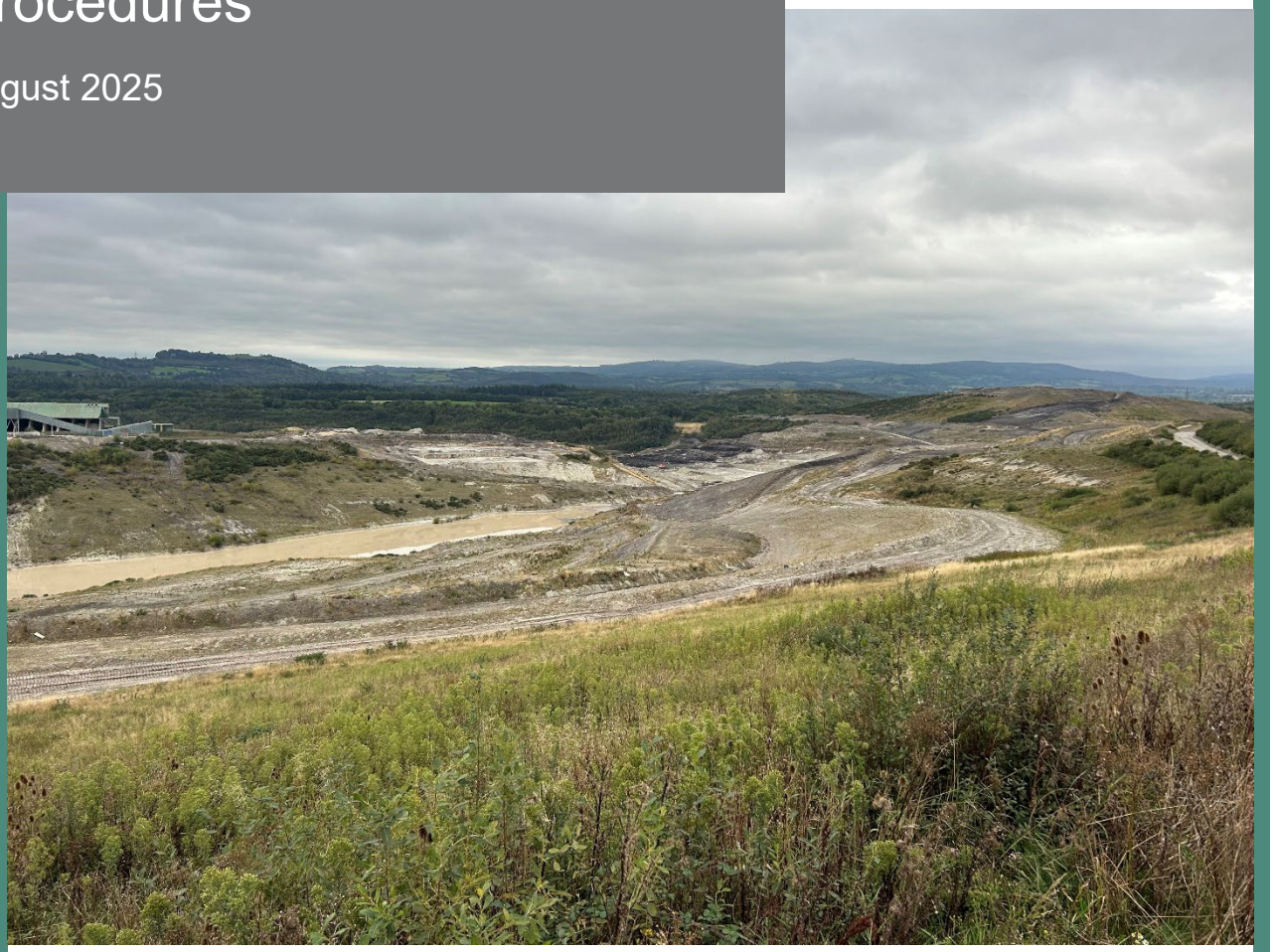
Transport, Environment & Design

Bovey Basin Ball Clay Workings – Central Area

Waste Acceptance Procedures

August 2025



Horizon Consulting Engineers Ltd.
Tresco House, Westpoint Court, Sidmouth Road, Exeter EX5 1DJ
www.horizon-ce.co.uk

