



adeptus
CONSULTING

COAL MINING RISK ASSESSMENT

**LAND ADJACENT SUBSTATION, ALKRINGTON
HALL ROAD NORTH**

MIDDLETON

M24 1SZ

On behalf of:

Lubek

Report No.: A250307-R01

Date: June 2025

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Confidentiality

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1. INTRODUCTION

1.1 Background & Objectives

Adeptus was appointed by Lubek to undertake a Coal Mining Risk Assessment (CMRA) for proposed residential development at the site known as Land adjacent substation, Alkrington Hall Road North, in support of a planning application.

1.2 Scope of Coal Mining Risk Assessment

The objectives of the report are to:

- Present a desk-based review of all available information on the coal mining issues which are relevant to the application site;
- Use that 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 with regard to development on unstable land.

1.3 Previous Reports & Supporting Information

At the time of writing, no third-party reports have been made available to Adeptus.

A site plan is included as Appendix A.

Other sources of information utilised in producing this report are listed as Appendix B.

2. SITE DETAILS & PROPOSALS

This section provides a review of the land use on and in the vicinity of the Site, with reference to past, present and future mining activity.

2.1 Location and Description

Table 2-1: Site Summary

Location	The site is situated north of Alkrington Hall Rd in a predominantly residential area.
Area & Coordinates	0.0ha (centred on, approx.)
Development Proposals	Erection of 1 No. one bedroomed bungalow with associated parking and landscaping.

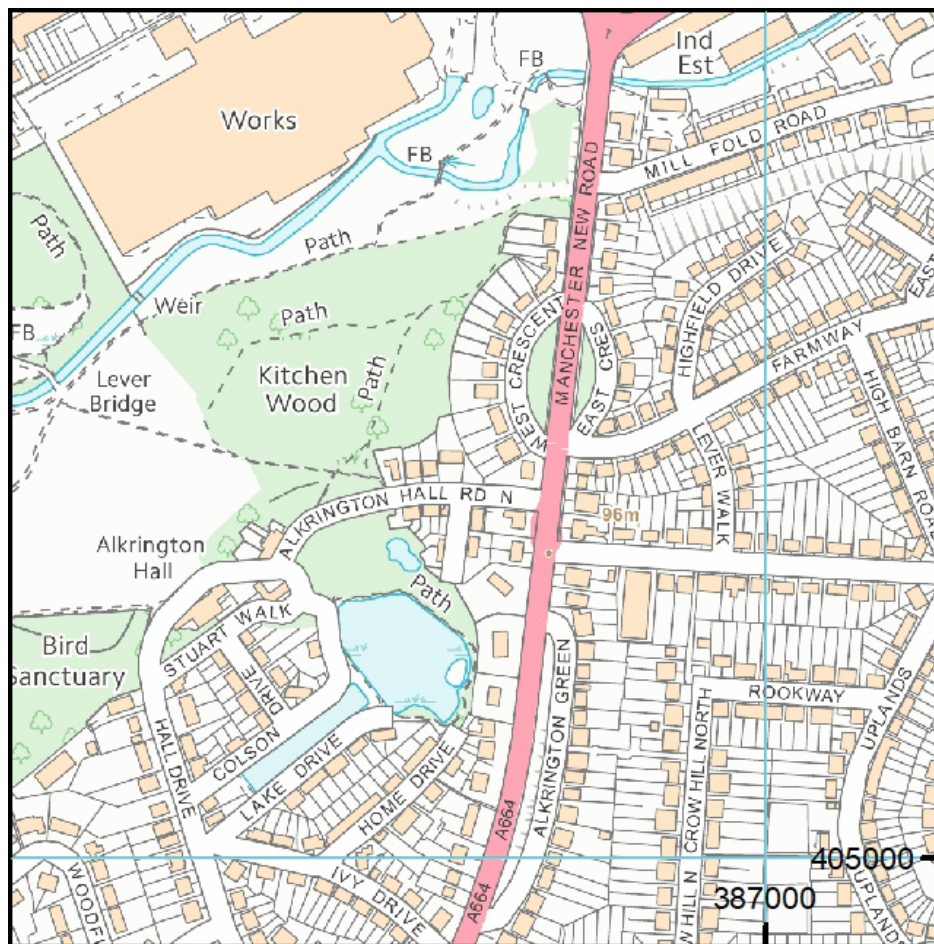


Figure 2-1: Site Location (based on the plan in Appendix A)

2.2 Anticipated Geology

According to BGS data, the following geological sequence prevails locally.

