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CONSULTANCY | ENVIRONMENT
INFRASTRUCTURE | BUILDINGS

Environment Group – Geotechnics

Company Shop and Rula
Developments Ltd
Maple Road, Tankersley
South Yorkshire

Coal Mining Risk Assessment

**Environment Group -
Geotechnics**

Company Shop and Rula
Developments Ltd
Maple Road, Tankersley
South Yorkshire

Coal Mining Risk Assessment

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BIM Reference: LDH-BWB-00-XX-RP-CE-0001_CMRA_P2.0
BWB Projec No.: LDH2179

DOCUMENT ISSUE RECORD

Revision	Date of Issue	Status	Author:	Checked:	Approved:
P2.0	02/05/2017	Final	Albert Quarmyne MSc FGS	Greg Adams MSc CGeol FGS EurGeol RoGEP	Chris Sakalas BSc(Hons) CEng MICE CGeol FGS SiLC SQP
					

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Instruction

BWB Consulting (BWB) was instructed by Company Shop and RULA Developments Ltd (the Client) to carry out a Coal Mining Risk Assessment (CMRA) for the site at Maple Road, Tankersley in South Yorkshire. The assessment has been undertaken to support the planning application for the proposed non-residential development.

Objectives

To assess the site and associated risks and hazards relating to the potential historical coal mining activities within the site boundary.

Site Settings

The site is approximately 10.5km northwest of the Rotherham, and is located at Maple Road, Tankersley in South Yorkshire. It is centred on national grid reference 433466, 399288. The approximate location of the site is shown in **Figure 1** below.



Figure 1: Site Location Plan

The site is approximately square in shape, occupying an area in the order of 3.2 ha. The site is predominantly an open field with areas of dense vegetation. It is bound by dense vegetation and mature trees to the west and north with industrial units beyond to the north, in the south by Maple Court, and the Pilkington AG industrial unit to the east.

A topographical survey shown on drawing number MRT-BWB-00-ZZ-DR-G-0001-S2, revision P1 dated 31/03/2017 (**Appendix 1**), indicates the existing ground levels across the site generally ranged between 158m above ordnance survey (AOD) in the south rising gently to 160m AOD in the north, with a small stockpile also identified in the north east of the site.

Proposed Developments

The proposed development is anticipated to comprise the development of distribution centre with associated two story offices, a balancing pond along the eastern boundary, vehicle and HGV parking, service yards and localised landscaped areas. An Indicative masterplan of the proposed development is presented in **Appendix 2**.

Information Sources

- Drawing No. 6157 – 002: Proposed Development: Indicative Site Layout Plan, dated 28/04/2017;
- Drawing No. MRT-BWB-00-ZZ-DR-G-0001 Rev P1, Topographical Survey: Existing Site Plan, dated 31/03/2017;
- Google earth Pro access – Online Interactive Map, accessed [05/04/2017];

- The Coal Authority (CA) - Online Interactive Map, accessed [05/04/2017] via; <http://mapapps2.bgs.ac.uk/coalauthority/home.html>;
- CA Non-Residential Coal Mining Consultants Report, reference 51001406281001;
- CA abandonment plans:
 - Wentworth Industrial Estate and Extension (opencast), catalogue number 16172;
 - Wentworth Extension I and II (opencast), catalogue number 16782;
 - Rockingham (Incorporating Wharnccliffe Silkstone), catalogue number NE853;
 - Wharnccliffe Silkstone, catalogue number NE612;
- British Geological Survey (BGS) and Office of the Deputy Prime Minister Mineral Resources Map for South Yorkshire (comprising Metropolitan, Boroughs of Barnsley, Doncaster, and Rotherham and City of Sheffield), Scale 1:100,000 accessed [06/04/2017];
- BGS Geological Map Solid and Drift, Sheet SK39NW, Scale 1:10,000;
- BGS Geological Map Solid and Drift, Barnsley, Sheet 87, Scale 1:50,000;
- BGS Geological Map – Online Interactive Map, accessed [06/04/2017] via; <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>; and
- BGS Boreholes Log references SK39NW125 to 127.

Ground Model

A review of Mineral Resources Map for South Yorkshire (Scale 1:100,000), BGS Sheet SK39NW Scale 1:10,000 and Sheet 87 Scale 1:50,000 indicates no superficial deposits at the site. Infilled ground is shown to be present over the site area comprising a variable composition, anticipated to be associated with the historical mine workings at the site. The site is underlain by carboniferous Pennine Lower Coal Measures Formation comprising interbedded grey mudstone, siltstone and pale grey sandstones, with subordinate coal seams, ironstone, seat earth and marine beds. Locally, the bedrock dips 4 degrees east at the site. The coal seams are noted to vary laterally in thickness and composition, and generally occur at shallow depths with less than 50m of overburden cover. A review of the historical BGS boreholes logs SK39NW125 to 127 (**Appendix 3**) located approximately 40m east of the site boundary confirms the above ground conditions. Based on current topographical survey records, CA mine records including abandonment plans and historical logs, the approximate depth of the fill to the competent strata in the opencast area is likely to be in the order of 40m bgl.

