Your Ref:

Our Ref: NLM/DRS/120700197.20070986

10 August 2007

JPA
JOYNES PIKE
& ASSOCIATES LTD

CONSULTING ENGINEERS

1-2 Aire House
Richmond Business Park
Sidings Court
Doncaster DN4 5NL
Tel: +44(0)1302 322295
Fax: +44(0)1302 322296
info@joynespike.co.uk
www.joynespike.co.uk

GEO-ENVIRONMENTAL INVESTIGATION REPORT
For
THE HABIB BANK
On a Site at
FORMER WILLIAM FREEMANS FACTORY, WAKEFIELD ROAD, MAPPLEWELL, BARNSLEY

JPA
JOYNES PIKE
& ASSOCIATES LTD

THE HABIB BANK

FORMER WILLIAM FREEMANS FACTORY, WAKEFIELD ROAD, MAPPLEWELL, BARNSLEY

JOB NUMBER: 12070197		DOCUMENT REF: NLM/DRS/12070197.20070986		
Status	**Originated**	**Reviewed**	**Authorised**	**Date**
		pp		
	N L McCARTHY **BSc (Hons) FGS** **Graduate Geo-Environmental Engineer**	**D R SYKES** **BSc (Hons) MSc FGS** Senior Geo-Environmental Engineer	**S L ROBERTS** BEng(Hons) MSc Principal Geo-Environmental Engineer	**09 August 2007**

CONTENTS

A. FACTUAL INFORMATION 1

1.0 INTRODUCTION 1

2.0 THE SITE 3

2.1 Location & Access
2.2 Site Description

3.0 DESK STUDY 3

3.1 Sources of Information
3.2 Site History
3.3 Geology, Hydrogeology and Hydrology
3.4 Mineral Extraction
3.5 Environmental Considerations
3.6 Radon 6
3.7 Asbestos

4.0 PRELIMINARY CONCEPTUAL SITE MODEL 7

4.1 Potential Sources of Contamination
4.2 Receptors of Contamination and Migration Pathways
4.3 Source-Pathway-Receptors Relationships

5.0 INVESTIGATION METHODOLOGY 10

5.1 Objectives
5.2 Site Works
5.3 Chemical Laboratory Testing
5.4 Geotechnical Laboratory Testing
5.5 Gas / Groundwater Monitoring

6.0 RESULTS OF THE INVESTIGATION 12

6.1 Strata Encountered
6.2 Groundwater Observations
6.3 Chemical Testing - Soils
6.4 Geotechnical Testing

B. ASSESSMENT & RECOMMENDATIONS 16

7.0 INTRODUCTION 16

8.0 MINING ASSESSMENT 17

8.1 Evidence of Shallow Mining
8.2 Stability Assessment Criteria

9.0 ENVIRONMENTAL ASSESSMENT 18

9.1 Soil Contamination Summary
9.2 Risk Assessments
9.3 Recommended Remedial Strategy
9.4 Health & Safety
9.5 Waste Disposal
9.6 Service Pipes
9.7 Liaison with Regulators

10.0 GEOTECHNICAL ASSESSMENT 22

10.1 Foundation Design
10.2 Floor Slab Design
10.3 Building Near Trees
10.4 Construction
10.5 Soakaways/Drainage
10.6 Pavement Design

11.0 FURTHER WORKS 24

DRAWINGS

12070197-501	Site Location Plan
12070197-502	Borehole and Trial Pit Location Plan
12070197-503	Site Features Plan
12070197-504	Initial Conceptual Site Model
12070197-505	Post Remediated Conceptual Site Model

APPENDICES

APPENDIX A	Historical Ordnance Survey Maps
APPENDIX B	Envirocheck Report
APPENDIX C	Exploratory Hole Logs
APPENDIX D	Soil Chemical Test Results
APPENDIX E	Soil Geotechnical Test Results
APPENDIX F	SYMAS Report

EXECUTIVE SUMMARY

Land at former William Freemans Factory, Wakefield Road, Mapplewell, Barnsley

Location and Description:	The site is irregular in shape, approximately 4.44 hectares in area and is centred on National Grid Reference 434020, 409930. For the ease of reporting the site can be divided into three distinct areas, hardstanding areas including the factory shall be Area A, the wasteland to the east of the factory will be Area B and the strip of overgrown land to the north will be Area C. These areas are highlighted on Drawing 12070197-503. In general the ground level falls to the south east with significant changes in level off Wakefield Road and at the boundaries between Areas C and A. Semi mature to mature trees and hedges are also present around the periphery of the site, as shown on drawing 12070197-503.
History:	The site and immediate surrounding area is shown as open fields on the earliest map available dated 1854 to 1962. The 1962 map shows the Factory, and associated hardstanding, as it remains to present.
Geology & Hydrogeology:	Solid – Mudstones with interbedded Sandstones of the Middle Coal Measures. Glacial Till is shown to overlie the southern most section of the site. The Steam (aka Newhill) Coal and the Swinton Pottery Coal are shown to cross the site at surface. No faults are shown crossing the site at surface which may affect the sites stability, although one is shown within close proximity to the north west. The underlying aquifer is classified as a minor aquifer overlain by soils of unclassified assumed high leaching potential. The nearest surface watercourse is an unnamed drainage ditch located approximately 239m west of the site.
Environmental Considerations:	Landfills – A landfill is present within the site.. Radon – **Basic** radon protection measures are required. 2 No. Local Authority Air Pollution Prevention Controls registered to the site, which are related to rubber seals manufacture taking place at the factory. 2 No. discharge consents within 500m of the site, relating

	to Yorkshire Water Sewerage Network. 1 No. Pollution Incident to Controlled Waters within 500m of the site, this is associated with an oil / diesel spill listed as Category 3 – Minor Incident. 1 No. Substantiated Pollution Incident registered within 1000m of the site, this was caused by a fire and has had a • Category 2 – Significant Incident impact on air • Category 3 – Minor Incident to the ground. There are no other pertinent features within the report.
Mining / Mineral Extraction:	The site is not likely to be affected by past deep coal workings, however both the Steam (aka Newhill) Coal and the Swinton Pottery Coal seams are thought to exist at shallow depths beneath the site which may have been worked at some time in the past.
Ground Conditions:	MADE GROUND: Red gravel was encountered in all trial pits within Area A to a maximum depth of 0.4m. MADE GROUND: Landfill material was encountered in Trial Pits TP11, TP12 and TP13. Topsoil in all trial pits in Area C. Underlying the made ground in the majority of trial pits was a high strength CLAY in all trial pits. Bedrock (weathered MUDSTONE and SANDSTONE) at a minimum depth of 1.0m (begl).
Contamination Summary:	Made Ground: Landfill has elevated concentrations of cadmium, nickel, chromium and zinc. Topsoil has elevated benzo(a)pyrene however this is potentially an outlier.
Foundation Design:	Strip foundations are considered suitable across the site, however trench-fill or raft foundations may be more suitable over areas of inspection pits in Area A. Piles may be required within the landfill area in Area B.
Floor Slab Design:	Suspended ground floor slabs will be suitable for this site with basic radon protection required. Gas monitoring is ongoing, should the results continue to be similar to that at present then the following measures for houses will be required; • A well constructed ground floor slab. • A methane and carbon dioxide resistant membrane. • Ventilated sub-floor void. Considering apartments, the following gas protective measures will be required; • Pre-cast concrete floor with a carbon dioxide and methane resistant membrane with under floor venting.
Remedial Measures:	At this time a small amount of red shale has been identified within the crushed brick Made Ground on site.

	Upon demolition, should higher quantities be encountered this will require stockpiling separately and subjected to further testing. • Inspection pits will require pumping and removal to a suitably licensed facility. • Considering the previous use on site former drainage runs may contain significant contamination and may therefore require careful removal from site. • Tanks will require pumping out and removing to a suitably licensed waste management facility. • At this stage no underground tanks have been encountered or noted on any plans although it should be considered that tanks may be encountered during the site strip. If a tank is encountered Joynes Pike and Associates Ltd should be notified and the tanks should be removed as detailed above. • A Type 3 Asbestos Survey should be carried out prior to demolition. At this stage it is thought that there is a significant quantity of asbestos cement and possible asbestos insulation board within the buildings on site. • Where Made Ground is present in the rear gardens this may require removal and/or a provision of 300/600mm capping consisting of 150mm of topsoil and a suitable thickness of clayey subsoil. This is likely to be required across area A (300mm) and half of Area B (600mm). A hard to dig layer may be required over the former landfill area which has been proven to be less than the licensed area shown in the desk study. • Cleaning of the hardstanding in area A to prevent contamination of crushed product. • A limited drilling investigation will be required in order to investigate possible former workings on site. • Possible removal of grossly contaminated materials in the areas of tanks and inspection pits. It must be stressed that the specified capping thickness is dependent on laboratory results risk assessment and consultation with the Local Authority.

A. FACTUAL INFORMATION

1.0 INTRODUCTION

1.1 This report describes a Geo-Environmental investigation undertaken on behalf of The Habib Bank on a site at former William Freemans Factory, Wakefield Road, Mapplewell, Barnsley.

1.2 This investigation and assessment has been carried out based on an assumed site end use of 2 and 3 storey residential buildings and apartments with associated garden areas.

1.3 This report has been prepared by Joynes Pike & Associates Limited with all reasonable skill, care and diligence within the terms of the Contract with the client The Habib Bank, and taking account of the information made available by the client, as well as the manpower and resources devoted to it by agreement with the client. Joynes Pike & Associates Limited disclaims any responsibility to the client and others in respect of any matters outside the scope of the above Contract.

1.4 The objectives of the investigation were to obtain information relating to the ground and groundwater conditions at the site in order to determine suitable methods of design and construction for foundations, floor slabs and roads etc, for the proposed development and to enable formulation of an appropriate remediation strategy in the context of development proposals.

1.5 This report has been produced on behalf of The Client, The Habib Bank, and no responsibility is accepted to any Third Party for all or any part. This report should not be relied upon or transferred to any other parties without the express written authorisation of Joynes Pike & Associates Limited. If any *unauthorised Third Party comes into possession of this report, they rely on it at* their own risk and the authors owe them no duty of care or skill.

1.6 The findings and opinions conveyed via the desk study information within this report are based on information obtained from a variety of sources, as detailed, which Joynes Pike & Associates Limited believes are reliable. Nevertheless, Joynes Pike & Associates Limited cannot and does not guarantee the authenticity or reliability of the information it has relied upon from these sources.

1.7 Whilst this report may express an opinion on the possible configuration of *(strata, contaminants or gases) between or beyond exploratory hole positions* or on the possible presence of features based on either visual, verbal or published evidence, this is for guidance only, and no liability can be accepted for its accuracy.

1.8 The comments on groundwater and ground gas conditions are based on observations made at the time of the investigation and those previously reported from third parties. It should be noted, however, that groundwater and ground gas levels may vary from those reported due to seasonal or other effects.

1.9 Although every effort has been made to position exploratory holes in the least sensitive areas of the site, exploratory hole positions were located approximately as part of this investigation and no guarantee can be given as to their accuracy. Consideration should be given to the possibility that exploratory holes excavated as part of this investigation, and indeed any previous ground investigation work by others, may be encountered beneath or within the influence of individual foundations. JPA cannot be held responsible for failure of excavations or structural failures caused by the location of foundations of any form of structure within the influence of exploratory holes.

1.10 Existing manhole covers were not lifted and drainage runs were not inspected during the course of this ground investigation.

1.11 The site plans enclosed in this report should not be used for scaling purposes.

2.0 THE SITE

2.1 Location & Access

2.1.1 The site is irregular in shape, approximately 4.44 hectares in area and is situated off Wakefield Road, Mapplewell.

2.1.2 The site plan is centred on National Grid Reference 434020, 409930 as shown on the Site Location Plan, Drawing No 12070197-501.

2.1.3 Access to the site is gained from Wakefield Road to the north.

2.2 Site Description

2.2.1 Please refer to the Site Features Plan, Drawing No. 12070197-503.

2.2.2 The site is located at the former William Freemans Factory, off Wakefield Road, in Mapplewell, Barnsley as shown on drawing 12070197-501.

2.2.3 For the purpose of reporting the site can be divided into three areas with hardstanding areas being Area A, wasteland to the east of the factory Area B and the strip of overgrown land to the north being Area C. These areas are highlighted on Drawing 12070197-503.

2.2.4 Area A comprises of one large factory building with smaller outbuildings and associated hardstanding and landscaped areas. Within the main building are several pits of unknown depth. A significant degree of staining from previous uses is present across the hardstanding. Areas B and C consist of open grasslands and shrubs with a number of semi-mature to mature trees.

2.2.5 In general the ground level falls to the south east with significant changes in level off Wakefield Road and at the boundaries between Areas C and A.

2.2.6 Semi mature to mature trees and hedges are also present around the periphery of the site, as shown on drawing 12070197-504.

2.2.7 Wakefield Road and the dismantled railway bound the site along the west and east respectively, with residential housing to the south and open land to the north.

3.0 DESK STUDY

3.1 Sources of Information

3.1.1 The following sources of information have been consulted as part of the desk study for the site;

- JPA archives.
- Envirocheck report.
- British Geological Survey 1:50,000 Sheet 87 'Barnsley' and associated memoirs aloing with the 1:10,560 geological sheet for the area.
- BRE 211 – Radon, guidance on protective measures for new dwellings.
- Law Society Guidance Notes and Directory for Coal Mining Searches.
- The Coal Authority, Mansfield.
- Environment Agency, Sheet 11 'South Pennines'.
- Selected County Series and Ordnance Survey plans.

3.2 Site History

3.2.1 The history of the site is recorded over selected periods by the maps inspected, copies of which are included as Appendix A. The account presented in this report is restricted by specific time periods represented by these maps only.

3.2.2 Key dates in the development of the site and its environs are summarised in the table below:

Feature	Location	Maps
Open Fields	On site and immediate surrounding area.	1884 to 1962
Factory Building	On site	1962 to Present
Barnsley Coal Railway Extension (north south)	Eastern boundary of Site	1894 to 1970
Pump	North west of Site (10m)	1884 to 1838
North Gawber Colliery	South west of Site (750m)	1894 to 1893
East Gawber Colliery	South east of Site (1000m)	1894 to 1938
Black Hill Quarry	South west of Site (670m)	1854 to 1938

3.2.3 In summary, the site has been open fields until 1962 when the William Freemans Factory Building was constructed. The factory building has been extended in the subsequent years until 1983 and remains to present.

3.2.4 Numerous springs, mine shafts, gravel pits and sandstone quarries are recorded in the surrounding area.

3.3 Geology, Hydrogeology and Hydrology

3.3.1 According to the inspected published geological information, the site is not underlain in the south by glacial till.

3.3.2 The solid strata beneath the site is shown to be the Middle Coal Measures comprising Mudstone and Sandstone.

3.3.3 No known surface faults are shown crossing the site, although one is shown to be present within 10m of the north western site boundary. A careful watch over foundation excavations is required in this area to confirm it does not encroach onto the site.

3.3.4 Two seams of coal are shown to cross the site, they are the Swinton Pottery Coal and the Steam (aka Newhill) Coal.

3.3.5 According to the Environment Agency Groundwater Vulnerability Map Sheet 11 'South Pennines', the site is shown to be underlain by strata which

represent a **Minor Aquifer** with soils of high leaching potential. This means that the soils have *little or no* ability to diffuse or attenuate contaminants.

3.4 Mineral Extraction

3.4.1 Barnsley is listed on the Law Society's Guidance Notes 2006 as being within an area requiring a coal mining report, a mining report has been commissioned from the Coal Authority and states the following;

3.4.2 The site is within the likely zone of influence from workings in 6 seams of coal at 110m to 440m depth, last worked in 1974, however any ground movement associated with these workings should by now have ceased.

3.4.3 The site is in an area where there is coal at or close to the surface which may have been worked at some time in the past.

3.4.4 The site is not within the likely zone of influence of any present underground workings nor is it in an area for which the Coal Authority has granted or is determining a licence to extract using underground methods, therefore the site is not considered likely to be affected by *future extraction.*

3.4.5 There are no known coal mine entries within, or within 20m of the site boundary, however it should be noted that there may exist in the local area mine entries of which the Coal Authority has no knowledge.

3.4.6 At the surface there are no known faults or other lines of weakness due to coal mining that have made the site unstable.

3.4.7 The site is not within the boundary of an opencast site from which coal has been removed by opencast methods, the site does not lie within 200m of the boundary of a present opencast site. The site does not lie within 800m of an area for which a licence to extract coal by opencast methods in the future is being determined or granted.

3.4.8 There is no record of mine gas emission requiring action by the Coal Authority within the site boundary.

3.4.9 The Coal Authority has not received a damage notice or claim for the site since 01 January 1991.

3.4.10 The Envirocheck Report states that there are 2 No. BGS recorded mineral sites within 1000m of the site relating to the opencast extraction of sandstone and coal. These workings have now ceased and will not affect the stability of the site.

3.4.11 A SYMAS report has been commissioned for the site and is presented in Appendix F. This indicates that the likelihood of any uncharted workings being present below the site are remote, however they recommend a limited borehole investigation in relation to the Steam (aka Newhill) Coal is carried out.

3.5 Environmental Considerations

3.5.1 Specific details relating to the environmental setting of the site are presented within the Envirocheck report included within Appendix B. The salient issues which relate to the site are summarised *as follows:*

3.5.2 Both Area B and the north eastern section of Area C are listed as a registered landfill site by Barnsley Council.

3.5.3 Basic radon protection measures are required on this site, at this stage it should also be assumed that ground gas protection will have to be incorporated into the floor slab.

3.5.4 There are two Local Authority Air Pollution Prevention Controls registered to the site, which are related to rubber seals manufacture taking place at the factory.

3.5.5 Two discharge consents have been recorded within 500m of the site, these are related to Yorkshire Water sewerage network.

3.5.6 There is one Pollution Incident to Controlled Waters registered within 500m of the site, this is an oil / diesel spill and this is listed as Category 3 – Minor Incident.

3.5.7 There is one Substantiated Pollution Incident registered within 1000m of the site, this was caused by a fire and has been recorded as a Category 2 – Significant Incident impact on air and a Category 3 – Minor Incident to the ground.

3.5.8 There are no other features contained in the report which are pertinent to the redevelopment of the site.

3.6 Radon

3.6.1 The Building Research Establishment (BRE) has updated BR211 'Radon guidance on protective measures for new dwellings', with an edition published in December 1999.

The revised BR211 provides a staged framework to determine whether radon protective measures should be afforded to new dwellings, as follows:

Annex A; Maps of areas where basic or full protection should be provided, followed by,

Annex B; Maps of areas where a site specific geological assessment should be commissioned.

3.6.2 According to the above guidance the site is within an area where a site specific geological assessment is not required.

3.6.3 Therefore Basic radon protective measures are required for the site.

3.7 Asbestos

3.7.1 Joynes Pike & Associates Ltd have not undertaken an asbestos survey onsite at present, it is recommended that a Type 3 Asbestos Survey should be carried out prior to demolition

3.7.2 There is a significant quantity of asbestos cement and possible asbestos insulation board within the buildings on site.

4.0 PRELIMINARY CONCEPTUAL SITE MODEL

4.1 Potential Sources of Contamination

4.1.1 From the desk study the following potential **on site** sources of ground contamination have been identified:

Made Ground

The material within the Made Ground on site has the potential to contain elevated concentrations of contaminants such as heavy metals, PAHs and TPH's.

Substation

The area around and below the existing and disused substations are likely to be contaminated with PCB's.

Inspection Pits

The inspection pits are currently filled with water and oil, this fluid is potentially contaminated and may leach to the surrounding natural ground.

Pipework

Considering the previous use on site former drainage runs may contain significant contamination and may therefore require careful removal from site.

Tanks

Historical tanks potentially contain contaminated liquid affecting the surrounding ground below the tanks.

At this stage no underground tanks have been noted on any plans although it should be considered that tanks may be encountered during the site strip.

Hardstanding

Staining to hardstanding from previous uses.

Landfill

A registered landfill is located on site which may contain contaminants and release ground gases.

4.1.2 No potential **off site** sources of ground contamination have been identified.

4.1.3 A preliminary pre-development conceptual site model has been produced based on the suspected ground conditions from the desk study information only, which is presented on Drawing No. 12070197-504.

4.2 Receptors of Contamination and Migration Pathways

4.2.1 Receptors are defined as human or non-human organisms that have the potential to experience adverse effects from direct or indirect exposure to contaminated material.

4.2.2 Migration pathways are defined as the courses chemicals take from a source to an exposed organism or receptor. The exposure pathway can be direct (i.e. stays within the same exposure media) or indirect (transport from one medium to another takes place).

4.2.3 The following potential human health and environmental receptors have been identified:

- Future site occupants
- Site construction and maintenance workers
- Neighbouring occupants

4.2.4 The following potential migration pathways have been identified:

- **Inhalation**

  Breathing dust and vapours from contaminated soil in outdoor air. Vapours can also migrate into buildings resulting in inhalation by the occupants.

- **Ingestion**

  Eating and swallowing of contaminated soil and/or groundwater either by deliberate consumption, indirectly by eating or smoking with dirty hands or by ingestion of fugitive dust.

- **Dermal Contact**

  Direct contact with contaminated soil and groundwater, causing skin conditions such as dermatitis etc. Certain contaminants can be absorbed into the body through the skin or enter directly through open cuts or abrasions

- **Migration of Contaminated Water**

  Contaminated groundwater can migrate laterally or vertically dependent on permeability, preferential pathways, man-made voids etc.

- **Leaching**

  Infiltration of water through soil can leach out soluble contaminants resulting in groundwater pollution.

- **Aggressive Attack**

  Building materials can be damaged by direct contact with aggressive ground conditions, for example sulphate attack on concrete and hydrocarbon attack on plastics.

- **Ground Gases**

  Ground gases can migrate laterally or vertically dependent on permeability, preferential pathways, man-made voids etc.

4.3 Source-Pathway-Receptors Relationships

4.3.1 A summary of the preliminary post-development conceptual site model is provided in drawing 12070197-504. This is based on the information to date that consists from the desk study and has been revised following completion of the intrusive site investigation in section 9.3.

4.3.2 The following potential **Source-Pathway-Receptor** relationships have been identified for the site bearing in mind the development proposals:

Source	Pathway	Receptor
Contaminated soil – residual contamination of made ground	Ingestion Dermal contact Inhalation (outdoor air)	Construction workers Future occupants
Contaminated soil	Inhalation (indoor air)	Future occupants
Contaminated soil	Leaching	Groundwater within minor aquifer
Sulphates within made ground and natural soils	Aggressive attack	Buried concrete
Ground Gases	Preferential Pathways	Future Occupants

5.0 INVESTIGATION METHODOLOGY

5.1 Objectives

5.1.1 The objectives of the investigation were to determine geotechnical and environmental issues relating to the site in particular with relation to a residential end use.

5.2 Site Works

5.2.1 An intrusive investigation had been carried out on site using a JCB 3CX and window sampling rig to determine the underlying ground conditions. In total, 21 No. trial pits and 15 window sample holes were undertaken on site to depths ranging from 1.50m to 3.50m and 1.0m to 4.0m respectively, below existing ground level (begl) on 16 and 17 July 2007. The trial pits and window sample holes were logged by suitably qualified Geo-Environmental Engineers in accordance with the BS EN ISO 14688-1:2003 (Identification and Classification of Soil).

5.2.2 Where desk study information indicated potential sources of contamination, exploratory holes were located specifically to target these features, where possible. The table below identifies these targeted works;

Targeted Feature	Exploratory holes used to investigate.
Tanks in centre of the site.	BH4, BH5, BH6
Landfill in the south east.	TP11, TP12, TP13
Electric sub-station.	BH2
Inspection pits.	BH12, BH13

5.2.3 The existing structures and services at the site restricted access to some areas and additional sampling from these will be required following demolition.

5.2.4 The approximate locations of the trial pits are shown on the appended drawing 12070197-502 with the JPA exploratory trial pit and window sample logs included as Appendix C.

5.2.5 Disturbed samples were taken during the investigation at selected intervals from the strata. These were placed in appropriate sterile containers and submitted for chemical and geotechnical testing.

5.3 Chemical Laboratory Testing

5.3.1 Soil samples obtained as part of the Joynes Pike & Associates site investigation were analysed for one or more of the following contaminant suites at ECoS, a UKAS and MCERTS accredited laboratory:

- JPA Doncaster Standard Screen - 22 Samples
- Fraction of Organic Carbon (FOC) - 5 Samples
- VOC - 8 Samples
- PCB - 2 Samples
- TPH by CWG method - 8 Samples
- Concrete Classification Testing - 6 Samples

- JPA Leachate Suite - 2 Samples
- TPH Leachate Suite - 2 Samples

5.3.2 The suite of determinands analysed for any given sample was dictated by its source, the proximity of site features and on any visual or olfactory evidence of contamination observed during the site works.

5.3.3 Results of the chemical testing are included as Appendix D.

5.4 Geotechnical Laboratory Testing

5.4.1 Eight representative samples of natural CLAY shown in the table below were submitted to Scientifics Ltd, a UKAS accredited testing laboratory, for determination of the modified plasticity index in accordance with NHBC Standards. The geotechnical test results are enclosed as Appendix E.

Location	Depth (m) (begl)	Sample No	Description	Analysis
WS2	2.20	D13	Gravelly CLAY	Atterberg Limits & Natural Moisture Content
WS8	0.60	D37	MUDSTONE	Atterberg Limits & Natural Moisture Content
TP5	0.60	D116	Gravelly CLAY	Atterberg Limits & Natural Moisture Content
TP16	0.90	D149	Gravelly CLAY	Atterberg Limits & Natural Moisture Content
TP4	0.90	D113	Sandy CLAY	Atterberg Limits & Natural Moisture Content
TP9	2.20	D130	MUDSTONE	Atterberg Limits & Natural Moisture Content
TP19	1.00	D158	Sandy CLAY	Atterberg Limits & Natural Moisture Content
TP17	2.30	D153	MUDSTONE	Atterberg Limits & Natural Moisture Content

5.5 Gas / Groundwater Monitoring

5.5.1 Due to the presence of Made Ground and the landfill on site, 5 groundwater and gas monitoring wells have been installed. These are currently being monitored weekly, comments made within this report are based purely on the results to date and will be revised upon completion of the monitoring.

5.5.2 No installations were constructed in the area of former landfill due to initial development proposals excluding this area. Should the developable area extend onto the former landfill additional monitoring installations will be required.

6.0 RESULTS OF THE INVESTIGATION

6.1 Strata Encountered

6.1.1 Made Ground was encountered in most exploratory holes. The Made Ground generally comprised clayey, red, angular gravel with rare red shale hardcore to approximately 0.50m in area A. Area B recorded Made Ground comprising reworked clay and sand with fabric, plastic and brick to a maximum depth of 2.10m in TP12. Area C had natural clayey sandy topsoil in all exploratory holes.

6.1.2 Natural ground was encountered across the site in the majority of exploratory holes. The natural ground comprised predominantly of high strength, orange brown Clay with occasional gravel fragments.

6.1.3 Rockhead of weathered grey / brown Mudstone recovered as tabular gravel and clay was recorded in 24 of the exploratory holes from a minimum of 0.50m in WS8 to a maximum depth of 3.50m in TP13. Sandstone of varying strength and colour was recorded in trial pits TP1, TP3 and TP4 from a minimum depth of 2.30m in TP3 and 3.50m in TP4.

6.2 Groundwater Observations

6.2.1 Groundwater was observed within trial pits TP2, TP5, TP6, TP12, TP13, WS5, WS11 and WS12 between 0.25m and 2.10m (begl). The subsequent groundwater levels monitored during the gas monitoring ranges from 0.28m to 2.45m (begl).

6.3 Chemical Testing - Soils

6.3.1 The results of the chemical testing on soil samples have been reviewed in accordance with the legislative framework and criteria set out in Appendix D.

6.3.2 The following strata types were identified;

- Topsoil
- Made Ground: Red gravel
- Made Ground: Landfill
- Orange Clay
- Grey Clay
- Gravelly Clay
- Mudstone

6.3.3 The strata types identified have been subject to a number of chemical tests with the full set of results included as Appendix D. Below is a summary of the contaminants of concern: in relation to the identified receptors.

6.3.4 <u>Topsoil</u>
Five samples of Topsoil tested have identified Benzo(a)Pyrene to be present with a US_{95} of 2.95mg/kg.;

<u>Made Ground: Red Gravel</u>
Eight samples of Made Ground: Red Gravel were tested and highlighted no US_{95} values of concern.

<u>Made Ground: Landfill</u>

Three samples of differing made ground from the landfill were tested and identified the following of concern;

Potential Contaminant Substance	US_{95} (mg/kg)
Cadmium	8.7
Nickel	155.0
Zinc	1781.5
Benzo(a)pyrene	2.95

No potential contaminants of concern were identified by the testing carried out on the natural orange, grey and gravely clays.

6.3.5 In addition to the general screening suites specific analysis was carried out on samples from areas identified by the desk study as being potential sources of contamination.

Total Petroleum Hydrocarbons

6.3.6 TPH analysis carried out on samples from an area of oil staining in the south (BH1) the tanks in the centre (BH4, BH5, TP6) and the inspection pits in the large structure (BH13). The speciated analysis indicates that TPH lighter than EC12 is not present within the soils. The table below summarises the detectable TPH from the locations tested.

Determinand	mg/kg	BH1 0.30m	BH4 0.60m	BH5 1.70m
TPH Aromatic EC16-EC21	mg/kg	6.3	18.6	53.3
TPH Aromatic EC21-EC35	mg/kg	40.9	24.9	202.0
TPH Aliphatic EC16-EC21	mg/kg	14.1	33.4	218.6
TPH Aliphatic EC21-EC35	mg/kg	217.0	123.9	1916.0
TPH Aliphatic EC12-EC16	mg/kg	<5.0	<5.0	7.3

6.3.7 Samples from BH1 (1.70m), BH5 (0.50m and 0.70m), BH13 (0.70m) and TP6 (0.90m) were also analysed for TPH's but none were detectable.

Volatile Organic Compounds

6.3.8 All samples analysed for TPH's were also analysed for VOC's. VOC's were not detectable in any of the tested soils.

Polychlorinated Biphenyls

6.3.9 Samples from BH2 and BH15 analysed for PCB's due to the proximity to electricity sub-stations were not found to contain PCB's above laboratory limit of detection (<0.50ug/l)

6.3.10 Elevated PAH's have not been detected associated with the recorded TPH's.

6.3.11 Fraction of organic carbon analysis carried out on five samples is summarised below.

Material Type	Fraction organic carbon (range recorded)	Soil organic matter (%) (converted from foc)
Natural clay (weathered mudstone)	0.005-0.031	0.862-5.34
Topsoil	0.026	4.48
MG: Red Brick	0.023	3.97

Leachate Analysis

6.3.12 Two samples from BH5 were subjected to leachate analysis of a general screen of determinands, the results of which are summarised below. Determinands which were not detectable have been excluded.

Determinand	Unit	BH (0.70m)	BH (1.70m)
Arsenic	µg/l	0.5	1.4
Cadmium	µg/l	0.03	0.04
Chromium	µg/l	0.17	<0.07
Copper	µg/l	1.52	2.29
Lead	µg/l	0.6	0.3
Nickel	µg/l	0.9	2.0
Selenium	µg/l	<0.5	0.7
Zinc	µg/l	29.4	26.0
Boron	mg/l	0.06	0.07
pH	mg/l	7.1	7.8
Naphthalene	µg/l	0.03	0.14
Acenapthylene	µg/l	0.03	0.10
Acenaphthene	µg/l	0.39	3.99
Fluorene	µg/l	0.21	2.09
Phenanthrene	µg/l	0.35	0.81
Anthracene	µg/l	0.07	0.29
Fluoranthene	µg/l	0.18	0.19
Pyrene	µg/l	0.12	0.12
Chrysene	µg/l	0.01	0.01
Benzo(b)+(j)flouranthene	µg/l	<0.01	0.01

6.4 Geotechnical Testing

6.4.1 Three representative samples of clay and five of mudstone were submitted to Scientifics, a UKAS accredited laboratory for plasticity testing. The results are listed below. The geotechnical test results are enclosed as Appendix E.

Location	Sample Number	Depth (m)	Plasticity Index (p)	Modified Plasticity Index (p')	Volume Change Potential	Strata
WS2	D13	2.20	21	13.88	LOW	Mudstone
WS8	D37	0.60	16	13.36	LOW	Mudstone
TP5	D116	0.60	14	12.68	LOW	Mudstone
TP16	D149	0.90	23	20.45	MEDIUM	Clay
TP4	D113	0.90	25	20.95	MEDIUM	Clay
TP9	D130	2.20	17	14.47	LOW	Mudstone
TP19	D158	1.00	23	21.51	MEDIUM	Clay
TP17	D153	2.30	19	16.53	LOW	Mudstone

6.4.2 The orange and grey clay soils have a medium volume change potential.

6.4.3 The mudstone and clayey gravel (Highly Weathered Mudstone) has a low volume change potential.

6.4.4 For the purpose of calculating the effect of trees, in accordance with NHBC Chapter 4.2 the worst case of medium volume change should therefore be assumed for the site. However in areas where solid Mudstone is encountered at less than 2.50m (begl), such as the area in the north of the current factory building, plots may be founded on mudstone.

B. ASSESSMENT & RECOMMENDATIONS

7.0 INTRODUCTION

7.1 This report has been prepared on the assumption that the site is to be developed with residential housing and apartments with associated private garden areas in which vegetables could be grown. Should the proposed site usage change significantly from the above, the contents of this report will require review and amendment as appropriate.

7.2 The ground conditions are typified by the presence of made ground. Made ground: red gravel was encountered in the majority of exploratory holes in Area A with made ground: landfill material being encountered in the southern part of Area B. The remaining land in Area B, and the whole of Area C was overlain by topsoil.

7.3 The natural ground beneath comprises a firm to stiff orange / brown clay and gravelly grey clay, becoming weathered mudstone at depth.

7.4 The rockhead encountered on site is predominantly mudstone and sandstones of the Middle Coal Measures.

8.0 MINING ASSESSMENT

8.1 Evidence of Shallow Mining

8.1.1 The Coal Authority and SYMAS reports have shown that the site is affected by the Steam (aka Newhill) Coal and the Swinton Pottery Coal.

8.1.2 There is no evidence to suggest that shallow workings have occurred in either of these seams below the site but it is possible that unrecorded workings may have taken place.

8.1.3 There are no coal mine entries within or within 20m of the site boundary.

8.2 Stability Assessment Criteria

8.2.1 The site is within the likely zone of influence from workings in 6 seams of coal at 110m to 440m depth, last worked in 1974. Any ground movement from these should by now have ceased.

8.2.2 The site is not within the likely zone of influence of any present underground coal workings. The site is not in an area for which the Coal Authority is determining or has granted a licence to extract coal by underground methods. However, it should be noted that reserves of coal do exist locally which could be worked at some time in the future.

8.2.3 There are no known faults at the surface or other lines of weakness due to coal mining that have made the site unstable.

8.2.4 The Envirocheck Report states that there are 2 No. BGS recorded mineral sites within 1000m of the site relating to the opencast extraction of sandstone and coal. These workings have now ceased and will not affect the stability of the site.

8.2.5 The SYMAS Report indicates that the likelihood of any unchartered workings being present below the site are remote, however we would like to highlight that they recommend a limited borehole investigation, especially in relation to the Steam (aka Newhill) Coal. Taking this into account it is unlikely that the site will require drilling and grouting beneath proposed plots or estate roads, however this is subject to the results of the recommended drilling investigation.

9.0 ENVIRONMENTAL ASSESSMENT

9.1 Soil Contamination Summary

9.1.1 Where appropriate the results of the analysis have been assessed using statistical analysis as outlined in CLR 7. Appropriate US_{95} values have been calculated for the identified strata types and are as follows;

9.1.2 Not withstanding the above a number of tests have been carried out targeting potential sources of contaminantion, where insufficient testing has been carried out for statistical interpretation the results have been considered to be representative, subject to further analysis.

9.1.3 The US_{95} values (where available) or individual results, where point sources are present have been compared to the published SGV's or in-house screening values for the residential with plant uptake end use, as described in the methodology presented in Appendix D.

9.1.4 Generally the sample of natural strata (topsoil or weathered mudstone clays) were not found to contain substances at concentrations in excess of the adoptable tier one screening values. The exception to this being the gravelly clay encountered which was found to contain Nickel at an elevated concentration. Further consideration of this is therefore required.

9.1.5 The made ground encountered in the landfill was found to contain cadmium, nickel, zinc and Benzo(a)Pyrene at concentrations in excess of the tier 1 screening values and therefore require further consideration and/or remediation. This is based on the assumption that this area is to be included in the development. If a use other than residential properties is proposed for this area then the results should be re-evaluated.

9.1.6 Evidence of TPH contamination has been detected around the tanks in the central part of the site and while the material encountered to date has not been found to contain significant concentrations further investigation is required following demolition and site clearance to confirm whether more extensive or significant contamination is present in currently inaccessible areas. Consideration should therefore be given to the possible requirement for some remediation in this area.

9.1.7 Volatile organic compounds and PCB's were not detectable and are not considered to be significant in relation to the proposed end use.

9.1.8 The limited leachate analysis indicates that the identified contaminants of concern are not present in a potentially mobile form. Further analysis of the landfill material is recommended.

9.1.9 It should be noted that the classification of soil for waste disposal purposes and any resulting waste acceptance criteria (WAC testing) required under the Landfill Regulations introduced in July 2005 is beyond the scope of this report.

9.2 Risk Assessments

9.2.1 The risk assessments presented below are in relation to the previously presented conceptual site model and based on the assumption that site levels are to remain similar to existing.

9.2.2 The main contaminants of concern have been identified within the made ground associated with the landfill, there are slightly elevated levels of nickel within the natural gravelly clay (weathered mudstone) however this is thought to be of a negligible risk to human health, considering the depth to these strata

9.2.3 The existing information relating to TPH's suggests no significant risks to end users. However further investigation and analysis are required to confirm this. Thought must be given to potential underground tanks and drainage runs that may have localised contamination requiring removal from site.

9.2.4 The risk associated with groundwater contamination at the site is considered to be negligible due to the following factors:

- The strata underlying the site are classified as a minor aquifer.
- Low permeability CLAY underlies the majority of the site.
- There are no registered active groundwater abstraction activities that are likely to be affected by the site.

9.2.5 The risk of surface run-off contamination into surface watercourses is also negligble due to the distance to the nearest watercourse.

9.3 Recommended Remedial Strategy

9.3.1 Based on the results of the investigation, the Conceptual Site Model and the Risk Assessments, it is recommended that the following remedial works are undertaken in the context of the development proposals. It is assumed that a full type 3 asbestos survey and asbestos removal is completed before demolition of all buildings.

- General cleaning of the hardstanding prior to grubbing up. This material should be crushed, screened and reused subject to appropriate chemical contamination testing.

- Further inspection of strata beneath and around former AGST's in the centre of the site including additional analysis. Consideration should be given to the potential for removal of grossly contaminated material from this area.

- Further inspection of the remaining service pits in the buildings of Area A of the site during demolition and site clearance to assess any residual contamination remaining after their removal. It will be necessary to pump out the current liquid contents of the service pits prior to their removal. The contents should be disposed of to a suitable licensed facitlity.

- Once inspection pits have been broken out, these should be battered back at a 1h:1v gradient and surveyed in prior to being backfilled with proven chemically clean demolition rubble in an engineered manner.

- Where red brick made ground is to remain within garden areas a provision for 300mm capping layer shall be required, where garden areas are located over the made ground associated with the landfill a provision of a 600mm capping layer incorporating a 100mm hard to dig layer at its base shall be required. Alternatively the red brick made ground could be

removed during the demolition stage and re-used on site for development purposes.

- At this time a small amount of red shale has been identified within the crushed brick Made Ground on site. Upon demolition, should higher quantities be encountered this will require stockpiling separately and subjected to further testing.

- Where plots are to be situated on natural ground, a minimum topsoil layer of 150mm thickness will be required as a minimum suitable growing medium within garden areas.

- Removal of confirmed asbestos containing materials by a suitably licensed asbestos removal contractor.

- At this stage no underground tanks have been encountered or noted on any plans although it should be considered that tanks may be encountered during the site strip. If a tank is encountered Joynes Pike and Associates Ltd should be notified and the tanks should be removed as detailed above.

- Any containers left on site will require pumping out and removing to a suitably licensed waste management facility.

- The ground beneath the electric sub-stations which remained at the time of the investigation will require validating once the hardstanding has been broken out.

- Possible re-enforcement of roads passing from natural ground to the landfill.

- Exiting natural topsoil is suitable for re-use in garden and landscaped areas.

9.3.2 The remedial measures proposed above should be agreed with the appropriate regulating body (usually the Environmental Health Officer of the Local Authority).

9.3.3 The remedial measures are summarised in the post remediated conceptual site model drawing 12070197-505.

9.4 Health & Safety

9.4.1 During the reclamation and construction phases of the site development, it will be necessary to protect the health and safety of site personnel. General guidance on these matters is given in the Health and Safety Executive (HSE) document "Protection of Workers and the General Public during the Redevelopment of Contaminated Land".

9.4.2 In summary, the following measures are suggested to provide a minimum level of protection:

- All ground workers should be issued with the relevant protective clothing, footwear and gloves. These protective items should not be removed from the site and personnel should be instructed as to why and how they are to be used.

- Hand-washing and boot-washing facilities should be provided.

- Good practices relating to personal hygiene should be adopted on the site.

- The contractor shall satisfy the Health and Safety Executive with regard to any other matters concerning the health, safety and welfare of persons on the site.

9.5 Waste Disposal

9.5.1 Due to the implementation of the Landfill Directive any soils which may require removal from the site may be considered hazardous, however clarification should be sought from the disposal point about whether they would be licensed to receive materials with the contamination levels recorded. It is not anticipated that large quantities of material will require removal from site.

9.5.2 It may be necessary to register a Waste Management Licensing Exemption with the Environment Agency in relation to any re-grading works to be undertaken. Similarly if materials such as topsoil or subsoil are required to be imported to construct the necessary capping layer, this activity will also need to be registered for exemption.

9.6 Service Pipes

9.6.1 The local water Company and sewerage undertaker should be consulted as to the appropriate design and possibly construction, including materials, of any service pipes, foul sewer etc. that enters or crosses the site. The appropriate company and undertaker should be made aware of the findings in this report during such discussions.

9.6.2 It is likely that due to the TPH and PAH contamination, special precautions in water mains will be required and possibly the use of ductile iron pipes required by the statutory undertaker for the supply of mains water.

9.6.3 Concrete pipes in contact with the high sulphate content made ground will need to be constructed using suitably designed concrete products.

9.7 Liaison with Regulators

9.7.1 The remedial measures proposed above should be agreed with the appropriate regulating body (usually the Environmental Health Officer of the Local Authority).

10.0 GEOTECHNICAL ASSESSMENT

10.1 Foundation Design

10.1.1 Strip or trench-fill footings are suitable for the majority of the site. These should be designed based on an allowable bearing capacity of 100kN/m^2.

10.1.2 The minimum founding depth should be 900mm within the clay. All foundations should be deepened through made ground and keyed in to natural founding stratum by 150mm.

10.1.3 If both clay and mudstone are encountered within the same foundation excavation, the foundation should be deepened to found wholly within mudstone.

10.1.4 Dependent upon their depth; footings within area A may require to be deepened through the inspection pits, alternatively following breaking out of the pits, surveying and backfilling with engineered material, raft foundations based on a safe bearing capacity of 75kN/m^2 may be considered suitable.

10.1.5 Should development be considered over the landfill, then considering side stability of excavations and potential water influx pile foundations may have to be considered. An assessment of the stability and groundwater should be made at a later date.

10.1.6 Foundations in the far north west of the site may require additional reinforcement if the fault identified in the SYMAS report is encountered on the site.

10.1.7 The results of pH and water soluble sulphate testing indicate that the site should be classified as having a concrete design sulphate class of DS-1 and ACEC class AC-1 within the grey clay, made ground: red gravel, topsoil and mudstone, as defined in BRE Special Digest 1 (2005). The orange clay requires a sulphate class of DS-1 and ACEC class AC2z, the gravelly clay requires a sulphate class of DS-1 and an ACEC class of AC2z.

10.1.8 Considering the above the overriding concrete class will be DS-1 ACEC class AC2z.

10.1.9 Considering the gas monitoring carried out to date the following gas protective measures will be required for houses on site;

- A well constructed ground floor slab.
- A radon, methane and carbon dioxide resistant membrane.
- Ventilated sub-floor void.

10.2 Floor Slab Design

10.2.1 Due to the variable thickness of made ground it is recommended that pre-cast suspended floor slabs are adopted for the site. Due to the medium volume change potential of the clay the minimum void dimension under the pre-cast suspended floor slab should be 175mm to accommodate any potential heave.

10.3 Building Near Trees

10.3.1 The CLAY soils underlying the whole site are of medium volume change potential. Deepening due to the effects of both existing and proposed trees will be required in accordance to NHBC Guidance Chapter 4.2.

10.3.2 Where the requirement for deepening due to existing trees exceeds 1.5m begl, lateral and vertical heave precautions are required, in accordance with NHBC Standards Chapter 4.2.

10.3.3 Heave precautions will include panels of collapsible void-forming low-density polystyrene material, placed against the internal faces of external foundations. The material should be installed in accordance with the manufacturer's instructions. With consideration to the health and safety of groundworkers, a method whereby personnel are not required to enter an unsupported trench to install the panels should be used.

10.3.4 In addition, vertical heave precautions comprising a suspended pre-cast ground floor should be used, with a sub-floor void of 175mm.

10.3.5 We strongly recommend that the proposed tree and shrub planting schedule is produced in a manner that will not create an excessive requirement for deepening, and will be happy to advise on this matter if required.

10.4 Construction

10.4.1 Rockhead comprising Mudstone and Sandstone is present at depths ranging from 0.50m to 3.50m. It is likely that this could result in difficulties for excavations for foundations and sewers etc, between these depths, particularly within the north and north western section of Area A.

10.4.2 There is potential for groundwater seepage in excavations. Sump / pump methods of dewatering should prove sufficient.

10.5 Soakaways/Drainage

10.5.1 The site is wholly underlain by low permeability CLAY, solid mudstone and sandstone of the Middle Coal Measures. Therefore, soakaways are considered unsuitable for use on the site and alternative methods of surface water disposal should be sought.

10.6 Pavement Design

10.6.1 At this stage, a CBR value of 1% for made ground and 2% for natural clay can be assumed for the site. Significantly lower values may be obtained within the landfill and as such roads may require local re-enforcement.

10.6.2 The local highways authority may require that CBR testing is undertaken to confirm these values.

10.6.3 Where roads cross boundaries between deep and shallow made ground / natural strata reinforcement may be required to prevent differential settlement. An evaluation of the proposed layout in relation to ground conditions will be required prior to finalising pavement design. This may also be required should the fault be identified in the north western corner.

11.0 FURTHER WORKS

11.1 The following further works have been recommended prior to the development of the site:

(a) Full foundation schedule in accordance with NHBC Chapter 4.2.

(b) Gas Monitoring Programme.

(c) Drilling Investigation.

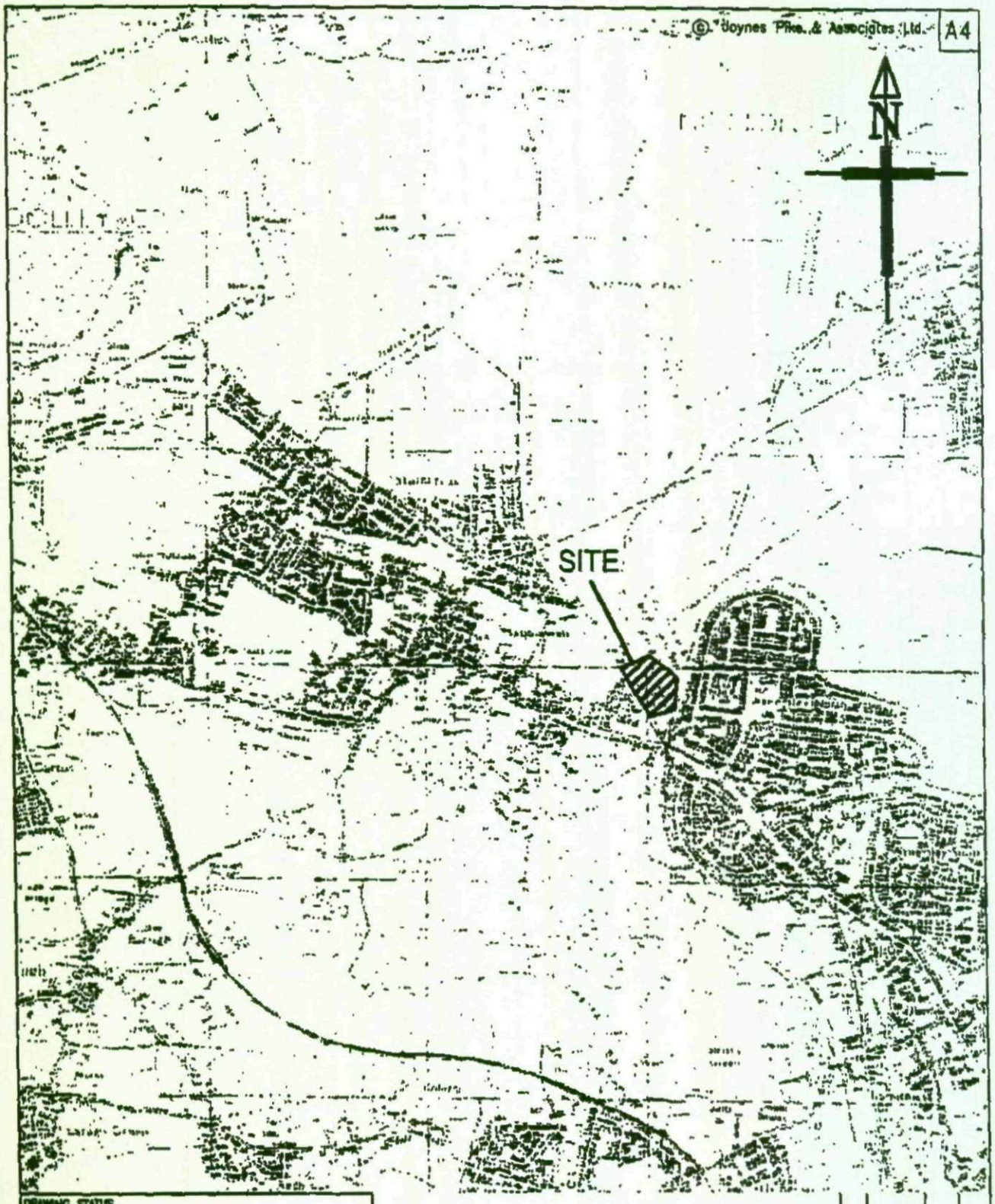
(d) A remediation method statement and consultation with Local Authority (LA) to agree remediation requirements upon acquisition of site and prior to planning submission (if required).

(e) Type 3 Asbestos Survey of factory and outbuildings prior to demolition.

(f) Additional investigation (including analysis and risk assessment including gas) of the former landfill and following demolition and site clearance of previously inaccessible areas and directly beneath AGST's.

(g) Watching brief in the north western area where a fault exists 10m from the site.

DRAWINGS



DRAWING STATUS

FOR INFORMATION

REV	DESCRIPTION	DATE	CHKD	APPR

JPA JOYNES PIKE & ASSOCIATES LTD
CIVIL, STRUCTURAL, GEOTECHNICAL, ENVIRONMENTAL, TRANSPORTATION, LAND SURVEYING, HEALTH & SAFETY
1-2 ARC HOUSE, RICHMOND BUSINESS PARK, SOWDEN COURT, DONCASTER DN4 5PL
TEL (01302) 322295 FAX (01302) 322296

PROJECT TITLE: FORMER WILLIAM FREEMANS FACTORY, MAPPLEWELL

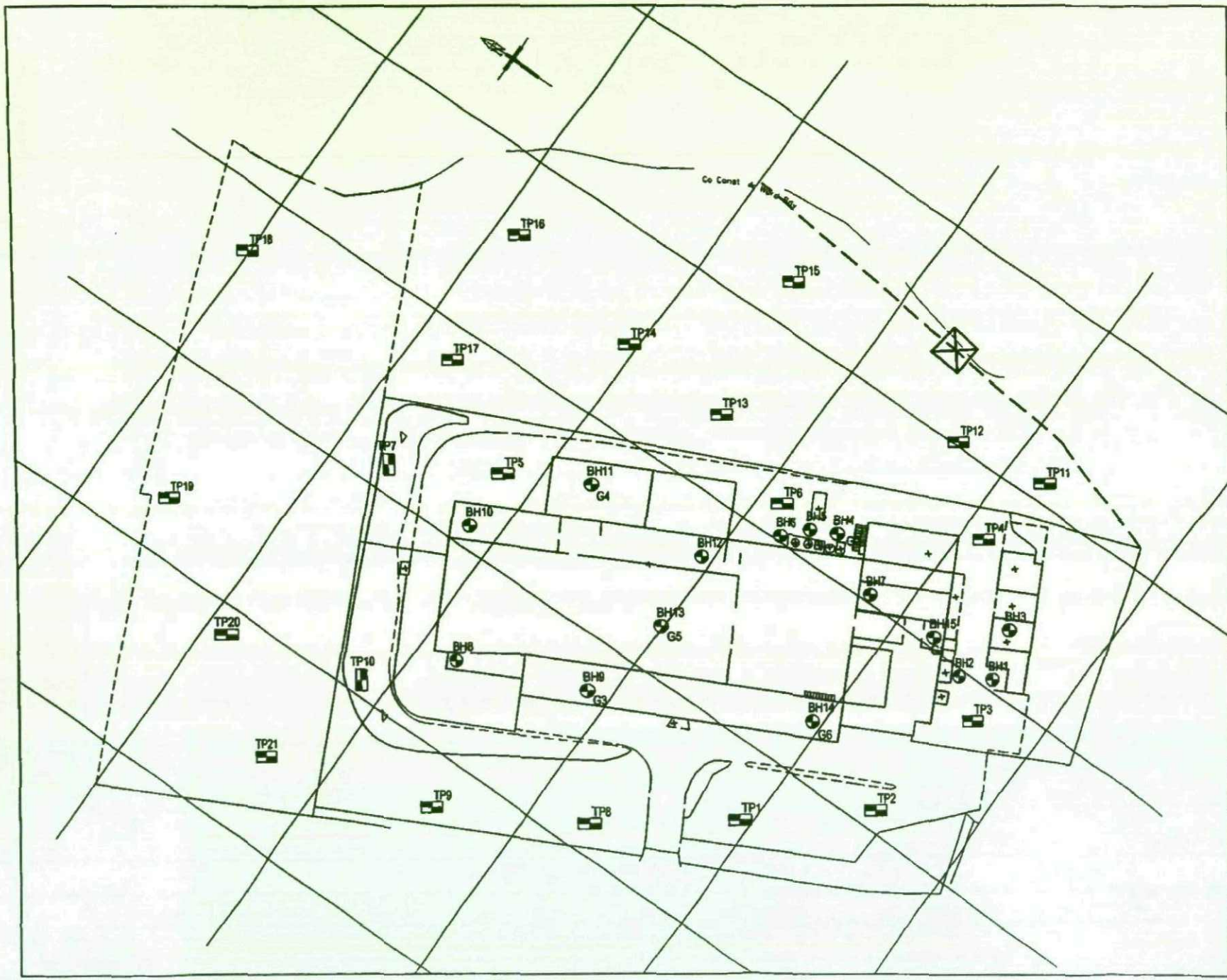
DRAWN: RB
PROJECT ENGINEER: DRS
CHECKED:
APPROVED:

DATE: JULY 2007
SCALE: 1:500 @ A4

CLIENT: BEN BAILEY HOMES LTD

DRAWING DETAIL: SITE LOCATION PLAN

DRAWING NUMBER: 12070197-501
REVISION: -



© Jaynes Pike & Associates Ltd.