- Till, Devensian - Diamicton. Sedimentary superficial deposit formed between 116 and 11.8 thousand years ago during the Quaternary period.
- Bedrock comprising Pennine Lower Coal Measures Formation - Mudstone, siltstone and sandstone. Sedimentary bedrock formed between 319 and 318 million years ago during the Carboniferous period.

3. SITE-SPECIFIC COAL MINING HAZARDS

3.1 Data Review

3.1.1 Past Mining Activity

The Coal Authority has no record of any past mining activity within the zone of likely physical influence on the site.

3.1.2 Probable Unrecorded Shallow Mine Workings

Yes. The Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface.

3.1.3 Mine Entries

None recorded within 100m of the enquiry boundary.

3.1.4 Historical Borehole Records

Details of 4No boreholes in proximity to the site are summarized in the table below and show some correlation between coal seams. No seam thicknesses are given in the logs found.

Table 3-1: Borehole Records

Reference	Distance from Site	Name	Easting, Northing	Length (m)	Recorded Seam Depth (m)		
					Little Mine	Black Mine	Bento Mine
SD80NE21	200m N/NW	Irkdale Bleach Works River Street	386634, 405552	0	N/A	N/A	N/A
SD80NE15	570m E/NE	Old Alkington Colliery, Old Tate Pit, Conway Close	387342, 405407	51.8	N/A	N/A	51.8
SD80NE16	+415m E/SE	Old Alkington Colliery, No.2 Or Bye Pit, Mount Rd	387208, 405209	137.16	51.8	68.6	115.2
SD80NE17	+480m SE	Old Alkington Colliery, Engine Pit, Kirkway	387235, 405102	137.16	76.5	91.4	137.2

The borehole coordinates are also approximately plotted on Figure 3-1, below.

The logs describe only the coal seams and do not give any information on depth rockhead. Borehole logs from further afield generally encounter rockhead at relatively shallow depths of between circa 15m to 30m.

3.1.5 Coal Outcrops

- Little Black (Mine) – 41m N
 - Workable
 - Bearing 286

See Fig. 3-1, below.

