Retford Circular Economy Project Environmental Statement Addendum - Volume 3 Technical Appendices

Technical Appendix 5.3: Outline Construction Environmental Management Plan

January 2024

Project No.: 0695864

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Document details	The details entered below are automatically shown on the cover and the main page footer. PLEASE NOTE: This table must NOT be removed from this document.
Document title	Retford Circular Economy Project Environmental Statement Addendum - Volume 3 Technical Appendices
Document subtitle	Technical Appendix 5.3: Outline Construction Environmental Management Plan
Project No.	0695864
Date	January 2024
Version	01
Author	Environmental Resources Management
Client Name	Lound Hive Limited

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1. INTRODUCTION

1.1 Background

This Outline Construction Environmental Management Plan (OCEMP) for the Retford Circular Economy Project (the Proposed Development) was originally submitted as Technical Appendix (TA) 5.3 in Volume 3 of the Environmental Statement (ES) which accompanied the planning application in March 2023. Since then, the Proposed Development has been revised following consultee comments (as detailed in the Environmental Statement Addendum (ESA), Volume 1, Chapter 5) and hereby referred to as the 'Amended Proposed Development'. The Amended Proposed Development has several design revisions that have been reflected in this OCEMP, including embedded mitigation and clarification of measures detailed in the ES. The ES Volume 3 TA 5.3 OCEMP is therefore superseded, and the ESA version should be referred to as it reflects the changes that have been made to the Proposed Development to address the issues raised during consultation.

This ESA has been produced to provide an update to the RCEP ES. It is essential to review the ES and its accompanying TAs alongside this OCEMP as it is not a stand-alone document, and references will be made to the ES throughout, where details have not changed since the original application. Where documents have been updated for the ESA, these will be clearly sign-posted in this OCEMP to ensure the correct documents are being reviewed.

The fundamentals of the Amended Proposed Development remain, as such works comprise of extraction of PFA contained in former disposal lagoons, progressive restoration, processing and export. The Amended Proposed Development is not a 'traditional' construction and operational scheme in that the proposed works would be undertaken in Phases as outlined in Chapter 5 of the ES, and updated within Chapter 5 of the ESA Volume 1, with periodic/isolated phases of construction taking place from time to time. Chapter 5 of the ESA Volume 1 outlines the changes presented in the Amended Proposed Development including changes to the proposed extraction phases.

It is anticipated that the main construction works would take place in the first 12 months or so of the Amended Proposed Development.

Separate Dust Management and Water Environmental Management Plans have been produced for the application. An Updated Dust Management and Monitoring Plan (DMMP) can be found in TA 13.7 of ESA Volume 3, and an Updated Water Environment Management Plan (WEMP) can be found in TA 9.1 of ESA Volume 3. These updated documents in the ESA should be referenced in the first instance, and references within the documents may request referral to the ES documents. A Discovery Strategy is included in Annex D of this OCEMP.

1.2 Purpose and Scope

This OCEMP has been produced as part of the planning application for the Amended Proposed Development, specifically, to set out environmental protection measures during construction and operation as relevant, and to help inform the preparation of a full Construction Environmental Management Plan (CEMP) at the detailed design stage.

This document takes into account activities to be undertaken during the construction and operational phase of the Amended Proposed Development, including:

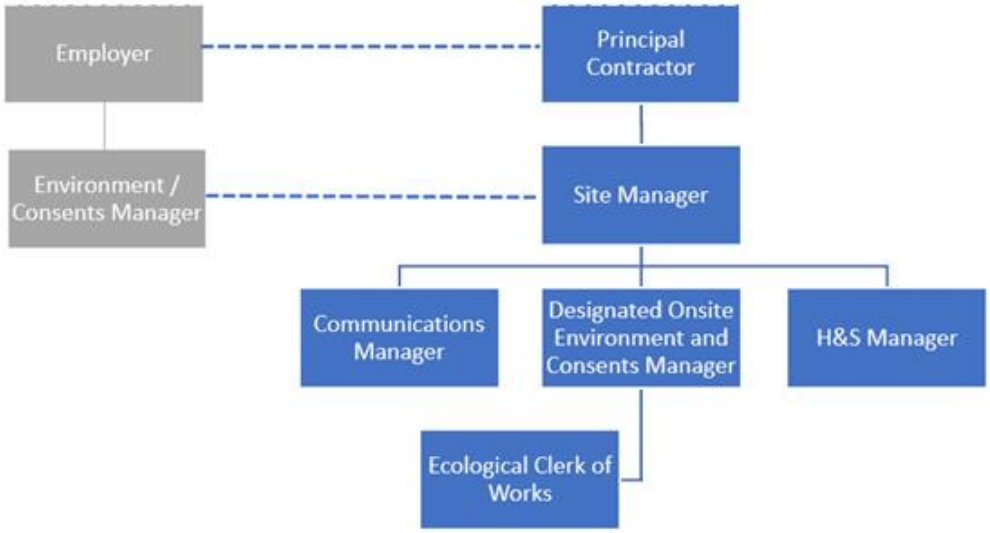
- Access tracks, conveyors and plant erection;
- Foundations required for the processing plant and other components; and
- Hardstanding areas and buildings.

The OCEMP presented in this document highlights measures that would be used across the Amended Proposed Development Site during construction activities to ameliorate potential impacts on environmental receptors. This is intended to be a 'live' document and should be updated with more detailed proposals for measures when further information becomes available.

The measures set out in this OCEMP are based on industry standards and best practice at the time of writing, driven by international and national legislation as well as national and local policy. In line with this, the measures proposed are intended to be proportionate to the potential effect on environmental receptors with commensurately more robust measures proposed where greater effects are likely to occur.

1.3 Environmental Roles and Responsibilities

Environmental roles and responsibilities vary between different stages of a project. Information regarding roles specific to the works can be found below.



1.3.1 Employer

The Employer fulfils the role of the commercial client, and as such has oversight of all construction work packages. The Employer ensures that project requirements are properly implemented, controlled and effectively documented. It is the Employer's responsibility to ensure that suitable processes and resources are in place to ensure the Principal Contractor complies with the health, safety and environmental obligations.

1.3.2 Principal Contractor

The Principal Contractor has lead responsibility for practical construction of the Amended Proposed Development, including the appointment of a competent Site Manager, Health and Safety (H&S) Manager and sub-contractors, agreeing and setting construction environmental targets with the Employer, and ensuring all activities are in compliance with the requirements of the Code of Construction Practice (CoCP), stage-specific CEMPs and other associated reports and appendices. This contractor would be deemed to be the Principal Contractor for the purposes of the Construction (Design and Management) Regulations 2015 (CDM Regulations).

1.4 Site Manager

The Site Manager for the Amended Proposed Development would oversee all operational aspects of the construction programmes. The Site Manager would be required to familiarise themselves with the contents of this document and liaise with the H&S Manager in order to deliver appropriate environmental awareness and guidance to operatives. It would be important for the Site Manager to

establish a system for dealing with enquiries or complaints from the public, local authorities, or statutory consultees. Any complaints that may arise would be logged, reported and addressed, and complaint close-out reports would be produced and submitted.

1.4.1 H&S Manager

The H&S Manager role is to oversee and enforce the implementation and adherence to all relevant health & safety provisions within the Site. This role would have overall responsibility for maintaining and updating H&S provisions, and be on Site to advise, guide, support and promote awareness of the onsite requirements to all personnel. The H&S role would be filled by an appropriately qualified and experienced staff member of the Principal Contractor.

1.4.2 Designated Onsite Environment and Consents Manager

The applicant would appoint an appropriately competent person or persons (the Designated On-site Environment and Consents Manager) to undertake relevant environmental tasks and supervision as detailed in this document, prior to, during and upon completion of the Works. Together with the Employer's Environment and Consents Manager, the Client and their designated Ecological Clerk of Works (ECoW) would monitor and report CoCP and CEMP implementation through liaison with the H&S Manager, Site Manager, and other parties as appropriate.

1.4.3 Ecological Clerk of Works

A suitably qualified and experienced ECoW would be appointed and would be responsible for providing advice about ecological issues and helping to ensure that the measures specified in the Ecological Management Plan (EcMP) are implemented correctly and in line with industry guidance.

1.5 Site Description

The Amended Proposed Development is located on land to the south of Lound, Retford, in Nottinghamshire with an approximate centroid at National Grid Reference SK 69404 84864 (the Site).

It is proposed to extract Pulverised Fuel Ash (PFA) from former disposal lagoons, located approximately 780 m east of Lound, 1.1 km east of Sutton Cum Lound and 2 km north of the centre of Retford. The main section of the Site is comprised of former PFA disposal lagoons (or the 'Extraction Area'), that have been re-instated for agricultural use (low quality grazing land). The area to the south of the former lagoons includes Bellmoor Industrial Estate, where the proposed 'Main Processing Site' would be located with a more detailed description of the Site, provided below.

The Site can be characterised as three connected areas:

- Area A: Main Operational Site
- Area B: Conveyor and Link Road
- Area C: Main Processing Site

A Site Area Plan, Figure 1.3 within Volume 2 of the ES confirms the boundaries of the Site areas.

1.5.1 Development Overview

The Amended Proposed Development comprises extraction and export of PFA contained in former disposal lagoons at the Site and associated works. Associated works would include earthworks, soil storage, ponds and excavations, hard surfacing, buildings and structures, plant, conveyors, utility connections, roadways, parking, drainage, and restoration including planting. Areas A to C are described below:

Area A – Main Extraction Area

The former ash lagoons site is raised with vegetated banks around its perimeter and largely comprises grassland for grazing, though this is of relatively poor quality. The area has historically been subject to a significant amount of sand and gravel extraction and is therefore not alien to extractive industries, with Areas B and C having been used until recently for the processing and export of won resources and remaining in industrial use to this day.

The area is split between 'Low-Rise' to the east (7.5 – 11 m AOD) and 'High-Rise' to the centre and west (17 – 19 m AOD). The Site is also well screened owing to a combination of topography and existing vegetation, including tree planting and hedgerows along its perimeter and woodland blocks and hedgerows in the surrounding area.

The area is relatively isolated, with the village of Lound located approximately 780 m to the north and the village of Sutton Cum Lound located approximately 1.1 km to the northwest. The town of Retford is located approximately 2 km to the south. The closest residential properties comprise the farmhouse and two other properties associated with Sutton Grange Farm, located immediately to the north of the Site; Bellmoor Farm located approximately 100 m to the west; and two dwellings associated with the Wetlands Fishery on the opposite side of Lound Low Road to the north. There are no other known residential properties within 500 m at the time of conducting this application. Although this would be reviewed as part of any future environmental assessments that may be carried out for the planning application.

Area B – Conveyor and Link Road (outside of Main Operational Site)

The conveyor and link road pass south from the Main Operational Site to the Main Processing Site, utilising farmland, and avoiding a tree belt in this vicinity.

Area C – Main Processing Site

Area C is accessed from the A638 via a dedicated priority turn junction and is in use for concrete manufacturing and other industrial uses. The Site address belies its former use in association with sand and gravel extraction. It currently accommodates a number of industrial uses, including a stonemason and concrete batching plant, and is therefore in daily operational use. The A638 access is shared with the Idle Valley Nature Reserve visitor centre. Bellmoor Lake lies nearby to the east and beyond this is a sewage treatment works. The industrial areas along Randall Way in the northern part of Retford are located approximately 450 m to the southeast of the Site. The east coast mainline railway passes by to the south at around 350 m at its nearest point. Table 1.1 below, shows the revised indicative working scheme:

1.5.1.2 Working Scheme

Excavation would be completed through an initial 'dig-down' into HR P1, followed by the progressive extension of the maintenance / haul road and covered conveyor as extraction moves through the phases, working from HR P1 in the west, to LR P5 in the east (with 'dig down' activities also required when entering HR P2 and the Low-Rise phases). Extraction activities would be completed in 'micro-phases' within each main phase, minimising the area of influence of potential impacts, and activities would include soil-stripping, excavation of PFA within the extraction void, and then subsequent embankment removal and landscaping during restoration. The proposed working scheme is shown in Table 1.1, and Table 1.2 shows indicative timings for the phases.

Following extraction, the PFA would be transported to Area C, the Main Processing Site, for processing and export. It is notable that the construction works are rather limited as some of the required infrastructure already exists within Area C, due largely to the legacy of quarrying at the Site. This includes the existing highway access and cleared areas of existing hardstanding.

Further information on the Amended Proposed Development can be found in ESA Volume 1 Chapter 5, and ES Volume 1 Chapter 5.