A3

NOTES

1. DO NOT SCALE.
2. This drawing is to be read in conjunction with all other relevant drawings.
3. Should there be any conflict between the details indicated on this drawing and those indicated on other drawings, the engineer should be informed prior to construction on site.
4. Until technical approval has been obtained from the relevant authority, it should be understood that all drawings issued are Preliminary and Not for construction. Should the contractor commence site work prior to approval being given, it is entirely at his own risk.
5. All dimensions are in metres U.N.O

KEY

TP# Trial Pit Locations

BH# Borehole Locations

G# Gas Monitoring Point

DESCRIPTION	REV	DATE	CHKD	APPR
Final Exploratory Hole Locations	A	23.JULY 2007		

DRAWING STATUS

FOR APPROVAL

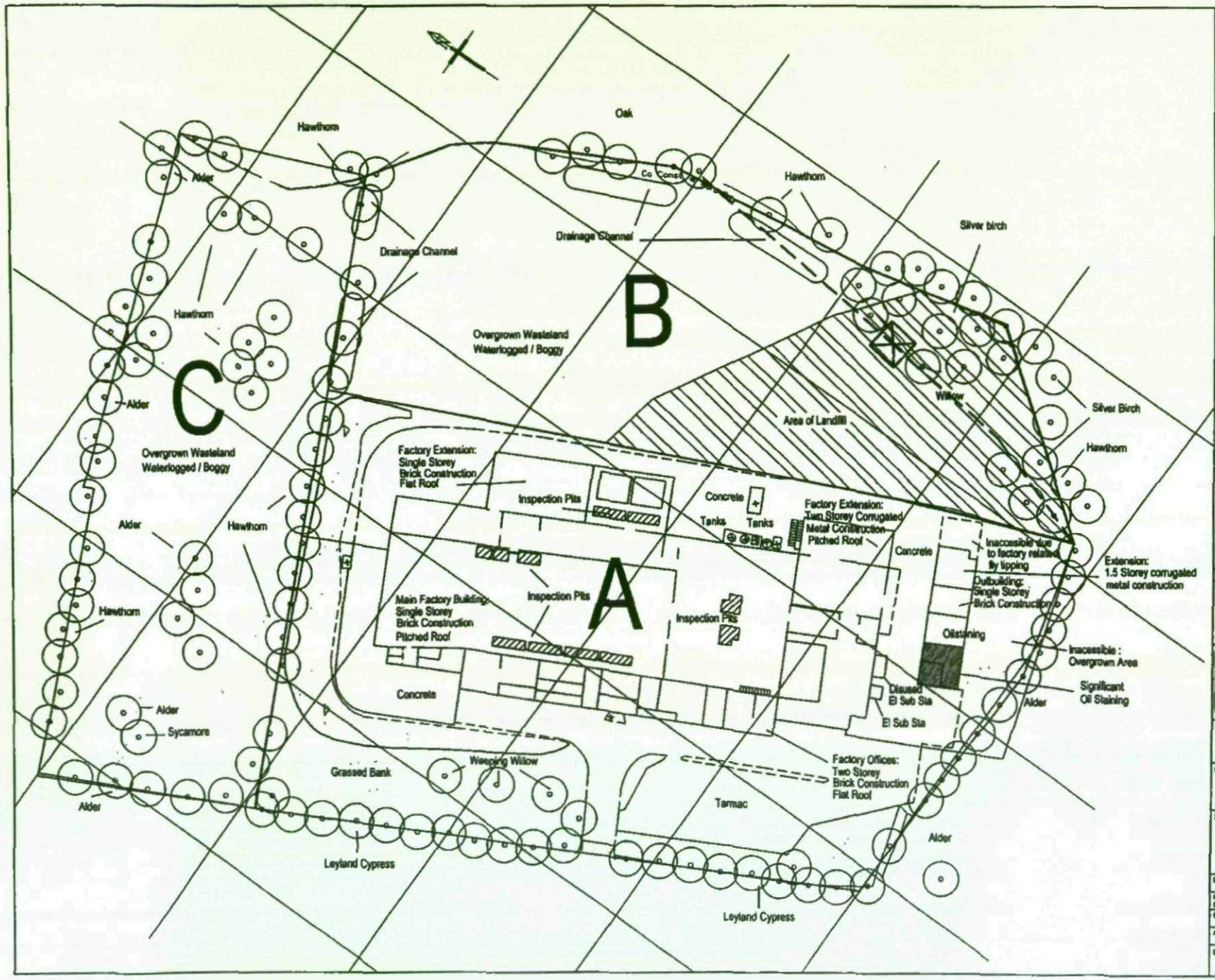
JPA JAYNES PIKE & ASSOCIATES LTD

CLIENT: Ben Bailey Homes Ltd

PROJECT TITLE: William Freemans, Mapplewell

DRAWING DETAIL: Borehole and Trial Pit Location Plan

DRAWN	NLM	DATE	July 2007
PROJECT ENGINEER	RMB		
CHECKED		SCALE	1:500 @ A3
APPROVED			
DRAWING NUMBER	12070197-502	REVISION	A



© Joynes Pike & Associates Ltd.

A3

NOTES

1. DO NOT SCALE.
2. This drawing is to be read in conjunction with all other relevant drawings.
3. Should there be any conflict between the details indicated on this drawing and those indicated on other drawings, the engineer should be informed prior to construction on site.
4. Until technical approval has been obtained from the relevant authority, it should be understood that all drawings issued are Preliminary and Not for construction. Should the contractor commence site work prior to approval being given, it is entirely at his own risk.
5. All dimensions are in metres U.N.O

KEY

Inferred area of Landfill

Inspection Pits

DESCRIPTION	REV	DATE	CHKD	APPR

DRAWING STATUS

FOR INFORMATION

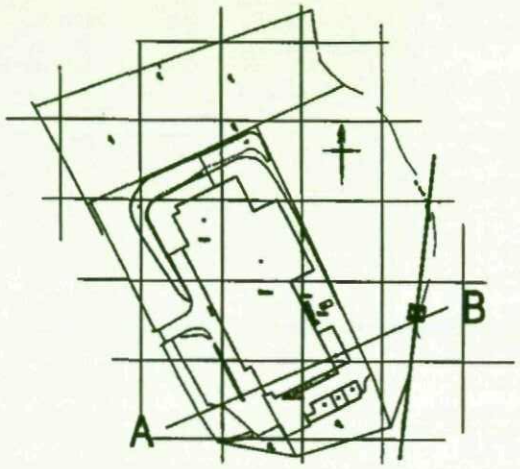
JPA JOYNES PIKE & ASSOCIATES
Civil, Structural, Geotechnical, Environmental, Transportation, Land Surveying, Health & Safety
EDA
1-2 ARC HOUSE, RICHMOND BUSINESS PARK, SERVICE ROAD, WINCHESTER, SO23 0HL
TEL (01962) 852295
FAX (01962) 852296

CLIENT
Ben Bailey Homes Ltd

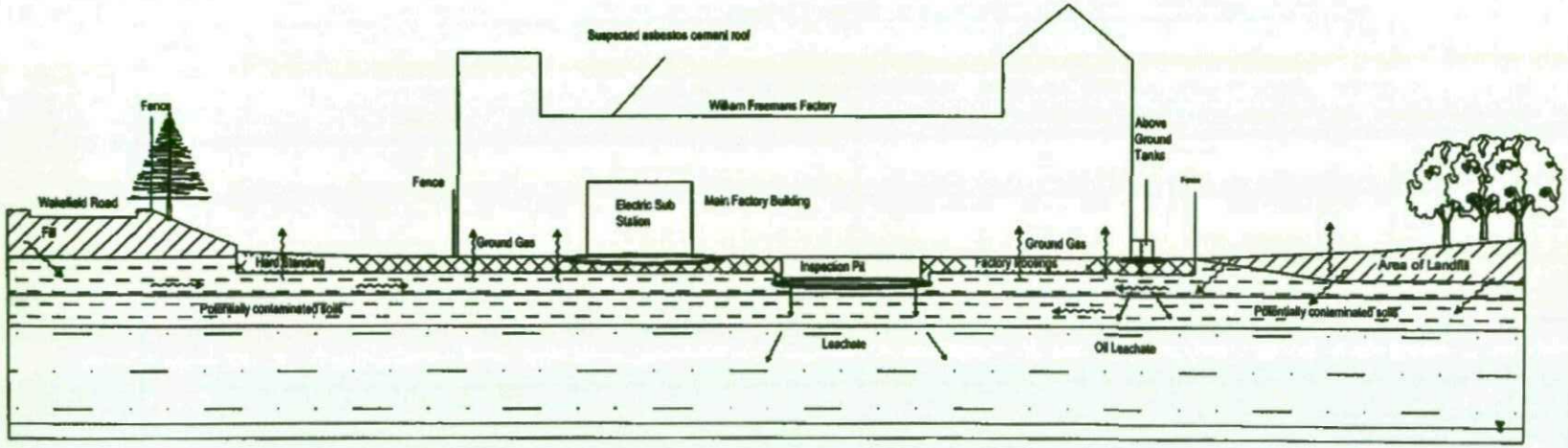
PROJECT TITLE
William Freemans,
Mapplewell

DRAWING DETAIL
Site Features Plan

DRAWN	NLM	DATE	July 2007
PROJECT ENGINEER	DRS		
CHECKED		SCALE	1:500 @ A3
APPROVED			
DRAWING NUMBER	12070197-503	REVISION	-



Existing Site Layout Showing Line of Section



© Joynes Pike & Associates Ltd.

A3

NOTES

1. DO NOT SCALE.
2. This drawing is to be read in conjunction with all other relevant drawings.
3. Should there be any conflict between the details indicated on this drawing and those indicated on other drawings, the engineer should be informed prior to construction on site.
4. Until technical approval has been obtained from the relevant authority, it should be understood that all drawings issued are Preliminary and Not for construction. Should the contractor commence site work prior to approval being given, it is entirely at his own risk.
5. All dimensions are not to be scaled.

KEY

Made Ground/ Hardstanding

Weathered Middle Coal Measures Clay

Middle Coal Measures Mudstone

Made Ground Landfill

Ground Gas

Leachate

DESCRIPTION	REV	DATE	CHKD	APPR

DRAWING STATUS

FOR INFORMATION

JPA JOYNES PIKE & ASSOCIATES LTD
CIVIL, STRUCTURAL, GEOTECHNICAL, ENVIRONMENTAL, TRANSPORTATION, LAND SURVEYING, HEALTH & SAFETY
1-2 ARK HOUSE BROOKE BUSINESS PARK SHIRES COURT KNOTTINGLEY WF11 0YN
TEL 01977 202295 FAX 01977 202299

CLIENT
BEN BAILEY HOMES LTD

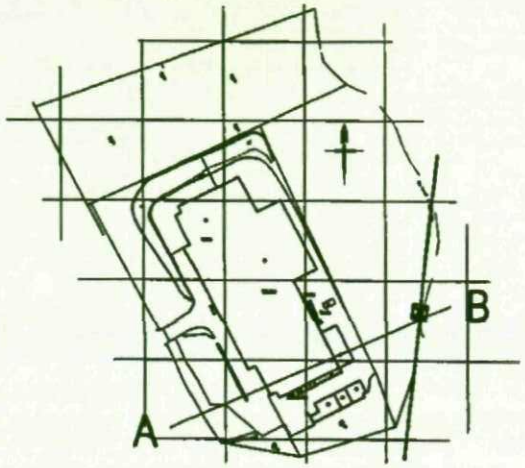
PROJECT TITLE
WILLIAM FREEMANS FACTORY
MAPPLEWELL

DRAWING DETAIL
INITIAL CONCEPTUAL SITE MODEL

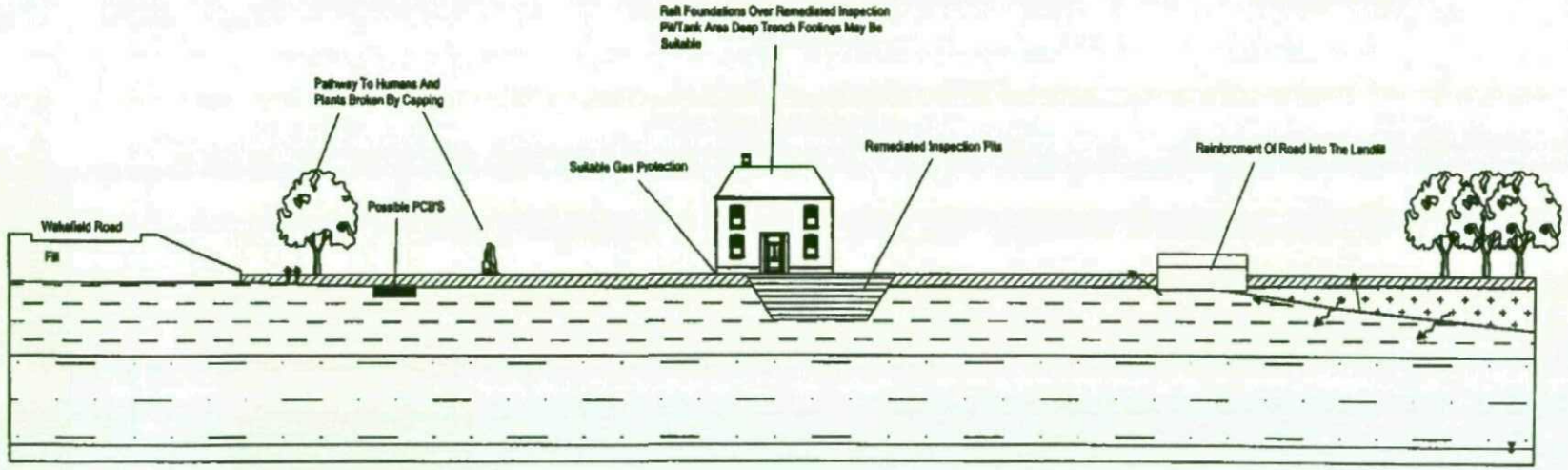
DRAWN	NLM	DATE	JULY 2007
PROJECT ENGINEER	DRS		
CHECKED	DRS	SCALE	NOT TO SCALE
APPROVED			

DRAWING NUMBER: 12070197-504

REVISION: -



Existing Site Layout Showing Line of Section



© Joynes Pike & Associates Ltd.

A3

NOTES

1. DO NOT SCALE.
2. This drawing is to be read in conjunction with all other relevant drawings.
3. Should there be any conflict between the details indicated on this drawing and those indicated on other drawings, the engineer should be informed prior to construction on site.
4. Until technical approval has been obtained from the relevant authority, it should be understood that all drawings issued are Preliminary and Not for construction. Should the contractor commence site work prior to approval being given, it is entirely at his own risk.
5. All dimensions are not to be scaled.

KEY

Made Ground, Hardstanding

Weathered Middle Coal Measures Clay

Middle Coal Measures Mudstone

Made Ground, Landfill

Potential Leaching Contaminants(soil/water)

Ground Gas

DESCRIPTION	REV	DATE	CHKD	APPR

DRAWING STATUS

FOR INFORMATION

JPA JONES PIKE & ASSOCIATES LTD
CIVIL, STRUCTURAL, GEOTECHNICAL, ENVIRONMENTAL, TRANSPORTATION, LAND SURVEYING, HEALTH & SAFETY
1-2 ARC HOUSE, TECHNO BUSINESS PARK, SUMMER ROAD, SHEFFIELD, S9 1XA
TEL 0114 2615555
FAX 0114 2615544
Email: mail@jpassociates.co.uk

CLIENT
BEN BAILEY HOMES LTD

PROJECT TITLE
WILLIAM FREEMANS FACTORY
MAPPLEWELL

DRAWING DETAIL
POST REMEDIATED
CONCEPTUAL SITE MODEL

DRAWN	RB	DATE	AUG 2007
PROJECT ENGINEER	DRS		
CHECKED		SCALE	NOT TO SCALE
APPROVED			
DRAWING NUMBER	12070197-505	REVISION	-

APPENDIX A
Historic Ordnance Survey Maps

Historical Mapping Legends

Ordnance Survey County Series and Ordnance Survey Plan 1:10,560

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

Ordnance Survey Plan 1:10,000

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

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

1:10,000 Raster Mapping

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

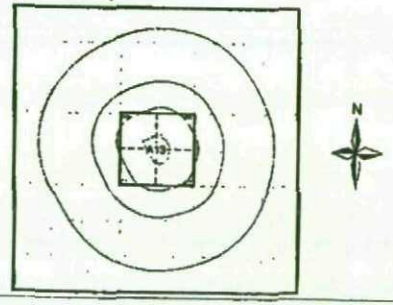
Envirocheck®

A Landmark service

Ordnance Survey mapping included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:10,560	1854 - 1855	2
Yorkshire	1:10,560	1894	3
Yorkshire	1:10,560	1907	4
Yorkshire	1:10,560	1938	5
Ordnance Survey Plan	1:10,560	1955 - 1956	6
Ordnance Survey Plan	1:10,560	1955 - 1956	7
Ordnance Survey Plan	1:10,000	1973 - 1981	8
Ordnance Survey Plan	1:10,000	1983 - 1984	9
Ordnance Survey Plan	1:10,000	1990 - 1993	10
10K Raster Mapping	1:10,000	2000	11
10K Raster Mapping	1:10,000	2006	12

Historical Map - Slice A



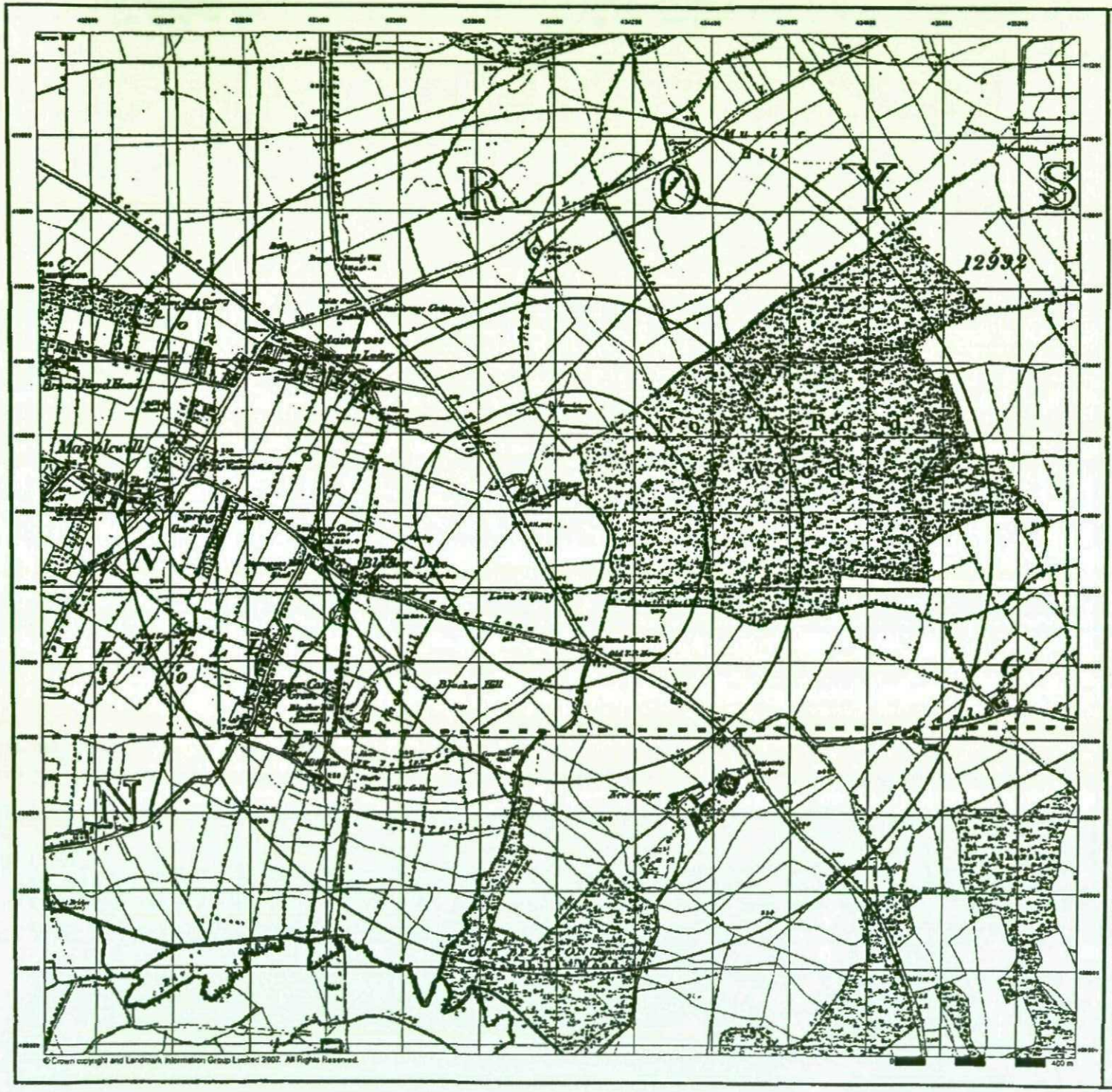
Order Details

Order Number: 22075148_1_1
Customer Ref: 12070197
National Grid Reference: 434020, 409930
Slice: A
Site Area (Ha): 4.44
Search Buffer (m): 1000

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel: 0870 850 6670
Fax 0870 850 6671
Web www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2002. All Rights Reserved.

Envirocheck®
A Landmark service

Yorkshire
Published 1854 - 1855
Source map scale - 1:10,560

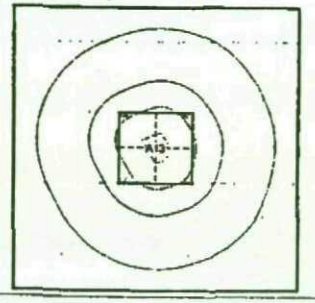
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some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

Map Name(s) and Date(s)

262_00
1854

274_00
1855

Historical Map - Slice A



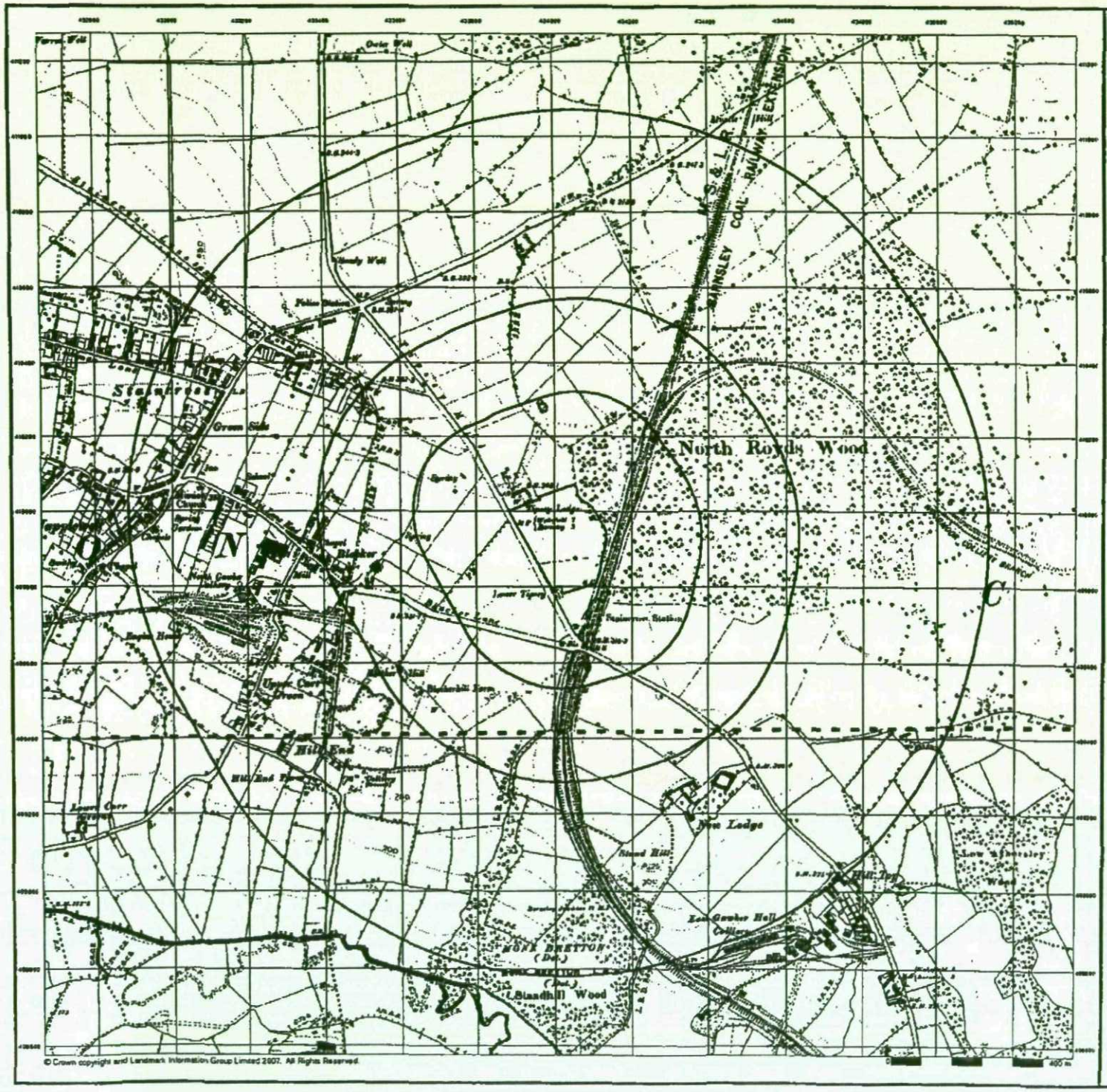
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	1000

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel 0870 850 6670
Fax 0870 850 6671
Web www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2007. All Rights Reserved.

Envirocheck®
A Landmark service

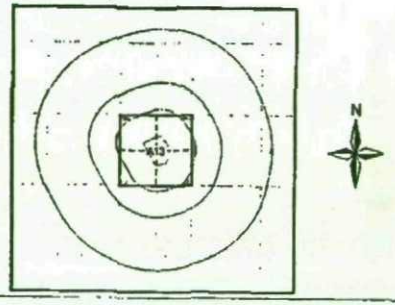
Yorkshire
Published 1894
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1939, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)



Historical Map - Slice A



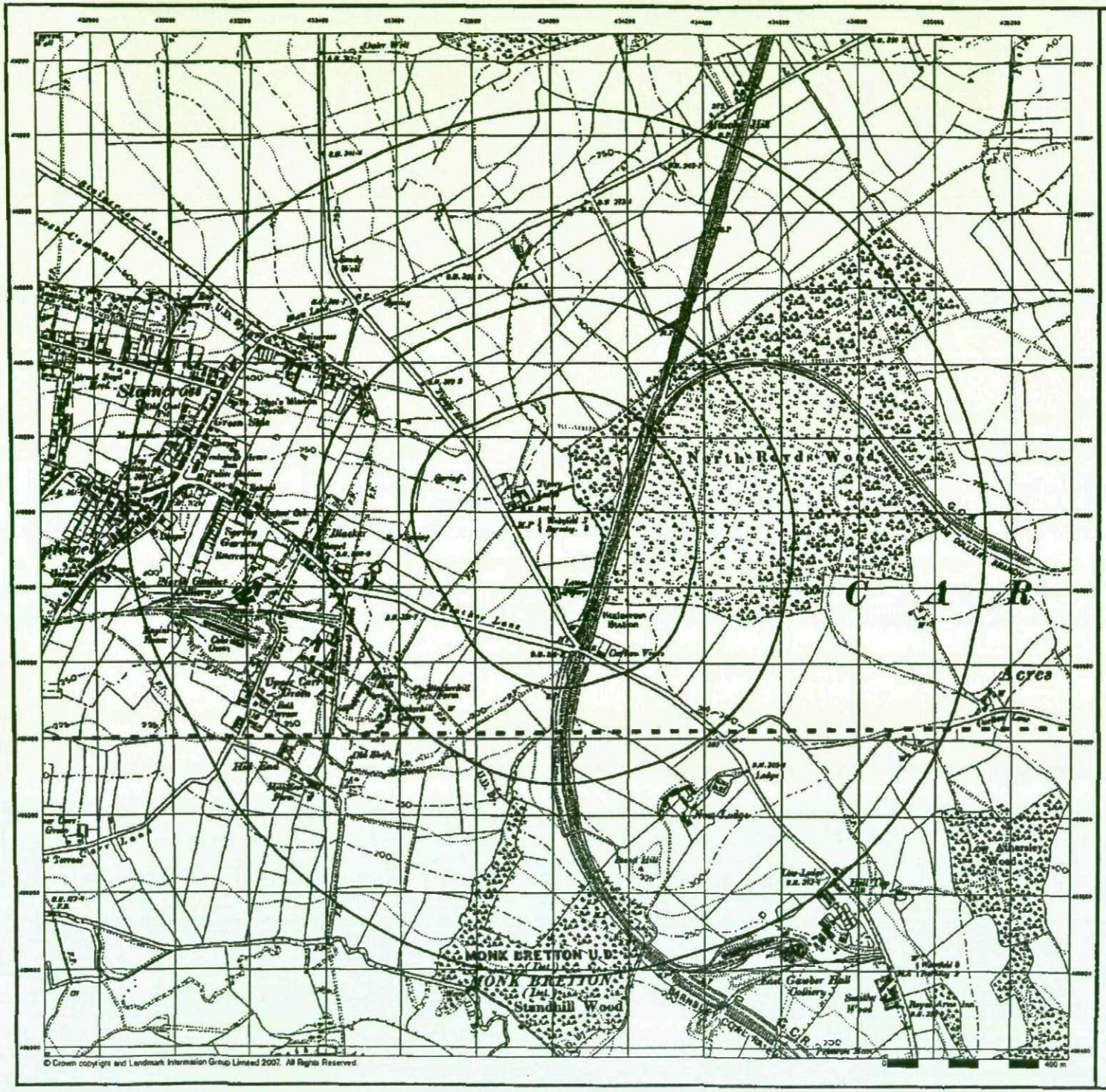
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	1000

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel 0870 850 6670
Fax 0870 850 6671
Web www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2007. All Rights Reserved.

Envirocheck®

A Landmark service

Yorkshire

Published 1907

Source map scale - 1:10,560

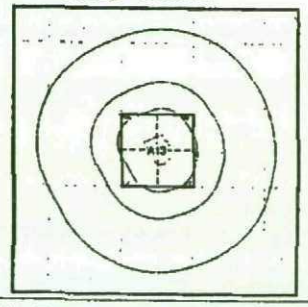
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1939, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

262_SE
1907

274_NE
1907

Historical Map - Slice A



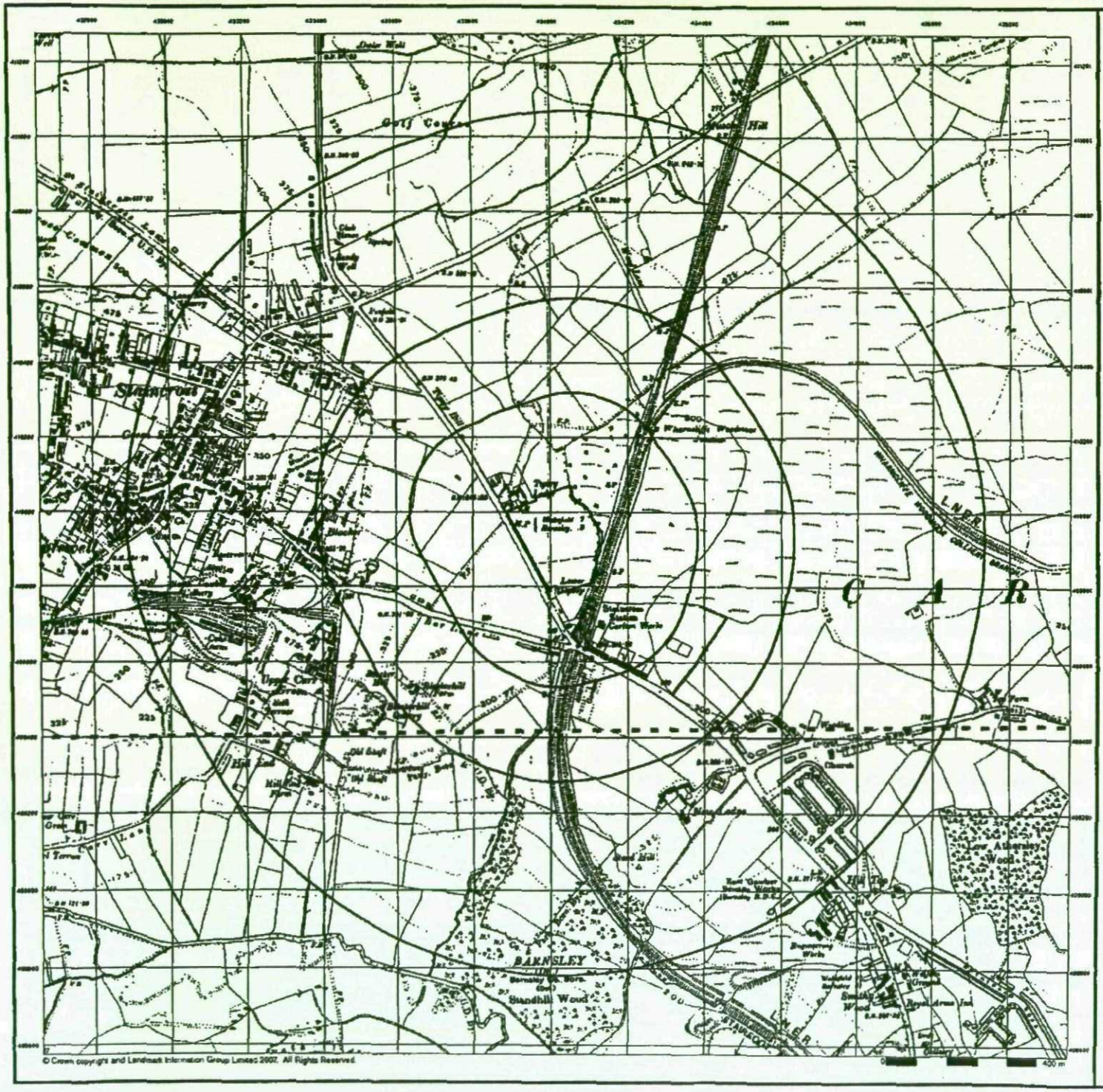
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	1000

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel 0870 850 6670
Fax 0870 850 6671
Web www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2007. All Rights Reserved.

Envirocheck®
A Landmark service

Yorkshire
Published 1938
Source map scale - 1:10,560

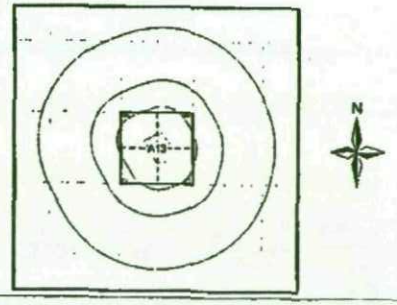
The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1936, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940 s, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

262_SE 1938

274_NE 1938

Historical Map - Slice A



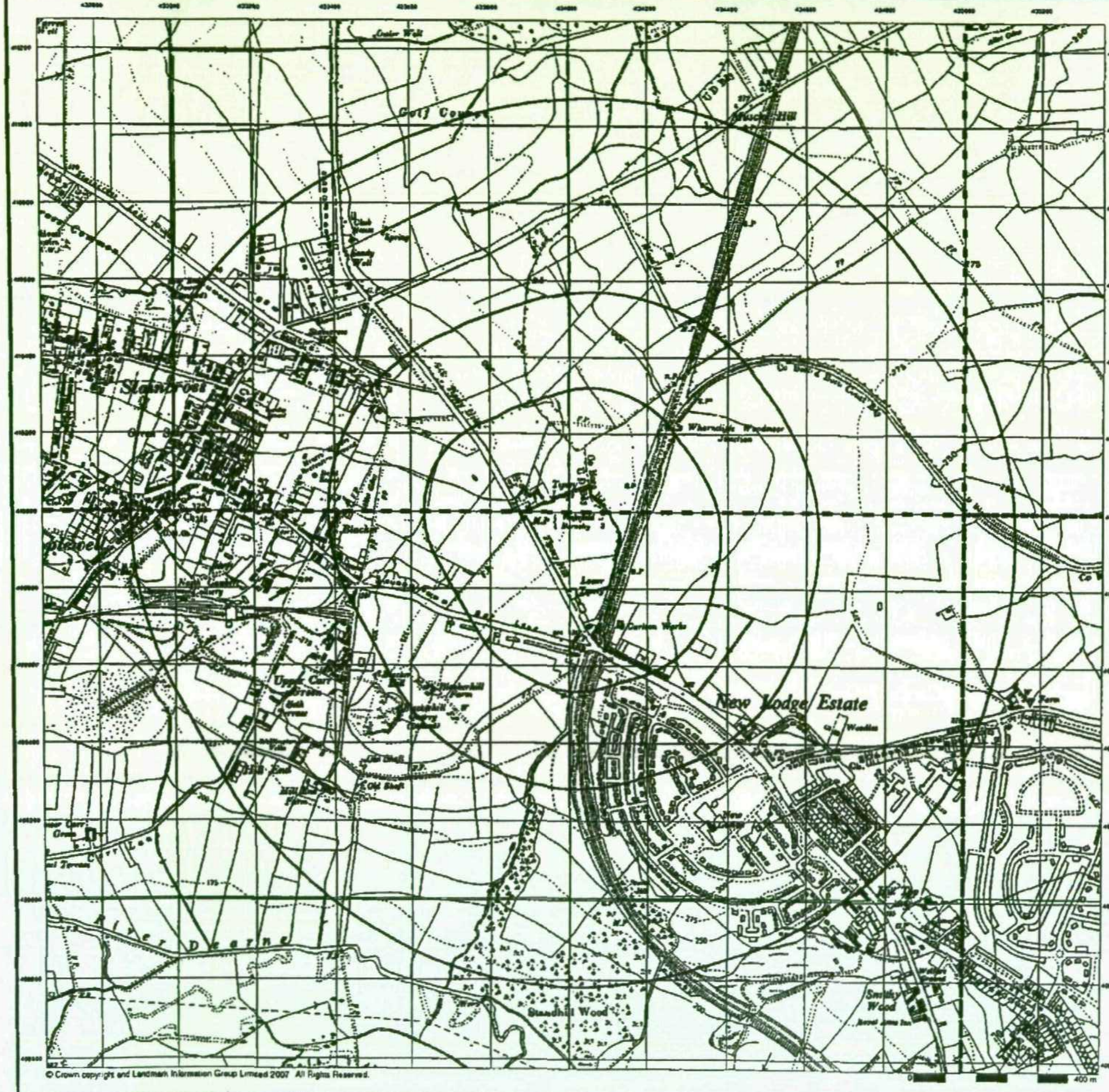
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	1000

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel: 0870 850 6670
Fax: 0870 850 6671
Web: www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2007 All Rights Reserved.

Envirocheck®

A Landmark service

Ordnance Survey Plan

Published 1955 - 1956

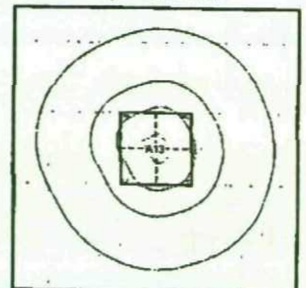
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

SE31SW 1956	SE31SE 1956
SE30NW 1956	SE30NE 1955

Historical Map - Slice A



Order Details

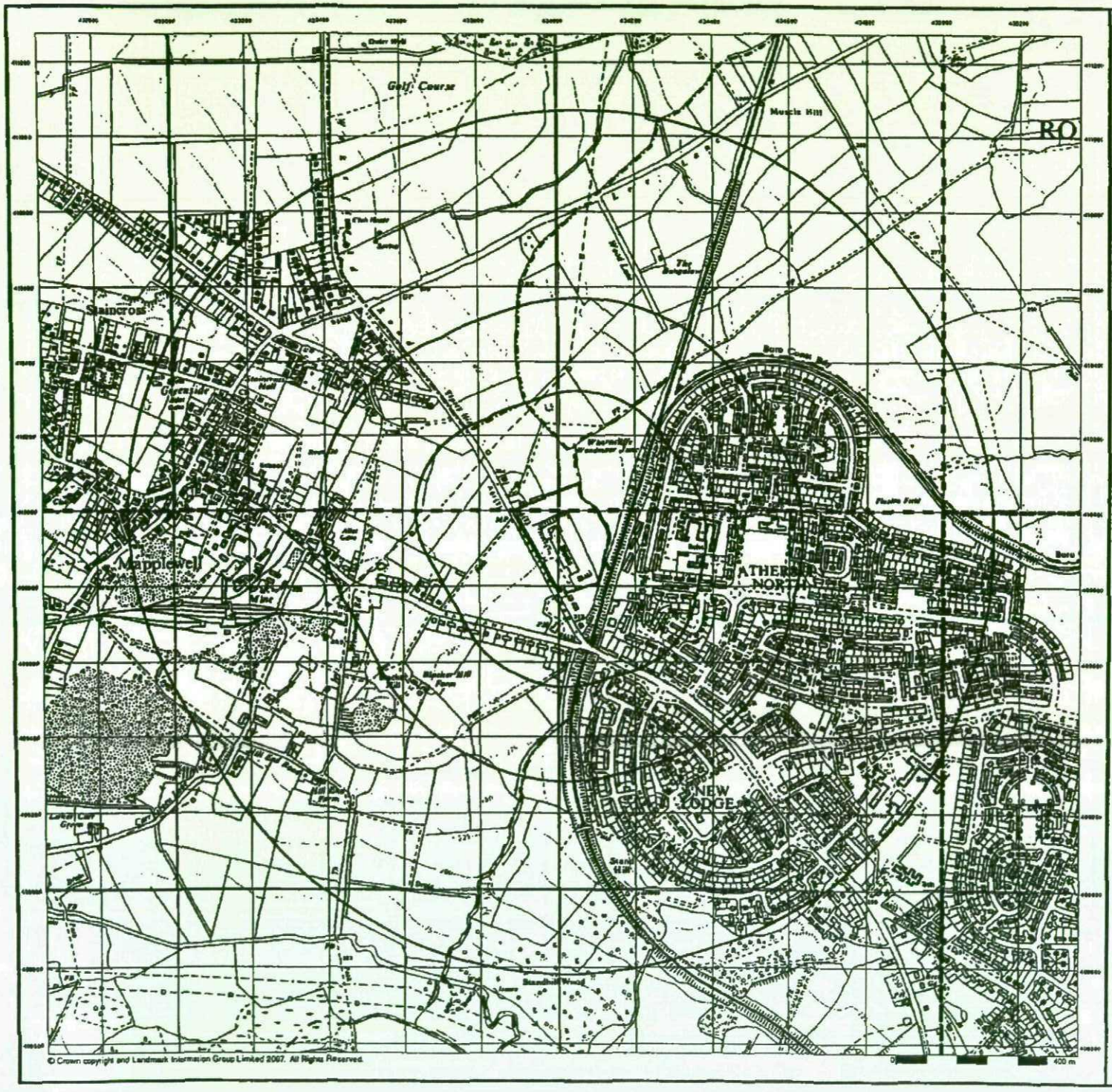
Order Number: 22075148_1_1
Customer Ref: 12070197
National Grid Reference: 434020, 409930
Slice: A
Site Area (Ha): 4.44
Search Buffer (m): 1000

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK® Information Group

Tel: 0870 850 6670
Fax: 0870 850 6671
Web: www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2007. All Rights Reserved.

Envirocheck®
A Landmark service

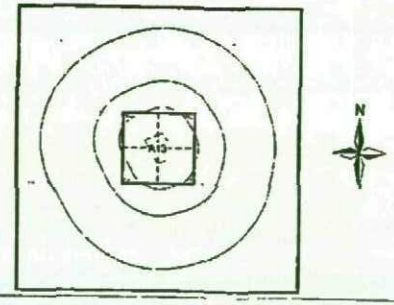
Ordnance Survey Plan
Published 1965 - 1966
Source map scale - 1:10,560

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

Map Name(s) and Date(s)

SE31SW 1965	SE31SE 1966
SE30NW 1956	SE30NE 1966

Historical Map - Slice A



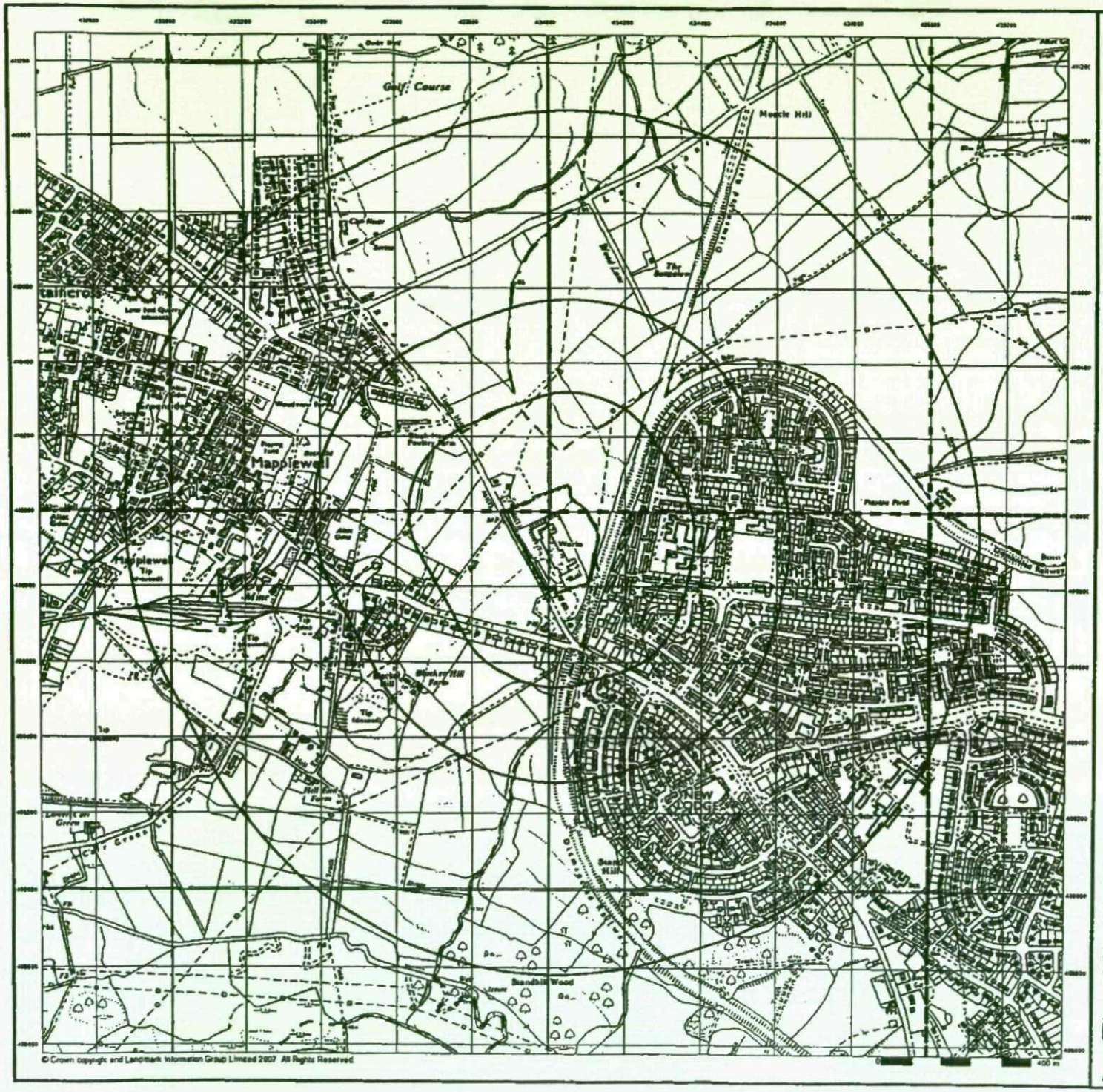
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	1000

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel 0870 850 6670
Fax 0870 850 6671
Web www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2007 All Rights Reserved

Envirocheck®
A Landmark service

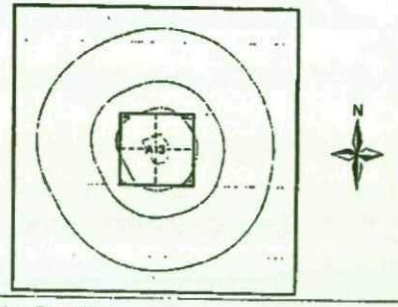
Ordnance Survey Plan
Published 1973 - 1981
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1936, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SE31 SW 1980	SE31 SE 1981
SE30NW 1973	SE30NE 1974

Historical Map - Slice A



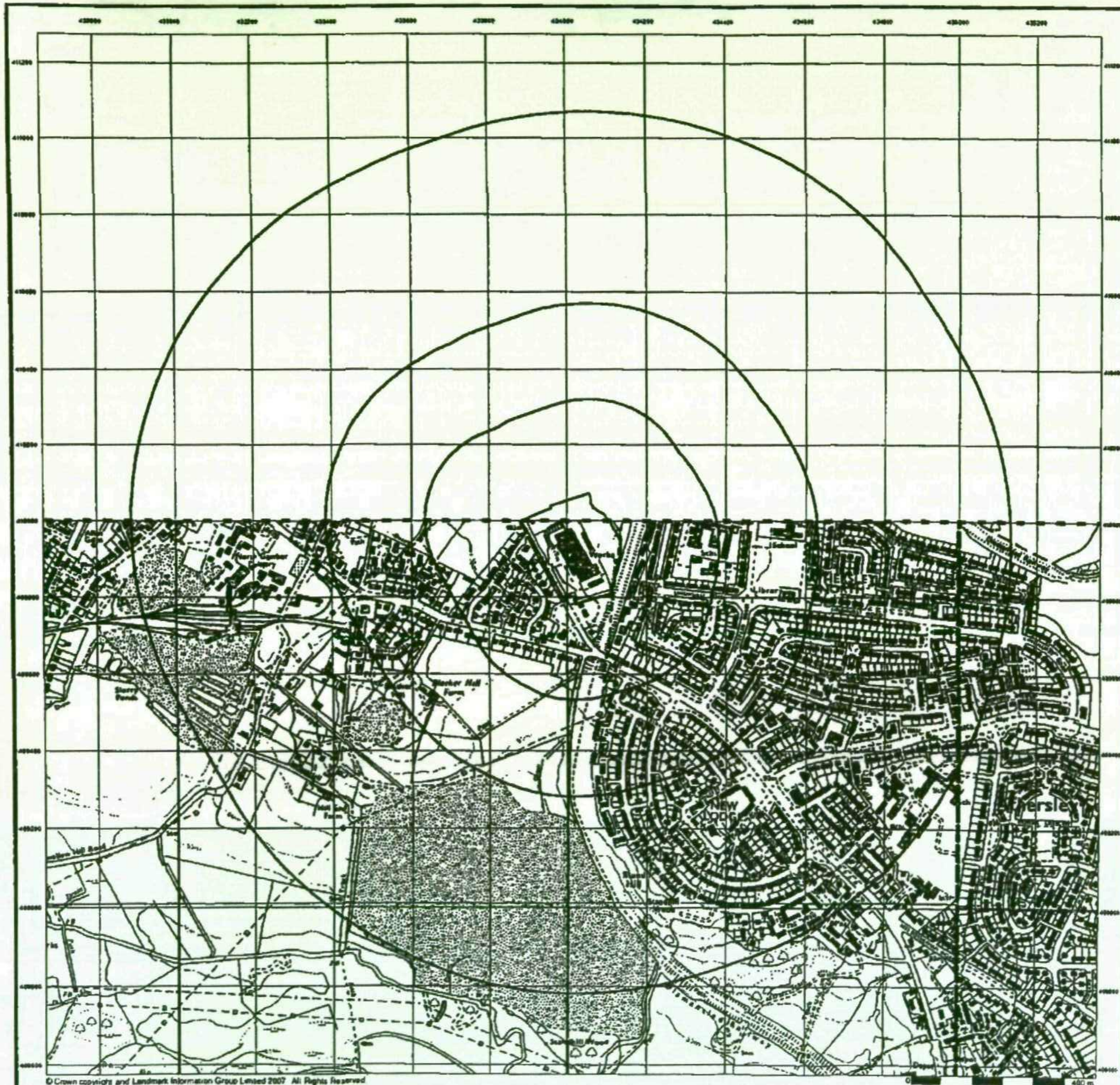
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	1000

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel: 0870 850 8670
Fax: 0870 850 8671
Web: www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2007. All Rights Reserved

Envirocheck®

A Landmark service

Ordnance Survey Plan

Published 1983 - 1984

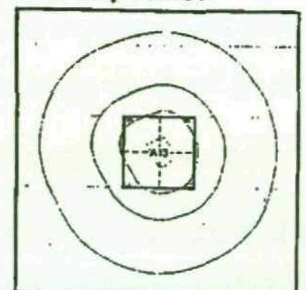
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SE30NW 1983	SE30NE 1984

Historical Map - Slice A



Order Details

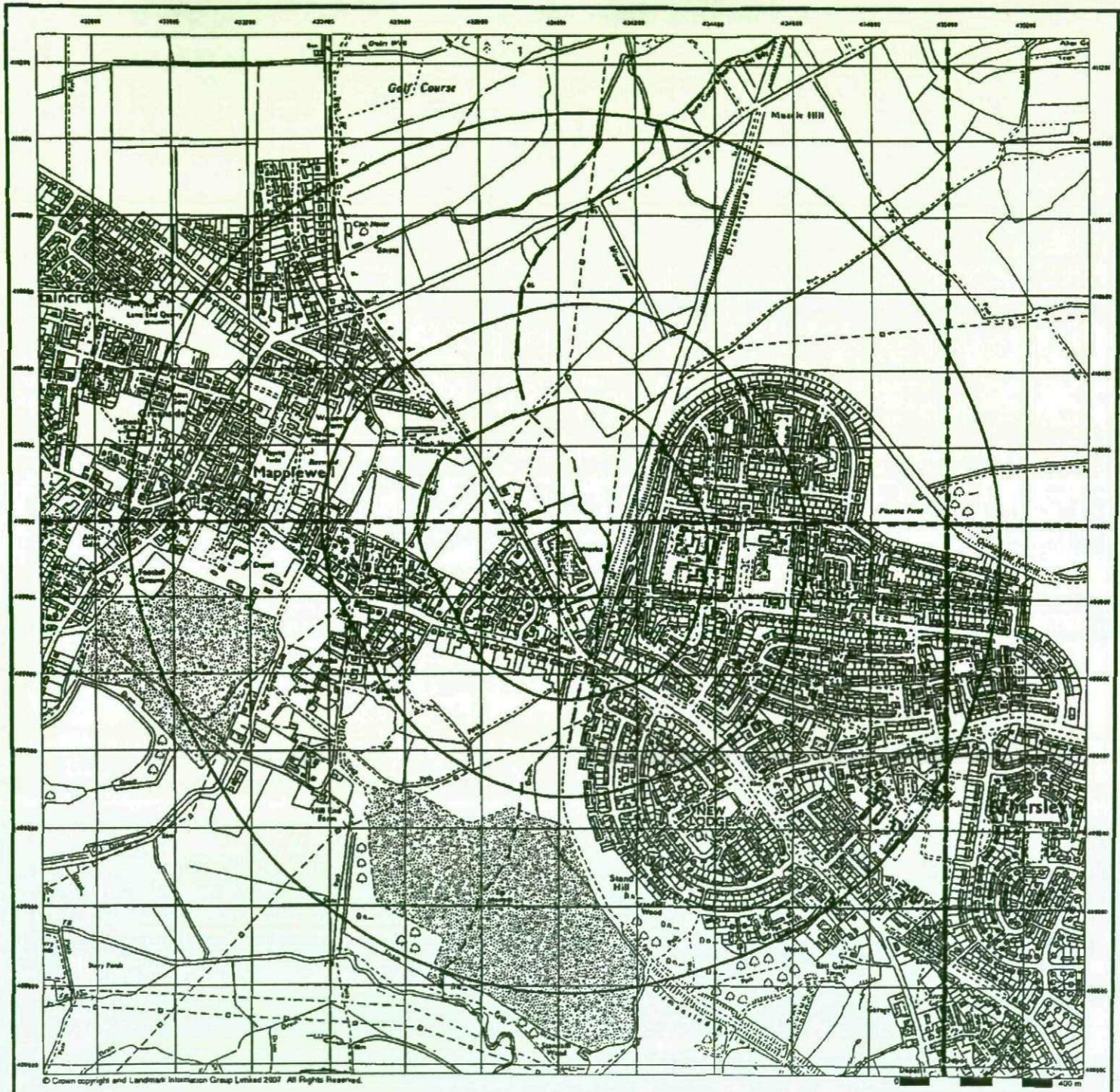
Order Number: 22075148_1_1
Customer Ref: 12070197
National Grid Reference: 434020, 409930
Slice: A
Site Area (Ha): 4.44
Search Buffer (m): 1000

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK® Information Group

Tel 0870 850 6670
Fax 0870 850 6671
Web www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2007 All Rights Reserved.

