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GEO ENVIRONMENTAL



Barlestone Road, Newbold Verdon, Leicestershire
Minerals Assessment
January 2025

Report Ref: 24832-GEO-0402 Rev D

Barlestone Road, Newbold Verdon, Leicestershire

Minerals Assessment

January 2025

REPORT REF: 24832-GEO-0402 Rev D

CLIENT: David Wilson Homes East Midlands

ENGINEER: MEC Consulting Group Ltd
The Old Chapel
Station Road
Hugglescote
Leicestershire
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REGISTRATION OF AMENDMENTS

Date	Rev	Comment	Prepared By	Checked By	Approved By
February 2024	-	First issue	Christopher Wall MSc BSc (Hons) AMIEEnvSc Associate Geo-Environmental	David Torrance BSc (Hons) FGS CGeol Associate Director Geo-Environmental	Alexander Bennett BSc (Hons), MCIHT, MTPS Managing Director
March 2024	A	Minor changes following client comments, including updated Masterplan.	Jimesh Mistry MSci MSc FGS Geo-Environmental Engineer	David Torrance BSc (Hons) FGS CGeol Associate Director Geo-Environmental	Alexander Bennett BSc (Hons), MCIHT, MTPS Managing Director
April 2024	B	Updated parameter plan	Alexander Bennett BSc (Hons), MCIHT, MTPS Managing Director		
October 2024	C	Updated indicative masterplan and parameter plan	Daniel Webb BSc (Hons) FGS Geo-Environmental Engineer	David Torrance BSc (Hons) FGS CGeol Associate Director Geo-Environmental	Alexander Bennett BSc (Hons), MCIHT, MTPS Managing Director
January 2025	D	Updated based on comments from Leicestershire County Council	Daniel Webb BSc (Hons) FGS Geo-Environmental Engineer	Christopher Wall MSc BSc (Hons) AMIEEnvSc Associate Geo-Environmental	Alexander Bennett BSc (Hons), MCIHT, MTPS Managing Director

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D.	EXPLORATORY HOLE LOCATION PLAN EXPLORATORY HOLE LOGS

1.0 INTRODUCTION

- 1.1 MEC Consulting Group Ltd (MEC) has been commissioned by David Wilson Homes East Midlands (hereafter referred to as 'the Client') to undertake a Minerals Assessment in support of a proposed development at Barlestone Road, Newbold Verdon, Leicestershire, LE9 9NE (hereafter referred to as 'the Site'). A site location plan is provided in **Appendix A**.

Development Proposals

- 1.2 Outline planning application (all matters reserved except vehicular access) for the erection of up to 240 residential dwellings (Use Class C3), retention of the existing accesses off Barlestone Road and the creation of new accesses off Barlestone Road, land safeguarded for a cemetery and a health centre (Use Classes E(e)), public open space and associated infrastructure.
- 1.3 An indicative masterplan and parameter plan is provided in **Appendix B**.

Leicestershire County Council Consultation Response

- 1.4 Leicestershire County Council (LCC) provided a consultation response dated 27th November 2024. Following a review of the comments provided and a telephone conversation with Lucie Hoelmer on 16th December 2024, it was understood that an exploratory hole location plan and further discussion on the limited viability on extraction would be required to fully satisfy the LCC. The LCC consultation response is included in **Appendix C**.
- 1.5 Based on the above, an exploratory hole location has been included in **Appendix D** and further discussion on the limited viability on extraction has been set out in Sections 4.0 and 5.0 of this report.

Existing Relevant Site Information

- 1.6 The following documents, prepared by MEC, have been referenced in the production of this Minerals Assessment:
- 'Barlestone Road, Newbold Verdon, Leicestershire – Phase I Geo-Environmental Desk Study', report ref. 24832-GEO-0401 Rev C, dated October 2024.
 - 'Barlestone Road, Newbold Verdon, Leicestershire – Soil Infiltration Rate Calculations, ref. 24832-CALC-0401, dated November 2023; and
 - 'Barlestone Road, Newbold Verdon, Leicestershire – Groundwater Assessment', ref.: 24832-GEO-0403 Rev A, dated October 2024.

Objectives

- 1.7 The objectives of this assessment are as follows:

- To consider the development proposal against national and local minerals policies;
- To determine the degree to which the proposed development would sterilise mineral reserves of local or national importance; and
- To assess whether the proposed development could sterilise mineral reserves in the surrounding area.

1.8 This report has been prepared to satisfy Policy M11 within Leicestershire Minerals and Waste Local Plan, adopted in September 2019.

Disclaimer

1.9 MEC has completed this report for the benefit of the Client referred to in paragraph 1.1 and any relevant statutory authority which may require reference in relation to approvals for the proposed development. Other third parties should not use or rely upon the contents of this report unless explicit written approval has been gained from MEC.

1.10 MEC does not accept responsibility or liability for:

- a) The consequence of this documentation being used for any purpose or project other than that for which it was commissioned;
- b) The issue of this document to any third party with whom approval for use has not been agreed.

1.11 This report should be read in its entirety including all associated drawings and appendices. MEC cannot be held responsible for any misinterpretations arising from the use of extracts of this report that are taken out of context.

1.12 The findings and opinions conveyed are based on information obtained from a variety of sources as detailed within this report and which MEC believes are reliable. All reasonable care and skill have been applied in examining the information obtained, nevertheless MEC cannot and does not guarantee the authenticity or reliability of the information it has relied upon from external sources.

1.13 Should additional information become available which may affect the opinions expressed in this report, MEC reserves the right to review this information and, if warranted, to modify the opinions presented accordingly.

2.0 SITE SETTING

Site Description

- 2.1 The site comprises an area of undeveloped open land, located to the north of Newbold Verdon. The site predominantly comprises open fields laid to grass, which are used as paddocks for grazing horses. An access track off Barlestone Road runs from south to north across the centre of the site and connects to a farmyard to the north of the site. A second access track off Barlestone Road cuts across the north-west of the site and connects to the farmyard and Newbold Verdon Equestrian Centre to the north. Topographically, the site is relatively level.
- 2.2 Mature and semi-mature trees and hedgerows are located on-site and form the southern, eastern, western, and north-eastern boundaries.
- 2.3 The surrounding area comprises undeveloped open land to the west, north and east with The Fields Farm and Newbold Verdon Equestrian Centre located to the north. Barlestone Road borders the site to the south with residential properties beyond.

