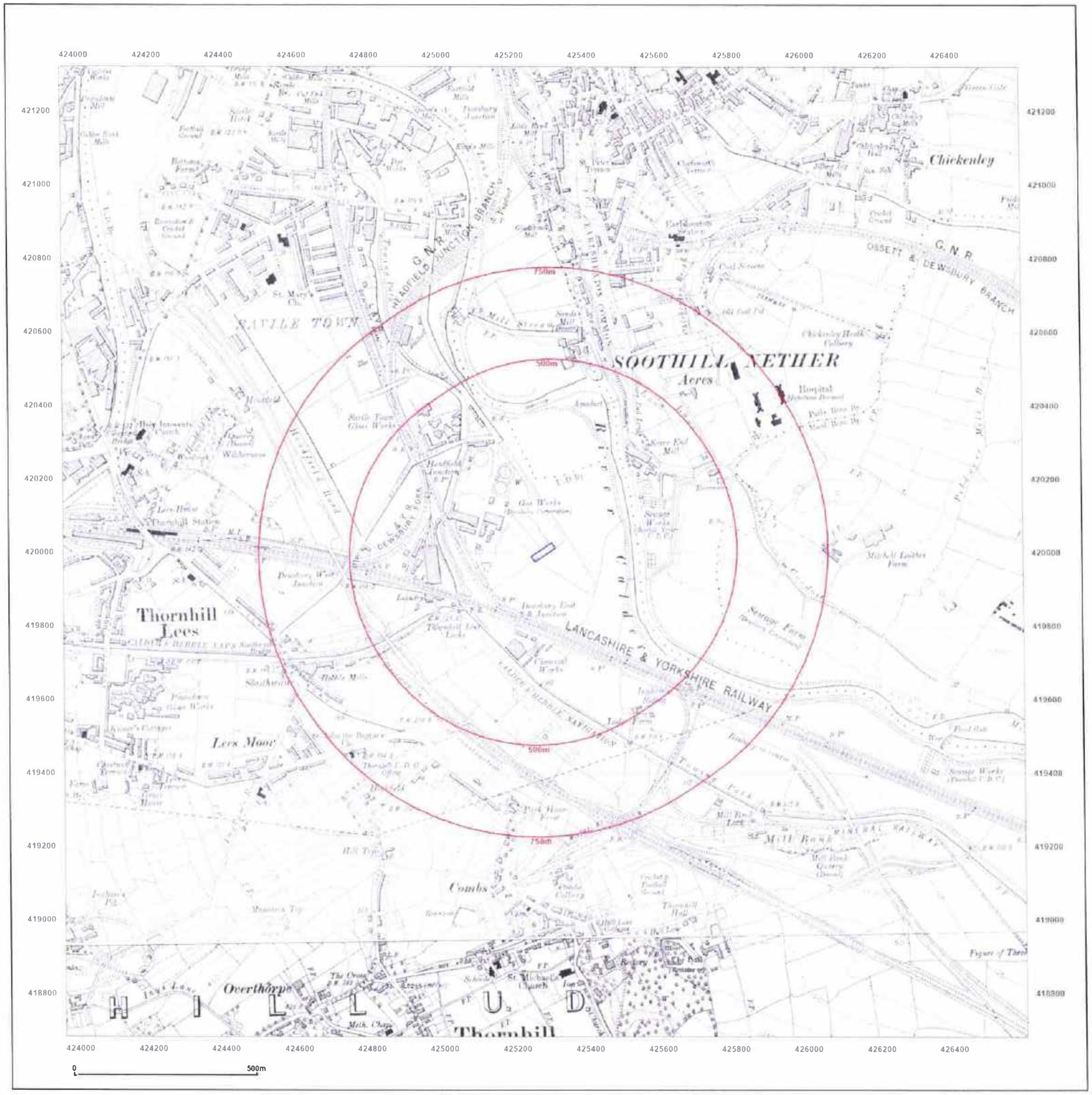

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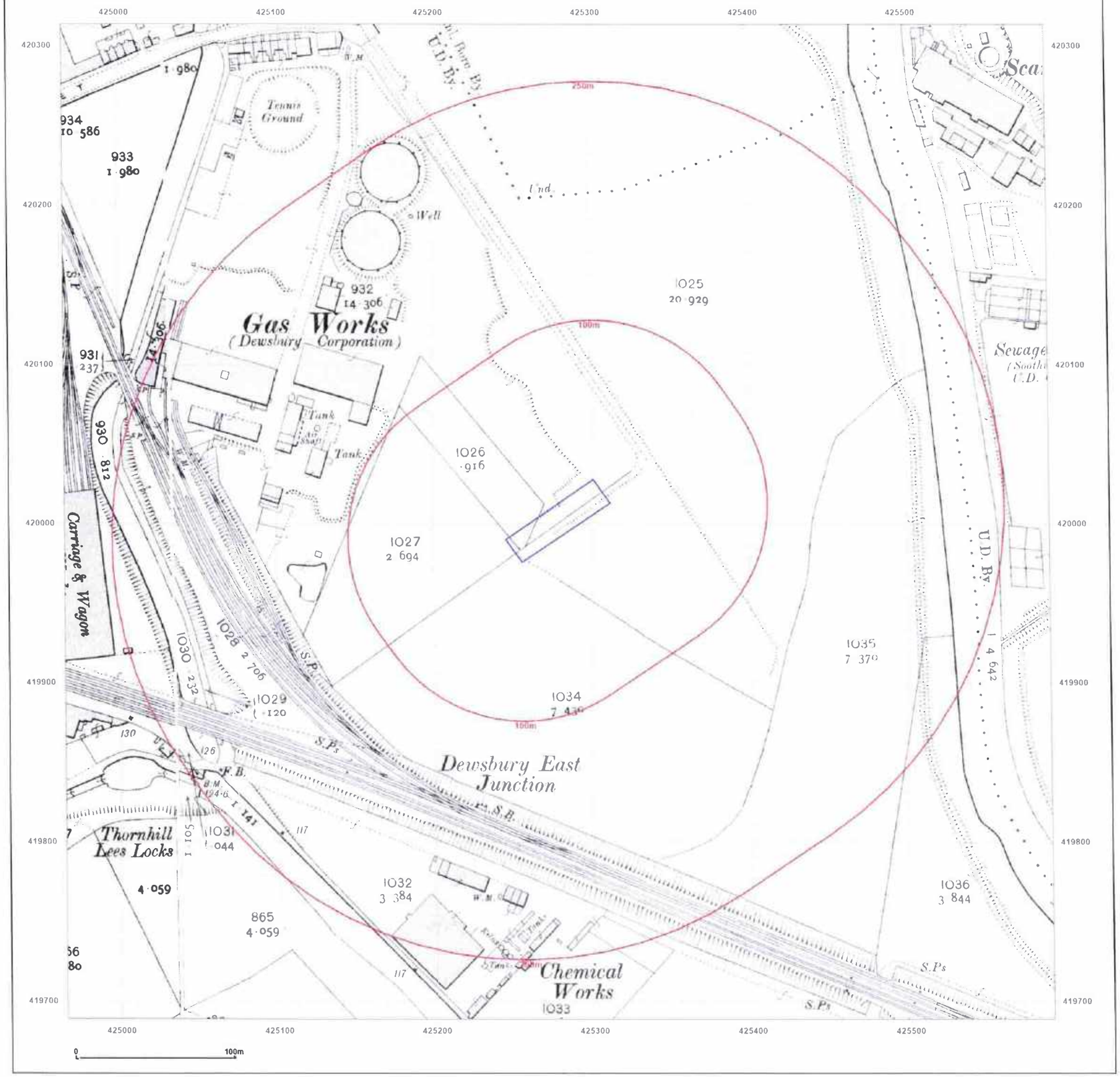

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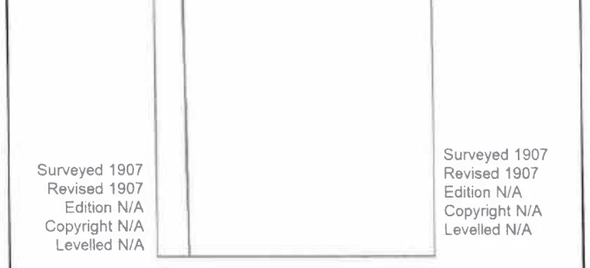

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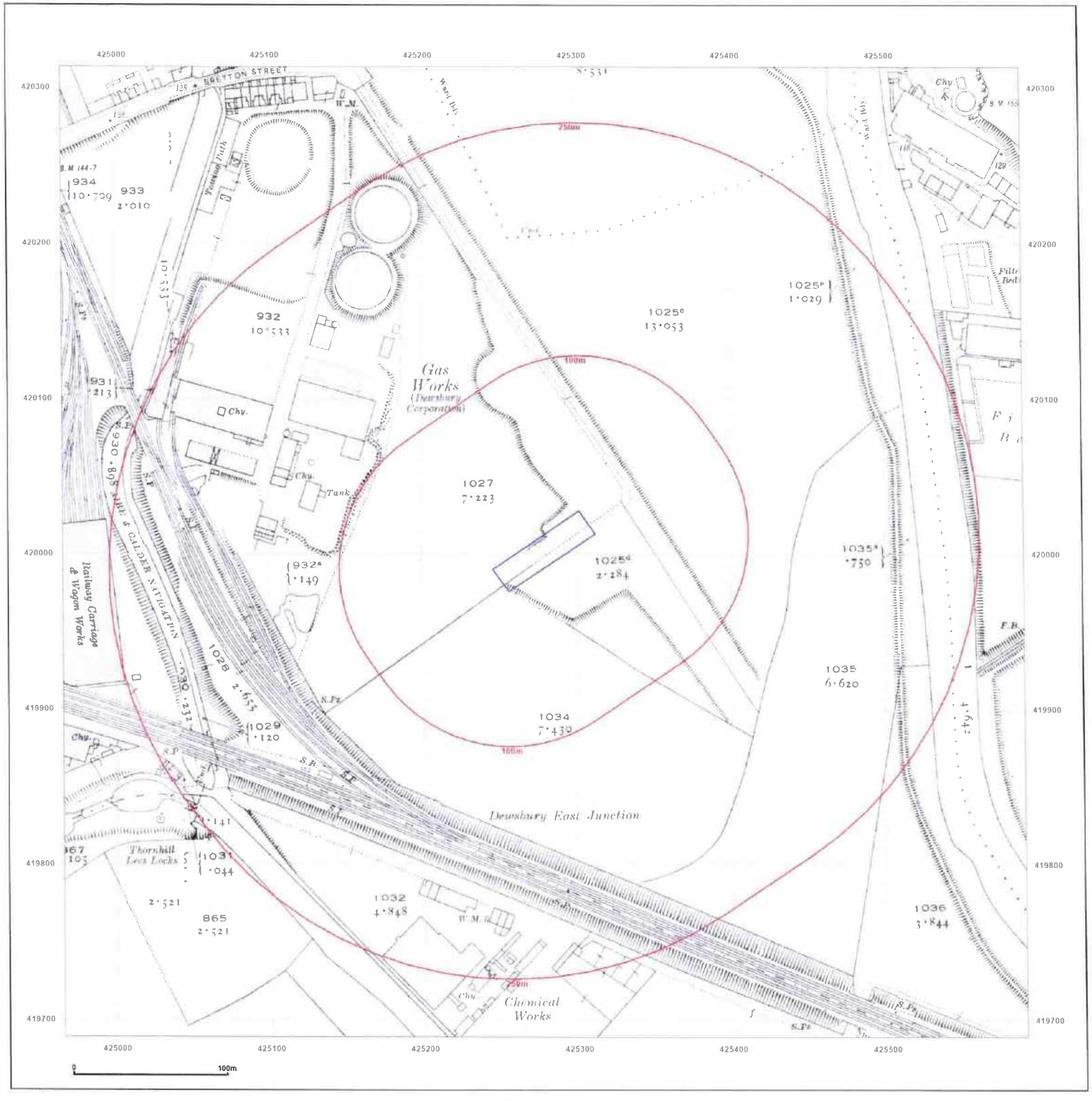

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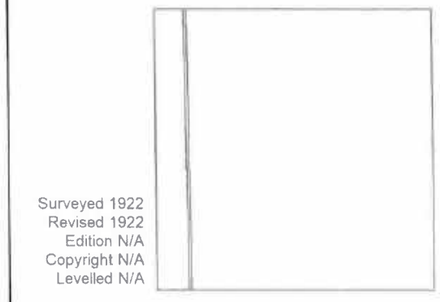

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Production date: 17 December 2024

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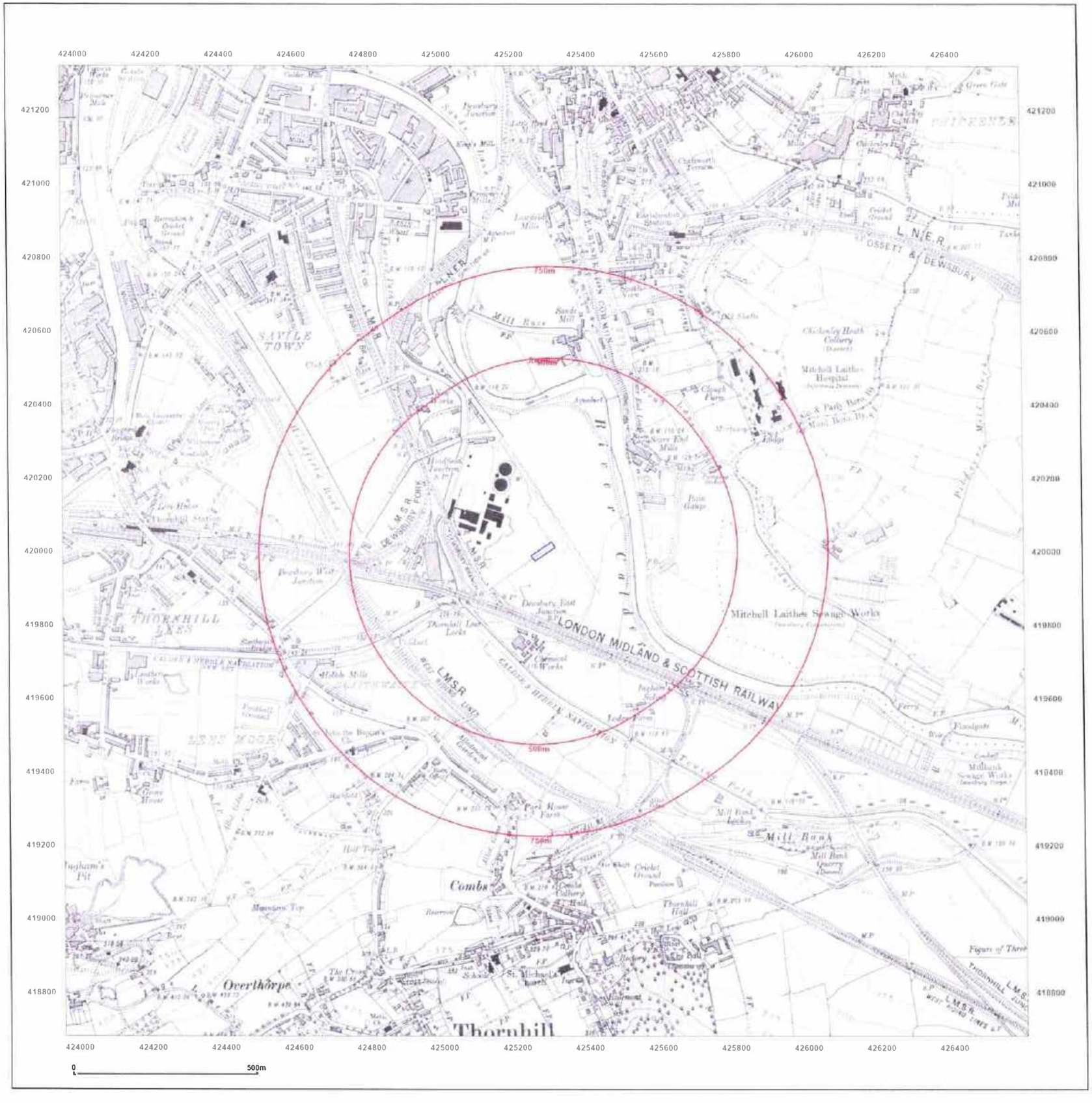

Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: County Series

Map date: **1931**

Scale: 1:10,560

Printed at: 1:10,560

N
W E
S

Surveyed 1851
Revised 1931
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1851
Revised 1931
Edition N/A
Copyright N/A
Levelled N/A

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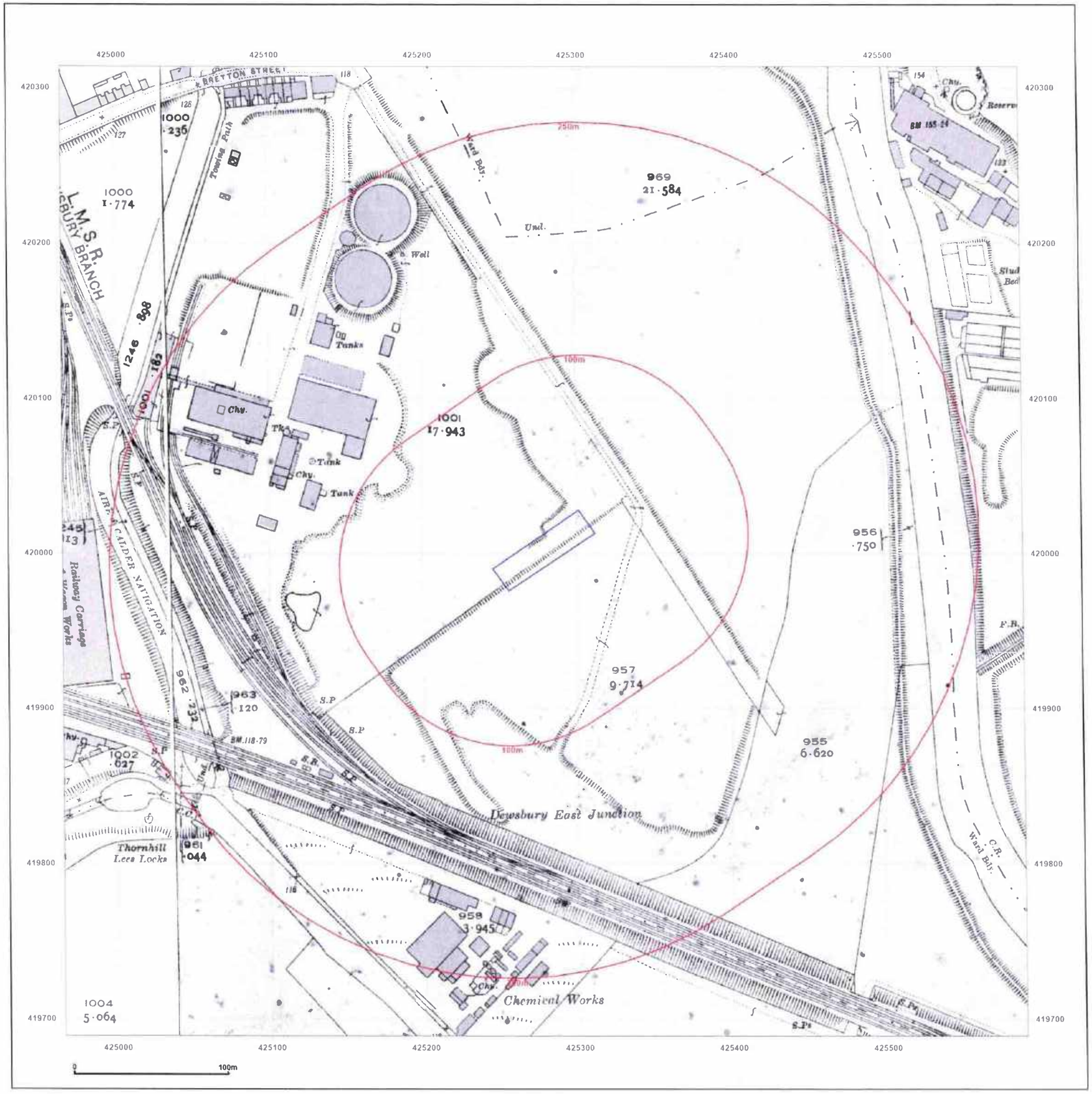


JPG

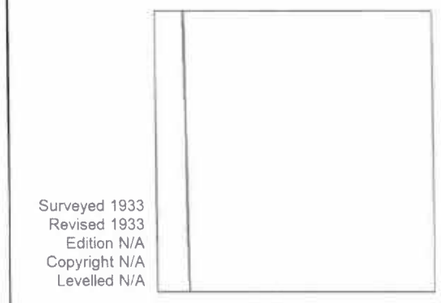
Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: County Series
Map date: 1933
Scale: 1:2,500
Printed at: 1:2,500

N
W E
S



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Production date: 17 December 2024

Map legend available at:
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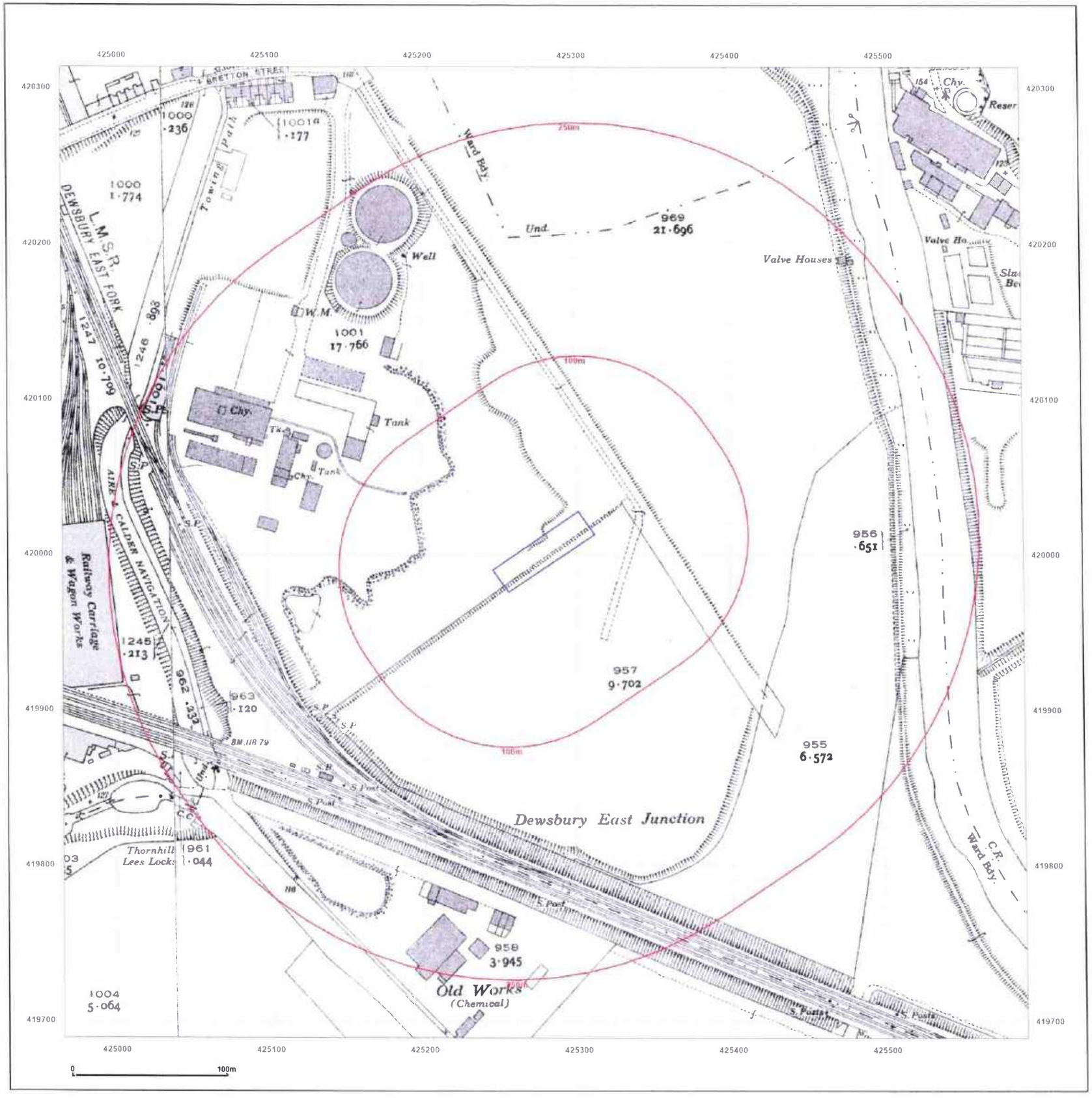


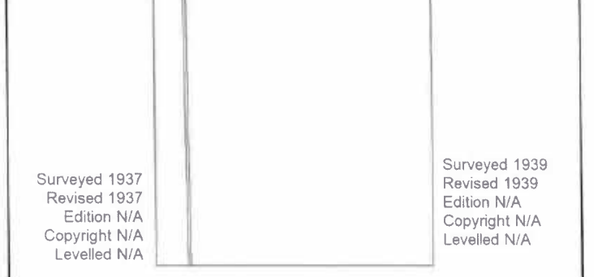
Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: County Series
Map date: **1937-1939**
Scale: 1:2,500
Printed at: 1:2,500

N
W E
S



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Production date: 17 December 2024

Map legend available at:
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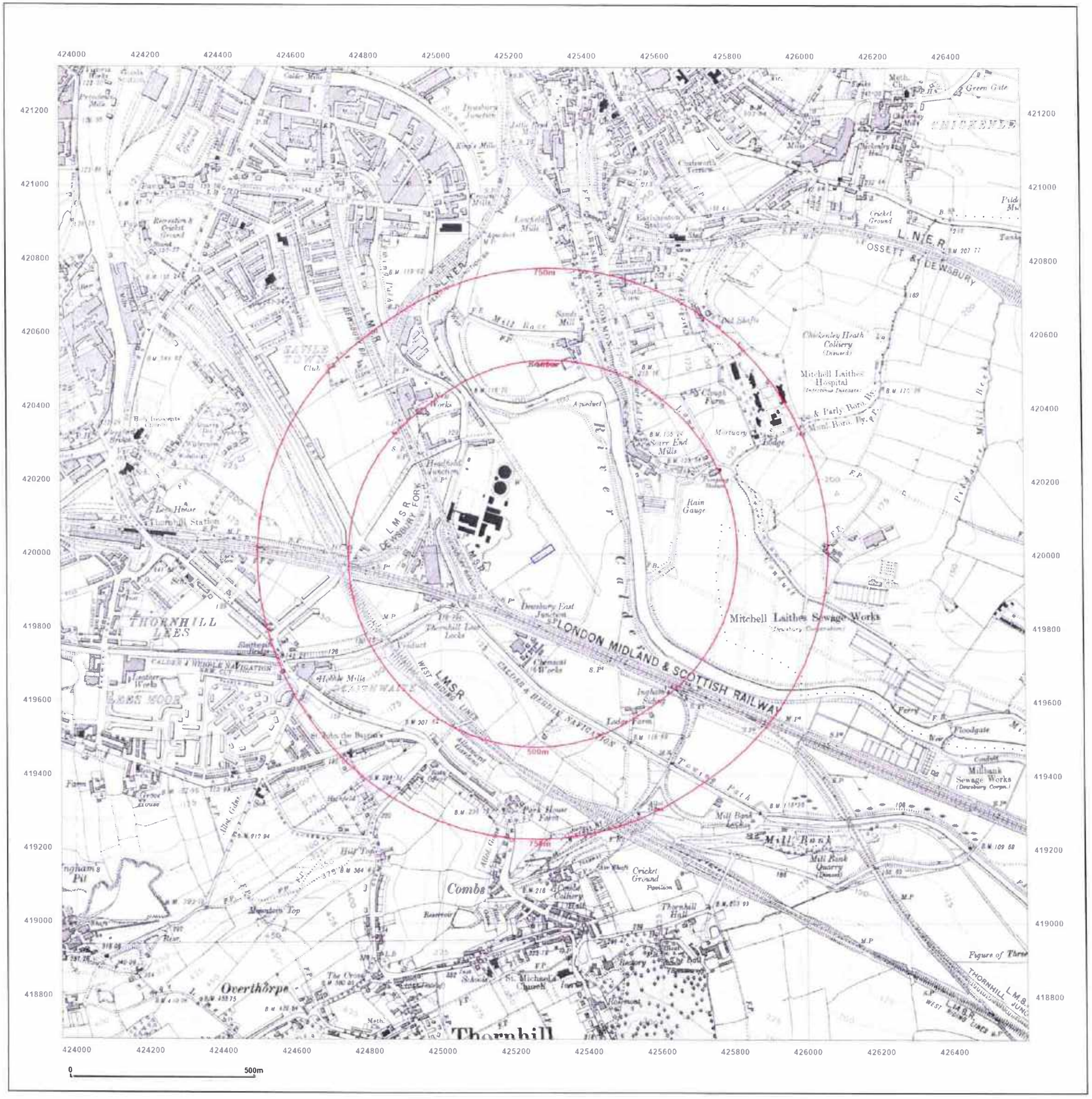

Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: County Series
Map date: 1938
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

Surveyed 1851
Revised 1938
Edition 1938
Copyright N/A
Levelled N/A

Surveyed 1849
Revised 1938
Edition N/A
Copyright N/A
Levelled 1931

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Production date: 17 December 2024

