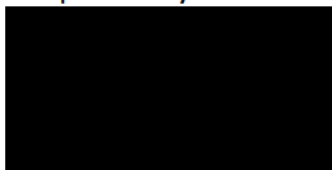


GEOINVESTIGATE LIMITED

Coal Mining Risk Assessment (CMRA)

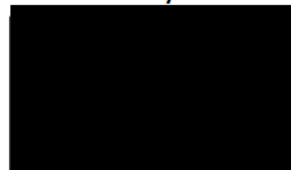
LOCATION	The Crown & Anchor Pub, Barugh Lane, Barnsley S75 1LL
ISSUE DATE	9 th April 2025
FOR	True North Brew Company
CLIENT REF.	-
OUR REF.	G25039

Prepared by



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Senior Geo-Environmental Engineer

Checked by



Ross Nicolson BSc (Hons) MSc (Eng) CEng MIMMM
Principal Geotechnical Engineer

1. CMRA INTRODUCTION & COAL MINING HAZARDS

1.1 Site Location and Description

The approximate centre of the site lies at 431331, 408498 with surface ground height around 82m AOD.

The boundary shown in RED on the Coal Authority (CA) report provided in Appendix A corresponds with the planning application area.

The site is currently occupied by the Crown and Anchor Inn with large front carpark and soft landscaped garden area/beer garden to the rear. Site images are provided in Appendix B. It is proposed to extend the existing pub building to the rear/northwest as per the development plan in Appendix C.

1.2 Historical Maps

A desk study of limited available historical OS maps shows the site has been occupied by the existing inn since the mid-1800s. A water well is shown close to the southern site boundary. Sandstone quarries are shown in the distant surrounding area.

No evidence of surface mining activity, clay, sand or gravel pitting or stone quarrying is recorded on the historical maps within or adjacent to the site.

1.3 Anticipated Geology

The location of the property is shown on the extract of British Geological Survey (BGS) 1:50,000 Solid and Drift geology map (Sheet 87) and 1:10,000 Sheet SE30NW both presented in Appendix D. The maps and the BGS's online Geotitles mapping service show the land beneath the existing buildings and to the south approaching Barugh Lane to be underlain by little or no thickness of superficial/soil cover in turn underlain by the High Moor Rock a thick sandstone bedrock unit of the Pennine Middle Coal Measures Formation which comprises mudstone, siltstone sandstone with subordinate coal horizons.

However, the northern extension of the property, currently occupied by the beer garden and lawn, is underlain to an unknown depth by restored infilled opencast coal workings. The buried highwall of the opencast lies only a few metres in front the building. The wall may be steep slope or near vertical cliff. A remnant of the opencast highwall is visible in field to the west of the site. The approximate line of the highwall is shown in Appendix E.

The opencast worked the Top Haigh Moor (THM) and the Low Haigh Moor (LHM) Coals with, according to the geology column, the LHM lying up to 10m beneath the THM, but perhaps less than this. A tentative estimate of the depth of the opencast beneath the pub's beer garden is perhaps 15m. The southern limit of the opencast highwall was stopped several metres short of the existing inn building to avoid de-stabilising the building.

The geological maps also show restored/infilled opencast site nearby to the southeast of the pub. However, only the THM Coal was worked in this opencast. BGS borehole logs SE30NW/142 and 141 in Appendix F located in the northern part this opencast nearest the Crown Inn records seemingly compact infill to 5m and 4.50m depth respectively, underlain by in-situ mudstone bedrock while SE30NW/548 at the southern end records dense/compact fill to 7.10m underlain by mudstone bedrock. Post 1991, the southern opencast locality was redeveloped with a housing estate comprising mostly bungalows.

While it appears the opencast infill to the south of the site was subject to a moderate degree of compaction, the fill materials in the northern opencast below the Crown & Anchor's beer garden may not have been compacted to the same degree. This however is speculation.

While the northern, beer garden, end of the Crown & Anchor is underlain by deep opencast infill sandstone bedrock is expected at or close to surface in the remainder of the site both under the existing pub building and its large carpark extending south to Barugh Lane. Here the sandstone is likely underlain, within very shallow depth, by the Top Haigh Moor Coal and within shallow depth by the Low Haigh Moor Coal.

Based on the nearby borehole logs in the opencast to the south of the pub, the THM Coal is expected to lie <5m beneath the southern end of the Crown & Anchor site with the LHM Coal within 15m depth. These coals are up to 1.2 and 1m thick respectively and are both workable. In this regard BGS log SE30NW/289 in Appendix F records 0.80m thick unnamed underground mine workings presumed in the THM at 10.50m depth.

Based on the geology columns, the Lidget Coal is expected at perhaps 30m depth below the site with thickness up to 1.5m. This however is speculation.

The tentative elevation of the site, relative to the vertical geology column, is shown below the map in Appendix D.

This CMRA has shown that deep opencast infill and buried opencast highwall are likely to be present at the northern end of the property where the new building extension is located. Normally the CA object to building development straddling opencast highwall and where possible, this should be avoided. Additionally, underground mine working may exist up to 15m below the floor of the infilled opencast, at the north end of the property while the remainder of the site including the existing inn building and its carpark may be underlain by possible very shallow and shallow mine working.

1.4 Opencast Abandonment Plans

Some difficulty was experienced obtaining mining plans from the CA. Initially rather than providing the plan for the northern opencast the CA provided plans for the 1950/51 Long Balk opencast to the south of the Crown & Anchor pub, as per the plans shown in Appendix G. However, this plan is useful as it shows the bottom of the THM at a depth of 4m immediately south of the site beneath superficial thickness of 2m, with coal seam thickness of 1.1m. However, the 1950s plan incorrectly identifies the Top Haigh Moor Coal as the Swallow Wood Coal. The plan shows “Old working voids” in the THM seam at the southeast end of the opencast, but not at the north end, closest the Crown & Anchor pub. Though the opencast was returned to agricultural land, the opencast infill at the Long Balk site appears to have been compacted to a reasonably “Dense” condition according to the BGS logs in Appendix F.

Following a further request from Geoinvestigate, the abandonment plan for the Crown & Anchor locality was located by the CA on 8th April 2025 apparently unexpectedly archived in their underground mining records. The Barugh Green & Ext plan and extracts of it provided in Appendix G and H, and the site and development overlay provided in Appendix I, show the northern beer garden end of the site and the proposed building extension underlain by about 10.5m of infill/made ground, while the existing building and carpark at the southern end are underlain by 1.2 to 2m of drift in turn underlain by very shallow sandstone bedrock followed by the THM Coal between 6.6m to 7.7m and the LHM Coal between 9.9 to 10.5m. According to the BGS geology column the Lidget Coal may lie at 25m depth with thickness up to 1.5m.

Old working voids described as “Extensive” are recorded on the mine plan both in the THM and LHM horizons perhaps extending under the remainder of the Crown & Anchor pub site including the existing building and carpark. This however is speculation.

The overlay shows the proposed building extension straddling 10m high possibly near vertical buried opencast highwall and deep infill on its north side and on its south side potentially extensive old underground working voids in 2 coal horizons at only 6.6m and 9.9m depth. In Geoinvestigate’s opinion, the complex ground conditions beneath the current location of the building extension are perhaps likely to create significant planning issues as well as requiring costly ground stabilisation and special foundation design measures.

1.5 Mine Workings & Mine Shafts

The CA report in Appendix A identifies past/recorded underground mining at depths of 144m beneath or within influencing depth of the property with dip 3.2 degrees East. In Geoinvestigates opinion this working lies too deep to impact surface ground stability in the development area.

