STAGE 1 DESK STUDY REPORT

AT

TOWN STREET

EARLSHEATON

ON BEHALF OF

VFM PRODUCTS LTD

MAY 2017

ARP GEOTECHNICAL LIMITED
CHARTERED CONSULTING ENGINEERS
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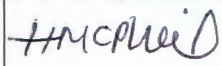
CLIENT: VFM PRODUCTS LTD

JOB NUMBER: VFM/01

PROJECT: TOWN STREET, EARLSHEATON

REPORT TYPE: STAGE 1 DESK STUDY REPORT

REPORT REFERENCE: 1

	Name	Signature
Prepared By:	H McPhail BSc FGS	
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ISSUE	DATE	STATUS
1	23RD MAY 2017	V1 FINAL

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1.0 EXECUTIVE SUMMARY

The pertinent conclusions of the report are tabulated below. However, the information below is not exhaustive, and it is recommended the report is read in its entirety.

Proposed Development	Residential dwellings.
Site Description	Commercial buildings, surrounded by hardstanding.
Site History	Engineering works and probable vehicle repair/servicing garage.
Geology	Thornhill Rock (sandstone) with no drift cover. No faults shown to affect the site.
Coal Mining	Site can be considered stable. Slight risk of unrecorded mine entries.
Hydrogeology	Secondary A Aquifer. No sensitive abstractions within 1km.
Hydrology	Nearest watercourse is Chickenley Beck 300m to the south. No sensitive abstractions within 1km.
Radon	Basic radon protection measures required.
Landfill Gas	No landfills within 250m of the site.
Ground Conditions	Potential made ground, over granular subsoils derived from weathering of underlying solid sandstone.
Contamination	Potentially, from possible made ground and former site use. Site investigation required.
Foundations	Trench fill and strip foundations should be suitable, depending upon loading and findings of ground investigation.
Excavations	Likely to be stable within natural strata, but instability can be expected within any made ground. Groundwater is not anticipated within typical excavation depths.
Soakaways	Ground has potential for disposal of surface water, subject to percolation testing and subsequent drainage feasibility design.

2.0 TERMS OF REFERENCE

2.1 VFM Products Ltd is considering developing the site at the corner of Town Street, Earlsheaton, with residential dwellings. It was considered appropriate to implement a desk study to provide information to aid the planning process, viability assessment, and design of any subsequent development.

2.2 ARP Geotechnical Ltd was appointed by VFM Products Ltd to implement the report, which involved a desk study assessment of the geological and coal mining aspects, site history, potential contamination sources and receptors, and other environmental aspects including radon gas and indicative flood risk. An Envirocheck Report from Landmark Information Group, and a Coal Mining Report from the Coal Authority, were obtained to facilitate the study.

2.3 This report is intended to cover a wide scope of geotechnical issues, along with a Stage 1 Risk Appraisal of potential contaminant source - pathway - receptor linkages.

2.4 The report does not include any intrusive assessment. A site walkover survey was conducted in May 2017.

2.5 The report has been prepared for the use and reliance of the Client only. The report shall not be relied upon or transferred to any other parties without the written agreement of ARP Geotechnical Ltd. For the avoidance of any doubt, where ARP Geotechnical Ltd enters into a letter of reliance for the benefit of a third party, that third party will be permitted to rely on the report. No responsibility will be accepted where this report is used, either in its entirety or in part, by any other party without ARP Geotechnical Ltd.'s consent.

3.0 SITE DESCRIPTION

Site Location

3.1 The site, which is centred on Ordnance Survey Grid Reference 425720, 421150 is located at the corner of Town Street and Ossett Lane, in Earlsheaton.

3.2 A site location plan and aerial photograph are presented in Appendix A.

On - Site Features

3.3 The site is an irregular L - shaped piece of land extending to an area of 0.25 hectares, with overall dimensions of approximately 65m (north - south) by 60m (east - west).

3.4 The site is currently occupied by commercial buildings surrounded by areas of hardstanding. The buildings are one to two storeys in height, and include both offices and workshops. Some of the roofs are corrugated and may be of asbestos construction.

3.5 Ground levels slope down to the south.

Site Boundaries and Surrounding Land Use

3.6 Residential properties abut the site to the west and south/southeast. Town Street bounds the site to the north, with residential properties beyond, and Ossett Lane bounds the site to the east/northeast, also with residential properties beyond.

Site History

3.7 Ordnance Survey archive maps were obtained for the site. Copies of the maps are included in Appendix B, and a summary of the findings is given below.

Map Date	On-Site	Off-Site
1852	Buildings present on the site.	Buildings adjacent to the north and northwest. "Tenters" (fabric drying frames) to the southeast.
1893	The north of the site is occupied by buildings. The south of the site crosses an area of 'tenters' used for the drying of fabric associated with mils or dye works (not indicated to be present on the site).	Residential properties to the north and west. Hoyle Head Woollen Mills and Providence Woollen Mills lie approximately 150m to the north of the site.
1907	The 'tenters' in the south of the site are no longer shown. The buildings occupying the site are now labelled 'Smithy'.	No significant change.
1922	No significant change.	An 'Old Quarry' is annotated approximately 75m to the southeast. However, the feature is indicated to be cut into a steep slope and has not been filled to the present day.
1955	Further buildings have been constructed on the site.	Hoyle Head Woollen Mills to the north is now a warehouse and garage. Residential properties bound the site to the southeast and to the north, beyond Town street and to the east, beyond Ossett Lane.
1976	Some of the buildings on site are no longer shown and new buildings have been constructed. The northern building is a garage, with an external tank noted, and the southern building is an 'Engineering Works' with a 'Travelling Crane'.	No significant change.
Later maps	No significant change.	Further development of residential properties to the south and southwest of the site.

3.8 In summary, buildings were present on the site since at least 1852. By 1976, the original buildings had been changed/replaced by those currently occupying the site, comprising a garage and an engineering works. A tank was noted to be present on the northwestern corner of the garage, although this was not evident at the time of the walkover survey.

4.0 ENVIRONMENTAL SETTING

Geology

4.1 Extracts from the British Geological Survey 1:50,000 Series Geology Maps are included within the Envirocheck Geology Report in Appendix C. The maps show the site to be underlain by Thornhill Rock (sandstone) of the Pennine Middle Coal Measures, with no drift cover.

4.2 There are no faults shown to affect the site.

Coal Mining

4.3 A Coal Mining Report was obtained from The Coal Authority. A copy of the report is included in Appendix D, and a summary is given below.

4.4 The site is in the likely zone of influence of workings in one seam of coal at 330m to 340m depth, and last worked in 1952. Any associated ground movement should by now have ceased.

4.5 The site is not affected by any present or future proposed underground coal mining. The Authority refers to reserves in the locality that could be worked at some time in the future. However, given the effective abandonment of the coalfields in this area, any future workings are considered highly unlikely.

4.6 There are no recorded mine entries on or within 20m of the site. However, there is a theoretical risk of unrecorded mine entries in the locality.

4.7 The site is unaffected by any past, present, or future proposed, opencast coal mining.

4.8 In view of the above, the site is considered stable with regard to coal mining. There is a theoretical risk of unrecorded mine entries in the locality, but the risk is slight and should be addressed by vigilance during excavations on the site, with any suspect features inspected by an Engineer.

Coal Recovery

4.9 There are no seams beneath the site at depths which could be worked by open excavation. There will be no significant arisings of coal during proposed development works, and it will not be possible to win any coal from the site before development.

Hydrogeology

4.10 The Landmark Envirocheck Report, included in Appendix E, indicates the Bedrock Aquifer Designation to be "Secondary A". These Aquifers comprise "permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers ".

4.11 There are two groundwater abstractions within 1km of the site. These lie 709m and 793m to the west. However, both abstractions are utilised in textile and leather manufacture and are therefore not of a sensitive nature, additionally neither are downgradient of the site.

4.12 The site is not within a groundwater Source Protection Zone.

Hydrology

4.13 The general area slopes down to the south. The nearest downslope surface water is Chickenley Beck, approximately 300m to the south.

4.14 The site is not in an area at risk from river flooding. The risks of flooding from other causes such as adverse topography or insufficient surface water drainage, are not considered here, and a separate specialist Flood Risk and Drainage Report should be commissioned if such risk needs to be quantified.

