

# Coal Mining Risk Assessment

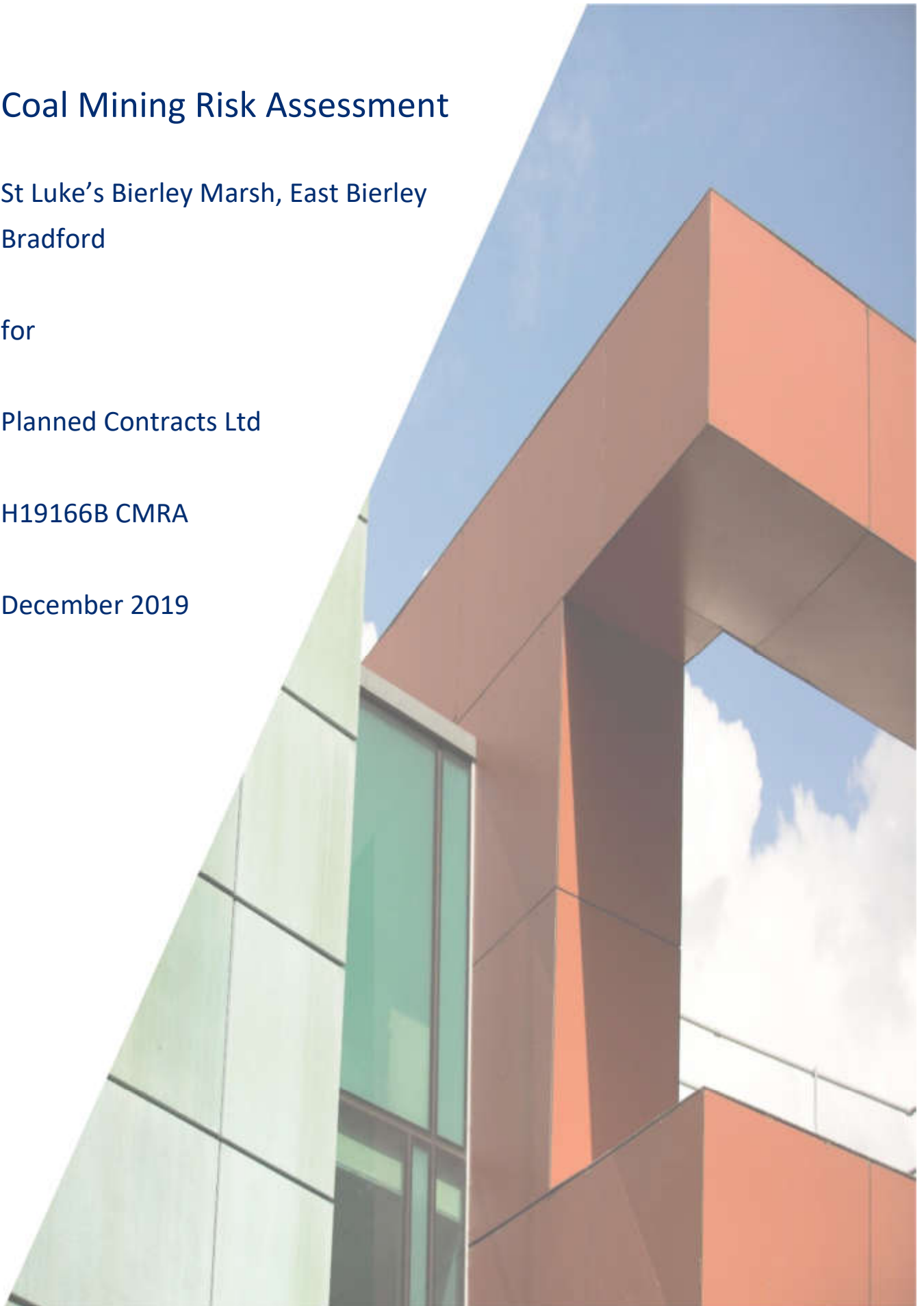
St Luke's Bierley Marsh, East Bierley  
Bradford

for

Planned Contracts Ltd

H19166B CMRA

December 2019



**Coal Mining Risk Assessment**  
**St Luke's Bierley Marsh, East Bierley**  
**for**  
**Planned Contracts Ltd**

Revision	Date of issue	Comments	Prepared By	Checked By
0	09/12/19	1 <sup>st</sup> Issue	ACV	JR