Table 1.1 Revised Indicative Work Scheme

Stage	Phase	Comments
1	HR P1 (extract)	■ Conveyor and maintenance / haul road extended into HR P1, including 'digging down' to form the extraction base ■ Soil strip progressively ■ Extract PFA
2	LR P1 & LR P2 (construction) HR P1 (continue extraction)	■ Construct filter ponds (LR P2) and soakaway (LR P1) ■ Continue extraction in HR P1 ■ Following extraction, remove embankments where required to create the restoration landform ■ Landform profiling, planting and seeding
3	HR P2 (extract)	■ Extend conveyor and maintenance / haul road ■ Soil strip progressively ■ Extract PFA ■ Following extraction, remove embankments where required to create the restoration landform ■ Landform profiling, planting and seeding
4	HR P3 (extract)	■ Extend conveyor and maintenance / haul road ■ Soil strip progressively ■ Extract PFA ■ Following extraction, remove embankments where required to create the restoration landform ■ Landform profiling, planting and seeding
5	HR P4 (extract)	■ Extend conveyor and maintenance / haul road ■ Soil strip progressively ■ Extract PFA ■ Following extraction, remove embankments where required to create the restoration landform ■ Landform profiling, planting and seeding
6	HR P5 (extract)	■ Extend conveyor and maintenance / haul road ■ Soil strip progressively ■ Extract PFA ■ Following extraction, remove embankments where required to create the restoration landform ■ Landform profiling, planting and seeding
7	HR P6 (extract)	■ Extend conveyor and maintenance / haul road ■ Soil strip progressively ■ Extract PFA ■ Following extraction, remove embankments where required to create the restoration landform ■ Landform profiling, planting and seeding
8	LR P3 (extract)	■ Extend conveyor and maintenance / haul road ■ Soil strip progressively ■ Extract PFA ■ Following extraction, remove embankments where required to create the restoration landform

Stage	Phase	Comments
		■ Landform profiling, planting and seeding
9	LR P4 (extract)	■ Extend conveyor and maintenance / haul road ■ Soil strip progressively ■ Extract PFA ■ Following extraction, remove embankments where required to create the restoration landform ■ Landform profiling, planting and seeding
10	LR P5 (extract)	■ Extend conveyor and maintenance / haul road ■ Soil strip progressively ■ Extract PFA ■ Following extraction, remove embankments where required to create the restoration landform ■ Landform profiling, planting and seeding
11	LR P1 & LP P2 (extract)	■ Conveyor extended into LR P1 and LR P2 ■ Extract any remaining PFA and decommission filter ponds and soakaway
12	LR P1 & LP P2 (final restoration of Area A)	■ Remove embankments where required for the restoration landform ■ Following extraction, remove embankments where required to create the restoration landform ■ Landform profiling, planting and seeding ■ Extraction stage complete

Table 1.2 Phase Working Timings

			Establishment, Extraction and Restoration - approx. timings			
Phase ID	PFA Tonnes	Size (ha)	Soil Stripping (Days)	Extraction (Years)	Embankment removal & infilling (Days)	Landform profiling, planting & seeding (months)
HR P1	916,000 t	11.5	12	3.1	15	9 to 12
HR P2	933,000 t	10.3	11	3.1	15	9 to 12
HR P3	1,109,000 t	14.6	11	3.7	15	9 to 12
HR P4	1,323,000 t	12.2	11	4.4	15	9 to 12
HR P5	583,000 t	6.1	11	1.9	10	9 to 12
HR P6	584,000 t	8.6	11	1.9	10	9 to 12
LR P3	208,000 t	6.3	10	0.7	8	9 to 12
LR P4	344,000 t	8.2	10	1.1	8	9 to 12
LR P5	254,000 t	7	10	0.8	8	9 to 12
LR P1	87,000 t	3.3	6	0.3	5	9 to 12
LR P2	116,000 t	4.4	5	0.4	5	9 to 12

1.6 Construction Phase Activities

1.6.1 Temporary Infrastructure

1.6.1.1 Temporary Construction Compounds

A temporary construction compound (TCC) would be required for the installation of the infrastructure that is to be located in Area C. This would be located on existing hardstanding at the Site.

Temporary cabins, to be used for Site offices and welfare facilities are proposed. Welfare facilities would be installed as required by the Construction (Design and Management) Regulations 2015. It is proposed that power would be provided by connection to the local electricity network and/or a new combined heat and power plant, with backup/an alternative provided by a diesel generator(s) bunded to 110% diesel capacity. Water for the welfare facilities would be provided by existing utility connections at Area C.

Similar TCCs may also be provided in Area A and Area B, as necessary.

If not located on existing hardstanding, any area to be used for a TCC would be stripped of topsoil to expose a suitable formation which would be stored for future re-instatement. A geosynthetic material base or similar would then be laid followed by a layer of suitable material then a further geosynthetic material laid prior to the top surface of blended fines.

TCCs would be required primarily in the first 6-12 months of the Amended Proposed Development, to establish the main infrastructure required at the Site. However, the Applicant would need to progressively phase the provision of some infrastructure in accordance with the Site Phasing Plans provided in Appendix 5.2 of ESA Volume 3. Furthermore, the Applicant is proposing to initially operate a smaller scale optimisation plant in Area C before scaling up to full production. It would therefore be necessary to provide TCCs and carry out construction activities periodically over the lifetime of the Amended Proposed Development to facilitate this.

Following completion of each construction phase any compounds would be removed and the area restored as necessary.

1.6.1.2 Site Signage

During construction, the Site would have suitable signage to protect the health and safety of workers, contractors and the general public. It is envisaged that there would be a sign giving the operator's name, the name of the Amended Proposed Development and an emergency contact telephone number.

Once operational, there would be further signage, providing information about the Amended Proposed Development, potential hazards, the operator's name, the location grid reference and the emergency telephone number. The final location and design of the signage would be defined prior to the Amended Proposed Development becoming operational.

1.6.2 Construction Timescale and Duration

It is anticipated that initial construction activities at Area C would require approximately 6-12 months, which would then be followed by periodic stages construction to scale up to full production capacity.

1.6.3 Construction Activities

Construction activities would include, but are not limited to, the following:

- Delivery and installation of extraction and processing plant;
- Erection of buildings and other structures;
- Connection of utilities;

- Site drainage works;
- Laying of foundations, hardstanding and haul roads which would be done in two phases and also removed in two phases;
- Importation of all necessary construction materials, including engineering clay or similar for capping, void lining and drainage works as necessary;
- Earthworks and soil movements; and
- Any other necessary engineering and electrical works.

Further construction works in Areas A and B of the maintenance / haul road and conveyor to allow the extraction, processing and export of PFA in Area A would be on a rolling basis in accordance with the extraction phases. These works include the provision of the maintenance / haul road and conveyor in Area B, sections of maintenance / haul road and conveyor in Area A, settlement and soakaway ponds, and all other infrastructure shown in the Site Phasing Plans (Appendix 5.2 of ESA Volume 3) and as described here.

The activities comprise those that are necessary to construct and operate the Amended Proposed Development over its lifetime.

Construction activities would be confined to the hours of 07:00 to 19:00 on weekdays and 07:00 to 13:00 on Saturdays, with no working on Sundays or Bank Holidays. In some circumstances (for example concrete pouring), it may be necessary to work outside of these hours and, in these circumstances, permission would be sought from Nottinghamshire County Council (NCC). It is anticipated that this mechanism is secured by a condition attached to any grant of planning permission.

Construction laydown areas for materials and the TCC(s) would be located within the boundary of the Site.

At normal times during construction there is anticipated to be no more than approximately 10 two-way Heavy Goods Vehicle (HGV) trips per average day (20 in total). There may be more when any concrete pouring is required.

1.7 Operational Phase Activities

Once operational, the Amended Proposed Development would comprise the following main elements:

- Extraction;
- Screening;
- Processing; and
- Export by road.

There would be ancillary operations and infrastructure associated with all of the above.

1.7.1 Part 1: Extraction

Extraction would commence from west to east through Area A, starting at HR P1 closest to Area C. The extraction process would commence by digging a cut into HR P1 and extracting at a lower level, using the in-situ lagoon embankments and the extraction void to provide screening and shielding from the wind. The embankment would only be removed, to be used to restore the void, when extraction in the phase has been completed.

PFA is extracted in Area A using an excavator or dozer (or similar). The use of motor scrapers has been removed from the Amended Proposed Development. The excavated PFA would then be periodically stored besides the excavation void, to allow partial draining of the PFA back to the groundwater, although the PFA would be worked wet.

The extracted PFA would be loaded into a screen hopper and transported to the main conveyor by a spur conveyor extending into the micro-phase as close to the extraction phase as possible to minimise vehicle movements and haulage distances. The semi-fixed Processing Areas 1-3 have been removed from the scheme – meaning remote processing would be limited to a single mobile screening operation.

The scheme has been designed to further limit open air handling of PFA. This includes using enclosed conveyor belts to transport PFA from the extraction face in Area A to the Main Processing Site in Area C. Importantly, once the PFA is fed into the conveyor hopper, the handling and processing – from this point on – is entirely enclosed.

Soil would be removed from each phase prior to the extraction and stored appropriately within the Site for later re-use during restoration, or it would be immediately applied to part of the Site undergoing restoration. Topsoil would be stored and managed effectively within the Site for later re-use during the restoration. This would be in accordance with the Defra Soil Strategy for England and Construction Code of Practice for the Sustainable Use of Soils on Construction Sites[1].

1.7.2 Part 2: Screening and Shredding

Mobile screening and shredding plant would be used to screen the PFA at the Main Processing Site to the required grade by separating out lumps of material into smaller particles. Oversized material would be processed by the screens until the required grade is achieved. The oversized material, if unable to be effectively screened, would be used beneficially in restoration of the Site to achieve the desired landform. For more compacted material, a shredder (forming part of the screen) would be required prior to screening.

1.7.3 Part 3: Processing

It is proposed that PFA would be transported from Area A to the Main Processing Site (Area C) by covered conveyor during normal operations. During the optimisation period at the start of operations (a 6–24-month period) it is proposed that PFA would be transported from the Main Extraction Area to Area C using tipper trucks. There would also be the option to utilise vehicles to transport PFA from the Main Extraction Area at times when the conveyor is not available, e.g., during maintenance periods.

The key components of the Main Processing Area would include the following:

- Material storage buildings;
- Conveyors, including a gantry over the Site access road;
- Drying modules (up to 8x individual modules), cyclones and storage silos;
- External filtration for each drying line (filters, stacks, and condensers);
- Internal access roads and hardstanding;
- Offices, canteen and laboratories – in a co-located area of containers or cabins;
- Combined heat and power (CHP) plant – providing power and heat for the drying plant and other components, along with a connection to the local electricity distribution network;
- Water treatment plant infrastructure within shipping type containers;
- Gas tanks and delivery infrastructure, and/or a gas main connection;

[1] The Department for Environment, Food and Rural Affairs (2009). Safeguarding Our Soils. A Strategy for England. [online]. Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69261/pb13297-soilstrategy-090910.pdf [Accessed: 02nd January 2024]

The Department for Environment, Food and Rural Affairs. (2009). Construction Code of Practice for the Sustainable Use of Soils on Construction Sites. [online]. Available at: Code of practice for the sustainable use of soils on construction sites - GOV.UK (www.gov.uk) [Accessed: 02nd January 2024].

- Staff car park;
- Yard and storage area; and
- Wheel wash and 2x weighbridges.

The PFA would first be placed in the material storage building where it would be stockpiled, run through a further shredder and screen, as necessary, and periodically turned by an excavator (or similar) to further reduce moisture content. There may also be fans blowing air over the material and a heated floor, to further reduce moisture content.

Once moisture is shed to the required level (around 20%), the PFA would be loaded into a hopper by a mobile excavator or conveyor (within the building). The PFA would then be fed into a covered conveyor, which would feed into the drying plant (comprising up to 8x individual modules), which applies an innovative kinetic system that uses air to dry the PFA rather than significant amounts of heat.

The system includes six key stages, as follows:

1. Feed system - PFA is screw fed from the covered conveyor into the feed section on top of the drying module via a hopper;
2. Blower – an industrial blower is then used to blow PFA particles into the system;
3. Heat Exchanger – used to create an average temperature throughout the system of 85 degrees centigrade drawn from the CHP plant, which is the optimal condition to hold moisture which is sheared from PFA particles later in the process;
4. Drying Cartridges – the PFA is blown down pipes and through drying cartridges, which use air to shear moisture from the PFA particles;
5. Cyclones - these recover circa 97% of the dried material, delivering it on to the finished product storage silos; and
6. Filter – air, moisture and fines pass on to the filter; fines are dropped out for recovery and storage; air and moisture go to atmosphere, or the moisture is condensed.

The system comprises a low temperature, low pressure process, using up to 75% less energy to remove the same amount of moisture as a conventional thermal drier would and consequently generating up to 75% less carbon emissions to the atmosphere as a result.

Temporary optimisation works would initially commence in Area C prior to the full processing infrastructure being implemented, with only a single drying module and reduced infrastructure in operation. The optimisation would be undertaken for a period of up to 24 months, but more likely 6 months.

The revised processing plant layout and other infrastructure (including dimensions) is shown in the plans in Technical Appendix 5.1 of ESA Volume 3.

1.7.4 Part 4: Export to Road

PFA would be loaded into 30 tonne articulated powder tankers/sheeted wagons (hereafter referred to as ‘HGVs’) that would be filled using a closed pipework from the silos or straight from the enclosed material storage building. The HGVs would pass over a weighbridge on arrival and before departure from the Site and, if necessary, on departure a wheel wash and/or jet wash would be utilised to clean vehicles.

The washing of every vehicle is not likely to be required as other measures would be implemented to prevent HGVs becoming dirty, such as maintenance of clean road surfaces within the access areas. HGVs would not be allowed to leave the Site if they are found to be overweight or, on inspection, would distribute dirt/debris on the public highway. All vehicles would be covered/enclosed to prevent material falling onto the public highway or other areas.