Published Information

- 2.4 British Geological survey (BGS) mapping indicates that the site is underlain by superficial glaciofluvial deposits, comprising sand and gravel, which in turn are underlain by bedrock strata of the Edwalton Member comprising mudstone.
- 2.5 The superficial glaciofluvial deposits and Edwalton Member bedrock are classified as Secondary A and Secondary B Aquifers respectively.
- 2.6 The nearest surface water feature is a watercourse 150m to the north.

Mineral Safeguarding

- 2.7 The site is located in Leicestershire County Council's (LCC) Mineral Safeguarding Area associated with sand and gravel deposits within the glaciofluvial material.

3.0 MINERALS POLICY CONTEXT

Minerals Local Plan

- 3.1 The current minerals extraction plan is the 'Leicestershire Minerals and Waste Local Plan', which was adopted in September 2019.

Objectives

- 3.2 The objectives of the Leicestershire Minerals and Waste Local Plan are detailed as follows:
- To make sufficient provision of minerals in the County of Leicestershire to meet national and local requirements;
 - To make sufficient provision of waste facilities in the County of Leicestershire with capacity equal to the waste generated within the County of Leicestershire;
 - To provide mineral sites and waste management facilities in the most sustainable locations so that movement other than by road is maximised, untreated waste transportation is minimised, the development of previously developed land is encouraged and the needs of local communities and industry are met;
 - To co-ordinate and work with all relevant organisations, in particular Leicester City Council and Leicestershire Local Authorities, to ensure that the Local Plan addresses planning issues that cross administrative boundaries;
 - To attain the maximum possible reuse, recycling, composting, and recovery of value from waste within the County of Leicestershire and thereby minimising the disposal of waste;
 - To safeguard mineral resources, mineral sites and associated infrastructure, and waste management facilities from inappropriate development;
 - To reduce the impact of minerals and waste developments upon climate change;
 - To protect people and local communities, and the natural, built, and historic environment (particularly the River Mease Special Area of Conservation) from unacceptable effects of minerals and waste developments;
 - To ensure that land with a temporary use is subsequently restored, managed, and maintained to an after-use of high quality at the earliest opportunity which respects the local area's character, provides a net gain in biodiversity, and allows greater public access whilst affording opportunities for recreational, economic and community gain in mitigation or compensation for the effects of development where possible; and
 - To complement and support wider strategies including the Leicester and Leicestershire Economic Growth Plan, green infrastructure projects and strategies such as the National Forest and Charnwood Forest Regional Park.

Leicestershire Minerals Assessment Context

- 3.3 This Minerals Assessment has been prepared as per the requirements set out in Policy M11 'Safeguarding of Mineral Resources'. Policy M11 states that planning permission for non-mineral development will be granted within a Mineral Safeguarding Area when:

- the applicant can demonstrate that the mineral concerned is no longer of any value or potential value; or
- the mineral can be extracted satisfactorily prior to the incompatible development taking place; or
- the incompatible development is of a temporary nature and can be completed and the site restored to a condition that does not inhibit extraction within the timescale that the mineral is likely to be needed; or
- there is an overriding need for the incompatible development; or
- the development comprises one of the types of development listed in Table 4 within the Leicestershire Minerals and Waste Local Plan.

National Planning Policy Framework (NPPF)

- 3.4 The setting of minerals resources within the NPPF is set out in Chapter 17 'Facilitating the sustainable use of minerals'.
- 3.5 Paragraph 222 states that it is essential that there is a sufficient supply of minerals to provide the infrastructure, buildings, energy, and goods that the country needs. This is set out through the definition of Mineral Safeguarding Areas and Mineral Consultation Areas to confirm that known locations of locally and nationally important mineral resources are not sterilised by non-mineral development. The NPPF also states that policies should be set out to encourage the prior extraction of minerals, where practical and environmentally feasible, if it is necessary for non-mineral development to take place (Paragraph 223d).

Leicestershire Local Aggregate Assessment

- 3.6 The NPPF requires mineral planning authorities to prepare Local Aggregate Assessments (LAAs) to plan the supply of aggregates in the area. The LAA has been based on a forecast of demand for aggregates from rolling average sales data over the last 10 years and supply options based on allocated mineral sites. The most recent LAA was prepared by Leicestershire County Council for 2015-2031 based on data from 2005-2014.
- 3.7 The required provision of sand and gravel has been calculated for the period 2015-2031 by Leicestershire County Council and is presented in the table below, which has been extracted from Leicestershire Minerals and Waste Local Plan 2019.

Calculation		Million Tonnes
A	Annual Requirement	1.12
B	Total Requirement 2015-2031 (B = A x 17 years)	19.04
Reserves		
C	Total permitted reserves at 31/12/2014	8.09
D	Additional reserves permitted in 2015	1.42
Shortfall		
E(B-C+D)	Shortfall 2014 – 2031	9.53

4.0 GROUND CONDITIONS

- 4.1 A full intrusive investigation has not been completed at the site to date; however, soil infiltration rate testing and a groundwater assessment was completed in November 2023 and October 2024 respectively. The soil infiltration rate testing targeted the lower-lying areas in the north and north-west of the site. The groundwater assessment was completed in the north-west of the site, targeting the proposed location of the cemetery. The exploratory hole location plan and logs are included in **Appendix D**.