The CA report also places the site in an area of probable shallow coal mine workings. The CA define Probable Unrecorded Shallow Workings as *“Areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface”* (i.e., less than 30m).

Coal outcrop and opencast mining in the Top Haigh Moor and Low Haigh Moor Coals occurs nearby to the north of the property with opencast activity within the property indicating that coal and unrecorded mine working lies close to the surface at this locality.

Sections 1.3 and 1.4 of Geoinvestigates CMRA has identified the possible presence of very shallow underground mine working beneath the non-opencast parts of the property including the existing pub building and its large carpark while the deep opencast infill on the north side of the building may be underlain by further underground mineworkings in the Lidget Coal 15m below the opencast floor.

This CMRA has shown that deep opencast infill and buried opencast highwall are likely to be present at the northern end of the property where the new building extension is located. To avoid the risk of differential movement the CA normally object to building development straddling opencast highwall and where possible this should be avoided.

Additionally, mine workings may exist beneath 15m beneath the base of the infilled opencast while, the existing building and car park where perhaps the building extension may be alternatively located, are underlain by very shallow mine workings < 10m b.g.l. in these areas.

In Geoinvestigate's opinion owing to the presence of deep infill and shallow underground mining beneath the property both potentially posing significant surface ground stability risk to the existing and new development intrusive site investigation should be carried out to further assess these risks before a planning submission is made with particular focus on locating the exact position of the opencast highwall below the inns beer garden and the depth and strength of the opencast fill on the northside of it.

Furthermore, before a planning submission is made, consideration should be given to seeking pre-application planning and technical advice from the Coal Authority on the viability of the current proposal to locate the building extension over the opencast highwall and deep fill, supported, perhaps on deep foundation piles.

As part of this process the client should also consider whether the building can be relocated to another part of the property where opencast is absent but very shallow underground mine working may be present.

<https://www.gov.uk/government/publications/pre-application-advice-for-developing-on-the-coalfield/pre-application-planning-and-technical-advice-for-proposals-within-the-development-high-risk-area-on-the-coalfield>

In Geoinvestigate's opinion, carrying out some limited intrusive site investigation ahead of pre-application consultation with the CA would help identify viable development options/alternatives within the Crown & Anchor site. It would also help the developer assess the cost of the foundation.

1.6 Mine Entries

The CA report identifies a mine shaft and a mine adit 40m and 90m respectively to the northwest of the property boundary and further from the new extension. Neither have a record of treatment. In Geoinvestigate's opinion, both are too distant to impact ground stability in the development area however, their presence raises further concern about shallow mine working at this locality.

1.7 Geological Faults Fissures & Breaklines

The geological mapping and the CA report do not identify any faults, fissures, or breaklines within the site or within influencing distance of it.

1.8 Mine Gas

According to the CA report no mine gas incidents or remediation have been recorded within 500m of the enquiry boundary and typically on the UK coalfields mine gas risk to surface development is low. Circumstances where gas risk increases include proximity (typically < 50m) to mine entries (adits and shafts), proximity to recorded mine gas incidents, where development is located above or adjacent to very shallow and shallow (< 30m) unflooded mine workings or roadway tunnels. In addition, increased mine gas risk may be attributable to: coal seams with a history of spontaneous combustion, natural or artificial pathways providing routes for gas migration e.g. permeable soil cover, pathways created by geological faults, mining induced breaklines/fractures, collapsed mine roof strata, mining subsidence, mining sinkholes/crown holes and unsealed boreholes.

This CMRA has indicated that conditions may exist at this site increasing mine gas risk namely the possible presence of shallow mine workings and backfilled opencast mine within the property

However, the risk may be less as there has been no reported mine gas incident at this locality while typically opencast fill does not generate hazardous levels of landfill gas. However, in this instance a programme of longer-term gas monitoring in gas monitoring wells will be required.

2. RISK ASSESSMENT OF SITE-SPECIFIC COAL MINING ISSUES

The risk assessment methodology adopted in this section is based on CA publication RISK BASED APPROACH TO DEVELOPMENT MANAGEMENT - GUIDANCE FOR DEVELOPERS Version 3, 2014 and Version 4 - 2017. The template contained therein is broadly adopted in the table on the following page, with amendments made by Geoinvestigate Limited. The factual information it is based on, is derived mostly from the CA Consultants Coal Mining Report and additional desk study information including available historical maps, geological maps & memoirs, BGS boreholes, online articles etc. It is not an exhaustive desk study review. Therefore, if new information is released or found in the future, this CMRA may require updating.

The table also provides advice on next step mitigation and the likely planning decision.

RISK ASSESSMENT & MITIGATION		
Coal Mining Issues/Hazards	Risk	
Past underground coal mining	L	
Probable unrecorded shallow workings	M	H
Outcrop	L	M
Spine roadways at shallow depth	NONE	
Mine entries	NONE	
Geological faults, fissures and breaklines	NONE	
Mine gas	M	
Opencast mines within 500m	H	
Coal mining subsidence claims within 50m	NONE	
Site investigations within 50m	NONE	
Likely Planning Decision	Yes/No	Reason
Is planning permission likely to be given with respect to coal mining legacy issues CONDITIONAL upon carrying out further intrusive investigation leading to possible building design mitigation at a future date but before construction begins?	NO	NO. In Geoinvestigates experience the CA are likely to OBJECT to the current development proposal locating the new building on the north side of the existing building where the new extension will straddle buried opencast highwall and deep opencast fill with the risk of significant differential building movement. OPTIONS Either: a planning application is made for an alternative location for the new building in a non-opencast area of the site. Or Before a submission is made pre-application planning and technical advice is sought from the CA on the viability of the current extension position in the beer garden straddling opencast highwall and deep infill using pile foundations in which case the carrying out of pre-consultation intrusive site investigation should be considered to exactly locate the highwall the depth and strength of the fill and the depth of mine working below the fill to further assess the feasibility of this foundation solution.
	NO	However, if the new building position is moved to non-opencast area no pre-consultation would be required, and planning permission is likely to be given conditional upon intrusive site investigation being carried out to determine the lesser critical risks from shallow mining and mine gas hazard as these can be mitigated by routine engineering solutions.

Assessed risk level – High, Medium Low, NONE

3. CMRA OUTCOME & RECOMMENDATIONS

This CMRA has identified increased risk to the current proposed building extension location in the beer garden of the Crown Inn from opencast buried opencast highwall and deep opencast fill/made ground together with possible mine working below the opencast floor.

In Geoinvestigates opinion 2 options are available:

Option 1

Before a planning submission is made, seek pre-application planning and technical advice from the CA, on the viability of the current extension position in the beer garden straddling opencast highwall using deep pile foundations in which case the carrying out of pre-consultation intrusive site investigation should be considered to exactly locate the position of the highwall, the depth and strength of the fill and the depth of mine working below the fill and opencast floor to further assess the feasibility of this foundation solution.

Warning! In Geoinvestigates experience, if a planning submission is made without first establishing the CAs opinion on Option 1 it is likely to be rejected.

Option 2

Prior to submission relocate the new building elsewhere within the property in non-opencast area (in which case no pre-consultation is likely required), and the client can seek planning approval subject to carrying out intrusive site investigation at a later date but before construction commences to establish the risk from unrecorded shallow mine working and mine gas to the new building and the appropriate engineering solutions (if any) required to mitigate to these hazards

Further Exploratory Works

In our opinion, before any further site investigation is considered the CA should be consulted.