The Main Processing Site (Area C) benefits from an existing highway access onto the A638, which previously served Bellmore Quarry. A designated route(s) for HGVs to reach the strategic road network (the A1) would be used, whereby during normal operation, all HGVs travelling from Area C would use the route north or south along the A638.

It is estimated that the export of PFA would generate around 37 HGV trips per day (37 in / 37 out). There would also be a requirement for other HGVs to access the Site, including for maintenance, import of engineering materials (e.g., clay), gas tanker deliveries etc. It anticipated that there would be up to 4 HGVs trips per hour (4 in / 4 out) in total.

1.7.5 Operational Staff and Hours of Operation

It is estimated that the Amended Proposed Development would generate up to around 20-30 permanent jobs. The Amended Proposed Development would include Site offices and welfare facilities for operational staff.

The operating hours for extraction and HGV exports would be limited to the following:

- 07:00 and 19:00 Monday to Friday; and
- 07:00 to 13:00 Saturday, and
- No extraction activities or imports are proposed for Sundays or Bank Holidays.

The drying plant would operate 24 hours per day to allow for efficient running of the plant items and to process enough PFA to meet the operational tonnage of around 300,000 tonnes per annum. This operation would be completely enclosed, limited to the material storage building, drying plant and silos. Outside of the proposed working hours for extraction and HGV export, there would be no HGV deliveries or exports under normal operations, and Area A and Area B of the Site would be closed.

Staffing levels would likely be reduced and limited to drying plant operation and maintenance, and security functions outside of the main operating hours.

1.8 Restoration Phase Activities

As noted previously, the extraction phase of the Amended Proposed Development and associated infrastructure would require around 25 years, although longer is possible if, for example, there are unforeseen delays in extraction. The Amended Proposed Development comprises a series of phases whereby restoration follows extraction activities.

Restoration activities include earthworks and soil movements to achieve any approved restoration landform, and seeding and planting to achieve the necessary habitats. The earthworks would require the same plant as used to extract PFA, with activities often happening concurrently.

The restoration scheme is biodiversity led and the indicative concept is shown on Figures 7.12 to 7.14 in Volume 2 of this ESA, in Appendix 5.4 of ESA Volume 3, and is detailed within the landscape and ecology chapters of ESA Volume 1, Chapters 7 and 8 respectively.

The restoration scheme would include reinstatement of some of the existing farming activities, including grazing of the Site and habitat management using sheep. The proposed habitats include wet grassland, species-rich grassland, reed beds, woodland, and water bodies. It is anticipated that there would be a significant improvement on the current habitats at the Site.

The Applicant is committed to delivering Biodiversity Net Gain (of at least 10% in line with the proposed mandatory Biodiversity Net Gain legislation within the Environment Bill (2021) expected to be required for planning applications from January 2024). The initial, outline metric has been applied to the restoration concept showing an updated figure of approximately 43% (previously presented in the ES as 12.66%) thereby giving a high level of confidence that policy compliant Biodiversity Net Gain is deliverable. The Applicant is likewise committed to an aftercare period of up to 30 years. It is

envisaged that significantly more detail of the proposed restoration would be secured by planning conditions that require the phased submission of detailed plans for each phase.

2. LEGISLATION POLICY AND GUIDANCE

The legislation, policy and guidance set out in Table 2.1 below, has been considered in the production of this document. Should relevant legislation, policy or guidance change this section and the associated measures should be reviewed.

Table 2.1 Legislation Policy and Guidance

Legislation	
The Town and Country Planning Act (1990)	https://www.legislation.gov.uk/ukpga/1990/8/contents
The Planning Act 2008	https://www.legislation.gov.uk/ukpga/2008/29/contents
The Civic Amenities Act (1967)	The Civic Amenities Act 1967
The Construction (Design and Management) Regulations 2015	http://www.legislation.gov.uk/uksi/2015/51/contents/made
The Waste (England and Wales) Regulations 2011	http://www.legislation.gov.uk/uksi/2011/988/contents/made
Water Resources Act 1991	https://www.legislation.gov.uk/ukpga/1991/57/contents
The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017	https://www.legislation.gov.uk/uksi/2017/407/contents/made
Control of Pollution Act 1974	https://www.legislation.gov.uk/ukpga/1974/40
Hazardous Waste (England and Wales) Regulations 2005 (as amended)	https://www.legislation.gov.uk/uksi/2005/894/contents/made
Waste Framework Directive 2008/98/EC	http://ec.europa.eu/environment/waste/framework/
The Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019	The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (legislation.gov.uk)
Wildlife and Countryside Act 1981 (as amended)	https://www.legislation.gov.uk/ukpga/1981/69
The Natural Environment and Rural Communities Act 2006	https://www.legislation.gov.uk/ukpga/2006/16/contents
The Environment Act (England) 2021	https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted
The Health and Safety at Work Act 1974	https://www.legislation.gov.uk/ukpga/1974/37/contents
The Health and Safety at Work Regulations 1999	https://www.legislation.gov.uk/uksi/1999/3242/contents/made
Control of Substances Hazardous to Health (COSHH) (2002)	http://www.hse.gov.uk/nanotechnology/coshh.htm
Policy	
National Planning Policy Framework	https://www.gov.uk/guidance/national-planning-policy-framework
Guidance	
Environment Agency and National Groundwater and Contaminated Land Centre (2001) Piling and Penetrative Ground Improvement Methods on Land Affected by Contamination: Guidance on Pollution Prevention	http://www.merseygateway.co.uk/publicinquirydocs/Core-docs/CD-256.pdf
CIRIA (2009) Unexploded Ordnance (UXO) A Guide for the Construction Industry C68	https://www.ciria.org/ItemDetail?iProductcode=C681&Category=BOOK

The Construction Industry Research and Information Association (CIRIA), (2015), Environmental Good Practice on Site Guide (C741)	https://www.ciria.org/ProductExcerpts/tbyb_c741.aspx
CIRIA, (2001), Control of Water Pollution from Construction Sites (C532)	https://www.ciria.org/CIRIA/ProductExcerpts/C532.aspx
The SuDS Manual (2015)	https://www.ciria.org/ItemDetail?iProductCode=C753F&Category=FREEPUBS

3. ENVIRONMENTAL MEASURES

3.1 Introduction

Appropriate measures have been identified to manage potential effects on the receiving environment that may arise as a result of the construction phase and throughout the operation of the Amended Proposed Development. These have been outlined in Table 3.1.

These measures have been separated out by topic area with each measure aligned against the potential effect it was intended to mitigate and the receptor the effect would otherwise have impacted.

3.2 Public Liaison, General Enquiries and Complaints

In line with best practice at the time of writing, the following approach to communication would be adopted.

The Principal Contractor would have in place a plan covering community liaison, enquiries and complaints. Measures that would be adopted by the Principal Contractor as part of the construction of the Works include:

- The Site Manager would establish a system for dealing with enquiries or complaints from the public, local authorities or statutory consultees;
- An information board containing contact names, telephone numbers and addresses, and the helpline number at appropriate locations on the boundaries of the Site would be in place to inform the local community;
- Prior to commencing main construction activities, occupiers of premises in the vicinity of the Works would be notified by the Principal Contractor of the nature of the works, access restrictions, and provided with contact details to which any enquiries should be directed; and
- Any complaints that may arise would be logged, reported and addressed. The system would include measures to keep all relevant parties informed about the progress of complaints.

During construction, any external enquiries or complaints relating to an environmental and consents matter should be reported to the Principal Contractor's Communications Manager, as well as the Environmental/Consents Manager, Ecological Clerk of Works (ECoW), and the H&S Manager.

The Communications Manager would then work with the on-site team to investigate, address and respond to the complaint accordingly. Environmental complaints would be recorded on the Principal Contractor's Health, Safety and Environment (HSE) system in accordance with HSE management procedures.

Records of complaints would be regularly monitored by the Principal Contractor and Employer to check that an appropriate and timely response has been made, and to identify emergent trends which may require further investigation. Roles and responsibilities are defined further in Section 1.3 of this document.

3.3 Environmental Incident Response

Should, despite the measures outlined in Table 3.1, an environmental incident occur, the following steps of notification would be taken. This would be included within the initial Site induction for all operatives, by the appointed Principal Contractor:

- Any operative witnessing an incident must immediately report the incident to the designated Site Manager & H&S Manager; and
- Following this, the Site Manager/Assistant Site Manager should implement remedial measures and notify the Applicant's Project Manager.

For a spillage, in addition to the above:

- If a spill has reached a surface water drain or watercourse, or soaked away in open ground, the Site Manager/Assistant Site Manager would contact the Environment Agency (EA) immediately on the 24hr helpline; and
- If incidents do not fall into any precise category, and if there is any doubt, the Environment Agency would always be contacted through the Site Manager/Assistant Site Manager.

Table 3.1 Environmental Measures

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
General		
All	Increase in general disturbance resulting in a change in the receiving environment	**Core working hours:** Construction activities would be conducted during the hours of 07:00 to 19:00 on weekdays and 07:00 to 13:00 on Saturdays, with no working on Sundays or Bank Holidays. In some circumstances (for example concrete pouring), it may be necessary to work outside of these hours and, in these circumstances, permission would be sought from NCC. It is anticipated that this mechanism be secured by a condition attached to any grant of planning permission. Construction laydown areas for materials and the construction site compound(s) would be located within the Site. At normal times during the construction phase, there is anticipated to be no more than around 10 two-way Heavy Goods Vehicle (HGV) trips per average day (20 in total). **Working Scheme:** Phases would be worked from west to east, with the progressive extension of the conveyor and maintenance / haul road, in order to reduce the magnitude of initial construction activities required. Phases would be worked within micro-phases, thereby focussing any potential impacts within a smaller area within the phase and minimising the area of influence from extraction activities, including those that have to be completed at surface-level. This would also reduce the duration of activities that could potentially have more significant impacts, for example soil stripping and embankment removal, as these would only be completed for one micro-phase at any one time, meaning any potential impacts would be short-term and temporary. Extraction would be completed within the void behind the extraction face and existing lagoon embankments, thereby potential impacts would be screened by the embankments, and the area of influence would be minimised. The originally proposed Temporary Processing Areas within Area A have been removed in order to minimise vehicle movements and tracking, and associated impacts. Retention of the existing lagoon embankment within the SSSI to avoid any direct impacts on ecological receptors, and ensure a permanent buffer with the SSSI is maintained. The Amended Proposed Development includes the potential provision of temporary amenity mitigation soil bunding or fencing for mitigation of potential visual and air quality impacts and to provide acoustic screening, should further mitigation be required for specific activities over the lifetime of the Amended Proposed Development. Wet-working has been proposed where dewatering / pumping of groundwater would not take place, thereby avoiding any active abstraction of groundwater and discharge into soakaway ponds, and

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
		ensuring there would be no mixing of groundwater within the underlying sandstone and the PFA water within the working area.
Anthropogenic and ecological	Increase in light disturbance affecting normal routine or use of environment	**Control of artificial lighting:** The use of artificial lighting would be required for security lighting, periods of reduced daylight, such as winter months, to supplement the availability of natural daylight, and to safely meet the working hours outlined above. The proposed lighting scheme for the Amended Proposed Development is detailed within ESA Volume 1, Chapter 5, Section 5.6, and includes fully downward directional lighting in order to avoid light spill outside of the working area. The majority of work would be undertaken during natural daylight hours, however, where artificial lighting is required, it would comply with the following specifications: ■ Lighting would be kept to a minimum required for safe working; ■ Use of motion-sensitive security lighting and avoid where possible the use of floodlighting; ■ Lighting would be directionally controlled and directed away from sensitive receptors; ■ Lights would be fitted with 'hoods' or similar to control light spill beyond the horizontal plane; and ■ Avoid lighting with ultra-violet (UV) components in areas where lighting is required for public safety purposes as UV light can be disruptive to bat behaviour.
Anthropogenic and ecological	Pollution events associated with the use of plant, Site vehicles or chemicals leading to adverse effects on local, sensitive receptors	**Working Scheme:** The Amended Proposed Development minimises vehicle movements across Area A by using spur conveyors to move the extraction hopper as close to the extraction face as possible. This also minimises the area of influence of extraction activities in terms of noise and air quality, and from this point, the conveyor is completely covered thereby avoiding any further potential dust impacts. The progressive extension of the conveyor and maintenance / haul road from west to east also minimises required initial construction activities and reduces vehicle movements. **Best Practice Construction Methods:** During construction and operation, best practice methodologies would be deployed across Site to minimise the potential for negative effects. These measures would be refined further once the detailed design is known and would be recorded in a Construction Environmental Management Plan (CEMP), which is a live document. In relation to general pollution prevention the following measures would be included, as a minimum: ■ Provide sufficient Bunding of fuel storage (110% of content capacity) or COSHH items to limit dispersal of spills or construction materials; ■ Maintenance of vehicles, plant and other Site equipment to reduce spills; ■ Use of 'plant nappies', 'drip trays' or similar to manage point source pollution;