4.15 There are two surface water abstractions within 1km of the site. These lie 906m to the northeast and 993m to the west, these are utilised for mineral production and general industrial purposes respectively and are hence not of a sensitive nature. Additionally neither abstractions are down hydraulic gradient of the site.

Other Environmental Data

4.16 The Landmark Envirocheck Report, included in Appendix E, contains information on numerous environmental aspects. A summary of the pertinent findings, not already covered, with additional comments, is given below.

4.16.1 There are no active Pollution Control Authorisations within 250m of the site.

4.16.2 There are no discharge consents relating to, or adjacent to, the site.

4.16.3 There are no closed or currently licenced landfills within 250m of the site.

4.16.4 The site is in an intermediate probability radon area, as between 3% and 5% of homes are above the action level. Basic radon protection is required; this is normally achieved by incorporating a radon barrier within the floor system, and extending through the cavity wall.

4.16.5 There are no contemporary trade directory entries relating to any activities which could have significant impact on the site.

4.16.6 Although the northern building on the site is shown on archive maps to have once been a garage, there are no fuel station entries recorded within 500m of the site. Therefore, it is concluded that the use of the building was for servicing/repair of vehicles rather than as a filling station.

5.0 PRELIMINARY RISK ASSESSMENT AND CONCEPTUAL MODEL

5.1 Part II A of the Environmental Protection Act (EPA) 1990 became effective from 1st April 2000. The Regime was introduced by the Contaminated Land (England) Regulations 2000 (SI 2000, No. 227) along with the associated DEFRA Circular February 2000.

5.2 Section 78A (2) of the Act defines "Contaminated land is any land ……. in such a condition, by reason of substances in, on or under that land that -

(a) significant harm is being caused or there is a significant possibility of such harm being caused; or

(b) pollution of controlled waters is being caused, or there is a significant possibility of such pollution being caused".

From S78A (4) "Harm" : means harm to the health of living organisms or other interference with the ecological systems of which they form part and, in the case of man, includes harm to his property.

Controlled waters are defined as "..the waters in any relevant lake or pond, or of so much of any relevant river or watercourse as is above the freshwater limit, and ground waters, that is to say, any waters contained in underground strata". From the 1st October 2004, the definition of groundwater in relation to Part IIA was amended, by the Second Water Act Commencement Order SI 2004 No 2528. This makes clear that "ground waters" does not include waters above the saturation zone, i.e. does not include any soil water and pore water present in the unsaturated zone.

5.3 The objectives of the regime are to ensure that risks associated with contaminated land are reduced to an acceptable level, having regard to the costs of doing so. The costs should be proportionate, manageable and economically sustainable.

5.4 In assessing risk, it is necessary to consider the probability, or frequency, of occurrence of the hazard and the magnitude/seriousness of the consequences. Consequently, for land to be classified as contaminated, it must have, or be very likely to have, a detrimental effect on humans or the environment before it can be classified as contaminated land.

5.5 In establishing risk, the concept of the pollutant source/pathway/receptor linkage model, based on current and proposed site use, is to be considered. Therefore for a site to be deemed contaminated under the Regime, all three linkages must be in place i.e. the site must not only contain harmful substances, but the substances must have a pathway by which to leak out and cause significant harm to a receptor.

5.6 In September 2004, the Environment Agency published the Contaminated Land Report (CLR) 11, "Model Procedures for the Management of Land Contamination". The document is intended to provide the technical framework for structured decision making about land contamination, and is intended to assist all those involved in "managing" the land, in particular landowners, developers, financial service providers, planners and regulators. As the document currently provides the framework for best practice, the general principles are, therefore, followed in conducting the assessment below.

5.7 The following categorisations of risk have been adopted in this report, as adapted from CIRIA Report C552 "Contaminated Land Risk Assessment: A Guide to Good Practice, 2001). This approach assesses the potential severity of any pollution event and the probability of the event occurring, to arrive at a risk category, for the various potential source - pathway - receptor linkages. The relevant tables used, with the definitions, are presented below:

Severity of Consequence

Severe	Short term (acute) risks to human health, likely to result in significant harm. Major pollution of (watercourses or groundwater).
Medium	Long-term (Chronic) damage (significant harm) to human health. Pollution of sensitive water resources.
Mild	Pollution of non-sensitive water resources.
Minor	Non-permanent health effects easily prevented by use of personal protective equipment during site works.

Probability of Risk Event Occurring

High Likelihood	There is a pollutant linkage and an event that either appears very likely in the short term, almost inevitable in the long term, or there is evidence of harm or pollution at the receptor.
Likely	There is a pollution linkage and all the elements are present and in the right place, so that a risk event is possible in the short term and likely over the long term.
Low Likelihood	There is a pollution linkage and circumstances are possible under which a risk event could occur. However, it is not certain that such an event would take place even over a longer period, and even less likely in the short term.
unlikely	There is a pollution linkage, but circumstances are such that it is improbable that an event would occur even in the very long term.

Comparison of Probability Against Severity of Consequence

		Severity of Consequence			
		Severe	**Medium**	**Mild**	**Minor**
Probability	**High Likelihood**	**Very High Risk**	**High Risk**	**Moderate Risk**	**Moderate/ Low Risk**
	Likely	**High Risk**	**Moderate Risk**	**Moderate/ Low Risk**	**Low Risk**
	Low Likelihood	**Moderate Risk**	**Moderate/ Low Risk**	**Low Risk**	**Very Low Risk**
	Unlikely	**Moderate/ Low Risk**	**Low Risk**	**Very Low Risk**	**Very Low Risk**

Risk Categories - Definitions

Very High Risk	High probability that severe harm could arise to a receptor, or there is evidence that severe harm is already occurring. Urgent investigation is required and urgent remediation is likely to be required.
High Risk	Harm is likely to arise to a receptor. Urgent investigation is required and remediation may be necessary in the short term and likely over the longer term.
Moderate Risk	Possible that harm could arise to a receptor, but low likelihood that such harm would be severe. Harm is likely to be mild. Investigation normally required to clarify risk. Some remedial works may be required in the long-term.
Moderate/ Low Risk	Possible that harm could arise to a receptor, but where a combination of likelihood and consequence results in a risk that is above low, but is not of sufficient concern to be classified as mild. Limited further investigation may be required to clarify the risk. If necessary, remediation works are likely to be limited in extent.
Low Risk	Possible that harm could arise to a receptor. Such harm, at worst, would normally be mild.
Very Low Risk	Low possibility that harm could arise to a receptor. Such harm is unlikely to be any worse than mild.

Conceptual Site Model

5.8 It is known that the site is proposed for residential dwellings. An indicative proposed site layout is included in Appendix F. The site is shown to be underlain by sandstone of the Thornhill Rock Formation. The solid strata beneath the site are designated a Secondary A Aquifer. There are no sensitive groundwater abstractions within 1km of the site. The nearest downslope surface water is Chickenley Beck, approximately 300m to the south. There are no sensitive surface water abstractions within 1km of the site.

5.9 The site has been occupied by commercial buildings with uses including a garage (with an external above-ground tank indicated) and an engineering works. The most likely contamination sources are considered to be:

5.9.1 Possible made ground: - metals inorganics, total petroleum hydrocarbons (TPH), polyaromatic hydrocarbons (PAH), phenol, asbestos.

5.9.2 Possible asbestos within existing buildings.

5.9.3 Possible hydrocarbons from the garage located on site (including known above ground tank, now removed) and the parking of vehicles and use of machinery: - TPH, PAH.

5.10 The conceptual model needs to consider sources of contamination, pathways along which contaminants could migrate and the receptors, which may become exposed. Guidance published by the Environment Agency has been consulted with regard to pathways and receptors. The potential sources, pathways, and receptors, applicable to the proposed development are identified on the table below. Any pathways in italics are deemed not to be viable, and the reason given.