If exploratory drilling or trial pitting is carried out a Coal Authority Permit needs to be obtained (ahead of) further intrusive work. As per the table below Water Drill Flush to be used when drilling. The permit application must state **WATER ONLY DRILL FLUSH** for the safety of the public and drill crew. Failure to do so may result in prosecution by the HSE and a hefty fine.

Risks for Different Drilling Scenarios					
Air flush	Mist flush	Foam flush	Water flush	Mud flush	Additional controls
HIGH	HIGH / MED'M	HIGH / MED'M	LOW	LOW	- Monitoring at rig and other open holes. - Seal boreholes

Boreholes must be sealed on completion.

Gas monitoring **MUST** be carried out during drilling and may provide further indication of mine gas risk.

If the drilling investigation encounters shallow mine working longer term gas monitoring in specially installed gas wells is likely to be required to further assess the ground gas risk. Notwithstanding the drilling results owing to the presence of deep infilled ground longer term gas monitoring is likely to be required in this instance.

Alternatively, longer term gas monitoring may be avoidable if the installation of precautionary gas protection measures is included in the design of the new buildings in line with "Characteristic Situation 2" (CS2) based upon the CIRIA 665 (revised) report – "Assessing the risks posed by hazardous ground gases to buildings". However, agreement will be required from the Local Planning Authority for this alternative proposal.

WHAT TO DO NEXT? Obtain quotes for the intrusive site investigation works. The cost of the SI works should be a **“lump sum” fixed price**. Geoinvestigate can provide advice and assistance with helping you find suitable site investigation & drilling contractors. Call us on 01642 713779 or email enquiries@geoinvestigate.co.uk.

Appendices:

- A. CA Consultants Coal Mining Report issued 20 February 2025 ref. 51003480820001
- B. Site Images
- C. Proposed Development
- D. Geology Map Extracts
- E. Building Extension & Opencast Area
- F. BGS Borehole Record
- G. Long Balk Opencast Mine Plan
- H. Barugh Green & Ext Opencast Mine Plan
- I. Barugh Green & Ext Opencast & Site & Development Plan Overlay

APPENDIX A
CONSULTANTS COAL MINING REPORT



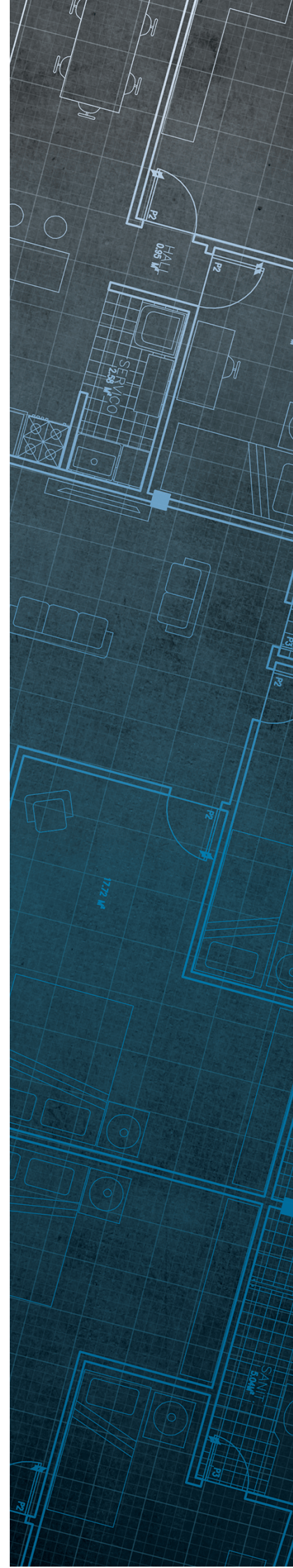
The Coal
Authority

Consultants Coal Mining Report

Crown And Anchor Inn
Barugh Lane
Barugh Green
Barnsley
S75 1LL

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

Our reference:	51003480820001
Your reference:	G25039-KR



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

GEOINVESTIGATE

Enquiry address

Crown And Anchor Inn
Barugh Lane
Barugh Green
Barnsley
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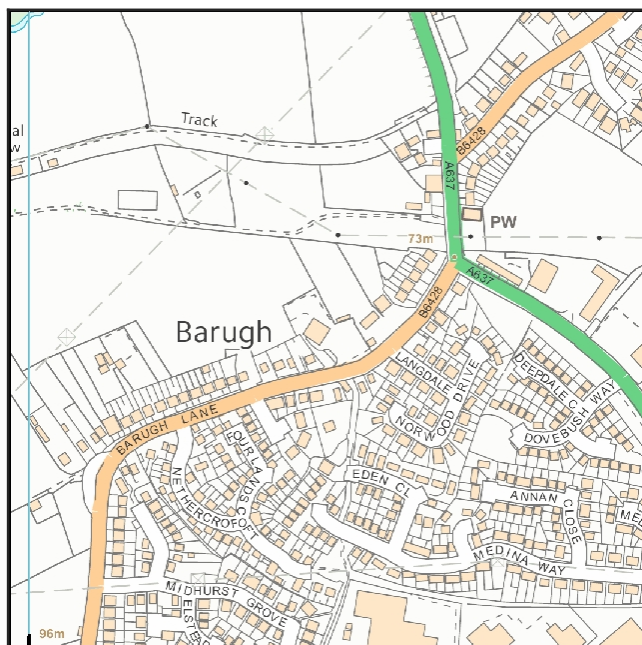
www.groundstability.com

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 /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
DODWORTH	FENTON	Coal	6NKT	144	Beneath Property	3.2	East	183	1961
STANHOPE SILKSTONE	SILKSTONE	Coal	6NCV	241	South-West	3.9	North-East	107	1928

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	431408-004	431245 408560	Treatment details unknown.*	Coal	
Adit	431408-005	431212 408597	Treatment details unknown.*	Coal	

*For your information, before the coal industry was nationalised in 1947, there was no requirement for a mine operator to record mine entry treatment details when a mine was abandoned.

Therefore, it is not unusual for us to have no treatment details for many of the 176,000 recorded mine entries on our database. Despite this lack of information, please be assured that the fact we have no treatment recorded does not necessarily mean that the mine entries were left untreated when abandoned.

Abandoned mine plan catalogue numbers

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

NE568	7197	7196
NE124	NE584	9534
7195	NE1034	NE762

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
TOP HAIGH MOOR	Coal	Yes	24.6	North-West	251
TOP HAIGH MOOR	Coal	Yes	19.2	North	261

Geological faults, fissures and breaklines

No faults, fissures or breaklines recorded.

Opencast mines

Please refer to the "Summary of findings" map (on separate sheet) for details of any opencast areas 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 in an area where notices to withdraw support were given in 1956 and 1982.

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 call us on 0345 762 6848 or email us at 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**.

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.