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
		■ Use of wheel wash facility and or a jet-wash water bowser to manage and remove material arising's or other substances from vehicle wheels; ■ Storage of fuels and other chemicals in appropriate containers within secure locations such as construction compounds; and ■ Appropriate spill kits kept in accessible locations on-site.
Air Quality – Refer to Appendix 13.7 Dust Management and Monitoring Plan of ESA Volume 3 for further specific dust measures		
Anthropogenic and ecological	Generation of emissions leading to localised effects on air quality	**Pre-Processing** ■ Finley Screen supplied with canvas dust covers on mains and fines conveyor; ■ The extracted PFA would be place in the void onto PFA which would be permeable to allow any water to shed back into the PF; and ■ The enclosed building and silos at the Main Processing Site have sufficient capacity to hold PFA for 3–5 days of production capacity and no long-term stockpiling is therefore required. **Main Processing Area** ■ Hard paved to allow surface to be swept and effectively watered; ■ Designated Collection Area; ■ Enclosed material storage building, kept under negative pressure with extraction system installed with appropriate filters; ■ All processing plant fully enclosed, with the exhaust from the dryers passing through cyclone and fabric filters prior to release to atmosphere; and ■ PFA transfer fully enclosed via covered conveyors / piping. **Material Transfer** ■ Transfer of PFA done by fully covered conveyor under normal operations (with exception of Phase 1). **General** ■ Water availability at all times on-site with a dust suppression system utilising a tractor and bowser for all internal roads, stockpiles and surfaces, where practicable; ■ Each extraction phase is split into small micro-phases where extractive will be focussed; and ■ Conveyor hopper located close to the extraction face, with minimal travel distance. **Soil and Overburden Storage** ■ Designated areas on-site; ■ Graded and vegetated upon earliest opportunity; and

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
		■ On-site Transportation. **Off-Site Transportation** ■ All vehicles exiting Site to utilise wheel wash located adjacent to weighbridge; ■ >500 m of hard paved access road between wheel wash and local road network; ■ No road-bound vehicles to access unpaved roads onsite (i.e., areas north of the Main Processing Site); ■ All material transferred off site contained either by powder tankers or sheeted wagons; and ■ Road sweeper on-site for use on local road network, access road and Main Processing Site, as required.
Contaminated Land - Refer to Annex D Discovery Strategy for further specific asbestos measures and refer to Technical Appendix 9.1 Water Environment Management Plan for further information on surface water and groundwater		
Site personnel, general public and ecological receptors	Excavation of contaminated material leading to health impacts to human and ecological receptors	**Site-Specific Risk Assessment:** During the construction/operational phase there is the potential for on-site construction workers to be exposed to PFA during its extraction and processing. Whilst PFA is classed as non-hazardous, it contains chemical constituents that may pose an exposure risk if not properly handled and managed to ensure that such exposure is controlled and mitigated. A Site-specific contamination risk assessment would be undertaken prior to construction to identify specific remediation measures, should they be needed, in-line with the detailed design. Additionally, Site staff would adopt a 'maintained vigilance' approach to working. A Discovery Strategy is to be implemented and a contingency plan prepared for dealing with such unexpected material should it be encountered. Workers are to be competent in asbestos awareness and know how to manage potential asbestos should it be encountered. **Management of arisings:** In the event of mud, sediment and other material arisings as a result of the construction process, these would be managed to minimise the potential for negative interactions with human and ecological resources. As a minimum the following would be undertaken, with further management activities defined in the updated CEMP once it is available: ■ Arisings would be stored in a tidy manner with bunding or other containment where appropriate; ■ Arisings would be stored away from areas where the public may come into contact with them; ■ Arisings would be damped down as needed during periods of dry weather etc; ■ Arisings would be stored away from identified sensitive ecological receptors; ■ Arisings would be re-used/redistributed on-site, where appropriate, or transported away from Site in-line with current best practice methodology; and

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
		■ Arisings would be segregated and stored into designated stockpiles in like-for-like material, and a material stockpile and volumetric tracking methodology/system implemented to allow a clearly documented audit trail of material movement and placement.
Surface water bodies	Contamination of and transport via surface water bodies leading to impacts on water quality and dispersal to receptors in the wider environment.	**Site-Specific Risk Assessment:** There would be potential contaminant migration pathways via surface water drainage. However, given the regulated and controlled nature of the proposed activities on Site via health and safety working practices, permitting and planning requirements, it is concluded that controlled water exposure pathways would be well controlled and mitigated as part of the operational design and subsequent scheme implementation. Additionally, Site staff would adopt a 'maintained vigilance' approach to working. **Management of arisings:** Arisings generated as a result of the construction process would be managed to minimise the potential for negative interactions with water bodies. As a minimum, the following would be undertaken, with further management activities defined in the updated CEMP once it is available. ■ Arisings would be stored at a stable batter with bunding or other containment where appropriate; ■ Arisings would be damped down as needed during periods of dry weather etc; ■ Major earthworks would not be undertaken during adverse weather; ■ Arisings would be stored away from surface water bodies and flood zones, in locations with no clear pathway for arisings to enter water bodies; ■ Appropriate pollution prevention measures would be implemented to manage Site run-off, capturing sediment before it can be discharged to the wider environment; and ■ Arisings would be re-used/redistributed on-site, where appropriate, or transported away from Site in-line with current best practice methodology. **Management of Excavated PFA** The following preventative measures would be implemented to control erosion and sediment runoff from stockpiles throughout the operation of the Amended Proposed Development: ■ Material would be stockpiled for as short a time as practicable; ■ Exposed ground would be open for as short a time as practicable with the area excavated and restored progressively in phases to ensure this; and ■ If runoff of sediment is observed onsite silt fences and/or mats would be employed. Good practice measures would be adopted during construction to control the generation and dispersion of dust such that significant impacts on neighbouring habitats would not occur.

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
Site personnel	Release of ground generating gasses leading to health impacts for Site staff and risk of explosion	**Site-Specific Risk Assessment:** There is no indication of the presence of 'other' buried waste in the PFA that could result in the presence of vapours or ground gases, and therefore exposure risk via this route is considered to be a relatively low risk. However, a Site-specific contamination risk assessment would be undertaken prior to construction to identify specific remediation measures, should they be needed, in-line with the detailed design. Additionally, Site staff would adopt a 'maintained vigilance' approach to working. Should it be necessary, Site staff would wear appropriate PPE.
Ecology and Biodiversity		
Habitats/vegetative assemblages	Potential destruction or damage to habitats on-site and adjacent to Site leading to loss of habitat, species and biodiversity	**Biodiversity Net-Gain:** A Biodiversity Net-Gain assessment has been undertaken by ERM. Through the incorporation of habitat creation and enhancement that has been submitted with this application, it has shown that there would be an increase of habitat units on-site of at least 10%, which would be achieved at the end of the completed restoration works and be reviewed in conjunction with progress of construction. The longevity of the Amended Proposed Development means the assessed baseline condition is likely to change during the duration of the works, which presents challenges in ensuring appropriate mitigation and to safeguard ecological features and ensure legal compliance is maintained. Monitoring surveys utilising baseline survey results and desk study information are not exhaustive, therefore potential further mitigation and licensing requirements would be subjected to provide for: bats, great crested newt, badger, reptiles, water vole, otter and invertebrates. All of which either are currently present or have the potential to be present on the Site during the lifetime of the Amended Proposed Development. For further information on Ecology Monitoring and Mitigation please refer to Technical Appendix 8.6 of ES Volume 3, and ESA Volume 1 Chapter 8.
Landscape and Visual Impact		
Adjacent receptors	Increased vehicle presence, construction lighting and other construction activities leading to increased visual intrusion for receptors	**Site Specific Measures:** Measures to avoid or reduce potential effects on landscape and visual receptors have been incorporated into the design of the Amended Proposed Development. Specific Site measures to reduce construction impacts on receptors in the receiving environment would be employed. These measures would be refined once the detailed design is known, however, they would include: ■ All trees and vegetation to be retained would be appropriately protected both during construction and during operational use;

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
		■ Trees to be removed would be minimised and replacement planting would be implemented the first planting season after the removal of trees to facilitate access; ■ Abide by specified working hours; ■ Material arising's to be stored away from sensitive receptors ■ Use of directional lighting and evade the use of flood lighting and or directing artificial lighting upon surrounding sensitive receptors; ■ Lagoon embankments retained in each phase during extraction; and ■ Provision of a Construction Traffic Management Plan.
Residents and road users	Changes in visibility of Site, including increased vehicle presence, lighting, and other construction/operational activities, from nearby residential receptors	**Site Specific Measures:** Would be employed to manage the potential impacts on receptors in the receiving environment. These measures would be refined once the detailed design is known, however, they would include: ■ Extraction activities would take place within the extraction void, behind the extraction face and existing lagoon embankments, thereby reducing visual impacts following the initial dig-down activities; ■ Materials and arisings would be stored away from sensitive receptors as far as possible; and ■ Use of directional lighting and evade the use of flood lighting and or directing artificial lighting upon surrounding sensitive receptors.
Noise and Vibration		
Nearby Anthropogenic and ecological receptors	Increase in disturbance through noise leading to a disruption of normal activity	**Site Specific Measures:** Site specific measures would be employed to manage the potential for negative impacts on receptors. These measures would be refined at the detailed design stage but would include: ■ Extraction activities would take place within micro-phases and within the extraction void, behind the extraction face and existing lagoon embankments, thereby reducing noise impacts following the initial dig-down activities; ■ Temporary mitigation bunding or fencing would be provided if necessary for specific activities to reduce potential noise impacts; ■ Static plant would be located away from sensitive receptors where possible; ■ When not in use the plant would be switched off; ■ Mechanical plant would be fitted with effective exhaust silencers and would be maintained in good efficient order; ■ All ancillary plant such as generators and pumps would be positioned so as to cause minimum noise disturbance, and where necessary, acoustic enclosures would be provided; ■ Loading and drop-off heights would be minimised

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
		■ Reversing would be minimised – reducing the use of reversing sirens; ■ Where practicable, the use of noisy plant would be limited to core daytime periods; ■ Channels of communication would be established between the contractor / developer, Local Planning Authority and residents; and ■ A Site representative would be appointed who would be responsible for matters relating to noise.
Transport and Access		
Road users	Increase in baseline vehicle numbers and temporary construction traffic	**Construction Traffic Management Plan:** A Construction Traffic Management Plan would be reviewed and maintained to ensure specific measures to manage Site traffic. Specific measures would include: ■ Minimising vehicle movements; ■ Provision of appropriate parking facilities for Site vehicles, reverse only policy and located away from sensitive receptors; ■ Use of a one-way system for vehicles on-site or other traffic control measures; and ■ Schedule and communicate with all delivery vehicles on the designated and approved route to Site and avoid where possible, the scheduling of HGVs to arrive on-site during school commuting hours (08:00-09:00 & 15:00-16:00).
Pedestrians	Increase in traffic volumes leading to negative interactions with members of the public	**Construction Traffic Management Plan:** A Construction Traffic Management Plan would be produced detailing specific measures to manage Site traffic. Specific measures would include: ■ Pedestrians and Site traffic to be segregated at all times through the use of barriers etc; ■ Provision of walkways and crossings where appropriate; ■ Ensure clear visibility on roads, especially at junctions; ■ Provision of appropriate turning heads or one-way systems; and ■ Deployment of appropriate signage indicating public rights of way and safe areas for pedestrians where appropriate.
Water Environment		
Anthropogenic and ecological receptors	Construction activities lead to increased surface water flows resulting in an increased flood risk for sensitive receptors on and off-site	Prior to construction a detailed condition survey of the existing drainage system, including the septic tank, would be undertaken to determine their suitability for the Amended Proposed Development. This would include estimating the likely discharge quantities to ensure there is sufficient capacity in the current system and where necessary upgrading the outfall structures to the unnamed tributary of the River Idle.

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
		Wet-working has been proposed where dewatering / pumping of groundwater would not take place, thereby avoiding any active abstraction of groundwater and discharge into soakaway ponds, and ensuring there would be no mixing of groundwater within the underlying sandstone and the PFA water within the working area. A revised extraction methodology was designed to minimise impacts to surface water as a result of extraction activities. Details of the revised extraction methodology is included within Chapter 9 of ESA Volume 1. **Management of Excavated PFA** The following preventative measures would be implemented to control erosion and sediment runoff from stockpiles throughout the operation of the Amended Proposed Development: ■ Material would be stockpiled for as short a time as practicable; ■ Exposed ground would be open for as short a time as practicable with the area excavated and restored progressively in phases to ensure this; ■ All stockpiled and bunded material would be stored at least 20 m from any artificial drains and waterbodies to reduce wash-off of sediments; and ■ If runoff of sediment is observed on-site silt fences and/or mats would be employed. **Spill Response Plan (SRP)** Once the sources of potential spills and leaks and the resources at potential risk have been identified, the detailed SRP would set out specific protective and management measures for the different sources. These measures would specify such matter as: ■ Specifications for reception and storage facilities (e.g. tank size, base material, bunding capacity, secondary containment); ■ Potentially contaminating chemicals stored on-site should be kept within a secure bunded area to prevent any accidental spills from affecting hydrological resources. Construction compounds would have a bunded area underlain by impermeable ground membrane layer; ■ Bunded areas would have 110% capacity to attenuate stored liquids; ■ Procedures for use of potentially hazardous materials; ■ Separation distances between hazards and vulnerable receptors; ■ Procedures for working near vulnerable receptors when this cannot be avoided; and ■ Training of personnel on SRP and other good practice measures as required.
Waste - Also refer to Annex B Outline Site Waste Management Plan.		
All.	Construction activities lead to generation of construction waste	**Best Practice Construction Methods:**

Potential Receptors	Predicted Changes and Potential Effects	Proposed Measures
	which negatively impacts on and off-site receptors	The Site would comply, where possible, with the waste hierarchy in the management of waste arising(s) due to construction activities. The hierarchy stipulates elimination, reduction, re-use, recycling and finally disposal. The detailed design would inform more detailed, site-specific measures however it is anticipated that these measures would include: ■ Identification of types of waste that might be generated and responsibility for management; ■ Implementation of waste minimisation strategies; ■ Implementation of re-use and recycling strategies; ■ Set-up of waste disposal facilities; and ■ Monitoring, auditing and reporting of waste on-site. A Waste Acceptance Procedure (WAP) has been developed for the Amended Proposed Development. The purpose of the document is to ensure that the pre-processing area only accepts waste that is: ■ Suitable for the activity; ■ Is allowed by the permit; and ■ Is appropriately considered by the environmental risk assessment. The WAP also assists with ensuring that no Site activities cause pollution and the receipt of non-permitted waste is prevented though detailed acceptance procedures and on-site waste verification. The WAP is submitted as part of the environmental permitting application. Further waste measures are set out in Annex B of this oCEMP.

