



Newbank Garden Centre Desk-Based Coal Mining Risk Assessment

**Job Number
LKC261155**

**Report Date
25th June 2026**

**Client
Newbank Garden Centre**

DOCUMENT QUALITY ASSURANCE

Site Address	Newbank Garden Centre, Bury Road, Radcliffe, Bury, Manchester, M26 2WW
Report Title	Desk Based Coal Mining Risk Assessment
Job Number	LKC261155
Client	Newbank Garden Centre

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Written By	Charlie Danby & Hannah Moss		
Approved By	Colin Crompton		

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It should be noted this report pertains solely to potential ground stability issues relating to potential shallow mining within the proposed planning boundary only.

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1. Introduction

LK Consult Ltd (LKC) has been commissioned to carry out a Desk Based Coal Mining Risk Assessment (CMRA) for Newbank Garden Centre.

A Coal Mining Risk Assessment Report is required for a planning application within a designated 'Coal Mining Development High Risk Area'. 'Coal Mining Development High Risk Areas' are areas, based upon Mining Remediation Authority records, where the potential land instability and other safety risks associated with former coal mining activities are likely to be greatest. They include, for example, areas of known or suspected shallow coal mining, recorded mine entries and areas of former surface mining.

This assessment is based upon guidance provided by the Mining Remediation Authority¹ and comprises a review of available desk-based information.

The scope of this Coal Mining Risk Assessment (as per Mining Remediation Authority guidance) is to:

- Present a desk-based review of all available information on the coal mining issues which are relevant to the application site.
- Use the above information to identify and assess the risks to the proposed development from coal mining legacy, including the cumulative impact of issues.
- Set out appropriate mitigation measures to address the coal mining legacy issues affecting the site, including any necessary remedial works and/or demonstrate how coal mining issues have influenced the proposed development.
- Demonstrate to the Local Planning Authority that the application site is, or can be made, safe and stable to meet the requirements of national planning policy regarding development on unstable land.

A summary of the site details is presented in Table 1-1. Figure 1 indicates the site location and boundary plan. Figure 2 indicates the proposed development.

Location	Courtyard within Newbank Garden Centre, west off Bury Road, Radcliffe. Centred at National Grid Reference 379505E, 408900N.
Area	1,750m ² .
Topography	76 metres above ordnance datum (AOD). Site is approximately level.
Current Site Use	Garden centre courtyard with café seating and garden product display area.
Proposed Development	Enclosure of existing courtyard beneath new roof, with refurbished toilet facilities and new café kiosk. New wall structure to enclose the courtyard with shallow strip footings.

Table 1-1: Summary of site details.

2. Review of Information

2.1. Information Sources

LKC have obtained and reviewed information from the following sources, which is summarised in Section 2:

- Review of Published BGS Geological Mapping including:
 - Lancashire Sheet 87, Published 1863, Scale 1:10,560.
 - Lancashire Sheet 87SE, Published 1929, Scale 1:10,560
 - Sheet 85 Manchester Solid, Published 1975, Scale 1:50,000.
 - Sheet 85 Manchester Bedrock, Published 2010, Scale 1:50,000.
- Digital Geology, dated 2007-2008, Scale 1:10,000 (Appendix A).
- Geology of the Manchester district, a brief explanation of the geological map Sheet 85 Manchester.
- Mining Remediation Authority Consultants Coal Mining Report (Appendix B).
- Mining Remediation Authority Interactive Map Viewer².
- Mining Remediation Authority List of Combustible Coal Seams³.
- Publicly available historical mapping (Appendix C).

2.2. Geological Mapping

2.2.1. Artificial

No BGS recorded artificial deposits are recorded on site.

2.2.2. Superficial

The superficial geology is mapped as Glaciofluvial Sheet Deposits (Sand and Gravel).

2.2.3. Bedrock

The bedrock is mapped as the Pennine Lower Coal Measures Formation (Sandstone, Mudstone, Siltstone). No dip data is recorded on site. A dip of 9-11° is recorded in the general area to the north and south-west on 1:50,000 scale mapping dated 1975.

A coal seam is shown to subcrop (at rockhead) approximately 15m to the north-east which is expected to dip below the site assuming a dip towards the south-west. This coal seam is anticipated to be the Doe (Bottom Shuttles) Coal (based on 2010 edition 1:50,000 sheet mapping).

Assuming a dip of 9-11°, the seam is expected to be at a depth of approximately 2-3m below rockhead at the northern boundary and approximately 10-12m below rockhead at the southern boundary of site.

The next mapped coal seam is shown to subcrop approximately 45m to the northeast on both the 1929 1:10,560 scale mapping and the 1:10,000 scale digital mapping. This seam is labelled as the Five Quarters Mine (based on 1929 1:10,560 scale mapping), also known as the Wigan Four Feet coal on modern maps. A mine entry is also mapped approximately 100m to the southwest of the site, with an annotation indicating depth of 165ft / 50m to the Five Quarters Seam.

Assuming a dip of 9-11° towards the south-west, the seam is expected to be at a depth of approximately 7-9m below rockhead at the northern boundary and approximately 13-17m below the southern boundary on site.

The next mapped coal seam in sequence is shown to subcrop approximately 160m to the north of the site. This seam is mapped as the Hell Hole Mine on 1975 edition 1:50,000 scale and 1929 edition 1:10,560 mapping. The Hell Hole Mine is not listed in the 2010 vertical section, nor in the Explanation

of Sheet 85. However, given the Five Quarters/Wigan Four Feet coal is above it in the stratigraphy, it can be assumed that it is the Blenfire/Wigan Two Feet Coal.

Assuming a dip of 9-11°, the seam is anticipated to be at a depth of approximately 25-31m below rockhead at the northern site boundary and approximately 32-39m below rockhead at the southern site boundary.

The following seam in sequence is the Trencherbone Mine, subcropping approximately 570m to the north-east of the site. Whilst likely to dip below site, it is not expected as shallow depth given the distance to the mapped subcrop position.

Assuming a dip of 9-11°, the seam is anticipated to be at a depth of approximately 89-109m below rockhead at the northern site boundary, and approximately 95-117m below the southern site boundary.

Extracts from geological mapping (Lancashire Sheet 87SE 1;10,560 scale dated 1929, 1:10,00 scaled Digital Mapping date 2007, Sheet 85 Bedrock scaled 1:50,00 dated 2010) are shown on Plate 2-1.

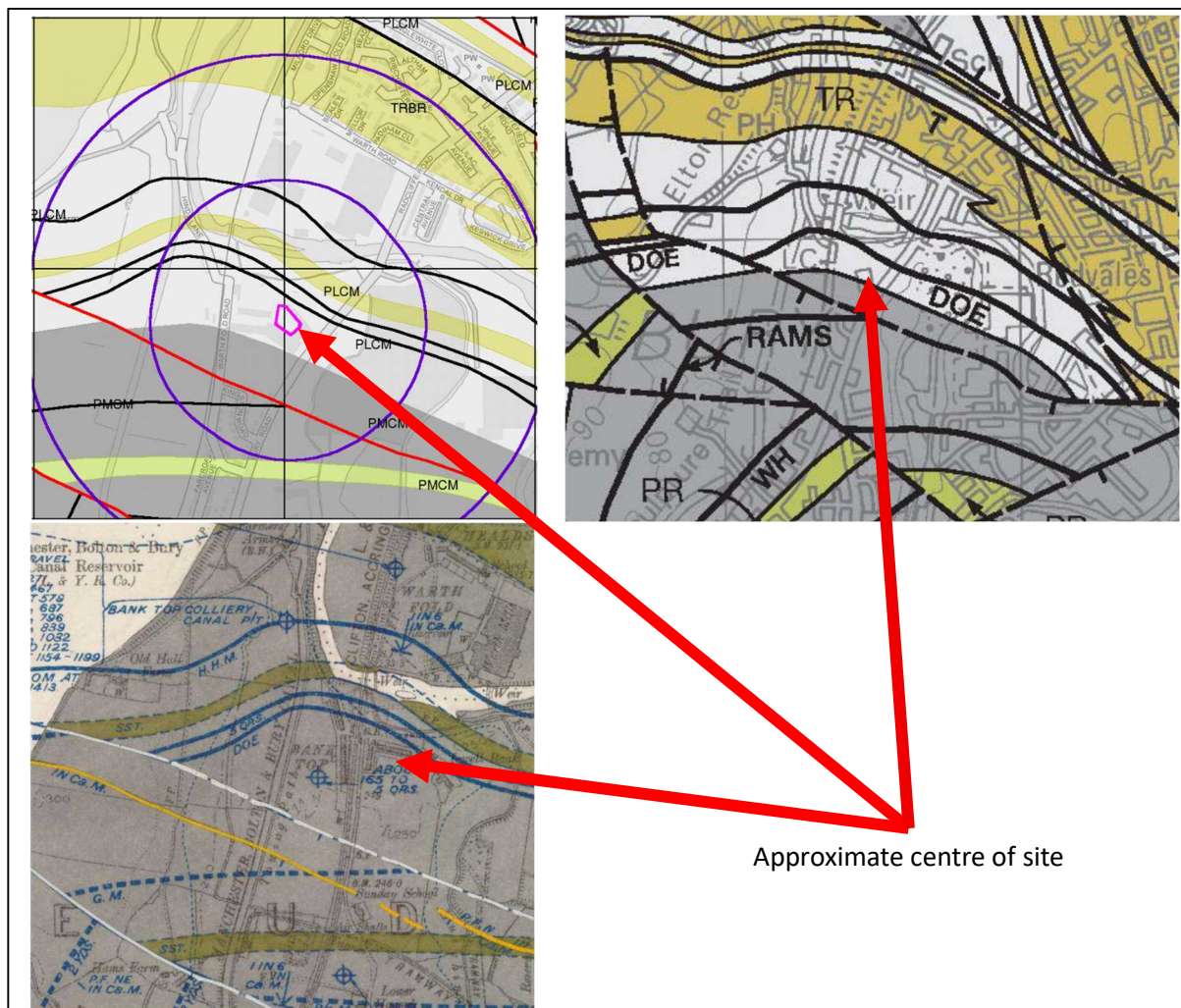


Plate 2-1: Extracts from geological mapping. Top left: 2007 1:10,000 digital mapping, top right: 2010 1:50,000 sheet mapping and bottom left: 1929 1:10,560 mapping. Not to scale.