Potential Source - Pathway - Receptor Matrix (Finished Development)

Contamination Sources	Pathways	Receptors	Severity of Consequence	Probability of Event	Risk
Possible made ground: - metals, inorganics, TPH, PAH, phenol Possible hydrocarbons from garage	• Inhalation, ingestion and dermal contact with soil and dust • Fruit and vegetable intake, with soil • Vapour inhalation outdoor • Vapour inhalation indoor	**Humans:-** • Future occupants • Maintenance workers • Adjacent residents and general public	**Medium**	**Likely**	**Moderate**
	• Migration in surface water	• Surface water (nearest is 300m to south. No sensitive abstractions within 1km)	**Mild**	**Low**	**Low**
	• Migration in groundwater	• Groundwater (Secondary A Aquifer, no sensitive abstractions within 1km)	**Mild**	**Low**	**Low**
	• Root uptake	**Vegetation:-** • Landscape areas • Private gardens	**Medium**	**Low**	**Moderate/ Low**
	• Migration	**Services/Utilities:-** • Potable water supply	**Medium**	**Low**	**Moderate/ Low**
Possible asbestos within existing buildings and soils	• Inhalation	• Future occupants • Maintenance workers • Adjacent residents and general public	**Severe**	**Low**	**Moderate**

5.11 The above matrix indicates there are potential source - pathway - receptor linkages applicable to the proposed development, ranging from low to moderate risk.

Further Investigation

5.12 The existence of the possible contamination sources is not yet known, and it is recommended that, preferably once demolition of any buildings on the site is completed, a ground investigation on a grid system is implemented, together with sampling and testing of the materials encountered for the potential contaminants of concern to assess this possibility. The investigation should be implemented in accordance with BS10175: 2011 + A1: 2013 "Investigation of potentially contaminated sites - Code of practice", and any targeted sampling should also be implemented. This will enable refinement of the conceptual model and a full assessment of the risks to be made, enabling any remedial strategy to be determined.

5.13 Samples of any made ground and topsoil should be issued for testing to a UKAS accredited laboratory for a broad suite of determinands including metals, inorganics, asbestos, phenols, speciated PAH, and TPH. Speciated assessment of TPH will be required for any elevated levels.

5.14 Leachability testing should be undertaken where contamination levels are above the designated screening values.

5.15 An asbestos survey should be carried out on the existing buildings.

6.0 COMMENTS AND CONCLUSIONS

Site Description

6.1 The site is currently occupied by commercial buildings surrounded by areas of hardstanding. The buildings are one to two storeys in height, and include both offices and workshops. Some of the roofs are corrugated and may be of asbestos construction. Ground levels slope down to the south.

6.2 Residential properties abut the site to the west and south/southeast. Town Street bounds the site to the north, with residential properties beyond, and Ossett Lane bounds the site to the east/northeast, also with residential properties beyond.

Site History

6.3 Ordnance Survey archive maps show that buildings were present on the site since at least 1852. By 1976, the original buildings had been changed/replaced by those currently occupying the site, comprising a garage and an engineering works. A tank was noted to be present on the northwestern corner of the garage, although this was not evident at the time of the walkover survey.

Geology

6.4 The geological map shows the site to be underlain by Thornhill Rock (sandstone) of the Pennine Middle Coal Measures, with no drift cover. There are no faults shown to affect the site.

Coal Mining and Coal Recovery

6.5 The Coal Mining Report indicates the site is stable with regard to coal mining. There is a theoretical risk of unrecorded mine entries in the locality, but the risk is slight and should be

addressed by vigilance during excavations on the site, with any suspect features inspected by an Engineer.

6.6 There will be no significant arisings of coal during proposed development works, and it will not be possible to win any coal from the site before development.

Environmental Data

6.7 The strata beneath the site are classed as a Secondary A Aquifer. There are no sensitive groundwater abstractions within 1km of the site.

6.8 The nearest downslope surface water is Chickenley Beck, approximately 300m to the south. There are no sensitive surface water abstractions within 1km of the site.

6.9 Basic radon protection is required for the site. This is usually achieved by incorporating an appropriate barrier within a solid floor system, passing through the cavity wall.

6.10 There are no landfills within 250m of the site. Therefore, there should be no requirement for landfill gas protection within the proposed properties.

6.11 The site is not at risk from river flooding. The risks of flooding from other causes such as adverse topography or insufficient surface water drainage, are not considered here, and a separate specialist Flood Risk and Drainage Report should be commissioned if such risk needs to be quantified.

Likely Ground Conditions and Behaviour of Excavations

6.12 The subsoils beneath the site are likely to be granular, derived from in situ weathering of the underlying solid sandstone. Made ground may cover the natural soils, and buried foundations, structures (possibly including basements) and services are likely to be present from the current and former buildings.

6.13 It is likely that excavations into the natural strata will remain stable in the short term, requiring minimal trench support, in accordance with the prevailing statutory guidance. However, instability may be anticipated within any made ground present on the site.

6.14 The groundwater regime can only be confirmed by an intrusive investigation. However, it is considered unlikely that shallow groundwater is present, from the information available within the desk study appraisal.

6.15 Excavations into the natural subsoils will probably be readily achieved using conventional hydraulic plant. However, a breaker may be required for any buried foundations, structures or obstructions in the made ground, together with any rock which may be at shallow depth.

Contamination Assessment

6.16 The desk study has identified the following potential contamination sources:

6.16.1 Possible made ground: - metals inorganics, total petroleum hydrocarbons (TPH), polyaromatic hydrocarbons (PAH), phenol, asbestos.

6.16.2 Possible asbestos within existing buildings.

6.16.3 Possible hydrocarbons from the garage located on site (including known above ground tank, now removed) and the parking of vehicles and use of machinery: - TPH, PAH.

6.17 There is a possibility of source - pathway - receptor linkages if the site is redeveloped with the proposed residential dwellings, although the existence of the contamination sources is not known. It is, therefore, recommended that a ground investigation is implemented, involving sampling on a grid system, along with any targeted sampling and testing, preferably after demolition of any buildings. This will enable a refinement of the conceptual model, a full assessment of risks to be undertaken, and allow any Remediation Strategy to be determined.

6.18 An asbestos survey should be carried out on the existing buildings, unless one is already available.

Foundations

6.19 It is anticipated that traditional strip or trench fill foundations will be acceptable for the site, subject to the thickness of existing fill material and proposed loading. This will need to be confirmed by an intrusive investigation.

6.20 The foundations will need to be taken below any existing made ground, including cellars and foundations, to bear onto the natural strata. There will also be a legacy of buried services.

Road Pavement Construction

6.21 For any areas of road pavement, including car parking areas, the design California Bearing Ratio (CBR) will depend upon the exact nature of the formation. On natural subsoils, it is anticipated a design CBR of at least 2% will be applicable.