Review of the CA Report (**Appendix 4**) and available abandonment records indicate that the site is in an area previously utilised for opencast mining (completed 1991) for two coal seams; the Fenton and Parkgate, with the maximum depth of excavation circa 45m bgl. Coal seams were typically 1.58m in thickness. The associated highwall for the opencast working is indicated to be located across the central to south eastern part of the site orientated approximately north to south. Part of the opencast area has been demarcated as a goaf zone on the CA abandonment plans. This is likely to result from the controlled collapse of the mine roof of voids after the extraction of the coal seams or backstowing as part of the mining operation.

In addition, the site has been undermined by underground mining techniques associated with the following seams:

- Black Mine Ironstone seam (circa 2m in thickness) worked approximately 8m bgl (last worked 1841);
- Parkgate coal seam (circa 1.6m in thickness) worked approximately 20m bgl (last worked 1872);
- Middleton Main coal seam (circa 0.68m in thickness) worked approximately 34m bgl (last worked 1900);
- Silkstone coal seam (circa 1.7m in thickness) worked approximately 106m bgl (last worked 1875);
- Whinmoor coal seam (circa 0.91m in thickness) worked approximately 154m bgl (last worked 1910); and
- Whinmoor coal seam (circa 0.74m in thickness) worked approximately 159m bgl (last worked 1920).

of Specific Coal Mining Risks

Underground Coal Mining

A review of Coal Authority (CA) online interactive map confirmed the site to be within a designated coal mining area. As such a Coal Mining Report was obtained from CA.

	A review of CA report and abandonment plans/records indicate that the site is within the likely zone of influence of six seams at depths of 8m to 156m bgl, last worked in 1920. The six seams were mined via underground techniques and details have already been discussed in the preceding section.
Mine Entries (shafts and adits)	The CA report indicated there are 7no. known coal mine entries within the site boundary. The details of the mine entry types (shafts) and locations are shown on drawing number LDH-BWB-00-XX-ZZ-DR-CE-0001-S2 revision P2 (Appendix 5). Treatment records of the mineshafts are given as either not available or has been filled to an unknown specification. In addition, the CA report shows a further 22no. mine entries located outside the site boundary within the surrounding areas.
Probable Unrecorded Shallow Workings	CA records indicates the possibility of unrecorded shallow mining workings to be present at the site. Refer to the "ground model" section above for details on opencast mining.
Coal Outcrops	CA report indicates the Top Fenton coal outcrop to be present within the site boundary. A review of the CA website shows this coal outcropping centrally through the site. This coal seam is anticipated to have been removed as part of the historical opencast works.
Spine Roadways at Shallow Depth	The CA is not aware of existence of any spine roadways at the site.
Future Underground Mining	The CA is not aware of any proposed future underground mining at the site.
Licence Details	The CA is not aware or hold any licence details for the site.
Section 46 Notices	The CA is not aware of any Section 46 notice details for the site.
Mining Geology	The CA is not aware of any damage arising due to geological faults or other lines of weakness (fissures and breaklines) that may have been affected by coal mining.
Court Orders	There are no current or historic recorded court orders for the site.
Worked Out Opencast	The site is within the boundary of an opencast site from which ironstone and coal have been historically removed. Numerous historical opencast sites are noted to be present around the boundaries of the site as described above in the "ground model" section A summary of opencast workings indicates: • The site is in an area previously utilised for opencast mining (completed 1991) for two coal seams; the Fenton and Parkgate, with the maximum depth of excavation circa 45m bgl. Coal seams were typically 1.58m in thickness. • The associated highwall for the opencast works is indicated to be located across the central to south eastern part of the site orientated approximately north to south. • Part of the opencast area has been demarcated as a goaf zone on the CA abandonment plans.
Coal Mining related Hazards	The CA has no records of coal mining related hazards for the site.
Coal Mining Subsidence	The CA report confirms that they have not received a damage notice or claim at the site or within 50m of the site boundary since 31 October 1994. Given the depth to the shallow worked seam (~34m bgl) during underground mining in the west of site completed in 1920 and opencast mining works finished in 1991 and the presence of goaf (shown on the abandonment plans), there is a potential for depressions at surface level due to void collapse / migration. There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The CA is not aware of any request have been made to carryout preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

Other Information

No other information reviewed.

Mitigation Strategy Proposed and Conclusions

Based on the published records and accounts of coal mining activity within the site and the surrounding area, BWB consider the risks associated with coal mining and ground stability beneath the site are moderate to high. Given the expected depth of shallow opencast workings, underground workings of three seams (Black Mine, Parkgate and Middleton Main), presence of goaf and the thickness of overlying competent geology it is deemed that this represents a considerable risk for surface ground movements.

