

Materials Management Plan (MMP) Form - October 2014

This form should be completed once the lines of evidence have been marshalled in relation to suitability for use, certainty of use and quantity required.

The answers to the questions posed within this form, together with the supporting information will constitute the MMP and must be provided to the Qualified Person.

A Qualified Person may comment on draft versions of this MMP, but will not complete the Declaration until all the relevant documents, demonstrating lines of evidence have been provided for each site.

The person / organisation who will pay the Declaration fee should confirm that they have read and understand the Terms and Conditions relating to the payment of the Declaration fee to CL:AIRE. These can be found on the CL:AIRE website.

The person / organisation agreeing to pay the Declaration Fee - Name, organisation and contact details inc. email address -	Ridge and Partners LLP Rhodium Building Blythe Valley Business Park Solihull Birmingham B90 8AS keryswebb@ridge.co.uk
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I confirm I have read and understood the Terms & Conditions.

Each question must be answered. If the question is not applicable please state this and provide a brief explanation.

1. Specify the scenario to which this MMP relates, as described in the Definition of Waste: Development Industry Code of Practice (DoW CoP) (1, 2, 3 or 4):

- ☒ 1. Reuse on the Site of Origin
- ☐ 2. Direct Transfer of clean naturally occurring soil / mineral materials
- ☐ 3. Cluster Project
- ☐ 4. Combination of any of the above

In the case of a combination of reuse scenarios, please describe it below (e.g. (i) Reuse on Site of Origin and Direct Transfer of clean naturally occurring unpolluted soils, (ii) Reuse on the Site of Origin with Direct Transfer of clean naturally occurring soil to x number of development sites etc:

(NB: A Declaration is required for reuse on the Site of Origin and for any 2 site arrangement i.e. there is no facility for a combination Declaration)

2. Organisation and name of person preparing this MMP	Kerys Webb Graduate Geo-Environmental Consultant Ridge and Partners LLP Rhodium Building Blythe Valley Business Park Solihull Birmingham B90 8AS
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Document Control

Date issued	January 2026
Revision date	
Summary of revision 1	
Summary of revision 2	

Insert additional lines to the table above for any subsequent revisions.

Note - revisions to the MMP do not trigger an additional Declaration by a Qualified Person, unless an additional site is added to the project.

Revisions to the MMP must be recorded and summarised in the Document Control box above.

Site Details

3. Site / Project name(s)	Balance Power – Land off Dig Gate Lane, Rochdale
Reuse / receiving site name :	Balance Power – Land off Dig Gate Lane, Rochdale
Donor site name (if Direct Transfer)	N/A

Landowners

4a. Name of Landowner(s) (full address and contact details) – where excavated materials are to be reused	Balance Power Projects Limited 107 Mere Grange Leaside St. Helens Merseyside England WA9 5GG	Site Address: Land off Dig Gate Lane Rochdale Greater Manchester OL16 4NR
4b. Name of Landowner(s) (full address and contact details) – where excavated materials are arising from	As above	

Summary and objectives

5a. Provide a brief description of the planned project and how excavated materials are to be reused.	Site Wide Description The Site is located approximately 2.5km south-east of Rochdale Town centre, approximately centred at National Grid Reference (NGR) SD 91906 11181 and covers an area of approximately 1.0 hectare. A Site Location Plan is included in Appendix A. The Site currently comprises land utilised for grazing with a pond located
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	approximately centrally. The Site slopes towards the north-west at a gradient of approximately 1v:14h. A raised embankment adjacent to the M62 is described on Site which provides visual screening from the southernmost boundary. A single-track road named Dig Gate Lane runs adjacent to the Site along the eastern boundary and a public footpath runs adjacent to the western boundary. It is understood that the Site has been utilised for agriculture since circa 1851, with a pond excavated in the centre between 1979 and 1999. Two small structures were constructed in the easter section of the Site between 1999 and 2022. The proposed development comprises the construction of a battery energy storage system with associated infrastructure split into two main compounds at differing levels. Separate accesses are to be constructed for each compound. The proposed development was granted full planning permission by Rochdale Borough Council, planning reference no. 24/00043/FUL, shown in Appendix E. It is understood that Superficial Deposits of Hummocky Glacial Deposits above bedrock of Pennine Lower Coal Measures underlie the Site. Made Ground is not recorded or has been encountered however a possibility of Made Ground may be present in small areas near the structures and pond present on Site. The proposed earthworks comprise a cut and fill exercise to provide the two development plateaus in accordance with the approved development. This MMP Declaration relates to the reuse of Site-won materials during the earthworks to construct the two development plateaus. Plans showing the topographical survey of the existing Site and proposed levels are included at Appendix B and Appendix C respectively. The reuse of materials generated by the earthworks is the subject of this MMP.
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General Plans and Schematics

6. <u>Attach</u> a location plan for the site(s) and a plan of the site(s) which identifies where different materials are to be excavated from, stockpile locations (if applicable), where materials are to be treated (if applicable) and where materials are to be reused.	Plan Document Reference(s): Appendix A: - Ridge and Partners LLP, Site Location Plan, Fig.1 Appendix B: - Balance Power Projects LTD, Rochdale, Existing Plan Topo (ref: 058 – PL – OL164NR – 003, Rev D; dated 06/02/2024). Appendix C: - Balance Power Projects LTD, Rochdale, Proposed Plan (ref: 058 – PL – OL164NR – 101, Rev E; dated 26/07/2024). - Ridge and Partners LLP, Dig Gate Land Gas Peaker, Rochdale, Proposed Levels Strategy (ref: 5031777-RDG-XX-ST-DR-C-110600; dated 02/12/2025). - Ridge and Partners LLP, Dig Gate Land Gas Peaker, Rochdale, Proposed Cut & Fill Strategy (ref: 5031777-RDG-XX-ST-DR-C-110610; dated 02/12/2025). - Ridge and Partners LLP, Dig Gate Land Gas Peaker, Rochdale, Proposed Sections Key Plan Sheet 1 of 3 (ref: 5031777-RDG-XX-ST-DR-C-110620; dated 02/12/2025). - Ridge and Partners LLP, Dig Gate Land Gas Peaker, Rochdale, Proposed Sections Sheet 2 of 3 (ref: 5031777-RDG-XX-ST-DR-C-110621; dated 02/12/2025). - Ridge and Partners LLP, Dig Gate Land Gas Peaker, Rochdale, Proposed Sections Sheet 3 of 3 (ref: 5031777-RDG-XX-ST-DR-C-110622; dated 02/12/2025).
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7. Attach a schematic of proposed materials movement. Where there is only one source area and one placement area briefly describe it. For all other projects a schematic is required.	Description & Schematic Document Reference: Appendix C: • Ridge and Partners LLP, Dig Gate Land Gas Peaker, Rochdale, Proposed Levels Strategy (ref: 5031777-RDG-XX-ST-DR-C-110600; dated 02/12/2025). • Ridge and Partners LLP, Dig Gate Land Gas Peaker, Rochdale, Proposed Cut & Fill Strategy (ref: 5031777-RDG-XX-ST-DR-C-110610; dated 02/12/2025). • Ridge and Partners LLP, Dig Gate Land Gas Peaker, Rochdale, Proposed Sections Key Plan Sheet 1 of 3 (ref: 5031777-RDG-XX-ST-DR-C-110620; dated 02/12/2025). • Ridge and Partners LLP, Dig Gate Land Gas Peaker, Rochdale, Proposed Sections Sheet 2 of 3 (ref: 5031777-RDG-XX-ST-DR-C-110621; dated 02/12/2025). • Ridge and Partners LLP, Dig Gate Land Gas Peaker, Rochdale, Proposed Sections Sheet 3 of 3 (ref: 5031777-RDG-XX-ST-DR-C-110622; dated 02/12/2025). To produce a development platform suitable for the proposed development, the topsoil is to be removed and reused for landscaping purposes. Once the topsoil has been removed, the natural geology will be excavated, and arisings will be placed to achieve the required external levels. The proposed elevations and proposed cut and fill strategy are included in Appendix C.
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Parties Involved and Consultation – if more than one party please provide additional details for them and identify the location that they will be working e.g. where a site is zoned

8a. Main earthworks contractor(s) (full address and contact details) – Where excavated materials are to be reused	TBC – To be appointed by Balance Power Projected Limited
8b. Main earthworks contractor(s) (full address and contact details) - Where excavated materials are arising from	TBC - To be appointed by Balance Power Projected Limited
9. Treatment contractor(s) (full address and contact details) – for treatment on site of origin, or at a Hub site within a fixed STF / Cluster Project	Not applicable, no treatment proposed or anticipated.
10. Where wastes and materials are to be transported between sites, provide details of the transport contractor(s) (full address, contact details and waste carriers registration details (if applicable))	Surplus of material anticipated which is to be disposed of at a suitably permitted waste management facility. Waste carriers TBC.
11. Provide Local Authority contact details (full address and named contacts) where excavated materials are to be reused	Rochdale Borough Council Number One Riverside Smith Street Rochdale OL16 1XU

	Tel: 01706 647474 Email: environmental.health@rochdale.gov.uk
12a. For the site where materials are to be reused and for Hub Site locations provide Environment Agency contact details (full address and named contacts):	Environment Agency (EA) Richard Fairclough House Knutsford Road Warrington Cheshire WA4 1HG Tel: 01925 653999 Email: enquiries@environment-agency.gov.uk
<i>For all Cluster Projects:</i> 12b. Attach any relevant documentation from the EA relating to the excavation and reuse of the materials to demonstrate no objection to the proposals (see 3.37 of DoW CoP) If the EA has not been consulted please explain why (see paragraph 3.39 of the	EA references: Not applicable.

DoW CoP).	
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Lines of Evidence

There is no one single factor that can be used to decide that a substance or object is waste, or when it is, at what point it ceases to be waste; as complete a picture as possible has to be created.

The following sections require completion to ensure the correct decision is made.

If a requested item is not relevant it is important to clearly state why this is so (e.g. no planning permission required because permitted development status exists).

Suitable for use criteria

13. Please describe or provide copies of the required specification(s) for the materials to be reused on each site.	Document Reference(s): Appendix D: Ridge and Partners LLP, Balance Power, Ground Investigation Report Dig Gate Lane, Rochdale (ref: 5028934-RDG-XX-ST-DOC-C-00GIR01; dated 30.06.2025) A previous ground investigation undertaken by Ridge, included at Appendix D, encountered topsoil at ground level in all exploratory hole locations to a maximum
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	depth of 0.40m below ground level (bgl), underlain by natural soils of sandy clay to a maximum depth of 13.60m bgl, followed by sand and gravel to 13.95m bgl. The base of this strata was not proven. These soils were considered to likely represent Hummocky Glacial Deposits. No Made Ground was encountered during the investigation. Based on the medium to high SPT-N values recorded in shallow cohesive materials it is considered that the ground conditions are generally suitable for traditional foundations. The firm to stiff, becoming stiff and very stiff clays are the recommended founding stratum. Based on the SPT results an estimated allowable bearing value of 50 – 100kPa can be applied to firm soils below 2.50m from ground level. Areas of cut are therefore likely to expose geotechnically suitable strata. Based on the results of the ground investigation, the natural soils that underlie the topsoil are likely to be geotechnically suitable for reuse in areas that require fill and should be placed and compacted as in accordance with the requirements of the Specification for Highway Works (CC 601 – Earthworks). The proposed cut & fill strategy (included at Appendix C) indicates that the majority of the Site is proposed for cut with only approximately 550m³ of fill required to achieve the proposed formation levels.
<i>Where contamination is suspected or known to be present</i> 14a. Please provide copies of or relevant extracts from the risk assessment(s) that	Document Reference(s): Not applicable.

has been used to determine the specification for use on the site. This must relate to the place where materials are to be used. This must be in terms of (i) human health (ii) controlled waters and (iii) any other relevant receptors. If a risk assessment is not relevant for a particular receptor given the site setting please explain why below:	
14b. Please attach any relevant documentation from the LA relating to the excavation and reuse of the materials to demonstrate no objection (see 3.37 of the CoP)	LA Document references: An email was sent by Richard Taylor-Aspinall (Ridge) on the 8th January 2026 to Rochdale Borough Council. At the time of writing, a response had not been received. Regulatory Correspondence is included in Appendix G.
14c. Please attach any relevant documentation from the EA relating to the excavation and reuse of the materials to demonstrate no objection (see 3.37 and Table 2 of the CoP)	EA Document references: An email was sent by Richard Taylor-Aspinall (Ridge) on the 8th January 2026 to the Environment Agency. At the time of writing, a response has not been received. Regulatory Correspondence is included in Appendix G.

14d. Please attach any relevant documentation from any other regulators (if relevant) relating to the excavation and reuse of the materials to demonstrate no objection (see 3.37 of the CoP)	Document Reference(s): Not applicable.
<i>Where contamination is not suspected</i> 15a. Please attach copies or relevant extracts from the Desk Top Study that demonstrates that there is no suspicion of contamination.	Document Reference(s) Appendix D: Arcus, Phase 1 Land Contamination Desk Study, Rochdale, BESS, Land West of Dig Gate Lane, Rochdale (ref: 5154; dated 21/11/2022). A Preliminary Conceptual Site Model (CSM) presented within the Phase 1 Desk Study concluded that the risk posed to the identified human health and controlled waters receptors for the proposed development is low without mitigation. Therefore, based on the findings of the report, it was anticipated that the Site would not pose an unacceptable risk to the proposed future end users or controlled waters.
15b. Please attach copies of or relevant extracts from the site investigation/testing reports that adequately characterise the clean materials to be used (if appropriate).	Document Reference(s) Appendix D: Ridge and Partners LLP, Balance Power, Ground Investigation Report Dig Gate Lane, Rochdale (ref: 5028934-RDG-XX-ST-DOC-C-00GIR01; dated 30.06.2025)

	A review of the Desk Study included within the Ground Investigation Report concluded no further contamination assessment was considered necessary; however, a precautionary contamination screening was carried out on shallow soils. The samples analysed showed no positive identification of asbestos and Polycyclic Aromatic Hydrocarbons (PAHs), Total Petroleum Hydrocarbons (TPH), BTEX and MTBE results were below the laboratory limit of detection. Some heavy metals were identified above the limit of detection but found to not exceed the relevant screening criteria. The results confirmed the findings of the preliminary contamination risk assessment i.e. there is not considered to be a soil contamination source on Site. Full Planning Permission was granted for the Site with no contaminated land conditions included however the decision notice letter states "In the event that unexpected contamination is identified during implementation of the development hereby approved, the risks associated with contamination shall be assessed and addressed by an appropriately qualified and experienced consultant in liaison with the Council's contaminated land officer".
15c. Please attach copies of any other relevant information (if available) confirming that land contamination is not an issue.	Document Reference(s) Not applicable.

NB: It is your responsibility to assess the nature of the material to be used and that it fits within the limitations of the scenario under which it is to be used

Certainty of use

Various lines of evidence are required to demonstrate that the materials are certain to be used. This includes:

- The production of this MMP
- An appropriate planning permission (or conditions that link with the reuse of the said materials)
- An agreed Remediation Strategy(ies)
- An agreed Design Statement(s)
- Details of the contractual arrangements

Please identify in the following sections what lines of evidence relate to the site(s) **where the materials are to be used**.

16a. Planning Permission(s) relating to the site where materials are to be reused Please provide a copy of the relevant planning permission	Document Reference: The Site was granted planning permission with conditions by Rochdale Borough Council, on 17th April 2025, (application ref: 24/00043/FUL) for the proposed development of a battery energy storage system with associated infrastructure and access. A copy of the planning permission is included in Appendix E.
16b. Explain how the reuse of the excavated materials fits within the planning permission(s) for each site.	Proposed development drawings found in Appendix C. • Ridge and Partners LLP, Dig Gate Land Gas Peaker, Rochdale, Proposed Cut

	& Fill Strategy (ref: 5031777-RDG-XX-ST-DR-C-110610; dated 01/12/2025). Ridge and Partners LLP, Dig Gate Land Gas Peaker, Rochdale, Proposed Levels Strategy (ref: 5031777-RDG-XX-ST-DR-C-110600; dated 02/12/2025). To produce the two development plateaus suitable for the consented development, a cut and fill exercise is required to achieve proposed formation levels. Drawings showing the proposed levels as well as a cut and fill assessment between the existing ground level and proposed formation levels is presented in Appendix C.
16c. If planning permission is not required for any one site please explain why below e.g. permitted development, clean up of a chemical spill, surrender of an Environmental Permit, re-contouring within the existing permission.	Not applicable.

<i>Where contamination is suspected or is known to be present</i> 17. Please provide a copy of any Remediation Strategy(ies) that have been agreed with relevant regulators.	Document Reference(s): Not applicable.
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<i>Where contamination is not suspected</i>	Document Reference(s):
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18. Please provide a copy of any Design Statement(s) that have been agreed (e.g. with the planning authority or in the case of permitted developments the client).	A Design Statement has been produced by Ridge and Partners LLP and is included at Appendix E: Ridge and Partners LLP, Land off Dig Gate Lane, Reuse of Material on Site of Origin Design Statement (ref: 5031777-RDG-XX-ST-DOC-C-06-0002; dated January 2026).
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Quantity of Use

19. Please provide a breakdown of the excavated materials for each site and how much will be placed at each site or sub area of each site. Where this is not specific to a single readily identifiable source refer to an annotated plan, schematic or attach a tabulated summary.	Document Reference(s): A cut and fill strategy for the Site shows the difference between the existing ground level and proposed formation levels, found in Appendix C. This assessment estimates a total cut of 2,562m³ of anticipated natural soils and a total fill volume of 550m³ to achieve the proposed formation levels. A surplus of approximately 2,011m³ has been calculated which shall be disposed of off-Site at a suitably permitted waste management facility. It is therefore estimated that the volume of material to be reused under this Declaration is 550m³.
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20a. How has consolidation/compaction being considered in the above mass balance calculations?	In-situ soils proposed for reuse comprise predominantly of firm to stiff cohesive materials. Re-compaction of these materials is anticipated to achieve near to the existing density/stiffness and therefore the volume is unlikely to change significantly. The calculated surplus volume of material will be disposed of off-Site at a suitable permitted waste management facility.
20b. How has loss due to treatment being considered in the above mass balance calculations (if applicable)?	Not applicable.
20c. How has the addition of treatment materials being considered in the above mass balance calculations (if applicable)? Note - An exact figure is not required but one that is reasonable in the circumstances and can be justified if challenged.	Not applicable.

Contingency arrangements

Explain what is to happen in the following situations and **identify the appropriate clauses** in the contract(s) (Such clauses must be provided to the Qualified Person, preferably as a summary document): or

21a. What is to happen to, and who is to	Reference:
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pay for out of specification materials?	This is not anticipated however unsuitable materials segregated from the earthworks will be removed from the Site and disposed of at a suitable permitted waste management facility at the cost of Balance Power Projects Ltd.
21b. What is to happen to, and who is to pay for any excess materials?	Reference: A volume of 2,011m ³ surplus materials has currently been estimated which will be removed from the Site and disposed of at a suitable permitted waste management facility at the cost of Balance Power Projects Ltd.
21c. What happens if the project programme slips in relation to excavated materials or materials under -going treatment?	Reference: The materials proposed for re-use exist in situ within the Site. No treatment of soils is proposed as part of these works and therefore it is anticipated that there will be no associated impact on the programme. In the event the programme slips it will be the responsibility of the Balance Power Projects Ltd.
21d. Other identified risk scenarios for the project (relating to excavated materials)?	Reference: Mud, dust, noise emissions as well as pollution prevention and control and waste management are to be controlled and managed by the Earthworks Contractor (TBC) in accordance with the Construction Management Plan (CEMP) which shall be submitted to the LPA as per the requirements of Condition 12 of the Planning Permission

The Tracking System

Where contamination is suspected or known to be present, state the procedures put in place to:

22a. For all sites please describe the tracking system to be employed to monitor materials movements.	Materials movement will be tracked on a regular basis by the site engineer and recorded on a material tracking documents, backed up by a survey of the final levels. Example material tracking documents are included in Appendix H. This includes a form requiring all relevant details required by section 3.12 of the DoW:CoP including material location, description, visual/olfactory assessment, confirmation of suitability etc. Further to the form, there is a drawing that will be annotated as works progress showing material types, source and destination within the Site.
<i>Where contamination is suspected or known to be present, state the procedures put in place to:</i> 22b. Prevent contaminants not suitable for the treatment process being accepted	Not applicable.
<i>Where contamination is suspected or known to be present, state the procedures put in place to:</i> 22c. Prevent cross contamination of materials not in need of treatment, wastes awaiting treatment and treated materials	Not applicable.
<i>Where contamination is suspected or known to be present, state the procedures put in place to:</i>	Not applicable.

22d. Demonstrate that materials that do not require treatment and successfully treated materials reach their specific destination	
<i>Where contamination is suspected or known to be present, state the procedures put in place to:</i>	Not applicable.
22e. Ensure that waste for off-site disposal or treatment is properly characterised and goes to the correct facility	

23. Please attach a copy of the tracking forms / control sheets that are to be used to monitor materials movements. To include transfer of loads on site into stockpiles prior to treatment (if applicable), stockpiled after treatment (if applicable), stockpiled awaiting use (as appropriate) and final placement.	Document reference(s) A copy of example tracking proforma is included in Appendix H. This includes a form requiring all relevant details required by section 3.12 of the DoWCoP including material location, description, visual/olfactory assessment, confirmation of suitability etc. Further to the form, there is a drawing that will be annotated as works progress showing material types, source and destination within the Site.
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<i>For Hub Sites within Cluster Projects & where materials need treatment before reuse</i>	Permit reference / EA letter reference: Not applicable.
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24. Please attach a copy of the Environmental Permit covering the treatment process. Alternatively if the treatment is covered by a Mobile Plant Permit and associated Deployment Form, attach a copy of the EA agreement to the Deployment Form.	
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Records

25. Where, and in what form, are records to be kept? Note – records e.g. transfer notes, delivery tickets, Desk Top Study, Site Investigation, Risk Assessment(s), Verification Report(s) need to be kept for at least 2 years after the completion of the works and production of the Verification Report	All records are to be kept by Balance Power Projects Ltd. and their chosen Principal Contractor on Site for the duration of the works. On completion, the records will be kept in electronic format by the Balance Power Projects Ltd. for a minimum of 2 years.
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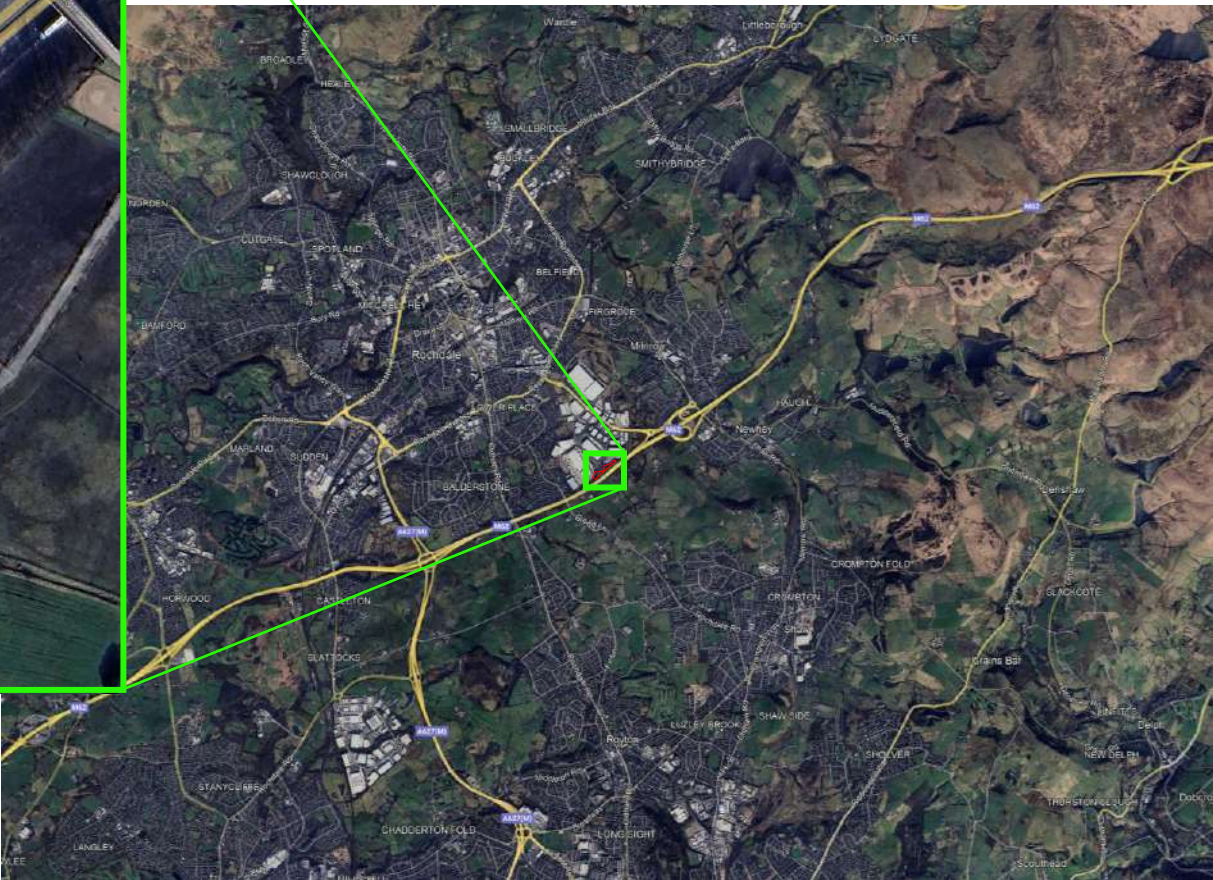
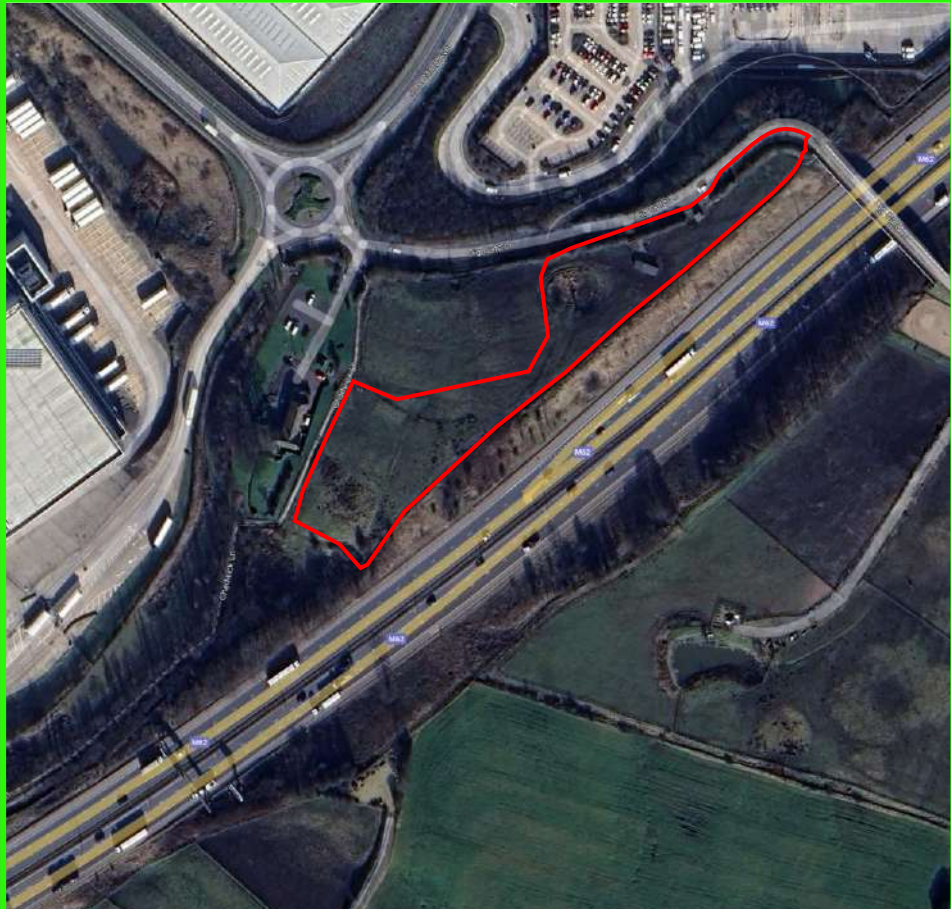
Verification Plan

26. Provide or explain the Verification Plan which sets out how you will record the placement of materials and prove that excavated materials have been reused in the correct location and in the correct quantities within the development works (see 3.4 of the DoW CoP).	Document Reference It is proposed that 550m³ of Site won material is to be reused on Site in order to achieve the proposed levels (Appendix C) for the approved development. Following completion of the works all records will be archived and retained by the Client. In accordance with section 3.4 of the DoW:CoP, these records will comprise the following: • Appropriate annotated site plans identifying stockpile locations and references and placement locations; • Details of experience and qualifications of the person preparing the report; • Description of the project; • Description of how the use of materials links with the Remediation Strategy; • Reference to site investigation data; • Reference to risk assessments; • Reference to the MMP and associates tracking system; • Suitable for use criteria; • Laboratory data; • Reference to waste transfer documentation; • Waste transfer documentation; • Signed delivery tickets; • Record of contingency arrangement(s) that had to be implemented; • Records of material quantities; and • Copy of signed Declaration by Qualified Person.
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Appendix A – Site Location Plan

Legend:

Approximate MMP Boundary



Project:		Land off Dig Gate Lane, Kingsway Business Park, Rochdale		Title:	Site Location Plan	
Job Number:	5031777	Client:	Balance Power Projects Ltd.	Ridge and Partners LLP TEL: 01962 834400 www.ridge.co.uk	Rhodium Building Blythe Valley Business Park Solihull Birmingham B90 8AS	
Drawing:	5031777 – Fig01	Revision:	-			
Drawn:	RT-A	Date:	Jan 2026			
Checked by:	NS	Scale:	NTS			

Appendix B – Topographical Survey



GENERAL
THIS DRAWING IS THE COPYRIGHT OF BALANCE POWER PROJECTS LTD
ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED
LAYOUT/FABRICATION AREA IS NOT CONSIDERED IN THE LAYOUT
THIS DRAWING DOES NOT DEFINE THE SCOPE OF SUPPLY

NOTES
1. NA

EQUIPMENT LIST
1. NA

PROJECT NUMBER
058 - PL - OL164NR - 003

PROJECT TITLE
ROCHDALE

PROJECT ADDRESS
ROCHDALE - OL16 4NR

DATE
06/02/2024

PROJECT TYPE
ENERGY DEVELOPMENT

DRAWING TYPE
EXISTING PLAN TOPO

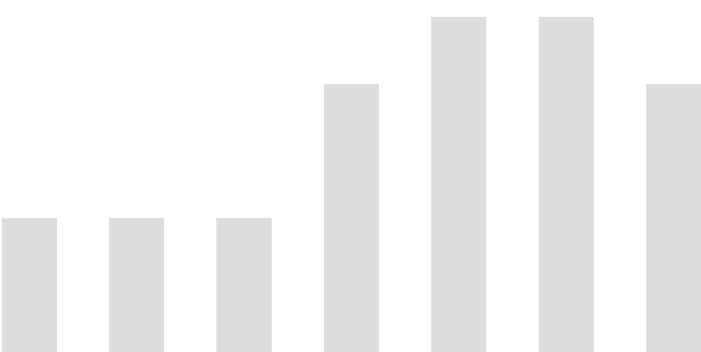
DESIGNER
C. VICK

CHECKED BY
R. MACINDOE

SCALE
1:500

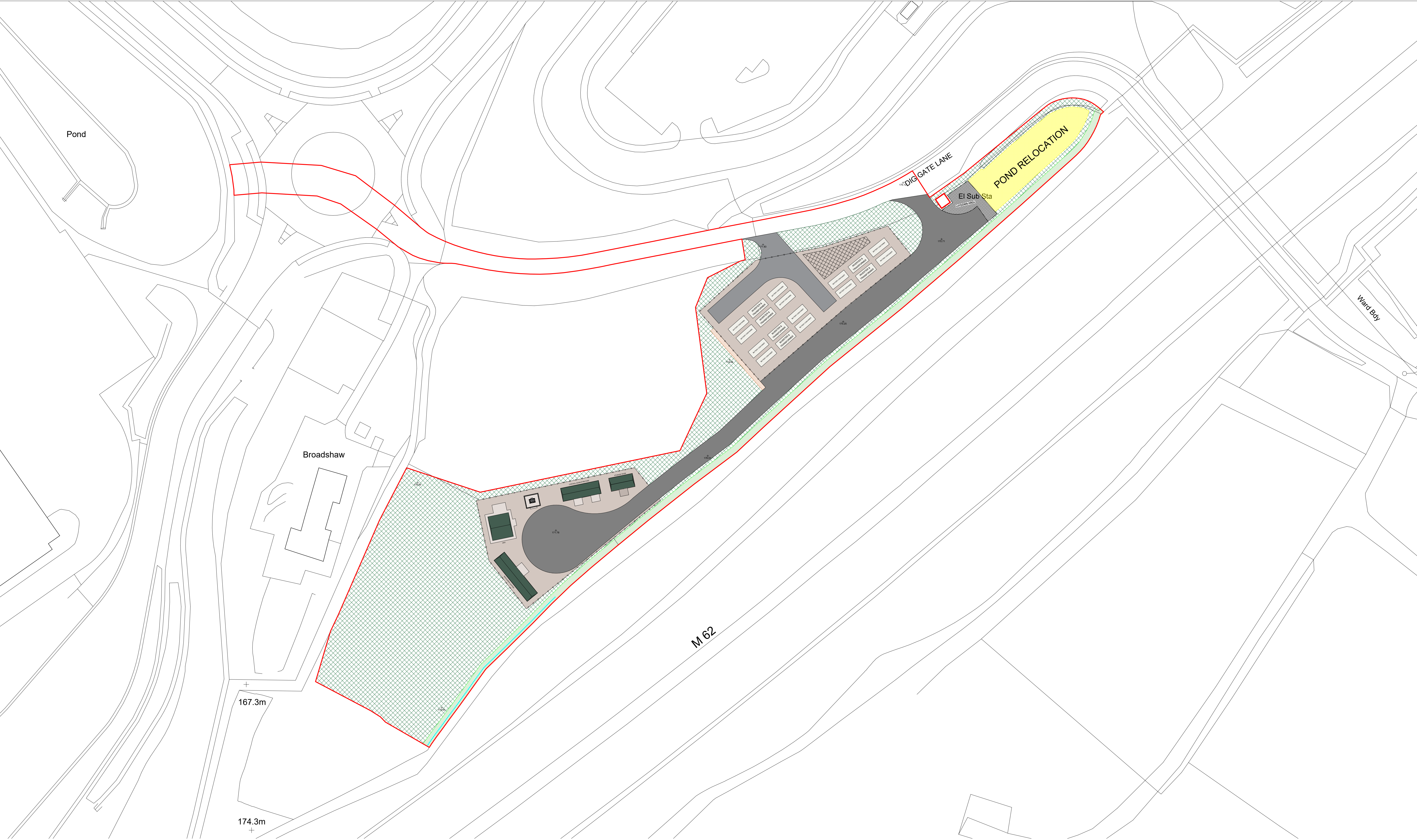
REVISION
REV D

PAPER SIZE
A1



DRAWING PURPOSE
PLANNING

Appendix C – Proposed Layout



GENERAL
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THIS DRAWING DOES NOT DEFINE THE SCOPE OF SUPPLY

NOTES
1. NA

EQUIPMENT LIST
1. TBC

PROJECT NUMBER
058 - PL - OL164NR - 101

PROJECT TITLE
ROCHDALE

PROJECT ADDRESS
ROCHDALE - OL16 4NR

DATE
26/07/2024

PROJECT TYPE
ENERGY DEVELOPMENT

DRAWING TYPE
PROPOSED PLAN

DESIGNER
C. VICK

CHECKED BY
R. MACINDOE

SCALE
1:500

REVISION
REV E

PAPER SIZE
A1



DRAWING PURPOSE
PLANNING

SURFACE LEVEL DATA					
NUMBER	MINIMUM LEVEL	MAXIMUM LEVEL	COLOUR	AREA	VOLUME
1	-3.500	-3.000		22,969m²	2,408m³
2	-3.000	-2.500		143,181m²	38,877m³
3	-2.500	-2.000		261,879m²	141,800m³
4	-2.000	-1.500		330,629m²	294,528m³
5	-1.500	-1.000		253,139m²	450,551m³
6	-1.000	-0.500		385,719m²	588,231m³
7	-0.500	0.000		1455,707m²	1054,705m³
8	0.000	0.500		934,817m²	431,622m³
9	0.500	1.000		387,625m²	108,087m³
10	1.000	1.500		71,739m²	9,974m³
11	1.500	2.000		6,248m²	6,084m³

Cut/Fill Summary

Name	Cut Factor	Fill Factor	2D Area	Cut	Fill	Net
Cut and Fill Proposed	1.000	1.000	4296.551sqm	2561.837 Cu. M.	550.184 Cu. M.	2011.654 Cu. M.<Cub
Totals			4296.551sqm	2561.837 Cu. M.	550.184 Cu. M.	2011.654 Cu. M.<Cub

DISCLAIMER NOTES:

- THIS DOCUMENT IS COPYRIGHT OF THE ORIGINATOR AND MUST BE TREATED AS CONFIDENTIAL.
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- THE ORIGINATOR ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF BACKGROUND INFORMATION PRODUCED BY THIRD PARTIES - THIS MUST BE TREATED AS INDICATIVE ONLY.
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LEGEND
SITE BOUNDARY

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RIDGE

PROJECT NUMBER: 5029223

CLIENT: BALANCE POWER

IN ASSOCIATION WITH:

PROJECT: DIG GATE LANE GAS PEAKER ROCHDALE

TITLE: PROPOSED CUT & FILL STRATEGY

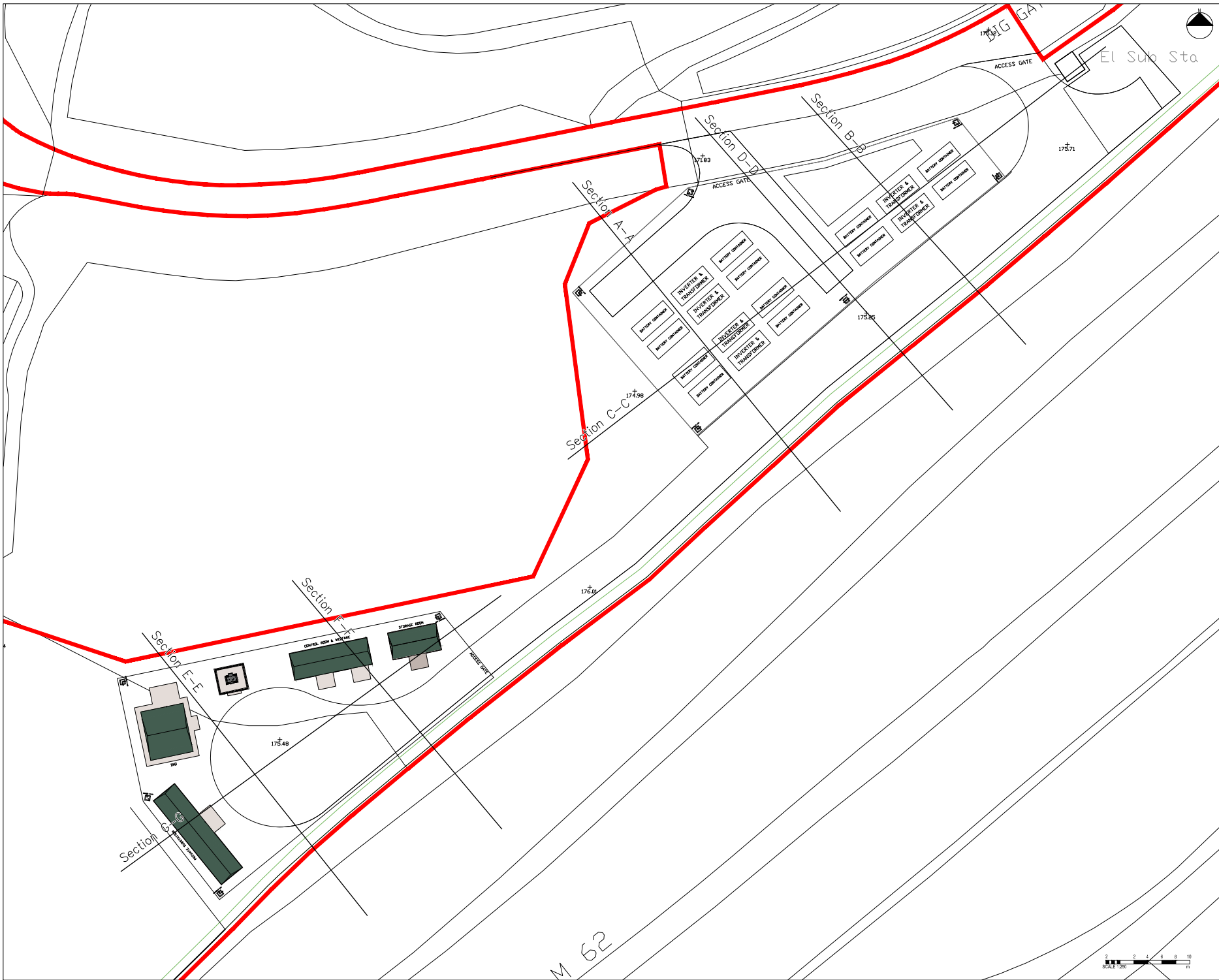
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LEGEND