Soil Profile

- 4.2 The ground conditions were generally recorded to comprise Topsoil overlying superficial glaciofluvial deposits. The bedrock strata of the Edwalton Member were not encountered during the investigation.
- 4.3 In the northern area of the site (SA01-SA04 and TP01-TP02), the glaciofluvial deposits comprised brown and orangish brown, clayey, silty, gravelly, sand, with a low cobble content. Gravel and cobbles comprised quartzite, flint, and sandstone.
- 4.4 In the north-western area of the site (SA05-SA06, TP03 and WS01-WS06), the glaciofluvial deposits predominantly comprised brown and reddish brown, silty, slightly sandy, gravelly clay with localised bands of slightly clayey, slightly silty, gravelly, fine to medium sand with low cobble content.
- 4.5 During both phases of investigation, groundwater was encountered at depths ranging between 1.93m and 2.60m below ground level (bgl).
- 4.6 Groundwater monitoring was completed within WS01-WS06 in the north-west of the site on six occasions over a 6-month period as part of the groundwater assessment. The results of the monitoring recorded groundwater at depths ranging between 0.55m and 2.30m bgl.

Soil Infiltration Rate Testing Results

- 4.7 Limited infiltration was recorded in four of the six test locations, likely due to the high fractions of cohesive material within the granular matrix. Soil infiltration rates in two of the locations were recorded between 5.02×10^{-6} m/s and 6.91×10^{-7} m/s. It was therefore concluded, given the limited infiltration rates available and the presence of shallow groundwater that soakaways would not provide a viable drainage solution for the site and an alternative strategy was recommended.

5.0 MINERAL EXTRACTION CONSTRAINTS AND VIABILITY

Economic Constraints

- 5.1 A full ground investigation is beyond the scope of this minerals assessment; however, targeted investigations have been undertaken in the north-west to assess the viability of establishing a cemetery in the area and soil infiltration rate testing has been completed in lower-lying areas in the north and north-west. The predominance of cohesive deposits in the north-west are likely to result in this area being uneconomical for mineral extraction and similar ground conditions may be encountered across further areas of the site. Where granular strata have been encountered, they have included a higher proportion of clay and silt, which would require sorting to extract the mineral resource.
- 5.2 In addition, given the presence of groundwater generally recorded at depths of between 0.55m and 2.60m bgl, it is considered that significant dewatering would be required prior to the extraction of minerals below the groundwater table which would considerably impact the economic viability of any mineral extraction below a depth of 0.55m.
- 5.3 Based on the above, it is considered that the economic viability of extracting the mineral resource beneath the site would be significantly limited.

Local/Environmental Constraints

- 5.4 The following local/environmental constraints are identified:
- Residential properties border the site to the south and an equestrian centre borders to the north. The proximity to these sensitive receptors would present a significant consideration for any future mineral working proposal in terms of impacts arising from noise, dust, air quality, traffic, and visual intrusion;
 - The site is located in an area that is not serviced by transport links other than road and the environmental impact of transportation will be high;
 - The environmental impact of any extraction works would require the provision of some form of barrier or screens between the extraction area and adjacent residential properties. Such facilities would need to be constructed within the development site thus further reducing the available resource and would also likely be unacceptable from an amenity and visual viewpoint; and
 - The extraction of sand and gravel would result in a reduction in site levels below that of the surrounding area. This would generate a significant requirement to import material, with associated additional environmental impact, to return site levels to a suitable development platform, negating any sustainability gains from the prior extraction of the material.
- 5.5 Paragraph 3.95 of the Leicestershire Minerals and Waste Local Plan acknowledges that mineral resources other than surface mined coal, do not lend themselves to prior extraction in built-up areas in advance of non-mineral development because of the nature of extraction. It also indicates that the proposed Mineral Safeguarding Areas consequently exclude mineral deposits other than surface coal within settlements with a population in excess of 1000 and a minimum surface area of 20 hectares, applicable to Newbold Verdon.
- 5.6 It is therefore considered that the full or partial extraction of the mineral resource would result in significant environmental impacts on the surrounding residential areas.

Constraints on Mineral Development – Adjacent Sites

- 5.7 The siting of a residential development on the site could be viewed as potentially sterilising mineral extraction from adjacent sites, notably areas to the east and north. It should be noted however that the mapped extent of the glaciofluvial deposits does not extend significantly further beyond the northern site boundary and it is likely that an extractable mineral resource would not be present to the north. Areas to the east will be located in proximity to the existing residential properties to the south of Desford Road and would likely pose an unacceptable constraint on these sensitive receptors.
- 5.8 It is therefore considered that the siting of the residential development would not result in the unnecessary sterilisation of mineral resources in adjacent areas.

6.0 CONCLUSION

- 6.1 The site is located within a Mineral Safeguarding Area relating to sand and gravel within the superficial glaciofluvial deposits. The exploratory hole records from the soil infiltration rate testing and groundwater assessment indicate that the glaciofluvial deposits comprise clayey, silty, gravelly, sand, or silty, slightly sandy, gravelly clay, therefore the material would likely require sorting to remove the finer soil particles. In addition, given the presence of shallow groundwater which would require significant dewatering, it is considered that the economic viability of mineral extraction would be considerably limited.
- 6.2 Any proposal to extract the minerals, either in full or as a proportion, would result in unacceptable environmental impacts on the residential properties in the surrounding area and require the import of a significant volume of material to raise site levels to support the development platform. Environmental impact would be exacerbated given the absence of transport networks other than roads.
- 6.3 The siting of the proposed residential development would not lead to additional sterilisation of mineral resource on adjacent sites given that the glaciofluvial deposits are not mapped to the north and that areas to the east would similarly pose an unacceptable impact on the adjacent residential properties.
- 6.4 Based on the above assessment, it is considered that the site meets the criteria set out in Policy M11 for non-mineral development to be acceptable in a Mineral Safeguarding Area. Since the sand and gravel is not likely to be subject to commercial extraction, based on both the limited economic viability and potential environmental impact of such operations, either now or in the future, the proposed development is compatible with the safeguarding policy in the Leicestershire Minerals and Waste Local Plan.