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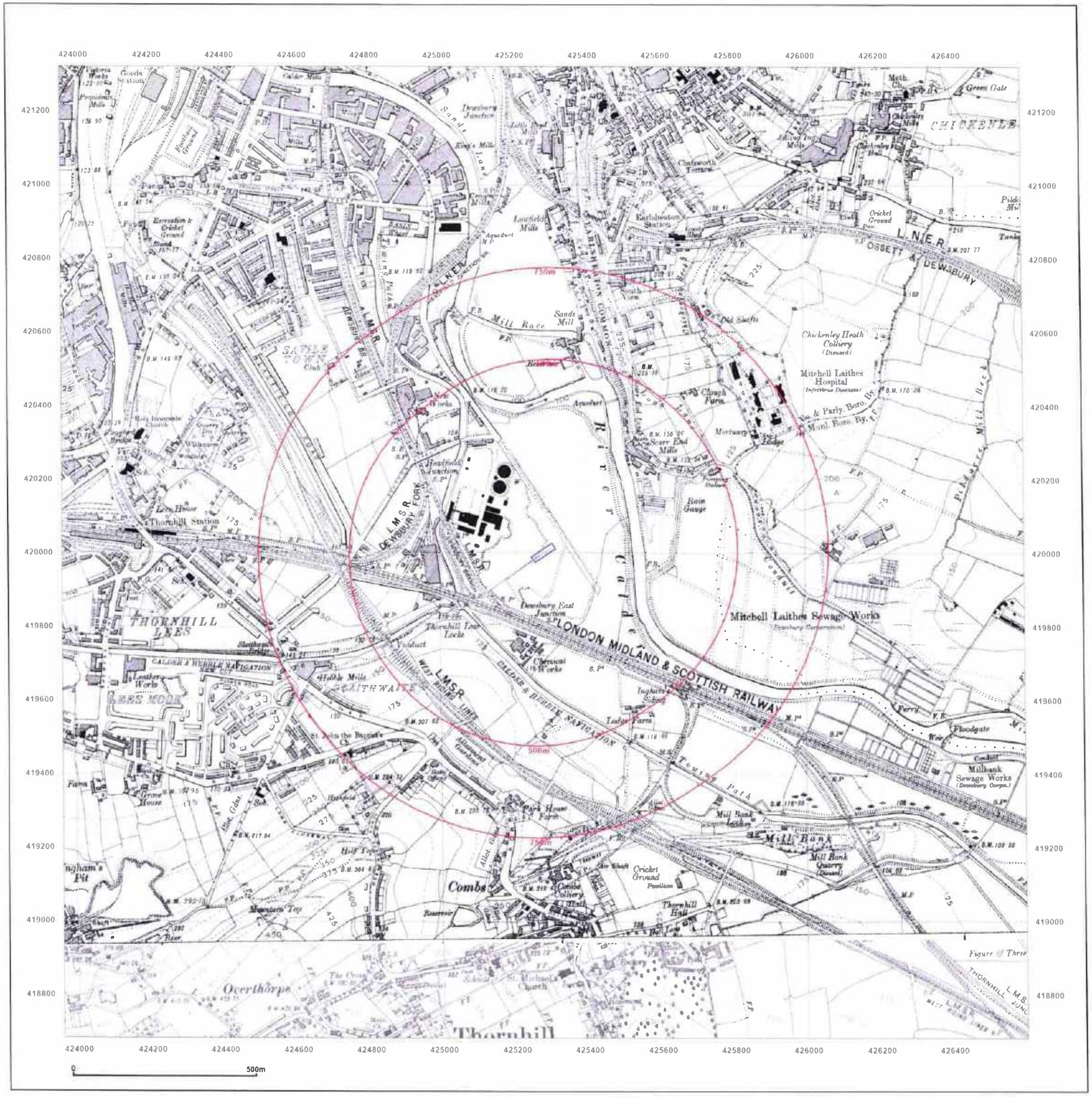

Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: County Series
Map date: **1938**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

Surveyed 1851
Revised 1938
Edition N/A
Copyright N/A
Levelled 1931

Surveyed 1851
Revised 1938
Edition 1938
Copyright N/A
Levelled N/A

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Production date: 17 December 2024

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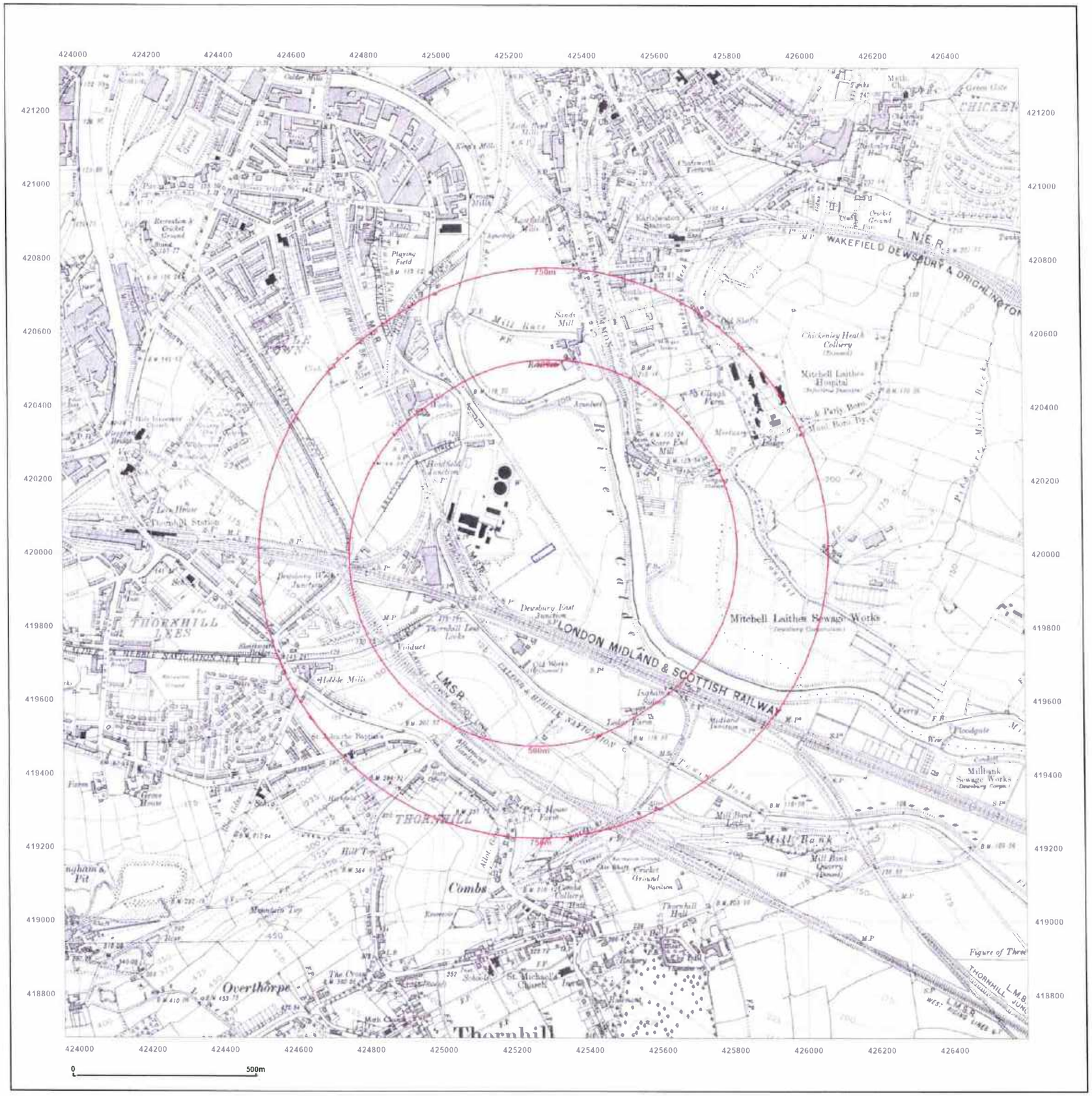

JPG

Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: County Series
Map date: 1948
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

Surveyed 1851
Revised 1948
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1851
Revised 1948
Edition N/A
Copyright N/A
Levelled N/A

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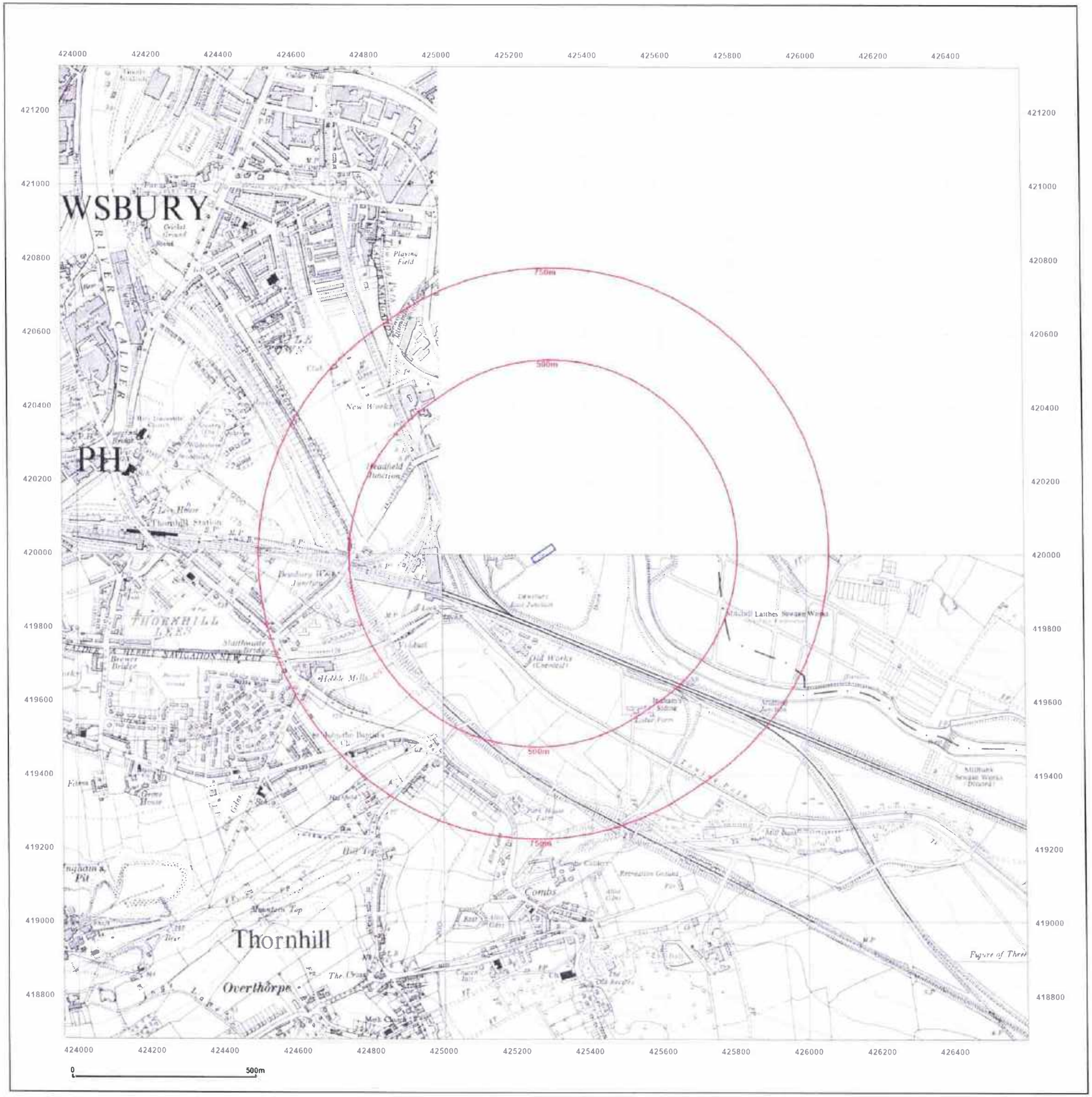

JPG

Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: Provisional
Map date: 1951-1955
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

Surveyed 1951
Revised 1955
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1951
Revised 1951
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised 1955
Edition N/A
Copyright N/A
Levelled N/A

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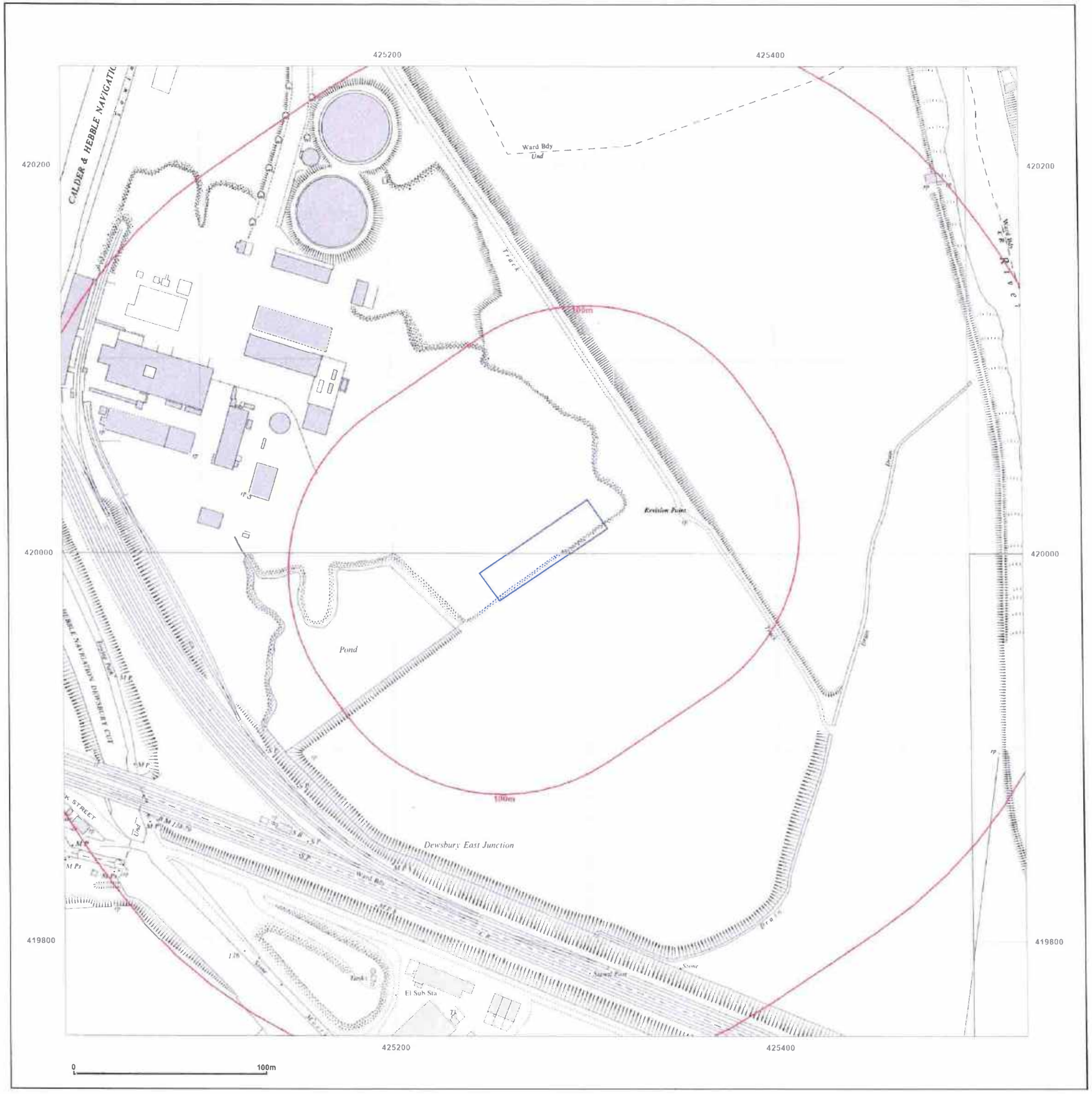

Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: National Grid
Map date: 1953
Scale: 1:1,250
Printed at: 1:2,000

N
W E
S

Surveyed 1953
Revised 1953
Edition N/A
Copyright N/A
Levelled 1931

Surveyed 1953
Revised 1953
Edition N/A
Copyright N/A
Levelled 1931

Surveyed 1953
Revised 1953
Edition N/A
Copyright N/A
Levelled 1931

Surveyed 1953
Revised 1953
Edition N/A
Copyright N/A
Levelled 1931

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Production date: 17 December 2024

