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GEOLOGICAL AND MINING RISK ASSESSMENT

**FOR
LAND ADJACENT TO
27-29 TARN DRIVE,
BURY,
BL9 9QB**

**PREPARED FOR
SAEID TAPEH**

**REPORT NO. 8305
DECEMBER 2025**

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**GEOLOGICAL & MINING RISK ASSESSMENT FOR LAND ADJACENT TO
27-29 TARN DRIVE, BURY, BL9 9QB**

CLIENT: SAEID TAPEH

1. INTRODUCTION

This report has been prepared in accordance with an emailed instruction, dated 18th November 2025, from the Client.

The brief for a coal mining risk assessment was set out in our estimate, ref. E8197 and dated 17th November 2025, and comprises a geological and mining risk assessment together with our conclusions and recommendations.

1.1 Site Location and Description

The site is located at land adjacent to 27-29 Tarn Drive, Bury, BL9 9QB, as indicated on Figure 1. The approximate National Grid Reference of the centre of the site is SD 80345 08975.

As shown on Figure 2, the site forms an almost rectangular area of approximately 17m by 14m, bound by Tarn Drive to the north, 27-29 Tarn Drive to the west, Lakeland Crescent to the east, and an electricity substation to the south. The site comprises an area of grassed open space overgrown with weeds and shrubs in the south and west, and with several tree stumps present in the southern half. The ground level slopes down moderately to the south with a fall of approximately 1m observed across the length of the site from north to south.

1.2 Proposed Development and Purpose of the Desk Study

We understand that it is proposed to develop the site with a two-storey detached house with gardens and parking, as shown on Figure 3.

The purpose of the desk study is to determine the geological structure, including the depth and thickness of coal and other mineral seam horizons, to determine the potential for mineworkings in these horizons based upon the available information and to provide our conclusions and recommendations.

2. DESK STUDY

2.1 Detailed Geological Appraisal

The British Geological Survey (BGS) have published sheet, ref. 88 SW, solid and drift edition at 1:10,560 scale dated 1928, an extract of which is given as Figure 4.

The geological survey indicates that the site is underlain by drift deposits, comprising River Terrace gravels, overlying Middle Coal Measures strata, comprising sandstone (Trencherbone Rock).

The depth of drift deposits is unrecorded in the area of the site. Several BGS borehole records in the surrounding area were terminated in drift deposits at depths of between 7.00m and 8.00m.

Coal Measures strata in this area comprises the Trencherbone Rock sandstone underlain by the Trencherbone Mine coal seam overlying the Cannel Rock sandstone.

Bedded strata beneath the site are shown to be within a fault bounded block with no arrows indicating the amount or direction of dip. Our calculations, using the horizontal distances between the coal seams shown on the plan and the vertical intervals between the same coal seams on the stratigraphical column, indicate that the strata generally down dip 11.3° (1 in 5) to the south west.

The bedded rock strata of the surrounding area are shown to be displaced by several geological faults with the nearest located approximately 195m to the north east.

The Trencherbone Mine seam is shown to crop out 49m to the north east. Due to the dip of strata the seam should be at an increasingly greater depth to the south west. Given the anticipated dip of the strata at 11.3° to the south west, the Trencherbone Mine coal seam is anticipated to underlie the site at approximately 10m below rockhead. The Vertical Section indicates the next workable coal seam is the Cannel Mine at approximately 70m beneath the Trencherbone Mine.

The potentially worked thickness of the Trencherbone Mine coal seam is not recorded in the BGS survey Vertical Section, however a borehole record recorded on the map, located approximately 680m to the south east of the site, indicates a workable thickness of 0.5m coal overlying 0.9m of potentially workable fireclay.

2.2 Detailed Mining Appraisal

The presence of mineral seams, including coal, which might have been mined beneath the site has been determined from the published geological sheet and the Coal Authorities Consultants Coal Mining Report, ref. 51003539440001 and dated 20th November 2025, a copy of which is appended.

The Coal Authority indicates that they have no record of past underground mining beneath the site.

The Coal Authority indicates that there are probable unrecorded shallow mineworkings underlying the site, at depths of less than 30m.

It should be noted that it did not become a statutory requirement to maintain and preserve plans of abandoned mines until the Mines (Coal) Regulations Act of 1872, by which date much unrecorded mining had taken place and of those plans which were made it is likely that not all will have survived.

The Coal Authority are not aware of any recorded abandoned mine entries within the site or within 100m of the site. It should be noted that the Coal Authority records may be incomplete and hence mine entries may be present for which the Coal Authority has no knowledge.

The Coal Authority indicate that they have one mine abandonment plan which is for all or part of the site area.