Document Control Sheet

Project Reference:	HCE1205
Project Title:	Bovey Basin Ball Clay Workings – Central Area
Document Subject:	Waste Acceptance Procedures
Document Reference:	HCE1205.WAP.Rev1
Authors:	Jamie Howourth
Checked:	Alex Large
Client:	Sibelco UK Ltd
Initial Issue Date:	12 March 2025

Revision of Issue

Revision	Revision Author	Checked	Date
1	Jamie Howourth	Alex Large	21-Aug-2025

Distribution

Organisation	Contact	Issue Format & No. of Copies *	Date
Sibelco UK Ltd	Ben Uphill	**D1 DRAFT**	12-Mar-2025
Sibelco UK Ltd	Ben Uphill	**D1**	21-Aug-2025

** D denotes digital copy / P denotes paper copy*

Contents

Tables

Appendices

Revision Schedule

Revision	Author	Description	Date
1	Jamie Howourth	Report issued as final following minor comments from Client.	21-Aug-2025

1. Introduction

1.1 Commission

1.1.1 Horizon Consulting Engineers Limited (Horizon) was commissioned by Sibelco UK Ltd (Sibelco or "the Client") to prepare Waste Acceptance Procedures (WAP) to support the restoration of the Bovey Basin Ball Clay Workings (Central Area), Kingsteignton, TQ12 3PR ("the Site").

1.1.2 This specifically relates to the Central Area Quarries, located within the wider Bovey Basin Ball Clay Workings. It is proposed to incorporate the re-use of mine waste material (i.e "overburden" and "interburden") and imported waste soils ("restoration material") into one permit rather than to have a separate mine waste facility permit and deposit for recovery permit.

1.2 General

1.2.1 This document sets out the suitability criteria for acceptance of imported material into the Bovey Basin Central Area Quarries for restoration purposes. These Waste Acceptance Procedures have been developed with reference to current UK Government guidance[1].

1.2.2 The restoration of the Site with imported subsoil and topsoil has been deemed a recovery activity (Environment Agency letter dated 20 August 2024 reference EPR/SP3427SW/P001).

1.2.3 These Waste Acceptance Procedures have therefore been developed with reference to relevant guidance especially The Landfill Directive[2], the Waste Framework Directive[3] and Excise Note LFT1[4] such that wastes recovered at the Site will serve a useful purpose replacing other substances that would have been used for that purpose (thereby conserving natural resources) meaning that the restoration of the Site is not a disposal operation primarily aimed at getting rid of waste.

1.3 Management Responsibilities

1.3.1 Sibelco ("the Operator") is responsible for the management of the Environmental Permit.

[1] https://www.gov.uk/guidance/dispose-of-waste-to-landfill [Accessed 01 November 2024]

[2] DEFRA (March 2010) Environmental Permitting Guidance. The Landfill Directive. For the Environmental Permitting (England & Wales) Regulations 2010

[3] DEFRA (October 2009) Environmental Permitting Guidance. The Waste Framework Directive. For the Environmental Permitting (England & Wales) Regulations 2007. Version 2.0

[4] https://www.gov.uk/government/publications/excise-notice-lft1-a-general-guide-to-landfill-tax/f933d9c2-3fe1-4692-ad52-ab1af926e36e [Accessed 01 November 2024]

2. Acceptable Waste

2.1.1 Only wastes meeting the following classification are to be imported to Site:

- not hazardous (as set out in current technical guidance on the classification of wastes[5]);
- meeting the waste codes set out in **Table 2-1** below.
- all the relevant waste acceptance procedures have been completed;
- they fulfil the relevant waste acceptance criteria; and
- they have not been diluted or mixed solely to meet the relevant waste acceptance criteria.