Key

- Approximate position of the enquiry boundary shown
- Disused mine shaft
- Disused adit
- Outcrop (Proven)
- Outcrop (Conjectured)
- Unlicensed opencast site

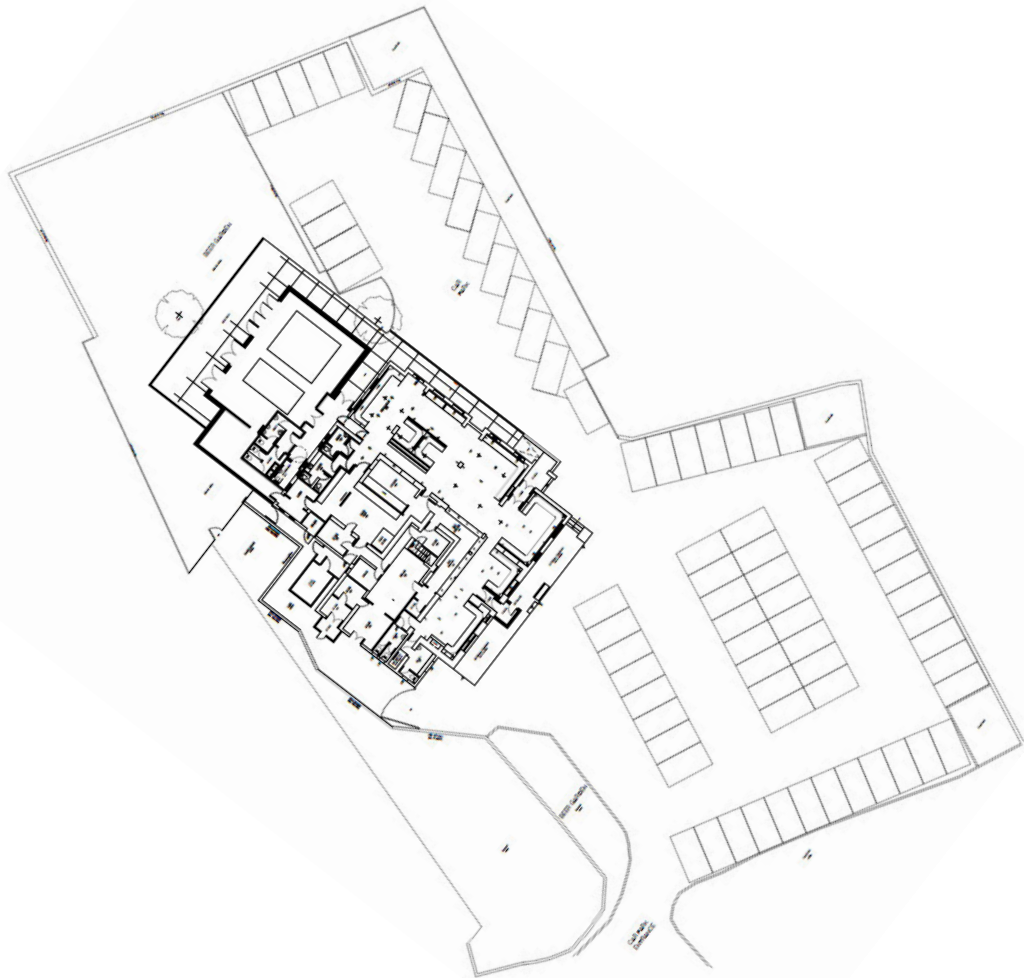
How to contact us
 0345 762 6848 (UK)
 +44 (0)1623 637 000 (International)
www.groundstability.com