Intrusive investigations should be undertaken to determine the presence, thickness and strength characteristics of the underlying subsurface soils in the context of the proposed masterplan, confirm the location of the mine entries, delineate the extent of the highwall and determine the potential presence of worked seams within the influence of the surface. This will allow confirmation of the ground model, and facilitate detailed foundation design solutions and establish geotechnical development risks and their associated implications on the development.

APPENDICES

APPENDIX 1
TOPOGRAPHICAL SURVEY – EXISTING SITE PLAN



Station Name	Eastings (m)	Northings (m)	Height (m)
BWB01	433574.989	399232.294	158.182
BWB02	433554.220	399223.660	158.276
BWB03	433467.159	399167.617	159.181

Notes

- Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
- This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
- All dimensions in metres unless noted otherwise. All levels in metres unless noted otherwise.
- Any discrepancies noted on site are to be reported to the engineer immediately.
- No scale factor has been applied to this survey, therefore the os coordinates are to be treated as arbitrary. Please refer to survey station information below for on site control establishment.
- All coordinates and height data relate to OSGB36(15). Control stations are coordinated by means of GPS receiving real time corrections via OS smart net.
- All manhole data is collected from ground level therefore discrepancies may occur. More accurate data is only achievable via confined space entry.
- OS license number: 100022432

Legend

	OS Buildings		Contour Lines
	Surveyed Buildings		Inspection Chamber
	Building		Flow direction and pipe diameter
	Wall		Station and Name
	Kerb Channel Line		Monitoring Borehole
	Top of Kerb		Tree / Bush / Sapling
	Edge of Surface		Area of Vegetation/ Extent of Tree Canopy
	Top of Bank		Hedge
	Bottom of Bank		Body of Water
	Canopy / Overhang		Body of Water from OS
	Line Marking		Spot Level
	Centre Line		Assumed Surface
	Watercourse		Water Drainage Line
	Centre Line		
	Barrier		
	Fence		
	Gate		
	Overhead Powerline		
	Overhead Utilities		

AP

Anchor Point

BO

Bollard

BS

Bus Stop

BT

British Telecom

C

Crest

CL

Cover Level

CMP

Cable Marker

CCTV

Security Camera

CTV

Cable TV

DC

Drainage

DK

Drop Kerb

DP

Down Pipe

Elec

Electric

EP

Electricity Post

ER

Earth Rod

FH

Fire Hydrant

FL

Floodlight

FBW

Fence Barbed Wire

FCB

Fence Closed Board

FCL

Fence Chain Link

FEL

Fence Electric

FMP

Fence Metal Panel

FMR

Fence Metal Railing

FCB

Fence Open Board

FPW

Fence Post & Wire

FSP

Fence Steel Palisade

FWM

Fence Wire Mesh

FFL

Finished Floor Level

FP

Flagpole

Gas

Gas

GV

Gas Valve

GY

Gully

HT

Height

IC

Inspection Chamber

IFL

Internal Floor Level

IL

Invert Level (as a reduced level)

LB

Litter Bin

LP

Lamp Post

MH

Manhole

Mkr

Service Marker

PB

Post Box

PT

Post

RE

Rodding Eye

SP

Sign Post

ST

Stop Tap

SV

Stop Valve

TCB

Telephone Call Box

THL

Threshold Level

TL

Traffic Light

TP

Telegraph Post

TS

Traffic Signal

UTS

Unable to Survey

WL

Water Level

WM

Water Meter

WO

Wash Out

P1	31.03.17	First Issue	DS	SS
Rev	Date	Details of issue / revision	Dnw	Rev

Issues & Revisions

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www.bwbconsulting.com

Client

RULA Developments Ltd

Project Title

Land off Maple Road Tankersley

Drawing Title

Existing Site Plan

Drawn:	D.Smith	Reviewed:	S.Shreeves
BWB Ref:	LDH2179	Date:	31.03.17
Scale@A1:	1:500	Status	S2
Rev	P1	Project - Originator - Zone - Level - Type - Role - Number	MRT-BWB-00-ZZ-DR-G-0001

APPENDIX 2

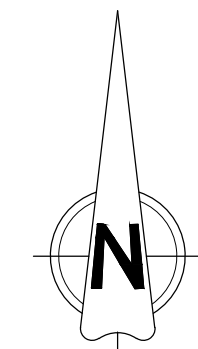
PROPOSED DEVELOPMENT – INDICATIVE SITE LAYOUT PLAN



notes

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Schedule of Accommodation
All areas are approximate gross internal

Distribution Centre	13,563 sq.m.	146,000 sq.ft.
Two Storey Offices	372 sq.m.	4,000 sq.ft.
Total	13,935 sq.m.	150,000 sq.ft.
Parking	93 no. car spaces	
Total Gross Site Area	3.10 ha.	7.66 acres approx.

