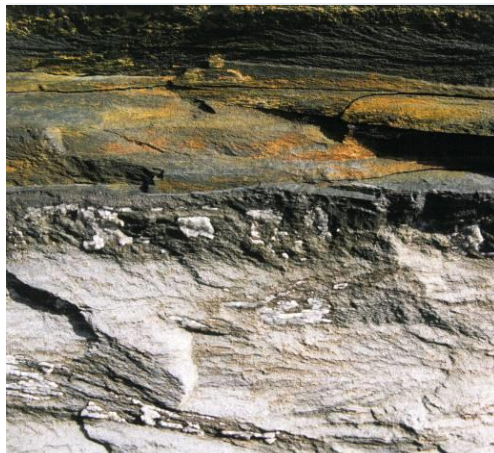


**176 – 182 Main Street,
Plains**

**Mining Stability Report
Including Coal Mining
Risk Assessment**

February 2022



JWHROSS

CONTROL SHEET

CLIENT: Aspire Construction (Scotland) Ltd

PROJECT TITLE: 176-182 Main Street, Plains

REPORT TITLE: Mining Stability Report including Coal Mining Risk Assessment

PROJECT REFERENCE: 147362/GL/J/R1

Issue and Approval Schedule:

ISSUE 1	Name	Signature	Date
Prepared by	Donald Robertson Senior Mining Engineer	Signed copy held on file	25/02/2022
Reviewed by	Dave Milne Principal Mining Engineer	Signed copy held on file	25/02/2022
Approved by	Alan Blair Partner	Signed copy held on file	25/02/2022

Revision Record:

Issue	Date	Status	Description	By	Chk	App
2						
3						
4						
5						

This document has been prepared in accordance with procedure OP/P02 of the *Fairhurst Quality and Environmental Management System*

This document has been prepared in accordance with the instructions of the client, Aspire Construction (Scotland) Ltd, for the client's sole and specific use. Any other persons who use any information contained herein do so at their own risk.

CONTENTS

1.0	Title.....	1
2.0	Instructions	1
3.0	Limitations	1
4.0	Subjects.....	1
5.0	Researches	1
6.0	Geology	2
7.0	Past Mining.....	3
8.0	JWH Ross Past Mining Risk Assessment.....	4
8.1	Definition	4
8.2	Recorded Mine workings.....	4
8.3	Unrecorded Mine Workings.....	5
8.4	JWH Ross Risk Rating Table.....	5
9.0	Future Mining	7
10.0	Old Pit Shafts/Adits	7
11.0	Mine Gas Emissions	7
12.0	Conclusions/Recommendations.....	7

Appendices

Appendix 1 - Drawing No. 147362/9001 – Site Location Plan

Appendix 2 - Drawing No. 147362/9002 – Composite site Plan

Appendix 2 - Coal Authority Mining Report, dated 22nd February 2022 – Ref 51002966457001.

1.0 Title

Report relative to the mining stability under and adjacent to the site at 176-182 Main Street, Plains (including Coal Mining Risk Assessment).

2.0 Instructions

This Report has been prepared by JWH Ross in accordance with the instruction of Messrs. Aspire Construction (Scotland) Ltd; email dated 17th February 2022 refers.

The extent of past mining in minerals other than coal, e.g., ironstone, fireclay and limestone, within Central Scotland is considerable, and often overlooked. This report addresses mining stability in relation to all mineral extraction. It is particularly noted that subsidence damage caused by the extraction of minerals other than coal is not covered by the Coal Mining (Subsidence) Act 1991.

This Report includes a Coal Mining Risk Assessment, as may be required under the Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2008, where a project is located within a Coal Mining Development Referral Area.

3.0 Limitations

This Report is for the private and confidential use of the Client(s) for whom the Report is undertaken and should not be reproduced in whole or in part, or relied upon by third parties for any use whatsoever. JWH Ross accepts no duty or responsibility (including negligence) to any party other than the stated Client(s) and disclaims all liability of any nature whatsoever to any such party in respect of this Report.

The Report is based on the geological and mining records at present available. The contents of the Report are believed to be accurate but since mining records and information for this District may be incomplete, we cannot accept responsibility for any insufficiency or inaccuracy in the information provided.

We must advise that this Report only examines the solid geology and associated minerals; it is not to be construed as inferring that the engineering or chemical properties of the natural or man-made superficial deposits are satisfactory or otherwise, since these latter matters are outwith the scope of our Brief.

4.0 Subjects

The Subjects comprise a vacant parcel of land on the south side of Main Street in the village of Plains near Airdrie, North Lanarkshire. The site forms an elongate wedge shape bound by the A89 Main Street to the North and Glasgow/Edinburgh Argyll rail line to the south. The site is shown bound in red on appended Drawing No. 147362/9002 and is approximately centred on National Grid co-ordinates 279967 666953.