Plate 2-2 shows an extract of the generalized vertical section from Sheet 85 showing the section of strata expected on and below the site.

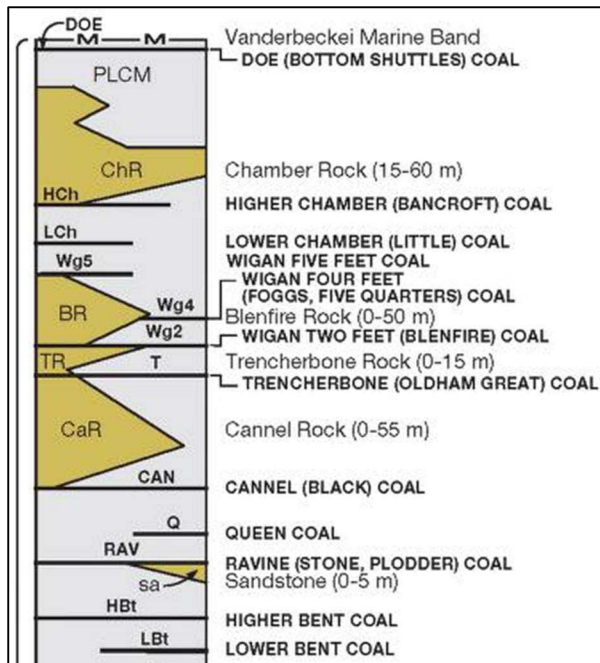


Plate 2-2: Extract of the generalized vertical section from Sheet 85 (dated 2010). Not to scale.

The Doe Coal subcrops to the north of the site boundary, therefore based on the vertical section, it is possible that the Higher and Lower Chamber Coal and the Wigan Five, Four and Two Feet Coal are present below, potentially at shallow depth. The Cannel coal is recorded as worked at depth below site, therefore all seams between the Doe and Cannel could be present below site at unknown depth.

Sheet 85 explanatory notes provide additional information on the coal seams within the Manchester Area.

An extract showing the anticipated shallowest coal seam below the site (Doe) and the coal seams below this in age order is provided in Plate 2-3. It should be noted that not all coal seams may be present below the site due to geological variation.

Pennine Lower Coal Measures Formation			
Doe (Hathershaw, Bottom Shuttles)	Ha	0.0-0.2	Not worked
Higher Chamber (Bancroft)	HCh	0.0-0.3	
Lower Chamber (Little)	LCh	0.0-0.4	Not worked
Wigan Five Feet	Wg5	0.1-0.6	Deep mined
Wigan Four Feet (Foggs, Five Quarters)	Wg4	0.1-1.3	Deep mined and surface mined (opencast)
Wigan Two Feet (Blenfire, Lower Victoria)	Wg2	0.1-0.6	Deep mined
Trencherbone (Wigan Six Feet, Oldham Great)	T	2.0-4.8	Deep mined; surface mined (opencast)
Peacock (Saltpetre, Cellar)	Pe	0.5-1.8	Not worked
Smithy	Sy	0.0-0.2	Not worked
Little Black (Little, Little King)	LB	0.1-0.6	Surface mined (opencast)
Cannel (Black)	CAN	0.3-0.9	Deep mined and surface mined (opencast)
King	K	0.0-1.3	Deep mined and surface mined (opencast)
Queen (Foot, Sapling)	Q	0.6-1.5	Deep mined

Coal seams anticipated below the site

Plate 2-3: Extract from the Geology of Manchester district explanatory notes.

2.3. Mining Remediation Authority Consultants Coal Mining Report

The consultants coal mining report is summarised in Table 2-1.

Mining Activity and Geology	
Past underground mining	Yes: See Plate 2-4.
Probable unrecorded shallow workings	Yes.
Spine roadways at shallow depth	No spine roadway recorded at shallow depth.
Mine entries (within 100m)	None recorded within 100m of the enquiry boundary.
Abandoned mine plan catalogue numbers	NW1161, 16820, POO, 3001.
Outcrops	Yes: see Plate 2-5.
Geological faults, fissures and breaklines	No faults, fissures or breaklines recorded.
Opencast mines	None recorded within 500m of the enquiry boundary.
Mining Remediation Authority managed tips	None recorded within 500m of the enquiry boundary.
Investigative or Remedial Activity	
Site investigations	None recorded within 50m of the enquiry boundary.
Remediated sites	None recorded within 50m of the enquiry boundary.
Coal mining subsidence	Not received a damage notice or claim for the subject property, or any property within 50m, since 1994. No current Stop Notice delaying remedial works or repairs to property. Not aware of any request made to carry out preventative works before coal is worked.
Mine gas	None recorded within 500m of the enquiry boundary.
Mine water treatment schemes	None recorded within 500m of the enquiry boundary.
Licensing and Future Mining Activity	
Future underground mining	None recorded.
Coal mining licensing	None recorded within 200m of the enquiry boundary.
Court Orders	None recorded.
Section 46 notices	No notices have been given, stating that the land is at risk of subsidence.
Withdrawal of support notices	Not in an area where a notice to withdraw support has been given or where a notice has been given cancelling the entitlement to withdraw support.
Payments to owners of former copyhold land	Not in an area where a relevant notice has been published.
Further Information	
The following further information is provided: Future Development. Mine Gas. Development Advice.	

Table 2-1: Summary of Mining Remediation Authority Consultants Coal Mining Report.

Plate 2-4 shows the past underground mining. This is defined by the Mining Remediation Authority as *'details of all recorded underground mining relative to the enquiry boundary. Only underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included'*.

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	CANNEL	Coal	3Y5P	186	Beneath Property	9.5	South	130	1894

Plate 2-4: Extract from Mining Remediation Authority Report showing past underground mining.

Probable unrecorded shallow workings are defined as ‘areas where the Mining Remediation Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30m deep)’.

Plate 2-5 shows the coal outcrops. This is defined by the Mining Remediation Authority as ‘details of seam outcrops will be included where the enquiry boundary intersects with a conjectured or actual seam outcrop location (derived by either the British Geological Survey or the Mining Remediation Authority) or intersects with a defined 50m buffer on the coal (dip) side of the outcrop. An indication of whether the Mining Remediation Authority believes the seam to be of sufficient thickness and /or quality to have been worked will also be included.’

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
DOE	Coal	Yes	12.9	North-East	304
WIGAN FIVE FEET	Coal	Yes	36.4	North-East	300

Plate 2-5: Extract from Mining Remediation Authority Report showing outcrops.

Plate 2-6 shows an extract of the plan provided with the Mining Remediation Authority Consultants Coal Mining Report.



Plate 2-6: Extract from Mining Remediation Authority Consultants Coal Mining Report – Summary of Findings.

2.4. Mining Remediation Authority Interactive Mapping

Plate 2-7 shows the development high risk areas.



Key	
	Site Boundary
	Development High Risk Area
	GBR BGS 1:50k Linear Features
	Mine Entry
	Mine Entry Potential Zone of Influence
	Probable Shallow Coal Mine Workings
	Coal Outcrops

Plate 2-7: Development High Risk Area.

The site is within a Development High Risk Area, with the following features identified:

- Coal outcrops – entirety of site area.
- Probable Shallow Coal Mine Workings – entirety of site area.

2.5. Combustible Coal Seams

Some coal seams have been known to suffer from occurrences of spontaneous combustion and are consequently regarded as at 'high risk' of succumbing to spontaneous combustion when being entered, worked, or disturbed. The Mining Remediation Authority have produced a list of seams for different areas of the UK.

None of the coal seams listed are expected at shallow depth below the site, the Trencherbone seam may be present at significant depth. However, if roof coal has been left, this could also pose a risk.

2.6. Historical BGS Logs

No nearby historical boreholes of significance are available. The nearest borehole records are from 300m to the north-west (Ref: SD70NE19), detailing bedrock and coal in old mining terms. The log suggests that rockhead was encountered at approximately 19mbgl with a coal seam at approximately 41mbgl.

An extract of the log is shown in Plate 2-8.

(For Survey use only). GEOLOGICAL CLASSIFICATION.	NATURE OF STRATA (and any additional remarks).	THICKNESS		DEPTH	
		Feet.	Inches.	Feet.	Inches.
	Sand or gravel	63	-		
	White Earth	24	-		
	Warrant	5	-		
	Rocky Flue	27	-		
	Warrant	6	-		
	Metal or White Earth	9	-		
	COAL		5		
	Binn		2		
	COAL		5		
	Binn		4		
	COAL		10		
	Warrant	8	7		
	COAL	1	3		
	Binn		4		
	COAL		7		
	Warrant	5	8		
	Grey Flue	10	10		
	Rock	4	2		
	Flaggy Rock	3	-		
	Dark Grey Rock		4		
	Red Flue	5	-		
	Dark Flaggy Rock	1	-		
	Brown Rock	2	3		
	Red Flue Burr	1	6		
	Brown Rock	4	6		
	Red Flue	2	-		
	Brown Rock	1	3		
	Red Flue	1	-		
	Flaggy Rock	3	9		
	Brown Rock	2	3		
	Flaggy Rock	1	8		
	Red Flue and band of Rock	10	-		
	Red Metal or Burr	1	9		
	Brown Rock	4	3		
	Grey Rock	4	6		
	Red Rock Bands	6	-		
	Brown Rock	1	6		

Plate 2-8: Extract showing BGS Log Ref: SD70NE19.

2.7. Historical Mapping

Available historical mapping has identified coal pits between 300-500m to the north, but none within influencing distance. A colliery with an airshaft is shown approximately 300m to the south-west on 1893 mapping.

3. Coal Mining Risk Assessment

Table 3-1 below summarises the potential risks associated with coal mining legacy for the proposed development site.