Envirocheck®
A Landmark service

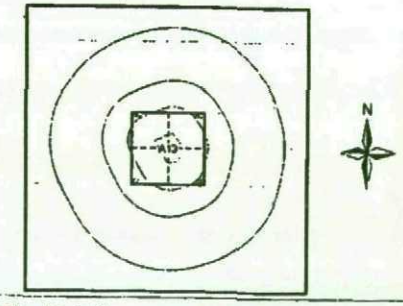
Ordnance Survey Plan
Published 1990 - 1993
Source map scale - 1:10,000

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas; these maps were used to update the 1:10,560 maps. The published date given therefore is often some years later than the surveyed date. Before 1936, all OS maps were based on the Cassini Projection, with independent surveys of a single county or group of counties, giving rise to significant inaccuracies in outlying areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unfinished - with all military camps and other strategic sites removed. These maps were initially overprinted with the National Grid. In 1970, the first 1:10,000 maps were produced using the Transverse Mercator Projection. The revision process continued until recently, with new editions appearing every 10 years or so for urban areas.

Map Name(s) and Date(s)

SE31SW 1991	SE31SE 1990
SE30NW 1993	SE30NE 1993

Historical Map - Slice A



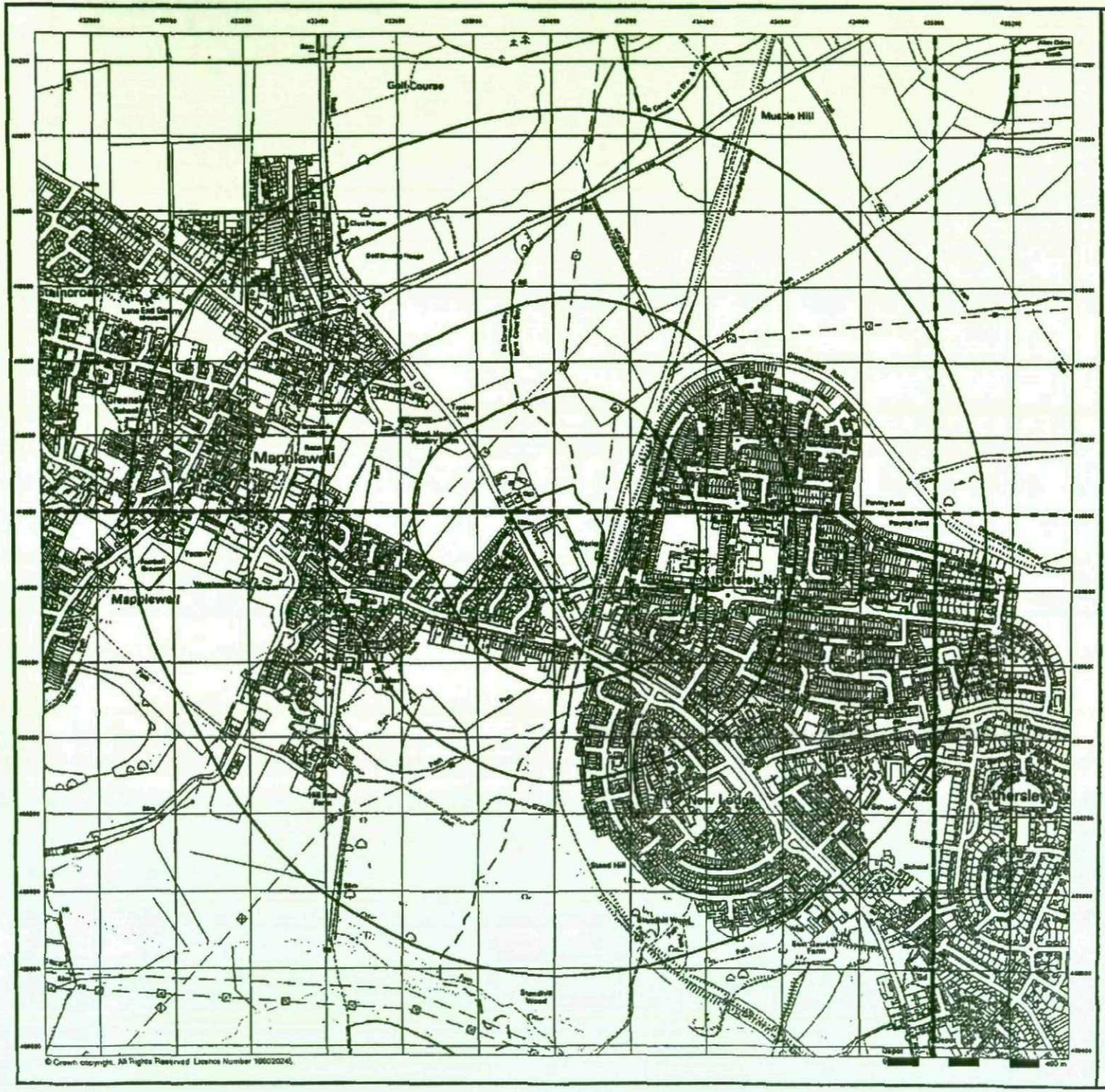
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	1000

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel 0870 850 8570
Fax 0870 850 8571
Web www.envirocheck.co.uk



© Crown copyright. All Rights Reserved. Licence Number 100020248.

Envirocheck®
A Landmark service

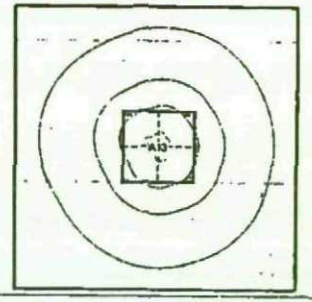
10K Raster Mapping
Published 2000
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SE31SW 2000	SE31SE 2000
SE30NW 2000	SE30NE 2000

Historical Map - Slice A



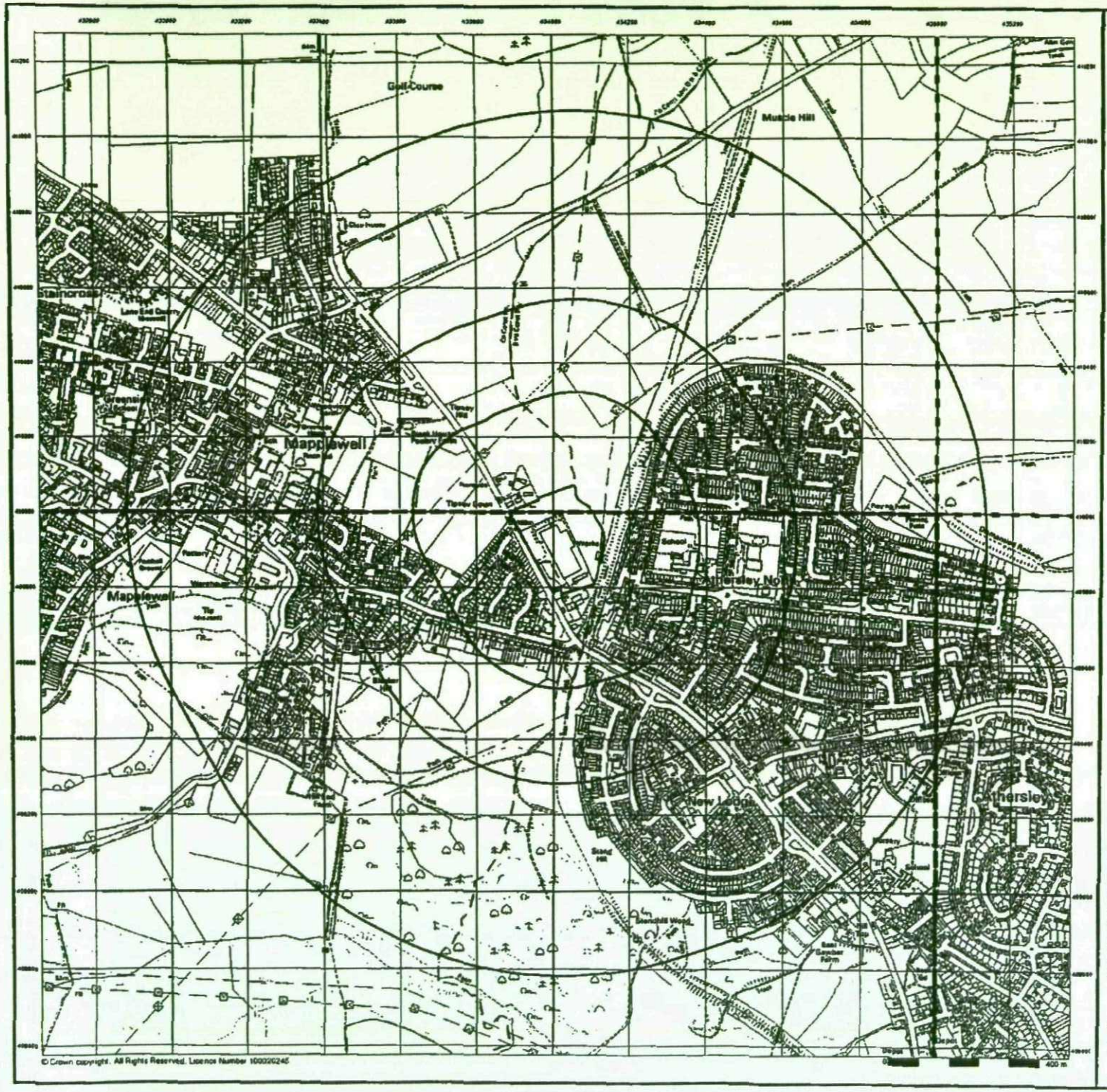
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	1000

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel: 0870 850 6670
Fax: 0870 850 6671
Web: www.envirocheck.co.uk



© Crown copyright. All Rights Reserved. Licence Number 100020246

Envirocheck®
A Landmark service

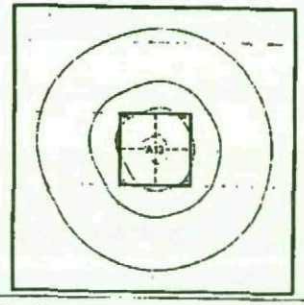
10K Raster Mapping
Published 2006
Source map scale - 1:10,000

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

Map Name(s) and Date(s)

SE31SW 2006	SE31SE 2006
SE30NW 2006	SE30NE 2006

Historical Map - Slice A



Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	1000

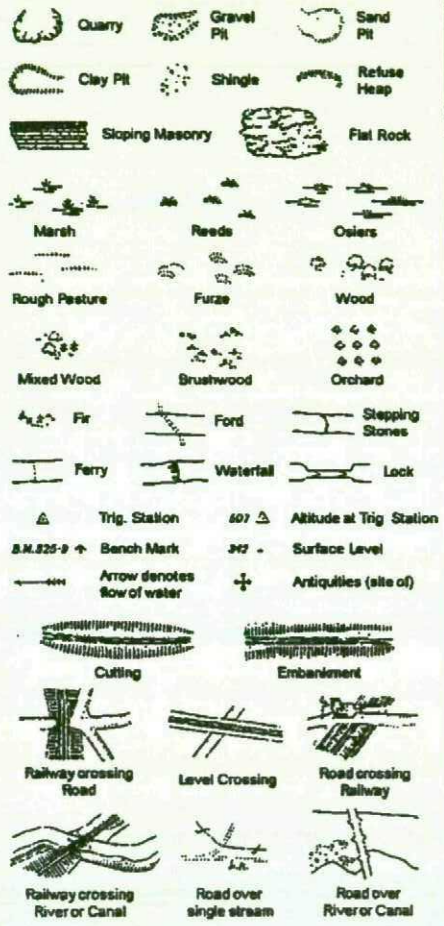
Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel. 0870 850 6670
Fax. 0870 850 6671
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

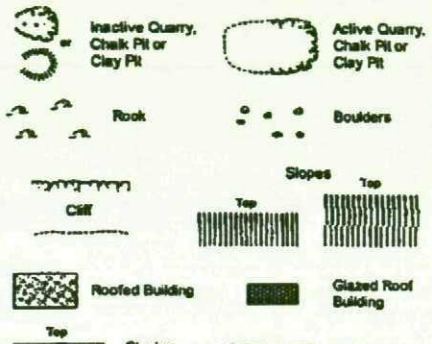
Administrative County & Civil Parish Boundary

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	Sl.	Sluice
F.P.	Foot Path	Spr.	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

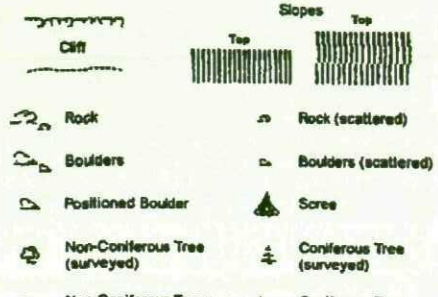
Admin. County or County Bor. Boundary

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 Trock
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)

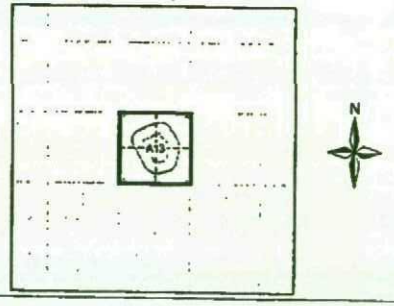
Bks	Barracks	P	Pillar, Pole or Post
Bty	Battery	PO	Post Office
Cemy	Cemetery	PC	Public Convenience
Chy	Chimney	Pp	Pump
Cis	Cistern	Ppg Sta	Pumping Station
Disntd Rly	Disnentled Railway	PW	Place of Worship
El Gen Sta	Electricity Generating Station	Sewage Ppg Sta	Sewage Pumping Station
El P	Electricity 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 Fen.	Tk	Tank or Track
Gas Gov	Gas Valve Compound	Tr	Trough
GVC	Gas Governor	Wd Pp	Wind Pump
GP	Guide Post	Wr Pt, Wr T	Water Point, Water Tap
MH	Manhole	Wks	Works (building or area)
MP, MS	Mile Post or Mile Stone	W	Well

Envirocheck®
A Landmark service

Ordnance Survey mapping included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:2,500	1893	2
Yorkshire	1:2,500	1906	3
Yorkshire	1:2,500	1918	4
Ordnance Survey Plan	1:2,500	1960 - 1962	6
Ordnance Survey Plan	1:2,500	1967 - 1974	6
Ordnance Survey Plan	1:1,250	1969 - 1977	7
Ordnance Survey Plan	1:1,250	1979	8
Additional SIMs	1:2,500	1988	9
Additional SIMs	1:1,250	1969 - 1991	10
Additional SIMs	1:1,250	1991	11
Large-Scale National Grid Data	1:1,250	1993	12
Large-Scale National Grid Data	1:1,250	1994	13

Historical Map - Segment A13



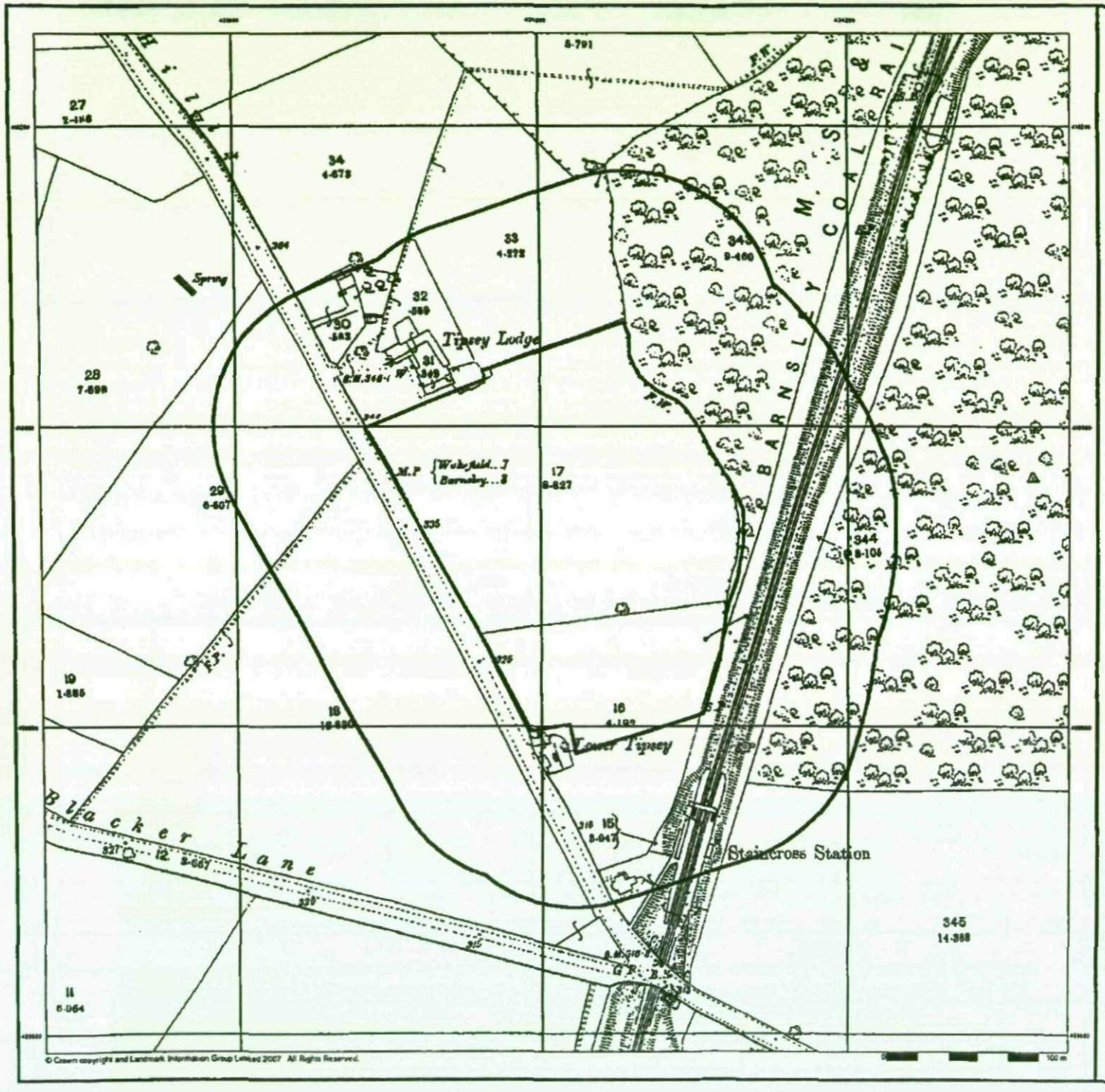
Order Details

Order Number: 22075148_1_1
Customer Ref: 12070197
National Grid Reference: 434020, 409930
Slice: A
Site Area (Ha): 4.44
Search Buffer (m): 100

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel. 0870 850 6670
Fax. 0870 850 6671
Web: www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2007 All Rights Reserved.

Envirocheck®
A Landmark service

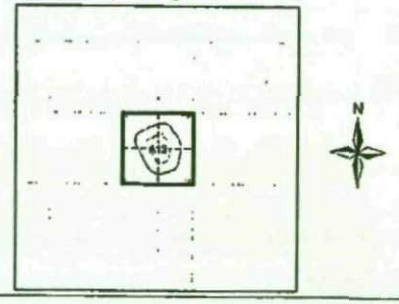
Yorkshire
Published 1893
Source map scale - 1:2,500

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 1936, 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



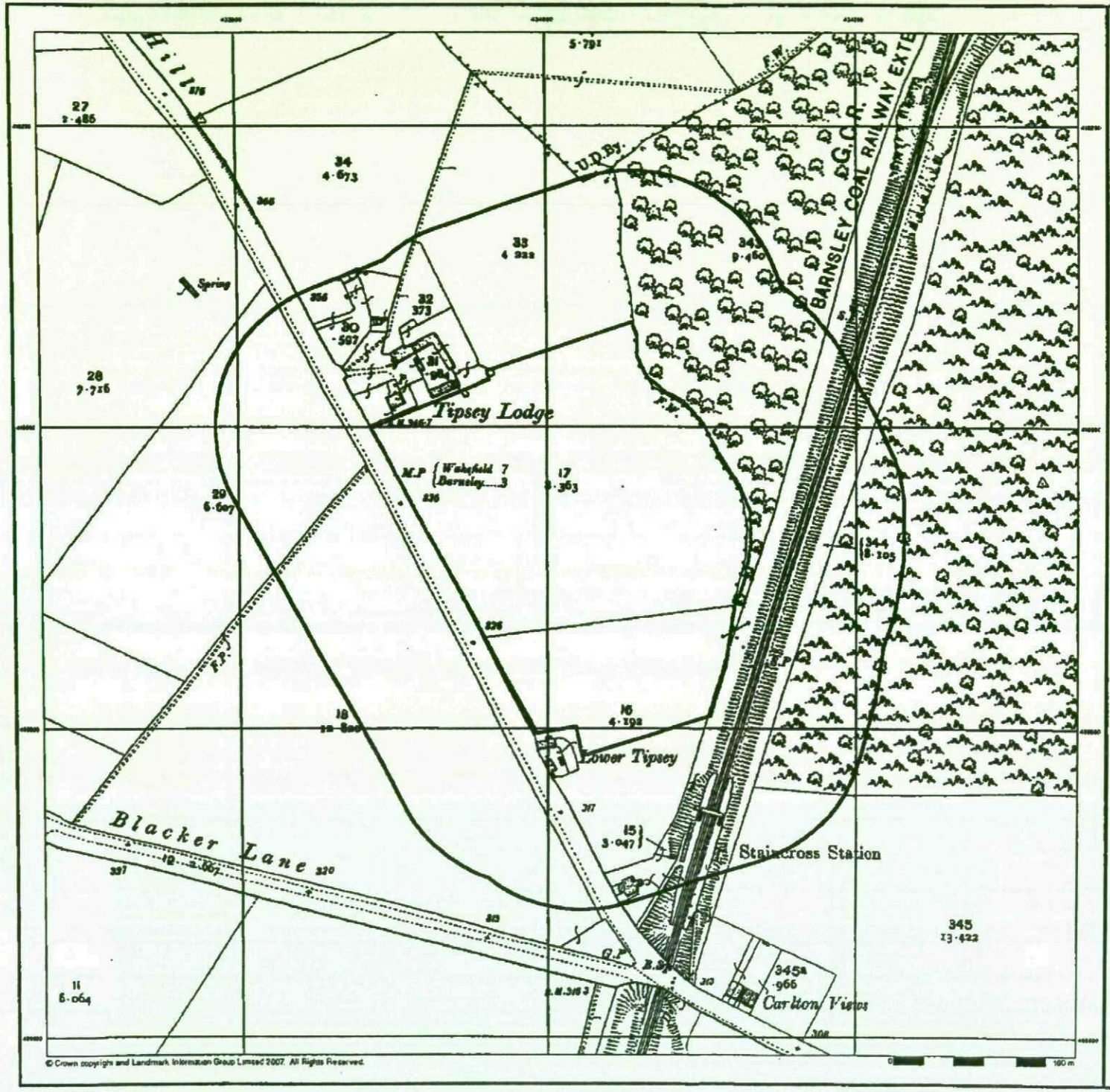
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	100

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel 0870 850 6670
Fax 0870 850 6671
Web www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2007. All Rights Reserved.

Envirocheck®
A Landmark service

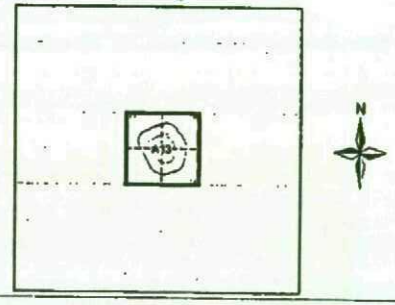
Yorkshire
Published 1906
Source map scale - 1:2,500

The historical maps shown were reproduced from maps predominantly held at the scale adopted for England, Wales and Scotland in the 1840's. In 1854 the 1:2,500 scale was adopted for mapping urban areas and by 1886 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 1936, 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



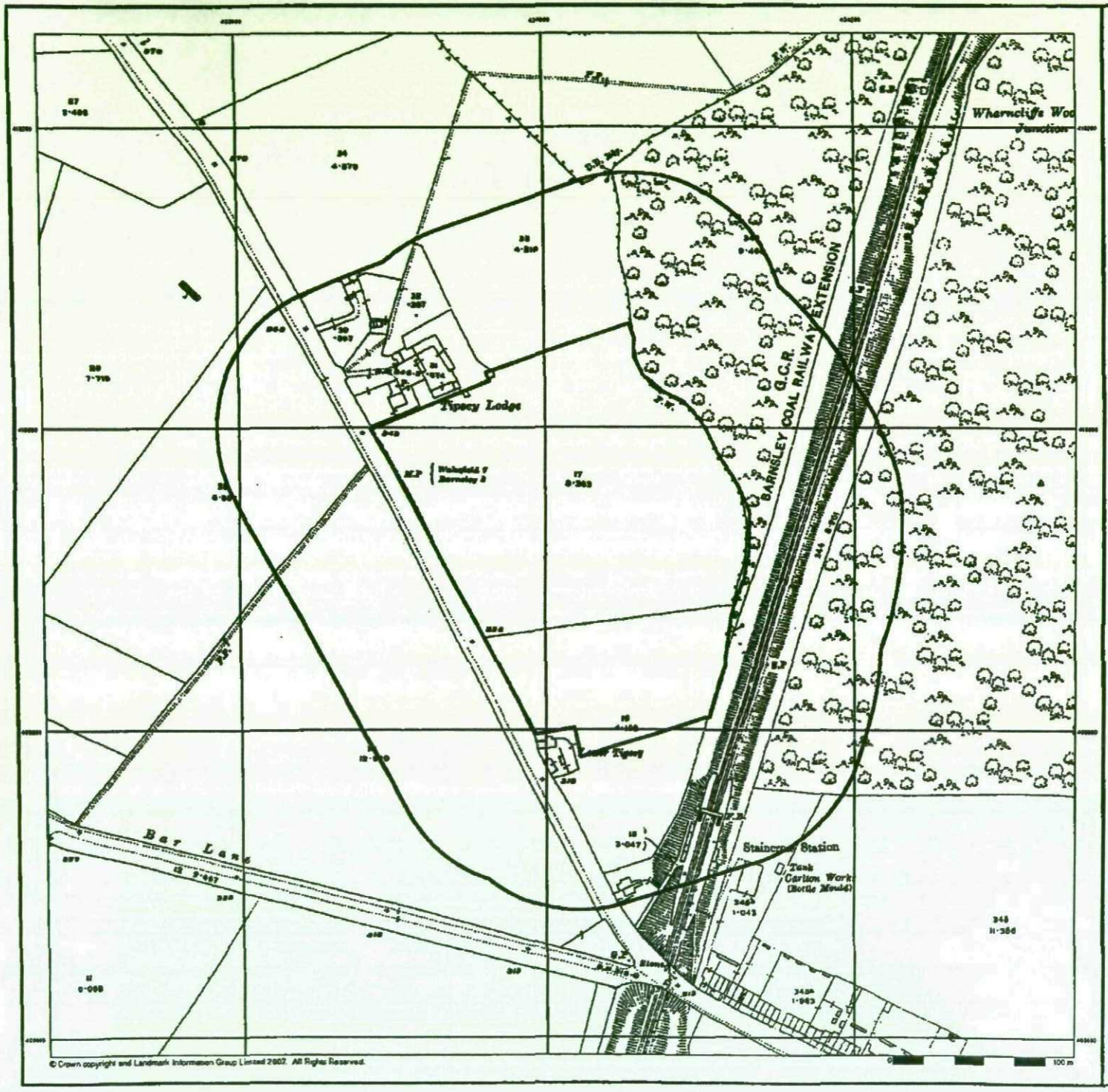
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	100

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel 0870 850 6670
Fax 0870 850 6671
Web www.envirocheck.co.uk



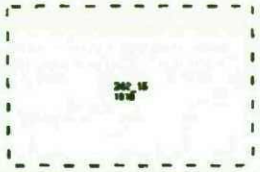
© Crown copyright and Landmark Information Group Limited 2002. All Rights Reserved.

Envirocheck®
A Landmark service

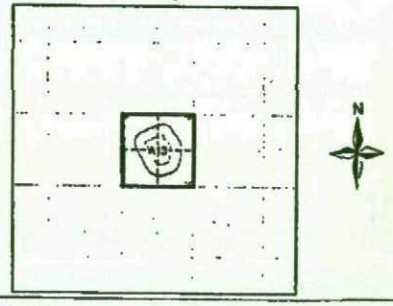
Yorkshire
Published 1918
Source map scale - 1:2,500

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



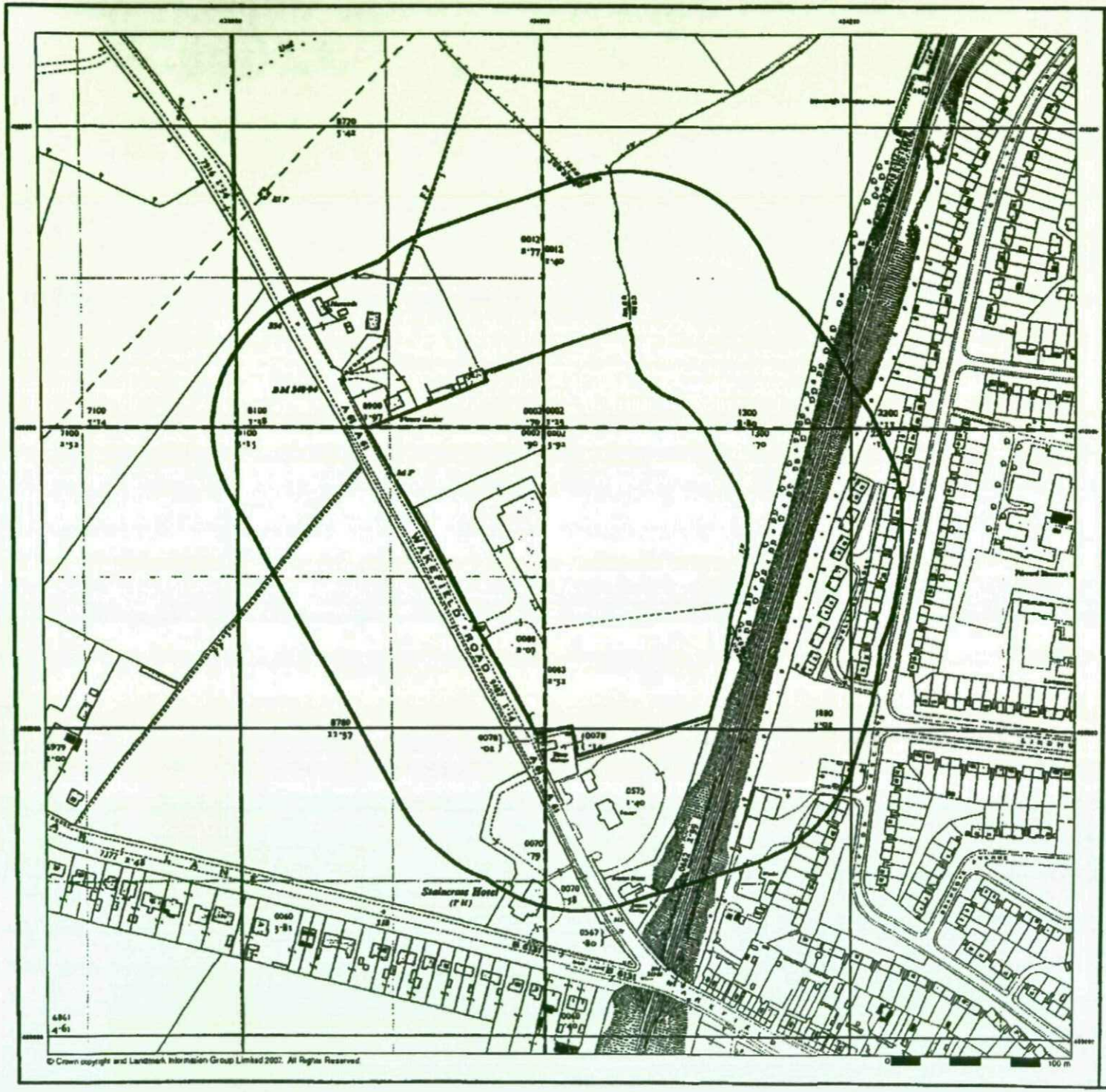
Order Details

Order Number:	22076148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	100

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel. 0870 850 8670
Fax 0870 850 6671
Web www.envirocheck.co.uk



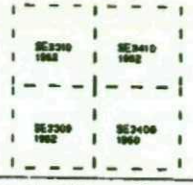
© Crown copyright and Landmark Information Group Limited 2007. All Rights Reserved

Envirocheck®
A Landmark service

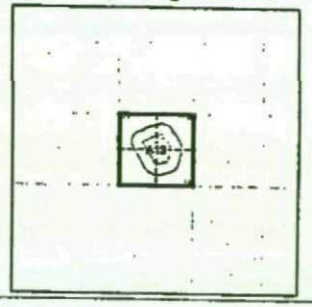
Ordnance Survey Plan
Published 1960 - 1962
Source map scale - 1:2,500

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 1936, 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



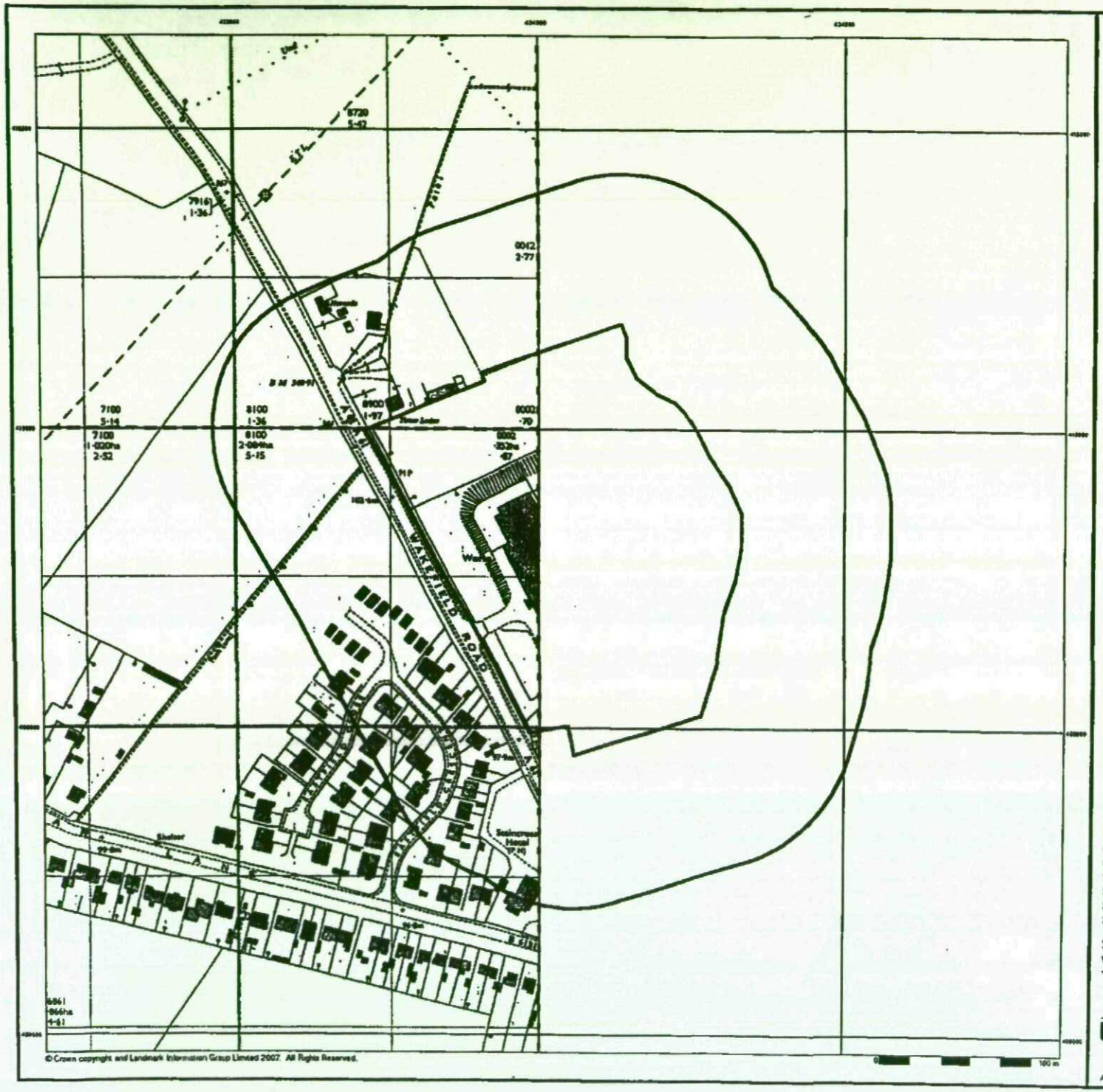
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	100

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel: 0870 850 6670
Fax: 0870 850 6671
Web: www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2007. All Rights Reserved.

Envirocheck®
A Landmark service

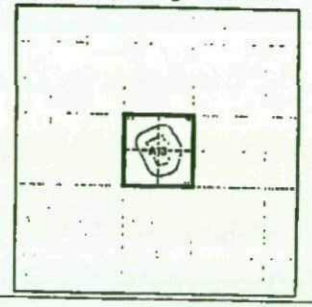
Ordnance Survey Plan
Published 1967 - 1974
Source map scale - 1:2,500

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



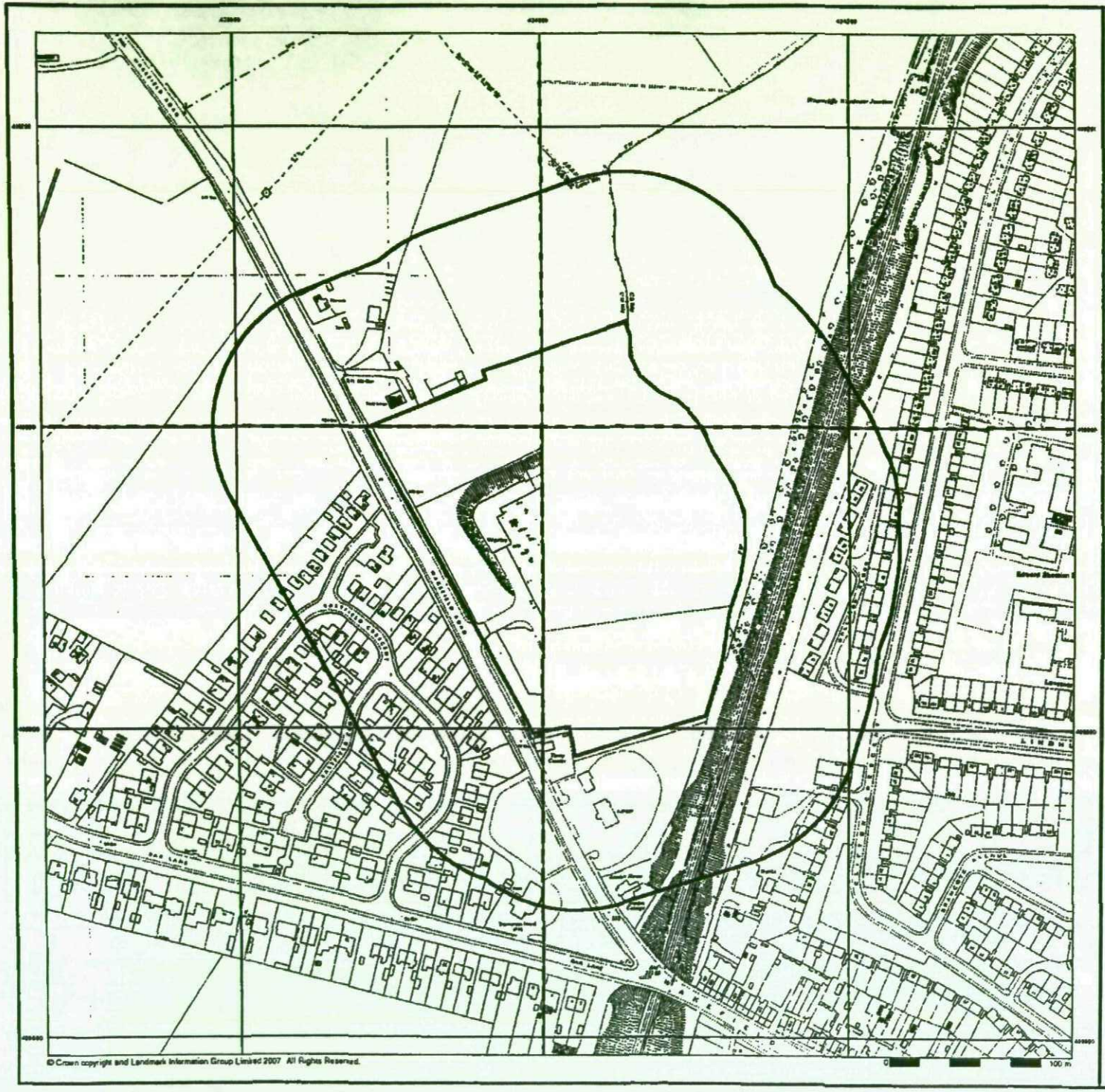
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	100

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel: 0870 850 8570
Fax: 0870 850 8571
Web: www.envirocheck.co.uk



Envirocheck®
A Landmark service

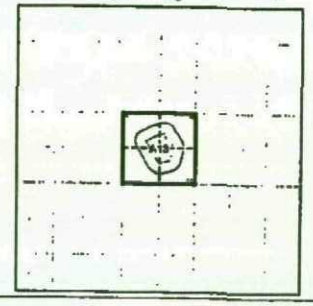
Ordnance Survey Plan
Published 1959 - 1977
Source map scale - 1:1,250

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 1939, 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



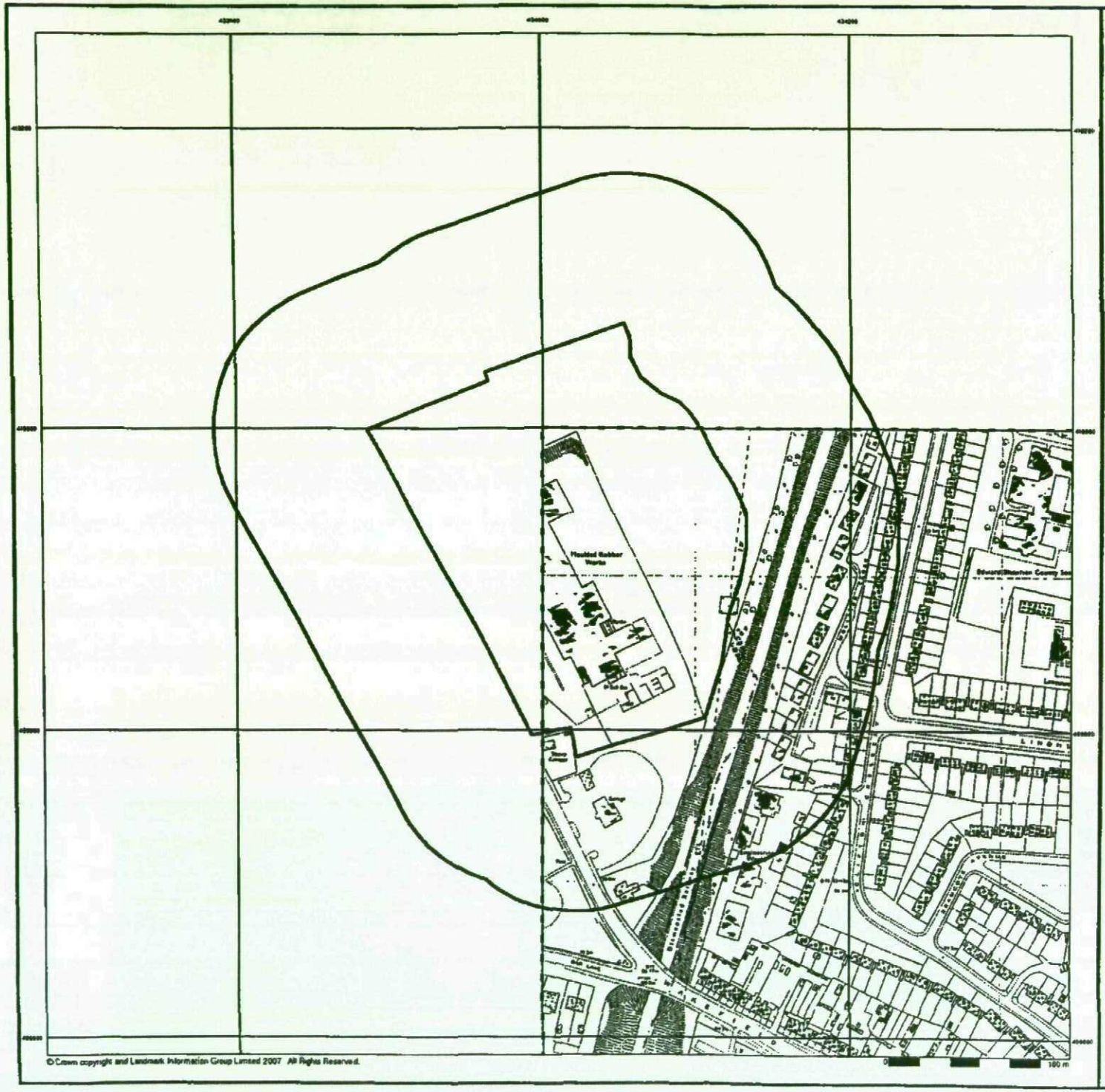
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	100

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel: 0870 850 6670
Fax: 0870 850 6671
Web: www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2007 All Rights Reserved.

Envirocheck®
A Landmark service

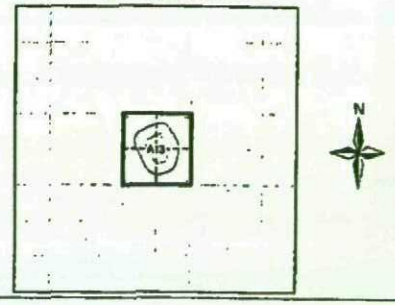
Ordnance Survey Plan
Published 1970
Source map scale - 1:1,250

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



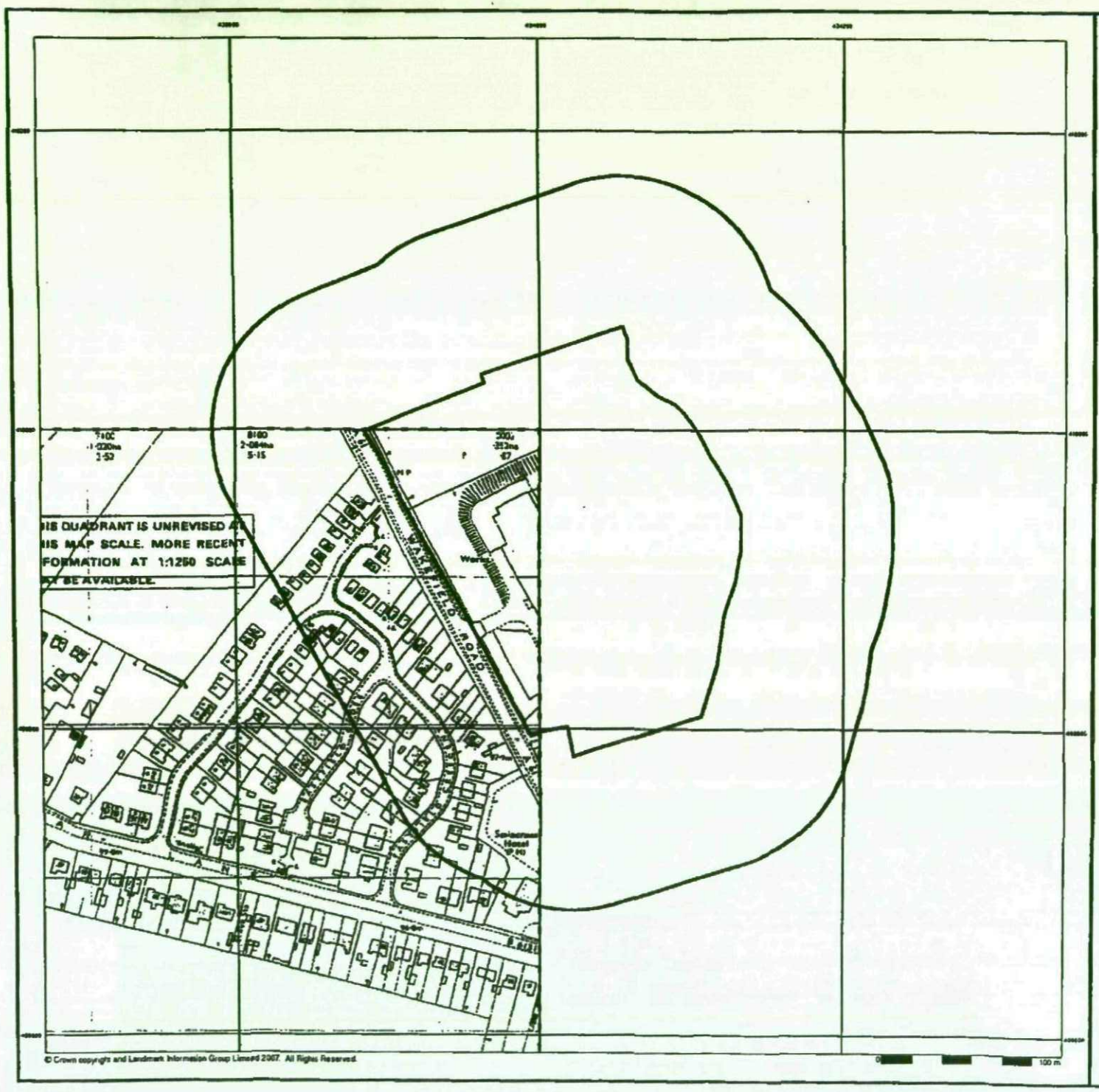
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	100

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel: 0870 850 6670
Fax: 0870 850 6671
Web: www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2007. All Rights Reserved.

Envirocheck®
A Landmark service

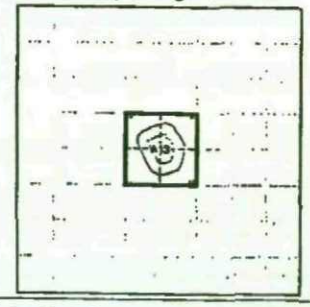
Additional SIMs
Published 1989
Source map scale - 1:2,500

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

Map Name(s) and Date(s)



Historical Map - Segment A13



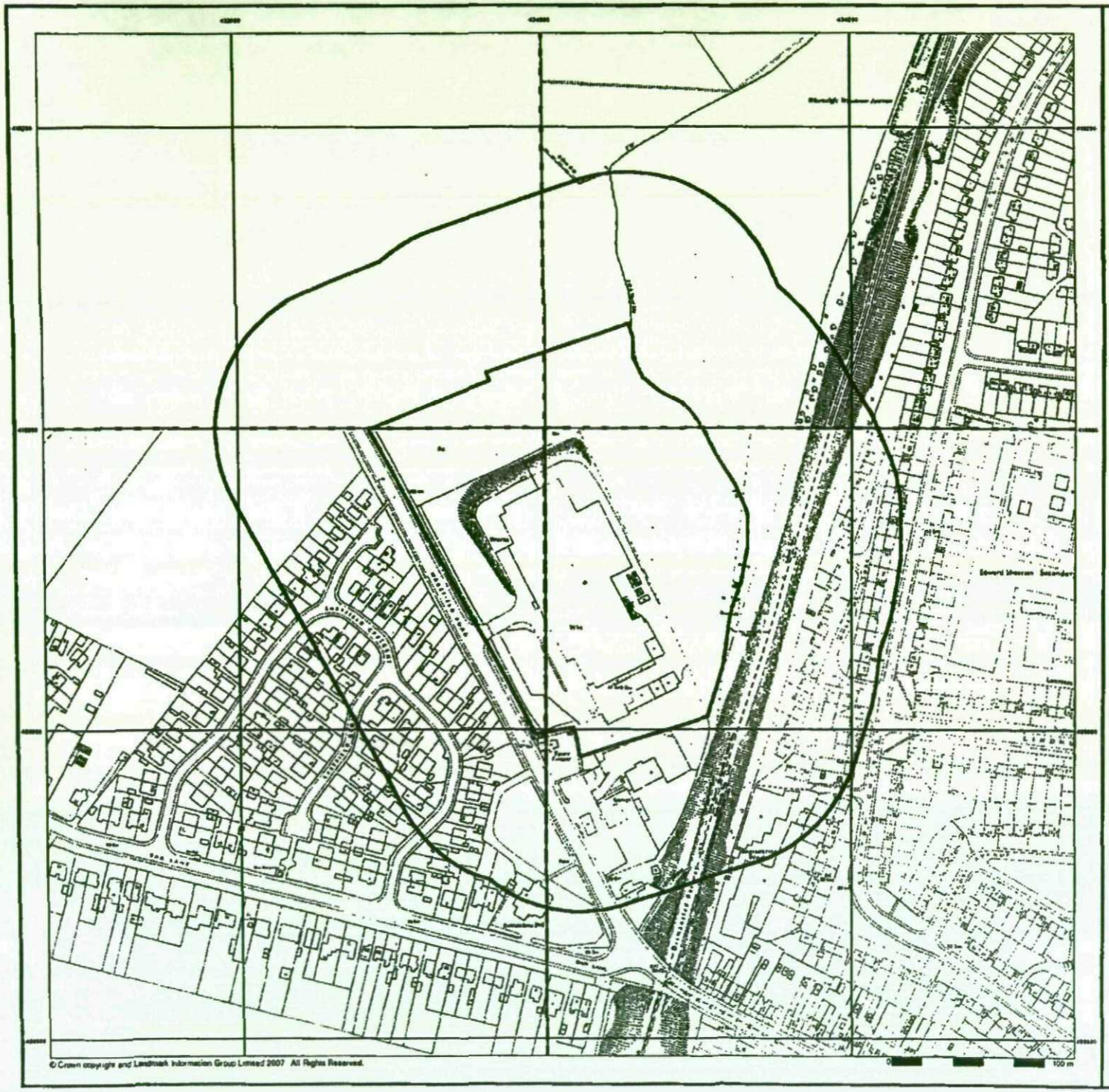
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	100

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel 0870 850 6670
Fax 0870 850 6671
Web www.envirocheck.co.uk



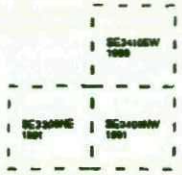
© Crown copyright and Landmark Information Group Limited 2007 All Rights Reserved.

Envirocheck®
A Landmark service

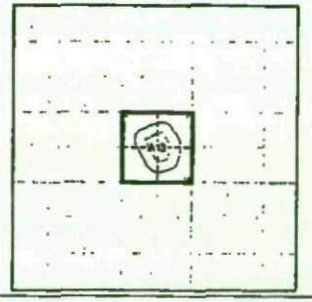
Additional SIMs
Published 1959 - 1991
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A13



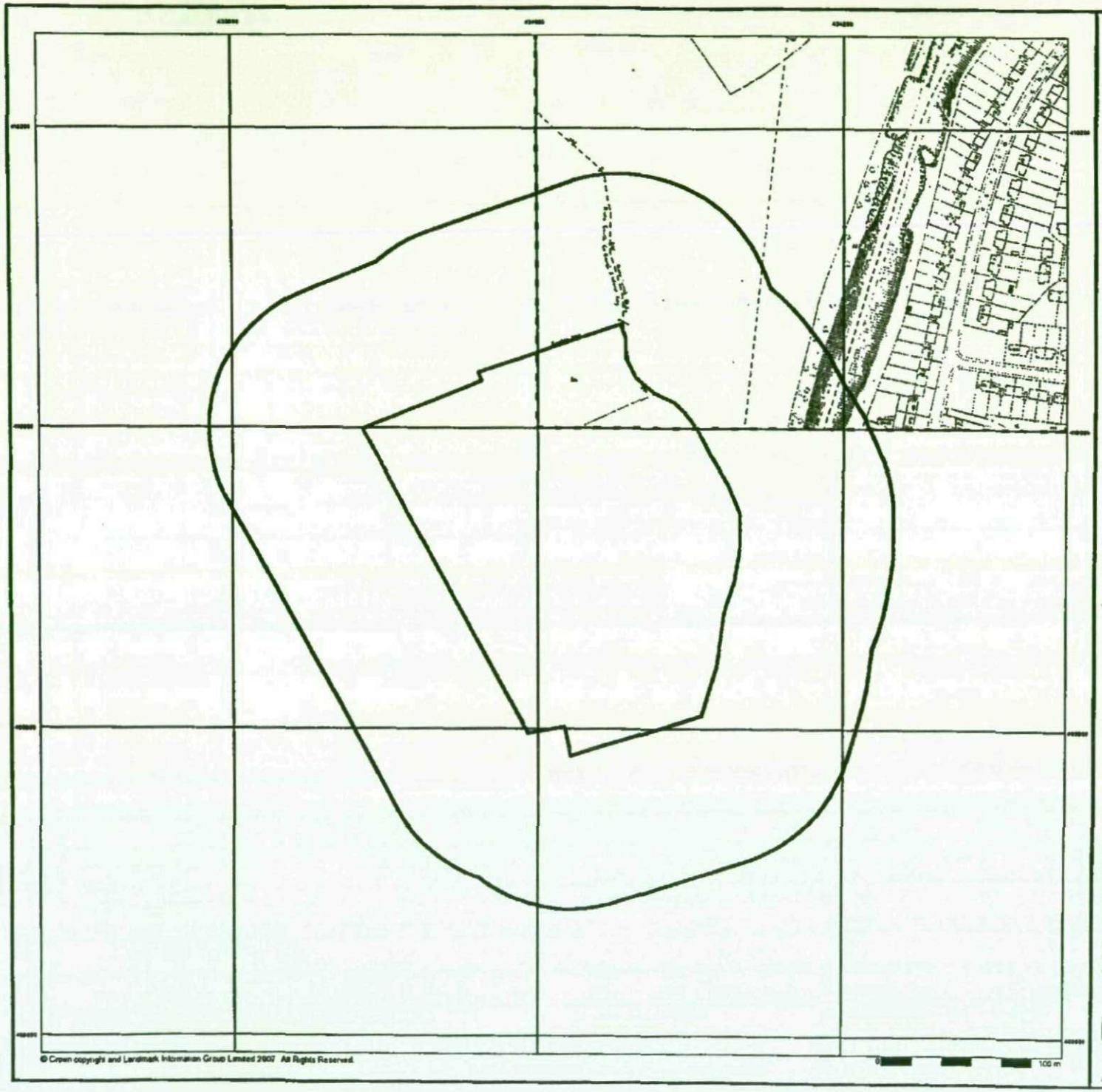
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	100

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel: 0870 850 6670
Fax 0870 850 6671
Web www.envirocheck.co.uk



© Crown copyright and Landmark Information Group Limited 2007 All Rights Reserved.