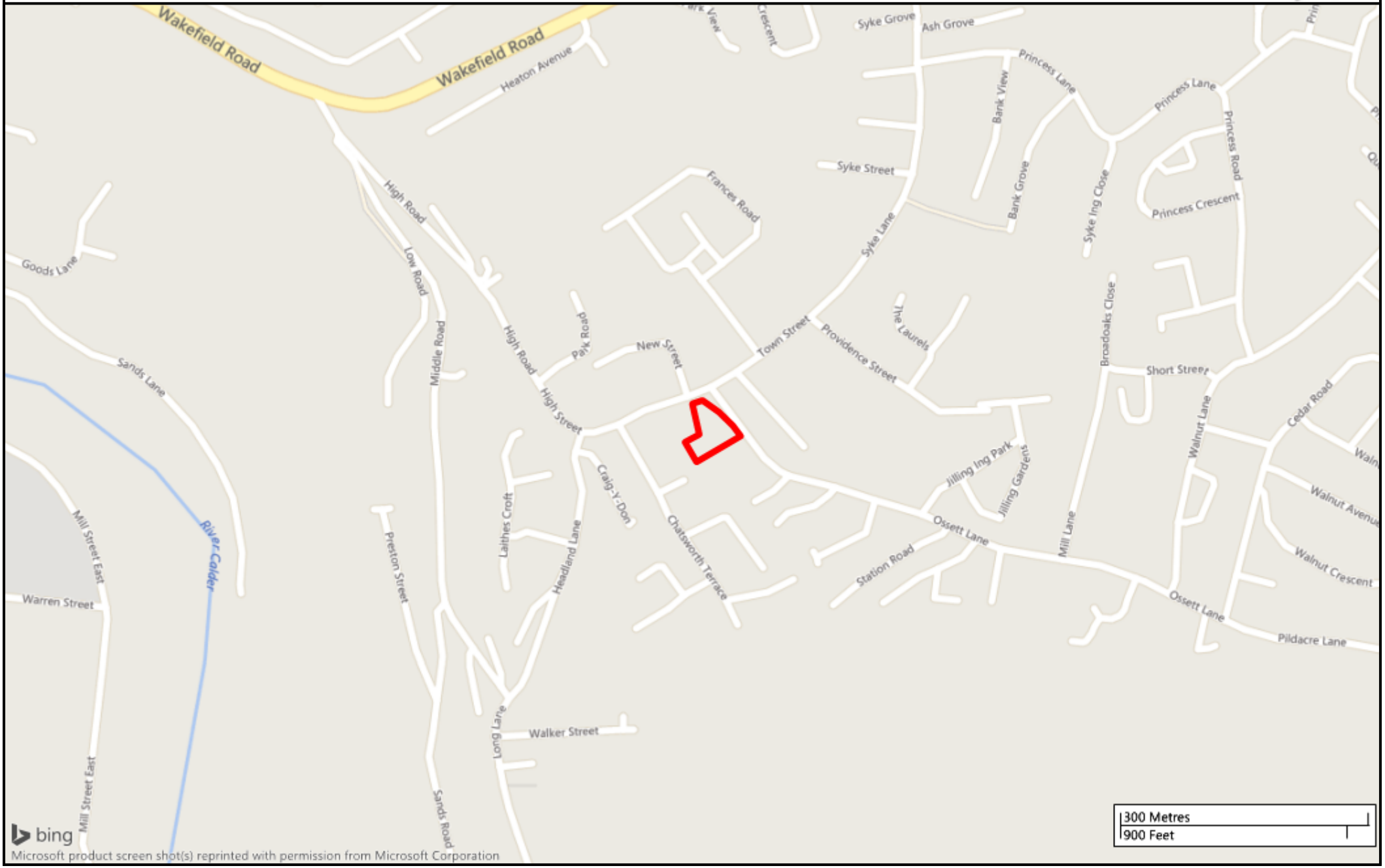
Soakaways

6.22 Infiltration rates of the likely strata may be sufficient to allow disposal of surface water using soakaways. However, this will be subject to confirmation by percolation testing, and any soakaway drainage solution for the site will depend on many factors, including groundwater levels, potential adverse off site impacts, impermeable areas and the proposed layout. A drainage feasibility design would need to be carried out to determine the appropriate solution.

A P P E N D I X A

SITE LOCATION PLAN AND AERIAL PHOTOGRAPH

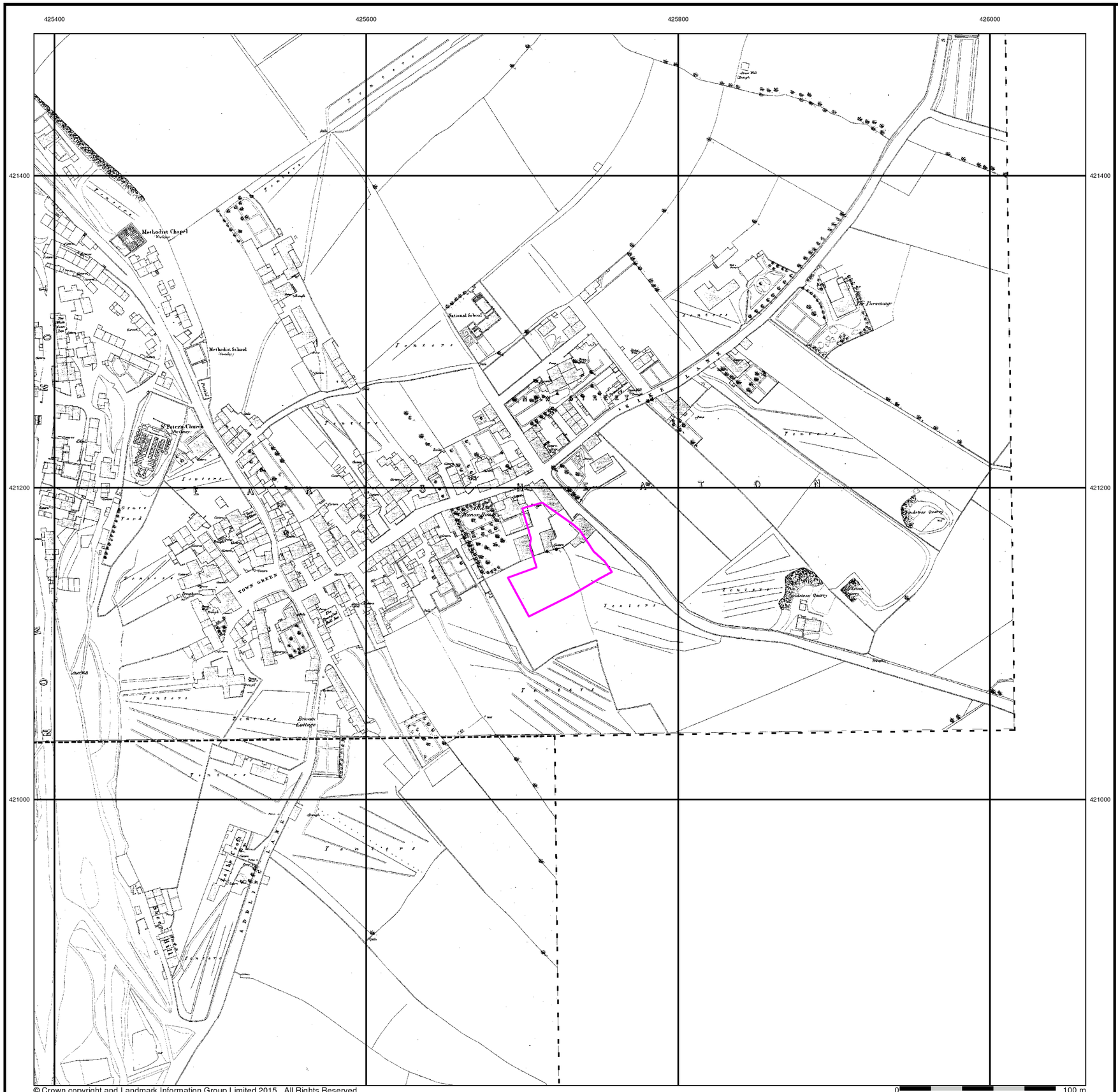
Project Id:	VFM/01	Title:	Site Location Plan
Project Title:	Town Street	Scale:	1:6000
Location:	Earlsheaton, Dewsbury	Engineer:	
Client:	VFM Products Ltd	Contractor:	



Project Id:	VFM/01	Title:	Aerial Photograph
Project Title:	Town Street	Scale:	1:1000
Location:	Earlsheaton, Dewsbury	Engineer:	
Client:	VFM Products Ltd	Contractor:	

A P P E N D I X B

ORDNANCE SURVEY ARCHIVE MAPS



ARP GEOTECHNICAL LIMITED
CHARTERED CONSULTING ENGINEERS

Yorkshire

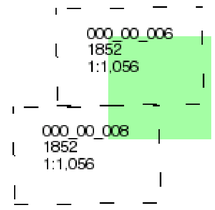
Published 1852

Source map scale - 1:1,056

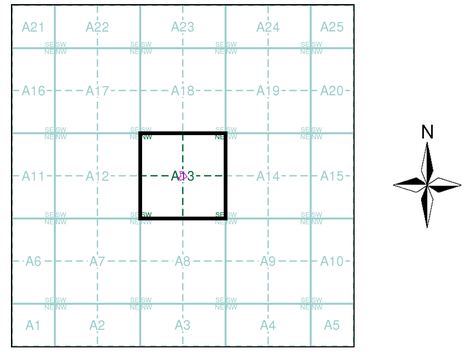
The 1:1056 scale of Ordnance Survey mapping was adopted from Ireland in 1848 and was used to survey towns with a population of over 4000, plus county towns of lesser population, in those counties mapped at the six-inch scale in 1841-55. The scale was the largest scale at which London was mapped by the Ordnance Survey and a 'skeleton' survey of the capital, showing little more than streets, street names, frontages and altitudes, was undertaken between 1848 and 1850. The majority of the 1:1056 surveys were later replaced by 1:500 surveys; although almost all the remainder were revised at this scale, sometimes more than once before 1895. The type of detail shown on the 1:1056 scale is broadly similar to that on 1:500; the apparent omission of minor details such as sewer access points and street lights may be as much a reflection of the generally earlier date of these plans, as of the specification of the map.