5.0 Researches

In connection with this investigation we have researched and taken into account information from the undernoted sources:-

- Published geological maps, namely, County Series Lanarkshire VIII NE; National Grid Series NS 76 NE; BGS 1:50,000 Series Sheet 31W (Airdrie) – Solid, 1992; and the BGS online Onshore Geoindex;
- Historical Ordnance Survey topographical maps prepared to scales of 1:2500 and 1:10560;
- Memoirs of the Economic Geology of the Central Coalfield of Scotland (Area V), published in 1926;
- Abandonment plan catalogues, mine plan records and previous mineral investigation Reports held in the mining Archives of JWH Ross;
- Non-confidential borehole data held by the British Geological Survey;
- Coal Authority Mining Report, dated 22nd February 2022 – Ref 51002966457001.

6.0 Geology

According to published geological map information, the solid strata underlying the Subjects belong to the Middle Coal Measures Formation of the Carboniferous Period, these rocks being sedimentary in nature and consisting of sandstones, siltstones and mudstones interspersed with ironstones and numerous seams of coal. The general dip of the strata hereabouts is towards the northwest, albeit at a shallow gradient of around 5 degrees from the horizontal.

The continuity of the strata in the vicinity of the site has been disrupted by geological faulting, with one such fault indicated on the relevant County Series Geological map to occur a very short distance to the west of the site boundary on a northwest to southeast trend, displacing the strata on the east side of the fault downwards by around 6 fathoms (11 metres). The approximate position of this fault has been plotted on appended Drawing No. 147362/9002.

We should explain the nature of geological faults and the uncertainties which attend their precise position underground and at the surface. Faults are planes of movement about which adjacent blocks of rock strata have moved relative to each other. They are seldom vertical and commonly consist of zones, perhaps up to several tens of metres wide, containing several fractures. The portrayal of faults as a straight line is therefore a generalisation. Geological faults in this area are of ancient origin and are today mainly inactive.

In order that the relationships between each mineral horizon may be better appreciated, we have shown below, in tabular form, the general succession together with the average thickness and approximate depths to the principal seams, with the Airdrie Blackband Ironstone taken as a convenient datum. This section is given as a guide only since the seam thicknesses and strata intervals may vary locally:-

Seam	Average Thickness (m)	Approx. Depth (m)
<i>Airdrie Blackband Ironstone</i>	0.3	0 - datum
<i>Virtuewell Coal</i>	0.6	22.5
<i>Ladygrange Coal</i>	0.5	36
<i>Kiltongue Musselband and Parrot Coal</i>	0.6	47.5
<i>Kiltongue Coal (with partings)</i>	2.7	61
<i>Upper Drumgray Coal</i>	0.5	76
<i>Lower Drumgray Coal</i>	0.6	93
<i>Shotts Gas Coal</i>	0.3	103

<i>Unnamed Coal</i>	0.3	112
<i>Balmoral Coal</i>	0.5	122
<i>Crofthead Slatyband Ironstone</i>	0.3	169.5

The relevant National Grid Series geological map for the area indicates that the Airdrie Blackband Ironstone outcrops to the north of the site, at the approximate position shown on appended Drawing No. 147362/9002. Taking account of the prevailing strata dip towards the northwest, an outcrop position as such infers that this seam will not be present beneath the site, having been eroded away at some time in the past.

The conjectural outcrop line of the underlying Virtuewell Coal is not shown on any of the relevant geological maps in the vicinity of the Subjects, most likely due to the presence of a large Quartz Dolerite igneous intrusion which is mapped to the south of the site. However, as the Airdrie Blackband is “off” beneath the site as explained above, we would anticipate that the Virtuewell Coal will form the topmost significant mineral horizon beneath the Subjects.

A lack of site specific information prevents us from establishing the depth of the Virtuewell Coal beneath the Subjects. However extrapolation from the conjectural outcrop of the Airdrie Blackband Coal to the north of the site, taking account of the approximate strata dip angle and separation between this seam and the Virtuewell Coal as shown in the table above, places the Virtuewell Coal at a very approximate depth of around 12 to 15 metres below rockhead beneath the site.

According to the BGS online Onshore Geoindex, the natural superficial strata underlying the Subjects comprise Glacial Till. A lack of site specific borehole information prevents us from determining the thickness of the superficial deposits beneath the site, however historic boreholes sunk to the southwest of the site, the journals of which being held in the archive of the BGS, recorded rockhead at approximate depths of between 6 and 12 metres.

7.0 Past Mining

Our search of Abandoned Mine Plan Catalogues, together with records and plans held in the Archives of JWH Ross has revealed that mineral extraction has taken place beneath or in the vicinity of the Subjects in the Lower Drumgray Coal and the Crofthead Slatyband Ironstone. These operations were carried out from the Brownieside Colliery via the Longwall system of mining until the very early years of the 20th century.