Coal Authority records indicate that the Trencherbone Coal seam crops out from the north west to the south east (305 degree bearing) within 49m of the site boundary, as shown on the Summary of Findings Plan to the Report. The Coal Authority indicate that the Trencherbone Coal seam is of a workable thickness.

The Coal Authority indicate that they are not aware of any geological faults, fissures or break lines affecting the site.

The Coal Authority have no records of opencast mines within 500m of the site boundary.

The Coal Authority have no records of managed tips, no records of mine gas and no records of mine water treatment schemes within 500m of the site boundary.

The Coal Authority have no records of site investigations, no records of remediated sites, and no records of property damage claims since 31 October 1994, within 50m of the site boundary.

The Coal Authority indicate that they have no plans to mine coal beneath the site and there are no coal mining licences within 200m of the site.

2.3 Conclusions and Recommendations

The Detailed Geological and Mining Appraisals, concluded that the site is underlain by drift deposits of unrecorded thickness, initially comprising River Terrace gravels, underlain by the Trencherbone Rock sandstone. The Trencherbone Mine coal seam is anticipated to underlie the site at approximately 10m below rockhead, and based on BGS records, in the area of the site is likely to comprise 0.5m of coal underlain by 0.9m of fireclay.

Surface instability arises when the collapse of mineworkings migrates upwards through the roof strata and back to the surface or near surface level. There is considered to be a potential for this if there is less than ten times the unworked thickness of the coal seam in intact rock strata above the mined coal seam. In addition residual settlement of abandoned mineworkings is not possible to predict, and although the risk may be increased by the stresses imposed by a surface load, settlement can and does occur irrespective of ground surface loads.

Given the findings of the geological and mining appraisal we recommend that a minimum two rotary boreholes are taken out to 30m depth followed by a ground stability assessment in order to determine whether remedial measures are required for the proposed development.

In any old mining area such as this, where records are generally incomplete, the existence of unrecorded mine entries (mineshafes and adits) should not be discounted and appropriate precautions should be taken during all earthworks. Should a mine entry be suspected appropriate action would need to be taken in the light of the established condition and location as determined by inspection and investigation.

3.0 GENERAL

Where mineworkings are found at shallow depth there is a potential for accumulated mine gas migrating to the surface or near surface level. Given this scenario consideration should be given to installing standpipes and undertaking ground gas monitoring followed by a ground gas risk assessment.

We trust that this report fulfils your present requirements but if you have any queries or we can be of further assistance please contact the undersigned or Mr Ben Osborne at our Preston office.

SUB SURFACE CONSULTANTS LIMITED
REPORT No. 8305
DECEMBER 2025



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Principal Geotechnical Engineer
For and on behalf of
Sub Surface Consultants Limited



C. A. Marsden B.Sc.(Hons.), C.Eng., M.I.C.E.
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For and on behalf of
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**COAL AUTHORITY
CONSULTANTS COAL MINING REPORT**



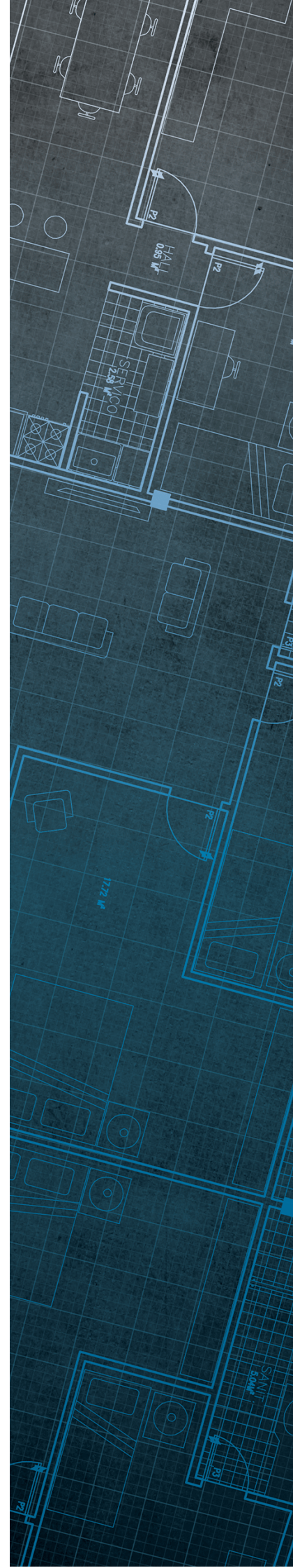
The Coal
Authority

Consultants Coal Mining Report

27-29 Tarn Drive
Bury
Bury
BL9 9QB

Date of enquiry:	20 November 2025
Date enquiry received:	20 November 2025
Issue date:	20 November 2025