Please note: Due to the partial coverage of Historical Town Plans, it is possible that not all segments within an order will contain mapping. Only the segments that have Town Plan coverage will be generated.

Map Name(s) and Date(s)



Historical Town Plan - Segment A13



Order Details

Order Number:	120644558_1_1
Customer Ref:	VFM/01
National Grid Reference:	425720, 421150
Slice:	A
Site Area (Ha):	0.25
Search Buffer (m):	0

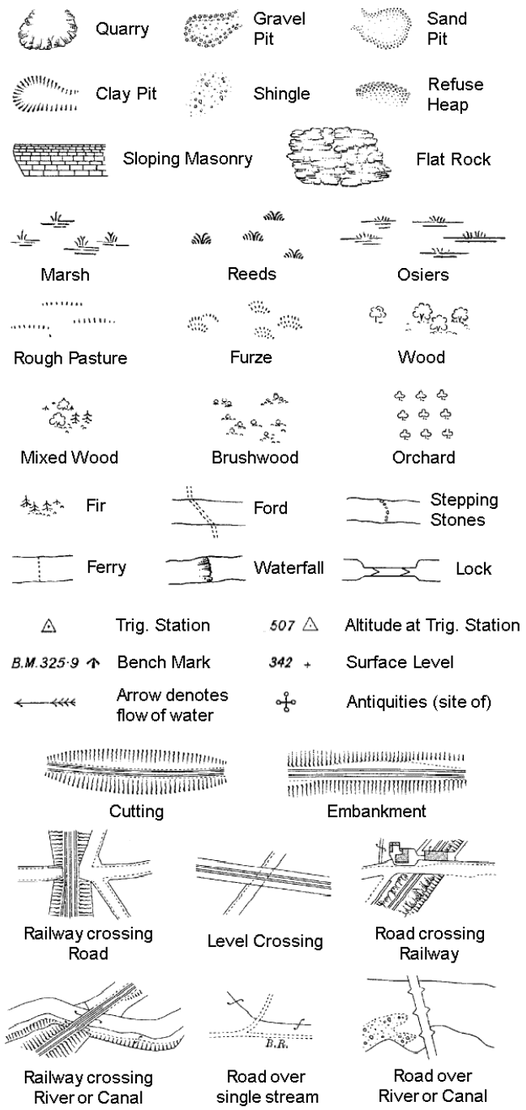
Site Details

Town Street Garage, Town Street Garage, Town Street, Earlsheaton, DEWSBURY, WF12 8JL

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

Historical Mapping Legends

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



County Boundary (Geographical)

County & Civil Parish Boundary

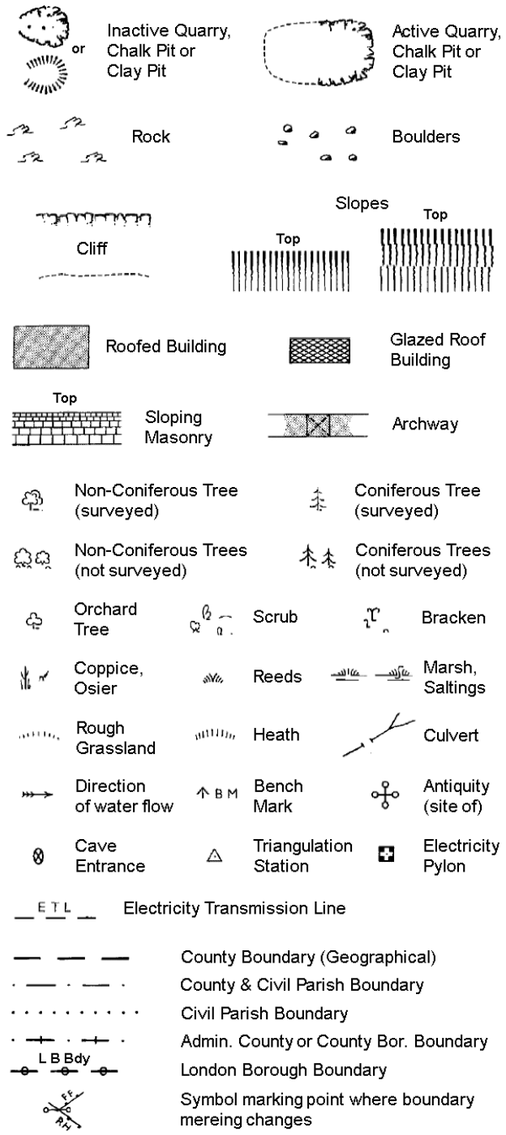
Administrative County & Civil Parish Boundary

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

Co. Burgh Bdy. County Burgh Boundary (Scotland)

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

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



County Boundary (Geographical)

County & Civil Parish Boundary

Civil Parish Boundary

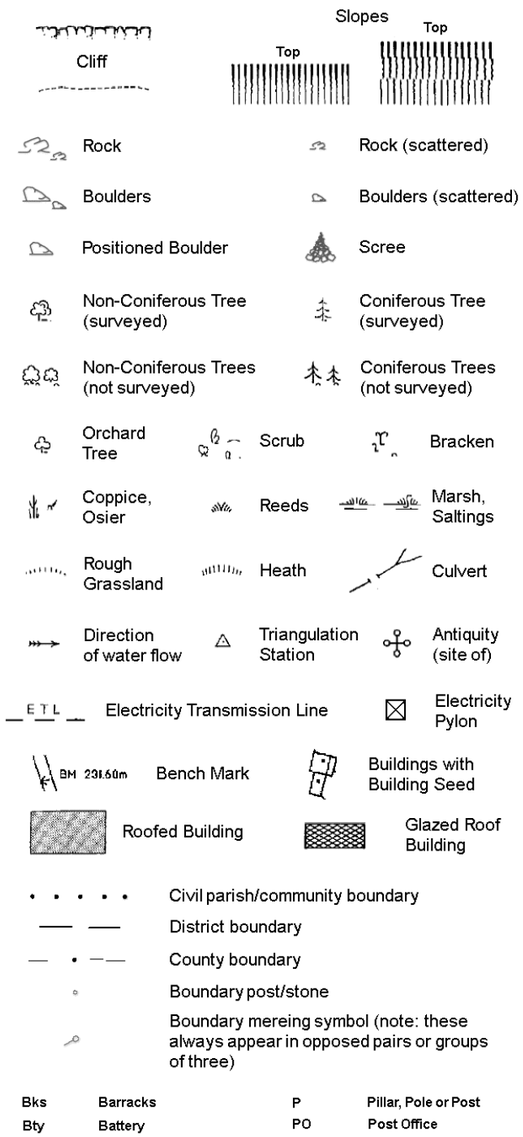
Admin. County or County Bor. Boundary

L B Bdy London Borough Boundary

Symbol marking point where boundary mereing changes

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

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



Civil parish/community boundary

District boundary

County boundary

Boundary post/stone

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

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

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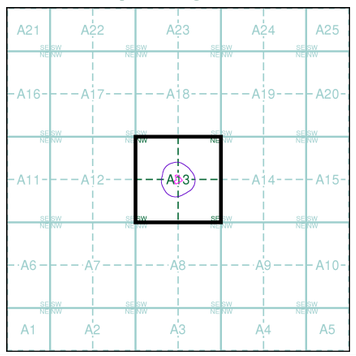
Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:2,500	1893	2
Yorkshire	1:2,500	1907	3
Yorkshire	1:2,500	1922	4
Yorkshire	1:2,500	1938	5
Ordnance Survey Plan	1:1,250	1954 - 1955	6
Ordnance Survey Plan	1:2,500	1955	7
Ordnance Survey Plan	1:1,250	1960 - 1976	8
Ordnance Survey Plan	1:2,500	1967	9
Ordnance Survey Plan	1:1,250	1976	10
Additional SIMs	1:1,250	1981 - 1992	11
Additional SIMs	1:1,250	1990	12
Large-Scale National Grid Data	1:1,250	1992	13
Large-Scale National Grid Data	1:1,250	1994	14
Large-Scale National Grid Data	1:1,250	1995	15
Large-Scale National Grid Data	1:1,250	1996	16