Map legend available at:
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JPG

Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: National Grid
Map date: 1954
Scale: 1:1,250
Printed at: 1:2,000

N
W E
S

Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

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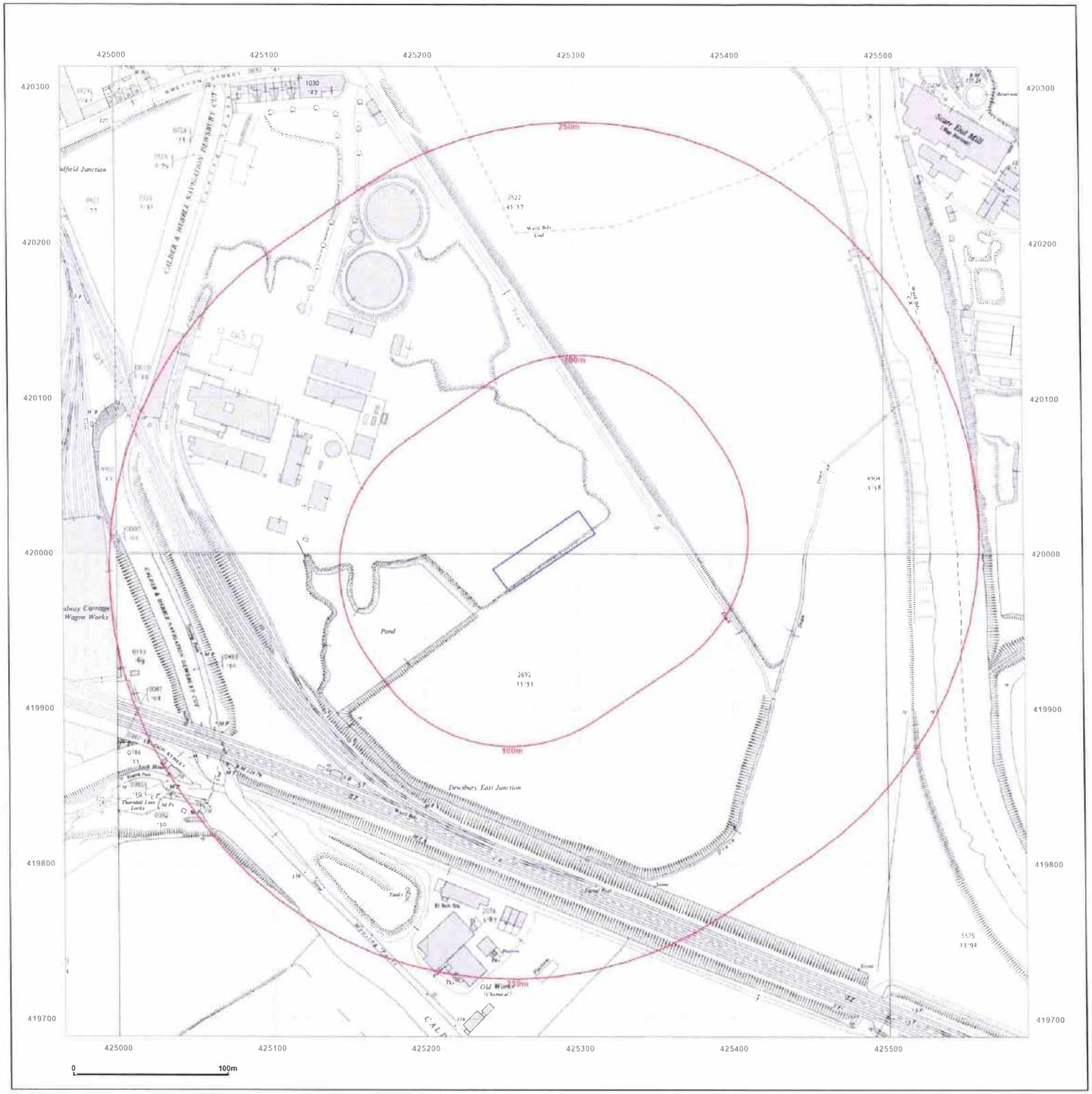

Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: National Grid
Map date: 1955
Scale: 1:2,500
Printed at: 1:2,500

N
W E
S

Surveyed 1954
Revised 1954
Edition 1955
Copyright N/A
Levelled 1931

Surveyed 1954
Revised 1954
Edition 1955
Copyright N/A
Levelled 1931

Surveyed 1954
Revised 1954
Edition 1955
Copyright N/A
Levelled 1931

Surveyed 1954
Revised 1953
Edition 1955
Copyright N/A
Levelled 1931

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Production date: 17 December 2024

Map legend available at:
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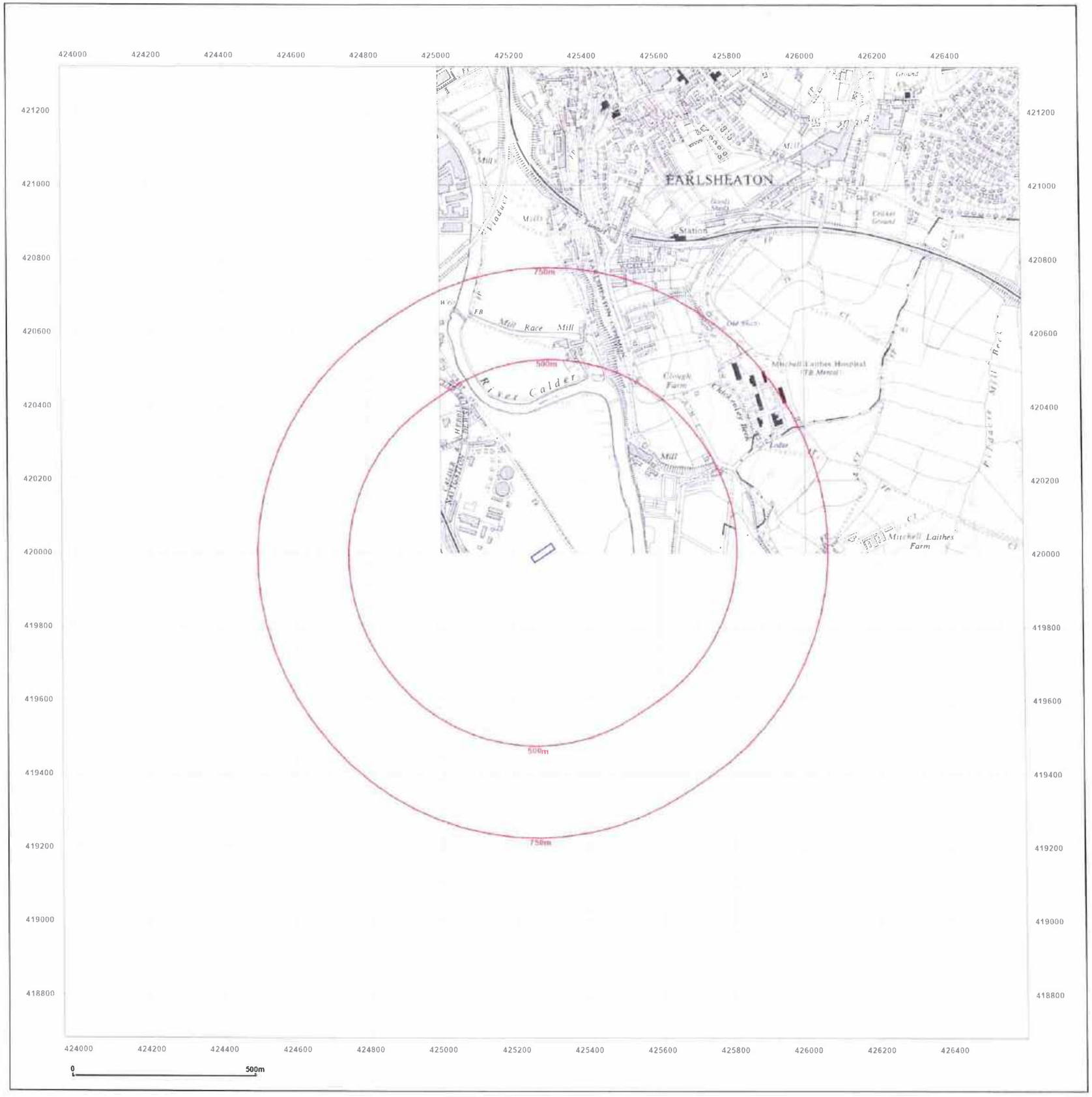


JPG

Site Details:

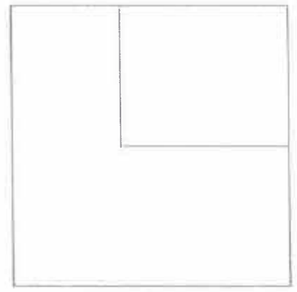
Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: Provisional
Map date: 1957
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

Surveyed 1957
Revised 1957
Edition N/A
Copyright N/A
Levelled N/A



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Production date: 17 December 2024

Map legend available at:
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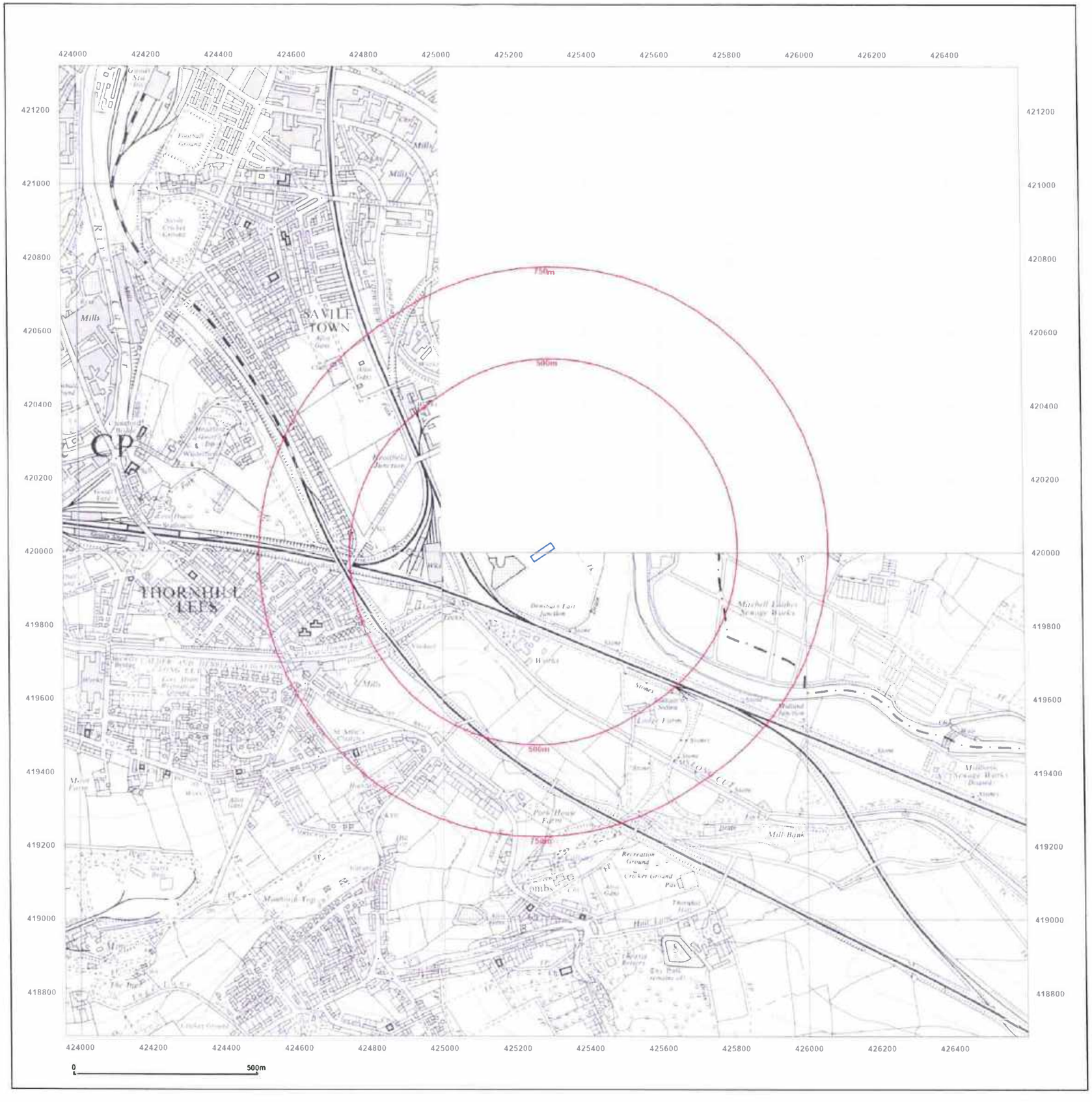

JPG

Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: Provisional
Map date: **1966-1967**
Scale: 1:10,560
Printed at: 1:10,560

N
W E
S

Surveyed 1967
Revised 1967
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1966
Revised 1966
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1966
Revised 1966
Edition N/A
Copyright N/A
Levelled N/A

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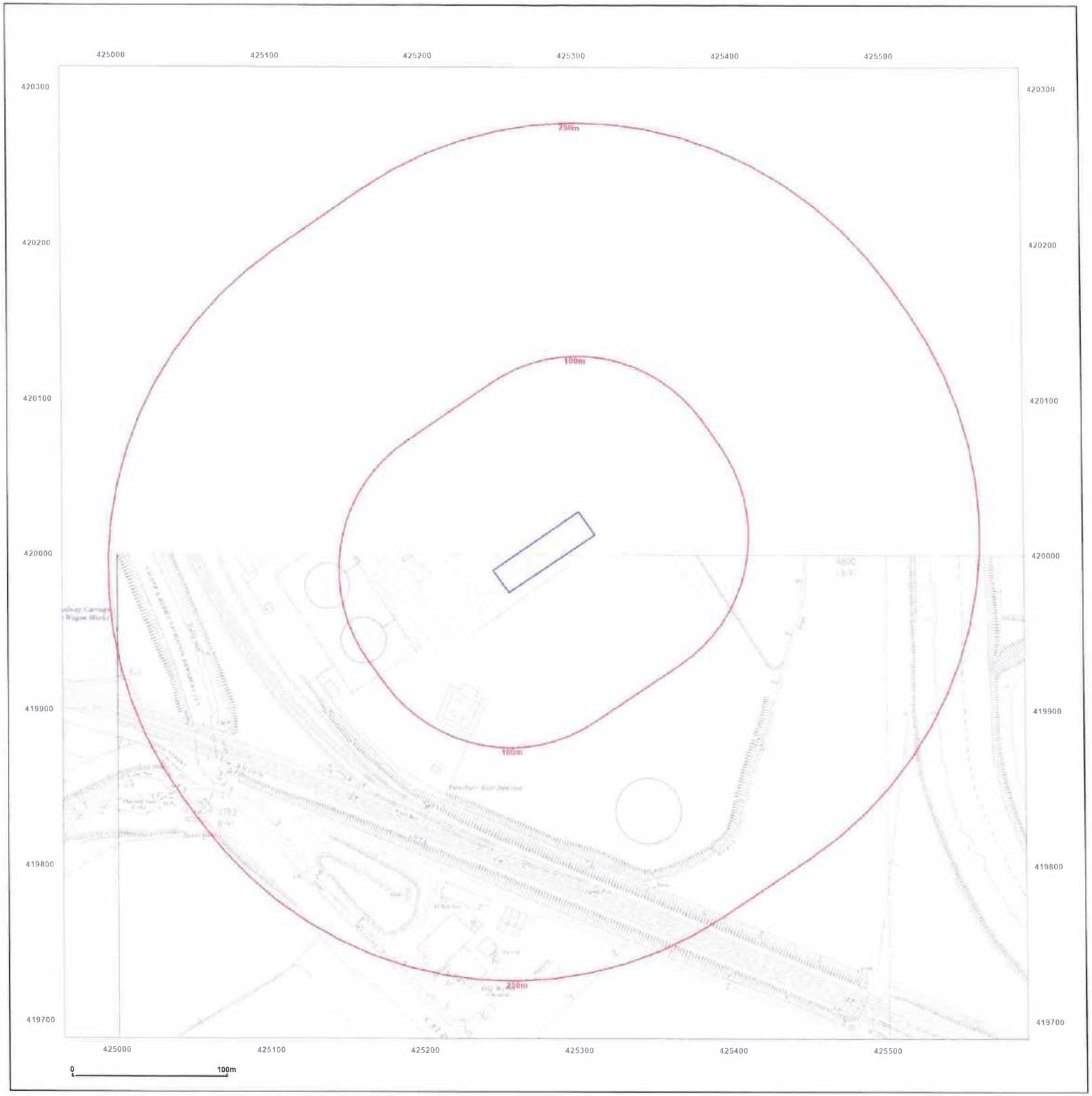

Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: National Grid
Map date: 1969
Scale: 1:2,500
Printed at: 1:2,500

N
W E
S

Surveyed 1966
Revised 1966
Edition N/A
Copyright 1969
Levelled 1963

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Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: National Grid
Map date: **1967-1972**
Scale: 1:1,250
Printed at: 1:2,000

N
W E
S

Surveyed 1953
Revised 1968
Edition N/A
Copyright 1968
Levelled 1963

Surveyed 1953
Revised 1971
Edition N/A
Copyright 1971
Levelled 1963

Surveyed 1953
Revised 1971
Edition N/A
Copyright 1972
Levelled 1963

Surveyed 1953
Revised 1966
Edition N/A
Copyright 1967
Levelled 1963

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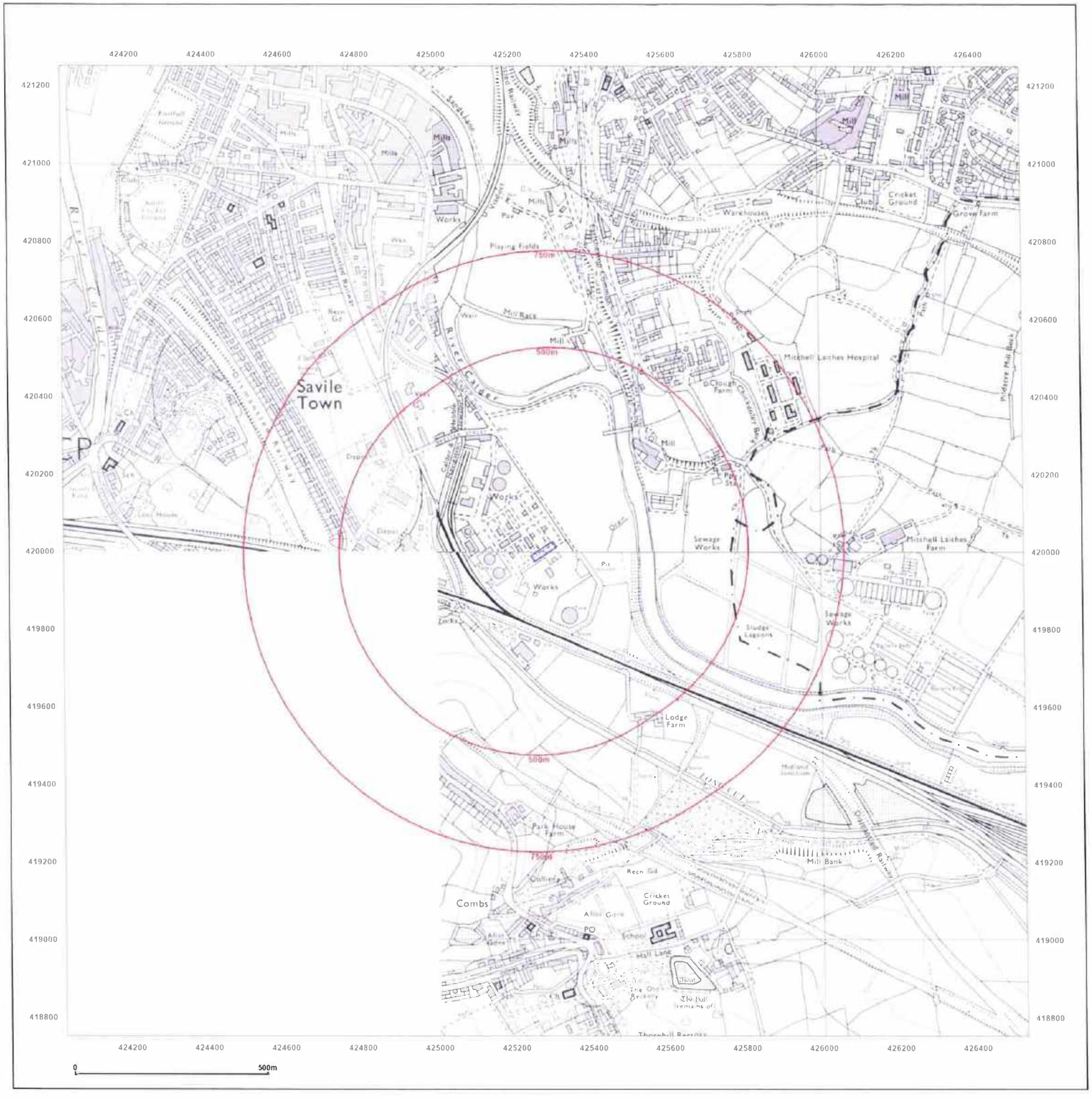

Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: National Grid

Map date: **1971-1974**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

Surveyed 1974
Revised 1974
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1971
Revised 1971
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1973
Revised 1973
Edition N/A
Copyright N/A
Levelled N/A

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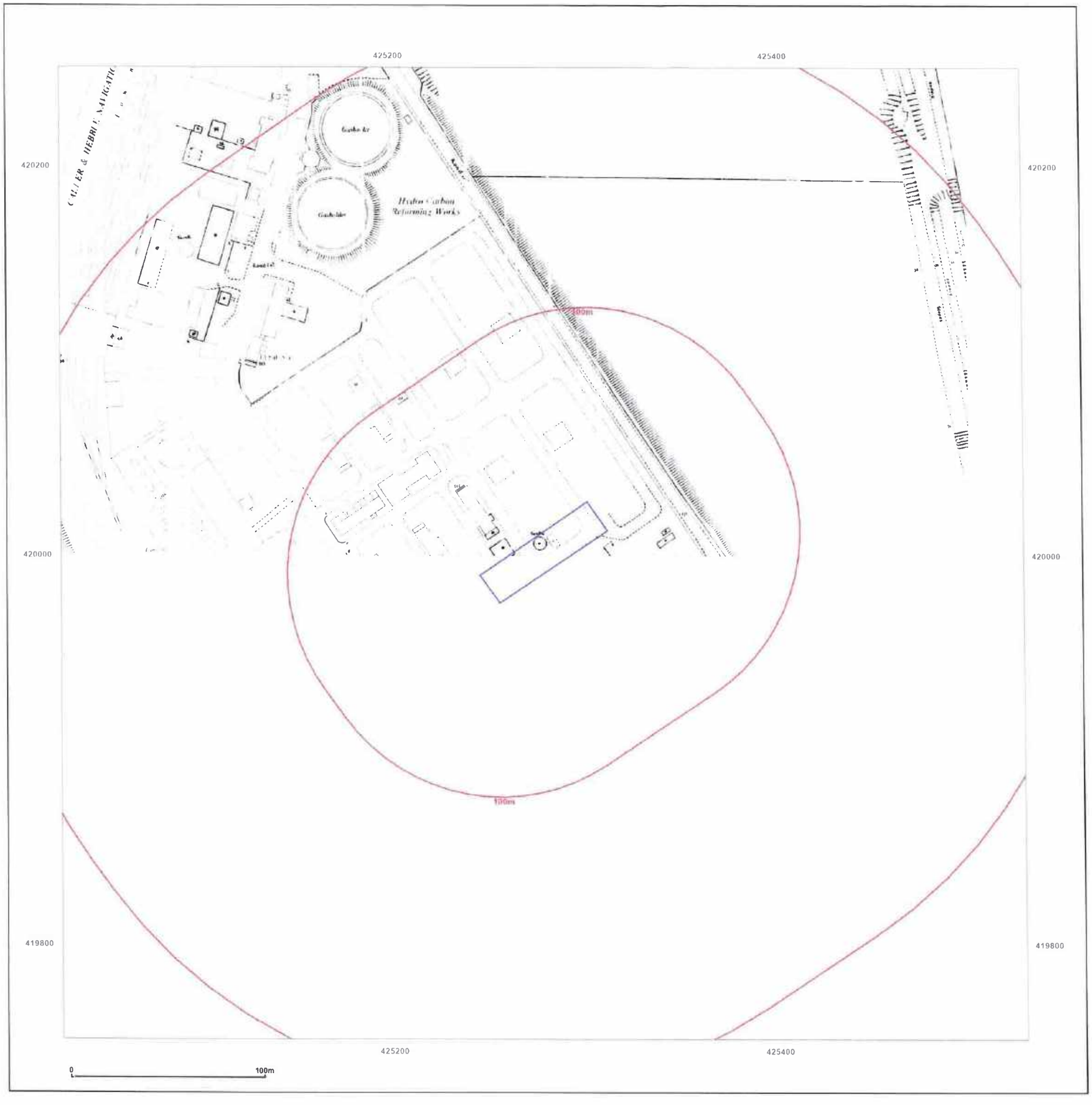

Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: National Grid
Map date: 1978
Scale: 1:1,250
Printed at: 1:2,000

N
W E
S

Surveyed N/A
Revised N/A
Edition N/A
Copyright N/A
Levelled N/A

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Production date: 17 December 2024

Map legend available at:
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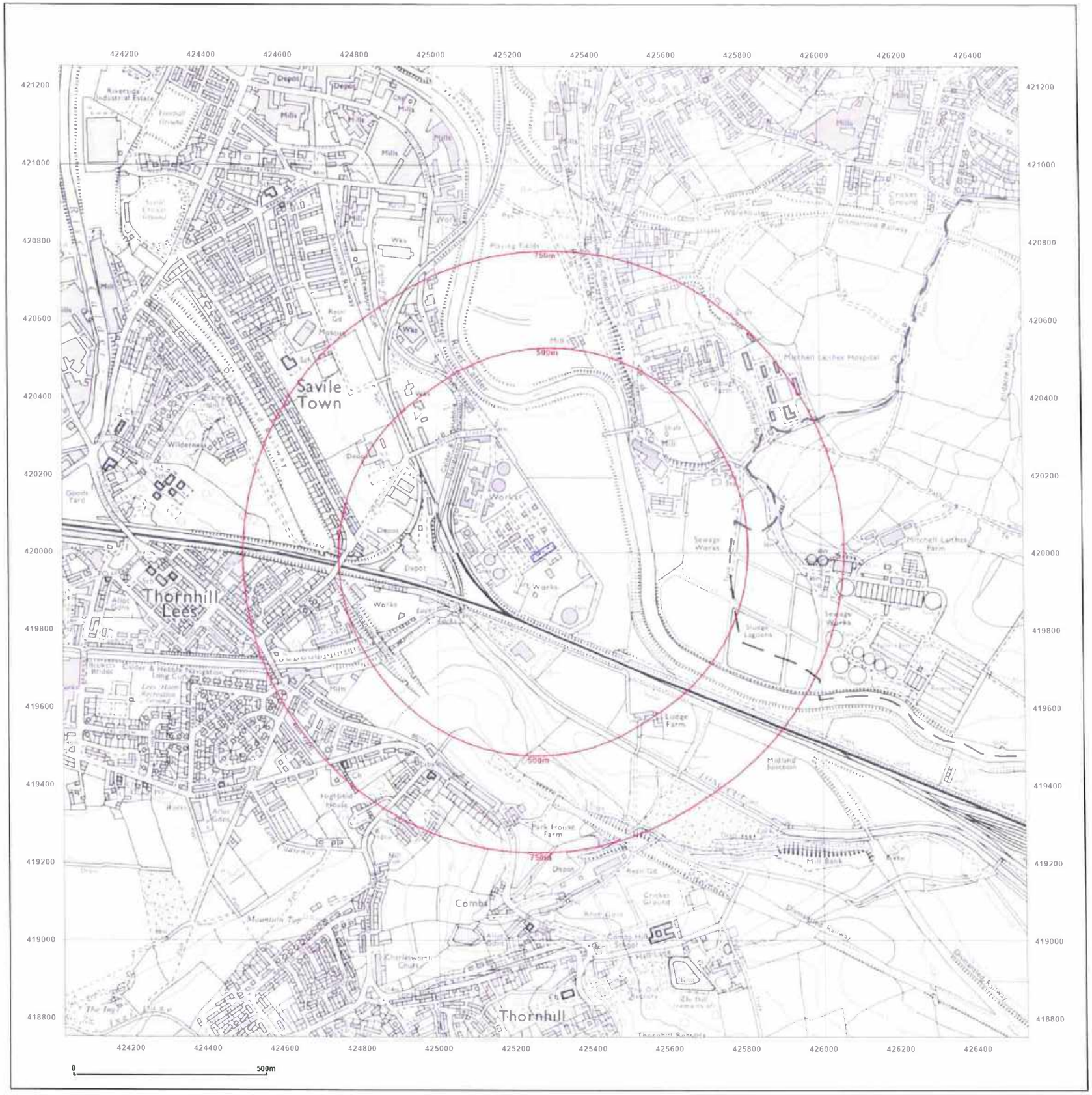

Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: National Grid
Map date: **1980-1983**
Scale: 1:10,000
Printed at: 1:10,000

N
W E
S

Surveyed 1977
Revised 1981
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1979
Revised 1980
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1977
Revised 1982
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1982
Revised 1983
Edition N/A
Copyright N/A
Levelled N/A