We should explain that where the Longwall method is employed the seam is completely extracted and the strata overlying the mined area are allowed to collapse. As a result thereof, subsidence of the ground surface is usually complete shortly after the extraction of the seam. Access roadways are provided and maintained through the worked out area, but these roadways quickly collapse after maintenance of them ceases, except in the case of workings at shallow depths where, depending on the nature of the superincumbent strata, they may remain intact for a considerable period after the cessation of workings. In such cases when the old underground roadways eventually collapse, isolated plump holes or sits may appear on the surface ground.

Taking account of the above, together with the considerable depth at which the mining operations took place, we are of the opinion that all surface ground movement associated with the mining of the Lower Drumgray and Crofthead Slatyband Ironstone beneath the site will have long since come to an end.

We should point out, however, that the winning and working of the minerals in this District commenced an extremely long time ago, before it became a statutory requirement to keep plans of mines (1850) and to lodge with the Secretary of State all plans of abandoned mines (1872). Consequently, the plan

record information at our disposal may be incomplete and the possibility that early uncharted workings may have taken place must be fully considered.

In the assessment of mineral stability, we are of the opinion that cognisance need only be taken of the potential for workings in the Virtuewell Coal. The geological memoir for the area, dated 1926, suggests that the Virtuewell Coal was once considered “*an excellent coal in this district, and of a tolerably constant thickness of 2 or 2½ ft.*”

The seam has been subject to extensive past extraction in the Plains area, with the nearest known workings having taken place around 140 metres to the north of the site. We would therefore consider that there is a reasonable degree of likelihood that the Virtuewell Coal may have been subject to uncharted extraction beneath the site at some time in the past.

8.0 JWH Ross Past Mining Risk Assessment

The information provided above in Section 6 (Geology) and Section 7 (Past Mining) forms the basis for the current assessment of mining instability risk.

8.1 Definition

“Risk” is a combination of the likelihood of an “occurrence” and the assessment of the severity of the consequences. This can be discussed with reference to a variety of scenarios, i.e., risk to life, risk to property and risk of financial loss.

The magnitude of risk relative to each scenario will depend on a number of factors (such as accessibility to personnel, existence of structures or the interruption of services). In addition the perception of risk will depend on such considerations as the background knowledge of the persons involved and the degree of their involvement.

The assessment of risk to proposed or existing surface development from subsidence effects due to historic mining is a difficult process requiring significant professional judgement and experience. This process is complicated by the fact that the information needed to make an assessment with a high degree of confidence is incomplete and involves uncertainty.

Unless otherwise stated, the JWH Ross risk rating of potential mining subsidence makes the following presumptions that the risk:

- is derived from underground mineral workings (including coal)
- excludes the risk of mine entries (covered separately in our separate section on old shafts and adits)
- relates to typical residential development
- excludes likelihood of occurrence within a timeframe

8.2 Recorded Mine workings

Where “Abandonment” or “Unsigned” mine plan record information exists, the principal contributing factors that influence the assessment of potential future mining subsidence are:

- The thickness of the mineral
- The inclination of the strata
- The extraction height of the workings

- The number of seams worked and any interaction between them
- The mining technique utilised
- The extraction ratio
- Roof conditions
- The date of the workings
- The extent of mine workings and the perceived accuracy thereof
- The layout of the workings in relation to the proposed development
- The thickness and nature of overlying rock strata
- The thickness and nature of overlying superficial deposits
- The condition of the working (void, collapsed, partially collapsed)
- The influence of geological faults and igneous intrusions
- Information obtained from boreholes

8.3 Unrecorded Mine Workings

Early mining was somewhat secretive due to lack of legislation regarding the keeping of plan records and rivalry between mining companies. Early mining was also generally at shallow depth in the best and thickest seams.

Under the “Past Mining” section of the Coal Authority Report may be/is contained the sentence *“However you may wish to know that the property is in an area where coal is believed to exist at or close to the surface that may have been worked at some time in the past”*. This is a direct reference to the possible presence of unrecorded extraction, i.e., workings that may have taken place prior to the time that it became a statutory requirement to keep or lodge Abandonment Plans.

An assessment of the potential for shallow unrecorded workings to exist must take into account additional wider ranging information sources and factors, including but not limited to:

- The degree of economic importance of the relevant seams to the early mineral operators
- Local thickness and quality of the seam(s) in question
- Evidence that may be obtained from plan record information in the wider surrounding area, e.g., did the up-dip recorded workings encounter “old waste”?
- The position of known old pit shafts and adits in the locality in relation to geological structure and recorded/unrecorded mining
- Borehole data on a wider basis providing information on the thickness and quality of the seam

8.4 JWH Ross Risk Rating Table

The table that follows below presents a summarised risk assessment of past mining activity (including coal mining) taking into account the information set out in the previous sections of this Report.