Historical Map - Segment A13

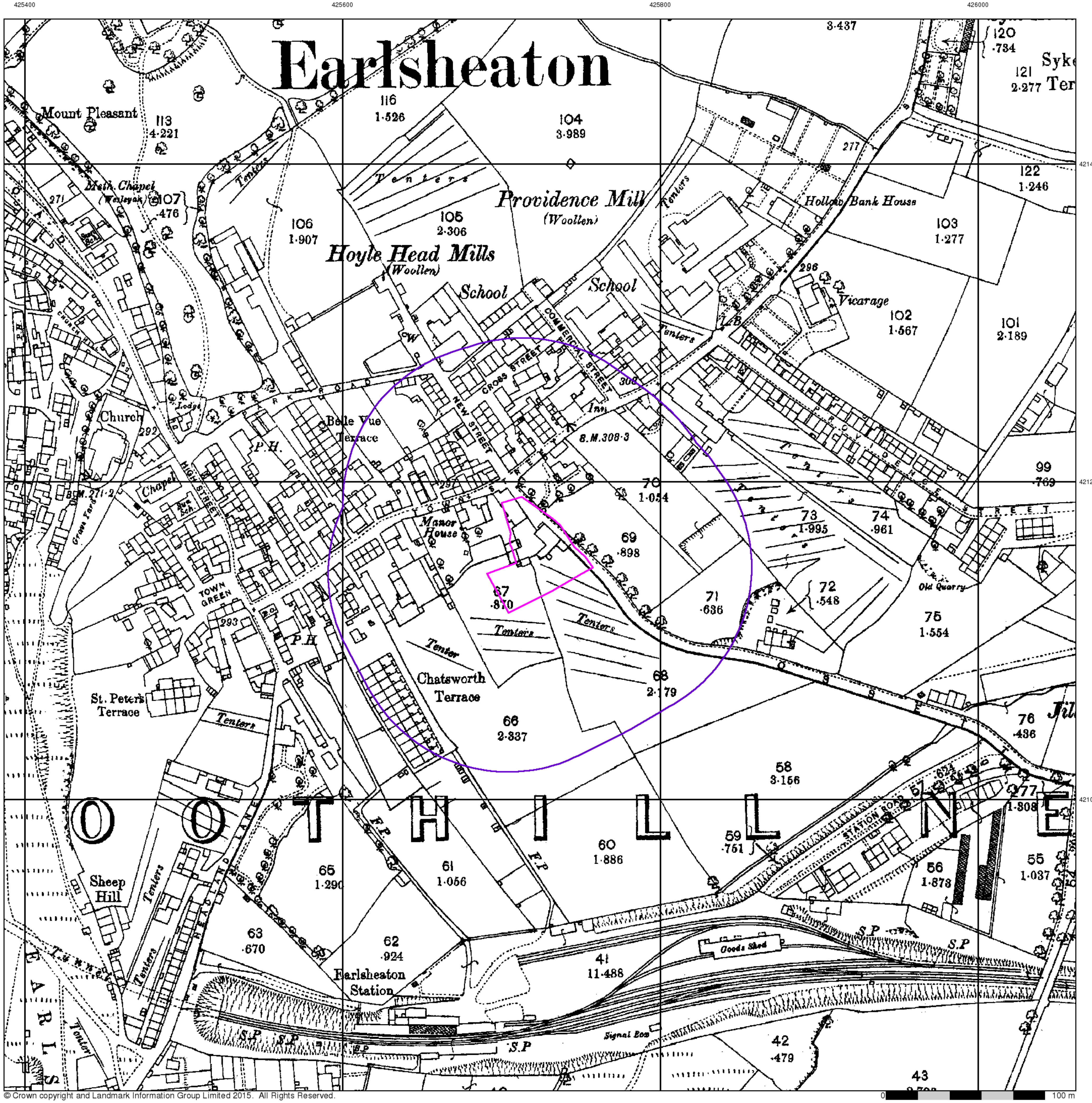


Order Details

Order Number:	120644558_1_1
Customer Ref:	VFM/01
National Grid Reference:	425720, 421150
Slice:	A
Site Area (Ha):	0.25
Search Buffer (m):	100

Site Details

Town Street Garage, Town Street Garage, Town Street, Earlsheaton, DEWSBURY, WF12 8JL



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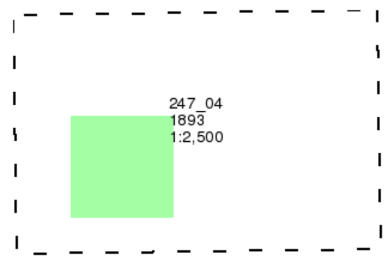
Yorkshire

Published 1893

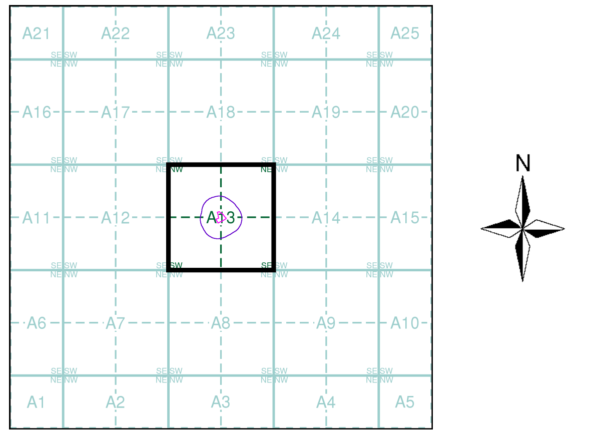
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



Order Details

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Site Details

Town Street Garage, Town Street Garage, Town Street, Earlsheaton, DEWSBURY, WF12 8JL

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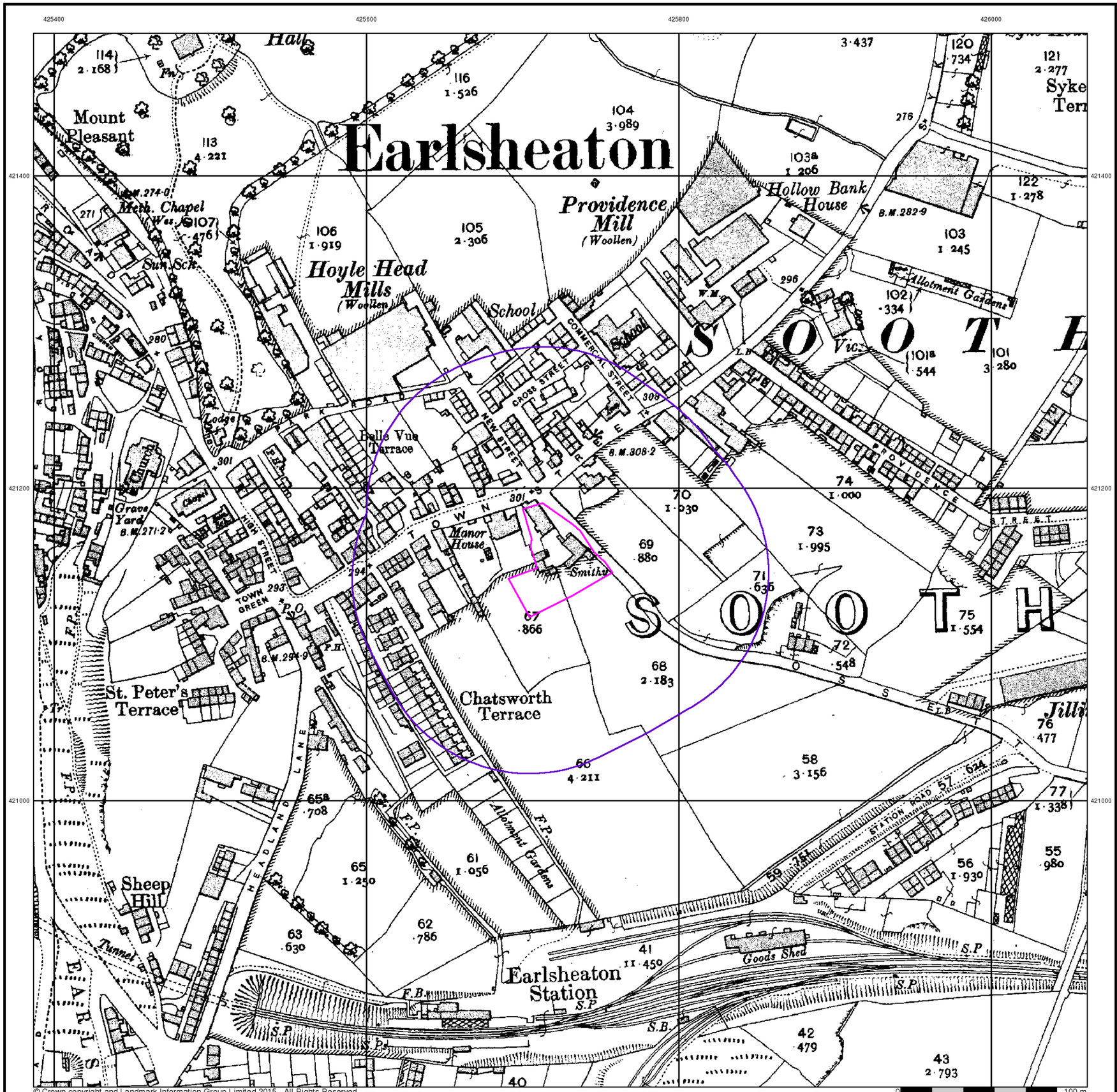