Envirocheck®
A Landmark service

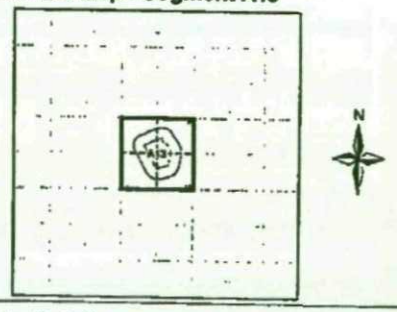
Additional SIMs
Published 1991
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A13



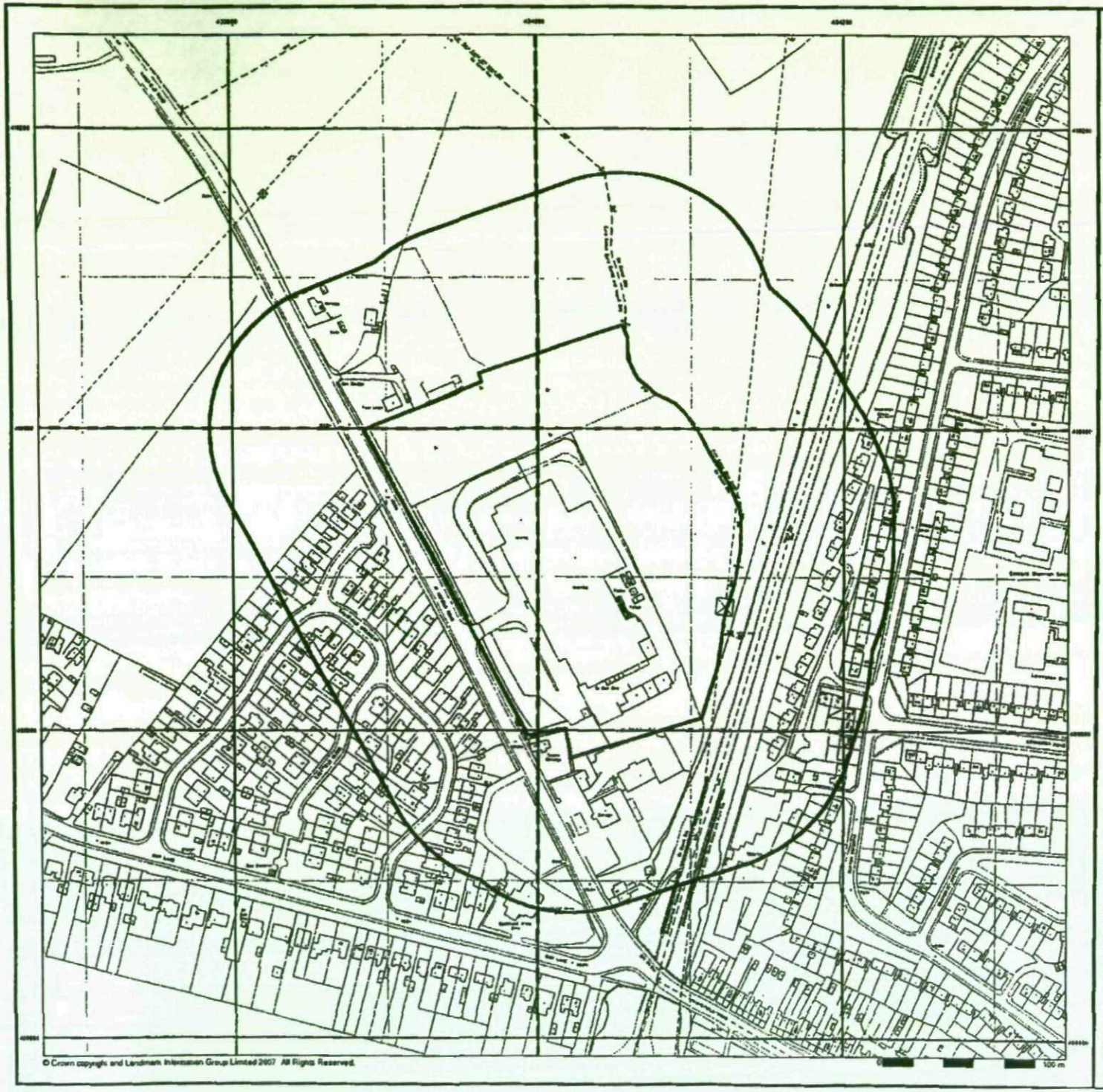
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	100

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel 0870 850 6670
Fax 0870 850 6671
Web www.envirocheck.co.uk



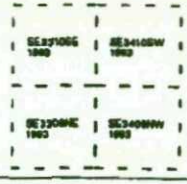
© Crown copyright and Landmark Information Group Limited 2007 All Rights Reserved.

Envirocheck®
A Landmark service

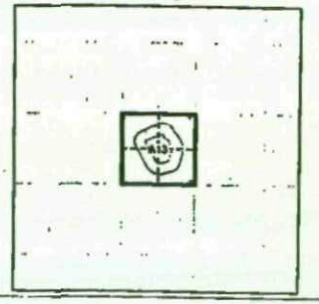
Large-Scale National Grid Data
Published 1993
Source map scale - 1:1,250

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

Map Name(s) and Date(s)



Historical Map - Segment A13



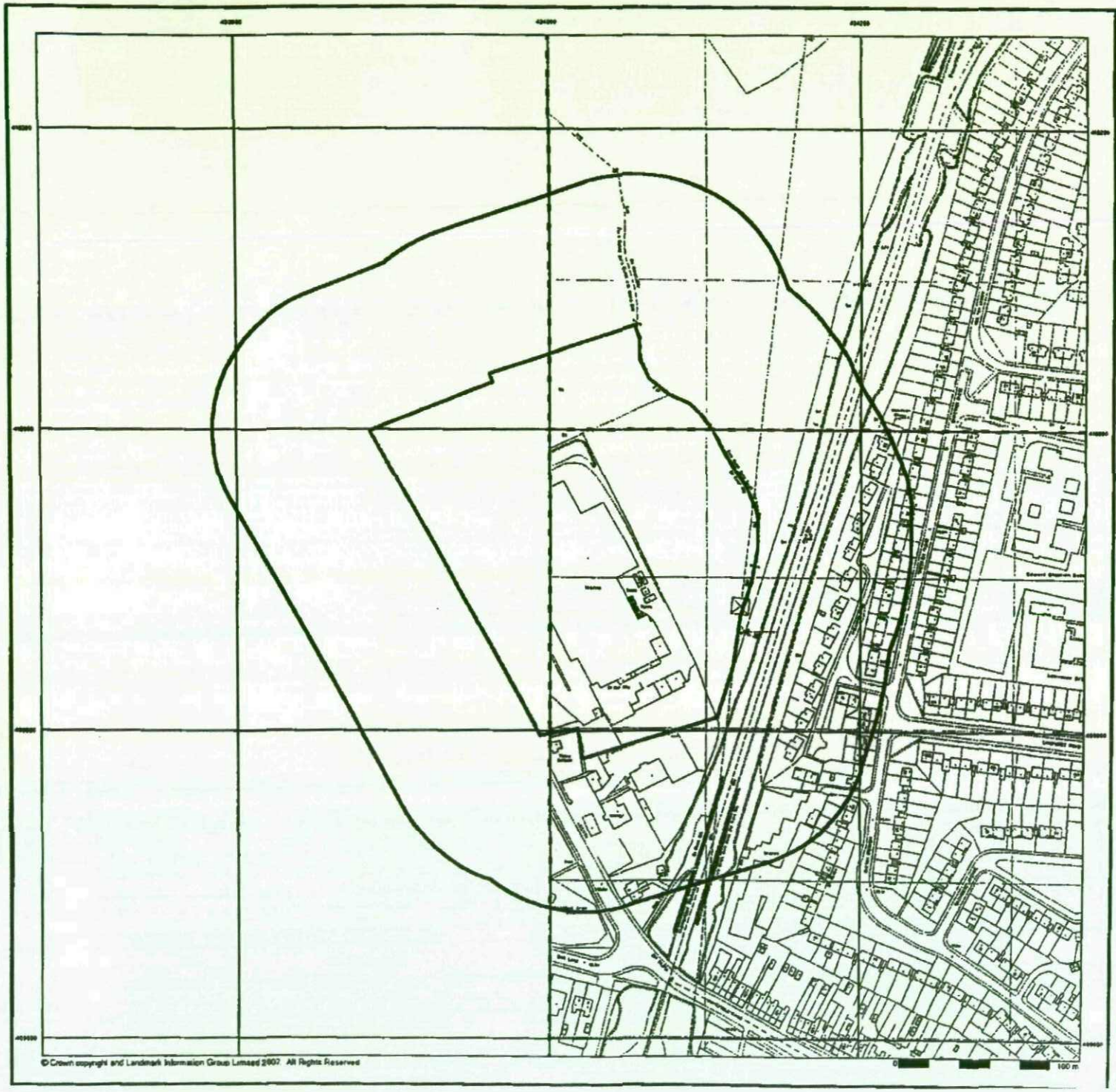
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	100

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel. 0870 850 6670
Fax 0870 850 6671
Web www.envirocheck.co.uk


Envirocheck
A Landmark service
Large-Scale National Grid Data
Published 1994
Source map scale - 1:1,250
'Large Scale National Grid Data' superseded SIM cards (Ordnance Survey's 'Survey of Information on Microfilm') in 1992, and continued to be produced until 1999. These maps were the fore-runners of digital mapping and so provide detailed information on houses and roads, but tend to show less topographic features such as vegetation. These maps were produced at both 1:2,500 and 1:1,250 scales.
Map Name(s) and Date(s)
SE3409SW 1994
SE3409NW 1994
Historical Map - Segment A13
N
Order Details
Order Number: 22075148_1_1
Customer Ref: 12070197
National Grid Reference: 434020, 409930
Slice: A
Site Area (Ha): 4.44
Search Buffer (m): 100
Site Details
Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH
© Crown copyright and Landmark Information Group Limited 2007 All Rights Reserved
0 100 m
LANDMARK Information Group
Tel: 0870 850 6870
Fax: 0870 850 6871
Web: www.envirocheck.co.uk
A Landmark Information Group Service v23.0 09-Jul-2007 Page 13 of 13

APPENDIX B
Envirocheck Report

Envirocheck®

Envirocheck® Report:

Datasheet

Order Details:

Order Number:
22075148_1_1

Customer Reference:
12070197

National Grid Reference:
434020, 409930

Slice:
A

Site Area (Ha):
4.44

Search Buffer (m):
1000



Site Details:

Williams Freemans
Wakefield Road
Mapplewell
South Yorkshire
S75 6DH

Client Details:

Mr J Saunders
Joynes Pike & Associates
1-2 Aire House
Richmond Business Park
Sidings Court
Doncaster
South Yorkshire
DN4 5NL

Envirocheck®
A Landmark Information Group Service

Contents

Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	5
Hazardous Substances	-
Geological	8
Industrial Land Use	10
Sensitive Land Use	16
Data Currency	17
Data Suppliers	21
Useful Contacts	22

Introduction

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

In the attached datasheet the National Grid References (NGRs) are rounded to the nearest 10m in accordance with Landmark's agreements with a number of Data Suppliers.

Copyright Notice

© Landmark Information Group Limited 2007. The Copyright on the information and data and its format as contained in this Envirocheck® Report ("Report") is the property of Landmark Information Group Limited ("Landmark") and several other Data Providers, including (but not limited to) Ordnance Survey, British Geological Survey, the Environment Agency and Natural England, and must not be reproduced in whole or in part by photocopying or any other method. The Report is supplied under Landmark's Terms and Conditions accepted by the Customer. A copy of Landmark's Terms and Conditions can be found with the Index Map for this report. Additional copies of the Report may be obtained from Landmark, subject to Landmark's charges in force from time to time. The Copyright, design rights and any other intellectual rights shall remain the exclusive property of Landmark and /or other Data providers, whose Copyright material has been included in this Report.

Natural England Copyright Notice

Site of Special Scientific Interest, National Nature Reserve, Ramsar, Special Protection Area, Special Conservation Area, Marine Nature Reserve data (derived from Ordnance Survey 1:10000 raster) is provided by, and used with the permission of, Natural England who retain the copyright and Intellectual Property Rights for the data.

Ove Arup Copyright Notice

The Data provided in this report was obtained on Licence from Ove Arup & Partners Limited (for further information, contact mining.review@arup.com). No reproduction or further use of such Data is to be made without the prior written consent of Ove Arup & Partners Limited. The information and data supplied in the product are derived from publicly available records and other third party sources and neither Ove Arup & Partners nor Landmark warrant the accuracy or completeness of such information or data.

Peter Brett Associates Copyright Notice

The cavity data presented has been extracted from the PBA enhanced version of the original DEFRA national cavity databases. PBA/DEFRA retain the copyright & intellectual property rights in the data. Whilst all reasonable efforts are made to check that the information contained in the cavity databases is accurate we do not warrant that the data is complete or error free. The information is based upon our own researches and those collated from a number of external sources and is continually being augmented and updated by PBA. In no event shall PBA/DEFRA or Landmark be liable for any loss or damage including, without limitation, indirect or consequential loss or damage arising from the use of this data.

Report Version v28.2

Envirocheck®
A Landmark service

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Agency & Hydrological					
Contaminated Land Register Entries and Notices					
Discharge Consents	pg 1			2	1
Enforcement and Prohibition Notices					
Integrated Pollution Controls					
Integrated Pollution Prevention And Control					
Local Authority Integrated Pollution Prevention And Control					
Local Authority Pollution Prevention and Controls	pg 1	2	1		1
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 2		Yes		
Pollution Incidents to Controlled Waters	pg 2			1	4
Prosecutions Relating to Authorised Processes					
Prosecutions Relating to Controlled Waters					
Registered Radioactive Substances					
River Quality					
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 3				1
Water Abstractions	pg 3				(*1)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 3	Yes	n/a	n/a	n/a
Source Protection Zones					
Extreme Flooding from Rivers or Sea without Defences				n/a	n/a
Flooding from Rivers or Sea without Defences				n/a	n/a
Areas Benefiting from Flood Defences				n/a	n/a
Flood Water Storage Areas				n/a	n/a
Flood Defences				n/a	n/a
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 5	1			1
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 5				1
Local Authority Recorded Landfill Sites	pg 5	1			1
Registered Landfill Sites	pg 6	1			1
Registered Waste Transfer Sites	pg 6				1
Registered Waste Treatment or Disposal Sites	pg 7				1

Envirocheck®
A Landmark service

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Hazardous Substances					
Control of Major Accident Hazards Sites (COMAH)					
Explosive Sites					
Notification of Installations Handling Hazardous Substances (NIHHS)					
Planning Hazardous Substance Consents					
Planning Hazardous Substance Enforcements					
Geological					
BGS Recorded Mineral Sites	pg 8				2
BGS 1:625,000 Solid Geology	pg 8	Yes	n/a	n/a	n/a
Brine Compensation Areas			n/a	n/a	n/a
Coal Mining Affected Areas	pg 8	Yes	n/a	n/a	n/a
Mining Instability	pg 8	Yes	n/a	n/a	n/a
Natural and Mining Cavities					
Potential for Collapsible Ground Stability Hazards				n/a	n/a
Potential for Compressible Ground Stability Hazards				n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 8	Yes		n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 8	Yes		n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards		Yes		n/a	n/a
Radon Affected Areas	pg 9	Yes		n/a	n/a
Radon Protection Measures	pg 9	Yes		n/a	n/a
Shallow Mining Hazards		Yes	Yes	n/a	n/a
Industrial Land Use					
Contemporary Trade Directory Entries	pg 10	1	4	4	52
Fuel Station Entries	pg 15		1		1

Envirocheck
A Landmark service

Summary

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Sensitive Land Use					
Areas of Adopted Green Belt	pg 16	1			1
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves					
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 16	1			
Ramsar Sites					
Sites of Special Scientific Interest					
Special Areas of Conservation					
Special Protection Areas					

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
1	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers - Water Company Location: Dummy Ngr-No Details On Permit No Ngr Details Exist On Permit, No Ngr Details Exist On Permit, No Ngr Details Exist On Permit, No Ngr Details Exist On Permit Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: S/CB/8 Permit Version: 1 Effective Date: 28th May 1963 Issued Date: 28th May 1963 Revocation Date: 31st March 2006 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Varies With Outlet Status: **Transferred from Rivers (Prevention of Pollution) Act 1951-1961** Positional Accuracy: Located by supplier to within 10m	A8NE (SE)	432	1	434344 409448
1	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers Location: New Lodge, Wakefield Road, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Deame Reference: S/CB/8 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 30th June 1993 Revocation Date: Not Supplied Discharge Type: Sewage Effluent Discharge-Storm Effluent Discharge Environment: Unknown Receiving Water: Not Supplied Status: **Not Supplied** Positional Accuracy: Located by supplier to within 100m	A8NE (SE)	436	1	434340 409440
2	**Discharge Consents** Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers - Water Company Location: New Lodge Cso Wakefield Road, New Lodge, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wra7958 Permit Version: 1 Effective Date: 28th March 2003 Issued Date: 28th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge Environment: Freshwater Stream/River Receiving Water: Tributary Of The River Deame Status: **New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995)** Positional Accuracy: Located by supplier to within 10m	A9NW (SE)	511	1	434400 409390
3	**Local Authority Pollution Prevention and Controls** Name: William Freeman Limited Location: Wakefield Road, Staincross, Barnsley, South Yorkshire, S75 6DH Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: Epa102 Dated: 6th March 2000 Process Type: Local Authority Air Pollution Control Description: PG6/32 Adhesive coating Status: **Site Closed** Positional Accuracy: Automatically positioned to the address	A13SE (S)	0	2	434025 409913
3	**Local Authority Pollution Prevention and Controls** Name: William Freeman Limited Location: Sube Seal Works, Wakefield Road, Mapplewell, Barnsley, South Yorkshire, S75 6DH Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: Epa101 Dated: 29th November 1999 Process Type: Local Authority Air Pollution Control Description: PG6/28 Rubber processes Status: **Site Closed** Positional Accuracy: Automatically positioned to the address	A13SE (S)	0	2	434025 409913

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
4	**Local Authority Pollution Prevention and Controls** Name: Walter Franks & Son Ltd Location: Wakefield Road, BARNSLEY, South Yorkshire, S71 3LU Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: Epa36 Dated: 19th March 1993 Process Type: Local Authority Air Pollution Control Description: PG2/6 Aluminium and aluminium alloy processes Status: Authorised Positional Accuracy: Automatically positioned to the address	A13SE (SE)	114	2	434135 409698
5	**Local Authority Pollution Prevention and Controls** Name: Turn Pike Garage Location: Wakefield Road, Mappiewell, BARNSLEY, South Yorkshire, S75 6JX Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: PPC/B/60 Dated: 24th March 1999 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Permitted Positional Accuracy: Automatically positioned to the address	A17SE (NW)	734	2	433447 410588
	Nearest Surface Water Feature	A12NE (W)	239	-	433646 410009
6	**Pollution Incidents to Controlled Waters** Property Type: Industrial Premises Location: Mouth/Todmorden Calder Afl Authority: Environment Agency, North East Region Pollutant: Oils - Diesel (Including Agricultural) Note: Not Supplied Incident Date: 12th March 1991 Incident Reference: 120419 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A13SW (W)	259	1	433700 409800
7	**Pollution Incidents to Controlled Waters** Property Type: Fee Water Location: Blacker Road, Hepplewell, BARNSLEY Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Watercourse :River Dearne; From New Lodge To Old Mill Incident Date: 19th February 1998 Incident Reference: SH980080 Catchment Area: Dearne Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A12SW (W)	619	1	433300 409800
8	**Pollution Incidents to Controlled Waters** Property Type: Industrial Premises Location: Footbridge/Footbridge Dearne 18 Authority: Environment Agency, North East Region Pollutant: Chemicals - Detergents/Surfactant Note: Not Supplied Incident Date: 12th September 1994 Incident Reference: 153128 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A7NW (SW)	898	1	433200 409400
9	**Pollution Incidents to Controlled Waters** Property Type: Surface Water Sewers Location: Edderthorpe Lane/Rail Viadct Dearne 11 Authority: Environment Agency, North East Region Pollutant: Not Given Note: Not Supplied Incident Date: 13th January 1991 Incident Reference: 118822 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m	A15SW (E)	968	1	435100 409900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Pollution Incidents to Controlled Waters				
10	Property Type: Water Company Sewage: Foul Sewer Location: Footbridge/Footbridge Deame 18 Authority: Environment Agency, North East Region Pollutant: Unknown Note: Not Supplied Incident Date: 14th September 1992 Incident Reference: 136720 Catchment Area: Not Given Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A11SE (W)	991	1	432900 409900
	Substantiated Pollution Incident Register				
11	Authority: Environment Agency - North East Region, Ridings Area Incident Date: 14th June 2001 Incident Reference: 9372 Water Impact: Category 4 - No Impact Air Impact: Category 2 - Significant Incident Land Impact: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 10m Pollutant: Atmospheric Pollutants And Effects: Smoke Pollutant: Contaminated Water: Firefighting Run-Off	A12SW (W)	B11	1	433094 409822
	Water Abstractions				
	Operator: Northern Strip Mining Limited Licence Number: 2/27/08/097 Permit Version: Not Supplied Location: Location Description Not Available Authority: Environment Agency, North East Region Abstraction: General Industrial Abstraction Type: Not Supplied Source: Surface Daily Rate (m3): 114 Yearly Rate (m3): 32000 Details: Licence Revoked Authorised Start: Not Supplied Authorised End: Not Supplied Permit Start Date: Not Supplied Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(S)	1879	1	434850 408010
	Groundwater Vulnerability				
	Geological Classification: Minor Aquifer (Variably permeable) - These can be fractured or potentially fractured rocks, which do not have a high primary permeability, or other formations of variable permeability including unconsolidated deposits. Although not producing large quantities of water for abstraction, they are important for local supplies and in supplying base flow to rivers Soil Classification: Soils of High Leaching Potential (U) - Soil information for restored mineral workings and urban areas is based on fewer observations than elsewhere. A worst case vulnerability classification (H) assumed, until proved otherwise Map Sheet: Sheet 11 South Pennines Scale: 1:100,000	A13NE (N)	0	1	434046 410002
	Groundwater Vulnerability				
	Geological Classification: Minor Aquifer (Variably permeable) - These can be fractured or potentially fractured rocks, which do not have a high primary permeability, or other formations of variable permeability including unconsolidated deposits. Although not producing large quantities of water for abstraction, they are important for local supplies and in supplying base flow to rivers Soil Classification: Soils of High Leaching Potential (H3)- Coarse textured or moderately shallow soils which readily transmit non-absorbed pollutants and liquid discharges but which have some ability to attenuate absorbed pollutants because of their large clay or organic matter contents Map Sheet: Sheet 11 South Pennines Scale: 1:100,000	A13NE (N)	0	1	434046 410002
	Drift Deposits				
	Drift Deposit: Low permeability drift deposits occuring at the surface and overlying Major and Minor Aquifers are head, clay-with-flints, brickearth, peat, river terrace deposits and marine and estuarine alluvium Map Sheet: Sheet 11 South Pennines Scale: 1:100,000	A13SE (S)	0	1	434020 409871
	Extreme Flooding from Rivers or Sea without Defences				
	None				
	Flooding from Rivers or Sea without Defences				
	None				
	Areas Benefiting from Flood Defences				
	None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Flood Water Storage Areas None				
	Flood Defences None				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	**Historical Landfill Sites** Licence Holder: W Freeman & Co Location: Subseal Works, Wakefield Road, Staincross Name: On waste land to the rear of Subseal Works Operator Location: Subseal Works, Staincross, Barnsley, South Yorkshire Boundary Accuracy: As Supplied Provider Reference: EAHLD04350 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste Type: Deposited Waste included Industrial and Commercial Waste EA Waste Ref: Not Supplied Regis Ref: Not Supplied WRC Ref: 4400/0484 BGS Ref: Not Supplied Other Ref: WD20 B364, 4400/B364, 20B364(82)	A13NE (NE)	0	1	434047 409943
13	**Historical Landfill Sites** Licence Holder: Blacker Hill Quarry Limited Location: Wentworth Road, Mapplewell, Barnsley Name: Blacker Hill Quarry Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD04349 First Input Date: Not Supplied Last Input Date: 31st December 1994 Specified Waste Type: Deposited Waste included Commercial Waste EA Waste Ref: Not Supplied Regis Ref: Not Supplied WRC Ref: 4400/0422 BGS Ref: Not Supplied Other Ref: WD20 B278, 4400/B278, 20B278(19)	A7NE (SW)	513	1	433569 409508
14	**Licensed Waste Management Facilities (Locations)** Licence Number: 60555 Location: Wentworth Road, Mapplewell, Barnsley, South Yorkshire, S75 6BS Operator Name: Mapplewell Autosalvage Operator Location: Wentworth Road, Mapplewell, Barnsley, S Yorks, S75 6BS Authority: Environment Agency - North East Region, Ridings Area Site Category: Metal Recycling Sites (Vehicle Dismantlers) Licence Status: Issued Issued: 22nd November 1996 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 100m	A7NE (SW)	664	1	433400 409500
	Local Authority Landfill Coverage Name: Barnsley Metropolitan Borough Council - Has supplied landfill data		0	2	434266 411048
15	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 82 Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Last Reported Status: Unknown Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A13NE (NE)	0	2	434047 409943
16	**Local Authority Recorded Landfill Sites** Location: Not Supplied Reference: 19 Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Last Reported Status: Unknown Types of Waste: Not Supplied Date of Closure: Not Supplied Positional Accuracy: Positioned by the supplier Boundary Quality: Moderate	A7NE (SW)	513	2	433576 409500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
17	**Registered Landfill Sites** Licence Holder: William Freeman & Co. Licence Reference: WD20 B 364 MOD 1 Site Location: Subs Seal Works, Stancross, Darton, Barnsley, South Yorkshire Licence Easting: 434100 Licence Northing: 409900 Operator Location: As Site Address Authority: Environment Agency - North East Region, Ridings Area Site Category: Landfill Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Status: Licence lapsed/cancelled/defunct/not applicable/surrendered|Cancelled Dated: 1st April 1983 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Com. + Ind. Waste Soil, Subsoil Prohibited Waste: All Forms Of Asbestos Waste	A13SE (E)	0	1	434100 409900
18	**Registered Landfill Sites** Licence Holder: Blacker Hill Quarries Ltd Licence Reference: WD20 B 278 Site Location: Blacker Hill Quarry, Mapplewell, Darton, Barnsley, South Yorkshire Licence Easting: 433500 Licence Northing: 409450 Operator Location: As Site Address Authority: Environment Agency - North East Region, Ridings Area Site Category: Landfill Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Status: Licence lapsed/cancelled/defunct/not applicable/surrendered|Cancelled Dated: 1st April 1980 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Construction And Demolition Wastes Ind. Non-Haz. Waste	A7NE (SW)	604	1	433500 409450
19	**Registered Waste Transfer Sites** Licence Holder: B Ealon Licence Reference: WD20 B 439 MOD 1 Site Location: 114 Wentworth Road, Mapplewell, Darton, BARNSLEY, South Yorkshire, S75 6DU Operator Location: As Site Address Authority: Environment Agency - North East Region, Ridings Area Site Category: Transfer Max Input Rate: Medium (Equal to or greater than 25,000 and less than 75,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Licence Status: Licence lapsed/cancelled/defunct/not applicable/surrendered|Cancelled Dated: 1st October 1994 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the road within the address or location Boundary Quality: Not Supplied Authorised Waste: Com. + Ind. Non-Haz. Waste Ind. Non-Haz. Potentially Combustible Prohibited Waste: Asbestos Liquids In Containers Over 4l Cap. Slurry In Containers Over 4l Cap.	A7NE (SW)	628	1	433420 409540

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Registered Waste Treatment or Disposal Sites				
20	Licence Holder: Mapplewell Auto Salvage Licence Reference: WD20 B1126 MOD 2 Site Location: Wentworth Road, Mapplewell, Staincross, BARNSLEY, South Yorkshire, S75 6BS Operator Location: As Site Address Authority: Environment Agency - North East Region, Ridings Area Site Category: Scrapyard Max Input Rate: Very Small (Less than 10,000 tonnes per year) Waste Source Restrictions: No known restriction on source of waste Licence Status: Operational as far as is known|Operational Dated: 22nd November 1996 Preceded By Licence: Not Given Superseded By Licence: Not Given Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Max.Waste Permitted By Licence Scrap Motor Vehicles Max.Stor Tyres Max.Stor Prohibited Waste: Liquid Wastes Waste N.O.S.	A12SE (W)	513	1	433454 409718

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
21	**BGS Recorded Mineral Sites** Site Name: Blacker Hill Location: Darton, Barnsley, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 16763 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Woolley Edge Rock, Pennine Middle Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A7NE (SW)	574	3	433545 409440
22	**BGS Recorded Mineral Sites** Site Name: North Gawber Colliery Location: Darton, Barnsley, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 16764 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Not Supplied Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A12SW (W)	731	3	433200 409745
	BGS 1:625,000 Solid Geology Description: Lower Westphalian (mainly Productive Coal Measures)	A19NE (NE)	0	3	434866 410712
	Coal Mining Affected Areas Description: In an area which may be affected by coal mining activity. It is recommended that a coal mining report is obtained from the Coal Authority. Contact details are included in the Useful Contacts section of this report.	(SW)	0	4	425000 397000
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	(SE)	0	-	440000 404500
	Potential for Collapsible Ground Stability Hazards No Hazard				
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	434019 410000
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	434019 410000
	Potential for Ground Dissolution Stability Hazards No Hazard				
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	434019 410000
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	434019 410000
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	434019 410000
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	3	434019 409875
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	3	434019 409875
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	3	434019 409875
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	0	3	434019 409875

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	434019 410000
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NE (NE)	5	3	434100 410050
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	112	3	433825 409875
	Radon Affected Areas Description: Between 3% and 5% of homes are above the Action Level Source: Health Protection Agency	A13NW (N)	0	5	434000 410000
	Radon Affected Areas Description: Between 3% and 5% of homes are above the Action Level Source: Health Protection Agency	A13NE (N)	0	5	434019 410000
	Radon Affected Areas Description: Between 1% and 3% of homes are above the Action Level Source: Health Protection Agency	A13NW (W)	0	5	434000 409930
	Radon Affected Areas Description: Between 1% and 3% of homes are above the Action Level Source: Health Protection Agency	A13NW (W)	0	5	434000 409930
	Radon Protection Measures Type: Basic radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	434019 410000
	Radon Protection Measures Type: Basic radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A13NE (N)	0	3	434019 410000
	Shallow Mining Hazards Risk: Low-Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	0	3	434099 409900
	Shallow Mining Hazards Risk: Low-Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (E)	0	3	434099 409900
	Shallow Mining Hazards Risk: Low-Moderate Source: British Geological Survey, National Geoscience Information Service	A13SE (S)	148	3	434068 409641

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
23	**Contemporary Trade Directory Entries** Name: William Freeman Ltd Location: Suba Seal Works, Wakefield Road, Mapplewell, Barnsley, South Yorkshire, S75 6DH Classification: Rubber & Plastic Products - Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A13SE (S)	0	-	434025 409913
24	**Contemporary Trade Directory Entries** Name: Booth Bros Location: Wakefield Road, Mapplewell, Barnsley, South Yorkshire, S75 6DJ Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the proximity of the address	A13SE (S)	57	-	434033 409727
25	**Contemporary Trade Directory Entries** Name: Barnsley Catering Services Location: Wakefield Road, Mapplewell, Barnsley, South Yorkshire, S75 6DL Classification: Catering Equipment - Servicing & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A13NW (NW)	66	-	433891 410073
26	**Contemporary Trade Directory Entries** Name: Frank Waller & Sons Ltd Location: 439, Wakefield Road, Barnsley, South Yorkshire, S71 3LU Classification: Firefighting Equipment Status: Active Positional Accuracy: Automatically positioned to the address	A13SE (SE)	109	-	434135 409703
27	**Contemporary Trade Directory Entries** Name: Kent Wilfred Ltd Location: Wakefield Rd, Barnsley, South Yorkshire, S71 3LU Classification: Road Haulage Services Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A13SE (S)	143	-	434068 409647
28	**Contemporary Trade Directory Entries** Name: Evening Shade Blinds Location: 68, Bar Lane, Mapplewell, Barnsley, South Yorkshire, S75 6DE Classification: Blinds, Awnings & Canopies Status: Active Positional Accuracy: Automatically positioned to the address	A12SE (SW)	361	-	433621 409729
28	**Contemporary Trade Directory Entries** Name: Pam Ironing Services Location: 70, Bar Lane, Mapplewell, Barnsley, South Yorkshire, S75 6DE Classification: Ironing & Home Laundry Services Status: Active Positional Accuracy: Automatically positioned to the address	A12SE (SW)	365	-	433611 409739
29	**Contemporary Trade Directory Entries** Name: Kerry Utilities Ltd Location: Compound 5 & 6 Wakefield Rd, Barnsley, South Yorkshire, S71 1NU Classification: Asphalt & Coated Macadam Laying Contractors Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A9NW (SE)	459	-	434388 409446
30	**Contemporary Trade Directory Entries** Name: Gb Mantels Location: 7, Wentworth Road, Mapplewell, Barnsley, South Yorkshire, S75 6DT Classification: Fireplaces & Mantelpieces Status: Active Positional Accuracy: Automatically positioned to the address	A12SE (W)	493	-	433473 409725
31	**Contemporary Trade Directory Entries** Name: K J Spares Location: 3, Wentworth Road, Mapplewell, Barnsley, South Yorkshire, S75 6DT Classification: Motor Cycle Breakers & Dismantlers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SE (W)	503	-	433470 409710
31	**Contemporary Trade Directory Entries** Name: Flaming Hot Fires Location: 8 Wentworth Rd, Mapplewell, Barnsley, South Yorkshire, S75 6DT Classification: Gas Suppliers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12SE (W)	513	-	433454 409719

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
31	**Contemporary Trade Directory Entries** Name: In Print Studios Ltd Location: Units 2-3, Courtyard 1,1 Wentworth Rd, Mapplewell, Barnsley, South Yorkshire, S75 6DT Classification: Printers Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A12SE (SW)	535	-	433449 409682
31	**Contemporary Trade Directory Entries** Name: Flaming Hot Fires Location: Maple Leaf Ind Est,Wentworth Rd, Mapplewell, Barnsley, South Yorkshire, S75 6DT Classification: Fireplaces & Mantelpieces Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12SE (SW)	538	-	433448 409676
31	**Contemporary Trade Directory Entries** Name: Gi-Gi Household Products Location: Unit 17a, Courtyard 3, Wentworth Road, Mapplewell, Barnsley, South Yorkshire, S75 6DT Classification: Footwear Manufacturers Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address	A12SE (SW)	556	-	433435 409665
31	**Contemporary Trade Directory Entries** Name: Arias Motor Engineers Location: Wentworth Road, Mapplewell, Barnsley, South Yorkshire, S75 6DT Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SE (W)	558	-	433416 409696
31	**Contemporary Trade Directory Entries** Name: The Watercooler Warehouse Ltd Location: Unit 12,Courtyard 3,Wentworth Rd, Mapplewell, Barnsley, South Yorkshire, S75 6DT Classification: Water Coolers Status: Active Positional Accuracy: Manually positioned within the geographical locality	A12SE (SW)	569	-	433422 409659
31	**Contemporary Trade Directory Entries** Name: The Joshua Tree Location: Unit 16,Maple Estates,Wentworth Rd, Mapplewell, Barnsley, South Yorkshire, S75 6DT Classification: Furniture Manufacturers - Home & Office Status: Active Positional Accuracy: Manually positioned within the geographical locality	A12SE (SW)	570	-	433421 409659
31	**Contemporary Trade Directory Entries** Name: M & R Precision Engineering Ltd Location: Unit 2, Courtyard 3, Wentworth Road, Mapplewell, Barnsley, South Yorkshire, S75 6DT Classification: Engineers - General Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SE (W)	573	-	433406 409682
31	**Contemporary Trade Directory Entries** Name: Flaming Hot Fires Location: Unit 8,Courtyard 3,Wentworth Rd, Mapplewell, Barnsley, South Yorkshire, S75 6DT Classification: Fireplaces & Mantelpieces Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A12SE (SW)	573	-	433415 409664
31	**Contemporary Trade Directory Entries** Name: Mar (Engineering Services) Ltd Location: Unit 2,Courtyard 3,Wentworth Rd, Mapplewell, Barnsley, South Yorkshire, S75 6DT Classification: Gate Manufacturers Status: Active Positional Accuracy: Manually positioned to the address or location	A12SE (W)	573	-	433406 409682
31	**Contemporary Trade Directory Entries** Name: Pelland Concast Location: Unit 5, Courtyard 2, Wentworth Road, Mapplewell, Barnsley, South Yorkshire, S75 6DT Classification: Concrete Products Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SE (SW)	576	-	433423 409643

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
32	**Contemporary Trade Directory Entries** Name: Oak Lodge Location: 134, Blacker Road, Mapplewell, Barnsley, South Yorkshire, S75 6DB Classification: Joinery Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SE (W)	522	-	433391 409632
33	**Contemporary Trade Directory Entries** Name: Wakefield Road Dry Cleaners Location: 315, Wakefield Road, Barnsley, South Yorkshire, S71 3LR Classification: Dry Cleaners Status: Active Positional Accuracy: Automatically positioned to the address	A9NW (SE)	568	-	434491 409390
34	**Contemporary Trade Directory Entries** Name: Williams & Needham Location: 12, Park View Road, Staincross, Barnsley, South Yorkshire, S75 6LD Classification: Reclaiming - Waste Products Status: Active Positional Accuracy: Automatically positioned to the address	A17SE (NW)	568	-	433532 410444
35	**Contemporary Trade Directory Entries** Name: Transtx Location: Unit 8 The Maple Ind Est,Wentworth Rd, Mapplewell, Barnsley, South Yorkshire, S75 6DT Classification: Gearboxes Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A12SE (SW)	570	-	433442 409620
35	**Contemporary Trade Directory Entries** Name: Gail Brayshaw Location: Unit 17a, Courtyard 3, Wentworth Road, Mapplewell, Barnsley, South Yorkshire, S75 6DT Classification: Screen Process Printers Status: Active Positional Accuracy: Automatically positioned to the address	A12SE (SW)	609	-	433412 409593
36	**Contemporary Trade Directory Entries** Name: R B M Ltd Location: Unit 10,Mapplewell Business Park,Blacker Rd, Staincross, Barnsley, South Yorkshire, S75 6BP Classification: Builders' Merchants Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12NW (W)	628	-	433258 409980
37	**Contemporary Trade Directory Entries** Name: Dena System Bk Ltd Location: Unit 14, Maple Industrial Estate, Wentworth Road, Mapplewell, Barnsley, South Yorkshire, S75 6DT Classification: Machinery - Industrial & Commercial Status: Active Positional Accuracy: Automatically positioned to the address	A12SE (SW)	644	-	433358 409620
38	**Contemporary Trade Directory Entries** Name: Roy'S Autos Location: 55a, Blacker Road, Staincross, BARNSLEY, S75 6GS Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (W)	647	-	433242 410066
39	**Contemporary Trade Directory Entries** Name: G R Motors Location: Edward Street, Mapplewell, Barnsley, South Yorkshire, S75 6BL Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A7NE (SW)	650	-	433378 409570
40	**Contemporary Trade Directory Entries** Name: Global Seals Direct Location: Woodmoor Cl,Whamcliffe Bsns Pk, Barnsley, South Yorkshire, S71 3AA Classification: Seal & Joint Manufacturers Status: Active Positional Accuracy: Manually positioned within the geographical locality	A9NW (SE)	673	-	434676 409450
41	**Contemporary Trade Directory Entries** Name: Oakwell Resprays Location: Unit B/2, Mapplewell Business Park, Blacker Road, Staincross, BARNSLEY, S75 6BP Classification: Car Body Repairs Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12NW (W)	707	-	433179 410028

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
41	**Contemporary Trade Directory Entries** Name: Radiator Services Location: Blacker Rd, Mapplewell, Barnsley, South Yorkshire, S75 6BS Classification: Car Radiator Servicing & Repairs Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A12NW (W)	722	-	433164 410036
41	**Contemporary Trade Directory Entries** Name: D-Grease Ltd Location: Unit 3 North Gawber Ind Park,Blacker Rd, Mapplewell, Barnsley, South Yorkshire, S75 6BS Classification: Cleaning Materials & Equipment Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A12NW (W)	728	-	433159 410038
42	**Contemporary Trade Directory Entries** Name: Gas Appliance Spares (Barnsley) Ltd Location: Unit 10,Woodmoor Ct,Laithes La, Barnsley, South Yorkshire, S71 3AA Classification: Heating Equipment - Sales & Service Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A9NW (SE)	706	-	434684 409372
42	**Contemporary Trade Directory Entries** Name: J Blackburn & Sons Location: 19, Laithes Lane, Barnsley, South Yorkshire, S71 3AA Classification: Scrap Metal Merchants Status: Active Positional Accuracy: Manually positioned to the address or location	A9NE (SE)	751	-	434701 409349
43	**Contemporary Trade Directory Entries** Name: Gd Gaskets & Seals Location: Mapplewell Business Centre,Blacker Road, Staincross, Barnsley, South Yorkshire, S75 6BP Classification: Gaskets Status: Active Positional Accuracy: Manually positioned within the geographical locality	A12NW (W)	722	-	433164 409963
44	**Contemporary Trade Directory Entries** Name: Turnpike Garage Ltd Location: Wakefield Road, Mapplewell, Barnsley, South Yorkshire, S75 6JX Classification: Petrol Filling Stations Status: Active Positional Accuracy: Automatically positioned to the address	A17SE (NW)	734	-	433447 410588
45	**Contemporary Trade Directory Entries** Name: Sorted Location: Mapplewell Business Park,Blacker Rd, Staincross, Barnsley, South Yorkshire, S75 6BP Classification: Car Customisation & Conversion Specialists Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A12NW (W)	766	-	433122 410057
45	**Contemporary Trade Directory Entries** Name: S & S Autos Location: Mapplewell Business Park, Blacker Road, Mapplewell, Barnsley, South Yorkshire, S75 6BP Classification: Car Breakers & Dismantlers Status: Active Positional Accuracy: Automatically positioned in the proximity of the address	A12NW (W)	770	-	433119 410069
45	**Contemporary Trade Directory Entries** Name: Electrosion Location: Unit 17, Mapplewell Business Park, Blacker Road, Mapplewell, Barnsley, South Yorkshire, S75 6BP Classification: Precision Engineers Status: Active Positional Accuracy: Automatically positioned in the proximity of the address	A12NW (W)	770	-	433119 410069
45	**Contemporary Trade Directory Entries** Name: Dodworth Plastics Ltd Location: Mapplewell Business Park, Blacker Road, Mapplewell, Barnsley, South Yorkshire, S75 6BP Classification: Recycling Centres Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address	A12NW (W)	770	-	433119 410069
45	**Contemporary Trade Directory Entries** Name: M K Window Films Specialists Location: Unit 4,Mapplewell Industrial Units,Mapplewell, Barnsley, South Yorkshire, S75 6BP Classification: Window Film Manufacturers and Dealers Status: Active Positional Accuracy: Manually positioned within the geographical locality	A12NW (W)	817	-	433072 410070

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
46	**Contemporary Trade Directory Entries** Name: Spin Print Solutions Location: Unit 2,Mapplewell Business Park,Blacker Rd, Staincross, Barnsley, South Yorkshire, S75 6BP Classification: Printers Status: Active Positional Accuracy: Manually positioned to the address or location	A12NW (W)	790	-	433096 409974
46	**Contemporary Trade Directory Entries** Name: Natural Cement Distribution Location: 15, Fountain Parade, Mapplewell, Barnsley, South Yorkshire, S75 6FW Classification: Cement Manufacturers & Distributors Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	824	-	433062 409980
46	**Contemporary Trade Directory Entries** Name: Sleepasafe Location: 15, Fountain Parade, Mapplewell, Barnsley, South Yorkshire, S75 6FW Classification: Railway Equipment Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	824	-	433062 409980
47	**Contemporary Trade Directory Entries** Name: Peter Prest Location: Greenside, Mapplewell, Barnsley, South Yorkshire, S75 6AU Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	821	-	433076 410132
47	**Contemporary Trade Directory Entries** Name: Mk Window Film Specialists Location: 1, Blacker Road, Staincross, Barnsley, South Yorkshire, S75 6GW Classification: Window Tinting Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (W)	847	-	433045 410103
48	**Contemporary Trade Directory Entries** Name: Woods Coaches Location: Wakefield Road, BARNSLEY, South Yorkshire, S71 1PA Classification: Bus & Coach Operators & Stations Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A9SW (SE)	824	-	434818 409162
49	**Contemporary Trade Directory Entries** Name: J S Webster Location: 6, Bourne Court, Mapplewell, Barnsley, South Yorkshire, S75 6JB Classification: Washing Machines - Servicing & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A17NW (NW)	849	-	433302 410616
50	**Contemporary Trade Directory Entries** Name: D Burton Location: 23, Mansfield Road, Barnsley, South Yorkshire, S71 3BQ Classification: Glass Fibre Moulding, Materials & Manufacturers Status: Inactive Positional Accuracy: Automatically positioned to the address	A14SE (E)	855	-	434949 409641
51	**Contemporary Trade Directory Entries** Name: D & S Motors Location: 29, Spark Lane, Mapplewell, Barnsley, South Yorkshire, S75 6AA Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (W)	881	-	433006 409956
51	**Contemporary Trade Directory Entries** Name: O'Briens Location: The Garage, Spark Lane, Mapplewell, Barnsley, South Yorkshire, S75 6AA Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A11NE (W)	907	-	432980 409952
51	**Contemporary Trade Directory Entries** Name: Bethel Chapel Garage Location: Spark Lane, Mapplewell, Barnsley, South Yorkshire, S75 6AD Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A11NE (W)	907	-	432980 409952

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
51	**Contemporary Trade Directory Entries** Name: Denby Dale Shirt Co Ltd Location: The Old School House, Spark Lane, Mapplewell, Barnsley, South Yorkshire, S75 6AB Classification: Shirt Makers Status: Active Positional Accuracy: Automatically positioned to the address	A11NE (W)	928	-	432958 409952
52	**Contemporary Trade Directory Entries** Name: Auto Class Location: 25, Greenside, Mapplewell, Barnsley, South Yorkshire, S75 6AU Classification: Classic Car Specialists Status: Inactive Positional Accuracy: Automatically positioned to the address	A12NW (W)	867	-	433008 410127
52	**Contemporary Trade Directory Entries** Name: P & D Fasteners Location: 25, Greenside, Mapplewell, Barnsley, South Yorkshire, S75 6AU Classification: Nuts, Bolts & Fixings Status: Active Positional Accuracy: Automatically positioned to the address	A12NW (W)	887	-	433008 410127
53	**Contemporary Trade Directory Entries** Name: Town & Country Chemdry Location: 61, Lalthes Lane, Barnsley, South Yorkshire, S71 3AQ Classification: Carpet, Curtain & Upholstery Cleaners Status: Inactive Positional Accuracy: Automatically positioned to the address	A9NE (SE)	897	-	434904 409396
54	**Contemporary Trade Directory Entries** Name: Specialised Aerosols Co Ltd Location: Carr Green Lane, Mapplewell, Barnsley, South Yorkshire, S75 6DY Classification: Chemicals & Allied Products Status: Active Positional Accuracy: Automatically positioned to the address	A7NW (SW)	928	-	433149 409411
55	**Contemporary Trade Directory Entries** Name: Fireside House Ltd Location: Towngate (The Old Clinic), Mapplewell, Barnsley, South Yorkshire, S75 6AS Classification: Fireplaces & Mantelpieces Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A11NE (W)	981	-	432905 410042
55	**Contemporary Trade Directory Entries** Name: Fireside House Location: 41, Towngate, Mapplewell, Barnsley, South Yorkshire, S75 6AS Classification: Fireplaces & Mantelpieces Status: Inactive Positional Accuracy: Automatically positioned to the address	A11NE (W)	984	-	432902 410026
56	**Fuel Station Entries** Name: Station Garage Location: Wakefield Road, Mapplewell, BARNSLEY, South Yorkshire, S75 6DJ Brand: Closed Premises Type: Petrol Station Status: Closed Positional Accuracy: Automatically positioned to the address	A13SE (S)	42	-	434044 409745
57	**Fuel Station Entries** Name: Turnpike Garage Location: Wakefield Road, Mapplewell, BARNSLEY, South Yorkshire, S75 6JX Brand: Jet Premises Type: Petrol Station Status: Open Positional Accuracy: Automatically positioned to the address	A17SE (NW)	734	-	433447 410588

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
58	**Areas of Adopted Green Belt** Authority: Barnsley Metropolitan Borough Council, Planning Department Plan Name: Barnsley Unitary Development Plan Status: Adopted Plan Date: 31st December 2000	A13NE (NE)	0	7	434076 410021
59	**Areas of Adopted Green Belt** Authority: Wakefield City Metropolitan District Council Plan Name: Wakefield Metropolitan District Unitary Development Plan First Alteration Status: Adopted Plan Date: 17th January 2003	A23SE (N)	996	6	434260 411044
60	**Nitrate Vulnerable Zones** Name: Not Supplied Description: Surface Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	(N)	0	8	434809 415331

Envirocheck
A Landmark service

Data Currency

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices		
Kirklees Metropolitan Borough Council - Planning Services	June 2007	Annual Rolling Update
Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	May 2007	Annual Rolling Update
Wakefield City Metropolitan District Council - Environmental Health	September 2006	Annual Rolling Update
Discharge Consents		
Environment Agency - North East Region	April 2007	Quarterly
Enforcement and Prohibition Notices		
Environment Agency - North East Region	July 2007	As notified
Integrated Pollution Controls		
Environment Agency - North East Region	April 2007	Quarterly
Integrated Pollution Prevention And Control		
Environment Agency - North East Region	April 2007	Quarterly
Local Authority Integrated Pollution Prevention And Control		
Wakefield City Metropolitan District Council - Environmental Health	June 2007	Annual Rolling Update
Kirklees Metropolitan Borough Council - Environmental Health Department	November 2006	Annual Rolling Update
Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	October 2006	Annual Rolling Update
Local Authority Pollution Prevention and Controls		
Wakefield City Metropolitan District Council - Environmental Health	June 2007	Annual Rolling Update
Kirklees Metropolitan Borough Council - Environmental Health Department	November 2006	Annual Rolling Update
Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	October 2006	Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements		
Wakefield City Metropolitan District Council - Environmental Health	June 2007	Annual Rolling Update
Kirklees Metropolitan Borough Council - Environmental Health Department	November 2006	Annual Rolling Update
Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	October 2006	Annual Rolling Update
Nearest Surface Water Feature		
Ordnance Survey	May 2007	Quarterly
Pollution Incidents to Controlled Waters		
Environment Agency - North East Region	December 1998	Not Applicable
Prosecutions Relating to Authorised Processes		
Environment Agency - North East Region	July 2007	As notified
Prosecutions Relating to Controlled Waters		
Environment Agency - North East Region	July 2007	As notified
Registered Radioactive Substances		
Environment Agency - North East Region	April 2007	Quarterly
River Quality		
Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points		
Environment Agency - Head Office	October 2006	Annually
River Quality Chemistry Sampling Points		
Environment Agency - Head Office	October 2006	Annually
Substantiated Pollution Incident Register		
Environment Agency - North East Region - Ridings Area	April 2007	Quarterly
Water Abstractions		
Environment Agency - North East Region	April 2007	Quarterly
Water Industry Act Referrals		
Environment Agency - North East Region	April 2007	Quarterly
Groundwater Vulnerability		
Environment Agency - Head Office	January 1999	Not Applicable
Drift Deposits		
Environment Agency - Head Office	January 1999	Not Applicable
Source Protection Zones		
Environment Agency - Head Office	April 2005	Variable

Agency & Hydrological	Version	Update Cycle
Extreme Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	April 2007	Quarterly
Flooding from Rivers or Sea without Defences		
Environment Agency - Head Office	April 2007	Quarterly
Areas Benefiting from Flood Defences		
Environment Agency - Head Office	April 2007	Quarterly
Flood Water Storage Areas		
Environment Agency - Head Office	April 2007	Quarterly
Flood Defences		
Environment Agency - Head Office	April 2007	Quarterly
Waste	**Version**	**Update Cycle**
BGS Recorded Landfill Sites		
British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Integrated Pollution Control Registered Waste Sites		
Environment Agency - North East Region	April 2007	Quarterly
Licensed Waste Management Facilities (Landfill Boundaries)		
Environment Agency - North East Region - Ridings Area	June 2007	Quarterly
Licensed Waste Management Facilities (Locations)		
Environment Agency - North East Region - Ridings Area	May 2007	Quarterly
Local Authority Landfill Coverage		
Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	May 2000	Not Applicable
Kirklees Metropolitan Borough Council - Planning Services	May 2000	Not Applicable
Wakefield City Metropolitan District Council - Environmental Health	May 2000	Not Applicable
Local Authority Recorded Landfill Sites		
Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	May 2000	Not Applicable
Kirklees Metropolitan Borough Council - Planning Services	May 2000	Not Applicable
Wakefield City Metropolitan District Council - Environmental Health	May 2000	Not Applicable
Registered Landfill Sites		
Environment Agency - North East Region - Ridings Area	March 2003	Not Applicable
Registered Waste Transfer Sites		
Environment Agency - North East Region - Ridings Area	March 2003	Not Applicable
Registered Waste Treatment or Disposal Sites		
Environment Agency - North East Region - Ridings Area	March 2003	Not Applicable
Hazardous Substances	**Version**	**Update Cycle**
Control of Major Accident Hazards Sites (COMAH)		
Health and Safety Executive	April 2007	Bi-Annually
Explosive Sites		
Health and Safety Executive	February 2007	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS)		
Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements		
Barnsley Metropolitan Borough Council - Planning Department	December 2005	Annual Rolling Update
Kirklees Metropolitan Borough Council - Planning Services	May 2007	Annual Rolling Update
Wakefield City Metropolitan District Council	May 2007	Annual Rolling Update
Planning Hazardous Substance Consents		
Barnsley Metropolitan Borough Council - Planning Department	June 2007	Annual Rolling Update
Kirklees Metropolitan Borough Council - Planning Services	May 2007	Annual Rolling Update
Wakefield City Metropolitan District Council	May 2007	Annual Rolling Update

Envirocheck
A Landmark service

Data Currency

Geological	Version	Update Cycle
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	April 2007	Bi-Annually
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	August 1996	Not Applicable
Brine Compensation Areas Cheshire Brine Subsidence Compensation Board	November 2002	As notified
Coal Mining Affected Areas The Coal Authority - Mining Report Service	January 2006	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Natural and Mining Cavities Peter Brett Associates	December 2005	Variable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	November 2006	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	November 2006	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	November 2006	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	November 2006	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	November 2006	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	November 2006	Annually
Radon Affected Areas Health Protection Agency	January 2003	Not Applicable
Radon Protection Measures British Geological Survey - National Geoscience Information Service	August 2002	Variable
Shallow Mining Hazards British Geological Survey - National Geoscience Information Service	August 2002	Not Applicable
Industrial Land Use	**Version**	**Update Cycle**
Contemporary Trade Directory Entries Thomson Directories	February 2007	Quarterly
Fuel Station Entries Catalist Ltd - (Fuel Station Data)	June 2007	Quarterly