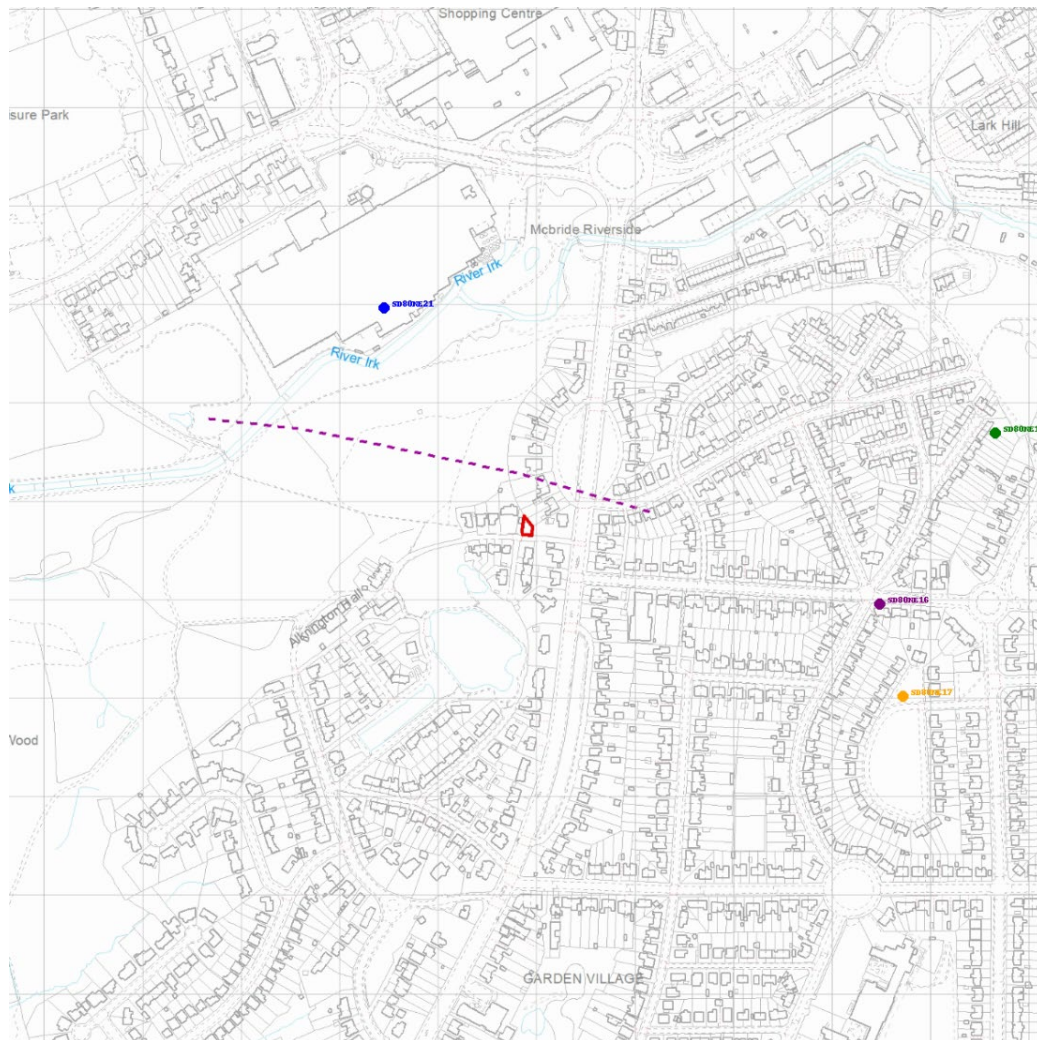


Figure 3-1: Conjectured outcrop location in relation to BGS boreholes and the study site

Figure 3-2 below provides an approximate generalised north-south cross-section through the boreholes to the east of the site, with the approximate northings of the inferred coal seam and the study site also shown.

This very approximate section suggests the Little Mine may lie at relatively shallow depth beneath the study site.

