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STOREFIELD GROUP LIMITED

PHOENIX PARKWAY

OPERATING TECHNIQUES

JANUARY 2024



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JANUARY 2024

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APPENDICES

Appendix 1 List of Materials Suitable for Deposit

Appendix 2 WAC Testing IBA – Soiltechnics Report

DRAWINGS TITLE SCALE

GM10604-014 Application Site Location As shown on drawing



1 INTRODUCTION

- 1.1.1 The Storefield Group Ltd (Storefield) has commissioned Wardell Armstrong LLP to prepare an environmental permit application for their proposed development in Corby, North Northamptonshire.
- 1.1.2 The site is situated north of Willowbrook Industrial Estate, near to Corby Town, North Northamptonshire. The site is centred at SP 90128 90860 and the nearest postcode is NN17 5BE. The site location and proposed permit boundary is provided in drawing GM10604-014.
- 1.1.3 The Site has been identified as a strategic site for employment development within local planning policy. In order to make the site suitable for use as an industrial and commercial development, Storefield propose to raise and level the site to create a suitable load-bearing development platform.
- 1.1.4 The site was formally a liquid waste treatment facility, for which the permit has been surrendered. Additionally, the site is also partially located on a landfill site, which is currently in formal closure. Prior to this, the site was quarried to remove material for use in the Corby Integrated Iron and Steel works.
- 1.1.5 It is proposed that the development platform will be constructed of approximately 686,000m³ of suitable waste materials. The scheme has been designed to require the minimum volume of suitable waste materials, which will be recovered through the permanent deposit of these materials.
- 1.1.6 The site will be operated in accordance with Storefield Group's Environmental Management System (EMS). All operations will be managed by a Technically Competent Manager (TCM).
- 1.1.7 Operations at the site will meet the requirements of the Environment Agency's guidance 'Waste Recovery Plans and Deposit for Recovery Permits¹'. The permit application fulfils the requirements set out in this guidance. The following is included:
 - a Waste Recovery Plan has been prepared which evidences how the deposit of waste material is a recovery operation, in accordance with Environment Agency guidance;

.

https://www.gov.uk/government/publications/deposit-for-recovery-operators-environmental-permits/waste-recovery-plans-and-deposit-for-recovery-permits#deposit-for-recovery-at-landfill-sites



- a conceptual model of the site is provided within the Environmental Setting and Site Design (ESSD);
- details of the potential hazards and receptors at the site, and how risk will be mitigated are provided within the Accident and Amenity Risk Assessment and the Habitats Risk Assessment;
- a description of the hydrogeological conditions of the site is provided within the Hydrogeological Risk Assessment (HRA) which has been prepared by Firth Consultants (November 2023);
- a list of the permitted materials to be accepted at the site is provided as Appendix 1 of this report, and Appendix 2 provides the testing results and analysis of the IBA to be deposited;
- a Dust Management Plan has been prepared to set out how the site will be managed and operated in a way that controls dust emissions;
- Ground Investigation Report and Ground Stability Reports have been prepared by Soiltechnics and have been included in the permit application.



2 PERMITTED ACTIVITIES

2.1.1 The permitted activities will be limited to the deposit of waste for recovery, as set out in Table 2.1 below.

Table 2.1: Permitted Waste Activities				
Activity	Waste Framework Directive Classification (Annex I and Annex II)			
Permanent deposit of waste for recovery	R5 Recycling or reclamation of other inorganic materials R13 Storage of wastes pending any of operations numbered R5 and R10			

- 2.1.2 It is expected that in order to construct the development platform, approximately 686,000m³ of suitable waste materials will be required to be deposited. Volume comparisons have been carried out by Soiltechnics to calculate the required volume of fill to provide an even development platform. This is provided in the ESSD report.
- 2.1.3 The engineering and enabling works are anticipated to be worked in two phases, over a period of four to five years. Phase 1 is expected to comprise the area to the south of the access road from Phoenix Parkway, and Phase 2 is expected to be to the north of the access road.
- 2.1.4 In order to facilitate the construction of the development platform, suitable materials will be deposited. These wastes are listed in Appendix 1 and are listed according to their EWC code. These wastes are predominantly inert materials, with the inclusion of Incinerator Bottom Ash (IBA) and fly ash. Further detail of the Waste Acceptance Criteria is provided in Section 5, and the Waste Acceptance Procedure is provided in Section 6.



3 SITE HISTORY

3.1.1 The Site incorporates the closed Corby Tube Works landfill site (C/17 Landfill) (EAWML 70559) in its southern extent, which has not yet been surrendered. In its northern extent, it consists of a closed, surrendered and remediated former liquid waste treatment facility (C/18) (EAWML 70560). Figure 3.1 below provides an approximate overlay of the site against the permit boundaries for the historic facilities. Drawing STP3996D-02 provides a more detailed plan of existing site features.



Figure 3.1: C18 and C17 Permit Site Plan Overlaid on Aerial View of the Site Boundary

- 3.1.2 Prior to the waste management activities described above, the site was quarried to remove the underlying ironstone for use in the Corby Iron and Steel Works. The site was subsequently used as dewatering lagoons for blast furnace slurry produced from the blast furnaces which formed part of the Integrated Iron and Steel Works.
- 3.1.3 On closure of the Integrated Iron and Steel Works, the slurry was removed from the blast furnace lagoons, which were then divided into cells, using bund walls formed from inert rubble, to produce the landfill site.
- 3.1.4 The liquid waste treatment operation ceased in June 2007. Remediation work was carried out to empty the lagoons and remove and dispose of the liners. The EA agreed the surrender of the WML in October 2010. The area is not considered to be a risk to the environment.
- 3.1.5 The Corby Tube Works landfill site was issued with a waste management licence in 1984 and ceased the acceptance of waste on 9 November 2004; it was classified as



- "Definitively Closed" by the Environment Agency (EA) on 19 December 2008. Since closure and the submission of the closure report in January 2006, the remaining uncapped areas have been in-filled with inert wastes, as agreed with the EA.
- 3.1.6 During its operation, the landfill site was used for the disposal of controlled wastes from Corby Tubeworks; these include neutralisation filtercake from pickling operations, settlement sludges from Weldon Settlement Ponds, non-hazardous industrial wastes and construction/demolition rubble.
- 3.1.7 The landfill did not incorporate engineering features such as artificial barriers and liners, capping systems, gas or leachate collection systems. The aftercare requirements set out in the Environmental Permit (WML70559/QP3799NL) in respect of quarterly landfill gas, surface water and groundwater monitoring and an annual stability inspection, have taken place in accordance with the Permit.
- 3.1.8 At the time of closure, Cells 1, 2 and 5 of the landfill cells were completed, however Cell 3 was only partially completed, and Cell 4 remained empty.
- 3.1.9 Other than a requirement that "nothing shall be deposited in the final 1m layer which is likely to interfere with final restoration or subsequent cultivation (inert material only)," the Waste Management Licence did not require the capping of completed areas. Equally, no final height profile was specified and as such the completed areas were simply filled to blend in with the surrounding land, which has resulted in a 7 10m height difference on the north side of Mitchell Road.
- 3.1.10 Detail of the site setting with particular reference to the context of the geology and hydrogeology is provided in the Hydrogeological Risk Assessment (Firths).
- 3.1.11 The former use of the site has resulted in an undulating topography with ground levels ranging from approximately 104 to 109 mAOD over the majority of the site. There are seven depressions approximately 2.5m deep in the northwest of the site which are the remnants of the former dewatering lagoons associated with the former landfill. Mitchell Road to the north of the site is at an elevation of 115 to 116 mAOD, approximately 8m to 10m higher than the adjacent levels on the site. In the south of the site the ground elevation slopes steeply downwards to Willow Brook at an elevation of approximately 97 to 100 mAOD.



4 SITE LAYOUT

- 4.1.1 The site is an irregular shaped plot of rough grassland which spans approximately 20 hectares.
- 4.1.2 The works will be carried out in phases, and as waste is accepted onto site it will be temporarily stockpiled pending deposit. Once fill material has been placed it will be compacted, and the required levels will be achieved by compacting and layering materials.
- 4.1.3 A one-way entrance and exit system will be implemented with access to the site; with vehicles accessing the site from the east (from Willowbrook Industrial Estate) and exiting by Napier Road in the west.
- 4.1.4 The site is surrounded by 2m high security fencing and secure metal gates to prevent unauthorised access into the site. The site will also be enclosed with amphibian fencing to prevent amphibians known to be present in the vicinity of the site, as described in the Habitats Risk Assessment.
- 4.1.5 The site will have a reception area where waste is bought in and undergoes the waste acceptance procedure checks, before being moved to the appropriate storage area. A weighbridge will be installed at the site.
- 4.1.6 A wheel wash will be provided at the exit of the site to ensure that mud and debris is removed from vehicles before they exit the site. The wheel wash will comprise of an enclosed system that re-circulates wash water.



5 WASTE ACCEPTANCE CRITERIA

- 5.1.1 The materials to be deposited comprise of a mix of inert wastes and non-hazardous wastes.
- 5.2 Inert Materials
- 5.2.1 All inert materials to be deposited will be in line with the WAC for inert wastes, and will mainly comprise of construction and demolition wastes. These will be subject to testing as required by the regulations.
- 5.3 Incinerator Bottom Ash (IBA)
- 5.3.1 Waste Acceptance Criteria (WAC) testing of the IBA has been carried out by an MCERTS accredited laboratory, and the results are provided in the Soiltechnics report, provided as Appendix 2. From this testing the IBA is classified as non-hazardous waste, based on some minor exceedances of inert WAC for the following determinands:
 - Antimony;
 - Chloride;
 - Sulphate;
 - Total Dissolved Solids.
- 5.3.2 The remainder of the determinants present showed testing values within the inert landfill criteria limits.
- 5.3.3 Table 5.1 below sets out the determinants to be tested for as part of the WAC testing. The Inert waste landfill criteria limits are listed, and the proposed limit value for those determinants where there have been inert WAC exceedances is provided.