no. date revision by



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client

Company Shop /
Rula Developments Ltd

project

Proposed Development
Maple Road
Tankersley
South Yorkshire

drawing

Indicative Site Layout Plan

scale 1:500 @ A1 drawn rpw

checked spp date 28.04.17

no

6157 - 016
PLANNING

APPENDIX 3

BGS HISTORICAL BOREHOLE LOGS



**British
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

BGS ID: 215611 : BGS Reference: SK39NW126

British National Grid (27700) : 433600,399300

Report an issue with this borehole

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BOREHOLE RECORD - Rotary

SK39NW 126 836-993

Project INFORMATION MANAGEMENT CENTRE
English Geological Survey

Client
British Geological Survey

A.T. & T. ISTEEL LTD.

Borehole P1

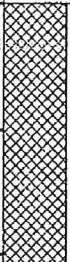
Sheet 1 of 2

Project No. _____

Location WENTWORTH INDUSTRIAL PARK, BARNSELY

Engineer SCOTT WILSON KIRKPATRICK

Project No. 92-7164

Drilling		Core			Strata					
Depths of Core Run	Depth Cased	Recovery % Total (T) Solid (S)	Length Max Min	R.Q.D. %	Fracture Index	Description		Depth	Legend	Level RTD
						General	Detail			
British Geological Survey	British Geological Survey					FILL.		G.L.		101.09
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
4.50	4.50					MUDSTONE.	4.30		96.79	
						COAL and SHALE.	4.50		96.59	
						SANDSTONE.	4.60		96.49	
						MUDSTONE.	5.10		95.99	
						COAL.	5.40		95.69	
						SANDSTONE light grey, very hard.	5.50		95.59	
British Geological Survey	British Geological Survey					British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						Soft broken ground complete loss of flushing.	9.60		91.49	
British Geological Survey	British Geological Survey					Firm drilling. No returns.		10.80		90.29
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey			British Geological Survey	
						British Geological Survey		British Geological Survey		

Drilling				Progress				Groundwater				
Depth	Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	Time Date	Depth Struck	Depth Cased	Depth after 20 mins	Depth Sealed	Remarks
25.00	70mm	Open Hole.	GB	Start 0.00	4.50		26/06 26/06 26/06 AM					None observed.
British Geological Survey												

Remarks Strata description are driller's estimates based on sediment return in circulating medium. Where sediment return is lost the rate of penetration is described.

British Geological Survey

British Geological Survey



Logged by: DRB

Symbols and abbreviations are explained on the accompanying key.

All linear dimensions are in metres.

Scale: 1:100



**British
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

BGS ID: 215611 : BGS Reference: SK39NW126

British National Grid (27700) : 433600,399300

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BOREHOLE RECORD - Rotary

SK39NW 126 336-993

Project INFORMATION MANAGEMENT CENTRE

Client A.T. & T. ISTEEL LTD.

Borehole P1

British Geological Survey

British Geological Survey

Sheet 2 of 2

Location WENTWORTH INDUSTRIAL PARK, BARNSELEY

Engineer SCOTT WILSON KIRKPATRICK

Project No 92-7164

Drilling		Core				Strata						Depth	Legend	Level RTD
Depths of Core Run	Depth Cased	Recovery (% Total) Solid(S)	Length Max Min	R.Q.D. %	Fracture Index	Description								
						General			Detail					
						British Geological Survey			British Geological Survey					
						British Geological Survey			British Geological Survey					
						British Geological Survey			British Geological Survey					
						Very Hard drilling. No returns.						22.60		78.49
						British Geological Survey			British Geological Survey			25.00		76.09
						British Geological Survey			British Geological Survey					
						British Geological Survey			British Geological Survey					
Drilling						Progress				Groundwater				
Depth	Dia	Technique		Crew	Depth of Hole	Depth Cased	Depth to Water	am pm	Date	Depth Struck	Depth Cased	Depth after 20 mins	Depth Sealed	Remarks
25.00	70mm	Open Hole.		GB	Start 0.00 End	4.50			26/06 AM 26/06 26/06					None observed.
Remarks Strata description are driller's estimates based on sediment return in circulating medium. Where sediment return is lost the rate of penetration is described.														
														