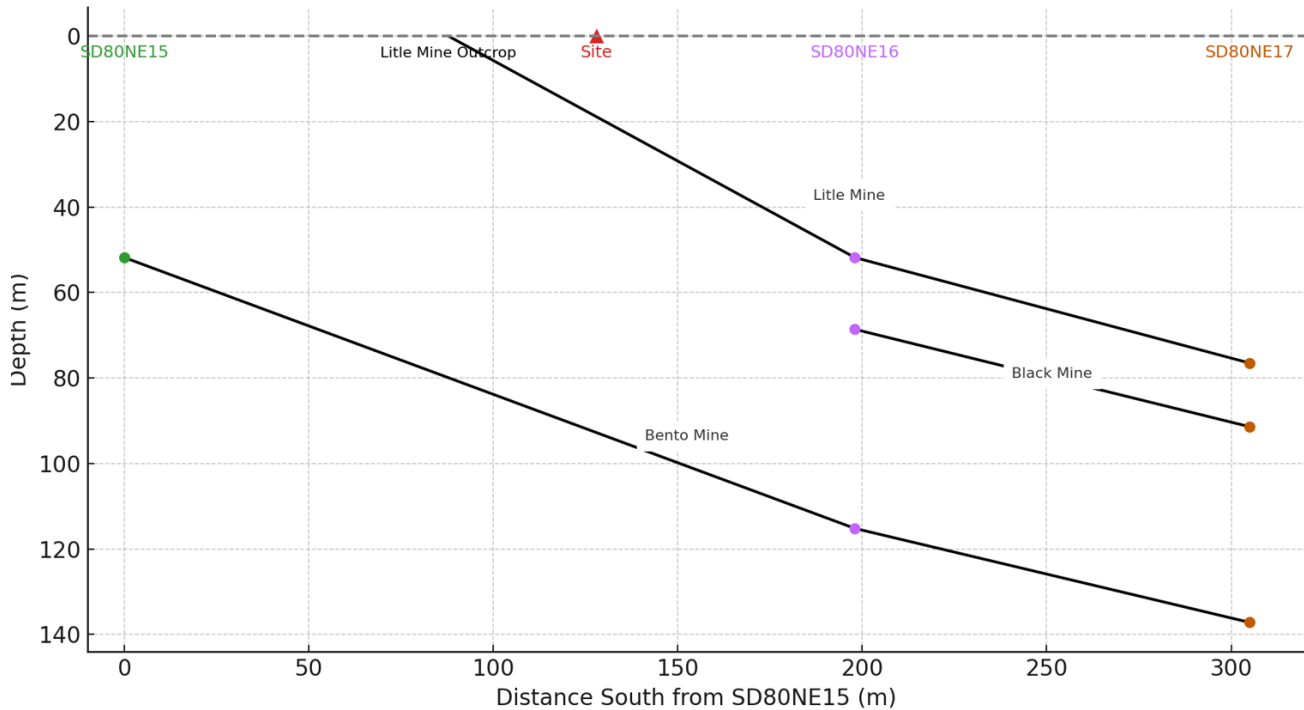


Figure 3-2: Site Generalized north-south cross-section

3.1.6 Site investigations

None recorded within 50 metres of the enquiry boundary.

3.1.7 Remediated sites

None recorded within 50 metres of the enquiry boundary.

3.1.8 Present Mining Activity

The site is not shown to within an area of current underground or surface opencast mining and none is recorded within 200m of the site boundary.

3.1.9 Future Mining Activity

The Coal Authority reports that the site is not in an area where it would be affected by planned future coal mining or surface workings.

3.1.10 Coal Mining Licensing

None recorded within 200 metres of the enquiry boundary.

3.1.11 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.

3.1.12 Intrusive Investigations

At the time of writing no existing intrusive investigation information has been supplied for this site.

3.1.13 Mine Gases

None recorded within 500 metres of the enquiry boundary.

4. CONCLUSIONS

3.2 Risk Assessment

The study site is located within a former mining area where not all past mine workings have been recorded (mining in this area having effectively died out by 1895 whilst the statutory keeping of mine plans was introduced only in 1872).

Outcrop of the Little Mine coal is mapped circa 41m north, and approximate correlation with occurrences in nearby geological logs, suggests the Little Mine may be present at a depth of around 20m beneath the study site. The Black Mine is considered likely to be present at a depth of around 40m.

No geological logs in close proximity give any information on the nature of superficial deposits encountered or depth to rockhead.

Based on the above it is not known whether there would be adequate (or otherwise) cover of solid strata above any workings to ensure any cavities could never ultimately migrate as far as rockhead or the surface.

Adequate cover to mitigate the risk of void migration is generally considered to be a minimum of 10 times the extracted seam height. If mine cavities are stacked close one upon another then the compounded extracted thicknesses need to be accounted for.

3.3 Mitigation Measures

It is proposed that prior to any built development, the footprint of the proposed new dwelling be first investigated by the drilling of two rotary boreholes designed to prove the underlying superficial and solid geology. Those boreholes should be drilled to a minimum of 25m beneath rockhead.

However, it is stressed however that Coal Authority approval must be obtained before proceeding with any works.

APPENDIX A – SITE PLAN

APPENDIX B – INFORMATION SOURCES

The following information and data sources are utilised in compiling this report:

- Geological maps of the vicinity
- Coal Authority Consultants Coal Mining Report

This report is based on information available at the time of writing and is subject to the limitations set out in Appendix D.