Table 5.1: Waste Acceptance Criteria						
Component	Symbol	L/S = 10 l/kg mg/kg dry substance				
Arsenic	As	0.5				
Barium	Ва	20				
Cadmium	Cd	0.04				
Total Chromium	Cr total	0.5				
Copper	Cu	2				
Mercury	Hg	0.01				
Molybdenum	Мо	0.5				
Nickel	Ni	0.4				



Table 5.1: Waste Acceptance Criteria					
Component	Symbol	L/S = 10 l/kg mg/kg dry substance			
Lead	Pb	0.5			
Antimony	Sb	0.43¹			
Selenium	Se	0.1			
Zinc	Zn	4			
Chloride	Cl ⁻	2,300²			
Fluoride	F ⁻	10			
Sulphate ^(a)	SO ₄ ²⁻	2,200³			
Phenol index	PI	1			
Dissolved Organic Carbon ^(b)	DOC	500			
Total Dissolved Solids ^(c)	TDS	19,000⁴			

- (a) This limit value for sulphate may be increased to 6,000 mg/kg, provided that the value of C_0 (the first eluate of a percolation test at L/S = 0.1 l/kg) does not exceed 1,500 mg/l. It will be necessary to use a percolation test to determine the limit value at L/S = 0.1 l/kg under initial equilibrium conditions.
- (b) If the waste does not meet this value for Dissolved Organic Carbon (DOC) at its own pH value, it may alternatively be tested at L/S = 10 l/kg and a pH between 7.5 and 8.0. The waste may be considered as complying with the acceptance criteria for DOC, if the result of this determination does not exceed 500 mg/kg.
- (c) The value for Total Dissolved Solids can be used alternatively to the values for Sulphate and Chloride.
- ¹ Landfill Directive inert landfill criteria limit for antimony is 0.06 L/S = 10 l/kg
- ² Landfill Directive inert landfill criteria limit for Chloride is 800 L/S = 10 l/kg
- ³ Landfill Directive inert landfill criteria limit for sulphate is 1,000 L/S = 10 l/kg
- ⁴ Landfill Directive inert landfill criteria limit for total dissolved solids is 4,000 L/S = 10 l/kg
- 5.3.4 Bespoke waste acceptance criteria have been developed as set out above in table 5.1. These criteria are based on the upper concentration limits, and have been demonstrated to not cause pollution to groundwater through the Hydrogeological Risk Assessment.



6 WASTE ACCEPTANCE PROCEDURE

- 6.1.1 Waste acceptance will involve three levels of verification, those being:
 - 1) basic characterisation of materials;
 - 2) compliance testing of materials received on site; and
 - 3) on-site verification of materials.

Each of these three levels is described further below.

Level 1: Basic Characterisation

- 6.1.2 Prior to the operator agreeing to accept materials onto the site, wastes will be subject to Level 1 Basic Characterisation to provide:
 - a description of the material (including smell, colour and physical form);
 - the source and origin of the material, including a description of the current and/or previous land use at the site from which the materials originate;
 - the process producing the material;
 - the material treatment applied in compliance with regulation 10, or a statement of reasons why such treatment is not considered necessary;
 - the six-figure code applicable to the waste under the European Waste Catalogue;
 - identification that the material is appropriate for an inert waste recovery operation (including chemical analysis where applicable); and
 - identification of any potential risks to the environment and any additional precautions to be taken at the site (e.g. any additional acceptance and handling procedures that are required to ensure safe and proper deposit).
- 6.1.3 Where the waste is sourced from a brownfield site, is Incinerator Bottom Ash (IBA) or there is any other reason to believe the waste may not be fully inert, the waste producer will be required to provide representative analysis, showing that the waste meets the waste acceptance criteria as set out in Section 5.
- 6.1.4 Where the results of Level 1 Basic Characterisation show that a waste stream is not acceptable for deposit, the waste will not be accepted at the site.
- 6.1.5 The waste producer must provide Level 1 Basic Characterisation documentation and, where applicable, leaching test results to the operator prior to the receipt of the



waste. The documentation and leaching test results will be assessed by a suitably competent person to determine whether the waste is acceptable for deposit at the site.

6.1.6 A copy of the documentation and leaching test results will be kept in a site log and made available for inspection to authorised officers of the Environment Agency. The site log will be kept in the site office.

Level 2: Compliance Testing of Materials

- 6.1.7 The operator will carry out Level 2 Compliance Testing no less frequently than one per 1,000m³ or at least once a year for each separate material source. For Chapter 19 codes, testing will be carried out once per 5 batches or 1000m³ whichever is the lesser. Testing will demonstrate the integrity of Level 1 Basic Characterisation Testing and ensure compliance with the requirements of the Environmental Permit.
- 6.1.8 All samples taken for Level 2 Compliance Testing will be stored in a closed container suitable for the material being contained (to be determined by a technically competent person). The containers will be clearly labelled and/or referenced sufficient to identify sample source and date of delivery.
- 6.1.9 Samples will be submitted to an independent laboratory for analysis using UKAS accredited techniques. The determinands for analysis will be selected on the basis of Level 1 Basic Characterisation. Copies of analytical results will be kept in a site log and made available to authorised officers of the Environment Agency.

Level 3: On-Site Verification of Materials

- 6.1.10 Only waste streams that have been shown to be acceptable for deposit at the site following Level 1 Basic Characterisation and, where applicable, Level 2 Compliance Testing will be received at the site.
- 6.1.11 The drivers of all vehicles delivering materials to the site must report to the site office to disclose the nature of the material and complete the relevant documentation.
- 6.1.12 On arrival at the site control office, loads will be subject to Level 3 On-Site Verification, comprising:
 - a check of the waste transfer note or annual season ticket;
 - visual inspection prior to and following deposit of the waste at the site.



- 6.1.13 Each load of incoming waste will also be assessed for suitability against the development works underway at the time.
- 6.1.14 A suitably trained and experienced operator will examine transport documentation details and compare the information against the pre-acceptance details on Level 1 Basic Characterisation and the waste types specified in the Environmental Permit.
- 6.1.15 Loads will be inspected visually by the operator to ensure that, as far as possible, the waste load matches the details given on Level 1 Basic Characterisation and the waste types permitted for acceptance at the site.
- 6.1.16 Discrepancies found during on-site verification checks will result in the vehicle being detained while supplementary checks are made. These may include, as appropriate, referral to a suitable competent person, referral to the waste producer to confirm the nature of the waste load, contact with the carrier's base and/or referral to the Environment Agency.
- 6.1.17 Waste loads that pass the supplementary checks and which conform with the conditions of the Environmental Permit will be accepted at the site. Wastes that do not conform to the conditions of the Environmental Permit will be rejected from the site.
- 6.1.18 Once accepted onto site, a visual inspection of the waste load will be undertaken during tipping, paying attention to colour, odour, consistency, and the presence of non-conforming materials. Any wastes that are found not to conform to the conditions of the Environmental Permit will, wherever possible, be reloaded onto the delivery vehicle for off-site removal, or otherwise removed to a quarantine area for temporary storage prior to off-site removal.
- 6.1.19 All instances of rejection of loads will be recorded in a site log, which will be made available for inspection by authorised officers of the Environment Agency.
- 6.1.20 The Site would be managed under the operator's Environmental Management System.
- 6.2 Rejection
- 6.2.1 Any discrepancies found as a result of the checks detailed above will result in:
 - referral to a suitable competent person;
 - referral to the material producer or the material carrier's base, to confirm the nature of the material load;



- a written record being made in the site log to record the nature of the material and the actions that are taken; and
- where necessary, referral to the Environment Agency.
- 6.2.2 Where the investigation shows that waste is acceptable it will be directed to the tipping area. Otherwise, the waste will be rejected following the procedure below and a record will be made in the site log.
- 6.2.3 Where appropriate, material will either be returned to the producer/previous holder or re-directed to an appropriate authorised facility for disposal. Where it is not possible to directly reject the load, it will be removed to an on-site quarantine area, comprising 10m³ skips, for temporary storage prior to off-site removal to an authorised facility.
- 6.2.4 Should the non-compliance involve hazardous material or material that otherwise poses a heightened risk to the environment, the Environment Agency will be informed as soon as possible.



7 DEPOSIT OF WASTE FOR RECOVERY

- 7.1 Volume of Material
- 7.1.1 The required volume of material to be deposited in order to achieve an even development platform has been calculated using a volume comparison with existing topographic survey. The existing and required elevations and calculations of required volume of fill are shown on drawing SK103. The calculations have shown that overall at the site:
 - total cut volume: 9,226m³;
 - total fill volume required: 695,448m³;
 - total volume of imported material to deposit: 686,222m³.
- 7.1.2 Only the minimum required volume of waste material will be deposited for the purposes of recovery.
- 7.1.3 Specialised compaction plant shall be used to place the materials within the phase to ensure that the maximum practical fill density is achieved for engineering purposes, uneven settlement is reduced, voids in the deposited material are avoided and the risk of windblown dust is reduced.
- 7.1.4 Material will be deposited at the site in a series of lifts (which will not exceed 2m in height) and the working face will be maintained at no more than 2m in height. The material will be compacted in thin layers by being repeatedly compacted with the compaction plant and the layers will be constructed to have a gentle slope.
- 7.2 Storage of Materials
- 7.2.1 Wastes will be temporarily stored in stockpiles on site, prior to deposit.