**Should you have any queries relating to this document please contact:**

Patrick Parsons Limited  
 5 Waverley Road  
 Huddersfield  
 West Yorkshire  
 HD1 5NA

T: +44 (0) 1484 516 977  
[info@patrickparsons.co.uk](mailto:info@patrickparsons.co.uk)

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## 1.0 Introduction

PPL were commissioned by Planned Contracts Ltd (PCL) to undertake a Coal Mining Risk Assessment (CMRA) for land at St Luke's Bierley Marsh, East Bierley, Bradford, to better understand any potential coal mining risks at the site and provide an assessment of its potential impact on land stability.

### 1.1 Limitations

This report is based on and limited to an assessment of the information undertaken here. PPL is not responsible for ground conditions not revealed during this review. This report is prepared for PCL and their agents only and is not to be relied upon by any third parties without the express written permission of PPL.

### 1.2 Site Location and Description

The site is located off Bierley Marsh in East Bierley, immediately southeast of the junction of Bierley Marsh and South View Road, approximately 5km southeast of Bradford city centre and at approximate national grid reference 419870E, 429225N. A site location plan is presented as Drawing No. H19166B-701 and included in Appendix A.

The site forms an irregular parcel of land, approximately 0.1 hectare (0.25 acre), currently under rough grass and coarse vegetation. Existing levels are approximately 217.0m AOD and fall gently south/southeastwards. Several trees are present along the site boundaries. A site plan is presented as Drawing No. H19166B-702 and included in Appendix A.

### 1.3 Proposed Development

It is proposed to develop the site for a residential end use likely to comprise up to 7 terraced dwellings with associated car parking, soft landscaping and an access road. A proposed site layout has not been provided at this stage.

### 1.4 Scope of Works

The purpose of this coal mining risk assessment is to:

- To present a desk based review of available information on the coal mining issues which are relevant to the application site;
- To assess the risks to the proposed development from coal mining legacy, including the cumulative impact of issues;
- To recommend any further works considered necessary to confirm the risk, or absence of risk, posed by coal mining legacy;
- To set out appropriate outline mitigation measures to address any coal mining legacy issues affecting the site, including any necessary remedial works and/or demonstrate how coal mining issues influence the proposed development; and
- 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 of unstable land.

## 2.0 Sources of Information Used to Inform this Report

The following sources of information have been used in compiling this report:

- A Coal Authority (CA) site specific consultants coal mining report referenced 51002189544001 dated 13<sup>th</sup> November 2019 (included in Appendix B)
- CA web-based Interactive Map Viewer
- British Geological Survey (BGS) mapping including 1:50K Solid & Drift, Sheet 77, Huddersfield, 1:10,560 County Series, Solid & Drift, Sheet 217SW, Tong and 1:10K Solid & Drift, Sheet SE12NE, Cleckheaton
- BGS Boreholes on web-based GeoIndex map viewer
- BGS memoir 'Geology of the Country Around Huddersfield and Halifax', 1930
- The Midland Institute of Mining Engineers 'Sections of Strata of the Coal Measures of Yorkshire', Wilcockson W H, 1950
- The Geological Survey memoir 'Geology of the Yorkshire Coalfield', Green et. al., 1878
- Ordnance Survey (OS) publicly available web-based historic mapping.

### 3.0 Identification and Assessment of Site Specific Coal Mining Risk

#### 3.1 Site History

A brief summary of the salient points relating specifically to the mining history of the site and its environs is presented below.

Dates	On-Site	Off-Site
1852 - 1854	Open fields (marsh).	A coal pit is located approximately 40m southwest. Numerous coal pits and coal and ironstone pits are present within 500m in all directions. Sandstone quarry located approximately 550m southeast.
1892 – 1905	Small structure/building present within the northeast. Tres are present across the site.	A colliery spoil mound is present approximately 30m southwest with numerous other colliery spoil mounds present within 250m to the north/northeast.
1905 - 1932	Several structures/buildings present within the east/northeast.	Red Hill colliery approximately 500m north. No. 8 pit and Cross pit approximately 500m southwest and south respectively. Newmarket colliery, and later brickworks, approximately 1km east.
1932 – 1954	A small structure/building present within the west.	Toftshaw Moor colliery approximately 650m northwest.
1954 - present	Vacant land.	No change.