Coal Mining Issue	Potential Risk	Risk Assessment
Underground coal mining (recorded at shallow depths)	X	No recorded shallow underground workings below the site. The shallowest workings recorded are at 186m depth (Cannel Coal, 130cm extraction thickness), these are not considered to pose a risk of ground instability at the site surface. No further assessment required.
Underground coal mining (probable at shallow depths)	?	Probable underground shallow workings recorded by the Mining Remediation Authority. Shallow coal seams include the Doe/Bottom Shuttles Coal (2-12m below rockhead) and the Wigan Two Feet Coal / Fiver Quarters seam (25-39m below rockhead) Further coal seams may also be present. The Doe seam is not of significant thickness (0.0-0.2m) and wasn't worked according to the BGS memoir for Sheet 85, therefore it is unlikely to pose a significant risk if present below the site. The Wigan Two Foot / Five Quarters seam is expected to dip below the site and may have been worked. However, given the low sensitivity commercial nature of the development, lack of significant groundworks and as no significant increase in loadings anticipated, the risk of surface instability is considered to be low. Precautionary remedial measures such as a reinforced pad foundation to allow for minimal settlement should be implemented, subject to Mining Remediation Authority approval.
Mine entries (shafts / adits)	?	No recorded mine entries within influencing distance of the site. However, there is also a risk of unrecorded mine entries as the site is within a coal mining area. No specific investigation work is advised. However, a watching brief should be undertaken during any intrusive investigation work and groundworks to check for any signs of unrecorded mine entries.
Coal mining geology (geological faults, fissures and breaklines)	X	Not recorded on Mining Remediation Authority data.
Record of past mine gas emissions	X	Not recorded on Mining Remediation Authority data. However, shallow potentially worked coal seams may be present below the site, which have the potential to be a source of ground gas. Mine gas could migrate to the site surface and accumulate in confined spaces posing a risk to site users and buildings. However, the majority of the development comprises an enclosed canopy with no real confined areas. No further assessment required unless new buildings proposed.
Recorded coal mining surface hazard	X	No recorded coal mining surface hazard.
Surface mining (opencast workings)	X	No recorded surface mining (opencast workings).

Table 3-1: Potential Coal Mining Risks.

Notes:

✓ = Risk identified, X = No risk identified, ? = Possible risk identified.

4. Conclusions and Recommendations

4.1. Summary

Based upon the available information, LKC have identified potential shallow coal mining risks which are summarised in Table 4-1.

Coal Mining Issue	Potential Risk
Underground coal mining (recorded at shallow depths)	X
Underground coal mining (probable at shallow depths)	?
Mine entries (shafts / adits)	?
Coal mining geology (fissures)	X
Record of past mine gas emissions	X
Recorded coal mining surface hazard	X
Surface mining (opencast workings)	X

Table 4-1: Summary of coal mining potential risks.

4.2. Recommendations

Considering the available information and guidance given in CIRIA C758⁴, LKC does not consider that intrusive investigation work is necessary in relation to the development but does recommend the following precautionary remedial measures.

- Reinforced pad foundations should be included in the foundation designs.

The above measures will be subject to approval from the Mining Remediation Authority.

4.3. Watching Brief

A watching brief is recommended in all coal mining areas. This could be undertaken by experienced site staff on low-risk sites or by a suitably qualified coal mining engineer or consultant on high-risk sites. This site is considered to be a low risk at this stage as no shallow mining has been recorded on site.

The watching brief should cover the period in which any earthworks, reduce level dig or foundation excavation works are being undertaken. Particular care should be taken to identify any potential features which may indicate the presence of shallow coal mining hazards.

Such hazards may include, but not limited to, features such as unexplained depressions or voids, outcropping coal seams, localised areas of deep made ground (which could represent backfilled areas of coal mining related ground subsidence, crown holes or mine entries), or unexpected man-made items at depth (e.g., brickwork, concrete, timber, or steelwork).

Mine entries may manifest during excavation works as circular, square, or rectangular areas of deep Made Ground (typically several metres in size) set against the natural strata (e.g., Glacial Till or weathered rock). Mine shafts may also be covered with a large, thick concrete cap.

If any of the above features are identified during the course of the development works, then work should be stopped to allow the mining engineer / consultant to assess them and if necessary, design further or additional investigation and / or remediation works.

4.4. Conclusions and Safe Development

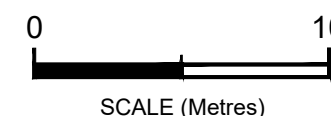
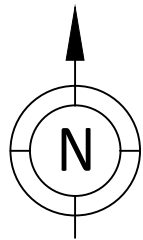
Precautionary recommendations have been made to ensure the safe development with respect to legacy coal mining. This should be agreed with the Mining Remediation Authority.

LKC consider the study site should be capable of being made safe and stable to meet the requirements of national planning policy with regard to development on unstable land.

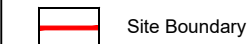
Figures



Client: Newbank Garden Centre				Title: Site Location & Boundary Plan		 LK CONSULT
Site: Newbank Garden Centre				Scale (see scale bar): 1:25,000 & 1 1:1000 @ A4		
Job No.: LKC261155				Drawn By: CD	Checked By: RP	



KEY



NOTE:

Overall the proposal consists of 5 zones:

Zone 1 =	120 Covers
Zone 2 =	85 Covers
Zone 3 =	91 Covers
Zone 4 =	40 Covers
Zone 5 =	140 Covers
Overall (inc Terrace) =	476 Covers
Overall (exc Terrace) =	336 Covers

Retail Area =	239.53m ²	-	2578.27ft ²
Cafe Area =	868.74m ²	-	9351.03ft ²
Toilets Area =	50.98m ²	-	548.63ft ²

Overall Area =	1159.25m ²	-	12478.06ft ²
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Sampling Locations and features annotated by LK Consult Ltd are approximate and are based upon observed measurements unless otherwise stated. Do not scale from this drawing and work from marked dimensions only. All dimensions and features should be confirmed on site by the Contractor. Where this drawing includes information provided to LK Consult Ltd by others, LK Consult Ltd gives no warranty, representation or assurance as to the accuracy of such information.



LK CONSULT

Client:
Newbank Garden Centre

Site:
Newbank Garden Centre

Title:
Proposed Development Plan

Job No.: LKC261155	Scale (See Scale Bar): See Scale Bar	Figure: 2	Revision:
Drawn By: AC	Checked By: CD	Drawn: May 2026	

Appendix A – Geological Mapping

Geology 1:10,000 Maps Legends

Artificial Ground and Landslip

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	MGR	Made Ground (Undivided)	Artificial Deposit	Holocene - Holocene
	WGR	Worked Ground (Undivided)	Void	Holocene - Holocene
	WMGR	Infilled Ground	Artificial Deposit	Holocene - Holocene
	DDGR	Disturbed Ground (Undivided)	Unknown/Unclassified Entry	Holocene - Holocene
	LSGR	Landscaped Ground (Undivided)	Artificial Deposit	Holocene - Holocene

Superficial Geology

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	ALV	Alluvium	Clay, Silt, Sand and Gravel	Flandrian - Pleistocene
	GFSDD	GLACIOFLUVIAL SHEET DEPOSITS, DEVENSIAN	Sand and Gravel	Devensian - Ipswichian
	GFDUD	Glaciofluvial Deposits, Devensian	Sand and Gravel	Devensian - Ipswichian
	GLLDD	Glaciolacustrine Deposits, Devensian	Clay and Silt	Devensian - Ipswichian
	TILLD	Till, Devensian	Diamicton	Devensian - Ipswichian
	HMGDD	Hummocky (Moundy) Glacial Deposits, Devensian	Diamicton	Devensian - Ipswichian
	RTD1	River Terrace Deposits, 1	Sand and Gravel	Quaternary - Ryazanian
	HEAD	Head	Clay, Silt, Sand and Gravel	Quaternary - Ryazanian
	RTD2	River Terrace Deposits, 2	Sand and Gravel	Quaternary - Ryazanian

Bedrock and Faults

Map Colour	Lex Code	Rock Name	Rock Type	Min and Max Age
	PMCM	Pennine Middle Coal Measures Formation	Mudstone, Siltstone and Sandstone	Bolsovian - Duckmantian
	PMCM	Pennine Middle Coal Measures Formation	Sandstone	Bolsovian - Duckmantian
	PR	Peel Hall Rock	Sandstone	Duckmantian - Duckmantian
	PLCM	Pennine Lower Coal Measures Formation	Mudstone, Siltstone and Sandstone	Langsettian - Langsettian
	PLCM	Pennine Lower Coal Measures Formation	Sandstone	Langsettian - Langsettian
	TRBR	Trencherbone Rock	Sandstone	Langsettian - Langsettian
	CAR	Cannel Rock (South Lancashire)	Sandstone	Langsettian - Langsettian
	Rock			
	Fault			



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Geology 1:10,000 Maps

This report contains geological map extracts taken from the BGS Digital Geological map of Great Britain at 1:10,000 scale and is designed for users carrying out preliminary site assessments who require geological maps for the area around a site. This mapping may be more up to date than previously published paper maps.

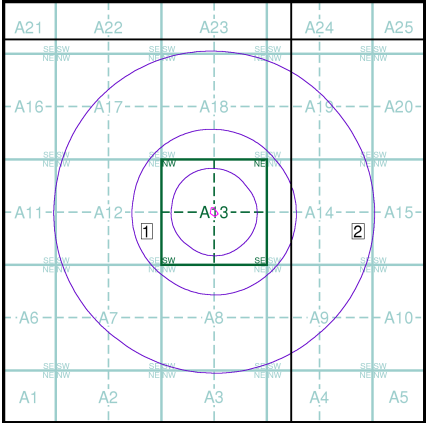
The various geological layers - artificial and landslip deposits, superficial geology and solid (bedrock) geology are displayed in separate maps, but superimposed on the final 'Combined Surface Geology' map. All map legends feature on this page.

Please Note: Not all of the layers have complete nationwide coverage, so availability of data for relevant map sheets is indicated below.