APPENDIX B SITE IMAGES

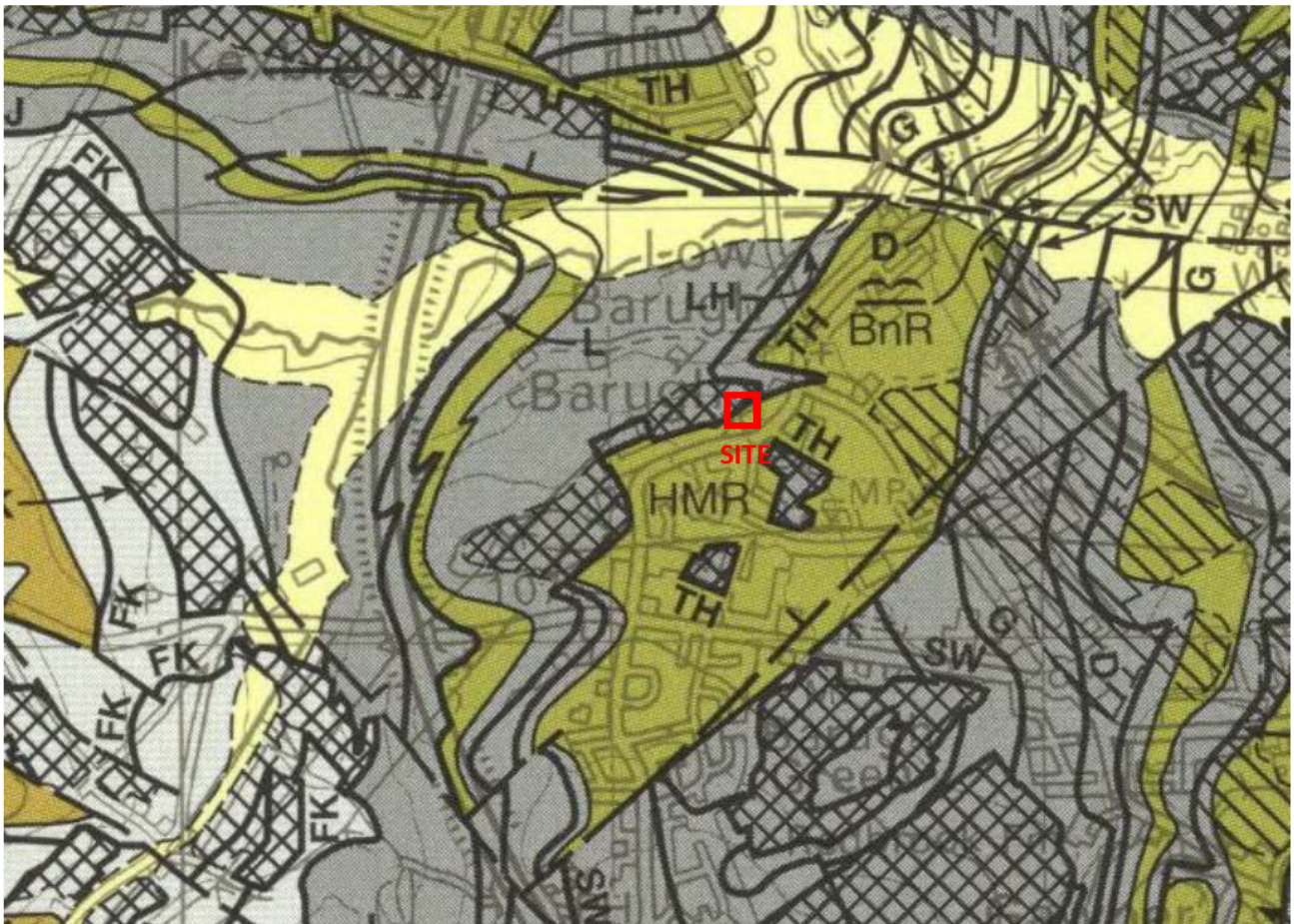




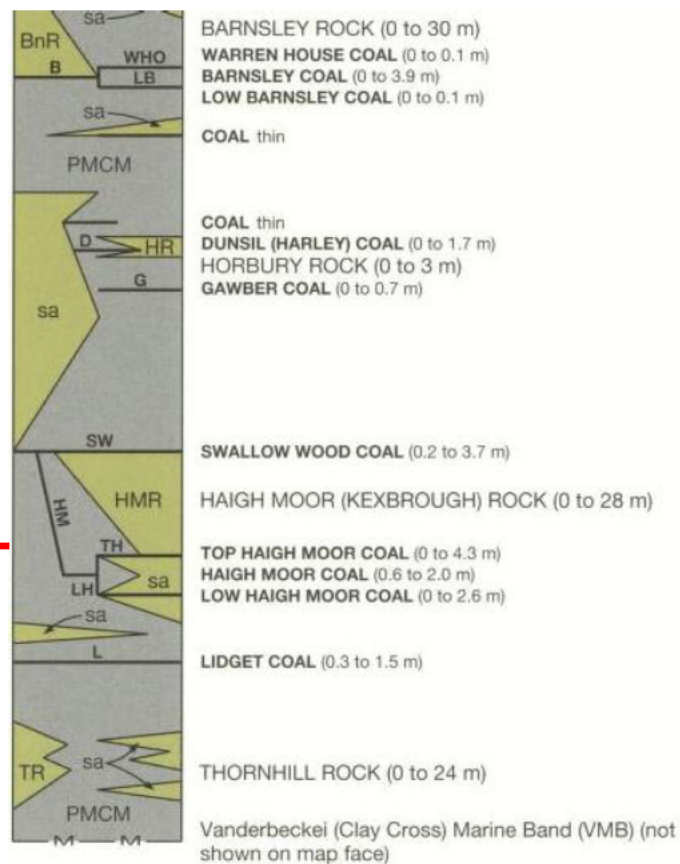
APPENDIX C PROPOSED DEVELOPMENT

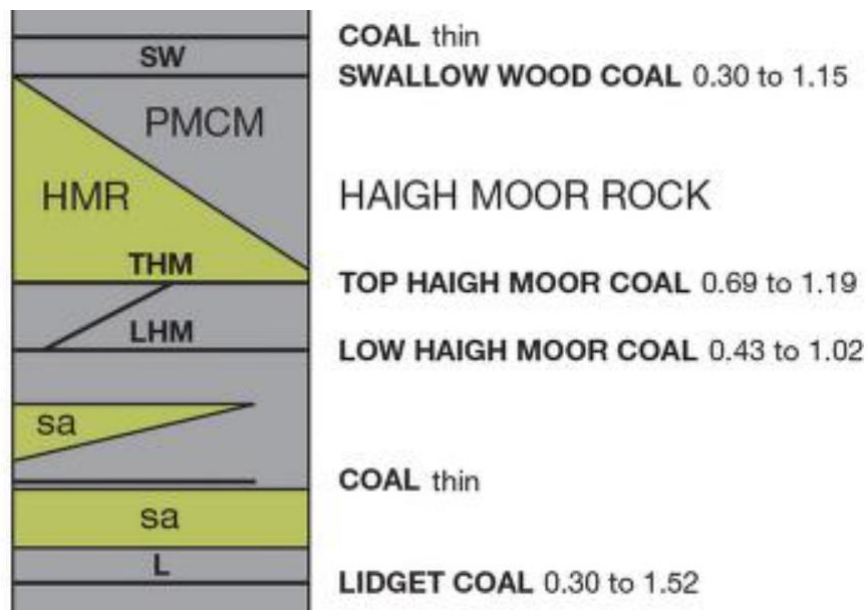
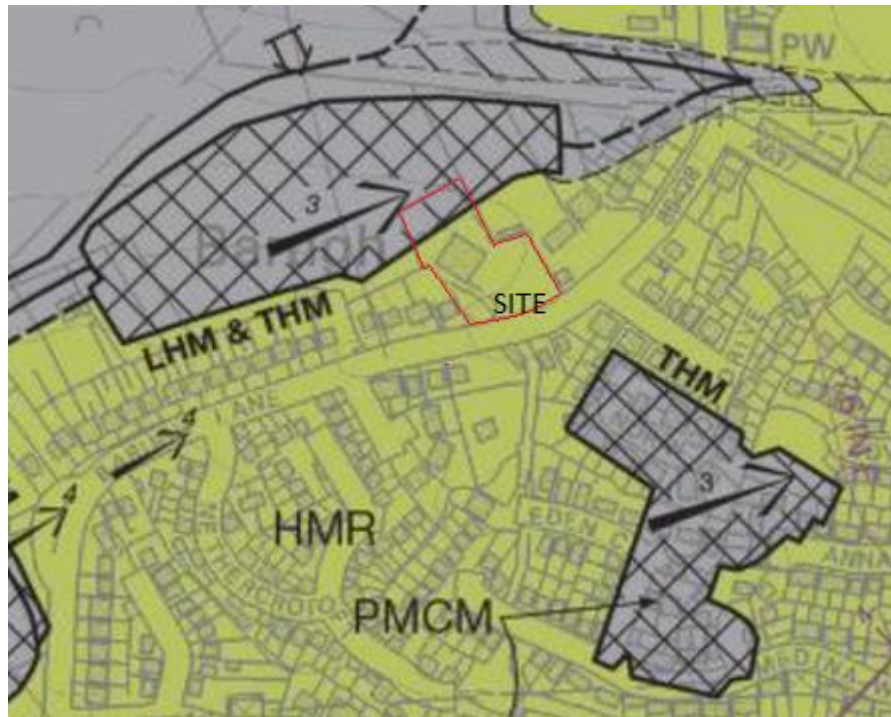


APPENDIX D GEOLOGY MAP EXTRACTS



**TENTATIVE SITE
ELEVATION** ———





APPENDIX E
BURIED OPENCAST HIGHWALL
& PROPOSED BUILDING EXTENSION



APPENDIX F

BGS BOREHOLE RECORDS



British
Geological
Survey

BGS ID: 84008 : BGS Reference: SE30NW142
British National Grid (27700) : 431386,408422

SE30NW-142

Holst Soil Engineering Limited									
PARKSIDE LANE 31386, 08422 LEEDS LS1158X.									
Contract No. SI0746/P2359		Location Barugh Green		Borehole No. 3		Ground Level		Date	
Client White Young and Partners									
BOREHOLE LOG									
STRATA	Legend	Depth below Ground Level	Thickness of Strata	Type of Sample	c kN/m ²	φ deg.	m.c. %	γ kg/cm ³	N
TOPSOIL		0.50	0.50						
MADE GROUND:- Brown clay, brick coal and sandstone				1.50	83	9	18.3	1940	
				3.00	36	0	21.4	1890	
		5.00	4.50	5.00					
Weathered grey MUDSTONE		5.50	0.50		83	8	14.5	2190	
Water Struck at		None Encountered			Maximum Observed Water Level				
Undisturbed Sample	[]				c = Cohesion				
Disturbed Sample	o				φ = Angle of Internal Friction				
Water Sample	A				m.c. = Moisture Content				
Penetration Test	I				γ = Bulk Density				
					N = Standard Penetration Value				
Water levels are subject to seasonal or tidal variation and should not be taken as constant									

Contact BGS: ngdc@bgs.ac.uk

SE30NW-141

Holst Soil Engineering Limited

PARKSIDE LANE

LEEDS LS1158X.

Contract No. SI0746/P2359

Location Barugh Green

Client White Young and Partners

Borehole No. 2

Ground Level

Date _____

BOREHOLE LOG

STRATA	Legend	Depth below Ground Level	Thickness of Strata	Type of Sample	c kN / sq. m.	φ deg.	m.c. %	γ _b kg / cc m.	N
TOPSOIL		0.50	0.50						
MADE GROUND:- Brown clay brick and sandstone				1.50 	14	9	24.5	1830	
				3.50 					29
		4.50	4.00	4.50 	110	7	14.9	2000	
Weathered grey MUDSTONE				5.50 					66
		6.00	1.50						
Water Struck at None Encountered Maximum Observed Water Level									
Undisturbed Sample	□								
Disturbed Sample	○								
Water Sample	Δ								
Penetration Test	I								
					c = Cohesion				
					φ = Angle of Internal Friction				
					m.c = Moisture Content				
					γ = Bulk Density				
					N = Standard Penetration Value				

Water levels are subject to seasonal or tidal variation and should not be taken as constant

Contact BGS: ngdc@bgs.ac.uk



BGS ID: 84414 : BGS Reference: SE30NW548
British National Grid (27700) : 431460,408310

Parkside Lane, Dewsbury Road, Leeds LS11 5SX
Telephone Leeds (0532) 711111 Telex 557357

SE30NW 348

SOFT GROUND DAILY RECORD

DATE + TIME OF START/FINISH 26-9-91

3146
0831

TOWN ~~South~~ MAINE Farm

SITE NAME BARUCH GREEN

JOB No.