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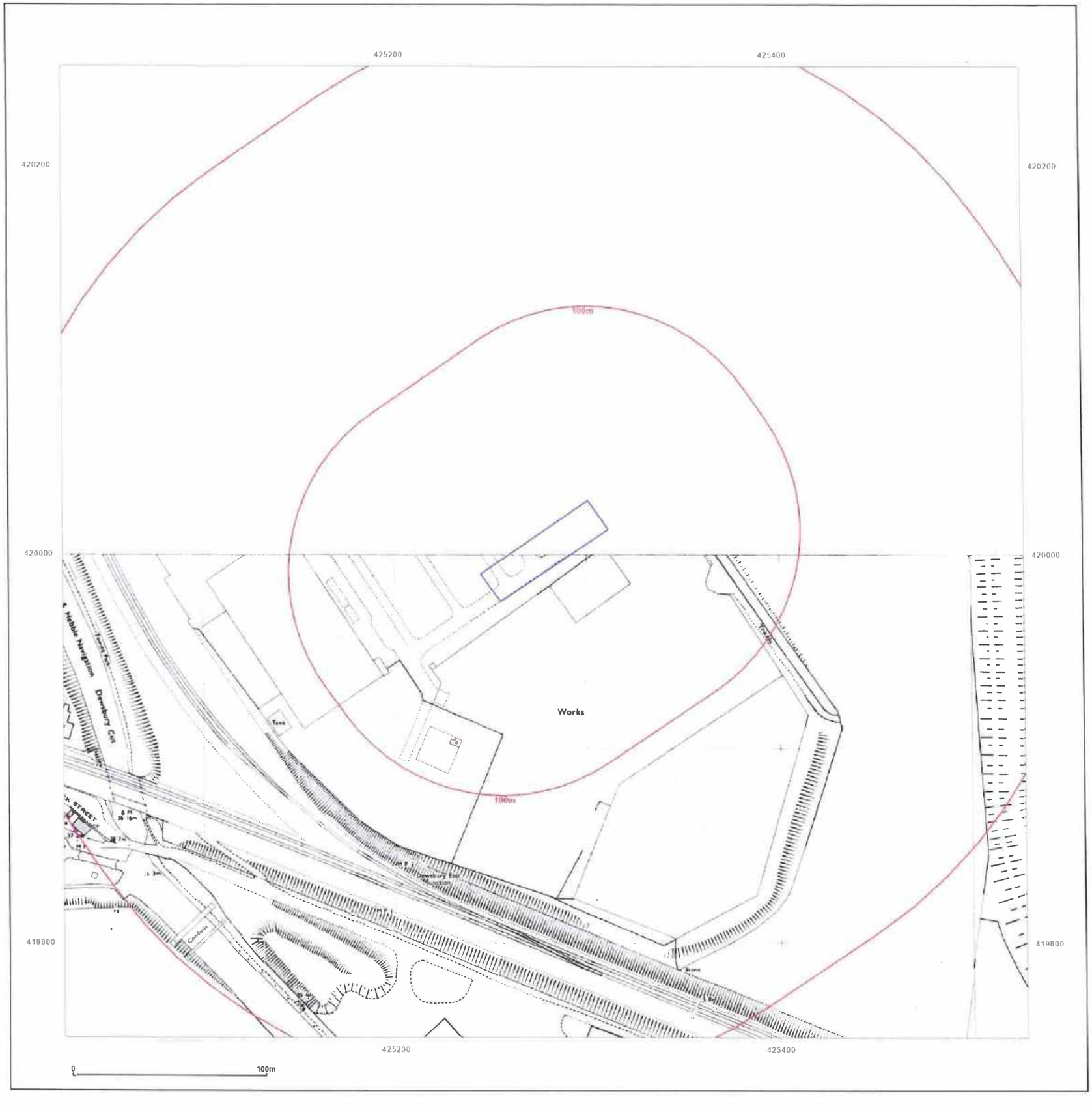

Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref:	CMAPS-JPG-1199577-65579-171224
Report Ref:	CMAPS-JPG-1199577-65579-171224HIS
Grid Ref:	425278, 420001

Map Name:	National Grid
Map date:	**1985-1989**
Scale:	1:1,250
Printed at:	1:2,000

N
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Production date: 17 December 2024

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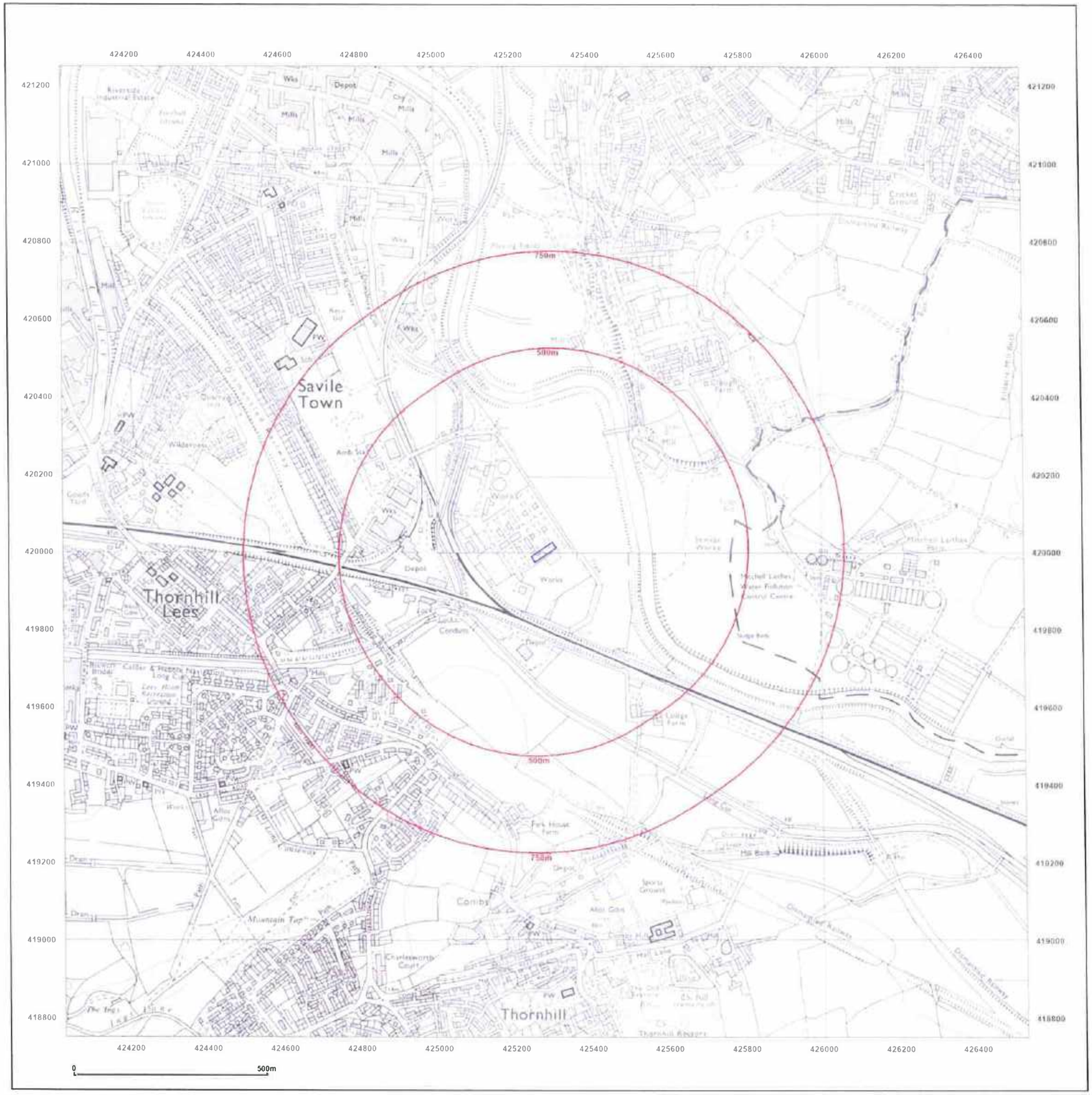

Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: National Grid

Map date: **1988-1993**

Scale: 1:10,000

Printed at: 1:10,000

N
W E
S

Surveyed 1985
Revised 1988
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1989
Revised 1992
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1991
Revised 1993
Edition N/A
Copyright N/A
Levelled N/A

Surveyed 1990
Revised 1992
Edition N/A
Copyright N/A
Levelled N/A

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Map legend available at:
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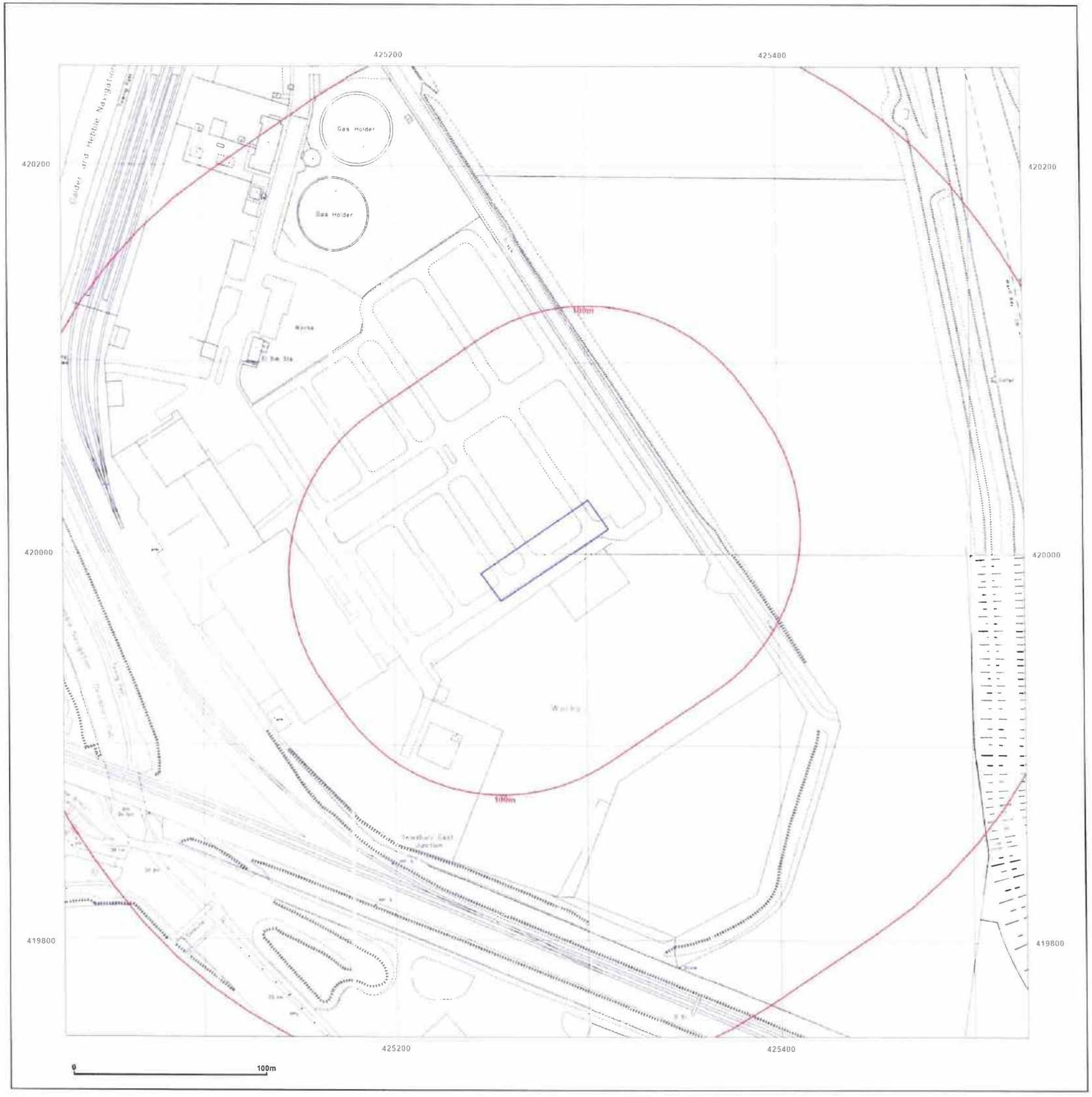

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Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: National Grid

Map date: **1989-1994**

Scale: 1:1,250

Printed at: 1:2,000

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Surveyed 1992
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Edition N/A
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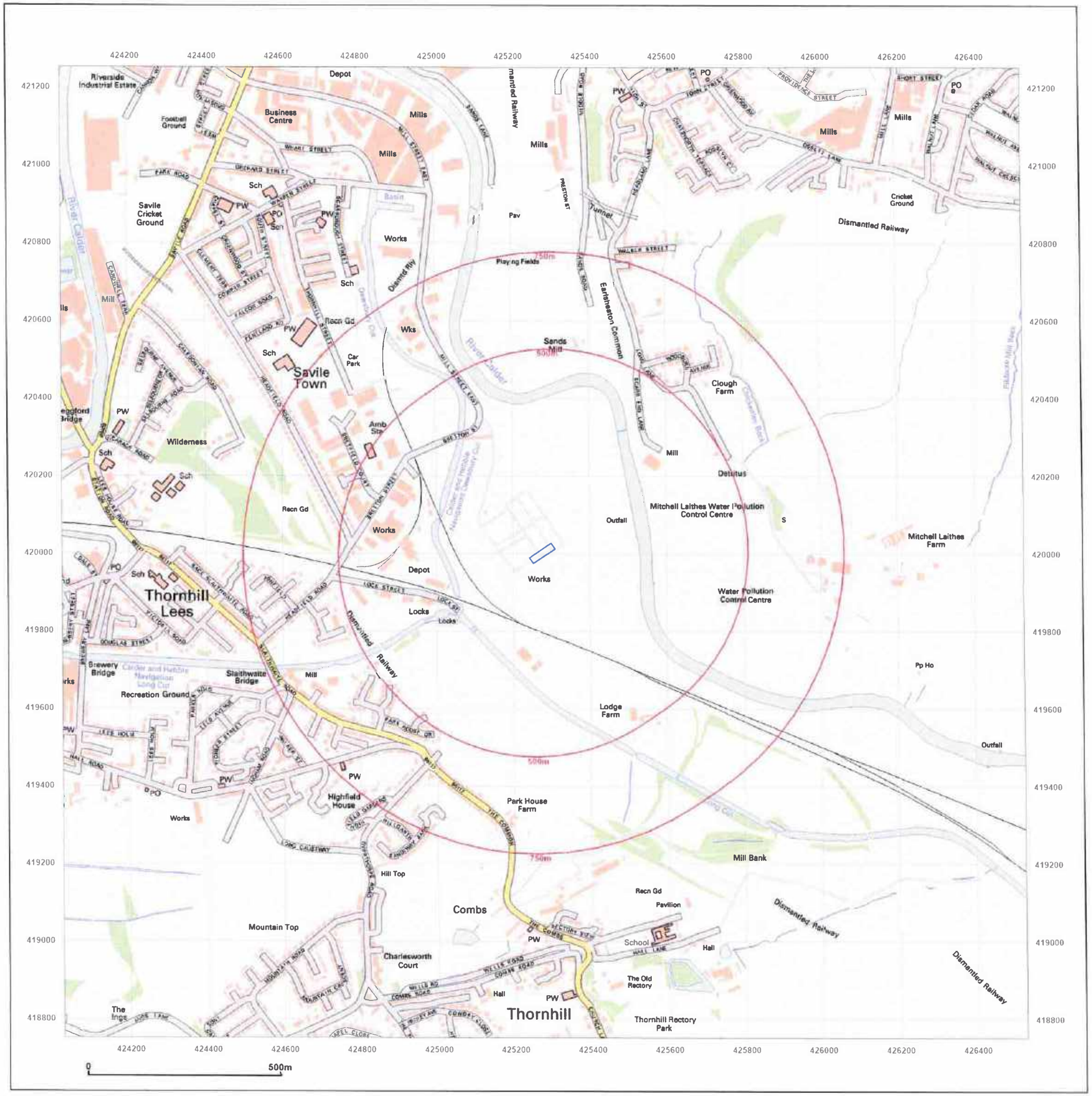

