

REPORT N° 70019822-001

PHASE 1 GROUND CONDITIONS REPORT

LAND AT ROCKINGHAM, BARNSELY

MARCH 2016

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Project no: 70018922
Date: March 2016

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TABLE OF CONTENTS

	EXECUTIVE SUMMARY	3
1	INTRODUCTION	4
2	ENVIRONMENTAL SETTING	6
3	SITE HISTORY	10
4	REGULATORY INFORMATION	12
5	GROUND INVESTIGATION WORKS	13
6	COAL MINING ACTIVITY	16
7	OUTLINE GROUND MODEL	19
8	PRELIMINARY GROUND ENGINEERING ASSESSMENT	20
9	GROUND GAS	24
10	ENVIRONMENTAL CONCEPTUAL SITE MODEL.....	26
11	SUMMARY	29

FIGURES

FIGURE 1 SITE LOCATION PLAN
FIGURE 2 PLOT BOUNDARY PLAN
FIGURE 3 COMPOSITE EXPLORATORY LOCATION PLAN
FIGURE 4 OUTLINE CONSTRAINTS PLAN

APPENDICES

FIGURES

APPENDIX A – ENVIROCHECK REPORT 2016
APPENDIX B – SITE PHOTOGRAPHS
APPENDIX C – COAL AUTHORITY REPORT
APPENDIX D – LIMITATIONS
APPENDIX E – 2003 GROUND INVESTIGATION LOGS
APPENDIX F – GROUND GAS & WATER LEVEL MONITORING 2003
APPENDIX G – CHEMICAL RESULTS 2003
APPENDIX H – RISK ASSESSMENT METHODOLOGY

EXECUTIVE SUMMARY

ASPECT	SUMMARY
Authorisation	WSP Parsons Brinckerhoff (WSP PB) was commissioned by Homes & Communities Agency (the Client) to undertake a Phase 1 Ground Risk Appraisal (or Desk Study) for three parcels of land located at Rockingham, Barnsley.
Background	The site is a former opencast mine which has been restored and is currently being marketed for sale and redevelopment. Given the brownfield nature of the site, the Client requires an understanding of the potential key ground related constraints which could result in abnormal costs associated with developing the site.
Project Aim	The principal aim of this assessment is to provide an appraisal of potential contaminated land related risks and ground engineering constraints which may result in abnormal costs associated with future development of the site.
Environmental Setting	<p>Geology: No superficial deposits are shown across the site. However, deep Made Ground will be present across parts of the site associated with infilling of the open cast mine activities. The underlying bedrock is indicated to be Pennine Middle Coal Measures Formation described as mudstone, siltstone and sandstone, a number of coal seams are reported to have been mined below the site, with the shallowest recorded around 60m bgl.</p> <p>Hydrogeology: The site underlain by a Secondary A Aquifer (Pennine Coal Measures).</p> <p>Hydrology: The closest Environment Agency classified water body is the River Dove (located approximately 600m) and is classified by the Environment Agency as having Moderate Ecological Potential and Good Chemical Quality. A stream runs from the site towards the River Dove.</p>
Potential Contaminated land Constraints	<ul style="list-style-type: none"> → Contaminants identified to be present within backfill material historically with the potential to impact both human health and controlled water receptors. → Elevated ground gas identified at the site.
Potential Ground Engineering Constraints	<ul style="list-style-type: none"> → Uncertainties and variation in the depth, composition, geotechnical characteristics and aggressiveness of the deep opencast backfill materials; → Uncertainties and variation in the groundwater regime beneath the site, particularly within the backfill, and in response to regional groundwater lowering as part of deep mining activities; → The potential for spontaneous combustion of unburnt colliery spoil within the backfill; → Uncertainties in the location, and geometry of the highwall within Plots 2 and 3; → Uncertainties associated with the stability of the slope along the eastern boundary of Plot 2; → The potential for the collapse unrecorded shallow mining outwith the opencast mine boundaries to cause ground instability; and, → The potential for the collapse of recorded shallow mining to cause ground instability below the site.

1 INTRODUCTION

1.1 AUTHORISATION

WSP | Parsons Brinckerhoff (WSP | PB) was commissioned by Homes & Communities Agency (the Client) to undertake a Phase 1 Ground Risk Appraisal (or Desk Study) for three parcels of land located at Rockingham, Barnsley, S70 5TU (the site).

This work has been undertaken in accordance with the scope agreed between WSP | PB and the Homes & Communities Agency as set out in our proposal dated 17 February 2016.

1.2 PROJECT BACKGROUND & CONTEXT

The site is a former opencast mine which has been restored and is currently being marketed for sale and redevelopment. Given the brownfield nature of the site, the Client requires an understanding of the potential key ground related constraints which could result in abnormal costs associated with developing the site, prior to engaging in negotiations regarding the site's disposal.

Barnsley Metropolitan District Council (BMDC) is to construct a new road though part of the site, and this land will be transferred to BMDC to facilitate construction. As a result, the proposed new road splits the site into three plots, therefore the report has been written to assess, where required, the potential ground related issues associated with each plot individually.

A number of previous reports have historically been prepared in relation to the site and, as part of the current commission, these have been reviewed in accordance with current regulatory guidance to identify potential ground related issues associated with developing the site. This report has therefore been produced to provide a summary of the information contained with the previous reports, to reinterpret that information in light of the proposed sale of the site, and to outline potential ground related development risks to be included within a sellers' information pack.

1.3 AIMS & OBJECTIVES

The principal aim of this assessment is to provide an appraisal of potential contaminated land related risks and ground engineering constraints which may result in abnormal costs associated with future development of the site.

The specific objectives of the report are to:

- Collate the available information on soil, geology, hydrology and hydrogeology to establish the environmental sensitivity of the site with regards to human health, controlled waters and the built environment;
- Review and present pertinent data included within previous reports;
- Assess potential contaminated land risks associated with the site; and,
- Provide commentary on potential ground related engineering constraints.

1.4 SCOPE OF WORKS

In order to meet the project aims and objectives the following scope of works was undertaken:

- Review of up-to-date environmental sensitivity databases contained within an Envirocheck report and review of contemporary and historical Ordnance Survey (OS) maps (**Appendix A**) procured specifically for the site;
- Site walkover visit with photographic record (**Appendix B**);
- Review of publically available geological publications (including hydrology, hydrogeology and soil survey publications);
- Procurement and review of a Coal Authority Report for the site (**Appendix C**);
- Review of existing ground risk related report, provided by the Client (see section 1.5);
- Provision of a preliminary conceptual site model and qualitative risk assessment; and
- Provision of commentary relating to outline potential ground engineering constraints.

1.5 PREVIOUS REPORTS

The following ground risk related reports have previously been prepared for the site and have been made available to WSP | PB for review as part of this work:

- Symonds, 2002. *Preliminary Site Evaluation* , prepared on behalf of Yorkshire Forward ^[1];
- Mott MacDonald, 2004. *Rockingham Colliery Stage 2 Geotechnical & Geo-Environmental Site Assessment*, prepared on behalf of Yorkshire Forward ^[2];
- Arup, 2004. *Ground Engineering for proposed Masterplan*, prepared on behalf of Yorkshire Forward ^[3];and
- Subsurface North East Ltd, 2014. *Ground Investigation at A61 Birdwell Junction Improvement, Tankersley* on behalf of Barnsley Metropolitan Borough Council ^[4].

The Mott MacDonald 2004 report ^[2] also included a 2001 ground investigation report also completed by Mott MacDonald for the site and the Reinstatement certification report within its appendices.

1.6 LIMITATIONS

Information used within this report has been gathered from the data sets completed by the above mentioned third parties. Therefore, the validity and accuracy of the information has been taken as true and WSP | PB accept no liability for any inaccuracies with the data. The general limitations to the nature of the assessment are outlined in **Appendix D**.

2

ENVIRONMENTAL SETTING

2.1

SITE DETAILS

Table 2.1 provides a summary of the pertinent site details.

Table 2.1 Site Details Summary

ASPECT	DETAILS
Site address	Land at Rockingham, Barnsley, South Yorkshire, S70 5TU.
National Grid Reference	435270, 400630 (approximate site centre).
Site Location	<p>The site is located approximately four miles south of Barnsley and immediately to the east of Junction 36 of the M1 motorway. The site can be accessed via the A16195 Dearne Valley Parkway.</p> <p>A site location plan is included as Figure 1.</p>
Site Size	<p>The site has a total area of approximately 10.66ha (including land to be handed over to BMDC). The individual plot sizes are as follows:</p> <p>Plot 1: 1.52 ha Plot 2: 4.78ha Plot 3: 1.58ha</p> <p>A plan illustrating each plot is included as Figure 2.</p>
Topography	<p>Plot 1: the plot gently slopes from c. 140m AOD in the southeast to 137m AOD in the northwest.</p> <p>Plot 2: the plot gently generally slopes from c. 140m AOD in the southwest to 133m AOD in the northeast. The land to the southeast of the site is on a higher level to that of the site and there is a steep c.1 to 2m change in the level along the south-eastern boundary. The land also drops down to the adjacent watercourse located along the eastern boundary, with a larger slope noted along the south-eastern boundary.</p> <p>Plot 3: the plot generally slopes from the southeast (147m AOD) to northwest (140m AOD). The land is slightly elevated (c. 0.5m) along a mound (c.3m wide) traversing from southeast to northwest across the plot.</p>
Current site use	The site is currently vacant land.
Proposed end uses	<p>Plot 1: Commercial</p> <p>Plot 2: Commercial</p> <p>Plot 3: Residential or commercial</p>

2.2 SITE RECONNAISSANCE

The walkover was carried out on 2 March 2016 by a WSP | PB representative on areas of the site which were safely accessible on foot. The information obtained during the walkover has been compiled into the following paragraphs, and photographs taken as part of the site walkover are included in **Appendix B**. A site layout and boundary plan is included as **Figure 2**.

The site is split into three separate plots of land as described below:

PLOT 1

Plot 1 comprises of an area of rough grass that gently slopes from the northwest to southeast. The site is bound by a wooden fence to the west, beyond which is located Dearne Valley Parkway. The northwest of the plot is bound by bushes and small trees, beyond which is a stub of a roundabout. Areas of rough grass surround the remainder of the plot.

PLOT 2

The majority of the plot comprises rough grass with trees located along the southern and western boundary. The land to southeast of the site is slightly higher than that of the plot, with steep slopes noted between 0.5m and 2m along the southern boundary. A steep slope is also located in the southeast of the site where a tree lined embankment slopes down towards an adjacent surface water course (Short Wood Dike), with the slope being steepest in the southeast. Three drainage channels were noted across the site, one running along and close to the western boundary and two through the middle and north of the site. The north of the plot is bound by Dearne Valley Parkway, a pond and Short Wood Dike to the east, commercial/Industrial premises to the south and rough grass to the west.

PLOT 3

The majority of Plot 3 is covered with rough grass and can be accessed via a gate along Cross Keys lane which forms the eastern site boundary. Modern residential houses are located beyond Cross Keys lane. A line of trees runs from the south to the north-western boundary at the top of a mound, understood to be in approximately location of the former highwall associated with the site's opencast history. A residential property with large garden is located immediately to the northeast of the site beyond which are located commercial/industrial premises. Access to the plot can also be gained via a track bounding the north of the site.

2.3 GEOLOGY

The British Geological Survey (BGS) Geology map sheet 87 and BGS Online Viewer maps have been used to identify the underlying geology of the site.

No superficial deposits are shown across the site. However, deep Made Ground will be present across parts of the site associated with infilling of the open cast mine which were previously in operation at the site. The underlying bedrock is indicated to be Pennine Middle Coal Measures Formation described as mudstone, siltstone and sandstone. The Shallow Wood coal seam is shown to outcrop at the surface of the site. It outcropped in a north south direction and dipped beneath the site in a north/north easterly direction.

The geological maps indicate that there is a fault in the south of the site which runs in a northwest to southeast direction.

MINING

The site is located within an area potentially impacted by historical mining activities; further details are provided within **Section 4**.

2.4 HYDROGEOLOGY

Pertinent hydrogeological details for the site are summarised within **Table 2.3**.

Table 2.3 Hydrogeology Summary

HYDROGEOLOGICAL ASPECT	DETAILS
Geology	The bedrock geology (Pennine Coal Measures Formation) is classified by the Environment Agency (EA) as Secondary A Aquifer. These are described as permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.
Drinking Water Safeguard Zone	The site is not located within a drinking water safeguard zone as defined by the EA.
Groundwater Protection Zones (GPZ)	The site is not located within a SPZ.
Groundwater abstractions	No publically registered groundwater abstractions located within 1km of the site boundary. The closest is located approximately 1.7km to the south associated with spray irrigation for a golf course.

2.5 HYDROLOGY

The site is located within the EA defined Humber River Basin District and Don and Rother Catchment area. Pertinent information relating to surface watercourses considered to be within the potential zone of influence of the site is included within **Table 2.4**.

Table 2.4 Hydrological Summary

SURFACE WATER FEATURE	LOCATION (APPROXIMATE)	FLOW DIRECTION	CURRENT QUALITY
Unnamed drains	Three unnamed drainage channels are located on Plot 3.	East (towards Short Wood Dike)	N/A
Short Wood Dike	Eastern boundary	North	N/A
River Dove	600m north	Northeast	Ecological Status: Poor Potential Chemical Quality: Good
Pond	Immediately adjacent to the east of the site (associated Short Wood Dike)	-	N/A
Abstractions	No surface water abstractions recorded within 1km of the site.		
Flooding	The site is not shown to be located in an area likely to be impacted by flooding as illustrated by the EA flood maps, copies of which are provided within Appendix A .		

2.6 SENSITIVE LAND USES

The Envirocheck report does not identify any statutory ecologically sensitive land uses within 1km of the site (**Appendix A**).

3 SITE HISTORY

3.1 HISTORICAL MAPS

A review of historical OS maps has been undertaken to identify potential sources of historical contamination, former land uses and potential sensitive receptors. **Table 3.1** provides a summary of the relevant observations. The historical OS maps are provided in **Appendix A**.

Table 3.1: Summary of Historical Maps

MAP DATE	PERTINENT ON-SITE LAND USE	PERTINENT OFF-SITE LAND USES
1855	The earliest available OS map generally shows the entire site as undeveloped agricultural land, referred to as Timberley Common Side. Small farm buildings are located centrally.	Yorkshire Railway (Barnsley-Sheffield Branch) is located approximately 50m to the north.
1893	Plot 1: Shown to be agricultural land. Plot 2: A reservoir is shown in the northeast corner of the plot, likely to be associated with Rockingham Colliery to the northeast. A small building identified as 'Powder Magazine' is shown adjacent to the eastern plot boundary which, again, is likely to be associated with blasting operations at the colliery. Plot 3: Shown to be agricultural land.	Coke ovens are shown immediately to the north of the railway line approximately 60m to the northeast of the site, with Rockingham Colliery shown to the northeast of the coke ovens. The colliery comprises a number of buildings, railway sidings and two shafts. Short Wood Dike is shown flowing north approximately 110m east of the site. Rockingham Gasworks has been constructed approximately 200m west.
1906	Plot 2: Filter beds are shown in the west of the plot. No further significant changes noted.	No significant changes noted.
1932	Plot 2: Sewage tanks are shown in the southeast of the plot and the filter beds in the west have increased in size. No further significant changes noted.	The coke ovens are no longer shown, with above ground storage tanks are shown in their place.
1948	No significant changes noted.	A large spoil heap is shown approximately 100m to the northeast of the site.
1956	Plot 2: The filter beds and sewage tanks are no longer shown. A crane is shown in the west of the plot.	A large circular tank is located immediately to the northeast site boundary adjacent to the large colliery spoil heap. Rockingham Gasworks is no longer shown to the east of the site and a large building has been constructed in its place. Short Wood Dike water course is no longer shown and a pond is shown in its place adjacent to the eastern boundary.
1965	No significant changes noted.	Large buildings on the site of the former Rockingham Gasworks site identified as National Coal Board central workshops.
1974	Plot 2: Large slurry ponds are shown in the southeast of the plot. The powder magazine building is no longer shown.	No significant changes noted.

MAP DATE	PERTINENT ON-SITE LAND USE	PERTINENT OFF-SITE LAND USES
1982	Plot 1: A small colliery spoil heap is shown to the southwest of the reservoir.	The colliery spoil heap to the northeast of the site has expanded in size and is now located along the entire eastern boundary. An unspecified works is shown to the east of plot 2.
1989	The reservoir is shown to have been infilled with spoil and is labelled as disused tip. The sludge beds I the southeast of the plot are no longer shown,	Rockingham colliery and associated infrastructure, including above ground tanks and the railway line and associate sidings is no longer shown.
2006	Plot 1: No features shown, site now appears to be vacant land. Plot 2: Works shown in southeast of then plot.	Road built immediately to the north of the site, including redundant roundabout spur.
2016	No significant changes noted.	No significant changes noted.

3.2 OPENCAST HISTORY

Opencast workings took place between 1989 and late 1993/early 1994, with the exception of a narrow strip of the site to the west of Cross Keys Lane (Plot 3) which is located immediately beyond the maximum extent of the highwall. The site appears to have been mined in two phases, firstly in the western half, followed by the eastern half. Following cessation of opencast mining operations in the west, this area was infilled. By 1991 backfilling of the western half of the site was partially complete, before excavation began in the eastern half. During the opencast workings, observed features on the site associated with the former colliery, including the reservoir, slurry ponds, structures appear to have been completely removed to allow excavation of the coal deposits.

4 REGULATORY INFORMATION

4.1 ENVIROCHECK REGULATORY INFORMATION SUMMARY

Table 4.1 Regulatory Information Summary

ASPECT	ON-SITE	WITHIN 500M	DETAILS
Discharge Consents	0	3	The closest is recorded discharge consent is located approximately 40m southeast of the site associated with G.B. Truck Services Ltd, discharging sewage (final treated effluent) into a freshwater stream (Short Wood Dike).
Local Authority pollution prevention and controls	0	3	The closest permit relates to G B Trucks Ltd, registered approximately 40m to the southeast for the respraying of road vehicles.
Pollution Incidents to Controlled Waters	0	8	The closest incident is listed as occurring circa 13m to the north of the site, recorded as a Category 3 – Minor Incident associated farm operations impacting a freshwater stream.

4.2 LANDFILL SITES

Two historical landfill sites are located within 1km of the site boundary. The closest is located approximately 100m west, associated with a former railway cutting. The landfill was recorded to be active between 31 May 1983 and 31 December 1989 accepting inert and commercial waste.

There are no active landfills recorded within 1km of the site boundary.

4.3 RADON GAS

The Envirocheck report indicates that no radon protection measures are necessary in the construction of new dwellings across the site, and that the property is in a lower probability radon area where less than 1% of homes are above the action level.

5 GROUND INVESTIGATION WORKS

Ground investigation works undertaken within the three plots is summarised below and a plan illustrating the exploratory location plans is provided as **Figure 3**.

5.1 FEBRUARY 2001 MOTT MACDONALD

The investigation was carried out by Soil Mechanics Ltd on behalf of Mott MacDonald, between the 10 and 11 January 2001. It comprised excavating 13 trial pits between 1.7m and 4m depth.

26 soil samples were obtained and tested for:

- Inorganics - heavy metals, boron, pH, cyanide, sulphate and sulphur; and,
- Organics phenols, solvent extractable matter, total petroleum hydrocarbons and total PAHs.

No visual or olfactory evidence of contamination was identified during the excavation of the trial pits and no analyte exceedances were recorded when comparing the historical chemical results are compared to current commercial Generic Screening Criteria (GSVs) formulated in accordance with the Environment Agency (EA) CLEA Model for plots 1 and 3 and residential screening values for samples obtained from Plot 3. However, it is noted that the analytical suite is not considered to be sufficient to characterise the material by current best practice standards.

5.2 MARCH 2003 MOTT MACDONALD

Mott MacDonald commissioned Norwest Holst to undertake a ground investigation across the site in February 2003. A summary of the ground investigation scope is included within **Table 5.1** and exploratory logs are included in **Appendix E**.

Table 5.1. 2003 Ground Investigation Summary

INVESTIGATION METHOD	NO. OF POSITIONS	DEPTH RANGE (M BGL)	INSTALLATION DETAILS
Machine excavated trial pits	15	4.5	n/a
Boreholes	12	22.5	12 borehole installed with 50mm standpipes for ground gas & groundwater monitoring

MONITORING

Ground gas and groundwater level monitoring was undertaken within 12 monitoring wells on three occasions between the 20 February 2003 and 28 March 2003. Monitoring was undertaken during periods of generally high atmospheric pressure (1007 to 1011mb). Groundwater levels were recorded in 11 of the 12 boreholes ranging in depth from 2.23m bgl (BH1 adjacent to Plot 1) to 16.48m bgl (BH12 Plot 2). No groundwater was recorded in one of the boreholes (BH5). Borehole elevations were not recorded, therefore an assessment of the hydraulic gradient of the shallow groundwater body across the site cannot be undertaken.

Ground gas and groundwater level monitoring results are included within **Appendix F**.

CHEMICAL ANALYSIS

The 2003 intrusive works included the collection of soil samples, 60 of which were sent for chemical analysis for a range of analytes including:

- Inorganics – pH, heavy metals, sulphate, sulphide and sulphur,
- Organics – total phenols, Polyaromatic Hydrocarbons (PAHs) screen, total petroleum hydrocarbons and calorific value.

Leachable fraction analysis was also undertaken on 28 soils samples, for heavy metals, sulphate, sulphide, sulphur and total phenols.

Five groundwater samples were analysis for the following suite of analysis;

- Inorganics - heavy metals, sulphide, sulphate, sulphur, boron, pH, chloride, ammonical nitrogen, chemical oxygen demand (COD)
- Organics – total phenols and total PAH,

Chemical analysis results are included in **Appendix G**.

5.3 CHEMICAL ANALYSIS SCREENING

The contamination aspect of the 2003 investigation was designed in accordance with BS10175: 2001, Code of Practice for the Investigation of Potentially Contaminated sites. 60 soil samples were tested as part of the investigation from depths ranging from 0.5m to 12.0m bgl.

All analyte concentrations have been compared to 2016 GSVs for a commercial end use and all have been found to be below these concentrations. Six samples recorded concentrations of arsenic marginally above residential end use screening concentrations; these were all located within Plot 2. However, it is noted that limited sampling was undertaken across the area of Plot 3.

The suite of analysis is not considered sufficient to characterise the potential contaminants associated with the fill by current standards (i.e. no asbestos testing undertaken).

28 soil leachate samples were tested as part of the investigation. The results have been screened against current Environmental Quality Standards (EQS) protective of surface waters. The majority of the analytes were identified below the relevant EQS scanning concentrations. However, it is noted that the limits of detection were not sufficiently low for a number of analytes to be directly compared to the relevant current EQS screening concentration. Concentrations of zinc were noted to be elevated across the site, and locally elevated lead, nickel and copper concentrations were recorded associated with Plot 1.

Four groundwater samples were taken from borehole wells and a grab sample of water from a trial pit. The water from the trail pit may not be representative of the groundwater conditions and therefore the results have not been assessed. The analyte concentration from the four boreholes were generally below relevant EQS values with the exception of zinc and nickel which were elevated in all four samples (two located in Plot 2 and two located in the proposed roadway adjacent to plots 1 and 3).

5.4 SUB SURFACE NORTH EAST LTD

Sub Surface North East Ltd was commissioned by BMBC to undertake a ground investigation on parts of the site associated with the proposed road.

Ground investigation works were undertaken in June 2014 and comprised the following exploratory techniques:

- 6 dynamic probe holes
- 5 trial pits and
- 7 boreholes.

The investigation identified the evidence of shallow coal workings associated with the Swallow Wood Coal Seam in far south of the site.