SITE BOUNDARY

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01	02/12/2025	PJ	CL	
ORIGINATOR	www.ridge.co.uk			

RIDGE

PROJECT NUMBER: 5029223

CLIENT: BALANCE POWER

IN ASSOCIATION WITH:

PROJECT: DIG GATE LANE GAS PEAKER
ROCHDALE

TITLE: PROPOSED SECTIONS
KEY PLAN
SHEET 1 OF 3

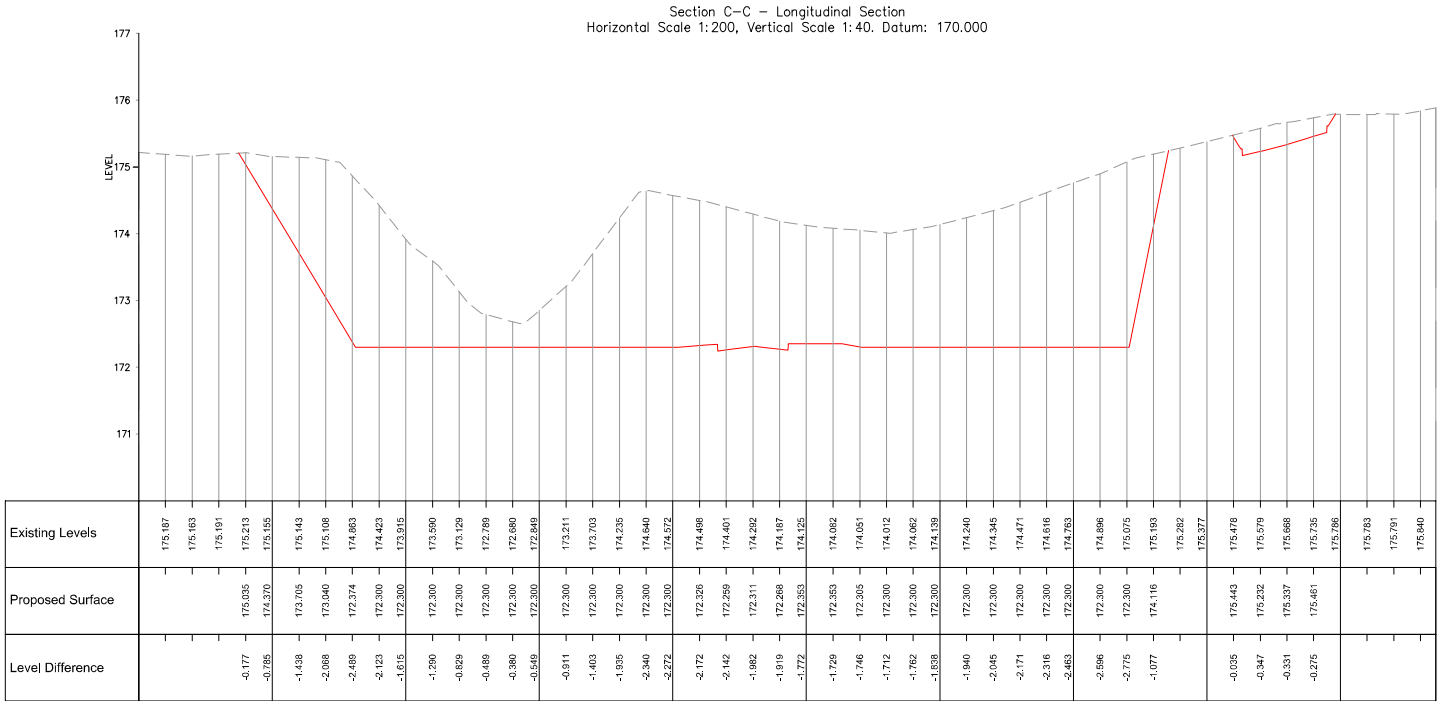
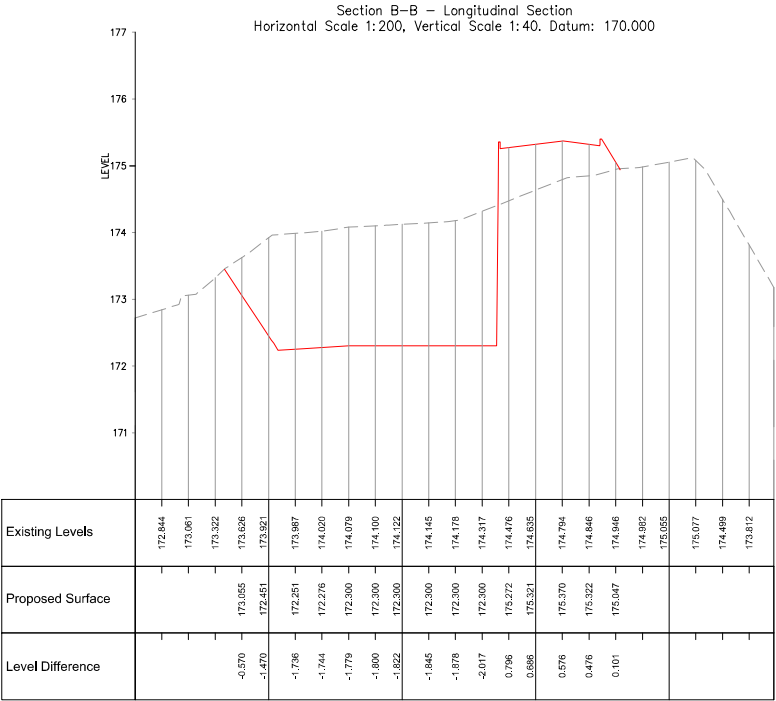
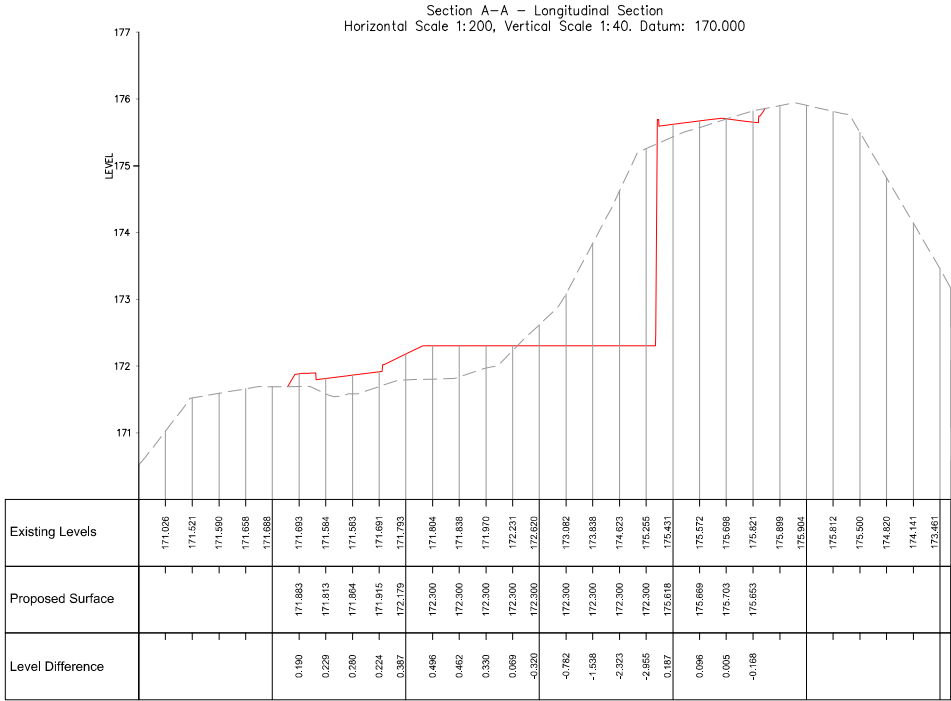
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- EXISTING SURFACE

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ORIGINATOR: www.ridge.co.uk



PROJECT NUMBER: 5029223
CLIENT:
BALANCE POWER

IN ASSOCIATION WITH:

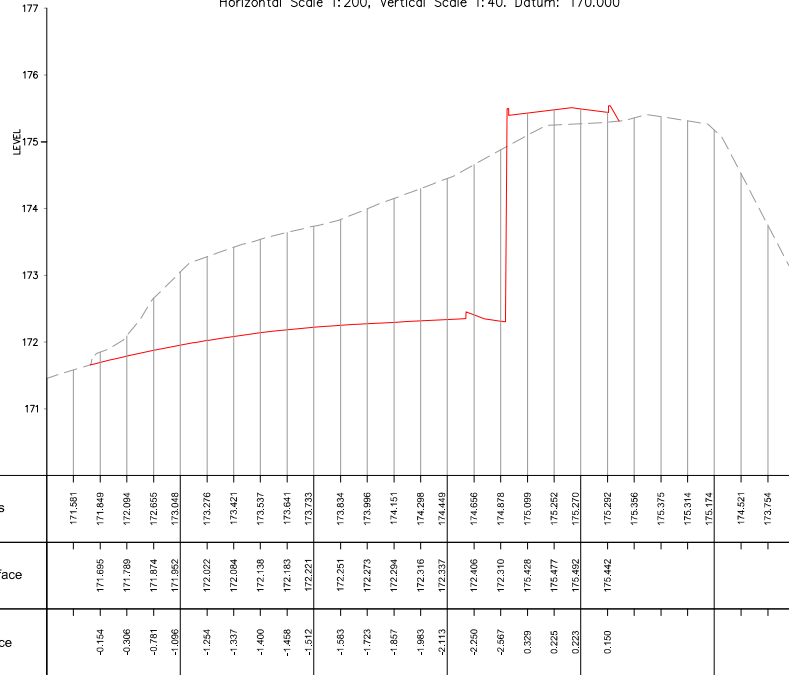
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DIG GATE LANE GAS PEAKER
ROCHDALE

TITLE:
PROPOSED SECTIONS
SHEET 2 OF 3

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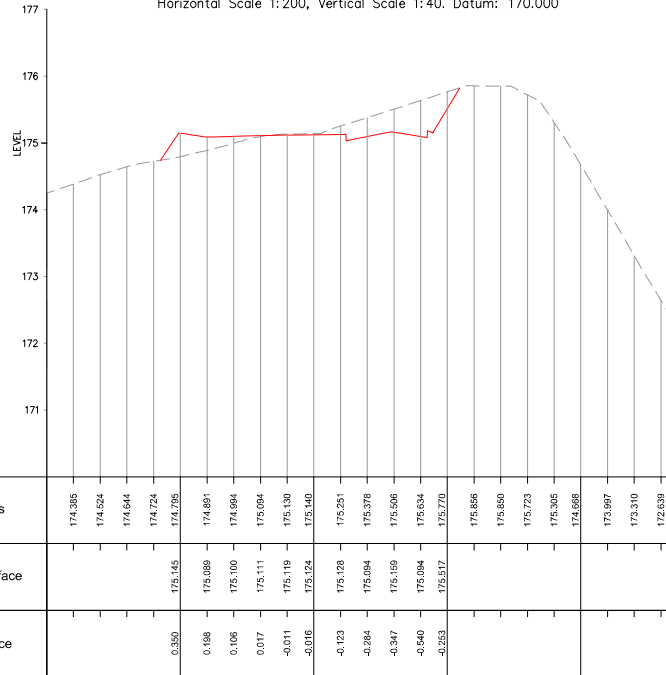
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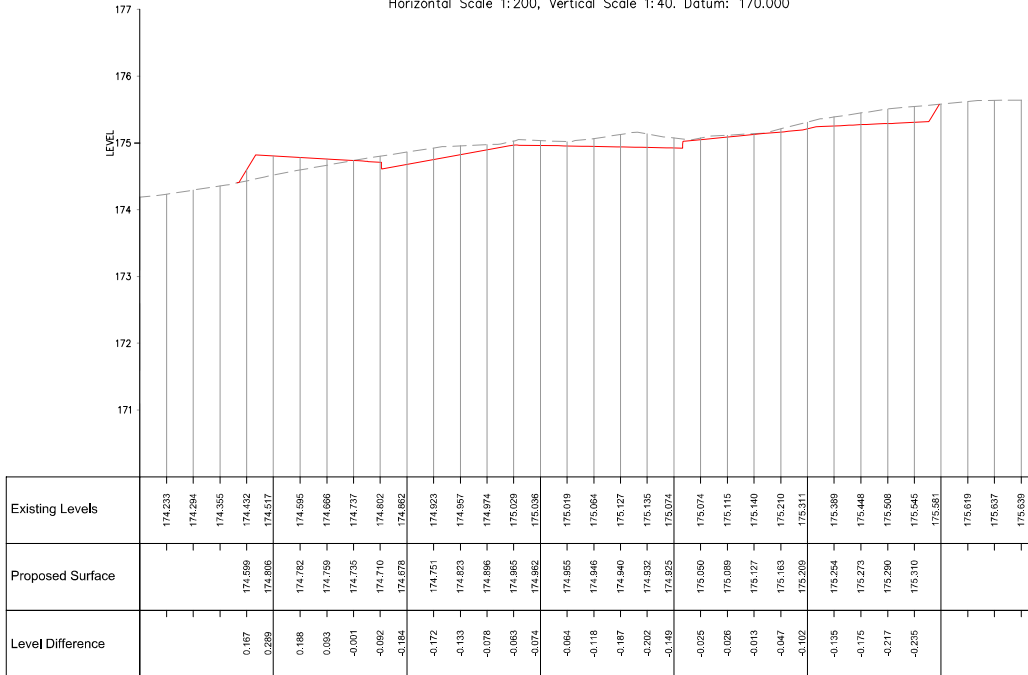
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Section F-F – Longitudinal Section
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Section G-G – Longitudinal Section
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- EXISTING SURFACE

REV - 02/12/2025 PJ CL

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ORIGINATOR: www.ridge.co.uk



PROJECT NUMBER: 5029223

CLIENT:

BALANCE POWER

IN ASSOCIATION WITH:

PROJECT:

DIG GATE LANE GAS PEAKER

ROCHDALE

TITLE:

PROPOSED SECTIONS

SHEET 3 OF 3

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PROJECT: ORG: FUNCTION: SPATIAL: FORM: DISCIPLINE: NUMBER: REV:

5031777 RDG XX ST DR C 110622 P01

Appendix D – Previous Reports



**PHASE 1 LAND CONTAMINATION DESK STUDY
ROCHDALE BESS**

**LAND WEST OF DIG GATE LANE, ROCHDALE
FOR BALANCE POWER PROJECTS LTD**

NOVEMBER 2022



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1 INTRODUCTION

1.1 General

This report relates to the proposal for the development of a Battery Energy Storage System (BESS), located on Land southeast of Rochdale town centre and immediately north of the M62 motorway (the Site). Arcus Consultancy Services Ltd (Arcus) has been commissioned by Balance Power Projects Limited to prepare a Phase 1 Land Contamination Desk Study for the Site to support a planning application.

1.2 Scope of Work

This desk study report sets out the ground conditions and associated potential development constraints and includes a review of historical, geological and environmental sensitivity mapping. The data acquired during the preliminary research informs an assessment and a preliminary Conceptual Site Model ('CSM'), which sets out the potential risks through the 'Source-Pathway-Receptor' relationship model. The desk study will include consideration of:

- Existing and historical land uses at the Site;
- Existing and historical land uses in the surrounding area;
- Superficial and solid geology;
- Hydrogeological and hydrological conditions;
- Available information from statutory bodies including the Environment Agency ('EA') and British Geological Survey ('BGS'); and
- Potential contamination and geotechnical development constraints.

The conclusions of the study will assist in the identification of any requirements for intrusive ground investigation and Generic Quantitative Risk Assessment ('GQRA').

1.3 Limitations and Assumptions

This assessment has been prepared by Arcus with reasonable skill, care and diligence. Information reported herein is based on the interpretation of publicly available information and references. This has been accepted in good faith as being accurate, valid and current. This report is for the exclusive use of Arcus and Balance Power Projects Ltd (the Applicant). No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from Arcus.

Arcus cannot be held responsible for any circumstances where information sourced and referenced is inaccurate or does not reflect the findings of the Site conditions. Should any additional information become available, Arcus will review this information and where appropriate, revise any existing opinions or conclusions.

It should be noted that asbestos surveys are not within the scope of this report.

2 THE SITE

2.1 Site Location

The Site comprises of approximately 1.4 ha of land approximately 2.5 km southeast of Rochdale town centre, immediately north of the M62 at National Grid Reference (NGR) 391847, 411156. The Site Location Plan is included in Appendix A.

2.2 Site Description

2.2.1 Site

The Site incorporates pastoral grassland with a gradual slope from south to north. A raised embankment adjacent to the M62 provides visual screening from the southernmost boundary. A single track road, 'Dig Gate Lane', runs adjacent to the eastern site boundary, while a public footpath runs adjacent to the western boundary.

2.2.2 Surrounding Area

The M62 motorway runs adjacent to the southern Site boundary, the area to the south of the motorway consists largely of agricultural fields. The area north of the Site largely consists of the Kingsway Business Park, of which the closest developments to the Site are an Asda distribution centre to the northwest of the Site and an Amazon warehouse to the northeast, these are both modern and industrial in appearance.

The Site is on the outskirts of Rochdale, the town centre is approximately 2.5 km to the northwest. Other nearby settlements include Milnrow and Newhey to the east, as well as Shaw and Royton to the south. A proposed Site Layout Plan is included within Appendix A.

2.3 Proposed Development

The Development will consist of the following components, as shown on the Proposed Site Layout Plan (058 - PL - OL164NR - ROCHDALE - PROPOSED PLAN - REV 0):

- 18 containerised battery energy storage modules;
- Inverter & transformers;
- AUX transformers;
- Control and welfare room;
- Storage room;
- Private substation;
- DNO room;
- Security fence boundary (2.4m (h));
- Laydown area;
- Site access and internal service roads; and

2.4 Landscaping, including pond relocation areaPlanning History

The has adjacent site been subject to a recent planning application that required a Contaminated Land Report (CLR). The application is for a gas peaking development adjacent to the Site boundary to the north (Planning Reference – 18/01338/FUL) originally submitted in November 2017 and resubmitted in December 2018. The CLR found no particular constraints to the Proposed Development with regards to ground contamination and it is concluded that the Site would not pose significant risk and that intrusive ground investigation is not deemed to be necessary.

3 CURRENT AND HISTORICAL LAND USES

3.1 General

Historical Ordnance Survey (OS) maps were obtained from Envirocheck, covering a time period between 1851 and 2022, which are included in Appendix B. Section 3.2 summarises the development changes in time lapse between published historical map extracts at the Site, and a surrounding area within a 250 m buffer.

3.2 Site and Surrounding Area Historical Review

3.2.1 1851 – 1894

The earliest available OS Map of 1851 shows the Site to be occupied predominantly by agricultural land partitioned by field lines. A footpath intersects the northwest of the Site, stretching from east to west. The Site boundary is adjacent to Broadshaw lane which runs from the Broadshaw Farmhouse, immediately west of the Site boundary to the junction with Moor Bank Lane, approximately 245 m north of the Site. Dig Gate Lane is another road that runs from northwest to southeast, where it reaches Dig Gate Farm, it is located approximately 40 m east of the Site at its closest point. A watercourse named Stanney Brook, running north to south, is present approximately 125 m east of the Site at its closest point.

No significant changes took place within 250 m of the Site between 1851 and 1894.

3.2.2 1894 – 1910

No significant changes took place within 250 m of the Site between 1894 and 1910.

3.2.3 1910 – 1956

No significant changes took place within 250 m of the Site between 1910 and 1956.

3.2.4 1956 – 1979

Between 1956 and 1979, the surrounding area was transformed due to the development of the M62, adjacent to the southern Site boundary. In addition to this, Dig Gate Lane has been redeveloped to cross over the motorway via a new bridge. Dig Gate Farm, 200 m southeast of the Site, has been developed with a small number of new buildings in this period.

3.2.5 1979 – 1999

The only notable change to the Site and surrounding areas between 1979 and 1999 is the addition of a pond in the central Site area.

3.2.6 1999 – 2022

There have been minor changes to the Site area in this period, with the addition of 2 small structures in the east of the Site, the easternmost of which is an electrical substation.

The surrounding areas have undergone significant developments. The road layout surrounding the Site has been changed, a new roundabout has been added approximately 40 m northwest of the Site. This connects John Milne Avenue (Formerly Broadshaw Lane), Dig Gate Lane and a new road named James Kearns Avenue.

Kingsway Business Park has been developed north of the Site and 2 buildings are located within 250 m of the Site boundary. Asda distribution centre, 100 m northwest of the Site, and an Amazon warehouse, 90 m northeast of the Site boundary. The areas surrounding

the Amazon warehouse have been landscaped and vegetated, changing the landscape around Dig Gate Lane.

Moor Bank Lane has been removed altogether and replaced with the A6193 dual carriageway which is located further north than the previous road.

4 GEOLOGY AND GROUND CONDITIONS

4.1 General

Published BGS mapping information was obtained from Envirocheck and reviewed to inform the potential underlying ground conditions. This was supported by the findings of the historical mapping review in relation to the possible made ground deposition and review of available historical BGS borehole data.

4.2 Published Geology

The published BGS information includes:

- Artificial Ground and Landslip - 1:50,000
- Superficial Geology - 1:50,000
- Bedrock and Faults - 1:50,000
- BGS GeoIndex - Online Interactive Mapping Service¹

4.2.1 Superficial Soils

The superficial soil mapping shows that the whole Site is underlain by Hummocky Glacial Deposits, described by the BGS as being composed of rock debris, clayey Till, sand and gravel.

Made ground is not recorded at the Site or its surrounding areas on geological mapping and is not anticipated across the majority of the Site. However, it is possible that there may be small areas of made ground in close proximity to the structures and pond present at the Site.

4.2.2 Bedrock Geology

Published geology mapping indicated the bedrock beneath the Site as Pennine Lower Coal Measures Formation, which consists of Mudstone, Siltstone and Sandstone.

There is a fault at rockhead located approximately 70 m east of the Site at its closest point.

4.2.3 Historical Borehole Information

There are two boreholes within close proximity of the Site boundary according to published mapping, they are both located within 50 m of the western Site boundary, however there is no detailed information given for these boreholes.

The closest borehole with detailed recorded information is approximately 430 m north of the Site. This borehole recorded a thin layer of topsoil followed by a mixture of gravel, sand and boulder clay underlain by sandstone at first, with coal recorded in deeper sections of the borehole.

4.3 Hydrogeology

4.3.1 EA Watercourse and Groundwater Classifications

Published EA information on surface water quality and bedrock aquifers was obtained from Envirocheck and reviewed to provide a preliminary assessment of the hydrogeological conditions. Bedrock aquifers are often used as drinking supplies and also support surface aquatic ecosystems. The designation level awarded by the EA reflects the importance of the aquifer and informs the assessment of surface water quality classifications, aquifer quality classifications and the potential contamination sources associated.

¹ BGS: GeoIndex [Online] Available at: [GeoIndex - British Geological Survey \(bgs.ac.uk\)](https://www.bgs.ac.uk/geoindex/) Accessed 24/10/2022

The nearest surface water feature to Site is the pond in a central area of the Site, there is also a drainage feature approximately 50 m west of the Site and a named watercourse, Stanney Brook, approximately 130 m northeast of the Site.

The bedrock aquifer at the Site and surrounding area is designated as a 'Secondary Aquifer – A' these comprise of permeable layers capable of supporting local water supplies and can provide an important source or base flow to rivers.

The superficial soils underlying the Site are also designated as 'Secondary Aquifer – A' as is most of the surrounding area. There is an area to the northeast of the Site designated as 'Secondary Aquifer – Undifferentiated', where the variable soil characteristics make it impossible to apply either an A or B designation to the aquifer.

According to the Envirocheck report, the groundwater vulnerability is classified as high vulnerability at the Site, as well as the areas surrounding it to the north, west and south. Areas to the east of the Site are defined as low vulnerability. This may be due to the difference in thickness of the superficial soils, the low vulnerability area to the east have thinner recorded layers of superficial soils compared to the high vulnerability area.

4.3.2 Risk of Flooding

According to the UK Government's Flood Map for Planning², the entirety of the Site is located within a "Flood Zone 1", defined as land assessed as having less than a 1:1,000 annual probability of river or sea flooding (< 0.1%).

4.4 Mining and Quarrying

4.4.1 Mining

Based on available online Coal Authority maps, documentary BGS information and preliminary research using the Coal Authority interactive map service³, the Site was noted to lie out with the 'Development High Risk Area' as identified by the Coal Authority. There are no recorded mine entries at the Site.

A Coal Authority Mining Report obtained from Envirocheck details that the Site could potentially be affected by the historic underground mining of 1 coal seam at ≥ 170 m below surface level. This seam was last worked in 1935.

The Coal Authority state that any movement in the ground associated with mining activity at this seam should have stopped by now, therefore the Site is considered to be low risk for development.

The Coal Authority Report is included in Appendix C.

4.4.2 Quarrying

No quarrying activity was noted in close proximity to the Site during the historical review.

4.5 Unexploded Ordnance (UXO)

The site lies within a 'Low Risk' area from WW2 bomb drop and therefore no further work is required.

² Uk Government: Flood Map for Planning [online] Available at: [Flood risk information for this location - Flood map for planning - GOV.UK \(flood-map-for-planning.service.gov.uk\)](https://www.gov.uk/flood-map-for-planning) Accessed: 24/10/2022

³ Coal Authority: Interactive Map [online] Available at: [Interactive Map Viewer | Coal Authority \(bgs.ac.uk\)](https://www.coalauthority.gov.uk/interactive-map-viewer/) Accessed 24/10/2022

5 ENVIRONMENTAL AND ENGINEERING CONSIDERATIONS

5.1 General

Information regarding the environmental considerations for the development Site was obtained from the Envirocheck Report (included in Appendix D). The report includes information covering potentially sensitive land uses/receptors and industrial land uses, geology, hydrology, hydrogeology, discharge consents, pollution incidents and radon risk.

5.2 Environmental Considerations and Sensitive/Contaminative Land Uses

5.2.1 Sensitive Land Uses

The Envirocheck Report indicates that none of the following sensitive land uses are located within 250 m of the Site boundary:

- Areas of outstanding natural beauty;
- Environmentally sensitive areas;
- Forest parks;
- Local nature reserves;
- Marine nature reserves;
- National parks;
- National scenic areas;
- Nitrate sensitive areas;
- Ramsar sites;
- Sites of special scientific interest;
- Special areas of conservation;
- Special protection areas;
- World heritage Sites;
- Ancient woodland;
- Areas of unadopted green belt; and
- Nitrate vulnerable zones (NVZ).

The Envirocheck Report indicates these sensitive land uses present within 250 m of the site boundary:

- Areas of adopted green belt.

5.3 Industrial Land Uses (Trade Directory Entries)

The Envirocheck Report indicates that no trade directory entries operate within 250 m of the Site.

5.4 Potential Contaminative Land Uses

There have not been any potentially contaminative land uses within 250 m of the Site.

5.5 Discharge Consents

There have not been any discharge consents within 250 m of the Site.

5.6 Water Abstraction

Published mapping provided by Envirocheck indicates that there is one licenced water abstraction point at the Site (reference: 2569002086). A permit was issued in February 1966 for a well at Broadshaw Farm, in the southwest of the Site. The end date of the permit has not been supplied.

5.7 Pollution Incidents

There is one pollution incident recorded within 250 m of the Site, 133 m to the northwest of the Site. The incident was recorded in November 1992 and is categorised as a pollution incident to controlled waters (reference: 93620060), the pollutant is described as "industrial effluent." The incident is considered to be 'Category 1 – major Incident', the most severe category.

5.8 Registered Landfill/Waste Management/Explosive Sites

The Envirocheck report recorded no Registered Landfill, Waste Management or Explosive Sites within 250 m of the Site. Furthermore, Spatial Data published by the Department for Environment, Food and Rural Affairs (DEFRA) also concluded no historical landfill sites in close proximity to the Site⁴.

An area of potentially infilled land (water) was described as unknown filled ground 188 m west of the Site.

5.9 Radon Gas

According to the UK Radon Map⁵ most of the Site and surrounding areas are situated within a lower probability radon area and less than 1% of homes are estimated to be at or above the radon action level. However, there are some areas to the east of the Site that are at an elevated radon potential, with the maximum radon potential lying between 1-3%.

According to Public Health England (2019)⁶, basic radon protection is required in areas where the potential for homes to exceed the radon action level is 3% or above. As this is not the case for the Site, no radon protective measures are necessary in the construction of new dwellings or extensions.

⁴ DEFRA: DEFRA Spatial Data Download [online] Available at: [Defra Spatial Data Download](#) Accessed 25/10/2022

⁵ UK Government: UK Maps of Radon [online] available at: [UKradon - UK maps of radon](#) Accessed 25/10/2022

⁶ Public Health England: Performance of basic radon protection in new homes (2019) [online] available at: [Performance of basic radon protection in new homes \(publishing.service.gov.uk\)](#) Accessed 25/10/2022

6 CONCEPTUAL SITE MODEL

6.1 Introduction

This assessment has been undertaken in accordance with BS 10175 'Investigation of Potentially Contaminated Sites'⁷ and the desk-based research has supported the development of a preliminary CSM. A CSM represents the potential contaminative 'Source-Pathway-Receptor' linkages which could be a hazard or risk to sensitive receptors at the Site or in the surrounding area.

The desk study assessment established previous uses, ground conditions, and hydrological and hydrogeological environments, taking account of the development Site's end-use.

In the context of land contamination, there are three essential elements to any risk:

- Source contaminant – a substance that is in, on or under the land and has the potential to cause harm or to cause pollution of water environments;
- A pathway – a route or means by which a receptor can be exposed to, or affected by, a contaminant; and
- Receptor – in general terms, something that could be adversely affected by a contaminant, such as people, an ecological system, property, or a water body.

While each of these elements can exist independently, risk exists only in the scenario where there is a pollutant linkage.

6.2 Potential Contamination Source

The historical map review provides an understanding of historical uses and allows an assessment of possible processes to be identified. The historical review indicates that the Site has been occupied by agricultural land consistently throughout the timeline starting from 1851 until the present day. The presence of a pond and two small buildings within the Site boundary indicate that there is a possibility of made ground at the Site.

Vigilance should be maintained for potential unrecorded contamination sources during any future assessments and intrusive site works.

Table 6.1 summarises the potential contamination sources that could be present on Site associated with current and historical uses.

Table 6.1: Potential Contamination Risks - Site and Surrounding Area

Source	Potential Risk	Potential Contaminants and/or Considerations
Made ground soils in immediate vicinity associated with historical developments relating to the M62 to the south of the Site and Kingsway Business Park to the north.	Potential for lateral migration of contaminants in groundwater.	Metals, polyaromatic hydrocarbons (PAH), total petroleum hydrocarbons (TPH), pH, sulphates, asbestos and solvents. Generation of ground gas including, carbon dioxide, methane, hydrogen sulphide and depleted oxygen.
Farming and Agricultural activities at the Site	Potential for risk to Site personnel and the inhalation of particles.	Pesticides/Agricultural Chemicals
Potential made ground soils and materials associated with the	Potential for risk to Site personnel, end users, construction materials, groundwater from contaminated	Metals and metal compounds, waste oil (polyaromatic hydrocarbons (PAH)), total

⁷ BSI: BS 10175:2011+A2:2017 Investigation of potentially contaminated sites

demolition/removal of the two structures on site.	made ground soils locally beneath the existing structures. Potential for vertical and lateral migration of contaminants in groundwater.	petroleum hydrocarbons (TPH), Organic and Inorganic Compounds, pH, sulphates, asbestos and solvents. Generation of ground gas including, carbon dioxide, methane, hydrogen sulphide and depleted oxygen.
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6.3 Potential Pathways

On the basis of the proposed battery storage/energy management end-use, the following potential pathways are considered for the newly constructed areas:

- Dermal contact - skin contact with soils, dust or water (Site personnel);
- Ingestion - ingestion of soils, dust, water (Site personnel);
- Inhalation - inhalation of soil, dust, vapours, both indoor and outdoor (Site Personnel and End-User);
- Leaching of contaminants - mobilisation of contamination through leaching of contaminants from soils to underlying groundwater (Water environment);
- Degradation of materials - attack and corrosion of buried structures and services (Construction Materials); and
- Ground gas migration - generation of ground gases from soils or rock leading to asphyxiation, explosion and/or fire (Site End-Users).

6.4 Potential Receptors

Potential receptors associated with the proposed development include:

- Site users - construction phase site personnel, end user - site visitors/infrastructure occupants;
- Water environment - Underlying groundwater aquifer; and
- Construction materials - buried structures and services, future concrete foundations water supply pipes.

Table 7.1 in Section 7 presents a tabulated representation of the potential source-pathway-receptor pollutant linkages at the Site.

6.5 Geotechnical Considerations

The preliminary research of available BGS mapping and the historical review have determined that the presence of made ground (associated with historical development) is not likely. However, it is possible that there may be small areas of made ground adjacent to both small buildings in the east of the Site.

The Envirocheck Report has indicated that the Site is within a zone of low hazard from ground dissolution. The risk of collapsible ground, compressible ground, landslide, shrinking or swelling clay, and running sand was very low.

6.6 Mining

In the Coal Authority Report obtained from Envirocheck, historic mining activity at a depth ≥ 170 m is recorded as taking place until 1935. It is stated within the report that any ground movement resulting from this mining activity should have stopped by now. The Site is not considered to be within a 'Development High Risk' area according to the Coal Authority's published mapping, there are also no recorded mine entries at the Site.

7 RISK ASSESSMENT

7.1 General

This desk study includes a preliminary qualitative contamination risk assessment carried out for the Site using the findings of the desk study.

The proposed development will comprise containerised batteries, synchronous condensers and associated electrical infrastructure.

The risk assessment has been carried out in line with current UK guidance adopting the Source-Pathway-Receptor assessment principle based on a conceptual Site model developed for the Site and is presented in Section 7.5. This details the potential connectivity between potential sources, pathways and receptors. A pathway must be present for the source to provide any risk to any given receptor. The magnitude of any such risk is assessed by considering the vulnerability of the receptor and the possible impact of the source.

7.2 Identification of Hazards

It is proposed that construction of the electrical infrastructure will cover much of the site including access and turning areas. The proposed infrastructure will involve excavation for foundation and utility/services work. The existing pond at the Site will be relocated towards the eastern Site boundary, soft landscape areas will be developed in the areas surrounding the infrastructure development.

On this basis, risk from contamination for construction personnel, ecology (flora/fauna), construction materials, and end-users must be considered.

7.3 Identification of Pollutant Linkage

The potential receptors and exposure pathways considered are summarised below.

- **Site users/construction personnel** – Dermal contact with contaminated soil, inhalation of dust, vapours or ground gas, and ingestion of asbestos particles during any future demolition works and ground works;
- **Site end-users** – Inhalation of vapours or ground gas, accumulation and explosion of any ground generating gas within confined spaces;
- **Ecological Receptors** – Planting, Flora and Fauna;
- **Adjacent land-users** – Inhalation of dust or vapours during construction works;
- **Water environment** – Leaching of contaminants from soil to underlying groundwater via lateral or vertical migration through drift deposits;
- **Construction materials** – Degradation of construction materials due to aggressive contaminants within soil or groundwater; and
- **Water supply pipes** – Corrosion and permeation into water supply.

7.4 Risk Assessment

The risks identified as having potential to effect receptors have been assessed through a preliminary qualitative risk assessment based on the guidance provided in CIRIA Report C552, "Contaminated Land Risk Assessment – a guide to good practice"⁸ as shown in Tables 7.1 and 7.2 below.

⁸ CIRIA: C552 – Contaminated Land Risk Assessment – a guide to good practice, 2001.

Table 7.1 Risk Classification Matrix

Likelihood	High Likelihood	Very High	High	Moderate	Moderate/Low
	Likely	High	Moderate	Moderate/Low	Low
	Low Likelihood	Moderate	Moderate/Low	Low	Very Low
	Unlikely	Moderate/Low	Low	Very Low	Very Low
		Severe	Medium	Mild	Minor
Consequence					

Table 7.2 – Risk Classification Definition

Risk Classification	Definition
Very High	Avoid project development at these locations.
High	Harm is likely to arise to a designated receptor from an identified hazard. Realisation of the risk is likely to present a substantial liability. Urgent investigation (if not undertaken already) is required and remedial works may be necessary in the short term and are likely over the longer term.
Moderate	It is possible that harm could arise to a designated receptor from an identified hazard. However, it is either relatively unlikely that such harm would be severe, or if any harm were to occur it is more likely that the harm would be relatively mild. Investigation (if not already undertaken) is normally required to clarify the risk and to determine the potential liability. Some remedial works may be required in the longer term.
Moderate/Low	
Low	It is possible that harm could arise to a designated receptor from an identified hazard, but it is likely that this harm, if realised, would at worst normally be mild.
Very Low	There is a low possibility that harm could arise to a receptor. In the event of such harm being realised it is not likely to be severe.

Section 7.5 summarises the possible source-pathway-receptor relationships and estimates the consequence and probability of the risks posed.

It is considered unlikely that construction personnel could be exposed to soil or groundwater contamination during excavations or construction at the Site where concentrations of contaminants exceed generic assessment criteria with the consequence of risk being assessed as Medium, therefore risk of contamination to site personnel is classified as **Low**.

Risk to Site end-users being exposed to soil contamination is classified as **Low** given the majority of the site area will be covered by hardstanding and the soft landscape areas will only be accessed for maintenance purposes.

No made ground is anticipated on site therefore leaching to underlying groundwater (if present) is not likely. While the bedrock is identified as a 'Secondary Superficial Aquifer' of

High vulnerability that may have significance for water supply or river base flow, the risk posed to the water environment is considered **Low**.

The construction materials proposed for use in the development could come into contact with aggressive ground conditions, such as elevated pH or sulphates, or contamination from historical developments. Given the varied industrial usage around the Site, it is considered that the risk posed to building materials on Site can be classified as **Low**.

Ground contamination can be detrimental to water supply pipes by corroding at joints which can lead to contaminants entering the water supply systems ultimately affecting Site end-users. Given the Site and the surrounding adjacent industrial land, the risk posed to water supply pipes is considered **Low** without mitigation.

7.5 Preliminary Conceptual Site model

Potential Receptor	Potential Source	Potential Pathway	Consequence of Risk	Likelihood of Risk	Level of Risk (without Mitigation)	Potential Mitigation
Site Personnel	Made ground/contaminated soils and/or groundwater contamination.	Direct dermal contact/ingestion/inhalation of soil/water/dust and vapours. Exposure to ground generating gases such as carbon dioxide, hydrogen sulphide, methane or depleted oxygen.	Medium	Unlikely	Low	It may be beneficial for any ground investigations being undertaken to determine ground conditions on the Site include some basic contamination testing (ph/sulphates), although no made ground soils are considered likely, the presence of would be determined by ground investigations During construction: - Site personnel should wear PPE appropriate for the work task this may include hand protection.
Site End-User	Made ground/contaminated soils and/or groundwater contamination.	Made ground or contaminated soil (associated with historical industrial land use) and/or groundwater contamination. Direct dermal contact/ingestion/inhalation of soil/water/dust and vapours.	Medium	Unlikely	Low	
Adjacent Land User	Soil Dust	Inhalation of soil dust/particles during construction.	Medium	Unlikely	Low	No contaminated soils are anticipated on site, however, control of soil dust particles during construction will be managed through methods as outlined in a realted Construction Environmental Management Plan (CEMP).
Water Environment	Contamination in groundwater from contaminated soils.	Vertical or lateral migration of contaminants to groundwater within made ground and/or underlying natural soils.	Medium	Unlikely	Low	
Construction Materials	Elevated contamination aggressive/corrosive to proposed construction materials.	Exposure to elevated pH and/or sulphates or other corrosive contaminants through soil infiltration to buried concrete.	Medium	Unlikely	Low	It may be necessary to undertake pH and Sulphate testing as part of ground investigations to inform the specification of construction materials. No made ground is anticipated on site therefore the risk to construction materials is Low.

Water Supply Pipes	Elevated contamination aggressive/corrosive to proposed construction materials.	Exposure to elevated pH and/or sulphates or other permeating/corrosive contaminants through soil infiltration to laid water supply pipes.	Medium	Unlikely	Low	It may be necessary to undertake pH and Sulphate testing as part of ground investigations to inform the specification of water supply pipes. No made ground is anticipated on site therefore the risk to water supply pipes is Low. Ground investigations to be undertaken to determine ground conditions on the Site.
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8 RISK CLASSIFICATION, MITIGATION AND CONCLUSION

8.1 Risk Classifications and Mitigation

From the findings of this desk study, it is considered that the risk from the presence of contamination on the Site is **Low** without mitigation.