Our reference:	51003539440001
Your reference:	8305



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

SUB SURFACE LIMITED

Enquiry address

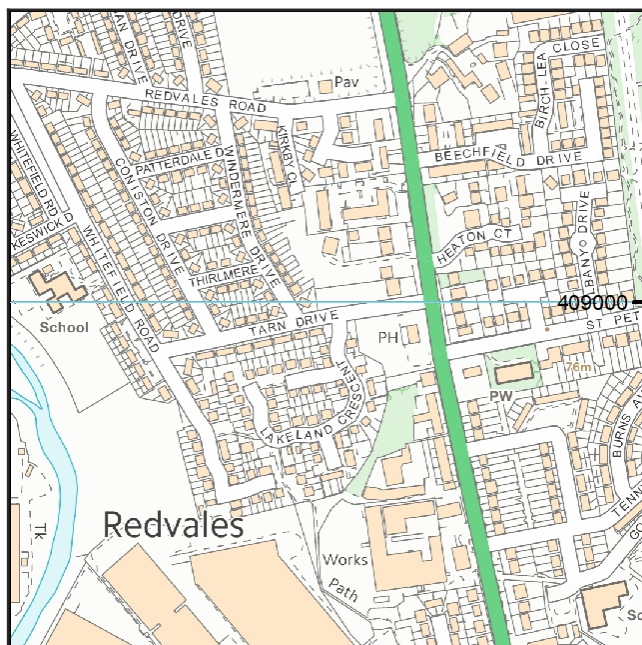
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Approximate position of property



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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		
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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
TRENCHERBONE	Coal	Yes	49.0	North-East	305

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 **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.

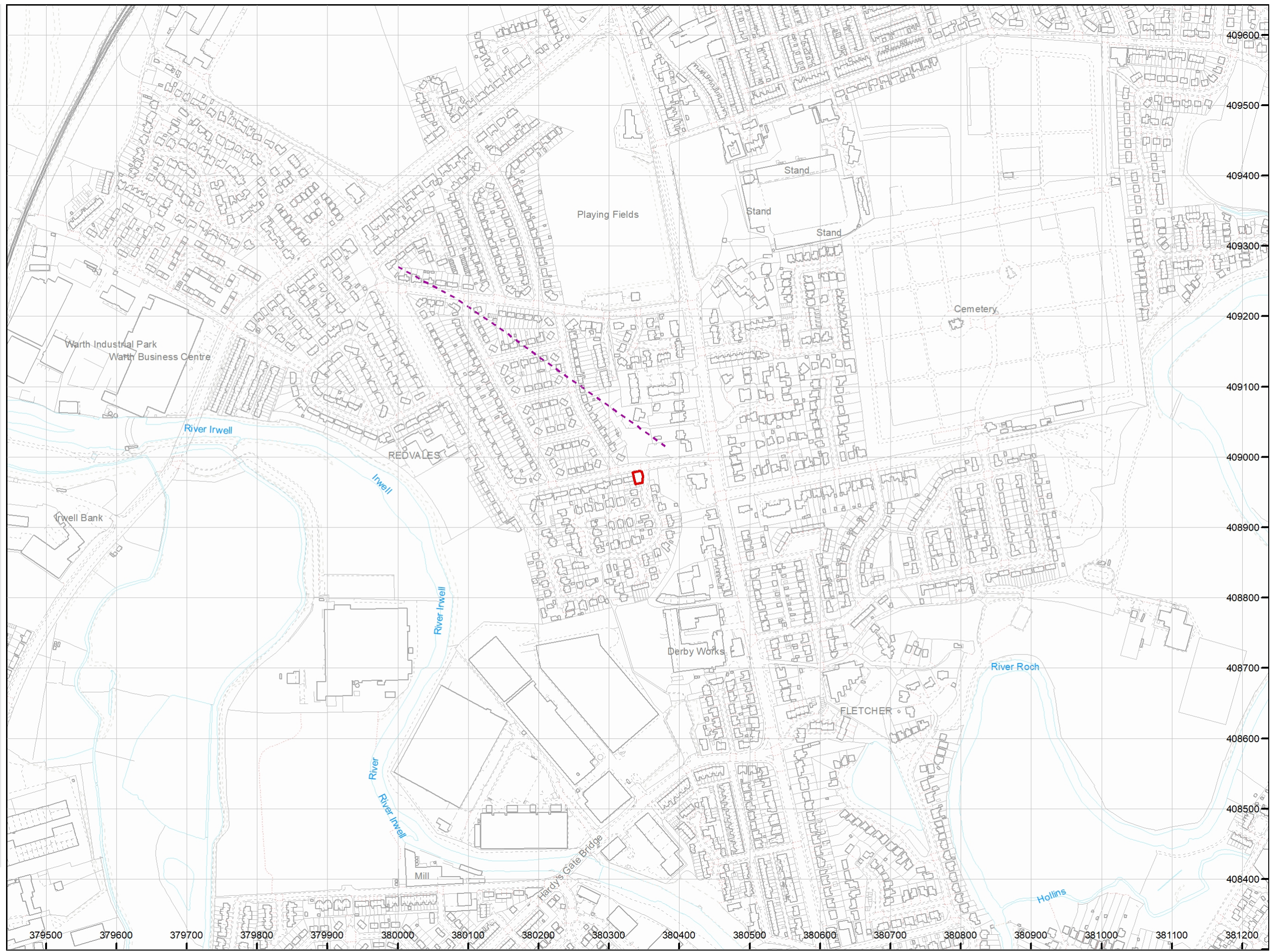
The map highlights any specific surface or subsurface features within or near to the boundary of the site.