Geology 1:10,000 Maps Coverage

Map ID:	SD71SE	Map ID:	SD81SW
Map Name:	2007	Map Name:	2007
Map Date:	2007	Map Date:	2007
Bedrock Geology:	Available	Bedrock Geology:	Available
Superficial Geology:	Available	Superficial Geology:	Available
Artificial Geology:	Available	Artificial Geology:	Available
Faults:	Available	Faults:	Available
Landslip:	Available	Landslip:	Available
Rock Segments:	Available	Rock Segments:	Available
Map ID:	1	Map ID:	2
Map Name:	SD70NE	Map Name:	SD80NW
Map Date:	2008	Map Date:	2008
Bedrock Geology:	Available	Bedrock Geology:	Available
Superficial Geology:	Available	Superficial Geology:	Available
Artificial Geology:	Available	Artificial Geology:	Available
Faults:	Available	Faults:	Available
Landslip:	Available	Landslip:	Available
Rock Segments:	Available	Rock Segments:	Available

Geology 1:10,000 Maps - Slice A



Order Details

Order Number:	402144295_1_1
Customer Ref:	LKC261155
National Grid Reference:	379510, 408900
Slice:	A
Site Area (Ha):	0.18
Search Buffer (m):	1000

Site Details

New Bank Garden Centre Ltd, Bury Road, Radcliffe, Manchester, M26 2WW

Landmark
INFORMATION GROUP

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



LK CONSULT

Artificial Ground and Landslip

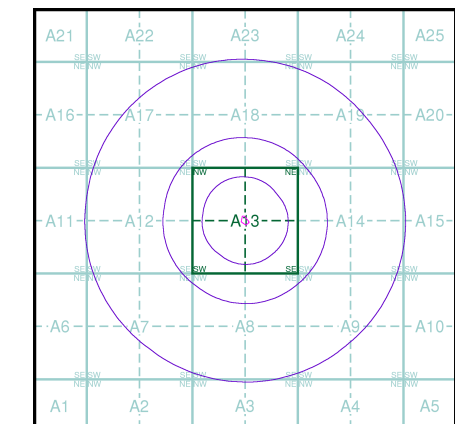
Artificial ground is a term used by BGS for those areas where the ground surface has been significantly modified by human activity. Information about previously developed ground is especially important, as it is often associated with potentially contaminated material, unpredictable engineering conditions and unstable ground.

Artificial ground includes:

- Made ground - man-made deposits such as embankments and spoil heaps on the natural ground surface.
- Worked ground - areas where the ground has been cut away such as quarries and road cuttings.
- Infilled ground - areas where the ground has been cut away then wholly or partially backfilled.
- Landscaped ground - areas where the surface has been reshaped.
- Disturbed ground - areas of ill-defined shallow or near surface mineral workings where it is impracticable to map made and worked ground separately.

Mass movement (landslip) deposits on BGS geological maps are primarily superficial deposits that have moved down slope under gravity to form landslips. These affect bedrock, other superficial deposits and artificial ground. The dataset also includes founded strata, where the ground has collapsed due to subsidence.

Artificial Ground and Landslip Map - Slice A



Order Details

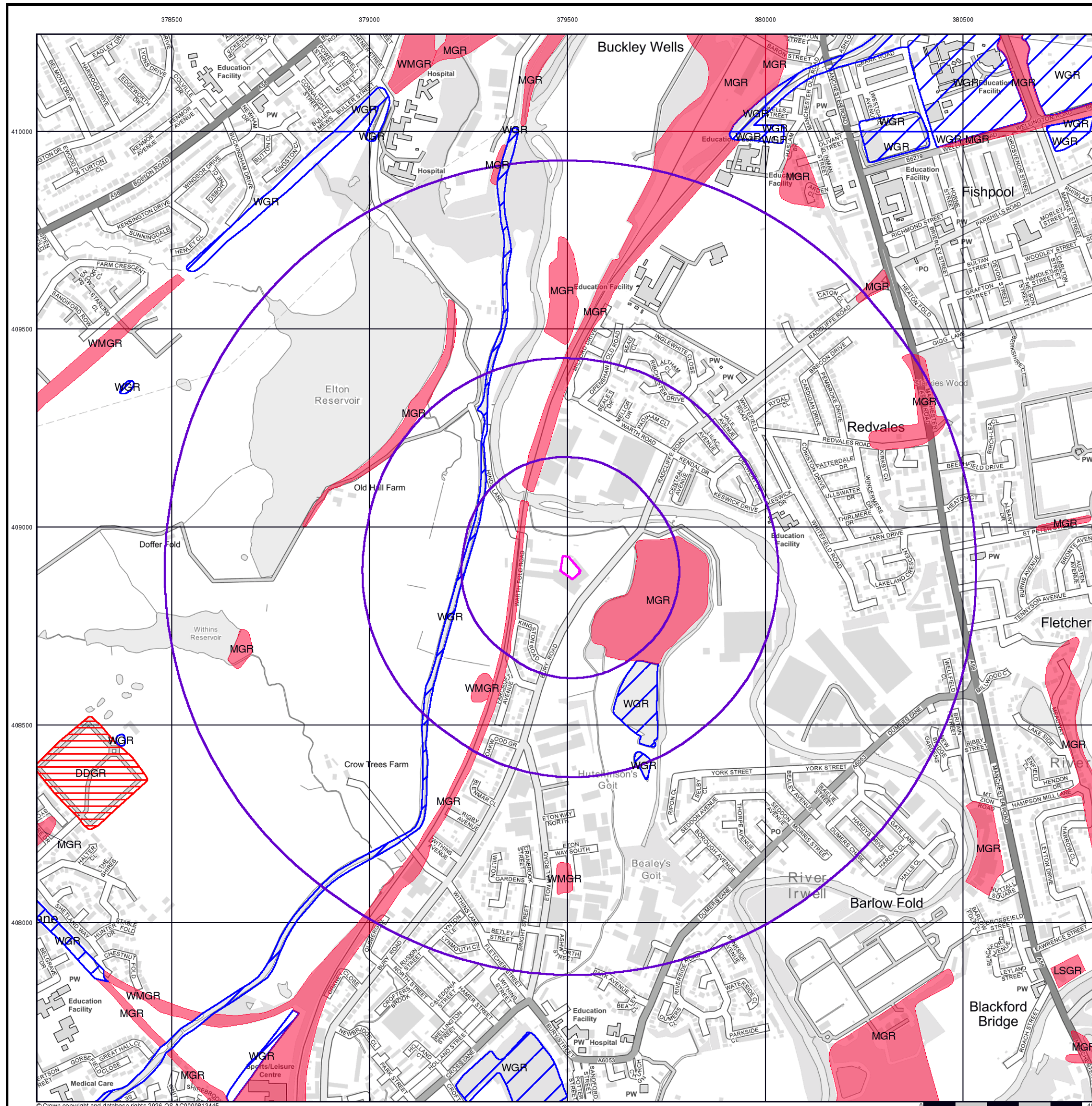
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Customer Ref: LKC261155
National Grid Reference: 379510, 408900
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

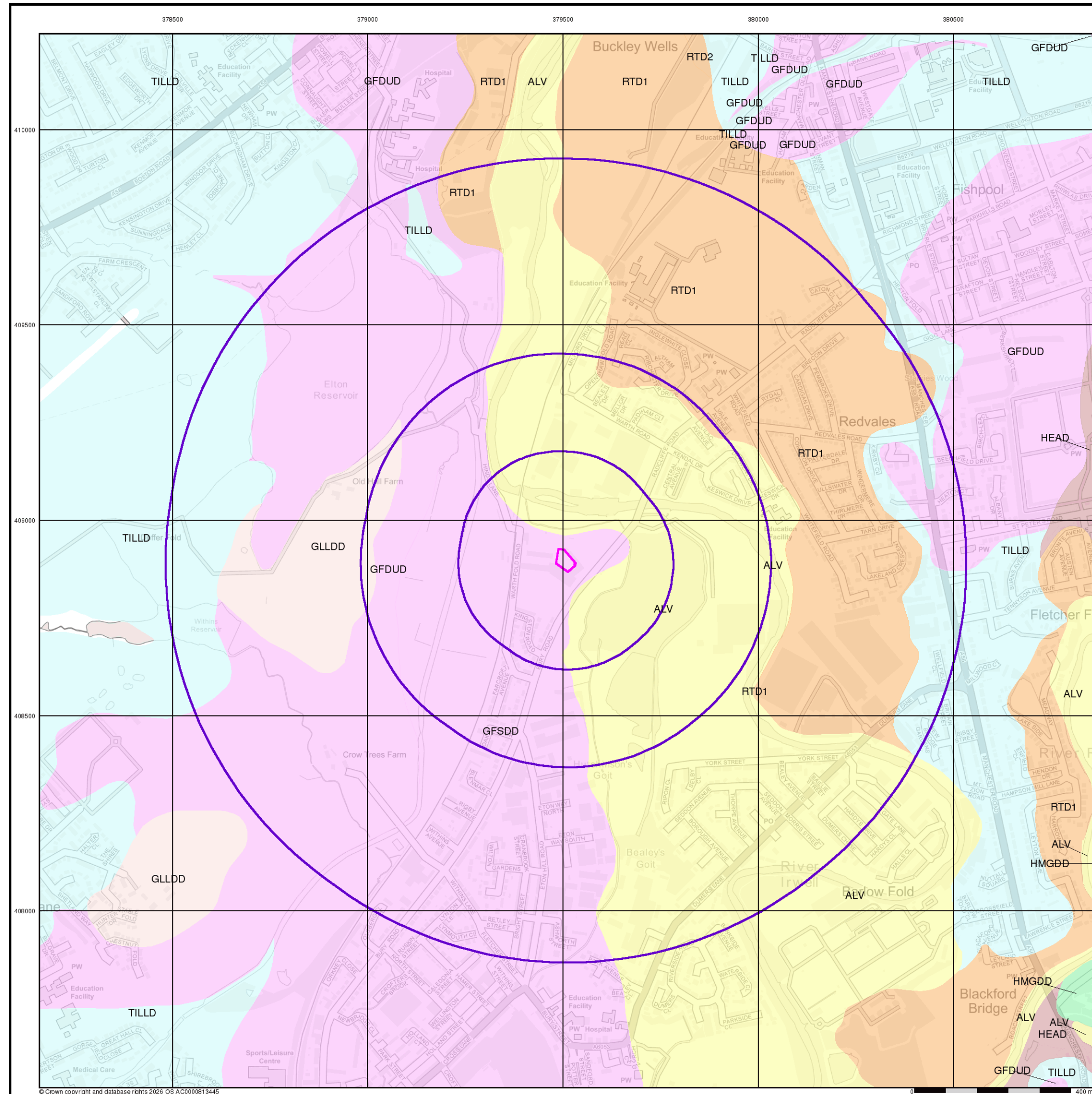
Site Details

New Bank Garden Centre Ltd, Bury Road, Radcliffe,
Manchester, M26 2WW

Landmark
INFORMATION GROUP

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





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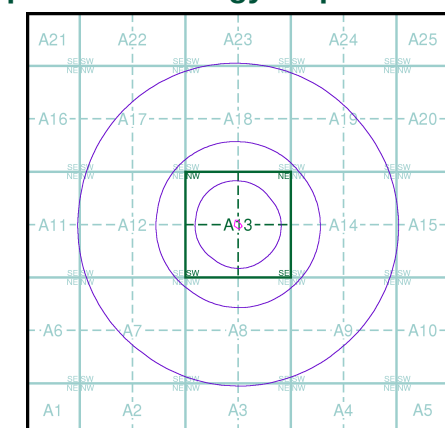
Superficial Geology