8.2 Conclusions

The Site has not had any significant potentially contaminative uses in the last 150 years. Based on the desk study carried out for the proposed future end use, it is anticipated that the Site would not pose a significant risk.

Presently, there are two small structures located in the west of the Site. Whilst it is not anticipated that the development of these structures, or their current uses, would have resulted in significant contamination due care should be taken during the removal of any structures.

The risk posed to all receptors at the Site and surrounding areas is generally considered to be **low**.

Ground investigation works are not deemed necessary to support the planning application due to the **low** risk to potential receptors. Intrusive investigations, such as trial pits and boreholes, may be required to obtain detailed geotechnical information at the Site to support construction.

The risk from coal mining activities at the Site is considered to be low as the only coal seam previously worked at the Site is located at a depth of ≥ 170 m and therefore does not require any further consideration.

9 REFERENCES

Environment Agency Land Contamination: Risk Management (LCRM) guidance (2019);

Environment Agency Report CLR 11 'Model Procedures for the Management of Land Contamination' (2004);

BS 10175 'Investigation of Potentially Contaminated Sites';

CIRIA Report C552, Contaminated Land Risk Assessment. A Guide to Good Practice (2001);

CIRIA Report C665, Assessing Risks Posed by Hazardous Ground Gases to Buildings (2007);

BRE Report 211, Radon: Guidance on Protective Measures for New Buildings;

BRE – Special Digest 1 (SD1). Concrete in Aggressive Ground (2005)

Landmark Information Group, 2019. Envirocheck Report for Site at 391850, 411160 Order No: 302998029

British Geological Survey, Geological Map Extracts Taken from the BGS Digital Geological map of Great Britain at 1:50,000 scale. Artificial Ground and Landslip, Superficial Geology and Bedrock and Fault; and

British Geological Survey (BGS) GeoIndex Onshore Borehole Records and Scans.



RIDGE

**GROUND INVESTIGATION REPORT
DIG GATE LANE, ROCHDALE**

BALANCE POWER

June 2025



GROUND INVESTIGATION REPORT DIG GATE LANE, ROCHDALE

June 2025

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1. INTRODUCTION

1.1. Commissioning

Ridge and Partners LLP (Ridge) was commissioned by Balance Power to undertake an intrusive Ground Investigation and compile a Ground Investigation (GI) Report for a site located on Dig Gate Lane, Rochdale, OL16 4NR (hereafter referred to as 'the site'). A Site Plan is included as Figure 1.

1.2. Background and Objectives

Planning approval has been granted for a Gas Peaker Power Plant development. There is also a future Battery Energy Storage System (BESS) development planned which is required to link to the Gas Peaker Power Plant development. The Gas Peaker development will be delivered first in Phase 1 and will be followed by the future BESS development in Phase 2.

Numerous pre-commencement conditions are listed on the planning consent, including submitting details of a sustainable drainage scheme (including proposed ground and finished levels), hard and soft landscaping proposals (including details of banks, terracing, planting plans etc), and details for the type, siting, design and materials for any proposed retaining structures.

There are no conditions relating to contaminated land.

A Ground Investigation was required to support Ridge Civil and Structural Engineering colleagues with their designs for the facility.

Two previous reports have been reviewed as part of this investigation, outcomes of which were used to develop our scope of works. Relevant previous reports have been reviewed in Section 4.

1.3. Scope of Works

The scope of this assessment has been developed in accordance with relevant British Standards and authoritative technical guidance as referenced through the report. The contamination assessment/ screening is in line with the technical approach presented in *Land Contamination Risk Management* (LCRM) [Environment Agency 2020], which supersedes CLR11 Model Procedures for Land Contamination, and in general accordance with BS10175:2011+A2:2017 *Investigation of Potentially Contaminated Sites: Code of Practice*. It is also compliant with relevant planning policy and guidance.

The scope of the intrusive investigation has been designed in line with the recommendations of BS5930:2015+A1:2020 *Code of Practice for Ground Investigations*. It has also been developed in general accordance with BS10175:2011+A2:2017.

This investigation was scoped to enable specific assessment of geotechnical parameters across the site and in the vicinity of the proposed retaining wall.

Further to this a precautionary contamination screening as opposed to a full contamination assessment, was carried out on shallow soils as no significant contamination sources were identified in the previously issued Desk Top Study.

1.4. Proposals

The Gas Peaker Development will be delivered first in Phase 1 and will be followed by the future BESS development in Phase 2. A Site Plan is included as Figure 1.

1.5. Legal Context and Methodology

Part IIA of the Environmental Protection Act provides a risk-based approach to the identification and remediation of land where contamination poses an unacceptable risk to human health or the environment, but the regime does not take into account future uses. New developments are therefore controlled by the planning regime, with reference to the National Planning Policy Framework (NPPF, 2024), rather than directly by Part IIA of the Environmental Protection Act.

This report has been prepared in accordance with published Environment Agency guidance – Land Contamination Risk Management (LCRM, 2020), which supersedes CLR 11. CLR 11 adopted and refined the well-recognised methodology and terminology that has been used in contaminated land risk assessment for a number of years.

1.6. Report Scope and Limitation

This report is based upon a review of readily available information and the recent Ground Investigation data detailed herein. The report presents an interpretation of the trial pit, borehole and laboratory data provided by the Ridge Ground Investigation undertaken 21 and 22 May 2025. In addition, this report outlines the basic ground conditions encountered in the exploratory holes and the results of monitoring of installed wells.

This information has been collated, processed and used to provide an interpretation of the ground conditions, with recommendations on any contamination issues and geotechnical-related design.

The recommendations and opinions expressed in this report are based on the strata observed in the exploratory holes, the results of the site and laboratory tests, and information obtained as part of the desk study or provided by others. Ridge takes no responsibility for conditions that have not been revealed by the exploratory holes, or which occur between them or for features which may be more widespread to those found.

Whilst efforts have been made to interpret the conditions between investigation locations, such information is only indicative, and liability cannot be accepted for its accuracy. Information provided from other sources is taken in good faith and Ridge cannot guarantee its accuracy.

The information contained in this report is intended for the use of **Balance Power** and Ridge can take no responsibility for the use of this information by any other party or for uses other than that described in this report.

2. SITE SETTING

2.1. Site Description

The site is centred on easting 391847 and northing 411156 and comprises circa 1.5 ha, located approximately 2.5km south-east of Rochdale.

The site comprises land utilised for grazing and has a gradual downward slope from south to north. A single lane road known as Dig Gate Lane runs adjacent to the eastern and northern boundary while the M62 and associated embankment form the southern boundary.

2.2. Site History

The site has been utilised for agriculture since circa 1851, with a pond excavated in the centre between 1979 and 1999. Two small structures were constructed in the eastern portion of the site between 1999 and 2022.

3. PHYSICAL SETTING

3.1. Geology and Hydrogeology

The following observations are taken from the British Geological Survey (BGS) Geology of Britain Viewer (2025). The Geology of Britain Viewer indicates that the site is likely underlain by superficial glacial deposits and Pennine Lower Coal Measures.

The table below identifies the expected composition of the published strata and associated aquifer classification.

SUPERFICIAL DEPOSITS	
Unit Name	Hummocky (Moundy) Glacial Deposits
Geology Description	Composed of rock debris, clayey till, sand and gravel.
Aquifer Classification	Secondary A
Aquifer Description	Permeable layers capable of supporting water supplies at a local rather than strategic scale, and in some cases forming an important source of base flow to rivers.
BEDROCK GEOLOGY	
Unit Name	Pennine Lower Coal Measures
Geology Description	Mudstone, Siltstone and Sandstone
Aquifer Classification	Secondary A
Aquifer Description	Description as above.

Table 3.1: Geology and Hydrogeology

3.1.1. Mining

The site is located in a Coal Mining Reporting Area and based on this, planning permission granted contains an informative relating to potential hazards associated with coal mining in the vicinity.

Based on the Mining Remediation Authority Map Viewer (2025) the site is noted to lie outside of the ‘Development High Risk Area’, and there are no recorded mine entries at the site.

To further verify these findings, Ridge commissioned a Coal Authority CON29M Coal Mining Report (Ref: 51003497005001, dated 8 May 2025). Pertinent findings are summarised below:

- Coal mining features have been identified in the vicinity, but it is unlikely that these features will impact on the stability of the site, therefore the site is considered to be low risk for development.
- There are no recorded coal mine entries known to the Coal Authority within 20 metres of the site boundary.

- The property is in a surface area that could be affected by underground mining in 1 seam of coal at 170m to 220m depth last worked in 1935, but any movement in the ground due to coal mining activity associated with these workings should have stopped by now.
- The property is not within a surface area that could be affected by present underground mining.
- The property is not in an area likely to be affected from any planned future underground coal mining.
- A damage notice or claim has not been received for the site or any property within 50 metres of the site boundary.
- The coal authority has no record of a mine gas emission requiring action.

Coal Authority CON29M Coal Mining Report is included as Appendix 2.

3.1.2. Radon

The property is not in a Radon Affected Area, as less than 1% of properties are above the Action Level. No Radon Protective Measures are considered necessary for new properties or extensions to existing ones.

3.2. Hydrology

3.2.1. Surface Water Features

A pond is located in the centre of the site. Development plans indicate the pond will be relocated to the west. There are no further features within 100m of the site boundary.

3.2.2. Flooding

The site is not located within an Environment Agency Flood Zone 2 or 3.

3.2.3. Source Protection Zones

There are no Source Protection Zones in the immediate vicinity.

4. PREVIOUS REPORTS

4.1. Enzygo Preliminary Land Contamination Assessment (July 2022)

4.1.1. Background

Enzygo Geo-environmental Limited prepared a Preliminary Land Contamination Assessment (Ref: SHF.3050.001.GE.001.B) to support a planning application for a Gas-powered Reserve Energy Facility proposed by MAST Energy Developments.

The objectives of the study were to:

- Assess implications of any potential environmental risks, liabilities and development constraints associated with the site in relation to the future use of the site and in relation to off-site receptors.
- Provide a factual and interpretive report relating to the desk study.
- Provide geotechnical recommendations in relation to foundations and infrastructure.

4.1.2. Contamination Assessment

No historical or current on-site or off-site sources were identified.

The following receptors were identified; future site end users, construction workers during development, secondary (A) aquifers.

No significant contamination sources were identified. Risks to end users were dismissed due to no viable pollutant linkages being identified. Risks to controlled waters was dismissed due to absence of a viable significant source. It was deemed unlikely that unforeseen contamination would be encountered.

4.1.3. Geotechnical

No significant geotechnical risks were identified.

4.1.4. Recommendations

An intrusive investigation to assess ground contamination was not considered necessary.

4.2. Arcus Phase 1 Land Contamination Desk Study (November 2022)

4.2.1. Background

Arcus Consultancy Services prepared a Phase 1 Land Contamination Desk Study (Ref: 5154) to support a planning application for a Battery Energy Storage System (BESS) proposed by Balance Power.

The objectives of the study were to set out ground conditions and associated potential development constraints, and include a review of historical, geological and environmental sensitivity mapping. This information would then be utilised in an assessment and a preliminary conceptual site model to inform on any requirements for any intrusive ground investigation and Generic Quantitative Risk Assessment.

4.2.2. Contamination Assessment

The following on-site sources were identified:

- Made Ground soils associated with development of the M62 to the south and Kingsway Business Park to the north.
- Farming and agricultural activities at the site.
- Potential Made Ground soils and materials associated with demolition of two structures on site.

No relevant historical or current off-site sources were identified.

The following receptors were identified; future site end users, construction workers during development, secondary (A) aquifers.

The risk to all receptors was generally considered to be Low.

4.2.3. Geotechnical

It was considered unlikely that Made Ground would be present on site. The report indicates the site is within a zone with a low hazard from ground dissolution, and risk of collapsible ground, compressible ground, landslide, shrinking or swelling clay, and running sand was very low.

4.2.4. Recommendations

An intrusive investigation to assess ground contamination was not deemed necessary.

An intrusive investigation was recommended to obtain detailed geotechnical information at the site to support construction.

5. FIELDWORK SUMMARY OF SCOPE AND RATIONALE

5.1. Introduction

Suitably experienced Ridge staff supervised the intrusive investigation, which was undertaken 21+22 May 2025.

5.2. Site Management and Preparation

Methods employed during the investigation were carried out in general accordance with statutory guidance including BS5930:2015+A1:2020 *Code of Practice for Ground Investigations* and BS10175:2011+A2:2017 *Investigation of Potentially Contaminated Sites: Code of Practice*.

5.2.1. Utility Clearance

Publicly available drawings were reviewed prior to attending site. Proposed test locations were adjusted based on information reviewed.

A hand excavated starter pit was dug to 1.20m prior to the drilling of each location.

5.3. Rationale and Summary of Scope

The Site Investigation scope was devised by Ridge Geo-Environmental and Ridge Civil Engineering, based on information collated to date and the proposed development.

- Two percussive rotary boreholes (RH101 and RH102) were drilled to 10.95mbgl and 13.95mbgl respectively. The primary objective was to allow logging of deep soils, *in situ* Standard Penetration Tests, and to provide the opportunity for collecting soil samples for subsequent laboratory analysis, close to the proposed retaining features.
- Four windowless sample boreholes (WS101-WS104) were drilled to a maximum depth of 5.45mbgl using a tracked dynamic sampling rig. Borehole WS101, WS102 and WS104 were installed with a 50mm diameter standpipe to allow groundwater gauging. The primary objective was to assess typical ground conditions across the site. The boreholes allowed the production of detailed engineers logs, recovery of samples for laboratory testing, and additionally allowed *in situ* Standard Penetration Testing to provide geotechnical parameters for future use.
- Five TRL DCP tests (DCP101-DCP105) were completed across the site for coverage and in areas proposed as roadway/ pavement to allow conversion to CBR (%). Tests were advanced to circa 1.00mbgl.
- Geotechnical and contamination laboratory analysis.
- Two rounds of subsequent monitoring of groundwater levels.

5.3.1. Test Location Rationale

Rationale for each test location completed is detailed in the table below.

HOLE ID	RATIONALE	DEPTH (MBGL)
RH101	Located to the south of the development area targeting the proposed retaining feature.	10.95
RH102	Located to the east of the development area targeting the proposed retaining feature.	13.95
WS101-104	Situated across the site for coverage and to target the proposed development area.	5.45
DCP101-05	Undertaken across the site for coverage and in areas proposed as pavements/ roadways.	~1.00

Table 5.1: Test Location Rationale

The layout of the exploratory positions is presented in Figure 2. Engineering Logs are presented in Appendix 3.

5.4. Soil Sampling

All intrusive locations were logged, and visual or olfactory evidence of contamination noted in accordance with best practice.

Samples were removed at varying depth for geotechnical testing.

Samples were handled using a fresh pair of nitrile gloves. Equipment was cleaned between use at different test locations and different sampling depths to prevent cross-contamination. Selected samples were placed in sealable bags, sealed glass jars or plastic tubs (dependent on the exact laboratory requirement and analysis to be undertaken) and stored in a temperature-controlled environment before transit.

5.5. Groundwater Gauging

All newly installed monitoring wells (WS101, WS102 and WS104) were gauged on two occasions to enable assessment of groundwater levels and the presence of any visual/ olfactory evidence of contamination on groundwater.

6. GROUND CONDITIONS ENCOUNTERED

6.1. Soil Conditions

Soil conditions have been summarised in the table below.

	UPPER LIMIT MBGL	LOWER LIMIT MBGL
Topsoil	Ground Level	0.40
Firm sandy Clay	0.40	2.00 – 3.00
Stiff sandy Clay	2.00 – 3.00	3.00 – 4.30
Very stiff sandy Clay	3.00 – 4.30	9.60 – 9.80
Dense gravelly Sand	9.60 – 9.80	13.95 +

Table 6.1: Summary of Soil Conditions

Soils described below are considered to be representative of Hummocky (Moundy) Glacial Deposits.

6.1.1. Surface Covering

All test locations were surfaced with rough grass associated with the grazing field.

6.1.2. Topsoil

Topsoil comprising brown slightly gravelly clayey Sand with frequent rootlets was observed in all test locations to 0.40m depth. Sand was described as fine to coarse. Gravel was described as sub-rounded fine to coarse Sandstone.

6.1.3. Sandy Clay

Sandy Clay was identified in all test locations and was initially described as firm orange and grey sandy Clay with frequent rootlets and rare coal. Sand was fine to coarse.

These soils became stiff from an average of circa 2.40mbgl and comprised slightly gravelly sandy Clay. The gravel constituent was described as sub-angular fine to coarse Sandstone.

From approximately 3.85mbgl these soils were described as very stiff sandy Clay.

6.1.4. Gravelly Sand

Dense light brown gravelly Sand was observed in both rotary boreholes from circa 9.70mbgl to a maximum depth of circa 13.95mbgl.

A thin layer of very stiff Clay was noted in RH102 only from 10.90 – 13.60mbgl.

6.1.5. Summary

No Made Ground was observed across the site.

The above natural soils are consistent with the published geology.

6.2. Groundwater Conditions

6.2.1. Groundwater Levels during Monitoring

Results of the two rounds of groundwater level monitoring are detailed in the table below.

Location	02/06/2025		16/06/2025	
	mBGL	(mAOD)	mBGL	(mAOD)
WS101 (173mAOD)	1.18	171.82	1.04	171.96
WS102 (171mAOD)	2.98	168.02	3.00	168.00
WS104 (174mAOD)	3.23	170.77	2.85	171.15

Table 6.2: Groundwater Levels

6.3. Visual/ Olfactory Evidence of Contamination

6.3.1. Soils

There was no further visual/ olfactory evidence of contamination noted within soils.

6.3.2. Groundwater

There was no evidence of contamination noted during groundwater gauging.

7. CONTAMINATION SCREENING

Following the review of previously completed preliminary risk assessments (Desk Top Study), further contamination assessment was not considered necessary.

A precautionary contamination screening was carried out on shallow soils.

7.1. Soil Assessment Methodology

Specific soil sample location and depth was chosen based on site coverage.

7.1.1. Generic Assessment Criteria

Ridge have undertaken a screen of the soil laboratory results using generic assessment criteria. Generic assessment criteria (GAC) are conservative contaminant concentration values used for comparison purposes to assess the risk associated with contaminant concentrations found on site and are derived using non-site-specific information.

In order to assess the soil analyses results with regard to potential human health risks, Ridge has adopted published guidance criteria widely referred to by professionals within the industry, which include the following:

- Suitable 4 Use Levels (S4ULs) Generic Assessment Criteria (GAC) developed by the Chartered Institute of Environmental Health (CIEH) in partnership with Land Quality Management Ltd. (LQM); and,
- Category 4 Screening Levels (C4SL) for lead, produced by CL:AIRE (2014).

We have utilised the 'commercial' land use setting as the most appropriate.

Results were compared to the conservative 1.00% soil organic matter value unless otherwise stated.

With regard to human health, the CLEA model states that, 'the contamination is assumed to be at or within 1.00m of the surface' (CLR10 pg10). It is considered that at depths greater than 1m, the probability of human exposure via the direct contact pathways are significantly reduced, leaving inhalation of volatile compounds as the dominant pathway with regard to human health risks. Typically, volatile compounds only significantly affect the indoor inhalation pathway. Therefore, for the purposes of statistical analysis, data from the top 1.00m to 1.50m is used for assessment of risks to human health via direct contact pathways in accordance with the CLEA model, dependant on proposed future site levels.

7.2. Soil Assessment

7.2.1. General

Three soil samples collected during the Ridge site investigation from shallow natural soils at various depths and locations were submitted to a UKAS accredited laboratory for analysis for a suite of asbestos, heavy metals, PAHs, TPH CWG, BTEX and MTBE.

Laboratory analysis certificates are included as Appendix 4.

The range of potentially hazardous contaminants present on the site can be wide and varied and the suite has been chosen to reflect commonly found contaminants.

7.2.2. Organic Matter

Organic matter ranged from 1.00 to 1.50 %.

7.2.3. Asbestos

None of the samples returned a positive identification of asbestos.

7.2.4. Heavy Metals

There were no exceedances of the screening criteria. Many of the results were below the laboratory limit of detection (LoD).

7.2.5. Polycyclic Aromatic Hydrocarbons (PAHs)

There were no exceedances of the screening criteria. All of the results were below the laboratory limit of detection (LoD).

7.2.6. Total Petroleum Hydrocarbons (TPH)

There were no exceedances of the screening criteria. All of the results were below the laboratory limit of detection (LoD).

7.2.7. BTEX and MTBE

There were no exceedances of the screening criteria. All of the results were below the laboratory limit of detection (LoD).

7.2.8. Discussion of Results

Results confirm the findings of the preliminary contamination risk assessment i.e. there is not considered to be a soil contamination source on site.

8. WASTE ASSESSMENT

8.1. Waste Material

The following section provides classification of typical soil materials identified on site during the recent Ground Investigation.

Waste classification should be based on analyses that are representative of the particular waste load, so it is normally not possible to classify the soils at the investigation stage, since the materials that will become waste have generally not been defined yet. Ground investigation data can however provide a useful guide to the likely waste classification and can indicate the scale of the classification analyses that will be required after the waste has been defined and before it is generated.

8.1.1. Identification of Hazardous Properties

Results from all soil samples that underwent the full contamination suite were input into a Soils Characterisation Assessment Tool (HazWaste Online) to identify whether soils on site had hazardous properties.

None of the samples returned hazardous properties.

The Haz-Waste Online output sheet is included as Appendix 5.

8.1.2. Waste Acceptance Criteria

The second part of the assessment process is a review of Waste Acceptance Classification (WAC) testing, which was carried out on two samples (RH102 0.40-1.00m and WS103 0.40-1.00m) considered to be representative of typical natural soils below topsoil.

Both samples were classified as suitable for disposal at inert landfill.

It is recommended that further WAC testing is undertaken during groundworks to target specific waste being removed from site. Waste classification should be based on analyses that are representative of the particular waste load.

WAC testing certificates are included within Appendix 4.

9. GEOTECHNICAL TESTING AND ASSESSMENT

9.1. Introduction

This investigation was scoped to enable specific assessment of geotechnical parameters across the site and in the vicinity of the proposed retaining feature.

This geotechnical assessment will use the findings of the investigation and the results of the in-situ and laboratory geotechnical testing carried out in the boreholes, and on representative samples of the materials encountered across the site.

This section discusses the key geotechnical characteristics of each encountered stratum as determined from field observations, in-situ and laboratory geotechnical testing.

The stratigraphy revealed during the ground investigation comprised Topsoil over sandy Clay to circa 10m depth, with gravelly Sand below this. A thin layer of very stiff Clay was noted in RH102 only from 10.90 – 13.60mbgl.

Please refer to Section 6 for further discussion on each stratum.

9.2. In – Situ Testing

9.2.1. Standard Penetration Testing (SPT)

SPTs were completed throughout the drilling of all boreholes generally at 1.00m centres. SPT is an *in-situ* dynamic penetration test designed to provide information on the geotechnical engineering properties of soil. The test is completed using a 63.5kg drop hammer weight, over a 750mm drop, measuring the blow counts for six, 75mm increments. The first two values are recorded as seating blows, with the remaining four values, added together to provide an 'N-value'.

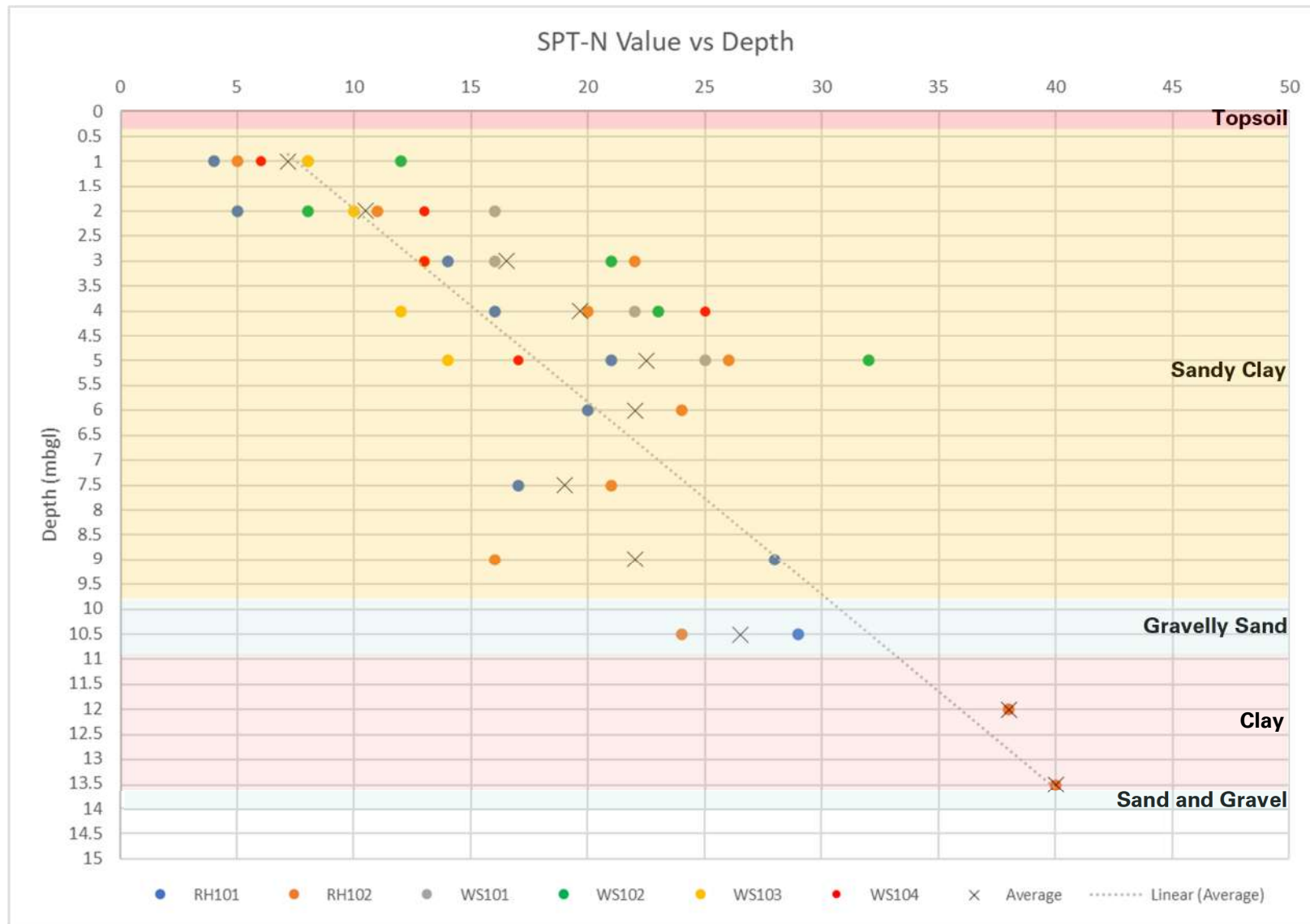
The graphs overleaf show SPT results.

Average SPT-N increases with depth from 7 at 1m, 16.5 at 3m, 22.5 at 5m, 19 at 7.5m, 26.5 at 10.5m and 40 at 13.5m. Based on these results:

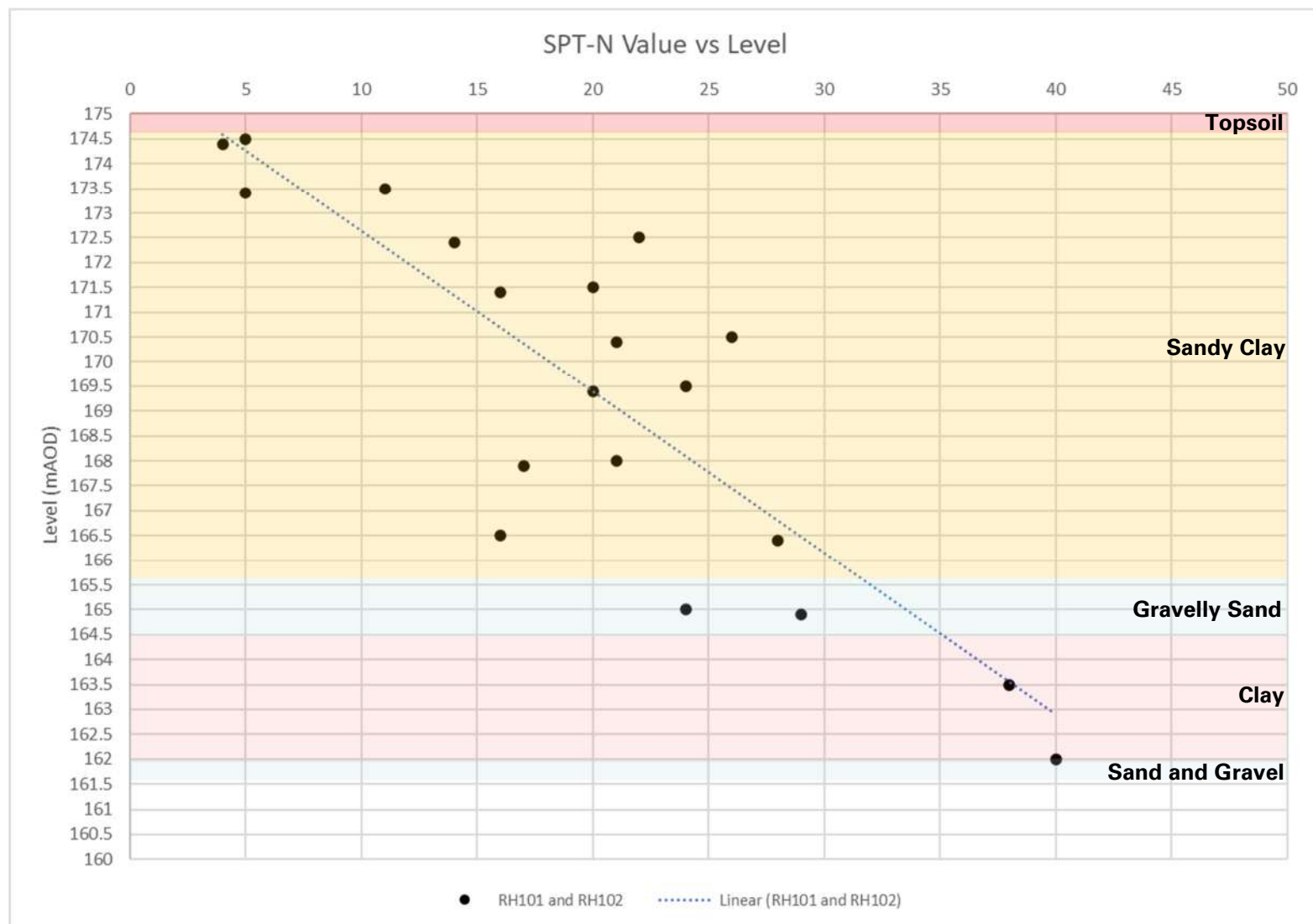
- Sandy Clays are stiff from 2-3m depth
- Sandy Clays are very stiff from 4m
- Gravelly Sand between 10-11m depth are medium dense
- Clay at 11-13.5m depth is hard
- Gravelly Sand below 13.5m is classified as medium dense

Graph 9.2 shows SPT-N results from RH101 and RH102 against site levels (mAOD). This will be discussed in more details in subsequent report sections.

Engineering logs showing the full test results are included in Appendix 3.



Graph 9.1: Standard Penetration Testing Results – All boreholes – mbgl



Graph 9.2: Standard Penetration Testing Results – RH101 and RH102 – mAOD

9.2.2. Dynamic Cone Penetrometer Testing (DCP)

Testing across the site was completed to determine the equivalent in-situ CBR value using a TRL DCP to the maximum depth of circa 1.00mbgl.

DCP test results are shown in Table 9.1 below.

LOCATION	DEPTH TO LAYER BOTTOM (M)	CBR %	LOCATION	DEPTH TO LAYER BOTTOM (M)	CBR %	LOCATION	DEPTH TO LAYER BOTTOM (M)	CBR %
DCP101	0.215	14	DCP102	0.078	15	DCP103	0.065	6
	0.265	10		0.139	26		0.225	16
	0.390	8		0.331	15		0.290	29
	0.473	6		0.480	21		0.377	12
	0.545	3		0.605	17		0.500	6
	0.785	2		0.615	26		0.529	18
	0.874	3		0.653	43		0.554	21
				0.677	22		0.660	33
				0.745	19		0.734	17
				0.820	14		0.830	13

LOCATION	DEPTH TO LAYER BOTTOM (M)	CBR %	LOCATION	DEPTH TO LAYER BOTTOM (M)	CBR %
DCP104	0.102	8	DCP105	0.062	14
	0.244	18		0.110	22
	0.284	20		0.157	90
	0.423	25		0.162	55
	0.492	15		0.175	20
	0.512	13		0.407	13
	0.575	8		0.481	25
	0.619	6		0.755	13
	0.794	4		0.765	26
	0.837	6		0.857	38

Table 9.1: DCP Testing

Table 9.2 draws on the whole dataset and shows CBR % range and average at selected depths below ground surface.

DEPTH (MBGL)	CBR % RANGE	CBR % AVERAGE
0.25	10 - 18	14
0.50	3 - 17	10
0.75	2 - 14	9

Table 9.2: DCP Range and Average at selected depths

DCP logs showing the full test results are included in Appendix 6.

9.2.3. Hand Shear Vane

Hand shear vane (HSV) tests were completed on selected cohesive soils during the logging of soils on site. The HSV test is a quick in-situ method to estimate the undrained shear strength of cohesive soils.

A summary of results are shown in the table below.

DEPTH (MBGL)	LOCATION	SOIL DESCRIPTION	AV. UNDRAINED SHEAR STRENGTH (KPA)
1.00	RH101, RH102, WS101, WS102, WS103, WS104	Sandy Clay Sandy gravelly Clay	38
2.00	RH101, RH102, WS101, WS102, WS103, WS104	Sandy Clay Sandy gravelly Clay	24
3.00	RH101, RH102, WS101, WS102, WS103, WS104	Sandy Clay Sandy gravelly Clay	61
4.00	RH101, RH102, WS102, WS104	Sandy Clay Sandy gravelly Clay	49
5.00	RH101, RH102, WS101, WS104	Sandy Clay Sandy gravelly Clay	45

Table 9.3: Hand Shear Vane Results

9.3. Laboratory Testing

Details of the specific procedure used in each case are shown below in Table 9.3 and the geotechnical test certificates are presented in Appendix 4.

TEST	STANDARD	SCHEDULED
Moisture Content	BS EN ISO 17892-1:2014	8
Atterberg Limit Test	BS EN ISO 17892-12	8
PSD Wet Sieve/ Pipette Method	BS EN ISO 17892-4: 5.1	9

Table 9.4: Summary of Geotechnical Testing

9.3.1. Moisture Content & Atterberg tests

Eight samples underwent Moisture Content & Atterberg limits testing to determine the consistency limits. The results are shown in Table 9.5 below.

SAMPLE ID	STRATA	MOISTURE CONT. W (%)	LIQUID LIMIT WL (%)	PLASTIC LIMIT WP (%)	425 μ M SIEVE (PASSING %)	PLASTICITY INDEX IP (%)	MODIFIED PLASTICITY INDEX (%)	CASAGRANDE CLASSIFICATION	VOLUME CHANGE POTENTIAL
WS104 0.50-1.00	Sa gr Clay	18.1	34	14	85	20	17	CL Low Plasticity	Low
RH102 1.50-2.00	Sl gr sa Clay	15.7	28	13	95	15	14	CL Low Plasticity	Low
RH101 2.70-3.00	Sa Clay	11.8	23	11	98	12	12	CL Low Plasticity	Low
WS103 4.00-5.00	Si Sand	16.9	Not plastic		87	n/a	n/a	n/a	n/a
RH102 7.50-7.95	Sl gr si Clay	11.9	22	10	86	12	10	CL Low Plasticity	Low
RH101 9.00-9.45	Sa si Clay	16.9	38	13	99	25	25	CI Intermediate Plasticity	Medium
RH102 10.50-10.95	Sand	15.7	Not plastic		86	n/a	n/a	n/a	n/a
RH102 12.00-12.45	Clay	13.4	24	10	87	14	12	CL Low Plasticity	Low

Table 9.5: Consistency Limits

The majority of samples returned either non-plastic or Low Plasticity results. One sample was classified as Intermediate Plasticity at 9.00-9.45mbgl in RH101.

In accordance with NHBC Guidance the Modified Plasticity Index translates to the majority of samples with Low volume change potential and one sample with Medium volume change potential.

9.3.2. PSD Wet Sieve/ Pipette Method

Nine samples from depths of 0.40mbgl to 13.95mbgl were submitted for determination of their composition of the material. The results are presented in Table 9.6.

SAMPLE ID	CLAY & SILT	SAND %	GRAVEL %	SUBSEQUENT CHARACTERISATION
RH102 0.40-1.00m	42	43	15	Gravelly very clayey Sand
RH101 1.50-2.00m	54	53	3	Very slightly gravelly very sandy Clay
WS101 3.00-3.50m	49	46	5	Slightly gravelly very sandy Clay
WS103 4.00-5.00m	17	67	16	Gravelly clayey Sand
RH101 7.50-7.95m	40	47	13	Gravelly very clayey Sand
RH102 9.00-9.45m	42	48	10	Gravelly very clayey Sand
RH102 10.50-10.95	26	73	1	Very slightly gravelly very clayey Sand
RH102 12.00-12.45m	51	42	7	Gravelly very sandy Clay
RH101 13.50-13.95	10	53	37	Clayey very gravelly Sand

Table 9.6: PSD Analysis

Soils analysed in the laboratory were typically as logged in the field, although the proportion of fines was observed to be slightly higher.

9.4. Characteristic Geotechnical Parameters

Based on the laboratory test results, in-situ testing and subsequent analysis a range of characteristic geotechnical parameters, which should be used in the subsequent geotechnical and foundation design calculations are presented in Table 9.7.

STRATUM	PARAMETER		SOURCE	VALUE
Topsoil	Not used in foundation design			
Firm sandy Clay 0.40 - 2.40mbgl	Unit Weight (kN/m³)		BS8002	20kN/m³
	Plasticity Index		Laboratory analysis	<20% (Low)
	Undrained Shear Strength	c _{uk} (kN/m²)	Hand Shear Vane	24 - 38
			Relationship with SPT	18 - 72
		φ _{uk} (°)	Relationship with I _p	27-32°
	Stiffness	-	SPT-N	4 – 16 (firm to stiff)
	Modulus of Deformation	Undrained E _{uk} (MN/m²)	E _{uk} /c _{uk} = 348	5-15 MN/m²
Modulus of Volume Compressibility	m _v (m²/MN)	Relationship with SPT and I _p	0.10 – 0.50 m²/MN	

STRATUM	PARAMETER		SOURCE	VALUE
Stiff sandy Clay 2.40 – 4.00mbgl	Unit Weight (kN/m ³)		BS8002	20kN/m ³
	Plasticity Index		Laboratory analysis	<20% (Low)
	Undrained Shear Strength	c _{uk} (kN/m ²)	Hand Shear Vane	49 - 61
			Relationship with SPT	59 – 112.5
		φ _{uk} (°)	Relationship with Ip	27-32°
	Stiffness	-	SPT-N	13 – 25 (stiff to v stiff)
	Modulus of Deformation	Undrained E _{uk} (MN/m ²)		5-15 MN/m ²
	Modulus of Volume Compressibility	m _v (m ² /MN)	Relationship with SPT and Ip	0.10 – 0.50 m ² /MN
Very stiff sandy Clay 4.00 – 10.00mbgl	Unit Weight (kN/m ³)		BS8002	20kN/m ³
	Plasticity Index		Laboratory analysis	12 - 25% (Low – Med)
	Undrained Shear Strength	c _{uk} (kN/m ²)	Hand Shear Vane	45 – 49 (limited data)
			Relationship with SPT	54 – 144
		φ _{uk} (°)	Relationship with Ip	25-32°
	Stiffness	-	SPT-N	12 – 32 (stiff to hard)
	Modulus of Deformation	Undrained E _{uk} (MN/m ²)		15 – 30 MN/m ²
	Modulus of Volume Compressibility	m _v (m ² /MN)	Relationship with SPT and Ip	0.10 – 0.50 m ² /MN
Hard Clay 11.00 – 13.50mbgl	Unit Weight (kN/m ³)		BS8002	22kN/m ³
	Plasticity Index		Laboratory analysis	<20% (Low)
	Undrained Shear Strength	c _{uk} (kN/m ²)	Relationship with SPT	171
		φ _{uk} (°)	Relationship with Ip	27-32°
	Stiffness	-	SPT-N	38 (hard)
	Modulus of Deformation	Undrained E _{uk} (MN/m ²)		15 – 30 MN/m ²
	Modulus of Volume Compressibility	m _v (m ² /MN)	Relationship with SPT and Ip	0.10 – 0.50 m ² /MN

STRATUM	PARAMETER		SOURCE	VALUE
Medium dense and dense	Unit Weight (kN/m ³)		BS8002	17 – 20 kN/m ³
gravelly Sand 10.00 – 11.00 mbgl	Density	-	SPT-N	23 – 40 (med dense/ dense)
13.60 – 13.95 mbgl	Angle of Shearing Resistance ϕ	°	Peck, Hanson & Thorburn	38 – 40 °

Table 9.7: Characteristic Geotechnical Parameters

9.5. Shallow Foundations

The stratigraphy revealed during the ground investigation comprised Topsoil over sandy Clay to circa 10m depth, with gravelly Sand below this. A thin layer of very stiff/ hard Clay was noted in RH102 only from 10.90 – 13.60mbgl.