Key

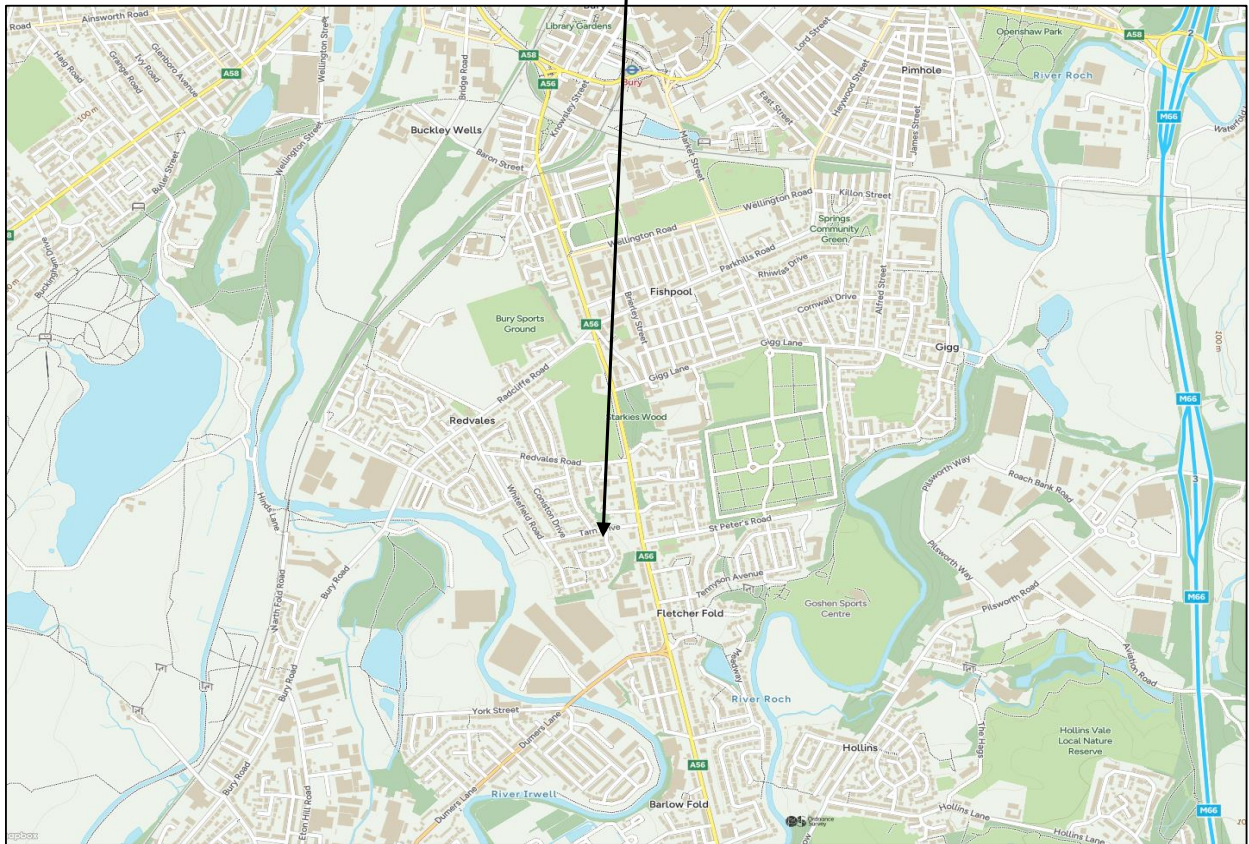
Approximate position of the enquiry boundary shown 

Outcrop (Conjectured) 