Column A represents the likelihood of an abandoned mine working being present (within the uppermost sequence of strata) under or within lateral influencing distance of the site. The 0 – 5 rating below is based on the following:-

- 0 – Underlying strata sequence known to be devoid of workable seams
- 1 – no workable seams recorded or suspected
- 2 – workable seam present, but no workings recorded. Unrecorded extraction unlikely
- 3 – workable seam present - condition unknown
- 4 – workable seam present and unrecorded workings suspected
- 5 – workings recorded or unrecorded workings established

Column B represents the estimated depth range. The 0 – 5 rating is based on the following:-

- 0 – seam/workings outwith critical depth
- 1 – seam/workings at or just within critical depth
- 2 – seam/workings with relatively high ratio of overlying rock strata to extraction height
- 3 – seam/workings with relatively low ratio of overlying rock strata to extraction height
- 4 – seam/workings close to outcrop
- 5 – seam/workings at outcrop

N.B. Critical depth is normally taken to equate to overlying rock strata being 10 times the extraction height, however, this can vary considerably due to the influence of other factors, e.g., the method of extraction.

Column C represents the overall Risk Rating ($C = A \times B$). The 0 – 25 rating is a simplified classification system which may allow the site to be “cleared” with regard to the development or may identify aspects that should be considered in more detail or investigated further. The 0 – 25 rating provides the following general risk category:-

- 0 Negligible
- 1 – 5 Very low
- 6 – 10 Low
- 11 – 15 Moderate
- 16 – 20 High
- 21 – 25 Very High

The implications of the above categories in relation to the current proposals/situation are expanded in the Summary/Conclusions Section at the end of this Report.

Table 1 - Past Mining Risk Assessment

176 – 182 Main Street, Plains	Column A Likelihood of workings.	Column B Estimated depth range	Column C (A x B) Overall Risk Rating
Assessed Category of Subjects	3 - 4	2 - 3	<u>6 - 12</u>

9.0 Future Mining

It is our understanding that there is no underground mining presently taking place under or in proximity to the site. On the basis of current economics, available technology and planning regulations, we consider that the possibility of underground mining can be ruled out in the foreseeable future.

10.0 Old Pit Shafts/Adits

We have located no plan information to indicate the presence of any old pit shafts or mine entrances either within the site boundaries or in such close proximity as to have an influence on surface stability. Similarly, the Coal Authority comment that there are no known coal mine entries within, or within 20 metres of, the boundary of the property.

11.0 Mine Gas Emissions

The Coal Authority have confirmed that they have no record of a mine gas emission requiring action by the Coal Authority within the boundary of the property.

12.0 Conclusions/Recommendations

Our overall past mining risk assessment places the site of the Subjects in the category of Low to Moderate. In relation to the current proposal this may be reasonably interpreted as follows:

The presence of recorded workings has been established in the Lower Drumgray Coal and the Crofthead Slateyband Ironstone beneath the site of the Subjects; however, these operations were undertaken at considerable depths, such that any associated surface ground movement will have long since come to an end and no further risk need be apprehended therefrom.

The topmost significant mineral seam beneath the site, the Virtuewell Coal, is known to have been a high quality coal which has been extensively extracted in the wider area and the possibility of it having been extracted by unrecorded means beneath the site therefore cannot be ruled out. Our assessment of the depth of the Virtuewell Coal beneath the site is based on very limited information but would suggest that any workings therein will have a sufficient thickness of overlying rock strata to prevent any future collapse from migrating to the surface and manifesting as ground movement.

However, the geological structure within the shallow rock strata is poorly defined and of a highly conjectural nature in the vicinity of the Subjects, and we are unable to establish beyond doubt that the Virtuewell is sufficiently deep to guarantee that no surface ground movement will occur in the event that uncharted workings have taken place therein.

We would therefore recommend that boreholes be undertaken at the site in order to:

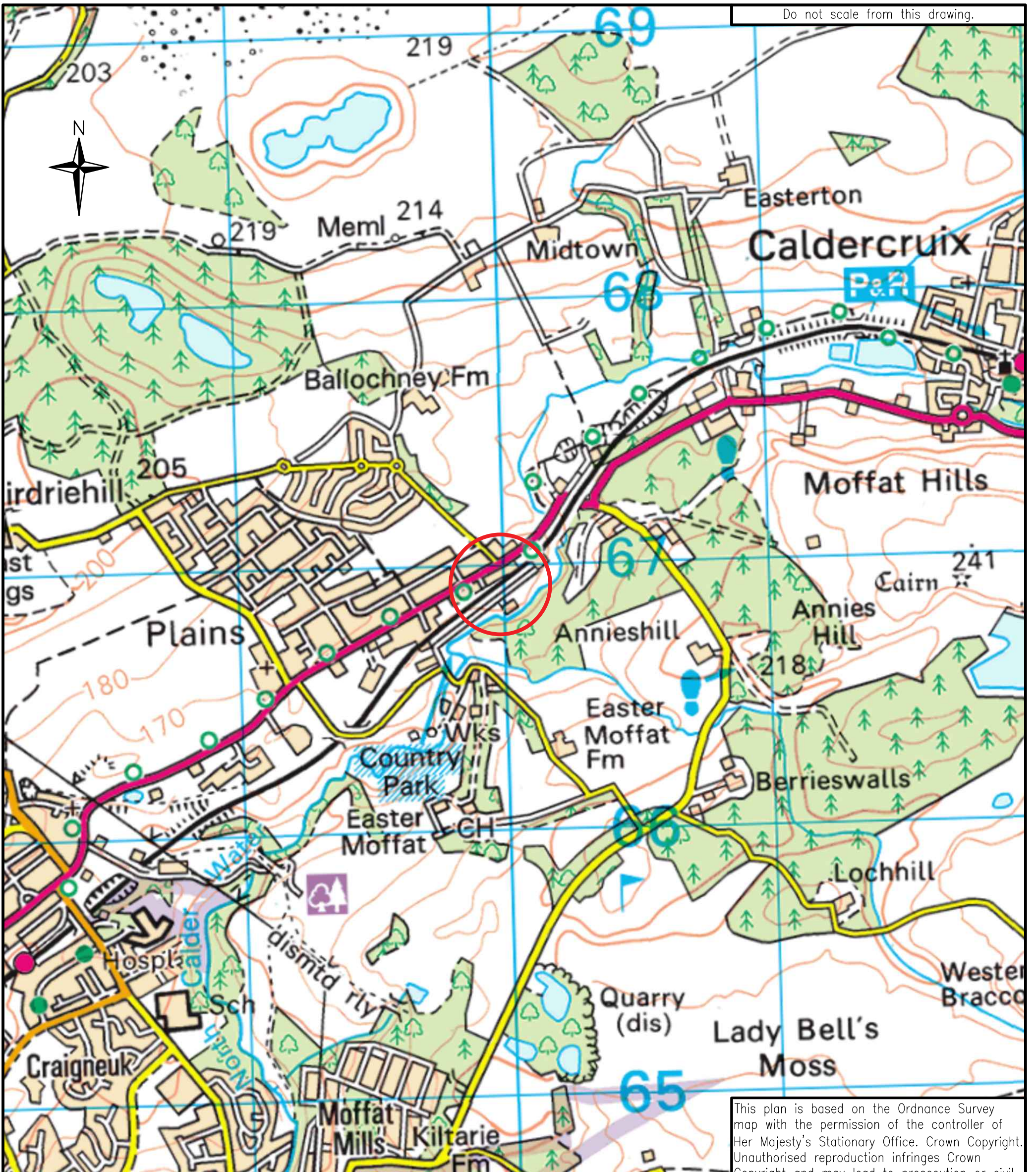
1. Confirm the condition of the Virtuewell Coal beneath the site and ascertain whether any past workings have taken place within the seam.
2. Establish the depth to rockhead and the Virtuewell Coal with a view to confirming a sufficient thickness of superincumbent rock strata is present to ensure the surface stability of the site.

All mineral investigation works at the site should be designed and monitored by a suitably qualified and experienced mining engineer in cognisance of the findings of this report.

Appendix 1

Drawing No. 147362/9001 – Site Location Plan

Do not scale from this drawing.



This plan is based on the Ordnance Survey map with the permission of the controller of Her Majesty's Stationary Office. Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings.

Rev.	Date	Description	Drawn	Checked	Approved

Client:
ASPIRE CONSTRUCTION (SCOTLAND) Ltd

Project Title:
176-182 MAIN STREET, PLAINS

JWHROSS

225 Bath Street,
 GLASGOW, G2 4GZ
 Tel: 0141 285 8700 Fax: 0844 381 4412

Scale at A4: NTS	Status: For Report
---------------------	-----------------------

Drawn: SY	Checked: DR	Approved: DM
--------------	----------------	-----------------

Date: 25/02/22	Date: 25/02/22	Date: 25/02/22
-------------------	-------------------	-------------------

Drawing No.: 147362/9001	Revision: -
------------------------------------	----------------