The selection and design of foundations is beyond the scope of current instructions and is the responsibility of the designers of the proposed building. The following recommendations, deriving from observations made during the investigation and testing are provided to assist the design process.

Based on the medium to high SPT-N values recorded in shallow cohesive materials it is considered that the ground conditions identified are generally suitable for traditional foundations. The firm to stiff, becoming stiff and very stiff sandy Clays are the recommended founding stratum.

Based on SPT results an estimated allowable bearing value of 75 (50-100) kPa can be applied to firm soils below ~1.50m. These soils become stiff from ~2.50m, with an estimated bearing value of 150 (100-200) kPa. In all cases foundations should extend through Topsoil and shallow sandy Clays to penetrate at least 150mm into firm soils.

9.5.1. General

A number of foundation solutions are available, and it will be necessary for a suitable risk assessment to be carried out by the foundation's designers at the appropriate time.

The above recommendations are based on interpolation of ground conditions between exploratory hole locations.

9.6. Retaining Features

In order to level the site or to reduce it's gradient, a retaining feature is proposed to be located in the south and east of the site, on the southern and eastern side of the development.

For the design of both temporary and permanent retaining structures groundwater should be assumed to be at 171-172 mAOD.

The designer should use the following parameters to derive the active and passive earth pressure coefficients. The determination of appropriate earth pressure coefficients, together with factors such as the pattern of earth pressure distribution, will depend upon the type/ geometry of the feature and the overall design approach.

Parameters are based on data interpreted specifically from rotary boreholes RH101 and RH102, which are located in the vicinity of the proposed retaining feature.

	BULK UNIT WEIGHT	EFFECTIVE COHESION	ANGLE OF SHEARING RESISTANCE ϕ	SHEAR STRENGTH
Firm to very stiff sandy Clay 175.1 - 165.5mAOD	20 kN/m ³	5 kPa	25 – 32	20 – 70 at 175 - 173.1mAOD 50 – 100 at 173.1 - 171.5mAOD 50 – 140 at 171.5 – 165.5mAOD
Medium dense and dense gravelly Sand 165.5 - 164.5mAOD 162 - 161.5mAOD	17 – 20 kN/m ³	-	38 – 40	-
Hard Clay 164.5 - 162mAOD	22 kN/m ³	3 KPa	27 – 32	170

Table 9.8: Design Parameters – Retaining Features

9.7. Pavement Design

Numerous dynamic cone penetrometer tests were undertaken on site in areas proposed for roadways/ pavements.

The following conservative values should be used for preliminary pavement design, supported by CBR testing at formation at the appropriate time.

- 5% at 0.25mbgl
- 5% at 0.50mbgl
- 3% at 0.75mbgl

9.8. Earthworks

Significant earthworks are likely to be required in tandem with the proposed retaining feature.

This report has provided design parameters that can be utilised for this element of the development. Based on two rounds of groundwater monitoring, water should be assumed to be at 171-172 mAOD.

Ridge Civil Engineering issued a High-Level Earthwork, Retaining and Levels Assessment (Ref: 5028934-RDG-XX-ST-T-C-112600) on 2 June 2025. Two Options were considered; 1. Vertical Retaining Structure, and 2. Reinforced Embankment.

Levels modelling showed that due to the steep access road (Dig Gate Lane), the site levels are relatively fixed. Although the introduction of Retaining Structures reduces the volume of excavated material needing to be disposed of, these structures are often more expensive and require specialised equipment to install. However, in the case of sheet/ secant walls, they can allow for a safer construction with the site compound being excavated once the retaining structures are in, rather than working around the outskirts of the site, closer to the M62 motorway.

The report suggests that reinforced embankments may be a more cost-effective option with less specialised tools and installation. It should be noted that the requirement to have the reinforced grid built into the high

side of the embankment, access and installation may be restricted along the southern boundary given its proximity to the M62 motorway.

9.9. Buried Concrete

Specialised analysis was not carried out as part of this investigation, but based on logged soils and pH values of chemical testing performed, we would expect the Design Sulphate Class to be DS-1 and the ACEC Class to be AC-1.

If this information is required to form part of the specific design, the above assumptions should be confirmed with testing carried out during future groundworks.

9.10. Infiltration Drainage

Soakage testing did not form part of our scope, but testing carried out by others (Ref: SHF.3050.001.HY.R.001.A) in August 2022 by Enzygo demonstrated that infiltration-based SuDS would not be feasible due to low infiltration rates into the underlying cohesive soils.

9.11. Further Geotechnical Investigation

Further Ground Investigation is not considered necessary at this time. Further investigation would be required should the layout of the proposed development be altered.

10. CONCLUSIONS AND RECOMMENDATIONS

10.1. Contamination

Following the review of previously completed preliminary risk assessments (Desk Top Study), further contamination assessment was not considered necessary. A precautionary contamination screening was carried out on shallow soils.

Results confirm the findings of the preliminary contamination risk assessment i.e. there is not considered to be a soil contamination source on site.

10.2. Waste Removal

None of the soil samples analysed returned hazardous properties.

Waste Acceptance Classification (WAC) testing was carried out on two samples (RH102 0.40-1.00m and WS103 0.40-1.00m) considered to be representative of typical natural soils below topsoil. Both samples were classified as suitable for disposal at inert landfill.

Ridge and Partners can assist with further WAC testing during groundworks to target specific waste being removed from site. Waste classification should be based on analyses that are representative of the particular waste load.

10.3. Mining

The site is located in a Coal Mining Reporting Area and based on this, planning permission granted contains an informative relating to potential hazards associated with coal mining in the vicinity.

Based on the Mining Remediation Authority Map Viewer (2025) the site is noted to lie outside of the 'Development High Risk Area', and there are no recorded mine entries at the site.

To further verify these findings, Ridge commissioned a Coal Authority CON29M Coal Mining Report (Ref: 51003497005001, dated 8 May 2025).

Coal mining features have been identified in the vicinity, but it is unlikely that these features will impact on the stability of the site, therefore the site is considered to be low risk for development.

Coal Authority CON29M Coal Mining Report is included as Appendix 2.

10.4. Geotechnical

The stratigraphy revealed during the ground investigation comprised Topsoil over sandy Clay to circa 10m depth, with gravelly Sand below this. A thin layer of very stiff/ hard Clay was noted in RH102 only from 10.90 – 13.60mbgl. Based on ground water gauging, groundwater should be assumed to be at 171-172 mAOD (2-3 mbgl).

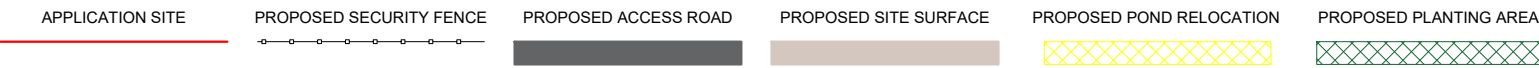
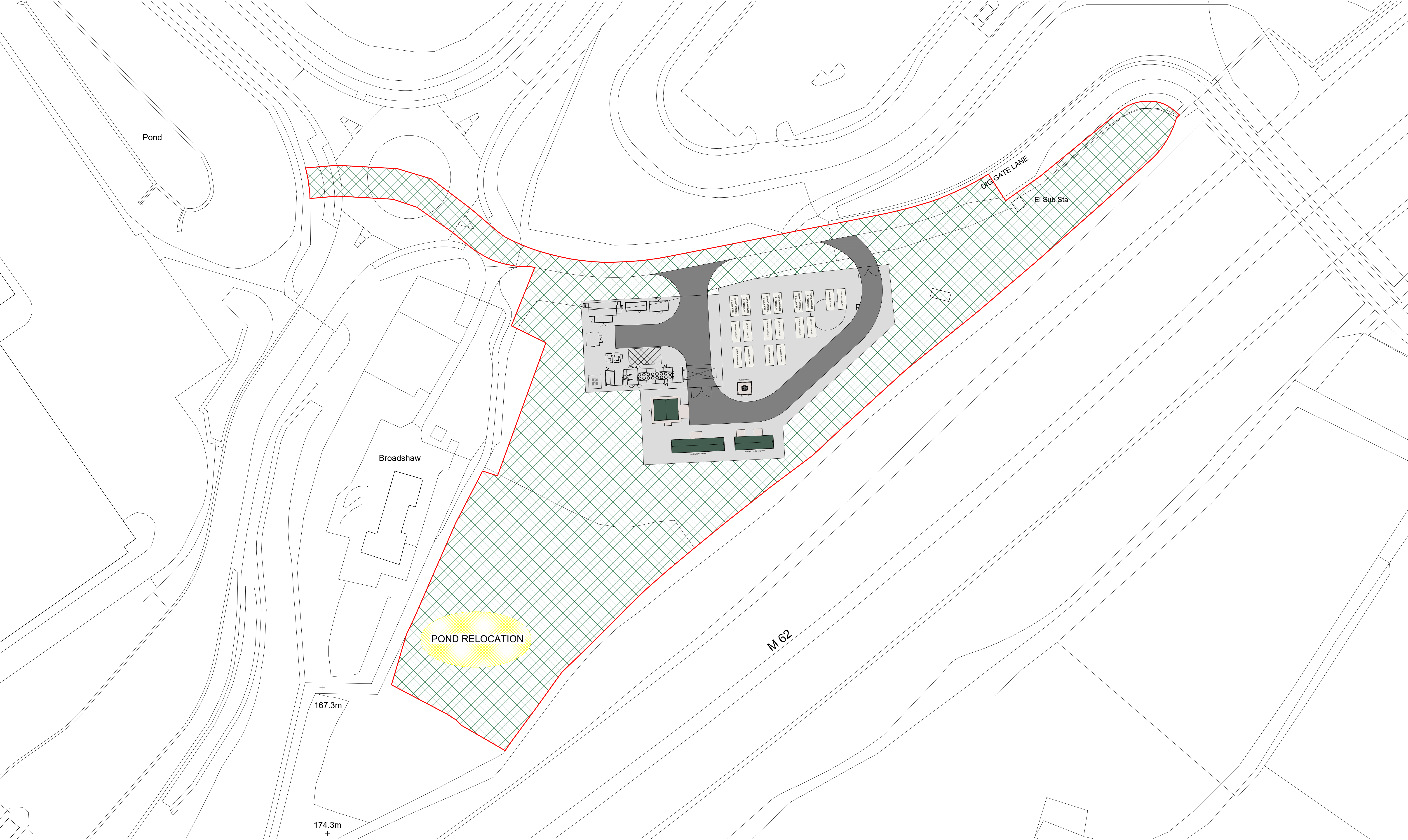
Based on the medium to high SPT-N values recorded in shallow cohesive materials it is considered that the ground conditions identified are generally suitable for traditional foundations. The firm to stiff, becoming stiff and very stiff sandy Clays are the recommended founding stratum. Based on SPT results an estimated allowable bearing value of 50 – 100 kPa can be applied to firm soils below ~2.50m. These soils become stiff from ~2.50m, with an estimated bearing value of 100 – 200 kPa.

Parameters have been provided in Section 9.6 of this report to aid design of the proposed retaining feature.

The following conservative values should be used for preliminary pavement design, supported by CBR testing at formation at the appropriate time: 5% at 0.25mbgl, 5% at 0.50mbgl, 3% at 0.75mbgl.

Soakage testing did not form part of our scope, but testing carried out by others (Ref: SHF.3050.001.HY.R.001.A) in August 2022 by Enzygo demonstrated that infiltration-based SuDS would not be feasible due to low infiltration rates into the underlying cohesive soils.

FIGURE 1 - SITE PLAN



GENERAL
THIS DRAWING IS THE COPYRIGHT OF BALANCE POWER PROJECTS LTD
ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED
THIS DRAWING DOES NOT DEFINE THE SCOPE OF SUPPLY

NOTES
(1) N/A

EQUIPMENT LIST
(1) N/A

DRAWING TITLE
PR564 _PL-01

DRAWING NUMBER
PL-01

DRAWING TYPE
COMBINED BESS & GAS LAYOUT

PROJECT NAME
ROCHDALE_BESS

PROJECT ADDRESS
OL16 4NR

STATUS
PELIMINARY

DESIGNER
L.GALE

CHECKED BY & APPROVED BY
R.MACINDOE

DATE
07/05/25

SCALE
1:500

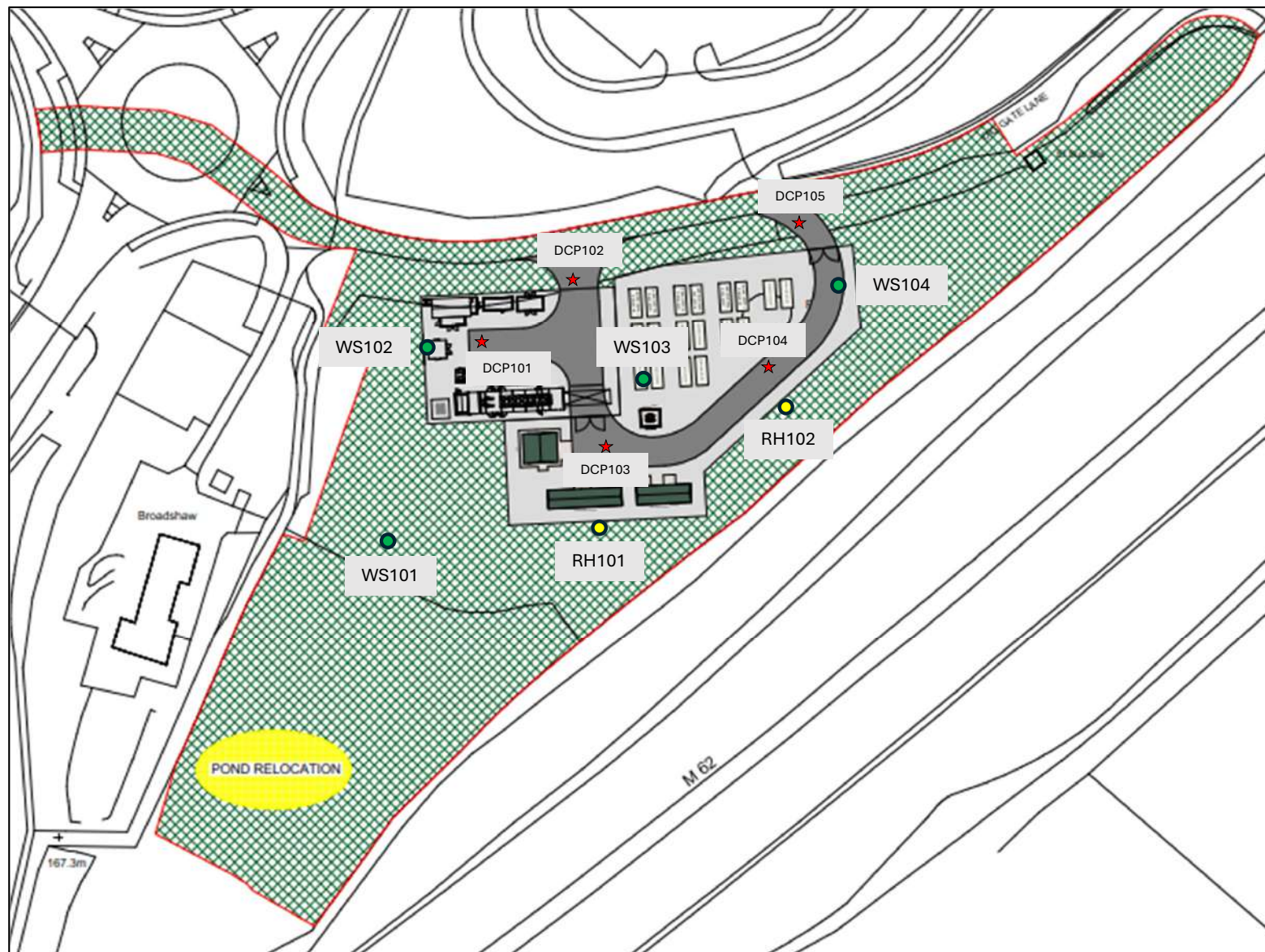
REVISION
2.0

PAPER SIZE
A1



DRAWING PURPOSE
PLANNING

FIGURE 2 - TEST LOCATION PLAN



- ★ TRL DCP (CBR %)
- Shallow Borehole (5m)
- Deep Borehole (10-15m)



Project:	Dig Gate Lane, Rochdale			Title:	Test Location Plan	
Job Number:	5028934	Client:	Balance Power	Ridge and Partners LLP TEL: 01962 834400 www.ridge.co.uk	1 Royal Court Kings Worthy Winchester SO23 7TW	
Drawing:	TLP	Revision:	-			
Drawn:	MS	Date:	June 2025			
Checked by:	RJH	Scale:	NTS			

APPENDIX 1 - REPORT CONDITIONS

Report Conditions

This report is produced solely for the benefit of **Balance Power** and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report refers, within the limitations stated, to the condition of the site at the time of the inspections. No warranty is given as to the possibility of future changes in the condition of the Site.

This report is based on a visual Site inspection, study of readily accessible referenced historical records, information supplied by those parties noted in the text and preliminary discussions with local and Statutory Authorities. Some of the opinions are based on unconfirmed data and information and are presented in good faith without exhaustive clarification. Where ground contamination is suspected but no physical Site test results are available to confirm this, the report must be regarded as initial advice only, and further assessment should be undertaken prior to detailed activities related to the Site. Where test results undertaken by others have been made available these can only be regarded as a limited sample. The possibility of the presence of contaminants, not revealed by this research cannot be discounted.

Whilst confident in the findings detailed within this report because there are no exact UK definitions of these matters, being subject to risk analysis, we are unable to give categoric assurances that they will be accepted by Authorities or Funds etc. without question, as such bodies may have unpublished, often more stringent objectives. This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to Ridge and Partners LLP. In time improved practices or amended legislation may necessitate a re-assessment.

The report is necessarily limited to those aspects of land contamination specifically reported on and no liability is accepted for any other aspect especially concerning gradual or sudden pollution incidents that may occur. The opinions expressed cannot be absolute due to the limitations of time and resources within the context of the agreed brief and the possibility of unrecorded previous use and abuse of the Site and adjacent Sites. The report concentrates on the Site as defined in the report and provides an opinion on surrounding Sites. If migrating pollution or contamination (past or present) exists this can only practically be better assessed following extensive on and off Site intrusive investigations and monitoring.

APPENDIX 2 – COAL MINING REPORT



The Coal
Authority

CON29M

coal mining report

DIG GATE LANE, ROCHDALE, N/A, N/A DIG GATE LANE, ROCHDALE,
LANCASHIRE, OL16 4NG



Known or potential coal mining risks

Past underground coal mining	Page 4
Future underground coal mining	Page 4



Further action

No further reports from the Coal Authority are required. Further information on any next steps can be found in our Professional opinion.

For more information on our reports please visit
www.groundstability.com



Professional opinion

According to the official mining information records held by the Coal Authority at the time of this search, evidence of, or the potential for, coal mining related features have been identified. It is unlikely that these features will impact on the stability of the enquiry boundary.

Your reference: **5028934**
Our reference: **51003497005001**
Date: **8 May 2025**

Client name:
Max Smeeth

If you require any further assistance
please contact our experts on:
0345 762 6848
groundstability@coal.gov.uk

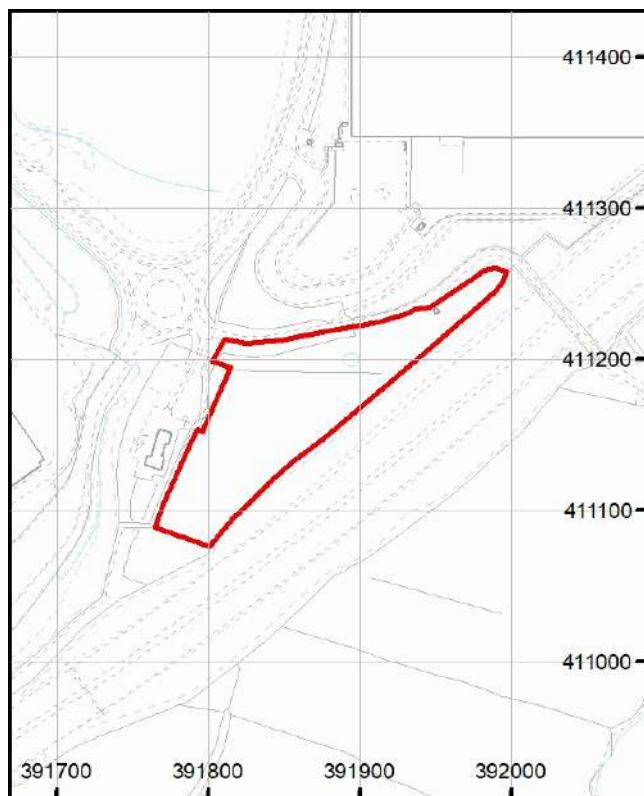


The Law
Society

Enquiry boundary

Key

Approximate position of enquiry boundary shown



We can confirm that the location is
on the coalfield



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This report is prepared in accordance with the latest Law Society's Guidance Notes 2018, the User Guide 2018 and the Coal Authority's Terms and Conditions applicable at the time the report was produced.



Accessibility

If you would like this information in an alternative format, please contact our communications team on 0345 762 6848 or email communications@coal.gov.uk.

Professional opinion



Future development

If development proposals are being considered, technical advice relating to both the investigation of coal and former coal mines and their treatment should be obtained before beginning work on site. All proposals should apply specialist engineering practice required for former mining areas. No development should be undertaken that intersects, disturbs or interferes with any coal or coal mines without first obtaining the permission of the Coal Authority.

MINE GAS: Please note, if there are no recorded instances of mine gas within the enquiry boundary, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded. Developers should be aware that the investigation of coal seams, mine workings or mine entries may have the potential to generate and/or displace underground gases. Associated risks both to the development site and any neighbouring land or properties should be fully considered when undertaking any ground works. The need for effective measures to prevent gases migrating onto any land or into any properties, either during investigation or remediation work, or after development must also be assessed and properly addressed. In these instances, the Coal Authority recommends that a more detailed Gas Risk Assessment is undertaken by a competent assessor.

If you are looking to develop, or undertake works, within a coal mining development high risk area your Local Authority planning department may require a Coal Mining Risk Assessment to be undertaken by a qualified mining geologist or engineer. Should you require any additional information then please contact the Coal Authority on **0345 762 6848** or email **cmra@coal.gov.uk**.

Detailed findings

Information provided by the Coal Authority in this report is compiled in response to the Law Society's CON29M Coal Mining enquiries. The said enquiries are protected by copyright owned by the Law Society of 113 Chancery Lane, London WC2A 1PL.

The Coal Authority owns the copyright in this report and the information used to produce this report is protected by our database rights. All rights are reserved and unauthorised use is prohibited. If we provide a report for you, this does not mean that copyright and any other rights will pass to you. However, you can use the report for your own purposes.

1 Past underground coal mining

The property is in a surface area that could be affected by underground mining in 1 seam of coal at 170m to 220m depth, and last worked in 1935.

Any movement in the ground due to coal mining activity associated with these workings should have stopped by now.

2 Present underground coal mining

The property is not within a surface area that could be affected by present underground mining.

3 Future underground coal mining

The property is not in an area where the Coal Authority has received an application for, and is currently considering whether to grant a licence to remove or work coal by underground methods.

The property is not in an area where a licence has been granted to remove or otherwise work coal using underground methods.

The property is not in an area likely to be affected from any planned future underground coal mining.

However, reserves of coal exist in the local area which could be worked at some time in the future.

No notices have been given, under section 46 of the Coal Mining Subsidence Act 1991, stating that the land is at risk of subsidence.

4 Mine entries

There are no recorded coal mine entries known to the Coal Authority within, or within 20 metres, of the boundary of the property.

5 Coal mining geology

The Coal Authority is not aware of any damage due to geological faults or other lines of weakness that have been affected by coal mining.

6 Past opencast coal mining

The property is not within the boundary of an opencast site from which coal has been removed by opencast methods.

7 Present opencast coal mining

The property does not lie within 200 metres of the boundary of an opencast site from which coal is being removed by opencast methods.

8 Future opencast coal mining

There are no licence requests outstanding to remove coal by opencast methods within 800 metres of the boundary.

The property is not within 800 metres of the boundary of an opencast site for which a licence to remove coal by opencast methods has been granted.

9 Coal mining subsidence

The Coal Authority has not received a damage notice or claim for the subject property, or any property within 50 metres of the enquiry boundary, since 31 October 1994.

There is no current Stop Notice delaying the start of remedial works or repairs to the property.

The Coal Authority is not aware of any request having been made to carry out preventive works before coal is worked under section 33 of the Coal Mining Subsidence Act 1991.

10 Mine gas

The Coal Authority has no record of a mine gas emission requiring action.

11 Hazards related to coal mining

The property has not been subject to remedial works, by or on behalf of the Coal Authority, under its Emergency Surface Hazard Call Out procedures.

12 Withdrawal of support

The property is not in an area where a notice to withdraw support has been given.

The property is not in an area where a notice has been given under section 41 of the Coal Industry Act 1994, cancelling the entitlement to withdraw support.

13 Working facilities order

The property is not in an area where an order has been made, under the provisions of the Mines (Working Facilities and Support) Acts 1923 and 1966 or any statutory modification or amendment thereof.

14 Payments to owners of former copyhold land

The property is not in an area where a relevant notice has been published under the Coal Industry Act 1975/Coal Industry Act 1994.

Statutory cover



Coal mining subsidence

In the unlikely event of any coal mining related subsidence damage, the Coal Authority or the mine operator has a duty to take remedial action in respect of subsidence caused by the withdrawal of support from land or property in connection with lawful coal mining operations.

When the works are the responsibility of the Coal Authority, our dedicated public safety and subsidence team will manage the claim. The house or land owner ("the owner") is covered for these works under the terms of the Coal Mining Subsidence Act 1991 (as amended by the Coal Industry Act 1994). Please note, this Act does not apply where coal was worked or gotten by virtue of the grant of a gale in the Forest of Dean, or any other part of the Hundred of St. Briavels in the county of Gloucester.

If you believe your land or property is suffering from coal mining subsidence damage and you need more information on what to do next, please use the following link to our website which sets out what your rights are and what you need to consider before making a claim.

www.gov.uk/government/publications/coal-mining-subsidence-damage-notice-form



Coal mining hazards

Our public safety and subsidence team provide a 24 hour a day, 7 days a week hazard reporting service, to help protect the public from hazards caused by past coal workings, such as a mine shaft or shallow working collapse. To report any hazards please call **0800 288 4242**. Further information can be found on our website: www.gov.uk/coalauthority.

Glossary



Key terms

adit - horizontal or sloped entrance to a mine

coal mining subsidence - ground movement caused by the removal of coal by underground mining

Coal Mining Subsidence Act 1991 - the Act setting out the duties of the Coal Authority to repair damage caused by coal mining subsidence

coal mining subsidence damage - damage to land, buildings or structures caused by the removal of coal by underground mining

coal seams - bed of coal of varying thickness

future opencast coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal from the surface

future underground coal mining - a licence granted, or licence application received, by the Coal Authority to excavate coal underground. Although it is unlikely, remaining coal reserves could create a possibility for future mining, which would be licensed by the Coal Authority

mine entries - collective name for shafts and adits

mine gas - reports of alleged mine gas emissions received by the Coal Authority within the enquiry boundary that subsequently required investigation and action by the Coal Authority to mitigate the effects of the mine gas emission. Please note, if there are no recorded instances of mine gas reported, this does not mean that mine gas is not present within the vicinity. The Coal Authority Mine Gas data is limited to only those sites where a Mine Gas incident has been recorded

payments to owners of former copyhold land - historically, copyhold land gave rights to coal to the copyholder. Legislation was set up to allow others to work this coal, but they had to issue a notice and pay compensation if a copyholder came forward

shaft - vertical entry into a mine

site investigation - investigations of coal mining risks carried out with the Coal Authority's permission

stop notice - a delay to repairs because further coal mining subsidence damage may occur and it would be unwise to carry out permanent repairs

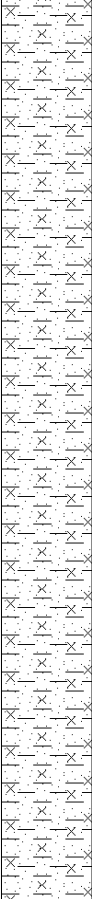
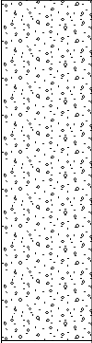
subsidence claim - a formal notice of subsidence damage to the Coal Authority since it was established on 31 October 1994

withdrawal of support - a historic notice informing landowners that the coal beneath their property was going to be worked

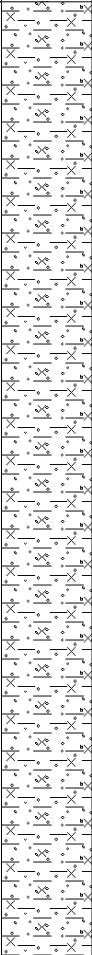
working facilities orders - a court order which gave permission, restricted or prevented coal mine workings

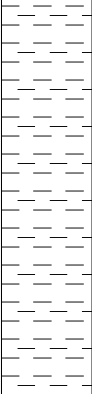
APPENDIX 3 – ENGINEERING LOGS

RIDGE		Ridge and Partners LLP www.ridge.co.uk		WLS Borehole Log			Borehole No. RH101 Sheet 1 of 2		
Project Name: Dig Gate Lane, Rochdale				Client: Balance Power		Contractor: GSS		Logged By: PW	
Location: Dig Gate Lane				Equipment: WLS and Rotary		Depth: 10.95m		Hole Type: WS	
Project ID: 5028934		Date: 21/05/2025 - 22/05/2025		Co-cords: E391860.13 N411155.87		Level: 175.4m		Scale: 1:30	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.00 - 0.40	ES		0.40		TOPSOIL: Brown slightly gravelly clayey SAND with frequent rootlets. Sand fine to coarse. Gravel fine to coarse, subrounded of sandstone. Desiccated.	1 2 3 4 5 6	
		0.40 - 1.00	ES				Firm orange and grey sandy CLAY with frequent rootlets and rare coal. Sand fine to coarse.		
		1.00 1.00	SPT	HVP=30 N=4 (1,1/1,1,1,1)	1.50		Firm brown sandy CLAY. Sand fine to coarse. Damp.		
		1.50 - 2.00	D						
		2.00 2.00	SPT	HVP=20 N=5 (1,1/1,1,1,2)	2.70		Firm brown sandy CLAY. Sand fine to coarse.		
		2.70 - 3.00	D						
		3.00 3.00	SPT	HVP=70 N=14 (3,3/3,3,4,4)	3.30		Stiff brown sandy CLAY. Sand fine to coarse. Damp.		
		4.00 4.00	SPT	HVP=40 N=16 (2,2/4,4,4,4)			Stiff brown very sandy CLAY. Sand fine to coarse. Very stiff from 4.00m.		
5.00 5.00	SPT	HVP=50 N=21 (4,4/4,5,6,6)	6.00						
6.00	SPT	N=20 (4,4/4,5,5,6)							
Groundwater Information						Hole Diameter		Casing Diameter	
Date		Depth Strike		Time Elapsed		Depth Base		Diameter	
Remarks: Window Sample with follow on Rotary from 6.45mbgl.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

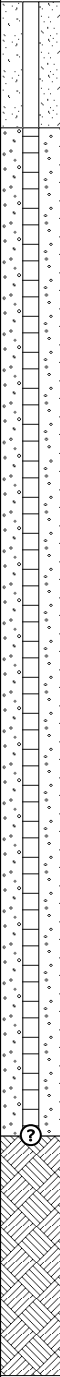
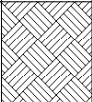
RIDGE		Ridge and Partners LLP www.ridge.co.uk		WLS Borehole Log				Borehole No. RH101 Sheet 2 of 2		
Project Name: Dig Gate Lane, Rochdale				Client: Balance Power		Contractor: GSS		Logged By: PW		
Location:				Equipment: WLS and Rotary		Depth: 10.95m		Hole Type: WS		
Project ID: 5028934		Date: 21/05/2025 - 22/05/2025		Co-cords: E391860.13 N411155.87		Level: 175.4m		Scale: 1:30		
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
		7.50	SPT	N=17 (3,3/4,4,4,5)	9.60			Very stiff light brown sandy silty CLAY. (Rotary description)	7	
		9.00	SPT	N=28 (4,4/6,6,8,8)						9
		10.50	SPT	N=29 (4,5/5,7,8,9)						10
					10.95			Dense light brown SAND and GRAVEL. (Rotary description)	11	
								End of Borehole at 10.950m	12	
Groundwater Information						Hole Diameter		Casing Diameter		
Date		Depth Strike		Time Elapsed		Depth Base		Diameter		
Remarks: Window Sample with follow on Rotary from 6.45mbgl.										
Logged in general accordance with BS 5930: Code of practice for ground investigations.										

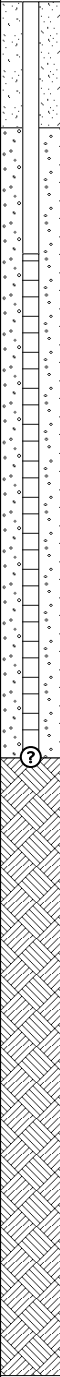
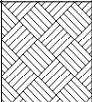
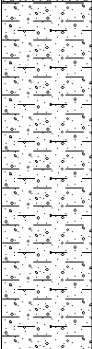
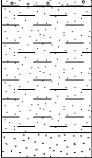
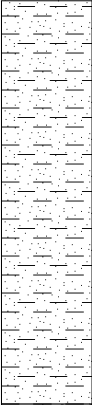
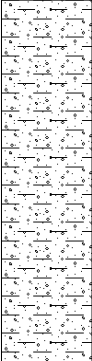
RIDGE		Ridge and Partners LLP www.ridge.co.uk		WLS Borehole Log			Borehole No. RH102 Sheet 1 of 3		
Project Name: Dig Gate Lane, Rochdale				Client: Balance Power		Contractor: GSS		Logged By: PW	
Location:				Equipment: WLS and Rotary		Depth: 13.95m		Hole Type: WS	
Project ID: 5028934		Date: 21/05/2025 - 22/05/2025		Co-cords: E391898.90 N411181.39		Level: 175.5m		Scale: 1:30	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
▼		0.00 - 0.40	ES		0.40		TOPSOIL: Brown slightly gravelly clayey SAND with frequent rootlets. Sand fine to coarse. Gravel fine to coarse, subrounded of sandstone. Desiccated.		
		0.40 - 1.00	D				Soft to firm orange and grey sandy CLAY with frequent rootlets and rare coal. Sand fine to coarse.		
		0.40 - 1.00	ES						
		1.00	SPT	HVP=30 N=5 (2,2/1,1,1,2)	1.50		Firm to stiff brown slightly gravelly sandy CLAY. Sand fine to coarse. Gravel fine to coarse subangular of sandstone.		
		1.00							
		1.50 - 2.00	D	2.70		Stiff brown sandy CLAY. Sand fine to coarse.			
		2.00	SPT					HVP=20 N=11 (1,2/2,3,3,3)	
		2.00							
		2.70 - 3.00	D	3.00		Firm to stiff brown sandy CLAY. Sand fine to coarse. Damp.			
		3.00 - 3.30	ES						
3.00	SPT	HVP=70 N=22 (3,4/5,5,6,6)							
3.00									
4.00	SPT	HVP=45 N=20 (2,3/3,5,6,6)	3.30		Stiff brown sandy CLAY. Sand fine to coarse. Very stiff from 4.00m.				
4.00									
5.00	SPT	HVP=50 N=26 (4,4/6,6,7,7)	5.50		Very stiff brown sandy CLAY. Sand fine to coarse.				
5.00									
6.00	SPT	N=24 (3,3/4,5,7,8)	6.00						
Groundwater Information				Hole Diameter		Casing Diameter			
Date	Depth Strike	Time Elapsed	Depth Water	Depth Base	Diameter	Depth Base	Diameter		
	3.00								
Remarks: Window Sample with follow on Rotary from 6.45mbgl.								AGS	
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

RIDGE		Ridge and Partners LLP www.ridge.co.uk		WLS Borehole Log			Borehole No. RH102 Sheet 2 of 3		
Project Name: Dig Gate Lane, Rochdale				Client: Balance Power		Contractor: GSS		Logged By: PW	
Location:				Equipment: WLS and Rotary		Depth: 13.95m		Hole Type: WS	
Project ID: 5028934		Date: 21/05/2025 - 22/05/2025		Co-cords: E391898.90 N411181.39		Level: 175.5m		Scale: 1:30	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		7.50	SPT	N=21 (3,3/4,4,5,8)	9.80			Very stiff dark brown slightly gravelly silty CLAY. (Rotary description)	7 8 9 10 11 12
		9.00	SPT	N=16 (2,2/3,4,4,5)					
		10.50	SPT	N=24 (3,3/5,5,6,8)					
		12.00	SPT	N=38 (4,5/7,9,9,13)					
Groundwater Information						Hole Diameter		Casing Diameter	
Date	Depth Strike	Time Elapsed	Depth Water	Depth Base	Diameter	Depth Base	Diameter		
	3.00								
Remarks: Window Sample with follow on Rotary from 6.45mbgl.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

RIDGE		Ridge and Partners LLP www.ridge.co.uk		WLS Borehole Log				Borehole No. RH102 Sheet 3 of 3	
Project Name: Dig Gate Lane, Rochdale				Client: Balance Power		Contractor: GSS		Logged By: PW	
Location:				Equipment: WLS and Rotary		Depth: 13.95m		Hole Type: WS	
Project ID: 5028934		Date: 21/05/2025 - 22/05/2025		Co-cords: E391898.90 N411181.39		Level: 175.5m		Scale: 1:30	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		13.50	SPT	N=40 (4,4/8,10,11,11)	13.60			Very stiff dark brown CLAY. (Rotary description)	13
					13.95			Dense grey fine SAND and GRAVEL.	14
								End of Borehole at 13.950m	14
									15
									16
									17
									18
Groundwater Information						Hole Diameter		Casing Diameter	
Date		Depth Strike		Time Elapsed		Depth Base		Diameter	
		3.00							
Remarks: Window Sample with follow on Rotary from 6.45mbgl.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									



RIDGE		Ridge and Partners LLP www.ridge.co.uk		WLS Borehole Log				Borehole No. WS101 Sheet 1 of 1	
Project Name: Dig Gate Lane, Rochdale				Client: Balance Power		Contractor: GSS		Logged By: PW	
Location:				Equipment: WLS		Depth: 5.45m		Hole Type: WS	
Project ID: 5028934		Date: 21/05/2025		Co-cords: E391815.85 N411152.92		Level: 173m		Scale: 1:30	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.40 - 1.00 0.40 - 1.00	D ES	HVP=50 N=8 (1,1/2,2,2,2)	0.40			TOPSOIL: Brown slightly gravelly clayey SAND with frequent rootlets. Sand fine to coarse. Gravel fine to coarse, subrounded of sandstone. Desiccated.	1
		1.00 1.00	SPT					Firm orange and grey mottled sandy CLAY. Sand fine to coarse.	
		2.00 - 3.00 2.00 2.00	D SPT					HVP=20 N=16 (3,3/3,4,4,5)	
		3.00 - 3.50 3.00 3.00	D SPT		HVP=65 N=16 (2,3/3,4,4,5)		3		
		4.00	SPT		N=22 (3,3/4,6,6,6)		4		
		4.30							
		5.00 5.00	SPT	HVP=50 N=25 (4,4/5,6,7,7)	5.45			5	
								End of Borehole at 5.450m	6
Groundwater Information						Hole Diameter		Casing Diameter	
Date	Depth Strike	Time Elapsed	Depth Water	Depth Base	Diameter	Depth Base	Diameter		
	4.00								
Remarks: Groundwater encountered at 4.00m. Installed from 0.50-4.50m.									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

RIDGE		Ridge and Partners LLP www.ridge.co.uk		WLS Borehole Log				Borehole No. WS102 Sheet 1 of 1			
Project Name: Dig Gate Lane, Rochdale				Client: Balance Power		Contractor: GSS		Logged By: PW			
Location:				Equipment: WLS		Depth: 5.45m		Hole Type: WS			
Project ID: 5028934		Date: 21/05/2025		Co-cords: E391823.00 N411194.00		Level: 171m		Scale: 1:30			
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description			
		Depth (m)	Type	Results							
		0.40 - 1.00	D	HVP=40 N=12 (2,3/3,3,3,3)	0.40			TOPSOIL: Brown clayey gravelly SAND with frequent rootlets. Sand fine to coarse. Gravel fine to coarse, subangular of sandstone.	1		
		1.00 1.00	SPT		1.80			Firm to stiff orange and grey mottled slightly gravelly sandy CLAY with rare coal fragments. Sand fine to coarse. Gravel fine to coarse, subangular of sandstone.			
		1.80 - 2.30	D	HVP=25 N=8 (1,1/2,2,2,2,2)	1.80		Firm brown very sandy CLAY. Sand fine to coarse. Damp.	2			
		2.00 2.00	SPT		2.30 2.40		Medium dense brown fine to coarse SAND. Firm to stiff brown sandy CLAY. Sand fine to coarse.				
		2.50 - 3.00	D	HVP=50 N=21 (3,3/3,6,6,6,6)	2.30 2.40		Very stiff from 3.00m.	3			
		3.00 3.00	SPT				4.00		Very stiff brown sandy gravelly CLAY. Sand fine to coarse. Gravel fine to coarse, subrounded of sandstone.		
		4.00 4.00	SPT	HVP=80 N=23 (4,4/5,6,6,6,6)	4.00			4			
		5.00	SPT		N=32 (6,6/7,7,9,9)				5		
						5.45		End of Borehole at 5.450m			6
		Groundwater Information						Hole Diameter		Casing Diameter	
Date	Depth Strike	Time Elapsed	Depth Water	Depth Base	Diameter	Depth Base	Diameter				
	2.00										
Remarks:											
Groundwater encountered at 2.00m. Installed from 1.00-3.00m.											
Logged in general accordance with BS 5930: Code of practice for ground investigations.											