Logged by: DRB Symbols and abbreviations are explained on the accompanying key. All linear dimensions are in metres. Scale: 1:100														



**British
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

BGS ID: 215612 : BGS Reference: SK39NW127

British National Grid (27700) : 433600,399300

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BOREHOLE RECORD - Rotary

SK39NW 127 336-993

Project INFORMATION MANAGEMENT CENTRE
British Geological Survey

Client A.T. & T. ISTEEL LTD.
British Geological Survey

Borehole P2
British Geological Survey

Sheet 1 of 2

Location WENTWORTH INDUSTRIAL PARK, BARNSELY

Engineer SCOTT WILSON KIRKPATRICK

Project No 92-7164

Drilling		Core				Strata							
Depths of Core Run	Depth Cased	Recovery % Total (T) Solid (S)	Length Max Min	R.Q.D. %	Fracture Index	Description		Depth	Legend	Level RTD			
						General	Detail						
						FILL.		G.L.		101.43			
5.50	5.50					MUDSTONE, COAL and SHALE. MUDSTONE with thin bands of sandstone.		5.40 5.50 5.90	  	96.03 95.93 95.53			



**British
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

BGS ID: 215612 : BGS Reference: SK39NW127

British National Grid (27700) : 433600,399300

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BOREHOLE RECORD - Rotary

SK39NW 127 336-993

Project INFORMATION MANAGEMENT CENTRE

Client A.T. & T. ISTEEL LTD.

Borehole P2

British Geological Survey

British Geological Survey

Sheet 2 of 2

Location WENTWORTH INDUSTRIAL PARK, BARNSELEY

Engineer SCOTT WILSON KIRKPATRICK

Project No 92-7164

Location: KENTNORTH INDUSTRIAL PARK, CANOELEY						Engineer: SCOTT WILSON KENTNORTH						Project No: 25757					
Drilling		Core				Strata											
Depths of Core Run	Depth Cased	Recovery % (Total) (I) (S)	Length Max Min	R.Q.D. %	Fracture Index	Description		Depth	Legend	Level RTD							
						General	Detail										
								17.20		84.23							
						MUDSTONE.											
								21.00		80.43							
						COAL and SHALE.											
								21.60		79.83							
						MUDSTONE.		22.00		79.43							
						Soft COAL with pieces of timber coming up, poor returns.											
								23.00		78.43							
						MUDSTONE.											
								24.60		76.83							
						MUDSTONE with bands of very hard sandstone.											
								30.00		71.43							
Drilling						Progress				Groundwater							
Depth	Dia	Technique		Crew	Depth of Hole	Depth Cased	Depth to Water	am pm	Date	Depth Struck	Depth Cased	Depth after 20 mins	Depth Sealed	Remarks			
30.00	70mm	Cable Percussion		GB	Start 0.00	5.50			26/06					None observed.			
					End				18/06								
Remarks: Strata description are driller's estimates based on sediment return in circulating medium. Where sediment return is lost the rate of penetration is described. Used down the hole hammer from 9.10-30.00m.																	
geotechnics																	
Logged by: DRB Symbols and abbreviations are explained on the accompanying key. All linear dimensions are in metres. Scale: 1:100																	



**British
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

BGS ID: 215610 : BGS Reference: SK39NW125

British National Grid (27700) : 433600,399300

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BOREHOLE RECORD - Cable Percussion

SK39NW 125 336-993

Project INFORMATION MANAGEMENT CENTRE

Client A.T. & T. ISTEEL LTD.

Borehole 4

British Geological Survey

British Geological Survey

Sheet 1 of 2

Location WENTWORTH INDUSTRIAL PARK, BARNSELEY

Engineer SCOTT WILSON KIRKPATRICK

British Geological Survey

Project No 92-7164

Sampling				Properties			Strata			
Depth	Sample Type	Depth Cased	Depth to Water	Strength kN/m ²	W %	SPT N	Description	Depth	Legend	Level 00
0.00 - 0.60	B						Rough vegetation and nominal soil cover over shale, coal, roots, desiccated soil, etc.	G.L.		100.56
0.60 - 1.05	U14	0.60	ODRY	111	14		Gray, brown and black gravel sized fragments of shale, mudstone and rare coal in a very firm and stiff shaly clay and clayey shale groundmass. Some thin grey clay bands. Generally loose where non-cohesive.	0.60		99.96
1.05 - 1.50	SJ	1.00	ODRY			5				
1.50 - 2.10	B									
2.10 - 2.55	U17	1.70	ODRY	141	13					
2.55 - 3.00	SJ	1.70	ODRY			7	British Geological Survey			
3.00 - 3.60	B									
3.60 - 4.05	U24	3.20	ODRY	60	16					
4.05 - 4.50	SJ	3.20	ODRY			9				
4.50 - 5.00	B						British Geological Survey			
5.00 - 5.45	U24	4.70	ODRY		20					
5.50 - 5.95	SJ	4.70	ODRY			10		5.30		95.26
5.95 - 7.00	B							5.65		94.91
7.00 - 7.45	U20	6.20	ODRY	73	18		British Geological Survey			
7.45 - 7.90	SJ	6.20	ODRY			14				
7.90 - 9.00	B									

Boring				Progress				Groundwater				Remarks on Groundwater
Depth	Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	am pm Date	Depth Struck	Depth Cased	Depth after 20 mins	Depth Sealed	
10.43	150mm	Cable Percussion	BG	Start End			18/06 18/06					None observed.