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WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: National Grid
Map date: 2001
Scale: 1:10,000
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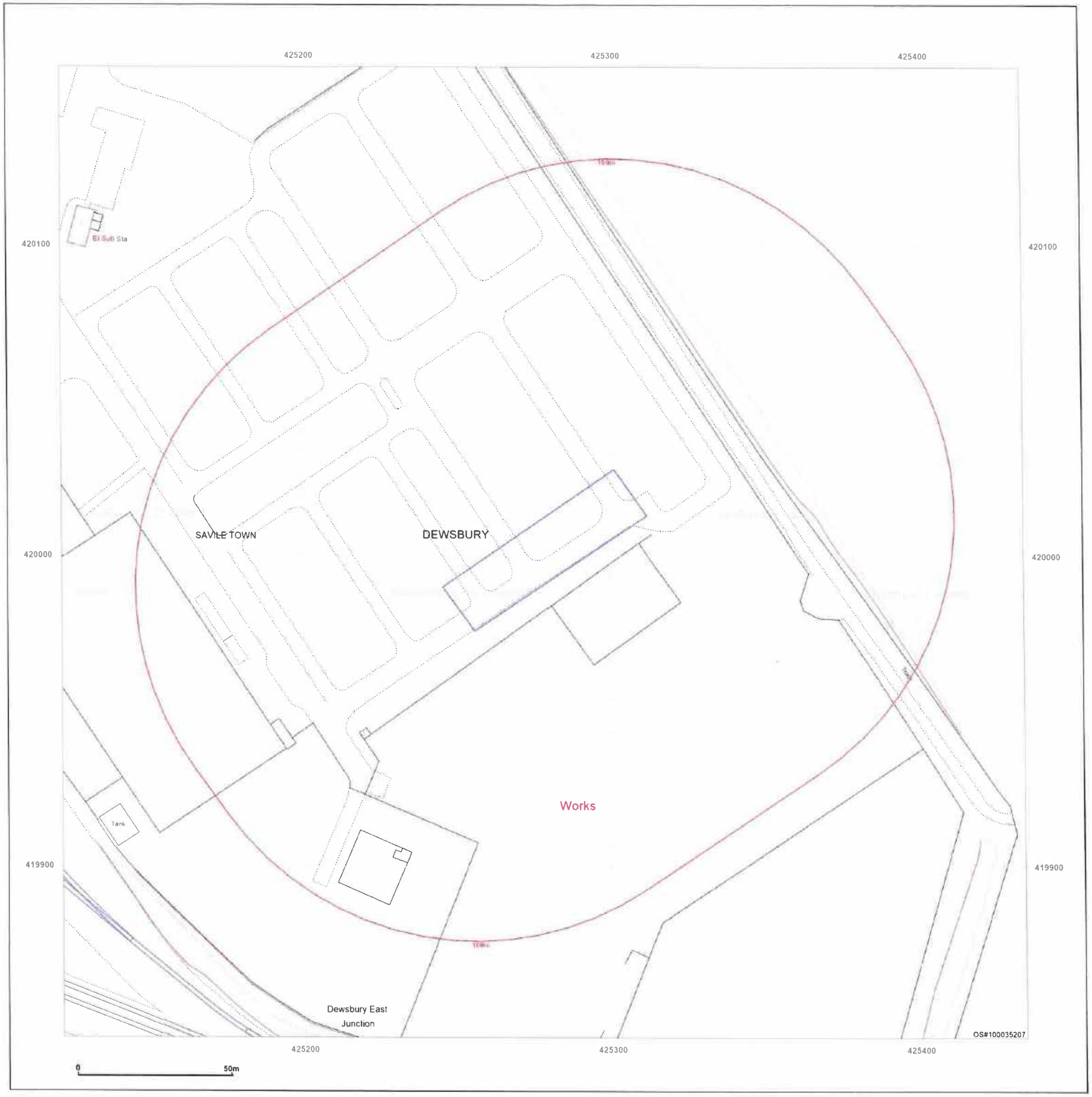

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Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

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Map date: **2003**
Scale: 1:1,250
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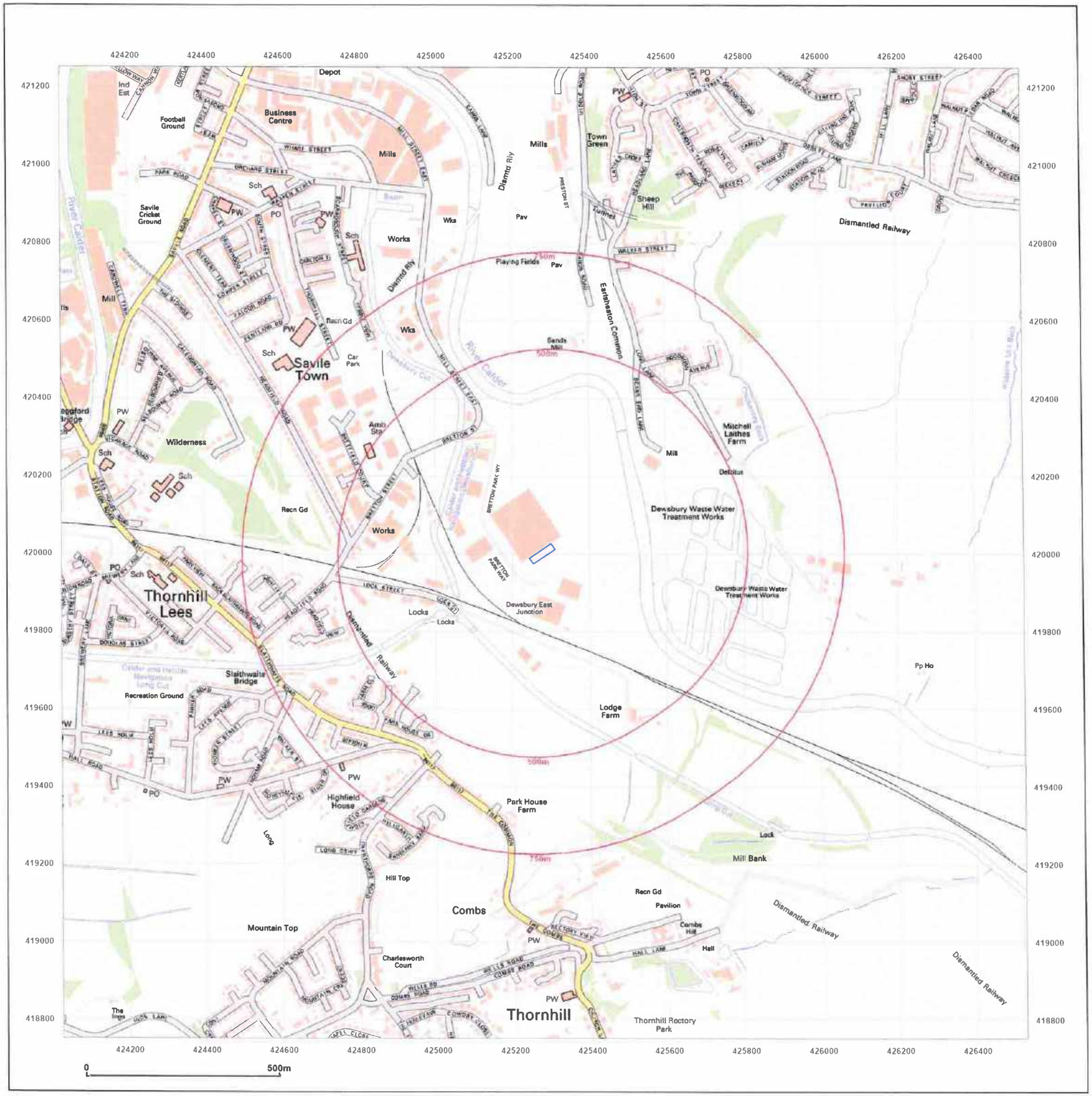

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Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

Client Ref: CMAPS-JPG-1199577-65579-171224
Report Ref: CMAPS-JPG-1199577-65579-171224HIS
Grid Ref: 425278, 420001

Map Name: National Grid
Map date: **2010**
Scale: 1:10,000
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Production date: 17 December 2024

Map legend available at:
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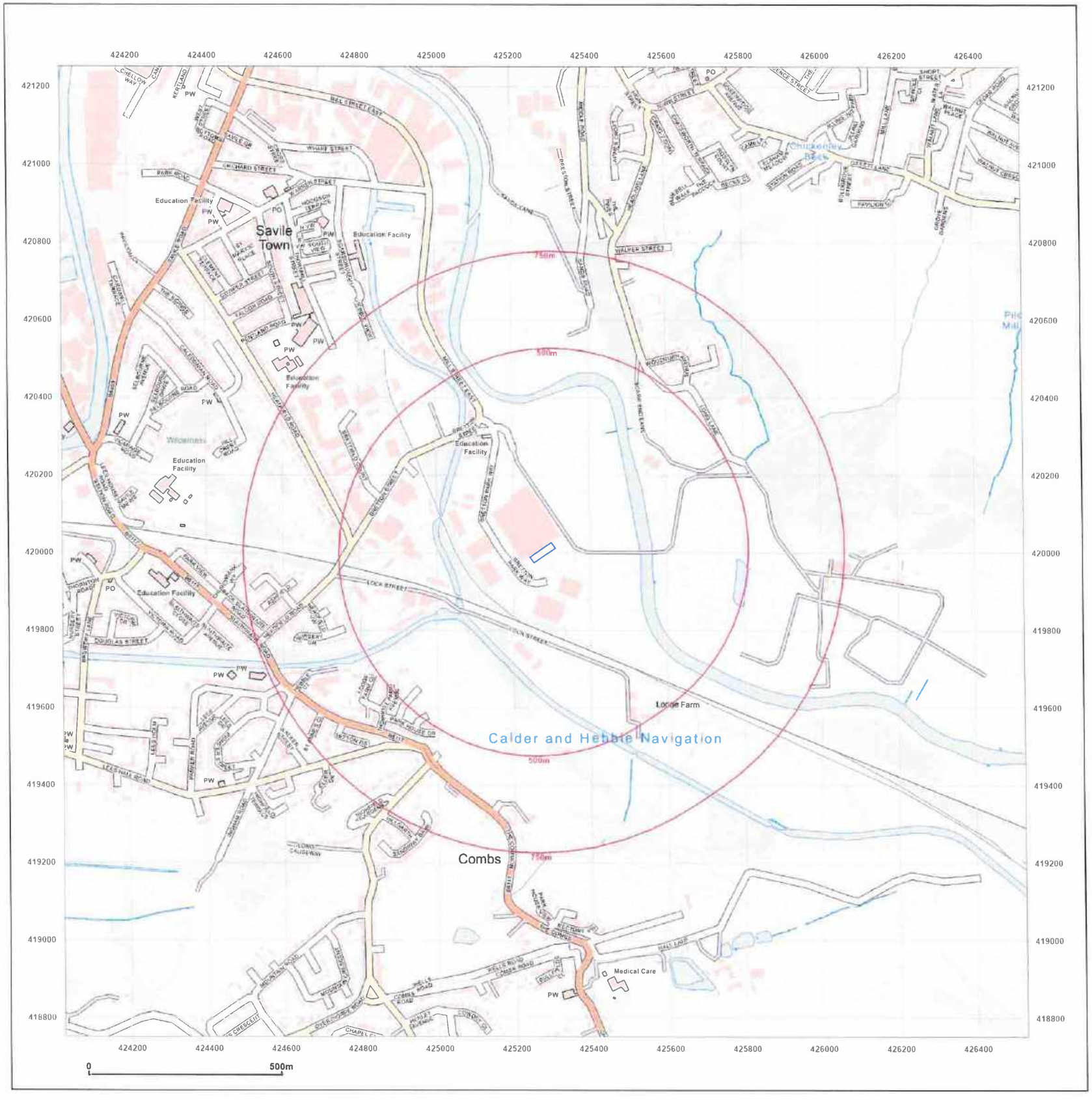

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Site Details:

Bretton Park Way, Dewsbury,
WF12 9BS

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Report Ref: CMAPS-JPG-1199577-65579-171224HIS
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Map Name: National Grid
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Scale: 1:10,000
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Production date: 17 December 2024

Map legend available at:
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Appendix D BGS Borehole Records

SE 22 SE/28 H

HOLST & CO. LTD.

SITE INVESTIGATION DEPT.
5-7, NEW YORK ROAD,
LEEDS, 2.

16178

Contract No. 16137/B284
Location Dewsbury Gasworks
Client N.E.G.B.

Borehole No. 8 110·20
Ground Level 99·20
Date 23rd July, 1964.

BOREHOLE LOG

STRATA	Legend	Depth below Ground Level	Thickness of Strata	Type of Sample	c lb/sq. ft.	Ø deg.	m.c. %	y lb/cu. ft.	N
				1·07 3'6" I				99·25	
Fill - Ashes									10
			12'0" 3·66	2·59 8'6" I				11·55	10
		3·66 12'0"		4·11 13'6" I		88 20.			
Large Gravel & Coarse Sand				5·64 18'6" I					24
			5·49 18'0"	7·14 23'6" I					28
		9·14 30'0"		8·69 28'6" I					21
									21
Medium Gravel & Coarse Sand			2·74 9'0"	10·21 33'6" I					20
		11·89 39'0"		11·73 38'6" I					140
Grey Shale		42'0" 12·8	3'0" 0·91						

Water struck at 20'0"
Maximum Observed Water Level 22'0" 6·71

Undisturbed Sample []
Disturbed Sample o
Water Sample Δ
Penetration Test I

c = Cohesion
Ø = Angle of Internal Friction
m.c = Moisture Content
y = Dry Density
N = Standard Penetration Value

Water levels may be subject to seasonal or tidal variation and should not be taken as constant.

SE 22 SE/28

K

HOLST & CO. LTD.

SITE INVESTIGATION DEPT.
5-7, NEW YORK ROAD,
LEEDS, 2.

16178

Contract No. ~~16137~~/B284
Location DEWSBURY GAS WORKS.
Client N.E.G.B.

Borehole No. 11
Ground Level 99.00
Date 23rd July, 1964.

BOREHOLE LOG

STRATA	Legend	Depth below Ground Level	Thickness of Strata	Type of Sample	c lb/sq. ft.	Ø deg.	m.c. %	y lb/cu. ft.	N
FILL - ASHES & RUBBLE		3.66 12'0"	12'0" 3.66	4.27					
SOFT BROWN SILTY SANDY CLAY.		3.96 13'6"	0.46 1'6"	14'0" I					27
LARGE GRAVEL & COARSE SAND.		9.14 30'0"	5.63 16'6"	5.64 18'6" I 7.16 23'6" I 11.73 38'6" I					31 27 21
MEDIUM GRAVEL & COARSE SAND.		12.04 39'6"	2.9 9'6"	12.21 33'6" I					24
GREY MUDSTONE.		12.95 42'6"	0.91 3'0"	13.26 43'6" I					135
GREY SHALE.		44'0" 13.41	1'6" 0.46						

Water struck at 17'0" Maximum Observed Water Level 17'0" 5.18

Undisturbed Sample []
Disturbed Sample o
Water Sample Δ
Penetration Test I

c = Cohesion
Ø = Angle of Internal Friction
m.c = Moisture Content
y = Dry Density
N = Standard Penetration Value

Water levels may be subject to seasonal or tidal variation and should not be taken as constant.