8 MANAGEMENT

8.1 General

- 8.1.1 The site will be operated to ensure a high level of environmental protection.

 Potential causes of pollution will be managed in accordance with the Environmental Management System which provides written procedures to be followed in carrying out the activities on site.
- 8.1.2 All site-based personnel will be aware of the potential causes of pollution at the site, and their roles in preventing pollution through best practice and following environmental legislation.
- 8.2 Site Management and Staffing
- 8.2.1 The site will be appropriately staffed and supervised by competent and suitably trained personnel during operational periods.
- 8.2.2 The site will be under direct control of a Technically Competent Manager (TCM). The TCM will ensure that the site is operated and maintained in accordance with the required standards.
- 8.2.3 All site-based personnel and contractors will be required to complete an induction before being allowed to start working on the site. The induction will include health and safety and environmental protection elements to ensure all those working on site are aware of the potential environmental issues and their role in managing the risks in accordance with the EMS.
- 8.2.4 Staff training will include the management of environmental risk in day-to-day operations, an awareness of all environmental consents and their conditions and the documented emergency procedures for dealing with incidents such as spills.
- 8.2.5 The qualifications, skills, and experience necessary for each role on site will be recorded. Training will be reviewed annually to identify where additional training or refresher training is required to keep these skills up to date.
- 8.2.6 Environmental considerations will apply to purchasing and process change to ensure that the site is operated with a high level of protection for the environment.



9 CONTROL OF AMENITY ISSUES

- 9.1 General
- 9.1.1 The site will operate in accordance with the Environmental Management System, and in line with written procedures to ensure that any fugitive emissions arising from the site activities are appropriately managed and controlled.
- 9.1.2 There is no point source emission from the activity.
- 9.2 Dust
- 9.2.1 The site will operate in accordance with a Dust Management Plan, to ensure the risk of dust emissions are reduced and controlled.
- 9.2.2 Vehicles delivering waste will be sheeted/covered when entering and exiting the site.
- 9.2.3 A water bowser will be made available on site if required to supress dust.
- 9.2.4 During periods of dry weather and high winds, the site tracks may be sprayed with water to prevent the generation of dust.
- 9.2.5 Activities with the potential of producing large amounts of dust will be postponed in the event of very high winds.
- 9.2.6 On site speed limits of 10mph will be enforced to prevent the generation of dust from vehicle movements on the entrance/exit tracks.
- 9.2.7 Visual monitoring for dust will be undertaken daily as part of the routine daily site checks. Action will be implemented as necessary, as described in the Dust Management Plan.
- 9.3 Mud
- 9.3.1 The site will be kept tidy with [hardcore surfacing] being provided for the access road as necessary to prevent emissions of mud beyond the permit boundary. The site access road will be maintained in a good condition to minimise mud and dust arisings.
- 9.3.2 To prevent mud from being tracked outside of the permit boundary, a wheel-wash (or other appropriate wheel cleaning facilities) will be provided and used as necessary by all vehicles exiting the site to remove accumulated mud and dirt from the wheels and chassis.



- 9.3.3 If appropriate, the site access road will be swept at regular intervals to prevent any build-up of mud or debris. Should any mud be tracked out of the site, arrangements will be made to sweep the highway as soon as possible.
- 9.4 Noise
- 9.4.1 The site is located in close proximity to existing industrial receptors, and it is not expected that the site operations will produce noise levels which significantly exceed existing noise levels.
- 9.4.2 Plant will be fitted with noise suppression features, such as silencers, as appropriate.
- 9.4.3 Where vehicle reversing alarms are required, 'smart' reversing alarms will be utilised that produce sound at a volume relative to the background noise level.
- 9.4.4 All plant will be maintained in accordance with manufacturer's recommendations, with particular attention made to noise suppression equipment such as silencers and acoustic panels.
- 9.4.5 A site speed limit of 10mph will be enforced.
- 9.4.6 Site plant will be switched off when not in use.
- 9.4.7 Any noise complaints will be investigated in accordance with the Environmental management System and recorded in the site diary along with details of the actions taken to resolve the complaint.
- 9.5 Odour
- 9.5.1 The materials to be accepted at the site are inert and not inherently odorous.

 Odorous materials will be rejected as part of the waste acceptance checks.
- 9.5.2 Regular checks for odour will be made around the site boundary. Should noticeable odour be detected, the source will be identified and appropriate remedial action will be taken.
- 9.5.3 Any non-conforming waste that is causing a significant odour will be prioritised for removal off site and will be removed before the end of the working day where possible.
- 9.6 Vermin and Pests
- 9.6.1 Vermin and pests are not considered to be a significant risk as the site does not accept food wastes or other wastes which are likely to attract vermin. Materials will



- be compacted at the end of each working day to minimise areas on site where vermin may shelter.
- 9.6.2 Daily site inspections will be made, and should there be any signs of pest infestation then a pest control contractor will be required to attend the site and eradicate the problem.
- 9.7 Litter
- 9.7.1 Due to the nature of the permitted materials for deposit, litter is not expected to be an issue.
- 9.7.2 Daily site inspections will be made, and any litter noted will be collected and placed in an appropriate receptacle pending removal to an authorised site for disposal.
- 9.8 Storage of Potentially Polluting Substances
- 9.8.1 Any fuel or other potentially harmful fluids for use in site plant will be stored in a tank or container with appropriate secondary containment. Any bunds will have a capacity of 110% of the largest tank.
- 9.8.2 Any deliveries and refuelling of plant will be supervised to ensure that any leakage or spillage is detected immediately and cleaned quickly. The level of liquid within the tanks will be checked before filling to avoid over filling.



10 SURFACE WATER MANAGEMENT

- 10.1.1 During infilling, excess surface water will run off away from the operational area. The fill material will be placed in a series of lifts, graded to direct surface water to a series of temporary surface water ditches that will be constructed by excavating into the fill and shall prevent water from reaching the surrounding water courses.
- 10.1.2 The surface water ditches will have shallow gradients, their own soak away capacity and will direct excess water to permeable areas of the site.
- 10.1.3 Standing water will not be permitted on the fill area unless it has been directed specifically to the designated soak away areas.
- 10.1.4 The materials deposited at the site may be sufficiently permeable to allow the infiltration of surface water without surface run-off. Where required, surface water ditches shall control excess surface water run-off, prevent erosion and maintain access in a dry trafficable condition.
- 10.1.5 Where full infiltration is unlikely to be achieved due to the steeper gradients of the restored profile or due to the presence of underlying impermeable material, ditches shall be excavated to divert water away from these areas to alternative areas where infiltration does occur.
- 10.1.6 The first phase of the surface water control system will be installed as soon as the restoration of phase one is achieved. Surface water ditches will then be installed progressively as each phase of restoration is completed.
- 10.1.7 The effectiveness of the ditches will be monitored such that the ditches and soakaways can be maintained. Should the proposed system require any amendments in approach, this will be documented and the Environment Agency informed.



11 ENVIRONMENTAL MONITORING

- 11.1.1 The activities carried out through the activities will be done in a way which will not have an impact on the environmental monitoring obligations of the closed landfill (TATA Steel). All monitoring boreholes will be maintained or raised so that the permit obligations of the extant landfill permit can be executed.
- 11.1.2 Monitoring boreholes and monitoring wells have been installed by Soiltechnics as part of the extensive site investigations. The location of the monitoring points is shown on a drawing prepared by Firth Consultants, Figure 3 within the Hydrogeological Risk Assessment.
- 11.1.3 Boreholes installed by Soiltechnics (BH01, BH02, BH04, BH05, BH06, BH08, BH09) are combined gas and groundwater boreholes. The proposed monitoring frequency is set out in the Environmental Setting and Site Design Report.
- 11.1.4 It is expected that some of these boreholes may be lost or damaged during the works, in which event they will be replaced and installed in accordance with a CQA plan.
- 11.1.5 There will be no discharges to surface water from the deposit of waste. Three surface water monitoring points along Willow Brook have been identified (as described in the Hydrogeological Risk Assessment. SW1 is upstream, SW2 is mid stream and SW3 is downstream.
- 11.1.6 All monitoring that is undertaken will be recorded within the site diary and a copy of the results will be maintained in the site office.
- 11.1.7 Further details regarding groundwater and surface water monitoring are provided in the Hydrogeological Risk Assessment.
- 11.1.8 An annual topographical survey will be carried out to monitor the deposit of materials.



12 RECORD KEEPING AND COMPLAINTS PROCEDURE

12.1 Record Keeping

- 12.1.1 The site will be inspected on a daily basis. Site staff will carry out a visual and olfactory assessment around the site boundary to check for emissions of litter, odour, noise, mud or dust.
- 12.1.2 Should any issues be noted during the daily inspections, these will be raised with the site management and appropriate remedial action will be agreed. The remedial action agreed and the time that is was (or is to be) carried out will be noted in the site log.
- 12.1.3 All site infrastructure and site plant will be regularly inspected for leaks or damage. Inspections will be recorded in the site diary. Where leaks or damage are identified, the equipment will be immediately repaired by suitably qualified staff or taken out of service. Any spills will be cleaned using a spill kit and a record made.
- 12.1.4 The site diary will be made available to warranted officers of the Environment Agency on request. Should any incident have the potential to cause significant emissions, the Environment Agency will be informed by telephone and remedial action will be agreed with the local environment officer.
- 12.1.5 Other records that are kept on site (either in electronic or hard copy format) include details of inert material enquiries and pre-acceptance information, copies of all material transfer notes for incoming and outgoing materials, details of any rejected loads, copies of the analysis of inert materials where required and results of any environmental monitoring.