3.4 Dust Management

The Amended Proposed Development has several measures included to ensure dust production is limited and sufficiently managed during excavation. A Dust Management and Monitoring Plan (DMMP) has been prepared to support the planning application and should be implemented by the Site management team. The Updated DMMP is included as Appendix 13.7 in ESA Volume 3.

The DMMP was prepared to provide an update to the Dust Management Plan produced in February 2023 and submitted with the ES in Technical Appendix 13.7, ES Volume 3. As the Applicant has revised the scheme significantly since the Dust Management Plan was submitted, a dust monitoring regime has been developed to be more consistent with the higher level of information usually reserved by planning condition. The DMMP provides significantly more detail to ensure dust management is at the centre of all operational activities.

The contents of the Updated Dust Management Plan have benefitted from specialist input from Hatfield Site Services Ltd ('HSSL'), the contracting division of Roy Hatfield Ltd, who have over 20 years of experience operating mineral processing operations, including PFA recovery operations. HSSL has been engaged to provide further practical expertise on how best to mitigate dust generation and release from the Amended Proposed Development. HSSL is actively managing operational PFA and resource recovery sites in the UK. It follows that HSSL is currently carrying all the measures set out in the plan on numerous sites, where they are successfully managing dust impacts.

3.5 Discovery Strategy

During the consultation process for the Proposed Development, some concerns were raised regarding the potential for discovery of materials such as asbestos within the PFA. The Applicant therefore carried out a further ground investigation, detail of which can be found in ESA Volume 1, Chapter 10. As a precautionary measure, a Discovery Strategy has been drafted for the Amended Proposed Development, and is included as Annex D of this OCEMP.

The Discovery Strategy outlines the procedures in place to identify the visual/olfactory evidence of contamination and/or non-conforming material and emphasises the importance of removing and appropriately handling contaminated or non-conforming material, implementing appropriate controls and mitigation measures, ensuring health and safety risk mitigation, and conducting pre-acceptance checks for Environmental Permits. Near Misses

Where observed, environmental 'near misses' would also be reported, i.e. situations or occurrences that could potentially lead/contribute to an environmental incident in slightly different circumstances e.g. no drip tray below plant when refuelling, or inappropriately stored oils/chemicals. These would be logged by the Site Manager and reviewed by the Applicant's Project Manager (PM).

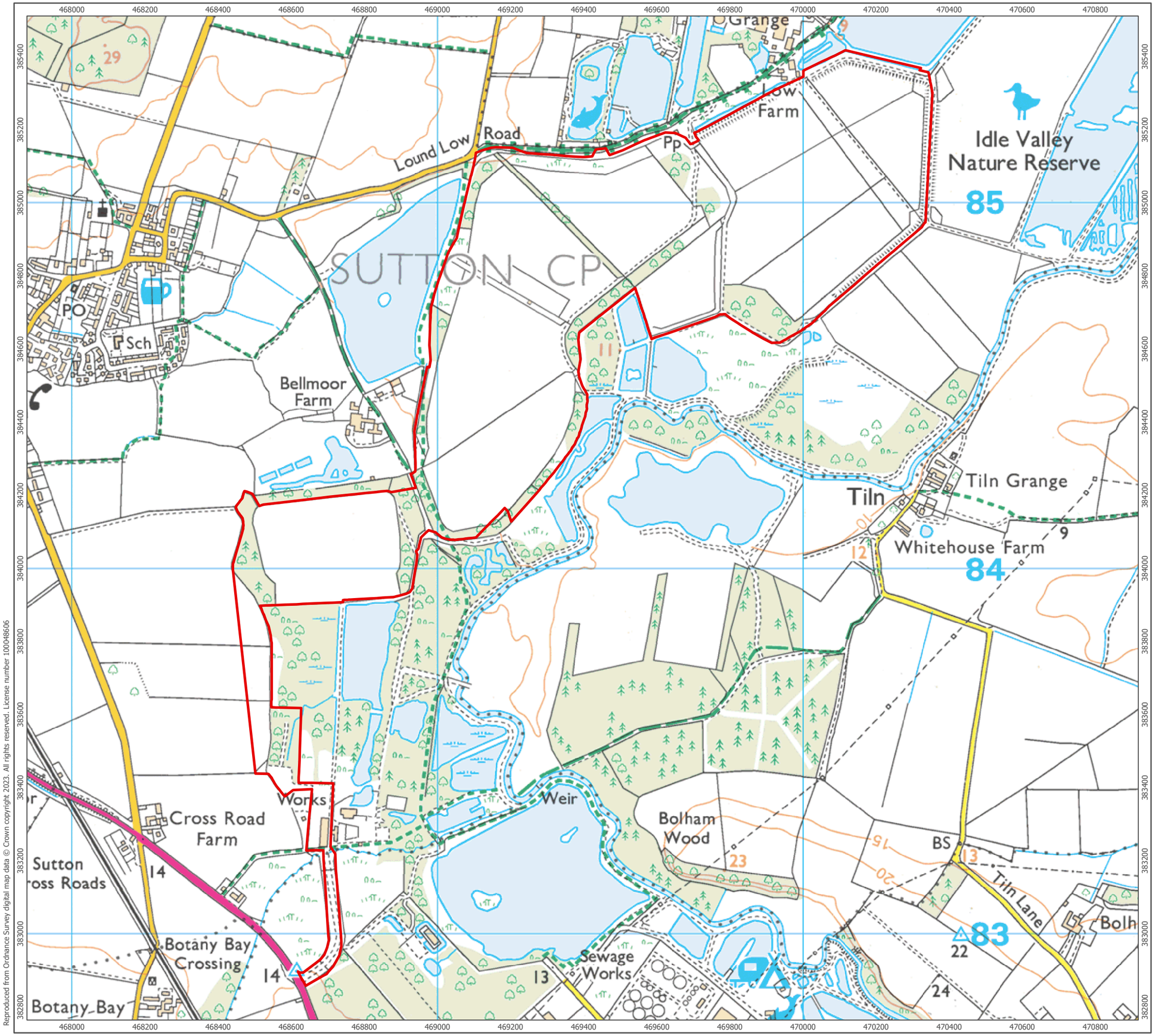
An outline Site Waste Management Plan and Outline Incident Response Plan are included in Appendices B and D of this OCEMP. Full details of the responses to incidents are included in the Outline Incident Response Plan.

4. DECOMMISSIONING

A Decommissioning Plan would be provided prior to the commencement of decommissioning.

Decommissioning activities would be undertaken in accordance with best practice at the time, and agreed with the relevant consultees in advance of the works commencing.

ANNEX A SITE LOCATION PLAN



Y:\GIS\Environment\4092 Lound Ash Extraction\4092 Lound Ash Extraction.aprx\4092-REP-072 Fig1.1 Site Location Plan

HIVE AGGREGATES

ERM

Site Boundary

1:10,000 Scale @ A3

0 250 500 m

NORTH

Produced By: HG	Ref: 4092-REP-072
Checked By: EB	Date: 02/03/2023

Site Location Plan
Figure 1.1

Retford Circular Economy Project Environmental Statement

ANNEX B OUTLINE SITE WASTE MANAGEMENT PLAN

1. OUTLINE SITE WASTE MANAGEMENT PLAN

1.1 Introduction

This Outline Site Waste Management Plan (SWMP) is submitted as part of a planning application for the Retford Circular Economy Project (the Amended Proposed Development), comprising the extraction of PFA contained in former disposal lagoons, progressive restoration, processing and export. Waste Acceptance Procedures are also included in Appendix C of this OCEMP.

The aim of this Outline SWMP is to protect the environment through implementation of effective management plans which relate to the management of waste throughout the life cycle of the Amended Proposed Development.

Prior to construction of the Amended Proposed Development, the Contractor would update this Outline SWMP to ensure it is a suitably detailed document. The Contractor would take ownership of the Detailed SWMP and would adhere to the principles presented within it.

The Detailed SWMP is a key tool which would be used to plan, implement, monitor and review waste minimisation and management during the construction, operation and decommissioning phases of the Amended Proposed Development.

This Outline SWMP provides guidelines and details of the minimum requirements which the Contractor should include in their detailed SWMP. The Detailed SWMP would be put in place by the appointed Contractor prior to commencement of the construction phase of the Amended Proposed Development and would be implemented in conjunction with the Construction Environmental Management Plan (CEMP) to ensure potential environmental effects on-site are reduced as appropriate.

The expectation is that the majority of PFA extracted would be processed and removed off Site, so waste generation is anticipated to be minimal. A small volume of waste would be generated from the screening process. This waste is likely to comprise inert, uncontaminated material which is likely to be beneficially incorporated within the restoration of the Site.

At this stage, the exact quantities and types of waste are unknown. It is expected that they could include:

- Excavated material;
- Welfare facility waste;
- Packaging;
- Waste chemicals, fuels and oils;
- Waste metals;
- Waste water from dewatering;
- Waste water from cleaning activities; and
- General construction waste (paper, wood, etc.).

Any import, export (not anticipated) and reuse of material generated on-site would be undertaken in line with the requirements of the CL:AIRE Definition of Waste: Development Industry Code of Practice (version 2)[2]. As such, this Outline SWMP considers only the management of the waste arising from other imported construction materials.

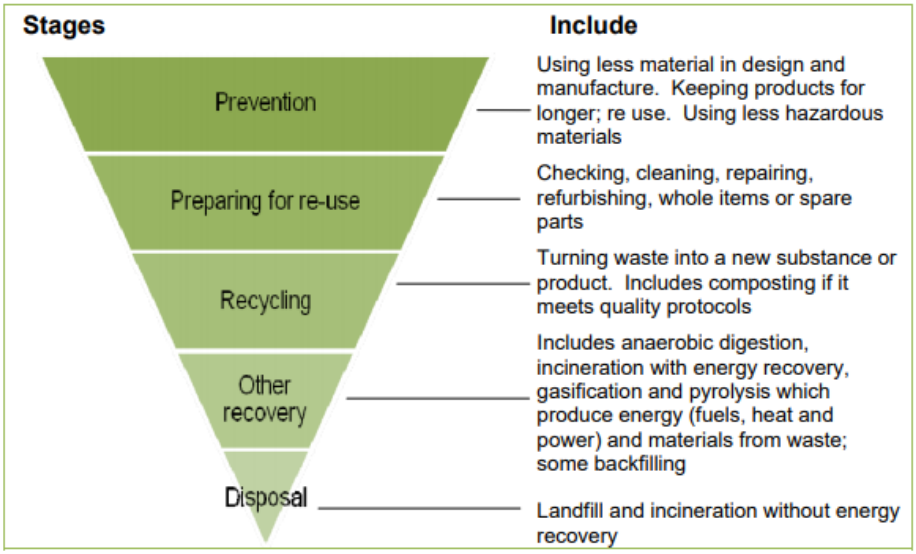
[2] Contaminated Land: Applications in Real Environments (2011): The Definition of Waste: Development Industry Code of Practice (Version 2)

1.2 The Waste Hierarchy

The 'Waste Hierarchy' provides an outline approach of how waste management should be assessed within the Outline SWMP. The Waste (England and Wales) Regulations 2011[3] place a duty on all persons who produce, keep or manage waste to apply the 'Waste Hierarchy' in order to minimise waste production at every stage of the development.

The 'Waste Hierarchy' promotes selection of the Best Practicable Environmental Option (BPEO) and preferred option for management of waste.

Waste Hierarchy Diagram [4]



The core waste management principles of reduce, reuse, recycle, recover and disposal as defined in the 'Waste Hierarchy', are embedded within this Outline SWMP.

1.2.1 Waste Prevention

Minimisation of waste generation is achieved through careful design and creating a 'waste aware' culture on-site. All reasonable actions would be taken by the Contractor to avoid the production of and/or minimise the volume of waste produced as a result of the Amended Proposed Development. This can be through reducing consumption, using resources efficiently, and designing for longevity.

