

24028-PWAG-00-XX-LTR-G-7000-P01

Richard Calderbank
Applethwaite Limited
Sceptre House
Sceptre Way
Bamber Bridge
Preston
PR5 6AW

24 April 2026

Dear Richard,

Re: Mine Entry Investigation at Whalley Road.

Background

PWA Geo-Environmental Ltd (PWAG) was commissioned by Applethwaite Limited to undertake an investigation in order to locate two mine entries for a proposed residential development located at land off Whalley Road. The two mine entries had been previously recorded by the Mining Remediation Authority (MRA) in the northeast of the site. The development is proposed to be a 77 residential detached and semidetached housing development with significant area of the site being dedicated to public open space. A proposed layout is included as drawing no 23-154-P02 within **Enclosure 1**.

Summary

The investigation carried out located the mine entry 376434-002 (shaft) and was unable to locate mine entry 376434-001 (adit). The shaft does not pose a risk to the proposed properties, however, poses a minor risk to the public open space, therefore should be treated. To treat the shaft, it should be capped. The MRA should be consulted within the capping process and agree to the proposed cap designs.

The adit could potentially pose a risk to the development depending on a number of factors, such as its bearing/orientation and dip. The adit will require further investigation in order to confirm or rule out the risk posed. To locate the adit and record its direction, a gravity survey (or other geophysical survey) could be undertaken.

It is recommended that intrusive open hole rotary drilling is undertaken to review the risk of potential shallow historical coal mining activities, to further locate the adit and to allow for a mine gas risk assessment to be completed.

Mining Remediation Authority Records

As part of a Phase 1 Coal Mining Risk Assessment for the site (24028-PWAG-00-XX-RP-G-7000-P01) a Consultants Coal Mining Report was obtained from the MRA. Included within this report was a list of all recorded mine entries within or near to the site. Two of these entries were within close proximity to the proposed development, adit 376434-001 and shaft 376434-0002.

376434-001

Recorded as an adit at the grid reference 376295 434756. The MRA records indicate that it has been filled and caved at some time in the past. While no bearing is provided, the adit is shown to drift in a southeast direction.

376434-002

Recorded as a shaft at the grid reference 376335 434732. There are no records regarding any treatment of the shaft.

MRA location records are provided with a 10 m area of accuracy. As such the entries are expected to be located within a 10 m radius of the provided grid reference.

Fieldwork

The investigation was undertaken on the 9th of April 2026 where a 9t excavator was used to scrape back topsoil and made ground to expose the recorded mine entries. The works were undertaken under a MRA permit to enter or disturb Mining Remediation Authority interests. Permit number 31369 is included in **Enclosure 2**.

All excavations and the mine shaft location were surveyed. They are shown on drawing No 24028-PWA-00-XX-DR-G-7001-P02 included in **Enclosure 1**.

Investigation Findings

The shaft (376434-002) was located by excavating the centre of a bell pit surface feature. Approximately 0.5 m of made ground (mining spoil) was scraped back to expose an extremely weak moderately weathered thinly bedded orangish brown and light grey mudstone with moderate rust staining and the bedding was undulated / wavy. The dip and strike was recorded between 60/162SE and 52/165SE. The entry comprised of darker material within the rock, when excavated into there was approximately 0.5 m of waste, comprising bin bags containing hay and grass cuttings, this was then underlain by more mining spoil. The shaft was roughly circular and the diameter was measured as 3 m east to west and 4 m north to south. Figure 1 and 2 show photographs of the shaft.



Figure 1 Looking west at 376434-002



Figure 2 Looking north at 376434-002

The investigation for the adit was unsuccessful, all potential surface features and depressions within and nearby the 10 m area of accuracy provided by the MRA were explored. Ground conditions comprised mining spoil and or residual clay soil around 1m thick, with the mudstone bedrock encountered approximate 1 m below ground level.

Mine Entry Risks

A potential zone of influence has been calculated for the mine entries, based on a collapse propagating out at a 45° angle from rock head. For the adit entrance, as it has not been located, the potential zone of influence is based on the 10 m area of accuracy and covers any potential position of the adit within the area. The position

and depth of the adit itself below the site needs to be understood. The zone of influence is shown on the mine entry investigation plan, drawing no 24028-PWA-00-XX-DR-G-7001-P02 included within **Enclosure 1**.

The zone of influence from the mineshaft and adit entrance does not affect any of the proposed plots, however they are still located within public open space. If the shaft collapsed there is the potential for creating a hazardous depression or hole at surface. Therefore, the mineshaft should be treated by capping. The treatment required for the adit will depend on its depth and location beneath the development.

It is expected that the adit extends horizontally to enter potential workings of the Upper Mountain coal which runs below the proposed development. The MRA also indicate this adit to drift to the southeast. As such, there is the potential that it poses a risk to the development. This is dependent on the dip and bearing of the adit, as if it is shallow below the properties, without suitable rock cover there is a risk of collapse. Plots 63,64,72 and 74 are the most likely to be affected.

Worked coal seams are a source of ground gases. The mine entries can act as a preferential pathway for the ground gasses. Potentially allowing ground gasses to accumulate with residential properties, leading to asphyxiation.