BGS 1:10,000 Superficial Deposits are the youngest geological deposits formed during the most recent period of geological time, which extends back about 1.8 million years from the present.

They rest on older deposits or rocks referred to as Bedrock. This dataset contains Superficial deposits that are of natural origin and 'in place'. Other superficial strata may be held in the Mass Movement dataset where they have been moved, or in the Artificial Ground dataset where they are of man-made origin.

Most of these Superficial deposits are unconsolidated sediments such as gravel, sand, silt and clay, and onshore they form relatively thin, often discontinuous patches or larger spreads.

Superficial Geology Map - Slice A



Order Details

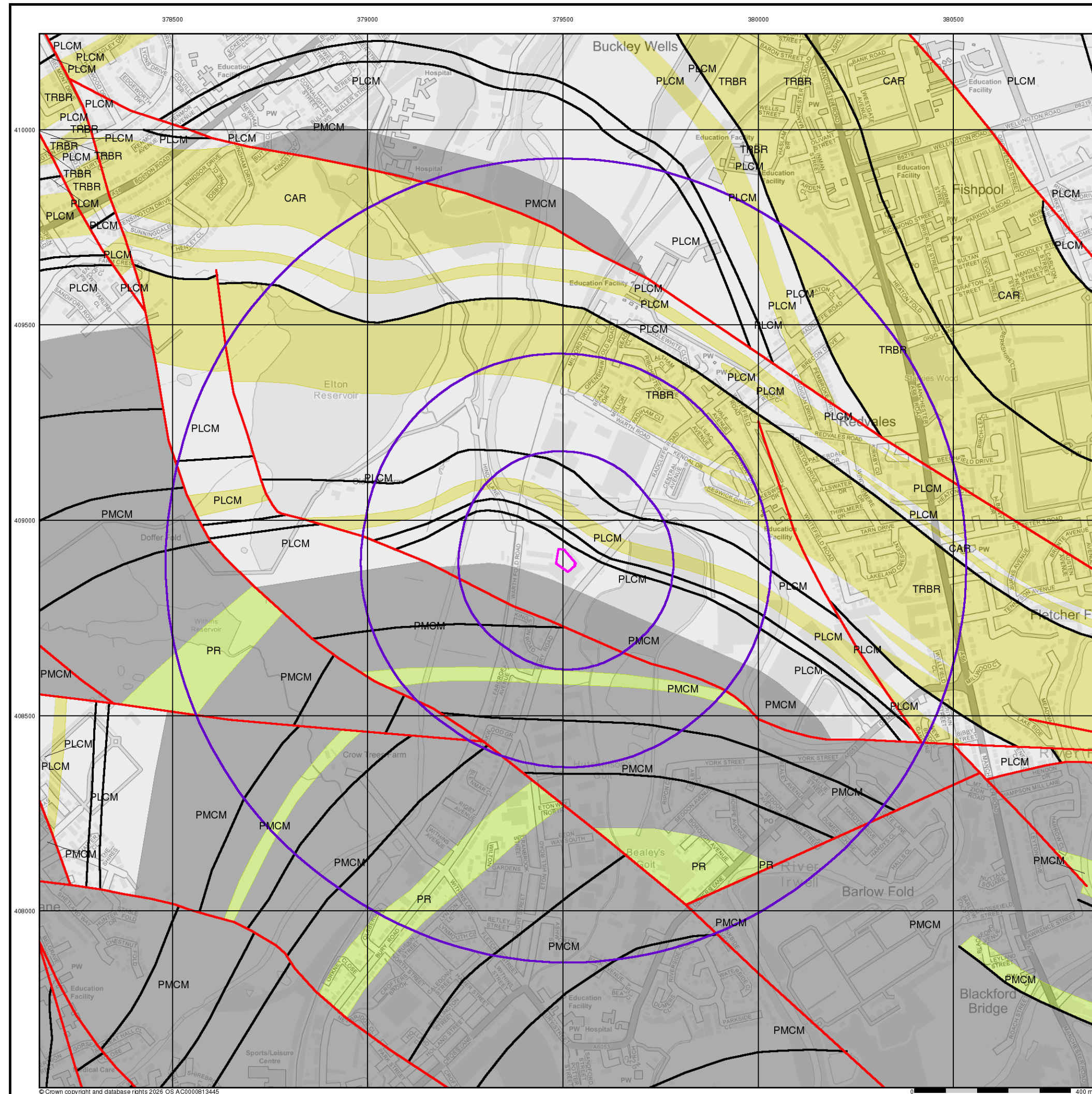
Order Number: 402144295_1_1
Customer Ref: LKC261155
National Grid Reference: 379510, 408900
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

New Bank Garden Centre Ltd, Bury Road, Radcliffe, Manchester, M26 2WW



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



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Bedrock and Faults

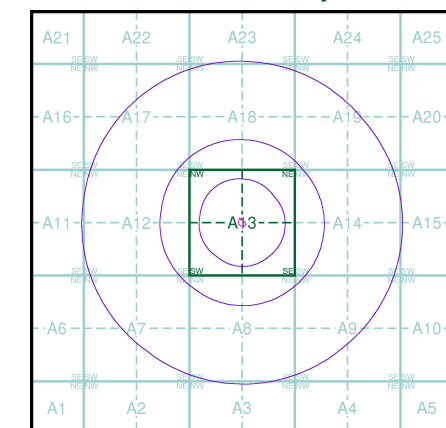
Bedrock geology is a term used for the main mass of rocks forming the Earth and are present everywhere, whether exposed at the surface in outcrops or concealed beneath superficial deposits or water.

The bedrock has formed over vast lengths of geological time ranging from ancient and highly altered rocks of the Proterozoic, some 2500 million years ago, or older, up to the relatively young Pliocene, 1.8 million years ago.

The bedrock geology includes many lithologies, often classified into three types based on origin: igneous, metamorphic and sedimentary.

The BGS Faults and Rock Segments dataset includes geological faults and thin beds mapped as lines such as coal seams and mineral veins. These are not restricted by age and could relate to features of any of the 1:10,000 geology datasets.

Bedrock and Faults Map - Slice A



Order Details

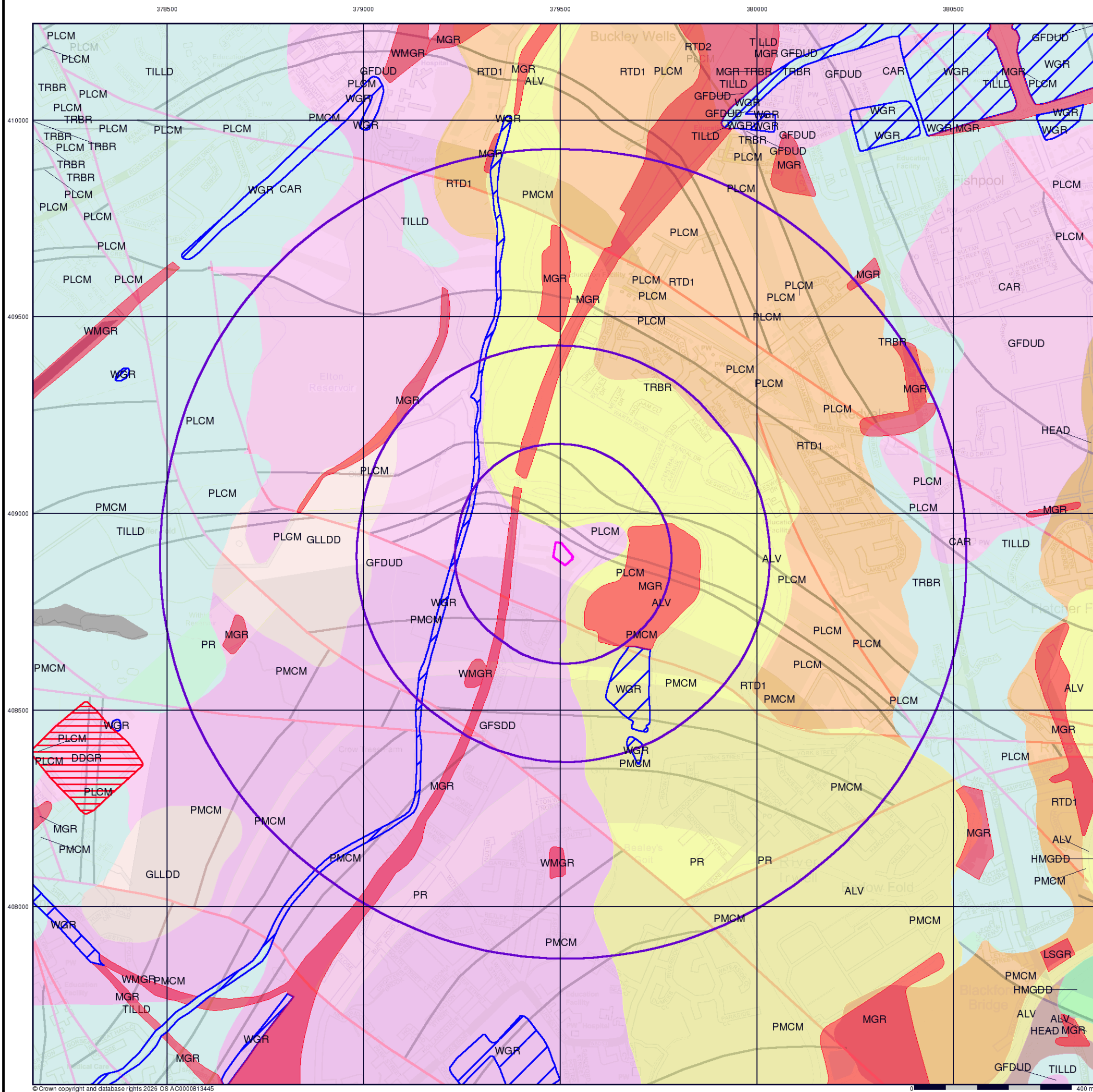
Order Number: 402144295_1_1
Customer Ref: LKC261155
National Grid Reference: 379510, 408900
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