RIDGE		Ridge and Partners LLP www.ridge.co.uk		WLS Borehole Log				Borehole No. WS103 Sheet 1 of 1	
Project Name: Dig Gate Lane, Rochdale				Client: Balance Power		Contractor: GSS		Logged By: PW	
Location:				Equipment: WLS		Depth: 5.45m		Hole Type: WS	
Project ID: 5028934		Date: 22/05/2025		Co-cords: E391869.14 N411187.11		Level: 174m		Scale: 1:30	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.40 - 1.00 0.40 - 1.00 0.40 - 1.00	D ES ES	HVP=40 N=8 (1,2/2,2,2,2)	0.40			TOPSOIL: Brown clayey SAND with frequent rootlets. Sand fine to coarse. Desiccated.	1
		1.00 1.00	SPT					Firm orange and grey mottled sandy gravelly CLAY with rare coal fragments. Sand fine to coarse. Gravel fine to coarse, subangular of sandstone.	
		2.00 - 3.00 2.00 2.00	D SPT	HVP=20 N=10 (0,1/1,2,3,4)	1.50			Firm to stiff brown very sandy CLAY. Sand fine to coarse.	2
		3.00 3.00	SPT	HVP=50 N=13 (2,2/3,3,3,4)				3	
		4.00 - 5.00 4.00	D SPT	N=12 (2,2/3,3,3,3)	3.80			Medium dense brown silty SAND. Sand fine to coarse.	4
5.00	SPT	N=14 (2,2/3,3,3,5)	5						
				5.45			End of Borehole at 5.450m	6	
Groundwater Information						Hole Diameter		Casing Diameter	
Date	Depth Strike	Time Elapsed	Depth Water	Depth Base	Diameter	Depth Base	Diameter		
	3.00 4.00								
Remarks:									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

RIDGE		Ridge and Partners LLP www.ridge.co.uk		WLS Borehole Log				Borehole No. WS104 Sheet 1 of 1	
Project Name: Dig Gate Lane, Rochdale				Client: Balance Power		Contractor: GSS		Logged By:	
Location:				Equipment: WLS		Depth: 5.45m		Hole Type: WS	
Project ID: 5028934		Date: 22/05/2025		Co-cords: E391909.91 N411206.90		Level: 174m		Scale: 1:30	
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		0.50 - 1.00	D	HVP=40 N=6 (1,1/1,1,2,2)	0.40			TOPSOIL: Brown clayey SAND with frequent rootlets. Sand fine to coarse. Desiccated.	1
		1.00 1.00	SPT					Firm orange and grey sandy gravelly CLAY with rare coal. Sand fine to coarse. Gravel fine to coarse, subangular of sandstone.	
		1.50 - 2.00	D	HVP=40 N=13 (1,2/2,3,4,4)	1.50			Firm to stiff brown sandy gravelly CLAY with occasional coal fragments. Sand fine to coarse. Gravel fine to coarse subrounded of sandstone. Poor recovery (50%) 3.00m to 4.00m.	2
		2.00 - 3.00 2.00 2.00	D SPT						
		3.00 - 4.00 3.00 3.00	D SPT	HVP=60 N=13 (2,3/3,3,3,4)			Very stiff brown sandy gravelly CLAY with occasional coal fragments. Sand fine to coarse. Gravel fine to coarse subrounded of sandstone.	4	
		4.00 - 5.00 4.00 4.00	D SPT	HVP=30 N=25 (3,4/6,6,6,7)					
		5.00 5.00	SPT	HVP=30 N=17 (3,3/4,4,4,5)	5.45		End of Borehole at 5.450m	5	
							6		
Groundwater Information						Hole Diameter		Casing Diameter	
Date	Depth Strike	Time Elapsed	Depth Water	Depth Base	Diameter	Depth Base	Diameter		
Remarks:									
Logged in general accordance with BS 5930: Code of practice for ground investigations.									

APPENDIX 4 – LABORATORY CERTIFICATES



Laboratory Report



Contract Number: 78956

Client Ref: **5028934**
Client PO: **5028934-37289**

Date Received: **29-05-2025**
Date Completed: **12-06-2025**
Report Date: **12-06-2025**

Client: **Ridge**

Contract Title: **Dig Gate Lane**
For the attention of: **Max Smeeth**

This report has been checked and approved by:

Brendan Evans
Senior Office Administrator

Description	Qty
Determination of water content BS EN ISO 17892-1:2014 - @ Non Accredited Test	8
4 Point Liquid & Plastic Limit.. BS EN ISO 17892-12 - * UKAS	8
Particle Size Distribution BS EN ISO 17892-4 : 5.1 - * UKAS	9

Notes: Observations and Interpretations are outside the UKAS Accreditation
* - denotes test included in laboratory scope of accreditation
- denotes test carried out by approved contractor
@ - denotes non accredited tests

This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This test report/certificate shall not be reproduced except in full, without the approval of GEO Site & Testing Services Ltd. Any opinions or interpretations stated - within this report/certificate are excluded from the laboratories UKAS accreditation.

Approved Signatories:

Brendan Evans (Senior Office Administrator) - Darren Bourne (Quality Senior Technician) - Paul Evans (Director)
Richard John (Quality/Technical Manager) - Shaun Jones (Laboratory manager) - Shaun Thomas (Site Manager)
Wayne Honey (HR & HSE Manager)

[illegible]



PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4:2016
Wet Sieve, Clause 5.2

Contract Number

78956

Borehole/Pit No.

RH101

Project Name

Dig Gate Lane

Sample No.

Sample Description

Brown slightly gravelly fine to coarse sandy SILT/ CLAY

Depth Top

1.50

Depth Base

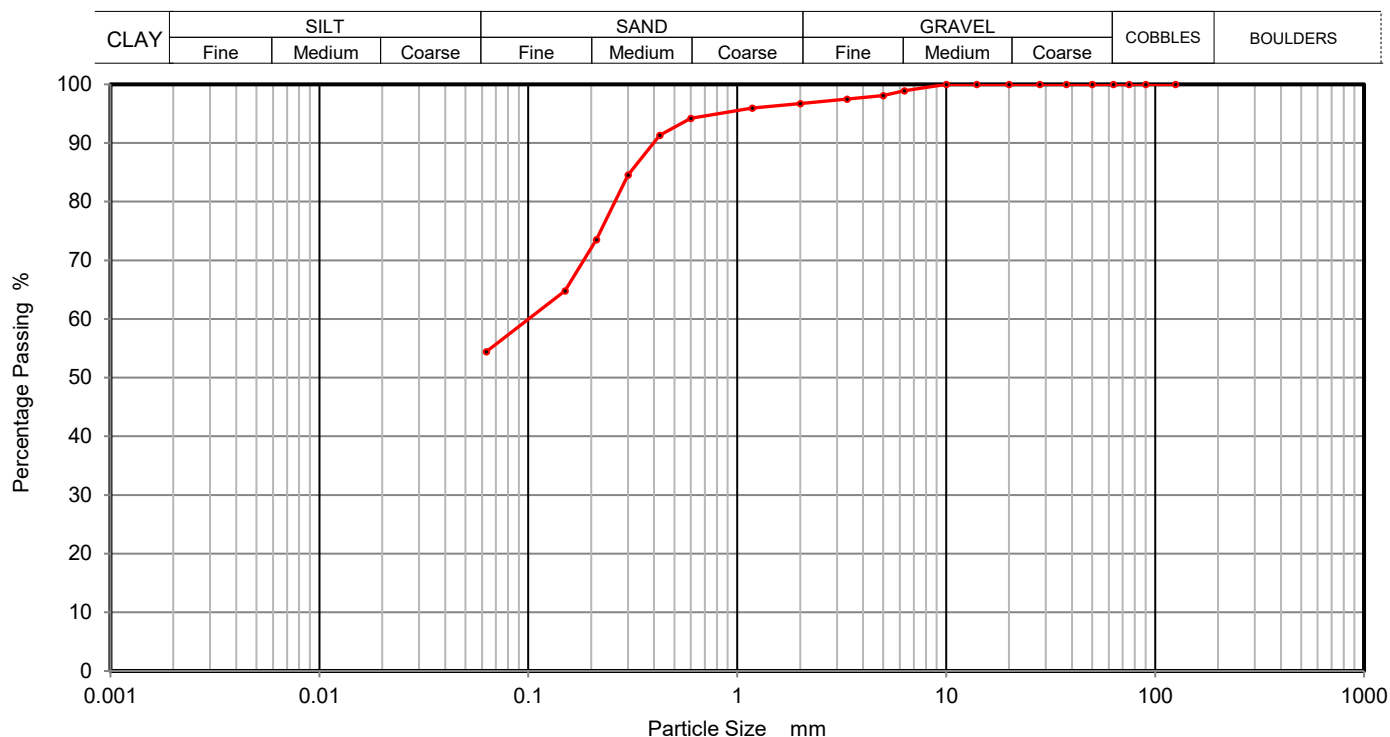
2.00

Date Tested

06/06/2025

Sample Type

D



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	99		
5	98		
3.35	97		
2	97		
1.18	96		
0.63	94		
0.425	91		
0.30	85		
0.20	74		
0.15	65		
0.063	54		

Sample Proportions	% dry mass
Cobbles	0
Gravel	3
Sand	43
Silt and Clay	54

Remarks

Preparation and testing in accordance with BS17892 unless noted below

Operator

Cameron. T

PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4:2016
Wet Sieve, Clause 5.2

Contract Number **78956**

Borehole/Pit No. **RH101**

Project Name **Dig Gate Lane**

Sample No.

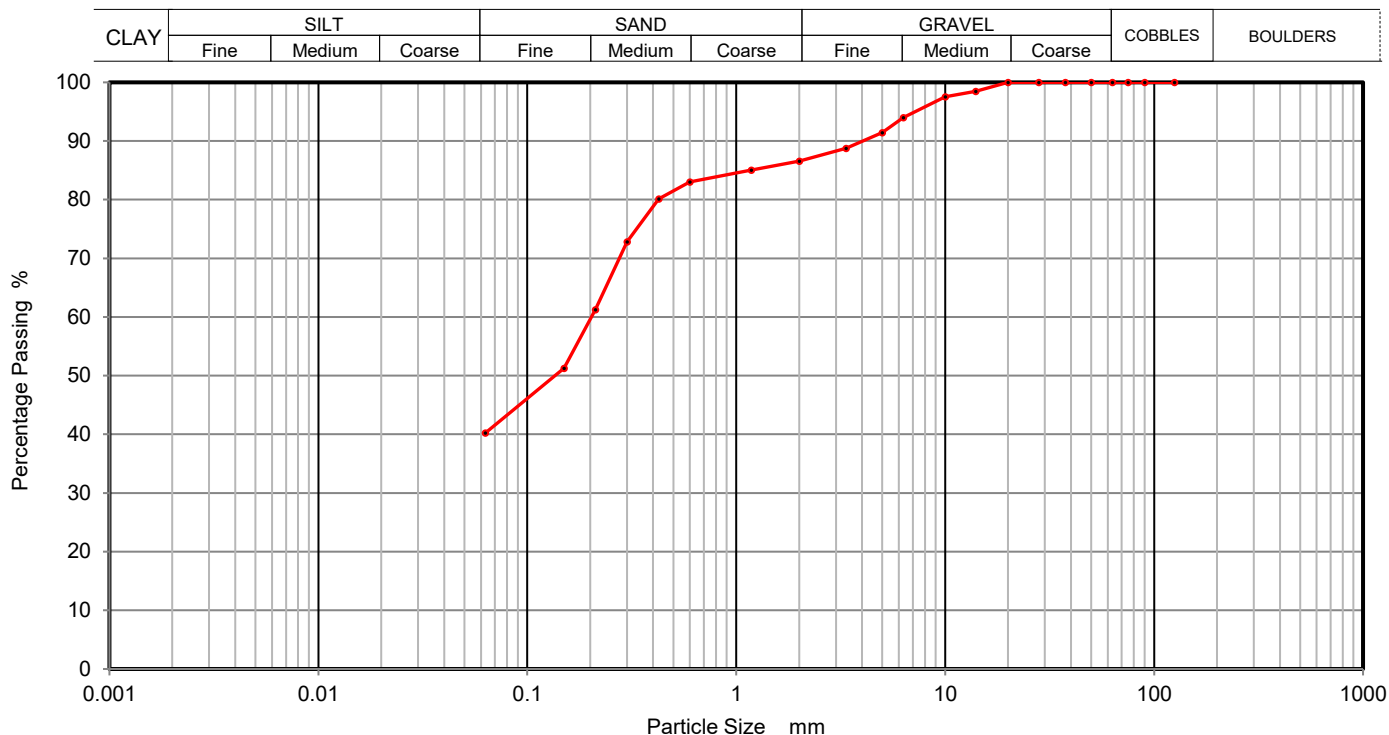
Sample Description **Brown fine to medium gravelly fine to coarse sandy SILT/ CLAY**

Depth Top **7.50**

Depth Base **7.95**

Date Tested **06/06/2025**

Sample Type **SPTLS**



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	98		
10	98		
6.3	94		
5	91		
3.35	89		
2	87		
1.18	85		
0.63	83		
0.425	80		
0.30	73		
0.20	61		
0.15	51		
0.063	40		

Sample Proportions	% dry mass
Cobbles	0
Gravel	13
Sand	47
Silt and Clay	40

Remarks

Preparation and testing in accordance with BS17892 unless noted below

Operator

Cameron. T

PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4:2016
Wet Sieve, Clause 5.2

Contract Number

78956

Borehole/Pit No.

RH102

Project Name

Dig Gate Lane

Sample No.

Sample Description

Brown fine to medium gravelly fine to coarse sandy SILT/ CLAY

Depth Top

0.40

Depth Base

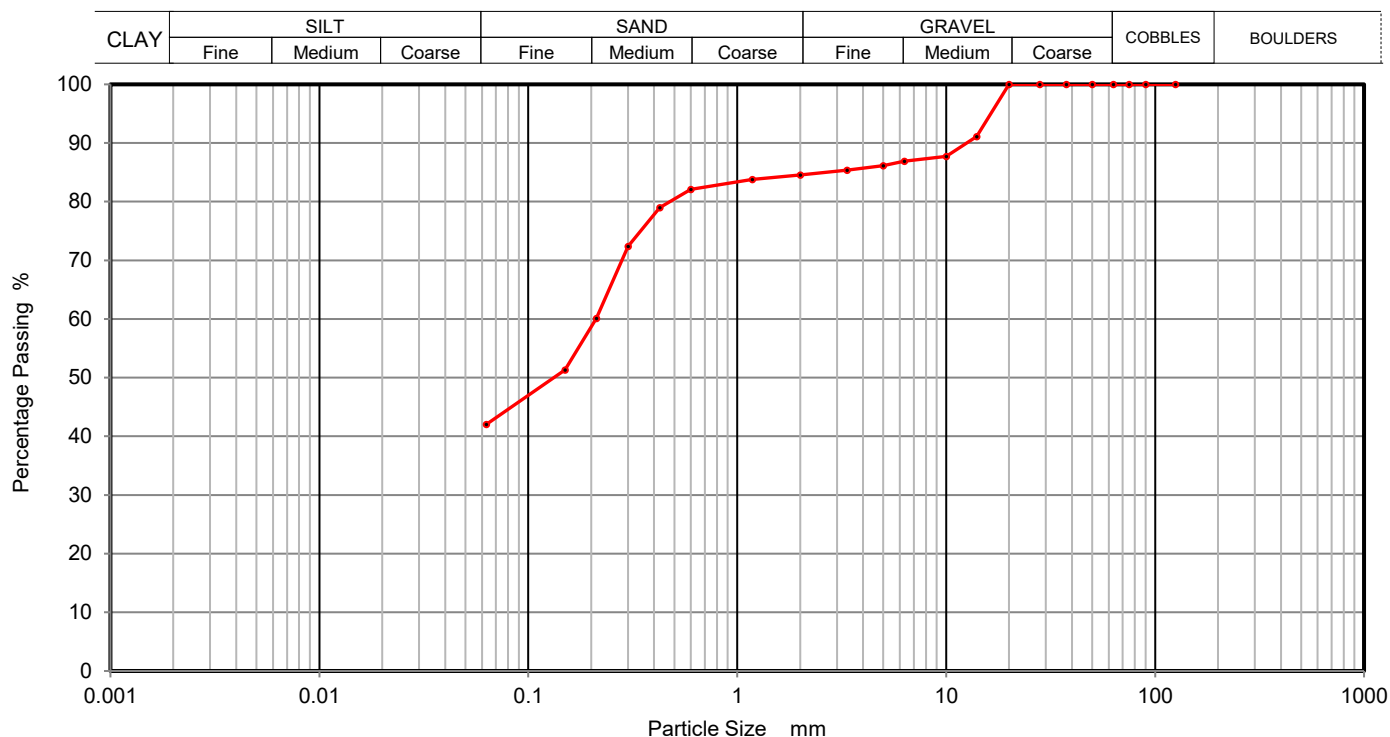
1.00

Date Tested

06/06/2025

Sample Type

D



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	91		
10	88		
6.3	87		
5	86		
3.35	85		
2	85		
1.18	84		
0.63	82		
0.425	79		
0.30	72		
0.20	60		
0.15	51		
0.063	42		

Sample Proportions	% dry mass
Cobbles	0
Gravel	15
Sand	43
Silt and Clay	42

Remarks

Preparation and testing in accordance with BS17892 unless noted below

Operator

Cameron. T

PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4:2016
Wet Sieve, Clause 5.2

Contract Number **78956**

Borehole/Pit No. **RH102**

Project Name **Dig Gate Lane**

Sample No.

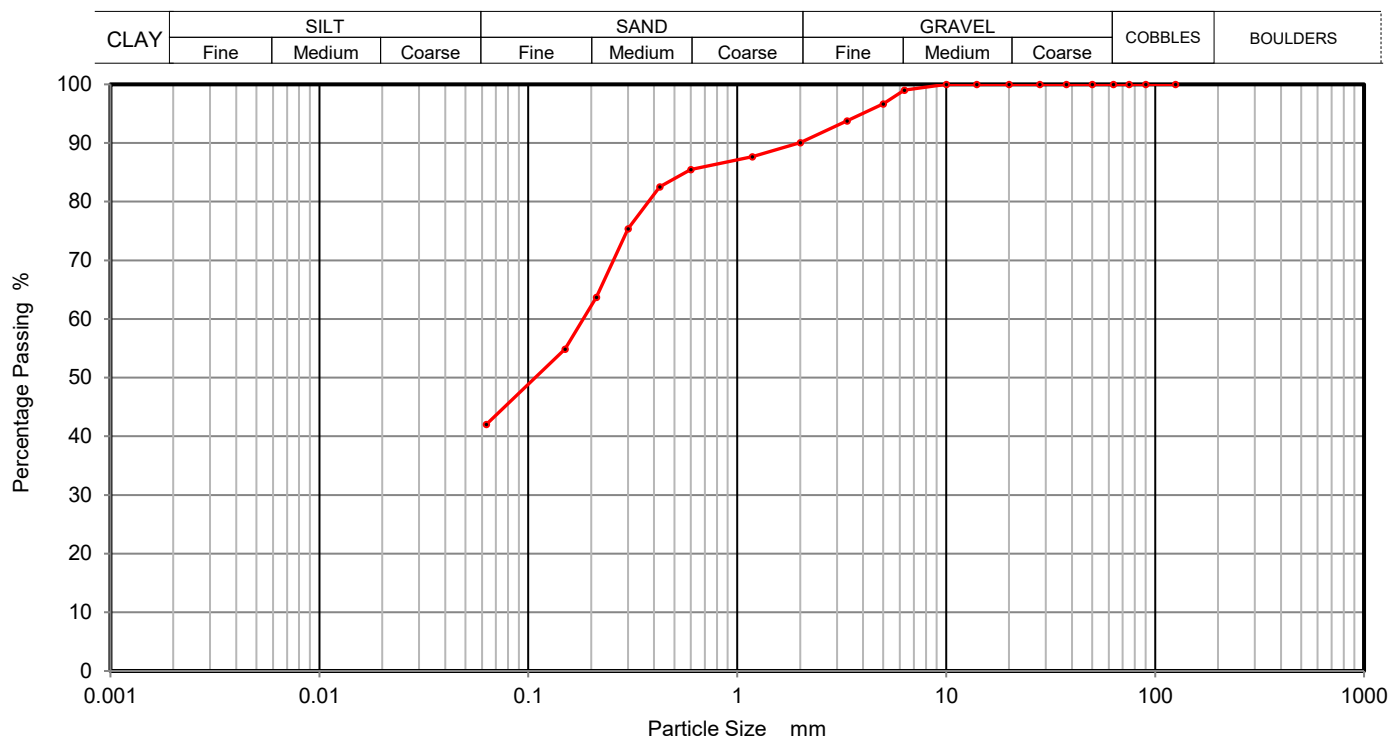
Sample Description **Brown fine to medium gravelly fine to coarse sandy SILT/ CLAY**

Depth Top **9.00**

Depth Base **9.45**

Date Tested **06/06/2025**

Sample Type **SPTLS**



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	99		
5	97		
3.35	94		
2	90		
1.18	88		
0.63	85		
0.425	83		
0.30	75		
0.20	64		
0.15	55		
0.063	42		

Sample Proportions	% dry mass
Cobbles	0
Gravel	10
Sand	48
Silt and Clay	42

Remarks

Preparation and testing in accordance with BS17892 unless noted below

Operator

Cameron. T

PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4:2016
Wet Sieve, Clause 5.2

Contract Number

78956

Borehole/Pit No.

RH102

Project Name

Dig Gate Lane

Sample No.

Sample Description

Brown slightly gravelly silty/ clayey fine to coarse SAND

Depth Top

10.50

Depth Base

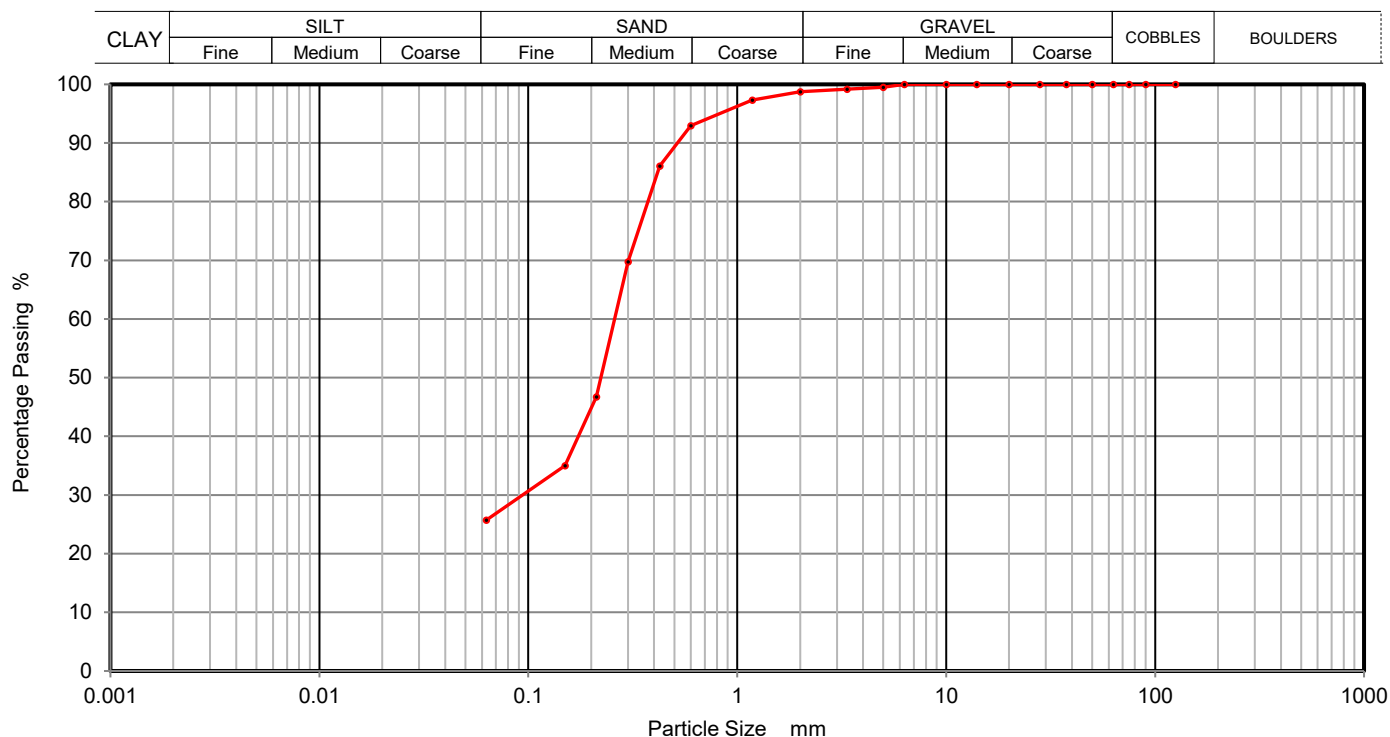
10.95

Date Tested

06/06/2025

Sample Type

SPTLS



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	100		
6.3	100		
5	99		
3.35	99		
2	99		
1.18	97		
0.63	93		
0.425	86		
0.30	70		
0.20	47		
0.15	35		
0.063	26		

Sample Proportions	% dry mass
Cobbles	0
Gravel	1
Sand	73
Silt and Clay	26

Remarks

Preparation and testing in accordance with BS17892 unless noted below

Operator

Cameron. T

PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4:2016
Wet Sieve, Clause 5.2

Contract Number

78956

Borehole/Pit No.

RH102

Project Name

Dig Gate Lane

Sample No.

Sample Description

Brown slightly gravelly fine to coarse sandy SILT/ CLAY

Depth Top

12.00

Depth Base

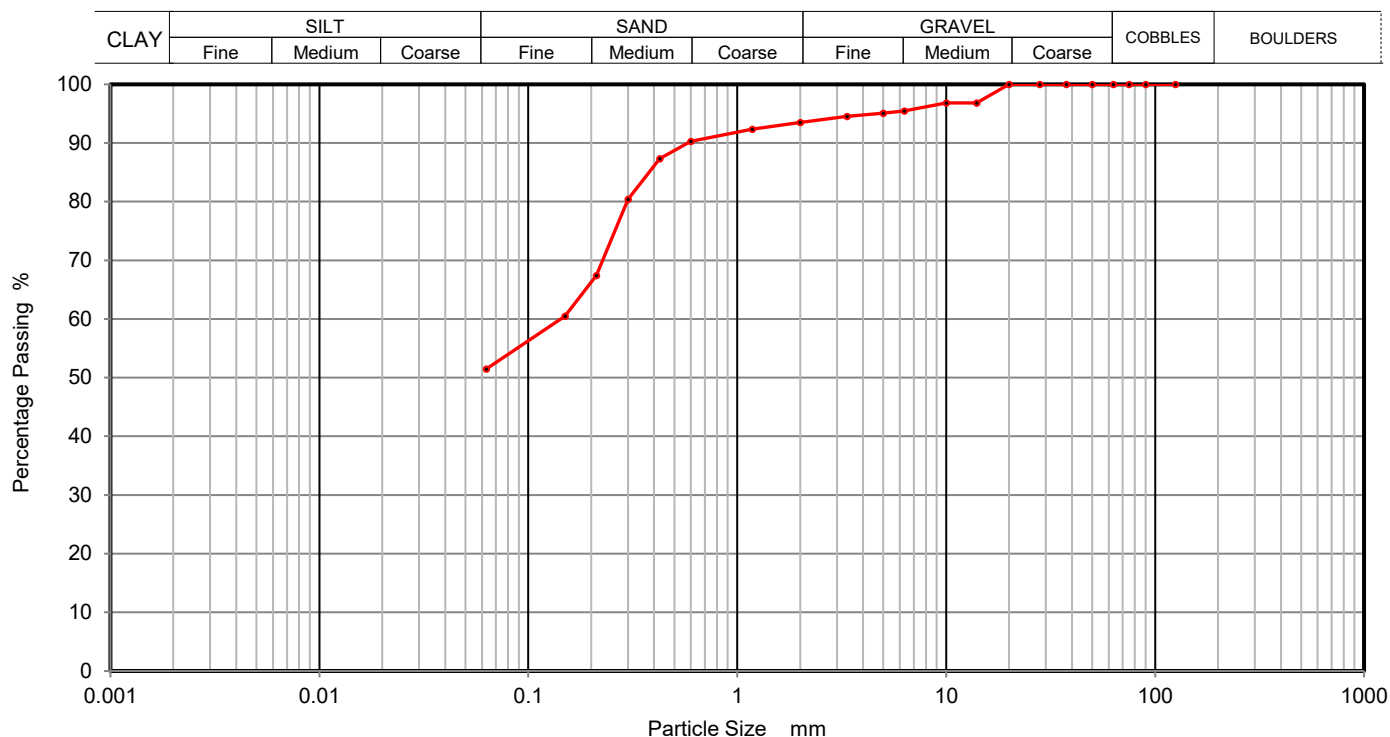
12.45

Date Tested

06/06/2025

Sample Type

SPTLS



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	97		
10	97		
6.3	95		
5	95		
3.35	95		
2	93		
1.18	92		
0.63	90		
0.425	87		
0.30	80		
0.20	67		
0.15	60		
0.063	51		

Sample Proportions	% dry mass
Cobbles	0
Gravel	7
Sand	42
Silt and Clay	51

Remarks

Preparation and testing in accordance with BS17892 unless noted below

Operator

Cameron. T

PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4:2016
Wet Sieve, Clause 5.2

Contract Number

78956

Borehole/Pit No.

RH102

Project Name

Dig Gate Lane

Sample No.

Sample Description

Brown silty/ clayey fine to medium gravelly fine to coarse SAND

Depth Top

13.50

Depth Base

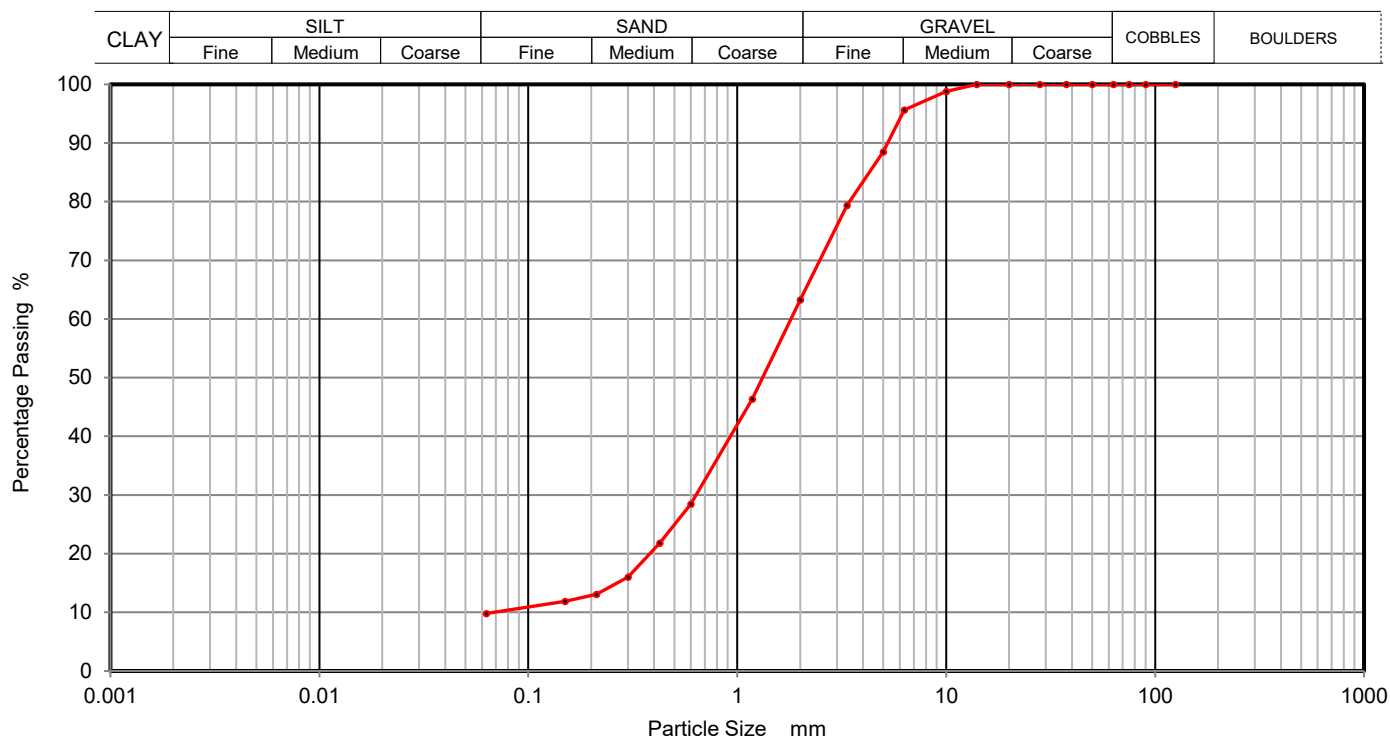
13.95

Date Tested

06/06/2025

Sample Type

SPTLS



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	99		
6.3	96		
5	88		
3.35	79		
2	63		
1.18	46		
0.63	28		
0.425	22		
0.30	16		
0.20	13		
0.15	12		
0.063	10		

Sample Proportions	% dry mass
Cobbles	0
Gravel	37
Sand	53
Silt and Clay	10

Remarks

Preparation and testing in accordance with BS17892 unless noted below

Operator

Cameron. T

PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4:2016
Wet Sieve, Clause 5.2

Contract Number

78956

Borehole/Pit No.

WS101

Project Name

Dig Gate Lane

Sample No.

Sample Description

Brown slightly gravelly fine to coarse sandy SILT/ CLAY

Depth Top

3.00

Depth Base

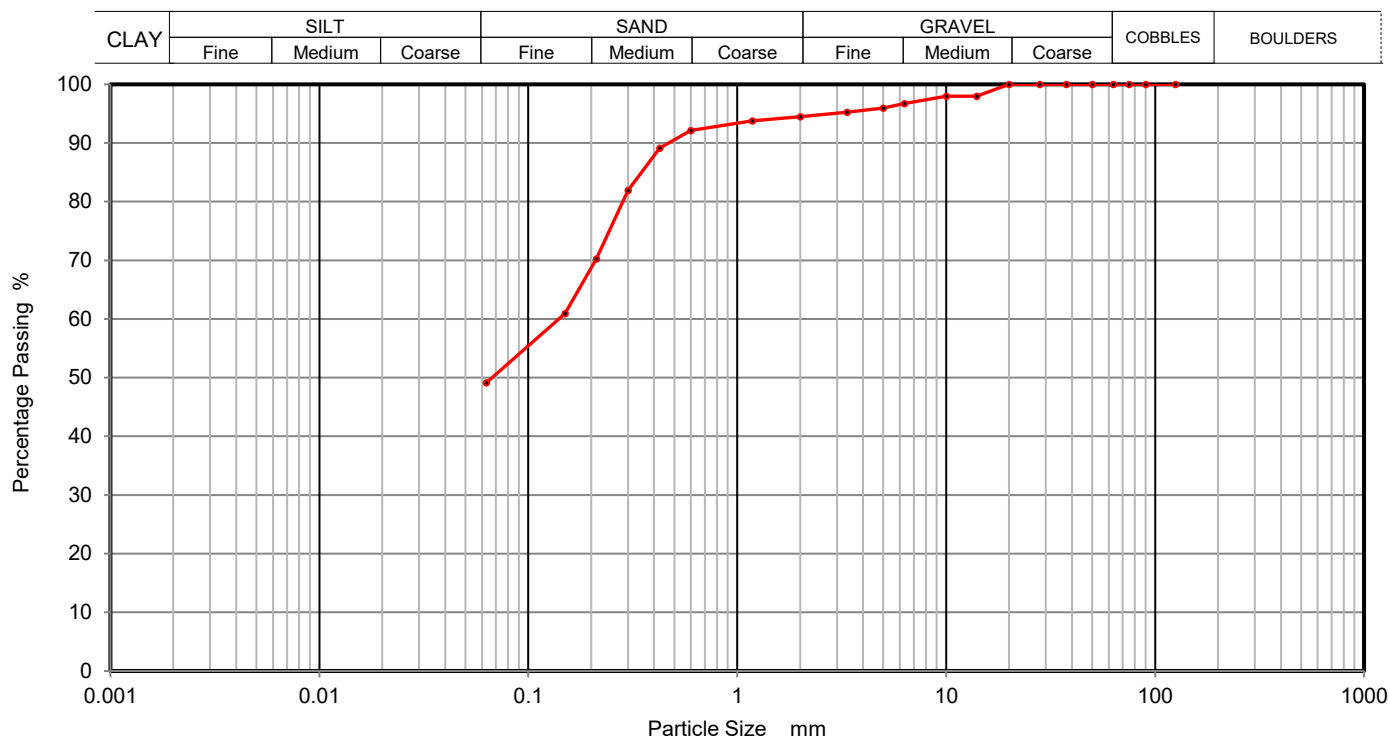
3.50

Date Tested

06/06/2025

Sample Type

D



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	98		
10	98		
6.3	97		
5	96		
3.35	95		
2	95		
1.18	94		
0.63	92		
0.425	89		
0.30	82		
0.20	70		
0.15	61		
0.063	49		

Sample Proportions	% dry mass
Cobbles	0
Gravel	5
Sand	46
Silt and Clay	49

Remarks

Preparation and testing in accordance with BS17892 unless noted below

Operator

Cameron. T

PARTICLE SIZE DISTRIBUTION
BS EN ISO 17892-4:2016
Wet Sieve, Clause 5.2

Contract Number

78956

Borehole/Pit No.

WS103

Project Name

Dig Gate Lane

Sample No.