Data Currency

Sensitive Land Use	Version	Update Cycle
Areas of Adopted Green Belt		
Barnsley Metropolitan Borough Council - Planning Department	December 2000	As notified
Wakefield City Metropolitan District Council	January 2003	As notified
Kirklees Metropolitan Borough Council	March 1999	As notified
Areas of Unadopted Green Belt		
Barnsley Metropolitan Borough Council - Planning Department	December 2000	As notified
Wakefield City Metropolitan District Council	January 2003	As notified
Kirklees Metropolitan Borough Council	March 1999	As notified
Areas of Outstanding Natural Beauty		
Natural England (formerly The Countryside Agency)	November 2006	Annually
Environmentally Sensitive Areas		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	June 2006	Annually
Forest Parks		
Forestry Commission	April 1997	Not Applicable
Local Nature Reserves		
Barnsley Metropolitan Borough Council - Planning Department	September 1999	Variable
Kirklees Metropolitan Borough Council	September 1999	Variable
Wakefield City Metropolitan District Council	September 1999	Variable
Marine Nature Reserves		
Natural England	May 2007	Bi-Annually
National Nature Reserves		
Natural England	May 2007	Bi-Annually
National Parks		
Natural England (formerly The Countryside Agency)	October 2006	Annually
Nitrate Sensitive Areas		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	December 2003	Not Applicable
Nitrate Vulnerable Zones		
Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	May 2007	Annually
Ramsar Sites		
Natural England	May 2007	Bi-Annually
Sites of Special Scientific Interest		
Natural England	May 2007	Bi-Annually
Special Areas of Conservation		
Natural England	May 2007	Bi-Annually
Special Protection Areas		
Natural England	May 2007	Bi-Annually

Data Suppliers

A selection of organisations who provide data within this report

Data Supplier	Data Supplier Logo
Ordnance Survey	Ordnance Survey Licensed Partner
Environment Agency	Environment Agency
Scottish Environment Protection Agency	SEPA
The Coal Authority	THE COAL AUTHORITY
British Geological Survey	British Geological Survey
Centre for Ecology and Hydrology	Centre for Ecology & Hydrology
Countryside Council for Wales	CYNGOR CEFN GWLAD CYMRU COUNTRYSIDE COUNCIL FOR WALES
Scottish Natural Heritage	SCOTTISH NATURAL HERITAGE
Natural England	ENGLAND
Health Protection Agency	
Ove Arup	ARUP
Peter Brett Associates	pba

Envirocheck
A Landmark service

Useful Contacts

Contact	Name and Address	Contact Details
1	**Environment Agency - National Customer Contact Centre (NCCC)** PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 08708 506 506 Email: enquiries@environment-agency.gov.uk
2	**Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards** Central Offices, Kendray Street, Barnsley, South Yorkshire, S70 2TN	Telephone: 01226 770770 Fax: 01226 772599 Website: www.barnsley.gov.uk
3	**British Geological Survey - Enquiry Service** British Geological Survey, Kingsley Dunham Centre, Keyworth, Nottingham, Nottinghamshire, NG12 5GG	Telephone: 0115 936 3143 Fax: 0115 936 3276 Email: enquiries@bgs.ac.uk Website: www.bgs.ac.uk
4	**The Coal Authority - Mining Report Service** 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0845 7626848 Email: thecoalauthority@coal.gov.uk
5	**Health Protection Agency** Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 831600 Fax: 01235 833891
6	**Wakefield City Metropolitan District Council** Newton Bar, Wakefield, West Yorkshire, WF1 2TX	Telephone: 01924 306090 Fax: 01924 378532 Website: www.wakefield.gov.uk
7	**Barnsley Metropolitan Borough Council - Planning Department** Central Offices, Kendray Street, Barnsley, South Yorkshire, S70 2TN	Telephone: 01226 770770 Fax: 01226 772599 Website: www.barnsley.gov.uk
8	**Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)** Government Buildings, Otley Road, Lawnswood, Leeds, West Yorkshire, LS16 5QT	Telephone: 0113 2613333 Fax: 0113 230 0879
-	**Landmark Information Group Limited** The Smith Centre, Henley On Thames, Oxfordshire, RG9 6AB	Telephone: 0870 850 6670 Fax: 0870 850 6671 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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

Envirocheck®

Agency and Hydrological

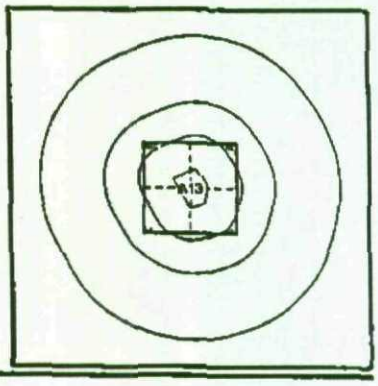
Groundwater Vulnerability - Slice A

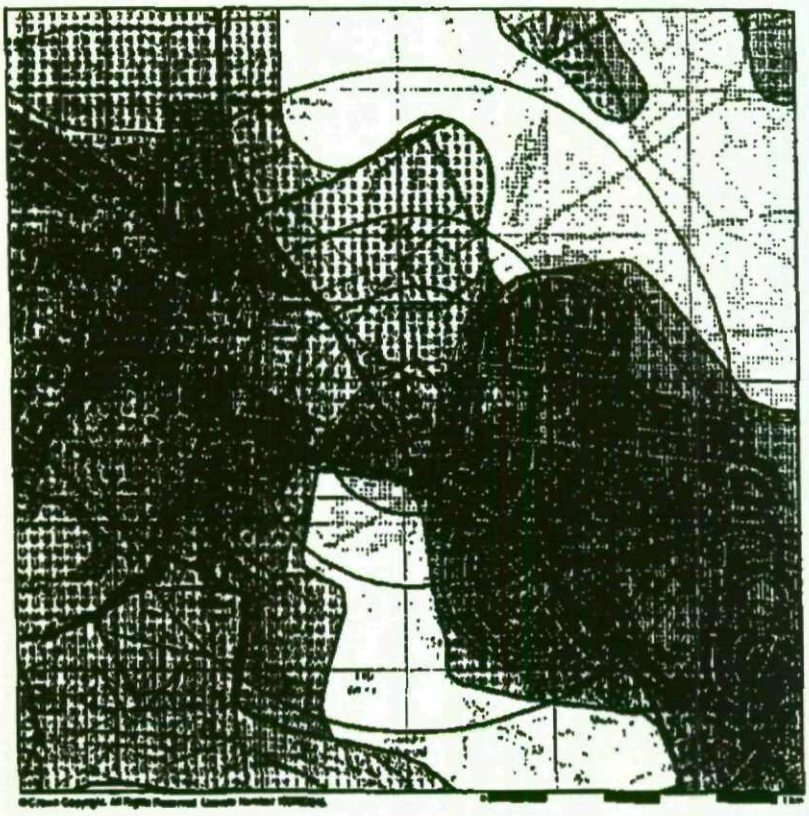
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	1000

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH





Background

- Footpath
- Bridleway
- Byway open to all traffic
- Road Used as a Public Path
- Other routes with Public Access
- National Trail or Long Distance Route
- Contour
- Fishing
- Nature Reserve

General

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

Agency & Hydrological

Geological Classes / Soil Classes

- Major Aquifer (Highly Permeable): High (H) 1, 2, 3, U; Intermediate (I) 1, 2; Low
- Minor Aquifer (Variably Permeable): High (H) 1, 2, 3, U; Intermediate (I) 1, 2; Low
- Non Aquifer (Negligibly Permeable)
- Water or Sea
- Drift Deposit

Envirocheck®

Agency and Hydrological

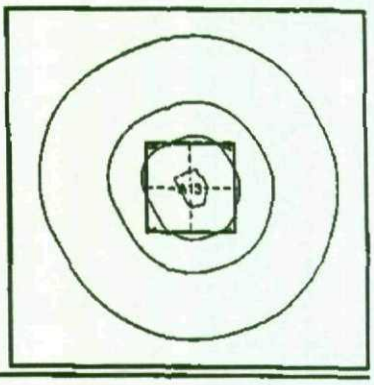
Order Details

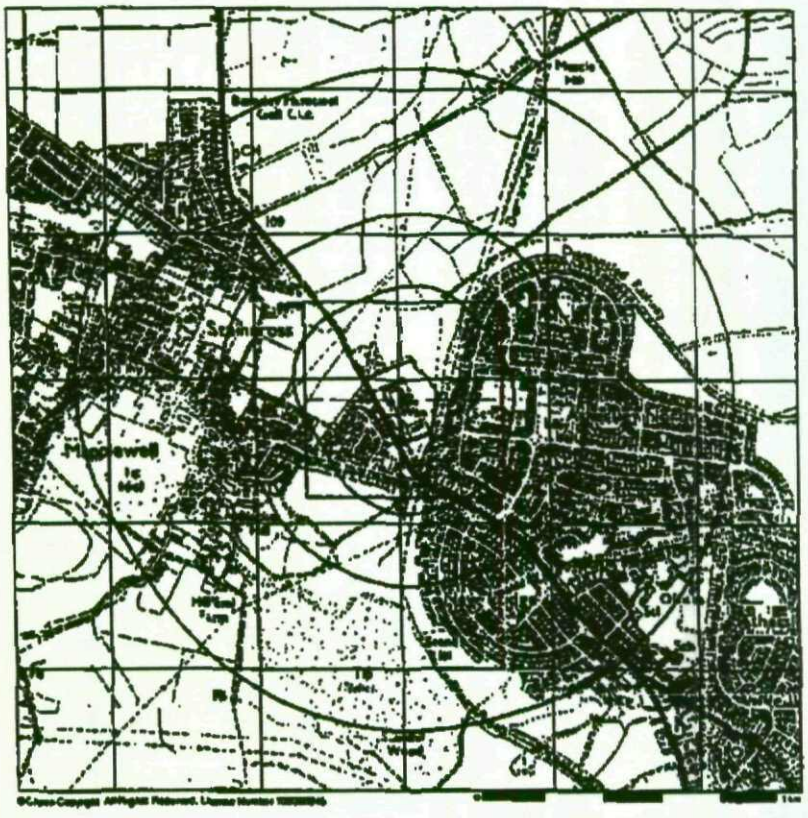
Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	1000

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

Source Protection Zones - Slice A





©Crown Copyright. All rights reserved. Licence Number

Background

- Footpath
- Bridleway
- Byway open to all traffic
- Road Used as a Public Path
- Other routes with Public Access
- National Trail or Long Distance Route
- Contour
- Fishing
- Nature Reserve

General

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

Agency and Hydrological

- Source Protection Zone I
- Source Protection Zone II
- Source Protection Zone III
- Zone of Special Interest
- Source Protection Zone Borehole

Envirocheck
A Landmark service

Sensitive Land Uses

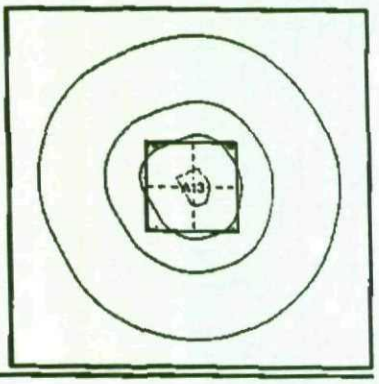
Order Details

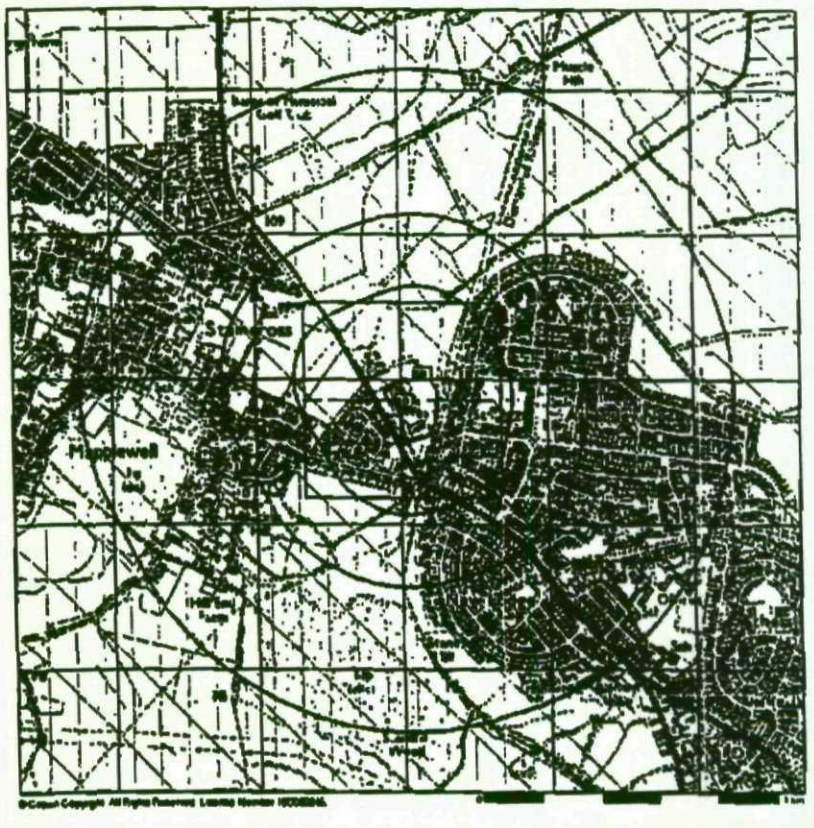
Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	1000

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

Sensitive Land Uses - Slice A





©Crown Copyright. All Rights Reserved. Licence Number 100035545.

Background

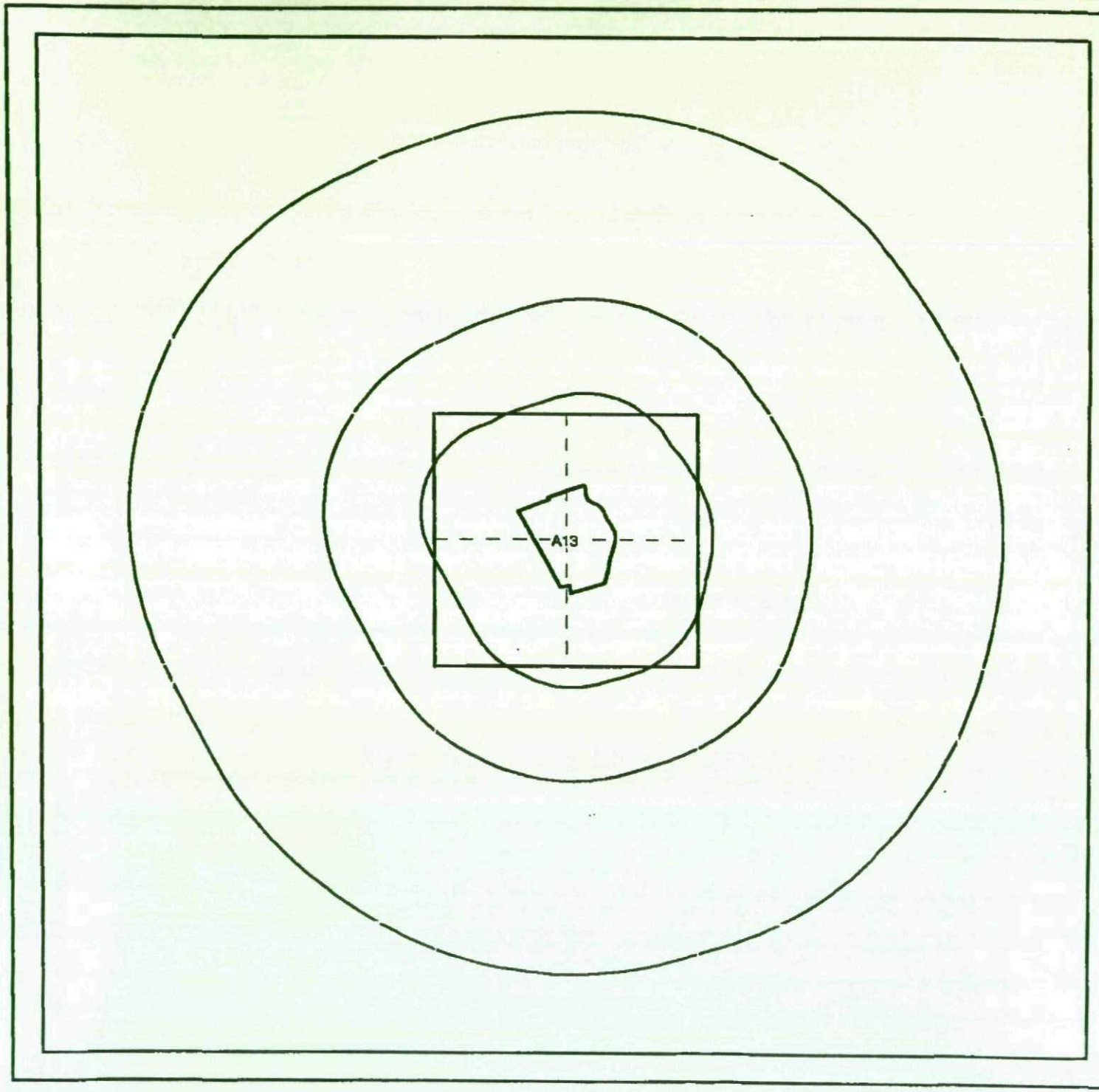
- Footpath
- Bridleway
- Byway open to all traffic
- Road Used as a Public Path
- Other routes with Public Access
- National Trail or Long Distance Route
- Contour
- Fishing
- Nature Reserve

General

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

Sensitive Land Uses

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



Envirocheck®
A Landmark service

Index Map

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

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

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

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

A selection of organisations who provide data within this report:

Ordnance Survey® Licensed Partner

British Geological Survey

ENGLAND

Envirocheck reports are compiled from 136 different sources of data.

Client Details

Mr J Saunders, Joynes Pike & Associates, 1-2 Aire House, Richmond Business Park, Sidings Court, Doncaster, South Yorkshire, DN4 5NL

Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Site Area (Ha):	4.44
Search Buffer (m):	1000

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel. 0870 850 6570
Fax. 0870 850 6571
Web. www.envirocheck.co.uk

LANDMARK TERMS AND CONDITIONS

Definitions
"Authorised Reseller" means an agent or reseller of Landmark whom Landmark has duly appointed to resell its Reports and Services.
"Content" means any data, computing and information services and software, and other content and documentation or support materials and updates included in and/or supplied by or through the Websites. In Reports or Services or in any other way by Landmark and shall include Landmark developed and Third Party Content.
"First Purchaser" means the first person, or legal entity to purchase the Property Site following provision of a Report.
"First Purchaser's Lender" means the funding provider for the First Purchaser
"Information Pack" means a pack compiled by or on behalf of the owner or prospective buyer of the Property Site, designed to aid the marketing or purchase of the Property Site and containing information provided by or on behalf of the owner or prospective buyer of the Property Site.
"Intellectual Property Rights" means copyright, patent, design right (registered or unregistered), service or trade mark (registered or unregistered), database right or other data right, moral right or know how or any other intellectual property right.
"Order" means the request for Services from Landmark by You.
"Property Site" means a land site on which Landmark provides a Service.
References to "We", "Us" and "Our" are references to Landmark Information Group Limited ("Landmark"), whose registered office is 7 Abbey Court, Eagle Way, Exeter, EX2 7HY. Where You are not ordering the Services directly from Landmark, but from an Authorised Reseller, references to "Landmark" or "We", "Us" and "Our" shall be construed so as to mean either Landmark and/or the Authorised Reseller as the context shall indicate.
References as to "Your/Yours/Yourself" refer to the contracting party who accesses the Website or places an Order with Landmark.
"Report" includes any information that Landmark supplies to You including all reports, services, datasets, software or information contained in them.
"Services" means the provision of any service by Landmark pursuant to these Terms, including without limitation, any Report.
"Landmark Fees" means any charges levied by Landmark for Services provided to You.
"Suppliers" means any organisation who provides data or information of any form to Landmark.
"Terms" means these Terms & Conditions.
"Third Party Content" means the services, software, information and other content or functionality provided by third parties and linked to or contained in the Services.
"Websites" means websites hosted by Landmark and includes the Content and any report, service, document, data-set, feature or information contained therein, derived there from or thereby.

1. Terms & Conditions
a. These Terms govern the relationship between You and Landmark whether You are an unregistered visitor to the Website or are purchasing Services. Where these Terms are not expressly accepted by You they will be deemed to have been accepted by You, and You agree to be bound by these Terms when You place any Order, or pay for any Services provided
b. If the person communicating with Landmark is an Authorised Reseller, they must ensure that You agree to these Terms.
c. The headings in these Terms are for convenience only and shall not affect the meaning or interpretation of any part of these Terms.
d. Landmark may modify these Terms, and may discontinue or revise any or all other aspects of the Services at our sole discretion, with immediate effect and without prior notice, including without limitation changing the Services available at any given time. Any amendment or variation to these Terms shall be posted on our Websites. Continued use of the Services by You shall be deemed an acceptance by You to be bound by any such amendments to the Terms.
e. These Terms, together with the prices and delivery details set out on our Websites, Landmark's Privacy Policy and Your Order comprise the whole agreement relating to the supply of Services to You by Landmark. No prior stipulation, agreement, promotional material or statement whether written or oral made by any sales or other person or representative on our behalf should be understood as a variation of these Terms. Save for fraud or misrepresentation, Landmark shall have no liability for any such representation being untrue or misleading.
f. These Terms shall prevail at all times to the exclusion of all other terms and conditions including any terms and conditions which You may purport to apply even if such other provisions are submitted in a later document or purport to exclude or override these Terms and neither the course of conduct between parties nor trade practice shall act to modify these Terms.

2. Services
a. Landmark will use reasonable care and skill in providing the Services to You, however, the Services are provided on the express basis that the information and data supplied in the Services are derived from third party sources and Landmark does not warrant the accuracy or completeness of such information or data. Such information is derived solely from those sources specifically cited in the Services and Landmark does not claim that these sources represent an exhaustive or comprehensive list of all sources that might be consulted.

3. Intellectual Property
a. You acknowledge that all Intellectual Property Rights in the Services are and shall remain owned by either Landmark or our Suppliers and nothing in these Terms purports to transfer, assign or grant any rights to You in respect of the Intellectual Property Rights.
b. Subject always to these Terms You may, without further charge, make the Services available to;
i. the owner of the Property at the date of the Report,
ii. any person who purchases the whole of the Property Site,
iii. any person who provides funding secured on the whole of the Property Site,
iv. any person for whom You act in a professional or commercial capacity,
v. any person who acts for You in a professional or commercial capacity, and
vi. prospective buyers of the Property Site as part of an Information Pack but for the avoidance of doubt, Landmark shall have no liability to such prospective buyer unless the prospective buyer subsequently purchases the Property Site, and the prospective (or actual) buyer shall not be entitled to make the Service available to any other third party.
Accordingly Landmark shall have the same duties and obligations to those persons in respect of the Services as it has to You.
c. Each of those persons referred to in clause 3.b. shall have the benefit and the burden of Your rights and obligations under these Terms. The limitations of Landmark's liability as set out in clause 6 shall apply to all users of the Service in question in aggregate and Landmark shall not be liable to any other person.
d. All parties given access to the Services agree that they will treat as strictly private and confidential the Services and all information which they obtain from the Services and shall restrict any disclosure to employees or professional advisors to enable the relevant party to conduct its internal business. The requirement in this clause to treat the Services as confidential is not a requirement to maintain adequate security measures to safeguard the Services from unauthorised access, use or copying.
e. Each recipient of the Services agrees (and agrees it will cause its employees, agents or contractors who may from time to time have access to the Services to agree) it will not, except as permitted herein or by separate agreement with Landmark:-
i. effect or attempt to effect any modification, merger or change to the Service, nor permit any other person to do so; or
ii. copy, use, market, re-sell, distribute, merge, alter, add to or carry on any redistribution, reproduction, translation, publication, reduction to any electronic medium or machine readable form or commercially exploit or in any other way deal with or utilise or (except as expressly permitted by applicable law) reverse engineer, decompile or disassemble the Services. Damage or Wrongful; or
iii. remove, alter or in any way change any trademark or proprietary marking in any element of the Services and You shall acknowledge the ownership of the Content, where such Content is incorporated or used into Your own documents, reports, systems or services whether or not these are supplied to any third party.
iv. create any product which is derived directly or indirectly from the data contained in the Services
f. The mapping contained in any Services is protected by Crown Copyright and You shall not be used for any purpose outside the context of the Services or as specifically provided by these Terms.
g. You are permitted to make five copies of any Report, but are not authorised to re-sell the Report, any part thereof or any copy thereof unless you are an Authorised Reseller. Further copies may not be made in whole or in part without the prior written permission of Landmark who shall be entitled to make a charge for each additional copy.

4. Charges
a. VAT at the prevailing rate shall be payable in addition to the Landmark Fees. You shall pay any other applicable indirect taxes raised to Your use of the Services.
b. An individual or a monthly invoice showing all Orders created by You will be generated subject to these Terms. You will pay the Landmark Fees at the rates set out in Landmark's or its Authorised Reseller's invoice. The Landmark Fees are payable in full within 30 days without deduction, counterclaim or set off. You acknowledge that time is of the essence with respect to the payment of such invoices. Landmark reserves the right to amend the Landmark Fees from time to time and the Services will be charged at the Landmark Fee applicable at the date on which the Service is ordered.
c. We may charge interest on late payment at a rate equal to 3% per annum above the base lending rate of National Westminster Bank plc.
d. Landmark or its Authorised Reseller shall not be obliged to invoice any party other than You for the provision of Services, but where Landmark or its Authorised Reseller does so invoice any third party at Your request, and such invoice is not accepted or remains unpaid, Landmark or its Authorised Reseller shall have the option at any time to cancel such invoice and invoice You direct for such Services. Where Your order comprises a number of Services or severable elements within any one or more Services, any failure by Landmark or its Authorised Reseller to provide an element or elements of the Services shall not prejudice Landmark's or its Authorised Reseller's ability to require payment in respect of the Services delivered to You.

5. Termination
a. Landmark may suspend or terminate Your rights under these Terms without any liability to You with immediate effect if at any time:-
i. You fail to make any payment due in accordance with clause 4;
ii. You repeatedly breach or commit or cause to be committed any material breach of these Terms; or
iii. You commit a breach and You fail to remedy the breach within 7 days of receipt of a written notice to do so; additionally, without prejudice to the foregoing, Landmark may remedy the breach and recover the costs thereof from You.
b. If Your rights are terminated under this clause and You have made an advance payment We will refund You a reasonable proportion of the balance as determined by Us in relation to the value of Services previously purchased.
c. Landmark reserves the right to refuse to supply any or all Services to You without notice or reason.

6. Liability
a. We provide warranties and accept liability only to the extent stated in the clause 6 and clause 7.
b. Nothing in these Terms excludes either party's liability for death or personal injury caused by that party's negligence or wilful default, and the remainder of this clause 6 is subject to this provision and Your statutory rights.
c. As most of the information contained in the Services is provided to Landmark by others, Landmark cannot control its accuracy or completeness, nor as it within the scope of Landmark's function to check the information on the ground. Accordingly, Landmark will only be liable to You for any loss or damage caused by its negligence or wilful default and neither Landmark nor any person providing information contained in any Services shall in any other circumstances be liable for any inaccuracies, faults or omissions in the Services nor shall Landmark have any liability if the Services are used otherwise than in accordance with these Terms.
d. Save as limited by law, Landmark shall not be liable for any indirect or consequential loss, damage or expenses including loss of profits, loss of contracts, business or goodwill) howsoever arising out of any problem, event, action or default by Landmark.
e. In any event, and notwithstanding anything contained in these Terms, Landmark's liability in contract, tort (including negligence or breach of statutory duty) or otherwise howsoever arising by reason or in connection with the Contract (except in respect to death or personal injury) shall be limited to an aggregate amount not exceeding £1 million if the complaint is in relation to a Report on residential property and an aggregate amount not exceeding £10 million in respect of any other Report or Service purchased from Landmark.
f. Landmark will not be liable for any defect, failure or omission relating to Services that is not notified to Landmark within six months of the date of the issue (excluding appeals) and in any event, within twelve years of the date of the Service.
g. You acknowledge that:-
i. You shall have no claim or recourse against any Third Party Content supplier nor any of our other Suppliers. You will not in any way hold us responsible for any selection or rejection of, or the acts or omissions of Third Party Content suppliers or other Suppliers (including those with whom We have contracted to operate various aspects of the Service) in connection with the Services. For the avoidance of doubt Landmark is not a Third Party Content supplier). Landmark does not promise that the supply of the Services will be uninterrupted or error free or provide any particular facilities or functions, or that the Content will always be complete, accurate, precise, free from defects of any other kind, computer viruses, software locks or other similar code although Landmark will use reasonable efforts to correct any inaccuracies within a reasonable period of them becoming known to us;
ii. Landmark's only obligation is to exercise reasonable skill and care in providing environmental property risk information to persons acting in a professional or commercial capacity who are skilled in the use of property and environmental information and You hereby acknowledge that You are such a person;
iii. no physical inspection of the Property Site reported on is carried out as part of any Services offered by Landmark and Landmark do not warrant that all land uses or features whether past or current will be identified in the Services. The Services do not include any information relating to the actual state or condition of any Property Site nor should they be used or taken to indicate or exclude actual illness or unfitness of a Property Site for any particular purpose nor should it be relied upon for determining saleability or value or used as a substitute for any physical investigation or inspection. Landmark recommends that You inspect and take other advice in relation to the Property Site and not rely exclusively on the Services.
iv. Landmark shall not be responsible for error or corruption in the Services resulting from inaccuracy or omission in property or secondary information and data, inaccurate processing of information and data by third parties, computer malfunction or corruption of data whilst in the course of conversion, geo-coding, processing by computer or electronic means, or in the course of transmission by telephone or other communication link, or printing.
v. Landmark will not be held liable in any way if a Report on residential property is used for commercial property or more than the one residential property for which it was ordered.
vi. the Services have not been prepared to meet Your or anyone else's individual requirements; that You assume the entire risk as to the suitability of the Services and waive any claim of detrimental reliance upon the same; and You confirm You are solely responsible for the selection or omission of any specific part of the Content;
vii. Landmark offer no warranty for the performance of any linked internet service not operated by Landmark;
viii. You will on using the Services make a reasonable inspection of any results to satisfy Yourself that there are no defects or failures. In the event that there is a material defect You will notify us in writing of such defect within seven days of its discovery;
ix. Any support or assistance provided to You in connection with these Terms is at Your risk;
h. All liability for any insurance products purchased by You rests solely with the insurer. Landmark does not endorse any particular product or insurer and no information contained within the Services should be deemed to imply otherwise. You acknowledge that if You Order any such insurance Landmark will deem such as Your consent to forward a copy of the Report to the insurers. Where such policy is purchased, all liability remains with the insurers and You are entirely responsible for ensuring that the insurance policy chosen is suitable for Your needs and should seek independent advice. Landmark does not guarantee that an insurance policy will be available on a Property Site. All decisions with regard to the offer of insurance policies for any premises will be made solely at the discretion of the insurers and Landmark accepts no liability in this regard. The provision of a Report does not constitute any indication by Landmark that insurance will be available on the property
i. Professional opinions contained in Reports are provided to Landmark by third parties, and such third parties are solely liable for the opinion provided. For the avoidance of doubt, those parties providing assessments or professional opinions on Landmark products include RPS Plc & Wilbourn Associates Limited, and any issues with regard to the provision of such opinion should be taken up with the relevant third party.
If Landmark provides You with any additional service obtained from a third party, including but not limited to any assessment or certification, risk assessment or environmental report or desk-top search carried out in relation to a Report on Your Property Site, Landmark will not be liable in any way for any information contained therein or any issues arising out of the provision of those additional services to You. Landmark will be deemed to have acted as an agent in these circumstances and the supply of these additional services will be governed by the terms and conditions of those Third Parties.
j. In any event no person may rely on a Service more than 12 months after its original date.
k. If You wish to vary any limitation of liability as set out in these Terms, You must request such variation prior to ordering the Service. Landmark shall use its reasonable endeavours to agree such variation but shall not be obliged to do so.
l. Time shall not be of the essence with respect to the provision of the Services.
m. Ordnance Survey have undertaken a positional accuracy improvement programme which may result in discrepancies between the positioning of features used in datasets in the Services and the updated Ordnance Survey mapping. Landmark and its Suppliers exclude all and any liability incurred as a result of the implementation of such positional accuracy improvement programme.
n. Where Landmark provides its own risk assessment in connection with any Report, Landmark shall carry out such assessment with all reasonable skill and care but shall have no liability for any such risk assessment conclusion which is provided for information only, save where Landmark conducted the same negligently, in which case the provisions of clause 6 shall apply. Notwithstanding the provision of any such risk assessment conclusion you should carefully examine the remainder of the Report and should not take or abstain from taking any action based solely on the basis of the risk assessment. For the avoidance of doubt, the provisions of this clause 6n apply solely to risk assessments conducted by Landmark, and the provision of any other risk assessment by a third party shall be governed by such third party's terms in accordance with the provisions of clause 6i above.

7. Contribution
a. Save where expressly provided, this clause 7 shall apply solely to Environsearch Residential Reports (regardless of the result of such Report). Nothing in this clause 7 shall operate to override or vary the provisions of clause 6.
b. Landmark are prepared to offer, at their sole discretion, and without any admission or instance of liability a contribution towards the costs of any remediation works required under a Notice (as defined below) on the terms of this clause 7 ("the Contribution")
c. In the event that a Remediation Notice is served on the First Purchaser or First Purchaser's Lender of a Property Site under Part II(A) of the Environmental Protection Act 1990 ("the Notice") Landmark will contribute to the cost of such works as either the First Purchaser or First Purchaser's Lender (but not both) are required to carry out under the Notice subject to the provisions of this clause 7 and on the following terms:
i. the Contribution shall only apply to contamination or a pollution incident present or having occurred prior to the date of the Report;
ii. the Contribution shall only apply where the Property Site is a single residential dwelling house or a single residential flat within a block of flats. For the avoidance of doubt, the obligation does not apply to any commercial property, nor to any Property Site being developed or redeveloped whether for residential purposes or otherwise;
iii. the Contribution is strictly limited to the cost of works at the Property Site and at no other site.
iv. the Contribution will not be paid in respect of any of the following:
Radioactive contamination of whatsoever nature, directly or indirectly caused by or contributed to or arising from ionising radiations or contamination by radioactivity from any nuclear fuel or from any nuclear waste from the combustion of nuclear fuel or the radioactive toxic explosive or other hazardous properties of any explosive nuclear assembly or nuclear components thereof.
Asbestos arising out of or related in any way to asbestos or asbestos-containing materials on or in structures or services serving the structures.
Naturally occurring materials arising from the presence or required removal of naturally occurring materials except in circumstances where such materials are present in concentrations which are in excess of their natural concentration.
Intentional non-compliance arising from the intentional derogation of or knowing wilful or deliberate non-compliance by any owner or occupier of the Property Site with any statute, regulation, administrative complaint, notice of violation, or notice letter of any Regulatory Authority.
Any condition which is known or ought reasonably to have been known to the First Purchaser or the First Purchaser's Lender prior to the purchase of the Report.
Any condition which is caused by acts of War or an Act of Terrorism.
Any property belonging to or in the custody or control of the First Purchaser which does not form a fixed part of the Property Site or the structure.
Any fines liquidated damages punitive or exemplary damages.
Any bodily injury including without limitation, death, illness or disease, mental injury, anguish or nervous shock.
Any financial loss in respect of any loss of any rental, profit, revenue, savings or business or any consequential indirect or economic loss damage or expense including the cost of rent of temporary premises or business interruption.
Any losses incurred following a material change in use of the Property Site or developments of the Property Site.
d. The maximum amount that shall be reimbursed by Landmark in respect of any Contribution shall be limited to £50,000. In the event that more than one Report is purchased on the Property Site the Contribution will only be payable under the last Report purchased by or on behalf of any First Purchaser or First Purchaser's Lender and no Contribution will be made in respect of subsequent Reports purchased by or on behalf of such First Purchaser, First Purchaser's Lender or any person connected to them.
e. Landmark shall only pay a Contribution where the Notice is served within 36 months of the date of the Report.
f. Any rights to a Contribution under this Clause 7 are not assignable in the event of a sale of the Property Site and Landmark will not make any Contribution after the date of completion of such sale.
g. In the event the First Purchaser or First Purchaser's Lender wishes to claim any Contribution, it shall notify Landmark in writing within 2 months of the date of the Notice. The First Purchaser or First Purchaser's Lender (as applicable) shall comply with all reasonable requirements of Landmark with regard to the commission and conduct of the remediation works to be carried out under the Notice, and in the event the First Purchaser or First Purchaser's Lender (as applicable) does not do so, including without limitation, obtaining Landmark's prior written consent to any estimates for such works or complying with any other reasonable request by Landmark, Landmark shall not be required to pay any Contribution. Notwithstanding the payment of the Contribution by Landmark the First Purchaser or First Purchaser's Lender as applicable shall take all reasonable steps to mitigate any costs incurred in connection with the conduct of works required under the terms of any Notice.
h. In the event that the First Purchaser or First Purchaser's Lender receives any communication from a statutory authority to the effect that there is an intent to serve a notice received under Part(II(A) of the Environmental Protection Act 1990 they will advise Landmark within a maximum period of two months from receipt of such communication. Thus clause 7h and the service of any notice under it shall not affect the provisions of clauses 7 e and g, and any such communications, even if advised to Landmark will not operate as notice under clause 7e.
i. Landmark reserve the right at any time prior to a claim for Contribution being made in accordance with clause 7 g) above, to withdraw the offer of payment of Contribution without further notice

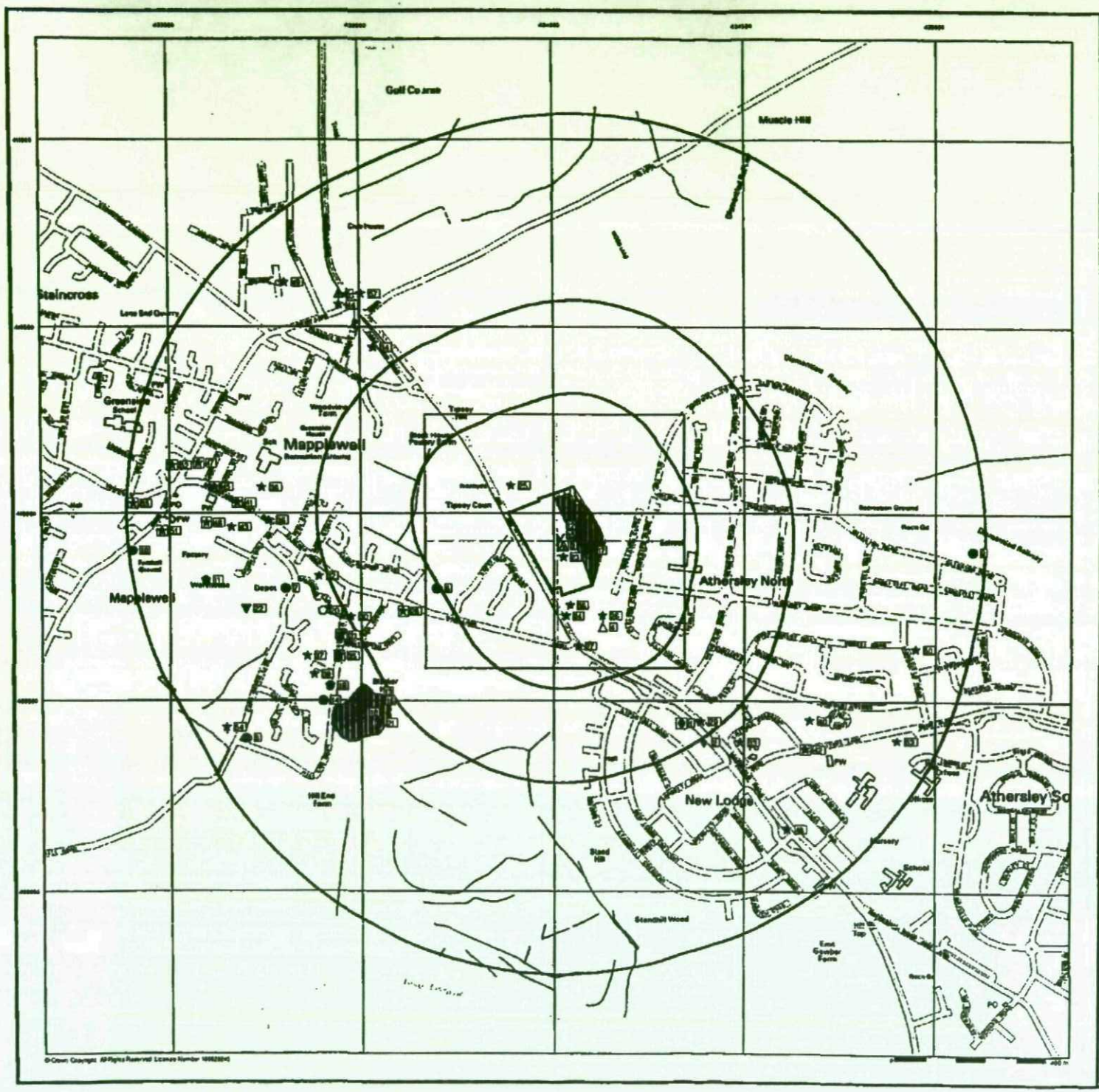
8. Events Beyond Our Control
a. You acknowledge that Landmark shall not be liable for any delay, interruption or failure in the provision of the Services which are caused or contributed to by any circumstance which is outside our reasonable control including but not limited to, lack of power, telecommunications failure or overload, computer malfunction, errors in processing of data, or delays in receiving, loading or checking data, corruption of data whilst in the course of conversion, geo-coding, processing by computer in the course of electronic communication, or parsing.

9. Severability
a. If any provision of these Terms are found by either a court or other competent authority to be void, invalid, illegal or unenforceable, that provision shall be deemed to be deleted from these Terms and never to have formed part of these Terms and the remaining provisions shall continue in full force and effect

10. Governing Law
a. These terms shall be governed by and construed in accordance with English law and each party agrees irrevocably submit to the exclusive jurisdiction of the English courts. If any dispute arises out of or in connection with this agreement (a "Dispute") the parties undertake that, prior to the commencement of Court proceedings, they will seek to have the Dispute resolved amicably by use of an alternative dispute resolution procedure acceptable to both parties with the assistance of the Centre for Dispute Resolution (CEDR) if required, by written notice initiating that procedure. If the Dispute has not been resolved to the satisfaction of either party within 60 days of initiation of the procedure or if either party fails or refuses to participate in or withdraws from participating in the procedure then either party may refer the Dispute to the Court.

11. General
a. Landmark may assign its rights and obligations under these Terms, without prior notice or any limitation.
b. Landmark may authorise or allow our contractors and other third parties to provide to Landmark and/or to You services necessary or related to the Services and to perform Landmark's obligations and exercise Landmark's rights under these Terms, which may include collecting payment on Landmark's behalf.
c. No waiver on Landmark's part to exercise, and no delay in exercising, any right, power or provision hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any right, power or provision hereunder preclude the exercise of that or any other right, power or provision.
d. Unless otherwise stated in these Terms, all notices from You to Landmark must be in writing and sent to the Landmark registered office (or in the case of an Authorised Reseller, to its registered office address) and all notices from Landmark to You will be displayed on our Websites from time to time.
e. A person who is not a party to any contract made pursuant to these Terms shall have no right under the Contract (Rights of Third Parties) Act 1999 to enforce any terms of such contract and Landmark shall not be liable to any such third party in respect of any Services supplied.
f. Landmark's Privacy Policy as displayed on the Website governs the use made of any information You supply to Landmark.

© Landmark Information Group Limited



©Crown Copyright. All Rights Reserved. Licence Number 100020040

Envirocheck®
A Landmark service

General
Searched Site · Searched Buffer(s) · Bearing Reference Point · Map ID
Several of Type at Location

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

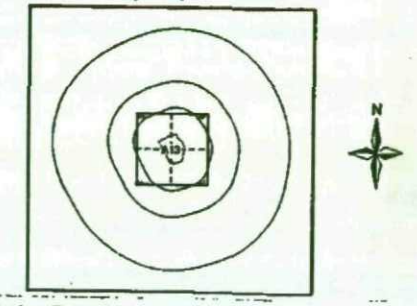
Geological
BGS Recorded Mineral Site

Industrial Land Use
Contemporary Trade Directory Entry
Fuel Station Entry

Waste
BGS Recorded Landfill Site (Landmark)
BGS Recorded Landfill Site
EA Historic Landfill (Buffered Point)
EA Historic Landfill (Polygon)
Integrated Pollution Control Registered Waste Site
Licensed Waste Management Facility (Landfill Boundary)
Licensed Waste Management Facility (Landmark)
Local Authority Recorded Landfill Site (Landmark)
Local Authority Recorded Landfill Site
Registered Landfill Site
Registered Landfill Site (Landmark)
Registered Landfill Site (Poss Buffered to 250m)
Registered Landfill Site (Poss Buffered to 500m)
Registered Waste Transfer Site (Landmark)
Registered Waste Transfer Site
Registered Waste Treatment or Disposal Site (Landmark)
Registered Waste Treatment or Disposal Site

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

Site Sensitivity Map - Slice A



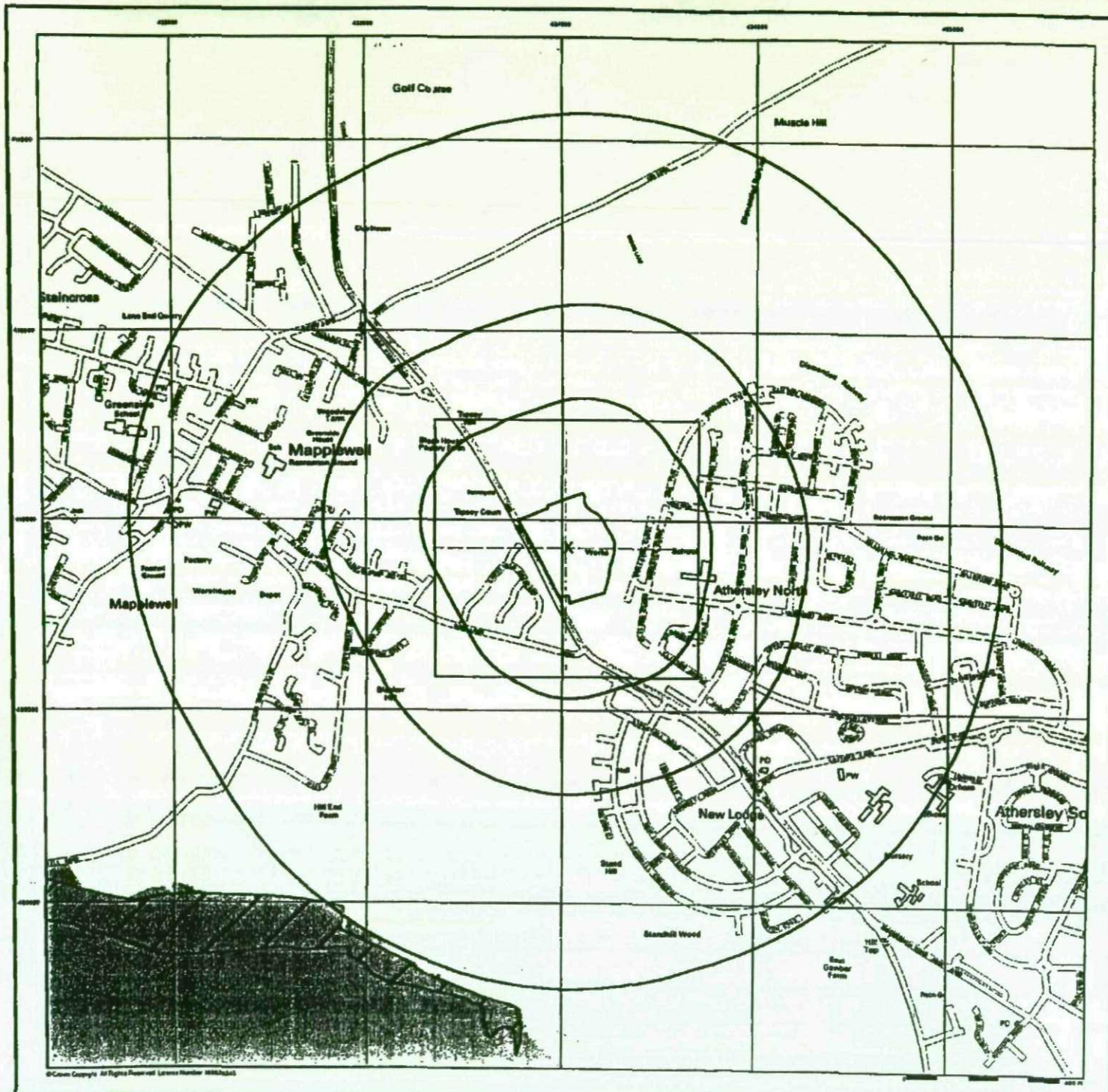
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	1000

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel: 0870 850 6670
Fax: 0870 850 6671
Web: www.envirocheck.co.uk

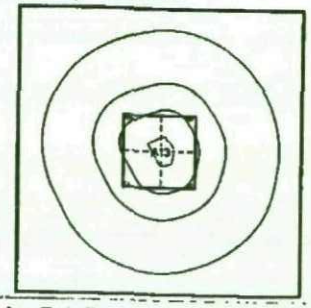


Envirocheck®
A Landmark service

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

Agency and Hydrological (Flood)
- Extreme Flooding from Rivers or Sea without Defences (Zone 3)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Areas Benefiting from Flood Defences
- Flood Water Storage Areas
- Flood Defences

Flood Map - Slice A



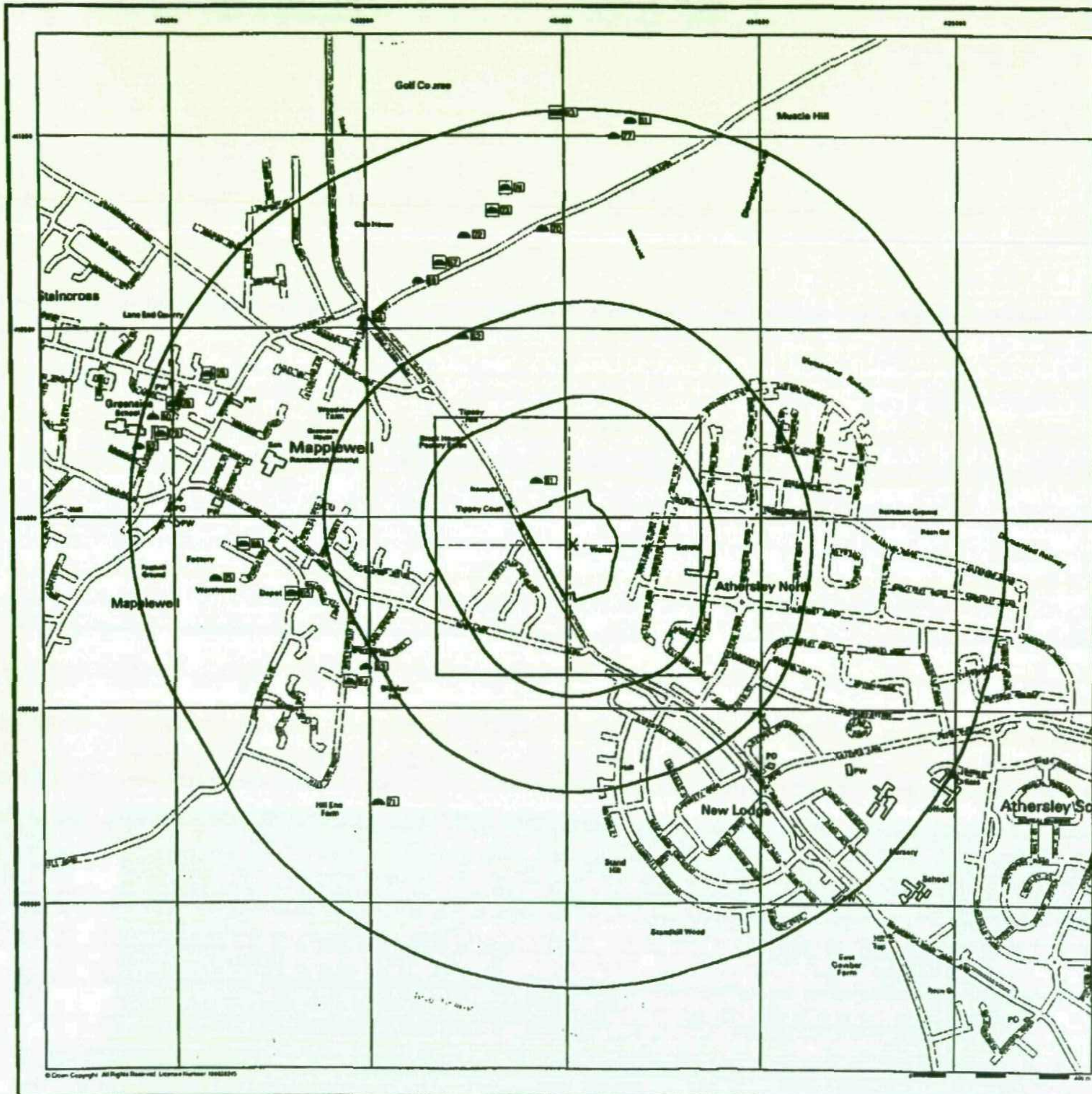
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	1000

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel: 0870 850 6670
Fax: 0870 850 6671
Web: www.envirocheck.co.uk



© Crown Copyright. All Rights Reserved. Licence Number 100022432

Envirocheck®

A Landmark service

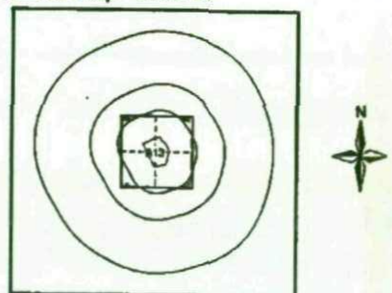
General

Agency and Hydrological (Boreholes)

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

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

Borehole Map - Slice A



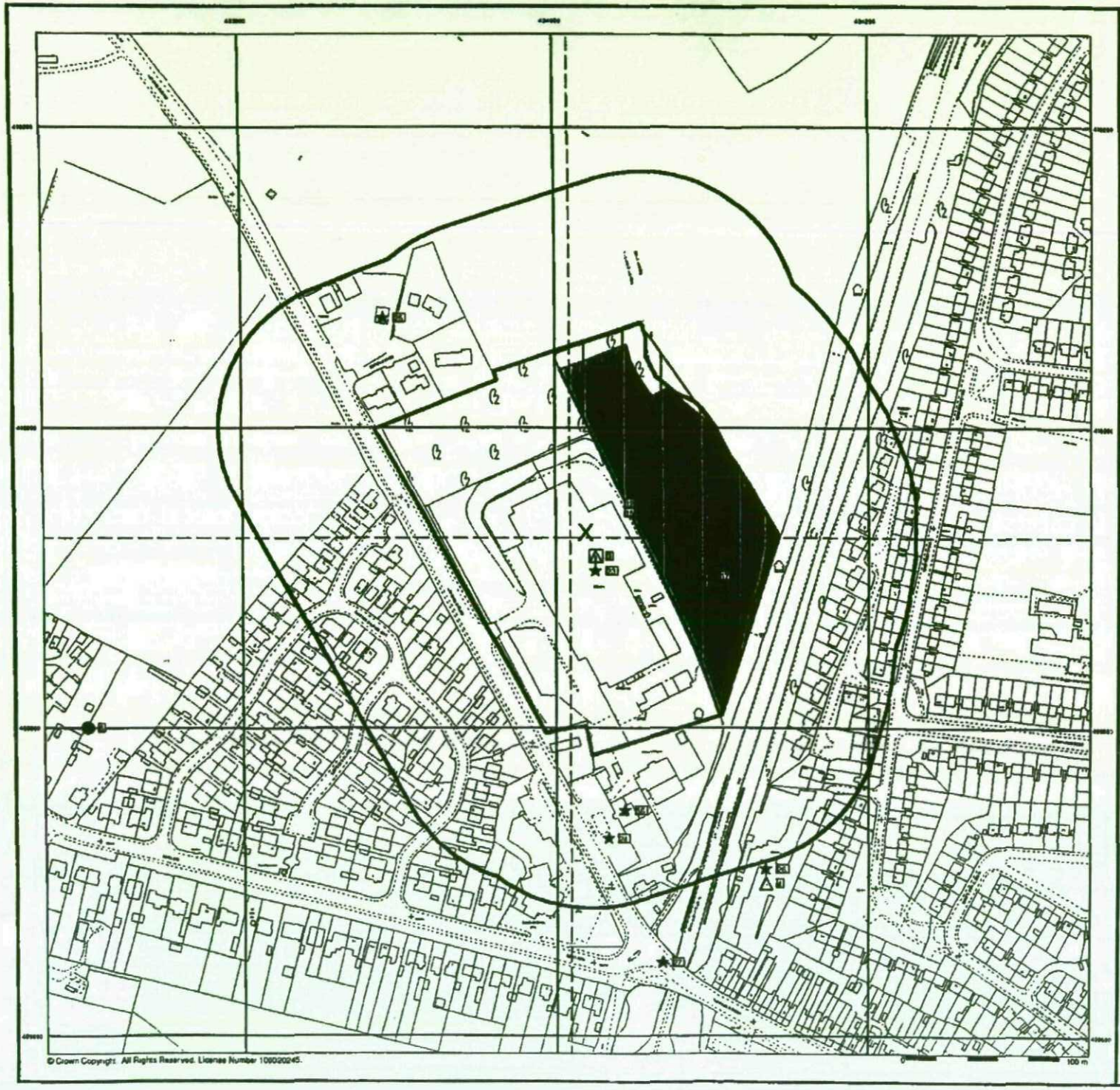
Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Search Buffer (m):	1000

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel: 0870 850 6670
Fax: 0870 850 6671
Web: www.envirocheck.co.uk



Envirocheck

A Landmark service

General

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

Agency and Hydrological

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

Geological

BGS Recorded Mineral Site

Industrial Land Use

Contemporary Trade Directory Entry
Fuel Station Entry

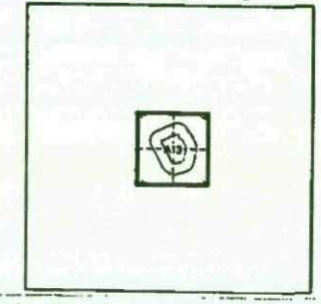
Waste

BGS Recorded Landfill Site (Location)
BGS Recorded Landfill Site
EA Historic Landfill (Buffered Area)
EA Historic Landfill (Polygon)
Integrated Pollution Control Registered Waste Site
Licensed Waste Management Facility (Landfill Boundary)
Licensed Waste Management Facility (Location)
Local Authority Recorded Landfill Site (Location)
Local Authority Recorded Landfill Site
Registered Landfill Site
Registered Landfill Site (Location)
Registered Landfill Site (Part Buffered to 100m)
Registered Landfill Site (Part Buffered to 250m)
Registered Waste Transfer Site (Location)
Registered Waste Transfer Site
Registered Waste Treatment or Disposal Site (Location)
Registered Waste Treatment or Disposal Site

Hazardous Substances

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

Site Sensitivity Map - Segment A13



Order Details

Order Number:	22075148_1_1
Customer Ref:	12070197
National Grid Reference:	434020, 409930
Slice:	A
Site Area (Ha):	4.44
Plot Buffer (m):	100

Site Details

Williams Freemans, Wakefield Road, Mapplewell, South Yorkshire, S75 6DH

LANDMARK Information Group
Tel 0870 850 6670
Fax 0870 850 6671
Web www.envirocheck.co.uk

The Coal Authority

Issued by:-
The Coal Authority, Mining Reports Office, 200 Lichfield Lane, Berry Hill, Mansfield, Nottinghamshire NG18 4RG
On-Line Service: www.coalminingreports.co.uk - Phone: 0845 762 6848 - DX 716176 MANSFIELD 5

RYAN BRYSON,
JOYNES PIKE & ASSOCIATES,
RICHMOND BUISINESS PARK,
SIDINGS COURT,
DONCASTER,
SOUTH YORKSHIRE,
DN4 5NL

Person dealing with this matter:	Darren Moody
Our reference:	10259059-07
Your reference:	12070197
Electronic Ref:	EME_00007241710001_005
RRUID:	005.00007241710001
Date of your enquiry:	09 July 2007
Date we received your enquiry:	09 July 2007
Date of issue:	10 July 2007

This report is for the property described in the address below and the attached plan.