CHEMICAL ANALYSIS

Four soil samples were obtained (between 0.5 and 1.1m bgl) for chemical analysis and two were tested for leachate analysis. The soil and soil leachability samples were analysed for the following suite of analysis:

- Inorganics – pH, heavy metals, sulphate,
- Organics – total phenols, speciated Polyaromatic Hydrocarbons (PAHs) , banded total petroleum hydrocarbons and BTEX.

No soil samples exceeded 2016 GSV for a commercial end use, however relatively marginally elevated PAH concentrations were recorded within one sample (TP1) when compared to current EQS values.

MONITORING

Six boreholes were installed with ground gas monitoring wells across the site on three occasions at high barometric pressure (1000 to 1014mb) between 6 June 2014 and 30 July 2014. Suspected perched groundwater was recorded in four of the borehole wells from 0.8m bgl (M4) to 1.9m bgl (M2).

6

COAL MINING ACTIVITY

6.1 COAL MINING REPORT

A Coal Authority (CA) and Brine Report dated 15 March 2016 has been obtained for the site (**Appendix C**) and indicates the following:

- The property is in a surface area that could be affected by underground mining in eight seams of coal at 60m to 340m depth, last worked in 1959;
- There are no known coal mine entries within, or within 20m of, the boundary of the property;
- The property is within the boundary of an opencast site from which coal has been removed by opencast methods.
- The CA is not aware of any evidence of damage arising due to geological faults or other lines of weakness that have been affected by coal mining; and

The CA interactive mapping service has been viewed (<http://mapapps2.bgs.ac.uk/>). The map shows the site to be located within a Development High Risk Area. An area of probable shallow coal working is also indicated across the Plot 2 and 3.

6.2 DEEP COAL MINING

Deep coal mining at the nearby former Rockingham and Wharncliffe Collieries took place beneath the site from 1880s to 1959. It is understood that the Rockingham Colliery was closed between 1982 and 1989. The coal seams documented to have been worked beneath the site are summarised within Table 6.1.

Table 6.1 Deep mine worked seams beneath the site ^[3]

COAL SEAM	DATE OF EXTRACTION	THICKNESS (M)	DIP ANGLE*	DEPTH TO TOP OF SEAM IN EAST AND WEST OF THE SITE (MBGL*)	DEPTH TO TOP OF COAL SEAM ON EAST AND WEST OF SITE (MAOD)	NOTES ON WORKING LOCATIONS
Lidgett	1942	1.0	1/16	East: 57.2 West: 84.2	East: 82.4 West: 48.8	Workings located in northeast of site
Flockton Thick	1951	1.7	1/15	East: 122.3 West: 141.5	East: 17.2 West: -4.0	North and west of site
Top Fenton	1927	1.5	1/16 0	East: 174.5 West: 199.6	East: -34.5 West: -68.6	Across majority of site with the exception of the northeast corner (due to

COAL SEAM	DATE OF EXTRACTION	THICKNESS (M)	DIP ANGLE*	DEPTH TO TOP OF SEAM IN EAST AND WEST OF THE SITE (MBGL*)	DEPTH TO TOP OF COAL SEAM ON EAST AND WEST OF SITE (MAOD)	NOTES ON WORKING LOCATIONS
Low Fenton	1944-1966	1.2	1/18	East: 177.1 West: 204.1	East: -38.1 West: -68.6	presence of reservoir).
Parkgate	1925	2.9	1/16	East: 194.9 West: 217.9	East: 53.4 West: 86.9	
Thornccliffe	1902	1.4	1/14	East: 220.8 West: 255.5	East: 79.3 West: 119.0	
Whinmoor	1945	0.9	1/14	East: 324.5 West: 342.8	East: 183.0 West: 198.3	West part of site only

*All seams noted to dip to the northeast

6.3 OPENCAST MINING ACTIVITY

Planning permission granting open cast mining at the site was agreed in 1988, with opencast surface coal extraction understood to have started in 1989. Coal is reported to have been extracting from four coal seams (Dunsill, Swallow Wood, Swallow Wood Rider and Unnamed Basal) across the site until 1994 when opencast operations ceased. A strip along the southeast boundary (Plot 3) is understood not to have been excavated. Opencast activities worked from southeast to northeast across the site, as the extraction face was progressed across the site materials were placed and compacted behind the active operations. At the eastern boundary the site was excavated to approximately 25m depth. Compaction operations commenced in September 1990 and were completed in September 1996. The west of the site was not mined but was subject to a cut and fill exercise to form a level bench for a temporary works depot for the opencast operations. Final restoration of the site occurred between 1994 and 1999.

REINSTATEMENT WORKS

Mott MacDonald was appointed to provide engineering consultancy services associated with the controlled opencast reinstatement. Their services included an appraisal of the compaction specification to ensure a minimum bearing capacity of 108kN/m² was achieved on all controlled backfill areas, advise on monitoring stations, full-time supervision of the compaction earthworks, periodic validation testing and preparation of a certification report. A programme of in-situ field testing was undertaken as part of the works. This generally included testing every layer for dry density (in accordance with BS1377:Part 9: 1990) and for moisture content.

Detailed compaction records were made and are presented within the Mott Macdonald Certification Report for Rockingham Opencast site^[2]. The records show that ten types of fill were characterised as being acceptable for inclusion, including clays, bedrock, burnt and unburnt

colliery spoil, geotechnically classified as 1B, 2B 2C and 6N materials in accordance with the Highways Agency's Specification for Highways Works. The compaction backfill material was recorded to comprise mainly of opencast tailings, primarily mudstone based (circa 63% of fill material).

Compaction data indicates the average relative density for all material classes of fill was over 100%, with values ranging between 101% and 115%. Minimum values for relative density varied between 83% and 99%. The average air void content was less than 10%, which is considered to be indicative of well compacted fill. The volume of air voids in the fill was typically identified between 5% and 10%, and the fill was considered to be well compacted. However, unregulated backfilling took place across parts of the site. The thickness of the uncontrolled fill was typically between 0.3m and 1.2m, with the maximum thicknesses of uncontrolled fill being recorded as 2.7m and 4.2m, located adjacent to the eastern side of the site where the fill is deepest.

RJM Mining carried out an interim topographical survey of compacted fill materials on a monthly basis between October 1990 and July 1996. In addition, surface settlement stations, extensometers and piezometers were installed on completion of the backfilling to monitor the backfill both at the surface and at depth and to record the re-establishment of groundwater levels within the backfill. The monitoring comprised:

- installation of twelve settlement markers;
- two settlement extensometers; and,
- six piezometers.

GROUNDWATER

During deep coal mining activities, groundwater was pumped from beneath the site to maintain dry workings. All coal extraction within a few kilometres is reported to have ceased by the early 1990s, since which time mine water levels have been gradually rising. By 2002 it was reported that mine water levels had risen to approximately 60m AOD (approximately 70 to 80m bgl) beneath the site (subject to seasonal variations).

Groundwater monitoring was undertaken at the site by UK Coal between 1993 and 1996, since backfilling was completed. The results indicate that a shallow perched water table within the area of the fill.

7

OUTLINE GROUND MODEL

Based primarily on the Mot Macdonald ground investigation findings ^[1] the following ground model sequence has been summarised. It is noted that site coverage is relatively limited and no investigation has been undertaken in the area of suspected natural ground to the east of the highwall in Plot 3.

PLOT 1

Made Ground (backfill) – described as grey gravelly clay with gravel comprising mudstone and occasional sandstone fragments recorded down to between 3.8m and 4.9m bgl. SPT values were recorded in the top 2m and ranged from N12 to N24. The presence of bedrock was not confirmed due to the drilling techniques used. However, 2003 counter plots ^[3] indicate the depths of bedrock of up to 10m in the north of the plot and circa 5m in the south.

PLOT 2

Made Ground (backfill) – described as dark grey gravelly clay with gravel of mudstone, sandstone and coal down to 10m bgl in the southeast, 12.2m bgl centrally and 14.37m bgl in the east. Recorded SPT 'N' values range between 14 and 31 in the top 2m.

Bedrock – sandstone encountered between 10m to >18m in the southeast of the plot and mudstone from 12.10 to >12.4m in the centre of the plot.

PLOT 3

Made Ground – described as grey gravelly clay with gravel of mudstone to 4m bgl over grey gravel of mudstone (possible bedrock) recorded down to 4.5mbgl.

8

PRELIMINARY GROUND ENGINEERING ASSESSMENT

8.1 GEOTECHNICAL RELATED CONSTRAINTS TO THE DEVELOPMENT

Given the preliminary ground model, the site is likely to be subject to the following geotechnical constraints:

DEEP FILL WITHIN THE BACKFILLED OPENCAST MINE

Whilst the fill has been placed since around 1994 and it is reported that compaction of the fill was carefully managed across a large part of the site, the behaviour of the fill in its current state and under any new loading is a possible constraint to the proposed development. The risks associated with developing backfilled opencast sites are relatively well understood and these are most commonly associated with internal settlement of the fill (including inundation settlement relating to changes in groundwater levels within the fill) and settlement of the fill due to new development loads.

Anticipated settlements within the fill have been assessed by Arup as likely to be between 20 and 225mm depending on the thickness of fill. However, it is also noted that the magnitude of settlements may not be as high as predicted and that a significant proportion of that settlement may have already occurred.

The thickness of fill is understood to vary across each of the three plots, and the potential for differential settlement of structures founded on varying depths of fill exists.

The following are key areas where further work is required to better understand the constraints to development:

1. **Depth of fill:** Some uncertainty remains regarding the depth of fill across the site, with the base of the fill not being confirmed during the 2003 ground investigation. From the closure report it is understood that the fill is generally deeper to the north and east, within Plot 2 (up to 25m deep) and shallower to the south within Plot 1 (feathering out towards the south).

Additional ground investigation, extending below the base of the fill is recommended to confirm the thickness of fill.

2. **Composition and compaction of the fill:** From the Mott MacDonald report the fill is understood to have been generally placed in accordance with an engineering specification. The specification appears to have been prepared in general accordance with the Highways Agency's Specification for Highways Works (SHW).

The fill materials used were mainly classified as a Class 2C material, comprising silty mudstone (42%), mudstone and sandstone (17%) and unburnt colliery spoil (21%), with the remainder a mix of Class 1B, 2B and 6N materials.

Compaction was conducted using a method specification, with validation compaction testing conducted. The validation test results indicate an average air voids of less than 10% for the fill material, which is in line with the principles of the SHW.

As part of the validation, the fill tested was shown to exhibit a minimum ultimate bearing capacity of 108kN/m². However, the Mott MacDonald report suggests that from interpretation of the 2003 ground investigation results, the fill would typically be expected to have an allowable bearing capacity in excess of 100 kN/m². This should be further assessed as part of additional ground investigation works.

The 2014 ground investigation report⁴ for the proposed road between Plots 1 and 3 records SPT N-values within the fill of between 10 and 50, with the majority of the N-values between 20 and 30.

CBR testing results from the 2014 ground investigation within the fill are variable, and have been interpreted in the report as providing a design CBR of 5 to 6%. It is considered that such design values are relatively high for the materials encountered. This should be further assessed during additional ground investigations.

Areas of uncontrolled fill were recorded where no earthworks testing was conducted. These areas were generally within the far eastern corner of Plot 2 and in the west of Plot 1. It is unknown as to why these areas were uncontrolled. However, it is considered that these may relate to areas that were not subject to validation testing rather than areas where the fill was placed outwith the specification.

It also appears as though the uncontrolled fill within Plot 2 is generally in an area of sloping ground in the far east of the plot. As such, the extent of development within this plot may not include the area of uncontrolled fill. This should be further assessed as part of the design of this plot.

Additional ground investigation within areas of uncontrolled fill is recommended to assess the composition and geotechnical properties of the material in these areas.

3. **Groundwater regime:** Groundwater monitoring was conducted between 1993 and 1996 following backfilling of the opencast mine. This monitoring was conducted whilst regional groundwater pumping was ongoing (to depress groundwater levels for the deeper mining). All pumping is understood to have ceased around 2002. Groundwater monitoring as part of the 2003 ground investigation was only conducted over a short period, shortly after the groundwater pumping was ceased.

Groundwater levels could have risen since this monitoring and could still be rising. These increased groundwater levels could have resulted in, or could still cause, inundation settlement of the fill. However, given the fill material has been compacted to an engineering specification the risk of inundation settlement may be reduced.

Further groundwater monitoring should be conducted as part of the above recommended ground investigation.

Historically infiltration drainage was considered to be utilised as part of the developments. The potential effect of this on the groundwater levels within the fill should be considered, as raising groundwater levels could result in increased settlement from inundation. However, given the ground conditions soakaways are unlikely to be suitable.

4. **Spontaneous combustion of fill:** The combustibility of colliery spoil can pose a constraint to developments of backfilled opencast sites. Limited calorific value testing was conducted as part of the 2003 ground investigation to provide an initial assessment of the risk of combustibility. BRE guidance (Crowhurst, D. and Beever, P.F. Fire and explosion hazards associated with the redevelopment of contaminated land. BRE Information Paper – Fire Research Station, 1987) provides a method of assessing the likelihood of spontaneous combustion of colliery spoil.

Based on the calorific results summarised in the Mott MacDonald report, and the reported nature of the colliery spoil, the risk of spontaneous combustion of the material is considered low, although this risk may increase if the unburnt colliery spoil is disturbed or uncovered. As such, consideration should be given to the distribution of unburnt colliery spoil during the detailed design, including the location of proposed buried services. Additional laboratory calorific value testing is recommended as part of further ground investigations.

5. **Aggressivity of fill materials:** Colliery spoil and fill deriving from coal measures strata has the potential for high sulphate levels, leading to aggressive chemical conditions and attack on buried concrete. Minimal testing was conducted as part of the 2003 ground investigation. The results have been interpreted within the Mott MacDonald report into an overall site concrete design classification of Design Sulphate Class DS-4 and Aggressive Chemical Environment for Concrete (ACEC) class AC-5.

Testing results from the 2014 ground investigation within the fill are variable, and have been interpreted in that report as having a maximum classification of DS-4 and AC-4.

Further testing should be conducted as part of the above recommended ground investigation.

HIGHWALL

To date, no ground investigation has been conducted/positioned across the highwall and therefore its location and depth has not been proven. Records from the validation report indicate the highwall is a buried rock face up to 25m in height from the base of the backfill and at an angle of approximately 60° from the horizontal. Interpretation of aerial photography within the Arup report indicates that the highwall could be as steep as 70-80° from the horizontal.

Discrepancies also exist between the interpreted location of the highwall from aerial photos (by Arup) and the surveyed location of high wall (within the Mott MacDonald report).

The highwall marks an area of significant change in ground conditions, increasing the depth of fill material significantly over a relatively short distance. This change in ground conditions may result in significant differential settlement. This can impact on both structures and infrastructure if not appropriately managed. The location of the structures and other site infrastructure within Plots 2 and 3 will require careful consideration with respect to the position of the highwall.

Additional ground investigation within the vicinity of the highwall is recommended to confirm/further delineate its location/extent.

It is not generally recommended to build over a highwall and therefore a general building exclusion zone would typically be delineated once the location of the highwall has been confirmed.

It is understood that an access road is currently proposed within Plot 3, which would be approximately perpendicular to and span across the highwall. Further consideration of this road, and associated infrastructure would be required once the location of the highwall has been confirmed.

STABILITY OF SLOPES ON SITE

A relatively steep slope was noted in the far eastern corner and along the eastern boundary of Plot 2 where the ground slopes down to a water course. It is considered likely that this slope is constructed from fill as part of the opencast backfilling. The stability of the slope should be assessed during the design phase of Plot 2, particularly in relation to the positioning of

structures/infrastructure close to the crest of the slope. However, no signs of instability were observed during the walkover.

UNDERGROUND COAL MINING

The site is underlain by recorded below ground workings and, in part, by potentially unrecorded shallow workings. The following are key areas where further work is required to understand the constraints to development:

1. **Shallow unrecorded coal mining:** The 2014 ground investigation recorded shallow mine workings (within exploratory hole M6) to the south of Plot 1, adjacent to the A6135. These mine workings were recorded between 2.00 and 3.00m bgl as stowed waste in the far south-western corner, where limited opencast activities are understood to have taken place. This is interpreted as being outwith the extents of the opencast. This suggests that the site has been subjected to unrecorded shallow mining prior to the opencast operations. Areas outwith the opencast extents may potentially be underlain by shallow workings. These areas include to the south of the backfilled opencast mine (Plot 1), and to the east (above) of the highwall (Plot 3). The potential exists for the upward migration of voids within such workings, which represents a potential ground stability issue and could impact future development.

Additional ground investigation, including coring beneath rockhead outwith the opencast boundary, is recommended to assess the potential for unrecorded shallow coal seams.

2. **Shallow recorded coal mining:** The Coal Authority Report indicates below ground coal mining has taken place beneath the site, with the shallowest workings being the approximately 1.0m thick Lidgett seam at approximately 60m bgl.

It is considered that a minimum rock cover of approximately 30 to 35m exists between the base of the opencast and the top of the shallowest recorded below ground workings. This is based on the depth of opencast workings and the depth of the shallowest below ground workings. Given the age of the workings associated ground movements may have now ceased.

If sufficient rock cover exists above the shallowest workings and collapses have subsequently occurred the potential for ground instability of such workings may be discounted. Additional ground investigation, including coring beneath rockhead, is recommended to assess whether sufficient rock cover exists above the shallowest workings.

3. **Deeper recorded coal mining:** The Coal Authority Report indicates that deeper coal mining has occurred and that the site could be affected by collapse of these workings.

9 GROUND GAS

9.1 POTENTIAL SOURCES OF GROUND GAS

The coal workings which underlie the site have the potential to produce ground gases which could potentially migrate upward and accumulate within any newly constructed buildings on the site. It is therefore necessary to assess the results of the historical ground gas monitoring to understand this risk and the potential impact on a future development of the site.

9.2 2003 GROUND GAS MONITORING RESULTS

Combined groundwater and gas monitoring wells were installed in 12 boreholes as part of the Mott MacDonald 2003 investigation. Three rounds of monitoring were completed at high barometric pressure (1007 to 1011Mb), which is likely to reduce potential low rates. No flow rates, hydrogen sulphide or methane levels were recorded during the three monitoring rounds. Carbon dioxide levels were recorded within 11 of the 12 boreholes.

Current UK guidance on assessing risks from ground gases is provided in CIRIA document C665 2007 and NHBC report 10627-R01 (2007). CIRIA C665, the recommended practice is to multiply the maximum gas concentration for both methane and carbon dioxide with the maximum gas flow. The resultant volume of gas is defined as the Gas Screening Value (GSV). Given there were no flow levels recorded the GSVs for the site (based on the data obtained to date) would equate to CS1/Green - no gas protection measure required in new buildings. However, CIRIA C665 states that if carbon dioxide levels are above 5% then it recommends upgrading the classification by a level, therefore a CS1 would be CS2 requiring basic gas protection measures within new buildings.

Given the limits of the previous gas monitoring undertaken and the changes in the guidance on assessing gas risk, up to date monitoring results would be required to confirm the gas protection requirements at the site for a new development.

Boreholes where elevated (>5%) carbon dioxide levels been identified previously are summarised in **Table 9.1**.

Table 9.1 Elevated carbon dioxide level Summary 2003

PLOT	LOCATION AND CARBON DIOXIDE CONCENTRATION (v/v)
1	BH10 - 6.8%
2	BH11A - 12.8%, BH12 10.8%
3	BH2 - 7.9%

9.3 2014 GROUND GAS MONITORING RESULTS

Six borehole wells were installed into the fill materials across the site as part of the Sub Surface Ground Investigation^[4] at high barometric pressure (1000 to 1014mb) between 6 June 2014 and 30 July 2014. Flow levels were all recorded to be below <0.1 l/h in all boreholes. Methane was detected during each of the three rounds within four of the boreholes with a maximum

concentration of 1.1% (M3B) recorded. Elevated (>5%) concentrations of carbon dioxide were recorded in five of the boreholes as summarised in Table 9.2.

Table 9.2 Elevated carbon dioxide level Summary 2014

BOREHOLE	MAXIMUM RECORDED CARBON DIOXIDE CONCENTRATIONS (v/v)
M1A	5.7%
M2	11.3%
M3B	28.3%
M4	7.6%
M6	5.5%

10 ENVIRONMENTAL CONCEPTUAL SITE MODEL

Contaminated land assessment in the UK is based on the relationship between contaminant sources, pathways and receptors developed on the basis of hazard identification. The risk assessment is the process of collating known information on a hazard or set of hazards in order to estimate actual or potential risks to receptors. The guiding principle behind this approach is an attempt to establish connecting links between a hazardous source, via an exposure pathway to a potential receptor, referred to as a 'contaminant linkage'. If there is no contaminant linkage, then there is no risk. Therefore, only where a viable pollutant linkage is established does this assessment go on to consider the level of risk. This approach is in accordance with EA Model Procedures (CLR11).

The conceptual model for the site and potential contaminant linkages are discussed in the section below.

10.1 POTENTIAL CONTAMINATION SOURCES

Based on the desk based information, potential sources of contamination which could potentially impact sensitive receptors are considered to be:

On Site

- Colliery spoil, which may have included other waste products associated with coal/coke production (coal tar, PAHs, phenols, cyanides, heavy metals, asbestos, sulphates, sulphides, acidic pH);
- Slurry pond/filter sediments and arisings potentially used in backfilling (heavy metals);
- Burnt colliery spoil materials documented to have been used as backfill (metals, PAHs); and
- Underground coal mining (ground gases).

Off-Site

- Former railway line along the northern boundary of the site (heavy metals, asbestos, PAHs);
- Former Rockingham Colliery located to the north and east of the site (coal tar, PAHs, phenols, cyanides, heavy metals, asbestos, sulphates, sulphides, acidic pH);
- Former Rockingham Gasworks to the east of the site (coal tar, PAHs, phenols, cyanides, heavy metals, asbestos, sulphates, sulphides);
- Active vehicle servicing & repair depot c. 100m southeast (petroleum hydrocarbons, solvents); and
- Historical landfill - former railway cutting 100m west (leachate, ground gas).

The Mott MacDonald site investigation included soil and groundwater chemical analysis (as previously stated within **Section 5**) and identified elevated metal concentrations on site in both soil and groundwater. However, the analytical suite did not include all potential contaminants required to characterise the contamination.

10.2 POTENTIAL PATHWAYS

Potential pathways include:

- Direct contact, ingestion or inhalation of soil bound contaminants/ dust;
- Migration of ground gas into on-site buildings causing asphyxiation and / or risk of explosion;
- Leaching or mobilisation of contaminants into groundwater from soil or damaged drainage infrastructure and migration to the underlying Aquifer and / or surface waters;
- Potable water supply pipes coming into contact with organic contaminants; and,
- Chemical attack on buried concrete.

10.3 POTENTIAL RECEPTORS

Relevant potential receptors are considered to include:

- Future end users of all areas of the site (residents - Plot 3 only, workers, visitors, maintenance workers);
- Third parties during construction (adjacent site users and adjacent residents);
- Development and construction workers involved in building and excavations;
- On-site and surrounding surface waters;
- The underlying Secondary A Aquifer; and
- The built environment (new buildings and underground structures).

10.4 PRELIMINARY CONTAMINANT LINKAGE ASSESSMENT

Based on the available information and anticipated end use as residential houses with gardens (Plot 3 only) and commercial (for all three plots), potential contaminant linkages have been identified and are summarised within Table 10.1. A summary of the risk assessment methodology is included within **Appendix H**.