12.2 Complaints Procedure

- 12.2.1 Any complaints received will be recorded in the site complaint log, recording details of the complainant, the nature of the complaint and the time and date that the issue was noted. Other relevant information will also be recorded, for example the weather conditions at the time of the incident and any relevant operations that were taking place at the time.
- 12.2.2 All complaints will be passed to the Site Manager, who will investigate the complaint as soon as possible. They will record whether the complaint was substantiated, the likely cause and the mitigation put in place to prevent further issues.



- 12.2.3 The complainant will be informed of the outcome of the investigation and the measures taken unless they have requested otherwise or wish to remain anonymous.
- 12.2.4 Records relating to complaints will be kept for a minimum of 2 years and will be made available to the Environment Agency on request.
- 12.2.5 All complaints will be recorded using the Record of Complaints.



APPENDICES



APPENDIX 1

List of Materials Suitable for Deposit

Lis	st of Materials for Deposit to Construct Development Platform
EWC Waste Code	Description
01	WASTES RESULTING FROM EXPLORATION, MINING, QUARRYING, AND
01	PHYSICAL CHEMICAL TREATMENT OF MINERALS
01 04	Wastes from physical and chemical processing of non-metalliferous minerals
01 04 08	Waste gravel and crushed rocks other than those mentioned in 01 04 07
01 04 09	Waste sand and clay
01 04 12	Tailings and other wastes from washing and cleaning of minerals other than
	those mentioned in 01 04 07 and 01 04 11
01 04 13	Waste from stone cutting and sawing other than those mentioned in 01 04 07
10	WASTES FROM THERMAL PROCESSES
10 11	Wastes from manufacture of glass and glass products
10 11 03	Waste Glass-based fibrous materials
10 11 12	Waste glass other than those mentioned in 10 11 11
10 12	Wastes from manufacture of ceramic goods, bricks, tiles and construction
	products
10 12 06	Discarded moulds
10 12 08	Waste ceramics, bricks, tiles and construction products (after thermal
	processing)
10 13	Wastes from manufacture of cement, lime and plaster and articles and
	products made from them
10 13 11	Waste from cement-based composite materials other than those mentioned in
	10 13 09 and 10 13 10
10 13 14	Waste concrete and concrete sludge
15	WASTE PACKAGING, ABSORBENTS, WIPING CLOTHS, SLITER MATERIALS AND
45.04	PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED
15 01	Packaging (including separately collected municipal packaging waste)
15 01 07	Glass Packaging
17	CONSTRUCTION AND DEMOLITION WASTES (INCLUDING EXCAVATED SOIL
17.01	FROM CONTAMINATED SITES) Concrete, bricks, tiles and ceramics
17 01 17 01 01	Concrete Concrete
17 01 01	Bricks
17 01 02	Tiles and ceramics
17 01 03	Mixtures of concrete, bricks, tiles and ceramics other than those mentioned in
170107	17 01 06
17 02	Wood, glass and plastic
17 02 02	Glass
17 05	Soil (including excavated soil from contaminated sites), stones and dredging
17 03	spoil
17 05 04	Soil and stones other than those mentioned in 17 05 03
19	WASTES FROM WASTE MANAGEMENT FACILITIES, OFF-SITE WASTE WATER
	TREATMENT PLANTS AND THE PREPARATION OF WATER INTENDED FOR
	HUMAN CONSUMPTION AND WATER FOR INDUSTRIAL USE
19 01	Wastes from incineration or pyrolysis of waste
19 01 12	Bottom ash and slag other than those mentioned in 19 01 11
19 01 14	Fly ash other than those mentioned in 19 01 13
19 01 18	Pyrolysis wastes other than those mentioned in 19 01 13
19 01 19	Sand from fluidised beds

List of Materials for Deposit to Construct Development Platform						
EWC Waste Code	Description					
19 03	Stabilised/solidified wastes					
19 03 05	Stabilised wastes other than those mentioned in 19 03 04					
19 03 07	Solidified wastes other than those mentioned in 19 03 06					
19 08	Wastes from waste water treatment plants not otherwise specified					
19 08 01	Screenings					
19 08 02	Waste from de-sanding					
19 09	Wastes from the preparation of water intended for human consumption or					
	water for industrial use					
19 09 01	Solid waste from primary filtration and screenings					
19 12	Wastes from the mechanical treatment of waste (for example sorting, crushing,					
	compacting, pelletising) not otherwise specified					
19 12 05	Glass					
19 12 09	Minerals (for example sand, stones)					
19 12 12	Other wastes including mixtures of materials) from mechanical treatment of					
	wastes other than those mentioned in 19 12 11					
19 13	Wastes from soil and groundwater remediation					
19 13 02	Solid waste from soil remediation other than those mentioned in 19 13 01					
20	MUNICIPAL WASTES (HOUSEHOLD WASTE AND SIMILAR COMMERCIAL,					
	INDUSTRIAL AND INSTITUTIONAL WASTES) INCLUDING SEPARATELY					
	COLLECTED FRACTIONS					
20 01	Separately collected fractions (except 15 01)					
20 01 02	Glass					
20 02	Garden and park wastes (including cemetery wastes)					
20 02 02	Soil and stones					



APPENDIX 2

WAC Testing IBA – Soiltechnics Report

Soiltechnics Limited Registered in England 2680759 Registered office: Cedar Barn, NN6 9PY







Unit 9 Clarence Avenue Trafford Park Manchester M17 1QS

t: 0161 9470270 e: mail@soiltechnics.net w: www.soiltechnics.net

soiltechnics

environmental • geotechnical • building fabric

FAO Emily Wright
Storefield Aggregates

Sent by email: emily@storefield.co.uk

Date: 21st September 2023
Your Ref: WAC Extended Suite
Our Ref: L-STP3966D-WAC-01

Dear Emily,

Rockingham Enterprise Area, Corby - Waste Acceptance Criteria (WAC) testing IBA ash extended suite

Further to our recent discussions we are pleased to provide the following results of the extended WAC testing undertaken on the screened samples of the IBA ash, from your process site at Corby. It is understood that the waste stream is being considered for inclusion within the backfill materials for the construction of the development platform at the Corby Enterprise Site, where the specified acceptable wastes to be detailed within the Waste Recovery Plan will be limited to inert wastes.

Previous Works

Soiltechnics has previously undertaken an evaluation of Client provided laboratory testing (WAC testing), which indicated the presence of very high metals, which would traditionally trigger a 'hazardous waste' classification.

However, research into UK domestic refuse IBA waste shows that the metal compounds formed are not typically ecotoxic and with detailed consideration can be classified as non-hazardous. Further information can be found to support this conclusion in WRc document 'Assessment of Hazardous Classification of UK IBA'. Report for the January to December 2011 IBA dataset'. Ref: UC9213.05. December 2012.

In order to support the above, Soiltechnics has undertaken further sampling, taken from the fine and coarse grade processed material stream for WAC analysis, Cr VI, alkaline reserve testing with pH analysis, and for dioxins and furans.

Current Works

The following samples were taken from the process:

- SP01.3 (fine grained process materials); and
- SP02.3 (coarse grained processed materials).

Samples were submitted for the above detailed extended suite stage 1 analysis (hazardous waste assessment) and further WAC analysis. The results are reported in Chemtest report 23-28353-4 (19th September 2023) and Marchwood Report 23-28353 (19th September 2023).



Laboratory test Results – Hazardous Classification

The supplementary analysis indicates that the hazardous waste limit for dioxins of $15\mu g/kg$ is not exceeded in either the fine or coarse grained processed samples, with test results ranging between 0.04 to 0.06 $\mu g/l$.

The pH of the samples ranged between 10.9 (fine grained sample) and 10.6 (coarse grained sample). Due to elevated pH results in previous rounds of analysis, an alkali reserve test was also undertaken to provide a more detailed assessment on corrosivity. The detailed analysis for corrosivity in both samples indicates that the pH + 1/12th of the alkaline reserve test is also below the corrosivity threshold of 14.5. Therefore the material is not considered corrosive.

Concentrations of Chromium (VI) ranged between 0.57mg/kg and <0.5mg/kg, which is significantly below any hazardous waste threshold.

Overall, the additional Stage 1 analysis on the material confirms no other hazard statement applies, and the material can be considered 'non-hazardous' waste.

Laboratory test Results - WAC Assessment

The WAC analysis shows the presence of elevated concentrations of antimony, chloride, sulphate, and total dissolved solids in both samples above the threshold for inert waste.

Therefore, the materials would not be classified as an Inert Waste, based on the current testing.

It should also be noted that previous analysis on the processed IBA material also failed the inert waste criteria. Antimony and chloride and TDS being a common failure point in both rounds.

Conclusions

Based on the extended suite Stage 1 testing and WAC testing, the waste stream could be classified as non-hazardous material, pending agreement from the Environment Agency regarding the applicability of research into the low-toxicity of the metal compounds typically present in domestic IBA material.

However, WAC analysis shows that an Inert classification cannot be applied, and therefore any receiving facility must be permitted to accept non-hazardous waste.

It is recommended that a formal discussion is held with the Environment Agency to request acceptance of this waste stream as infill in the development platform at Rockingham Enterprise Area, as a specific exemption may need to be included within the permit.

Yours sincerely,

Claire Moreira BSc (Hons) MSc, MSc, CSci. FGS. DoWCoP QP 422 Senior Geo-environmental Consultant, Soiltechnics Limited

Enc: Laboratory test results 23-28353-4 (Chemtest) & 23-28353 (Marchwood), dated 19th September 2023





CERTIFICATE OF ANALYSIS

MSSL reference: 23-58813

Report date: 19-09-2023

Customer: Eurofins Chemtest Ltd

Depot Road, Newmarket, Suffolk, CB8 OAL

Customer contact(s): Amy Woolston

Customer reference: 23-28353

Customer PO: 25477 Analysis started: 13-09-2023 Customer sampling date: 21-08-2023 Analysis complete: 19-09-2023 Date received: 25-08-2023 Conforming: YES

This report shall not be reproduced except when in full without approval of the laboratory. Results only relate to the items tested. Results apply to the samples as received.