Coal and Brine Report

William Freeman Ltd, Wakefield Road, Mapplewell Staincross, Barnsley, South Yorkshire, S75 6DH

This report is based on and limited to the records held by, the Coal Authority, and the Cheshire Brine Subsidence Compensation Board's records, at the time we answer the search.

Coal mining	Yes
Brine extraction	No

Information from the Coal Authority

Underground Coal Mining

Past

The property is in the likely zone of influence from workings in 6 seams of coal at 110m to 440m depth, and last worked in 1974.

Any ground movement from these coal workings should have stopped by now.

In addition the property is in an area where the Coal Authority believe there is coal at or close to the surface. This coal may have been worked at some time in the past.

Present

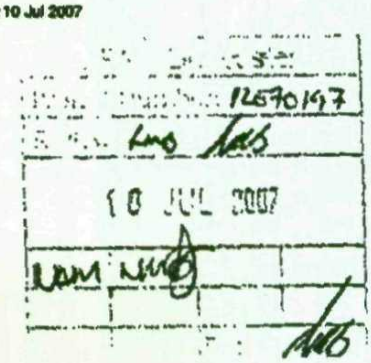
The property is not in the likely zone of influence of any present underground coal workings.

Future

The property is not in an area for which the Coal Authority is determining whether to grant a licence to remove coal using underground methods.

All rights reserved. You must not reproduce, store or transmit any part of this document unless you have our written permission.

© The Coal Authority



The property is not in an area for which a licence has been granted to remove coal using underground methods.

The property is not in an area that is likely to be affected at the surface from any planned future workings.

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

No notice of the risk of the land being affected by subsidence has been given under section 46 of the Coal Mining Subsidence Act 1991.

Mine entries

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

Records may be incomplete. Consequently, there may exist in the local area mine entries of which the Coal Authority has no knowledge.

Coal-mining geology

At the surface, there are no known faults or other lines of weakness due to coal mining that have made the property unstable.

Opencast Coal Mining

Past

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

Present

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

Future

The property is not within 800 metres of the boundary of an opencast site for which the Coal Authority is determining whether to grant a licence to remove coal by opencast methods.

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.

Coal-mining subsidence

The Coal Authority has not received a damage notice or claim for the property since 1 January 1984. There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority has not received a request to carry out preventive work before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

Mine gas

There is no record of a mine gas emission requiring action by the Coal Authority within the boundary of the property.

Hazards related to coal mining

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

Withdrawal of Support

The property is in an area for which notices of entitlement to withdraw support were published in 1982,1982,1986.

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

Working Facilities Orders

The property is not in an area for which 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.

Payments to Owners of Former Copyhold Land

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

Comments on Coal Authority information

Where development proposals are being considered, technical advice should be obtained before beginning work on site. All proposals should apply good engineering practice developed for mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or mines of coal without the permission of the Coal Authority. This is necessary due to the Public Health and Safety implications of any development in these circumstances.

Information from the Cheshire Brine Subsidence Compensation Board

The property lies outside the Cheshire Brine Compensation District.

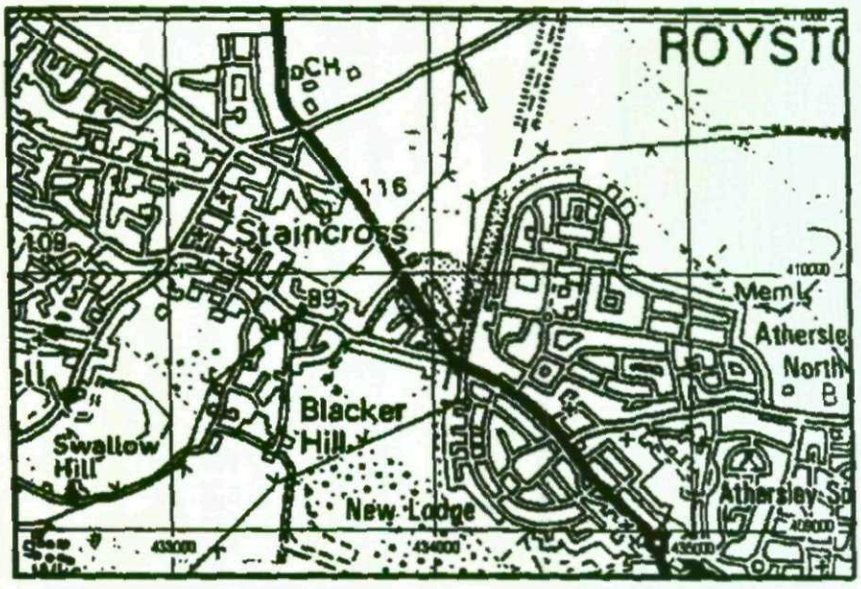
Additional remarks

This report is prepared in accordance with the Law Society's Guidance Notes 2006, the User Guide 2006 and the Coal Authority and Cheshire Brine Board's Terms and Conditions 2006. The report is compliant with Home Information Pack requirements.

The Coal Authority owns the copyright in this report. The information we have used to write this report is protected by our database right. All rights are reserved and unauthorised use is prohibited. If we provide a report for you, this does not mean that copyright and any other rights will pass to you. However, you can use the report for your own purposes.

Location map

Approximate position of property



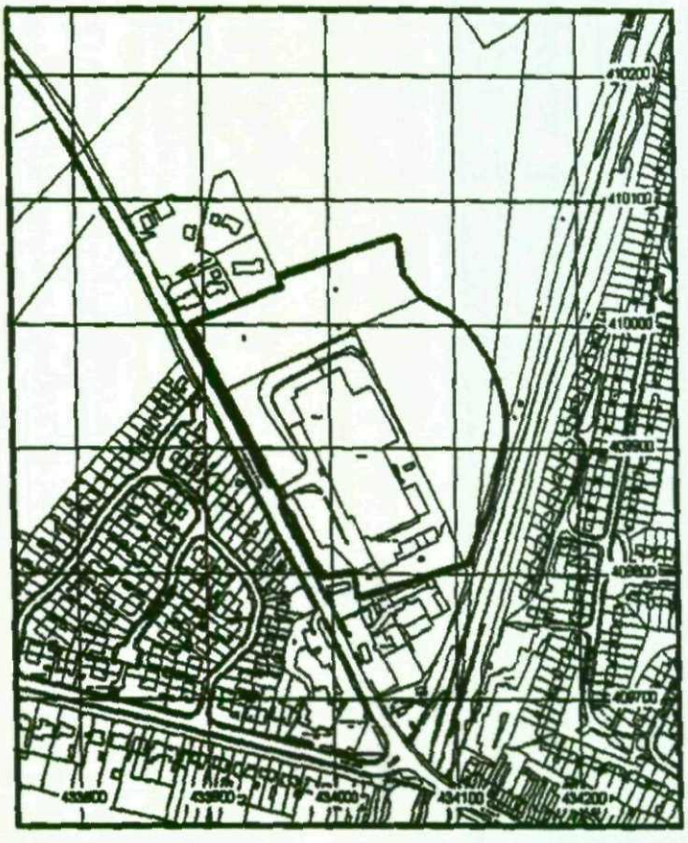
Enquiry boundary

These maps are reproduced from Ordnance Survey material with the permission of Ordnance Survey on behalf of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings. The Coal Authority. Licence number: 100020315. [2006]

Key

Approximate position of enquiry boundary shown





Ordnance Survey

APPENDIX C
Trial Pit Logs

Trial Pit ID	Client	Sheet
TP1	Ben Bailey Homes Ltd	Sheet 1 of 1
Job No.	Site: William Freemans, Mapplewell	Date
12070197		16/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Excavation Equipment:	Co-ords:	Field Records.		
JCB 3CX		DRS 07/02		
	Ground Level	Logged. DRS	Chkd.	Appr.

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
MADE GROUND: Tarmac.	0.05						
MADE GROUND: Coarse sandy, red brown medium dense, coarse gravel of brick.(FILL)	0.40			D101	0.30		
Silty, slightly fine sandy, low plasticity dark grey, firm consistency, medium to high strength CLAY. (WEATHERED MIDDLE COAL MEASURES)	0.80			D102	0.70		
Medium very sandy, low plasticity orange, mottled grey, firm to stiff consistency, high strength CLAY. (WEATHERED MIDDLE COAL MEASURES)				D103	0.90		
				D104	1.20		
Orange brown, strong SANDSTONE.(MIDDLE COAL MEASURES)	2.60						
End of Trial Pit at 2.70 m	2.70						

Remarks:
1. Sides stable throughout excavation.
2. No groundwater encountered
3. Could not excavate further due to rock head.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID: TP2

Client: Ben Bailey Homes Ltd

Site: William Freemans, Mapplewell

Sheet: Sheet 1 of 1

Job No: 12070197

Date: 16/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD

www.joynespike.co.uk

Excavation Equipment: JCB 3CX

Co-ords:

Field Records: DRS 07/02

Ground Level:

Logged: DRS

Chkd: DR

Appr:

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
MADE GROUND: Tarmac.	0.05						
MADE GROUND: Coarse sandy, red brown medium dense, coarse gravel at brick. (FILL)	0.35			D105	0.20		0.35 ▼
Silty, slightly fine sandy low plasticity, grey brown, firm consistency, medium strength CLAY. (WEATHERED MIDDLE COAL MEASURES)	0.85			D106	0.60		
Silty, very medium sandy, low plasticity, orange, mottled grey, stiff consistency, high strength CLAY with organic inclusions. Gravel is of mudstone and coal at base. (WEATHERED MIDDLE COAL MEASURES)				D107	1.00		
				D108	1.70		
Moderately, strong, dark grey black MUDSTONE. (MIDDLE COAL MEASURES)	2.50						
End of Trial Pit at 2.55 m	2.55						

Remarks:
1. Sides stable throughout excavation.
2. Could not excavate further due to rock head.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID	Client	Sheet
TP3	Ben Bailey Homes Ltd	Sheet 1 of 1
Job No: 12070197	Site: William Freemans, Mapplewell	Date: 16/07/2007
Excavation Equipment: JCB 3CX	Co-ords	Field Records: DRS 07/02
	Ground Level	Logged: DRS / Chkd: DRS / Appr

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
MADE GROUND: Tarmac and concrete.	0.20						
MADE GROUND: Coarse sandy, red, medium dense, coarse gravel of brick and sandstone. (FILL)				D109	0.50		
Silty, medium sandy, low plasticity, orange, brown mottled grey, stiff consistency, high strength CLAY with organic inclusions. (WEATHERED MIDDLE COAL MEASURES)	0.70			D110	0.80		
				D111	1.10		
				D112	1.90		
Weak orange SANDSTONE. (MIDDLE COAL MEASURES)	2.90						
End of Trial Pit at 3.10 m	3.10						

Remarks
1. Sides stable throughout excavation.
2. No groundwater encountered
3. Could not excavate further due to rock head.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID	Client	Sheet
TP4	Ben Bailey Homes Ltd	Sheet 1 of 1
Job No	**Site**	**Date**
12070197	William Freemans, Mapplewell	16/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Excavation Equipment	Co-ords	Field Records	Logged	Chkd	Appr
JCB 3CX		DRS 07/02	DRS	DRS	

Ground Level

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
MADE GROUND: Tarmac, concrete and brick. (FILL)							
Silty, slightly medium sandy, low plasticity, orange brown mottled grey, stiff consistency, high strength CLAY. (WEATHERED MIDDLE COAL MEASURES)	0.50			D113	0.90		
				D114	1.40		
Strong, grey brown SANDSTONE.	3.50						
End of Trial Pit at 3.60 m	3.60						

Remarks:
1. Sides stable throughout excavation.
2. No groundwater encountered
3. Could not excavate further due to rock head.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID.

TP5

Job No: 12070197

Client: **Ben Bailey Homes Ltd**

Site: **William Freemans, Mapplewell**

Sheet: Sheet 1 of 1

Date: 16/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD

www.joynespike.co.uk

Excavation Equipment:

Co-ords.:

Field Records: DRS 07/02

Ground Level:

Logged: DRS | Chkd: DRS | Appr:

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
MADE GROUND: Tarmac and concrete.							
MADE GROUND: Coarse cream gravel of limestone. strong at base grey mudstone. (FILL)	0.25 0.40			D115	0.30		0.25 ▼
Coarse gravelly, low plasticity, grey, firm consistency, medium strength CLAY. Gravel is of mudstone. (WEATHERED MIDDLE COAL MEASURES)	0.70			D116	0.60		
Weak becoming strong at base, grey MUDSTONE. (MIDDLE COAL MEASURES)				D117	0.90		
				D118	1.50		
End of Trial Pit at 2.10 m	2.10						

Remarks.

1. Sides stable throughout excavation.
2. Could not excavate further due to rock head.

Sample Type Key

D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID: TP6

Client: Ben Bailey Homes Ltd

Site: William Freemans, Mapplewell

Job No: 12070197

Sheet: Sheet 1 of 1

Date: 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD

www.joynespike.co.uk

Excavation Equipment: JCB 3CX

Co-ords:

Field Records: DRS 07/02

Ground Level:

Logged: DRS

Chkd: ORS

Appr:

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
MADE GROUND: Tarmac and concrete.	0.20						
MADE GROUND: Slightly clayey coarse sandy, red, medium dense, coarse gravel of brick. (FILL)	0.50			D119	0.40		0.50 ▼
Silty, slightly medium sandy, low plasticity, orange brown mottled grey, stiff consistency high strength CLAY. (WEATHERED MIDDLE COAL MEASURES)				D120	0.90		
				D121	1.50		
Weak becoming strong MUDSTONE. (WEATHERED COAL MEASURES)	3.15						
End of Trial Pit at 3.40 m	3.40						

Remarks:
1. Sides stable throughout excavation.
2. Could not excavate further due to rock head.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID.	Client	Sheet
TP7	Ben Bailey Homes Ltd	Sheet 1 of 1
Job No: 12070197	Site: William Freemans, Mapplewell	Date: 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Excavation Equipment:	Co-ords	Field Records:	Logged:	Chkd	Appr
JCB 3CX		DRS 07/02	DRS	DRS	

Ground Level:

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
Slightly clayey, grey brown TOPSOIL.				D122	0.20		
	0.40						
Coarse , very gravelly, low plasticity, grey, firm consistency, medium strength CLAY. gravel is of mudstone. (WEATHERED MIDDLE COAL MEASURES)				D123	0.60		
	0.70						
Weak, becoming strong at base, grey MUDSTONE. (MIDDLE COAL MEASURES)				D124	0.90		
End of Trial Pit at 1.80 m	1.80						

Remarks:
1. Sides stable throughout excavation.
2. No groundwater encountered
3. Could not excavate further due to rock head.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID: TP8

Client: Ben Bailey Homes Ltd

Site: William Freemans, Mapplewell

Job No.: 12070197

Sheet: Sheet 1 of 1

Date: 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD

www.joynespike.co.uk

Excavation Equipment: JCB 3CX

Co-ords:

Field Records: DRS 07/02

Ground Level:

Logged: DRS

Chkd. ORS

Appr

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
Slightly clayey, grey brown sandy TOPSOIL.				D125	0.30		
	0.40						
Silty, slightly sandy, low plasticity, orange, brown, mottled grey, stiff consistency, high strength CLAY. (WEATHERED MIDDLE COAL MEASURES)				D126	0.90		
	2.20						
Medium, strong orange brown MUDSTONE. (MIDDLE COAL MEASURES)	2.30			D127	2.25		
End of Trial Pit at 2.30 m							

Remarks:
1. Sides stable throughout excavation.
2. No groundwater encountered
3. Could not excavate further due to rock head.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID: TP9

Client: Ben Bailey Homes Ltd

Site: William Freemans, Mapplewell

Sheet: Sheet 1 of 1

Job No: 12070197

Date: 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD

www.joynespike.co.uk

Excavation Equipment: JCB 3CX

Co-ords:

Field Records: DRS 07/02

Ground Level:

Logged: DRS | Chkd. DCS | Appr

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
Clayey, grey brown, sandy TOPSOIL.				D128	0.25		
	0.50						
Silty, low plasticity, orange brown, mottled grey, firm to stiff consistency, high strength CLAY. (WEATHERED MIDDLE COAL MEASURES)				D129	0.90		
	2.10						
Strong, grey brown SANDSTONE. (MIDDLE COAL MEASURES)				D130	2.20		
	2.30						
End of Trial Pit at 2.30 m							

Remarks:
1. Sides stable throughout excavation.
2. No groundwater encountered
3. Could not excavate further due to rock head.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID: TP10

Client: Ben Bailey Homes Ltd

Site: William Freemans, Mapplewell

Job No: 12070197

Sheet: Sheet 1 of 1

Date: 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD

www.joynespike.co.uk

Excavation Equipment: JCB 3CX

Co-ords:

Field Records: DRS 07/02

Ground Level:

Logged: DRS

Chkd: DRS

Appr:

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
Clayey, grey brown, sandy TOPSOIL.	0.20			D131	0.10		
Silty, slightly medium sandy low plasticity, orange brown mottled grey, firm to stiff consistency, medium to high strength CLAY. (WEATHERED MIDDLE COAL MEASURES)				D132	1.10		
Moderately strong, grey brown, SILTSTONE. (MIDDLE COAL MEASURES)	1.80			D133	1.90		
End of Trial Pit at 2.00 m	2.00						

Remarks.
1. Sides stable throughout excavation.
2. No groundwater encountered
3. Could not excavate further due to rock head.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID: TP11

Client: Ben Bailey Homes Ltd

Site: William Freemans, Mapplewell

Job No: 12070197

Sheet: Sheet 1 of 1

Date: 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD

www.joynespike.co.uk

Excavation Equipment: JCB 3CX

Co-ords:

Field Records: DRS 07/02

Ground Level:

Logged: DRS | Chkd: DRS | Appr:

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
MADE GROUND: Coarse gravelly clayey, brown, loose sand. (RECONSTITUTED GROUND)				D134	0.50		
Silty, low plasticity, brown, mottled grey stiff consistency, high strength CLAY. (WEATHERED MIDDLE COAL MEASURES)	1.00						
End of Trial Pit at 1.20 m	1.50			D135	1.50		

Remarks:
1. Hit former pipe in base, back pressure released with oily water.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID: **TP12**

Client: Ben Bailey Homes Ltd

Site: William Freemans, Mapplewell

Sheet: Sheet 1 of 1

Job No.: 12070197

Date: 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD

www.joynespike.co.uk

Excavation Equipment: JCB 3CX

Co-ords:

Field Records: DRS 07/02

Ground Level:

Logged: DRS

Chkd: DCS

Appr:

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
MADE GROUND: Medium, sandy, low plasticity, orange brown, mottled grey, firm consistency, low strength clay. (FILL)				D136	0.40		
MADE GROUND: Coarse gravelly loose to medium dense, soft consistency, low strength. (RECONSTITUTED GROUND)	0.70			D137	1.00		
MADE GROUND: Loose to medium dense, blue, white and red plastic particles. (RECONSTITUTED GROUND)	1.20			D138	1.50		
Silty, low plasticity orange brown, stiff consistency, medium strength CLAY. With possible weathered rockhead at base. (WEATHERED MIDDLE COAL MEASURES)	2.10			D139	2.30		2.10 ▼
End of Trial Pit at 3.50 m	3.50						

Remarks:
1. Sides slightly unstable throughout excavation.
2. Couldn't excavate further due to depth of pit and water.
3. Major water ingress at 2.1m with evidence of oil contamination.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID: **TP13**

Client: Ben Bailey Homes Ltd

Site: William Freemans, Mapplewell

Sheet: Sheet 1 of 1

Job No.: 12070197

Date: 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD

www.joynespike.co.uk

Excavation Equipment: JCB 3CX

Co-ords:

Field Records: DRS 07/02

Ground Level:

Logged: DRS

Chkd: DCJ

Appr:

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
MADE GROUND: Coarse gravelly sandy brown, loose to medium dense clay with frequent brick and fabric. (RECONSTITUTED GROUND)				D140	0.65		
	0.80						0.80 ▼
Silty, slightly medium sandy, low plasticity orange brown, mottled grey firm consistency high strength CLAY. (WEATHERED MIDDLE COAL MEASURES)				D141	1.50		
	2.50						
Weak becoming strong MUDSTONE. (MIDDLE COAL MEASURES)				D142	2.60		
	2.80						
End of Trial Pit at 2.80 m							

Remarks:
1. Sides slightly unstable throughout made ground.
2. Could not excavate further due to rock head.
3. Groundwater seepages at 0.80m.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID	Client	Sheet
TP14	Ben Bailey Homes Ltd	Sheet 1 of 1
Job No: 12070197	Site: William Freemans, Mapplewell	Date: 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Excavation Equipment	Co-ords	Field Records	Logged	Chkd	Appr
JCB 3CX		DRS 07/02	DRS	DCS	

Ground Level:

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
Clayey, grey, brown sandy TOPSOIL.				D143	0.40		
Silty, slightly medium sandy, low plasticity orange brown, mottled grey firm to stiff consistency, high strength CLAY. (WEATHERED MIDDLE COAL MEASURES)	0.60			D144	0.90		
Weak, becoming strong grey MUDSTONE. (MIDDLE COAL MEASURES)	2.50						
End of Trial Pit at 2.60 m	2.60						

Remarks:
1. Sides stable throughout excavation.
2. No groundwater encountered
3. Could not excavate further due to rock head.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID: TP15

Client: Ben Bailey Homes Ltd

Site: William Freemans, Mapplewell

Sheet: Sheet 1 of 1

Job No: 12070197

Date: 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD

www.joynespike.co.uk

Excavation Equipment: JCB 3CX

Co-ords:

Field Records: DRS 07/02

Ground Level:

Logged: DRS

Chkd: DRS

Appr:

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
Clayey brown TOPSOIL.				D145	0.20		
Silty, slightly medium sandy, low plasticity orange, brown mottled grey stiff consistency high strength CLAY. (WEATHERED MIDDLE COAL MEASURES)	0.40			D146	1.20		
Weak, becoming strong grey MUDSTONE. (MIDDLE COAL MEASURES)	2.30			D147	2.40		
End of Trial Pit at 2.50 m	2.50						

Remarks:
1. Sides stable throughout excavation.
2. No groundwater encountered
3. Could not excavate further due to rock head.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID.

TP16

Client: **Ben Bailey Homes Ltd**

Site: **William Freemans, Mapplewell**

Job No. **12070197**

Sheet: Sheet 1 of 1

Date: 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD

www.joynespike.co.uk

Excavation Equipment: JCB 3CX

Co-ords:

Field Records: DRS 07/02

Ground Level:

Logged: DRS | Chkd: DCS | Appr.:

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
Clayey, grey, sandy TOPSOIL.				D148	0.30		
Medium sandy, low plasticity orange, brown, mottled grey, stiff consistency, high strength CLAY with organic inclusions and becoming gravelly. (WEATHERED MIDDLE COAL MEASURES)	0.60			D149	0.90		
				D150	1.30		
Medium strong, grey brown SILTSTONE. (MIDDLE COAL MEASURES)	3.00						
End of Trial Pit at 3.30 m	3.30						

Remarks:
1. Sides stable throughout excavation.
2. No groundwater encountered
3. Could not excavate further due to rock head.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID: TP17

Client: Ben Bailey Homes Ltd

Site: William Freemans, Mapplewell

Sheet: Sheet 1 of 1

Job No: 12070197

Date: 17/07/2007

Excavation Equipment: JCB 3CX

Co-ords:

Field Records: DRS 07/02

Logged: DRS

Checked:

Approved:

JPA JOYNES PIKE & ASSOCIATES LTD

www.joynespike.co.uk

Ground Level

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
Slightly, sandy, clayey grey TOPSOIL.				D151	0.30		
	0.40						
Silty, sandy low plasticity, orange brown, mottled grey firm to stiff consistency, high strength CLAY. (WEATHERED MIDDLE COAL MEASURES)				D152	0.80		
	2.00						
Weak grey MUDSTONE recovered as gravel becoming strong at base.				D153	2.30		
	2.70						
End of Trial Pit at 2.30 m							

Remarks

1. Sides stable throughout excavation.
2. No groundwater encountered
3. Could not excavate further due to rock head.

Sample Type Key

D - Disturbed Representative

B - Bulk Representative

S - Spot Non-Representative

W - Water

PID - PID Reading

Trial Pit ID: **TP18**

Client: Ben Bailey Homes Ltd

Site: William Freemans, Mapplewell

Job No: 12070197

Sheet: Sheet 1 of 1

Date: 17/07/2007

Field Records: DRS 07/02

JPA JOYNES PIKE & ASSOCIATES LTD

www.joynespike.co.uk

Excavation Equipment: JCB 3CX

Co-ords:

Ground Level:

Logged: DRS | Chkd: DRS | Appr:

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
Slightly sandy, clayey TOPSOIL.				D154	0.20		
Silty, medium sandy, low plasticity, orange brown, mottled grey stiff consistency high strength CLAY becoming less sandy with depth more organic fragments with depth. (WEATHERED MIDDLE COAL MEASURES)	0.40			D155	0.60		
				D156	1.20		
Weak becoming strong MUDSTONE. (MIDDLE COAL MEASURES)	2.00						
End of Trial Pit at 2.20 m	2.20						

Remarks:
1. Sides stable throughout excavation.
2. No groundwater encountered
3. Could not excavate further due to rock head.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID.	Client	Sheet
TP19	Ben Bailey Homes Ltd	Sheet 1 of 1
Job No: 12070197	Site: William Freemans, Mapplewell	Date: 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Excavation Equipment:	Co-ords	Field Records	Logged	Chkd	Appr
JCB 3CX		DRS 07/02	DRS	DRS	

Ground Level

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
Slightly, sandy, clayey grey TOPSOIL.				D157	0.30		
Silty, medium sandy, low plasticity, orange brown, mottled grey, stiff consistency high strength CLAY becoming less sandy with depth. (WEATHERED MIDDLE COAL MEASURES)	0.50			D158	1.00		
Weak, grey MUDSTONE strong at base. (MIDDLE COAL MEASURES)	2.20			D159	2.30		
End of Trial Pit at 2.30 m	2.40						

Remarks:
1. Sides stable throughout excavation.
2. No groundwater encountered
3. Could not excavate further due to rock head.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID: TP20

Client: Ben Bailey Homes Ltd

Site: William Freemans, Mapplewell

Sheet: Sheet 1 of 1

Job No: 12070197

Date: 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD

www.joynespike.co.uk

Excavation Equipment: JCB 3CX

Co-ords:

Field Records: DRS 07/02

Ground Level:

Logged: DRS | Chkd: DRS | Appr: 17/7/07

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
Slightly, sandy, clayey grey TOPSOIL.				D160	0.20		
	0.30						
Silty, medium sandy, low plasticity, orange brown, mottled grey stiff consistency high strength CLAY becoming less sandy with depth more organic fragments with depth. (WEATHERED MIDDLE COAL MEASURES)				D161	1.00		
	1.90						
Black COAL. (MIDDLE COAL MEASURES)				D162	2.00		
	2.10						
Very dark grey MUDSTONE. (MIDDLE COAL MEASURES)							
	3.00						
Weak becoming strong grey MUDSTONE. (MIDDLE COAL MEASURES)							
	3.30						
End of Trial Pit at 3.30 m							

Remarks:
1. Sides stable throughout excavation.
2. No groundwater encountered
3. Could not excavate further due to rock head.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Trial Pit ID.

TP21

Job No.

12070197

Client

Ben Bailey Homes Ltd

Site:

William Freemans, Mapplewell

Sheet

Sheet 1 of 1

Date.

17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD

www.joynespike.co.uk

Excavation Equipment.

JCB 3CX

Co-ords.

Field Records

DRS 07/02

Ground Level.

Logged: DRS | Chkd. DRS | Appr

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Test Results	Groundwater Records
Slightly sandy, clayey TOPSOIL.				D163	0.20		
Silty, medium sandy, low plasticity, orange brown, mottled grey stiff consistency high strength CLAY becoming less sandy with depth. (WEATHERED MIDDLE COAL MEASURES)	0.30			D164	1.10		
Fine gravelly, low plasticity grey, firm to stiff consistency, high strength CLAY. Gravel is of mudstone. (WEATHERED MIDDLE COAL MEASURES)	1.60			D165	1.80		
Weak becoming strong, grey MUDSTONE. (MIDDLE COAL MEASURES)	2.70						
End of Trial Pit at 3.10 m	3.10						

Remarks:

1. Sides stable throughout excavation.
2. No groundwater encountered
3. Could not excavate further due to rock head.

Sample Type Key

D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
PID - PID Reading

Borehole ID: WS1

Client: Ben Bailey Homes Ltd

Site: William Freemans, Mapplewell

Job No: 12070197

Start Date: 16/07/2007

End Date: 16/07/2007

Backfill Date: 16/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD

www.joynespike.co.uk

Drilling Equipment: Dando Terrier 2002 Window Sampling Rig

Co-ords:

Ground Level:

Field Records: NLM/07/01

Logged: NLM

Chkd:

Appr:

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Concrete.	0.30			D1	0.30			
MADE GROUND: Medium to coarse sandy, red, medium dense, coarse gravel. Gravel was sub angular to angular sandstone. (FILL)	0.50 0.70			D2 D3	0.60 0.80	N=7 (1,1,(S)		
MADE GROUND: Very gravelly, yellow sandstone. (FILL)	1.30							
MADE GROUND: Slightly gravelly, high plasticity, brown grey orange mottled, firm consistency clay. (RECONSTITUTED)	1.50			D4	1.70	N=15 (2,3(S)		
High plasticity, brown grey orange mottled, firm consistency CLAY. (WEATHERED MIDDLE COAL MEASURES)	2.60			D5	2.65			
High plasticity, brown grey orange mottled, soft consistency CLAY. (WEATHERED MIDDLE COAL MEASURES)	2.80 3.20			D6 D7	2.90 3.40	N=44 (5,5(S)		
Fine, very slightly gravelly, high plasticity, orange brown grey mottled, firm consistency CLAY with organic inclusions. Gravel is black, fine, angular. (WEATHERED MIDDLE COAL MEASURES)	4.00					50/240mm(S)		
Fine, very slightly gravelly, high plasticity, orange brown grey mottled, stiff consistency CLAY with coal bands. Gravel is black, fine, angular. (WEATHERED MIDDLE COAL MEASURES)								
Very slightly clayey, dark brown, medium dense, medium to coarse SAND with organic inclusions. (WEATHERED MIDDLE COAL MEASURES)								
End of Borehole at 4.00 m								

Remarks:
1. Window sampler refusal at 4.0m (begl).
2. Hole unstable from 0.40m.
3. No groundwater was encountered.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
U - Undisturbed Representative
J - Jar Sample
(C) - Cone SPT
(S) - Spoon SPT

Sheet: Sheet 1 of 1

Borehole ID.	Client	Start Date
WS2	Ben Bailey Homes Ltd	16/07/2007
Job No.	**Site:**	**End Date**
12070197	William Freemans, Mapplewell	16/07/2007
		Backfill Date: 16/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Drilling Equipment.	Co-ords	Field Records.	Logged:	Chkd:	Appr.
Dando Terrier 2002 Window Sampling Rig		NLM/07/01	NLM	NLM	
	Ground Level				

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Concrete.	0.40			D8	0.45			
MADE GROUND: Medium to coarse sandy, red, medium dense, coarse gravel. Gravel was sub angular to angular sandstone. (FILL)	0.60			D9	0.70	N=6 (1,1,(S)		
Slightly fine gravelly, low plasticity, grey brown blue mottled, very firm to stiff consistency CLAY. Gravel is fine and angular. (WEATHERED MIDDLE COAL MEASURES)	1.90			D10	2.10	N=29 (10,(S)		
Slightly very fine gravelly, high plasticity, grey brown mottled, soft consistency CLAY with organic layer with rootlets. (WEATHERED MIDDLE COAL MEASURES)	2.45			D11	2.60			
Very sandy, slightly fine gravelly, low plasticity, orange grey blue mottled, stiff consistency, CLAY with organic fragments. Gravel is black, fine and angular. (WEATHERED MIDDLE COAL MEASURES)	2.70			D12	3.20	50/230mm(S)		
Slightly fine gravelly, low plasticity, orange grey brown mottled, firm consistency CLAY. Gravel is black, fine and angular. (WEATHERED MIDDLE COAL MEASURES)	3.20			D13	3.80			
Clayey, very coarse gravelly, yellow brown SAND. (WEATHERED MIDDLE COAL MEASURES)	3.40							
Yellow SANDSTONE: Recovered as sandy, yellow, sandstone gravel. (WEATHERED MIDDLE COAL MEASURES)	3.60							
Slightly gravelly, low plasticity, dark brown black, very stiff consistency CLAY with interbedded yellow sandstone. Gravel is of angular, fine coal. (WEATHERED MIDDLE COAL MEASURES)	4.00							
End of Borehole at 4.00 m								

Remarks:
1. Window sampler refusal at 4.0m (begl) .
2. Hole remained stable.
3. No groundwater was encountered.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
U - Undisturbed Representative
J - Jar Sample
(C) - Cone SPT
(S) - Spoon SPT

Sheet: Sheet 1 of 1

Borehole ID	Client	Start Date
WS3	Ben Bailey Homes Ltd	16/07/2007
	Site: William Freemans, Mapplewell	End Date: 16/07/2007
Job No. 12070197		Backfill Date: 16/07/2007
Drilling Equipment: Dando Terrier 2002 Window Sampling Rig	Co-ords	Field Records: NLM/07/01
	Ground Level:	Logged: NLM Chkd: NJM Appr:

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Concrete.	0.40							
MADE GROUND: Medium to coarse sandy, red, medium dense, coarse gravel. Gravel was sub angular to angular sandstone. (FILL)	0.50			D14	0.60			
	0.70			D15	0.80	N=13 (1,1(S)		
MADE GROUND: Very gravelly, low plasticity, brown, stiff clay. (RECONSTITUTED)	1.10							
Brown MUDSTONE: Recovered as slightly clayey, brown, angular, tabular, mudstone gravel. (MIDDLE COAL MEASURES)	2.00			D16	1.70	N=32 (3.4(S)		
Low plasticity, orange grey brown mottled, firm to stiff consistency CLAY. (WEATHERED MIDDLE COAL MEASURES)	2.40			D17	2.20			
				D18	2.70			
Slightly fine gravelly, low plasticity, friable, orange brown mottled, stiff CLAY with organic fragments. (WEATHERED MIDDLE COAL MEASURES)	3.00					50/255mm(S)		
Brown MUDSTONE. Recovered as slightly clayey, brown, angular, tabular, mudstone gravel. (MIDDLE COAL MEASURES)								
End of Borehole at 3.00 m								

Remarks:
1. Window sampler refusal at 3.0m (begl) .
2. Hole remained stable.
3. No groundwater was encountered.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
U - Undisturbed Representative
J - Jar Sample
(C) - Cone SPT
(S) - Spoon SPT

Sheet: Sheet 1 of 1

Borehole ID	Client	Start Date
WS4	Ben Bailey Homes Ltd	16/07/2007
	Site: William Freemans, Mapplewell	End Date: 16/07/2007
Job No. 12070197		Backfill Date: 16/07/2007
Drilling Equipment: Dando Terrier 2002 Window Sampling Rig	Co-ords:	Field Records: NLM/07/01
	Ground Level:	Logged: NLM / Chkd: NLM / Appr:

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Concrete.	0.40							
MADE GROUND: Slightly clayey, slightly sandy black red gravel. Gravel is angular, tabular shale. (RECONSTITUTED)	0.70			D19	0.60			
				D20	0.85			
Slightly fine gravelly, low plasticity, brown orange grey mottled, stiff consistency CLAY. Gravel is of fine, angular coal. (WEATHERED MIDDLE COAL MEASURES)	1.05			D21	1.20	N=14 (1.2(S)		
	1.50							
	1.65			D22	1.80			
High plasticity, orange brown grey, firm to stiff consistency CLAY. (WEATHERED MIDDLE COAL MEASURES)						N=19 (2,3(S)		
Dark grey organic layer at 1.45m (begl).	2.60							
	2.80			D23	2.70			
Slightly sandy, slightly fine gravelly, low plasticity, grey orange, stiff CLAY. (WEATHERED MIDDLE COAL MEASURES)	3.00					50/230mm(S)		
Slightly sandy, high plasticity, grey brown, soft consistency CLAY. (WEATHERED MIDDLE COAL MEASURES)								
Dark grey organic layer at 1.80m (begl).								
Slightly sandy, low plasticity, orange brown grey, firm consistency CLAY with organic angular fragments. (WEATHERED MIDDLE COAL MEASURES)								
Very clayey, blue grey medium SAND. (WEATHERED MIDDLE COAL MEASURES)								
End of Borehole at 3.00 m								

Remarks:
1. Window sampler refusal at 3.0m (begl) .
2. Hole remained stable.
No groundwater was encountered.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spoil Non-Representative
W - Water
U - Undisturbed Representative
J - Jar Sample
(C) - Cone SPT
(S) - Spoon SPT

Sheet: Sheet 1 of 1

Borehole ID	Client	Start Date
WS5	Ben Bailey Homes Ltd	16/07/2007
	Site: William Freemans, Mapplewell	End Date: 16/07/2007
Job No.: 12070197		Backfill Date: 16/07/2007
Drilling Equipment: Dando Terrier 2002 Window Sampling Rig	Co-ords	Field Records: NLM/07/01
	Ground Level	Logged: NLM; Chkd: NJM; Appr: [signature]

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Concrete.	0.40							
MADE GROUND: Red, angular, tabular, shale hardcore. (RECONSTITUTED)	0.60			D24	0.50			
				D25	0.70			
MADE GROUND: High plasticity, grey brown, soft consistency clay with organic fragments. (RECONSTITUTED)				D26	1.10	N=8 (1,1,(S)		
Becoming firm with depth.	1.30			D27	1.40			
MADE GROUND: Sandy, high plasticity, friable, brown, soft consistency clay. (RECONSTITUTED)	1.80			D28	1.70		1.60	
MADE GROUND: Cream brown, clayey gravel with pottery fragments. (FILL) Land drain with hydrocarbon odour.	2.00					N=3 (1,0,(S)		
End of Borehole at 2.00 m						50/235mm(S)		

Remarks:
1. Window sampler hole terminated at 2.0m (begl) due to land drain .
2. Hole remained stable.
3. No groundwater was encountered.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
U - Undisturbed Representative
J - Jar Sample
(C) - Cone SPT
(S) - Spoon SPT

Sheet: Sheet 1 of 1

Borehole ID: WS6

Client: Ben Bailey Homes Ltd

Site: William Freemans, Mappiewell

Job No: 12070197

Drilling Equipment: Dando Terrier 2002 Window Sampling Rig

Co-ords:

Ground Level:

Start Date: 16/07/2007

End Date: 16/07/2007

Backfill Date: 16/07/2007

Field Records: NLM/07/01

Logged: NLM

Chkd: NLM

Appr:

JPA JOYNES PIKE & ASSOCIATES LTD

www.joynespike.co.uk

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Concrete.	0.40							
MADE GROUND. Red, angular, tabular, shale hardcore with coarse angular sandstone gravel. (FILL)	0.60			D29	0.45			
				D30	0.75			
MADE GROUND: Slightly gravelly, low plasticity, brown dark brown, stiff consistency clay. Gravel of red shale and sandstone. (RECONSTITUTED)	1.20					N=8 (1,1,(S)		
	1.45			D31	1.45			
	1.50							
	1.65			D32	1.90			
High plasticity, brown grey, soft to firm consistency CLAY. (WEATHERED MIDDLE COAL MEASURES)	1.85			D33	2.00	N=14 (2,3(S)		
	1.95							
	2.25							
Slightly gravelly, low plasticity, friable, brown, stiff CLAY. (WEATHERED MIDDLE COAL MEASURES)	2.75							
	3.00					50/245mm(S)		
High plasticity, brown orange grey, soft to firm consistency CLAY. (WEATHERED MIDDLE COAL MEASURES)								
Slightly gravelly, high plasticity, grey dark grey brown, firm consistency CLAY. (WEATHERED MIDDLE COAL MEASURES)								
Low plasticity, orange brown, firm to stiff consistency CLAY with dark grey organic layer with rootlets. (WEATHERED MIDDLE COAL MEASURES)								
Slightly sandy, high plasticity, orange brown, firm to stiff consistency CLAY with dark grey organic layer and yellow sand layer. (WEATHERED MIDDLE COAL MEASURES)								
Slightly sandy, high plasticity, orange brown, friable, firm to stiff consistency CLAY. (WEATHERED MIDDLE COAL MEASURES)								
Slightly sandy, very low plasticity, brown orange, friable, stiff consistency CLAY. (WEATHERED MIDDLE COAL MEAUSURES)								
End of Borehole at 3.00 m								

Remarks:
1. Window sampler refusal at 3.0m (begl).
2. Hole remained stable.
3. No groundwater was encountered.

Sample Type Key:
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
U - Undisturbed Representative
J - Jar Sample
(C) - Cone SPT
(S) - Spoon SPT

Sheet: Sheet 1 of 1

Borehole ID.	Client	Start Date.
WS7	Ben Bailey Homes Ltd	16/07/2007
	Site. William Freemans, Mapplewell	End Date. 16/07/2007
Job No 12070197		Backfill Date. 16/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Drilling Equipment:	Co-ords:	Field Records:	Logged:	Chkd	Appr
Dando Terrier 2002 Window Sampling Rig	Ground Level	NLM/07/01	NLM	NLM	

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Concrete.	0.40							
MADE GROUND: Red, angular, tabular, shale hardcore. (RECONSTITUTED)	0.65			D34	0.70	N=5 (1.1,(S)		
Medium, very gravelly, high plasticity, orange brown, soft to firm consistency CLAY. Gravel is of angular mudstone. (WEATHERED MIDDLE COAL MEASURES)	1.70			D35	1.80			
Medium, very gravelly, high plasticity, grey, soft consistency CLAY. Gravel is of angular mudstone. (WEATHERED MIDDLE COAL MEASURES)	1.95			D36	2.10	N=30 (4.5(S)		
Slightly gravelly, low plasticity, brown, very friable CLAY. Gravel is of medium angular mudstone. (WEATHERED MIDDLE COAL MEASURES)	3.00					50/240mm(S)		
End of Borehole at 3.00 m								

Remarks:
1. Window sampler refusal at 3.0m (begl) .
2. Hole remained stable.
3. No groundwater was encountered.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
U - Undisturbed Representative
J - Jar Sample
(C) - Cone SPT
(S) - Spoon SPT

Sheet: Sheet 1 of 1

Borehole ID	Client	Start Date
WS8	Ben Bailey Homes Ltd	17/07/2007
	Site: William Freemans, Mapplewell	End Date: 17/07/2007
Job No.: 12070197		Backfill Date: 17/07/2007
Drilling Equipment: Dando Terrier 2002 Window Sampling Rig	Co-ords:	Field Records: NLM/07/01
	Ground Level:	Logged: NLM; Chkd.: NLM; Appr.: [illegible]

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Concrete.	0.30							
MADE GROUND: Red gravel hardcore and clay. Gravel is angular, tabular cobbles of sandstone. (RECONSTITUTED)	0.50			D37	0.60			
Brown MUDSTONE: Recovered as slightly clayey, brown, angular, tabular, mudstone gravel. (MIDDLE COAL MEASURES)	1.00					50/255mm(S)		
End of Borehole at 1.00 m								

Remarks:
1. Window sampler refusal at 1.0m (begl) .
2. Hole remained stable.
3. No groundwater was encountered.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
U - Undisturbed Representative
J - Jar Sample
(C) - Cone SPT
(S) - Spoon SPT

Sheet: Sheet 1 of 1

Borehole ID	Client	Start Date
WS9	Ben Bailey Homes Ltd	17/07/2007
	Site: William Freemans, Mapplewell	End Date: 17/07/2007
Job No: 12070197		Backfill Date: 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Drilling Equipment:	Co-ords:	Field Records		
Dando Terrier 2002 Window Sampling Rig		NLM/07/01		
	Ground Level	Logged: NLM	Chkd NLM	Appr.

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Concrete.	0.30			D38	0.35			
MADE GROUND: Red gravel hardcore and clay. Gravel is angular, tabular cobbles of sandstone. (RECONSTITUTED)	0.50			D39	0.70			
Low plasticity, brown grey, stiff consistency CLAY. (WEATHERED MIDDLE COAL MEASURES)	0.80					47/285mm(S)		
Brown MUDSTONE: Recovered as slightly clayey, brown, angular, tabular, mudstone gravel. (MIDDLE COAL MEASURES)	1.00							
End of Borehole at 1.00 m								

Remarks:
1. Window sampler refusal at 1.0m (begl).
2. Hole remained stable.
3. No groundwater was encountered.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
U - Undisturbed Representative
J - Jar Sample
(C) - Cone SPT
(S) - Spoon SPT

Sheet: Sheet 1 of 1

Borehole ID	Client	Start Date
WS10	Ben Bailey Homes Ltd	17/07/2007
	Site: William Freemans, Mapplewell	End Date: 17/07/2007
Job No: 12070197		Backfill Date: 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Drilling Equipment: Dando Terrier 2002 Window Sampling Rig
Co-ords:
Field Records: NLM/07/01
Ground Level:
Logged: NLM
Chkd: NLM
Appr:

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Concrete.	0.35			D40	0.40			
MADE GROUND: Red, angular, tabular shale hardcore with clay. (RECONSTITUTED)	0.65			D41	0.80			
Brown MUDSTONE: Recovered as slightly clayey, brown, angular, tabular, mudstone gravel. (MIDDLE COAL MEASURES)	1.00					50/285mm(S)		
End of Borehole at 1.00 m								

Remarks:
1. Window sampler refusal at 1.0m (begl).
2. Hole remained stable.
3. No groundwater was encountered.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
U - Undisturbed Representative
J - Jar Sample
(C) - Cone SPT
(S) - Spoon SPT

Sheet: Sheet 1 of 1

Borehole ID	Client	Start Date
WS11	Ben Bailey Homes Ltd	17/07/2007
Job No	**Site**	**End Date**
12070197	William Freemans, Mapplewell	17/07/2007
		Backfill Date 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Drilling Equipment	Co-ords	Field Records	Logged	Chkd	Appr.
Dando Terrier 2002 Window Sampling Rig		NLM/07/01	NLM	NJM	
	Ground Level:				

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Concrete.	0.40						0.40	
MADE GROUND: Cream, medium gravel hardcore and clay. (RECONSTITUTED)	0.50			D42 D43	0.45 0.65			
Slightly medium gravelly, low plasticity, orange grey brown mottled, stiff consistency CLAY. Gravel is of subangular, tabular mudstone. (WEATHERED MIDDLE COAL MEASURES)	1.60			D44	1.70	N=28 (2,3/5)		
Medium gravelly, high plasticity, grey orange blue brown mottled, firm CLAY. Gravel is of tabular subangular mudstone becoming weathered mudstone from 1.80m (begl). (WEATHERED MIDDLE COAL MEASURES)	2.00					50/270mm(S)		
End of Borehole at 2.00 m								

Remarks:
1. Window sampler refusal at 2.0m (begl).
2. Hole remained stable.
3. Groundwater in Made Ground between 0.40 and 0.50m (begl).

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
U - Undisturbed Representative
J - Jar Sample
(C) - Cone SPT
(S) - Spoon SPT

Sheet
Sheet 1 of 1

Borehole ID.	Client	Start Date
WS12	Ben Bailey Homes Ltd	17/07/2007
	Site. William Freemans, Mapplewell	End Date 17/07/2007
Job No 12070197		Backfill Date: 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Drilling Equipment	Co-ords	Field Records		
Dando Terrier 2002 Window Sampling Rig		NLM/07/01		
	Ground Level.	Logged: NLM	Chkd: NLM	Appr.

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Concrete.	0.30							
MADE GROUND: Red, angular, tabular shale hardcore with clay. (RECONSTITUTED) Hydrocarbon odour noted.	0.50			D46	0.45		0.40	
				D48	0.70			
Low plasticity, orange grey brown mottled, stiff consistency CLAY. (WEATHERED MIDDLE COAL MEASURES)	1.20			D47	1.35	N=16 (1,2(S)		
Slightly medium gravelly, high plasticity, orange grey brown, firm consistency CLAY. Gravel is of fine, tabular, angular mudstone. (WEATHERED MIDDLE COAL MEASURES)	2.00					50/285mm(S)		
End of Borehole at 2.00 m								

Remarks:
1. Window sampler refusal at 2.0m (begl).
2. Hole remained stable.
3. Groundwater in Made Ground between 0.30 and 0.50m (begl).

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
U - Undisturbed Representative
J - Jar Sample
(C) - Cone SPT
(S) - Spoon SPT

Sheet: Sheet 1 of 1

Borehole ID.	Client	Start Date
WS13	Ben Bailey Homes Ltd	17/07/2007
	Site: William Freemans, Mapplewell	End Date: 17/07/2007
Job No: 12070197		Backfill Date: 17/07/2007
Drilling Equipment: Dando Terrier 2002 Window Sampling Rig	Co-ords.	Field Records: NLM/07/01
	Ground Level	Logged: NLM / Chkd. NJM / Appr

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Concrete.	0.25							
MADE GROUND: Red, angular, tabular shale hardcore with clay. (RECONSTITUTED)	0.55			D48	0.40		0.50	
				D49	0.70			
Fine, slightly gravelly, low plasticity, blue orange, stiff consistency CLAY. Gravel is of fine, tabular, angular mudstone. (WEATHERED MIDDLE COAL MEASURES)	0.95			D50	1.00	N=18 (3.3(S)		
	1.55							
Fine, very slightly gravelly, low plasticity, blue orange, friable, firm to stiff consistency CLAY. Interbedded coal recorded from 1.70m. (WEATHERED MIDDLE COAL MEASURES)	1.70			D51	1.70			
	2.00					N=62 (5.1(S)		
Brown MUDSTONE: Recovered as slightly clayey, brown, angular, tabular, mudstone gravel. (MIDDLE COAL MEASURES)								
Brown MUDSTONE: Recovered as slightly clayey, brown, angular, tabular, mudstone gravel.								
End of Borehole at 2.00 m								

Remarks
1. Window sampler refusal at 2.0m (begl).
2. Hole remained stable.
3. No groundwater was encountered.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
U - Undisturbed Representative
J - Jar Sample
(C) - Cone SPT
(S) - Spoon SPT

Sheet
Sheet 1 of 1

Borehole ID.	Client	Start Date
WS14	Ben Bailey Homes Ltd	17/07/2007
	Site: William Freemans, Mapplewell	End Date: 17/07/2007
Job No: 12070197		Backfill Date: 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Drilling Equipment	Co-ords	Field Records	Logged	Chkd	Appr.
Dando Terrier 2002 Window Sampling Rig		NLM/07/01	NLM	NLM	

Ground Level:

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Concrete.	0.35							
MADE GROUND: Concrete and gravel with high plasticity brown soft consistency clay matrix. (RECONSITUTED)	0.60			D52	0.50			
				D53	0.80	N=14 (1,2(S)		
Slightly gravelly, high plasticity, orange grey, soft consistency CLAY with organic layer recorded 0.70m. Gravel is of fine, tabular, angular mudstone. (WEATHERED MIDDLE COAL MEASURES)	1.15							
	1.35			D54	1.25			
				D55	1.40			
High plasticity, orange blue, friable, soft to firm consistency CLAY. (WEATHERED MIDDLE COAL MEASURES)	1.75					N=50 (6,9(S)		
Low plasticity, dark brown dark orange, very friable, stiff consistency CLAY. (WEATHERED MIDDLE COAL MEASURES)	2.00							
COAL (MIDDLE COAL MEASURES)								
Brown MUDSTONE: Recovered as slightly clayey, brown, angular, tabular, mudstone gravel. (MIDDLE COAL MEASURES)								
End of Borehole at 2.00 m								

Remarks:
1. Window sampler refusal at 2.0m (begl) .
2. Hole remained stable.
3. No groundwater was encountered.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
U - Undisturbed Representative
J - Jar Sample
(C) - Cone SPT
(S) - Spoon SPT

Sheet: Sheet 1 of 1

Borehole ID	Client	Start Date
WS15	Ben Bailey Homes Ltd	17/07/2007
	Site: William Freemans, Mapplewell	End Date: 17/07/2007
Job No: 12070197		Backfill Date: 17/07/2007

JPA JOYNES PIKE & ASSOCIATES LTD
www.joynespike.co.uk

Drilling Equipment	Co-ords	Field Records	Logged	Chkd	Appr
Dando Terrier 2002 Window Sampling Rig	Ground Level	NLM/07/01	NLM	NLM	

Strata Description	Depth (m)	Level (m)	Legend	Sample Type	Sample Depth (m)	Tests	Groundwater Records	Backfill Details
MADE GROUND: Concrete.	0.20							
MADE GROUND: Red, angular, tabular shale hardcore with clay. (RECONSITUTED)	0.40			D56	0.35			
				D57	0.65			
Fine, very slightly gravelly, high plasticity, brown grey, soft to firm consistency CLAY. Gravel is of fine, tabular, angular mudstone. (WEATHERED MIDDLE COAL MEASURES)	1.50					N=9 (1,1,(S)		
				D58	1.70			
Slightly fine gravelly, high plasticity, orange blue grey, firm consistency CLAY. Gravel is of fine, tabular, angular mudstone and rare rounded cobble. (WEATEHRED MIDDLE COAL MEASURES)	1.85					N=23 (3,3(S)		
Slightly gravelly, low plasticity, brown grey, friable, very stiff consistency CLAY. Gravel is of fine, angular coal. (WEATHERED MIDDLE COAL MEASURES)	2.70			D59	2.85	50/275mm(S)		
Brown MUDSTONE: Recovered as slightly clayey, brown, angular, tabular, mudstone gravel. (MIDDLE COAL MEASURES)	3.00							
End of Borehole at 3.00 m								

Remarks:
1. Window sampler refusal at 3.0m (begl).
2. Hole remained stable.
3. No groundwater was encountered.