Table 10.1 Contaminant Linkage Summary for development with residential flats

SOURCE	PATHWAYS	RECEPTOR	PROBABILITY OF EXPOSURE	POTENTIAL CONSEQUENCE	RISK RATING
Backfill – coal tar, PAHs, phenols, cyanides, heavy metals, asbestos, sulphates, sulphides, acidic pH	<u>Residential end use</u> <ul style="list-style-type: none"> ■ Ingestion of soil; ■ Dermal contact with soil; and, ■ Inhalation of soil-derived dust. 	Future residents	Likely	Medium	Moderate
	Associated with any backfill located at the surface where garden area would be present.	Construction Workers	Likely	Mild	Moderate
	<u>Commercial</u> <ul style="list-style-type: none"> ■ Ingestion of soil; ■ Dermal contact with soil; and, ■ Inhalation of soil-derived dust. 	Site workers	Likely	Mild	Moderate
	Associated with any proposed landscaped areas where fill is present at the surface				
Underlying coal workings – Ground Gas	<ul style="list-style-type: none"> ■ Upward migration and accumulation of ground gases <p>Associated with upward migration of ground gas and accumulation within enclosed spaces.</p>	Future residents/site workers	Low likelihood	Severe	Moderate

11 SUMMARY

11.1 GROUND CONDITIONS

Made Ground has been encountered across the site and was generally described as grey sandy gravel with occasional fragments of sandstone and coal, or a clayey mixture of sand and gravel of mudstone. Made Ground typically passed into weak grey mudstone, potentially fill material given the deconstructed nature of the stratum. The base of the fill material has been proven at tow location in Plot 2 only, which generally identified Sandstone and mudstone between 10 and 12m bgl.

11.2 ENVIRONMENTAL SETTING AND SENSITIVITY

The site is considered to be of moderate environmental sensitivity, primarily due to the location of the adjacent Short Wood Dike) which flows towards an EA classified watercourse, the presence of the Underlying Secondary A Aquifer and proposed residential end for Plot 3.

11.3 CONTAMINATED LAND CONSTRAINTS

The following contaminated land issues have been identified as potentially impacting the site:

- Relatively marginally elevated contaminants identified within backfill material historically, which could potentially impact both human health and controlled water bodies;
- Elevated ground gas (carbon dioxide) identified at the site.

11.4 GEOTECHNICAL CONSTRAINTS

The following geotechnical/ground engineering constraints have been identified as having the potential to affect the site, and are recommended to be further assessed prior to development of the site:

- Uncertainties and variation in the depth, composition, geotechnical characteristics and aggressiveness of the deep opencast backfill materials;
- Uncertainties and variation in the groundwater regime beneath the site, particularly within the backfill and in response to rising regional groundwater following cessation of deep mining activities;
- The potential for spontaneous combustion of unburnt colliery spoil within the backfill;
- Uncertainties in the location, and geometry of the highwall within Plots 2 and 3;
- The stability of the slope along the eastern boundary of Plot 2;
- The potential for the collapse of unrecorded shallow mining outwith the opencast mine boundaries causing ground instability; and
- The potential for the collapse of recorded shallow mining to cause ground instability below the site.

An outline plan illustrating pertinent constraints is provided as **Figure 4**.

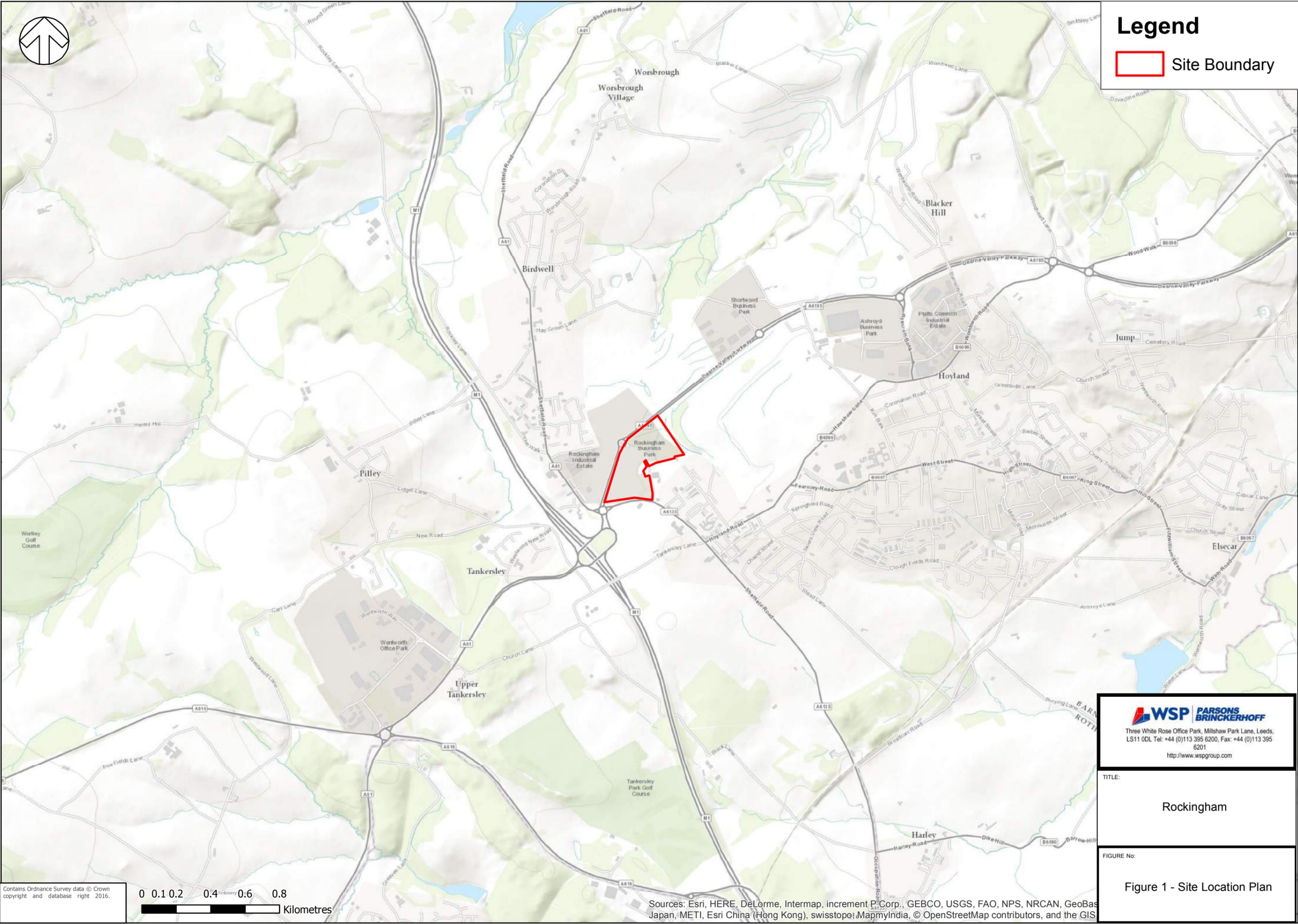
FIGURES

Date Modified:
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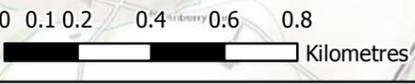


Legend

 Site Boundary



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TITLE:
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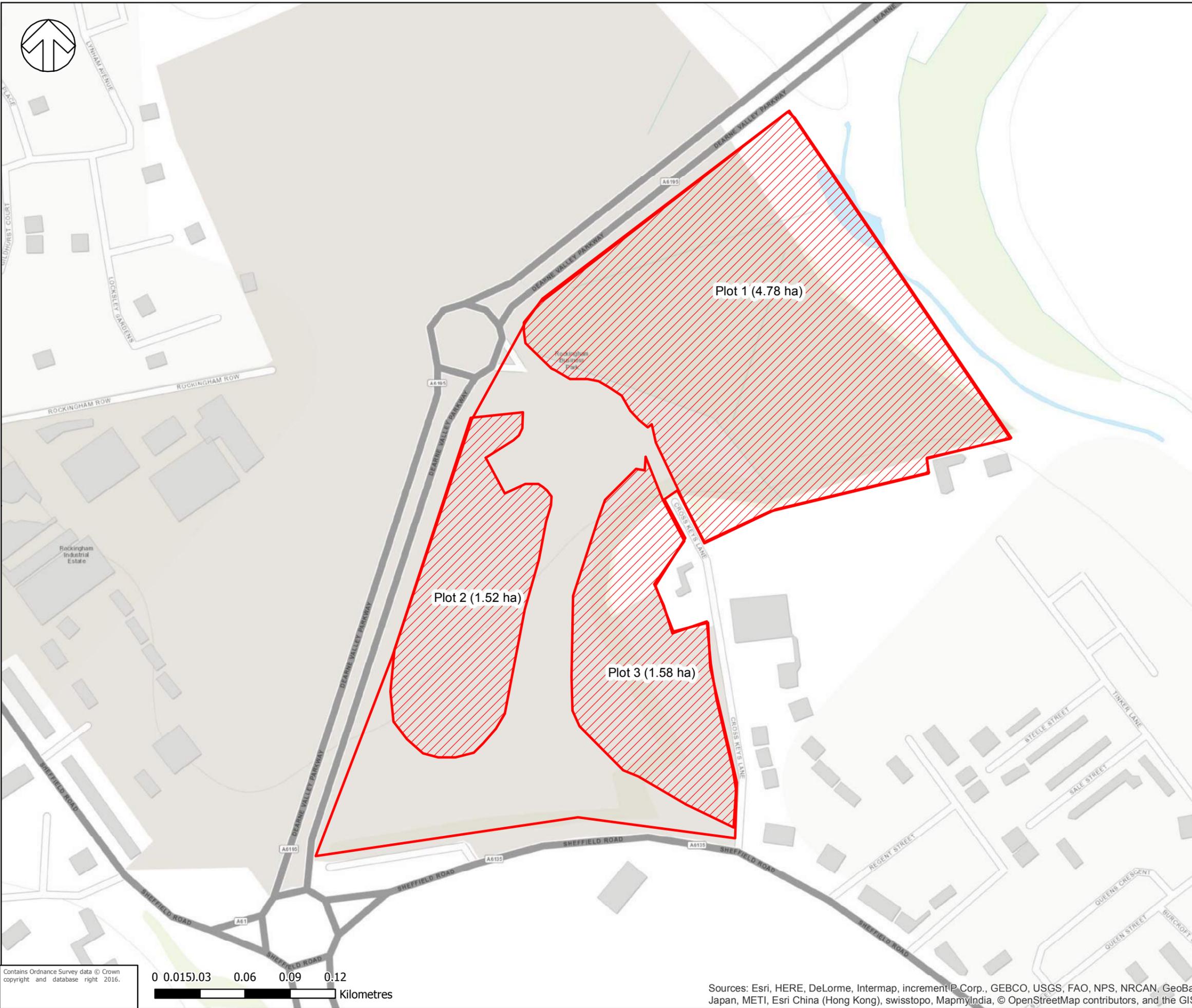
FIGURE No:
Figure 1 - Site Location Plan

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File:



Legend

-  Site Boundary
-  Site Plots



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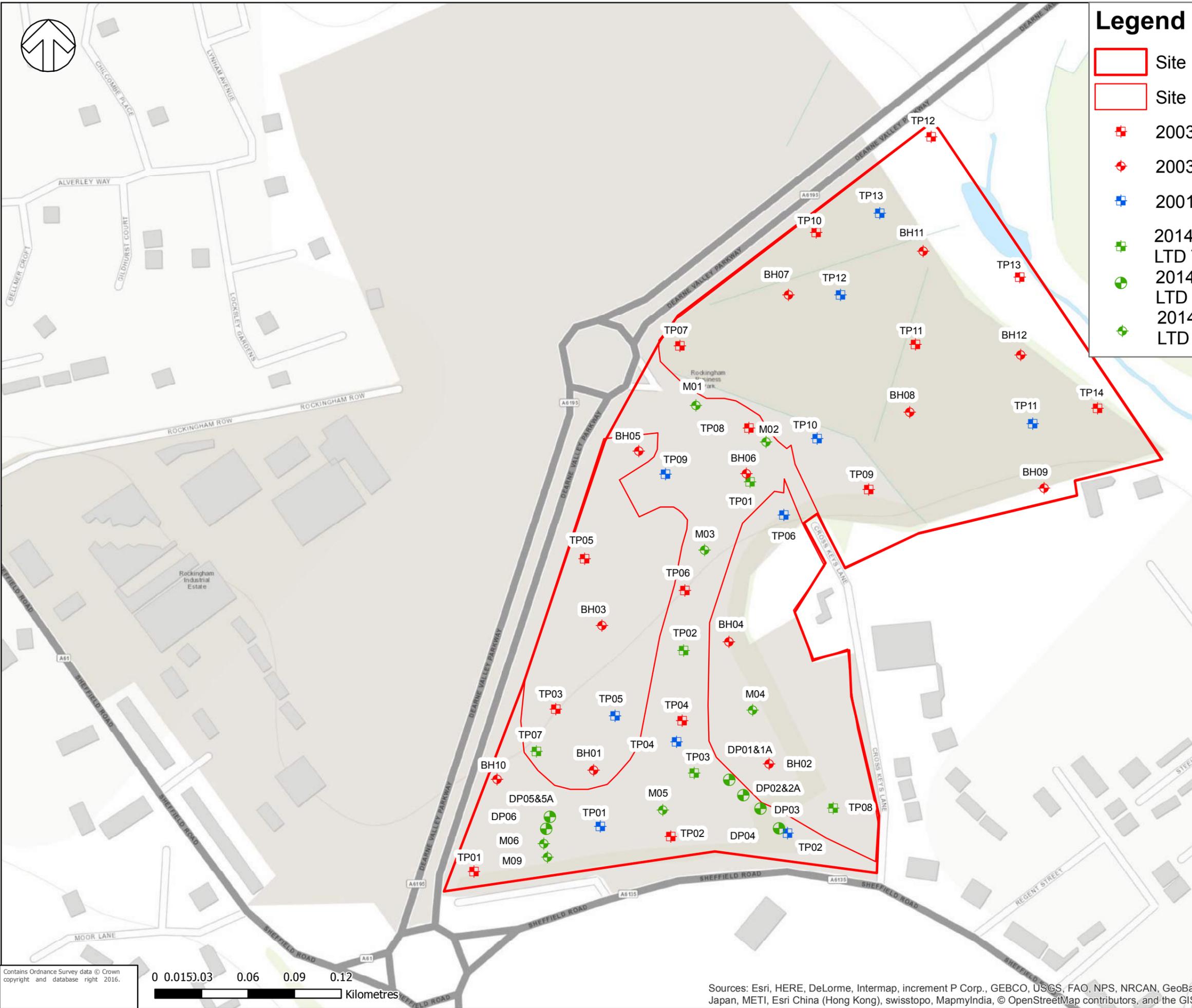
Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBas Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS

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FIGURE No:
Figure 2 - Site Plots

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Legend

- Site Boundary
- Site Plots
- 2003 Mott Macdonald Trial Pits
- 2003 Mott Macdonald Boreholes
- 2001 Mott Macdonald Trial Pits
- 2014 Sub Surface Northeast LTD Trial Pits
- 2014 Sub Surface Northeast LTD Dynamic Probe
- 2014 Sub Surface Northeast LTD Mini Boreholes/Standpipe

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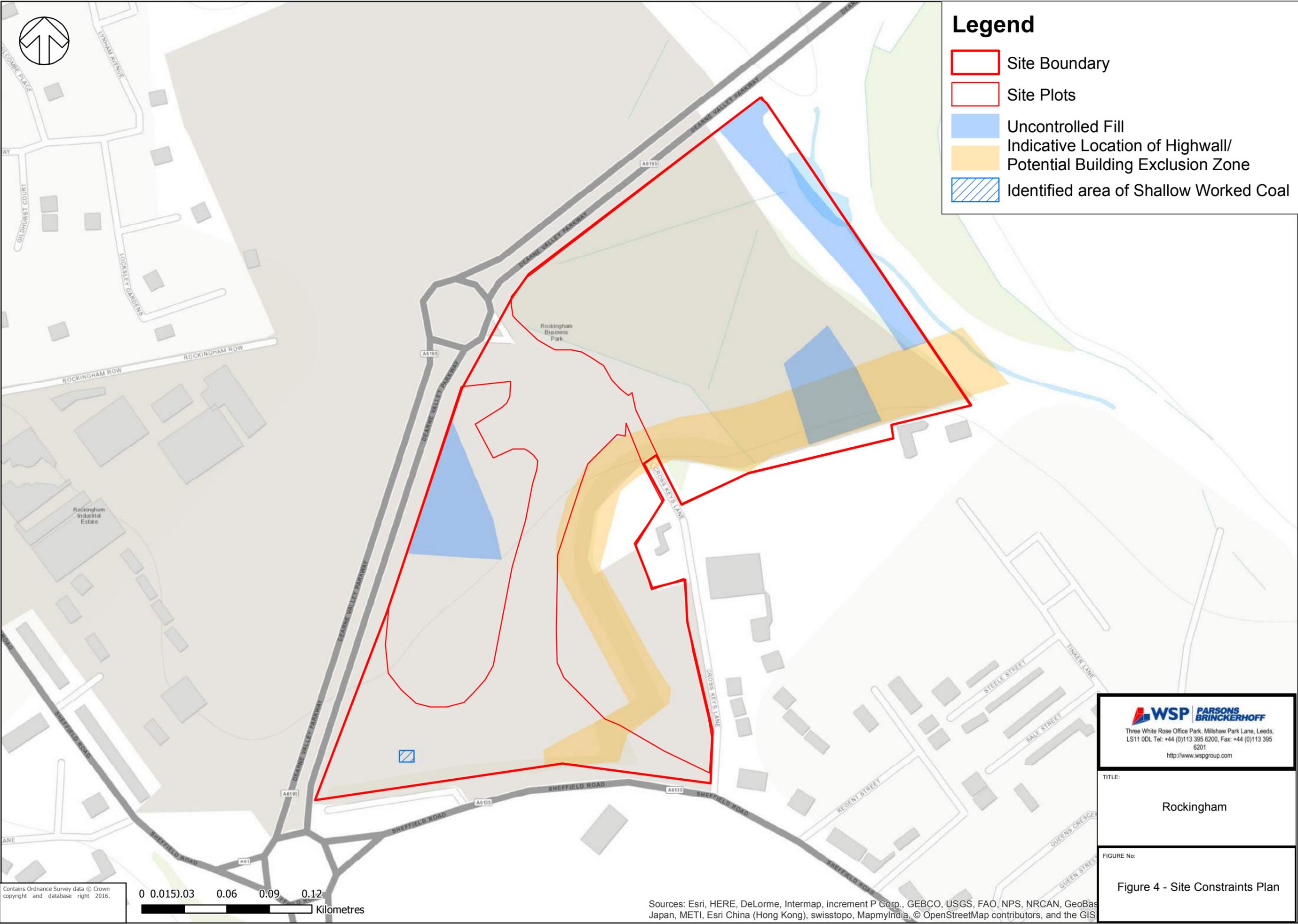
FIGURE No:
Figure 3 - Composite Exploratory Hole Location Plan

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Legend

- Site Boundary
- Site Plots
- Uncontrolled Fill
- Indicative Location of Highwall/
Potential Building Exclusion Zone
- Identified area of Shallow Worked Coal

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FIGURE No:
Figure 4 - Site Constraints Plan

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0 0.015 0.03 0.06 0.09 0.12
Kilometres

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APPENDIX A – ENVIROCHECK REPORT 2016



Envirocheck[®] Report:

Datasheet

Order Details:

Order Number:

82656653_1_1

Customer Reference:

Rockingham

National Grid Reference:

435210, 400600

Slice:

A

Site Area (Ha):

11.01

Search Buffer (m):

1000

Site Details:

Site at 435150, 400650

Client Details:

Mr G Meynell

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Report Section	Page Number
Summary	-
Agency & Hydrological	1
Waste	19
Hazardous Substances	-
Geological	23
Industrial Land Use	53
Sensitive Land Use	59
Data Currency	60
Data Suppliers	65
Useful Contacts	66

Introduction

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

In 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.

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Report Version v50.0

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		7	1	22
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 8		3	2	
Local Authority Pollution Prevention and Control Enforcements					
Nearest Surface Water Feature	pg 9	Yes			
Pollution Incidents to Controlled Waters	pg 9		8		3
Prosecutions Relating to Authorised Processes					
Prosecutions Relating to Controlled Waters					
Registered Radioactive Substances					
River Quality	pg 11			1	1
River Quality Biology Sampling Points					
River Quality Chemistry Sampling Points					
Substantiated Pollution Incident Register	pg 11				1
Water Abstractions	pg 11				(*5)
Water Industry Act Referrals					
Groundwater Vulnerability	pg 12	Yes	n/a	n/a	n/a
Bedrock Aquifer Designations	pg 12	Yes	n/a	n/a	n/a
Superficial Aquifer Designations			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
Detailed River Network Lines	pg 13	Yes	Yes	Yes	n/a
Detailed River Network Offline Drainage	pg 17	Yes	Yes	Yes	n/a

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Waste					
BGS Recorded Landfill Sites					
Historical Landfill Sites	pg 19		1	1	1
Integrated Pollution Control Registered Waste Sites					
Licensed Waste Management Facilities (Landfill Boundaries)					
Licensed Waste Management Facilities (Locations)	pg 19		1	1	
Local Authority Recorded Landfill Sites	pg 20		1	2	1
Registered Landfill Sites	pg 21		1		1
Registered Waste Transfer Sites	pg 21		1		
Registered Waste Treatment or Disposal Sites	pg 22			1	
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 1:625,000 Solid Geology	pg 23	Yes	n/a	n/a	n/a
BGS Estimated Soil Chemistry	pg 23	Yes	Yes	Yes	Yes
BGS Recorded Mineral Sites	pg 44		7	3	22
BGS Urban Soil Chemistry					
BGS Urban Soil Chemistry Averages					
Brine Compensation Area			n/a	n/a	n/a
Coal Mining Affected Areas	pg 50	Yes	n/a	n/a	n/a
Mining Instability	pg 50	Yes	n/a	n/a	n/a
Man-Made Mining Cavities					
Natural Cavities					
Non Coal Mining Areas of Great Britain	pg 50	Yes		n/a	n/a
Potential for Collapsible Ground Stability Hazards	pg 50	Yes		n/a	n/a
Potential for Compressible Ground Stability Hazards	pg 50	Yes	Yes	n/a	n/a
Potential for Ground Dissolution Stability Hazards				n/a	n/a
Potential for Landslide Ground Stability Hazards	pg 50	Yes	Yes	n/a	n/a
Potential for Running Sand Ground Stability Hazards	pg 51	Yes	Yes	n/a	n/a
Potential for Shrinking or Swelling Clay Ground Stability Hazards	pg 51	Yes	Yes	n/a	n/a
Radon Potential - Radon Affected Areas			n/a	n/a	n/a
Radon Potential - Radon Protection Measures			n/a	n/a	n/a