Conformance is contingent upon accurate information being provided by the customer and customer compliance with relevant sample handling and storage conditions prior to receipt at the laboratory.

All opinions and interpretations expressed within this report are outside Marchwood's scope of accreditation.

Accreditation Key:

Y: ISO/IEC 17025 M: MCERTS N : Non Accredited (S): Subcontracted

Notes:

Reported by: Aleksandra Olas

Position: Scientist

Approved by: Giuseppe Reitano

Position: Technical Laboratory Manager

For/on behalf of Marchwood Scientific Services Ltd

Aldisandre Olas



1668

333889 Dioxin Results Summary

Sample Type : Soil MSS Sample Ref : 333889 Customer Sample Ref : 1692631 SP01 Sample Condition : Conforming Test Method : 2002a

Dioxins/ Furans

Analysis	Accreditation	Lower	Upper
Analysis	Accreditation	Bound	Bound
WHO2005 TEQ	Υ	0.302	0.814
Fish TEQ	Υ	0.793	1.29
Birds TEQ	Υ	0.121	0.996
I-TEQ	Υ	0.335	0.784

333889 Dioxin Results

Sample Type : Soil MSS Sample Ref : 333889 Customer Sample Ref : 1692631 SP01 Sample Condition : Conforming Test Method : 2002a

Congener	LOD	Detected	Lower Bound	Upper Bound	Recovery	UKAS
Dioxins/Furans	ng/Kg	ng/Kg	ng/Kg TEQ	ng/Kg TEQ	%	
2378-TCDD	0.0774	< 0.0774	0.00000	0.0774	97	Υ
12378-PeCDD	0.220	< 0.220	0.00000	0.220	128	Υ
123478-HxCDD	0.266	1.49	0.149	0.149	82	Υ
123678-HxCDD	0.287	< 0.287	0.00000	0.0287	80	Υ
123789-HxCDD	0.284	< 0.284	0.00000	0.0284		Υ
1234678-HpCDD	0.354	10.8	0.108	0.108	71	Υ
OCDD	0.462	43.7	0.0131	0.0131	88	Υ
Dioxins total		56.0	0.270	0.625		
2378-TCDF	0.246	< 0.246	0.00000	0.0246	65	Υ
12378-PeCDF	0.208	< 0.208	0.00000	0.00625	101	Υ
23478-PeCDF	0.219	< 0.219	0.00000	0.0657	88	Υ
123478-HxCDF	0.151	< 0.151	0.00000	0.0151	68	Υ
123678-HxCDF	0.142	< 0.142	0.00000	0.0142	68	Υ
234678-HxCDF	0.140	< 0.140	0.00000	0.0140	68	Υ
123789-HxCDF	0.151	< 0.151	0.00000	0.0151	67	Υ
1234678-HpCDF	0.183	3.12	0.0312	0.0312	59	Υ
1234789-HpCDF	0.192	< 0.192	0.00000	0.00192	72	Υ
OCDF	0.150	2.54	0.00076	0.00076		Υ
Furans total		5.66	0.0320	0.189		
Dioxin/Furan total		61.7	0.302	0.814		

333890 Dioxin Results Summary

Sample Type : Soil MSS Sample Ref : 333890 Customer Sample Ref : 1692632 SP02 Sample Condition : Conforming Test Method : 2002a

Dioxins/ Furans

Analysis	Accreditation	Lower	Upper
Analysis	Accreditation	Bound	Bound
WHO2005 TEQ	Υ	0.205	0.672
Fish TEQ	Υ	0.565	1.02
Birds TEQ	Υ	0.0789	0.773
I-TEQ	Υ	0.229	0.600

333890 Dioxin Results

Sample Type : Soil MSS Sample Ref : 333890 Customer Sample Ref : 1692632 SP02 Sample Condition : Conforming Test Method : 2002a

Congener	LOD	Detected	Lower Bound	Upper Bound	Recovery	UKAS
Dioxins/Furans	ng/Kg	ng/Kg	ng/Kg TEQ	ng/Kg TEQ	%	
2378-TCDD	0.0789	< 0.0789	0.00000	0.0789	102	Υ
12378-PeCDD	0.249	< 0.249	0.00000	0.249	119	Υ
123478-HxCDD	0.185	1.08	0.108	0.108	72	Υ
123678-HxCDD	0.193	< 0.193	0.00000	0.0193	74	Υ
123789-HxCDD	0.191	< 0.191	0.00000	0.0191		Υ
1234678-HpCDD	0.259	7.20	0.0720	0.0720	74	Υ
OCDD	0.443	34.6	0.0104	0.0104	86	Υ
Dioxins total		42.9	0.190	0.556		
2378-TCDF	0.161	< 0.161	0.00000	0.0161	74	Υ
12378-PeCDF	0.161	< 0.161	0.00000	0.00482	87	Υ
23478-PeCDF	0.126	< 0.126	0.00000	0.0379	97	Υ
123478-HxCDF	0.105	< 0.105	0.00000	0.0105	68	Υ
123678-HxCDF	0.107	< 0.107	0.00000	0.0107	63	Υ
234678-HxCDF	0.105	< 0.105	0.00000	0.0105	64	Υ
123789-HxCDF	0.103	< 0.103	0.00000	0.0103	70	Υ
1234678-HpCDF	0.0682	1.42	0.0142	0.0142	58	Υ
1234789-HpCDF	0.0735	< 0.0735	0.00000	0.00074	69	Υ
OCDF	0.119	< 0.119	0.00000	0.00004		Υ
Furans total		1.42	0.0142	0.116		
Dioxin/Furan total		44.3	0.205	0.672		





Eurofins Chemtest Ltd Depot Road Newmarket CB8 0AL

Tel: 01638 606070 Email: info@chemtest.com

Interim Report

Report No.: 23-28353-0

Initial Date of Issue:

Re-Issue Details:

Client Soiltechnics Limited

Client Address: 1st Floor Unit 9 Westpoint Enterprise

Park

Clarence Avenue Trafford Park Manchester M17 1QS

Contact(s): Admin

Project STP3966D Rockingham Enterprise

Area, Corby

Quotation No.: Q23-32322 Date Received: 23-Aug-2023

Order No.: POR016257 Date Instructed: 23-Aug-2023

No. of Samples: 2

Turnaround (Wkdays): 7 Results Due: 01-Sep-2023

Date Approved: Subcon Results Due: 14-Sep-2023

Approved By:

Details:

Please note that the interim data available has passed our Quality Control Criteria but has not been verified by an approved signatory and may be subject to amendment on approval. Chemtest cannot therefore be held responsible for decisions made on interim data sets but only for the data submitted on a final report containing an approval date and signature.

Results - Soil

Project: STP3966D Rockingham Enterprise Area, Corby

Client: Soiltechnics Limited		Ch	emtest J	23-28353	23-28353	
Quotation No.: Q23-32322		Chem	itest Sam	1692631	1692632	
Order No.: POR016257		Client Sample Ref.:		3	3	
		Client Sample ID.: Sample Location: Sample Type: Top Depth (m): Date Sampled:			SP01.3	SP02.3
					SP01	SP02
					SOIL	SOIL
					0.00	0.00
					21-Aug-2023	21-Aug-2023
Determinand	Accred.	SOP	Units	LOD		
Moisture	N	2030	%	0.020	8.0	5.0
Alkali Reserve	N	2105	g NaOH eq	0.010	< 0.010	< 0.010
Dioxin (Subcon)	S		ng/kg	N/A	To Follow	To Follow
Furans (Subcon)	S		ng/kg	N/A	To Follow	To Follow
рН	М	2010		4.0	10.9	10.6
Chromium (Hexavalent)	N	2490	mg/kg	0.50	0.57	< 0.50

<u>Pro</u>	ect:	STP3966D	Rockinghar	n Enterpr	<u>rise Area,</u>	Corby

Project: STP3966D Rockingham En	<u>iterprise Area, Corb</u>	<u>) y</u>							
Chemtest Job No:	23-28353						Landfill V	Vaste Acceptano	ce Criteria
Chemtest Sample ID:	1692631							Limits	
Sample Ref:	3							Stable, Non-	
Sample ID:	SP01.3							reactive	
Sample Location:	SP01							hazardous	Hazardous
Top Depth(m):	0.00						Inert Waste	waste in non-	Waste
Bottom Depth(m):							Landfill	hazardous	Landfill
Sampling Date:	21-Aug-2023							Landfill	
Determinand	SOP	Accred.	Units						
Total Organic Carbon	2625	M	%			0.24	3	5	6
Loss On Ignition	2610	M	%			2.9			10
Total BTEX	2760	М	mg/kg			< 0.010	6		
Total PCBs (7 Congeners)	2815	М	mg/kg			< 0.10	1		
TPH Total WAC	2670	М	mg/kg			< 10	500		
Total (Of 17) PAH's	2700	N	mg/kg			< 2.0	100		
рН	2010	M				10.9		>6	
Acid Neutralisation Capacity	2015	N	mol/kg			0.0080		To evaluate	To evaluate
Eluate Analysis			2:1	8:1	2:1	Cumulative	Limit values	for compliance	leaching test
			mg/l	mg/l	mg/kg	mg/kg 10:1	using B	S EN 12457 at L	/S 10 I/kg
Arsenic	1455	U	0.0010	< 0.0002	0.0019	0.0010	0.5	2	25
Barium	1455	U	0.012	0.006	0.023	0.070	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	< 0.0005	0.0040	< 0.0005	0.036	0.5	10	70
Copper	1455	U	0.0098	0.020	0.020	0.010	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.012	0.036	0.023	0.34	0.5	10	30
Nickel	1455	U	0.0021	< 0.0005	0.0041	0.0021	0.4	10	40
Lead	1455	U	< 0.0005	0.0032	< 0.0005	0.029	0.5	10	50
Antimony	1455	U	0.0023	0.047	0.0047	0.43	0.06	0.7	5
Selenium	1455	U	0.0020	0.0017	0.0039	0.017	0.1	0.5	7
Zinc	1455	U	< 0.003	0.031	< 0.003	0.28	4	50	200
Chloride	1220	U	1100	130	2300	2300	800	15000	25000
Fluoride	1220	U	0.24	< 0.050	< 1.0	< 1.0	10	150	500
Sulphate	1220	U	820	150	1600	2200	1000	20000	50000
Total Dissolved Solids	1020	N	4400	800	8700	12000	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.030	< 0.30	< 0.50	1	-	-
Dissolved Organic Carbon	1610	U	70	9.9	140	160	500	800	1000