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APPENDICES



APPENDIX A



SITE LOCATION PLAN

Project: Barlestone Road, Newbold Verdon

File Ref: 24832

O.S. Grid Ref: 444791, 304283

Postcode: LE9 9NE





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APPENDICES



APPENDIX B



KEY

SITE BOUNDARY

INDICATIVE PUBLIC OPEN SPACE

RETAINED EXISTING VEGETATION

INDICATIVE PROPOSED TREES AND PLANTING

INDICATIVE BUILT FORM

CORRECTED VIEWPOINT 5
(DRAFT REGULATION 16
NEIGHBOURHOOD PLAN)

INDICATIVE SWALES

EXISTING BYWAY OPEN TO ALL TRAFFIC

UNCLASSIFIED ADOPTED ROAD

EXISTING FOOTPATH

POTENTIAL PEDESTRIAN
CYCLE CONNECTION

RETAINED VEHICULAR ACCESS
ROUTE TO EQUESTRIAN CENTRE/
PROPOSED ACCESS TO CEMETERY

PROPOSED PEDESTRIAN ACCESS POINT

RETAINED PROW ACCESS POINTS

PRIMARY VEHICULAR ACCESS POINT

EXISTING BARLESTONE ROAD
CROSSING POINTS

NEW BARLESTONE ROAD
CROSSING POINTS

INDICATIVE FOUL PUMPING STATION

AGRICULTURAL ACCESS

PRIVATE DRIVE ACCESS TO (EXISTING)
WILLOWBROOK COTTAGE

DRAINAGE OUTFALL

BARLESTONE ROAD, NEWBOLD VERDON – INDICATIVE MASTERPLAN

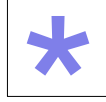
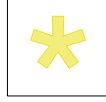
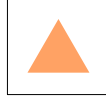
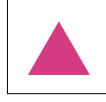
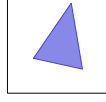


Issue:

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KEY

-  SITE BOUNDARY
-  PROPOSED OPEN SPACE
including sustainable urban drainage basins
-  PROPOSED DEVELOPMENT PARCELS
including roads/ footpaths/ infrastructure
-  LOCATION OF PROPOSED LAND
SET ASIDE FOR CEMETERY
-  SAFEGUARDED COMMUNITY
FACILITY LAND
-  INDICATIVE AREA REQUIRED FOR
INTERNAL ACCESS ROADS
not within the residential land use
-  INDICATIVE AREA REQUIRED FOR
PROPOSED ACCESS ROADS
not within the residential land use
-  PRIMARY VEHICULAR
ACCESS POINT
-  LOCATION OF INDICATIVE
PROPOSED BASINS
-  LOCATION OF EXISTING WATER
FEATURE
-  AGRICULTURAL ACCESS
-  PRIVATE DRIVE ACCESS TO (EXISTING)
WILLOWBROOK COTTAGE
-  PROPOSED INDICATIVE AREA OF PLAY
-  PROPOSED ACCESS TO CEMETERY
-  PROPOSED PEDESTRIAN/ CYCLE
ACCESS
-  RETAINED PROW ACCESS POINTS
-  DRAINAGE OUTFALL

*All features and areas shown to a tolerance of 10m

BARLESTONE ROAD, NEWBOLD VERDON – PARAMETER PLAN

PEGASUS
GROUP



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APPENDICES



APPENDIX C

Emma Baumber
Hinckley and Bosworth Borough Council

Date: 27 November 2024
My Ref: 24/01061/OUT
Contact: Lucie Hoelmer
Phone: 0116 305 3414
Email: planningcontrol@leics.gov.uk

APPLICATION DETAILS:

Planning Application Number: 24/01061/OUT

LCC Reference Number: 24/01061/OUT

Applicant:

Description of Application:

Outline planning application (all matters reserved except vehicular access) for the erection of up to 240 residential dwellings (Use Class C3), retention of the existing accesses off Barlestone Road and the creation of new accesses off Barlestone Road, land safeguarded for a cemetery and a health centre (Use Class E(e)), public open space and associated infrastructure

Location of Application:

Land North Of Barlestone Road Newbold Verdon Leicestershire

Thank you for your consultation in respect of the above planning application. The County Council has considered the application, having regard to the Development Plan, National Planning Policy Guidance and other relevant material considerations. In this particular instance, the County Council, as Minerals and Waste Planning Authority, comments as follows;

The development site is located within a mineral safeguarding area for sand and gravel. A mineral assessment is included within the documentation submitted with the application. However, the information contained within the document is not of sufficient detail to demonstrate that the development would not sterilise the mapped underlying minerals or that any underlying minerals are not viable to be worked. Given the proximity of known sand and gravel reserves and those worked within the area previously (e.g. those at the former Cadeby Quarry), further information is required to support the conclusions set out within the assessment. Further information relating to the extent of sand and gravel within the site is required (lateral and depth), including information on the exact location of any borehole testing within the site such as a plan showing these locations as marked.

Chief Executives Department
Leicestershire County Council, County Hall, Glenfield, Leicestershire, LE3 8RA

John Sinnott, CBE, MA, Dipl. PA, Chief Executive
Tom Purnell, MSc, Dipl. PLM, Assistant Chief Executive

www.leicestershire.gov.uk

In addition, the mineral assessment states that the 'presence of a higher proportion of cohesive material' and 'shallow groundwater would require significant dewatering' would impact economic viability of extraction. Please can you send through further information on viability.

Environmental impacts of extraction can be mitigated for during this process.

Yours Sincerely,

Lucie Hoelmer
Assistant Planning Officer



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APPENDICES



APPENDIX D



GENERAL NOTES

- DO NOT SCALE THIS DRAWING.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH ALL RELEVANT ENGINEERS, ARCHITECTS AND SPECIALIST DESIGN DRAWINGS AND DETAILS.
- ALL DIMENSIONS ARE IN METRES UNLESS NOTED OTHERWISE.
- THIS DRAWING IS FOR STRATEGY PURPOSES ONLY AND IS NOT TO BE USED FOR CONSTRUCTION PURPOSES.