#### 3.2 Coal Authority Consultants Coal Mining Report

A Coal Authority consultants coal mining report for the site provides the following information and is included in Appendix B:

- Past recorded underground coal mining beneath the property at depths of between 90 and 175m from 1875 to 1927. This is associated with extraction of the Whinmoor and Better Bed coal seams;
- Past recorded underground coal mining south of the property at a depth of 148m in 1892 associated with the extraction of the Black Bed coal seam;
- The site is also within an area considered as being affected by probable unrecorded shallow workings;
- No spine roadways are recorded beneath the site at shallow depth;
- 2 former shafts are recorded approximately 40m southwest and 100m north;
- No coal seam is recorded as outcropping within the site itself;
- No present or future underground mining is recorded beneath the site;
- No former opencast coal mining is recorded within 500m of the site;
- There are no records of any mine gas emissions requiring action within 500m of the site;

- There has not been a subsidence damage claim within 50m of the site, and;
- The site, or any within 50m of the site, have not been subject to remedial works by the CA.

### **3.3 Coal Authority Interactive Map Viewer (web-based)**

Information available on the CA interactive map viewer identifies the site to lie within a Development High Risk Area (DHRA). Likewise, the site is shown to be affected by probable past shallow coal mining.

There are numerous former mine entries (shafts) recorded to the north, east and south, one within close proximity to the northwest. The depth of the nearest former shaft located approximately 40m southwest is recorded as 33m.

An area of past unlicensed opencast coal mining is present to the southwest, however, the site itself is unaffected.

### **3.4 Geology and Supporting Historical Intrusive Information**

Published geological information indicates the site to be directly underlain by solid strata of the Carboniferous Lower Coal Measures, specifically an unnamed sandstone. The strata dip approximately 1 to 2° to the east/northeast. No superficial soils are present. Made ground of probable colliery spoil is indicated as present just to the southeast of the site.

The Wheatley Lime and the Blocking coal seams outcrop to the west of the site, the former anticipated to underlie the site at shallow depth. Although not mapped at outcrop, the Middleton Eleven Yard coal seam lies between the Wheatley Lime and the underlying Blocking coal seams and is also anticipated to underlie the site at shallow depth. Regional BGS records show these coal seam thicknesses as 0.0 to 1.1m (Wheatley Lime), 0.0 to 0.3 (Middleton Eleven Yard) and 0.5 to 0.8m (Blocking). The separation of these coal seams is regionally recorded as approximately 10m between the Wheatley Lime and the underlying Middleton Eleven Yard and 20m between the Middleton Eleven Yard and the underlying Blocking coal seam.

Historic records for the shaft immediately southwest indicate the Black Bed coal seam as approximately 33m depth. However, this is considered as incorrect, with the coal seam considered to be that of the Middleton Eleven Yard or possibly the Blocking coal. An unnamed former shaft located north of the site and along an approximate similar strike to that of the site, records the Blocking coal at a depth of approximately 41m. Additionally, the Toftshaw Moor colliery located northwest of the site records the Blocking coal as 0.6m thick at an approximate depth of 26m.

Archive BGS boreholes approximately 100m south of the site record an intact coal seam at 0.2m thick at approximately 12.5m depth. Other archive BGS boreholes located slightly further south/southwest at between approximately 150 and 200m record an intact coal seam at 0.7m thick at between approximately 11.5 and 14.0m depth together with mine workings (broken/soft ground and cavities) at between approximately 0.7 and 1.4m thickness at similar depths. As the location of these boreholes is within another fault block different than that of the site's setting, it is considered that these workings are associated with the Blocking coal seam.

The table below summarises the coal seams and their anticipated depths beneath the site.