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Yorkshire

Published 1907

Source map scale - 1:2,500

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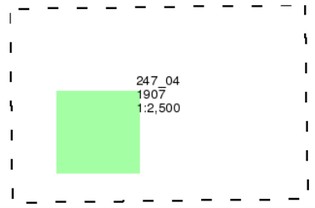
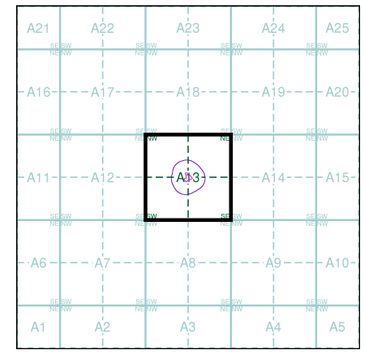


Historical Map - Segment A13



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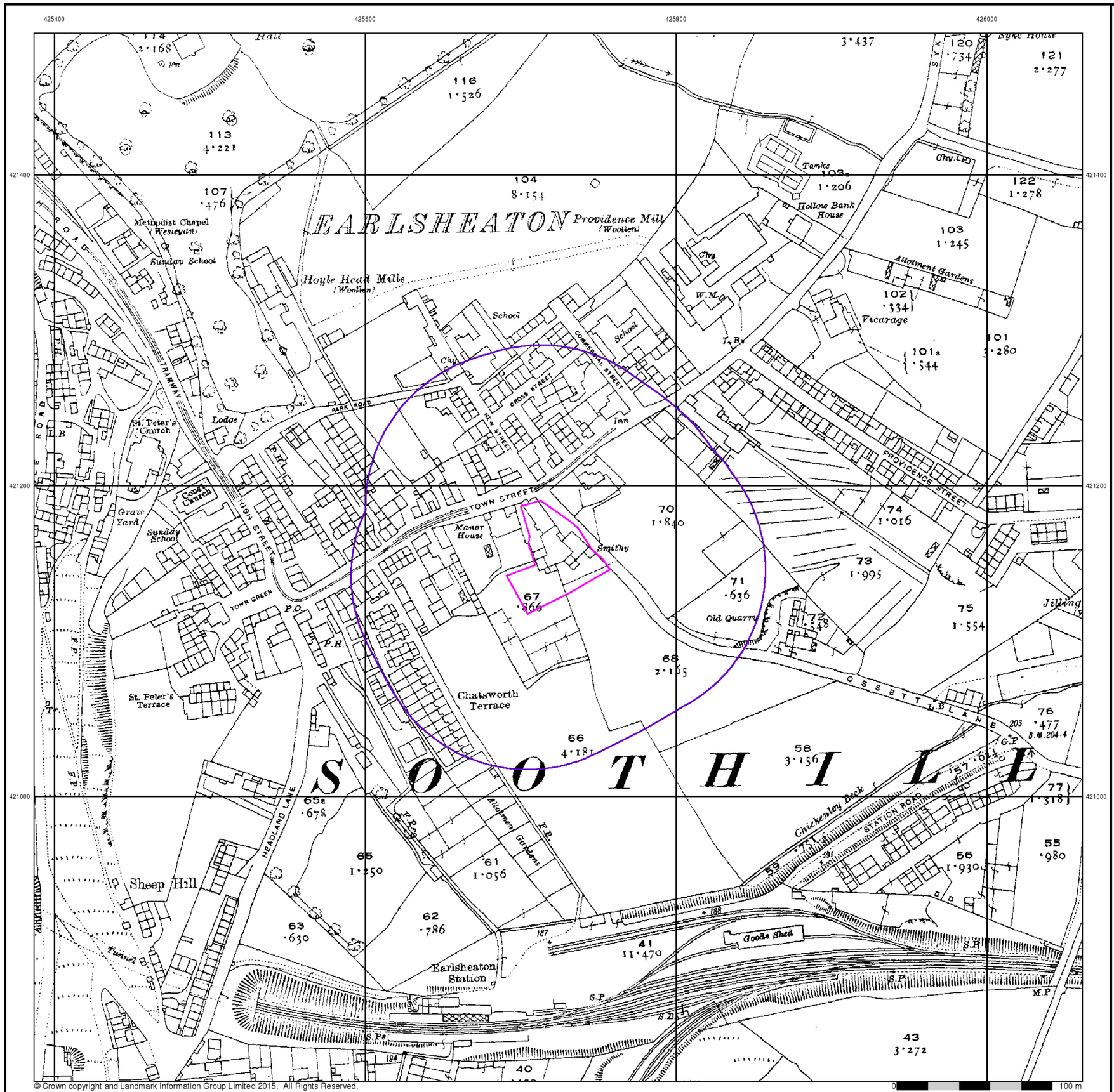

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Yorkshire

Published 1922

Source map scale - 1:2,500

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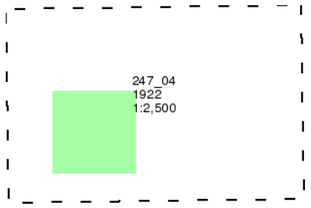
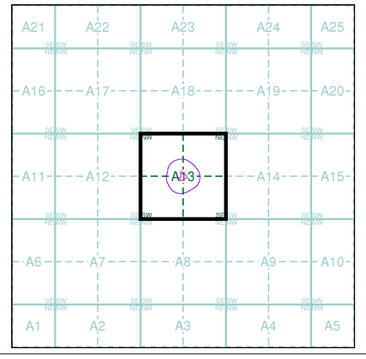
Map Name(s) and Date(s)