Solid Information					
Dry mass of test portion/kg	0.175				
Moisture (%)	8.0				

Leachate Test Information						
Leachant volume 1st extract/l	0.335					
Leachant volume 2nd extract/l	1.400					
Eluant recovered from 1st extract/l	0.178					

Waste Acceptance Criteria

	Pro	ect:	STP3966D	Rockinghan	<u> Enterprise</u>	<u>e Area, Corl</u>	<u>yc</u>
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Project: STP3966D Rockingham En	<u>terprise Area, Corb</u>	<u>DY</u>							
Chemtest Job No:	23-28353						Landfill V	Vaste Acceptano	ce Criteria
Chemtest Sample ID:	1692632							Limits	
Sample Ref:	3							Stable, Non-	
Sample ID:	SP02.3							reactive	
Sample Location:	SP02							hazardous	Hazardous
Top Depth(m):	0.00						Inert Waste	waste in non-	Waste
Bottom Depth(m):							Landfill	hazardous	Landfill
Sampling Date:	21-Aug-2023							Landfill	
Determinand	SOP	Accred.	Units						
Total Organic Carbon	2625	М	%			0.46	3	5	6
Loss On Ignition	2610	М	%			3.2			10
Total BTEX	2760	М	mg/kg			< 0.010	6		
Total PCBs (7 Congeners)	2815	М	mg/kg			< 0.10	1		
TPH Total WAC	2670	М	mg/kg			< 10	500		
Total (Of 17) PAH's	2700	N	mg/kg			< 2.0	100		
рН	2010	М				10.6		>6	
Acid Neutralisation Capacity	2015	N	mol/kg			0.0040		To evaluate	To evaluate
Eluate Analysis			2:1	8:1	2:1	Cumulative	Limit values	for compliance	leaching test
			mg/l	mg/l	mg/kg	mg/kg 10:1	using B	S EN 12457 at L	/S 10 I/kg
Arsenic	1455	U	0.0027	0.0003	0.0053	0.0049	0.5	2	25
Barium	1455	U	0.005	< 0.005	0.011	0.0033	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.5	10	70
Copper	1455	U	0.018	0.0088	0.037	0.012	2	50	100
Mercury	1455	U	0.00021	< 0.00005	0.00041	0.00013	0.01	0.2	2
Molybdenum	1455	U	0.21	0.020	0.42	0.32	0.5	10	30
Nickel	1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	0.040	0.028	0.080	0.29	0.06	0.7	5
Selenium	1455	U	0.017	0.0017	0.034	0.027	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	< 0.003	< 0.003	4	50	200
Chloride	1220	U	960	46	1900	1000	800	15000	25000
Fluoride	1220	U	0.14	< 0.050	< 1.0	< 1.0	10	150	500
Sulphate	1220	U	800	92	1600	1400	1000	20000	50000
Total Dissolved Solids	1020	N	4100	1700	8200	19000	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.030	< 0.30	< 0.50	1	-	-
Dissolved Organic Carbon	1610	U	54	4.2	110	74	500	800	1000

Solid Information					
Dry mass of test portion/kg	0.175				
Moisture (%)	5.0				

Leachate Test Information						
Leachant volume 1st extract/l	0.341					
Leachant volume 2nd extract/l	1.400					
Eluant recovered from 1st extract/l	0.110					

Waste Acceptance Criteria

Test Methods

Telar Dissolved Solids (TDS) in Waters Conductivity and Total Dissolved Conductivity Conductivit	SOP	Title	Parameters included	Method summary
Audionate Antimonium Oxidiable Nitrogen (TON): Sulfate, Phosphate, Audionated colorimetric analysis using Oxidiable Nitrogen (TON): Sulfate, Phosphate, Audionated colorimetric analysis using Oxidiable Nitrogen (TON): Sulfate, Phosphate, Audiablem (OX) Discrete Analyser. Audionated colorimetric analysis using Oxidiable Nitrogen (TON): Sulfate, Phosphate, Marianium, Audionated Colorimetric Analysis using Oxidiable Nitrogen (TON): Sulfate, Phosphate, Marianium, Audionated Colorimetric Analysis using Catalytic Oxidation Oxidiable Nitrogen (ToN): Sulfate, Phosphate, Audionated Nitrogen (ToN): Sulfate, Phosphate, Magnesium, Chromium Aqueous extraction / ICP-OES	1020	Total Dissolved Solids (TDS) in		Conductivity Meter
September Sept	1220	-	Oxidisable Nitrogen (TON); Sulfate; Phosphate;	, ,
In Waters	1455	Metals in Waters by ICP-MS	Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium;	determination by inductively coupled plasma
Phenols in Waters by HPLC Cresols, Xylenols, Trimethylphenols Note: Chromatography (HPLC) using electrochemical detection.	1610		Organic Carbon	TOC Analyser using Catalytic Oxidation
Acid Neutralisation Capacity Acid Reserve Titration Determination of moisture content of soil as a content of Moisture and Stone Content of Moisture and Stone Content of Moisture and Stone Content of Moisture content Moisture content Moisture content Properties Determination of moisture content of soil as a received mass obtained at <37°C.	1920	Phenols in Waters by HPLC	Cresols, Xylenols, Trimethylphenols Note:	Chromatography (HPLC) using electrochemical
Moisture and Stone Content of Moisture Content	2010	pH Value of Soils	рН	pH Meter
Soils (Requirement of MCERTS) Soil Description(Requirement of MCERTS) Soil Description(Requirement of MCERTS) Alkali Reserve Alkali Reserve Alkali Reserve Alkali Reserve Titration Aqueous extraction / ICP-OES Agrouped Hexavalent Chromium in Soils Chromium [VI] Chromium [VI] Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide. Loss on Ignition Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide. Determination of the proportion by mass that is lost from a soil by light temperature combustion under oxygen, using an Eltra elemental analyser. Total Organic Carbon in Soils Total Organic Carbon (TOC) Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID Aconaphithene; Acenaphithylene; Anthracene; Benzo(al/Pyrene; Benzo(al/Pyrene; Naphthalene; Phenanthrene; Pyrene Speciated Polynuclear Aconaphithene; Acenaphithylene; Anthracene; Benzo(al/Pyrene; Reprode) (Fluoranthene; Chrysene; Chrysene; Naphthalene; Phenanthrene; Pyrene Volatile Organic Compounds (VCS) in Soils by Headspace (G-MS) Volatile Organic Compounds (VCS) in Soils by Headspace (G-MS) Polychiorinated Biphenyls (CSS7 PCB congeners Soils (CES7 PCB congeners Soils by GC-MS) Characterisation of Waste (Leaching C10) Waste material including soil, sludges and Characterisation of Waste Waste material including soil, sludges and	2015	Acid Neutralisation Capacity	Acid Reserve	Titration
MCERTS Soil description SS5930	2030	Soils(Requirement of	Moisture content	percentage of its as received mass obtained at
Water Soluble Boron, Sulphate, Magnesium & Chromium Aqueous extraction / ICP-QES	2040		Soil description	
Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Pyrene; Dibenz[ah]Anthracene; Benzo[a]Pyrene; Dibenz[ah]Anthracene; Benzo[a]Pyrene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS (PCB) (CES7 Congeners in Soils by GC-MS Characterisation of Waste Masterial including soil, sludges and CompilanceTest for Leaching of Granular Vaste material including soil, sludges and CompilanceTest for Leaching of Granular Vaste material including soil, sludges and CompilanceTest for Leaching of Granular Vaste material including soil, sludges and CompilanceTest for Leaching of Granular Vaste material including soil, sludges and CompilanceTest for Leaching of Granular Vaste material including soil, sludges and CompilanceTest for Leaching of Granular Corporation in Soils on gintion (LOI) Soil extracts are prepared by extracting dried and ground soil samples into booling water. Chromium (VI) is determined by riquakem 600' Discrete Analyser using 1,5-diphenglop square control of Discrete Analyser using 1,5-diphenglop square control of the proportion by mass that is lost from a soil by ignition at 550°C. Determination of the proportion by mass that is lost from a soil by ignition at 550°C. Determination of the proportion by mass that is lost from a soil by ignition at 550°C. Determination of the proportion by mass that is lost from a soil by ignition at 550°C. Total Organic Carbon in Soils Total organic Carbon (TOC) Determination of the proportion by mass that is lost from a soil by ignition at 550°C. Determination of the proportion by mass that is lost from a soil by ignition at 550°C. Determination of the proportion by mass that is lost from a soil by ignition at 550°C. Total Organic Carbon in Soils Total organic Carbon (TOC) Determination of the proportion by fautation and soil printion at 550°C. Disclarcation of the proportion by fautation	2105	Alkali Reserve	Alkali Reserve	Titration
Hexavalent Chromium in Soils Chromium [VI] Chromium [VI] Is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.	2120		Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
Total Organic Carbon in Soils Total Organic Carbon in Soils Total organic Carbon (TOC) Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Pyrene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[b]Fluoranthene; Chrysene; Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds) Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS Volatile Organic Compounds (VOCs) in Soils by GC-MS Characterisation of Waste (Maste material including soil, sludges and (ComplianceTest for Leaching of Granular Waste (Maste material including soil, sludges and (ComplianceTest for Leaching of Granular Waste (Maste material including soil, sludges and (ComplianceTest for Leach	2490	Hexavalent Chromium in Soils	Chromium [VI]	and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600'
Total Organic Carbon in Soils Total Organic Carbon (TOC) Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Pyrene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[b]Perolene; Benzo[b]Perol	2610	Loss on Ignition	loss on ignition (LOI)	
CES7 PCB congeners in Soils by GC-FID Dicnloromethane extraction / GC-FID GC-FID GC-FID GC-FID GC-FID GENZo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[b]Fluoranthene; Chrysene; Benzo[b]Fluoranthene; Chrysene; Phenanthrene; Pluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene Dicnloromethane extraction / GC-FID GC-FID GENZO[b]Fluoranthene; Benzo[a]Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[a]Anthracene; Benzo[a]Pyrene;	2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	under oxygen, using an Eltra elemental
Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS Characterisation of Waste Waste material including soil, sludges and Characterisation of Waste Benzo[a]Pyrene; Benzo[ghi]Perylene; Benzo[ghi	2670	•		Dichloromethane extraction / GC-FID
2760 Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS Characterisation of Waste (Leaching C10) Characterisation of Waste Characterisation of Waste (Leaching C10) Waste material including soil, sludges and ComplianceTest for Leaching of Granular Waste Material and Sludge ComplianceTest for Leaching of Granular	2700	Aromatic Hydrocarbons (PAH)	Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene;	detection is non-selective and can be subject to
2815 (PCB) ICES7Congeners in Soils by GC-MS Characterisation of Waste (Leaching C10) Characterisation of Waste Characterisation of Waste Waste material including soil, sludges and Granular Waste Material and Sludge Characterisation of Waste Waste material including soil, sludges and ComplianceTest for Leaching of Granular Waste Material and Sludge Characterisation of Waste Waste material including soil, sludges and ComplianceTest for Leaching of Granular ComplianceTest for Leaching of Granular	2760	(VOCs) in Soils by Headspace	and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS	(GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of
(Leaching C10) granular waste Waste Material and Sludge Characterisation of Waste Waste material including soil, sludges and ComplianceTest for Leaching of Granular	2815	(PCB) ICES7Congeners in	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
	640		granular waste	
	650			