APPENDIX C – COAL AUTHORITY REPORT



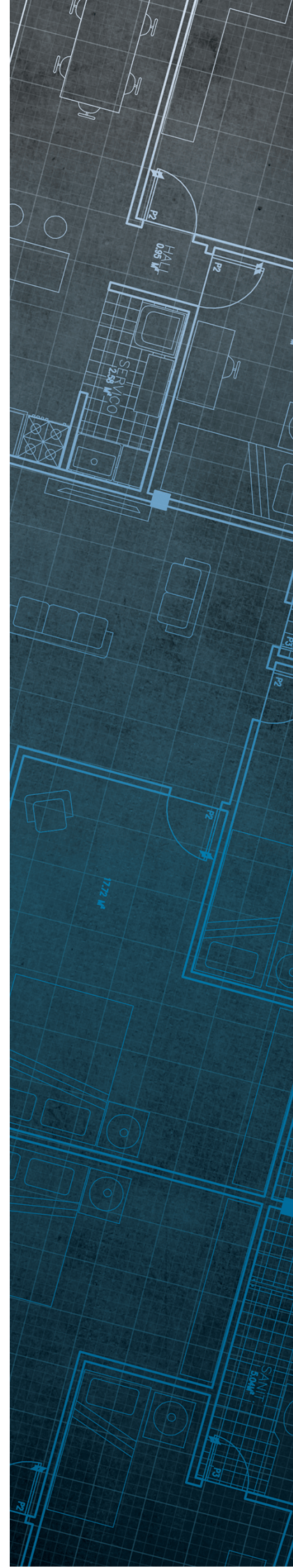
The Coal
Authority

Consultants Coal Mining Report

Land Next To Sub Station, Alkrington
Hall Road North, Middleton,
Rochdale, M24 1sz
Greater Manchester

Date of enquiry:	24 March 2025
Date enquiry received:	24 March 2025
Issue date:	24 March 2025

Our reference:	51003487310001
Your reference:	GS-4VW-JQP-BJP-PTN



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

GROUNDSURE LIMITED

Enquiry address

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Greater Manchester

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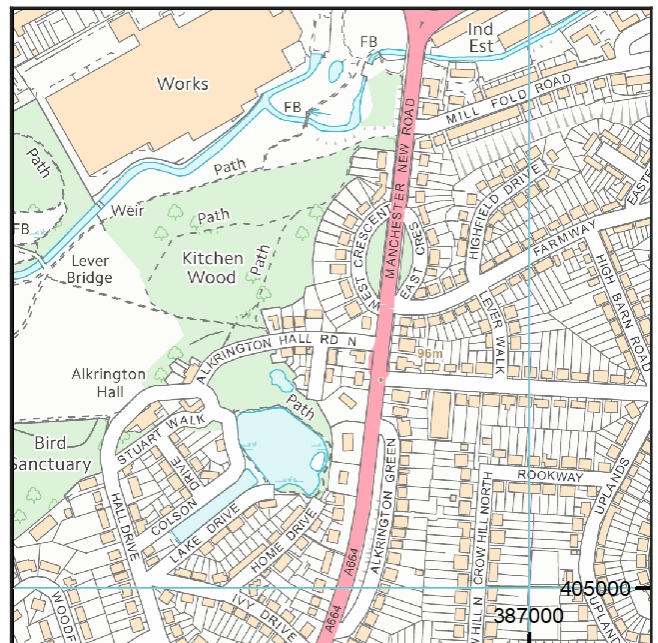
www.groundstability.com

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Approximate position of property



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Section 1 – Mining activity and geology

Past underground mining

No past mining recorded.

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:

16820	NW424	3672
-------	-------	------

Please contact us on 0345 762 6848 to determine the exact abandoned mine plans you require based on your needs.

Outcrops

Seam name	Mineral	Seam workable	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
LITTLE BLACK	Coal	Yes	40.1	North	286

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

Based on the responses in this report, no further information has been highlighted.

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.

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 **call us on 0345 762 6848** or **email us at groundstability@coal.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.