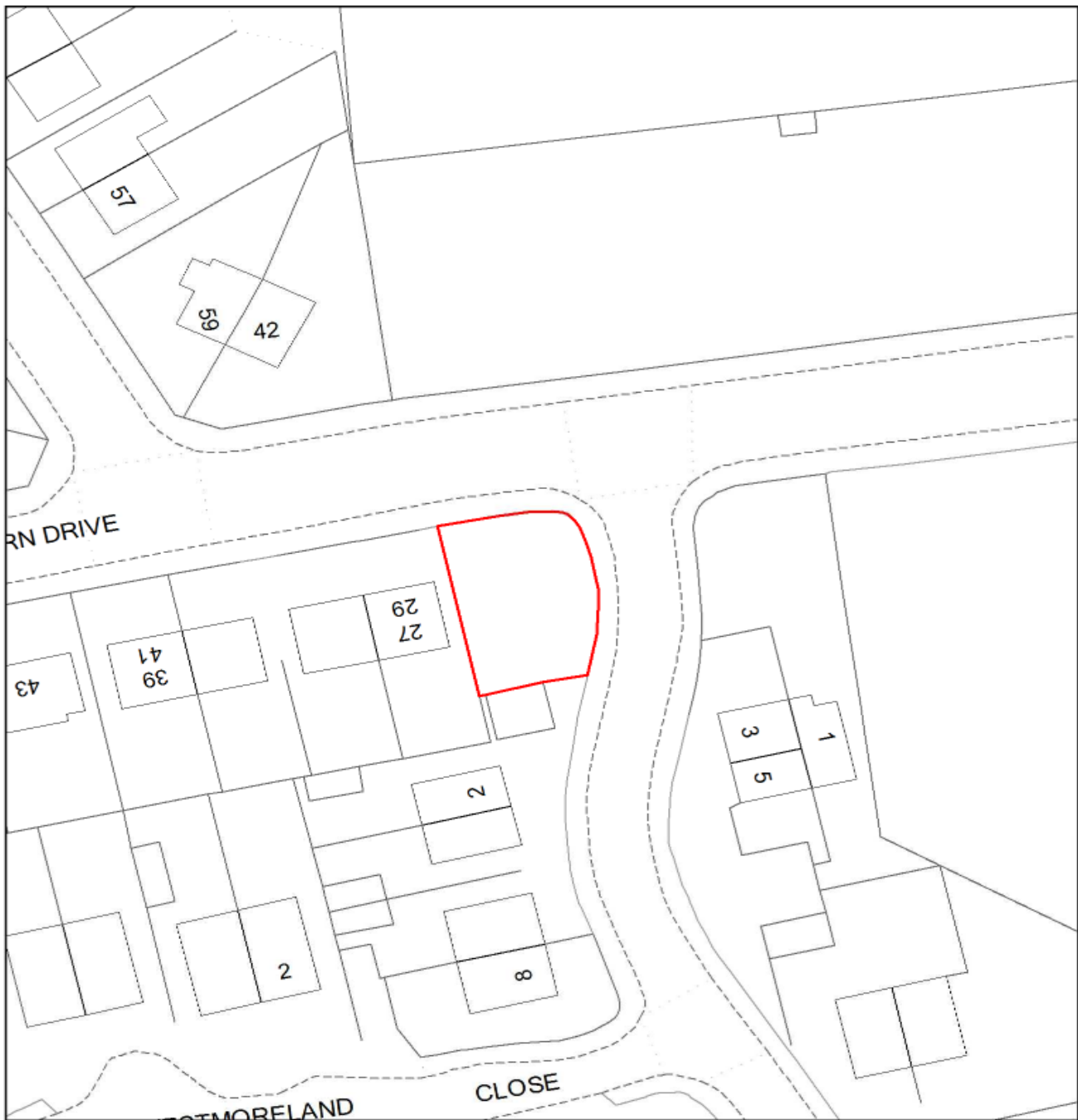
How to contact us
0345 762 6848 (UK)
+44 (0)1623 637 000 (International)
reports@miningremediation.gov.uk