Historical Map - Segment A13



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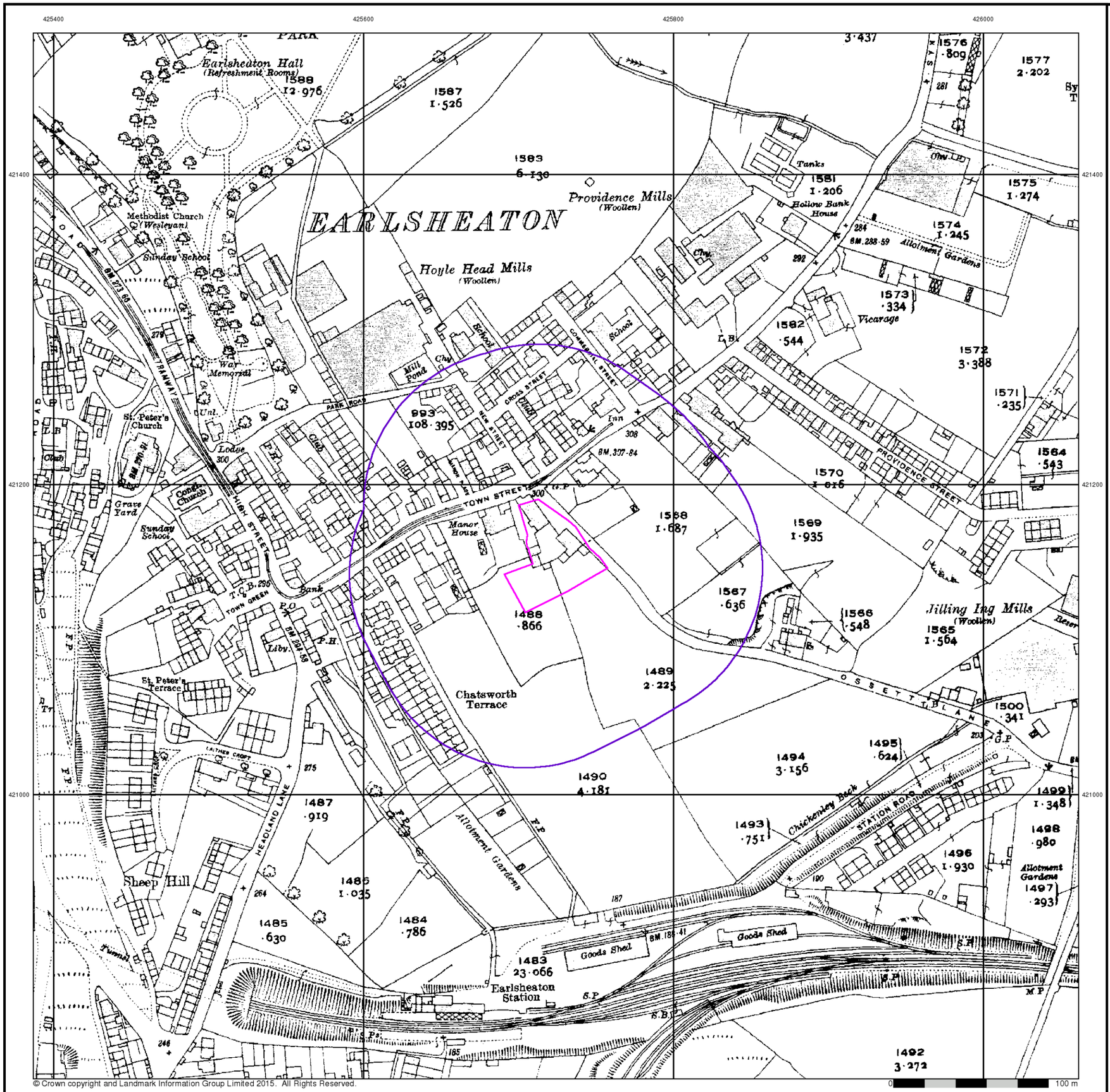

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Yorkshire

Published 1938

Source map scale - 1:2,500

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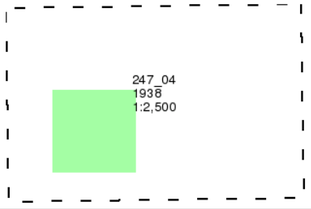
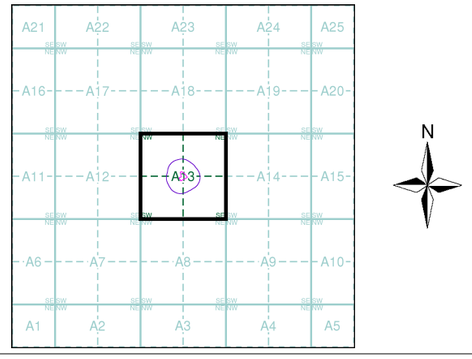


Historical Map - Segment A13



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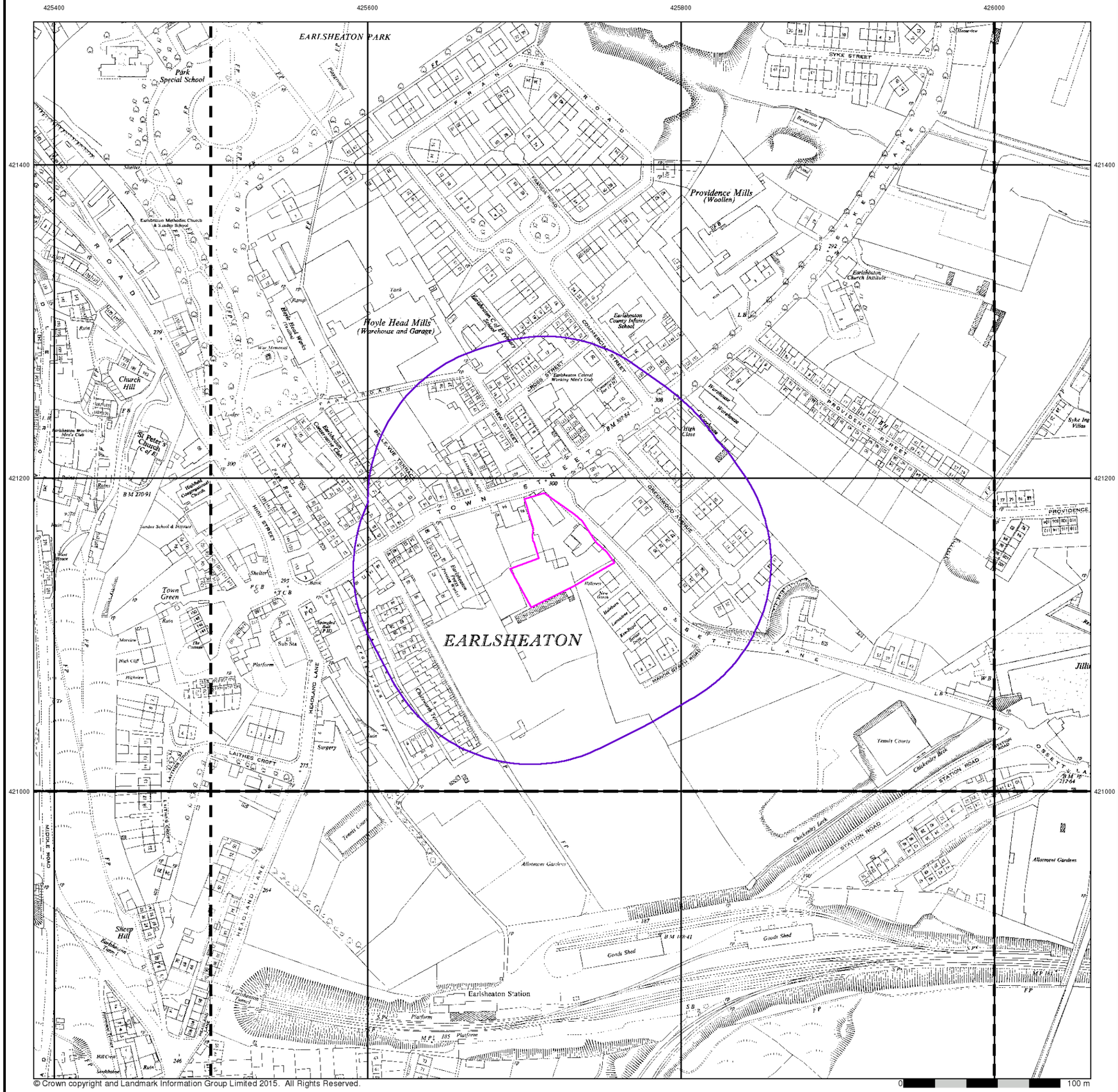

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Ordnance Survey Plan

Published 1954 - 1955

Source map scale - 1:1,250

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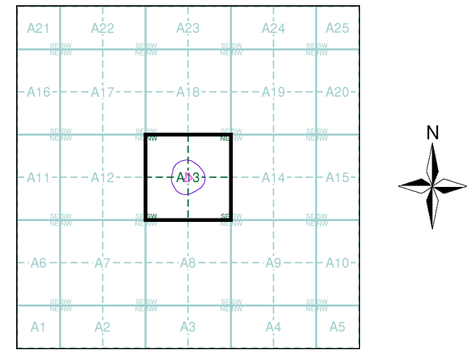
Map Name(s) and Date(s)

SE2521SW 1955 1:1,250	**SE2521SE 1955 1:1,250**	SE2621SW 1954 1:1,250
SE2520NW 1954 1:1,250	SE2520NE 1954 1:1,250	SE2620NW 1954 1:1,250

Historical Map - Segment A13



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