New Bank Garden Centre Ltd, Bury Road, Radcliffe, Manchester, M26 2WW



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



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Combined Surface Geology

The Combined Surface Geology map combines all the previous maps into one combined geological overview of your site.

Please consult the legends to the previous maps to interpret the Combined "Surface Geology" map.

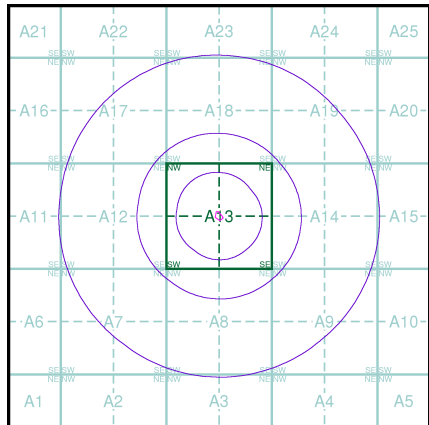
Additional Information

More information on 1:10,000 Geological mapping and explanations of rock classifications can be found on the BGS website. Using the LEX Codes in this report, further descriptions of rock types can be obtained by interrogating the 'BGS Lexicon of Named Rock Units'. This database can be accessed by following the 'Information and Data' link on the BGS website.

Contact

British Geological Survey
Kingsley Dunham Centre
Keyworth
Nottingham
NG12 5GG
Telephone: 0115 936 3143
Fax: 0115 936 3276
email: enquiries@bgs.ac.uk
website: www.bgs.ac.uk

Combined Geology Map - Slice A



Order Details

Order Number: 402144295_1_1
Customer Ref: LKC261155
National Grid Reference: 379510, 408900
Slice: A
Site Area (Ha): 0.18
Search Buffer (m): 1000

Site Details

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Manchester, M26 2WW

Landmark
INFORMATION GROUP

Tel: 0844 844 9952
Fax: 0844 844 9951
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Appendix B – Mining Remediation Authority Consultants Report



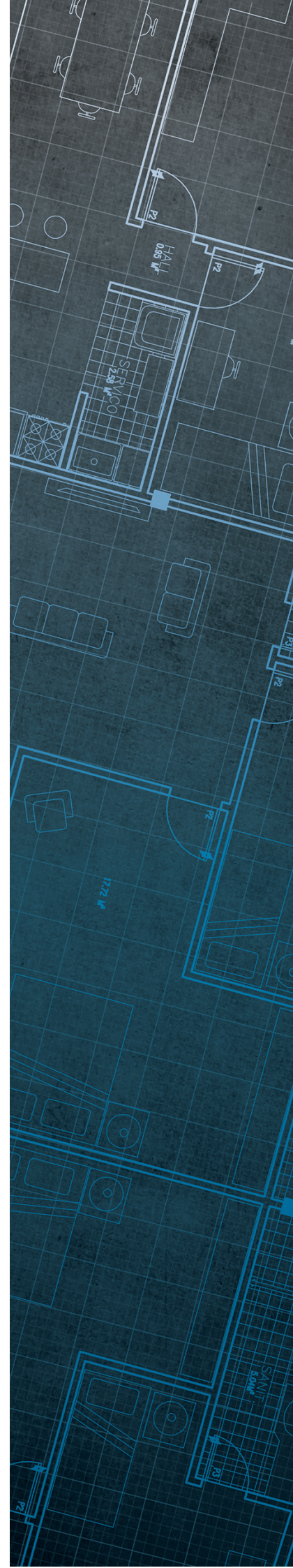
The Coal
Authority

Consultants Coal Mining Report

New Bank Garden Centre Ltd, Bury
Road
Manchester
Greater Manchester

Date of enquiry:	11 May 2026
Date enquiry received:	11 May 2026
Issue date:	11 May 2026

Our reference:	51003569772001
Your reference:	402144295_2



Consultants

Coal Mining Report

This report is based on and limited to the records held by the Coal Authority at the time the report was produced.

Client name

NLIS Hub

Enquiry address

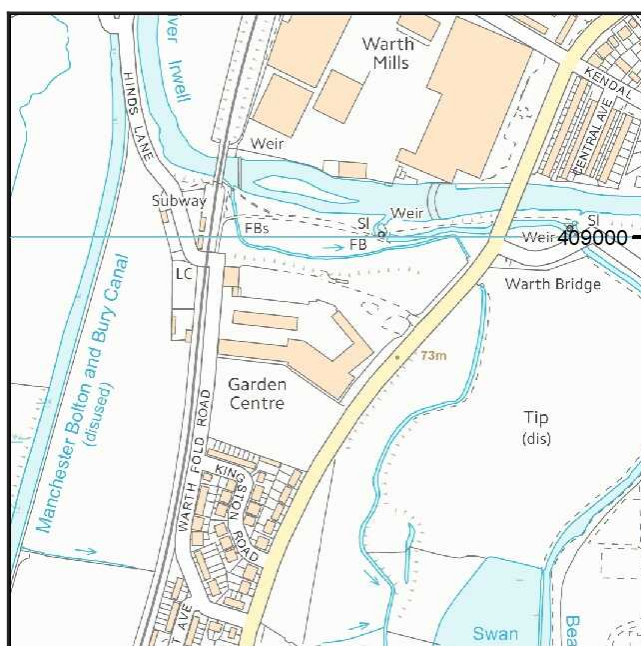
New Bank Garden Centre Ltd, Bury Road
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How to contact us

0345 762 6848 (UK)
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Nottinghamshire
NG18 4RG

reports@miningremediation.gov.uk



Approximate position of property



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Ordnance Survey Licence number: AC0000820577

Section 1 – Mining activity and geology

Past underground mining

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	CANNEL	Coal	3Y5P	186	Beneath Property	9.5	South	130	1894

Probable unrecorded shallow workings

Yes.

Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

Mine entries

None recorded within 100 metres of the enquiry boundary.

Abandoned mine plan catalogue numbers

The following abandoned mine plan catalogue numbers intersect with some, or all, of the enquiry boundary:

NW1161	PO0	16820
3001		

For assistance in identifying the specific abandoned mine plans relevant to your requirements, **please contact us at InformationManagers@MiningRemediation.gov.uk**.

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
DOE	Coal	Yes	12.9	North-East	304
WIGAN FIVE FEET	Coal	Yes	36.4	North-East	300

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

None recorded within 500 metres of the enquiry boundary.

Coal Authority managed tips

None recorded within 500 metres of the enquiry boundary.

Section 2 – Investigative or remedial activity

Please refer to the 'Summary of findings' map (on separate sheet) for details of any activity within the area of the site boundary.

Site investigations

None recorded within 50 metres of the enquiry boundary.

Remediated sites

None recorded within 50 metres of the enquiry boundary.

Coal mining subsidence

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

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

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

Mine gas

None recorded within 500 metres of the enquiry boundary.

Mine water treatment schemes

None recorded within 500 metres of the enquiry boundary.

Section 3 – Licensing and future mining activity

Future underground mining

None recorded.

Coal mining licensing

None recorded within 200 metres of the enquiry boundary.

Court orders

None recorded.

Section 46 notices

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

Withdrawal of support notices

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

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

Payments to owners of former copyhold land

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

Section 4 – Further information

The following potential risks have been identified and as part of your risk assessment should be investigated further.

Future development

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

MINE GAS: Please note, if there are no recorded instances of mine gas within 500m of the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

Development advice

The site is within an area of historical coal mining activity. Should you require advice and/or support on understanding the mining legacy, its risks to your development or what next steps you need to take, please contact us.

For further information on specific site or ground investigations in relation to any issues raised in Section 4, please email us at reports@miningremediation.gov.uk.

Section 5 – Data definitions

The datasets used in this report have limitations and assumptions within their results. For more guidance on the data and the results specific to the enquiry boundary, please **email us at reports@miningremediation.gov.uk**.

Past underground coal mining

Details of all recorded underground mining relative to the enquiry boundary. Only past underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included.

Probable unrecorded shallow workings

Areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30 metres deep).

Spine roadways at shallow depth

Connecting roadways either, working to working, or, surface to working, both in-seam and cross measures that exist at or close to the surface (less than 30 metres deep), either within or within 10 metres of the enquiry boundary.

Mine entries

Details of any shaft or adit either within, or within 100 metres of the enquiry boundary including approximate location, brief treatment details where known, the mineral worked from the mine entry and conveyance details where the mine entry has previously been sold by the Authority or its predecessors British Coal or the National Coal Board.

Abandoned mine plan catalogue numbers

Plan numbers extracted from the abandoned mines catalogue containing details of coal and other mineral abandonment plans deposited via the Mines Inspectorate in accordance with the Coal Mines Regulation Act and Metalliferous Mines Regulation Act 1872. A maximum of 9 plan extents that intersect with the enquiry boundary will be included. This does not infer that the workings and/or mine entries shown on the abandonment plan will be relevant to the site/property boundary.