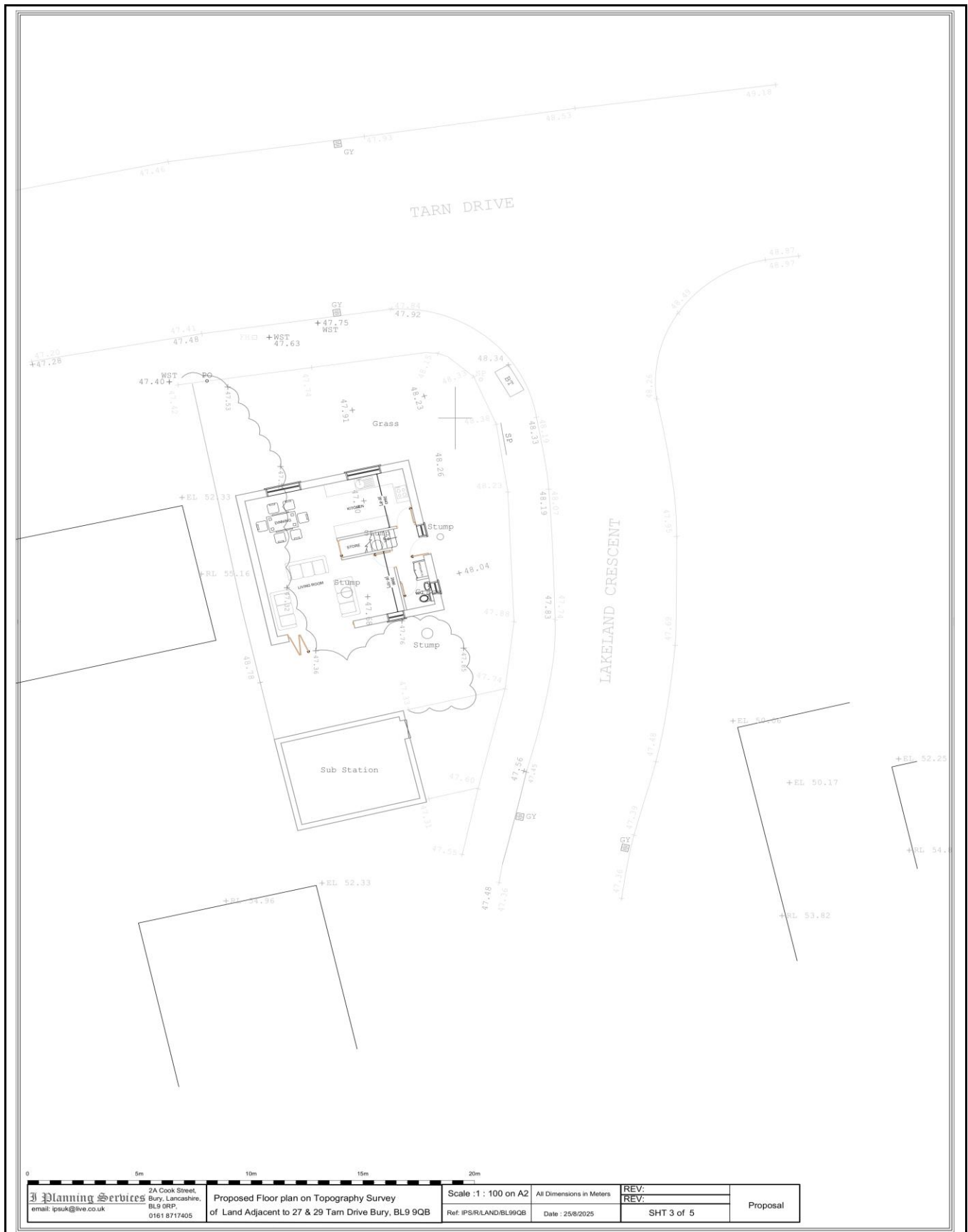
FIGURES



 SUB SURFACE SITE INVESTIGATION AND SPECIALIST GEOTECHNICAL CONSULTANTS 3 Peel Street, Preston, PR2 2QS. Tel. (01772) 561135 Fax (01772) 204907	General Site Location			
Site LAND ADJACENT TO 27-29 TARN DRIVE, BURY	Date Drawn 11-Dec-25	Date Checked	Orientation 	Job No. 8305
Client SAEID TAPEH	Drawn By TP	Checked By	Scale —	Figure No. 1