KEY

- TRIAL PIT LOCATION (2023 INVESTIGATION)
- SOIL INFILTRATION TEST LOCATION (2023 INVESTIGATION)
- WINDOW SAMPLE LOCATION (2024 INVESTIGATION)
- APPROXIMATE SITE BOUNDARY

A	TO INCLUDE 2024 INVESTIGATION	DW	CW	DT	11.01.24
-	FIRST ISSUE	DW	CW	DT	31.10.23
REV	AMENDMENTS:	DRN	CHK	APP	DATE:

PROJECT: **BARLESTONE ROAD
NEWBOLD VERDON
LEICESTERSHIRE**

DRAWING TITLE: **EXPLORATORY HOLE
LOCATION PLAN**

CLIENT: **DAVID WILSON HOMES
EAST MIDLANDS**

DRAWING NUMBER: **24832_04_140_01.1**

REVISION:	A	SHEET SIZE:	A1	SCALE:	1:1000m
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STATUS: **FOR INFORMATION / APPROVAL**

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LE67 2GB

Exploratory
Hole ID:

SA01

Sheet 1 of 1

Project:	Barlestone Road, Newbold Verdon	Project No.	24832	Start Date:	08/11/2023	End Date:	08/11/2023	Plant Used:	JCB 3CX
Location:	Leicestershire, LE9 9NE	Logged By:		Easting and Northing Co-ordinates:		Elevation (m AOD):			
Client:	David Wilson Homes East Midlands	Approved By:	DT						

Strata Description	Legend	Depth (m)	Level (m AOD)	Samples		Tests	Groundwater (m)
				Type	Depth		
Grass over brown clayey, silty, sandy TOPSOIL with gravel sized fragments of flint and quartzite.		0.35					
Brown and orangish brown, clayey, silty, gravelly, SAND with low cobble content. Gravel is subangular fine to coarse of quartzite, flint, and rare green sandstone. Cobbles are of sandstone. GLACIOFLUVIAL DEPOSITS		2.10					2.00 ▼
End of Trial Pit							

Remarks: Exploratory hole location scanned with Cable Avoidance Tool and Signal Generator. Descriptions based on visual inspection by a Geo-environmental engineer. Groundwater ingress at 2.0m bgl. Visual or olfactory evidence of contamination was not observed. Soakage testing was undertaken at this exploratory hole location.	Dimensions: Width: 0.60m Length: 2.20m Depth: 2.10m	Key: B - Bulk Sample D - Disturbed Sample ES - Environmental Sample W - Water Sample PID - PID Reading HSV - Hand Shear Vane Reading
Stability: STABLE		



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Exploratory
Hole ID:

SA02

Sheet 1 of 1

Project:	Barlestone Road, Newbold Verdon	Project No.	24832	Start Date:	08/11/2023	End Date:	08/11/2023	Plant Used:	JCB 3CX
Location:	Leicestershire, LE9 9NE	Logged By:		Easting and Northing Co-ordinates:		Elevation (m AOD):			
Client:	David Wilson Homes East Midlands	Approved By:	DT						

Strata Description	Legend	Depth (m)	Level (m AOD)	Samples		Tests	Groundwater (m)
				Type	Depth		
Grass over brown slightly clayey, silty, sandy TOPSOIL with gravel sized fragments of flint and quartzite.		0.30					
Brown and orangish brown, slightly clayey, silty gravelly, SAND with low cobble content. Gravel is subangular fine to coarse of quartzite, flint, and rare green sandstone. Cobbles are of sandstone. GLACIOFLUVIAL DEPOSITS		2.00					
End of Trial Pit							

Remarks: Exploratory hole location scanned with Cable Avoidance Tool and Signal Generator. Descriptions based on visual inspection by a Geo-environmental engineer. Groundwater was not encountered. Visual or olfactory evidence of contamination was not observed. Soakage testing was undertaken at this exploratory hole location.	Dimensions: Width: 0.60m Length: 2.20m Depth: 2.00m	Key: B - Bulk Sample D - Disturbed Sample ES - Environmental Sample W - Water Sample PID - PID Reading HSV - Hand Shear Vane Reading
Stability: STABLE		



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Exploratory
Hole ID:

SA03

Sheet 1 of 1

Project:	Barlestone Road, Newbold Verdon	Project No.	24832	Start Date:	08/11/2023	End Date:	08/11/2023	Plant Used:	JCB 3CX
Location:	Leicestershire, LE9 9NE	Logged By:		Easting and Northing Co-ordinates:		Elevation (m AOD):			
Client:	David Wilson Homes East Midlands	Approved By:	DT						

Strata Description	Legend	Depth (m)	Level (m AOD)	Samples		Tests	Groundwater (m)
				Type	Depth		
Grass over brown slightly clayey, silty, sandy TOPSOIL with gravel sized fragments of flint and quartzite.		0.30					
Brown and orangish brown, slightly clayey, silty, gravelly, SAND with low cobble content. Gravel is subangular fine to coarse of quartzite and flint. Cobbles are of sandstone. GLACIOFLUVIAL DEPOSITS		2.00					
End of Trial Pit							

Remarks: Exploratory hole location scanned with Cable Avoidance Tool and Signal Generator. Descriptions based on visual inspection by a Geo-environmental engineer. Groundwater was not encountered. Visual or olfactory evidence of contamination was not observed. Soakage testing was undertaken at this exploratory hole location.	Dimensions: Width: 0.60m Length: 2.00m Depth: 2.00m	Key: B - Bulk Sample D - Disturbed Sample ES - Environmental Sample W - Water Sample PID - PID Reading HSV - Hand Shear Vane Reading
Stability: STABLE		



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Exploratory
Hole ID:

SA04

Sheet 1 of 1

Project:	Barlestone Road, Newbold Verdon	Project No.	24832	Start Date:	08/11/2023	End Date:	08/11/2023	Plant Used:	JCB 3CX
Location:	Leicestershire, LE9 9NE	Logged By:		Easting and Northing Co-ordinates:		Elevation (m AOD):			
Client:	David Wilson Homes East Midlands	Approved By:	DT						