Waste Code	Description
17 05 04	Soil and stones (excluding peat) other than those mentioned in 17 05 03*
20 02 02	Soil and stones

Table 2-1: Acceptable Waste Codes

2.1.2 In addition, wastes shall only be accepted for restoration purposes if:

- they meet the definition of inert waste as set out in Council Decision 2003/33/EC (with the exception of topsoil which will have not limit for Total Organic Carbon (TOC)) and not contain asbestos; and
- meet the Generic Assessment Criteria (GAC) for common phytotoxic chemicals as listed in Table 3 below.

2.1.3 Inert waste is waste that *"does not undergo any significant physical, chemical or biological transformations. Inert waste will not dissolve, burn or otherwise physically or chemically react, biodegrade or adversely affect other matter with which it comes into contact in a way likely to give rise to environmental pollution or harm human health. The total leachability and pollutant content of the waste and the ecotoxicity of the leachate must be insignificant, and not endanger the quality of surface water or groundwater."*

2.1.4 Chemical analysis data is to be obtained for all Sites and provided for review by the Operator to confirm that the material meets the definition of not hazardous (as per WM3[5]) and where required meets the inert waste acceptance criteria (WAC) set out in Council Decision 2003/33/EC (as set out in **Table 2-2** below).

2.1.5 The exception to the above is where robust evidence is available that the material is from a greenfield Site (material deemed to be inert without the need for testing, Council Decision 2003/33/EC). Evidence of the Site's greenfield status must be provided to the Operator for review.

[5] Environment Agency (October 2021) Guidance on the Classification and Assessment of Waste WM3 Version 1.2.

Component	Inert Waste Landfill Limit Value (mg/kg)
Limit Values for Total Content of Organic Parameters (Solid Waste Analysis)	
Total Organic Carbon *[for subsoil only]*	30,000 (3%)
BTEX (Benzene, Toluene, Ethylbenzene, Xylene)	6
Polychlorinated Biphenyls (7 Congeners)	1
Mineral Oil (C_{10} to C_{40})	500
Polycyclic Aromatic Hydrocarbons	100
Eluate Analysis Limit values for Compliance Leaching Test using BS EN 12457-2 at L/S 10 l/kg	
Arsenic	0.5
Barium	20
Cadmium	0.04
Chromium	0.5
Copper	2
Mercury	0.01
Molybdenum	0.5
Nickel	0.4
Lead	0.5
Antimony	0.06
Selenium	0.1
Zinc	4
Chloride	800
Fluoride	10
Sulphate as SO_4	1,000
Total Dissolved Solids	4,000
Phenol	1
Dissolved Organic Carbon	500

Table 2-2: Waste Acceptance Criteria Limits

2.1.6 **Table 2-3** below sets out additional criteria that are to be applied for some selected heavy metals. The Generic Assessment Criteria (GAC) presented are based on current exposure models and toxicological understanding for assessment of risks to human health, plant life and the wider environment. In the event these are updated in the future, consideration should be given to adopting the updated criteria. It is noted that soils imported should always be non-hazardous regardless of whether they meet the additional GAC or not. Statistical analysis can be used to make waste acceptance decisions for appropriate sample sizes.

Chemical	Units	GAC				GAC Source
pH Dependent	**-**	**Not dependent**	**5-6**	**6-7**	**7-8**	
Arsenic	mg/kg	250	-	-	-	MAFF
Chromium III	mg/kg	400	-	-	-	MAFF
Copper	mg/kg	-	100	135	200	BS3882:2015
Nickel	mg/kg	-	60	75	110	BS3882:2015
Zinc	mg/kg	-	200	200	300	BS3882:2015

Table 2-3: Additional Limiting Values

3. Waste Acceptance Procedures

3.1 Proposed Sequencing

3.1.1 In relation to the importation of material for restoration, the outline sequencing is as follows:

- The proposed works are to be undertaken in separate phases working only on specific deposition areas of the Site at any one time.
- Prior to the commencement of deposition in each phase, any existing vegetation or unsuitable sub-grade material will be stripped and separately stockpiled.
- Suitable waste soil is to be sourced from local development sites and imported to Site using sheeted lorries. The lorries will enter and exit the Site using the same access as the main quarry processing facility in the centre of the Site adhering to the Site's Traffic Management Plan.
- Suitable holding areas (separate for topsoil and subsoil) will be created to allow for vehicles to deposit the soil before it is re-loaded onto dumpers to be taken to the deposition area within the workings of the quarry. Material will then be lightly compacted by the excavator or bulldozer.
- Finally, the land is to be seeded or planted in accordance with the Site Restoration Detailed Landscaping Plan agreed as part of the Planning Permission