Sample Description

Brown fine to coarse gravelly silty/ clayey fine to coarse SAND

Depth Top

4.00

Depth Base

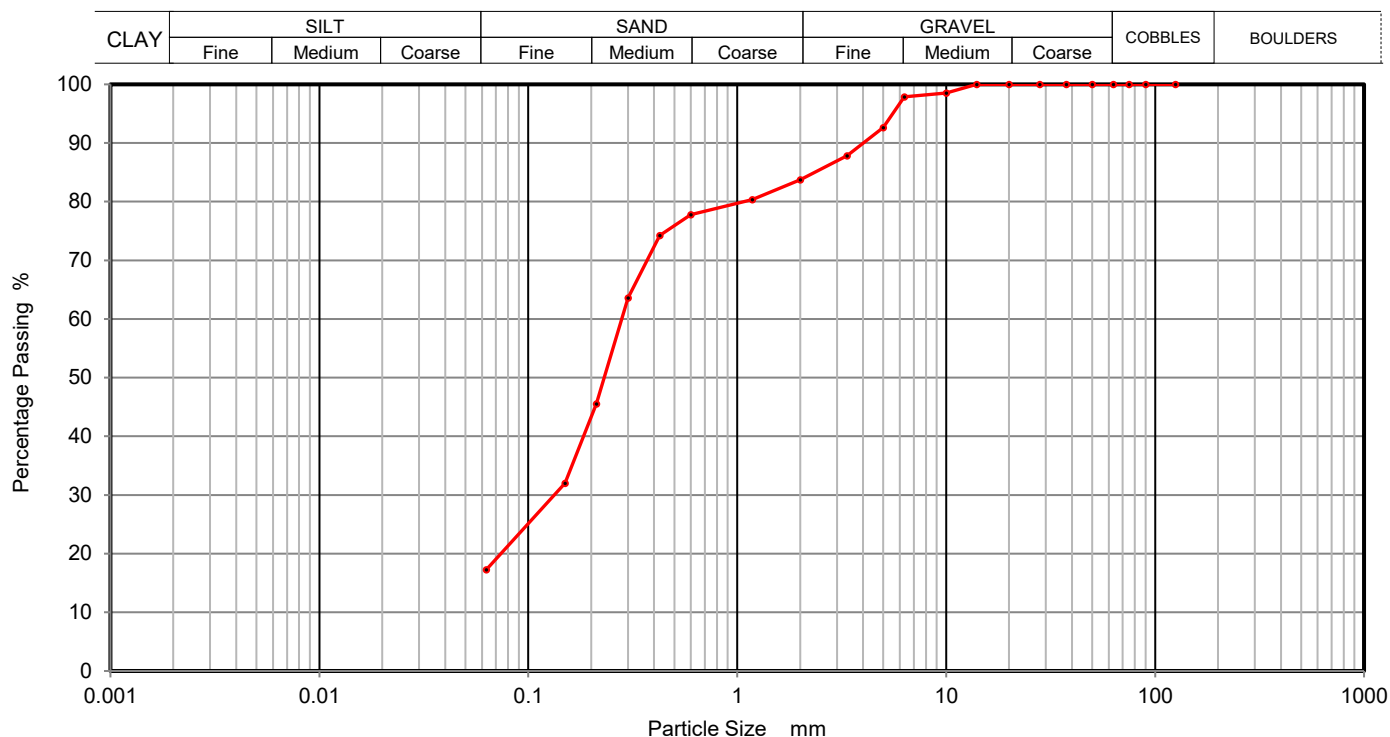
5.00

Date Tested

06/06/2025

Sample Type

D



Sieving		Sedimentation	
Particle Size mm	% Passing	Particle Size mm	% Passing
125	100		
90	100		
75	100		
63	100		
50	100		
37.5	100		
28	100		
20	100		
14	100		
10	99		
6.3	98		
5	93		
3.35	88		
2	84		
1.18	80		
0.63	78		
0.425	74		
0.30	64		
0.20	46		
0.15	32		
0.063	17		

Sample Proportions	% dry mass
Cobbles	0
Gravel	16
Sand	67
Silt and Clay	17

Remarks

Preparation and testing in accordance with BS17892 unless noted below

Operator

Cameron. T

Max Smeeth
Ridge
Partnership House
Moorside Road
Winchester
SO23 7RX

Normec DETS Limited
Unit 1
Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Kent
ME17 2JN
t: 01622 850410

DETS Report No: 25-05329

Site Reference: Diq Gate Lane

Project / Job Ref: 5028934

Order No: 5028934-37283

Sample Receipt Date: 27/05/2025

Sample Scheduled Date: 29/05/2025

Report Issue Number: 1

Reporting Date: 04/06/2025

Authorised by:



Dave Ashworth
Technical Manager

Dates of laboratory activities for each tested analyte are available upon request.

Opinions and interpretations are outside the laboratory's scope of ISO 17025 accreditation. This certificate is issued in accordance with the accreditation requirements of the United Kingdom Accreditation Service. The results reported herein relate only to the material supplied to the laboratory. This certificate shall not be reproduced except in full, without the prior written approval of the laboratory.

For Topsoil and WAC analysis the expanded uncertainty measurement should be considered while evaluating results against compliance values.

Soil Analysis Certificate						
DETS Report No: 25-05329	~Date Sampled	21/05/25	21/05/25	21/05/25		
Ridge	~Time Sampled	None Supplied	None Supplied	None Supplied		
~Site Reference: Dig Gate Lane	~TP / BH No	RH102	WS101	WS103		
~Project / Job Ref: 5028934	~Additional Refs	NAT	NAT	NAT		
~Order No: 5028934-37283	~Depth (m)	0.40 - 1.00	0.40 - 1.00	0.40 - 1.00		
Reporting Date: 04/06/2025	DETS Sample No	777400	777401	777402		

Determinand	Unit	RL	Accreditation					
Asbestos Screen ⁽⁵⁾	N/a	N/a	ISO17025	Not Detected	Not Detected	Not Detected		
pH	pH Units	N/a	MCERTS	6.8	6.0	6.5		
Total Cyanide	mg/kg	< 1	NONE	< 1	< 1	< 1		
Organic Matter (SOM)	%	< 0.1	MCERTS	1.1	1	1.5		
Arsenic (As)	mg/kg	< 2	MCERTS	5	2	2		
Cadmium (Cd)	mg/kg	< 0.2	MCERTS	< 0.2	< 0.2	< 0.2		
Chromium (Cr)	mg/kg	< 2	MCERTS	18	17	10		
Chromium (hexavalent)	mg/kg	< 2	NONE	< 2	< 2	< 2		
Copper (Cu)	mg/kg	< 4	MCERTS	19	18	6		
Lead (Pb)	mg/kg	< 3	MCERTS	10	9	6		
Mercury (Hg)	mg/kg	< 1	MCERTS	< 1	< 1	< 1		
Nickel (Ni)	mg/kg	< 3	MCERTS	12	17	6		
Selenium (Se)	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Zinc (Zn)	mg/kg	< 3	MCERTS	26	34	11		
Total Phenols (monohydric)	mg/kg	< 2	NONE	< 2	< 2	2.4		

Soil Analysis Certificate - Speciated PAHs						
DETS Report No: 25-05329	~Date Sampled	21/05/25	21/05/25	21/05/25		
Ridge	~Time Sampled	None Supplied	None Supplied	None Supplied		
~Site Reference: Dig Gate Lane	~TP / BH No	RH102	WS101	WS103		
~Project / Job Ref: 5028934	~Additional Refs	NAT	NAT	NAT		
~Order No: 5028934-37283	~Depth (m)	0.40 - 1.00	0.40 - 1.00	0.40 - 1.00		
Reporting Date: 04/06/2025	DETS Sample No	777400	777401	777402		

Determinand	Unit	RL	Accreditation					
Naphthalene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Acenaphthylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Acenaphthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Fluorene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Phenanthrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Benzo(a)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Chrysene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Benzo(b)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Benzo(k)fluoranthene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Benzo(a)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Indeno(1,2,3-cd)pyrene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Dibenz(a,h)anthracene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Benzo(ghi)perylene	mg/kg	< 0.1	MCERTS	< 0.1	< 0.1	< 0.1		
Total EPA-16 PAHs	mg/kg	< 1.6	MCERTS	< 1.6	< 1.6	< 1.6		

Soil Analysis Certificate - TPH CWG Banded

DETS Report No: 25-05329	~Date Sampled	21/05/25	21/05/25	21/05/25		
Ridge	~Time Sampled	None Supplied	None Supplied	None Supplied		
~Site Reference: Dig Gate Lane	~TP / BH No	RH102	WS101	WS103		
~Project / Job Ref: 5028934	~Additional Refs	NAT	NAT	NAT		
~Order No: 5028934-37283	~Depth (m)	0.40 - 1.00	0.40 - 1.00	0.40 - 1.00		
Reporting Date: 04/06/2025	DETS Sample No	777400	777401	777402		

Determinand	Unit	RL	Accreditation					
Aliphatic >C5 - C6 : HS_1D_MS_AL	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01		
Aliphatic >C6 - C8 : HS_1D_MS_AL	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05		
Aliphatic >C8 - C10 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aliphatic >C10 - C12 : EH_CU_1D_AL	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aliphatic >C12 - C16 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3	< 3	< 3		
Aliphatic >C16 - C21 : EH_CU_1D_AL	mg/kg	< 3	MCERTS	< 3	< 3	< 3		
Aliphatic >C21 - C34 : EH_CU_1D_AL	mg/kg	< 10	MCERTS	< 10	< 10	< 10		
Aliphatic (C5 - C34) : HS_1D_MS+EH_CU_1D_AL	mg/kg	< 21	NONE	< 21	< 21	< 21		
Aromatic >C5 - C7 : HS_1D_MS_AR	mg/kg	< 0.01	NONE	< 0.01	< 0.01	< 0.01		
Aromatic >C7 - C8 : HS_1D_MS_AR	mg/kg	< 0.05	NONE	< 0.05	< 0.05	< 0.05		
Aromatic >C8 - C10 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aromatic >C10 - C12 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aromatic >C12 - C16 : EH_CU_1D_AR	mg/kg	< 2	MCERTS	< 2	< 2	< 2		
Aromatic >C16 - C21 : EH_CU_1D_AR	mg/kg	< 3	MCERTS	< 3	< 3	< 3		
Aromatic >C21 - C35 : EH_CU_1D_AR	mg/kg	< 10	MCERTS	< 10	< 10	< 10		
Aromatic (C5 - C35) : HS_1D_MS+EH_CU_1D_AR	mg/kg	< 21	NONE	< 21	< 21	< 21		
Total >C5 - C35 : HS_1D_MS+EH_CU_1D_Tot al	mg/kg	< 42	NONE	< 42	< 42	< 42		

Soil Analysis Certificate - BTEX / MTBE						
DETS Report No: 25-05329	~Date Sampled	21/05/25	21/05/25	21/05/25		
Ridge	~Time Sampled	None Supplied	None Supplied	None Supplied		
~Site Reference: Dig Gate Lane	~TP / BH No	RH102	WS101	WS103		
~Project / Job Ref: 5028934	~Additional Refs	NAT	NAT	NAT		
~Order No: 5028934-37283	~Depth (m)	0.40 - 1.00	0.40 - 1.00	0.40 - 1.00		
Reporting Date: 04/06/2025	DETS Sample No	777400	777401	777402		

Determinand	Unit	RL	Accreditation				
Benzene : HS_1D_MS	µg/kg	< 2	MCERTS	< 2	< 2	< 2	
Toluene : HS_1D_MS	µg/kg	< 5	MCERTS	< 5	< 5	< 5	
Ethylbenzene : HS_1D_MS	µg/kg	< 2	MCERTS	< 2	< 2	< 2	
p & m-xylene : HS_1D_MS	µg/kg	< 2	MCERTS	< 2	< 2	< 2	
o-xylene : HS_1D_MS	µg/kg	< 2	MCERTS	< 2	< 2	< 2	
MTBE : HS_1D_MS	µg/kg	< 5	MCERTS	< 5	< 5	< 5	

Waste Acceptance Criteria Analytical Certificate																																							
DETS Report No: 25-05329		~Date Sampled	21/05/25		<table border="1"> <thead> <tr> <th colspan="3">Landfill Waste Acceptance Criteria Limits</th> </tr> <tr> <th>Inert Waste Landfill</th> <th>Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill</th> <th>Hazardous Waste Landfill</th> </tr> </thead> <tbody> <tr> <td>3%</td> <td>5%</td> <td>6%</td> </tr> <tr> <td>--</td> <td>--</td> <td>10%</td> </tr> <tr> <td>6</td> <td>--</td> <td>--</td> </tr> <tr> <td>1</td> <td>--</td> <td>--</td> </tr> <tr> <td>500</td> <td>--</td> <td>--</td> </tr> <tr> <td>100</td> <td>--</td> <td>--</td> </tr> <tr> <td>--</td> <td>>6</td> <td>--</td> </tr> <tr> <td>--</td> <td>To be evaluated</td> <td>To be evaluated</td> </tr> </tbody> </table>					Landfill Waste Acceptance Criteria Limits			Inert Waste Landfill	Stable Non-reactive HAZARDOUS waste in non-hazardous Landfill	Hazardous Waste Landfill	3%	5%	6%	--	--	10%	6	--	--	1	--	--	500	--	--	100	--	--	--	>6	--	--	To be evaluated	To be evaluated
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--	To be evaluated	To be evaluated																																					
Ridge		~Time Sampled	None Supplied																																				
~Site Reference: Dig Gate Lane		~TP / BH No	RH102																																				
~Project / Job Ref: 5028934		~Additional Refs	NAT																																				
~Order No: 5028934-37283		~Depth (m)	0.40 - 1.00																																				
Reporting Date: 04/06/2025		DETS Sample No	777400																																				
Determinand	Unit	MDL																																					
TOC ^{MU}	%	< 0.1	0.7																																				
Loss on Ignition ^{MU}	%	< 0.01	3.02																																				
BTEX ^{MU}	mg/kg	< 0.05	< 0.05																																				
Sum of PCBs	mg/kg	< 0.1	< 0.1																																				
Mineral Oil ^{MU}	mg/kg	< 10	< 10																																				
Total PAH ^{MU}	mg/kg	< 1.7	< 1.7																																				
pH ^{MU}	pH Units	N/a	6.8																																				
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1																																				
Eluate Analysis			10:1			Cumulative 10:1 *	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg																																
			mg/l			mg/kg	(mg/kg)																																
Arsenic			0.0004			0.004	0.5	2	25																														
Barium			0.0067			0.067	20	100	300																														
Cadmium			< 0.0002			< 0.002	0.04	1	5																														
Chromium			0.0005			0.005	0.5	10	70																														
Copper			0.0029			0.029	2	50	100																														
Mercury			< 0.00004			< 0.0004	0.01	0.2	2																														
Molybdenum			0.0002			0.002	0.5	10	30																														
Nickel			0.0004			0.004	0.4	10	40																														
Lead			0.0003			0.003	0.5	10	50																														
Antimony			< 0.0002			< 0.002	0.06	0.7	5																														
Selenium			< 0.0002			< 0.002	0.1	0.5	7																														
Zinc			0.003			0.03	4	50	200																														
Chloride			3.4			34	800	15000	25000																														
Fluoride			< 0.5			< 5	10	150	500																														
Sulphate			3.1			31	1000	20000	50000																														
TDS			30			300	4000	60000	100000																														
Phenol Index			< 0.01			< 0.1	1	-	-																														
DOC			8.4			84.2	500	800	1000																														
Leach Test Information																																							
Sample Mass (kg)			0.10																																				
Dry Matter (%)			86.3																																				
Moisture (%)			16																																				
Stage 1																																							
Volume Eluate L10 (litres)			0.89																																				
Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion Stated limits are for guidance only and Normec DETS Limited cannot be held responsible for any discrepancies with current legislation																																							

Waste Acceptance Criteria Analytical Certificate																																							
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Ridge		~Time Sampled	None Supplied																																				
~Site Reference: Dig Gate Lane		~TP / BH No	WS103																																				
~Project / Job Ref: 5028934		~Additional Refs	NAT																																				
~Order No: 5028934-37283		~Depth (m)	0.40 - 1.00																																				
Reporting Date: 04/06/2025		DETS Sample No	777402																																				
Determinand	Unit	MDL																																					
TOC ^{MU}	%	< 0.1	0.9																																				
Loss on Ignition ^{MU}	%	< 0.01	2.78																																				
BTEX ^{MU}	mg/kg	< 0.05	< 0.05																																				
Sum of PCBs	mg/kg	< 0.1	< 0.1																																				
Mineral Oil ^{MU}	mg/kg	< 10	< 10																																				
Total PAH ^{MU}	mg/kg	< 1.7	< 1.7																																				
pH ^{MU}	pH Units	N/a	6.5																																				
Acid Neutralisation Capacity	mol/kg (+/-)	< 1	< 1																																				
Eluate Analysis			10:1			Cumulative 10:1 *	Limit values for compliance leaching test using BS EN 12457-3 at L/S 10 l/kg																																
			mg/l			mg/kg	(mg/kg)																																
Arsenic			0.0008			0.008	0.5	2	25																														
Barium			0.0062			0.062	20	100	300																														
Cadmium			< 0.0002			< 0.002	0.04	1	5																														
Chromium			0.0006			0.006	0.5	10	70																														
Copper			0.0029			0.029	2	50	100																														
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Antimony			< 0.0002			< 0.002	0.06	0.7	5																														
Selenium			< 0.0002			< 0.002	0.1	0.5	7																														
Zinc			0.004			0.04	4	50	200																														
Chloride			2.8			28	800	15000	25000																														
Fluoride			< 0.5			< 5	10	150	500																														
Sulphate			2.6			26	1000	20000	50000																														
TDS			27			270	4000	60000	100000																														
Phenol Index			< 0.01			< 0.1	1	-	-																														
DOC			7.5			74.8	500	800	1000																														
Leach Test Information																																							
Sample Mass (kg)			0.10																																				
Dry Matter (%)			87.5																																				
Moisture (%)			14.4																																				
Stage 1																																							
Volume Eluate L10 (litres)			0.89																																				
Analytical results are expressed on a dry weight basis where samples are assisted-dried at less than 30°C. The Samples Descriptions page describes if the test is performed on the dried or as-received portion Stated limits are for guidance only and Normec DETS Limited cannot be held responsible for any discrepancies with current legislation																																							

Soil Analysis Certificate - Sample Descriptions

DETS Report No: 25-05329	
Ridge	
~Site Reference: Dig Gate Lane	
~Project / Job Ref: 5028934	
~Order No: 5028934-37283	
Reporting Date: 04/06/2025	

DETS Sample No	~TP / BH No	~Additional Refs	~Depth (m)	Moisture Content (%)	Sample Matrix Description
777400	RH102	NAT	0.40 - 1.00	13.7	Light brown sandy clay
777401	WS101	NAT	0.40 - 1.00	10.9	Light brown sandy clay
777402	WS103	NAT	0.40 - 1.00	12.5	Brown sandy clay

Moisture content is part of procedure E003 & is not an accredited test

Soil Analysis Certificate - Methodology & Miscellaneous Information
DETS Report No: 25-05329
Ridge
~Site Reference: Dig Gate Lane
~Project / Job Ref: 5028934
~Order No: 5028934-37283
Reporting Date: 04/06/2025

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Soil	D	Boron - Water Soluble	Determination of water soluble boron in soil by 2:1 hot water extract followed by ICP-OES	E012
Soil	AR	BTEX	Determination of BTEX by headspace GC-MS	E001
Soil	D	Cations	Determination of cations in soil by aqua-regia digestion followed by ICP-OES	E002
Soil	D	Chloride - Water Soluble (2:1)	Determination of chloride by extraction with water & analysed by ion chromatography	E009
Soil	AR	Chromium - Hexavalent	Determination of hexavalent chromium in soil by extraction in water then by acidification, addition of 1,5 diphénylcarbazide followed by colorimetry	E016
Soil	AR	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E015
Soil	AR	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E015
Soil	D	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through extraction with cyclohexane	E011
Soil	AR	Diesel Range Organics (C10 - C24)	Determination of hexane/acetone extractable hydrocarbons by GC-FID	E004
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of saturated calcium sulphate followed by electrometric measurement	E022
Soil	AR	Electrical Conductivity	Determination of electrical conductivity by addition of water followed by electrometric measurement	E023
Soil	D	Elemental Sulphur	Determination of elemental sulphur by solvent extraction followed by GC-MS	E020
Soil	AR	EPH (C10 - C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH Product ID	Determination of acetone/hexane extractable hydrocarbons by GC-FID	E004
Soil	AR	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of acetone/hexane extractable hydrocarbons by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E004
Soil	D	Fluoride - Water Soluble	Determination of Fluoride by extraction with water & analysed by ion chromatography	E009
Soil	D	Fraction Organic Carbon (FOC)	Determination of FOC by combustion analyser.	E027
Soil	D	Organic Matter (SOM)	Determination of TOC by combustion analyser.	E027
Soil	D	TOC (Total Organic Carbon)	Determination of TOC by combustion analyser.	E027
Soil	AR	Exchangeable Ammonium	Determination of ammonium by discrete analyser.	E029
Soil	D	FOC (Fraction Organic Carbon)	Determination of fraction of organic carbon by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	D	Loss on Ignition @ 450oC	Determination of loss on ignition in soil by gravimetrically with the sample being ignited in a muffle furnace	E019
Soil	D	Magnesium - Water Soluble	Determination of water soluble magnesium by extraction with water followed by ICP-OES	E025
Soil	D	Metals	Determination of metals by aqua-regia digestion followed by ICP-OES	E002
Soil	AR	Mineral Oil (C10 - C40)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge	E004
Soil	AR	Moisture Content	Moisture content; determined gravimetrically	E003
Soil	D	Nitrate - Water Soluble (2:1)	Determination of nitrate by extraction with water & analysed by ion chromatography	E009
Soil	D	Organic Matter	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	PAH - Speciated (EPA 16)	Determination of PAH compounds by extraction in acetone and hexane followed by GC-MS with the use of surrogate and internal standards	E005
Soil	AR	PCB - 7 Congeners	Determination of PCB by extraction with acetone and hexane followed by GC-MS	E008
Soil	D	Petroleum Ether Extract (PEE)	Gravimetrically determined through extraction with petroleum ether	E011
Soil	AR	pH	Determination of pH by addition of water followed by electrometric measurement	E007
Soil	AR	Phenols - Total (monohydric)	Determination of phenols by distillation followed by colorimetry	E021
Soil	D	Phosphate - Water Soluble (2:1)	Determination of phosphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Total	Determination of total sulphate by extraction with 10% HCl followed by ICP-OES	E013
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of sulphate by extraction with water & analysed by ion chromatography	E009
Soil	D	Sulphate (as SO4) - Water Soluble (2:1)	Determination of water soluble sulphate by extraction with water followed by ICP-OES	E014
Soil	AR	Sulphide	Determination of sulphide by distillation followed by colorimetry	E018
Soil	D	Sulphur - Total	Determination of total sulphur by extraction with aqua-regia followed by ICP-OES	E024
Soil	AR	SVOC	Determination of semi-volatile organic compounds by extraction in acetone and hexane followed by GC-MS	E006
Soil	AR	Thiocyanate (as SCN)	Determination of thiocyanate by extraction in caustic soda followed by acidification followed by addition of ferric nitrate followed by colorimetry	E017
Soil	D	Toluene Extractable Matter (TEM)	Gravimetrically determined through extraction with toluene	E011
Soil	D	Total Organic Carbon (TOC)	Determination of organic matter by oxidising with potassium dichromate followed by titration with iron (II) sulphate	E010
Soil	AR	TPH CWG (ali: C5- C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C35. C5 to C8 by headspace GC-MS	E004
Soil	AR	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of hexane/acetone extractable hydrocarbons by GC-FID fractionating with SPE cartridge for C8 to C44. C5 to C8 by headspace GC-MS	E004
Soil	AR	VOCs	Determination of volatile organic compounds by headspace GC-MS	E001
Soil	AR	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E001

Water Analysis Certificate - Methodology & Miscellaneous Information

DETS Report No: 25-05329

Ridge

~Site Reference: Dig Gate Lane

~Project / Job Ref: 5028934

~Order No: 5028934-37283

Reporting Date: 04/06/2025

Matrix	Analysed On	Determinand	Brief Method Description	Method No
Water	UF	Alkalinity	Determination of alkalinity by titration against hydrochloric acid using bromocresol green as the end point	E103
Water	F	Ammoniacal Nitrogen	Determination of ammoniacal nitrogen by discrete analyser.	E126
Water	UF	BTEX	Determination of BTEX by headspace GC-MS	E101
Water	F	Cations	Determination of cations by filtration followed by ICP-MS	E102
Water	F	Chemical Oxygen Demand (COD)	Determination using a COD reactor followed by colorimetry	E112
Water	UF	Biological Oxygen Demand (BOD)	Determination using BOD sensors measuring the change of pressure	E133
Water	F	Chloride	Determination of chloride by filtration & analysed by ion chromatography	E109
Water	F	Chromium - Hexavalent	Determination of hexavalent chromium by acidification, addition of 1,5 diphenylcarbazide followed by	E116
Water	F	Cyanide - Complex	Determination of complex cyanide by distillation followed by colorimetry	E115
Water	F	Cyanide - Free	Determination of free cyanide by distillation followed by colorimetry	E115
Water	F	Cyanide - Total	Determination of total cyanide by distillation followed by colorimetry	E115
Water	UF	Cyclohexane Extractable Matter (CEM)	Gravimetrically determined through liquid:liquid extraction with cyclohexane	E111
Water	F	Diesel Range Organics (C10 - C24)	Determination of liquid:liquid extraction with hexane followed by GC-FID	E104
Water	F	Dissolved Organic Content (DOC)	Determination of DOC by filtration followed by low heat with persulphate addition followed by IR dete	E110
Water	UF	Electrical Conductivity	Determination of electrical conductivity by electrometric measurement	E123
Water	F	EPH (C10 - C40)	Determination of liquid:liquid extraction with hexane followed by GC-FID	E104
Water	F	EPH TEXAS (C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C40)	Determination of liquid:liquid extraction with hexane followed by GC-FID for C8 to C40. C6 to C8 by headspace GC-MS	E104
Water	F	Fluoride	Determination of Fluoride by filtration & analysed by ion chromatography	E109
Water	F	Hardness	Determination of Ca and Mg by ICP-MS followed by calculation	E102
Leachate	F	Leachate Preparation - NRA	Based on National Rivers Authority leaching test 1994	E301
Leachate	F	Leachate Preparation - WAC	Based on BS EN 12457 Pt1, 2, 3	E302
Water	F	Metals	Determination of metals by filtration followed by ICP-MS	E102
Water	F	Mineral Oil (C10 - C40)	Determination of liquid:liquid extraction with hexane followed by GI-FID	E104
Water	F	Nitrate	Determination of nitrate by filtration & analysed by ion chromatography	E109
Water	F	Monohydric Phenol	Determination of phenols by distillation followed by colorimetry	E115
Water	F	PAH - Speciated (EPA 16)	Determination of PAH compounds by concentration through SPE cartridge, collection in dichloromethane followed by GC-MS	E105
Water	F	PCB - 7 Congeners	Determination of PCB compounds by concentration through SPE cartridge, collection in dichloromethane	E108
Water	UF	Petroleum Ether Extract (PEE)	Gravimetrically determined through liquid:liquid extraction with petroleum ether	E111
Water	UF	pH	Determination of pH by electrometric measurement	E107
Water	F	Phosphate	Determination of phosphate by filtration & analysed by ion chromatography	E109
Water	UF	Redox Potential	Determination of redox potential by electrometric measurement	E113
Water	F	Sulphate (as SO4)	Determination of sulphate by filtration & analysed by ion chromatography	E109
Water	UF	Sulphide	Determination of sulphide by distillation followed by colorimetry	E118
Water	F	SVOC	Determination of semi-volatile organic compounds by concentration through SPE cartridge, collection in dichloromethane followed by GC-MS	E106
Water	UF	Toluene Extractable Matter (TEM)	Gravimetrically determined through liquid:liquid extraction with toluene	E111
Water	UF	Total Organic Carbon (TOC)	Acidification, followed by high-temperature oxidation and IR detection.	E110
Water	F	TPH CWG (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C34, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35)	Determination of liquid:liquid extraction with hexane, fractionating with SPE followed by GC-FID for C8 to C35. C5 to C8 by headspace GC-MS	E104
Water	F	TPH LQM (ali: C5-C6, C6-C8, C8-C10, C10-C12, C12-C16, C16-C35, C35-C44, aro: C5-C7, C7-C8, C8-C10, C10-C12, C12-C16, C16-C21, C21-C35, C35-C44)	Determination of liquid:liquid extraction with hexane, fractionating with SPE followed by GC-FID for C8 to C44. C5 to C8 by headspace GC-MS	E104
Water	UF	VOCs	Determination of volatile organic compounds by headspace GC-MS	E101
Water	UF	VPH (C6-C8 & C8-C10)	Determination of hydrocarbons C6-C8 by headspace GC-MS & C8-C10 by GC-FID	E101

List of HWOL Acronyms and Operators

DETS Report No: 25-05329

Ridge

~Site Reference: Dig Gate Lane

~Project / Job Ref: 5028934

~Order No: 5028934-37283

Reporting Date: 04/06/2025

Acronym	Description
HS	Headspace analysis
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent
CU	Clean-up - e.g. by florisil, silica gel
1D	GC - Single coil gas chromatography
2D	GC-GC - Double coil gas chromatography
Total	Aliphatics & Aromatics
AL	Aliphatics only
AR	Aromatics only
#1	EH_2D_Total but with humics mathematically subtracted
#2	EH_2D_Total but with fatty acids mathematically subtracted
	Operator - underscore to separate acronyms (exception for +)
+	Operator to indicate cumulative eg. EH+HS_Total or EH_CU+HS_Total
~	Sample details provided by customer and can affect the validity of results

Benzene - HS_1D_MS
Ethylbenzene - HS_1D_MS
MTBE - HS_1D_MS
Mineral Oil (C10 - C40) (BS EN 12457-2) - EH_CU_1D_AL
TPH CWG - Aliphatic >C10 - C12 - EH_CU_1D_AL
TPH CWG - Aliphatic >C12 - C16 - EH_CU_1D_AL
TPH CWG - Aliphatic >C16 - C21 - EH_CU_1D_AL
TPH CWG - Aliphatic >C21 - C34 - EH_CU_1D_AL
TPH CWG - Aliphatic >C5 - C6 - HS_1D_MS_AL
TPH CWG - Aliphatic >C6 - C8 - HS_1D_MS_AL
TPH CWG - Aliphatic >C8 - C10 - EH_CU_1D_AL
TPH CWG - Aliphatic C5 - C34 - HS_1D_MS+EH_CU_1D_AL
TPH CWG - Aromatic >C10 - C12 - EH_CU_1D_AR
TPH CWG - Aromatic >C12 - C16 - EH_CU_1D_AR
TPH CWG - Aromatic >C16 - C21 - EH_CU_1D_AR
TPH CWG - Aromatic >C21 - C35 - EH_CU_1D_AR
TPH CWG - Aromatic >C5 - C35 - HS_1D_MS+EH_CU_1D_AR
TPH CWG - Aromatic >C5 - C7 - HS_1D_MS_AR
TPH CWG - Aromatic >C7 - C8 - HS_1D_MS_AR
TPH CWG - Aromatic >C8 - C10 - EH_CU_1D_AR
TPH CWG - Total >C5 - C35 - HS_1D_MS+EH_CU_1D_Total
Toluene - HS_1D_MS
Total BTEX (BS EN 12457-2) - HS_1D_MS_Total
m & p-xylene - HS_1D_MS
o-Xylene - HS_1D_MS

Parameter	Matrix Type	Expanded Uncertainty Measurement	Unit
TOC	Soil	11	%
Loss on Ignition	Soil	24	%
BTEX	Soil	11	%
Sum of PCBs	Soil	30	%
Mineral Oil	Soil	9	%
Total PAH	Soil	17	%
pH	Soil	0.2	Units
Acid Neutralisation Capacity	Soil	18	%
Clay Content	Soil	15	%
Silt Content	Soil	14	%
Sand Content	Soil	13	%
Loss on Ignition	Soil	24	%
pH	Soil	0.2	Units
Carbonate	Soil	12	%
Total Nitrogen	Soil	12	%
Phosphorus (Extractable)	Soil	24	%
Potassium (Extractable)	Soil	20	%
Magnesium (Extractable)	Soil	26	%
Zinc	Soil	26	%
Copper	Soil	24	%
Nickel	Soil	29	%
Available Sodium	Soil	23	%
Available Calcium	Soil	23	%
Electrical Conductivity	Soil	10	%

Normec DETS Limited
Unit 1, Rose Lane Industrial Estate
Rose Lane
Lenham Heath
Maidstone
Kent ME17 2JN
Tel : 01622 850410

Certificate Key

Symbol	Description
F	Filtered sample
UF	Unfiltered sample
D	Dried sample
AR	As received sample
RL	Reporting limit
~	Sample details provided by customer and can affect the validity of results
M/S	Missing Sample
n	Please note that we are MCERTS soil accredited (UK soils only) for sand, loam, and clay, and UKAS accredited for groundwater, tap water, surface water, and generated leachates. Other matrices are outside our scope of accreditation.
S	Subcontracted analysis
M	MCERTS accredited test
U	UKAS accredited test

APPENDIX 5 – HAZ WASTE OUTPUT

Waste Classification Report

HazWasteOnline™ classifies waste as either **hazardous** or **non-hazardous** based on its chemical composition, related legislation and the rules and data defined in the current UK or EU technical guidance (Appendix C) (note that HP 9 Infectious is not assessed). It is the responsibility of the classifier named below to:

- understand the origin of the waste
- select the correct List of Waste code(s)
- confirm that the list of determinands, results and sampling plan are fit for purpose
- select and justify the chosen metal species (Appendix B)
- correctly apply moisture correction and other available corrections
- add the meta data for their user-defined substances (Appendix A)
- check that the classification engine is suitable with respect to the national destination of the waste (Appendix C)



XW5TH-ZVZUX-V2IM2

To aid the reviewer, the laboratory results, assumptions and justifications managed by the classifier are highlighted in pale yellow.

Report is invalid if pages are removed.

Job name

5028934 - Dig Gate Lane

Description/Comments

25-05329.1

Project

5028934

Site

Dig Gate Lane

Classified by

Name:

Max Smeeth

Date:

16 Jun 2025 09:53 GMT

Telephone:

07824692661

Company:

Ridge & Partners LLP

Ridge and Partners LLP

1 Royal Court

Kings Worthly

SO23 7TW

HazWasteOnline™ provides a two day, hazardous waste classification course that covers the use of the software and both basic and advanced waste classification techniques. Certification has to be renewed every 3 years.

HazWasteOnline™ Certification:

CERTIFIED

Course

Hazardous Waste Classification

Date

09 Feb 2023

Next 3 year Refresher due by Feb 2026

Purpose of classification

2 - Material Characterisation

Address of the waste

Dig Gate Lane, Rochdale

Post Code n/a

SIC for the process giving rise to the waste

43999 Other specialised construction activities n.e.c.

Description of industry/producer giving rise to the waste

Gas peaker and battery storage.

Description of the specific process, sub-process and/or activity that created the waste

Excavation of soils to allow development.

Description of the waste

Orange and grey sandy Clay below topsoil.

Job summary

#	Sample name	Depth [m]	Classification Result	Hazard properties	WAC Results			Page
					Inert	SNRHW	Hazardous	
1	RH102-0.40 - 1.00-21/05/2025	0.40 - 1.00	Non Hazardous		Pass	Pass	N/A	3
2	WS101-0.40 - 1.00-21/05/2025	0.40 - 1.00	Non Hazardous		-	-	N/A	6
3	WS103-0.40 - 1.00-21/05/2025	0.40 - 1.00	Non Hazardous		Pass	Pass	N/A	9

Related documents

#	Name	Description
1	25-05329.1.hwol	DETS South .hwol file used to populate the Job
2	Example worst case waste stream template: 17 05 04 or 17 05 03 *	waste stream template used to create this Job

WAC results

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate the samples in this Job: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

Report

Created by: Max Smeeth

Created date: 16 Jun 2025 09:53 GMT

Appendices	Page
Appendix A: Classifier defined and non GB MCL determinands	12
Appendix B: Rationale for selection of metal species	13
Appendix C: Version	14

Classification of sample: RH102-0.40 - 1.00-21/05/2025

✔ **Non Hazardous Waste**
Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
RH102-0.40 - 1.00-21/05/2025	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.40 - 1.00 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
13.7%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 13.7% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				5 mg/kg	1.895	8.175	mg/kg	0.000817 %	✓	
	033-005-00-1										
2	cadmium { cadmium sulfate }				<0.2 mg/kg	1.855	<0.371	mg/kg	<0.0000371 %		<LOD
	048-009-00-9	233-331-6	10124-36-4								
3	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				18 mg/kg	1.462	22.704	mg/kg	0.00227 %	✓	
		215-160-9	1308-38-9								
4	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<2 mg/kg	2.27	<4.54	mg/kg	<0.000454 %		<LOD
	024-017-00-8										
5	copper { copper sulphate pentahydrate }				19 mg/kg	3.929	64.425	mg/kg	0.00644 %	✓	
	029-023-00-4	231-847-6	7758-99-8								
6	lead { lead chromate }			1	10 mg/kg	1.56	13.461	mg/kg	0.000863 %	✓	
	082-004-00-2	231-846-0	7758-97-6								
7	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353	mg/kg	<0.000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7								
8	nickel { nickel dibromate }				12 mg/kg	5.358	55.491	mg/kg	0.00555 %	✓	
	028-053-00-5	238-596-1	14550-87-9								
9	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108	mg/kg	<0.000511 %		<LOD
	028-031-00-5	239-125-2	15060-62-5								
10	zinc { zinc chromate }				26 mg/kg	2.774	62.246	mg/kg	0.00622 %	✓	
	024-007-00-3	236-878-9	13530-65-9								
11	TPH (C6 to C40) petroleum group		TPH		<42 mg/kg		<42	mg/kg	<0.0042 %		<LOD
12	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4								
13	benzene				<0.002 mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
	601-020-00-8	200-753-7	71-43-2								
14	toluene				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3								
15	ethylbenzene				<0.002 mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
	601-023-00-4	202-849-4	100-41-4								

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
16	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %			<LOD
17	 cyanides {  salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %			<LOD
18	 pH		PH		6.8 pH		6.8 pH	6.8 pH			
19	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
20	 acenaphthylene	205-917-1	208-96-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
21	 acenaphthene	201-469-6	83-32-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
22	 fluorene	201-695-5	86-73-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
23	 phenanthrene	201-581-5	85-01-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
24	 anthracene	204-371-1	120-12-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
25	 fluoranthene	205-912-4	206-44-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
26	 pyrene	204-927-3	129-00-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
27	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
28	chrysene 601-048-00-0	205-923-4	218-01-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
29	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
30	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
31	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
32	 indeno[123-cd]pyrene	205-893-2	193-39-5		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
33	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
34	 benzo[ghi]perylene	205-883-8	191-24-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
35	 monohydric phenols		P1186		<2 mg/kg		<2 mg/kg	<0.0002 %			<LOD
Total:									0.0222 %		

Key	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

WAC results for sample: RH102-0.40 - 1.00-21/05/2025

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample **PASSES** the Inert (Inert waste landfill) criteria.

The sample **PASSES** the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	0.7	3	5	6
2	LOI (loss on ignition)	%	3.02	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.05	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.1	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	<1.7	100	-	-
7	pH	pH	6.8	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	<1	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	0.004	0.5	2	25
10	barium	mg/kg	0.067	20	100	300
11	cadmium	mg/kg	<0.002	0.04	1	5
12	chromium	mg/kg	0.005	0.5	10	70
13	copper	mg/kg	0.029	2	50	100
14	mercury	mg/kg	<0.0004	0.01	0.2	2
15	molybdenum	mg/kg	0.002	0.5	10	30
16	nickel	mg/kg	0.004	0.4	10	40
17	lead	mg/kg	0.003	0.5	10	50
18	antimony	mg/kg	<0.002	0.06	0.7	5
19	selenium	mg/kg	<0.002	0.1	0.5	7
20	zinc	mg/kg	0.03	4	50	200
21	chloride	mg/kg	34	800	15,000	25,000
22	fluoride	mg/kg	<5	10	150	500
23	sulphate	mg/kg	31	1,000	20,000	50,000
24	phenol index	mg/kg	<0.1	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	84.2	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	300	4,000	60,000	100,000

Key

	User supplied data
	Not applicable

Classification of sample: WS101-0.40 - 1.00-21/05/2025


Non Hazardous Waste
 Classified as **17 05 04**
 in the List of Waste

Sample details

Sample name:	LoW Code:
WS101-0.40 - 1.00-21/05/2025	Chapter: 17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
Sample Depth:	Entry: 17 05 04 (Soil and stones other than those mentioned in 17 05 03)
0.40 - 1.00 m	
Moisture content:	
10.9%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 10.9% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
1	arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				2 mg/kg	1.895	3.376 mg/kg	0.000338 %	✓	
	033-005-00-1									
2	cadmium { cadmium sulfate }				<0.2 mg/kg	1.855	<0.371 mg/kg	<0.0000371 %		<LOD
	048-009-00-9	233-331-6	10124-36-4							
3	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				17 mg/kg	1.462	22.138 mg/kg	0.00221 %	✓	
		215-160-9	1308-38-9							
4	chromium in Cr(VI) compounds { chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<2 mg/kg	2.27	<4.54 mg/kg	<0.000454 %		<LOD
	024-017-00-8									
5	copper { copper sulphate pentahydrate }				18 mg/kg	3.929	63.014 mg/kg	0.0063 %	✓	
	029-023-00-4	231-847-6	7758-99-8							
6	lead { lead chromate }			1	9 mg/kg	1.56	12.508 mg/kg	0.000802 %	✓	
	082-004-00-2	231-846-0	7758-97-6							
7	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353 mg/kg	<0.000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7							
8	nickel { nickel dibromate }				17 mg/kg	5.358	81.162 mg/kg	0.00812 %	✓	
	028-053-00-5	238-596-1	14550-87-9							
9	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108 mg/kg	<0.000511 %		<LOD
	028-031-00-5	239-125-2	15060-62-5							
10	zinc { zinc chromate }				34 mg/kg	2.774	84.04 mg/kg	0.0084 %	✓	
	024-007-00-3	236-878-9	13530-65-9							
11	TPH (C6 to C40) petroleum group		TPH		<42 mg/kg		<42 mg/kg	<0.0042 %		<LOD
12	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4							
13	benzene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	601-020-00-8	200-753-7	71-43-2							
14	toluene				<0.005 mg/kg		<0.005 mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3							
15	ethylbenzene				<0.002 mg/kg		<0.002 mg/kg	<0.0000002 %		<LOD
	601-023-00-4	202-849-4	100-41-4							

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.	Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number							
16	xylene									
	601-022-00-9	202-422-2 [1]	95-47-6 [1]		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %		<LOD
		203-396-5 [2]	106-42-3 [2]							
		203-576-3 [3]	108-38-3 [3]							
		215-535-7 [4]	1330-20-7 [4]							
17	cyanides { salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex }				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %		<LOD
	006-007-00-5									
18	pH				6 pH		6 pH	6pH		
			P1186							
19	naphthalene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-052-00-2	202-049-5	91-20-3							
20	acenaphthylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-917-1	208-96-8							
21	acenaphthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-469-6	83-32-9							
22	fluorene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-695-5	86-73-7							
23	phenanthrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		201-581-5	85-01-8							
24	anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		204-371-1	120-12-7							
25	fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-912-4	206-44-0							
26	pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		204-927-3	129-00-0							
27	benzo[a]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-033-00-9	200-280-6	56-55-3							
28	chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-048-00-0	205-923-4	218-01-9							
29	benzo[b]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-034-00-4	205-911-9	205-99-2							
30	benzo[k]fluoranthene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-036-00-5	205-916-6	207-08-9							
31	benzo[a]pyrene; benzo[def]chrysene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-032-00-3	200-028-5	50-32-8							
32	indeno[123-cd]pyrene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-893-2	193-39-5							
33	dibenz[a,h]anthracene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
	601-041-00-2	200-181-8	53-70-3							
34	benzo[ghi]perylene				<0.1 mg/kg		<0.1 mg/kg	<0.00001 %		<LOD
		205-883-8	191-24-2							
35	monohydric phenols				<2 mg/kg		<2 mg/kg	<0.0002 %		<LOD
			P1186							
Total:								0.0262 %		

Key

	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

WAC results for sample: WS101-0.40 - 1.00-21/05/2025

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample cannot be evaluated against the Inert (Inert waste landfill) criteria because of missing determinand values.