Drawing Title:
SITE LOCATION PLAN

176-182 Main Street, Plains

Mining Stability Report including Coal Mining Risk Assessment, February 2022

JWHROSS

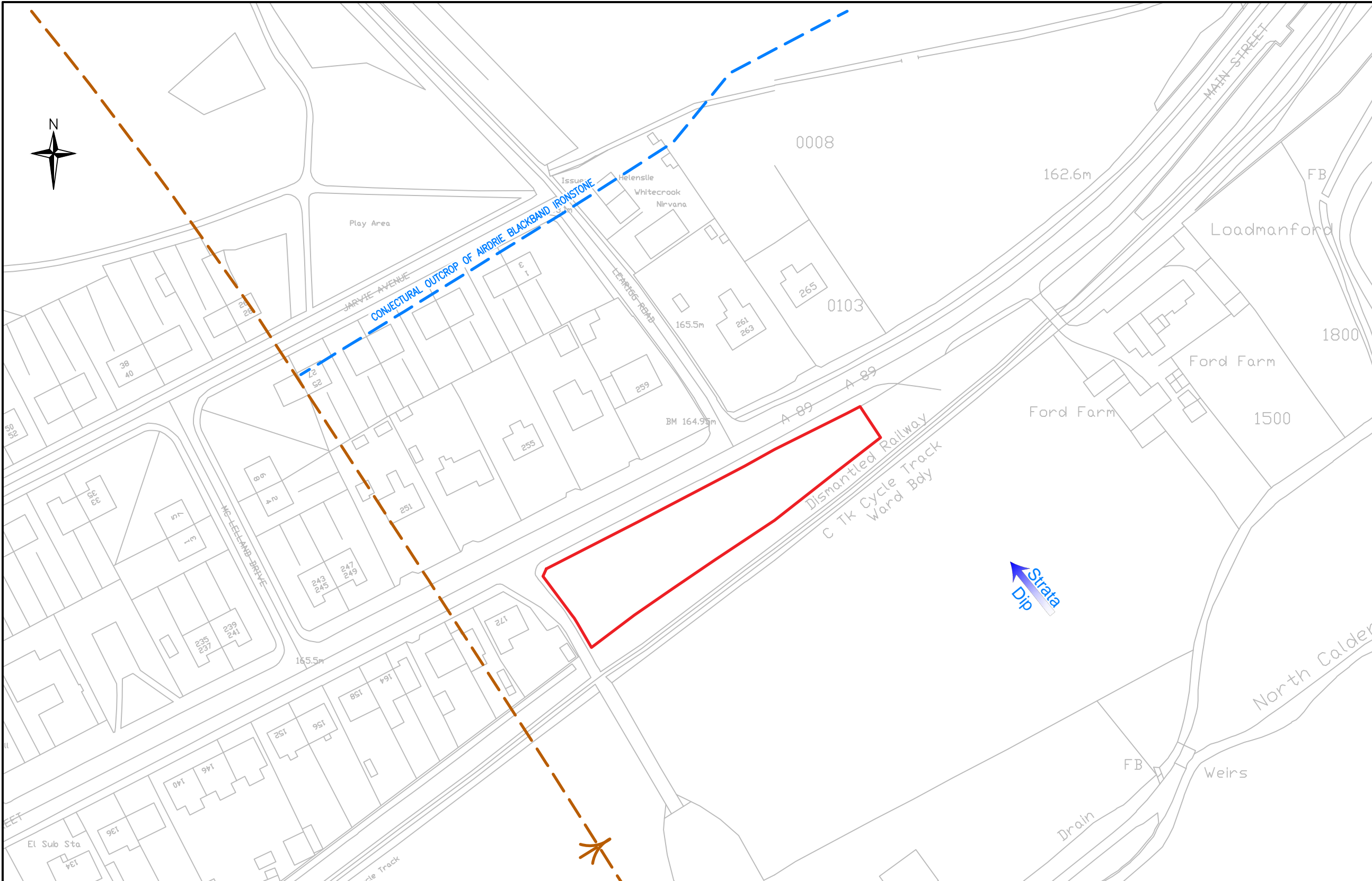
Appendix 2

Drawing No. 147362/9002 – Composite Site Plan



Do not scale from this drawing.

- LEGEND**
- SITE BOUNDARY
 - - - CONJECTURAL MINERAL SEAM OUTCROP
 - - - CONJECTURAL POSITION OF GEOLOGICAL
 - - - FAULT (ARROW DENOTES DOWNTHROWN SIDE)



This plan is based on the Ordnance Survey map with the permission of the controller of Her Majesty's Stationary Office. Crown Copyright. Unauthorised reproduction infringes Crown Copyright and may lead to prosecution or civil proceedings.