Data Type	Page Number	On Site	0 to 250m	251 to 500m	501 to 1000m (*up to 2000m)
Industrial Land Use					
Contemporary Trade Directory Entries	pg 53		19	17	23
Fuel Station Entries	pg 58		2	1	
Sensitive Land Use					
Areas of Adopted Green Belt	pg 59	1			
Areas of Unadopted Green Belt					
Areas of Outstanding Natural Beauty					
Environmentally Sensitive Areas					
Forest Parks					
Local Nature Reserves	pg 59				1
Marine Nature Reserves					
National Nature Reserves					
National Parks					
Nitrate Sensitive Areas					
Nitrate Vulnerable Zones	pg 59	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	<p>Discharge Consents</p> <p>Operator: Gb Truck Services Property Type: Trade (Unknown/Other) Location: Cross Key Lane Works, Hoyland Common, Barnsley Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wra7281 Permit Version: 1 Effective Date: 28th January 1997 Issued Date: 28th January 1997 Revocation Date: 28th October 2015 Discharge Type: Trade Discharges - Site Drainage (Contaminated Surface Water, Not Waste Sites) Discharge: Freshwater Stream/River Environment: Receiving Water: Short Wood Dyke Status: Authorisation revoked Positional Accuracy: Located by supplier to within 100m</p>	A8NE (E)	20	2	435300 400600
1	<p>Discharge Consents</p> <p>Operator: Gb Truck Services Property Type: Trade (Unknown/Other) Location: Cross Key Lane Works, Hoyland Common, Barnsley Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: C5082 Permit Version: 2 Effective Date: 21st June 1994 Issued Date: 21st June 1994 Revocation Date: 1st October 1996 Discharge Type: Trade Discharges - Site Drainage (Contaminated Surface Water, Not Waste Sites) Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of Shortbridge Dyke Status: Lapsed (under Environment Act 1995, Schedule 23) Positional Accuracy: Located by supplier to within 100m</p>	A8NE (E)	20	2	435300 400600
1	<p>Discharge Consents</p> <p>Operator: Gb Truck Services Property Type: Trade (Unknown/Other) Location: Cross Key Lane Works, Hoyland Common, Barnsley Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: C5082 Permit Version: 1 Effective Date: 13th May 1988 Issued Date: 13th May 1988 Revocation Date: 20th June 1994 Discharge Type: Trade Discharges - Site Drainage (Contaminated Surface Water, Not Waste Sites) Discharge: Freshwater Stream/River Environment: Receiving Water: Trib Of Shortbridge Dyke Status: Transferred from COPA 1974 Positional Accuracy: Located by supplier to within 100m</p>	A8NE (E)	20	2	435300 400600
2	<p>Discharge Consents</p> <p>Operator: G.B. Truck Services Ltd Property Type: Miscellaneous Transport Not Specified Location: G.B. Trucks Services Ltd Cross Keys Works, Cross Keys Lane, Hoyland Land, Barnsley, S74 0qa Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: S/P/1181 Permit Version: 1 Effective Date: 19th May 1963 Issued Date: 19th May 1963 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Short Wood Dike Status: Undetermined 1961 Application Positional Accuracy: Located by supplier to within 10m</p>	A8NE (SE)	37	2	435272 400542

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
3	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Tinker Lane Sewage Pumping Stn Tinker Lane, Wombwell, Barnsley, South Yorkshire</p> <p>Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wra7784 Permit Version: 2 Effective Date: 18th March 2003 Issued Date: 18th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Short Wood Dike Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A9NW (E)	188	2	435610 400570
3	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Tinker Lane Sewage Pumping Stn Tinker Lane, Wombwell, Barnsley, South Yorkshire</p> <p>Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wra7784 Permit Version: 2 Effective Date: 18th March 2003 Issued Date: 18th March 2003 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Short Wood Dike Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A9NW (E)	188	2	435610 400570
3	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Tinker Lane Sewage Pumping Stn Tinker Lane, Wombwell, Barnsley, South Yorkshire</p> <p>Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wra7784 Permit Version: 1 Effective Date: 26th February 2002 Issued Date: 26th February 2002 Revocation Date: 17th March 2003 Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Short Wood Dike Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A9NW (E)	188	2	435610 400570
4	<p>Discharge Consents</p> <p>Operator: British Coal Corporation Property Type: Trade (Unknown/Other) Location: Rockingham Pumping Station Upper Hoyland, Birdwell, Barnsley, South Yorkshire</p> <p>Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: 3703 Permit Version: 1 Effective Date: 6th June 1983 Issued Date: 6th June 1983 Revocation Date: 9th June 1983 Discharge Type: Trade Effluent Discharge: Not Supplied Environment: Receiving Water: Not Supplied Status: Authorisation revokedRevoked Positional Accuracy: Located by supplier to within 100m</p>	A13NE (N)	311	2	435300 401200

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
5	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers - Water Company Location: Woodbine Cottages New Road/Lidget Lane (End Of), Tankersley, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wra7987 Permit Version: 1 Effective Date: 31st March 2004 Issued Date: 3rd February 2004 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Birdwell Dike Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A7NW (W)	556	2	434430 400330
6	<p>Discharge Consents</p> <p>Operator: Uk Coal Mining Limited Property Type: Coal Extraction, Surface Location: Rockingham Occs, Sheffield Road, Birdwell, Barnsley Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wa 6019 Permit Version: 2 Effective Date: 5th November 1990 Issued Date: 5th November 1990 Revocation Date: 4th June 1996 Discharge Type: Trade Discharges - Site Drainage (Contaminated Surface Water, Not Waste Sites) Discharge: Freshwater Stream/River Environment: Receiving Water: Short Wood Dike Status: Consent revoked: Discharge ceased (Water Resources Act 1991, Schedule 10 & 6) Positional Accuracy: Located by supplier to within 10m</p>	A18SE (N)	571	2	435300 401460
6	<p>Discharge Consents</p> <p>Operator: Uk Coal Mining Limited Property Type: Coal Extraction, Surface Location: Rockingham Occs, Sheffield Road, Birdwell, Barnsley Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wa 6019 Permit Version: 1 Effective Date: 14th May 1990 Issued Date: 14th May 1990 Revocation Date: 4th November 1990 Discharge Type: Trade Discharges - Site Drainage (Contaminated Surface Water, Not Waste Sites) Discharge: Freshwater Stream/River Environment: Receiving Water: Short Wood Dike Status: Transferred from Water Act 1989 Positional Accuracy: Located by supplier to within 100m</p>	A18SE (N)	571	2	435300 401460
6	<p>Discharge Consents</p> <p>Operator: British Coal Opencast Property Type: Coal Extraction, Surface Location: Rockingham Occs, Sheffield Road, Birdwell, Barnsley Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wa 6018 Permit Version: 1 Effective Date: 14th May 1990 Issued Date: 14th May 1990 Revocation Date: 30th August 1995 Discharge Type: Trade Effluent Discharge: Freshwater Stream/River Environment: Receiving Water: Not Supplied Status: Consent revoked: Discharge ceased (Water Resources Act 1991, Schedule 10 & 6) Positional Accuracy: Located by supplier to within 10m</p>	A18SE (N)	571	2	435300 401460

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
7	<p>Discharge Consents</p> <p>Operator: Susan Robinson Property Type: Domestic Property (Multiple) Location: 6 Wentworth Cottages, Hay Green Lane, Birdwell, Barnsley Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: C4121 Permit Version: 1 Effective Date: 24th January 1986 Issued Date: 24th January 1986 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Short Wood Dike Status: Transferred from COPA 1974 Positional Accuracy: Located by supplier to within 100m</p>	A18SE (N)	711	2	435300 401600
8	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewage Disposal Works - Water Company Location: Tankersley Stw, Nr Worsborough, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: E698 (Ss) Permit Version: 1 Effective Date: 7th November 1989 Issued Date: 7th November 1989 Revocation Date: 31st March 1991 Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Birdwell Dyke Status: Transferred from Water Act 1989 Positional Accuracy: Located by supplier to within 100m</p>	A12SW (W)	780	2	434300 400800
8	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewage Disposal Works - Water Company Location: Tankersley Stw, Nr Worsborough, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: E698 (Ss) Permit Version: 1 Effective Date: 7th November 1989 Issued Date: 7th November 1989 Revocation Date: 31st March 1991 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Birdwell Dyke Status: Transferred from Water Act 1989 Positional Accuracy: Located by supplier to within 100m</p>	A12SW (W)	780	2	434300 400800
8	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewage Disposal Works - Water Company Location: Tankersley Stw, Nr Worsborough, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: E698 (Ss) Permit Version: 3 Effective Date: 1st April 1992 Issued Date: 7th November 1989 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Birdwell Dyke Status: Transferred from Water Act 1989 Positional Accuracy: Located by supplier to within 100m</p>	A12SW (W)	780	2	434300 400800

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
8	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewage Disposal Works - Water Company Location: Tankersley Stw, Nr Worsborough, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: E698 (Ss) Permit Version: 3 Effective Date: 1st April 1992 Issued Date: 7th November 1989 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Birdwell Dyke Status: Transferred from Water Act 1989 Positional Accuracy: Located by supplier to within 100m</p>	A12SW (W)	780	2	434300 400800
8	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewage Disposal Works - Water Company Location: Tankersley Sewage Treatment Works Ligett Lane, Near Worsborough, Barnsley, South Yorkshire, S75 3bs Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: E698(Ss) Permit Version: 1 Effective Date: 16th November 1981 Issued Date: 16th November 1981 Revocation Date: 23rd March 2004 Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Ditch Environment: Receiving Water: Birdwell Dyke Status: Transferred from Rivers (Prevention of Pollution) Act 1951-1961 Positional Accuracy: Located by supplier to within 100m</p>	A12SW (W)	780	2	434300 400800
8	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewage Disposal Works - Water Company Location: Tankersley Sewage Treatment Works Ligett Lane, Near Worsborough, Barnsley, South Yorkshire, S75 3bs Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: E698(Ss) Permit Version: 3 Effective Date: 1st April 2009 Issued Date: 14th October 2008 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Final/Treated Effluent - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Birdwell Dyke Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A12SW (W)	805	2	434271 400793
8	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewage Disposal Works - Water Company Location: Tankersley Sewage Treatment Works Ligett Lane, Near Worsborough, Barnsley, South Yorkshire, S75 3bs Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: E698(Ss) Permit Version: 3 Effective Date: 1st April 2009 Issued Date: 14th October 2008 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Stw Storm Overflow/Storm Tank - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Birdwell Dyke Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A12SW (W)	805	2	434271 400793

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
9	<p>Discharge Consents</p> <p>Operator: British Coal Corporation, South Yorks Group Property Type: Sewerage Network - Pumping Station - Water Company Location: Whamcliffe Silkstone Pumping Stn, Tankersley, Sheffield, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: 3696 Permit Version: 1 Effective Date: 11th May 1983 Issued Date: 11th May 1983 Revocation Date: 21st November 1994 Discharge Type: Trade Effluent Discharge: Freshwater Stream/River Environment: Receiving Water: Not Supplied Status: Consent revoked: Discharge ceased (Water Resources Act 1991, Schedule 10 & 6) Positional Accuracy: Located by supplier to within 100m</p>	A6SE (W)	804	2	434200 400200
10	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Not Given Location: Worsbrough Bridge, Westfields, WORSBROUGH Authority: Environment Agency, North East Region Catchment Area: Dearne Reference: S/UD/13 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: Not Supplied Revocation Date: Not Supplied Discharge Type: Storm /emergency overflow Discharge: Unknown Environment: Receiving Water: Not Supplied Status: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A12NW (NW)	824	2	434505 401295
10	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Not Given Location: Worsbrough Dale, Bank End Avenue, WORSBROUGH Authority: Environment Agency, North East Region Catchment Area: Dearne Reference: S/UD/13 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: Not Supplied Revocation Date: Not Supplied Discharge Type: Storm /emergency overflow Discharge: Unknown Environment: Receiving Water: Not Supplied Status: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A12NW (NW)	827	2	434505 401300
10	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Not Given Location: Blacker Lane, Blacker Hill, WORSBROUGH Authority: Environment Agency, North East Region Catchment Area: Dearne Reference: S/UD/13 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: Not Supplied Revocation Date: Not Supplied Discharge Type: Storm /emergency overflow Discharge: Unknown Environment: Receiving Water: Not Supplied Status: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A12NW (NW)	828	2	434500 401295

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
10	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Not Given Location: Greenspring Avenue, Birdwell, WORSBROUGH Authority: Environment Agency, North East Region Catchment Area: Dearne Reference: S/UD/13 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: Not Supplied Revocation Date: Not Supplied Discharge Type: Storm /emergency overflow Discharge: Unknown Environment: Receiving Water: Not Supplied Status: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A12NW (NW)	831	2	434500 401300
10	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Not Given Location: Worsbrough Dale, West Street, WORSBROUGH Authority: Environment Agency, North East Region Catchment Area: Dearne Reference: S/UD/13 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: Not Supplied Revocation Date: Not Supplied Discharge Type: Storm /emergency overflow Discharge: Unknown Environment: Receiving Water: Not Supplied Status: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A17SW (NW)	831	2	434505 401305
10	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Sewers Location: Greenspring Avenue, BIRDWELL Authority: Environment Agency, North East Region Catchment Area: Dearne Reference: S/UD/13 Permit Version: Not Supplied Effective Date: Not Supplied Issued Date: 9th January 1963 Revocation Date: Not Supplied Discharge Type: Sewage Effluent Discharge-Storm Effluent Discharge: Unknown Environment: Receiving Water: Not Supplied Status: Not Supplied Positional Accuracy: Located by supplier to within 100m</p>	A17SW (NW)	834	2	434500 401305
11	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Cock Inn Sewage Pumping Stn End Of Chapel Street, Worsborough, Barnsley, South Yorkshire Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: Wra7785 Permit Version: 1 Effective Date: 26th February 2002 Issued Date: 26th February 2002 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Warren Dyke Status: New Consent (Water Resources Act 1991, Section 88 & Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A11SE (W)	918	2	434200 400940

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
12	<p>Discharge Consents</p> <p>Operator: Wortley Construction Limited Property Type: Sewerage Network - Pumping Station - Water Company Location: Birdwell Sewage Pumping Station, Plover Drive, Yorkshire Water Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: C4953 Permit Version: 1 Effective Date: 29th January 1988 Issued Date: 29th January 1988 Revocation Date: 12th March 2001 Discharge Type: Sewage Discharges - Pumping Station - Not Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Culverted Trib Short Wood Dike Status: Transferred from COPA 1974 Positional Accuracy: Located by supplier to within 100m</p>	A17NE (N)	956	2	434800 401700
13	<p>Discharge Consents</p> <p>Operator: Yorkshire Water Services Ltd Property Type: Sewerage Network - Pumping Station - Water Company Location: Birdwell Sewage Pumping Station, Plover Drive, Yorkshire Water Authority: Environment Agency, North East Region Catchment Area: Don Tributaries Reference: C4953 Permit Version: 2 Effective Date: 13th March 2001 Issued Date: 13th March 2001 Revocation Date: Not Supplied Discharge Type: Sewage Discharges - Pumping Station - Water Company Discharge: Freshwater Stream/River Environment: Receiving Water: Culverted Trib Short Wood Dike Status: Modified (Water Resources Act 1991, Schedule 10 as amended by Environment Act 1995) Positional Accuracy: Located by supplier to within 10m</p>	A18NW (N)	979	2	434880 401770
14	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: British Coal Corporation Location: Sheffield Road, Hoyland, Barnsley, S74 Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: Not Supplied Dated: Not Supplied Process Type: Local Authority Air Pollution Control Description: PG3/5 Coal, coke and coal product processes Status: Authorisation revokedRevoked Positional Accuracy: Manually positioned to the road within the address or location</p>	A8NW (S)	10	3	435201 400392
15	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: G B Trucks Ltd Location: Cross Keys Works, Cross Keys Lane, Hoyland, Barnsley, South Yorkshire, S74 0QA Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: Ppc/B/40 Dated: 14th July 1995 Process Type: Local Authority Pollution Prevention and Control Description: PG6/34 Respraying of road vehicles Status: Permitted Positional Accuracy: Automatically positioned to the address</p>	A8NE (SE)	37	3	435272 400542
16	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: Cross Keys (Barnsley) Garage Location: Sheffield Road, Hoyland, BARNSELY, South Yorkshire, S74 0PY Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: PPC/B/105 Dated: 12th May 1999 Process Type: Local Authority Air Pollution Control Description: PG1/14 Petrol filling station Status: Authorised Positional Accuracy: Automatically positioned to the address</p>	A8NE (SE)	90	3	435343 400394

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
17	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: Hartwood Exports (Machinery) Ltd Location: Hangmanstone Depot, Sheffield Road, Birdwell, BARNLEY, South Yorkshire, S70 5TR Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: Ppc/B/14 Dated: 20th January 1998 Process Type: Local Authority Pollution Prevention and Control Description: PG1/1Waste oil burners, less than 0.4MW net rated thermal input Status: Authorisation certificate surrendered by operatorSurrendered Positional Accuracy: Automatically positioned to the address</p>	A7NE (W)	319	3	434716 400589
18	<p>Local Authority Pollution Prevention and Controls</p> <p>Name: Hoyland Common Service Station Location: Sheffield Road, Hoyland Common, BARNLEY, S74 0DP Authority: Barnsley Metropolitan Borough Council, Environmental Health and Trading Standards Permit Reference: Ppc/B/51 Dated: 12th May 1999 Process Type: Local Authority Pollution Prevention and Control Description: PG1/14 Petrol filling station Status: Permitted Positional Accuracy: Manually positioned to the address or location</p>	A9SW (SE)	481	3	435586 400049
	<p>Nearest Surface Water Feature</p>	A13SE (NE)	0	-	435367 400769
19	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Industrial Premises Location: Markers Bridge B6273, /Darfld A635 Dearne 08 Authority: Environment Agency, North East Region Pollutant: Not Given Note: Not Supplied Incident Date: 11th December 1992 Incident Reference: 139886 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</p>	A13SE (N)	13	2	435300 400900
20	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Farm Location: Mouth/Source Wiske Af Authority: Environment Agency, North East Region Pollutant: Silage Liquor Note: Not Supplied Incident Date: 7th June 1993 Incident Reference: 145363 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</p>	A8NE (SE)	59	2	435300 400500
21	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Industrial: Other Location: Chapman Drums, Rockingham Row, Birdwell, BARNLEY Authority: Environment Agency, North East Region Pollutant: Chemicals - Solvents Note: Pollution Found; No Fish Killed Incident Date: 4th November 1996 Incident Reference: SH960475 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m</p>	A13SW (NW)	107	2	435001 400751
22	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Industrial Premises Location: Darfield/Source Dove(S) Afu Authority: Environment Agency, North East Region Pollutant: Miscellaneous - Colour Note: Not Supplied Incident Date: 26th July 1993 Incident Reference: 147990 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</p>	A8NW (W)	117	2	434900 400500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
23	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Farm Location: Netherwood Brdg/Aldham A633 Dove(S) 03 Authority: Environment Agency, North East Region Pollutant: Agricultural: Yard Run Off (Dirty Water) Note: Not Supplied Incident Date: 15th March 1993 Incident Reference: 145168 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</p>	A8NW (W)	148	2	434900 400600
24	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Chemical industry Location: Rockingham Business Park, BIRDWELL Authority: Environment Agency, North East Region Pollutant: Chemicals - Unknown Note: Pollution Found; Fish Killed: No Information Incident Date: 4th July 1996 Incident Reference: SH960338 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Unknown Incident Severity: Category 2 - Significant Incident Positional Accuracy: Located by supplier to within 100m</p>	A13SW (W)	178	2	434900 400700
25	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Industrial: Other Location: Shortwood Dyke, ROCKINGHAM Authority: Environment Agency, North East Region Pollutant: Unknown Note: No Fish Killed Incident Date: 6th February 1995 Incident Reference: SH950184 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A7NE (W)	212	2	434800 400500
26	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Water Company Sewage: Sewage Treatment Works Location: Mouth/Source Wiske Af Authority: Environment Agency, North East Region Pollutant: Sewage - Treated Effluent Note: Not Supplied Incident Date: 2nd June 1992 Incident Reference: 133964 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</p>	A8NE (SE)	246	2	435500 400400
27	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Water Company Sewage: Sewage Treatment Works Location: Shortwood Works Authority: Environment Agency, North East Region Pollutant: Sewage - Septic Tank Effluent Note: Blacker Dyke; Fish Killed: No Information Incident Date: 24th September 1998 Incident Reference: SH980412 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m</p>	A18SE (N)	611	2	435300 401500
28	<p>Pollution Incidents to Controlled Waters</p> <p>Property Type: Highway/Car Park Location: Rd Brdg/Markers Brdg B6273 Dearne 07 Authority: Environment Agency, North East Region Pollutant: Oils - Diesel (Including Agricultural) Note: Not Supplied Incident Date: 3rd March 1994 Incident Reference: 150516 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</p>	A9NE (E)	673	2	436100 400500

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
29	Pollution Incidents to Controlled Waters Property Type: Water Company Sewage: Other Location: Pilley Lane, BIRDWELL Authority: Environment Agency, North East Region Pollutant: Unknown Sewage Note: Rockley Dike; Fish Killed: No Information Incident Date: 23rd July 1998 Incident Reference: SH980294 Catchment Area: Dearne Tributaries Receiving Water: Freshwater Stream/River Cause of Incident: Not Given Incident Severity: Category 3 - Minor Incident Positional Accuracy: Located by supplier to within 100m	A11NE (W)	938	2	434200 401000
	River Quality Name: Blacker_Dyke GQA Grade: River Quality C Reach: Rockingham_Colliery_River_Dov Estimated Distance (km): 2.9 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A18SW (N)	482	2	435161 401349
	River Quality Name: Warren_Dyke GQA Grade: River Quality D Reach: Lower_Pilley_Rockley_Dyk Estimated Distance (km): 2.4 Flow Rate: Flow less than 0.31 cumecs Flow Type: River Year: 2000	A7NW (W)	503	2	434458 400393
30	Substantiated Pollution Incident Register Authority: Environment Agency - North East Region, Yorkshire Area Incident Date: 18th July 2003 Incident Reference: 174964 Water Impact: Category 1 - Major Incident Air Impact: Category 3 - Minor Incident Land Impact: Category 4 - No Impact Positional Accuracy: Located by supplier to within 10m Pollutant: Crude Sewage	A12SW (W)	810	2	434254 400757
	Water Abstractions Operator: Tankersley Park Golf Club Licence Number: 2/27/06/043 Permit Version: 100 Location: Strafford Shaft Authority: Environment Agency, North East Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 41 Yearly Rate (m3): 6820 Details: Tankersley Park Golf Club, High Green, Sheffield Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 27th March 1991 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(S)	1732	2	435600 398700
	Water Abstractions Operator: Tankersley Park Golf Club Licence Number: 2/27/06/043 Permit Version: 102 Location: Borehole-Shaft Coal Measures-High Green Authority: Environment Agency, North East Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Tankersley Park Golf Club, High Green, Sheffield Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 9th February 2004 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1746	2	435570 398680

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Water Abstractions Operator: Tankersley Park Golf Club Licence Number: 2/27/06/043 Permit Version: 102 Location: Borehole-Shaft-Coal Measures-High Green-Sheffield Authority: Environment Agency, North East Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Tankersley Park Golf Club, High Green, Sheffield Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 9th February 2004 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 100m	(S)	1754	2	435700 398700
	Water Abstractions Operator: Tankersley Park Golf Club Licence Number: 2/27/06/043 Permit Version: 101 Location: Borehole - Shaft - Coal Measures - High Green Sheffield Authority: Environment Agency, North East Region Abstraction: Golf Courses: Spray Irrigation - Direct Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): Not Supplied Yearly Rate (m3): Not Supplied Details: Tankersley Park Golf Club, High Green, Sheffield Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 24th October 2000 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(S)	1754	2	435700 398700
	Water Abstractions Operator: Mr H Brown Licence Number: 2/27/08/040 Permit Version: 100 Location: Well - Coal Measures - Worsborough Authority: Environment Agency, North East Region Abstraction: General Farming And Domestic Abstraction Type: Water may be abstracted from a single point Source: Groundwater Daily Rate (m3): 1 Yearly Rate (m3): 303 Details: 3 Acres Farmland, Brownfield, Worsborough Village, Barnsley Authorised Start: 01 January Authorised End: 31 December Permit Start Date: 27th January 1966 Permit End Date: Not Supplied Positional Accuracy: Located by supplier to within 10m	(N)	1784	2	434800 402600
	Groundwater Vulnerability 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	A8NW (N)	0	2	435206 400600
	Groundwater Vulnerability Soil Classification: Soils of Low Leaching Potential - Soils in which pollutants are unlikely to penetrate the soil layer because water movement is largely horizontal or they have large ability to attenuate diffuse pollutants. Lateral flow from these soils contribute to groundwater recharge elsewhere in the catchment Map Sheet: Sheet 11 South Pennines Scale: 1:100,000	A8NW (W)	0	2	435195 400597
	Drift Deposits None				
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A8NW (W)	0	4	435000 400600
	Bedrock Aquifer Designations Aquifer Designation: Secondary Aquifer - A	A8NW (N)	0	4	435206 400600
	Superficial Aquifer Designations No Data Available				