BOREHOLE No. 1

EQUIPMENT IN USE Dando 150

VEHICLE No. J-961, SNL

[illegible]



SOUTH YORKSHIRE MINING ADVISORY SERVICE

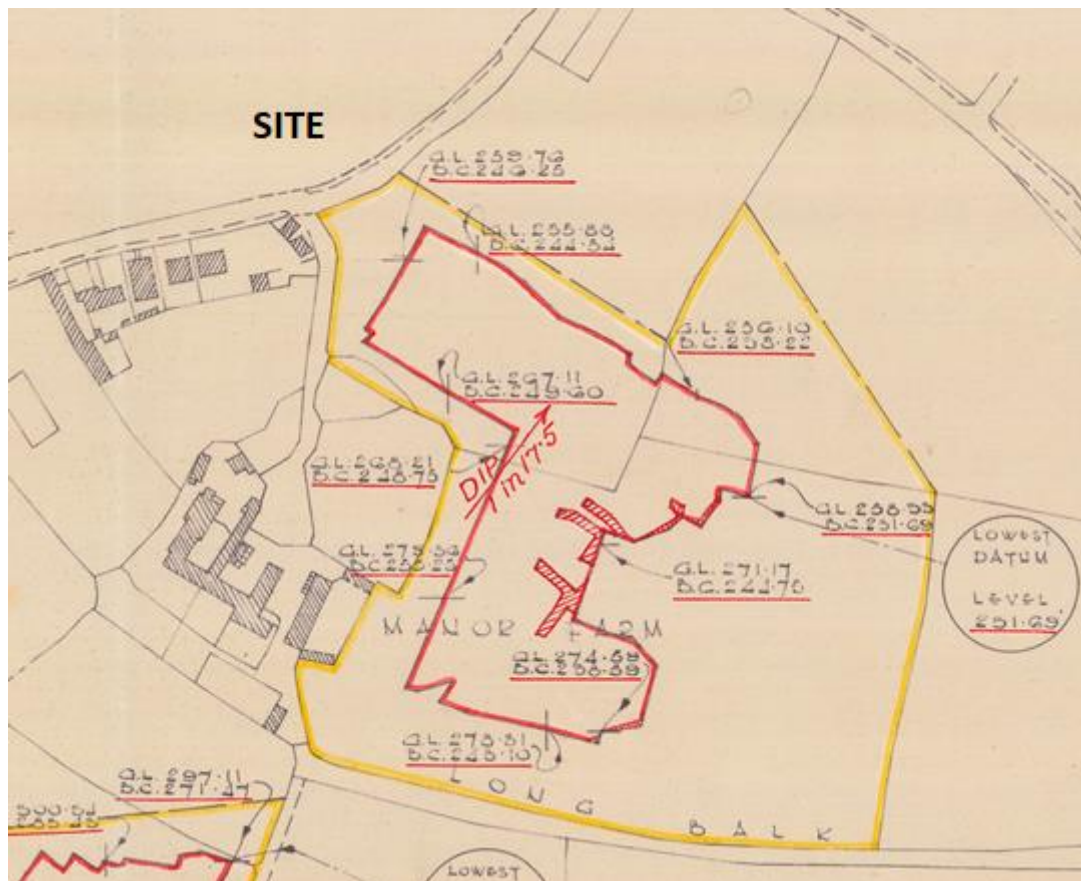
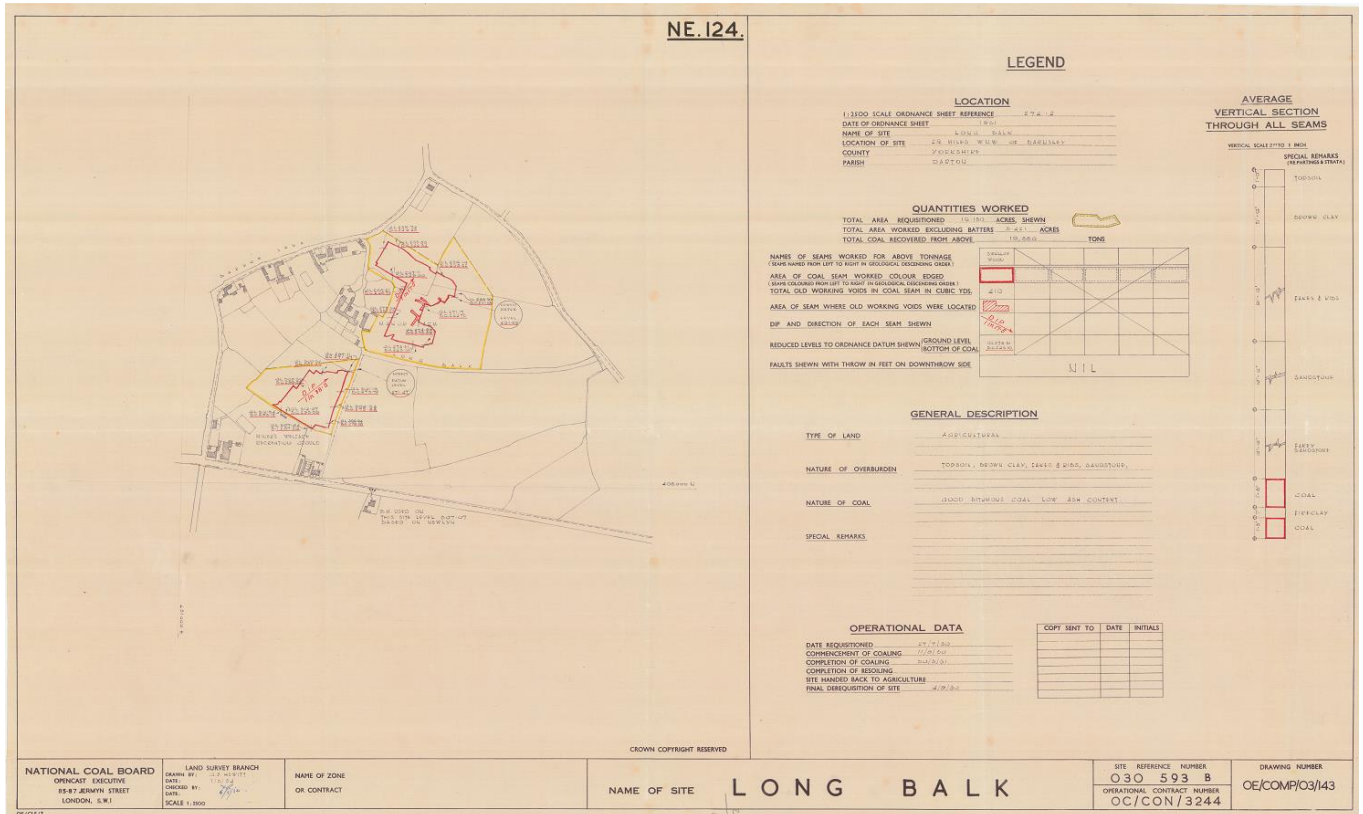
BOREHOLE RECORD