Coal Seam	Separation (m)	Thickness (m)	Anticipated depth beneath site (m) below ground level
Wheatley Lime	-	Up to 1.1	10 to 15
Middleton Eleven Yard	10	Up to 0.3	20 to 25
Blocking	20	0.6	40 to 45

### 3.5 Risk Assessment

CIRIA Guidance C758 'Construction Over Abandoned Mine Workings' states that the maximum height of collapse is generally assessed as being 10 times the worked coal seam thickness. It is normal engineering practice to assume that there is a risk of surface instability if there is less than 10 times worked coal seam thickness competent cover above any worked coal seam. It should be noted that competent cover means rock and (superficial deposits such as glacial till or residual soils do not reasonably contribute to this cover).

Assuming shallow rockhead (approximately 1 to 2m depth locally), there is considered to be inadequate thickness of competent rock cover above the Wheatley Lime coal seam, if historically worked, and potentially adequate competent rock cover above the Middleton Eleven Yard and Blocking coal seams, the latter proved as historically worked to the south of the site, to maintain surface stability.

The table below summarises the potential risks associated with coal mining legacy for the proposed development:

#### Mining Risk Assessment

Coal Mining Issue	Risk		Risk Assessment and Risk Rating
	Yes	No	
Underground Coal Mining (recorded at shallow depths)	-	<b>No</b>	The CA does not record historic shallow mining beneath the site. However, there are shallow mine workings present south of the site – <b>Low to Moderate</b>
Underground Coal Mining (probable at shallow depths)	<b>Yes</b>	-	The CA indicates the site to lie within a DHRA and an area of probable shallow coal mine workings. The Wheatley Lime coal seam is present beneath the site at shallow depth. The site lies within an historically mined area with recorded shallow mine workings south of the site – <b>High</b>
Mine Entries (Shafts and adits)	<b>Yes</b>	-	CA information records the presence of known historic mine entries (shafts) within close proximity of the site. As the site is underlain by the Wheatley Lime coal seam at shallow depth, there is a risk that potentially unrecorded mine entries may be present on the site itself – <b>Moderate</b>

Coal Mining Issue	Risk		Risk Assessment and Risk Rating
	Yes	No	
Coal Mining Geology (fissures)	-	No	CA information does not indicate any geological weaknesses on site due to mining related activities – <b>Low</b>
Record of past mine gas emissions	<b>Yes</b>	-	CA information states no mine gas related issues have been recorded within 500m of the site. However, there is a potential for the presence and migration of mine gases from both recorded and probable shallow mine workings adjacent and beneath the site together with historic mine entries, if present – <b>Moderate</b>
Recorded coal mining surface hazards	-	No	CA information shows there is no indication of the presence of any coal mining surface hazards within the site – <b>Low</b>
Surface mining (opencast workings)	-	No	No historic opencast coal mining has been recorded within or close to the site – <b>Low</b>

## 4.0 Mitigation Strategy Proposed

The above risk assessment has identified the site as potentially being affected by several mining legacy related issues, which include probable shallow underground coal mining, unrecorded former mine entries and potential for mine gases. These are discussed further below.

### 4.1 Probable Shallow Mining

The CA indicates the site lies within a Development High Risk Area and is underlain by probable historic shallow coal mine workings, potentially associated with the Wheatley Lime coal seam. In addition, nearby past shallow mine workings are recorded in the Blocking coal seam. This risk is assessed as **High**.

The surface stability of the site cannot be guaranteed in the absence of intrusive investigation, which would be required in order to fully assess these potential risks across the site. It is recommended that a series of rotary boreholes are put down to a maximum of 30m depth with all such works undertaken with an appropriate CA licence. Such intrusive works would confirm the nature and depth of the underlying Wheatley Lime, Middleton Eleven Yard and potentially the Blocking coal seams. In the event of a risk to surface stability being proved, subsequent treatment of shallow mine workings by drill and grout may be necessary to achieve ground consolidation prior to development and foundations may need to be reinforced. However, the exact mitigation measures cannot be confirmed until the results of such intrusive investigation have been assessed. Any design of such mitigation measures for the presence of shallow mine workings would need to be undertaken in consultation with the Coal Authority.