Strata Description	Legend	Depth (m)	Level (m AOD)	Samples		Tests	Groundwater (m)
				Type	Depth		
Grass over brown slightly clayey, silty, sandy TOPSOIL with gravel sized fragments of flint and quartzite.		0.40					
Brown and orangish brown, slightly clayey, silty, gravelly, SAND with low cobble content. Gravel is subangular fine to coarse of quartzite, sandstone, and flint. Cobbles are of sandstone. GLACIOFLUVIAL DEPOSITS		2.00					
End of Trial Pit							

Remarks: Exploratory hole location scanned with Cable Avoidance Tool and Signal Generator. Descriptions based on visual inspection by a Geo-environmental engineer. Groundwater was not encountered. Visual or olfactory evidence of contamination was not observed. Soakage testing was undertaken at this exploratory hole location.	Dimensions: Width: 0.60m Length: 2.00m Depth: 2.00m	Key: B - Bulk Sample D - Disturbed Sample ES - Environmental Sample W - Water Sample PID - PID Reading HSV - Hand Shear Vane Reading
Stability: STABLE		



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Exploratory
Hole ID:

SA05
Sheet 1 of 1

Project:	Barlestone Road, Newbold Verdon	Project No.	24832	Start Date:	08/11/2023	End Date:	08/11/2023	Plant Used:	JCB 3CX
Location:	Leicestershire, LE9 9NE	Logged By:		Easting and Northing Co-ordinates:		Elevation (m AOD):			
Client:	David Wilson Homes East Midlands	Approved By:	DT						

Strata Description	Legend	Depth (m)	Level (m AOD)	Samples		Tests	Groundwater (m)
				Type	Depth		
MADE GROUND: Grass over brown slightly clayey silty sandy topsoil with rare gravel sized fragments brick.		0.25					
Brown sandy, silty, CLAY. GLACIOFLUVIAL DEPOSITS		1.70					
Brown, clayey, slightly gravelly, SAND with low cobble content. Gravels are subangular to subrounded, fine to coarse of quartzite, flint and rare green sandstone. Cobbles are of sandstone. GLACIOFLUVIAL DEPOSITS		2.00					
End of Trial Pit							

Remarks: Exploratory hole location scanned with Cable Avoidance Tool and Signal Generator. Descriptions based on visual inspection by a Geo-environmental engineer. Groundwater was not encountered. Visual or olfactory evidence of contamination was not observed. Soakage testing was undertaken at this exploratory hole location.	Dimensions: Width: 0.60m Length: 2.00m Depth: 2.00m	Key: B - Bulk Sample D - Disturbed Sample ES - Environmental Sample W - Water Sample PID - PID Reading HSV - Hand Shear Vane Reading
Stability: STABLE		



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Exploratory Hole ID:

SA06
Sheet 1 of 1

Project:	Barlestone Road, Newbold Verdon	Project No.	24832	Start Date:	08/11/2023	End Date:	08/11/2023	Plant Used:	JCB 3CX
Location:	Leicestershire, LE9 9NE	Logged By:		Easting and Northing Co-ordinates:				Elevation (m AOD):	
Client:	David Wilson Homes East Midlands	Approved By:	DT						

Strata Description	Legend	Depth (m)	Level (m AOD)	Samples		Tests	Groundwater (m)
				Type	Depth		
Grass over brown, slightly clayey, silty, sandy TOPSOIL with gravel sized fragments of flint and quartzite.		0.40					
Brown locally orange clayey, silty, slightly gravelly, SAND with low cobble content. Gravels are subangular to subrounded fine to coarse of flint and quartzite. Cobbles are of sandstone. GLACIOFLUVIAL DEPOSITS		2.20					
End of Trial Pit							

Remarks: Exploratory hole location scanned with Cable Avoidance Tool and Signal Generator. Descriptions based on visual inspection by a Geo-environmental engineer. Groundwater ingress as slight seepage at 2.2m bgl. Visual or olfactory evidence of contamination was not observed. Soakage testing was undertaken at this exploratory hole location.	Dimensions: Width: 0.60m Length: 2.10m Depth: 2.20m	Key: B - Bulk Sample D - Disturbed Sample ES - Environmental Sample W - Water Sample PID - PID Reading HSV - Hand Shear Vane Reading
Stability: STABLE		



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Exploratory
Hole ID:

TP01

Sheet 1 of 1

Project:	Barlestone Road, Newbold Verdon	Project No.	24832	Start Date:	08/11/2023	End Date:	08/11/2023	Plant Used:	JCB 3CX
Location:	Leicestershire, LE9 9NE	Logged By:		Easting and Northing Co-ordinates:		Elevation (m AOD):			
Client:	David Wilson Homes East Midlands	Approved By:	DT						

Strata Description	Legend	Depth (m)	Level (m AOD)	Samples		Tests	Groundwater (m)
				Type	Depth		
Grass over brown, slightly clayey, silty, sandy TOPSOIL with gravel sized fragments of flint and quartzite.		0.35					
Brown and orangish brown, clayey, silty, gravelly, SAND with low cobble content. Gravel is subangular fine to coarse of quartzite, flint, and rare green sandstone. Cobbles are of sandstone. GLACIOFLUVIAL DEPOSITS		2.40					2.20 ▼
End of Trial Pit							

Remarks: Exploratory hole location scanned with Cable Avoidance Tool and Signal Generator. Descriptions based on visual inspection by a Geo-environmental engineer. Groundwater ingress at 2.2m bgl. Visual or olfactory evidence of contamination was not observed.	Dimensions: Width: 0.60m Length: 2.00m Depth: 2.40m	Key: B - Bulk Sample D - Disturbed Sample ES - Environmental Sample W - Water Sample PID - PID Reading HSV - Hand Shear Vane Reading
Stability: STABLE		



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Exploratory
Hole ID:

TP02

Sheet 1 of 1

Project:	Barlestone Road, Newbold Verdon	Project No.	24832	Start Date:	08/11/2023	End Date:	08/11/2023	Plant Used:	JCB 3CX
Location:	Leicestershire, LE9 9NE	Logged By:		Easting and Northing Co-ordinates:		Elevation (m AOD):			
Client:	David Wilson Homes East Midlands	Approved By:	DT						