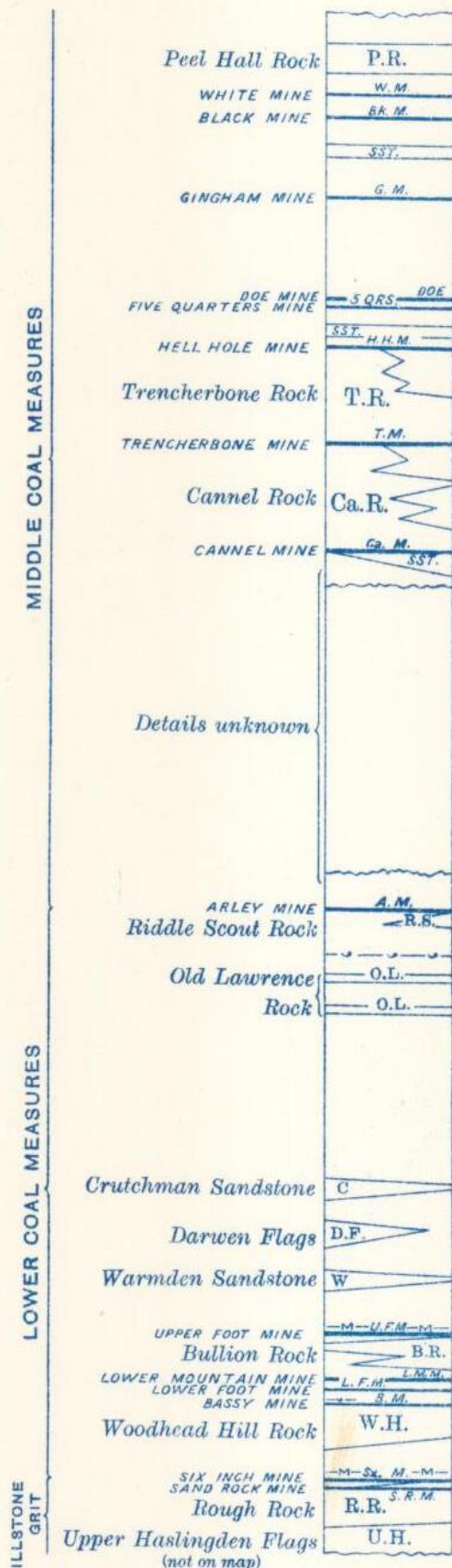


 SUB SURFACE SITE INVESTIGATION AND SPECIALIST GEOTECHNICAL CONSULTANTS 3 Peel Street, Preston, PR2 2QS. Tel. (01772) 561135 Fax (01772) 204907	Site Location			
Site LAND ADJACENT TO 27-29 TARN DRIVE, BURY	Date Drawn 11-Dec-25	Date Checked	Orientation 	Job No. 8305
Client SAEID TAPEH	Drawn By TP	Checked By	Scale -	Figure No. 2