Remarks Date : 18/6/92.
Chiselling from 9.825-10.35m for 1 hour.
Standpipe inserted to 10.00m.

geotechnics

Logged by: DRB Symbols and abbreviations are explained on the accompanying key. All linear dimensions are in metres.

Scale:1:50



**British
Geological Survey**

NATURAL ENVIRONMENT RESEARCH COUNCIL

BGS ID: 215610 : BGS Reference: SK39NW125

British National Grid (27700) : 433600,399300

Report an issue with this borehole

<<

< Prev

Page 2 of 4 ▼

Next >

>>

BOREHOLE RECORD - Cable Percussion

Sk39NW 125

Project INFORMATION MANAGEMENT CENTRE

Client A.T. & T. ISTEEL LTD.

Borehole 4

British Geological Survey

British Geological Survey

Sheet 2 of 2

Location WENTWORTH INDUSTRIAL PARK, BARNSELEY

Engineer SCOTT WILSON KIRKPATRICK

Project No 92-7164

[illegible]

Boring				Progress				Groundwater				
Depth	Dia	Technique	Crew	Depth of Hole	Depth Cased	Depth to Water	mm Date	Depth Struck	Depth Cased	Depth after 20 mins	Depth Sealed	Remarks on Groundwater
10.43	150mm	Cable Percussion	BG	Start End			18/06 18/06					None observed.
British Geological Survey				British Geological Survey				British Geological Survey				

Remarks	Date : 18/6/92. Chiselling from 9.825-10.35m for 1 hour. Standpipe inserted to 10.00m.
---------	--



Logged by: DRB Symbols and abbreviations are explained on the accompanying key. All linear dimensions are in metres.

Scale: 1 : 50

APPENDIX 4

NON-RESIDENTIAL COAL MINING CONSULTANTS REPORT



The Coal
Authority

Resolving the **impacts** of mining

Non-Residential Coal Mining Consultants Report



A SHADE GREENER, UNIT 3, MAPLE PARK, MAPLE ROAD,
TANKERSLEY, BARNSELEY, BARNSELEY, S75 3DP

Date of enquiry: 10 April 2017
Date enquiry received: 10 April 2017
Issue date: 10 April 2017

Our reference: 51001406281001
Your reference: LDH2179_Maple Road

Non-Residential Coal Mining Consultants 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

Albert Quarmyne

Enquiry address

A SHADE GREENER, UNIT 3, MAPLE PARK, MAPLE ROAD, TANKERSLEY, BARNSELEY, BARNSELEY, S75 3DP

How to contact us

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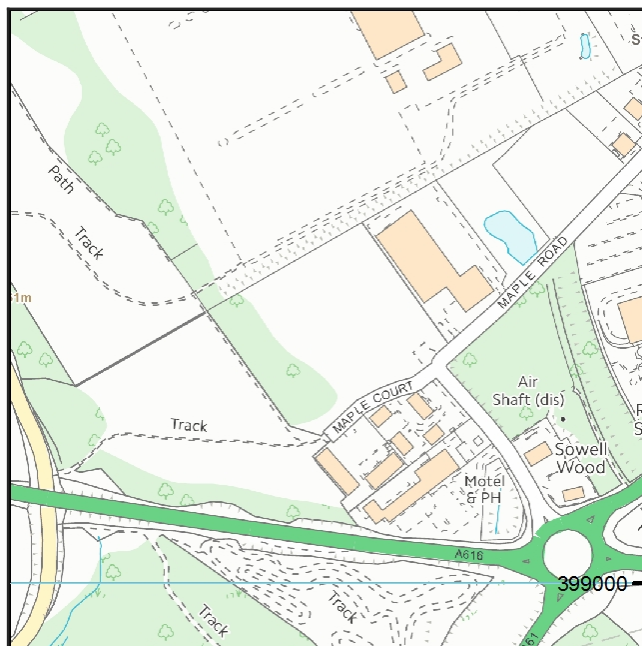
200 Lichfield Lane
Mansfield
Nottinghamshire
NG18 4RG

www.groundstability.com

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Approximate position of property



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Detailed findings

Past underground coal mining

Colliery	Seam	Mineral	Panel	Depth (m)	Direction to working	Disposition	Extraction thickness (cm)	Year
unnamed	BLACK MINE I/S	Ironstone	7Q90	8	Beneath Property	0.0	200	1841
unnamed	PARKGATE	Coal	65RE	20	Beneath Property	0.0	160	1872
TANKERSLEY	MIDDLETON MAIN	Coal	65R1	34	Beneath Property	0.0	68	1900
unnamed	SILKSTONE	Coal	65RL	106	Beneath Property	0.0	170	1875
unnamed	WHINMOOR	Coal	65R9	154	Beneath Property	0.0	91	1910
TANKERSLEY	WHINMOOR	Coal	65RB	159	Beneath Property	0.0	74	1920

Probable unrecorded shallow workings

Yes.