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Extreme Flooding from Rivers or Sea without Defences None				
	Flooding from Rivers or Sea without Defences None				
	Areas Benefiting from Flood Defences None				
	Flood Water Storage Areas None				
	Flood Defences None				
31	Detailed River Network Lines River Type: Lake/Reservoir River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13SE (NE)	0	2	435355 400786
32	Detailed River Network Lines River Type: Secondary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13SE (NE)	0	2	435330 400834
33	Detailed River Network Lines River Type: Secondary River River Name: Drain Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13SE (NE)	0	2	435367 400770
34	Detailed River Network Lines River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13SE (NE)	9	2	435332 400869

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
35	Detailed River Network Lines River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13SE (E)	95	2	435543 400658
36	Detailed River Network Lines River Type: Lake/Reservoir River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NE (N)	128	2	435236 400995
37	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A9NW (E)	170	2	435605 400600
38	Detailed River Network Lines River Type: Lake/Reservoir River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NE (N)	180	2	435221 401048
39	Detailed River Network Lines River Type: Lake/Reservoir River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NE (N)	180	2	435221 401048
40	Detailed River Network Lines River Type: Secondary River River Name: Drain Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NE (N)	186	2	435219 401053

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
41	Detailed River Network Lines River Type: Tertiary River River Name: Drain Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NW (N)	191	2	435208 401052
42	Detailed River Network Lines River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NW (N)	233	2	435191 401092
43	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NE (N)	283	2	435224 401160
44	Detailed River Network Lines River Type: Tertiary River River Name: Drain Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Drain (ditch, Reen, Rhyne, Drain) Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A12NE (NW)	353	2	434866 400992
45	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NE (N)	362	2	435269 401249
46	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A13NW (NW)	390	2	434883 401055

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
47	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A7SE (SW)	407	2	434596 400257
48	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A18SE (N)	430	2	435265 401317
49	Detailed River Network Lines River Type: Secondary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A18SE (N)	435	2	435260 401321
50	Detailed River Network Lines River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A7SE (SW)	456	2	434544 400256
51	Detailed River Network Lines River Type: Tertiary River River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A18SE (N)	472	2	435311 401360
52	Detailed River Network Lines River Type: Extended Culvert (greater than 50m) River Name: Not Supplied Hydrographic Area: D004 River Flow Type: Primary Flow Path River Surface Level: Below Surface Drain Feature: Not a Drain Flood Risk: Other Rivers Management Status: Water Course: Not Supplied Name: Water Course: Not Supplied Reference:	A18SE (N)	478	2	435378 401361

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
53	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A13SE (NE)	0	2	435271 400640
54	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A13SW (N)	0	2	435150 400759
55	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A13SE (NE)	0	2	435256 400671
56	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A13SE (NE)	15	2	435371 400814
57	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A13SW (N)	43	2	435200 400861
58	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A13SE (NE)	55	2	435455 400755
59	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A13SE (NE)	70	2	435373 400914
60	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A13SE (NE)	70	2	435373 400914
61	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A14SW (E)	130	2	435578 400663
62	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A13NE (NE)	154	2	435395 401013
63	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A14SW (NE)	272	2	435679 400814
64	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A14SW (E)	276	2	435715 400736
65	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A14SW (NE)	280	2	435654 400863
66	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A13NE (NE)	334	2	435469 401180
67	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A13NE (N)	344	2	435430 401209
68	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A14NW (NE)	348	2	435586 401095
69	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A14NW (NE)	348	2	435586 401095
70	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A13NE (N)	352	2	435407 401225
71	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A13NE (N)	370	2	435459 401225
72	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A13NE (N)	378	2	435347 401265
73	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A13NE (N)	402	2	435312 401291

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
74	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A14NW (NE)	411	2	435744 400965
75	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A13NE (N)	414	2	435459 401273
76	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A14NW (NE)	452	2	435669 401157
77	Detailed River Network Offline Drainage River Type: Tertiary River Hydrographic Area: D004	A14NW (NE)	461	2	435676 401163

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
78	<p>Historical Landfill Sites</p> <p>Licence Holder: Hartwood Exports Location: Adjoining premises of Hartwood Exports (Machinery) Limited, Sheffield Road, Birdwell, Barnsley Name: British Rail Railway Cutting Operator Location: Sheffield Road, Birdwell, Barnsley Boundary Accuracy: As Supplied Provider Reference: EAHLD04408 First Input Date: 31st May 1983 Last Input Date: 31st December 1989 Specified Waste Type: Deposited Waste included Inert and Commercial Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 4400/0455 BGS Ref: Not Supplied Other Ref: WD20 B378, 4400/B378, 20B378(53), (36)B, 4400/(36), 4400/0439</p>	A13SW (W)	97	2	434977 400672
79	<p>Historical Landfill Sites</p> <p>Licence Holder: B D R Waste Disposal Limited Location: Birdwell, Barnsley, South Yorkshire Name: Birdwell Common Quarry Operator Location: Not Supplied Boundary Accuracy: As Supplied Provider Reference: EAHLD04406 First Input Date: Not Supplied Last Input Date: Not Supplied Specified Waste Type: Not Supplied EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 4400/0555 BGS Ref: Not Supplied Other Ref: WD20 D928, 4400/(153)</p>	A7NE (W)	419	2	434593 400589
80	<p>Historical Landfill Sites</p> <p>Licence Holder: Hoyland Marshall Limited Location: Upper Hoyland Road, Hoyland, Barnsley Name: Shortwood Operator Location: Shortwood, Hoyland, Barnsley Boundary Accuracy: As Supplied Provider Reference: EAHLD04874 First Input Date: 31st December 1962 Last Input Date: 31st December 1990 Specified Waste Type: Deposited Waste included Inert and Industrial Waste EA Waste Ref: 0 Regis Ref: Not Supplied WRC Ref: 4400/0424 BGS Ref: Not Supplied Other Ref: 20B76(21), 4400/B76, WD20 B76</p>	A19SW (NE)	822	2	435726 401595
81	<p>Licensed Waste Management Facilities (Locations)</p> <p>Licence Number: 65291 Location: Lidget Garage, Sheffield Road, Hoyland Common, Barnsley, South Yorkshire, S74 0EB Operator Name: Richard Adrian Goodwin Operator Location: Not Supplied Authority: Environment Agency - North East Region, Yorkshire Area Site Category: Physico-chemical Treatment Facilities Licence Status: Issued Issued: 5th April 2006 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: Not Supplied IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A8NW (SW)	54	2	434990 400309

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
82	<p>Licensed Waste Management Facilities (Locations)</p> <p>Licence Number: 60553 Location: Hangmanstone Depot, Sheffield Road, Birdwell, Barnsley, South Yorkshire, S70 5TR Operator Name: Hartwood Estates Ltd Operator Location: Not Supplied Authority: Environment Agency - North East Region, Yorkshire Area Site Category: Metal Recycling Sites (Vehicle Dismantlers) Licence Status: Surrendered Issued: 22nd November 1996 Last Modified: Not Supplied Expires: Not Supplied Suspended: Not Supplied Revoked: Not Supplied Surrendered: 16th February 2009 IPPC Reference: Not Supplied Positional Accuracy: Located by supplier to within 10m</p>	A7NE (W)	313	2	434720 400580
	<p>Local Authority Landfill Coverage</p> <p>Name: Barnsley Metropolitan Borough Council - Has supplied landfill data</p>		0	3	435206 400600
83	<p>Local Authority Recorded Landfill Sites</p> <p>Location: Not Supplied Reference: 53 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</p>	A13SW (W)	94	3	434979 400671
84	<p>Local Authority Recorded Landfill Sites</p> <p>Location: Not Supplied Reference: 36 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</p>	A7NE (W)	259	3	434749 400496
85	<p>Local Authority Recorded Landfill Sites</p> <p>Location: Not Supplied Reference: 153 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</p>	A7NE (W)	323	3	434697 400556
86	<p>Local Authority Recorded Landfill Sites</p> <p>Location: Not Supplied Reference: 21 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</p>	A19SW (NE)	823	3	435714 401603

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
87	<p>Registered Landfill Sites</p> <p>Licence Holder: Hartwood Exports (Machinery) Licence Reference: WD20 B 378 Site Location: Railway Cutting At Sheffield Road, Birdwell, Barnsley, South Yorkshire Licence Easting: 434900 Licence Northing: 400600 Operator Location: Sheffield Road, Birdwell, Barnsley, South Yorkshire Authority: Environment Agency - North East Region, Ridings Area Site Category: Landfill - Railway cutting Max Input Rate: Very Large (Equal to or greater than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st May 1983 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Clay,Subsoil,Topsoil Construction And Demolition Wastes Foundry Sand & Slag Hardcore Waste Ex Coal Processing Prohibited Waste: Asbestos Liquids In Containers Over 4l Cap. Slurry In Containers Over 4l Cap.</p>	A8NW (W)	148	2	434900 400600
88	<p>Registered Landfill Sites</p> <p>Licence Holder: G R Stein Refractories Ltd Licence Reference: WD20 B 76 Site Location: Marshall'S Hoyland Works, Shortwood, Hoyland, Barnsley, South Yorkshire, S74 9np Licence Easting: 435800 Licence Northing: 401650 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: No known restriction on source of waste Restrictions: Status: Licence lapsed/cancelled/defunct/not applicable/surrenderedCancelled Dated: 1st October 1979 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Accuracy: Not Applicable Authorised Waste: Empty Used Containers Fired Refractory Clay &Non Flam.Tailing Ind. Non-Haz. Inert, Non-Flammable Prohibited Waste: Liquids In Containers Over 4l Cap. Slurry In Containers Over 4l Cap.</p>	A19NW (NE)	908	2	435800 401650
89	<p>Registered Waste Transfer Sites</p> <p>Licence Holder: Deborah Tornese Licence Reference: WD20 B1036 Site Location: Unit 12 Rockingham Road, Birdwell, BARNSELEY, South Yorkshire, S70 5TU Operator Location: 12 Cranemoor Nook, Cranemoor, Wortley, Sheffield, South Yorkshire Authority: Environment Agency - North East Region, Ridings Area Site Category: Transfer Max Input Rate: Large (Equal to or greater than 75,000 and less than 250,000 tonnes per year) Waste Source: No known restriction on source of waste Restrictions: Licence Status: Site exempt from licenceExempt Dated: 1st December 1993 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Manually positioned to the address or location Boundary Quality: Not Supplied Authorised Waste: Empty Used Containers Max.Storage In Licence Prohibited Waste: Waste N.O.S.</p>	A13SW (W)	141	2	434930 400670

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
90	<p>Registered Waste Treatment or Disposal Sites</p> <p>Licence Holder: Hartwood Exports (Machinery) Ltd Licence Reference: WD20 B1120 MOD 2 Site Location: Hangmanstone Depot, Sheffield Road, Birdwell, BARNSLEY, South Yorkshire, S70 5TR</p> <p>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: No known restriction on source of waste</p> <p>Restrictions: Licence Status: Operational as far as is knownOperational Dated: 22nd November 1996 Preceded By: Not Given Licence: Superseded By: Not Given Licence: Positional Accuracy: Located by supplier to within 100m Boundary Quality: Not Supplied Authorised Waste: Max.Waste Permitted By Licence Scrap Motor Vehicles Max.Stor Scrap Tyres Max.Stor</p> <p>Prohibited Waste: Liquid Wastes Waste N.O.S.</p>	A7NE (W)	313	2	434720 400580

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS 1:625,000 Solid Geology Description: Pennine Middle Coal Measures Formation And South Wales Middle Coal Measures Formation (Undifferentiated)	A8NW (N)	0	4	435206 400600
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8NW (W)	0	4	435000 400600
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8NW (W)	0	4	435045 400540
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8NW (W)	0	4	435072 400568
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8NW (W)	0	4	435133 400600
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8NW (N)	0	4	435206 400600
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic Concentration: 15 - 25 mg/kg Cadmium Concentration: <1.8 mg/kg Chromium Concentration: 60 - 90 mg/kg Lead Concentration: <150 mg/kg Nickel Concentration: 15 - 30 mg/kg	A8NE (E)	0	4	435274 400611

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13SE (E)	0	4	435340 400643
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8NW (SW)	46	4	435093 400336
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13SE (E)	71	4	435519 400671
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8NW (SW)	77	4	434886 400447
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8NW (S)	89	4	435136 400301
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13SW (NW)	98	4	435000 400734

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NE (N)	111	4	435310 401000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NE (N)	111	4	435249 401000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NW (N)	125	4	435206 401000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NW (N)	152	4	435202 401000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8SW (S)	152	4	435212 400248
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NE (NE)	185	4	435453 401000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SW (E)	187	4	435619 400744
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NW (N)	217	4	435095 401000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SW (E)	268	4	435692 400775
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NW (NW)	275	4	435000 401000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NW (NW)	292	4	434972 401000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NW (NE)	299	4	435588 401004

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NW (NW)	322	4	435000 401060
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8SE (SE)	330	4	435424 400114
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8SW (S)	363	4	435000 400000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8SW (S)	364	4	435088 400000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NE (W)	364	4	434618 400434
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NW (NE)	369	4	435672 401000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8SW (S)	374	4	435167 400000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NW (NE)	388	4	435707 401021
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8SW (S)	390	4	435206 400000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NW (N)	396	4	435000 401153
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NE (NE)	397	4	435520 401223
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8SE (S)	403	4	435324 400000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NW (NE)	411	4	435723 401001
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NW (NE)	413	4	435724 401000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A13NE (N)	417	4	435475 401270
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A8SE (SE)	453	4	435473 400000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SE (E)	479	4	435918 400756
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7SE (SW)	500	4	434645 400000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A18SE (N)	503	4	435361 401389
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A14NW (NE)	524	4	435835 401035
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A18SE (N)	525	4	435338 401413
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A9SW (SE)	527	4	435600 400000
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A14NW (NE)	532	4	435866 401000
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A18SE (N)	543	4	435319 401432

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SE (E)	552	4	436000 400645
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9NE (E)	553	4	436000 400600
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SE (E)	557	4	436000 400737
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SE (N)	561	4	435302 401450
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7NW (W)	571	4	434406 400446
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SW (N)	589	4	435119 401453

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SE (E)	597	4	436000 400891
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SW (N)	613	4	435000 401421
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NE (NE)	628	4	435966 401020
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NE (NE)	629	4	435980 401000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NE (NE)	634	4	436000 400977
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NE (NE)	646	4	436000 401000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9NE (E)	647	4	436000 400329
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NW (NE)	657	4	435844 401265
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7SW (SW)	662	4	434435 400000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A17SE (NW)	667	4	434861 401407
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A19SW (NE)	675	4	435763 401385
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9SE (SE)	707	4	436000 400224

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NW (NW)	713	4	434446 401000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NE (NE)	716	4	436000 401130
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A19SW (NE)	721	4	435672 401510
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A3NW (S)	725	4	435000 399638
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A19SW (NE)	739	4	435641 401547
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A2NE (SW)	746	4	434661 399688

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NE (NW)	755	4	434584 401279
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NE (NW)	757	4	434564 401260
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A2NW (SW)	757	4	434453 399828
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A17SE (NW)	760	4	434697 401379
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A3SW (S)	765	4	435000 399598
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A19SW (N)	766	4	435598 401597

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14SE (E)	766	4	436157 400954
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NW (NW)	773	4	434486 401190
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NE (NE)	780	4	436152 401000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18SW (N)	781	4	435000 401608
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7SW (SW)	788	4	434316 399952
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7SW (SW)	788	4	434289 400000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A19NW (N)	792	4	435558 401639
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A9SE (SE)	802	4	435950 400000
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A4NW (SE)	803	4	435842 399851
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A7SW (SW)	804	4	434271 400000
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A18NW (N)	809	4	435094 401670
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A19SW (NE)	809	4	435886 401453

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A19SE (NE)	810	4	435996 401334
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A7SW (SW)	821	4	434232 400044
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A19SE (NE)	823	4	436000 401330
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A12NW (NW)	831	4	434348 401068
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A9SE (SE)	832	4	436000 400029
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A4NE (SE)	834	4	435946 399932

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NE (E)	836	4	436222 400982
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A7SW (SW)	841	4	434230 400000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9SE (SE)	846	4	436000 400000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A14NE (E)	847	4	436226 401000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9SE (SE)	856	4	436000 399978
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A6SE (W)	857	4	434139 400234

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9SE (SE)	859	4	436007 399984
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9SE (SE)	869	4	436026 400000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A12NW (NW)	871	4	434272 401000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A6SE (SW)	877	4	434138 400145
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A9SE (SE)	878	4	436045 400017
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A10NW (E)	892	4	436263 400303

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A3SW (S)	895	4	435000 399469
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A9SE (SE)	896	4	436140 400096
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A9SE (SE)	906	4	436068 400000
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A6SE (W)	907	4	434097 400187
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A9SE (SE)	922	4	436220 400162
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A6SE (SW)	933	4	434130 400000

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A11SE (W)	936	4	434171 400908
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A18NW (N)	941	4	435000 401779
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A10NW (E)	941	4	436329 400336
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A6SE (W)	946	4	434048 400237
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A18NE (N)	957	4	435349 401845
	<p>BGS Estimated Soil Chemistry</p> <p>Source: British Geological Survey, National Geoscience Information Service</p> <p>Soil Sample Type: Rural Soil</p> <p>Arsenic 15 - 25 mg/kg</p> <p>Concentration:</p> <p>Cadmium <1.8 mg/kg</p> <p>Concentration:</p> <p>Chromium 60 - 90 mg/kg</p> <p>Concentration:</p> <p>Lead Concentration: <150 mg/kg</p> <p>Nickel 15 - 30 mg/kg</p> <p>Concentration:</p>	A19SE (NE)	959	4	436000 401550

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A17NE (N)	964	4	434825 401726
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A11NE (W)	965	4	434171 401000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A6NE (W)	984	4	434000 400600
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18NW (N)	985	4	435000 401828
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A6SE (SW)	987	4	434071 400000
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A6SE (W)	988	4	434000 400286

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18NW (N)	988	4	434994 401827
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A11SE (W)	990	4	434089 400831
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A18NW (N)	991	4	435000 401832
	BGS Estimated Soil Chemistry Source: British Geological Survey, National Geoscience Information Service Soil Sample Type: Rural Soil Arsenic 15 - 25 mg/kg Concentration: Cadmium <1.8 mg/kg Concentration: Chromium 60 - 90 mg/kg Concentration: Lead Concentration: <150 mg/kg Nickel 15 - 30 mg/kg Concentration:	A6SE (W)	993	4	434000 400242
91	BGS Recorded Mineral Sites Site Name: Knoll Drift Mine Location: , Tankersley Common, Hoyland, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204806 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Flockton Thick Coal (West And South Yorkshire) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A8NW (SW)	73	4	434912 400394
92	BGS Recorded Mineral Sites Site Name: Rockingham Occs Location: , Hoyland, Barnsley, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 201 Type: Opencast Status: Ceased Operator: Rjb Mining (Uk) Ltd Operator Location: Rjb Mining (Uk) Ltd, Harworth Park, Blyth Road, Harworth, Doncaster, South Yorkshire, Dn11 8db Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Coal - Surface Mined Positional Accuracy: Unknown	A13SW (N)	74	4	435200 400900

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
93	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Knoll Drift Mine Location: , Tankersley Common, Hoyland, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204805 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Flockton Thick Coal (West And South Yorkshire) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p>	A7NE (SW)	114	4	434871 400396
94	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Rockingham Colliery, No. 1 Shaft Location: , Hoyland, Barnsley, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 13310 Type: Underground Status: Ceased Operator: Ncb South Yorkshire Area Operator Location: Ncb South Yorkshire Area, Golden Smithies Lane, Wath-Upon-Dearne, Rotherham, South Yorkshire, S63 7ew Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p>	A13NE (N)	117	4	435276 401002
94	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Rockingham Colliery, No. 2 Shaft Location: , Birdwell, Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204821 Type: Underground Status: Ceased Operator: Ncb South Yorkshire Area Operator Location: Ncb South Yorkshire Area, Golden Smithies Lane, Wath-Upon-Dearne, Rotherham, South Yorkshire, S63 7ew Periodic Type: Carboniferous Geology: Pennine Coal Measures Group Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p>	A13NE (N)	147	4	435305 401036
95	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Rockingham Occs Location: , Birdwell, Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204823 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Swallow Wood Coal (West And South Yorkshire) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p>	A13SW (NW)	185	4	435059 400932
96	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Rockingham Colliery, Swallow Wood Drift Location: , Birdwell, Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204822 Type: Underground Status: Ceased Operator: Ncb South Yorkshire Area Operator Location: Ncb South Yorkshire Area, Golden Smithies Lane, Wath-Upon-Dearne, Rotherham, South Yorkshire, S63 7ew Periodic Type: Carboniferous Geology: Swallow Wood Coal (West And South Yorkshire) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p>	A13NE (N)	219	4	435333 401106

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
97	BGS Recorded Mineral Sites Site Name: Singleton Wood Location: , Upper Hoyland, Hoyland, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 38055 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A13NE (NE)	266	4	435447 401114
98	BGS Recorded Mineral Sites Site Name: Birdwell Location: , Hoyland, Barnsley, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 13311 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A7NE (W)	374	4	434660 400595
99	BGS Recorded Mineral Sites Site Name: Hay Green Occs Location: Hay Green Lane, Birdwell, Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204804 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Swallow Wood Coal (West And South Yorkshire) Commodity: Coal - Surface Mined Positional Accuracy: Located by supplier to within 10m	A12NE (NW)	486	4	434843 401145
100	BGS Recorded Mineral Sites Site Name: High Royd Brick Works Location: , Upper Hoyland, Hoyland, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 108221 Type: Opencast Status: Ceased Operator: Frith Fireclay Co., Ltd Operator Location: Frith Fireclay Co., Ltd, Storrs Bridge Lane, Loxley, Sheffield, South Yorkshire Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	573	4	435645 401350
101	BGS Recorded Mineral Sites Site Name: Bird Well Common Location: , Birdwell, Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 38056 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A12SW (W)	605	4	434498 400845
102	BGS Recorded Mineral Sites Site Name: Hay Green Coal Workings Location: Hay Green Lane, Birdwell, Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204803 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Swallow Wood Coal (West And South Yorkshire) Commodity: Coal - Surface Mined Positional Accuracy: Located by supplier to within 10m	A12NE (NW)	658	4	434690 401244