Outcrops

Details of seam outcrops will be included where the enquiry boundary intersects with a conjectured or actual seam outcrop location (derived by either the British Geological Survey or the Coal Authority) or intersects with a defined 50 metres buffer on the coal (dip) side of the outcrop. An indication of whether the Coal Authority believes the seam to be of sufficient thickness and/or quality to have been worked will also be included.

Geological faults, fissures and breaklines

Geological disturbances or fractures in the bedrock. Surface fault lines (British Geological Survey derived data) and fissures and breaklines (Coal Authority derived data) intersecting with the enquiry boundary will be included. In some circumstances faults, fissures or breaklines have been known to contribute to surface subsidence damage as a consequence of underground coal mining.

Opencast mines

Opencast coal sites from which coal has been removed in the past by opencast (surface) methods and where the enquiry boundary is within 500 metres of either the licence area, site boundary, excavation area (high wall) or coaling area.

Coal Authority managed tips

Locations of disused colliery tip sites owned and managed by the Coal Authority, located within 500 metres of the enquiry boundary.

Site investigations

Details of site investigations within 50 metres of the enquiry boundary where the Coal Authority has received information relating to coal mining risk investigation and/or remediation by third parties.

Remediated sites

Sites where the Coal Authority has undertaken remedial works either within or within 50 metres of the enquiry boundary following report of a hazard relating to coal mining under the Coal Authority's Emergency Surface Hazard Call Out procedures.

Coal mining subsidence

Details of alleged coal mining subsidence claims made since 31 October 1994 either within or within 50 metres of the enquiry boundary. Where the claim relates to the enquiry boundary confirmation of whether the claim was accepted, rejected or whether liability is still being determined will be given. Where the claim has been discharged, whether this was by repair, payment of compensation or a combination of both, the value of the claim, where known, will also be given.

Details of any current 'Stop Notice' deferring remedial works or repairs affecting the property/site, and if so the date of the notice.

Details of any request made to execute preventative works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991. If yes, whether any person withheld consent or failed to comply with any request to execute preventative works.

Mine gas

Reports of alleged mine gas emissions received by the Coal Authority, either within or within 500 metres of the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded.

Mine water treatment schemes

Locations where the Coal Authority has constructed or operates assets that remove pollutants from mine water prior to the treated mine water being discharged into the receiving water body.

These schemes are part of the UK's strategy to meet the requirements of the Water Framework Directive. Schemes fall into 2 basic categories: Remedial – mitigating the impact of existing pollution or Preventative – preventing a future pollution incident.

Mine water treatment schemes generally consist of one or more primary settlement lagoons and one or more reed beds for secondary treatment. A small number are more specialised process treatment plants.

Future underground mining

Details of all planned underground mining relative to the enquiry boundary. Only those future workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination will be included.

Coal mining licensing

Details of all licenses issued by the Coal Authority either within or within 200 metres of the enquiry boundary in relation to the under taking of surface coal mining, underground coal mining or underground coal gasification.

Court orders

Orders in respect of the working of coal under the Mines (Working Facilities and Support) Acts of 1923 and 1966 or any statutory modification or amendment thereof.

Section 46 notices

Notice of proposals relating to underground coal mining operations that have been given under section 46 of the Coal Mining Subsidence Act 1991.

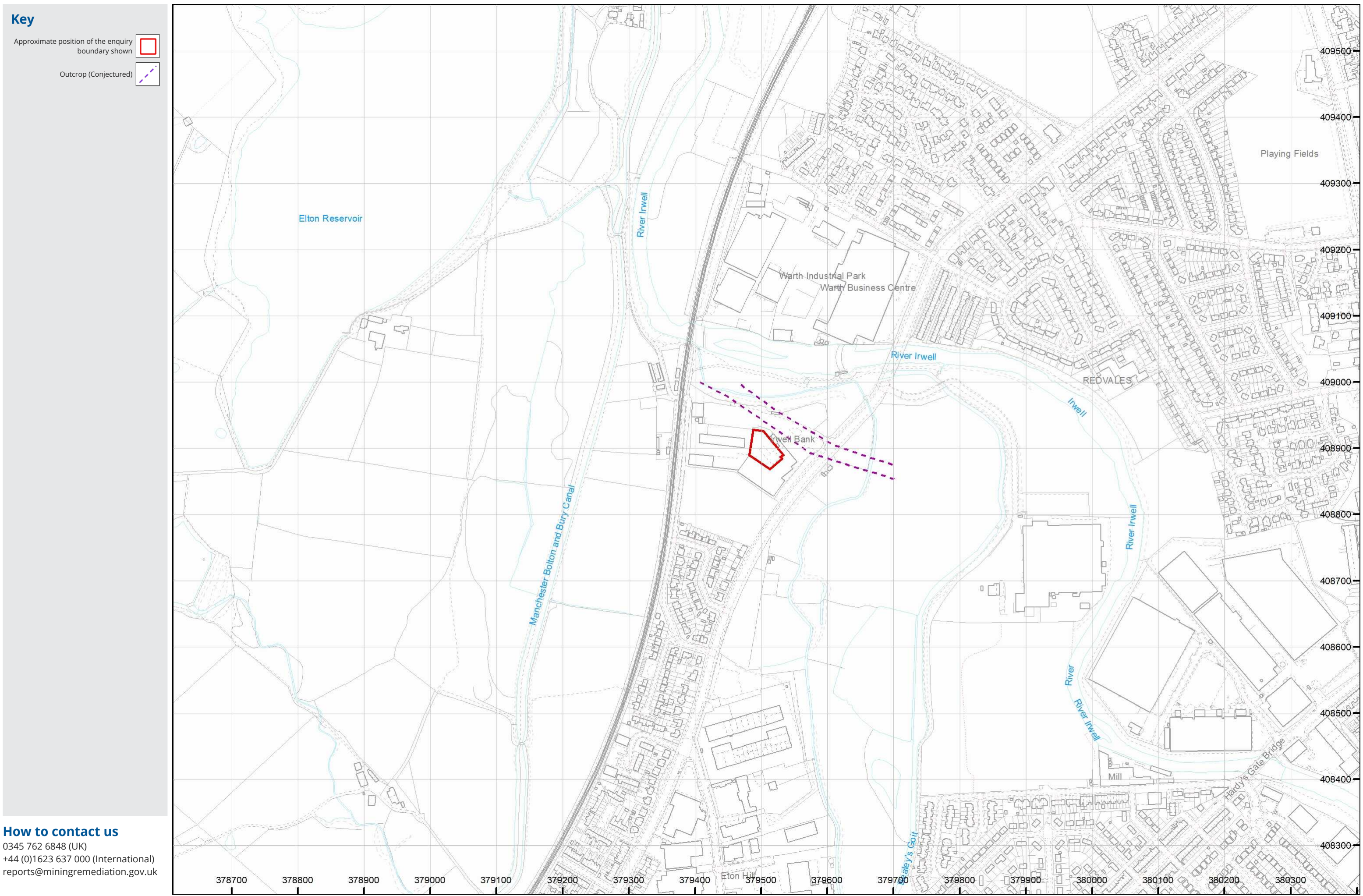
Withdrawal of support notices

Published notices of entitlement to withdraw support and the date of the notice. Details of any revocation notice withdrawing the entitlement to withdraw support given under Section 41 of the Coal Industry Act 1994.

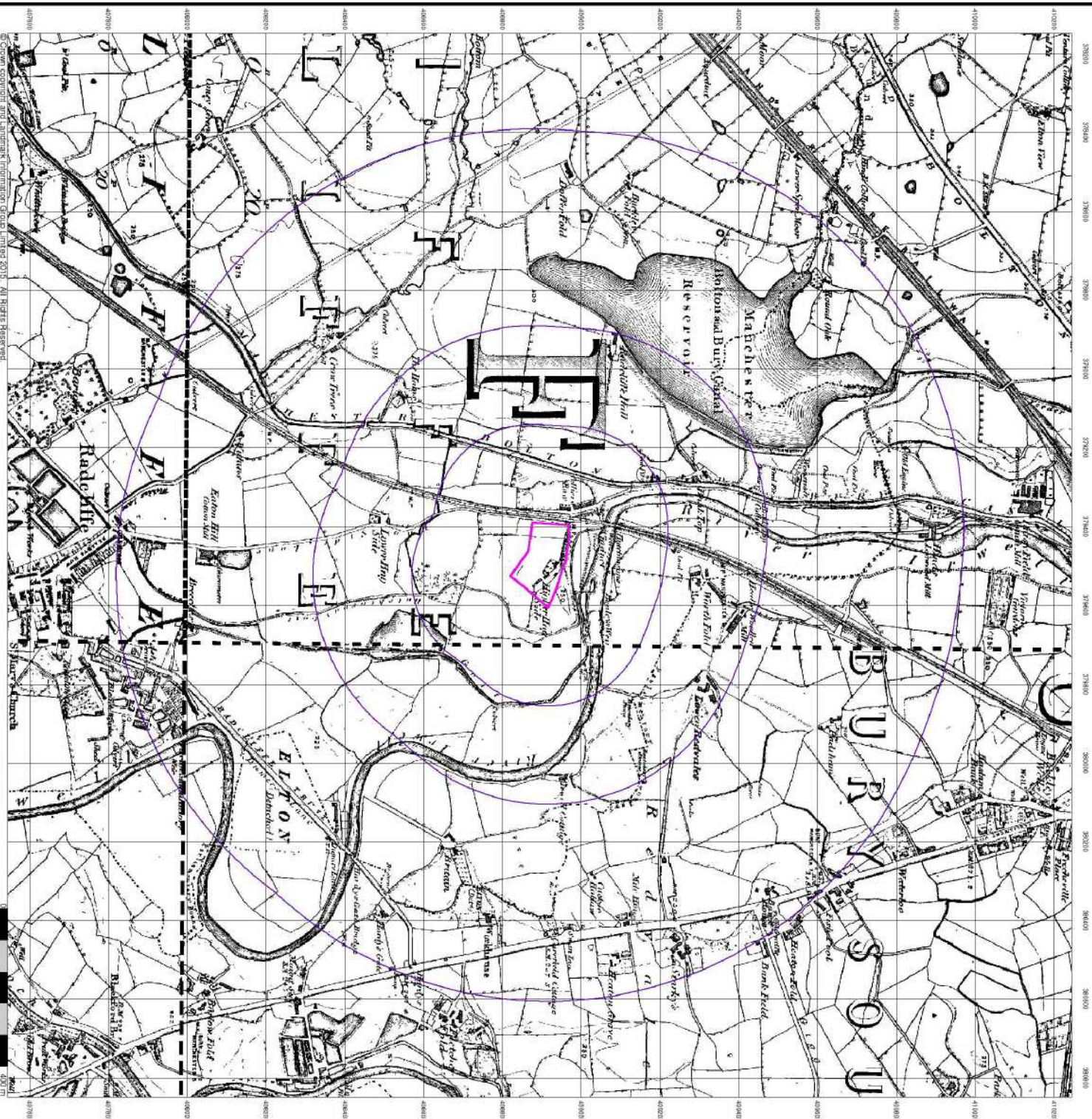
Payment to owners of former copyhold land

Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

The map highlights any specific surface or subsurface features within or near to the boundary of the site.