SE 22 SE/28 E

HOLST & CO. LTD.

SITE INVESTIGATION DEPT.

5-7, NEW YORK ROAD, LEEDS, 2.

16178

Contract No. 16157/B284

Location Dewsbury Gasworks

Client N.E.G.B.

Borehole No. 5

Ground Level 100.30

Date 23rd July, 1964.

BOREHOLE LOG

STRATA	Legend	Depth below Ground Level	Thickness of Strata	Type of Sample	c lb/sq. ft.	Ø deg.	m.c. %	y lb/cu. ft.	N
Fill Ashes		3.81 12'6"	3.81 12'6"	1.07 3'6" I 2.59 8'6" I 4.11 13'6"					10 7
Grey Sandy Clay		5.18 17'0"	4'6" 1.37	I 5.64 18'6" I		84.80.			11
Large Gravel		7.62 25'0"	2.44 8'0"	7.16 23'6" I 8.59		76.80.			29 38
Large Gravel & Coarse Sand		10.67 35'0"	3.05 10'0"	28'6" I 10.21 33'6" I					28 28
Medium Gravel & Coarse Sand		12.19 40'0"	1.52 5'0"	11.73 38'6" I					25
Grey Mudstone		13.24 43'6"	3'6" 1.07	14.02 46'0"					
Grey Shale		15.24 50'0"	6'6" 1.98	I					125

Water struck at 20'0" Maximum Observed Water Level 30'0"

Undisturbed Sample []
Disturbed Sample o
Water Sample Δ
Penetration Test I

c = Cohesion
Ø = Angle of Internal Friction
m.c = Moisture Content
y = Dry Density
N = Standard Penetration Value

Water levels may be subject to seasonal or tidal variation and should not be taken as constant.

SE 21 NE/47
2994 1800

BOREHOLE No AND LOCATION	DEPTH From	DEPTH To	SOIL DESCRIPTION	SAMPLES Depth	SAMPLES Test and Result
17. Chainage 37+30 on centre line			Grass		
	0	9"	Brown organic topsoil		
	9"	2'6"	Stiff yellow brown sandy clay	2'0"	Fm 21 LL 41 PL 19
	2'6"	5'6"	Stiff brown and grey shaly clay with occasional fragments of ironstone and mudstone	2'9" 4'0" 4'3"	Fm 30 LL 69 PL 22 LL 35 PL 20 c 10 ϕ 16 DD 116 m 16 Fm 16
	5'6"	6'0"	Compact mixture of grey clay and brown mudstone	5'6"	LL 44 PL 17
			Hole dry		
SE 31 NW/155 3000 1805 18. Chainage 40+40 10 feet south of centre line	0	1'6"	Compact stone and brick filling		
	1'6"	3'0"	Stiff yellow brown and grey clay	2'6"	Fm 28
	3'0"	4'0"	Stiff brown veined grey clay	3'0"	LL 44 PL 23
	4'0"	6'0"	Stiff brown and grey friable sandy clay with fragments of sandstone and mudstone	4'0"	LL 36 PL 22 CBR R 5 DD 111 m 17
	6'0"	8'6"	Compact brown silty mudstone	6'0" 7'0" 8'0"	LL 36 PL 21 CBR R [illegible] DD 11[illegible] m 16 Fm 13 LL 35 PL 19 CBR R 19 DD 122 m 13
	8'6"	9'0"	Hard mudstone	9'0"	Fm 12
			Hole dry		
SE 31 NW/156 3003 1809 19. Chainage 42+00 20 feet north of centre line			Surface sound		
	0	½"	Surface dressing		
	½"	5"	Asphalt		
	5"	9"	Waterbound stone		
	9"	1'2"	Pitching		
	1'2"	1'9"	Compact stone and ashes		
	1'9"	2'6"	Compact mixture of brown clayey sand and fragments of sandstone	2'0"	LL 35 PL 21
			Hole dry		

HOLST & CO. LTD.

SE21NE-123.

SITE INVESTIGATION DEPT.

5-7, NEW YORK ROAD, 25201, 19988

LEEDS, 2.

Contract No. B.284.

Location Dewsbury Gasworks.

Client N.E.G.B.

Borehole No. 15.

Ground Level 99.00 30.17.

Date 20th October 1964.

BOREHOLE LOG

STRATA	Legend	Depth below Ground Level	Thickness of Strata	Type of Sample	c lb/sq. ft.	Ø deg.	m.c. %	y lb/cu. ft.	" " N
Made Ground Ashes, Bricks.		13'0"	13'0"						
Brown Sandy Clay.		17'0"	4'0"						
Gravel and Sand.		20'0"	3'0"						

SE22SE/28 L

HOLST & CO. LTD.

SITE INVESTIGATION DEPT.
5-7, NEW YORK ROAD,
LEEDS, 2.

16178

Contract No. ~~16137~~/B284
Location DEWSBURY GAS WORKS.
Client N.E.G.B.

Borehole No. 12.
Ground Level 99.40'.
Date 23rd July, 1964.

BOREHOLE LOG

STRATA	Legend	Depth below Ground Level	Thickness of Strata	Type of Sample	c lb/sq. ft.	Ø deg.	m.c. %	y lb/cu. ft.	N
FILL, ASHES, BRICKS & STONES.		3·35 11'0"	11'0" 3·35	4·11					
LARGE GRAVEL.		6·1 20'0"	2·74 9'0"	13'6" I 5·64 18'6" I					35 28
MEDIUM GRAVEL & COARSE SAND.		7·01 23'0"	3'8" 8·91	7·16 23'6"					
LARGE GRAVEL & COARSE SAND.		10·82 35'6"	3·81 12'6"	I 8·69 28'6" I 10·05 33'6" I					33 25 25
SOFT BROWN MUDSTONE.		37'6"	2'0"	10·97 36'0" I					38
HARD GREY MUDSTONE.		40'0" 12·19	2'6" 0·76	11·58 38'0" I					95

Water struck at 15'0" Maximum Observed Water Level 17'0" 5·18

Undisturbed Sample []
Disturbed Sample o
Water Sample Δ
Penetration Test I

c = Cohesion
Ø = Angle of Internal Friction
m.c = Moisture Content
y = Dry Density
N = Standard Penetration Value

Water levels may be subject to seasonal or tidal variation and should not be taken as constant.

SE 22 SE 128

J

HOLST & CO. LTD.

SITE INVESTIGATION DEPT.

5-7, NEW YORK ROAD, LEEDS, 2.

16178

Contract No. 16137/B284

Location DEWSBURY GASWORKS.

Client N.E.G.B.

Borehole No. 10

Ground Level 99·70'

Date 23rd July, 1964.

BOREHOLE LOG

STRATA	Legend	Depth below Ground Level	Thickness of Strata	Type of Sample	c lb/sq. ft.	Ø deg.	m.c. %	y lb/cu. ft.	N
Fill-Ashes and some brick		3·66 12'0"	12'0" 3·66	4·11					
Large Gravel and Coarse Sand.		7·92 26'0"	4·27 14'0"	13'6" 5·64 18'6" 7·16 23'6" 6·89					20 25 28
Medium Gravel and Coarse Sand.		8·53 28'0"	2'0" 0·61	28'6"					26
Large Gravel & Coarse Sand.		11·28 37'0"	2·74 9'0"	10·21 33'6" 10·89					20
Grey Mudstone.		11·73 38'6"	0·46 1'6"	39'0"					110
Grey Shale.		41'0" 12·5	2'6" 0·76						

Water struck at 20'0" Maximum Observed Water Level 20'0" 6.1

Undisturbed Sample []
Disturbed Sample o
Water Sample Δ
Penetration Test I

c = Cohesion
Ø = Angle of Internal Friction
m.c = Moisture Content
y = Dry Density
N = Standard Penetration Value

Water levels may be subject to seasonal or tidal variation and should not be taken as constant.

Appendix E Coal Authority CON29 Coal Mining Report

The Coal Authority

CON29M
coal mining report

UK GREETINGS LTD, UNIT 800 PART, BRETTON PARK INDUSTRIAL ESTATE, BRETTON PARK WAY, SAVILE TOWN, DEWSBURY, KIRKLEES, WF12 9BS

Known or potential coal mining risks

Further action

No further reports from the Coal Authority are required. Further information on any next steps can be found in our Professional opinion.

For more information on our reports please visit www.groundstability.com

Professional opinion

According to the official mining information records held by the Coal Authority at the time of this search, evidence of, or the potential for, coal mining related features have been identified. It is unlikely that these features will impact on the stability of the enquiry boundary.

Enquiry boundary

Key

Approximate position of enquiry boundary shown

We can confirm that the location is **on the coalfield**

This report is prepared in accordance with the latest Law Society's Guidance Notes 2018, the User Guide 2018 and the Coal Authority's Terms and Conditions applicable at the time the report was produced.

Accessibility

If you would like this information in an alternative format, please contact our communications team on 0345 762 6848 or email communications@coal.gov.uk.

Professional opinion

Future development

If development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.

MINE GAS: Please note, if there are no recorded instances of mine gas within the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

If you are looking to develop, or undertake works, within a coal mining development high risk area your Local Authority planning department may require a Coal Mining Risk Assessment to be undertaken by a qualified mining geologist or engineer. Should you require any additional information then please contact the Coal Authority on 0345 762 6848 or email cmra@coal.gov.uk.

Detailed findings

Information provided by the Coal Authority in this report is compiled in response to the Law Society's CON29M Coal Mining enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL.

1 Past underground coal mining

The property is in a surface area that could be affected by underground mining in 1 seam of coal at 250m depth, and last worked in 1947.

Any movement in the ground due to coal mining activity associated with these workings should have stopped by now.

2 Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

3 Future underground coal mining

The property is not in an area where the Coal Authority has received an application for, and is currently considering whether to grant a licence to remove or work coal by underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

However, reserves of coal exist in the local area which could be worked at some time in the future.

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

4 Mine entries

There are no recorded coal mine entries known to the Coal Authority within, or within 20 metres, of the boundary of the property.

5 Coal mining geology

The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining.

6 Past opencast coal mining

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

7 Present opencast coal mining

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

8 Future opencast coal mining

There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

9 Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

10 Mine gas

The Coal Authority has no record of a mine gas emission requiring action.

11 Hazards related to coal mining

The property has not been subject to remedial works, by or on behalf of the Coal Authority, under its Emergency Surface Hazard Call Out procedures.

12 Withdrawal of support

The property is not in an area where a notice to withdraw support has been given.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

13 Working facilities order

The property is not in an area where an order has been made, under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

14 Payments to owners of former copyhold land

The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Statutory cover

Coal mining subsidence

In the unlikely event of any coal mining related subsidence damage, the Coal Authority or the mine operator has a duty to take remedial action in respect of subsidence caused by the withdrawal of support from land or property in connection with lawful coal mining operations.

When the works are the responsibility of the Coal Authority, our dedicated public safety and subsidence team will manage the claim. The house or land owner ("the owner") is covered for these works under the terms of the Coal Mining Subsidence Act 1991 (as amended by the Coal Industry Act 1994). Please note, this Act does not apply where coal was worked or gotten by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.

If you believe your land or property is suffering from coal mining subsidence damage and you need more information on what to do next, please use the following link to our website which sets out what your rights are and what you need to consider before making a claim.
www.gov.uk/government/publications/coal-mining-subsidence-damage-notice-form

Coal mining hazards

Our public safety and subsidence team provide a 24 hour a day, 7 days a week hazard reporting service, to help protect the public from hazards caused by past coal workings, such as a mine shaft or shallow working collapse. To report any hazards please call 0800 288 4242. Further information can be found on our website: www.gov.uk/coalauthority.

Glossary

Key terms

adit - horizontal or sloped entrance to a mine

coal mining subsidence - ground movement caused by the removal of coal by underground mining

Coal Mining Subsidence Act 1991 - the Act setting out the duties of the Coal Authority to repair damage caused by coal mining subsidence

coal mining subsidence damage - damage to land, buildings or structures caused by the removal of coal by underground mining

coal seams - bed of coal of varying thickness

future opencast coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal from the surface

future underground coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal underground. Although it is unlikely, remaining coal reserves could create a possibility for future mining, which would be licensed by the Coal Authority

mine entries - collective name for shafts and adits

mine gas - reports of alleged mine gas emissions received by the Coal Authority within the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded

payments to owners of former copyhold land - historically, copyhold land gave rights to coal to the copyholder. Legislation was set up to allow others to work this coal, but they had to issue a notice and pay compensation if a copyholder came forward

shaft - vertical entry into a mine

site investigation - investigations of coal mining risks carried out with the Coal Authority's permission

stop notice - a delay to repairs because further coal mining subsidence damage may occur and it would be unwise to carry out permanent repairs

subsidence claim - a formal notice of subsidence damage to the Coal Authority since it was established on 31 October 1994

withdrawal of support - a historic notice informing landowners that the coal beneath their property was going to be worked

working facilities orders - a court order which gave permission, restricted or prevented coal mine workings

Appendix F Notes on Limitations

General
JPG (Leeds) Ltd have prepared this report solely for the use of the Client and those parties with whom a warranty agreement has been executed, or with whom an assignment has been agreed. Should any third party wish to use or rely upon the contents of the report, written approval must be sought from JPG (Leeds) Ltd; a charge may be levied against such approval.

JPG (Leeds) Ltd accepts no responsibility or liability for:

a) The consequences of this document being used for any purpose or project other than for which it was commissioned, and
b) This document to any third party with whom an agreement has not been executed.

Phase I Desk Study Reports
The work undertaken to provide the basis of this report comprised a study of available documented information from a variety of sources (including the Client), together with (where appropriate) a brief walk over inspection of the site and meetings and discussions with relevant authorities and other interested parties. The opinions given in this report have been dictated by the finite data on which they are based and are relevant only to the purpose for which the report was commissioned. The information reviewed should not be considered exhaustive and has been accepted in good faith as providing true and representative data pertaining to site conditions. Should additional information become available which may affect the opinions expressed in this report, JPG (Leeds) Ltd reserves the right to review such information and, if warranted, to modify the opinions accordingly.

It should be noted that any risks identified in this report are perceived risks based on the information reviewed; actual risks can only be assessed following a physical investigation of the site.

Phase II Geo-Environmental Investigations
The investigation of the site has been carried out to provide sufficient information concerning the type and degree of contamination, geotechnical characteristics and ground and groundwater conditions to allow a reasonable assessment of the environmental risks together with engineering and development implications.

The objectives of the investigation have been limited to establishing the risks associated with potential human receptors, building materials, the environment (including adjacent land) and controlled waters (surface water and groundwater).

The number of sampling points and the methods of sampling and testing do not preclude the existence of localised "hotspots" of contamination where concentrations may be significantly higher than those actually encountered.

The risk assessment and opinions provided, inter alia, take into consideration currently available guidance values relating to acceptable contamination concentrations; no liability can be accepted for the retrospective effects of any future changes or amendments to these values.

The scope of the investigation was selected on the basis of the specific development proposed by the Client and may be inappropriate to another form of development or scheme.

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