1.2.2 Waste Separation for Reuse and Recycle

Where possible, the separation of waste would be carried out at the source in order to maximise opportunities for reuse and recycling. Segregation of waste would require training, monitoring and enforcement.

1.2.3 Waste Storage, Disposal and Transportation

All areas used for temporary storage of waste on-site would comply with Defra and EA guidelines and would be clearly signed. Waste storage facilities would be provided at source using the best environmental options available. Any hazardous or special waste would be stored in separate, secure containers and clearly identified as such.

[3] Legislation (England and Wales) (2011): The Waste (England and Wales) Regulations 2011 [Online] Available at: https://www.legislation.gov.uk/uksi/2011/988/contents/made (Accessed 30/06/2022)

[4] Defra (2011) Guidance on applying the Waste Hierarchy [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69403/pb13530-waste-hierarchy-guidance.pdf (Accessed 30/06/2022)

Disposal activities would also be carried out in accordance with the EA, Pollution Prevention Guidelines (PPGs[5]) in order to ensure compliance with current waste legislation.

A review plan for the PPGs is currently underway, replacing them with a replacement guidance series, Guidance for Pollution Prevention (GPPs[6]). GPPs provide environmental regulatory guidance for Northern Ireland, Scotland and Wales and environmental good practice guidance for the whole UK.

As the Site is within England the PPGs still provide regulatory guidance for the Amended Proposed Development, however the activities would also be carried out in accordance with GPPs to demonstrate environmental good practice.

Waste transportation would take place at regular intervals to avoid the accrual of waste. Where possible, delivery vehicles would aim to remove waste materials on return trips.

Only registered waste carriers would be authorised to transport waste and a Waste Transfer Note (WTN) would be completed for each load of waste, which must contain a record of their waste carrier registration number. Copies of each WTN would be filed as an appendix to the SWMP and held for at least two years. The appropriate European Waste Catalogue (EWC) code would be established using updated Technical Guidance (WM3)[7] and would be noted on the WTN, in addition to how it is contained. All sites receiving waste must have an appropriate permit, licence or registration exemption, the details of which should also be recoded.

If required, the EA would be advised in advance of any hazardous waste movements and Waste Consignment Notes (WCNs) would be purchased in advance for this type of waste transportation. These consignment notes would be held for at least three years.

1.3 Policy Context and Legislation

As of 2013, the production and implementation of a SWMP is no longer a legal requirement, however it is regarded as best practice[8]. Policy and legislation do dictate the management of waste and therefore, the following items have been considered when developing the SWMP:

- The Environmental Protection Act 1990[9]
- The Hazardous Waste (England and Wales) Regulations 2005[10]
- The Waste (England and Wales) Regulations 2011[11]
- The Waste Framework Directive[12], and

[5] Environment Agency (2014): Pollution prevention guidance (PPG) [Withdrawn] Available at: https://webarchive.nationalarchives.gov.uk/20140328090931/http://www.environment-agency.gov.uk/business/topics/pollution/39083.aspx (Accessed 30/06/2022)

[6] NetRegs (2021): Guidance for Pollution Prevention (GPP) [Online]. Available at: https://www.netregs.org.uk/environmental-topics/guidance-for-pollution-prevention-gpp-documents/guidance-for-pollution-prevention-gpps-full-list/ (Accessed 30/06/2022)

[7] Environment Agency, Scottish Environment Protection Agency & Natural Resources Wales (2015) Waste Classification: Guidance on the classification and assessment of waste (1st Edition v1.1.GB) Technical Guidance WM3, EU Exit Update (Jan 2021) [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/948735/Waste_classification_technical_guidance_WM3.pdf (Accessed 30/06/2022)

[8] IEMA (2008) Practitioner Series No. 11, Waste Management: A Guide for Business in the UK. Institute of Environmental Management and Assessment.

[9] UK Government (1990): Environmental Protection Act 1990 [Online] Available at: https://www.legislation.gov.uk/ukpga/1990/43/contents (Accessed 30/06/2022)

[10] Legislation (England and Wales) (2005) The Hazardous Waste (England and Wales) Regulations 2005 [Online] Available at: https://www.legislation.gov.uk/uksi/2005/894/contents/made (Accessed 30/06/2022)

[11] Legislation (England and Wales) (2011) The Waste (England and Wales) Regulations 2011 [Online] Available at: https://www.legislation.gov.uk/uksi/2011/988/contents/made (Accessed 30/06/2022)

[12] European Commission (2008) The Waste Framework Directive - DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives [Online] Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A02008L0098-20180705 (Accessed 30/06/2022)

- The Waste Management Plan for England 2013[13]

Should any surplus waste remain which cannot be reused or recycled, then the Landfill Directive 1999[14] would apply.

1.4 Guidance

Several guidance documents were also used to develop this SWMP and include:

- Environment Agency, 2015, Manage Water on Land: Guidance for Land Managers[15];
- British Standards Institution, 2015, BS 5930:2015, Code of practice for ground investigations[16]
- Construction Industry Research and Information Association (CIRIA), 2015, Environmental Good Practice on-site (C741), 4th edition[17]
- Defra and Environmental Agency, 2018, Waste Duty of Care Code of Practice[18]
- Defra and Environmental Agency, 2019, Pollution Prevention for Businesses[19]
- Defra and Environmental Agency, 2021, Discharges to Surface water and groundwater: environmental permits[20]
- Defra and Environmental Agency, 2020, Oil Storage Regulations for Businesses[21]
- Institute of Environmental Management and Assessment (IEMA), 2008, Practitioner Vol. 11 Waste Management: a guide for businesses in the UK[22], and
- Wrap, www.wrap.org.uk[23]

The above guidance on waste management would be used to ensure the following objectives are met through the Outline SWMP:

- Legal obligations of the Amended Proposed Development;
- Waste production is minimised;
- Waste is recognised as a resource;
- Project build costs are minimised;
- A framework for continuous improvement and best practice is implemented and maintained; and,

[13] Defra (2013) The Waste Management Plan for England 2013 [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/265810/pb14100-waste-management-plan-20131213.pdf (Accessed 30/06/2022)
[14] European Commission (1999) Landfill of waste - Directive 1999/31/EC on the landfill of waste [Online] Available at: https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=LEGISSUM%3Al21208 (Accessed 30/06/2022)
[15] Environment Agency (2015) Manage Water on Land: Guidance for Land Managers [Online] Available at: https://www.gov.uk/guidance/manage-water-on-land-guidance-for-land-managers (Accessed 30/06/2022)
[16] British Standards Institution (2015) Code of practice for ground investigations - BS 5930:2015+A1:2020
[17] Construction Industry Research and Information Association (2015): Environmental Good Practice on Site (C741), 4th edition
[18] Defra and Environmental Agency (2018) Waste Duty of Care Code of Practice [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/759083/waste-code-practice-2018.pdf (Accessed 30/06/2022)
[19] Defra and Environmental Agency (2016) Pollution Prevention for Businesses [Online] Available at: https://www.gov.uk/guidance/pollution-prevention-for-businesses (Accessed 30/06/2022)
[20] Defra and Environmental Agency (2021) Discharges to Surface water and groundwater: environmental permits [Online] Available at: https://www.gov.uk/guidance/discharges-to-surface-water-and-groundwater-environmental-permits (Accessed 30/06/2022)
[21] Defra and Environmental Agency (2020) Oil Storage Regulations for Businesses [Online] Available at: https://www.gov.uk/guidance/storing-oil-at-a-home-or-business (Accessed 30/06/2022)
[22] IEMA (2008) Practitioner Series No. 11, Waste Management: A Guide for Business in the UK. Institute of Environmental Management and Assessment.
[23] Waste and Resources Action Programme (WRAP) [Online] Available at: https://wrap.org.uk/ (Accessed 30/06/2022)

- Adverse environmental impacts associated with the production and management of waste materials are minimised.

1.5 Anticipated Waste Streams

The list below provides an indication of the expected waste streams. However, this list is not exhaustive and additional streams may be added as the works progress:

- Waste from welfare facilities;
- Waste chemicals, fuels and oils;
- Packaging;
- Waste metals; and
- Waste water.

1.5.1 Waste from Welfare Facilities

Temporary welfare facilities would be provided during the construction phase of the Optimisation phase. These facilities would include toilets, washing and drinking water. This could include a connection to the public mains water supply, and a cess tank that would be periodically emptied and taken off-site by a licensed operator. All on-site welfare facilities would be clearly signposted and maintained.

Where excess surface water occurs from the area of the buildings, this would be collected and treated in a Sustainable Urban Drainage System (SUDS), prior to discharge.

1.5.2 Toilet Facilities

During the initial construction phase, 'Porta-loo' type facilities, or equivalent, would be used and emptied by an approved waste contractor, therefore minimising potential effects on drainage ditches and watercourses.

1.5.3 Other Domestic Refuse

Collection facilities for refuse would be provided to segregate waste. These facilities would be clearly marked, positioned in appropriate locations and protected from the weather and animals.

1.5.4 Waste Chemicals, Fuels and Oils

All fuel and oil would be stored within designated area and contained by a small bund constructed from material sourced on-site and lined with an impermeable membrane in order to prevent any contamination of the surrounding soils, vegetation and water table, in accordance with Defra and Environmental Agency Oil Storage Regulations for Businesses[24]. Any contaminated run-off within the bund would be disposed of at an appropriate waste management facility.

Any used (contaminated) spill kits, absorbent granules, sheets or fibres must be disposed of in accordance with the COSHH Regulations[25] and amended workplace limits for exposure to COSHH materials[26] and in accordance with the spill management plan.

[24] Defra and Environmental Agency (2020) Oil Storage Regulations for Businesses [Online] Available at: https://www.gov.uk/guidance/storing-oil-at-a-home-or-business (Accessed 30/06/2022)
[25] Health and Safety Executive (2002) Control of Substances Hazardous to Health 2002 (COSHH)
[26] Health and Safety Executive (2020) EH40/2005 Workplace exposure limits. Containing the list of workplace exposure limits for use with the Control of Substances Hazardous to Health Regulations 2002 (as amended)

1.5.5 Packaging

Construction waste generated is expected to be restricted to general construction waste (e.g., off cuts of timber, timber pallets, cardboard, wire, cleaning cloths, paper, etc.) which would be sorted and either recycled or disposed of off-site to an appropriately licenced landfill by the Contractor.

Packaging would be separated at the source of generation on-site, where practical. This approach uses the Waste Hierarchy by encouraging reuse and recycling of materials, such as plastic, wood and paper.

1.5.6 Waste Metals

It is likely that this would be produced from excess construction materials. Any waste metal would be recycled as appropriate.

ANNEX C OUTLINE INCIDENT RESPONSE PLAN

1. OUTLINE INCIDENT RESPONSE PLAN

1.1 Introduction

An Incident Response Plan would be implemented throughout the construction and operation of the Amended Proposed Development.

Prior to the commencement of construction, the lead principal contractor shall set up an emergency response plan/procedure, in order to ensure that this plan is adequate for the nature and lifetime of the project and the environment in which works are being undertaken.

The Incident Response Plan would include emergency contacts who would coordinate response activities in the event of a pollution incident.

This Incident Response Plan would include an outline procedure similar to that set out below:

1. **Make the situation safe**: Do not compromise the health and safety of Site personnel in controlling a pollution incident. Ensure that appropriate Personal Protective Equipment (PPE) is available to use where necessary.
2. **Stop the source of the pollution incident**: Identify the cause of the emergency or incident and act immediately to prevent further pollution.
3. **Contain the pollution incident**: Once the source of the pollution has been stopped, act to prevent the pollution that has already taken place from spreading. Ensure that appropriate materials are available in appropriate quantities to use where necessary. For example, absorbent materials and booms to soak up the pollution are required to deal with spillages of liquid contaminants. For example, an excavator may be used to dig containment facilities or bunds where containing large volumes of pollutants is required.
4. **Notify the pollution incident**: Any emergency or incident would be reported as soon as possible after the above initial control measures have been implemented detailing the nature, cause and location to ensure that appropriate action is taken. Where appropriate, the Site team should refer the incident to a specialist clean up Contractor. Where pollution is serious, or containment has failed, it may be necessary to contact the Local Authority, the Environment Agency and/or Natural England as relevant to the incident.
5. **Monitor the pollution incident**: Once the pollutants are contained, the site of the pollution should be monitored on an ongoing basis until the pollutants and contaminated materials are successfully removed and if necessary, further action taken to contain the pollutants. Where it is possible that pollution has spread, the surrounding water bodies and watercourses should be inspected and monitored on an ongoing basis to identify the extents of the pollution. In the event of pollution due to sedimentation of watercourses, those watercourses should be checked during periods of high rainfall or during construction activities with the potential for significant run-off.
6. **Clean up the pollution incident**: Once the pollution incident has been stopped, contained and the full extents defined, a strategy for cleaning up should be developed. All waste generated by clean-up activities should be disposed of in accordance with current legislative requirements and the Site Waste Management Plan and copies of all transfer notes retained.
7. **Learn from the pollution incident**: Ensure that any lessons from the incident are communicated to all relevant staff and appropriate action taken elsewhere on-site if necessary. Update all relevant Method Statements and Toolbox Talks, and ensure new information is communicated to Site staff.