Report Information

Key **UKAS** accredited MCERTS and UKAS accredited M Unaccredited Ν This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for S this analysis This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited SN for this analysis Τ This analysis has been subcontracted to an unaccredited laboratory I/S Insufficient Sample U/S Unsuitable Sample N/E not evaluated < "less than" "greater than" > SOP Standard operating procedure LOD Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A Date of sampling not supplied
- B Sample age exceeds stability time (sampling to extraction)
- C Sample not received in appropriate containers
- D Broken Container
- E Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to: customerservices@chemtest.com



eurofins Chemtest

Eurofins Chemtest Ltd Depot Road Newmarket CB8 0AL

Tel: 01638 606070 Email: info@chemtest.com

Amended Report

Report No.: 23-28353-4

Initial Date of Issue: 19-Sep-2023 Date of Re-Issue: 19-Sep-2023

Re-Issue Details:

This report has been revised and directly

supersedes 23-28353-3 in its entirety

Client Soiltechnics Limited

Client Address: 1st Floor Unit 9 Westpoint Enterprise

Park

Clarence Avenue Trafford Park Manchester M17 1QS

Contact(s): Admin

Project STP3966D Rockingham Enterprise

Area, Corby

Quotation No.: Q23-32322 Date Received: 23-Aug-2023

Order No.: POR016257 Date Instructed: 23-Aug-2023

No. of Samples: 2

Turnaround (Wkdays): 7 Results Due: 01-Sep-2023

Date Approved: 19-Sep-2023 Subcon Results Due: 14-Sep-2023

Approved By:

Details: Stuart Henderson, Technical

Manager

Results - Soil

Project: STP3966D Rockingham Enterprise Area, Corby

Client: Soiltechnics Limited		Cr	emtest J	ob No.:	23-28353	23-28353
Quotation No.: Q23-32322		Chem	test Sam	1692631	1692632	
Order No.: POR016257		Client Sample Ref.: Client Sample ID.:		3	3	
				SP01.3	SP02.3	
		Sample Location: Sample Type: Top Depth (m): Date Sampled:			SP01	SP02
					SOIL	SOIL
					0.00	0.00
					21-Aug-2023	21-Aug-2023
Determinand	Accred.	SOP	Units LOD			
Moisture	N	2030	%	0.020	8.0	5.0
Alkali Reserve	N	2105	g NaOH eq	0.010	< 0.010	< 0.010
Dioxin (Subcon)	S		ng/kg	N/A	See Attached	See Attached
Furans (Subcon)	S		ng/kg	N/A	See Attached	See Attached
рН	М	2010		4.0	10.9	10.6
Chromium (Hexavalent)	N	2490	mg/kg	0.50	0.57	< 0.50

<u>Pro</u>	ect:	STP3966D	Rockinghar	n Enterpr	<u>rise Area,</u>	Corby

Project: STP3966D Rockingham En	<u>iterprise Area, Corb</u>	<u>) y</u>							
Chemtest Job No:	23-28353						Landfill V	Vaste Acceptano	ce Criteria
Chemtest Sample ID:	1692631							Limits	
Sample Ref:	3							Stable, Non-	
Sample ID:	SP01.3							reactive	
Sample Location:	SP01							hazardous	Hazardous
Top Depth(m):	0.00						Inert Waste	waste in non-	Waste
Bottom Depth(m):							Landfill	hazardous	Landfill
Sampling Date:	21-Aug-2023							Landfill	
Determinand	SOP	Accred.	Units						
Total Organic Carbon	2625	M	%			0.24	3	5	6
Loss On Ignition	2610	M	%			2.9			10
Total BTEX	2760	М	mg/kg			< 0.010	6		
Total PCBs (7 Congeners)	2815	М	mg/kg			< 0.10	1		
TPH Total WAC	2670	М	mg/kg			< 10	500		
Total (Of 17) PAH's	2700	N	mg/kg			< 2.0	100		
рН	2010	M				10.9		>6	
Acid Neutralisation Capacity	2015	N	mol/kg			0.0080		To evaluate	To evaluate
Eluate Analysis			2:1	8:1	2:1	Cumulative	Limit values	for compliance	leaching test
			mg/l	mg/l	mg/kg	mg/kg 10:1	using B	S EN 12457 at L	/S 10 I/kg
Arsenic	1455	U	0.0010	< 0.0002	0.0019	0.0010	0.5	2	25
Barium	1455	U	0.012	0.006	0.023	0.070	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	< 0.0005	0.0040	< 0.0005	0.036	0.5	10	70
Copper	1455	U	0.0098	0.020	0.020	0.010	2	50	100
Mercury	1455	U	< 0.00005	< 0.00005	< 0.00005	< 0.00005	0.01	0.2	2
Molybdenum	1455	U	0.012	0.036	0.023	0.34	0.5	10	30
Nickel	1455	U	0.0021	< 0.0005	0.0041	0.0021	0.4	10	40
Lead	1455	U	< 0.0005	0.0032	< 0.0005	0.029	0.5	10	50
Antimony	1455	U	0.0023	0.047	0.0047	0.43	0.06	0.7	5
Selenium	1455	U	0.0020	0.0017	0.0039	0.017	0.1	0.5	7
Zinc	1455	U	< 0.003	0.031	< 0.003	0.28	4	50	200
Chloride	1220	U	1100	130	2300	2300	800	15000	25000
Fluoride	1220	U	0.24	< 0.050	< 1.0	< 1.0	10	150	500
Sulphate	1220	U	820	150	1600	2200	1000	20000	50000
Total Dissolved Solids	1020	N	4400	800	8700	12000	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.030	< 0.30	< 0.50	1	-	-
Dissolved Organic Carbon	1610	U	70	9.9	140	160	500	800	1000

Solid Information			
Dry mass of test portion/kg	0.175		
Moisture (%)	8.0		

Leachate Test Information					
Leachant volume 1st extract/l	0.335				
Leachant volume 2nd extract/l	1.400				
Eluant recovered from 1st extract/l	0.178				