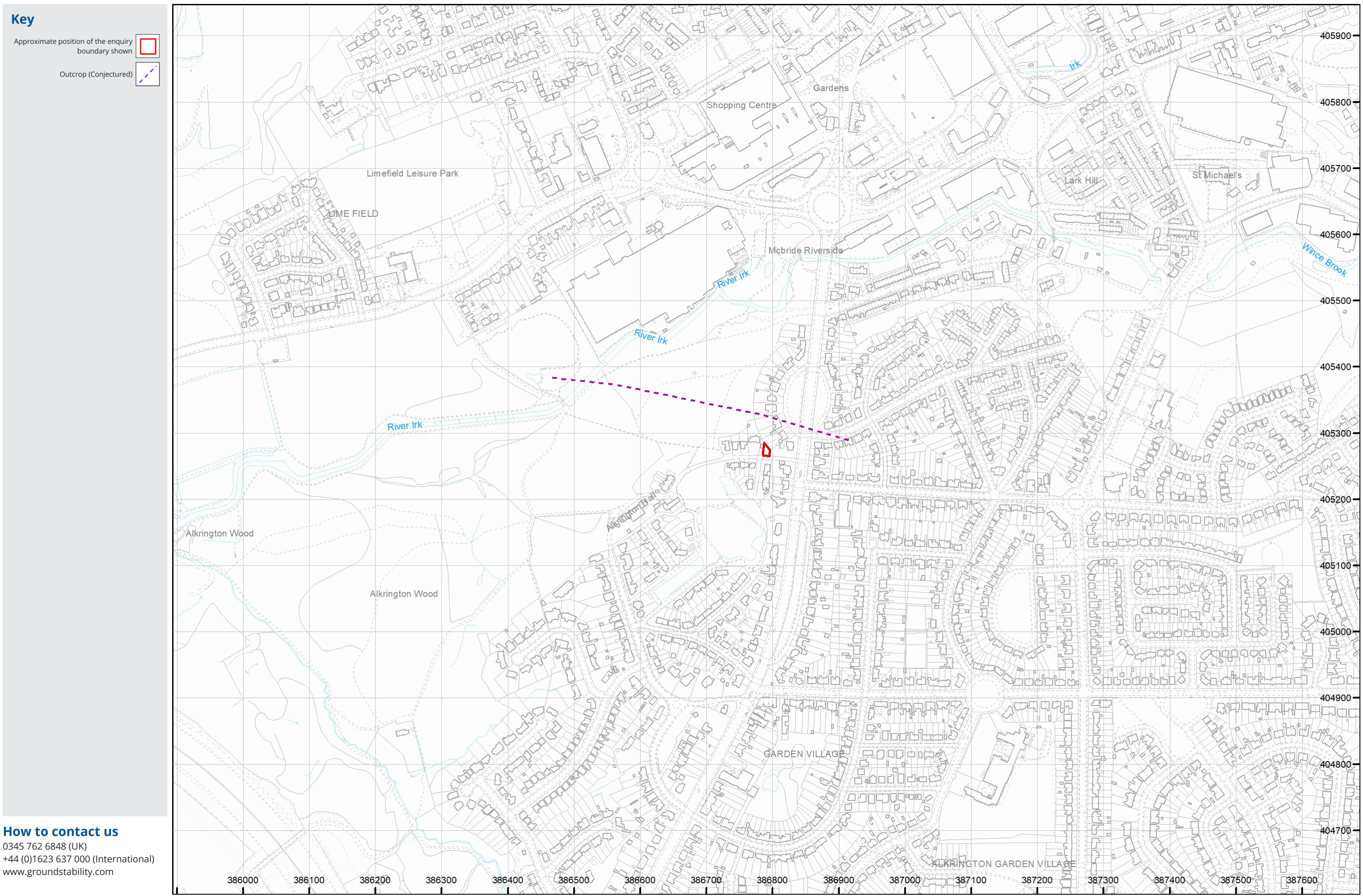
Withdrawal of support notices

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 D – LIMITATIONS

This report was prepared by Adeptus (registered in England: 05908395) for the use of the client, named on page 1. The report has been prepared specifically on the basis of the end use as defined by the client. Any change of end use would necessitate review of this report and its findings. Use of or reliance on this report by any third party is not permitted without our express written agreement, and where this is given, will be subject to our terms and conditions.

We have prepared this report in our professional capacity using reasonable skill, care and diligence. The assessments, conclusions and recommendations within this report pertain to the study site (the extents of which are in Figure 1, below) and the immediate area in continuity with the Site. They are based on the established historical uses, information available at the time of writing and the proposed use of the Site. Where any information supplied by the client or other sources have been utilised, it has been assumed that the information is correct. No responsibility can be accepted by Adeptus for inaccuracies in data supplied by any other party.

Any plans, diagrams, cross sections or images are for illustrative purposes only and should be checked for accuracy on-site. In the event of changes to the proposed end use of the Site, the report may require updating to reflect such changes. Although reference may be made to archaeological, ecological or geotechnical issues, invasive species, flood risk and the presence of asbestos containing materials (ACMs), this report does not constitute an archaeological assessment, ecological assessment, geotechnical assessment, invasive species survey, flood risk assessment or asbestos survey and liability for any claim caused by arising out of or in any way involving asbestos is excluded.

New information relating to environmental matters can come to light after the report has been prepared and changes in conditions and regulatory requirements may occur in future. Either of those factors may change the conclusions presented in our report. If development does not take place within the expected timescales, consideration should be given to reviewing this assessment to confirm that no changes to the site or relevant legislation have taken place. No part of this report is intended to provide legal advice or opinion of any nature.