The sample cannot be evaluated against the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria because of missing determinand values.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%		3	5	6
2	LOI (loss on ignition)	%		-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg		6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg		1	-	-
5	Mineral oil (C10 to C40)	mg/kg		500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg		100	-	-
7	pH	pH	6	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg		-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg		0.5	2	25
10	barium	mg/kg		20	100	300
11	cadmium	mg/kg		0.04	1	5
12	chromium	mg/kg		0.5	10	70
13	copper	mg/kg		2	50	100
14	mercury	mg/kg		0.01	0.2	2
15	molybdenum	mg/kg		0.5	10	30
16	nickel	mg/kg		0.4	10	40
17	lead	mg/kg		0.5	10	50
18	antimony	mg/kg		0.06	0.7	5
19	selenium	mg/kg		0.1	0.5	7
20	zinc	mg/kg		4	50	200
21	chloride	mg/kg		800	15,000	25,000
22	fluoride	mg/kg		10	150	500
23	sulphate	mg/kg		1,000	20,000	50,000
24	phenol index	mg/kg		1	-	-
25	DOC (dissolved organic carbon)	mg/kg		500	800	1,000
26	TDS (total dissolved solids)	mg/kg		4,000	60,000	100,000

Key

	User supplied data
	Not applicable
	Missing WAC determinand value
	SNRHW WAC criteria fail

Classification of sample: WS103-0.40 - 1.00-21/05/2025

**Non Hazardous Waste**Classified as **17 05 04**
in the List of Waste

Sample details

Sample name:	LoW Code:
WS103-0.40 - 1.00-21/05/2025	Chapter:
Sample Depth:	17: Construction and Demolition Wastes (including excavated soil from contaminated sites)
0.40 - 1.00 m	Entry:
Moisture content:	17 05 04 (Soil and stones other than those mentioned in 17 05 03)
12.5%	
(wet weight correction)	

Hazard properties

None identified

Determinands

Moisture content: 12.5% Wet Weight Moisture Correction applied (MC)

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
1	arsenic { arsenic acid and its salts with the exception of those specified elsewhere in this Annex }				2 mg/kg	1.895	3.315	mg/kg	0.000332 %	✓	
	033-005-00-1										
2	cadmium { cadmium sulfate }				<0.2 mg/kg	1.855	<0.371	mg/kg	<0.0000371 %		<LOD
	048-009-00-9	233-331-6	10124-36-4								
3	chromium in Cr(III) compounds { chromium(III) oxide (worst case) }				10 mg/kg	1.462	12.789	mg/kg	0.00128 %	✓	
		215-160-9	1308-38-9								
4	chromium in Cr(VI) compounds { chromium (VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex }				<2 mg/kg	2.27	<4.54	mg/kg	<0.000454 %		<LOD
	024-017-00-8										
5	copper { copper sulphate pentahydrate }				6 mg/kg	3.929	20.628	mg/kg	0.00206 %	✓	
	029-023-00-4	231-847-6	7758-99-8								
6	lead { lead chromate }			1	6 mg/kg	1.56	8.189	mg/kg	0.000525 %	✓	
	082-004-00-2	231-846-0	7758-97-6								
7	mercury { mercury dichloride }				<1 mg/kg	1.353	<1.353	mg/kg	<0.000135 %		<LOD
	080-010-00-X	231-299-8	7487-94-7								
8	nickel { nickel dibromate }				6 mg/kg	5.358	28.131	mg/kg	0.00281 %	✓	
	028-053-00-5	238-596-1	14550-87-9								
9	selenium { nickel selenate }				<2 mg/kg	2.554	<5.108	mg/kg	<0.000511 %		<LOD
	028-031-00-5	239-125-2	15060-62-5								
10	zinc { zinc chromate }				11 mg/kg	2.774	26.701	mg/kg	0.00267 %	✓	
	024-007-00-3	236-878-9	13530-65-9								
11	TPH (C6 to C40) petroleum group				<42 mg/kg		<42	mg/kg	<0.0042 %		<LOD
			TPH								
12	tert-butyl methyl ether; MTBE; 2-methoxy-2-methylpropane				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	603-181-00-X	216-653-1	1634-04-4								
13	benzene				<0.002 mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
	601-020-00-8	200-753-7	71-43-2								
14	toluene				<0.005 mg/kg		<0.005	mg/kg	<0.0000005 %		<LOD
	601-021-00-3	203-625-9	108-88-3								
15	ethylbenzene				<0.002 mg/kg		<0.002	mg/kg	<0.0000002 %		<LOD
	601-023-00-4	202-849-4	100-41-4								

#	Determinand			CLP Note	User entered data	Conv. Factor	Compound conc.		Classification value	MC Applied	Conc. Not Used
	EU CLP index number	EC Number	CAS Number								
16	xylene 601-022-00-9	202-422-2 [1] 203-396-5 [2] 203-576-3 [3] 215-535-7 [4]	95-47-6 [1] 106-42-3 [2] 108-38-3 [3] 1330-20-7 [4]		<0.004 mg/kg		<0.004 mg/kg	<0.0000004 %			<LOD
17	 cyanides {  salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex } 006-007-00-5				<1 mg/kg	1.884	<1.884 mg/kg	<0.000188 %			<LOD
18	 pH		PH		6.5 pH		6.5 pH	6.5 pH			
19	naphthalene 601-052-00-2	202-049-5	91-20-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
20	 acenaphthylene	205-917-1	208-96-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
21	 acenaphthene	201-469-6	83-32-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
22	 fluorene	201-695-5	86-73-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
23	 phenanthrene	201-581-5	85-01-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
24	 anthracene	204-371-1	120-12-7		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
25	 fluoranthene	205-912-4	206-44-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
26	 pyrene	204-927-3	129-00-0		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
27	benzo[a]anthracene 601-033-00-9	200-280-6	56-55-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
28	chrysene 601-048-00-0	205-923-4	218-01-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
29	benzo[b]fluoranthene 601-034-00-4	205-911-9	205-99-2		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
30	benzo[k]fluoranthene 601-036-00-5	205-916-6	207-08-9		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
31	benzo[a]pyrene; benzo[def]chrysene 601-032-00-3	200-028-5	50-32-8		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
32	 indeno[123-cd]pyrene 205-893-2	193-39-5			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
33	dibenz[a,h]anthracene 601-041-00-2	200-181-8	53-70-3		<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
34	 benzo[ghi]perylene 205-883-8	191-24-2			<0.1 mg/kg		<0.1 mg/kg	<0.00001 %			<LOD
35	 monohydric phenols		P1186		2.4 mg/kg		2.1 mg/kg	0.00021 %		✓	
Total:									0.00989 %		

Key	User supplied data
	Determinand values ignored for classification, see column 'Conc. Not Used' for reason
	Determinand defined or amended by HazWasteOnline (see Appendix A)
	Speciated Determinand - Unless the Determinand is Note 1, the Conversion Factor is used to calculate the compound concentration
<LOD	Below limit of detection
CLP: Note 1	Only the metal concentration has been used for classification

WAC results for sample: WS103-0.40 - 1.00-21/05/2025

WAC Settings: samples in this Job constitute a single population.

WAC limits used to evaluate this sample: "UK"

The WAC used in this report are the WAC defined for the inert, stable non-reactive hazardous and hazardous classes of landfill in the UK. You should check the actual acceptance criteria when the disposal site is identified as they may differ from the generic WAC used in this report.

The sample **PASSES** the Inert (Inert waste landfill) criteria.

The sample **PASSES** the SNRHW (Stable non-reactive hazardous waste in non-hazardous landfill) criteria.

WAC Determinands

Solid Waste Analysis				Landfill Waste Acceptance Criteria Limits		
#	Determinand		User entered data	Inert waste landfill	Stable non-reactive hazardous waste in non-hazardous landfill	Hazardous waste landfill
1	TOC (total organic carbon)	%	0.9	3	5	6
2	LOI (loss on ignition)	%	2.78	-	-	10
3	BTEX (benzene, toluene, ethylbenzene and xylenes)	mg/kg	<0.05	6	-	-
4	PCBs (polychlorinated biphenyls, 7 congeners)	mg/kg	<0.1	1	-	-
5	Mineral oil (C10 to C40)	mg/kg	<10	500	-	-
6	PAHs (polycyclic aromatic hydrocarbons)	mg/kg	<1.7	100	-	-
7	pH	pH	6.5	-	>6	-
8	ANC (acid neutralisation capacity)	mol/kg	<1	-	-	-
Eluate Analysis 10:1						
9	arsenic	mg/kg	0.008	0.5	2	25
10	barium	mg/kg	0.062	20	100	300
11	cadmium	mg/kg	<0.002	0.04	1	5
12	chromium	mg/kg	0.006	0.5	10	70
13	copper	mg/kg	0.029	2	50	100
14	mercury	mg/kg	<0.0004	0.01	0.2	2
15	molybdenum	mg/kg	0.002	0.5	10	30
16	nickel	mg/kg	0.004	0.4	10	40
17	lead	mg/kg	0.004	0.5	10	50
18	antimony	mg/kg	<0.002	0.06	0.7	5
19	selenium	mg/kg	<0.002	0.1	0.5	7
20	zinc	mg/kg	0.04	4	50	200
21	chloride	mg/kg	28	800	15,000	25,000
22	fluoride	mg/kg	<5	10	150	500
23	sulphate	mg/kg	26	1,000	20,000	50,000
24	phenol index	mg/kg	<0.1	1	-	-
25	DOC (dissolved organic carbon)	mg/kg	74.8	500	800	1,000
26	TDS (total dissolved solids)	mg/kg	270	4,000	60,000	100,000

Key

	User supplied data
	Not applicable

Appendix A: Classifier defined and non GB MCL determinands

■ chromium(III) oxide (worst case) (EC Number: 215-160-9, CAS Number: 1308-38-9)

Description/Comments: Data from C&L Inventory Database
 Data source: <https://echa.europa.eu/information-on-chemicals/cl-inventory-database/-/discli/details/33806>
 Data source date: 17 Jul 2015
 Hazard Statements: Acute Tox. 4; H332 , Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Resp. Sens. 1; H334 , Skin Sens. 1; H317 , Repr. 1B; H360FD , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

■ TPH (C6 to C40) petroleum group (CAS Number: TPH)

Description/Comments: Unknown Oil
 Hazard statements taken from WM3 1st Edition 2015
 Data source: WM3 1st Edition 2015
 Data source date: 25 May 2015
 Hazard Statements: Flam. Liq. 3; H226 , Asp. Tox. 1; H304 , STOT RE 2; H373 , Muta. 1B; H340 , Carc. 1B; H350 , Repr. 2; H361d , Aquatic Chronic 2; H411

■ ethylbenzene (EC Number: 202-849-4, CAS Number: 100-41-4)

GB MCL index number: 601-023-00-4
 Description/Comments:
 Additional Hazard Statement(s): Carc. 2; H351
 Reason for additional Hazards Statement(s):
 20 Nov 2021 - Carc. 2; H351 hazard statement sourced from: IARC Group 2B (77) 2000

■ salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex

GB MCL index number: 006-007-00-5
 Description/Comments: Conversion factor based on a worst case compound: sodium cyanide
 Additional Hazard Statement(s): EUH032 >= 0.2 %
 Reason for additional Hazards Statement(s):
 20 Nov 2021 - EUH032 >= 0.2 % hazard statement sourced from: WM3, Table C12.2

■ pH (CAS Number: PH)

Description/Comments: Appendix C4
 Data source: WM3 1st Edition 2015
 Data source date: 25 May 2015
 Hazard Statements: None.

■ acenaphthylene (EC Number: 205-917-1, CAS Number: 208-96-8)

Description/Comments: Data from C&L Inventory Database
 Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
 Data source date: 17 Jul 2015
 Hazard Statements: Acute Tox. 4; H302 , Acute Tox. 1; H330 , Acute Tox. 1; H310 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315

■ acenaphthene (EC Number: 201-469-6, CAS Number: 83-32-9)

Description/Comments: Data from C&L Inventory Database
 Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
 Data source date: 17 Jul 2015
 Hazard Statements: Eye Irrit. 2; H319 , STOT SE 3; H335 , Skin Irrit. 2; H315 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Aquatic Chronic 2; H411

■ fluorene (EC Number: 201-695-5, CAS Number: 86-73-7)

Description/Comments: Data from C&L Inventory Database
 Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
 Data source date: 06 Aug 2015
 Hazard Statements: Aquatic Acute 1; H400 , Aquatic Chronic 1; H410

■ phenanthrene (EC Number: 201-581-5, CAS Number: 85-01-8)

Description/Comments: Data from C&L Inventory Database
 Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>
 Data source date: 06 Aug 2015
 Hazard Statements: Acute Tox. 4; H302 , Eye Irrit. 2; H319 , STOT SE 3; H335 , Carc. 2; H351 , Skin Sens. 1; H317 , Aquatic Acute 1; H400 , Aquatic Chronic 1; H410 , Skin Irrit. 2; H315

▪ **anthracene** (EC Number: 204-371-1, CAS Number: 120-12-7)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 17 Jul 2015

Hazard Statements: Eye Irrit. 2; H319, STOT SE 3; H335, Skin Irrit. 2; H315, Skin Sens. 1; H317, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

▪ **fluoranthene** (EC Number: 205-912-4, CAS Number: 206-44-0)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 21 Aug 2015

Hazard Statements: Acute Tox. 4; H302, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

▪ **pyrene** (EC Number: 204-927-3, CAS Number: 129-00-0)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 2014

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 21 Aug 2015

Hazard Statements: Skin Irrit. 2; H315, Eye Irrit. 2; H319, STOT SE 3; H335, Aquatic Acute 1; H400, Aquatic Chronic 1; H410

▪ **indeno[123-cd]pyrene** (EC Number: 205-893-2, CAS Number: 193-39-5)

Description/Comments: Data from C&L Inventory Database

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 06 Aug 2015

Hazard Statements: Carc. 2; H351

▪ **benzo[ghi]perylene** (EC Number: 205-883-8, CAS Number: 191-24-2)

Description/Comments: Data from C&L Inventory Database; SDS Sigma Aldrich 28/02/2015

Data source: <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>

Data source date: 23 Jul 2015

Hazard Statements: Aquatic Acute 1; H400, Aquatic Chronic 1; H410

▪ **monohydric phenols** (CAS Number: P1186)

Description/Comments: Combined hazards statements from harmonised entries in CLP for phenol, cresols and xylenols (604-001-00-2, 604-004-00-9, 604-006-00-X)

Data source: CLP combined data

Data source date: 26 Mar 2019

Hazard Statements: Muta. 2; H341, Acute Tox. 3; H331, Acute Tox. 3; H311, Acute Tox. 3; H301, STOT RE 2; H373, Skin Corr. 1B; H314, Skin Corr. 1B; H314 >= 3 %, Skin Irrit. 2; H315 1 <= conc. < 3 %, Eye Irrit. 2; H319 1 <= conc. < 3 %, Aquatic Chronic 2; H411

Appendix B: Rationale for selection of metal species

arsenic {arsenic acid and its salts with the exception of those specified elsewhere in this Annex}

Worst case CLP species based on hazard statements/molecular weight and conversion factor for arsenic acid H₃AsO₄. (edit as required)

cadmium {cadmium sulfate}

Worst case CLP species based on hazard statements/molecular weight. (edit as required)

chromium in Cr(III) compounds {chromium(III) oxide (worst case)}

There isn't enough Metal and Cr(VI) to make the Metal chromate

chromium in Cr(VI) compounds {chromium(VI) compounds, with the exception of barium chromate and of compounds specified elsewhere in this Annex}

Worst case species based on hazard statements/molecular weight (edit as required)

copper {copper sulphate pentahydrate}

Worst case CLP species based on hazard statements/molecular weight. (edit as required)

lead {lead chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

mercury {mercury dichloride}

Reasonable worst case CLP species based on hazard statements/molecular weight and assuming no evidence for the use of explosives. (edit as required)

nickel {nickel dibromate}

Worst case CLP species based on hazard statements/molecular weight. (edit as required)

selenium {nickel selenate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

zinc {zinc chromate}

Worst case CLP species based on hazard statements/molecular weight (edit as required)

cyanides {salts of hydrogen cyanide with the exception of complex cyanides such as ferrocyanides, ferricyanides and mercuric oxycyanide and those specified elsewhere in this Annex}

Harmonised group entry used as most reasonable case as complex cyanides and those specified elsewhere in the annex are not likely to be present in this soil: [Note conversion factor based on a worst case compound: sodium cyanide] (edit as required)

Appendix C: Version

HazWasteOnline Classification Engine: **WM3 1st Edition v1.2.GB - Oct 2021**

HazWasteOnline Classification Engine Version: 2025.156.6656.12103 (05 Jun 2025)

HazWasteOnline Database: 2025.156.6656.12103 (05 Jun 2025)

This classification utilises the following guidance and legislation:

WM3 v1.2.GB - Waste Classification - 1st Edition v1.2.GB - Oct 2021

CLP Regulation - Regulation 1272/2008/EC of 16 December 2008

1st ATP - Regulation 790/2009/EC of 10 August 2009

2nd ATP - Regulation 286/2011/EC of 10 March 2011

3rd ATP - Regulation 618/2012/EU of 10 July 2012

4th ATP - Regulation 487/2013/EU of 8 May 2013

Correction to 1st ATP - Regulation 758/2013/EU of 7 August 2013

5th ATP - Regulation 944/2013/EU of 2 October 2013

6th ATP - Regulation 605/2014/EU of 5 June 2014

WFD Annex III replacement - Regulation 1357/2014/EU of 18 December 2014

Revised List of Waste 2014 - Decision 2014/955/EU of 18 December 2014

7th ATP - Regulation 2015/1221/EU of 24 July 2015

8th ATP - Regulation (EU) 2016/918 of 19 May 2016

9th ATP - Regulation (EU) 2016/1179 of 19 July 2016

10th ATP - Regulation (EU) 2017/776 of 4 May 2017

HP14 amendment - Regulation (EU) 2017/997 of 8 June 2017

13th ATP - Regulation (EU) 2018/1480 of 4 October 2018

14th ATP - Regulation (EU) 2020/217 of 4 October 2019

15th ATP - Regulation (EU) 2020/1182 of 19 May 2020

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)(Amendment etc.) (EU Exit)

Regulations 2020 - UK: 2020 No. 1567 of 16th December 2020

The Waste and Environmental Permitting etc. (Legislative Functions and Amendment etc.) (EU Exit) Regulations 2020 - UK: 2020 No. 1540 of 16th December 2020

GB MCL List - version 1.1 of 09 June 2021

GB MCL List v2.0 - version 2.0 of 20th October 2023

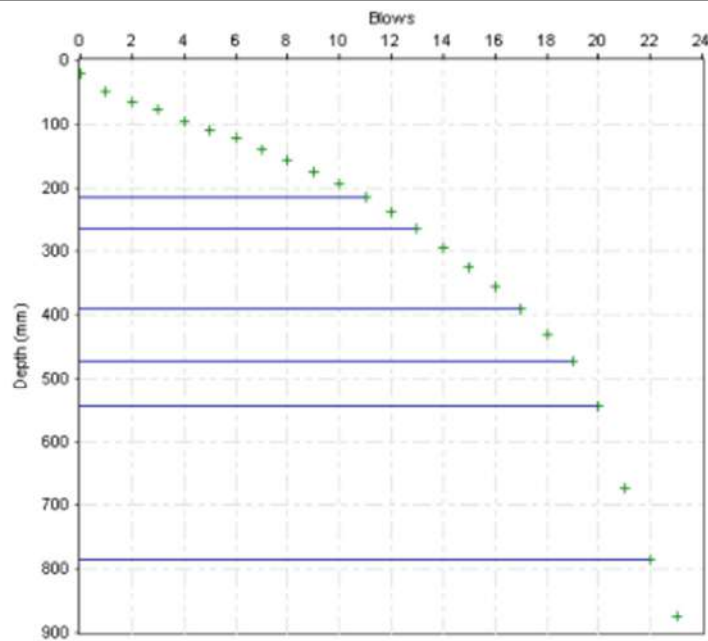
GB MCL List v3.0 - version 3.0 of 11th January 2024

GB MCL List v4.0 - version 4.0 of 2nd March 2024

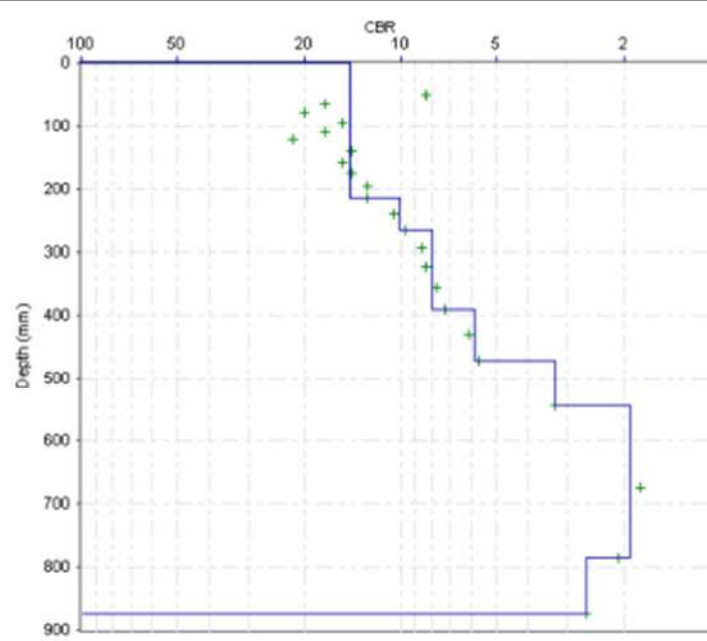
GB MCL List v5.0 - version 5.0 of 26th June 2024

GB MCL List v6.0 - version 6.0 of 15th February 2025

APPENDIX 6 – TRL DCP TEST SHEETS



Layer Boundaries Chart

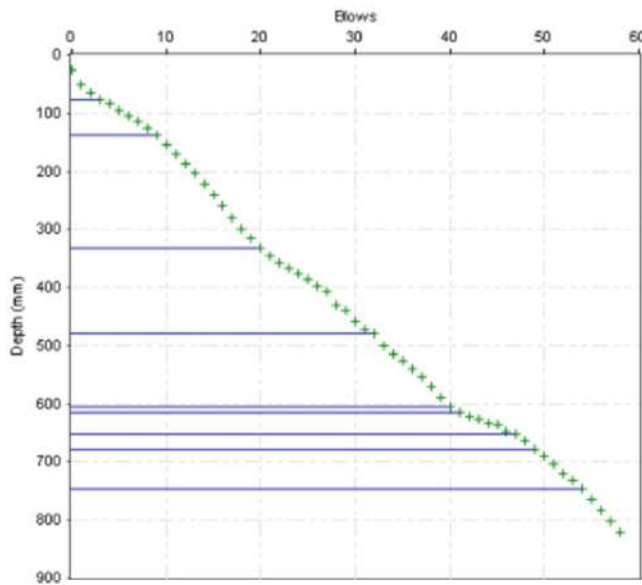


CBR Chart

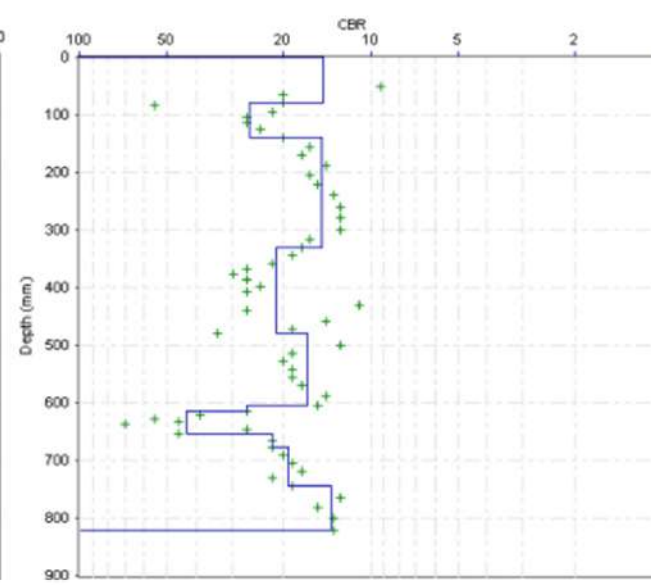
Layer Properties

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1	17.73	14	215	215
2	25.00	10	50	265
3	31.25	8	125	390
4	41.50	6	83	473
5	72.00	3	72	545
6	120.00	2	240	785
7	89.00	3	89	874

Project:	Dig Gate Lane			Software:	UK DCP 3.1 (TRL/ DFID 2006)	
Job Number:	5028934	Client:	Balance Power	Ridge and Partners LLP TEL: 01962 834400 www.ridge.co.uk	1 Royal Court Kings Worthy Winchester SO23 7TW	
Test:	DCP101	Revision:	-			
Created:	MS	Date:	22 May 2025			
Checked by:	RJH	Scale:	NTS			



Layer Boundaries Chart

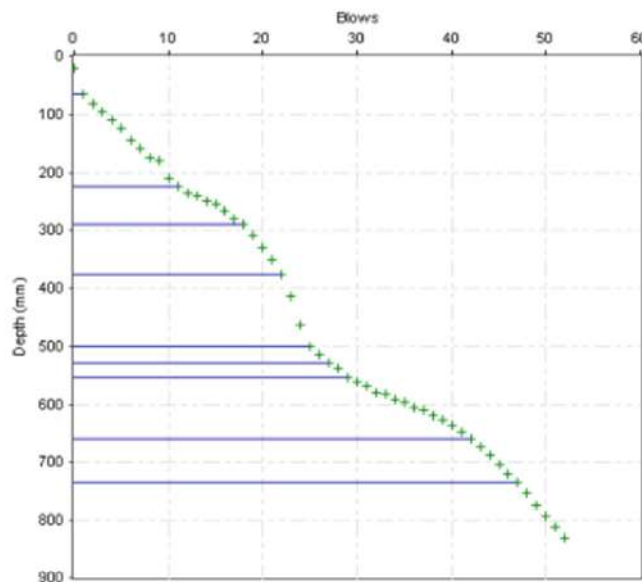


CBR Chart

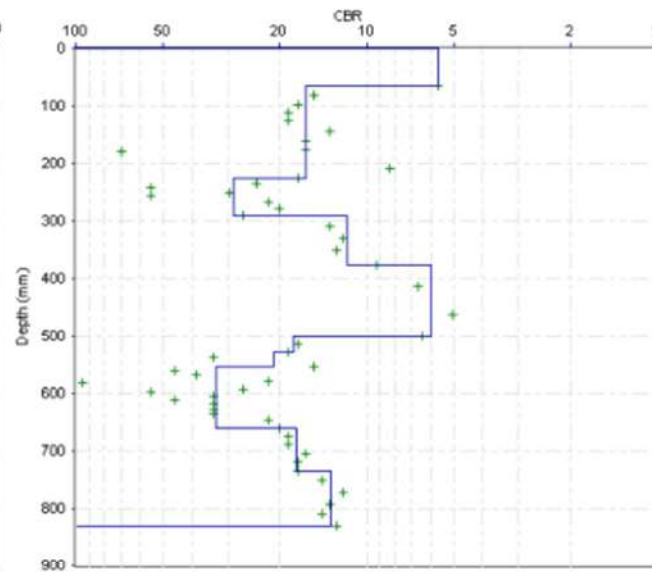
Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	17.67	15	78	78
2	10.17	26	61	139
3	17.45	15	192	331
4	12.42	21	149	480
5	15.63	17	125	605
6	10.00	26	10	615
7	6.33	43	38	653
8	12.00	22	24	677
9	13.60	19	68	745
10	18.75	14	75	820

Project:	Dig Gate Lane			Software:	UK DCP 3.1 (TRL/ DFID 2006)	
Job Number:	5028934	Client:	Balance Power	Ridge and Partners LLP TEL: 01962 834400 www.ridge.co.uk	1 Royal Court Kings Worthy Winchester SO23 7TW	
Test:	DCP102	Revision:	-			
Created:	MS	Date:	22 May 2025			
Checked by:	RJH	Scale:	NTS			



Layer Boundaries Chart

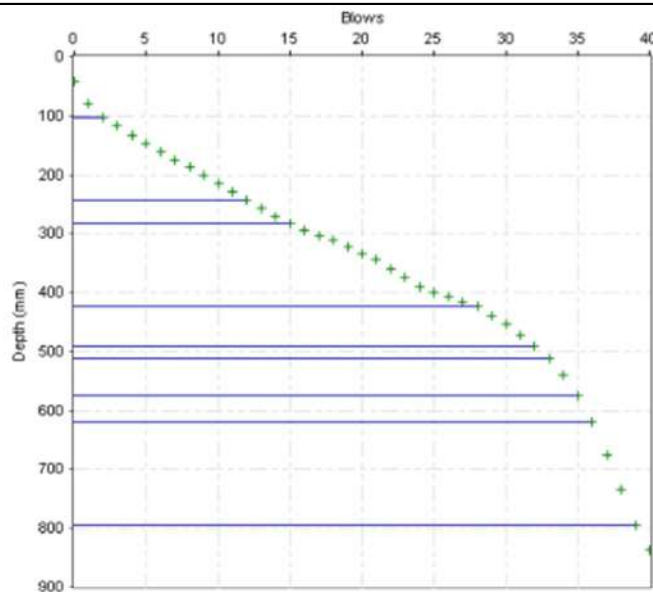


CBR Chart

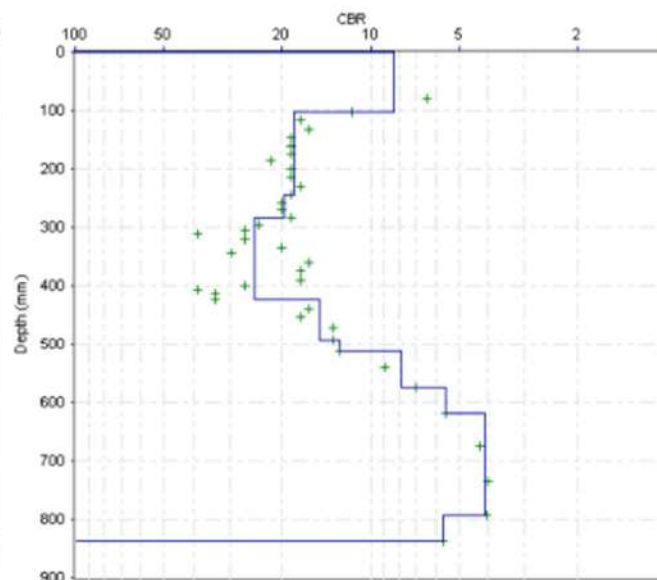
Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	43.00	6	65	65
2	16.00	16	160	225
3	9.29	29	65	290
4	21.75	12	87	377
5	41.00	6	123	500
6	14.50	18	29	529
7	12.50	21	25	554
8	8.15	33	106	660
9	14.80	17	74	734
10	19.20	13	96	830

Project:	Dig Gate Lane			Software:	UK DCP 3.1 (TRL/ DFID 2006)	
Job Number:	5028934	Client:	Balance Power	Ridge and Partners LLP TEL: 01962 834400 www.ridge.co.uk	1 Royal Court Kings Worthy Winchester SO23 7TW	
Test:	DCP103	Revision:	-			
Created:	MS	Date:	22 May 2025			
Checked by:	RJH	Scale:	NTS			



Layer Boundaries Chart

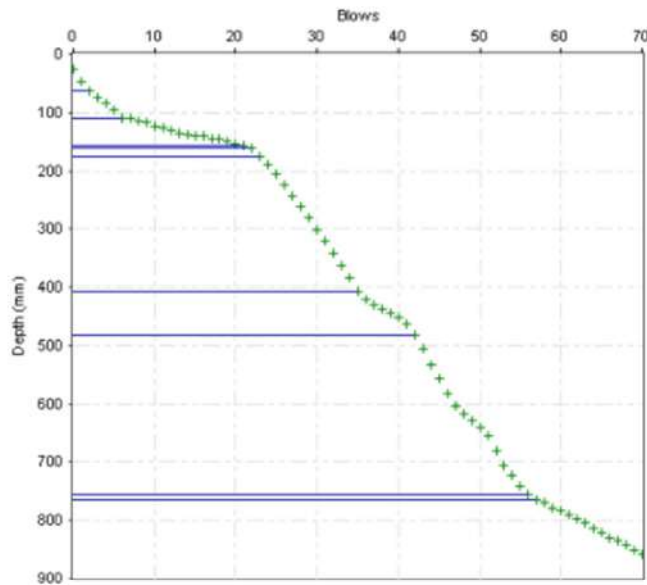


CBR Chart

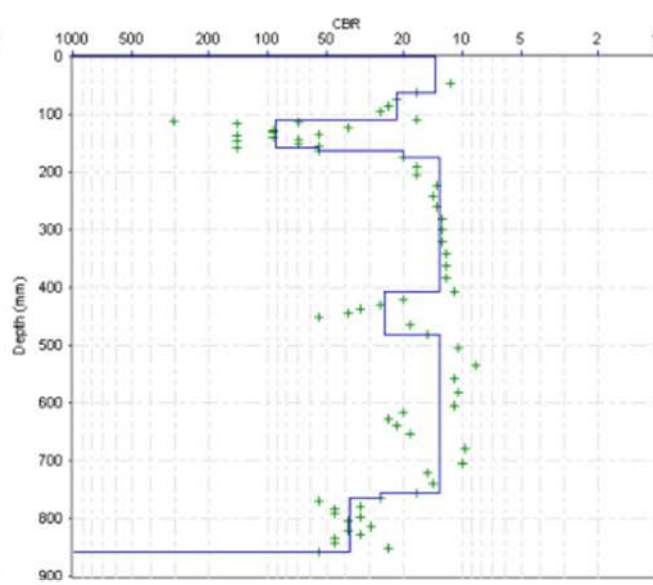
Layer Properties

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1	30.00	8	102	102
2	14.20	18	142	244
3	13.33	20	40	284
4	10.69	25	139	423
5	17.25	15	69	492
6	20.00	13	20	512
7	31.50	8	63	575
8	44.00	6	44	619
9	58.33	4	175	794
10	43.00	6	43	837

Project:	Dig Gate Lane			Software:	UK DCP 3.1 (TRL/ DFID 2006)	
Job Number:	5028934	Client:	Balance Power	Ridge and Partners LLP TEL: 01962 834400 www.ridge.co.uk	1 Royal Court Kings Worthy Winchester SO23 7TW	
Test:	DCP104	Revision:	-			
Created:	MS	Date:	22 May 2025			
Checked by:	RJH	Scale:	NTS			



Layer Boundaries Chart



CBR Chart

Layer Properties

No.	Penetration Rate (mm/blow)	CBR (%)	Thickness (mm)	Depth to layer bottom (mm)
1	18.50	14	62	62
2	12.00	22	48	110
3	3.13	90	47	157
4	5.00	55	5	162
5	13.00	20	13	175
6	19.33	13	232	407
7	10.57	25	74	481
8	19.57	13	274	755
9	10.00	26	10	765
10	7.08	38	92	857

Project:	Dig Gate Lane			Software:	UK DCP 3.1 (TRL/ DFID 2006)	
Job Number:	5028934	Client:	Balance Power	Ridge and Partners LLP TEL: 01962 834400 www.ridge.co.uk	1 Royal Court Kings Worthy Winchester SO23 7TW	
Test:	DCP105	Revision:	-			
Created:	MS	Date:	22 May 2025			
Checked by:	RJH	Scale:	NTS			



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www.ridge.co.uk

Appendix E – Design Statement

DESIGN STATEMENT

PROJECT:	5031777 – Balance Power – Land off Dig Gate Lane, Kingsway Business Park, Rochdale		
SUBJECT:	Reuse of Materials on Site of Origin Design Statement		
PREPARED FOR:	Balance Power Projects Limited		
DATE:	January 2026		
DOCUMENT REF:	5031777-RDG-XX-ST-DOC-C-06-0002	REVISION:	P01
CREATED BY:	KW	REVIEWED BY:	RT-A/NS

1. INTRODUCTION

This Technical Note been prepared to summarise the proposed reuse of material on the site of origin at land off Dig Gate Lane, Kingsway Business Park, Rochdale, OL16 4NR (hereafter referred to as the 'Site'). A Site Location Plan is included as Figure 1.

The Site is located approximately 2.5km south-east of Rochdale Town centre, approximately centred at National Grid Reference (NGR) SD 91906 11181 and covers an area of approximately 1.04 hectares. The Site currently comprises land utilised for grazing with a pond located approximately centrally. The Site slopes in an approximate north-westerly orientation at a gradient of approximately 1v:14.. A raised embankment adjacent to the M62 is described on Site which provides visual screening from the southernmost boundary. A single-track road named Dig Gate Lane runs adjacent to the Site along the eastern boundary and a public footpath runs adjacent to the western boundary.

2. PLANNING PERMISSION

Land off Dig Gate Lane (which relates to the Site) was granted full planning permission by Rochdale Borough Council (application ref: 24/00043/FUL) for the construction of a battery energy storage system with associated infrastructure. The Site is proposed to be split into two main compounds at differing levels due to the Site's existing, sloping topography.

A Desk Study done by Arcus in 2022 for the Site concluded that the risk from the presence of contamination on the Site is **low** without mitigation. The risk posed to human health and controlled waters at the Site and surrounding areas were generally considered to be low. And, based on the findings of the report, it was anticipated that the Site would not pose a significant risk to the proposed future end users. This Desk Study was submitted with the planning application and no contaminated land planning conditions were applied, however, a note in the planning permission stated *'In the event that unexpected contamination is identified during implementation of the development hereby approved, the risks associated with contamination shall be assessed and addressed by an appropriately qualified and experienced consultant in liaison with the Council's contaminated land officer'*.

Condition 15 of the planning permission states:

'Prior to commencement of any part of the development hereby approved that requires the importation of material onto the site, a Materials Management Plan (MMP) shall be submitted to and approved in writing by the Local Planning Authority. The MMP shall include:

- Details of the volumes and types of material proposed to be imported or reused on site
- Details of the proposed source(s) of the imported or reused material
- Details of the chemical testing for ALL material to be undertaken before placement onto the site
- Include the result of the chemical testing which must show the material is suitable for use of the development
- Include confirmation of the chain of evidence to be kept during the material movement, including material importation and removal from and to the development

All works shall be undertaken in accordance with the approved document

Reason: To ensure that no unsuitable material is brought onto the site and in accordance with Policy G9 of the adopted Rochdale Core Strategy.

Reason for pre-commencement condition: As the matter relates to an early stage of construction’.

Ridge and Partners LLP (Ridge) have prepared this Design Statement for the Client (Balance Power Projects Limited) to describe the proposed material reuse within the consented development. This Technical Note will be included as an appendix to a Material Management Plan (MMP) which is to be prepared in accordance with CL:AIRE’s Definition of Waste: Code of Practice (DoW:CoP).