Outcrops

Seam name	Mineral	Thin indicator	Distance to outcrop (m)	Direction to outcrop	Bearing of outcrop
TOP FENTON	Coal	False	Beneath property	N/A	319

Spine roadways at shallow depth

None recorded.

Future underground mining

None recorded.

Licence details (AOR)

None recorded.

Section 46 notices

None recorded.

Geology

No faults, fissures or breaklines recorded.

Mine entries

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyance details
Shaft	433399-007	433620 399202	Has probably been removed to some extent by opencast mining.	Coal	
Shaft	433399-039	433344 399343	has been filled to an unknown specification	Coal	
Shaft	433399-050	433575 399124	has been excavated by opencast mining	Coal	
Shaft	433399-038	433377 399305	Has been filled to an unknown specification	Coal	
Shaft	433399-029	433424 399191		Coal	
Shaft	433399-026	433546 399412		Ironstone	
Shaft	433399-037	433406 399267	Has been filled to an unknown specification	Coal	
Shaft	433399-033	433543 399137	has been filled to an unknown specification and has probably been removed to some extent by opencast mining	Coal	
Shaft	433399-051	433548 399114	has been excavated by opencast mining	Coal	
Shaft	433399-027	433523 399365	has probably been removed to some extent by opencast mining	Ironstone	
Shaft	433399-016	433580 399418		Ironstone	
Shaft	433399-021	433555 399249	Has been excavated by opencast mining	Ironstone	
Shaft	433399-017	433629 399337		Ironstone	
Shaft	433399-005	433673 399267	was 'fenced' in March 2012 and is now periodically inspected by the Coal Authority	Coal	
Shaft	433399-012	433334 399413		Coal	
Shaft	433399-049	433522 399142	has been excavated by opencast mining	Coal	
Shaft	433399-047	433488 399182	Has been excavated by opencast mining	Coal	
Shaft	433399-034	433505 399174	has been filled to an unknown specification and has probably been removed to some extent by opencast mining	Coal	
Shaft	433399-025	433506 399466		Ironstone	
Shaft	433399-052	433525 399093	has been excavated by opencast mining	Coal	
Shaft	433399-040	433314 399384	has been filled to an unknown specification	Coal	
Shaft	433399-035	433474 399194	Has been filled to an unknown specification	Coal	
Shaft	433399-020	433591 399381		Coal	

Entry type	Reference	Grid reference	Treatment description	Mineral	Conveyance details
Shaft	433399-022	433608 399252		Ironstone	
Shaft	433399-044	433674 399256		Ironstone	
Shaft	433399-013	433313 399117	has probably been removed to some extent by opencast mining	Coal	
Shaft	433399-014	433432 399157		Coal	
Shaft	433399-036	433439 399227	Has been filled to an unknown specification	Coal	
Shaft	433399-048	433480 399129	Has been excavated by opencast mining	Coal	
Shaft	433399-006	433611 399202	Has probably been removed to some extent by opencast mining	Coal	

Court orders

None recorded.

Worked out opencast sites

Yes.

Coal mining related hazards

None recorded.

Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres, 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.

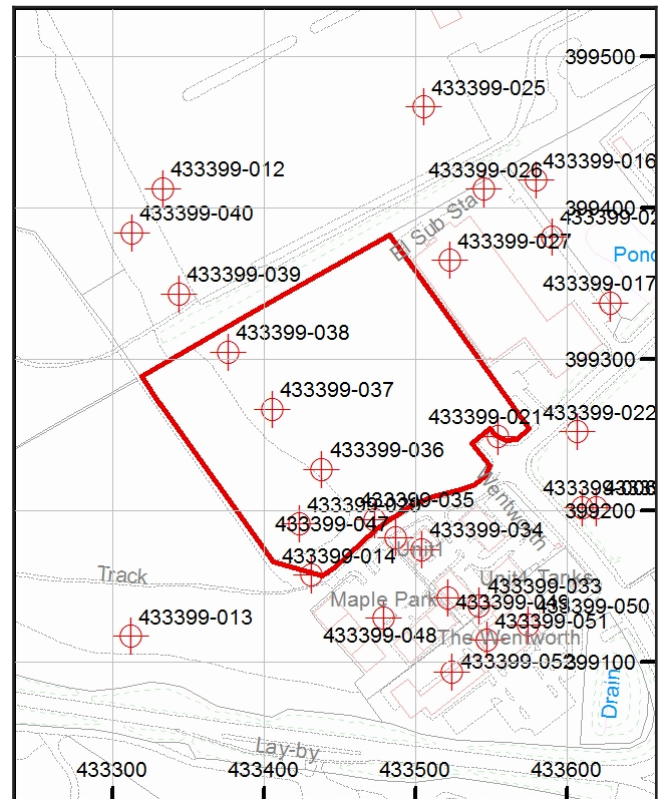
Enquiry boundary

Key

Approximate position of enquiry boundary shown



Disused mineshaft



How to contact us

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VAT receipt

Issued by	The Coal Authority 200 Lichfield Lane Mansfield Nottinghamshire NG18 4RG
Tax point date	10 April 2017
Issued to	ALBERT QUARMYNE 35 LIVERY STREET BIRMINGHAM BIRMINGHAM B3 2PB
Property search for	A SHADE GREENER UNIT 3 MAPLE PARK MAPLE ROAD TANKERSLEY BARNESLEY BARNESLEY S75 3DP
Reference number	51001406281001
Date of issue	10 April 2017
Cost	£101.70
VAT @ 20%	£20.34
Total received	£122.04
VAT registration	598 5850 68