3.2 Level 1 – Basic Characterisation

3.2.1 All waste is pre-assessed to confirm it is appropriately characterised and suitable for import to the Site. A three-stage process is adopted as set out below:

3.2.2 Producers of the waste must provide:

- details of the waste producer including their organisation name, address and contact details;
- a description of the waste including smell, colour and physical form;
- the source and origin of the waste;
- previous use of the site;
- details of any treatment used to remove unsuitable waste;
- results of any waste tests carried out including leaching behaviour
- the European Waste Catalogue (EWC) code; and
- if necessary, additional precautions to be taken at the Site.

3.2.3 The above details are to be included on a Waste Information Form (WIF) (copy attached) a copy of which is to be retained by Sibelco.

3.2.4 Chemical analysis data for waste material from potentially contaminated sites (i.e. all Sites other than greenfield) is to be undertaken to assess the suitability for importation to the Site. This assessment is to be undertaken by a suitably qualified individual at Sibelco or a Third Party Consultant.

3.2.5 Testing to be conducted with reference to WM3[5] to confirm that the material is not hazardous; for the Site testing of material from brownfield sites to be conducted on the basis of a target ratio of 1 sample per 200 tonnes material for the first 1,000 tonnes, decreasing thereafter with reference to the table on UK Government guidance[1] depending on data consistency. Testing suite to be developed based on history of source site, however minimum testing to include PAHs, TPH or EPH, metals and asbestos screen. In addition, where required, WAC testing to be undertaken on representative samples (target ratio 1 sample per 500 tonnes material for first 2,000 tonnes, decreasing thereafter consistent with reduction in total soils analysis depending on data consistency).

3.2.6 Although Level 1 testing requirements are the responsibility of the waste producer, this may be arranged on their behalf by the Operator or a Third Party. Notwithstanding this compliance with the Level 1 testing requirements is ultimately the responsibility of the waste producer. .

3.3 Level 2 – Compliance Testing (Regularly Generated Wastes)

3.3.1 Level 2 Compliance Testing is the responsibility of the Waste Producer and is to be carried out at the site of origin.

3.3.2 The Waste Producer may elect to conduct Level 2 Compliance Testing on regularly generated wastes based on a full basic characterisation of the waste.

3.3.3 The rate and scope of Level 2 Compliance Testing is to be agreed with the Operator, however as a minimum is to comprise 1No. sample annually assuming the waste is homogenous, increasing to a minimum of 3No. samples annually for heterogeneous wastes. As a minimum Level 2 Compliance Testing will be conducted to a targeted suite (as per paragraph 4.5 above).

3.4 Level 3 – On-Site Verification

3.4.1 Level 3 Verification Testing is the responsibility of the Operator and is to be undertaken in the holding areas identified. Upon receipt at the Site, waste will be visually inspected to confirm it matches the written description of the waste and Compliance Testing data, as described on the WIF. Photographs will be taken, and vehicles received will be recorded on daily record sheets.

3.4.2 Paperwork that accompanies the waste is to be reviewed to confirm that it includes:

- a written description of the waste;
- the basic characterisation; and
- the results of any basic characterisation or compliance testing, where appropriate.

3.4.3 Any soil deemed unsuitable will be refused. If already tipped within holding areas, such material will be quarantined awaiting collection and disposal elsewhere in accordance with relevant waste regulations. Details of how rejected wastes are dealt with is provided in Section 4.0 below.