Waste Acceptance Criteria

	Pro	ect:	STP3966D	Rockinghan	<u> Enterprise</u>	Area, Corb	y
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Project: STP3966D Rockingham Ent	<u>terprise Area, Corb</u>	<u>DY</u>							
Chemtest Job No:	23-28353						Landfill V	Vaste Acceptano	ce Criteria
Chemtest Sample ID:	1692632							Limits	
Sample Ref:	3							Stable, Non-	
Sample ID:	SP02.3							reactive	
Sample Location:	SP02							hazardous	Hazardous
Top Depth(m):	0.00						Inert Waste	waste in non-	Waste
Bottom Depth(m):							Landfill	hazardous	Landfill
Sampling Date:	21-Aug-2023							Landfill	
Determinand	SOP	Accred.	Units						
Total Organic Carbon	2625	М	%			0.46	3	5	6
Loss On Ignition	2610	М	%			3.2			10
Total BTEX	2760	М	mg/kg			< 0.010	6		-
Total PCBs (7 Congeners)	2815	M	mg/kg			< 0.10	1		-
TPH Total WAC	2670	M	mg/kg			< 10	500		-
Total (Of 17) PAH's	2700	N	mg/kg			< 2.0	100		1
pH	2010	М				10.6		>6	1
Acid Neutralisation Capacity	2015	N	mol/kg			0.0040		To evaluate	To evaluate
Eluate Analysis			2:1	8:1	2:1	Cumulative	Limit values	for compliance	leaching test
			mg/l	mg/l	mg/kg	mg/kg 10:1	using B	S EN 12457 at L/	/S 10 I/kg
Arsenic	1455	U	0.0027	0.0003	0.0053	0.0049	0.5	2	25
Barium	1455	U	0.005	< 0.005	0.011	0.0033	20	100	300
Cadmium	1455	U	< 0.00011	< 0.00011	< 0.00011	< 0.00011	0.04	1	5
Chromium	1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.5	10	70
Copper	1455	U	0.018	0.0088	0.037	0.012	2	50	100
Mercury	1455	U	0.00021	< 0.00005	0.00041	0.00013	0.01	0.2	2
Molybdenum	1455	U	0.21	0.020	0.42	0.32	0.5	10	30
Nickel	1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.4	10	40
Lead	1455	U	< 0.0005	< 0.0005	< 0.0005	< 0.0005	0.5	10	50
Antimony	1455	U	0.040	0.028	0.080	0.29	0.06	0.7	5
Selenium	1455	U	0.017	0.0017	0.034	0.027	0.1	0.5	7
Zinc	1455	U	< 0.003	< 0.003	< 0.003	< 0.003	4	50	200
Chloride	1220	U	960	46	1900	1000	800	15000	25000
Fluoride	1220	U	0.14	< 0.050	< 1.0	< 1.0	10	150	500
Sulphate	1220	U	800	92	1600	1400	1000	20000	50000
Total Dissolved Solids	1020	N	4100	1700	8200	19000	4000	60000	100000
Phenol Index	1920	U	< 0.030	< 0.030	< 0.30	< 0.50	1	-	-
Dissolved Organic Carbon	1610	U	54	4.2	110	74	500	800	1000

Solid Information			
Dry mass of test portion/kg	0.175		
Moisture (%)	5.0		

Leachate Test Information					
Leachant volume 1st extract/l	0.341				
Leachant volume 2nd extract/l	1.400				
Eluant recovered from 1st extract/l	0.110				

Waste Acceptance Criteria

Test Methods

SOP	Title	Parameters included	Method summary
1020	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Electrical Conductivity and Total Dissolved Solids (TDS) in Waters	Conductivity Meter
1220	Anions, Alkalinity & Ammonium in Waters	Fluoride; Chloride; Nitrite; Nitrate; Total; Oxidisable Nitrogen (TON); Sulfate; Phosphate; Alkalinity; Ammonium	Automated colorimetric analysis using 'Aquakem 600' Discrete Analyser.
1455	Metals in Waters by ICP-MS	Metals, including: Antimony; Arsenic; Barium; Beryllium; Boron; Cadmium; Chromium; Cobalt; Copper; Lead; Manganese; Mercury; Molybdenum; Nickel; Selenium; Tin; Vanadium; Zinc	determination by inductively coupled plasma
1610	Total/Dissolved Organic Carbon in Waters	Organic Carbon	TOC Analyser using Catalytic Oxidation
1920	Phenols in Waters by HPLC	Phenolic compounds including: Phenol, Cresols, Xylenols, Trimethylphenols Note: Chlorophenols are excluded.	Determination by High Performance Liquid Chromatography (HPLC) using electrochemical detection.
2010	pH Value of Soils	рН	pH Meter
2015	Acid Neutralisation Capacity	Acid Reserve	Titration
2030	Moisture and Stone Content of Soils(Requirement of MCERTS)	Moisture content	Determination of moisture content of soil as a percentage of its as received mass obtained at <37°C.
2040	Soil Description(Requirement of MCERTS)	Soil description	As received soil is described based upon BS5930
2105	Alkali Reserve	Alkali Reserve	Titration
2120	Water Soluble Boron, Sulphate, Magnesium & Chromium	Boron; Sulphate; Magnesium; Chromium	Aqueous extraction / ICP-OES
2490	Hexavalent Chromium in Soils	Chromium [VI]	Soil extracts are prepared by extracting dried and ground soil samples into boiling water. Chromium [VI] is determined by 'Aquakem 600' Discrete Analyser using 1,5-diphenylcarbazide.
2610	Loss on Ignition	loss on ignition (LOI)	Determination of the proportion by mass that is lost from a soil by ignition at 550°C.
2625	Total Organic Carbon in Soils	Total organic Carbon (TOC)	Determined by high temperature combustion under oxygen, using an Eltra elemental analyser.
2670	Total Petroleum Hydrocarbons (TPH) in Soils by GC-FID	TPH (C6–C40); optional carbon banding, e.g. 3-band – GRO, DRO & LRO*TPH C8–C40	Dichloromethane extraction / GC-FID
2700	Speciated Polynuclear Aromatic Hydrocarbons (PAH) in Soil by GC-FID	Acenaphthene; Acenaphthylene; Anthracene; Benzo[a]Anthracene; Benzo[a]Pyrene; Benzo[b]Fluoranthene; Benzo[ghi]Perylene; Benzo[k]Fluoranthene; Chrysene; Dibenz[ah]Anthracene; Fluoranthene; Fluorene; Indeno[123cd]Pyrene; Naphthalene; Phenanthrene; Pyrene	Dichloromethane extraction / GC-FID (GC-FID detection is non-selective and can be subject to interference from co-eluting compounds)
2760	Volatile Organic Compounds (VOCs) in Soils by Headspace GC-MS	Volatile organic compounds, including BTEX and halogenated Aliphatic/Aromatics.(cf. USEPA Method 8260)*please refer to UKAS schedule	Automated headspace gas chromatographic (GC) analysis of a soil sample, as received, with mass spectrometric (MS) detection of volatile organic compounds.
2815	Polychlorinated Biphenyls (PCB) ICES7Congeners in Soils by GC-MS	ICES7 PCB congeners	Acetone/Hexane extraction / GC-MS
640	Characterisation of Waste (Leaching C10)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge
650	Characterisation of Waste (Leaching WAC)	Waste material including soil, sludges and granular waste	ComplianceTest for Leaching of Granular Waste Material and Sludge

Report Information

Key **UKAS** accredited MCERTS and UKAS accredited M Unaccredited Ν This analysis has been subcontracted to a UKAS accredited laboratory that is accredited for S this analysis This analysis has been subcontracted to a UKAS accredited laboratory that is not accredited SN for this analysis Τ This analysis has been subcontracted to an unaccredited laboratory I/S Insufficient Sample U/S Unsuitable Sample N/E not evaluated < "less than" "greater than" > SOP Standard operating procedure LOD Limit of detection

Comments or interpretations are beyond the scope of UKAS accreditation

The results relate only to the items tested

Uncertainty of measurement for the determinands tested are available upon request

None of the results in this report have been recovery corrected

All results are expressed on a dry weight basis

The following tests were analysed on samples as received and the results subsequently corrected to a dry weight basis TPH, BTEX, VOCs, SVOCs, PCBs, Phenols

For all other tests the samples were dried at < 37°C prior to analysis

All Asbestos testing is performed at the indicated laboratory

Issue numbers are sequential starting with 1 all subsequent reports are incremented by 1

Sample Deviation Codes

- A Date of sampling not supplied
- B Sample age exceeds stability time (sampling to extraction)
- C Sample not received in appropriate containers
- D Broken Container
- E Insufficient Sample (Applies to LOI in Trommel Fines Only)

Sample Retention and Disposal

All soil samples will be retained for a period of 30 days from the date of receipt

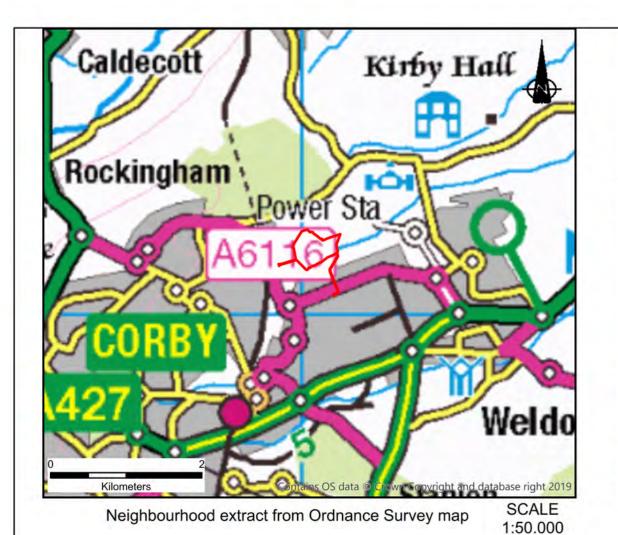
All water samples will be retained for 14 days from the date of receipt

Charges may apply to extended sample storage

If you require extended retention of samples, please email your requirements to: customerservices@chemtest.com



DRAWINGS





Town extract from Ordnance Survey map

1:25.000

KEY

Site Boundary

A6116 Meters Contains OS data © Crown Copyright and database right 2019

Detail extract from Ordnance Survey map

SCALE 1:10.000

Notes: Contains Ordnance Survey data.
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☐ CARLISLE ☐ NEWCASTLE UPON TYNE

☐ EDINBRUGH ☐ SHEFFIELD ☐ GLASGOW ☐ STOKE ON TRENT

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