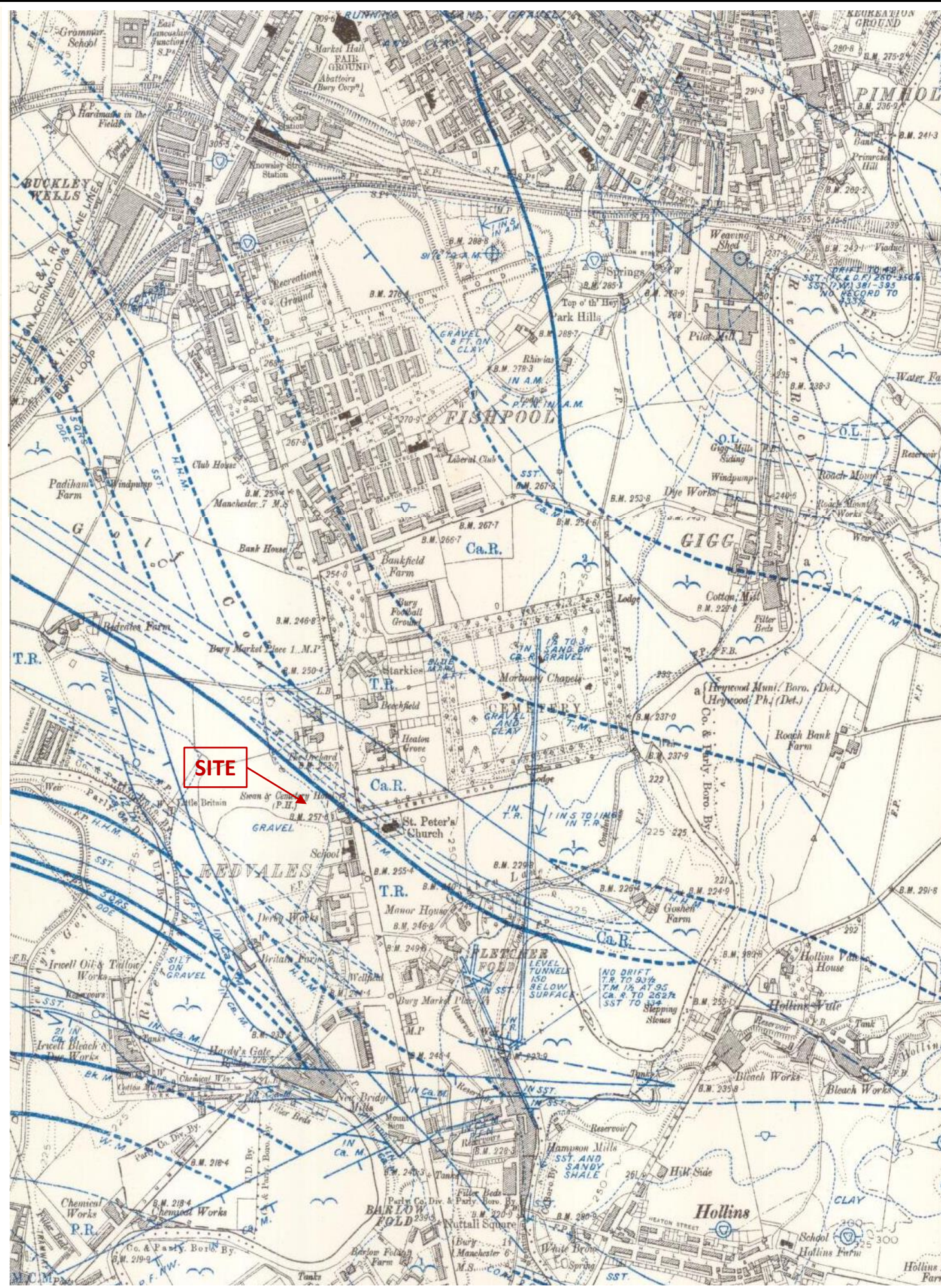


 SUB SURFACE SITE INVESTIGATION AND SPECIALIST GEOTECHNICAL CONSULTANTS 3 Peel Street, Preston, PR2 2QS. Tel. (01772) 561135 Fax (01772) 204907		Proposed Floor Plan on Topographic Survey			
Site LAND ADJACENT TO 27-29 TARN DRIVE, BURY		Date Drawn 11-Dec-25	Date Checked	Orientation 	Job No. 8305
Client SAEID TAPEH		Drawn By TP	Checked By	Scale A/S	Figure No. 3

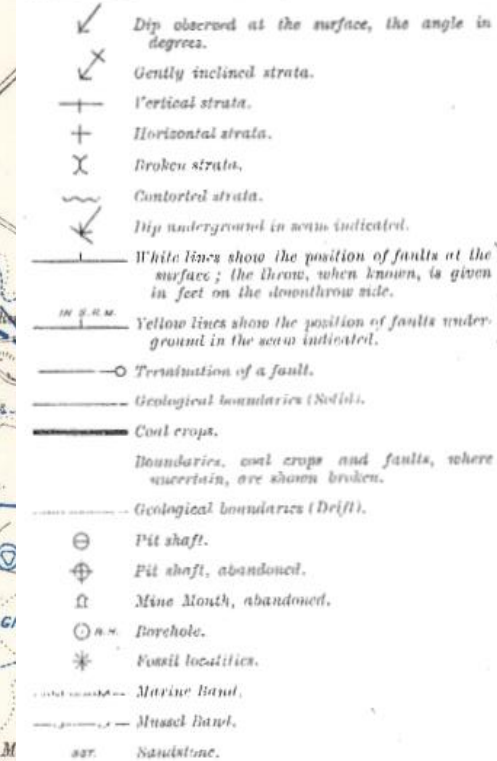
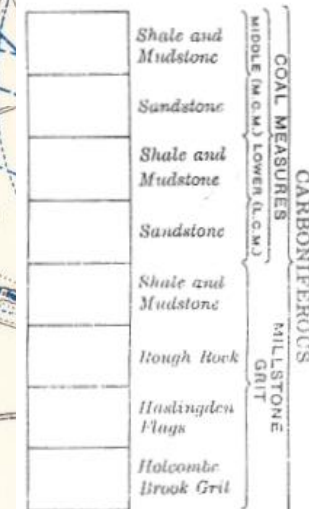
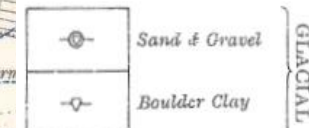
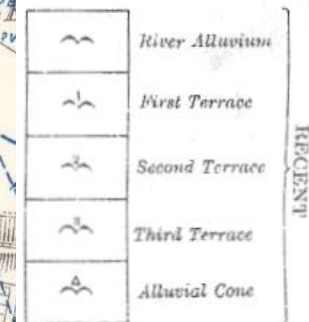
GENERALIZED
VERTICAL SECTION
(Scale 1 Inch = 400 Feet)



Unlabelled areas are
Shales and Mudstones



EXPLANATION
of
Geological Signs
and Colours



SUB SURFACE

SITE INVESTIGATION AND SPECIALIST GEOTECHNICAL CONSULTANTS
3 Peel Street, Preston, PR2 2QS. Tel. (01772) 561135 Fax (01772) 204907

Geology (Extract from BGS Sheet 88 SW published 1928)		Job No. 8305	
Date Drawn 11-Dec-25	Date Checked	Orientation	Figure No. 4
Drawn By TP	Checked By	Scale 1:10,560 at A3	
LAND ADJACENT TO 27-29 TARN DRIVE, BURY		Client SAEID TAPEH	