3. SITE CONDITIONS AND BACKGROUND

This section includes a brief overview of the Site’s history and ground conditions. More detailed descriptions are included within the following reports which should be read in conjunction with this report:

- Arcus, Phase 1 Land Contamination Desk Study, Rochdale, BESS, Land West of Dig Gate Lane, Rochdale (ref: 5154; dated 21/11/2022).
- Ridge and Partners LLP, Balance Power, Ground Investigation Report Dig Gate Lane, Rochdale (ref: 5028934-RDG-XX-ST-DOC-C-00GIR01; dated 30.06.2025)

3.1. Site History

It is understood that the Site has been utilised for agriculture since circa 1851, with a pond excavated in the centre between 1979 and 1999. Two small structures were constructed in the eastern section of the Site between 1999 and 2022.

3.2. Published Geology and Hydrogeology

The British Geological Survey’s (BGS’s) GeoIndex¹ indicates that the Site is underlain by superficial deposits of the Hummocky (Moundy) Glacial Deposits which is in turn underlain by bedrock of the Pennine Lower Coal Measures. No artificial geology was mapped within the Site boundary; however, it is possible to be present in close proximity to the two structures on Site in the east and the pond.

The Hummocky (Moundy) Glacial Deposits is described in the desk study by BGS as being composed of rock debris, clayey Till, sand and gravel.

¹ BGS’s GeoIndex (Onshore) (<https://mapapps2.bgs.ac.uk/geoindex/home.html>; accessed January 2026).

The Pennine Lower Coal Measures is described on The BGS's Lexicon of Named Rock Units² as comprising *'Interbedded grey mudstone, siltstone and pale grey sandstone, commonly with mudstones containing marine fossils in the lower part, and more numerous and thicker coal seams in the upper part.'*

According to the desk study, the Superficial Deposit underlying the Site are designated as a Secondary A aquifer, however, an area to the northeast of the Site is designated as a Secondary Aquifer – Undifferentiated, where the variable soil characteristics make it impossible to apply either an A or B designation to an aquifer. The Sites Bedrock geology is designated as a Secondary A aquifer.

3.3. Intrusive Ground Investigation

An intrusive ground investigation was undertaken by Ridge between 21st and 22nd May 2025. The investigation comprised the drilling/excavation of two percussive rotary boreholes to a maximum depth of 13.95m below ground level (bgl); four window sample boreholes to a maximum depth of 5.45m bgl, and five TRL DCP tests to a maximum depth of 1.00m bgl.

Surfacing

All exploratory hole locations encountered surfacing of topsoil comprising of brown slightly gravelly clayey sand with frequent rootlets to 0.40m bgl.

Hummocky (Moundy) Glacial Deposits

Soils representative of the Superficial deposit were encountered directly underling the topsoil in all exploratory hole locations to a maximum depth of 13.95m bgl. The base of this strata was not proven. Descriptions included a firm orange and grey sandy clay with frequent rootlets and rare coal. These soils became stiff from an average depth of 2.40m bgl and comprised of slightly gravelly sandy clay with gravel of subangular fine to coarse sandstone. From 3.85m bgl, the soils were described as very stiff sandy clay. A dense light brown fine sand and gravel was observed in both rotary boreholes from circa 9.70m bgl to a maximum depth of 13.95m bgl. A thin layer of very stiff clay was noted in one of the borehole from 10.90m to 13.60m bgl. The base of this Superficial deposit was not proven.

Chemical Laboratory Testing

Despite the lack of contamination sources identified in the Desk Study, a precautionary contamination screening on a total of 3no samples was undertaken. Samples were scheduled for heavy metals, total petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAH), benzene, toluene, ethylbenzene and xylene (BTEX), methyl tertiary butyl ether (MTBE) and asbestos. TPH, PAHs, BTEX and MTBE were all found to below the laboratory limit of detection. Slightly elevated heavy metals were encountered, the results of which were compared to generic assessment criteria (GACs) for a commercial end use³ and no exceedances were identified. Similarly, no asbestos was detected.

Environmental Risk

Ridge concluded that they consider the Site to be low risk with respect to contaminated land liability. Concentrations of contaminants within the underlying soils are not considered to require Site remediation and do not present a significant risk to the proposed development and future Site users. As such, it is considered that the soils on Site are suitable for reuse in accordance with the MMP.

² BGS's Lexicon of Named Rock Units (<https://webapps.bgs.ac.uk/lexicon/>; accessed January 2026)

³ Land Quality Management Limited and Chartered Institute of Environmental Health (LQM/CIEH) Suitable for Use Levels (S4ULs) (ref: S4UL3435; dated November 2014); Development of Category 4 Screening Levels (C4SLs) for assessment of land affected by contamination (ref: SP1010; dated: September 2014); LQM S4ULs: evaluation of 2017USEPA Toxicological Review of Benzo(a)pyrene; and LQM/CIEH S4ULs for Nickel according to land use (Revised August 2015).

Groundwater was encountered during drilling in both rotary and window sample boreholes from 2.00m to 4.00m bgl. Three of the four boreholes (WS101, WS102 and WS104) were installed for groundwater monitoring purposes. Two subsequent rounds of monitoring were undertaken on the 2nd June and 16th June 2025 which recorded the shallowest level of groundwater at 1.04m bgl in WS101 on the 16th June and the deepest level recorded was at 3.23m bgl in WS104 on the 2nd June 2025.

No visual or olfactory evidence of contamination was noted during groundwater gauging.

The risk posed to controlled waters and at the Site and surrounding areas were generally considered to be low.

Hazardous Waste Assessment

Results from all soil samples that underwent the full contamination suite were input into a Soils Characterisation Assessment Tool (HazWaste Online) to identify whether soils on Site had hazardous properties. None of the samples returned hazardous properties.

Select samples were also scheduled for Waste Acceptance Criteria (WAC) testing. All samples analysed were classified as suitable for disposal at inert landfill.

4. UNFORSEEN CONTAMINATION

The Decision Notice Letter produced by Rochdale Borough Council states: *'In the event that unexpected contamination is identified during implementation of the development hereby approved, the risks associated with contamination shall be assessed and addressed by an appropriately qualified and experienced consultant in liaison with the Council's contaminated land officer'*.

Whilst no contamination has been identified, nor is there any expected, during the earthworks, all soils should be assessed for the presence of visual or olfactory evidence of contamination. Should any unforeseen contamination be identified during the works, the apparent contaminated soil/s is/are to remain in-situ until a suitably experienced, qualified geo-environmental engineer attends Site. The engineer shall assess the soil/s for any visual or olfactory evidence of contamination, including the presence of hydrocarbon contamination and occurrence of asbestos containing materials. The apparent contaminated soil/s should be logged, classified and segregated using the visual and olfactory criteria.

Should it be deemed that previously unidentified contamination is present that is proposed to remain on-Site, the engineer shall liaise with the Council's contamination land officer and agree the necessary remediation and verification requirements.

5. MATERIAL REUSE

As identified in the ground investigation report, no Made Ground was identified during the excavation, but Made Ground was identified to possibly occur within areas of the pond and two structures in the east of Site. Soils identified comprised of topsoil further underlain by the Hummocky (Moundy) Glacial Deposit generally consisting of firm to stiff sandy clay depths of between 3.00m and 4.30m bgl.

A cut and fill exercise is required in order to construct the development platforms for the approved, proposed development. It is estimated a total cut volume of 2,562m³ of natural soils and a total fill volume of 550m³ are required to achieve the proposed formation levels. A surplus of approximately 2,011m³ has been calculated which shall be disposed of off-Site at a suitably permitted waste management facility.

Based on the medium to high SPT-N values recorded in shallow cohesive materials it is considered that the ground conditions are generally suitable for traditional foundations. The firm to stiff, becoming stiff and very stiff clays are the recommended founding stratum. Based on the SPT results an estimated allowable bearing value of 50 – 100kPa can be applied to firm soils below 2.50m from ground level. Areas of cut are therefore likely to expose geotechnically suitable strata.

Based on the results of the ground investigation, the natural soils that underlie the topsoil are likely to be geotechnically suitable for reuse in areas that require fill and should be placed and compacted as in accordance with the requirements of the Specification for Highway Works (CC 601 – Earthworks).

As demonstrated by the Desk Study and subsequent intrusive investigation, summarised in Section 3 above, contamination has not been encountered nor is suspected to be present on Site. The risk from the presence of contamination on the Site to the identified human health and controlled waters receptors is **low** without mitigation. As such, the materials proposed for reuse within the Site are considered to be chemically suitable for reuse. For the proposed redevelopment. Should any unexpected contamination be identified on Site during the works, the methodology described in Section 4 should be followed.

Chemical analysis undertaken during the ground investigation indicated that the surplus of approximately 2,011m³ of material could likely be disposed of as inert waste at an inert landfill. It is recommended however that further testing is undertaken during the earthworks to target specific waste being removed from the Site as waste classification should be based on analysis that is representative of the particular waste load.

REPORT CONDITIONS

This report is produced solely for the benefit of **Balance Power Projects Limited**, and no liability is accepted for any reliance placed on it by any other party unless specifically agreed in writing otherwise.

This report refers, within the limitations stated, to the condition of the site at the time of the inspections. No warranty is given as to the possibility of future changes in the condition of the site.

This report is based on an intrusive site inspection. Some of the opinions are based on unconfirmed data and information and are presented in good faith without exhaustive clarification. Where ground contamination is suspected but no physical site test results are available to confirm this, the report must be regarded as initial advice only, and further assessment should be undertaken prior to detailed activities related to the site. The possibility of the presence of contaminants, not revealed by this research cannot be discounted.

Whilst confident in the findings detailed within this report because there are no exact UK definitions of these matters, being subject to risk analysis, we are unable to give categoric assurances that they will be accepted by Authorities or Funds etc. without question, as such bodies may have unpublished, often more stringent objectives. This report is prepared for the proposed uses stated in the report and should not be used in a different context without reference to Ridge and Partners LLP. In time improved practices or amended legislation may necessitate a re-assessment.

The report is necessarily limited to those aspects of trial pitting specifically reported on and no liability is accepted for any other aspect especially concerning gradual or sudden pollution incidents that may occur. The opinions expressed cannot be absolute due to the limitations of time and resources within the context of the agreed brief and the possibility of unrecorded previous use and abuse of the Site and adjacent Sites.

Appendix F – Planning Permission

Town and Country Planning Act 1990 (as amended)

PLANNING PERMISSION GRANTED

APPLICATION REFERENCE: 24/00043/FUL

Name and address for correspondence:	Applicant name:
Mr Andrew Barton AXIS Camellia House 76 Water Lane Wilmslow SK9 5BB	Mr Ryan MacindoeBalance Power Projects Limited

Part 1 - Particulars of Application

Date of 29 February 2024
Application:

Proposal:	Proposed development of a battery energy storage system with associated infrastructure and access.
Location:	Land Off Dig Gate Lane , Dig Gate Lane, Kingsway Business Park, Rochdale ,

Part 2 Compliance with Conditions

It is YOUR responsibility to comply with planning conditions. The Council's Planning Enforcement Team is responsible for investigating alleged breaches of planning control. This includes ensuring that all relevant conditions have been complied with. Effective enforcement is important to:

- Tackle breaches of planning control which would otherwise have unacceptable impact on the amenity of the area
- maintain the integrity of the decision-making process;
- help ensure that public acceptance of the decision-making process is maintained.

Whilst the majority of developers/homeowners do comply with the requirements of planning permissions, there are a number who do not. Where any planning conditions are breached, the Council can take formal enforcement action without further notice. Enforcement action could include such measures as requiring remedial works, cessation of use, or complete demolition and can cause the developer/homeowner unnecessary expense, delay and frustration. In some cases, failure to comply with planning conditions can lead to the loss of the planning permission.

Part 3 - Particulars of decision

The Rochdale Borough Council hereby give notice in pursuance of the provisions of the Town and Country Planning Act 1990 (as amended) that planning permission has been **GRANTED SUBJECT TO CONDITIONS** for the carrying out of the development referred to in Part I above.

The Council hereby permits the above development in accordance with the details given on the application form and subject to the following condition(s):

Conditions and Reasons:

- 1 The development must be begun not later than three years beginning with the date of this permission.

Reason. Required to be imposed by Section 91 of the Town and Country Planning Act 1990 (as amended).

- 2 This permission relates to the following plans and documents:

Location Plan - Rev D
Proposed Topography - Rev D (08/02/2024)
Proposed Plan (site plan) - Rev E (26/07/2024)
Heights Parameter Plan - Rev E (12/02/2024)

3471-01-L-001 Rev C - Landscape Masterplan
3471-01-L-002 Rev A - Landscape Implementation
Pond Sections - Existing & Proposed - Rev D (12/02/2024)

Access Gate - 2.4m - Plan & Elevation - Rev A (19/06/2023)
Aux Transformer - Rev 0 (19/02/2024)
Battery Container - Plan & Elevation - Rev 0 (06/11/2024)
CCTV Lighting 3.4m - Plan & Elevation - Rev 0 (22/02/2024)

Crash Barrier - Plan & Elevation - Rev A (22/09/2023)
601 - DNO Room - Plan & Elevation - Rev 0 - 07/01/25
Inverter & Transformer Skid - Plan & Elevation - Rev 0 (13/01/2025)
Paladin Fence - 2.4m - Rev A
Private Substation 1 - Plan & Elevation - Rev A (19/12/24)
Storage Room - Plan & Elevation - Rev 0 (13/01/25)
Welfare & Control Room - Plan & Elevation - Rev 0 (13/01/25)

Noise Impact Assessment
Flood Risk Assessment and Drainage Strategy Rev C
Road Restraint Risk Assessment Report
GG104 Risk Assessment
Outline Battery Fire Safety Management Plan
Biodiversity Net Gain Report
Phase 1 Land Contamination Desk Study
Transport Statement
Planning, Design and Access Statement

Reason: For the avoidance of doubt and in order to define the permission.

- 3 The use of the BESS facility hereby permitted shall cease on or before 40 years from the date when the site first becomes operational. Written notification of the commencement of operation of the BESS facility shall be submitted to and confirmed in writing by the local planning authority within 14 days of its occurrence.

Reason: To ensure that the application site is returned to its original open condition and character once the use of the development hereby approved is no longer required, and in order to mitigate the impact of the development upon the Green Belt, in accordance with policy DM1 of the Rochdale Core Strategy, policy JP-G9 of the Places for Everyone joint development plan, and the National Planning Policy Framework

- 4 No later than 12 months prior to the date of the expiry of this permission referred to in condition 3 above, a decommissioning and restoration scheme shall be submitted to and approved in writing by the local planning authority. This statement shall include details of the timescale and management of the decommissioning works; the removal of all equipment and all other associated structures and the reinstatement of the land to

its former condition. The decommissioning and restoration of the site shall thereafter be undertaken in accordance with the approved scheme and within the agreed timescale.

Reason: To ensure that the application site is returned to its original open condition once the use of the development hereby approved is no longer required, in accordance with Policy DM1 Rochdale Core Strategy, Places for Everyone JP-G9, and the National Planning Policy Framework

- 5 Prior to commencement of the development hereby approved, full details of completed ground levels shall be submitted to and approved in writing by the local planning authority. The development shall be undertaken in accordance with the approved details.

Reason: In order to protect the character and appearance of the local area, the wider landscape, and the setting of the nearby designated heritage asset, in accordance with policies P2, P3 and DM1 of the Rochdale Core Strategy and the National Planning Policy Framework

- 6 Prior to any above ground construction related to the development hereby approved, full samples and/or external material specification details for each of the following parts of the development shall be provided to the Local Planning Authority for approval:

- Battery Container
- DNO Room
- Inverter and Transformer Skid
- Welfare & Control Room
- Substation
- Storage Room
- Any hard surface materials

Such details shall include the type, colour and texture of materials. Development shall be carried out in accordance with the approved details.

Reason: In the interests of protecting the character of the local area and the landscape character in compliance with policies P2, P3 and DM1 of the Rochdale Core Strategy and the National Planning Policy Framework.

- 7 No external CCTV equipment shall be installed on or within the application site unless a scheme for such CCTV equipment has first been submitted to and approved in writing by the Local Planning Authority. The approved details shall thereafter be fully implemented in accordance with the approved scheme.

Reason: in the interests of visual amenity having regard to Policies P3 and DM1 of the Rochdale Core Strategy and the National Planning Policy Framework.

- 8 The approved landscaping details shall be implemented in full no later than the end of the first planting season following the approved development first being brought into use. Any trees, shrubs or hedgerow planted or retained in accordance with this condition which are removed, uprooted, destroyed, die or become severely damaged or become severely diseased within 5 years of planting shall be replaced within the next planting season by trees, shrubs or hedge planting of a similar size and species (or another suitable species) to those originally required to be planted. The site shall otherwise be maintained in accordance with the long-term maintenance noted on the approved landscaping plan.

Reason: To ensure that the site is satisfactorily landscaped having regard to its sensitive location and the nature of the proposed development and in accordance with Rochdale Core Strategy Policies G6 and G7 and the National Planning Policy Framework.

- 9 No fencing or boundary treatments, other than those indicated on the approved Proposed Plan (site plan) - Rev E, shall be installed as part of the approved development, prior to full details of such boundary treatments being submitted to and approved in writing by the Local Planning Authority. Where such boundary treatments are required to address headlight spill from the site towards the adjacent motorway, the

LPA shall liaise with National Highways as to the acceptability of the submitted details.

Reason: In order to protect the character and appearance of the local area, the wider landscape in accordance with policies P2, P3 and DM1 of the Rochdale Core Strategy and the National Planning Policy Framework

- 10 Prior to the commencement of development, final details of a sustainable surface water drainage scheme shall be submitted to and approved in writing by the Local Planning Authority. The drainage scheme shall be based upon:

Drainage Strategy Plan rev D in Appendix 5 of the FRA & Drainage Strategy by KRS, ref. KRS.0310.081.R.001.C dated March 2025.

The drainage details shall include any typical construction details for the drainage pipework, attenuation tank and flow control chamber and cross-sections of any permeable surfaces that are part of the sustainable drainage system.

The approved scheme shall also be in accordance with the Non-Statutory Technical Standards for Sustainable Drainage Systems (March 2015) or any subsequent replacement national standards. Prior to occupation/ use of the proposed development, the drainage scheme shall be completed in accordance with the approved details and retained thereafter for the lifetime of the development.

Reason: To promote sustainable development, secure proper drainage and to manage the risk of flooding and pollution. To prevent an increased risk of flooding as a result of the development and to ensure satisfactory disposal of surface water from the site in accordance with Policy G8 of the adopted Rochdale Core Strategy, saved Policy EM/7 of the adopted Rochdale Unitary Development Plan and the National Planning Policy Framework.

- 11 The development hereby permitted shall not be commenced until such time as a scheme to dispose of surface water, foul water, and any contaminated drainage from fire suppression, has been submitted to, and approved in writing by, the Local Planning Authority in liaison with the Environment Agency. The scheme shall be implemented as approved.

Reason(s): The Northwest River basin management plan requires the restoration and enhancement of water bodies to prevent deterioration and promote recovery of water bodies. Without this condition, the impact could cause deterioration of a quality element to a lower status class and/or prevent the recovery of and/or cause deterioration of a protected water body because it would result in the release of priority hazardous substances such as diffuse pollution and siltation; to prevent pollution of the water environment.

Reason for pre-commencement condition: Drainage infrastructure will need to be implemented prior to commencement of above ground works and a scheme therefore needs to be agreed in advance of the same.

- 12 No development shall take place until a Construction Management Plan (CMP) has been submitted to, and approved in writing by, the Local Planning Authority. The CMP shall include details of the following:

- a) The parking of vehicles of site operatives and visitors;
- b) Loading and unloading of plant and materials;
- c) Storage of plant and materials used in constructing the development;
- d) The erection and maintenance of security hoarding;
- e) Measures for the protection of the natural environment from accidental spillages, dust and debris including dedicated protection measures (including high visibility fencing) for the retained trees during and after construction;
- f) A construction lighting plan designed to direct any temporary lighting away from the retained trees and hedgerow during and after construction;
- g) Noise and vibration, mud and dust suppression;
- h) A scheme for recycling/disposing of waste resulting from demolition and construction works;
- i) Wheel washing facilities;

- j) A scheme to treat and remove suspended solids from surface water run-off during construction works;
- k) Method statement providing amphibian reasonable avoidance measures; and
- l) Measures to protect the safety of users of the adjacent public right of way from vehicle movements associated with the construction phase

The development shall be carried out in complete accordance with the approved CMP.

Reason: To minimise detrimental effects to the neighbouring amenities, the amenities of the area in general, detriment to the natural environment through the risks of pollution and dangers to highway safety, during the construction phase in accordance with Policies DM1, T2, G7, G8 and G9 of the Core Strategy and the National Planning Policy Framework.

- 13 Total noise levels arising from the development shall not exceed those specified in the 'Condition 23 Technical Note' addendum by Inacoustic dated 10th May 2024.

Reason: To safeguard the living conditions of nearby occupants and residents in accordance with Core Strategy Policy G9 and the National Planning Policy Framework.

- 14 No external lighting shall be installed as part of the development hereby approved prior to the written approval by the Local Planning Authority of full design and technical details for any such lighting. Such details should be designed to avoid impacts on nocturnal animals. The development shall be undertaken in accordance with the approved details.

Reason: In the interests of controlling light pollution in the interest of residential amenity and nature conservation in accordance with Rochdale Core Strategy policies DM1 and G9 and the National Planning Policy Framework.

- 15 Prior to commencement of any part of the development hereby approved that requires the importation of material onto the site, a Materials Management Plan (MMP) shall be submitted to and approved in writing by the Local Planning Authority. The MMP shall include:

- Details of the volumes and types of material proposed to be imported or reused on site
- Details of the proposed source(s) of the imported or reused material
- Details of the chemical testing for ALL material to be undertaken before placement onto the site
- Include the result of the chemical testing which must show the material is suitable for use of the development
- Include confirmation of the chain of evidence to be kept during the material movement, including material importation and removal from and to the development

All works shall be undertaken in accordance with the approved document

Reason: To ensure that no unsuitable material is brought onto the site and in accordance with Policy G9 of the adopted Rochdale Core Strategy.

Reason for pre-commencement condition: As the matter relates to an early stage of construction

- 16 No high-voltage fluid-filled cables shall be installed as part of the development hereby permitted before full details of any such cables have been submitted to and approved in writing by the Local Planning Authority. The scheme shall be implemented in accordance with the approved details.

Reasons: To ensure that the proposed development does not harm groundwater resources in line with paragraph 174 of the National Planning Policy Framework and Position Statement C5 of the 'The Environment Agency's approach to groundwater protection'.

- 17 No clearance of trees and shrubs in preparation for (or during the course of) development shall take place during the bird nesting season (March - August inclusive) unless an ecological survey has been submitted to and approved in writing by the Local Planning Authority to establish whether the site is utilised for bird nesting. Should the survey reveal the presence of any nesting species, then no development shall take

place during the period specified above unless a mitigation strategy has first been submitted to and approved in writing by the Local Planning Authority which provides for the protection of nesting birds during the period of works on site.

Reason: In order to prevent any habitat disturbance to nesting birds in accordance with Policy G7 of the Rochdale Core Strategy and the National Planning Policy Framework

- 18 The development shall be undertaken in strict accordance with the approved Ecology Implementation plan (drawing ref 3471-01-L-002 Rev A) and the approved Landscape Masterplan (drawing ref 3471-01-L-001 Rev C, including explanatory implementation notes on both drawings. The approved pond replacement and habitat creation indicated on the Ecology Implementation plan shall be implemented in full prior to any works to alter or infill the existing on-site pond identified in the supporting ecological information.

Reason: In order to ensure that the loss of existing on-site habitats are mitigated for and that existing on-site species can be successfully relocated.

- 19 The development hereby approved shall not commence until a Habitat Management and Monitoring Plan (the HMMP) for any habitat areas to be provided on-site in accordance with the Biodiversity Gain Plan approved pursuant to the statutory biodiversity gain condition has been prepared in accordance with the approved Biodiversity Gain Plan and including:

- a non-technical summary;
- the roles and responsibilities of the people or organisation(s) delivering the HMMP;
- the planned habitat creation and enhancement works to create or improve habitat to achieve the biodiversity net gain in accordance with the approved BNG Plan;
- the management measures to maintain habitat in accordance with the approved BNG Plan for a period of 30 years from the completion of development; and
- the monitoring methodology and frequency in respect of the created or enhanced habitat to be submitted to the local planning authority,
- has been submitted to and approved in writing by the Local Planning Authority.
- The development shall thereafter be undertaken in accordance with the approved HMMP.

Reason: To ensure that the requirements of The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024 are fulfilled and in order to ensure the delivery of a net gain in biodiversity in accordance with the requirements of Policy G7 of the Rochdale Core Strategy, Policy JP-G8 of the Places for Everyone Joint Development Plan and the National Planning Policy Framework.

- 20 Notice in writing shall be given to the Council when the:

HMMP has been implemented; and
Habitat creation and biodiversity enhancement works set out in the HMMP have been completed.

Reason: To ensure that the requirements of The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024 are fulfilled and in order to ensure the delivery of a net gain in biodiversity in accordance with the requirements of Policy G7 of the Rochdale Core Strategy, Policy JP-G8 of the Places for Everyone Joint Development Plan and the National Planning Policy Framework

- 21 The development shall be undertaken in accordance with the fire safety design measures set out in the approved Outline Battery Safety Management Plan - Rochdale.

Reason: In the interest of ensuring safe access for emergency vehicles in accordance with Rochdale Core Strategy policy P3 and the National Planning Policy Framework.

- 22 No development shall commence until an Emergency Response Plan has been submitted to, and approved in writing by the Local Planning Authority (following

consultation with the Fire Authority). The Emergency Response Plan must prescribe measures to facilitate safety during the construction, operation and decommissioning of the battery storage facility, including the protocols to manage a fire during the operation and decommissioning. Thereafter the battery storage facility shall operate in accordance with the measures outlined in the Emergency Response Plan and an annual inspection shall be carried out and a report submitted to the Local Planning Authority to demonstrate compliance.

Reason: In the interest of ensuring the safe operation of the development with regards the adjacent motorway, in accordance with Rochdale Core Strategy policies DM1, T2 and paragraph 115 of the National Planning Policy Framework.

Procedure Statement:

Statutory Biodiversity Net Gain Condition

The effect of paragraph 13 of Schedule 7A to the Town and Country Planning Act 1990 is that planning permission granted for development of land in England is deemed to have been granted subject to the condition (biodiversity gain condition) that development may not begin unless:

- a) a Biodiversity Gain Plan has been submitted to the planning authority, and;
- b) the planning authority has approved the plan.

The planning authority, for the purposes of determining whether to approve a Biodiversity Gain Plan, if one is required in respect of this permission would be Rochdale Metropolitan Borough Council.

Based on the information available this permission is considered to be one which will require the approval of a biodiversity gain plan before development is begun because none of the statutory exemptions or transitional arrangements listed below are considered to apply.

The permission which has been granted has the effect of requiring or permitting the development to proceed in phases. The modifications in respect of the biodiversity gain condition which are set out in Part 2 of the Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024 apply.

In summary: Biodiversity gain plans are required to be submitted to, and approved by, the planning authority before development may be begun (the overall plan), and before each phase of development may be begun (phase plans)

Statutory exemptions and transitional arrangements in respect of the biodiversity gain condition.

1. The application for planning permission was made before 12 February 2024.
2. The planning permission relates to development to which section 73A of the Town and Country Planning Act 1990 (planning permission for development already carried out) applies.
3. The planning permission was granted on an application made under section 73 of the Town and Country Planning Act 1990 and
 - (i) the original planning permission to which the section 73 planning permission relates was granted before 12 February 2024; or
 - (ii) the application for the original planning permission* to which the section 73 planning permission relates was made before 12 February 2024.

4. The permission which has been granted is for development which is exempt being:

4.1 Development which is not 'major development' (within the meaning of article 2(1) of the Town and Country Planning (Development Management Procedure) (England) Order 2015) where:

- i) the application for planning permission was made before 2 April 2024;
- ii) planning permission is granted which has effect before 2 April 2024; or
- iii) planning permission is granted on an application made under section 73 of

the Town and Country Planning Act 1990 where the original permission to which the section 73 permission relates* was exempt by virtue of (i) or (ii).

- 4.2 Development below the de minimis threshold, meaning development which:
 - i) does not impact an onsite priority habitat (a habitat specified in a list

published under section 41 of the Natural Environment and Rural Communities Act 2006); and

ii) impacts less than 25 square metres of onsite habitat that has biodiversity

value greater than zero and less than 5 metres in length of onsite linear habitat (as defined in the statutory metric).

4.3 Development which is subject of a householder application within the meaning of article 2(1) of the Town and Country Planning (Development Management Procedure) (England) Order 2015. A "householder application" means an application for planning permission for development for an existing dwellinghouse, or development within the curtilage of such a dwellinghouse for any purpose incidental to the enjoyment of the dwellinghouse which is not an application for change of use or an application to change the number of dwellings in a building.

4.4 Development of a biodiversity gain site, meaning development which is undertaken solely or mainly for the purpose of fulfilling, in whole or in part, the Biodiversity Gain Planning condition which applies in relation to another development, (no account is to be taken of any facility for the public to access or to use the site for educational or recreational purposes, if that access or use is permitted without the payment of a fee).

4.5 Self and Custom Build Development, meaning development which:

i) consists of no more than 9 dwellings;

ii) is carried out on a site which has an area no larger than 0.5 hectares; and

iii) consists exclusively of dwellings which are self-build or custom housebuilding (as defined in section 1(A1) of the Self-build and Custom Housebuilding Act 2015).

4.6 Development forming part of, or ancillary to, the high speed railway transport network (High Speed 2) comprising connections between all or any of the places or parts of the transport network specified in section 1(2) of the High Speed Rail (Preparation) Act 2013.

"original planning permission means the permission to which the section 73 planning permission relates" means a planning permission which is the first in a sequence of two or more planning permissions, where the second and any subsequent planning permissions are section 73 planning permissions.

Irreplaceable habitat

If the onsite habitat includes irreplaceable habitat (within the meaning of the Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024) there are additional requirements for the content and approval of Biodiversity Gain Plans.

The Biodiversity Gain Plan must include, in addition to information about steps taken or to be taken to minimise any adverse effect of the development on the habitat, information on arrangements for compensation for any impact the development has on the biodiversity of the irreplaceable habitat.

The planning authority can only approve a Biodiversity Gain Plan if satisfied that the adverse effect of the development on the biodiversity of the irreplaceable habitat is minimised and appropriate arrangements have been made for the purpose of compensating for any impact which do not include the use of biodiversity credits.

The effect of section 73D of the Town and Country Planning Act 1990

If planning permission is granted on an application made under section 73 of the Town and Country Planning Act 1990 (application to develop land without compliance with conditions previously attached) and a Biodiversity Gain Plan was approved in relation to the previous planning permission ("the earlier Biodiversity Gain Plan") there are circumstances when the earlier Biodiversity Gain Plan is regarded as approved for the purpose of discharging the biodiversity gain condition subject to which the section 73 planning permission is granted.

Those circumstances are that the conditions subject to which the section 73 permission is granted:

i) do not affect the post-development value of the onsite habitat as specified in the earlier Biodiversity Gain Plan, and

ii) in the case of planning permission for a development where all or any part of the onsite habitat is irreplaceable habitat the conditions do not change the effect of the development on the biodiversity of that onsite habitat (including any arrangements made to compensate for any such effect) as specified in the earlier Biodiversity Gain Plan.

The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024 modifies the general biodiversity condition for planning permissions which are phased development. Instead of the standard approach for the Biodiversity Gain Plan:

- o an Overall Biodiversity Gain Plan must be submitted to and approved by the planning authority before any development can begin; and
- o a Phase Biodiversity Gain Plan for each phase must be submitted to and approved by the planning authority before the development of that phase can begin.

The Overall Biodiversity Gain Plan for a phased development (which is not related to a section 73 permission) must include the following matters:

- o information about the steps taken or to be taken to minimise the adverse effect of the development on the biodiversity of the onsite habitat and any other habitat;
- o the pre-development biodiversity value of the entire onsite habitat;
- o any registered offsite biodiversity gain allocated or proposed to be allocated to the entire development and the biodiversity value of that gain in relation to the development;
- o any biodiversity credits purchased or proposed to be purchased for the entire development; and
- o the post-development biodiversity value of the onsite habitat for the entire development and each phase of development*

*The post-development biodiversity value of the onsite habitat for the entire development and each phase is a projection of the biodiversity value at the completion of the entire development (not after the completion of each phase). Where firm proposals for development and habitat enhancement on each phase have yet to be finalised, assumptions about the likely development and habitat enhancements should be used to determine this post-development value. This value will set the expectations about the biodiversity value of onsite habitats, and the final value will need to be set out in later Phase Biodiversity Gain Plans.

The content of a Phase Biodiversity Gain Plan is intended to be more limited in scope than an Overall Biodiversity Gain Plan, instead of detailing the overall strategy (like the Overall Plan), the Phase plan focusses on a phase's contribution to biodiversity net gain and confirming progress towards the overall biodiversity gain objective for the entire development. It must include the following matters:

- o the post-development biodiversity value of the onsite habitat for the phase of the development (which is the subject of the Plan);
- o the post-development biodiversity value of the onsite habitat for each other phase of development (whether begun or otherwise);
- o any registered offsite biodiversity gain allocated to the entire development and the biodiversity value of that gain for the development prior to submission of the phase plan;
- o any registered offsite biodiversity gain which is proposed to be allocated to the entire development and the biodiversity value of that gain in relation to the development;
- o any biodiversity credits purchased for the entire development prior to submission of the phase plan; and
- o any biodiversity credits proposed to be purchased for the entire development.

In the event that unexpected contamination is identified during implementation of the development hereby approved, the risks associated with contamination shall be assessed and addressed by an appropriately qualified and experienced consultant in liaison with the Council's contaminated land officer.

Date Decision Issued 17 April 2025

Melanie Hale
Head of Planning Services

IMPORTANT

PLEASE ENSURE THAT YOU HAVE READ AND FULLY UNDERSTOOD THE CONTENTS OF THIS DECISION NOTICE. YOUR ATTENTION IS DRAWN TO THE ATTACHED NOTES.

INFORMATIVE:

The Local Planning Authority's reasons for its decision are set out in the accompanying officer's report.

INFORMATIVE:

The applicant is reminded of the need to submit and obtain formal approval of those details required by the conditions of this planning permission before development may lawfully commence on the site. The formal discharge of a planning condition is currently subject to payment of an additional fee per request: £43.00 for householder applications and £145.00 in all other cases.

INFORMATIVE:

The proposed development lies within an area that has been defined by the Mining Remediation Authority as containing coal mining features at surface or shallow depth. These features may include: mine entries (shafts and adits); shallow coal workings; geological features (fissures and break lines); mine gas and former surface mining sites. Although such features are seldom readily visible, they can often be present and problems can occur, particularly as a result of new development taking place.

Any form of development over or within the influencing distance of a mine entry can be dangerous and raises significant land stability and public safety risks. As a general precautionary principle, the Mining Remediation Authority considers that the building over or within the influencing distance of a mine entry should be avoided. In exceptional circumstance where this is unavoidable, expert advice must be sought to ensure a suitable engineering design which takes account of all relevant safety and environmental risk factors, including mine gas and mine-water. Your attention is drawn to the Mining Remediation Authority Policy in relation to new development and mine entries available at:

Building on or within the influencing distance of mine entries - GOV.UK

Any intrusive activities which disturb or enter any coal seams, coal mine workings or coal mine entries (shafts and adits) requires a Mining Remediation Authority Permit. Such activities could include site investigation boreholes, excavations for foundations, piling activities, other ground works and any subsequent treatment of coal mine workings and coal mine entries for ground stability purposes. Application forms for Mining Remediation Authority permission and further guidance can be obtained from The Mining Remediation Authority's website at:

www.gov.uk/get-a-permit-to-deal-with-a-coal-mine-on-your-property

What is a permit and how to get one? - GOV.UK (www.gov.uk) In areas where shallow coal seams are present caution should be taken when carrying out any on site burning or heat focused activities.

If any future development has the potential to encounter coal seams which require excavating, for example excavation of building foundations, service trenches, development platforms, earthworks, non-coal mineral operations, an Incidental Coal Agreement will be required. Further information regarding Incidental Coal Agreements can be found here -

<https://www.gov.uk/government/publications/incidental-coal-agreement/guidance-notes-for-applicants-for-incidental-coal-agreements>

If any coal mining features are unexpectedly encountered during development, this should be reported immediately to the Mining Remediation Authority on 0800 288 4242. Further information is available on the Mining Remediation Authority website at: Mining Remediation Authority - GOV.UK

INFORMATIVE:

The applicant is advised that the supply and delivery of refuse containers (including all wheelie bins and food waste caddies) for residential developments is chargeable and the responsibility for these charges rests with the applicant/developer. The cost is based on a variable rate per property depending on the property size and number of bedrooms but as an indication, the present charge for a suite of three 240l recycling bins and one 240l refuse bin is £144 per residence. Please contact environmental.management@rochdale.gov.uk for a quotation for your development.

Appendix G – Regulator Correspondence

Rich Taylor-Aspinall

From: Rich Taylor-Aspinall
Sent: 08 January 2026 16:03
To: Enquiries, Unit
Cc: Nick Spear; Kerys Webb
Subject: 5031777 - Balance Power - Land Off Dig Gate Lane , Kingsway Business Park, Rochdale - Civil Engineering

FAO: Waste Officer

Dear Sir/Madam,

We are writing to notify you of our intention to carry out the on-site reuse of soils under a Materials Management Plan (MMP), prepared in accordance with CL:AIRE's Definition of Waste: Code of Practice (DoW:CoP) as part of the redevelopment of land off Dig Gate Lane, Kingsway Business Park, Rochdale (OL16 4NR) (the 'Site'). Our understanding is that the Site has remained mostly undeveloped since the earliest available Ordnance Survey Mapping, and minor changes have occurred between 1999 to 2022 with the addition of two small structures in the east of the Site, the easternmost of which is shown as an electrical substation. The Site was granted full planning permission by Rochdale Borough Council, planning reference no. **24/00043/FUL**, for the development of a battery energy storage system with associated infrastructure and access.

The Site is proposed to be split into two main compounds at differing levels due to the Site's existing, sloping topography. A cut and fill exercise is required in order to construct the development platforms for the approved, proposed development. The MMP relates to the reuse of suitable Site won material (site of origin) produced during the cut and fill exercise within the Site.

Additionally, Condition 15 of the aforementioned planning permission requires an MMP to be submitted to and approved by Rochdale Borough Council prior to the commencement of any part of the development to ensure that no unsuitable material is brought onto the Site in accordance with Policy G9 of the adopted Rochdale Core Strategy.

I trust the above and proposal for utilising the DoW:CoP for these works is acceptable. Please do not hesitate to contact me should you have any queries or want more detailed information or a copy of the MMP. I would need to include this email in order to submit the MMP to a Qualified Person (QP) for review and submission as a Declaration in accordance with the DoW:CoP.

Whilst we understand that the DoW:CoP is a self-regulating process, in order to comply with the DoW:CoP, we are obliged to contact yourself to ensure there are no objection to the application of DoW:CoP for the Site.

If this email has not found the correct enquiry desk, could you please re-direct me to the contact responsible for MMPs or the Waste Officer in this area?

Should you have any queries, please don't hesitate to contact me.

Yours faithfully,
Rich

Rich Taylor-Aspinall | Senior Geo-Environmental Consultant He/Him



01217 138000 | 07386 678469

richardtayloraspinall@ridge.co.uk

Ridge and Partners LLP A row of four small, dark social media icons: Instagram, LinkedIn, Facebook, and Twitter.

Rich Taylor-Aspinall

From: Rich Taylor-Aspinall
Sent: 08 January 2026 16:03
To: 'environmental.health@rochdale.gov.uk'
Cc: Nick Spear; Kerys Webb
Subject: 5031777 - Balance Power - Land Off Dig Gate Lane , Kingsway Business Park, Rochdale - Civil Engineering

FAO: Waste Officer

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If this email has not found the correct enquiry desk, could you please re-direct me to the contact responsible for MMPs or the Waste Officer in this area?

Should you have any queries, please don't hesitate to contact me.

Yours faithfully,
Rich

Rich Taylor-Aspinall | Senior Geo-Environmental Consultant He/Him



01217 138000 | 07386 678469

richardtayloraspinall@ridge.co.uk

Ridge and Partners LLP A row of four small, dark social media icons: a camera icon for Instagram, the "in" logo for LinkedIn, the "f" logo for Facebook, and a speech bubble icon for Twitter.

Appendix H – Tracking Proforma

Legend

Approximate Site Boundary

Class 1 Fill

Class 2 Fill

Made Ground

Topsoil



Project:		Land off Dig Gate Land, Kingsway Business Park, Rochdale		Title:	Material Tracking Schematic	
Job Number:	5031777	Client:	Balance Power Projects Ltd.	Ridge and Partners LLP TEL: 01962 834400 www.ridge.co.uk	Rhodium Building Blythe Valley Business Park Solihull Birmingham B90 8AS	RIDGE
Drawing:	5031777 – Fig. 2	Revision:	-			
Drawn:	RT-A	Date:	January 2026			
Checked by:	NS	Scale:	NTS			

[illegible]