SITE Barugh Green Road/Claycliffe Road, Barugh Green BOREHOLE No 5
Barnsley.
BORING METHOD Rotary ORDNANCE DATUM LEVEL
BOREHOLE DIAMETER 3 1/8" (78mm) STANDING WATER LEVEL -
DATE COMMENCED 16/11/1987 DATE COMPLETED 16/11/1987

DEPTH		Description of Strata	Thickness	Remarks
From	To			
m	m			
0	1.00	Top Soil and Clay	1.00	
1.00	10.50	Sandstone/Shale/ Mudstone (soft at 4.5m)	9.50	
10.50	11.30	Soft - but no returns (soft fill) mineworkings	0.80	Mineworkings
11.30	13.00	Solid - but no returns	1.70	
BH (5) Finished at 13 metres				

DATE 17/11/1987 MINING ENGINEER
P. Cairns

APPENDIX G
LONG BALK OPENCAST MINE PLAN



LEGEND**LOCATION**

1:2500 SCALE ORDNANCE SHEET REFERENCE 274-2
 DATE OF ORDNANCE SHEET 1951
 NAME OF SITE LONG BALK
 LOCATION OF SITE 2.5 MILES WNW OF BARNWELL
 COUNTY YORKSHIRE
 PARISH EASTON

QUANTITIES WORKED

TOTAL AREA REQUISITIONED 10.150 ACRES, SHEWN
 TOTAL AREA WORKED EXCLUDING BATTERS 0.481 ACRES
 TOTAL COAL RECOVERED FROM ABOVE 10,000 TONS

NAMES OF SEAMS WORKED FOR ABOVE TONNAGE
 (SEAMS NAMED FROM LEFT TO RIGHT IN GEOLOGICAL DESCENDING ORDER)

AREA OF COAL SEAM WORKED COLOUR EGGED

(SEAMS COLOURED FROM LEFT TO RIGHT IN GEOLOGICAL DESCENDING ORDER)

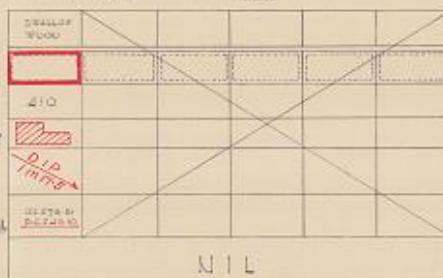
TOTAL OLD WORKING VOIDS IN COAL SEAM IN CUBIC YDS.

AREA OF SEAM WHERE OLD WORKING VOIDS WERE LOCATED

DIP AND DIRECTION OF EACH SEAM SHEWN

REDUCED LEVELS TO ORDNANCE DATUM SHEWN GROUND LEVEL
 BOTTOM OF COAL

FAULTS SHEWN WITH THROW IN FEET ON DOWNTHROW SIDE

**GENERAL DESCRIPTION**

TYPE OF LAND AGRICULTURAL

NATURE OF OVERBURDEN TOPSOIL, BROWN CLAY, SANDSTONE, SANDSTONE, SANDSTONE

NATURE OF COAL GOOD BITUMINOUS COAL LOW ASH CONTENT

SPECIAL REMARKS

OPERATIONAL DATA

DATE REQUISITIONED 27/1/50
 COMMENCEMENT OF COALING 11/2/50
 COMPLETION OF COALING 22/2/50
 COMPLETION OF RESOILING
 SITE HANDED BACK TO AGRICULTURE
 FINAL DEREQUISITION OF SITE 4/2/50

COPY SENT TO	DATE	INITIALS

**AVERAGE
VERTICAL SECTION
THROUGH ALL SEAMS**

VERTICAL SCALE 2" TO 1" INCH

SPECIAL REMARKS
 (REPORTING & STRATA)

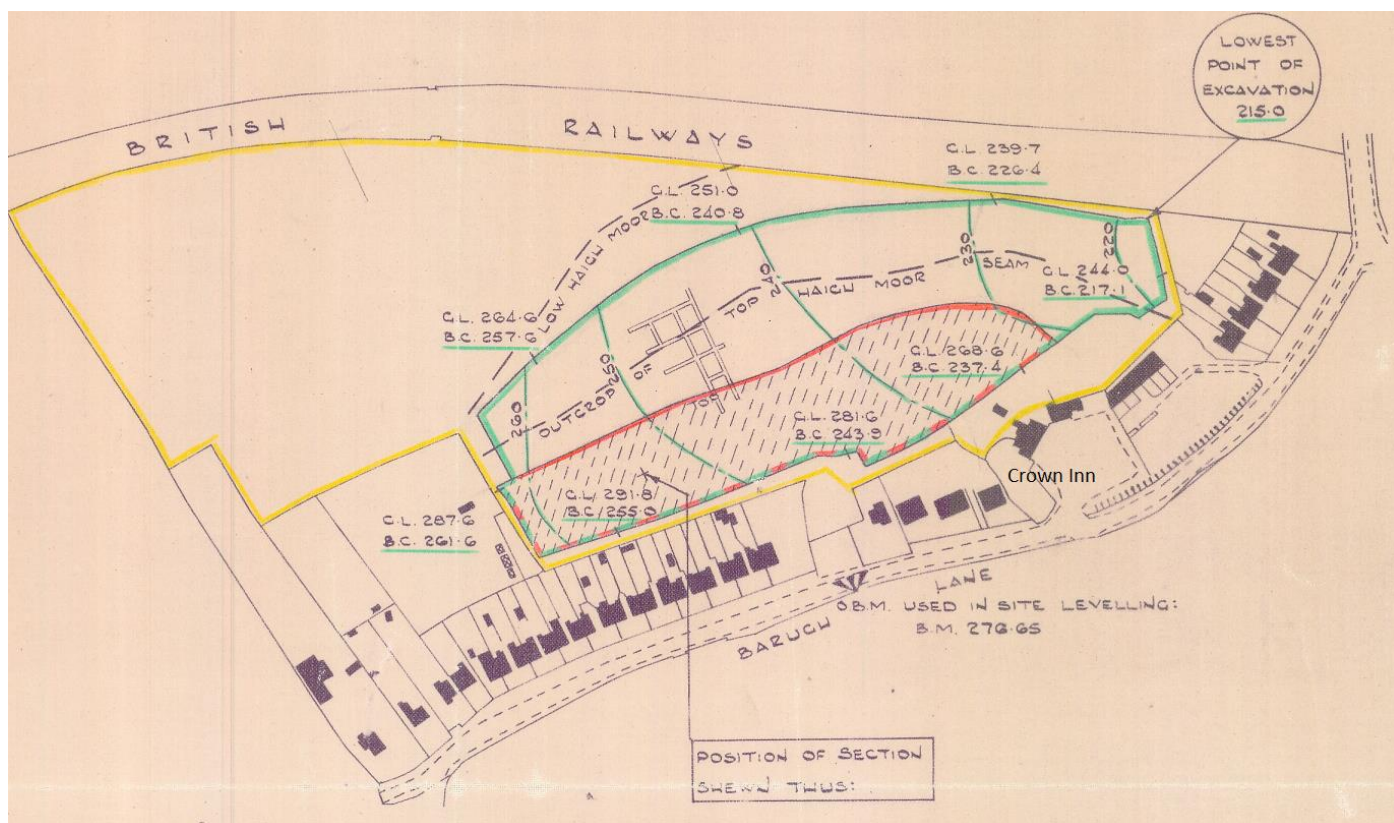
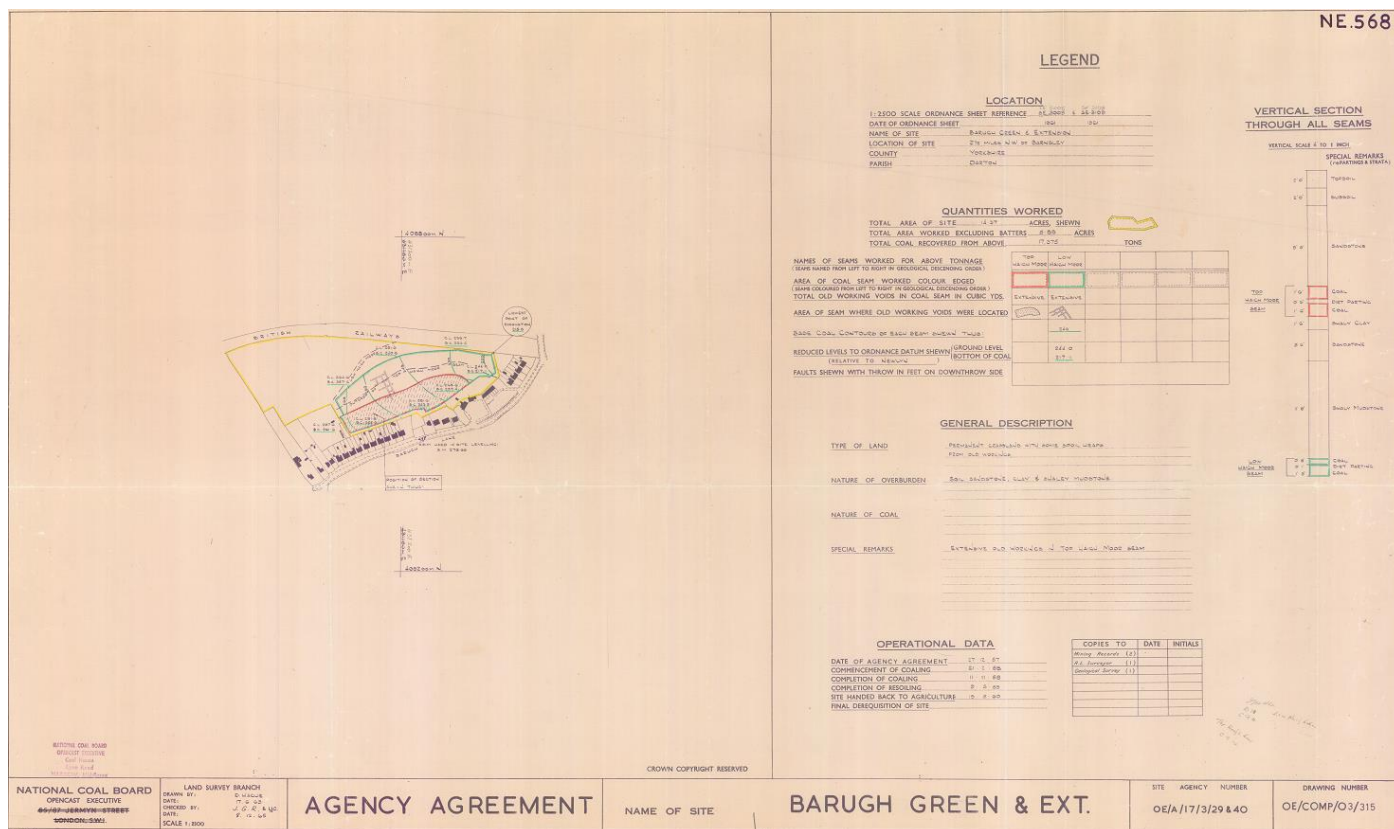