### 4.2 Mine Entries

The CA indicates a recorded former mine entry (shaft) immediately southwest of the site together with another recorded shaft to the north, however, none are recorded as present on or adjacent to the site. Given the site's setting within a historically mined area and the proximity of the outcropping Wheatley Lime coal seam, there is potential for the presence of unrecorded mine entries on site, which may have been put down to exploit the underlying shallow and deeper coal seams. This risk is assessed as **Moderate**.

The presence of such features is considered as presenting a potential risk to development by way of surface instability and potential collapse. A zone of influence is associated with former mine entries (either present on site or adjacent to the site) whereby any development within the zone would be affected by potential surface instability. The nature of any proposed development on the site requires assessing in terms of the potential risk presented by any such features to that specific development layout, if confirmed as being present.

During site enabling works and a site strip the exposed subsoils should be checked for the presence of disturbed and potentially unstable ground associated with backfilling of such features. If mine entries are identified on the site, or adjacent to the site, then these may require treatment by drill and grout and subsequent capping or partial excavation and incorporation of a geotextile reinforcement spanning their extent and potential zone of

influence, as appropriate. Any design of such mitigation measures for the presence of mine entries would need to be undertaken in consultation with the Coal Authority.

### 4.3 Mine Gases

There is a potential for the presence and migration of mine gases from recorded and probable shallow mine workings in close proximity and beneath the site, which may present a future human health risk to end users. Deep made ground, if present on or adjacent to the site, may also present a ground gas source. This risk is assessed as **Moderate**.

With regard to the proposed development, any potential mine gases that may affect the building could be mitigated by the incorporation of robust gas protection measures (gas barriers) during construction, subject to regulatory approval. The installation of gas wells and the undertaking of a gas monitoring programme is considered warranted prior to development. Any mitigation recommendations would be subject to regulatory approval.

## 5.0 Conclusions

A coal mining risk assessment has been undertaken for PCL for a proposed residential development. This assessment has been carried out in accordance with The Coal Authority guidance notes and model report template.

The site is assessed as potentially at risk from historic mining issues, mainly probable shallow mine workings, unrecorded mine entries and mine gases.

Adequate mitigation of these risks will require a targeted intrusive investigatory drilling programme to confirm the presence of shallow mine workings and may require a further drill and grouting programme, subject to findings. Appropriately designed foundations are considered necessary should mine workings be confirmed. Vigilance will be necessary during the site strip and site enabling works as to the potential presence of disturbed ground associated with the collapse of shallow mine workings or the backfilling of historic unrecorded mine entries. If confirmed as present, drilling and grouting or other mitigation measures with regard to identified mine entries may be necessary.

The use of gas protection measures is potentially considered warranted, subject to the results of intrusive investigations, a gas monitoring programme and regulatory advice.