Appendix C – Historical Mapping

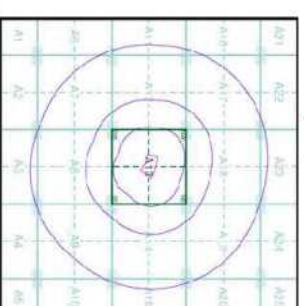


The historical maps shown were reproduced from maps predominantly held at the 2,500 adopted for England, Wales and Scotland in the 1840's. In 1848 the Ordnance Survey published the first 1:10,560 map. These maps were used to produce the 1:10,560 maps. The maps were produced from a single source or group of sources, giving rise to significant inaccuracies in outline areas. In the late 1940's, a Provisional Edition was produced, which updated the 1:10,560 maps from a number of sources. The maps appear unaltered - with all military camps and other strategic sites removed. These maps were initially overlaid 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)

08700	08800
1850	851
1:10,560	1:10,560
08500	08600
1850	1848
1:10,560	1:10,560

Historical Map - Slice A

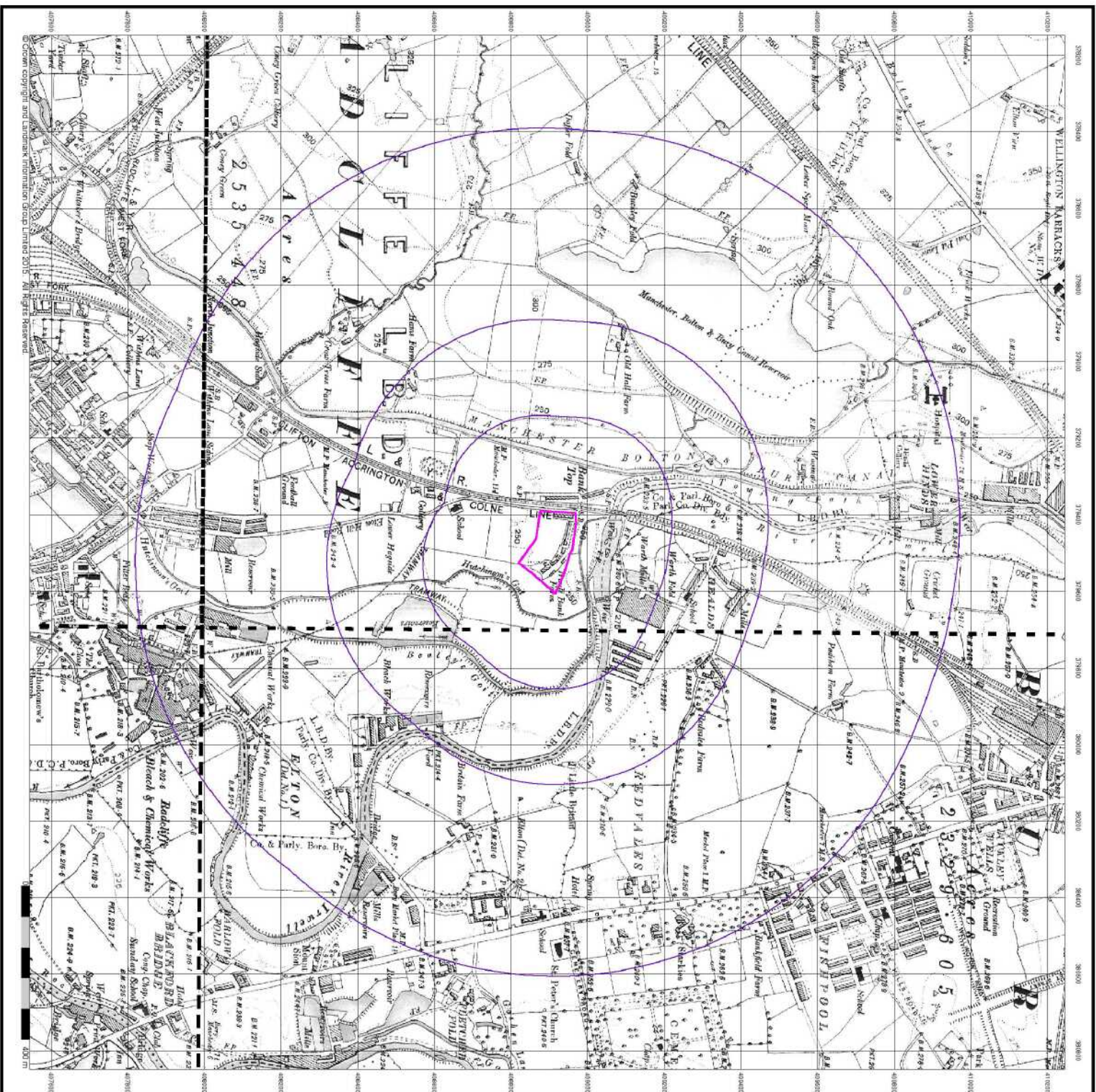


Order Details

Order Number: 90369269, 1, 1
Customer Ref: 16124
National Grid Reference: 379490, 408900
Site Area (Ha): 1.91
Search Buffer (m): 1000

Site Details

New Bank Garden Centre Ltd, Bury Road, Radcliffe,
MANCHESTER, M26 2WW



Lancashire And Furness Published 1894 - 1895

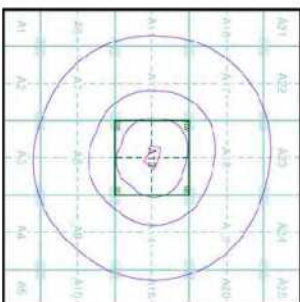
Source map scale - 1:10,560

The historical maps shown were reproduced from maps predominantly held at the 2,500 scale adopted for England, Wales and Scotland in the 1840's. In 1864 the 2,500 scale maps were replaced by 1:10,560 maps. The 1:10,560 maps were often some years later than the surveyed data. Before 1838, 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 cutting areas. In the late 1840's, a Provisional Edition was produced, which updated the 1:10,560 mapping from a number of sources. The maps appear unaltered - with all military camps and other strategic sites removed. These maps were initially overlaid 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)

087SE 1894 1:10,560	086SW 1894 1:10,560
086NE 1894 1:10,560	086NW 1894 1:10,560

Historical Map - Slice A



Order Details

Order Number: 90389289, 1.1
Customer Ref: 16124
National Grid Reference: 379490, 408900
Slice: A
Site Area (Ha): 1.91
Search Buffer (m): 1000
Site Details
New Bank Garden Centre Ltd, Bury Road, Radcliffe,
MANCHESTER, M26 2WW

Appendix D – Policy for Building Over or Within the Influencing Distance of a Mine Entry



**The Coal
Authority**

Policy For Building Over Or Within The Influencing Distance Of A Mine Entry

Building over or within the influencing distance of a mine entry (shaft or adit) can be dangerous and has the potential for significant risks to both the development and the occupiers if not undertaken appropriately.

The Coal Authority own the majority of the coal mine entries in Britain and has adopted the following policy position for landowners and/or developers when considering building over or within the influencing distance of a mine entry.

1. Building over or within the influencing distance of a mine entry raises significant safety and engineering risks and exposes all parties to potential financial liabilities and as a general precautionary principle, should wherever possible be avoided
2. Building over or within the influencing distance of a mine entry will only be permissible when:
 - Expertise advice allows a suitable engineering design to be developed and agreed to take account of all the relevant safety and environmental risk factors including gas and mine-water.
 - The Coal Authority will not be responsible for financial or maintenance liabilities associated with the design and implementation of the works.
 - Appropriate engineering precautions are taken to safeguard the safety of the public and any structure during and following the completion of the works.
 - Approval for the works is obtained from The Coal Authority Permissions Service which will also monitor the implementation of the works to ensure public safety.
3. The position and recorded treatment details for the mine entry will be revealed in any future coal mining report produced for prospective purchasers of the property. Consequently it is necessary for the landowner and/or developer to undertake any work precisely in accordance with the agreed scheme and provide detailed information to The Coal Authority for inclusion within its records for future reference and disclosure.
4. Where any damages result as a consequence of failing to comply with this policy the Coal Authority will seek to recover any costs incurred.

Policy Approved by: S Reed, Director of Operations, January 2012

Appendix E - References

¹ The Mining Remediation Authority, 2017, "Risk based approach to development management. Guidance for developers.", Version 4.

² The Mining Remediation Authority, 2023, Interactive Map Viewer, <https://mapapps2.bgs.ac.uk/coalauthority/home.html>.

³ The Mining Remediation Authority, March 2015, "Coal seams with a history of spontaneous combustion", <https://www.gov.uk/government/publications/coal-seams-with-a-history-of-spontaneous-combustion>.

⁴ CIRIA, September 2019, "Abandoned Mine Workings Manual", C758D.

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