LONG BALK

SITE REFERENCE NUMBER
 030 593 B
 OPERATIONAL CONTRACT NUMBER
 OC/CON/3244

DRAWING NUMBER
 OE/COMP/03/143

BARUGH GREEN & EXT OPENCAST MINE PLAN



1:2500 SCALE ORDNANCE SHEET REFERENCE SE 2008 & SE 3108
DATE OF ORDNANCE SHEET 1961 1961
NAME OF SITE BARUCH CREEK & EXTENSION
LOCATION OF SITE 2 1/2 MILES NW OF BARNBLEY
COUNTY YORKSHIRE
PARISH DARTON

VERTICAL SECTION THROUGH ALL SEAMS

VERTICAL SCALE 4' TO 1 INCH

SPECIAL REMARKS
(REPORTINGS & STRATA)

QUANTITIES WORKED

TOTAL AREA OF SITE 14.37 ACRES, SHEWN
TOTAL AREA WORKED EXCLUDING BATTERS 5.88 ACRES
TOTAL COAL RECOVERED FROM ABOVE 17.375 TONS



NAMES OF SEAMS WORKED FOR ABOVE TONNAGE
(SEAMS NAMED FROM LEFT TO RIGHT IN GEOLOGICAL DESCENDING ORDER)

AREA OF COAL SEAM WORKED COLOUR EDGED
(SEAMS COLOURED FROM LEFT TO RIGHT IN GEOLOGICAL DESCENDING ORDER)

TOTAL OLD WORKING VOIDS IN COAL SEAM IN CUBIC YDS.

AREA OF SEAM WHERE OLD WORKING VOIDS WERE LOCATED

BASE COAL CONTOURS OF EACH SEAM SHEWN THUS:

REDUCED LEVELS TO ORDNANCE DATUM SHEWN (GROUND LEVEL
(RELATIVE TO NEWLYN) BOTTOM OF COAL)

FAULTS SHEWN WITH THROW IN FEET ON DOWNTROW SIDE

TOP HAIGH MOOR	LOW HAIGH MOOR				
EXTENSIVE	EXTENSIVE				
	240				
	244.0				
	217.1				

TOP HAIGH MOOR SEAM	1' 0"	COAL
	0' 0"	DIST PARTING
	1' 0"	COAL
	1' 0"	SHALEY CLAY
	3' 0"	SANDSTONE
	11' 0"	SHALEY MUDDSTONE
LOW HAIGH MOOR SEAM	0' 8"	COAL
	0' 1"	DIST PARTING
	1' 3"	COAL

GENERAL DESCRIPTION

TYPE OF LAND PERMANENT GRASSLAND WITH SOME SPOIL HEAPS
FROM OLD WORKINGS.

NATURE OF OVERBURDEN SOIL, SANDSTONE, CLAY & SHALEY MUDDSTONE

NATURE OF COAL

SPECIAL REMARKS EXTENSIVE OLD WORKINGS IN TOP HAIGH MOOR SEAM

GENERAL DESCRIPTION

TYPE OF LAND PERMANENT GRASSLAND WITH SOME SPOIL HEAPS
FROM OLD WORKINGS.

NATURE OF OVERBURDEN SOIL, SANDSTONE, CLAY & SHALEY MUDDSTONE

NATURE OF COAL

SPECIAL REMARKS EXTENSIVE OLD WORKINGS IN TOP HAIGH MOOR SEAM

LOW HAIGH MOOR SEAM	0' 8"	COAL
	0' 1"	DIST PARTING
	1' 3"	COAL

OPERATIONAL DATA

DATE OF AGENCY AGREEMENT 27.12.57
COMMENCEMENT OF COALING 21.2.58
COMPLETION OF COALING 11.11.58
COMPLETION OF RESOILING 9.5.59
SITE HANDED BACK TO AGRICULTURE 19.5.60
FINAL DEREGISTRATION OF SITE

COPIES TO	DATE	INITIALS
Mining Records (2)		
R.L. Surveyor (1)		
Geological Survey (1)		

Spec. No.
B10
C90
The Haigh Moor
C90

APPENDIX I
BARUGH GREEN & EXT OPENCAST
SITE & DEVELOPMENT OVERLAY