Conclusion and Recommendations

The investigation carried out located the mine entry 376434-002 (shaft) and was unable to locate mine entry 376434-001 (adit). The shaft does not pose a risk to the proposed properties, however, poses a minor risk to the public open space, therefore should be treated. To treat the shaft, it should be capped. The MRA should be consulted within the capping process and agree to the proposed cap designs.

The adit could potentially pose a risk to the development depending on a number of factors, such as its bearing/orientation and dip. The adit will require further investigation in order to confirm or rule out the risk it poses.

It is recommended that future works carried out should comprise a gravity survey to locate the adit and its bearing, followed by probing the adit by rotary drilling to calculate its depth, and the depth of competent rock cover above it.

It is also recommended that the MRA are contacted to see if they have any further, more detailed information, on the adit or historical coal mining activities at the site.

Potentially worked coal seams were outside the scope of this investigation, however it is recommended that a phase 2 Coal Mining Risk Assessment (which includes intrusive rotary open hole drilling) is undertaken to assess the potential for shallow unrecorded coal mining below the proposed development. As part of the investigation, monitoring points should be installed, to allow a ground gas risk assessment to be undertaken.

If you have any questions regarding the above, please do not hesitate to contact us.

Yours sincerely,



Charlie Kelly

Geo-Environmental Engineer

For and on behalf of PWA Geo-Environmental Ltd

Enclosures

Enclosure 1 – Drawings

Enclosure 2 – Mining Remediation Authority Permit

Enclosure 1 - Drawings

ACCOMMODATION SCHEDULE							
Ref	House Type	Beds	Sq. Ft	FMV	Affordable	Total Beds	Total SqFt
Thu	Thursby Semi/Mews	3	1023	7		21	7161
Als	Alston - CT	3	1071	4		12	4284
Few	Yewdale	3	1107	5		15	5535
Fr	Firbank	3	1154	5		15	5770
Cas	Casterton Det	4	1231	1		4	1231
Cas DA	Casterton Det	4	1231	3		12	3693
Win	Windermere Det	4	1363	3		12	4089
Lev	Levens	4	1430	2		8	2860
Mil	Milburn	4	1468	6		24	8908
Ken	Kentmere	4	1484	2		8	2968
Cal	Calder Outrigger	4	1741	6		24	10446
Cro	Crofton	4	1932	5		20	9660
Hav	Haverthwaite	5	2309	5		25	11545
Bar	Baron	2	760	8	16	6080	
Whi	Whitwell - 7.5%	2	774	8	16	6102	
Thu	Thursby	3	1023	7	21	7161	
Total			54	23		253	
Grandtotal			77	253		97483	

An aerial photograph of the Read Hall estate, overlaid with a semi-transparent map showing building footprints and boundaries. Labels include 'The Stables', 'Coppo Bath', 'The Granary', 'The Chapel', 'Read Hall', 'Path (un)', 'Fish Pond', 'SM', 'Pond', and 'Read Park'. A white arrow points from the top left towards the center of the estate. The map shows a large central hall, several smaller outbuildings, and a large pond to the right. The surrounding area is mostly green fields with scattered trees.

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Key

Application Boundary

Boundary Treatments

	1.8m Brick wall with timber infill panels
	1.8m Timber fence
	1.2m high timber post and rail fence
	Hedge Planting refer to detailed landscaping layout for exact details

NB. Red edge removed from this drawing for clarity of boundary details.

Hard Landscaping

_____ Access Road / Footwa

Private Footpath/Patio - Paving Slabs

Private Driveway/Parking

Private Shared Drive

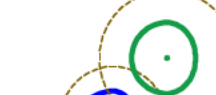
● Denotes dual aspect ty

Existing neighbouring buildings

Topographical survey line (brown lines) measured where possible

Ordnance survey line (black lines)

Existing Trees



Trees to be retained

Trees / Bushes to be removed

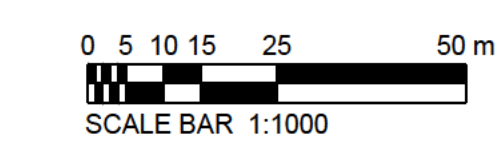
Affordable housing location

 Affordable housing plot

 Existing development

Planning

General Arrangements Colour

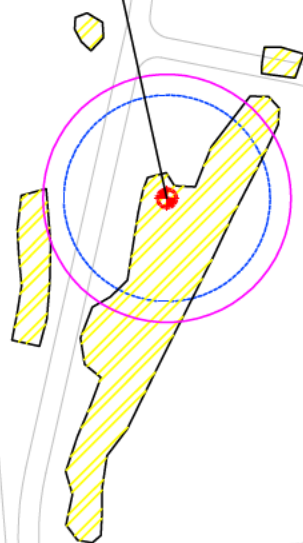


**URBAN
DESIGN
GROUP** REGISTERED PRACTICE

Drawing No.	23-154-P02	Rev.	-
Scale:	1:1000		
Date:	Jan 2025		
Sheet Size:	A0		



376434-001
ADIT NOT LOCATED.
ADIT POSITION BASED OF MRA LOCATION.
APPROXIMATELY 1m TO BEDROCK.
ASSUMED ADIT WIDTH OF 3m RESULTS IN
12m MAXIMUM POTENTIAL Z.O.I FOR ADIT
ENTRANCE, HOWEVER ADIT IS LIKELY TO
RUN SOUT EAST, INCREASING THE Z.O.I.