Sample Type Key
D - Disturbed Representative
B - Bulk Representative
S - Spot Non-Representative
W - Water
U - Undisturbed Representative
J - Jar Sample
(C) - Cone SPT
(S) - Spoon SPT

Sheet: Sheet 1 of 1

APPENDIX D
Soil Chemical Test Results

ECOS

Client: Joynes Pike & Associates Ltd.
1-2 Aire House
Sidings Court
Richmond Business Park
Doncaster
South Yorkshire
DN4 5NL

FAO: Ms N McCarthy

Test Report Number: R07/1252

Client Project Name:	**Former William Freemans Factory, Mapplewell**
Client Project Number:	**12070197**
Your Order Number:	**24515**
Order Receipt Date:	**23/07/07**
Reporting Date:	**Friday 3 August 2007**

If you have any queries regarding this report please contact our Customer Services Section

ECOS Environmental Limited
Low Moor Business Park, Common Road, Bradford BD12 0NB
Tel: 01274 691122 Fax: 01274 608100

Client Project Name: Former William Freemans Factory, Mapplewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Comments

All analyses are carried out using the laboratory's standard methods unless otherwise agreed.

The test results in this report refer only to the actual samples on which testing has been performed.

Any opinions and/or interpretations expressed herein are outside the scope of the testing laboratory's UKAS accreditation.

The test report shall not be reproduced, except in full, without the testing laboratory's written approval.

This testing laboratory cannot be held responsible for the condition or suitability of samples submitted for testing by a third party or for the competency of personnel other than its own staff.

This laboratory cannot be held responsible for the accuracy of test sample locations or descriptions when supplied by a third party.

Soil Samples

Results are expressed on a dry mass basis. Assisted drying carried out @ 40°C.

See key in Notes section for explanation of numerical categories for asbestos results, if applicable.

Stones (for example inert flints and inorganic minerals) >10mm are removed prior to analysis.
Results have not been corrected for this loss.

Samples submitted for leachate determination were prepared using agreed procedures and analysed using UKAS accredited methodology where appropriate.

Results are expressed without correction for recovery factors.

All results marked with an ^{M} meet the criteria of the Environment Agency performance standard for laboratories undertaking chemical testing of soil (MCERTS V3).

Sample Pretreatment (as listed in method statement)

AD = Assisted drying @ 40°C R = As Received

Sample Type

B = Bulk disturbed sample
C = Core Sample
D = Small disturbed sample
ES = Environmental Soil Sample
P = Piston sample
U = Undisturbed sample - open drive
W = Water Sample
EW = Environmental Water Sample

Sample Results

Analysis not requested
*** Test not completed. Please see notes on last page

Signed: _____

For and on behalf of ECõS Environmental Limited

Approved signatories:

Name	Position
J R Brown	Business Development Manager
L Dewell	Production Manager
P Richardson	Section Head
J Stoddart	Technical Manager

ECõS

Client Project Name: Former William Freemans Factory, Mapplewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Soil Samples

Method Statement

Determinand	Method of Detection	Sample Pretreatment	Limit of Detection	UKAS Accreditation	Sub-Contracted	Result Date
TPH Aromatic EC5-EC7	HS-GC-FID	R	0.1 mg/kg	No	No	30/07/07
TPH Aromatic EC7-EC8	HS-GC-FID	R	0.1 mg/kg	No	No	30/07/07
TPH Aromatic EC8-EC10	HS-GC-FID	R	0.1 mg/kg	No	No	30/07/07
TPH Aromatic EC10-EC12	GC-FID	AD	5.0 mg/kg	No	No	30/07/07
TPH Aromatic EC12-EC16	GC-FID	AD	5.0 mg/kg	No	No	30/07/07
TPH Aromatic EC16-EC21	GC-FID	AD	5.0 mg/kg	No	No	30/07/07
TPH Aromatic EC21-EC35	GC-FID	AD	5.0 mg/kg	No	No	30/07/07
TPH Aliphatic EC5-EC6	HS-GC-FID	R	0.1 mg/kg	No	No	30/07/07
TPH Aliphatic EC6-EC8	HS-GC-FID	R	0.1 mg/kg	No	No	30/07/07
TPH Aliphatic EC8-EC10	HS-GC-FID	R	0.1 mg/kg	No	No	30/07/07
TPH Aliphatic EC10-EC12	GC-FID	AD	5.0 mg/kg	No	No	30/07/07
TPH Aliphatic EC12-EC16	GC-FID	AD	5.0 mg/kg	No	No	30/07/07
TPH Aliphatic EC16-EC21	GC-FID	AD	5.0 mg/kg	No	No	30/07/07
TPH Aliphatic EC21-EC34	GC-FID	AD	5.0 mg/kg	No	No	30/07/07
Dichlorodifluoromethane	HS-GC-MS	R	0.02 mg/kg	Yes	No	30/07/07
Vinyl chloride	HS-GC-MS	R	0.10 mg/kg	Yes	No	30/07/07
Bromomethane	HS-GC-MS	R	0.02 mg/kg	Yes	No	30/07/07
Chloroethane	HS-GC-MS	R	0.02 mg/kg	Yes	No	30/07/07
Trichlorofluoromethane	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
1,1-Dichloroethene	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
trans-1,2-Dichloroethene	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
1,1-Dichloroethane	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
cis-1,2-Dichloroethene	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
Bromochloromethane	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
Chloroform	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
1,1,1-Trichloroethane	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
Carbon tetrachloride	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
1,1-Dichloropropene	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
Benzene	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
1,2-Dichloroethane	HS-GC-MS	R	0.02 mg/kg	Yes	No	30/07/07
Trichloroethene	HS-GC-MS	R	0.02 mg/kg	Yes	No	30/07/07
1,2-Dichloropropane	HS-GC-MS	R	0.10 mg/kg	Yes	No	30/07/07
Dibromomethane	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
Bromodichloromethane	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
Toluene	HS-GC-MS	R	0.02 mg/kg	Yes	No	30/07/07
1,1,2-Trichloroethane	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
Tetrachloroethene	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
1,3-Dichloropropane	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
Dibromochloromethane	HS-GC-MS	R	0.05 mg/kg	Yes	No	30/07/07
1,2-Dibromoethane	HS-GC-MS	R	0.02 mg/kg	Yes	No	30/07/07
Chlorobenzene	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
Ethylbenzene	HS-GC-MS	R	0.02 mg/kg	Yes	No	30/07/07
1,1,1,2-Tetrachloroethane	HS-GC-MS	R	0.02 mg/kg	Yes	No	30/07/07

ECõS

Client Project Name: Former William Freemans Factory, Mapplewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Determinand	Method of Detection	Sample Pretreatment	Limit of Detection	UKAS Accreditation	Sub-Contracted	Result Date
m+p-Xylene	HS-GC-MS	R	0.02 mg/kg	Yes	No	30/07/07
o-Xylene	HS-GC-MS	R	0.02 mg/kg	Yes	No	30/07/07
Styrene	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
Bromoform	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
Isopropylbenzene	HS-GC-MS	R	0.02 mg/kg	Yes	No	30/07/07
Bromobenzene	HS-GC-MS	R	0.02 mg/kg	Yes	No	30/07/07
n-Propylbenzene	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
1,2,3-Trichloropropane	HS-GC-MS	R	0.02 mg/kg	Yes	No	30/07/07
4-Chlorotoluene	HS-GC-MS	R	0.01 mg/kg	Yes	No	30/07/07
2-Chlorotoluene	HS-GC-MS	R	0.05 mg/kg	Yes	No	30/07/07
1,3,5-Trimethylbenzene	HS-GC-MS	R	0.10 mg/kg	Yes	No	30/07/07
tert-Butylbenzene	HS-GC-MS	R	0.02 mg/kg	Yes	No	30/07/07
1,2,4-Trimethylbenzene	HS-GC-MS	R	0.05 mg/kg	Yes	No	30/07/07
sec-Butylbenzene	HS-GC-MS	R	0.02 mg/kg	Yes	No	30/07/07
p-Isopropyltoluene	HS-GC-MS	R	0.05 mg/kg	Yes	No	30/07/07
1,3-Dichlorobenzene	HS-GC-MS	R	0.02 mg/kg	Yes	No	30/07/07
1,4-Dichlorobenzene	HS-GC-MS	R	0.05 mg/kg	Yes	No	30/07/07
n-Butylbenzene	HS-GC-MS	R	0.05 mg/kg	Yes	No	30/07/07
1,2-Dichlorobenzene	HS-GC-MS	R	0.02 mg/kg	Yes	No	30/07/07
Arsenic (leachable)	ICP-MS	R	0.2 ug/l	Yes	No	27/07/07
Cadmium (leachable)	ICP-MS	R	0.01 ug/l	Yes	No	27/07/07
Chromium (leachable)	ICP-MS	R	0.07 ug/l	Yes	No	27/07/07
Copper (leachable)	ICP-MS	R	0.25 ug/l	Yes	No	27/07/07
Lead (leachable)	ICP-MS	R	0.2 ug/l	Yes	No	27/07/07
Mercury (leachable)	ICP-MS	R	0.02 ug/l	Yes	No	27/07/07
Nickel (leachable)	ICP-MS	R	0.5 ug/l	Yes	No	27/07/07
Selenium (leachable)	ICP-MS	R	0.5 ug/l	Yes	No	27/07/07
Zinc (leachable)	ICP-MS	R	4.0 ug/l	Yes	No	27/07/07
Boron (leachable)	ICP-OES	R	0.01 mg/l	Yes	No	26/07/07
Sulphide (leachable)	Colorimetry	R	0.1 mg/l	Yes	No	30/07/07
pH (leachable)	pH-meter	R	0.1 N/A	Yes	No	26/07/07
PAH (sum of PAH 17) (leach)	GC-MS	R	0.02 ug/l	No	No	30/07/07
Naphthalene (leachable)	GC-MS	R	0.02 ug/l	No	No	30/07/07
Acenaphthylene (leachable)	GC-MS	R	0.02 ug/l	No	No	30/07/07
Acenaphthene (leachable)	GC-MS	R	0.02 ug/l	No	No	30/07/07
Fluorene (leachable)	GC-MS	R	0.02 ug/l	No	No	30/07/07
Phenanthrene (leachable)	GC-MS	R	0.02 ug/l	No	No	30/07/07
Anthracene (leachable)	GC-MS	R	0.02 ug/l	No	No	30/07/07
Fluoranthene (leachable)	GC-MS	R	0.02 ug/l	No	No	30/07/07
Pyrene (leachable)	GC-MS	R	0.02 ug/l	No	No	30/07/07
Benzo(a)anthracene (leachable)	GC-MS	R	0.01 ug/l	No	No	30/07/07
Chrysene (leachable)	GC-MS	R	0.01 ug/l	No	No	30/07/07
Benzo(b)+(j)fluoranthene (leach)	GC-MS	R	0.01 ug/l	No	No	30/07/07
Benzo(k)fluoranthene (leach)	GC-MS	R	0.01 ug/l	No	No	30/07/07
Benzo(a)pyrene (leachable)	GC-MS	R	0.01 ug/l	No	No	30/07/07
Indeno(1,2,3-cd)pyrene (leach)	GC-MS	R	0.01 ug/l	No	No	30/07/07

ECOS

Client Project Name: Former William Freemans Factory, Mappiewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Determinand	Method of Detection	Sample Pretreatment	Limit of Detection	UKAS Accreditation	Sub-Contracted	Result Date
Dibenz(a,h)anthracene (leach)	GC-MS	R	0.01 ug/l	No	No	30/07/07
Benzo(g,h,i)perylene (leach)	GC-MS	R	0.01 ug/l	No	No	30/07/07
TPH (leachable)	GC-FID	R	0.01 mg/l	Yes	No	30/07/07
Chromium (hexavalent) (leach)	Colorimetry	R	0.01 mg/l	No	No	30/07/07
Arsenic	ICP-OES	AD	1.5 mg/kg	Yes	No	31/07/07
Cadmium	ICP-OES	AD	0.2 mg/kg	Yes	No	31/07/07
Chromium (total)	ICP-OES	AD	2.0 mg/kg	Yes	No	31/07/07
Copper	ICP-OES	AD	0.5 mg/kg	Yes	No	31/07/07
Lead	ICP-OES	AD	1.0 mg/kg	Yes	No	31/07/07
Mercury	ICP-OES	AD	0.1 mg/kg	No	No	31/07/07
Nickel	ICP-OES	AD	1.0 mg/kg	Yes	No	31/07/07
Selenium	ICP-OES	AD	1.0 mg/kg	Yes	No	31/07/07
Zinc	ICP-OES	AD	3.0 mg/kg	Yes	No	31/07/07
Boron (water soluble)	ICP-OES	AD	0.5 mg/kg	Yes	No	30/07/07
Sulphide	Colorimetry	R	2.0 mg/kg	Yes	No	27/07/07
pH	pH-meter	AD	0.1 N/A	Yes	No	30/07/07
PAH (sum of PAH 17)	GC-MS	AD	0.1 mg/kg	No	No	30/07/07
Naphthalene	GC-MS	AD	0.1 mg/kg	Yes	No	30/07/07
Acenaphthylene	GC-MS	AD	0.1 mg/kg	Yes	No	30/07/07
Acenaphthene	GC-MS	AD	0.1 mg/kg	Yes	No	30/07/07
Fluorene	GC-MS	AD	0.1 mg/kg	Yes	No	30/07/07
Phenanthrene	GC-MS	AD	0.1 mg/kg	Yes	No	30/07/07
Anthracene	GC-MS	AD	0.1 mg/kg	Yes	No	30/07/07
Fluoranthene	GC-MS	AD	0.1 mg/kg	Yes	No	30/07/07
Pyrene	GC-MS	AD	0.1 mg/kg	Yes	No	30/07/07
Benzo(a)anthracene	GC-MS	AD	0.1 mg/kg	Yes	No	30/07/07
Chrysene	GC-MS	AD	0.1 mg/kg	Yes	No	30/07/07
Benzo(b)+(j)fluoranthene	GC-MS	AD	0.1 mg/kg	No	No	30/07/07
Benzo(k)fluoranthene	GC-MS	AD	0.1 mg/kg	Yes	No	30/07/07
Benzo(a)pyrene	GC-MS	AD	0.1 mg/kg	Yes	No	30/07/07
Indeno(1,2,3-cd)pyrene	GC-MS	AD	0.1 mg/kg	Yes	No	30/07/07
Dibenz(a,h)anthracene	GC-MS	AD	0.1 mg/kg	Yes	No	30/07/07
Benzo(g,h,i)perylene	GC-MS	AD	0.1 mg/kg	Yes	No	30/07/07
Sulphate (water soluble)	HPLC-IC	AD	0.001 g/l SO4	Yes	No	30/07/07
Sulphate (acid soluble)	ICP-OES	AD	0.01 % SO4	Yes	No	31/07/07
Sulphur (total)	ICP-OES	AD	0.01 % S	Yes	No	02/08/07
Fraction Organic Carbon	Titration	AD	0.001 N/A	No	No	30/07/07
Chromium (hexavalent)	Colorimetry	AD	1.0 mg/kg	Yes	Yes	27/07/07
Polychlorinated biphenyl BZ#101	GC-MS	AD	0.50 ug/kg	Yes	Yes	30/07/07
Polychlorinated biphenyl BZ#118	GC-MS	AD	0.50 ug/kg	Yes	Yes	30/07/07
Polychlorinated biphenyl BZ#138	GC-MS	AD	0.50 ug/kg	Yes	Yes	30/07/07
Polychlorinated biphenyl BZ#153	GC-MS	AD	0.50 ug/kg	Yes	Yes	30/07/07
Polychlorinated biphenyl BZ#180	GC-MS	AD	0.50 ug/kg	Yes	Yes	30/07/07
Polychlorinated biphenyl BZ#28	GC-MS	AD	0.50 ug/kg	Yes	Yes	30/07/07
Polychlorinated biphenyl BZ#52	GC-MS	AD	0.50 ug/kg	Yes	Yes	30/07/07

Client Project Name: Former William Freemans Factory, Mapplewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Sample Location		BH1	BH1	BH2	BH2	BH2
Top Depth / m		0.30	1.70	0.45	0.70	2.10
Bottom Depth / m						
Sample No.		D1	D4	D8	D9	D10
Sample Type		MG-Red Brick	Orange clay	MG-Red Brick	Orange clay	Orange clay
Date Sampled						
Receipt Date		23/07/07	23/07/07	23/07/07	23/07/07	23/07/07
ECõS Sample ID		S0709900	S0709901	S0709902	S0709903	S0709904
Matrix Type		Soil	Soil	Soil	Soil	Soil
Principle Soil Type (for MCERTS)		OTHER	CLAY	OTHER	CLAY	CLAY
Determinand	**Units**					
TPH Aromatic EC5-EC7	mg/kg	<0.1	<0.1	#	#	#
TPH Aromatic EC7-EC8	mg/kg	<0.1	<0.1	#	#	#
TPH Aromatic EC8-EC10	mg/kg	<0.1	<0.1	#	#	#
TPH Aromatic EC10-EC12	mg/kg	<5.0	<5.0	#	#	#
TPH Aromatic EC12-EC16	mg/kg	<5.0	<5.0	#	#	#
TPH Aromatic EC16-EC21	mg/kg	6.3	<5.0	#	#	#
TPH Aromatic EC21-EC35	mg/kg	40.9	<5.0	#	#	#
TPH Aliphatic EC5-EC6	mg/kg	<0.1	<0.1	#	#	#
TPH Aliphatic EC6-EC8	mg/kg	<0.1	<0.1	#	#	#
TPH Aliphatic EC8-EC10	mg/kg	<0.1	<0.1	#	#	#
TPH Aliphatic EC10-EC12	mg/kg	<5.0	<5.0	#	#	#
TPH Aliphatic EC12-EC16	mg/kg	<5.0	<5.0	#	#	#
TPH Aliphatic EC16-EC21	mg/kg	14.1	<5.0	#	#	#
TPH Aliphatic EC21-EC34	mg/kg	217.0	<5.0	#	#	#
Dichlorodifluoromethane	mg/kg	<0.02	<0.02	#	#	#
Vinyl chloride	mg/kg	<0.10	<0.10 M	#	#	#
Bromomethane	mg/kg	<0.02	<0.02 M	#	#	#
Chloroethane	mg/kg	<0.02	<0.02 M	#	#	#
Trichlorofluoromethane	mg/kg	<0.01	<0.01 M	#	#	#
1,1-Dichloroethene	mg/kg	<0.01	<0.01	#	#	#
trans-1,2-Dichloroethene	mg/kg	<0.01	<0.01 M	#	#	#
1,1-Dichloroethane	mg/kg	<0.01	<0.01 M	#	#	#
cis-1,2-Dichloroethene	mg/kg	<0.01	<0.01 M	#	#	#
Bromochloromethane	mg/kg	<0.01	<0.01 M	#	#	#
Chloroform	mg/kg	<0.01	<0.01 M	#	#	#
1,1,1-Trichloroethane	mg/kg	<0.01	<0.01 M	#	#	#
Carbon tetrachloride	mg/kg	<0.01	<0.01 M	#	#	#
1,1-Dichloropropene	mg/kg	<0.01	<0.01 M	#	#	#
Benzene	mg/kg	<0.01	<0.01	#	#	#
1,2-Dichloroethane	mg/kg	<0.02	<0.02 M	#	#	#
Trichloroethene	mg/kg	<0.02	<0.02 M	#	#	#
1,2-Dichloropropane	mg/kg	<0.10	<0.10 M	#	#	#
Dibromomethane	mg/kg	<0.01	<0.01	#	#	#
Bromodichloromethane	mg/kg	<0.01	<0.01	#	#	#
Toluene	mg/kg	<0.02	<0.02	#	#	#

ECõS

Client Project Name: Former William Freemans Factory, Mapplewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Sample Location		BH1	BH1	BH2	BH2	BH2
Top Depth / m		0.30	1.70	0.45	0.70	2.10
Bottom Depth / m						
Sample No.		D1	D4	D8	D9	D10
Sample Type		MG-Red Brick	Orange clay	MG-Red Brick	Orange clay	Orange clay
Date Sampled						
Receipt Date		23/07/07	23/07/07	23/07/07	23/07/07	23/07/07
ECõS Sample ID		S0709900	S0709901	S0709902	S0709903	S0709904
Matrix Type		Soil	Soil	Soil	Soil	Soil
Principle Soil Type (for MCERTS)		OTHER	CLAY	OTHER	CLAY	CLAY
Determinand	**Units**					
1,1,2-Trichloroethane	mg/kg	<0.01	<0.01	#	#	#
Tetrachloroethene	mg/kg	<0.01	<0.01 M	#	#	#
1,3-Dichloropropane	mg/kg	<0.01	<0.01 M	#	#	#
Dibromochloromethane	mg/kg	<0.05	<0.05 M	#	#	#
1,2-Dibromoethane	mg/kg	<0.02	<0.02 M	#	#	#
Chlorobenzene	mg/kg	<0.01	<0.01 M	#	#	#
Ethylbenzene	mg/kg	<0.02	<0.02 M	#	#	#
1,1,1,2-Tetrachloroethane	mg/kg	<0.02	<0.02	#	#	#
m+p-Xylene	mg/kg	<0.02	<0.02 M	#	#	#
o-Xylene	mg/kg	<0.02	<0.02 M	#	#	#
Styrene	mg/kg	<0.01	<0.01	#	#	#
Bromoform	mg/kg	<0.01	<0.01	#	#	#
Isopropylbenzene	mg/kg	<0.02	<0.02 M	#	#	#
Bromobenzene	mg/kg	<0.02	<0.02 M	#	#	#
n-Propylbenzene	mg/kg	<0.01	<0.01	#	#	#
1,2,3-Trichloropropane	mg/kg	<0.02	<0.02	#	#	#
4-Chlorotoluene	mg/kg	<0.01	<0.01 M	#	#	#
2-Chlorotoluene	mg/kg	<0.05	<0.05 M	#	#	#
1,3,5-Trimethylbenzene	mg/kg	<0.10	<0.10 M	#	#	#
tert-Butylbenzene	mg/kg	<0.02	<0.02	#	#	#
1,2,4-Trimethylbenzene	mg/kg	<0.05	<0.05 M	#	#	#
sec-Butylbenzene	mg/kg	<0.02	<0.02	#	#	#
p-Isopropyltoluene	mg/kg	<0.05	<0.05 M	#	#	#
1,3-Dichlorobenzene	mg/kg	<0.02	<0.02 M	#	#	#
1,4-Dichlorobenzene	mg/kg	<0.05	<0.05 M	#	#	#
n-Butylbenzene	mg/kg	<0.05	<0.05	#	#	#
1,2-Dichlorobenzene	mg/kg	<0.02	<0.02 M	#	#	#
Arsenic	mg/kg	#	#	#	2.2 M	1.9 M
Cadmium	mg/kg	#	#	#	<0.2 M	<0.2 M
Chromium (total)	mg/kg	#	#	#	33.4 M	26.5 M
Copper	mg/kg	#	#	#	25.2 M	20.2 M
Lead	mg/kg	#	#	#	16.9 M	15.5 M
Mercury	mg/kg	#	#	#	<0.1	<0.1
Nickel	mg/kg	#	#	#	41.6 M	32.4 M
Selenium	mg/kg	#	#	#	<1.0	<1.0
Zinc	mg/kg	#	#	#	93.5 M	83.5 M

ECõS

Client Project Name: Former William Freemans Factory, Mapplewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Sample Location		BH1	BH1	BH2	BH2	BH2
Top Depth / m		0.30	1.70	0.45	0.70	2.10
Bottom Depth / m						
Sample No.		D1	D4	D8	D9	D10
Sample Type		MG-Red Brick	Orange clay	MG-Red Brick	Orange clay	Orange clay
Date Sampled						
Receipt Date		23/07/07	23/07/07	23/07/07	23/07/07	23/07/07
ECõS Sample ID		S0709900	S0709901	S0709902	S0709903	S0709904
Matrix Type		Soil	Soil	Soil	Soil	Soil
Principle Soil Type (for MCERTS)		OTHER	CLAY	OTHER	CLAY	CLAY
Determinand	**Units**					
Boron (water soluble)	mg/kg	#	#	#	5.3	3.5
Sulphide	mg/kg	#	#	#	<2.0	42.3
pH	N/A	#	#	#	6.7 M	5.6 M
PAH (sum of PAH 17)	mg/kg	#	#	#	0.1	<0.1
Naphthalene	mg/kg	#	#	#	<0.1	<0.1
Acenaphthylene	mg/kg	#	#	#	<0.1	<0.1
Acenaphthene	mg/kg	#	#	#	<0.1	<0.1
Fluorene	mg/kg	#	#	#	<0.1	<0.1
Phenanthrene	mg/kg	#	#	#	<0.1	<0.1
Anthracene	mg/kg	#	#	#	<0.1	<0.1
Fluoranthene	mg/kg	#	#	#	0.1	<0.1
Pyrene	mg/kg	#	#	#	<0.1	<0.1
Benzo(a)anthracene	mg/kg	#	#	#	<0.1	<0.1
Chrysene	mg/kg	#	#	#	<0.1	<0.1
Benzo(b)+(j)fluoranthene	mg/kg	#	#	#	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	#	#	#	<0.1	<0.1
Benzo(a)pyrene	mg/kg	#	#	#	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	#	#	#	<0.1	<0.1
Dibenz(a,h)anthracene	mg/kg	#	#	#	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	#	#	#	<0.1	<0.1
Chromium (hexavalent)	mg/kg	#	#	#	<1.0	<1.0
Polychlorinated biphenyl BZ#101	ug/kg	#	#	<0.50	#	#
Polychlorinated biphenyl BZ#118	ug/kg	#	#	<0.50	#	#
Polychlorinated biphenyl BZ#138	ug/kg	#	#	<0.50	#	#
Polychlorinated biphenyl BZ#153	ug/kg	#	#	<0.50	#	#
Polychlorinated biphenyl BZ#180	ug/kg	#	#	<0.50	#	#
Polychlorinated biphenyl BZ#28	ug/kg	#	#	<0.50	#	#
Polychlorinated biphenyl BZ#52	ug/kg	#	#	<0.50	#	#

ECõS

Client Project Name: Former William Freemans Factory, Mapplewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Sample Location		BH4	BH5	BH5	BH5	BH9
Top Depth / m		0.60	0.50	0.70	1.70	0.70
Bottom Depth / m						
Sample No.		D19	D24	D25	D28	D39
Sample Type		MG-Red Brick	MG-Red Brick	Dark grey clay	Gravelly clay	Grey clay
Date Sampled						
Receipt Date		23/07/07	23/07/07	23/07/07	23/07/07	23/07/07
ECõS Sample ID		S0709905	S0709906	S0709907	S0709908	S0709909
Matrix Type		Soil	Soil	Soil	Soil	Soil
Principle Soil Type (for MCERTS)		OTHER	CLAY	CLAY	CLAY	CLAY
Determinand	**Units**					
TPH Aromatic EC5-EC7	mg/kg	<0.1	<0.1	<0.1	<0.1	#
TPH Aromatic EC7-EC8	mg/kg	<0.1	<0.1	<0.1	<0.1	#
TPH Aromatic EC8-EC10	mg/kg	<0.1	<0.1	<0.1	<0.1	#
TPH Aromatic EC10-EC12	mg/kg	<5.0	<5.0	<5.0	<5.0	#
TPH Aromatic EC12-EC16	mg/kg	<5.0	<5.0	<5.0	<5.0	#
TPH Aromatic EC16-EC21	mg/kg	18.6	<5.0	<5.0	53.3	#
TPH Aromatic EC21-EC35	mg/kg	24.9	<5.0	<5.0	202.0	#
TPH Aliphatic EC5-EC6	mg/kg	<0.1	<0.1	<0.1	<0.1	#
TPH Aliphatic EC6-EC8	mg/kg	<0.1	<0.1	<0.1	<0.1	#
TPH Aliphatic EC8-EC10	mg/kg	<0.1	<0.1	<0.1	<0.1	#
TPH Aliphatic EC10-EC12	mg/kg	<5.0	<5.0	<5.0	<5.0	#
TPH Aliphatic EC12-EC16	mg/kg	<5.0	<5.0	<5.0	7.3	#
TPH Aliphatic EC16-EC21	mg/kg	33.4	<5.0	<5.0	218.6	#
TPH Aliphatic EC21-EC34	mg/kg	123.9	<5.0	<5.0	1916.0	#
Dichlorodifluoromethane	mg/kg	<0.02	<0.02	<0.02	<0.02	#
Vinyl chloride	mg/kg	<0.10	<0.10 [M]	<0.10 [M]	<0.10 [M]	#
Bromomethane	mg/kg	<0.02	<0.02 [M]	<0.02 [M]	<0.02 [M]	#
Chloroethane	mg/kg	<0.02	<0.02 [M]	<0.02 [M]	<0.02 [M]	#
Trichlorofluoromethane	mg/kg	<0.01	<0.01 [M]	<0.01 [M]	<0.01 [M]	#
1,1-Dichloroethene	mg/kg	<0.01	<0.01	<0.01	<0.01	#
trans-1,2-Dichloroethene	mg/kg	<0.01	<0.01 [M]	<0.01 [M]	<0.01 [M]	#
1,1-Dichloroethane	mg/kg	<0.01	<0.01 [M]	<0.01 [M]	<0.01 [M]	#
cis-1,2-Dichloroethene	mg/kg	<0.01	<0.01 [M]	<0.01 [M]	<0.01 [M]	#
Bromochloromethane	mg/kg	<0.01	<0.01 [M]	<0.01 [M]	<0.01 [M]	#
Chloroform	mg/kg	<0.01	<0.01 [M]	<0.01 [M]	<0.01 [M]	#
1,1,1-Trichloroethane	mg/kg	<0.01	<0.01 [M]	<0.01 [M]	<0.01 [M]	#
Carbon tetrachloride	mg/kg	<0.01	<0.01 [M]	<0.01 [M]	<0.01 [M]	#
1,1-Dichloropropene	mg/kg	<0.01	<0.01 [M]	<0.01 [M]	<0.01 [M]	#
Benzene	mg/kg	<0.01	<0.01	<0.01	<0.01	#
1,2-Dichloroethane	mg/kg	<0.02	<0.02 [M]	<0.02 [M]	<0.02 [M]	#
Trichloroethene	mg/kg	<0.02	<0.02 [M]	<0.02 [M]	<0.02 [M]	#
1,2-Dichloropropane	mg/kg	<0.10	<0.10 [M]	<0.10 [M]	<0.10 [M]	#
Dibromomethane	mg/kg	<0.01	<0.01	<0.01	<0.01	#
Bromodichloromethane	mg/kg	<0.01	<0.01	<0.01	<0.01	#
Toluene	mg/kg	<0.02	<0.02	<0.02	<0.02	#

ECõS

Client Project Name: Former William Freemans Factory, Mapplewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Sample Location		BH4	BH5	BH5	BH5	BH9
Top Depth / m		0.60	0.50	0.70	1.70	0.70
Bottom Depth / m						
Sample No.		D19	D24	D25	D28	D39
Sample Type		MG-Red Brick	MG-Red Brick	Dark grey clay	Gravelly clay	Grey clay
Date Sampled						
Receipt Date		23/07/07	23/07/07	23/07/07	23/07/07	23/07/07
ECõS Sample ID		S0709905	S0709906	S0709907	S0709908	S0709909
Matrix Type		Soil	Soil	Soil	Soil	Soil
Principle Soil Type (for MCERTS)		OTHER	CLAY	CLAY	CLAY	CLAY
Determinand	**Units**					
1,1,2-Trichloroethane	mg/kg	<0.01	<0.01	<0.01	<0.01	#
Tetrachloroethene	mg/kg	<0.01	<0.01 M	<0.01 M	<0.01 M	#
1,3-Dichloropropane	mg/kg	<0.01	<0.01 M	<0.01 M	<0.01 M	#
Dibromochloromethane	mg/kg	<0.05	<0.05 M	<0.05 M	<0.05 M	#
1,2-Dibromoethane	mg/kg	<0.02	<0.02 M	<0.02 M	<0.02 M	#
Chlorobenzene	mg/kg	<0.01	<0.01 M	<0.01 M	<0.01 M	#
Ethylbenzene	mg/kg	<0.02	<0.02 M	<0.02 M	<0.02 M	#
1,1,1,2-Tetrachloroethane	mg/kg	<0.02	<0.02	<0.02	<0.02	#
m+p-Xylene	mg/kg	<0.02	<0.02 M	<0.02 M	<0.02 M	#
o-Xylene	mg/kg	<0.02	<0.02 M	<0.02 M	<0.02 M	#
Styrene	mg/kg	<0.01	<0.01	<0.01	<0.01	#
Bromoform	mg/kg	<0.01	<0.01	<0.01	<0.01	#
Isopropylbenzene	mg/kg	<0.02	<0.02 M	<0.02 M	<0.02 M	#
Bromobenzene	mg/kg	<0.02	<0.02 M	<0.02 M	<0.02 M	#
n-Propylbenzene	mg/kg	<0.01	<0.01	<0.01	<0.01	#
1,2,3-Trichloropropane	mg/kg	<0.02	<0.02	<0.02	<0.02	#
4-Chlorotoluene	mg/kg	<0.01	<0.01 M	<0.01 M	<0.01 M	#
2-Chlorotoluene	mg/kg	<0.05	<0.05 M	<0.05 M	<0.05 M	#
1,3,5-Trimethylbenzene	mg/kg	<0.10	<0.10 M	<0.10 M	<0.10 M	#
tert-Butylbenzene	mg/kg	<0.02	<0.02	<0.02	<0.02	#
1,2,4-Trimethylbenzene	mg/kg	<0.05	<0.05 M	<0.05 M	<0.05 M	#
sec-Butylbenzene	mg/kg	<0.02	<0.02	<0.02	<0.02	#
p-Isopropyltoluene	mg/kg	<0.05	<0.05 M	<0.05 M	<0.05 M	#
1,3-Dichlorobenzene	mg/kg	<0.02	<0.02 M	<0.02 M	<0.02 M	#
1,4-Dichlorobenzene	mg/kg	<0.05	<0.05 M	<0.05 M	<0.05 M	#
n-Butylbenzene	mg/kg	<0.05	<0.05	<0.05	<0.05	#
1,2-Dichlorobenzene	mg/kg	<0.02	<0.02 M	<0.02 M	<0.02 M	#
Arsenic	mg/kg	#	#	2.5 M	3.9 M	3.3 M
Cadmium	mg/kg	#	#	<0.2 M	<0.2 M	<0.2 M
Chromium (total)	mg/kg	#	#	32.0 M	20.5 M	28.7 M
Copper	mg/kg	#	#	25.5 M	25.2 M	26.9 M
Lead	mg/kg	#	#	19.1 M	31.5 M	18.5 M
Mercury	mg/kg	#	#	<0.1	<0.1	<0.1
Nickel	mg/kg	#	#	28.1 M	18.0 M	43.8 M
Selenium	mg/kg	#	#	<1.0	<1.0	<1.0
Zinc	mg/kg	#	#	82.4 M	161.0 M	105.8 M

ECõS

Client Project Name: Former William Freemans Factory, Mapplewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Sample Location		BH4	BH5	BH5	BH5	BH9
Top Depth / m		0.60	0.50	0.70	1.70	0.70
Bottom Depth / m						
Sample No.		D19	D24	D25	D28	D39
Sample Type		MG-Red Brick	MG-Red Brick	Dark grey clay	Gravelly clay	Grey clay
Date Sampled						
Receipt Date		23/07/07	23/07/07	23/07/07	23/07/07	23/07/07
ECõS Sample ID		S0709905	S0709906	S0709907	S0709908	S0709909
Matrix Type		Soil	Soil	Soil	Soil	Soil
Principle Soil Type (for MCERTS)		OTHER	CLAY	CLAY	CLAY	CLAY
Determinand	**Units**					
Boron (water soluble)	mg/kg	#	#	1.9	<0.5	<0.5
Sulphide	mg/kg	#	#	2.1	27.9	<2.0
pH	N/A	#	#	6.6 M	8.6 M	5.7 M
PAH (sum of PAH 17)	mg/kg	#	#	<0.1	1.6	<0.1
Naphthalene	mg/kg	#	#	<0.1	<0.1	<0.1
Acenaphthylene	mg/kg	#	#	<0.1	<0.1	<0.1
Acenaphthene	mg/kg	#	#	<0.1	0.3	<0.1
Fluorene	mg/kg	#	#	<0.1	0.2	<0.1
Phenanthrene	mg/kg	#	#	<0.1	0.5	<0.1
Anthracene	mg/kg	#	#	<0.1	<0.1	<0.1
Fluoranthene	mg/kg	#	#	<0.1	0.3	<0.1
Pyrene	mg/kg	#	#	<0.1	0.3	<0.1
Benzo(a)anthracene	mg/kg	#	#	<0.1	0.1	<0.1
Chrysene	mg/kg	#	#	<0.1	<0.1	<0.1
Benzo(b)+(j)fluoranthene	mg/kg	#	#	<0.1	<0.1	<0.1
Benzo(k)fluoranthene	mg/kg	#	#	<0.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	#	#	<0.1	<0.1	<0.1
Indeno(1,2,3-cd)pyrene	mg/kg	#	#	<0.1	<0.1	<0.1
Dibenz(a,h)anthracene	mg/kg	#	#	<0.1	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	#	#	<0.1	<0.1	<0.1
Chromium (hexavalent)	mg/kg	#	#	<1.0	<1.0	<1.0
Arsenic (leachable)	ug/l	#	#	0.5	1.4	#
Cadmium (leachable)	ug/l	#	#	0.03	0.04	#
Chromium (leachable)	ug/l	#	#	0.17	<0.07	#
Copper (leachable)	ug/l	#	#	1.52	2.29	#
Lead (leachable)	ug/l	#	#	0.6	0.3	#
Mercury (leachable)	ug/l	#	#	<0.02	0.02	#
Nickel (leachable)	ug/l	#	#	0.9	2.0	#
Selenium (leachable)	ug/l	#	#	<0.5	0.7	#
Zinc (leachable)	ug/l	#	#	29.4	26.0	#
Boron (leachable)	mg/l	#	#	0.06	0.07	#
Sulphide (leachable)	mg/l	#	#	<0.1	<0.1	#
pH (leachable)	N/A	#	#	7.1	7.8	#
PAH (sum of PAH 17) (leach)	ug/l	#	#	1.39	7.78	#
Naphthalene (leachable)	ug/l	#	#	0.03	0.14	#
Acenaphthylene (leachable)	ug/l	#	#	0.03	0.10	#

Client Project Name: Former William Freemans Factory, Mapplewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Sample Location		BH4	BH5	BH5	BH5	BH9
Top Depth / m		0.60	0.50	0.70	1.70	0.70
Bottom Depth / m						
Sample No.		D19	D24	D25	D28	D39
Sample Type		MG-Red Brick	MG-Red Brick	Dark grey clay	Gravelly clay	Grey clay
Date Sampled						
Receipt Date		23/07/07	23/07/07	23/07/07	23/07/07	23/07/07
ECõS Sample ID		S0709905	S0709906	S0709907	S0709908	S0709909
Matrix Type		Soil	Soil	Soil	Soil	Soil
Principle Soil Type (for MCERTS)		OTHER	CLAY	CLAY	CLAY	CLAY
Determinand	**Units**					
Acenaphthene (leachable)	ug/l	#	#	0.39	3.99	#
Fluorene (leachable)	ug/l	#	#	0.21	2.09	#
Phenanthrene (leachable)	ug/l	#	#	0.35	0.81	#
Anthracene (leachable)	ug/l	#	#	0.07	0.29	#
Fluoranthene (leachable)	ug/l	#	#	0.18	0.19	#
Pyrene (leachable)	ug/l	#	#	0.12	0.12	#
Benzo(a)anthracene (leachable)	ug/l	#	#	<0.01	0.01	#
Chrysene (leachable)	ug/l	#	#	0.01	0.01	#
Benzo(b)+(j)fluoranthene (leach)	ug/l	#	#	<0.01	0.01	#
Benzo(k)fluoranthene (leach)	ug/l	#	#	<0.01	<0.01	#
Benzo(a)pyrene (leachable)	ug/l	#	#	<0.01	<0.01	#
Indeno(1,2,3-cd)pyrene (leach)	ug/l	#	#	<0.01	<0.01	#
Dibenz(a,h)anthracene (leach)	ug/l	#	#	<0.01	<0.01	#
Benzo(g,h,i)perylene (leach)	ug/l	#	#	<0.01	<0.01	#
TPH (leachable)	mg/l	#	#	<0.01	<0.01	#
Chromium (hexavalent) (leach)	mg/l	#	#	<0.01	<0.01	#

Client Project Name: Former William Freemans Factory, Mapplewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Sample Location		BH10	BH10	BH12	BH13	BH15
Top Depth / m		0.40	0.80	0.45	0.70	0.35
Bottom Depth / m						
Sample No.		D40	D41	D45	D49	D56
Sample Type		MG-Red Brick	Grey clay	MG-Red Brick	Orange clay	MG-Red Brick
Date Sampled						
Receipt Date		23/07/07	23/07/07	23/07/07	23/07/07	23/07/07
ECõS Sample ID		S0709910	S0709911	S0709912	S0709913	S0709914
Matrix Type		Soil	Soil	Soil	Soil	Soil
Principle Soil Type (for MCERTS)		OTHER	CLAY	OTHER	CLAY	OTHER
Determinand	**Units**					
Arsenic	mg/kg	4.2	<1.5 M	7.9	<1.5 M	#
Cadmium	mg/kg	<0.2	<0.2 M	<0.2	<0.2 M	#
Chromium (total)	mg/kg	11.3	27.8 M	10.3	27.4 M	#
Copper	mg/kg	15.5	32.4 M	22.7	28.6 M	#
Lead	mg/kg	11.0	16.3 M	10.9	17.4 M	#
Mercury	mg/kg	<0.1	<0.1	<0.1	0.1	#
Nickel	mg/kg	16.0	50.0 M	16.4	30.0 M	#
Selenium	mg/kg	<1.0	<1.0	<1.0	<1.0	#
Zinc	mg/kg	32.6	118.3 M	39.1	86.4 M	#
Boron (water soluble)	mg/kg	<0.5	<0.5	<0.5	<0.5	#
Sulphide	mg/kg	<2.0	<2.0	9.3	<2.0	#
pH	N/A	9.0	7.0 M	7.5	4.6 M	#
PAH (sum of PAH 17)	mg/kg	<0.1	<0.1	0.9	<0.1	#
Naphthalene	mg/kg	<0.1	<0.1	0.2	<0.1	#
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Phenanthrene	mg/kg	<0.1	<0.1	0.2	<0.1	#
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Fluoranthene	mg/kg	<0.1	<0.1	0.1	<0.1	#
Pyrene	mg/kg	<0.1	<0.1	0.1	<0.1	#
Benzo(a)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Chrysene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Benzo(b)+(j)fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Benzo(k)fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Benzo(a)pyrene	mg/kg	<0.1	<0.1	0.3	<0.1	#
Indeno(1,2,3-cd)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Dibenz(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Chromium (hexavalent)	mg/kg	<1.0	<1.0	<1.0	<1.0	#
Fraction Organic Carbon	N/A	#	0.005	0.023	#	#
TPH Aromatic EC5-EC7	mg/kg	#	#	#	<0.1	#
TPH Aromatic EC7-EC8	mg/kg	#	#	#	<0.1	#
TPH Aromatic EC8-EC10	mg/kg	#	#	#	<0.1	#
TPH Aromatic EC10-EC12	mg/kg	#	#	#	<5.0	#

Client Project Name: Former William Freemans Factory, Mapplewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Sample Location		BH10	BH10	BH12	BH13	BH15
Top Depth / m		0.40	0.80	0.45	0.70	0.35
Bottom Depth / m						
Sample No.		D40	D41	D45	D49	D56
Sample Type		MG-Red Brick	Grey clay	MG-Red Brick	Orange clay	MG-Red Brick
Date Sampled						
Receipt Date		23/07/07	23/07/07	23/07/07	23/07/07	23/07/07
ECOS Sample ID		S0709910	S0709911	S0709912	S0709913	S0709914
Matrix Type		Soil	Soil	Soil	Soil	Soil
Principle Soil Type (for MCERTS)		OTHER	CLAY	OTHER	CLAY	OTHER
Determinand	Units					
TPH Aromatic EC12-EC16	mg/kg	#	#	#	<5.0	#
TPH Aromatic EC16-EC21	mg/kg	#	#	#	<5.0	#
TPH Aromatic EC21-EC35	mg/kg	#	#	#	<5.0	#
TPH Aliphatic EC5-EC6	mg/kg	#	#	#	<0.1	#
TPH Aliphatic EC6-EC8	mg/kg	#	#	#	<0.1	#
TPH Aliphatic EC8-EC10	mg/kg	#	#	#	<0.1	#
TPH Aliphatic EC10-EC12	mg/kg	#	#	#	<5.0	#
TPH Aliphatic EC12-EC16	mg/kg	#	#	#	<5.0	#
TPH Aliphatic EC16-EC21	mg/kg	#	#	#	<5.0	#
TPH Aliphatic EC21-EC34	mg/kg	#	#	#	<5.0	#
Dichlorodifluoromethane	mg/kg	#	#	#	<0.02	#
Vinyl chloride	mg/kg	#	#	#	<0.10 M	#
Bromomethane	mg/kg	#	#	#	<0.02 M	#
Chloroethane	mg/kg	#	#	#	<0.02 M	#
Trichlorofluoromethane	mg/kg	#	#	#	<0.01 M	#
1,1-Dichloroethene	mg/kg	#	#	#	<0.01	#
trans-1,2-Dichloroethene	mg/kg	#	#	#	<0.01 M	#
1,1-Dichloroethane	mg/kg	#	#	#	<0.01 M	#
cis-1,2-Dichloroethene	mg/kg	#	#	#	<0.01 M	#
Bromochloromethane	mg/kg	#	#	#	<0.01 M	#
Chloroform	mg/kg	#	#	#	<0.01 M	#
1,1,1-Trichloroethane	mg/kg	#	#	#	<0.01 M	#
Carbon tetrachloride	mg/kg	#	#	#	<0.01 M	#
1,1-Dichloropropene	mg/kg	#	#	#	<0.01 M	#
Benzene	mg/kg	#	#	#	<0.01	#
1,2-Dichloroethane	mg/kg	#	#	#	<0.02 M	#
Trichloroethene	mg/kg	#	#	#	<0.02 M	#
1,2-Dichloropropane	mg/kg	#	#	#	<0.10 M	#
Dibromomethane	mg/kg	#	#	#	<0.01	#
Bromodichloromethane	mg/kg	#	#	#	<0.01	#
Toluene	mg/kg	#	#	#	<0.02	#
1,1,2-Trichloroethene	mg/kg	#	#	#	<0.01	#
Tetrachloroethene	mg/kg	#	#	#	<0.01 M	#
1,3-Dichloropropane	mg/kg	#	#	#	<0.01 M	#
Dibromochloromethane	mg/kg	#	#	#	<0.05 M	#
1,2-Dibromoethane	mg/kg	#	#	#	<0.02 M	#

Client Project Name: Former William Freemans Factory, Mapplewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Sample Location	BH10	BH10	BH12	BH13	BH15
Top Depth / m	0.40	0.80	0.45	0.70	0.35
Bottom Depth / m					
Sample No.	D40	D41	D45	D49	D56
Sample Type	MG-Red Brick	Grey clay	MG-Red Brick	Orange clay	MG-Red Brick
Date Sampled					
Receipt Date	23/07/07	23/07/07	23/07/07	23/07/07	23/07/07
ECõS Sample ID	S0709910	S0709911	S0709912	S0709913	S0709914
Matrix Type	Soil	Soil	Soil	Soil	Soil
Principle Soil Type (for MCERTS)	OTHER	CLAY	OTHER	CLAY	OTHER
Determinand	**Units**				
Chlorobenzene	mg/kg	#	#	#	<0.01 M	#
Ethylbenzene	mg/kg	#	#	#	<0.02 M	#
1,1,1,2-Tetrachloroethane	mg/kg	#	#	#	<0.02	#
m+p-Xylene	mg/kg	#	#	#	<0.02 M	#
o-Xylene	mg/kg	#	#	#	<0.02 M	#
Styrene	mg/kg	#	#	#	<0.01	#
Bromoform	mg/kg	#	#	#	<0.01	#
Isopropylbenzene	mg/kg	#	#	#	<0.02 M	#
Bromobenzene	mg/kg	#	#	#	<0.02 M	#
n-Propylbenzene	mg/kg	#	#	#	<0.01	#
1,2,3-Trichloropropane	mg/kg	#	#	#	<0.02	#
4-Chlorotoluene	mg/kg	#	#	#	<0.01 M	#
2-Chlorotoluene	mg/kg	#	#	#	<0.05 M	#
1,3,5-Trimethylbenzene	mg/kg	#	#	#	<0.10 M	#
tert-Butylbenzene	mg/kg	#	#	#	<0.02	#
1,2,4-Trimethylbenzene	mg/kg	#	#	#	<0.05 M	#
sec-Butylbenzene	mg/kg	#	#	#	<0.02	#
p-Isopropyltoluene	mg/kg	#	#	#	<0.05 M	#
1,3-Dichlorobenzene	mg/kg	#	#	#	<0.02 M	#
1,4-Dichlorobenzene	mg/kg	#	#	#	<0.05 M	#
n-Butylbenzene	mg/kg	#	#	#	<0.05	#
1,2-Dichlorobenzene	mg/kg	#	#	#	<0.02 M	#
Polychlorinated biphenyl BZ#101	ug/kg	#	#	#	#	<0.50
Polychlorinated biphenyl BZ#118	ug/kg	#	#	#	#	<0.50
Polychlorinated biphenyl BZ#138	ug/kg	#	#	#	#	<0.50
Polychlorinated biphenyl BZ#153	ug/kg	#	#	#	#	<0.50
Polychlorinated biphenyl BZ#180	ug/kg	#	#	#	#	<0.50
Polychlorinated biphenyl BZ#28	ug/kg	#	#	#	#	<0.50
Polychlorinated biphenyl BZ#52	ug/kg	#	#	#	#	<0.50

ECõS

Client Project Name: Former William Freemans Factory, Mapplewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Sample Location		TP1	TP2	TP3	TP5	TP6
Top Depth / m		0.70	0.60	0.50	0.30	0.90
Bottom Depth / m						
Sample No.		D102	D106	D109	D115	D120
Sample Type		Dark grey clay	Dark grey clay	MG-Red Brick	Gravelly clay	Orange clay
Date Sampled						
Receipt Date		23/07/07	23/07/07	23/07/07	23/07/07	23/07/07
ECõS Sample ID		S0709915	S0709916	S0709917	S0709918	S0709919
Matrix Type		Soil	Soil	Soil	Soil	Soil
Principle Soil Type (for MCERTS)		CLAY	CLAY	OTHER	CLAY	CLAY
Determinand	**Units**					
Arsenic	mg/kg	9.1 M	9.9 M	10.4	<1.5 M	#
Cadmium	mg/kg	0.2 M	0.2 M	0.2	<0.2 M	#
Chromium (total)	mg/kg	13.4 M	12.8 M	31.3	68.2 M	#
Copper	mg/kg	33.4 M	34.6 M	19.3	12.7 M	#
Lead	mg/kg	41.2 M	42.6 M	21.5	6.4 M	#
Mercury	mg/kg	<0.1	<0.1	0.2	0.4	#
Nickel	mg/kg	10.5 M	11.9 M	13.3	8.4 M	#
Selenium	mg/kg	<1.0	<1.0	<1.0	<1.0	#
Zinc	mg/kg	69.6 M	71.1 M	40.2	25.5 M	#
Boron (water soluble)	mg/kg	<0.5	14.8	0.5	<0.5	#
Sulphide	mg/kg	53.6	122.1	4.0	2.4	#
pH	N/A	7.5 M	6.7 M	9.8	9.5 M	6.4 M
PAH (sum of PAH 17)	mg/kg	5.1	2.2	2.2	<0.1	#
Naphthalene	mg/kg	0.2	0.2	<0.1	<0.1	#
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Phenanthrene	mg/kg	0.3	0.3	<0.1	<0.1	#
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Fluoranthene	mg/kg	0.8	0.4	0.4	<0.1	#
Pyrene	mg/kg	0.7	0.3	0.5	<0.1	#
Benzo(a)anthracene	mg/kg	0.3	0.2	0.2	<0.1	#
Chrysene	mg/kg	0.4	0.2	0.3	<0.1	#
Benzo(b)+(j)fluoranthene	mg/kg	0.5	0.3	0.3	<0.1	#
Benzo(k)fluoranthene	mg/kg	0.3	0.1	0.1	<0.1	#
Benzo(a)pyrene	mg/kg	0.6	0.2	0.2	<0.1	#
Indeno(1,2,3-cd)pyrene	mg/kg	0.4	<0.1	<0.1	<0.1	#
Dibenz(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Benzo(g,h,i)perylene	mg/kg	0.5	0.2	0.2	<0.1	#
Chromium (hexavalent)	mg/kg	<1.0	<1.0	<1.0	<1.0	#
Sulphate (water soluble)	g/l SO4	0.047	#	0.174	#	0.440
Sulphate (acid soluble)	% SO4	0.12	#	0.46	#	0.13
Sulphur (total)	% S	0.08	#	0.13	#	0.03
Fraction Organic Carbon	N/A	#	0.031	#	#	#
TPH Aromatic EC5-EC7	mg/kg	#	#	#	#	<0.1

Client Project Name: Former William Freemans Factory, Mapplewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Sample Location		TP1	TP2	TP3	TP5	TP6
Top Depth / m		0.70	0.60	0.50	0.30	0.90
Bottom Depth / m						
Sample No.		D102	D106	D109	D115	D120
Sample Type		Dark grey clay	Dark grey clay	MG-Red Brick	Gravelly clay	Orange clay
Date Sampled						
Receipt Date		23/07/07	23/07/07	23/07/07	23/07/07	23/07/07
ECOS Sample ID		S0709915	S0709916	S0709917	S0709918	S0709919
Matrix Type		Soil	Soil	Soil	Soil	Soil
Principle Soil Type (for MCERTS)		CLAY	CLAY	OTHER	CLAY	CLAY
Determinand	**Units**					
TPH Aromatic EC7-EC8	mg/kg	#	#	#	#	<0.1
TPH Aromatic EC8-EC10	mg/kg	#	#	#	#	<0.1
TPH Aromatic EC10-EC12	mg/kg	#	#	#	#	<5.0
TPH Aromatic EC12-EC16	mg/kg	#	#	#	#	<5.0
TPH Aromatic EC16-EC21	mg/kg	#	#	#	#	<5.0
TPH Aromatic EC21-EC35	mg/kg	#	#	#	#	<5.0
TPH Aliphatic EC5-EC6	mg/kg	#	#	#	#	<0.1
TPH Aliphatic EC6-EC8	mg/kg	#	#	#	#	<0.1
TPH Aliphatic EC8-EC10	mg/kg	#	#	#	#	<0.1
TPH Aliphatic EC10-EC12	mg/kg	#	#	#	#	<5.0
TPH Aliphatic EC12-EC16	mg/kg	#	#	#	#	<5.0
TPH Aliphatic EC16-EC21	mg/kg	#	#	#	#	<5.0
TPH Aliphatic EC21-EC34	mg/kg	#	#	#	#	<5.0
Dichlorodifluoromethane	mg/kg	#	#	#	#	<0.02
Vinyl chloride	mg/kg	#	#	#	#	<0.10 M
Bromomethane	mg/kg	#	#	#	#	<0.02 M
Chloroethane	mg/kg	#	#	#	#	<0.02 M
Trichlorofluoromethane	mg/kg	#	#	#	#	<0.01 M
1,1-Dichloroethene	mg/kg	#	#	#	#	<0.01
trans-1,2-Dichloroethene	mg/kg	#	#	#	#	<0.01 M
1,1-Dichloroethane	mg/kg	#	#	#	#	<0.01 M
cis-1,2-Dichloroethene	mg/kg	#	#	#	#	<0.01 M
Bromochloromethane	mg/kg	#	#	#	#	<0.01 M
Chloroform	mg/kg	#	#	#	#	<0.01 M
1,1,1-Trichloroethane	mg/kg	#	#	#	#	<0.01 M
Carbon tetrachloride	mg/kg	#	#	#	#	<0.01 M
1,1-Dichloropropene	mg/kg	#	#	#	#	<0.01 M
Benzene	mg/kg	#	#	#	#	<0.01
1,2-Dichloroethane	mg/kg	#	#	#	#	<0.02 M
Trichloroethene	mg/kg	#	#	#	#	<0.02 M
1,2-Dichloropropane	mg/kg	#	#	#	#	<0.10 M
Dibromomethane	mg/kg	#	#	#	#	<0.01
Bromodichloromethane	mg/kg	#	#	#	#	<0.01
Toluene	mg/kg	#	#	#	#	<0.02
1,1,2-Trichloroethane	mg/kg	#	#	#	#	<0.01
Tetrachloroethene	mg/kg	#	#	#	#	<0.01 M