Strata Description	Legend	Depth (m)	Level (m AOD)	Samples		Tests	Groundwater (m)
				Type	Depth		
Grass over brown, slightly clayey, silty, sandy TOPSOIL with gravel sized fragments of flint and quartzite.		0.25					
Brown and orangish brown, clayey, silty, gravelly, SAND with low cobble content. Gravel is subangular fine to coarse of quartzite, flint, and rare green sandstone. Cobbles are of sandstone. GLACIOFLUVIAL DEPOSITS		2.80					
End of Trial Pit							

Remarks: Exploratory hole location scanned with Cable Avoidance Tool and Signal Generator. Descriptions based on visual inspection by a Geo-environmental engineer. Groundwater was not encountered. Visual or olfactory evidence of contamination was not observed.	Dimensions: Width: 0.60m Length: 2.00m Depth: 2.80m	Key: B - Bulk Sample D - Disturbed Sample ES - Environmental Sample W - Water Sample PID - PID Reading HSV - Hand Shear Vane Reading
Stability: STABLE		



Project:	Barlestone Road, Newbold Verdon	Project No.	24832	Start Date:	08/11/2023	End Date:	08/11/2023	Plant Used:	JCB 3CX
Location:	Leicestershire, LE9 9NE	Logged By:		Easting and Northing Co-ordinates:		Elevation (m AOD):			
Client:	David Wilson Homes East Midlands	Approved By:	DT						

Strata Description	Legend	Depth (m)	Level (m AOD)	Samples		Tests	Groundwater (m)
				Type	Depth		
MADE GROUND: Grass over brown, slightly clayey, silty, sandy topsoil with rare gravel sized fragments brick.		0.30					
Brown and orangish brown, clayey, silty, gravelly, SAND with low cobble content. Gravel is subangular fine to coarse of quartzite, flint, and rare green sandstone. Cobbles are of sandstone. GLACIOFLUVIAL DEPOSITS		2.80					
End of Trial Pit							

Remarks: Exploratory hole location scanned with Cable Avoidance Tool and Signal Generator. Descriptions based on visual inspection by a Geo-environmental engineer. Groundwater was not encountered. Visual or olfactory evidence of contamination was not observed.	Dimensions: Width: 0.60m Length: 2.00m Depth: 2.80m	Key: B - Bulk Sample D - Disturbed Sample ES - Environmental Sample W - Water Sample PID - PID Reading HSV - Hand Shear Vane Reading
Stability: STABLE		



Project: Barlestone Road, Newbold Verdon	Project No. 24832	Start Date: 18/01/2024	End Date: 18/01/2024	Plant Used: Tracked window sampling rig
Location: Leicestershire, LE9 9NE	Logged By:	Easting and Northing Co-ordinates: 444517.59 304475.06		Elevation (m AOD): 131.80
Client: David Wilson Homes East Midlands	Approved By: DT			

Strata Description	Depth (m)	Level (m AOD)	Legend	Samples		Tests	Groundwater (m)	Backfill
				Type	Depth			
Brown, slightly clayey, silty, slightly gravelly, sand TOPSOIL. Gravel comprises sub-angular to sub-rounded, fine to medium quartzite and flint.	0.30	131.50						
Brown, silty, slightly sandy, gravelly CLAY. Gravel comprises sub-angular to sub-rounded, fine to medium quartzite and flint. GLACIOFLUVIAL DEPOSITS	0.70	131.10						
<i>Becoming very sandy from 0.50m bgl.</i>								
Reddish brown, silty, slightly sandy, gravelly CLAY. Gravel comprises sub-angular to sub-rounded, fine to medium sandstone, quartzite and flint. GLACIOFLUVIAL DEPOSITS	2.10	129.70						
Reddish brown, silty, slightly sandy, gravelly CLAY. Gravel comprises sub-angular to sub-rounded, fine to medium sandstone, quartzite and flint. GLACIOFLUVIAL DEPOSITS	2.80	129.00						
Reddish brown, silty, very sandy, slightly gravelly CLAY. Gravel comprises sub-angular to sub-rounded, fine to medium quartzite and flint. GLACIOFLUVIAL DEPOSITS	3.00	128.80					2.00 ▼	
Borehole terminated at 5.00m	5.00	126.80						

Remarks: Exploratory hole location scanned with Cable Avoidance Tool and Signal Generator. Descriptions based on visual inspection by a Geo-environmental engineer. Groundwater was encountered at 2.00m bgl. Visual or olfactory evidence of contamination was not observed. Co-ordinates and elevations estimated from the topographical survey.	Key: B - Bulk Sample D - Disturbed Sample U - Undisturbed Sample C - Core Sample ES - Environmental Sample W - Water Sample PID - PID Reading N60 - Corrected SPT N Value Ublow - No. of blows for U Sample
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Project: Barlestone Road, Newbold Verdon	Project No. 24832	Start Date: 18/01/2024	End Date: 18/01/2024	Plant Used: Tracked window sampling rig
Location: Leicestershire, LE9 9NE	Logged By:	Easting and Northing Co-ordinates: 444513.89 304433.18		Elevation (m AOD): 131.85
Client: David Wilson Homes East Midlands	Approved By: DT			

Strata Description	Depth (m)	Level (m AOD)	Legend	Samples		Tests	Groundwater (m)	Backfill
				Type	Depth			
Brown, slightly clayey, silty, slightly gravelly, sand TOPSOIL. Gravel comprises sub-angular to sub-rounded, fine to medium quartzite and flint.	0.30	131.55						
Brown, slightly clayey, slightly silty, gravelly, fine to medium SAND. Gravel comprises angular to sub-rounded, fine to medium quartzite and flint. GLACIOFLUVIAL DEPOSITS	0.70	131.15						
Reddish brown, silty, slightly sandy, gravelly CLAY. Gravel comprises sub-angular to sub-rounded, fine to medium sandstone, quartzite and flint. GLACIOFLUVIAL DEPOSITS								
Slightly gravelly between 1.00m and 2.00m bgl.								
Sandy between 1.50m and 2.00m bgl.								
Soft to firm from 2.50m bgl.							2.50 ▼	
Reddish brown, silty, sandy, gravelly CLAY. Gravel comprises angular to sub-rounded, fine to medium quartzite and flint. GLACIOFLUVIAL DEPOSITS	3.00	128.85						
Borehole terminated at 5.00m	5.00	126.85						