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
103	BGS Recorded Mineral Sites Site Name: High Royd Brick Works Location: , Hoyland, Barnsley, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 13309 Type: Opencast Status: Ceased Operator: Ffrith Fireclay Co., Ltd Operator Location: Ffrith Fireclay Co., Ltd, Storrs Bridge Lane, Loxley, Sheffield, South Yorkshire Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	695	4	435655 401490
104	BGS Recorded Mineral Sites Site Name: Hay Royd Brick Works Location: , Upper Hoyland, Hoyland, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204791 Type: Opencast Status: Ceased Operator: Ffrith Fireclay Co., Ltd Operator Location: Ffrith Fireclay Co., Ltd, Storrs Bridge Lane, Loxley, Sheffield, South Yorkshire Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Common Clay and Shale Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	762	4	435810 401460
105	BGS Recorded Mineral Sites Site Name: Lidget Location: , Pilley, Hoyland, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 38057 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m	A7NW (W)	762	4	434226 400296
106	BGS Recorded Mineral Sites Site Name: Lacton House Drift Mine Location: , Tankersley Common, Hoyland, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204807 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Flockton Thick Coal (West And South Yorkshire) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A7SW (SW)	779	4	434232 400176
107	BGS Recorded Mineral Sites Site Name: Hay Royd Colliery Location: , Upper Hoyland, Hoyland, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 38049 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Barnsley Coal (West And South Yorkshire) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	779	4	435652 401587
107	BGS Recorded Mineral Sites Site Name: Hay Royd Colliery Location: , Upper Hoyland, Hoyland, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204792 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Barnsley Coal (West And South Yorkshire) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m	A19SW (NE)	820	4	435681 401618

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
108	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Hay Green Lane Quarries Location: Hay Green Lane, Birdwell, Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204801 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m</p>	A17SE (N)	782	4	434838 401515
109	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Hay Green Lane Quarries Location: Hay Green Lane, Birdwell, Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204798 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m</p>	A17SE (NW)	790	4	434725 401439
109	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Hay Green Lane Quarries Location: Hay Green Lane, Birdwell, Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204799 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m</p>	A17SE (NW)	817	4	434732 401478
110	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Potter Holes Bell Pits Location: , Tankersley Common, Hoyland, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204811 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p>	A2NW (SW)	796	4	434356 399879
111	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Potter Holes Bell Pits Location: , Tankersley Common, Hoyland, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204810 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p>	A7SW (SW)	798	4	434289 399979
112	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Hay Green Lane Quarries Location: Hay Green Lane, Birdwell, Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204800 Type: Opencast Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Middle Coal Measures Formation Commodity: Sandstone Positional Accuracy: Located by supplier to within 10m</p>	A17SE (NW)	821	4	434781 401521

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
113	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Potter Holes Bell Pits Location: , Tankersley Common, Hoyland, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204809 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Pennine Lower Coal Measures Formation Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p>	A7SW (SW)	831	4	434219 400049
114	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Hay Green Lane Coal Pit Location: Hay Green Lane, Birdwell, Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204794 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Swallow Wood Coal (West And South Yorkshire) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p>	A17SE (NW)	844	4	434592 401404
115	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Birdwell Lodge Coal Mine Location: , Birdwell, Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204796 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Lidget Coal (West And South Yorkshire) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p>	A11SE (W)	896	4	434194 400850
116	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Hay Royd Colliery Air Pit Location: Short Wood, Upper Hoyland, Hoyland, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204793 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Barnsley Coal (West And South Yorkshire) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p>	A18NE (N)	929	4	435350 401817
117	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Lacton House Drift Mine Air Shaft Location: , Tankersley Common, Hoyland, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204808 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Flockton Thick Coal (West And South Yorkshire) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p>	A6SE (SW)	932	4	434085 400131
118	<p>BGS Recorded Mineral Sites</p> <p>Site Name: Birdwell Lodge Coal Mine Location: , Birdwell, Worsbrough, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 204797 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Lidget Coal (West And South Yorkshire) Commodity: Coal - Deep Positional Accuracy: Located by supplier to within 10m</p>	A11SE (W)	952	4	434131 400837

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
119	BGS Recorded Mineral Sites Site Name: Tankersley Ironstone Pit Location: , Tankersley, Hoyland, South Yorkshire Source: British Geological Survey, National Geoscience Information Service Reference: 38097 Type: Underground Status: Ceased Operator: Unknown Operator Operator Location: Unknown Operator Periodic Type: Carboniferous Geology: Tankersley Ironstone Commodity: Iron Ore - Ironstone Positional Accuracy: Located by supplier to within 10m	A3SW (S)	958	4	434986 399405
	BGS Measured Urban Soil Chemistry No data available				
	BGS Urban Soil Chemistry Averages No data available				
	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.	A8NW (N)	0	5	435206 400600
	Mining Instability Mining Evidence: Inconclusive Coal Mining Source: Ove Arup & Partners Boundary Quality: As Supplied	A8NW (N)	0	-	435206 400600
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A8NW (N)	0	4	435206 400600
	Non Coal Mining Areas of Great Britain Risk: Highly Unlikely Source: British Geological Survey, National Geoscience Information Service	A8NW (W)	0	4	435000 400600
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NW (N)	0	4	435206 400600
	Potential for Collapsible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NW (W)	0	4	435000 400600
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A8NW (W)	0	4	435000 400600
	Potential for Compressible Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A8NW (N)	0	4	435206 400600
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NE (SE)	0	4	435251 400574
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A8NW (S)	49	4	435138 400342
	Potential for Compressible Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	78	4	435000 400683
	Potential for Compressible Ground Stability Hazards Hazard Potential: Moderate Source: British Geological Survey, National Geoscience Information Service	A13SW (NW)	93	4	435089 400839
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A8NW (W)	0	4	435000 400600
	Potential for Ground Dissolution Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A8NW (N)	0	4	435206 400600
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NW (W)	0	4	435000 400600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	Potential for Landslide Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NW (N)	0	4	435206 400600
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A14SW (E)	137	4	435583 400649
	Potential for Landslide Ground Stability Hazards Hazard Potential: Low Source: British Geological Survey, National Geoscience Information Service	A7SE (SW)	211	4	434866 400191
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A8NW (W)	0	4	435000 400600
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A8NW (N)	0	4	435206 400600
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NE (SE)	0	4	435251 400574
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NW (S)	49	4	435138 400342
	Potential for Running Sand Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A13SW (W)	78	4	435000 400683
	Potential for Running Sand Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A13NW (NW)	237	4	435000 400968
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NE (E)	0	4	435241 400592
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A8NE (E)	0	4	435360 400594
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A8NW (N)	0	4	435206 400600
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A8NW (W)	0	4	435123 400600
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NW (W)	0	4	435000 400600
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A8NW (W)	0	4	435166 400598
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A8NW (W)	24	4	434968 400505
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: Very Low Source: British Geological Survey, National Geoscience Information Service	A14SW (E)	127	4	435570 400697
	Potential for Shrinking or Swelling Clay Ground Stability Hazards Hazard Potential: No Hazard Source: British Geological Survey, National Geoscience Information Service	A14SW (E)	159	4	435607 400684
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A8NW (N)	0	4	435206 400600
	Radon Potential - Radon Protection Measures Protection Measure: No radon protective measures are necessary in the construction of new dwellings or extensions Source: British Geological Survey, National Geoscience Information Service	A8NW (W)	0	4	435000 400600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
	<p>Radon Potential - Radon Affected Areas</p> <p>Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level</p> <p>Source: British Geological Survey, National Geoscience Information Service</p>	A8NW (N)	0	4	435206 400600
	<p>Radon Potential - Radon Affected Areas</p> <p>Affected Area: The property is in a lower probability radon area, as less than 1% of homes are above the action level</p> <p>Source: British Geological Survey, National Geoscience Information Service</p>	A8NW (W)	0	4	435000 400600

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
120	Contemporary Trade Directory Entries Name: Lidgett Garage Location: Sheffield Rd, Hoyland, Barnsley, South Yorkshire, S74 0EB Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A8NE (S)	31	-	435276 400376
120	Contemporary Trade Directory Entries Name: Cross Keys Filling Station Location: Sheffield Road, Hoyland, Barnsley, South Yorkshire, S74 0PY Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (S)	35	-	435288 400396
121	Contemporary Trade Directory Entries Name: G B Truck Services Ltd Location: Cross Keys Works, Cross Keys Lane, Hoyland, Barnsley, South Yorkshire, S74 0QA Classification: Diesel Fuel Injection Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (SE)	36	-	435272 400542
121	Contemporary Trade Directory Entries Name: S & H Recovery Services Ltd Location: Cross Keys Works, Cross Keys Lane, Hoyland, Barnsley, South Yorkshire, S74 0QA Classification: Breakdown and Recovery Status: Inactive Positional Accuracy: Manually positioned to the address or location	A8NE (SE)	36	-	435272 400542
121	Contemporary Trade Directory Entries Name: G B Truck Services Ltd Location: Cross Keys Works, Cross Keys Lane, Hoyland, Barnsley, South Yorkshire, S74 0QA Classification: Commercial Vehicle Bodybuilders & Repairers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (SE)	36	-	435272 400542
121	Contemporary Trade Directory Entries Name: G B Truck Service Ltd Location: Cross Keys Works, Cross Keys Lane, Hoyland, Barnsley, South Yorkshire, S74 0QA Classification: Commercial Vehicle Bodybuilders & Repairers Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (SE)	36	-	435272 400542
122	Contemporary Trade Directory Entries Name: A H Fastners (UK) Ltd Location: Sheffield Rd, Hoyland Common, Barnsley, South Yorkshire, S74 0EB Classification: Fasteners & Fixing Devices Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location	A8NE (SE)	80	-	435319 400352
122	Contemporary Trade Directory Entries Name: Cross Keys Garage (Barnsley) Ltd Location: Sheffield Road, Hoyland, Barnsley, South Yorkshire, S74 0PY Classification: Petrol Filling Stations Status: Inactive Positional Accuracy: Automatically positioned to the address	A8NE (SE)	90	-	435343 400394
123	Contemporary Trade Directory Entries Name: Direct Waste Services Location: Tinker La, Hoyland, Barnsley, South Yorkshire, S74 0PR Classification: Waste Disposal Services Status: Active Positional Accuracy: Manually positioned to the road within the address or location	A8NE (E)	146	-	435484 400524
124	Contemporary Trade Directory Entries Name: Darwill Ltd Location: Unit 13, Rockingham Business Park, Rockingham Row, Birdwell, Barnsley, South Yorkshire, S70 5TW Classification: Crane Manufacturers Status: Active Positional Accuracy: Automatically positioned to the address	A13SW (W)	162	-	434906 400665
124	Contemporary Trade Directory Entries Name: W R Rack Solutions Ltd Location: Unit 13, Rockingham Business Park, Rockingham Row, Birdwell, Barnsley, South Yorkshire, S70 5TW Classification: Pallets, Crates & Packing Cases Status: Active Positional Accuracy: Automatically positioned to the address	A13SW (W)	162	-	434906 400665

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
125	<p>Contemporary Trade Directory Entries</p> <p>Name: Kustom Sport Location: Regent St, Hoyland, Barnsley, South Yorkshire, S74 0PU Classification: Carpets & Rugs - Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location</p>	A8NE (SE)	185	-	435436 400372
126	<p>Contemporary Trade Directory Entries</p> <p>Name: Birdwell Garage Location: Unit 6, Rockingham Business Park, Rockingham Row, Birdwell, Barnsley, South Yorkshire, S70 5TW Classification: Garage Services Status: Active Positional Accuracy: Automatically positioned to the address</p>	A12SE (W)	189	-	434875 400659
126	<p>Contemporary Trade Directory Entries</p> <p>Name: Scrap My Car Now For Barnsley Kws Location: Rockingham Row, Barnsley, South Yorkshire, S70 5TW Classification: Car Breakers & Dismantlers Status: Active Positional Accuracy: Manually positioned within the geographical locality</p>	A12SE (W)	190	-	434875 400659
126	<p>Contemporary Trade Directory Entries</p> <p>Name: Bmw Breaking Centre Location: Unit 3, Rockingham Business Park, Rockingham Row, Birdwell, Barnsley, South Yorkshire, S70 5TW Classification: Car Breakers & Dismantlers Status: Inactive Positional Accuracy: Automatically positioned in the proximity of the address</p>	A12SE (W)	220	-	434852 400688
126	<p>Contemporary Trade Directory Entries</p> <p>Name: May Gurney Ltd Location: Unit 4, Rockingham Business Park, Rockingham Row, Birdwell, BARNSELEY, South Yorkshire, S70 5TW Classification: Sewage Disposal - Equipment & Service Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12SE (W)	222	-	434836 400643
126	<p>Contemporary Trade Directory Entries</p> <p>Name: Company Shop Location: Rockingham Row, Birdwell, Barnsley, South Yorkshire, S70 5TW Classification: Food Products - Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location</p>	A12SE (W)	227	-	434844 400684
127	<p>Contemporary Trade Directory Entries</p> <p>Name: Puncturesafe Location: 12, Steele Street, Hoyland, Barnsley, South Yorkshire, S74 0PS Classification: Tyre Repairs & Retreading Status: Active Positional Accuracy: Automatically positioned to the address</p>	A8NE (SE)	207	-	435471 400456
128	<p>Contemporary Trade Directory Entries</p> <p>Name: Birdwell Armoury Indoor Shooting Centre Location: 346, Sheffield Road, Birdwell, Barnsley, South Yorkshire, S70 5TU Classification: Gunsmiths Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A7NE (W)	215	-	434774 400428
129	<p>Contemporary Trade Directory Entries</p> <p>Name: Trekdale Transport Ltd Location: Rockingham Row, Birdwell, Barnsley, South Yorkshire, S70 5TW Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12SE (W)	278	-	434799 400711
130	<p>Contemporary Trade Directory Entries</p> <p>Name: Don Mellor Location: Tinker La, Hoyland, Barnsley, South Yorkshire, S74 0PR Classification: Road Haulage Services Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location</p>	A9NW (SE)	300	-	435580 400396
131	<p>Contemporary Trade Directory Entries</p> <p>Name: The Partlow Partnership Location: Unit 6 Rockingham Row, Birdwell, Barnsley, South Yorkshire, S70 5TW Classification: Greeting Card Publishers & Wholesalers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location</p>	A12SE (W)	302	-	434760 400670

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
132	Contemporary Trade Directory Entries Name: Lam Communications Ltd Location: 52, Sheffield Road, Hoyland, Barnsley, South Yorkshire, S74 0DQ Classification: Radio Communication Equipment Status: Active Positional Accuracy: Manually positioned to the address or location	A8SE (SE)	307	-	435510 400228
133	Contemporary Trade Directory Entries Name: J M Cleaning Services Location: 10, Tankersley Lane, Hoyland, Barnsley, South Yorkshire, S74 0DS Classification: Commercial Cleaning Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A8SE (SE)	314	-	435444 400147
134	Contemporary Trade Directory Entries Name: Hartwood Exports (Machinery) Ltd Location: Hangmanstone Depot, Sheffield Road, Birdwell, Barnsley, South Yorkshire, S70 5TR Classification: Commercial Vehicle Servicing, Repairs, Parts & Accessories Status: Inactive Positional Accuracy: Automatically positioned to the address	A7NE (W)	319	-	434716 400589
135	Contemporary Trade Directory Entries Name: Wilby Electrical Ltd Location: 8a, Hoyland Road, Hoyland, Barnsley, South Yorkshire, S74 0LY Classification: Electrical Engineers Status: Inactive Positional Accuracy: Automatically positioned to the address	A9SW (SE)	405	-	435596 400183
135	Contemporary Trade Directory Entries Name: Searns Decor Location: 5-7, Hoyland Road, Hoyland, BARNSELEY, South Yorkshire, S74 0LX Classification: Wallpapers & Wall Coverings Status: Active Positional Accuracy: Automatically positioned to the address	A9SW (SE)	445	-	435635 400168
135	Contemporary Trade Directory Entries Name: Paul'S Print Shop Location: 9, Hoyland Road, Hoyland, Barnsley, South Yorkshire, S74 0LT Classification: Printers Status: Inactive Positional Accuracy: Automatically positioned to the address	A9SW (SE)	465	-	435672 400194
136	Contemporary Trade Directory Entries Name: Colin Vaines & Sons Ltd Location: 2, The Walk, Birdwell, Barnsley, South Yorkshire, S70 5UA Classification: Road Haulage Services Status: Active Positional Accuracy: Automatically positioned to the address	A12SE (W)	421	-	434629 400651
137	Contemporary Trade Directory Entries Name: Twin Tub (UK) Location: 247, Sheffield Road, Birdwell, Barnsley, South Yorkshire, S70 5TN Classification: Washing Machines - Servicing & Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address	A12SE (W)	429	-	434651 400744
138	Contemporary Trade Directory Entries Name: D H Armitage Ltd Location: Fairfield Garage, Sheffield Road, Hoyland, Barnsley, South Yorkshire, S74 0DP Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address	A9SW (SE)	472	-	435564 400042
138	Contemporary Trade Directory Entries Name: Shell Service Station Location: Sheffield Road, Hoyland, Barnsley, South Yorkshire, S74 0DP Classification: Petrol Filling Stations Status: Active Positional Accuracy: Automatically positioned to the address	A9SW (SE)	472	-	435564 400042
138	Contemporary Trade Directory Entries Name: Challenger Tyres & Exhausts Co Ltd Location: Sheffield Road, Hoyland, Barnsley, South Yorkshire, S74 0DP Classification: Tyre Dealers Status: Inactive Positional Accuracy: Automatically positioned to the address	A9SW (SE)	472	-	435564 400042

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
138	<p>Contemporary Trade Directory Entries</p> <p>Name: D H Armitage Location: Fairfield Garage, Sheffield Road, Hoyland, Barnsley, South Yorkshire, S74 0DP Classification: Road Haulage Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9SW (SE)	472	-	435564 400042
138	<p>Contemporary Trade Directory Entries</p> <p>Name: Challenger Tyres & Exhausts Location: Sheffield Road, Hoyland, Barnsley, South Yorkshire, S74 0DP Classification: Tyre Repairs & Retreading Status: Active Positional Accuracy: Automatically positioned to the address</p>	A9SW (SE)	472	-	435564 400042
139	<p>Contemporary Trade Directory Entries</p> <p>Name: Prodisplay Location: Unit 5, Shortwood Court, Shortwood Business Park, Hoyland, Barnsley, South Yorkshire, S74 9LH Classification: Screen Manufacturers & Suppliers Status: Active Positional Accuracy: Automatically positioned to the address</p>	A14NW (NE)	494	-	435645 401247
139	<p>Contemporary Trade Directory Entries</p> <p>Name: Talurit Uk Ltd Location: Unit 4, Shortwood Court, Shortwood Business Park, Hoyland, Barnsley, South Yorkshire, S74 9LH Classification: Cutting Tools & Machinery Status: Active Positional Accuracy: Automatically positioned to the address</p>	A14NW (NE)	527	-	435665 401274
139	<p>Contemporary Trade Directory Entries</p> <p>Name: Talurit Location: Unit 4, Shortwood Ct, Shortwood Business Pk, Hoyland, Barnsley, South Yorkshire, S74 9LH Classification: Engineering Services Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A14NW (NE)	534	-	435666 401282
140	<p>Contemporary Trade Directory Entries</p> <p>Name: H Booth & Son Ltd Location: Hoyland Rd, Hoyland, Barnsley, South Yorkshire, S74 0PB Classification: Clothing & Fabrics - Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location</p>	A9SW (SE)	529	-	435804 400274
141	<p>Contemporary Trade Directory Entries</p> <p>Name: Ashbeck Aquatic'S Wholesale Location: 80, Hoyland Road, Hoyland, Barnsley, South Yorkshire, S74 0AP Classification: Hose, Tubing & Fittings Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NW (SE)	534	-	435851 400316
142	<p>Contemporary Trade Directory Entries</p> <p>Name: R G Carpet & Upholstery Cleaning Location: 27, Beaumont Street, Hoyland, Barnsley, South Yorkshire, S74 0NU Classification: Carpet, Curtain & Upholstery Cleaners Status: Active Positional Accuracy: Automatically positioned to the address</p>	A9SW (SE)	557	-	435748 400141
143	<p>Contemporary Trade Directory Entries</p> <p>Name: Elite Car Co Location: Unit 6a, Shortwood Court, Shortwood Business Park, Hoyland, Barnsley, South Yorkshire, S74 9LH Classification: Car Dealers - Used Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A19SW (NE)	562	-	435654 401330
144	<p>Contemporary Trade Directory Entries</p> <p>Name: Oracle Precision Location: Unit 7a, Shortwood Court, Shortwood Business Park, Hoyland, Barnsley, South Yorkshire, S74 9LH Classification: Precision Engineers Status: Active Positional Accuracy: Automatically positioned to the address</p>	A19SW (NE)	566	-	435600 401372
145	<p>Contemporary Trade Directory Entries</p> <p>Name: Remora Ltd Location: Unit 8a, Shortwood Court, Shortwood Business Park, Hoyland, Barnsley, South Yorkshire, S74 9LH Classification: Cable & Wire Equipment Manufacturers Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A19SW (NE)	600	-	435584 401420

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
146	<p>Contemporary Trade Directory Entries</p> <p>Name: Windows & Conservatories Location: 196, Sheffield Road, Birdwell, Barnsley, South Yorkshire, S70 5TD Classification: PVC-U Products - Manufacturers & Suppliers Status: Inactive Positional Accuracy: Manually positioned to the address or location</p>	A12NE (NW)	625	-	434578 401060
147	<p>Contemporary Trade Directory Entries</p> <p>Name: Pete'S Window Blinds Location: 91, Springfield Road, Hoyland, Barnsley, South Yorkshire, S74 0BX Classification: Blinds, Awnings & Canopies Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NE (E)	644	-	435971 400291
148	<p>Contemporary Trade Directory Entries</p> <p>Name: P B C Location: 139, Hoyland Road, Hoyland, Barnsley, South Yorkshire, S74 0AP Classification: Catering Equipment Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A9NE (E)	654	-	436066 400452
149	<p>Contemporary Trade Directory Entries</p> <p>Name: Monarch Indexing Location: Unit 2a, Shortwood Court, Shortwood Business Park, Hoyland, Barnsley, South Yorkshire, S74 9LH Classification: Print Finishers Status: Active Positional Accuracy: Automatically positioned to the address</p>	A19SW (NE)	666	-	435771 401365
149	<p>Contemporary Trade Directory Entries</p> <p>Name: Barber Of Sheffield Location: Unit 25 Shortwood Court, Shortwood Business Park, Hoyland, Barnsley, South Yorkshire, S74 9LH Classification: Veterinary Pharmacies Status: Inactive Positional Accuracy: Manually positioned within the geographical locality</p>	A19SW (NE)	666	-	435771 401365
150	<p>Contemporary Trade Directory Entries</p> <p>Name: Central Garage Location: Sheffield Road, Birdwell, Barnsley, South Yorkshire, S70 5TA Classification: Car Body Repairs Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12NE (NW)	675	-	434598 401175
150	<p>Contemporary Trade Directory Entries</p> <p>Name: Hilltop Garage Location: Sheffield Road, Birdwell, Barnsley, South Yorkshire, S70 5TA Classification: Garage Services Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A12NE (NW)	675	-	434598 401175
151	<p>Contemporary Trade Directory Entries</p> <p>Name: Rainford Developments Ltd Location: Wentworth Street, Barnsley, S Yorkshire, S70 5UN Classification: Fireplaces & Mantelpieces Status: Inactive Positional Accuracy: Manually positioned to the road within the address or location</p>	A12NW (NW)	685	-	434524 401088
152	<p>Contemporary Trade Directory Entries</p> <p>Name: Bretton Telecom Location: 51, Hay Green Lane, Birdwell, Barnsley, South Yorkshire, S70 5XA Classification: Telecommunications Equipment & Systems Status: Inactive Positional Accuracy: Automatically positioned to the address</p>	A17SE (NW)	722	-	434799 401410
153	<p>Contemporary Trade Directory Entries</p> <p>Name: C & S Fascias Location: 32, Stead Lane, Hoyland, Barnsley, South Yorkshire, S74 0AE Classification: Fascias and Soffits Status: Active Positional Accuracy: Automatically positioned to the address</p>	A9SE (SE)	746	-	435999 400162
154	<p>Contemporary Trade Directory Entries</p> <p>Name: Imperial Damp Proofing Location: 30, Herons Way, Birdwell, Barnsley, South Yorkshire, S70 5SF Classification: Damp & Dry Rot Control Status: Active Positional Accuracy: Automatically positioned to the address</p>	A18SW (N)	773	-	434884 401537