1.2 Environmental Incident Protocol

In the event of an environmental incident occurring, the following protocol (or similar) would be adopted:

- The appropriate notification protocols shall be implemented immediately following a planning or environmental spillage or incident, followed by immediate notification of the Site Manager. Should a serious environmental incident occur, the EA should also be notified;
- The Site Manager would investigate the incident, with inputs from specialist advice as to appropriate measures to remedy or mitigate any potential pollution arising from the incident;
- Assuming the issue arose from the failure of a control system, the issue shall be rectified at the earliest opportunity;
- The response action shall be recorded on the Environmental Complaints/ Spills/ Incidents Report by the Site Manage or ECoW;
- A log of all environmental spills/ incidents and follow-up actions should be kept and made available for inspection; and
- All complaints received from the public or other interested parties as a result of the installation works must be recorded on the Environmental Complaints/ Spills/ Incident Form.

1.3 Reporting of Environmental Incidents

All accidents, incidents and near misses (including spills, dust, noise pollution etc) would be reported to the Site Manager immediately, these would be recorded and investigated by the Site Manager and if there is legitimate concern for the surrounding flora and fauna after the incident, then an ECoW would be contacted for advice.

Details which would be recorded on the report would include:

- A description of the incident;
- Contributory causes;
- Adverse effects;
- Measures implemented to mitigate adverse effects; and
- Effectiveness of measures implemented to prevent pollution incidents.

1.4 Emergency Contact Details

A notice displaying emergency contact details would be displayed in a prominent location within the Site accommodation / office, including emergency spill response team details.

1.5 Internal Emergency Pollution Response Team

The details of at least two lead members of staff with responsibility for emergency pollution response would be included in this section, as well as the details of the Ecological Clerk of Works during construction:

- Primary emergency contact;
- Secondary emergency contact; and
- Ecological Clerk of Works.

1.5.1 External Organisations

This section would be populated with contact telephone numbers for organisations to be contacted following a pollution incident (contact details are specifically excluded to ensure that the final version of the CEMP includes the most up to date details). Examples of the types of organisations/call lines to be included are:

- EA Incident Hotline; and

- Natural England.

ANNEX D DISCOVERY STRATEGY

PFA Discovery Strategy

Retford Circular Economy Project (RCEP)

Lound Hive Ltd

Woodington House, Woodington Road, SO51 6DQ

Prepared by:

SLR Consulting Limited

The Cursitor, 38 Chancery Lane, London, WC2A 1EN

SLR Project No.: 416.11943.00001

20 December 2023

Revision: 02

Basis of Report

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Appendices

1.0 Introduction

This document details the procedures required to implement a Discovery Strategy to identify and subsequently address potential contaminated and/or non-conforming material that could be encountered during extraction and processing activities of the pulverised fuel ash (PFA) at the former ash lagoons as part of the Retford Circular Economy Project (RCEP), also referred to as the 'Proposed Development.'

1.1 Pulverised Fuel Ash

PFA is a well characterised substance and is classified by the Environment Agency as a non-hazardous waste; it is the residual solid material from the combustion of coal at high temperatures in coal-fired power stations and consists of inorganic mineral residues. There have been many studies undertaken on PFA and its constituent components. Further information on PFA and its properties can be found on data sheets on the UK Quality Ash Association (UKQAA) website[1] and other resources such as the European Chemicals Agency (ECHA)[2]. It is also a recognised 'end-of-waste' product under the Environment Agency's WRAP Quality Protocol which allows it to be used as a construction material without waste controls[3].

It is the PFA within the former ash lagoons which are to be excavated and re-used as a material for the construction industry.

1.2 Proposed Development

The majority of the Site comprises former pulverised fuel ash (PFA) disposal lagoons, split between artificially raised and lower areas, restored to grazing land. There is also a small corridor of agricultural land and land forming part of an existing industrial estate to the south, south-west of the former PFA disposal lagoons.

The Site is located within the administrative boundary of Bassetlaw District Council and Nottinghamshire County Council (NCC), approximately 670 m north of Retford.

The PFA was originally piped in slurry form in a closed process from Cottam Power Station to restore sand and gravel workings known as Bellmoor Quarry. The lagoons have been restored to grassland, with a thin layer of natural site-won soil/sand[4] placed over the deposited PFA. It was previously the largest PFA disposal operation in the County of Nottinghamshire, starting in the 1970s and ending in the 1990s.

The Proposed Development comprises the extraction, processing and export of up to 300,000 tonnes per annum of PFA from the Site as part of a minerals planning application submitted to NCC. Predictive modelling has indicated that there is approximately 6,457,000 tonnes of PFA within the Site.

It is proposed to extract the PFA gradually in phases over an approximate 22 year timescale. The works would include up to eleven phases to be extracted from and then restored progressively. The phases are shown on Figure A.

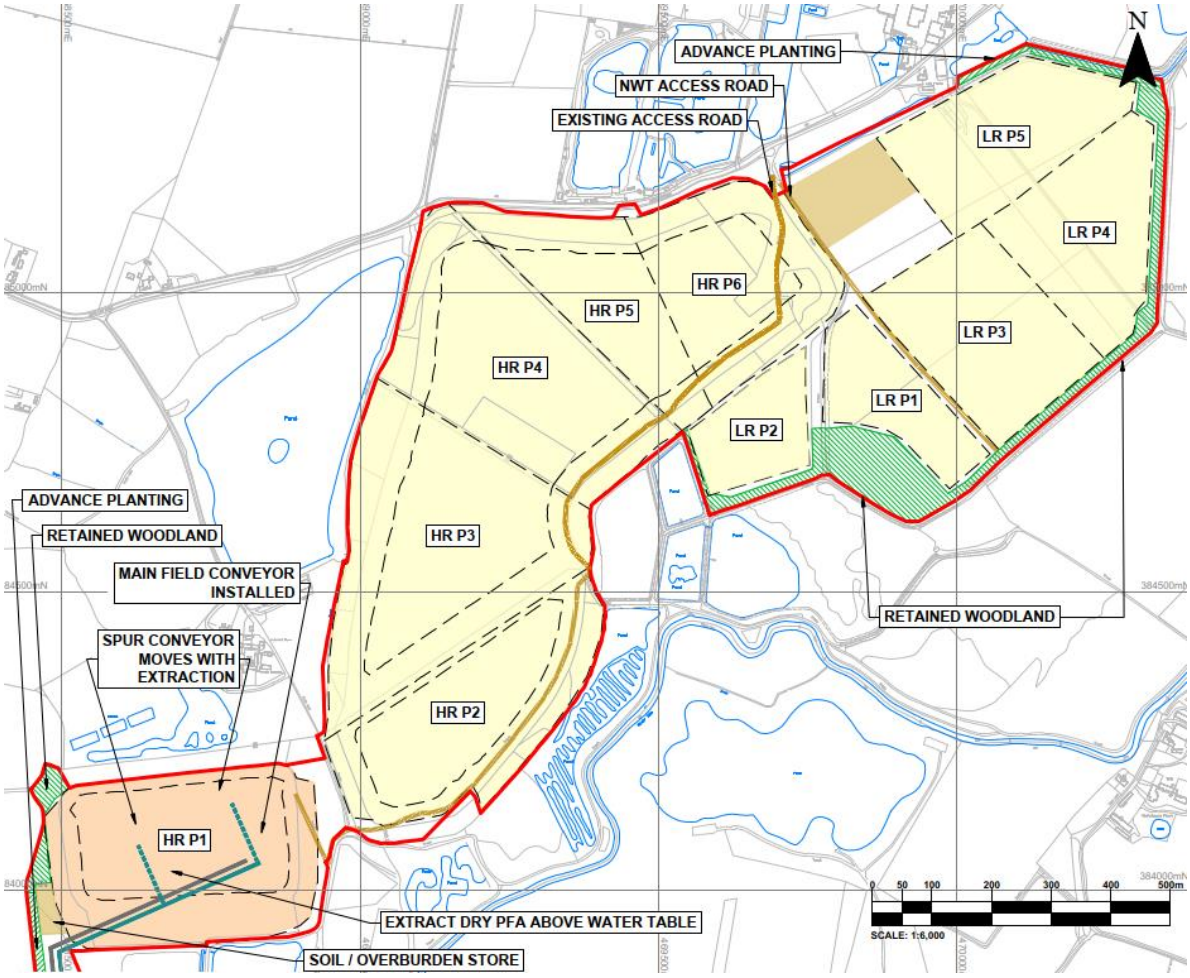
[1] http://www.ukqaa.org.uk/

[2] https://echa.europa.eu/substance-information/-/substanceinfo/100.151.318

[3] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/296519/LIT_8272_420835.pdf

[4] Derived from original lagoon containment bund construction.

Figure A: Site Phasing Drawing



1.3 Site Characterisation

A ground investigation was completed at the Site in 2021 to undertake initial characterisation of the PFA for the purposes of meeting quality requirements for use as a construction material, specifically a cement replacement product. The investigation has been supplemented by both groundwater and surface water monitoring programmes and therefore there is data available on which initial assessments of the PFA have already been made. Further detail is provided in Section 3.0

1.4 Planning Application

A planning application was submitted to NCC for the Proposed Development in March 2023 (ref; ES/4518).

A consultation response has been provided from NCC's contaminated land officer in relation to assessment of potential contaminant risks from the proposed PFA extraction activities in a letter dated 19 May 2023 (ref; ES4518/Retford CEP/DN22).

The letter requested the further characterisation of the PFA through ground investigation prior to commencement of extraction.

Subsequent chemical analysis of the PFA has been undertaken in mid-2023 which has provided further data on which initial characterisation of the PFA has been undertaken. This data is summarised in Section 4.0

1.5 Environmental Permit

PFA extracted from the lagoon will be processed by screening and drying to meet the desired end-of-waste criteria. This is a regulated activity under the Environmental Permitting (England & Wales) Regulations 2016 (as amended) (the 'EPR'). As such, the requirements for its processing, storage and transportation fall under permit requirements regulated by the Environment Agency (EA). However, the initial extraction of the PFA is not covered by the permit.

The permit will only allow PFA from the Lound lagoon which conforms with the List of Waste European Waste Catalogue (EWC) code 10 01 02 coal fly ash to be accepted for processing. In support of the permit, a Waste Acceptance Procedure (WAP) for the PFA is required to demonstrate that the waste accepted for processing conforms with the waste code EWC 10 01 02 coal fly ash and that any non-conforming material is rejected.

The WAP consists of visual inspections and prior testing of the waste deposits, and applies at the point which extracted PFA is transferred for processing. This Discovery Strategy is complementary to the WAP and applies during the extraction phase of the operations before PFA is transferred for processing. Therefore, the WAP should be read in conjunction with this document.

1.6 Further Ground Investigation

It is proposed that further ground investigation will be undertaken prior to commencement of any PFA extraction activity, to be secured by a suitable planning condition(s). The purpose of the ground investigation will be to supplement existing information and provide further certainty to the PFA characterisation data already obtained. The scope of the ground investigation will be confirmed with NCC outside of this document. However, once the scope has been agreed and the findings from the additional ground investigation have been identified, this document will be reviewed and updated accordingly (where necessary).

1.7 Aims

The principal aim of this Discovery Strategy is to provide detail on implementation of a watching brief, in addition to the aforementioned additional ground investigation, to identify and address potential contamination and/or non-conforming material within the PFA should it be encountered during extraction activities. Should potential contamination and/or non-conforming material be identified, the strategy outlines the measures that need to be followed to manage and address the impacted material.

This document does not include procedures for dust or water management aspects of the PFA extraction and processing activities. The detailed requirements for these are provided in a separate set of standalone documents (see below) that should be read in conjunction with this strategy.

1.8 Other Documents

This strategy should be read in conjunction with:

- Preliminary Land Quality Risk Assessment (PLQRA). Retford Circular Economy Project (RCEP). SLR ref; 416.11943.00001. Rev.1, February 2023.
- Update to Preliminary Land Quality Risk Assessment (PLQRA). Technical Note. SLR ref; 425.064852.00001. Rev.2, December 2023.
- PFA Laboratory Analysis Results. Technical Note. SLR ref; 425.064852.00001. Rev.2, December 2023.
- Dust Management and Monitoring Plan (planning) (DMMP). Retford Circular Economy Project (RCEP). SLR ref; 416.59544.00001. Rev.3, December 2023.
- Dust Impact Assessment. Retford Circular Economy Project (RCEP). SLR ref; 416.59544.00001. Rev.3, December 2023.
- Outline Water Environmental Management Plan (WEMP). Retford Circular Economy Project (RCEP). Arcus, October 2023.
- Drainage Management Plan (DMP). Retford Circular Economy Project (RCEP). Arcus, October 2023.
- Waste Acceptance Procedures (WAP). Lound PFA Processing Facility. SLR ref; 416.V59544.00001. Rev 01, September 2023.
- Outline Construction Environmental Management Plan. Retford Circular Economy Project (RCEP). Arcus, October 2023.