Remarks: Exploratory hole location scanned with Cable Avoidance Tool and Signal Generator. Descriptions based on visual inspection by a Geo-environmental engineer. Groundwater was encountered at 2.50m bgl. Visual or olfactory evidence of contamination was not observed. Co-ordinates and elevations estimated from the topographical survey.	Key: B - Bulk Sample D - Disturbed Sample U - Undisturbed Sample C - Core Sample ES - Environmental Sample W - Water Sample PID - PID Reading N60 - Corrected SPT N Value Ublow - No. of blows for U Sample
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Project: Barlestone Road, Newbold Verdon	Project No. 24832	Start Date: 18/01/2024	End Date: 18/01/2024	Plant Used: Tracked window sampling rig
Location: Leicestershire, LE9 9NE	Logged By:	Easting and Northing Co-ordinates: 444542.23 304416.65		Elevation (m AOD): 132.05
Client: David Wilson Homes East Midlands	Approved By: DT			

Strata Description	Depth (m)	Level (m AOD)	Legend	Samples		Tests	Groundwater (m)	Backfill
				Type	Depth			
Brown, slightly clayey, silty, slightly gravelly, sand TOPSOIL. Gravel comprises aub-angular to sub-rounded, fine to medium quartzite and flint.	0.30	131.75						
Brown, gravelly, fine to medium SAND. Gravel comprises angular to sub-rounded, fine to medium quartzite and flint. GLACIOFLUVIAL DEPOSITS		131.50						
Reddish brown, silty, slightly sandy, gravelly CLAY. Gravel comprises sub-angular to sub-rounded, fine to medium sandstone, quartzite and flint. GLACIOFLUVIAL DEPOSITS								
								
								
								
								
								
								
								
								
								
								
								
								
								
								
								
								
								
								
								
								
								



Project: Barlestone Road, Newbold Verdon	Project No. 24832	Start Date: 18/01/2024	End Date: 18/01/2024	Plant Used: Tracked window sampling rig
Location: Leicestershire, LE9 9NE	Logged By:	Easting and Northing Co-ordinates: 444561.83 304453.00		Elevation (m AOD): 131.95
Client: David Wilson Homes East Midlands	Approved By: DT			

Strata Description	Depth (m)	Level (m AOD)	Legend	Samples		Tests	Groundwater (m)	Backfill
				Type	Depth			
Brown, slightly clayey, silty, slightly gravelly, sand TOPSOIL. Gravel comprises aub-angular to sub-rounded, fine to medium quartzite and flint.	0.30	131.65						
Brown, slightly clayey, slightly silty, slightly gravelly, fine to medium SAND. Gravel comprises sub-angular to sub-rounded, fine to medium quartzite and flint.								
GLACIOFLUVIAL DEPOSITS	0.65	131.30						
Reddish brown, silty, gravelly CLAY. Gravel comprises angular to sub-rounded, fine to coarse quartzite, flint and sandstone.								
GLACIOFLUVIAL DEPOSITS								
Reddish brown, silty, sandy, gravelly CLAY. Gravel comprises sub-angular to sub-rounded, fine to medium quartzite and flint.	2.00	129.95					2.10 ▼	
GLACIOFLUVIAL DEPOSITS								

Project:	Barlestone Road, Newbold Verdon	Project No. 24832	Start Date: 18/01/2024	End Date: 18/01/2024	Plant Used: Tracked window sampling rig
Location:	Leicestershire, LE9 9NE	Logged By:	Easting and Northing Co-ordinates:		Elevation (m AOD):
Client:	David Wilson Homes East Midlands	Approved By: DT			
			444585.32	304423.70	132.25

[illegible]

Remarks:

Exploratory hole location scanned with Cable Avoidance Tool and Signal Generator.
Descriptions based on visual inspection by a Geo-environmental engineer.
Groundwater was encountered at 2.10m bgl.
Visual or olfactory evidence of contamination was not observed.
Co-ordinates and elevations estimated from the topographical survey.

Key:

B - Bulk Sample
D - Disturbed Sample
U - Undisturbed Sample
C - Core Sample
ES - Environmental Sample
W - Water Sample
PID - PID Reading
N60 - Corrected SPT N Value
Ublow - No. of blows for U Sample



Project: Barlestone Road, Newbold Verdon	Project No. 24832	Start Date: 18/01/2024	End Date: 18/01/2024	Plant Used: Tracked window sampling rig
Location: Leicestershire, LE9 9NE	Logged By:	Easting and Northing Co-ordinates: 444542.39 304380.22		Elevation (m AOD): 133.00
Client: David Wilson Homes East Midlands	Approved By: DT			

Strata Description	Depth (m)	Level (m AOD)	Legend	Samples		Tests	Groundwater (m)	Backfill
				Type	Depth			
Brown, slightly clayey, silty, slightly gravelly, sand TOPSOIL. Gravel comprises sub-angular to sub-rounded, fine to medium quartzite and flint.	0.25	132.75						
Brown, slightly clayey, slightly silty, gravelly SAND. Gravel comprises sub-angular to sub-rounded, fine to medium quartzite and flint.	0.45	132.55						
GLACIOFLUVIAL DEPOSITS								
Reddish brown, silty, gravelly CLAY. Gravel comprises sub-angular to sub-rounded, fine to medium sandstone, flint and quartzite.								
GLACIOFLUVIAL DEPOSITS								
								
								
								
								
								
								
								
								
								
								
								
								
								
								
								
								
								
								
								



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