## **Appendix A – Figures**



**PATRICK PARSONS**

T. +44 (0)1484 516 977  
 E. info@patrickparsons.co.uk  
 W. www.patrickparsons.co.uk

Client **PLANNED CONTRACTS LTD**

Project **SAINT LUKES, BIERLEY MARSH,  
 EAST BIERLEY, BRADFORD**

Drawing  
**SITE LOCATION PLAN**

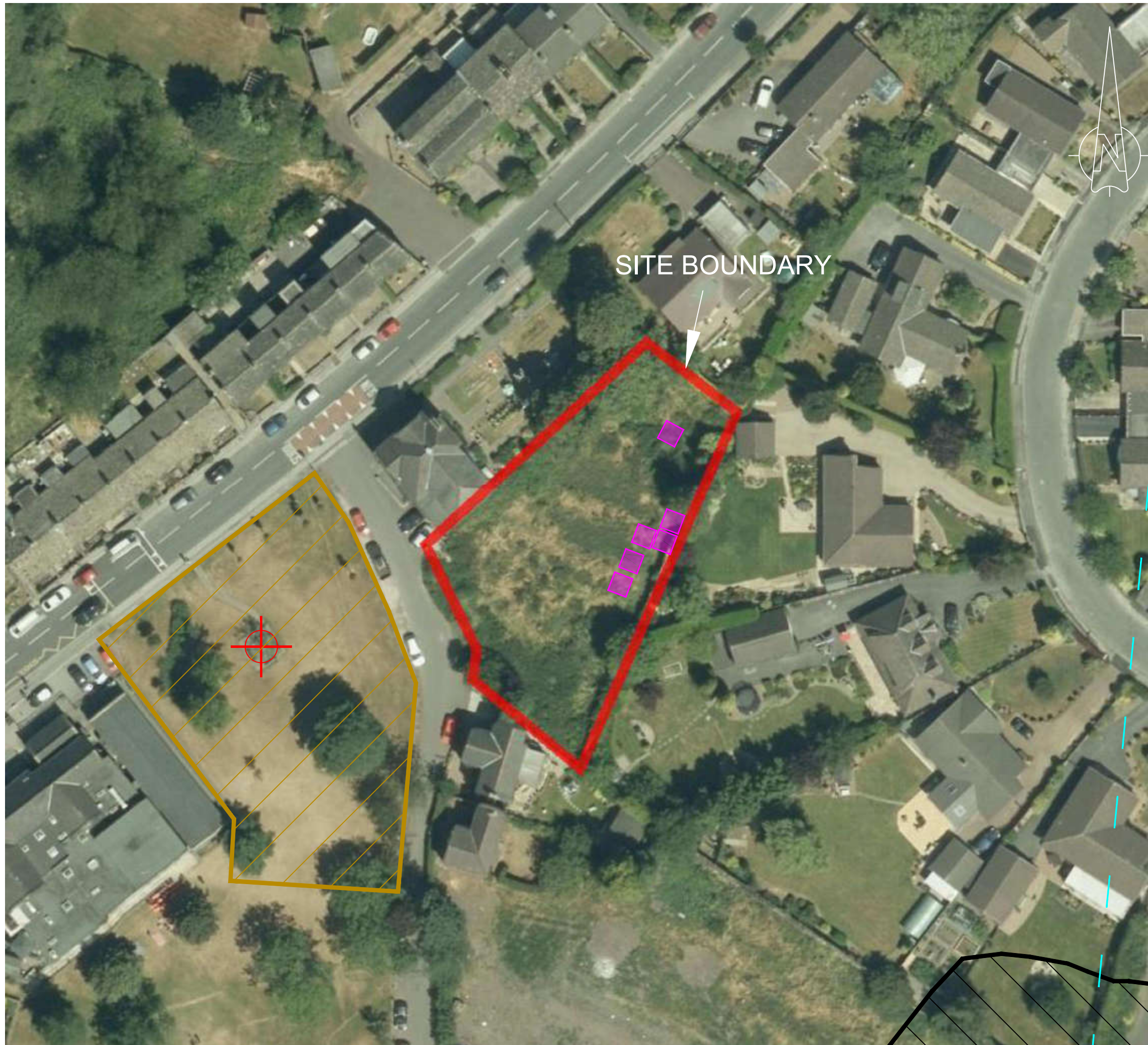
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Drawn **ACV  
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Checked **JR**

Drawing No. **H19166B-701**






Rev. **P1**



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- 1.2. DO NOT SCALE FROM THIS DRAWING.

**LEGEND**

-  APPROXIMATE LOCATION OF HISTORICAL MINE ENTRY (SHAFT) FROM COAL AUTHORITY RECORDS
-  APPROXIMATE LOCATION OF MADE GROUND FROM BRITISH GEOLOGICAL SURVEY RECORDS
-  APPROXIMATE LOCATION OF HISTORIC SPOIL HEAP ASSOCIATED WITH THE MINE SHAFT
-  APPROXIMATE FOOTPRINT OF FORMER ON-SITE STRUCTURES
-  OVERHEAD ELECTRICITY TRANSMISSION LINES