3.4.4 Random verification testing of the imported material will be conducted by the Operator to confirm suitability in accordance with the criteria specified. This is to include random audits of source Sites. The rate and scope of Level 3 Verification Testing is, as a minimum, to comprise 1No. sample annually assuming the waste is homogenous, increasing to a minimum of 3No. samples annually for heterogeneous wastes. As a minimum Level 3 Verification Testing will be conducted to a targeted suite (as per paragraph 4.5 above).

3.4.5 Verification testing will also be undertaken on quarantined materials for which there may be doubt regarding their EWC classification and/or inert status. Testing will comprise of appropriate parameters to interrogate and allow this doubt to be resolved.

3.4.6 Details of all audits and verification testing to be retained at the Operator's Head Office.

4. Rejected Wastes

4.1.1 Drivers are required to hand their Duty of Care paperwork to the Operator when passing the Site Weighbridge, at which point inspections for unauthorised / non-conforming wastes will be undertaken prior to deposit on-Site

4.1.2 The Operator may reject waste for any reason.

4.1.3 In the event non-conforming wastes are identified, either during pre-deposition checks at the Site office or further visual inspections following deposition, these are returned to the source site or quarantined at the Site until agreement is reached with the owner of the source site as to how the non-compliant materials are to be managed and disposed of. No material is to be stored in the quarantine area for more than one month.

5. Record Keeping

5.1.1 Sibelco uses an electronic system to record details of all waste imported to the Site, namely the WIF, WTN and photos of the material.

5.1.2 A copy of the Waste Transfer Note is to be provided to the Operator at the Weighbridge as part of the Level 3 Verification procedures prior to deposition of waste.

5.1.3 Appropriate duty of care paperwork is maintained for a minimum of two years. All records are stored on-Site at the Site.

5.1.4 The Operator is to maintain full records of all material imported to the Site along with results of all random verification testing and auditing undertaken. Records are to be maintained until the Environmental Permit is surrendered.

Appendix A
Waste Information Form

WASTE INFORMATION FORM

SECTION 1 – Customer Details [To be Completed by Customer]			
Customer Name:		**Customer Contact:**	
Registered Company Address:		**Company Head Office (if different to above):**	
Customer Telephone Number:		**Account Contact Name:**	
Customer Email:		**Account Contact Email:**	

SECTION 2 – Site Details [To be Completed by Customer]			
Producing Site Name:		**Site Address**	
Site Contact Name:		**Site Telephone Number:**	

SECTION 3 – Waste Details [To be Completed by Customer]

For the purposes of this Waste Information Form, a greenfield site comprises land that has not been historically developed (e.g. agricultural land or open space). Residential gardens are not considered to comprise "greenfield". For Greenfield Sites evidence must be provided (e.g. Historical Maps). For non-Greenfield Sites, chemical testing / ground investigation reports required.

Is Source Site Greenfield (please circle / delete as appropriate)?	Yes	No

Description of Waste & EWC Code (if known)			
Anticipated Mass of Waste (Tonnes):			
Supporting Document(s) Provided:			
Waste Reduction / Treatment Measures Implemented (please circle / delete as appropriate)?	**Selected Excavation / Controlled Dig**	Yes	No
	Stockpiling / Material Segregation	Yes	No
	Other (Please provide details):		
Any Other Characteristics (e.g. Site Specific / Material Information)			
Preferred Commencement Disposal Date:			

SECTION 4 – Authorisation [To be Completed by Customer]

I confirm that the information above and associated supporting documents are a correct and accurate representation of the waste and I am aware, as the waste producer, of the producers responsibility to correctly characterise and classify waste. Should the waste change in any way, Sibelco is to be informed immediately prior to removal of the waste from the source site.

Signature:		**Role:**	
Name:		**Date:**	

SECTION 5 – Approval [To be Completed by Sibelco

No material is to be deposited at Zig Zag Quarry unless a signed copy of this Waste Information Form is returned to the Customer by Sibelco.

Signature:		**Role:**	
Name:		**Date:**	

Horizon Consulting Engineers Ltd.
Tresco House,
Westpoint Court
Sidmouth Road
Exeter
EX5 1DJ

Tel : 01392 363364
www.horizon-ce.co.uk