Client Project Name: Former William Freemans Factory, Mapplewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Sample Location		TP1	TP2	TP3	TP5	TP6
Top Depth / m		0.70	0.80	0.50	0.30	0.90
Bottom Depth / m						
Sample No.		D102	D106	D109	D115	D120
Sample Type		Dark grey clay	Dark grey clay	MG-Red Brick	Gravelly clay	Orange clay
Date Sampled						
Receipt Date		23/07/07	23/07/07	23/07/07	23/07/07	23/07/07
ECoS Sample ID		S0709915	S0709916	S0709917	S0709918	S0709919
Matrix Type		Soil	Soil	Soil	Soil	Soil
Principle Soil Type (for MCERTS)		CLAY	CLAY	OTHER	CLAY	CLAY
Determinand	Units					
1,3-Dichloropropane	mg/kg	#	#	#	#	<0.01 M
Dibromochloromethane	mg/kg	#	#	#	#	<0.05 M
1,2-Dibromoethane	mg/kg	#	#	#	#	<0.02 M
Chlorobenzene	mg/kg	#	#	#	#	<0.01 M
Ethylbenzene	mg/kg	#	#	#	#	<0.02 M
1,1,1,2-Tetrachloroethane	mg/kg	#	#	#	#	<0.02
m+p-Xylene	mg/kg	#	#	#	#	<0.02 M
o-Xylene	mg/kg	#	#	#	#	<0.02 M
Styrene	mg/kg	#	#	#	#	<0.01
Bromoform	mg/kg	#	#	#	#	<0.01
Isopropylbenzene	mg/kg	#	#	#	#	<0.02 M
Bromobenzene	mg/kg	#	#	#	#	<0.02 M
n-Propylbenzene	mg/kg	#	#	#	#	<0.01
1,2,3-Trichloropropane	mg/kg	#	#	#	#	<0.02
4-Chlorotoluene	mg/kg	#	#	#	#	<0.01 M
2-Chlorotoluene	mg/kg	#	#	#	#	<0.05 M
1,3,5-Trimethylbenzene	mg/kg	#	#	#	#	<0.10 M
tert-Butylbenzene	mg/kg	#	#	#	#	<0.02
1,2,4-Trimethylbenzene	mg/kg	#	#	#	#	<0.05 M
sec-Butylbenzene	mg/kg	#	#	#	#	<0.02
p-Isopropyltoluene	mg/kg	#	#	#	#	<0.05 M
1,3-Dichlorobenzene	mg/kg	#	#	#	#	<0.02 M
1,4-Dichlorobenzene	mg/kg	#	#	#	#	<0.05 M
n-Butylbenzene	mg/kg	#	#	#	#	<0.05
1,2-Dichlorobenzene	mg/kg	#	#	#	#	<0.02 M

ECõS

Client Project Name: Former William Freemans Factory, Mapplewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Sample Location		TP7	TP8	TP11	TP12	TP12
Top Depth / m		0.60	0.30	0.50	0.40	
Bottom Depth / m						
Sample No.		D123	D125	D134	D136	D138
Sample Type		Orange clay	Topsoil	Topsoil	MG-landfill	MG-landfill
Date Sampled						
Receipt Date		23/07/07	23/07/07	23/07/07	23/07/07	23/07/07
ECõS Sample ID		S0709922	S0709923	S0709924	S0709925	S0709926
Matrix Type		Soil	Soil	Soil	Soil	Soil
Principle Soil Type (for MCERTS)		CLAY	LOAM	LOAM	CLAY	OTHER
Determinand	**Units**					
Arsenic	mg/kg	<1.5 M	8.1 M	8.3 M	2.1 M	5.0
Cadmium	mg/kg	<0.2 M	<0.2 M	0.2 M	<0.2 M	8.7
Chromium (total)	mg/kg	25.1 M	25.0 M	30.1 M	24.1 M	73.8
Copper	mg/kg	23.9 M	19.2 M	42.6 M	20.5 M	200.8
Lead	mg/kg	13.1 M	40.3 M	88.0 M	17.0 M	22.5
Mercury	mg/kg	<0.1	<0.1	0.3	0.2	0.5
Nickel	mg/kg	34.0 M	16.9 M	16.3 M	28.0 M	155.0
Selenium	mg/kg	1.0	<1.0	<1.0	<1.0	<1.0
Zinc	mg/kg	68.8 M	45.4 M	115.0 M	78.1 M	1781.5
Boron (water soluble)	mg/kg	<0.5	<0.5	<0.5	<0.5	<0.5
Sulphide	mg/kg	<2.0	<2.0	3.5	<2.0	34.8
pH	N/A	5.8 M	6.4 M	8.4 M	8.2 M	7.8
PAH (sum of PAH 17)	mg/kg	<0.1	1.4	43.3	<0.1	2.3
Naphthalene	mg/kg	<0.1	0.2	1.4	<0.1	0.2
Acenaphthylene	mg/kg	<0.1	<0.1	0.3	<0.1	<0.1
Acenaphthene	mg/kg	<0.1	<0.1	0.3	<0.1	<0.1
Fluorene	mg/kg	<0.1	<0.1	0.5	<0.1	<0.1
Phenanthrene	mg/kg	<0.1	0.3	5.9	<0.1	0.3
Anthracene	mg/kg	<0.1	<0.1	1.2	<0.1	<0.1
Fluoranthene	mg/kg	<0.1	0.4	7.4	<0.1	0.5
Pyrene	mg/kg	<0.1	0.3	5.9	<0.1	0.4
Benzo(a)anthracene	mg/kg	<0.1	0.1	3.4	<0.1	0.1
Chrysene	mg/kg	<0.1	0.1	3.2	<0.1	0.2
Benzo(b)+(j)fluoranthene	mg/kg	<0.1	<0.1	3.6	<0.1	0.3
Benzo(k)fluoranthene	mg/kg	<0.1	<0.1	2.1	<0.1	<0.1
Benzo(a)pyrene	mg/kg	<0.1	<0.1	3.5	<0.1	0.3
Indeno(1,2,3-cd)pyrene	mg/kg	<0.1	<0.1	1.7	<0.1	<0.1
Dibenz(a,h)anthracene	mg/kg	<0.1	<0.1	0.5	<0.1	<0.1
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	2.6	<0.1	0.2
Chromium (hexavalent)	mg/kg	<1.0	<1.0	<1.0	<1.0	18.0
Sulphate (water soluble)	g/l SO4	#	#	0.050	#	#
Sulphate (acid soluble)	% SO4	#	#	0.16	#	#
Sulphur (total)	% S	#	#	0.05	#	#

ECõS

Client Project Name: Former William Freemans Factory, Mapplewell **Client: Joynes Pike & Associates Ltd.**

Project Number: 12070197 **Reporting Date: Friday 3 August 2007**

Sample Location		TP12	TP15	TP19	TP20	BH13
Top Depth / m		2.30	0.20	0.40	1.00	1.70
Bottom Depth / m						
Sample No.		D139	D145	D157	D161	D51
Sample Type		Orange clay	Topsoil	Topsoil	Orange clay	Gravelly clay
Date Sampled						
Receipt Date		23/07/07	23/07/07	23/07/07	23/07/07	23/07/07
ECõS Sample ID		S0709927	S0709928	S0709929	S0709930	S0709931
Matrix Type		Soil	Soil	Soil	Soil	Soil
Principle Soil Type (for MCERTS)		CLAY	LOAM	LOAM	CLAY	CLAY
Determinand	**Units**					
Arsenic	mg/kg	5.8 M	11.1 M	14.6 M	3.1 M	#
Cadmium	mg/kg	<0.2 M	<0.2 M	<0.2 M	<0.2 M	#
Chromium (total)	mg/kg	29.2 M	27.6 M	18.8 M	21.8 M	#
Copper	mg/kg	23.0 M	23.3 M	24.1 M	18.6 M	#
Lead	mg/kg	18.5 M	45.6 M	45.4 M	23.6 M	#
Mercury	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Nickel	mg/kg	35.7 M	19.6 M	15.5 M	24.5 M	#
Selenium	mg/kg	2.3	<1.0	1.0	<1.0	#
Zinc	mg/kg	114.8 M	107.5 M	86.5 M	85.2 M	#
Boron (water soluble)	mg/kg	<0.5	0.5	0.6	0.8	#
Sulphide	mg/kg	10.8	<2.0	<2.0	<2.0	#
pH	N/A	7.1 M	5.4 M	6.0 M	5.9 M	6.1 M
PAH (sum of PAH 17)	mg/kg	<0.1	0.9	2.3	<0.1	#
Naphthalene	mg/kg	<0.1	0.2	0.2	<0.1	#
Acenaphthylene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Acenaphthene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Fluorene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Phenanthrene	mg/kg	<0.1	0.2	0.3	<0.1	#
Anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Fluoranthene	mg/kg	<0.1	0.2	0.6	<0.1	#
Pyrene	mg/kg	<0.1	0.2	0.5	<0.1	#
Benzo(a)anthracene	mg/kg	<0.1	<0.1	0.3	<0.1	#
Chrysene	mg/kg	<0.1	0.2	0.2	<0.1	#
Benzo(b)+(j)fluoranthene	mg/kg	<0.1	<0.1	0.2	<0.1	#
Benzo(k)fluoranthene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Benzo(a)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Indeno(1,2,3-cd)pyrene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Dibenz(a,h)anthracene	mg/kg	<0.1	<0.1	<0.1	<0.1	#
Benzo(g,h,i)perylene	mg/kg	<0.1	<0.1	0.1	<0.1	#
Chromium (hexavalent)	mg/kg	<1.0	<1.0	<1.0	<1.0	#
Fraction Organic Carbon	N/A	#	#	0.026	0.008	#
Sulphate (water soluble)	g/l SO4	#	#	#	#	0.027
Sulphate (acid soluble)	% SO4	#	#	#	#	0.02
Sulphur (total)	% S	#	#	#	#	<0.01

Client Project Name: Former William Freemans Factory, Mapplewell Client: Joynes Pike & Associates Ltd.

Project Number: 12070197 Reporting Date: Friday 3 August 2007

Sample Location	TP8
Top Depth / m	0.90
Bottom Depth / m	
Sample No.	D127
Sample Type	Mudstone
Date Sampled	
Receipt Date	23/07/07
ECõS Sample ID	S0709932
Matrix Type	Soil
Principle Soil Type (for MCERTS)	OTHER

Determinand	Units	
pH	N/A	6.9
Sulphate (water soluble)	g/l SO4	0.007
Sulphate (acid soluble)	% SO4	<0.01
Sulphur (total)	% S	<0.01

Notes and Preservation Details

No preservation or stabilisation of test samples undertaken at sampling site.

Chromium (hexavalent) analyses undertaken by UKAS laboratory number 2531.

PCB analyses undertaken by UKAS laboratory number 1549.

End of Test Report

Methodology for the Screening of Soils in Terms of the Risk to Human Health (Including the JPA Methodology for Calculating Tier 1 Screening Values)

The legislative framework for the regulation of contaminated land is contained in Part IIA of the Environmental Protection Act 1990, which was implemented in the Contaminated Land (England) Regulations 2000. This legislation allows for the identification and remediation of land where contamination is causing unacceptable risks to human health or the wider environment. The basis of the UK contaminated land policy is the 'Suitable for Use' approach, which states that land should be suitable for its current use and made suitable for any new use as official permission (through the planning process) is given for that use.

Under Part IIA of the Environmental Protection Act 1990, contaminated land is defined as land where significant harm is being caused or there is a significant possibility of such harm being caused or where pollution of controlled waters is being, or is likely to be caused. For significant harm to occur, a pollutant linkage must exist i.e. there must be a contamination source, a relevant receptor and a plausible migration pathway by which the contaminant can cause significant harm to the receptor.

As part of the regulatory framework discussed above, the UK Government published, on 14th March 2002, the Contaminated Land Exposure Assessment model (CLEA). This presents Soil Guideline Values, which are "generic" values for assessing the risks to human health from chronic exposure to contaminated soils. The Soil Guideline Values represent 'intervention values' above which the levels of soil contamination may represent an unacceptable risk to the health of site-users such that further investigation and/or remediation is required. The Soil Guideline Values are not intended to represent binding standards or statutory objectives.

The Soil Guideline Values have been derived bearing in mind particular proposed land uses. Currently, three types of 'standard' land use have been considered, namely residential; allotments; and commercial / industrial. For each standard land use there are a number of different exposure routes which may or may not be active depending on the site-specific scenario. The Soil Guideline Values generally utilised in this report (unless otherwise specifically stated) represent worst case exposure scenarios with all exposure routes active for residential with plant uptake.

Currently, Soil Guideline Values have only been prepared for arsenic, cadmium, chromium, inorganic mercury, nickel, selenium, lead, phenol, toluene and ethylbenzene. Draft Soil Guideline Values have also been published for benzene, xylene and naphthalene. The Soil Guideline Values have replaced the trigger concentrations formerly prescribed by ICRCL document 59/83, which has been withdrawn. In the absence of existing United Kingdom guidelines for certain contaminants (i.e. where UK Soil Guideline Values or draft Soil Guideline Values have not been published), Joynes Pike & Associates have calculated Tier 1 screening values for various contaminants, currently utilising version 8 dated April 2007.

The methodology employed to calculate these values is as follows:

Where available, United Kingdom based toxicological data, presented in the appropriate Environment Agency CLR TOX series of reports has been used. When new TOX reports are issued, the Tier 1 values will be updated accordingly.

However, where a TOX report is not available, reference has again been made to the Risk Assessment Information System (RAIS) database (http://rais.ornl.gov) for toxicological information, with the exception of banded TPH where reference is made to the Total Petroleum Hydrocarbon Criteria Working Group (TPHCWG) documents, which contain both toxicological information and physio-chemical properties. These documents are utilised for "threshold" (i.e. non-carcinogenic) contaminants only, with the toxicological data adjusted for average UK bodyweight (70kg). This exercise generates a Tolerable Daily Intake (TDI).

It is noted that the Environment Agency publication P5-080/TR3 (The UK Approach for Evaluating Human Health Risks from Petroleum Hydrocarbons in Soils), identifies three carbon bands at the "heavy" end of the spectrum, which would be characterised by immobile highly unreactive compounds. However, since no toxicological data exists currently for these additional bands, Joynes Pike & Associates have continued to utilise the data contained within the TPHCWG publications. Additionally the Tier 1 screening values do not consider the additive or synergistic effects of any compounds.

To model the Tier 1 values, JPA have used a variety of appropriate software models including SNIFFER, CLEA UK and RISC 4.0. The SNIFFER model (LQM01) has been used for non-organic contaminants, whilst the RISC 4.0 model has been utilised for the majority of the organic contaminants. The CLEA UK (beta) model has only been utilised for benzo(a)pyrene at this stage since the EA currently state that the beta version of the software has only been tested for a limited range of chemicals and scenarios and should be applied with caution. Benzo(a)pyrene was a compound within the initial CLEA 2002 software and it's use has been continued within the CLEA UK model. RISC 4.0 uses the Johnson & Ettinger model with respect to the volatilisation of compounds from soil and is therefore considered to be appropriate.

The default parameters are accepted when running the model at a Tier 1 level to give the most conservative model except that the SOM is calculated with a range from 0.25% to 5% to be in line with the published Soil Guideline Values but also to look at natural soils which may have a lower SOM.

With regards to plant uptake, the guidance offered by the Environment Agency within their publication SC50021/SR has been adopted where possible. Furthermore the relevant soil parameters have been adjusted to 10° C in accordance with CLEA Briefing Note 2.

APPENDIX E
Soil Geotechnical Test Results

1015

CERTIFICATE OF TEST

Authorised signatories:

R Gould – Business Manager [ ]
D. Swindells–Lab Manager [ ]

Moisture Content of Soil
BS 1377: Part 2: 1990

Date 25/07/2007
Report Ref: 07SS2191

Lab Ref No.	07SS2191.1	Site / Client Ref.	D13
Scheme / Site	William Freemans, Mapplewell		
Location	WS2 2.2m		
Material	Soil Material		
Source	As Dug	Weather	Not Known
Date Sampled	N/K	Date Received	19/07/2007
Sampled By	CL	Date Tested – From	20/07/2007
Sample Type	Disturbed	Date Tested - To	25/07/2007

TEST RESULTS

Soil Description :	Soft light brown sandy SILT CLAY with carbon and fine to medium gravel

Moisture Content:	**11 %**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
The results presented relate only to the sample tested

Remarks:

Proje... 12070K2
Review ... AJS
27 JUL 2007
NMcJ
File: AJS

Sampling Method: Not Known
Preparation Method: BS 1377 : Part 1 : 1990

Client Name: Joynes Pike and Associates
1-2 Aire House
Sidings Court
Richmond Business Park
Doncaster
DN4 5JB

FAO: Nicola McCarthy
Copies To

Issuing laboratory:
Scientifics Ltd
Unit 11b, Provincial Park
Nether Lane
Ecclesfield
Sheffield, S35 9ZX
Tel: 0114 240 1901
Fax: 0114 240 1744

Authorised By:

This test certificate shall not be reproduced without written permission of the issuing laboratory

1015

CERTIFICATE OF TEST

Authorised signatories:

R Gould – Business Manager [ ]
D. Swindells–Lab Manager [ ]

Moisture Content of Soil
BS 1377: Part 2: 1990

Date 25/07/2007
Report Ref: 07SS2192

Lab Ref No.	07SS2192.1	Site / Client Ref.	D37
Scheme / Site	William Freemans, Mapplewell		
Location	WS8 0.6m		
Material	Soil Material		
Source	As Dug	Weather	Not Known
Date Sampled	N/K	Date Received	19/07/2007
Sampled By	CL	Date Tested – From	19/07/2007
Sample Type	Disturbed	Date Tested - To	25/07/2007

TEST RESULTS

Soil Description :	Fine to medium mudstone & occasional sandy brown green CLAY

Moisture Content:	**11 %**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
The results presented relate only to the sample tested

Remarks:

Sampling Method: Not Known
Preparation Method: BS 1377 : Part 1 : 1990

Client Name: Joynes Pike and Associates
1-2 Aire House
Sidings Court
Richmond Business Park
Doncaster
DN4 5JB

FAO: Nicola McCarthy
Copies To

Issuing laboratory:
Scientifics Ltd
Unit 11b, Provincial Park
Nether Lane
Ecclesfield
Sheffield, S35 9ZX
Tel: 0114 240 1901
Fax: 0114 240 1744

Authorised By:

This test certificate shall not be reproduced without written permission of the issuing laboratory

1015

CERTIFICATE OF TEST

Authorised signatories:

R Gould – Business Manager [✓
D. Swindells–Lab Manager [ ]

Moisture Content of Soil
BS 1377: Part 2: 1990

Date 25/07/2007
Report Ref: 07SS2193

Lab Ref No.	07SS2193.1	Site / Client Ref.	D116
Scheme / Site	William Freemans, Mapplewell		
Location	TP5 0.6m		
Material	Soil Material		
Source	As Dug	Weather	Not Known
Date Sampled	N/K	Date Received	19/07/2007
Sampled By	CL	Date Tested – From	20/07/2007
Sample Type	Disturbed	Date Tested - To	25/07/2007

TEST RESULTS

Soil Description :	Soft brown grey SILT CLAY with fine to medium mudstone

Moisture Content:	**17 %**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
The results presented relate only to the sample tested

Remarks:

Sampling Method: Not Known
Preparation Method: BS 1377 : Part 1 : 1990

Client Name: Joynes Pike and Associates
1-2 Aire House
Sidings Court
Richmond Business Park
Doncaster
DN4 5JB

FAO: Nicola McCarthy
Copies To

Issuing laboratory:
Scientifics Ltd
Unit 11b, Provincial Park
Nether Lane
Ecclesfield
Sheffield, S35 9ZX
Tel: 0114 240 1901
Fax: 0114 240 1744

Authorised By:

This test certificate shall not be reproduced without written permission of the issuing laboratory

1015

CERTIFICATE OF TEST

Authorised signatories:

R Gould – Business Manager [ ]
D. Swindells–Lab Manager [ ]

Moisture Content of Soil
BS 1377: Part 2: 1990

Date 25/07/2007
Report Ref. 07SS2194

Lab Ref No.	07SS2194.1	Site / Client Ref.	D149
Scheme / Site	William Freemans, Mapplewell		
Location	TP16 0.9m		
Material	Soil Material		
Source	As Dug	Weather	Not Known
Date Sampled	N/K	Date Received	19/07/2007
Sampled By	CL	Date Tested – From	20/07/2007
Sample Type	Disturbed	Date Tested - To	25/07/2007

TEST RESULTS

Soil Description :	Soft brown grey SILT CLAY with fine mudstone and carbon

Moisture Content:	**28 %**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
The results presented relate only to the sample tested

Remarks:

Sampling Method: Not Known
Preparation Method: BS 1377 : Part 1 : 1990

Client Name: Joynes Pike and Associates
1-2 Aire House
Sidings Court
Richmond Business Park
Doncaster
DN4 5JB

FAO: Nicola McCarthy
Copies To

Issuing laboratory:
Scientifics Ltd
Unit 11b, Provincial Park
Nether Lane
Ecclesfield
Sheffield, S35 9ZX
Tel: 0114 240 1901
Fax: 0114 240 1744

Authorised By:

This test certificate shall not be reproduced without written permission of the issuing laboratory

1015

CERTIFICATE OF TEST

Authorised signatories:

R Gould – Business Manager [✓]
D. Swindells–Lab Manager [ ]

Moisture Content of Soil
BS 1377: Part 2: 1990

Date 25/07/2007
Report Ref: 07SS2195

Lab Ref No.	07SS2195.1	Site / Client Ref.	D113
Scheme / Site	William Freemans, Mapplewell		
Location	TP4 0.9m		
Material	Soil Material		
Source	As Dug	Weather	Not Known
Date Sampled	N/K	Date Received	19/07/2007
Sampled By	CL	Date Tested – From	20/07/2007
Sample Type	Disturbed	Date Tested - To	25/07/2007

TEST RESULTS

Soil Description :	Soft to firm brown orange grey sandy SILT CLAY with fine crushed brick

Moisture Content:	**27 %**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
The results presented relate only to the sample tested

Remarks:

Sampling Method: Not Known
Preparation Method: BS 1377 : Part 1 : 1990

Client Name: Joynes Pike and Associates
1-2 Aire House
Sidings Court
Richmond Business Park
Doncaster
DN4 5JB

FAO: Nicola McCarthy
Copies To

Issuing laboratory:
Scientifics Ltd
Unit 11b, Provincial Park
Nether Lane
Ecclesfield
Sheffield, S35 9ZX
Tel: 0114 240 1901
Fax: 0114 240 1744

Authorised By:

This test certificate shall not be reproduced without written permission of the issuing laboratory

1015

CERTIFICATE OF TEST

Authorised signatories:

R Gould – Business Manager
D. Swindells–Lab Manager

Moisture Content of Soil
BS 1377: Part 2: 1990

Date 25/07/2007
Report Ref: 07SS2196

Lab Ref No.	07SS2196.1	Site / Client Ref.	D130
Scheme / Site	William Freemans, Mapplewell		
Location	TP9 2.2m		
Material	Soil Material		
Source	As Dug	Weather	Not Known
Date Sampled	N/K	Date Received	19/07/2007
Sampled By	CL	Date Tested – From	20/07/2007
Sample Type	Disturbed	Date Tested - To	25/07/2007

TEST RESULTS

Soil Description :	Fine to coarse mudstone with clayey sand (Brown/grey)

Moisture Content:	**11 %**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
The results presented relate only to the sample tested

Remarks:

Sampling Method: Not Known
Preparation Method: BS 1377 : Part 1 : 1990

Client Name: Joynes Pike and Associates
1-2 Aire House
Sidings Court
Richmond Business Park
Doncaster
DN4 5JB

FAO: Nicola McCarthy
Copies To

Issuing laboratory:
Scientifics Ltd
Unit 11b, Provincial Park
Nether Lane
Ecclesfield
Sheffield, S35 9ZX
Tel: 0114 240 1901
Fax: 0114 240 1744

Authorised By:

This test certificate shall not be reproduced without written permission of the issuing laboratory

1015

CERTIFICATE OF TEST

Authorised signatories:

R Gould – Business Manager [ ]
D. Swindells–Lab Manager [ ]

Moisture Content of Soil
BS 1377: Part 2: 1990

Date 25/07/2007
Report Ref. 07SS2197

Lab Ref No.	07SS2197.1	Site / Client Ref.	D158
Scheme / Site	William Freemans, Mapplewell		
Location	TP19 1.0m		
Material	Soil Material		
Source	As Dug	Weather	Not Known
Date Sampled	N/K	Date Received	19/07/2007
Sampled By	CL	Date Tested – From	20/07/2007
Sample Type	Disturbed	Date Tested - To	25/07/2007

TEST RESULTS

Soil Description :	Soft yellow brown grey SILT CLAY with fine to occasional medium gravel

Moisture Content:	**31 %**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
The results presented relate only to the sample tested

Remarks:

Sampling Method: Not Known
Preparation Method: BS 1377 : Part 1 : 1990

Client Name: Joynes Pike and Associates
1-2 Aire House
Sidings Court
Richmond Business Park
Doncaster
DN4 5JB

FAO: Nicola McCarthy
Copies To

Issuing laboratory:
Scientifics Ltd
Unit 11b, Provincial Park
Nether Lane
Ecclesfield
Sheffield, S35 9ZX
Tel: 0114 240 1901
Fax: 0114 240 1744

Authorised By:

This test certificate shall not be reproduced without written permission of the issuing laboratory

1015

CERTIFICATE OF TEST

Authorised signatories:

R Gould – Business Manager [✓]
D. Swindells–Lab Manager [ ]

Moisture Content of Soil
BS 1377: Part 2: 1990

Date 25/07/2007
Report Ref: 07SS2198

Lab Ref No.	07SS2198.1	Site / Client Ref.	D153
Scheme / Site	William Freemans, Mapplewell		
Location	TP17 2.30m		
Material	Soil Material		
Source	As Dug	Weather	Not Known
Date Sampled	N/K	Date Received	19/07/2007
Sampled By	CL	Date Tested – From	20/07/2007
Sample Type	Disturbed	Date Tested - To	25/07/2007

TEST RESULTS

Soil Description :	Fine to occasional coarse mudstone with brown green grey clayey sand

Moisture Content:	**10 %**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.
The results presented relate only to the sample tested

Remarks:

Sampling Method: Not Known
Preparation Method: BS 1377 : Part 1 : 1990

Client Name: Joynes Pike and Associates
1-2 Aire House
Sidings Court
Richmond Business Park
Doncaster
DN4 5JB

FAO: Nicola McCarthy
Copies To

Issuing laboratory:
Scientifics Ltd
Unit 11b, Provincial Park
Nether Lane
Ecclesfield
Sheffield, S35 9ZX
Tel: 0114 240 1901
Fax: 0114 240 1744

Authorised By:

This test certificate shall not be reproduced without written permission of the issuing laboratory

1015

CERTIFICATE OF TEST

Authorised signatories:

R Gould – Business Manager
D. Swindells - Lab Manager

Plasticity Index of Soil - Definitive Method
BS 1377: Part 2:1990: Clause 4.3

Date 25/07/2007
Report Ref: 07SS2191

Lab Ref No.	07SS2191.2	Site / Client Ref.	D13
Scheme / Site	William Freemans, Mapplewell		
Location	WS2 2.2m		
Material	Soil Material		
Source	As Dug	Weather	Not Known
Date Sampled	N/K	Date Received	19/07/2007
Sampled By	CL	Date Tested – From	20/07/2007
Sample Type	Disturbed	Date Tested - To	25/07/2007

TEST RESULTS

Soil Description :	Soft light brown sandy SILT CLAY with carbon and fine to medium gravel	
Soil Condition:	Natural	
Proportion of Sample Passing 425µm BS Test Sieve: % (Assumed >95 if tested in Natural condition)	66.1	
Soil Equilibrated with Water for:	16 hours	
Plasticity	**Plastic**	
Liquid Limit: 50%	Plastic Limit: 29%	Plasticity Index: 21

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

Results relate only to the samples tested. Client should ensure sampling is representative of material on site

This certificate shall not be reproduced except in full without written approval of the laboratory.

Remarks: The Soil Classification is MH.

Sampling Method: Not Known
Preparation Method: BS 1377 : Part 1 : 1990

Client Name: Joynes Pike and Associates
1-2 Aire House
Sidings Court
Richmond Business Park
Doncaster
DN4 5JB

FAO: Nicola McCarthy
Copies To

Issuing laboratory:
Scientifics Ltd
Unit 11b, Provincial Park
Nether Lane
Ecclesfield
Sheffield, S35 9ZX
Tel: 0114 240 1901
Fax: 0114 240 1744

Authorised By:

1015

CERTIFICATE OF TEST

Authorised signatories:

R Gould – Business Manager
D. Swindells - Lab Manager

Plasticity Index of Soil - Definitive Method
BS 1377: Part 2:1990: Clause 4.3

Date 25/07/2007
Report Ref: 07SS2192

Lab Ref No.	07SS2192.2	Site / Client Ref.	D37
Scheme / Site	William Freemans, Mapplewell		
Location	WS8 0.6m		
Material	Soil Material		
Source	As Dug	Weather	Not Known
Date Sampled	N/K	Date Received	19/07/2007
Sampled By	CL	Date Tested – From	19/07/2007
Sample Type	Disturbed	Date Tested - To	25/07/2007

TEST RESULTS

Soil Description :	Fine to medium mudstone & occasional sandy brown green CLAY
Soil Condition:	Natural
Proportion of Sample Passing 425µm BS Test Sieve: % (Assumed >95 if tested in Natural condition)	83.5
Soil Equilibrated with Water for:	16 hours
Plasticity	**Plastic**

Liquid Limit: **42%**	Plastic Limit: **26%**	Plasticity Index: **16**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

Results relate only to the samples tested. Client should ensure sampling is representative of material on site

This certificate shall not be reproduced except in full without written approval of the laboratory.

Remarks: The Soil Classification is MI.

Sampling Method: **Not Known**
Preparation Method: **BS 1377 : Part 1 : 1990**

Client Name: **Joynes Pike and Associates**
1-2 Aire House
Sidings Court
Richmond Business Park
Doncaster
DN4 5JB

FAO: **Nicola McCarthy**
Copies To:

Issuing laboratory:
Scientifics Ltd
Unit 11b, Provincial Park
Nether Lane
Ecclesfield
Sheffield, S35 9ZX
Tel: 0114 240 1901
Fax: 0114 240 1744

Authorised By:

1015

CERTIFICATE OF TEST

Authorised signatories:

R Gould – Business Manager [✓]
D. Swindells - Lab Manager [ ]

Plasticity Index of Soil - Definitive Method
BS 1377: Part 2:1990: Clause 4.3

Date 25/07/2007
Report Ref: 07SS2193

Lab Ref No.	07SS2193.2	Site / Client Ref.	D116
Scheme / Site	William Freemans, Mapplewell		
Location	TP5 0.6m		
Material	Soil Material		
Source	As Dug	Weather	Not Known
Date Sampled	N/K	Date Received	19/07/2007
Sampled By	CL	Date Tested – From	20/07/2007
Sample Type	Disturbed	Date Tested - To	25/07/2007

TEST RESULTS

Soil Description :	Soft brown grey SILT CLAY with fine to medium mudstone	
Soil Condition:	Natural	
Proportion of Sample Passing 425µm BS Test Sieve: % (Assumed >95 if tested in Natural condition)	90.6	
Soil Equilibrated with Water for:	16 hours	
Plasticity	**Plastic**	
Liquid Limit: **39%**	Plastic Limit: **25%**	Plasticity Index: **14**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

Results relate only to the samples tested. Client should ensure sampling is representative of material on site

This certificate shall not be reproduced except in full without written approval of the laboratory.

Remarks: **The Soil Classification is CI.**

Sampling Method: **Not Known**
Preparation Method: **BS 1377 : Part 1 : 1990**

Client Name: **Joynes Pike and Associates**
1-2 Aire House
Sidings Court
Richmond Business Park
Doncaster
DN4 5JB

FAO: **Nicola McCarthy**
Copies To:

Issuing laboratory:
Scientifics Ltd

Unit 11b, Provincial Park
Nether Lane
Ecclesfield
Sheffield, S35 9ZX
Tel: 0114 240 1901
Fax: 0114 240 1744

Authorised By:

1015

CERTIFICATE OF TEST

Authorised signatories:

R Gould – Business Manager [✓]
D. Swindells - Lab Manager [ ]

Plasticity Index of Soil - Definitive Method
BS 1377: Part 2:1990: Clause 4.3

Date 25/07/2007
Report Ref: 07SS2194

Lab Ref No.	07SS2194.2	Site / Client Ref.	D149
Scheme / Site	William Freemans, Mapplewell		
Location	TP16 0.9m		
Material	Soil Material		
Source	As Dug	Weather	Not Known
Date Sampled	N/K	Date Received	19/07/2007
Sampled By	CL	Date Tested – From	20/07/2007
Sample Type	Disturbed	Date Tested - To	25/07/2007

TEST RESULTS

Soil Description :	Soft brown grey SILT CLAY with fine mudstone and carbon
Soil Condition:	Natural
Proportion of Sample Passing 425µm BS Test Sieve: % (Assumed >95 if tested in Natural condition)	88.9
Soil Equilibrated with Water for:	16 hours
Plasticity	**Plastic**

Liquid Limit: 51%	Plastic Limit: 28%	Plasticity Index: 23

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

Results relate only to the samples tested. Client should ensure sampling is representative of material on site

This certificate shall not be reproduced except in full without written approval of the laboratory.

Remarks: The Soil Classification is CH.

Sampling Method: Not Known
Preparation Method: BS 1377 : Part 1 : 1990

Client Name: Joynes Pike and Associates
1-2 Aire House
Sidings Court
Richmond Business Park
Doncaster
DN4 5JB

FAO: Nicola McCarthy
Copies To:

Issuing laboratory:
Scientifics Ltd
Unit 11b, Provincial Park
Nether Lane
Ecclesfield
Sheffield, S35 9ZX
Tel: 0114 240 1901
Fax: 0114 240 1744

Authorised By:

1015

CERTIFICATE OF TEST

Authorised signatories:

R Gould – Business Manager [✓]
D. Swindells - Lab Manager [ ]

Plasticity Index of Soil - Definitive Method
BS 1377: Part 2:1990: Clause 4.3

Date 25/07/2007
Report Ref: 07SS2195

Lab Ref No.	07SS2195.2	Site / Client Ref.	D113
Scheme / Site	William Freemans, Mapplewell		
Location	TP4 0.9m		
Material	Soil Material		
Source	As Dug	Weather	Not Known
Date Sampled	N/K	Date Received	19/07/2007
Sampled By	CL	Date Tested – From	20/07/2007
Sample Type	Disturbed	Date Tested - To	25/07/2007

TEST RESULTS

Soil Description :	Soft to firm brown orange grey sandy SILT CLAY with fine crushed brick
Soil Condition:	Natural
Proportion of Sample Passing 425µm BS Test Sieve: % (Assumed >95 if tested in Natural condition)	83.8
Soil Equilibrated with Water for:	16 hours
Plasticity	**Plastic**

Liquid Limit: **49%**	Plastic Limit: **24%**	Plasticity Index: **25**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

Results relate only to the samples tested. Client should ensure sampling is representative of material on site

This certificate shall not be reproduced except in full without written approval of the laboratory.

Remarks: The Soil Classification is Cl.

Sampling Method: **Not Known**
Preparation Method: **BS 1377 : Part 1 : 1990**

Client Name: **Joynes Pike and Associates**
1-2 Aire House
Sidings Court
Richmond Business Park
Doncaster
DN4 5JB

FAO: **Nicola McCarthy**
Copies To

Issuing laboratory:
Scientifics Ltd

Unit 11b, Provincial Park
Nether Lane
Ecclesfield
Sheffield, S35 9ZX
Tel: 0114 240 1901
Fax: 0114 240 1744

Authorised By:

1015

CERTIFICATE OF TEST

Authorised signatories:

R Gould – Business Manager [✓]
D. Swindells - Lab Manager [ ]

Plasticity Index of Soil - Definitive Method
BS 1377: Part 2:1990: Clause 4.3

Date 25/07/2007
Report Ref: 07SS2196

Lab Ref No.	07SS2196.2	Site / Client Ref.	D130
Scheme / Site	William Freemans, Mapplewell		
Location	TP9 2.2m		
Material	Soil Material		
Source	As Dug	Weather	Not Known
Date Sampled	N/K	Date Received	19/07/2007
Sampled By	CL	Date Tested – From	20/07/2007
Sample Type	Disturbed	Date Tested - To	25/07/2007

TEST RESULTS

Soil Description :	Fine to coarse mudstone with clayey sand (Brown/grey)
Soil Condition:	Natural
Proportion of Sample Passing 425µm BS Test Sieve: % (Assumed >95 if tested in Natural condition)	85.1
Soil Equilibrated with Water for:	16 hours
Plasticity	**Plastic**

Liquid Limit: **35%**	Plastic Limit: **18%**	Plasticity Index: **17**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

Results relate only to the samples tested. Client should ensure sampling is representative of material on site

This certificate shall not be reproduced except in full without written approval of the laboratory.

Remarks: The Soil Classification is Cl.

Sampling Method: **Not Known**
Preparation Method: **BS 1377 : Part 1 : 1990**

Client Name: **Joynes Pike and Associates**
1-2 Aire House
Sidings Court
Richmond Business Park
Doncaster
DN4 5JB

FAO: **Nicola McCarthy**
Copies To:

Issuing laboratory:
Scientifics Ltd
Unit 11b, Provincial Park
Nether Lane
Ecclesfield
Sheffield, S35 9ZX
Tel: 0114 240 1901
Fax: 0114 240 1744

Authorised By:

1015

CERTIFICATE OF TEST

Authorised signatories:

R Gould – Business Manager [ ]
D. Swindells - Lab Manager [ ]

Plasticity Index of Soil - Definitive Method
BS 1377: Part 2:1990: Clause 4.3

Date 25/07/2007
Report Ref: 07SS2197

Lab Ref No.	07SS2197.2	Site / Client Ref.	D158
Scheme / Site	William Freemans, Mapplewell		
Location	TP19 1.0m		
Material	Soil Material		
Source	As Dug	Weather	Not Known
Date Sampled	N/K	Date Received	19/07/2007
Sampled By	CL	Date Tested – From	20/07/2007
Sample Type	Disturbed	Date Tested - To	25/07/2007

TEST RESULTS

Soil Description :	Soft yellow brown grey SILT CLAY with fine to occasional medium gravel
Soil Condition:	Natural
Proportion of Sample Passing 425µm BS Test Sieve: % (Assumed >95 if tested in Natural condition)	93.5
Soil Equilibrated with Water for:	16 hours
Plasticity	**Plastic**

Liquid Limit: **52%**	Plastic Limit: **29%**	Plasticity Index: **23**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

Results relate only to the samples tested. Client should ensure sampling is representative of material on site

This certificate shall not be reproduced except in full without written approval of the laboratory.

Remarks: **The Soil Classification is MH.**

Sampling Method: **Not Known**
Preparation Method: **BS 1377 : Part 1 : 1990**

Client Name: **Joynes Pike and Associates**
1-2 Aire House
Sidings Court
Richmond Business Park
Doncaster
DN4 5JB

FAO: **Nicola McCarthy**
Copies To:

Issuing laboratory:
Scientifics Ltd
Unit 11b, Provincial Park
Nether Lane
Ecclesfield
Sheffield, S35 9ZX
Tel: 0114 240 1901
Fax: 0114 240 1744

Authorised By:

1015

CERTIFICATE OF TEST

Authorised signatories:

R Gould – Business Manager
D. Swindells - Lab Manager

Plasticity Index of Soil - Definitive Method
BS 1377: Part 2:1990: Clause 4.3

Date 25/07/2007
Report Ref: 07SS2198

Lab Ref No.	07SS2198.2	Site / Client Ref.	D153
Scheme / Site	William Freemans, Mapplewell		
Location	TP17 2.30m		
Material	Soil Material		
Source	As Dug	Weather	Not Known
Date Sampled	N/K	Date Received	19/07/2007
Sampled By	CL	Date Tested – From	20/07/2007
Sample Type	Disturbed	Date Tested - To	25/07/2007

TEST RESULTS

Soil Description :	Fine to occasional coarse mudstone with brown green grey clayey sand	
Soil Condition:	Natural	
Proportion of Sample Passing 425µm BS Test Sieve: % (Assumed >95 if tested in Natural condition)	87	
Soil Equilibrated with Water for:	16 hours	
Plasticity	**Plastic**	
Liquid Limit: **42%**	Plastic Limit: **23%**	Plasticity Index: **19**

Opinions and interpretations expressed herein are outside the scope of UKAS accreditation.

Results relate only to the samples tested. Client should ensure sampling is representative of material on site

This certificate shall not be reproduced except in full without written approval of the laboratory.

Remarks: The Soil Classification is Cl.

Sampling Method: **Not Known**
Preparation Method: **BS 1377 : Part 1 : 1990**

Client Name: **Joynes Pike and Associates**
1-2 Aire House
Sidings Court
Richmond Business Park
Doncaster
DN4 5JB

FAO: **Nicola McCarthy**
Copies To:

Issuing laboratory:
Scientifics Ltd

Unit 11b, Provincial Park
Nether Lane
Ecclesfield
Sheffield, S35 9ZX
Tel: 0114 240 1901
Fax: 0114 240 1744

Authorised By:

APPENDIX F
SYMAS Report

P.S.3937

SOUTH YORKSHIRE MINING ADVISORY SERVICE

MINERAL REPORT

CONFIDENTIAL

Date: 16/07/2007
Ref: FW/SMW/M2472/2

LAND OFF WAKEFIELD ROAD, MAPPLEWELL, BARNSLEY

SITUATION

The area of land under consideration lies to the east of Wakefield Road, Mapplewell, as shown edged orange on the attached plan no. M2472/2A.

GEOLOGY

Geological records indicate that the site lies on shales, mudstones and sandstones of the Middle Coal Measures, which dip generally in a north-easterly direction hereabouts.

The Swinton Pottery and Newhill Coal Seams are conjectured to outcrop through the site in the positions shown on the above plan.

The major 'Higham' Geological Fault, which has a downthrow of approximately 65 m to the south-east, is conjectured to lie around 10 m from the north-western boundary.

The strata in the southern part of the site is overlain by newer drift deposits of boulder clay (till).

A borehole investigation some 400 m to the south proved this deposit to comprise clays, sands and gravels.

MINING

Opencast Activities

The Tipsey Hill Opencast Site, which was abandoned in 1952, lies some 125 m clear to the west of the site.

Shallow Mining

Swinton Pottery Coal Seam

The Swinton Pottery Coal is conjectured to outcrop within the northern part of the site. This coal, being renowned for its associated clay bands (used for brick making/pottery manufacture etc.) and not for its coal thickness, may lie at shallow depth beneath the north-eastern part of the area.

SYMAS hold no records of any unrecorded workings in these beds, which were usually worked in open quarries and therefore it is unlikely that any uncharted workings would be present.

Newhill Coal Seam

Records show that the Newhill Coal will lie beneath the majority of the site. The coal is variable in thickness, which is indicated to be between 350 mm and 1225 mm in the Carlton area, with several dirt partings being present. The coal is known to have been worked in a few places in Barnsley at the outcrop, but due to its inferior quality no underground workings are likely and none have been recorded.

Deep Mining

Deep mining operations from four coal seams have affected the site in the past at depths ranging between approximately 200 m and 450 m. The latest operations being in the Thorncliffe Seam in 1969, although due to their distance from the site the effects from these would have been marginal.

All normal subsidence movement from these workings will have ceased over 35 years ago and with the area being remote from the active coalfield it should not be affected in the future.

FORMER LAND USES

The relevant County Series and Ordnance Survey Sheets have been checked for any evidence of past industrial land uses in the area.

Apart from the buildings associated with the former 'works' on site (William Freeman buildings), no other sources of contamination were found.

A 'pump' was noted to lie 20 m clear to the north of the site, as marked on County Series Sheet 262/15 (1906 and 1932 Editions).

LANDFILL

The geological sheet for the area indicates part of the site to be 'made ground' as shown in green on plan no. M2472/2A. However Barnsley MBC's Landfill Site Map shows part of this area to comprise a Category 4 Landfill Site which was for 'commercial industrial excavation pre 1963'.

CONCLUSIONS

1. The site is stable from the deep mining aspect and will remain so in the future.

2. The Tipsey Hill Opencast Site lies around 125 m clear to the west of the site.

3. Although geological plans indicate the Swinton Pottery and Newhill Coals to lie at shallow depths beneath the site, the likelihood of any uncharted workings being present is thought to be remote. However, it would be prudent to confirm this situation through a limited borehole investigation, especially in relation to the Newhill Coal.

   Prior to any investigation works involving the coal seams the Coal Authority Indemnification documents must be completed.

4. Should any coal be exposed during any future excavations etc. it should be blinded off using a lean mix concrete or other suitable inert material to present spontaneous combustion from occurring.

5. A major geological fault is conjectured to pass some 10 m to the north-west of the site.

   Should it actually be proved to lie within the site itself weak ground may be encountered. Buildings should be sited clear of this feature or foundations designed to accommodate.

6. The southern part of the site is overlain by superficial drift deposits. It would be prudent to check the nature of the deposit in relation to the end use of the site.

7. The Barnsley MBC Landfill Register indicates a Category 4 Landfill Site within the area under review, which is described as "a site which the Waste Disposal Site Licence indicates has been licensed to accept material that would not be expected to give rise to landfill gas in substantial quantities.

   Or a site which has been granted an exemption from Waste Management Licensing pursuant to the provisions of the Waste Management Licensing Regulations 1994."

8. Due to the presence of the shallow coal seams, faulting and sandstone the usual precautions/monitoring in respect of fugitive gases are advised during investigation or development works, particularly where deep excavations are involved.

9. Future development works should take into account the presence of the buildings/services associated with the 'works'. No other forms of land use were highlighted, with only a 'pump' being shown to lie to the north of the site.

   THIS REPORT IS BASED ON AND LIMITED TO THE RECORDS IN THE POSSESSION OF SYMAS AT THE TIME THE ENQUIRY IS ANSWERED.

Copyright in this mineral stability report belongs to SYMAS. All rights are reserved and unauthorised use is prohibited. Copyright is not transferred to external parties by possession of this report, however, those for whom the report is compiled have the right to use it.

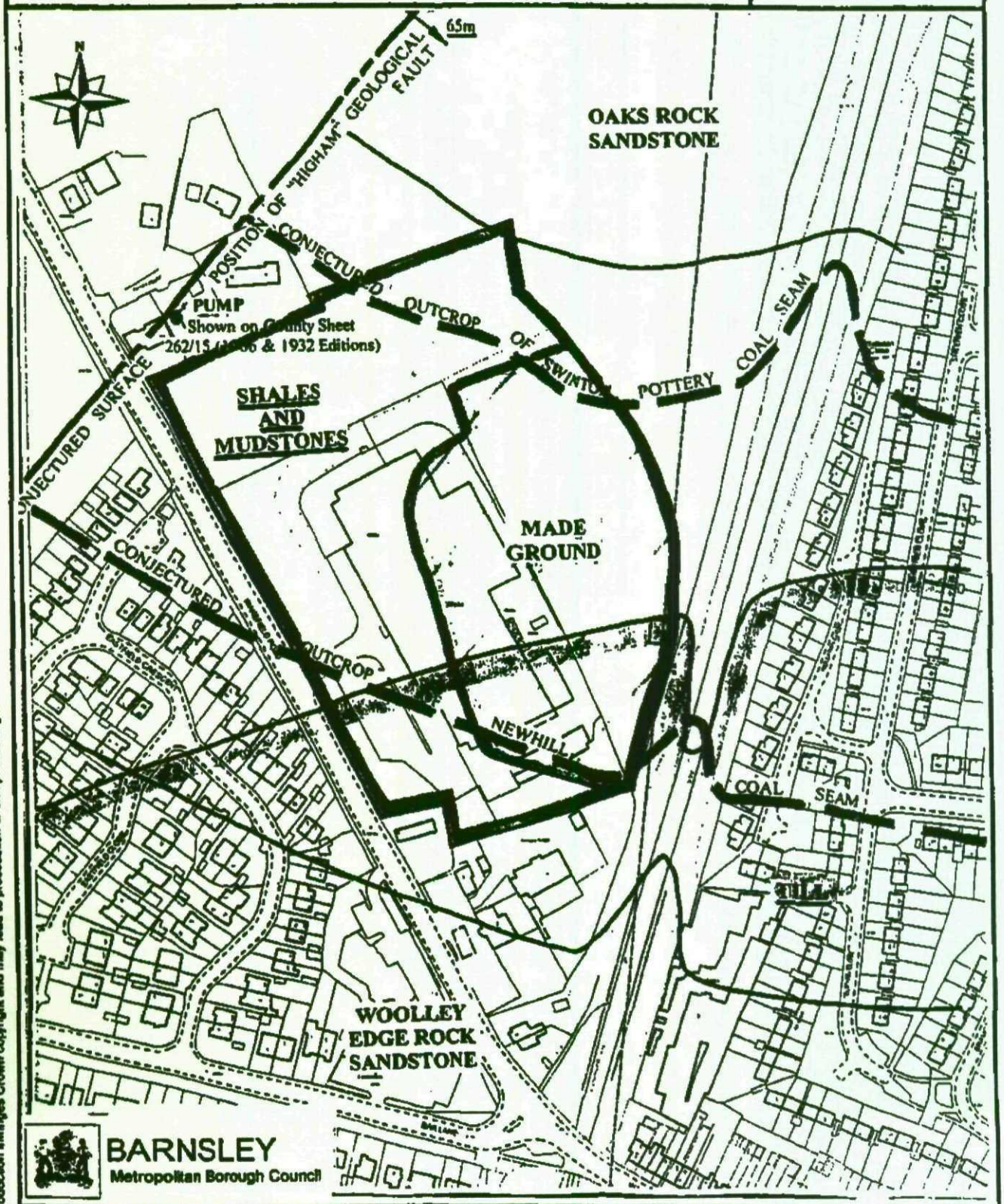
F. Wickham,
Principal Mining Engineer.

DRAWING TITLE

LAND OFF WAKEFIELD ROAD MAPPLEWELL, BARNSLEY

DRAWING NO.

M2472/2A



BARNSLEY
Metropolitan Borough Council

SCALE	DATE		O.S REFERENCE
1:2500	16.7.07	SOUTH YORKSHIRE MINING ADVISORY SERVICE	SE 3409
DRAWN BY: AS	CHECKED BY:		F. WICKHAM BSc (Hons) MRICS., PRINCIPAL MINING ENGINEER

BMBC Licence Number 100022264 2007

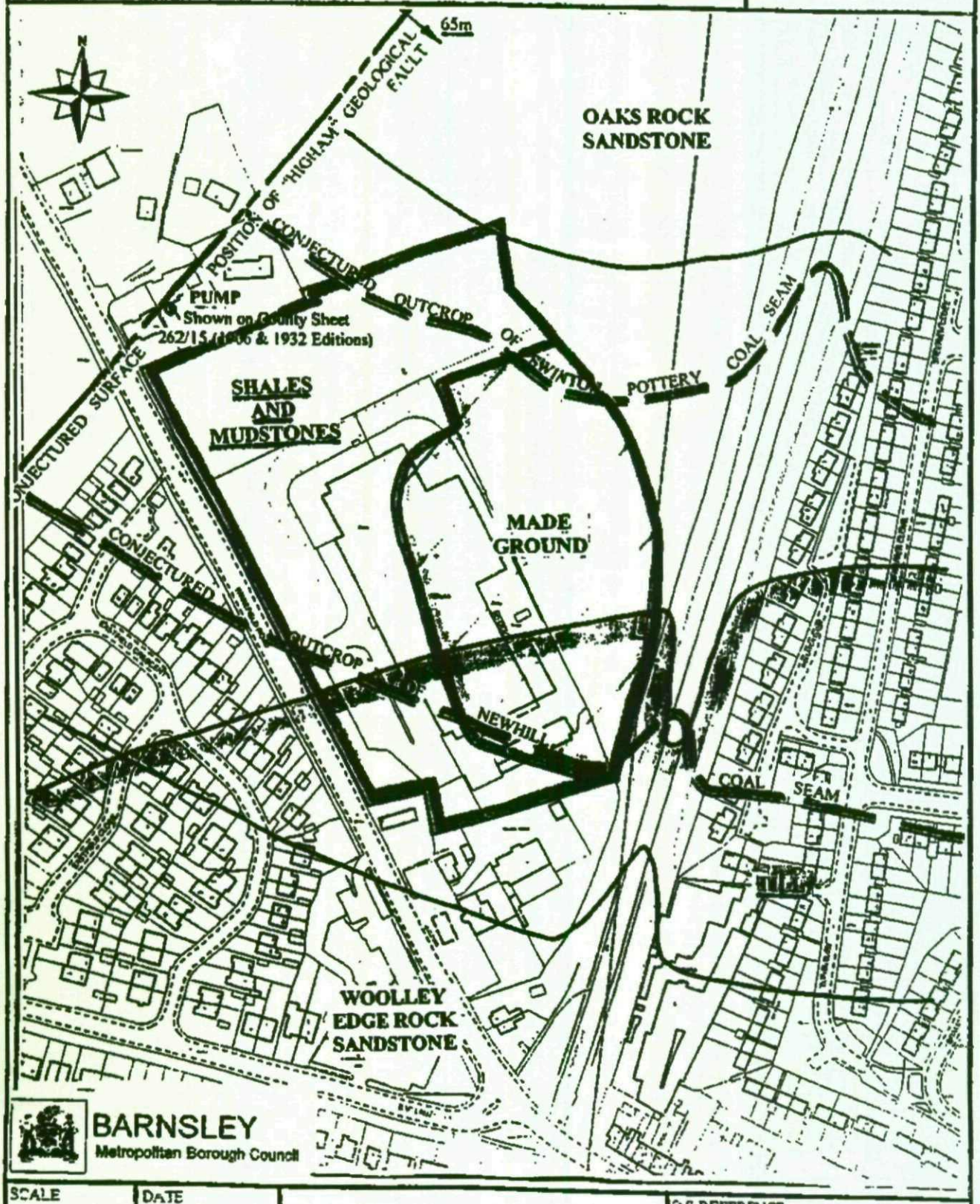
Reproduced from the Ordnance Survey mapping with the permission of the Controller of Her Majesty's Stationery Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.

DRAWING TITLE

LAND OFF WAKEFIELD ROAD MAPPLEWELL, BARNSLEY

DRAWING NO.

M2472/2A



BARNSLEY
Metropolitan Borough Council

SCALE	DATE		O.S REFERENCE
1:2500	16.7.07	SOUTH YORKSHIRE MINING ADVISORY SERVICE	SE 3409
DRAWN BY: AS	CHECKED BY:		F. WICKHAM BSc (Hons) MRICS PRINCIPAL MINING SURVEYOR

Reproduced from the Ordinance Survey mapping with the permission of the Controller of Her Majesty's Stationary Office © Crown copyright. Unauthorised reproduction infringes Crown copyright and may lead to prosecution or civil proceedings.

BMBC Licence Number 100022264 2007