P1	INITIAL ISSUE.	11.11.11	AAA
Rev.	Amendments	Date	By

Revisions



5 Waverley Road  
 Huddersfield  
 West Yorkshire  
 HD1 5NA  
 United Kingdom

T. +44 (0)1484 516 977  
 E. info@patrickparsons.co.uk  
 W. www.patrikparsons.co.uk

Client  
**PLANNED CONTRACTS LTD**

Project  
**SAINT LUKES, BIERLEY MARSH,  
 EAST BIERLY, BRADFORD**

Drawing  
**SITE FEATURES PLAN**

Scales NTS At original size A3

Drawn ACV	Checked JR
Date DEC 2019	

Status **PRELIMINARY**

Drawing No. **H19166B-702** Rev. **P1**

**Appendix B –  
Coal Authority Consultants Coal Mining Report**



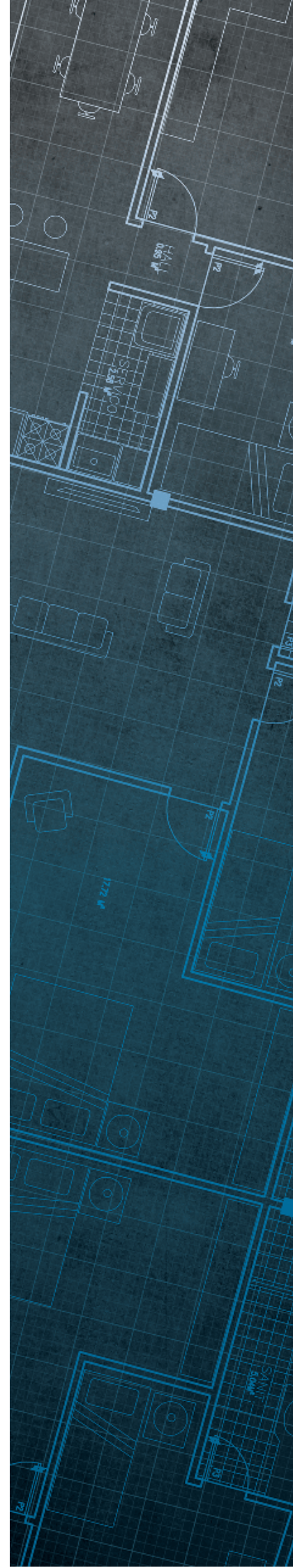
The Coal  
Authority

# Consultants Coal Mining Report

Land At St Lukes  
Bierley Marsh  
East Bierley  
Bradford  
Kirklees  
BD4 6PH

Date of enquiry: 13 November 2019  
Date enquiry received: 13 November 2019  
Issue date: 13 November 2019

Our reference: 51002189544001  
Your reference: H19166B/JR/4421



# 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

Patrick Parsons Limited

## Enquiry address

Land At St Lukes  
Bierley Marsh  
East Bierley  
Bradford  
Kirklees  
BD4 6PH

## How to contact us


0345 762 6848 (UK)  
+44 (0)1623 637 000 (International)

200 Lichfield Lane  
Mansfield  
Nottinghamshire  
NG18 4RG

[www.groundstability.com](http://www.groundstability.com)

 @coalauthority

 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority



Approximate position of property



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# 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	WHINMOOR	Coal	6O28	90	Beneath Property	1.5	North-East	69	1927
unnamed	WHINMOOR	Coal	6O27	96	West	1.5	North-East	76	1930
unnamed	BLACK BED	Coal	6O2G	148	South	0.9	North-East	209	1892
unnamed	BETTER BED	Coal	6O2K	175	Beneath Property	2.4	North	46	1875

## Probable unrecorded shallow workings

Yes.

## Spine roadways at shallow depth

No spine roadway recorded at shallow depth.

## Mine entries

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyancing details
Shaft	419429-015	419850 429336		Coal	
Shaft	419429-016	419824 429208		Coal	

## Abandoned mine plan catalogue numbers

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

FGB660	GCR52	M31
GCR50	FGB335	5833
2805	GCR20	GCR3

Our records show we have more plans than those shown above which could affect the enquiry boundary.

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

**Outcrops**

No outcrops recorded.

**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.

### **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 call us on 0345 762 6848 or email us at [groundstability@coal.gov.uk](mailto:groundstability@coal.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 **call us on 0345 762 6848** or **email us at [groundstability@coal.gov.uk](mailto: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.