Rev.	Date	Description	Drawn	Checked	Approved

Notes:

Client:
ASPIRE CONSTRUCTION (SCOTLAND) Ltd

Project Title:
176-182 MAIN STREET, PLAINS

Drawing Title:
COMPOSITE SITE PLAN

JWHROSS

225 Bath Street,
GLASGOW, G2 4GZ
Tel: 0141 285 8700 Fax: 0844 381 4412

Scale at A3: 1:1250	Status: For Report
Drawn: SY	Checked: DR
Date: 25/02/22	Date: 25/02/22
Approved: DM	Date: 25/02/22

Drawing No.: **147362/9002** Revision: **-**

176-182 Main Street, Plains

Mining Stability Report including Coal Mining Risk Assessment, February 2022

The logo for JWHROSS, featuring the company name in a blue serif font. To the right of the text is a small blue square. Above the logo is a thick blue horizontal bar that spans most of the width of the page header.

Appendix 3

Coal Authority Mining Report, dated 22nd February 2022 – Ref 51002966457001





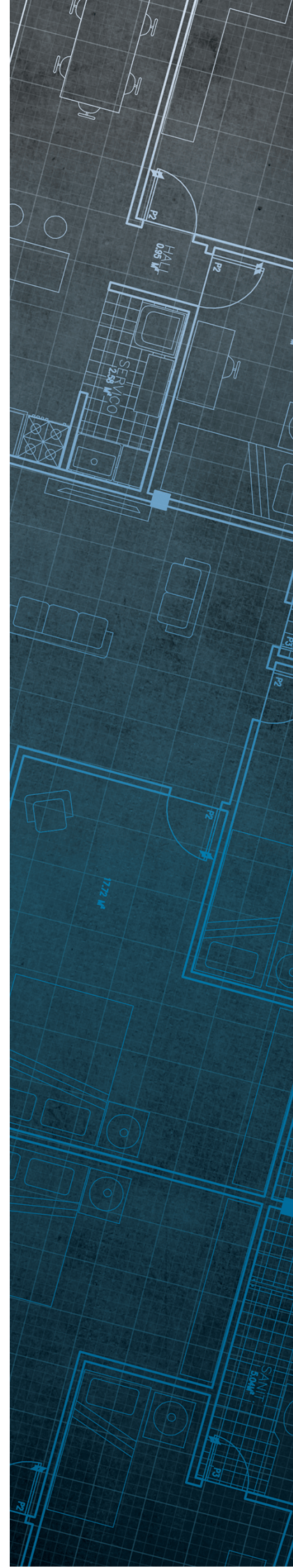
The Coal
Authority

Consultants Coal Mining Report

176 - 182 Main Street, Plains
North Lanarkshire

Date of enquiry: 22 February 2022
Date enquiry received: 22 February 2022
Issue date: 22 February 2022

Our reference: 51002966457001
Your reference: 147362



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

FAIRHURST

Enquiry address

176 - 182 Main Street, Plains
North Lanarkshire

How to contact us

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

200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

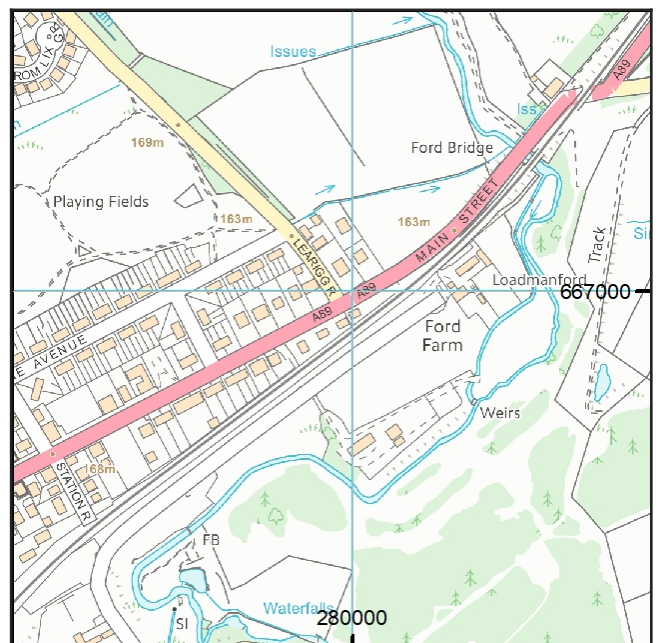
www.groundstability.com

 @coalauthority

 /company/the-coal-authority

 /thecoalauthority

 /thecoalauthority



Approximate position of property



Reproduced by permission of Ordnance Survey on behalf of HMSO. © Crown copyright and database right 2018. All rights reserved.

Ordnance Survey Licence number: 100020315

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
STEPENDS	LOWER DRUMGRAY	Coal	6VEV	109	Beneath Property	3.9	North	84	1889
unnamed	SLATEYBAND IRONSTONE	Ironstone	7B9S	169	Beneath Property	8.2	South-West	80	1900
unnamed	SLATEYBAND IRONSTONE	Ironstone	7B9B	187	North	4.1	North-West	90	1897

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:

5231	5246	S2305
S3613	S1072	S3544
S3999	S3762	S2585

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

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 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.