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
155	Contemporary Trade Directory Entries Name: Bailey Services Location: 8, Springfield Road, Hoyland, Barnsley, South Yorkshire, S74 0BE Classification: Fascias and Soffits Status: Inactive Positional Accuracy: Automatically positioned to the address	A10NW (E)	870	-	436260 400353
156	Contemporary Trade Directory Entries Name: N L S Tools Router Division Location: 12, Skiers Way, Hoyland, Barnsley, South Yorkshire, S74 0BP Classification: Tool Design, Manufacturers & Makers Status: Inactive Positional Accuracy: Automatically positioned to the address	A9SE (SE)	946	-	436213 400110
157	Contemporary Trade Directory Entries Name: G R Location: Upper Hoyland Rd, Hoyland, Barnsley, South Yorkshire, S74 9NL Classification: Garage Services Status: Inactive Positional Accuracy: Manually positioned within the geographical locality	A15NW (NE)	981	-	436233 401258
158	Contemporary Trade Directory Entries Name: Barnsley Surfacing Co Ltd Location: 54, Sheffield Road, Birdwell, Barnsley, South Yorkshire, S70 5UY Classification: Asphalt & Coated Macadam Laying Contractors Status: Inactive Positional Accuracy: Automatically positioned to the address	A17SW (NW)	993	-	434527 401542
159	Fuel Station Entries Name: Lidgett Garage Location: A6135, Hoyland Common, Barnsley, South Yorkshire, S74 0EB Brand: Unbranded Premises Type: Petrol Station Status: Non-Retail Positional Accuracy: Automatically positioned to the address	A8NW (SW)	64	-	435006 400301
160	Fuel Station Entries Name: Cross Keys Garage Location: Sheffield Road, Hoyland, Barnsley, South Yorkshire, S74 0PY Brand: JET Premises Type: Petrol Station Status: Open Positional Accuracy: Manually positioned to the address or location	A8NE (SE)	75	-	435328 400395
161	Fuel Station Entries Name: Hoyland Common Service Station Location: Sheffield Road, Hoyland Common, Barnsley, South Yorkshire, S74 0DP Brand: Shell Premises Type: Petrol Station Status: Open Positional Accuracy: Manually positioned to the address or location	A9SW (SE)	488	-	435604 400058

Map ID	Details	Quadrant Reference (Compass Direction)	Estimated Distance From Site	Contact	NGR
162	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	A8NW (S)	0	6	435203 400383
163	Local Nature Reserves Name: Potter Holes Plantation Multiple Area: N Area (m2): 84753.56 Source: Natural England Designation Date: 28th March 2012	A7SW (SW)	726	9	434359 400003
164	Nitrate Vulnerable Zones Name: Not Supplied Description: Surface Water Source: Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	A8NW (N)	0	10	435206 400600

Agency & Hydrological	Version	Update Cycle
Contaminated Land Register Entries and Notices Rotherham Metropolitan Borough Council - Environmental Health Department Sheffield City Council - Environmental Protection Service Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards	April 2014 January 2015 July 2013	Annual Rolling Update Annual Rolling Update Annual Rolling Update
Discharge Consents Environment Agency - North East Region	January 2016	Quarterly
Enforcement and Prohibition Notices Environment Agency - North East Region	March 2013	As notified
Integrated Pollution Controls Environment Agency - North East Region	October 2008	Not Applicable
Integrated Pollution Prevention And Control Environment Agency - North East Region	January 2016	Quarterly
Local Authority Integrated Pollution Prevention And Control Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards Sheffield City Council - Environmental Protection Service Rotherham Metropolitan Borough Council - Planning Department	April 2014 June 2014 October 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Controls Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards Sheffield City Council - Environmental Protection Service Rotherham Metropolitan Borough Council - Planning Department	April 2014 June 2014 October 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update
Local Authority Pollution Prevention and Control Enforcements Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards Sheffield City Council - Environmental Protection Service Rotherham Metropolitan Borough Council - Planning Department	April 2014 June 2014 October 2014	Annual Rolling Update Annual Rolling Update Annual Rolling Update
Nearest Surface Water Feature Ordnance Survey	July 2012	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	March 2013	As notified
Prosecutions Relating to Controlled Waters Environment Agency - North East Region	March 2013	As notified
River Quality Environment Agency - Head Office	November 2001	Not Applicable
River Quality Biology Sampling Points Environment Agency - Head Office	July 2012	Annually
River Quality Chemistry Sampling Points Environment Agency - Head Office	July 2012	Annually
Substantiated Pollution Incident Register Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area	January 2016 January 2016	Quarterly Quarterly
Water Abstractions Environment Agency - North East Region	January 2016	Quarterly
Water Industry Act Referrals Environment Agency - North East Region	January 2016	Quarterly
Groundwater Vulnerability Environment Agency - Head Office	April 2015	Not Applicable
Drift Deposits Environment Agency - Head Office	January 1999	Not Applicable
Bedrock Aquifer Designations British Geological Survey - National Geoscience Information Service	October 2012	As notified

Agency & Hydrological	Version	Update Cycle
Superficial Aquifer Designations British Geological Survey - National Geoscience Information Service	January 2015	As notified
Source Protection Zones Environment Agency - Head Office	January 2016	Quarterly
Extreme Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2016	Quarterly
Flooding from Rivers or Sea without Defences Environment Agency - Head Office	February 2016	Quarterly
Areas Benefiting from Flood Defences Environment Agency - Head Office	February 2016	Quarterly
Flood Water Storage Areas Environment Agency - Head Office	February 2016	Quarterly
Flood Defences Environment Agency - Head Office	February 2016	Quarterly
Detailed River Network Lines Environment Agency - Head Office	March 2012	Annually
Detailed River Network Offline Drainage Environment Agency - Head Office	March 2012	Annually
Surface Water 1 in 30 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water 1 in 100 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water 1 in 1000 year Flood Extent Environment Agency - Head Office	October 2013	As notified
Surface Water Suitability Environment Agency - Head Office	October 2013	As notified

Waste	Version	Update Cycle
BGS Recorded Landfill Sites British Geological Survey - National Geoscience Information Service	June 1996	Not Applicable
Historical Landfill Sites Environment Agency - Head Office	March 2016	Quarterly
Integrated Pollution Control Registered Waste Sites Environment Agency - North East Region	October 2008	Not Applicable
Licensed Waste Management Facilities (Landfill Boundaries) Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area	October 2015 October 2015	Quarterly Quarterly
Licensed Waste Management Facilities (Locations) Environment Agency - North East Region - Ridings Area Environment Agency - North East Region - Yorkshire Area	January 2016 January 2016	Quarterly Quarterly
Local Authority Landfill Coverage Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards Rotherham Metropolitan Borough Council - Environmental Health Department Sheffield City Council - Environmental Protection Service	May 2000 May 2000 May 2000	Not Applicable Not Applicable Not Applicable
Local Authority Recorded Landfill Sites Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards Rotherham Metropolitan Borough Council - Environmental Health Department Sheffield City Council - Environmental Protection Service	May 2000 May 2000 May 2000	Not Applicable Not Applicable 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	February 2016	Bi-Annually
Explosive Sites Health and Safety Executive	February 2016	Bi-Annually
Notification of Installations Handling Hazardous Substances (NIHHS) Health and Safety Executive	November 2000	Not Applicable
Planning Hazardous Substance Enforcements Rotherham Metropolitan Borough Council Sheffield City Council Barnsley Metropolitan Borough Council - Planning Department	February 2016 February 2016 January 2016	Annual Rolling Update Annual Rolling Update Annual Rolling Update
Planning Hazardous Substance Consents Rotherham Metropolitan Borough Council Sheffield City Council Barnsley Metropolitan Borough Council - Planning Department	February 2016 February 2016 January 2016	Annual Rolling Update Annual Rolling Update Annual Rolling Update

Geological	Version	Update Cycle
BGS 1:625,000 Solid Geology British Geological Survey - National Geoscience Information Service	January 2009	Not Applicable
BGS Estimated Soil Chemistry British Geological Survey - National Geoscience Information Service	January 2010	Annually
BGS Recorded Mineral Sites British Geological Survey - National Geoscience Information Service	November 2015	Bi-Annually
Brine Compensation Area Cheshire Brine Subsidence Compensation Board	August 2011	Not Applicable
Coal Mining Affected Areas The Coal Authority - Property Searches	March 2014	As notified
Mining Instability Ove Arup & Partners	October 2000	Not Applicable
Non Coal Mining Areas of Great Britain British Geological Survey - National Geoscience Information Service	May 2015	Not Applicable
Potential for Collapsible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Compressible Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Ground Dissolution Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Landslide Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Running Sand Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Potential for Shrinking or Swelling Clay Ground Stability Hazards British Geological Survey - National Geoscience Information Service	June 2015	Annually
Radon Potential - Radon Affected Areas British Geological Survey - National Geoscience Information Service	July 2011	As notified
Radon Potential - Radon Protection Measures British Geological Survey - National Geoscience Information Service	July 2011	As notified
Industrial Land Use	Version	Update Cycle
Contemporary Trade Directory Entries Thomson Directories	November 2015	Quarterly
Fuel Station Entries Catalist Ltd - Experian	November 2015	Quarterly

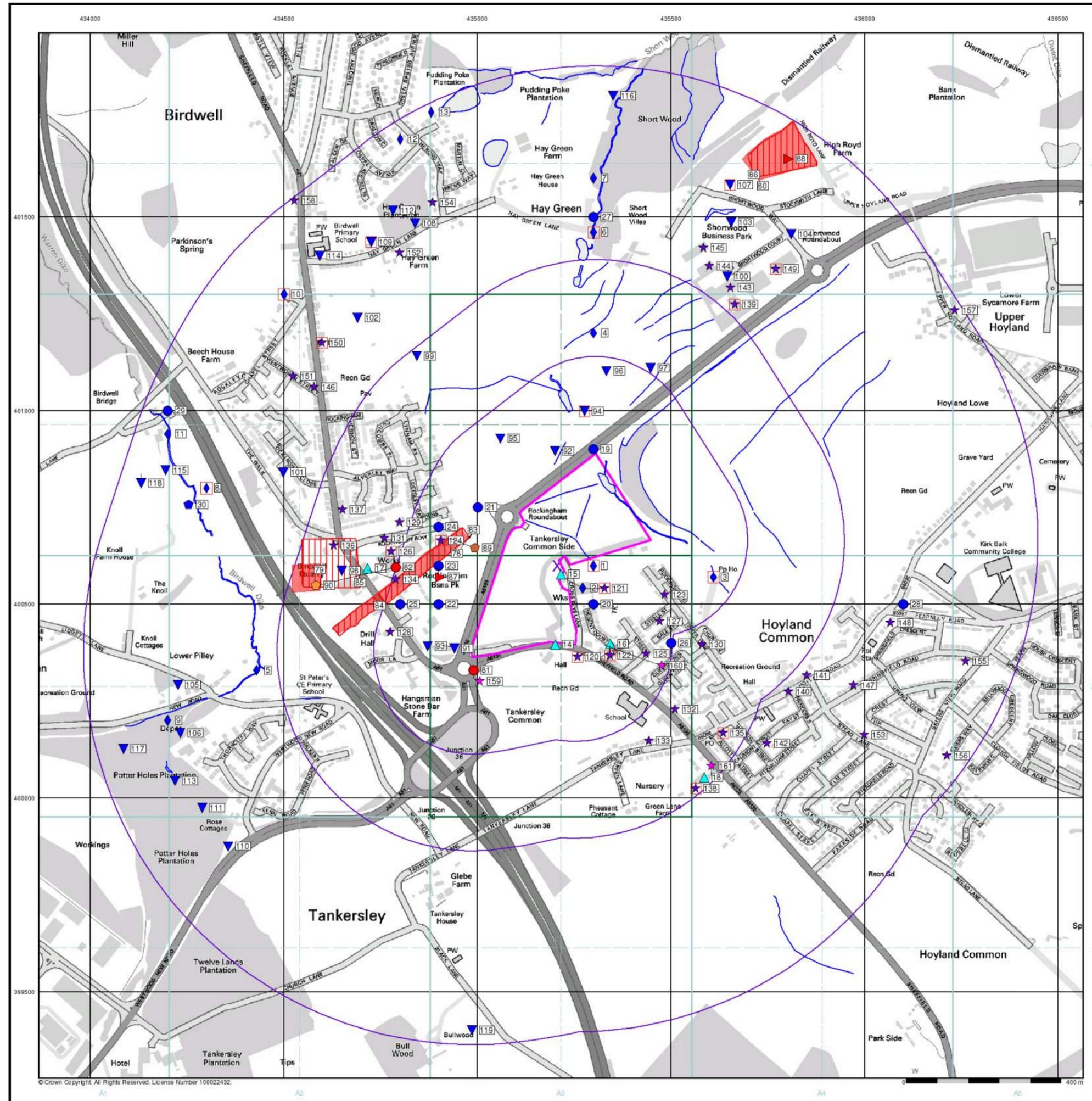
Sensitive Land Use	Version	Update Cycle
Areas of Adopted Green Belt Barnsley Metropolitan Borough Council - Planning Department Rotherham Metropolitan Borough Council Sheffield City Council	January 2016 January 2016 January 2016	As notified As notified As notified
Areas of Unadopted Green Belt Barnsley Metropolitan Borough Council - Planning Department Rotherham Metropolitan Borough Council Sheffield City Council	November 201 November 201 November 201	As notified As notified As notified
Areas of Outstanding Natural Beauty Natural England	October 2015	Bi-Annually
Environmentally Sensitive Areas Natural England	October 2015	Annually
Forest Parks Forestry Commission	April 1997	Not Applicable
Local Nature Reserves Natural England	October 2015	Bi-Annually
Marine Nature Reserves Natural England	October 2015	Bi-Annually
National Nature Reserves Natural England	October 2015	Bi-Annually
National Parks Natural England	March 2016	Bi-Annually
Nitrate Sensitive Areas Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	October 2015	Not Applicable
Nitrate Vulnerable Zones Department for Environment, Food and Rural Affairs (DEFRA - formerly FRCA)	October 2015	Annually
Ramsar Sites Natural England	October 2015	Bi-Annually
Sites of Special Scientific Interest Natural England	October 2015	Bi-Annually
Special Areas of Conservation Natural England	October 2015	Bi-Annually
Special Protection Areas Natural England	October 2015	Bi-Annually

A selection of organisations who provide data within this report

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

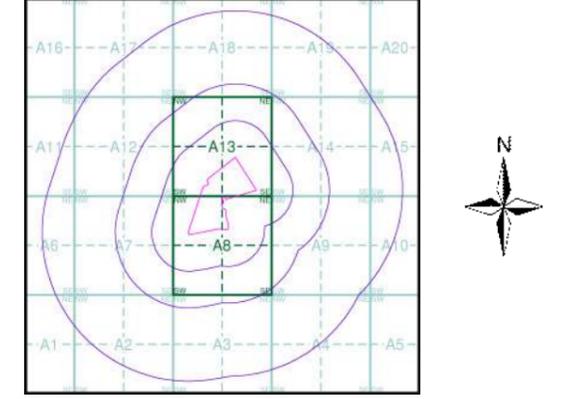
Contact	Name and Address	Contact Details
2	Environment Agency - National Customer Contact Centre (NCCC) PO Box 544, Templeborough, Rotherham, S60 1BY	Telephone: 03708 506 506 Email: enquiries@environment-agency.gov.uk
3	Barnsley Metropolitan Borough Council - Environmental Health and Trading Standards Central Offices, Kendray Street, Barnsley, South Yorkshire, S70 2TN	Telephone: 01226 770770 Fax: 01226 772599 Website: www.barnsley.gov.uk
4	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
5	The Coal Authority - Property Searches 200 Lichfield Lane, Mansfield, Nottinghamshire, NG18 4RG	Telephone: 0345 762 6848 Fax: 01623 637 338 Email: groundstability@coal.gov.uk
6	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
7	Sheffield City Council Howden House, 1 Union Street, Sheffield, South Yorkshire, S1 2SH	Telephone: 0114 273 4215 Fax: 0114 273 5002 Website: www.sheffield.gov.uk
8	Rotherham Metropolitan Borough Council Bailey House, Rawmarsh Road, Rotherham, South Yorkshire, S60 1QT	Telephone: 01709 382121 Fax: 01709 823810 Website: www.rotherham.gov.uk
9	Natural England Suite D, Unex House, Bourges Boulevard, Peterborough, Cambridgeshire, PE1 1NG	Telephone: 0845 600 3078 Email: enquiries@naturalengland.org.uk Website: www.naturalengland.org.uk
10	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
11	Environment Agency - Head Office Rio House, Waterside Drive, Aztec West, Almondsbury, Bristol, Avon, BS32 4UD	Telephone: 01454 624400 Fax: 01454 624409
-	Public Health England - Radon Survey, Centre for Radiation, Chemical and Environmental Hazards Chilton, Didcot, Oxfordshire, OX11 0RQ	Telephone: 01235 822622 Fax: 01235 833891 Email: radon@phe.gov.uk Website: www.ukradon.org
-	Landmark Information Group Limited Imperium, Imperial Way, Reading, Berkshire, RG2 0TD	Telephone: 0844 844 9952 Fax: 0844 844 9951 Email: customerservices@landmarkinfo.co.uk Website: www.landmarkinfo.co.uk

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



- General**
- Specified Site
 - Specified Buffer(s)
 - Bearing Reference Point
 - Map ID
 - Several of Type at Location
- Agency and Hydrological**
- Contaminated Land Register Entry or Notice (Location)
 - Contaminated Land Register Entry or Notice
 - Discharge Consent
 - Enforcement or Prohibition Notice
 - Integrated Pollution Control
 - Integrated Pollution Prevention Control
 - Local Authority Integrated Pollution Prevention and Control
 - Local Authority Pollution Prevention and Control Enforcement
 - Pollution Incident to Controlled Waters
 - Prosecution Relating to Authorised Processes
 - Prosecution Relating to Controlled Waters
 - Registered Radioactive Substance
 - River Network or Water Feature
 - River Quality Sampling Point
 - Substantiated Pollution Incident Register
 - Water Abstraction
 - Water Industry Act Referral
- Waste**
- BGS Recorded Landfill Site (Location)
 - BGS Recorded Landfill Site
 - EA Historic Landfill (Buffered Point)
 - EA Historic Landfill (Polygon)
 - Integrated Pollution Control Registered Waste Site
 - Licensed Waste Management Facility (Landfill Boundary)
 - Licensed Waste Management Facility (Location)
 - Local Authority Recorded Landfill Site (Location)
 - Local Authority Recorded Landfill Site
 - Registered Landfill Site
 - Registered Landfill Site (Location)
 - Registered Landfill Site (Point Buffered to 100m)
 - Registered Landfill Site (Point Buffered to 250m)
 - Registered Waste Transfer Site (Location)
 - Registered Waste Transfer Site
 - Registered Waste Treatment or Disposal Site (Location)
 - Registered Waste Treatment or Disposal Site
- Hazardous Substances**
- COMAH Site
 - Explosive Site
 - NIHHS Site
 - Planning Hazardous Substance Consent
 - Planning Hazardous Substance Enforcement
- Geological**
- BGS Recorded Mineral Site
- Industrial Land Use**
- Contemporary Trade Directory Entry
 - Fuel Station Entry

Site Sensitivity Map - Slice A



Order Details

Order Number: 82656653_1_1
 Customer Ref: Rockingham
 National Grid Reference: 435210, 400600
 Slice: A
 Site Area (Ha): 11.01
 Search Buffer (m): 1000

Site Details
 Site at 435150, 400650



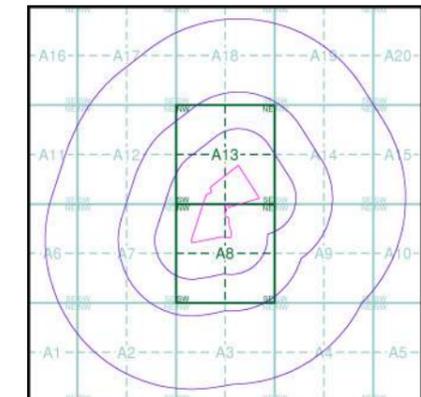
General

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

Agency and Hydrological (Flood)

- Extreme Flooding from Rivers or Sea without Defences (Zone 2)
- Flooding from Rivers or Sea without Defences (Zone 3)
- Area Benefiting from Flood Defence
- Flood Water Storage Areas
- Flood Defence

Flood Map - Slice A



Order Details

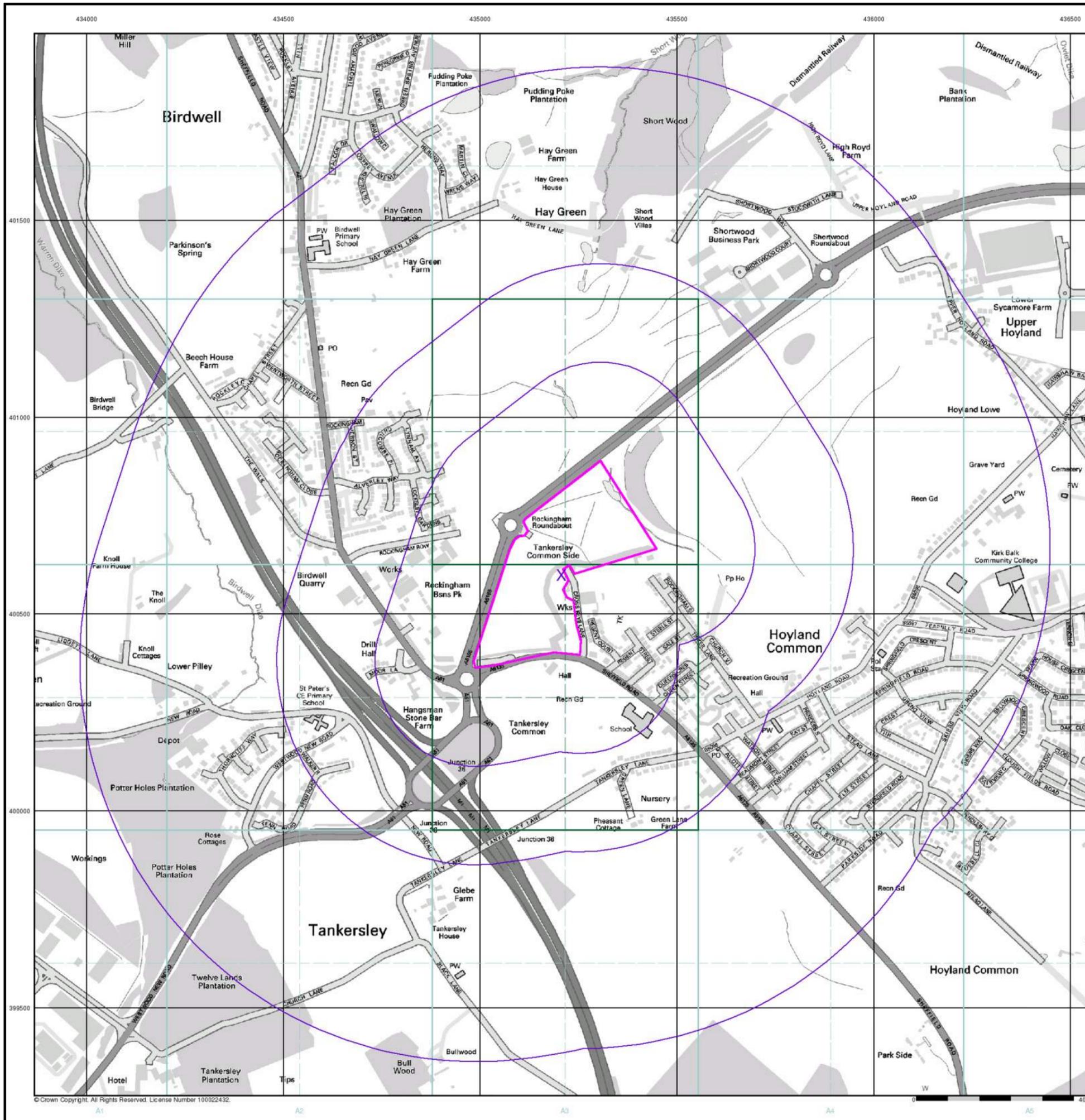
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 Customer Ref: Rockingham
 National Grid Reference: 435210, 400600
 Slice: A
 Site Area (Ha): 11.01
 Search Buffer (m): 1000