376434-002
3-4m DIAMETER WIDE SHAFT ROUGHLY
CIRCULAR BUT UNEVEN.
DEPTH TO ROCK APPROXIMATELY 0.5m.
4.5m RADIUS Z.O.I.



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7. MINE ENTRY AND ADIT POSITION BASED OFF MINING REMEDIATION RECORDS. THESE RECORDS ARE FOR INDICATIVE PURPOSES ONLY.
8. INVESTIGATION RECORDS SURVEYED IN.
9. THE POTENTIAL Z.O.I INDICATED FROM THE ADIT IS ONLY SHOWN FROM THE ENTRY. GIVEN IT IS LIKELY TO BE A LINEAR FEATURE THE Z.O.I WILL EXTEND LINEARLY FROM THE ADIT ENTRANCE. HOWEVER SINCE IT WAS NOT FOUND IT HAS NOT BEEN SHOWN. THE MRA RECORDS SHOW THAT IT SHOULD EXTEND SOUTH EASTERLY.

KEY:

-  ADIT (376434-001)
-  MINE ENTRY (376434-002)
-  10m ZONE OF INACCURACY
-  POTENTIAL ZONE OF INFLUENCE (Z.O.I)
-  AREA EXPLORED 09/04/26 USING 9T EXCAVATOR

P02	23/04/26	ADDED PROPOSED LAYOUT	CK	AJ
P01	14/04/26	INITIAL COPY	CK	IP
Rev	Date	Remarks	Drawn	Chkd

P W A / GROUP

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STRUCTURAL THE CROSSINGS, CROSSHILLS, info@pwagroup.co.uk
GEO-ENVIRONMENTAL KEIGHLEY, BD20 7BW www.pwagroup.co.uk

Client	APPLETHWAITE LIMITED			
Project	LAND NORTH OF WHALLEY ROAD			
Title	MINE ENTRY INVESTIGATION PLAN			
Size	A3	Scale	NTS	Designed
			CK	Checked
			IP	Date
				APR 26
Drawing Status	PRELIMINARY			
Job Number	Originator	Zone	Level	Type
24028	PWA	00	XX	DR
				G
				7001
				P02

Enclosure 2 - Mining Remediation Authority Permit



Mining
Remediation
Authority

Permit to enter or disturb Mining Remediation Authority interests

Permit number: 31369

Site Location:

Land North of, Whalley Road, Read, Burnley, BB12 7RP

Name and Address of Permit Holder:

Eric Wright Group, Applethwaite Limited, Sceptre House, Sceptre Way, Bamber Bridge, Preston, PR5 6AW

This certificate hereby grants the above named Permit Holder a Permit to carry out:

Investigation of two mine entries by excavation (376434-002, 376434-001)

within the Mining Remediation Authority's interests at the identified site location above as shown on the Granted Permit Boundary (overleaf) for the period of **12 months** from the granted date shown below. *The granting of this Permit does not constitute advice given by the Mining Remediation Authority in relation to the proposed operations. It is the Permit Holder's responsibility to obtain appropriate health, safety, environmental, technical and legal advice.*

Conditions:

- Manned entry (into mine entries/workings) is **strictly prohibited**.
- Gas Monitoring (CO, CH₄, CO₂, O₂, H₂S) at the excavations
- Operators undertaking the work must be in possession of this certificate and the Permit boundary plan at the time of works

Signed: William Hopkins Permit Granted Date: 19th March 2026

Permit Expiry Date: 19th March 2027

For and on behalf of the Mining Remediation Authority

Nominated Representative: William Hopkins Permitting Manager.

Mining Remediation Authority, Permitting Office, 200 Lichfield Lane, Mansfield,
Notts, NG18 4RG. Tel: 01623 637450;

E-Mail: LicensingAndPermissions@MiningRemediation.gov.uk



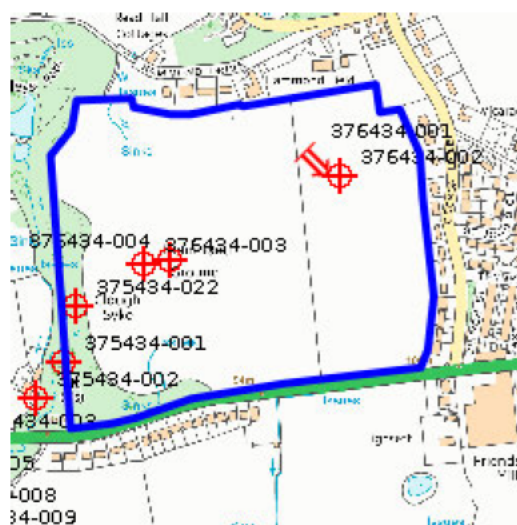


Mining
Remediation
Authority

Granted Permit Boundary

Permit number: 31369

Permit boundary:



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