### **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.

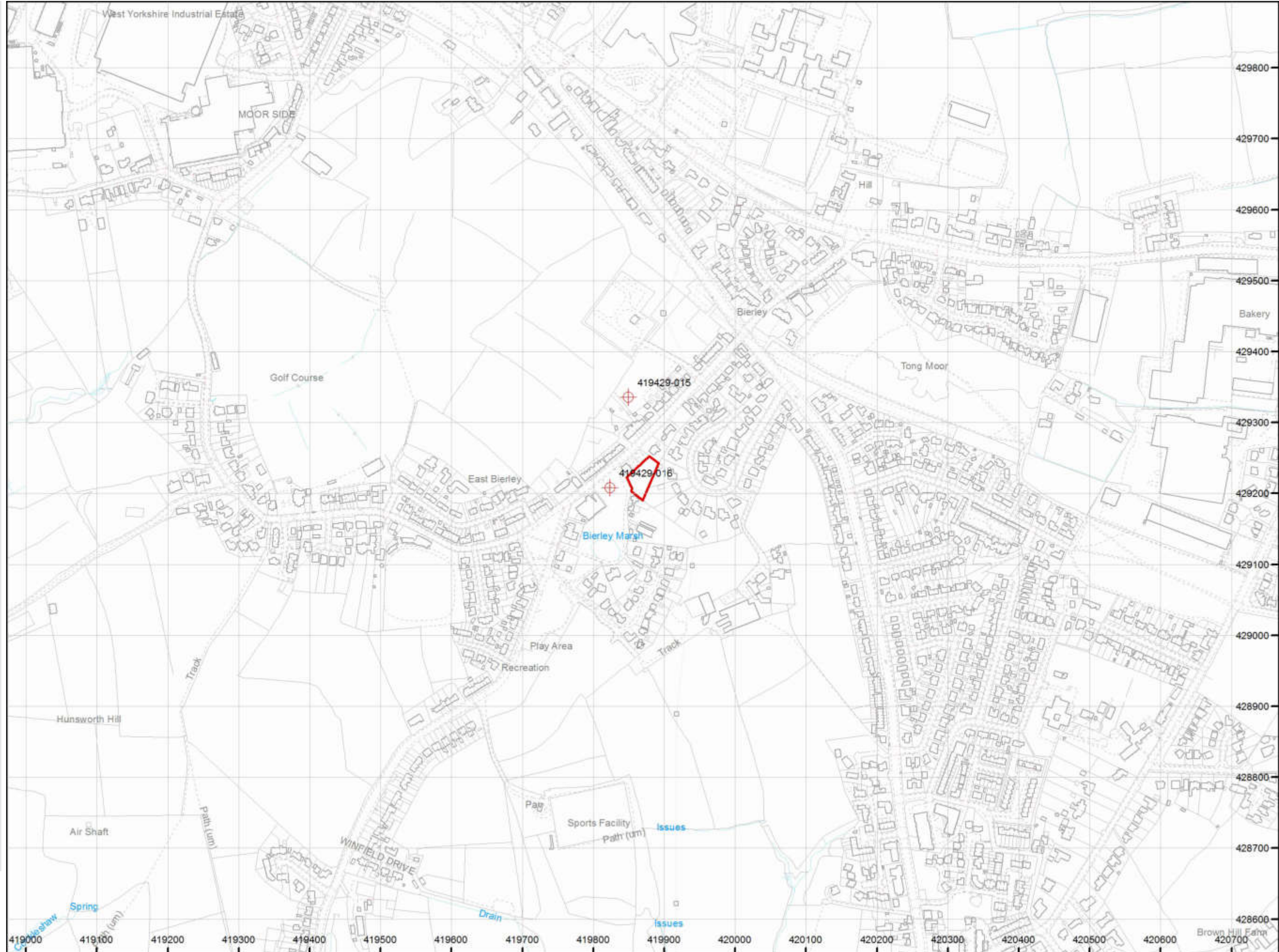
**Key**

- Approximate position of the enquiry boundary shown 
- Disused mine shaft 

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**How to contact us**

0345 762 6848 (UK)  
+44 (0)1623 637 000 (International)  
[www.groundstability.com](http://www.groundstability.com)



UK locations:

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Newcastle upon Tyne

London

Glasgow

Huddersfield

Birmingham

Guildford

International locations:

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Dubai

Sydney



[Email](mailto:info@patrickparsons.co.uk) info@patrickparsons.co.uk

[Online](http://patrickparsons.co.uk) patrickparsons.co.uk