Site Details

Site at 435150, 400650



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



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General

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

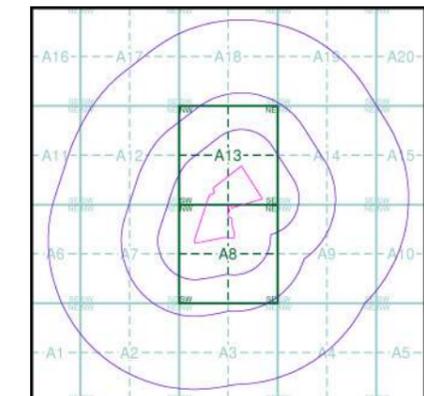
Agency and Hydrological (Boreholes)

- BGS Borehole Depth 0 - 10m
- BGS Borehole Depth 10 - 30m
- BGS Borehole Depth 30m +
- Confidential
- Other

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

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

Borehole Map - Slice A

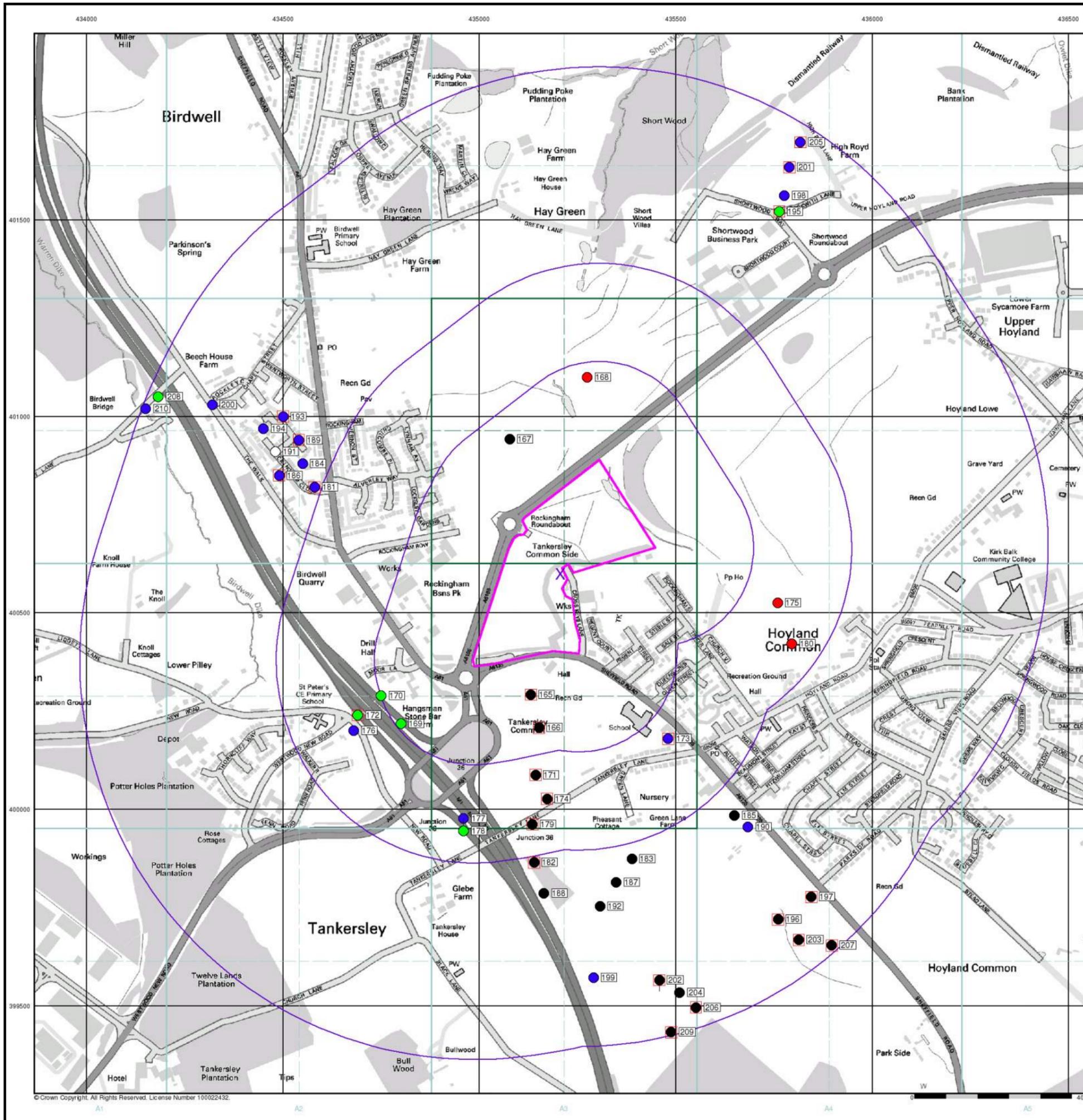


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Site at 435150, 400650





General

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

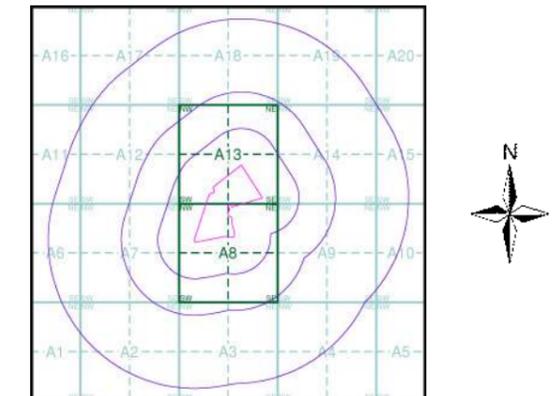
Detailed River Network Data

- Primary River
- Secondary River
- Tertiary River
- Canal
- Canal Tunnel
- Undefined River
- Lake/Reservoir
- Offline Drainage Feature
- Extended Culvert (greater than 50m)
- Underground River (inferred)
- Underground River (local knowledge)
- Downstream of High Water Mark
- Downstream of Seaward Extension
- Not assigned River feature

Contours (height in metres)

- Standard Contour 105
- Master Contour 100
- Spot Height *167.3
- MLW Mean Low Water
- MHW Mean High Water

E/ANRW Detailed River Network Map - Slice A



Order Details

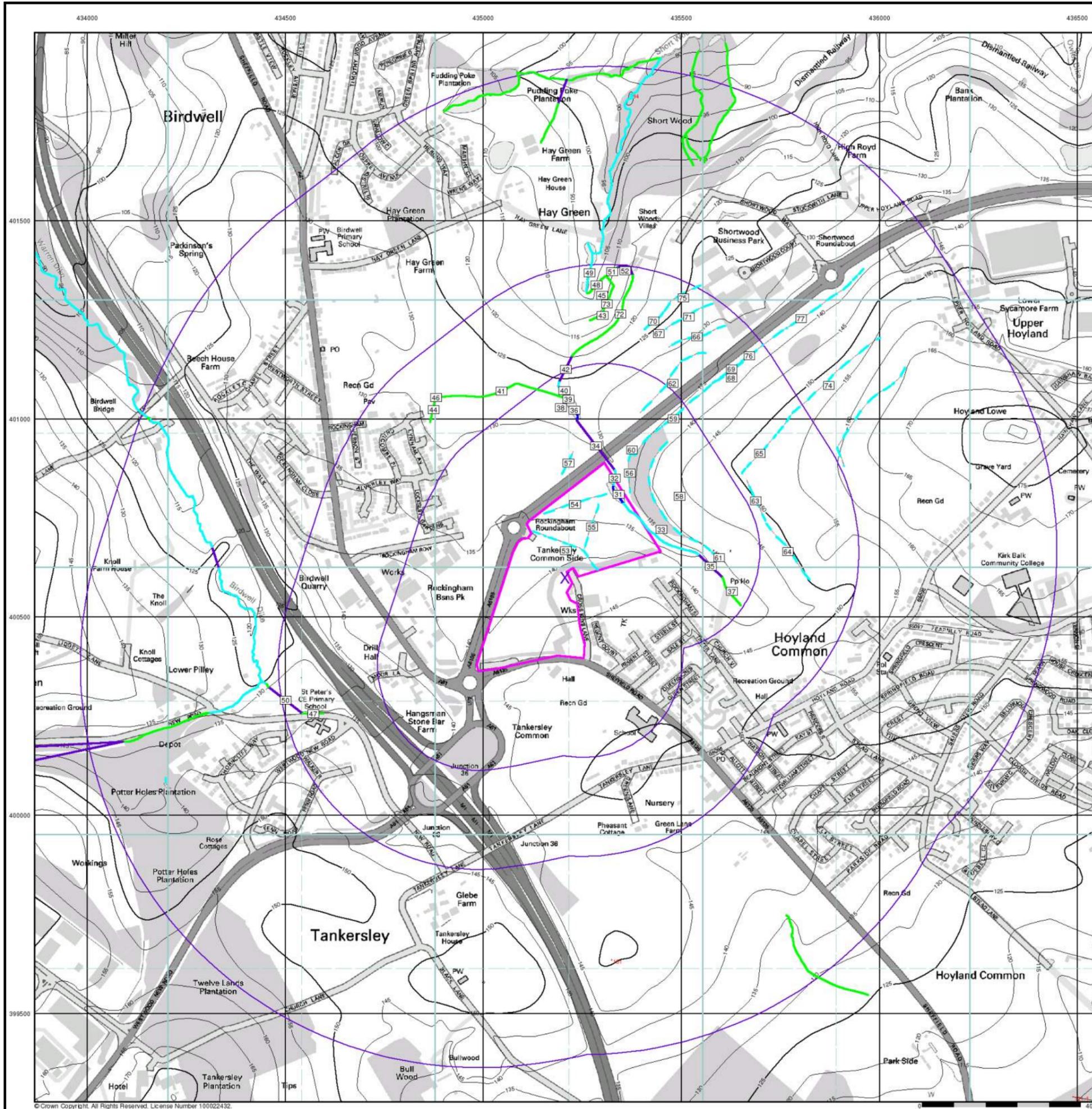
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General

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

Risk of Flooding from Surface Water

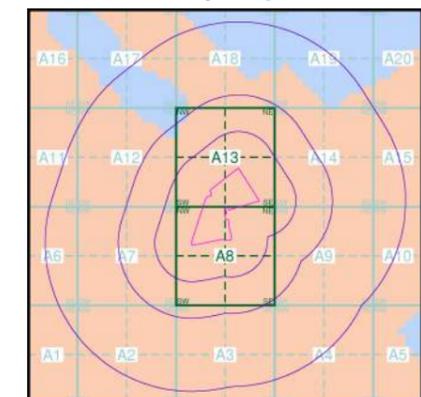
- High - 30 Year Return
- Medium - 100 Year Return
- Low - 1000 Year Return

Suitability

See the suitability map below

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

EANRW Suitability Map - Slice A



Order Details

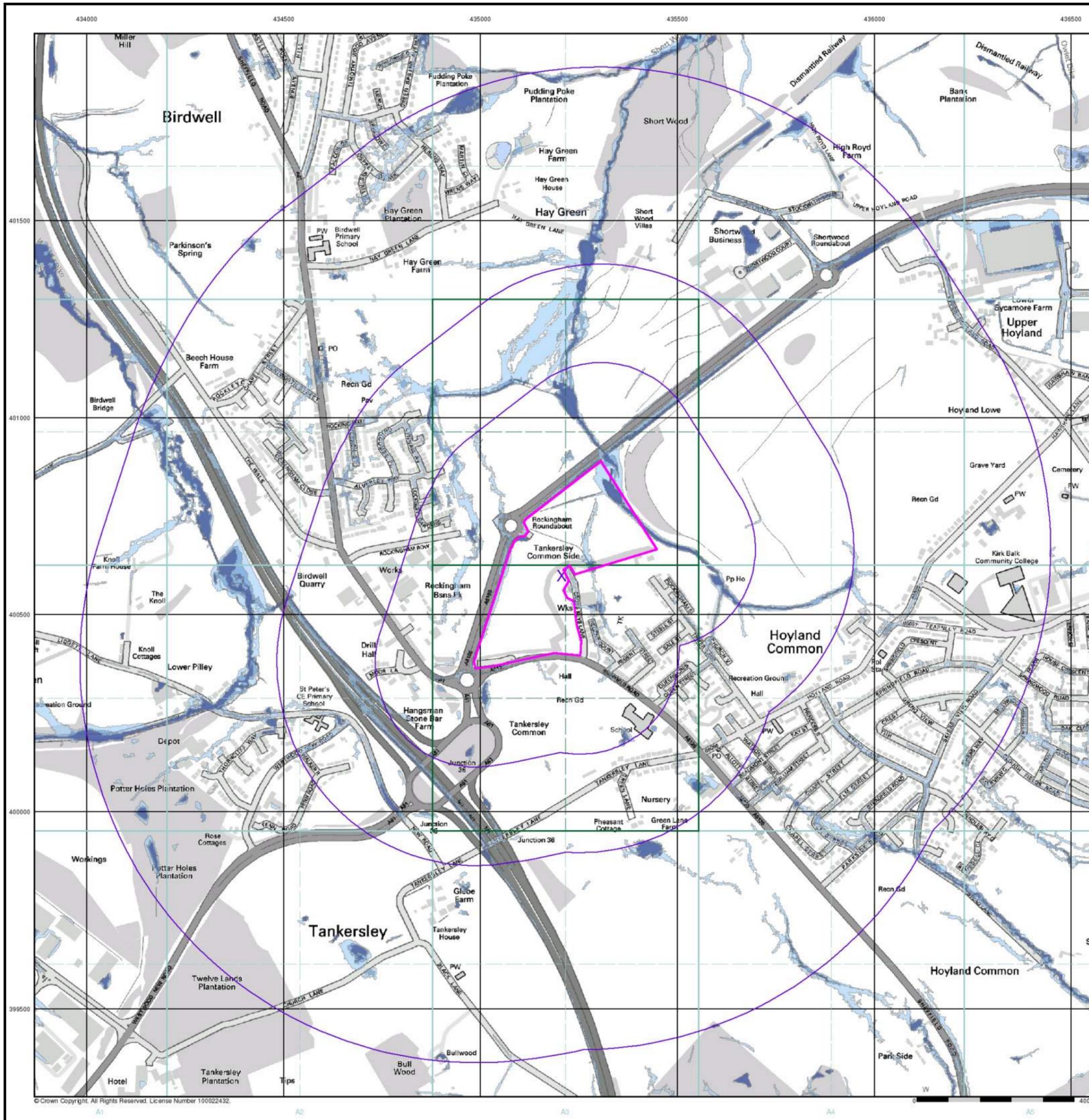
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Historical Mapping Legends

Ordnance Survey County Series 1:10,560

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

Ordnance Survey Plan 1:10,000

- Chalk Pit, Clay Pit or Quarry
- Gravel Pit
- Sand Pit
- Disused Pit or Quarry
- Refuse or Slag Heap
- Lake, Loch or Pond
- Dunes
- Boulders
- Coniferous Trees
- Non-Coniferous Trees
- Orchard
- Scrub
- Coppice
- Bracken
- Heath
- Rough Grassland
- Marsh
- Reeds
- Saltings
- Building
- Glasshouse
- Sloping Masonry
- Pylon
- Electricity Transmission Line
- Pole
- Cutting
- Embankment
- Standard Gauge Multiple Track
- Standard Gauge Single Track
- Siding, Tramway or Mineral Line
- Narrow Gauge
- Geographical County
- Administrative County, County Borough or County of City
- Municipal Borough, Urban or Rural District, Burgh or District Council
- Borough, Burgh or County Constituency
- Civil Parish
- BP, BS Boundary Post or Stone
- Ch Church
- CH Club House
- F E Sta Fire Engine Station
- FB Foot Bridge
- Fn Fountain
- GP Guide Post
- MP Mile Post
- MS Mile Stone
- Pol Sta Police Station
- PO Post Office
- PC Public Convenience
- PH Public House
- SB Signal Box
- Spr Spring
- TCB Telephone Call Box
- TCP Telephone Call Post
- W Well

1:10,000 Raster Mapping

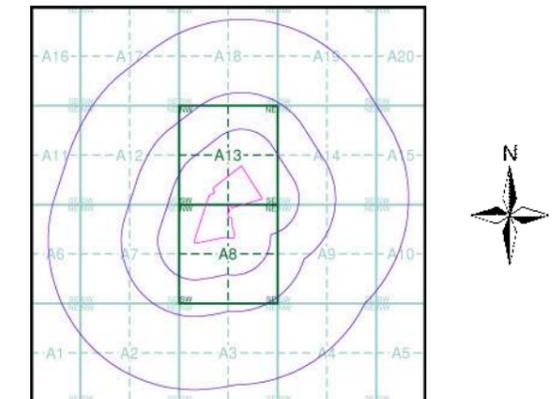
- Gravel Pit
- Rock
- Boulders
- Shingle
- Sand
- Slopes
- Refuse tip or slag heap
- Rock (scattered)
- Boulders (scattered)
- Mud
- Sand Pit
- Top of cliff
- General detail
- Overhead detail
- Multi-track railway
- County boundary (England only)
- District, Unitary, Metropolitan, London Borough boundary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



Historical Mapping & Photography included:

Mapping Type	Scale	Date	Pg
Yorkshire	1:10,560	1855	2
Yorkshire	1:10,560	1893 - 1894	3
Yorkshire	1:10,560	1906 - 1907	4
Yorkshire	1:10,560	1932	5
Yorkshire	1:10,560	1938	6
Yorkshire	1:10,560	1948	7
Ordnance Survey Plan	1:10,000	1956	8
Ordnance Survey Plan	1:10,000	1965 - 1966	9
Ordnance Survey Plan	1:10,000	1978	10
Ordnance Survey Plan	1:10,000	1980 - 1982	11
Ordnance Survey Plan	1:10,000	1989	12
Ordnance Survey Plan	1:10,000	1991 - 1992	13
10K Raster Mapping	1:10,000	2006	14
VectorMap Local	1:10,000	2016	15

Historical Map - Slice A



Order Details

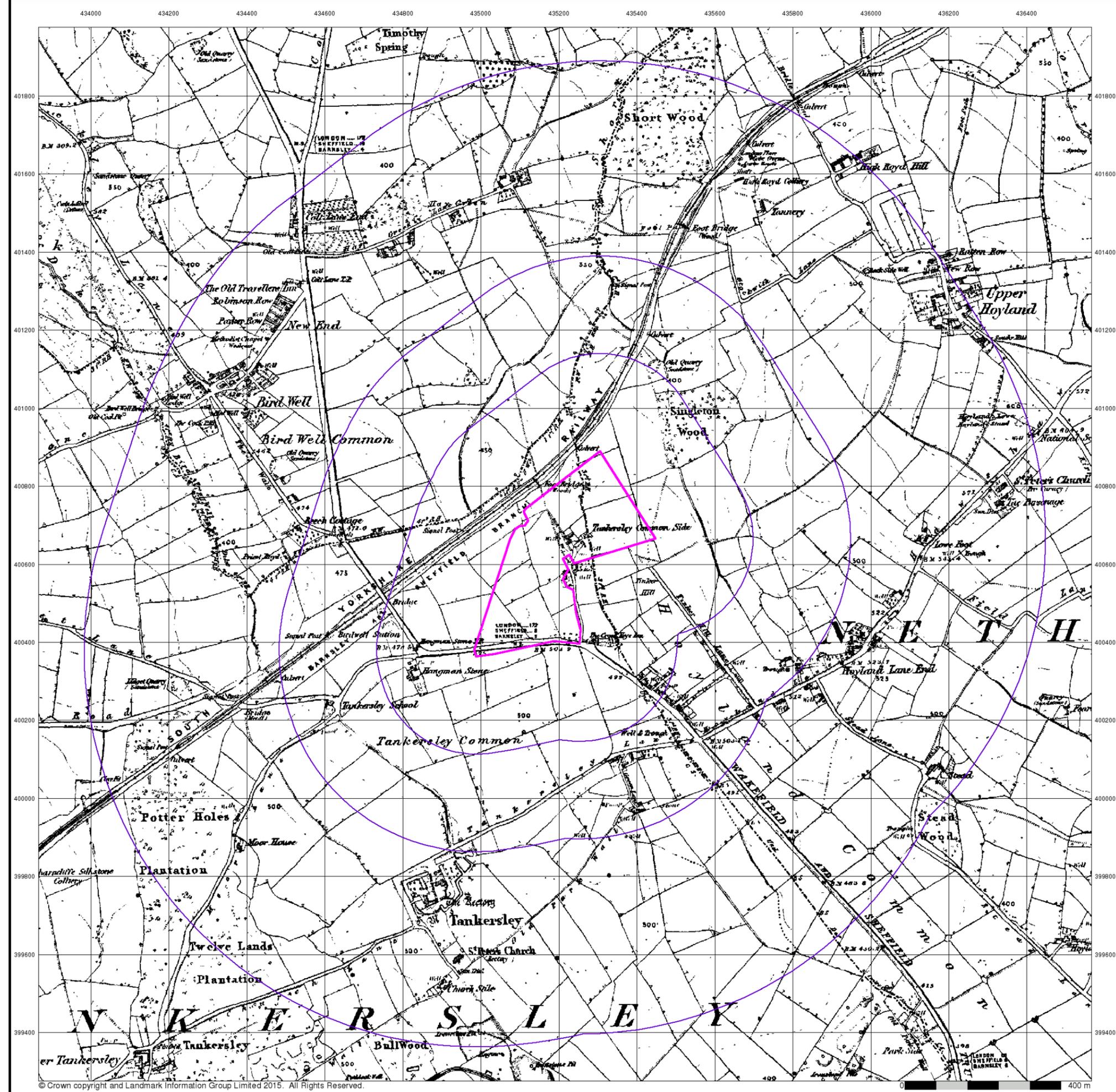
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Site Details

Site at 435150, 400650



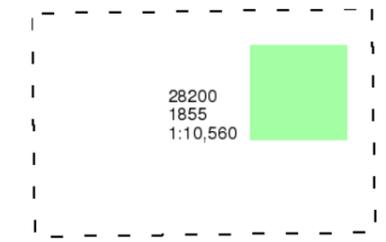
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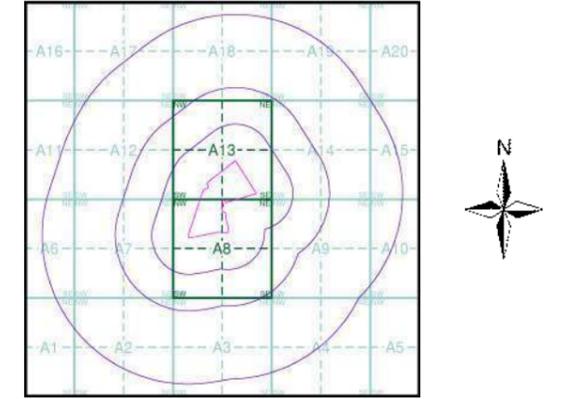
Yorkshire
Published 1855
Source map scale - 1:10,560

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)



Historical Map - Slice A



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