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.

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

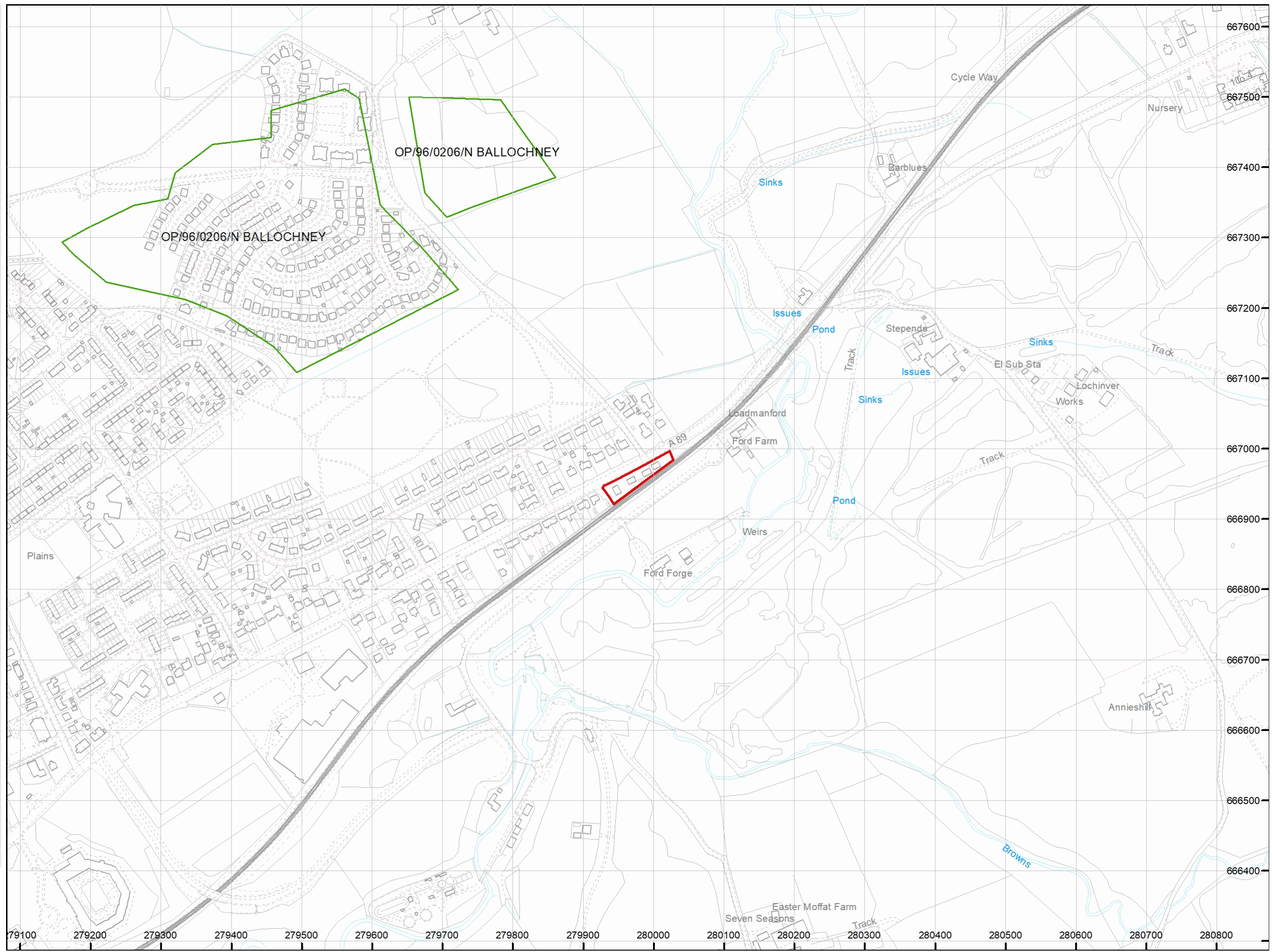
Relevant notices which may affect the property and any subsequent notice of retained interests in coal and coal mines, acceptance or rejection notices and whether any compensation has been paid to a claimant.

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 
- Opencast mine licence area 

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



MINING & MINERAL STABILITY ASSESSMENT • GROUND STABILISATION • MINERAL RESERVE
APPRAISAL • MINERAL & WASTE PLANNING • MINERAL ESTATES MANAGEMENT & VALUATION •
SURVEYING SERVICES

www.jwhross.co.uk

225 Bath Street
Glasgow
G2 4GZ
Tel: 0141 285 8700
Fax: 0844 381 4412
E: info@jwhross.co.uk

JWHROSS