APPENDIX 5

MINE ENTRY LOCATIONS PLAN



Relevant Mine Entries		
Reference Number	Northings (m)	Eastings (m)
433399-014	433432	399157
433399-021	433555	399249
433399-029	433424	399191
433399-035	433474	399194
433399-036	433439	399227
433399-037	433406	399267
433399-038	433377	399305

Notes

- Do not scale this drawing. All dimensions must be checked/ verified on site. If in doubt ask.
- This drawing is to be read in conjunction with all relevant architects, engineers and specialists drawings and specifications.
- All dimensions in metres unless noted otherwise. All levels in metres unless noted otherwise.
- Any discrepancies noted on site are to be reported to the engineer immediately.
- No scale factor has been applied to this survey, therefore the os coordinates are to be treated as arbitrary. Please refer to survey station information below for on site control establishment.
- All coordinates and height data relate to an Arbitrary Grid.
- All manhole data is collected from ground level therefore discrepancies may occur. More accurate data is only achievable via confined space entry.
- OS license number: 100022432
- Current drawing has been based on drawing numbers MRT-BWB-00-ZZ-DR-G-0001 Rev P1 and 6157-002

Legend

	OS Buildings		Contour Lines
	Surveyed Buildings		Inspection Chamber
	Building		Flow direction and pipe diameter
	Wall		Station and Name
	Kerb Channel Line		BH 1
	Top of Kerb		Monitoring Borehole
	Edge of Surface		Tree / Bush / Sapling
	Top of Bank		Area of Vegetation/ Extent of Tree Canopy
	Bottom of Bank		Hedge
	Canopy / Overhang		Body of Water
	Line Marking		Body of Water from OS
	Centre Line		Spot Level
	Watersource		Assumed Surface
	Centre Line		Water Drainage Line
	Barrier		Surface Water Drainage Line
	Fence		
	Gate		
	Overhead Powerline		
	Overhead Utilities		

AP	Anchor Point	FBW	Fence Barbed Wire	LB	Litter Bin
BG	Back Gully	FCB	Fence Closed Board	LP	Lamp Post
BO	Bollard	FCL	Fence Chain Link	MH	Manhole
BS	Bus Stop	FEL	Fence Electric	Mkr	Service Marker
BT	British Telecom	FMP	Fence Metal Panel	PB	Post Box
C	Crest	FMR	Fence Metal Railing	PT	Post
CL	Cover Level	FOB	Fence Open Board	RE	Rodding Eye
CMP	Cable Marker	FPW	Fence Post & Wire	SP	Sign Post
	Post	FSP	Fence Steel Palisade	ST	Stop Tap
CCTV	Security Camera	FWM	Fence Wire Mesh	SV	Stop Valve
CTV	Cable TV	FFL	Finished Floor Level	TCB	Telephone Call Box
DC	Drainage Channel	FP	Flagpole	THL	Threshold Level
DK	Drop Kerb	GV	Gas Valve	TL	Traffic Light
DP	Down Pipe	GY	Gully	TP	Telegraph Post
Elec	Electric	HT	Height	TS	Traffic Signal
EP	Electricity Post	IC	Inspection Chamber	UTS	Unable to Survey
ER	Earth Rod	IFL	Internal Floor Level	WL	Water Level
FH	Fire Hydrant	IL	Invert Level (as a reduced level)	WM	Water Meter
FL	Floodlight			WO	Wash Out

Mine Entry

Opencast Area

P2	02/05/17	Due to new site layout proposed by the client	AQ	GA
P1	19/04/17	For information Only	AQ	GA
Rev	Date	Details of issue / revision	Drw	Rev

Issues & Revisions

BWB
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☐ Nottingham | 0115 924 1100
www.bwbconsulting.com

Client
RULA Developments Ltd

Project Title
Land off Maple Road Tankersley

Drawing Title
Mine Entries Location Plan

Drawn:	A. Quarmyne	Reviewed:	G. Adams
BWB Ref:	LDH2179	Date:	19.04.17
Scale@A1:	1:500		

Information

Project - Originator - Zone - Level - Type - Role - Number	Status	Rev
LDH-BWB-00-XX-ZZ-DR-CE-0001	S2	P2

BWB