2.0 Historical Information

2.1 Background

The PFA at the site originates from Cottam Power Station. The PFA was piped as a slurry (a mix of PFA and water) from the power station to infill former sand and gravel extraction pits known as Bellmoor Quarry to form the ash lagoons. It was previously the largest PFA disposal operation in the County of Nottinghamshire, starting in the 1970s and ending in the 1990s. The PFA was collected by a closed system at the power station, including pneumatic pipes, before being mixed with water and pumped to the lagoons via an approximate 12 kilometre (km) pipeline.

It is understood that sandstone material was dug from the base of the former quarry and used, along with site won soils and sand, to construct the artificially raised lagoon embankment and provide for increased filling capacity.

2.2 PFA Production

The Cottam Power Station Historic Building Record[5], produced in 2018 has indicated the PFA generated by burning of coal was directed by ducts within an enclosed process to electrostatic precipitators of steel construction located outside and separate from the main generating building, where the particles were separated from exhaust gases into collection hoppers and transferred by pipes to be mixed with water to form a slurry. The slurry was then piped to a dust slurry pumphouse and off-site through the pipeline to the Sutton and Lound lagoons, i.e. the Site. No other materials were added into the PFA collection and disposal process, at source, within pipelines or by tipping directly into the lagoons. EDF, the owner of Cottam Power Station, has confirmed in correspondence that the PFA collection and delivery system was completely enclosed.

2.3 Lagoon Construction

EA waste documentation and anecdotal evidence from those who lived close to and/or worked at the Site when it was operational, have provided the detail about the lagoon construction. The raised lagoons were formed to increase the capacity for PFA reception at the Site. The extent, volume and slope angle of these bunds have been estimated from the boreholes drilled across the Site as part of the aforementioned site investigation work. The boundary with the underlying bedrock is clear, being defined by the change from PFA to the red sandstone of the Chester Formation, part of the Sherwood Sandstone Group.

A drawing showing the bund construction is provided in Appendix A.

2.4 Waste Licensing

Waste licensing documentation provided from the EA confirms that the Site was only licenced to accept PFA. There is no reference to acceptance of any other wastes, which has also been confirmed anecdotally by operatives who worked at the Site when it was accepting PFA. It is also noted that the EA has confirmed in its recent planning consultation response dated 02 May 2023 that:

[5] Cottam Power Station, Retford, Nottinghamshire. Historic Building Record, 2018. Final Report. Prepared by Ric Tyler ref; 2018.002b.v2.FINAL

"The landfill site Lound Quarry, near Lound, was permitted to receive non-hazardous waste…According to our site inspection records, this site was found to be compliant with their permit whilst it was active. No enforcement action was taken."

A desk-based land quality assessment has identified the following licenses associated with the Site.

- Sutton Ash Lagoons. Licence holder: Central Electricity Generating Board. Site Reference: 1/77/48/68SE, 1/93/369/68SE. Environmental Permitting Regulations (Waste) licence surrendered 1994.
- Bellmoor Quarry. Licence Holder: North Nottingham Gravel Company Limited. Site Reference: 1/80/104/65 SE, 1/79/15, 1/77/15/68SE. Environmental Permitting Regulations (Waste) licence surrendered 1991.
- Bellmoor Quarry. Licence Holder: North Nottingham Gravel Company Limited. Site Reference: 1/80/104/68SE, 1/47/80/7/D. Environmental Permitting Regulations (Waste) licence not shown as surrendered.
- Lound Quarry. Licence Holder: Cottam Power Station, E-On Uk Plc. Waste Management licence No:43110. Type of Site: Lagoon, Size: >= 75000 tonnes. Environmental Permitting Regulations (Waste) Licence Number: POW004. Annual Tonnage 2,500. Issued 1994. Transferred to Powergen Plc. EPR reference: EA/EPR/AP3497FW/S002. Annual Tonnage: 75000. Licence surrendered 2005.

Whilst some of the infilled lagoons may pre-date waste licensing, it is likely that the majority of the lagoons on Site have been regulated under the waste licensing regime.

2.5 Infilling and Restoration

The former sand and gravel extraction pits at the Site underwent a phased infill and restoration programme. EA waste permitting documents indicate that the Site had been quarried and backfilled with PFA between 1978 and 1995; although, some filling is known the predate this. EA records indicate the PFA was placed as a slurry at a rate of up to approximately 650,000 tonnes per annum.

Drawings indicate that the pits were generally infilled from west to east, and therefore the oldest PFA material is generally located in western lagoons. See the historical drawings and aerial photos provided in Appendix B.

On the Site, the areas that are understood to have been completed sequentially are identified as:

- High Rise Phase 1 (C2);
- High Rise Phase 2 (C3);
- High Rise Phase 3 (C3/C5);
- High Rise Phase 4 (C5);
- High Rise Phase 5 (C5);
- High Rise Phase 6 (C5);
- Low Rise Phase 2 (C4/1);
- Low Rise Phase 3, 4, 5 (C11/1A); and
- Low Rise Phase 1 (C11/1B).

The cells were infilled using the pipeline to discharge directly into the pits to form the ash lagoons. The pipeline was extended, reduced and/or re-directed depending on the pit which was being infilled. The historical drawings and aerial photography provide indication of where these pipeline discharge points were located.

3.0 Previous Findings

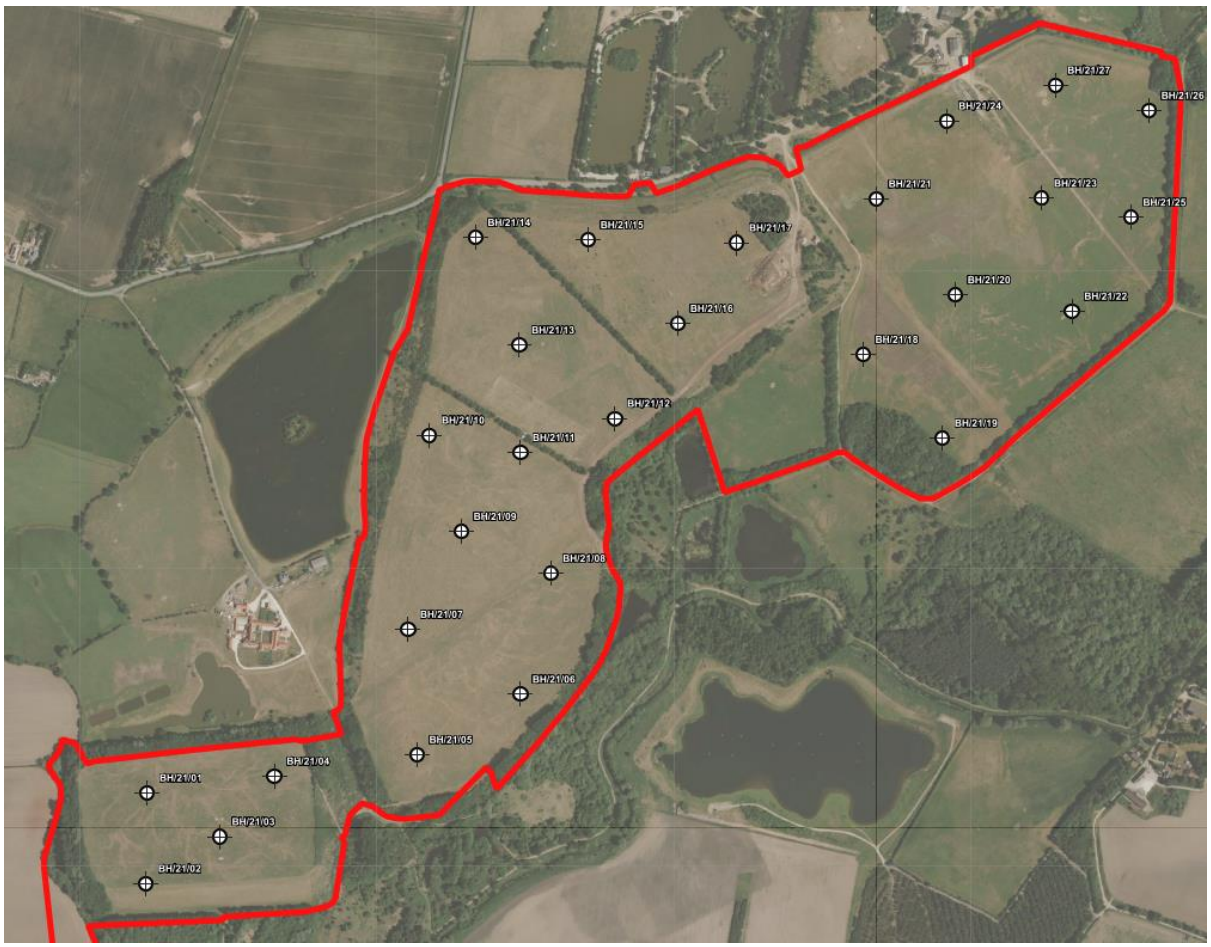
3.1 Ground Investigation (2021)

A ground investigation was completed at the Site in May to June 2021. The scope of work comprised:

- drilling of 23 boreholes using a sonic method (BH1 to BH17, BH20, BH22, BH23, BH25 to BH27) to a maximum depth of 18m bgl (depth determined by underlying Chester Formation) and excavation of 4 trial pits (BH18, BH19, BH21, BH24) to a maximum depth of 4.5m bgl (also determined by the depth to the underlying Chester Formation);
- collection of PFA samples for testing; and
- logging of the PFA, soil and bedrock strata in general accordance with BS5930:2015.

The location of each exploratory hole position is provided in Appendix A and shown on Figure B.

Figure B: Exploratory Hole Locations



3.2 Ground Conditions

The ground conditions encountered were largely consistent across the Site, with similar PFA and underlying geology observed. Significant variation was noted in the thickness of the PFA deposits, particularly between the 'High-Rise' in the centre and west (13.4m average thickness) and the 'Low-Rise' in the east (3.6m average thickness). Borehole locations and PFA thickness are shown in Appendix A. A table of PFA thickness per borehole is provided in Appendix C.

Topsoil/Surface Cover

Topsoil was encountered in all the boreholes drilled. This was generally a brown sandy silt with some fine to medium quartzite gravel, used as a restoration cover/backfill over the top of the PFA. It averaged ~0.3m thickness across the Site. The material appeared consistent with site-won natural materials previously used to construct the lagoon bunds. Anecdotal evidence from those who lived close to and/or worked at the Site when it was operational, have confirmed that the topsoil/surface cover was site-won.

PFA

The PFA was observed beneath the entirety of the Site. Generally, this was encountered as a soft to firm dark grey slightly sandy silt with occasional dark grey fine sand laminations. The deposit had no observable vertical or lateral variability and was found to be relatively uniform (homogenous). The visual assessment has been confirmed by the contaminant analysis of the PFA (see Section 4.0). The PFA ranged in thickness from 0.05m (BH21) to 15.9m (BH5). With an average thickness of 3.6m in the Low-Rise and an average of 13.4m in the High-Rise.

Sandstone

In-situ bedrock of the Chester Formation was observed from depths of between 2.45m bgl to 16.1m bgl. The bedrock was observed at shallower depths towards the east of the Site where the PFA thickness decreases significantly.

BH2, BH8 & BH14 were terminated within the side slope of the sandstone bunds.

3.3 Groundwater

Groundwater was encountered beneath the entire Site during drilling, typically 8-10m bgl in the High-Rise and 2-3m bgl in the Low-Rise areas. Groundwater depths are provided in a table in Appendix C.

3.4 Contamination Observations

During the course of the investigation and the logging of the exploratory hole arisings, no visual or olfactory indications of contamination by hydrocarbons, other chemicals or asbestos were recorded.

3.5 Field Sample Collection

Samples of PFA were collected at an approx. vertical sample interval of every ~1.5m. Samples were collected and stored at an off-site location.

3.6 Material Quality

45 blended bulk samples were sent for physical testing and geochemical analysis following the site investigation. The samples selected were representative of the entire deposit, covering both above and below the water table and across all lagoons within the Site.

3.7 Excavation Model

The PFA deposit has been modelled using 3D software. This uses the intersections determined from the borehole drilled to create a digital terrain model of the pertinent geological horizons and the final extraction void.

BH02, BH08 & BH14 were terminated within the lagoon bunds. The intersection of these boreholes with the bunds and known crests positions were used to determine the internal slope angle of the bunds. Combining the estimated internal side slope angles with the base of PFA/top of sandstone intersection across the site formed the basis of the excavation model.

Volumes for the overburden, PFA and confining sandstone bunds have been calculated from the models.

3.8 PFA Volumes

Using the extraction design model in conjunction with the base of overburden and ground models, volumes for the in-situ PFA were calculated and summarised in Table 3-1.

Table 3-1: Material Volumes & Tonnages

Phase	Area	Topsoil	PFA	PFA Tonnes
HR P1	115,447 m²	34,634 m³	856,075 m³	916,000 t
HR P2	60,657 m²	18,197 m³	544,860 m³	583,000 t
HR P3	121,955 m²	36,586 m³	1,236,449 m³	1,323,000 t
HR P4	146,239 m²	43,872 m³	1,036,449 m³	1,109,000 t
HR P5	103,351 m²	31,005 m³	871,963 m³	933,000 t
HR P6	85,982 m²	25,795 m³	545,794 m³	584,000 t
LR P1	33,298 m²	8,320 m³	81,308 m³	87,000 t
LR P2	43,790 m²	10,960 m³	108,411 m³	116,000 t
LR P3	63,403 m²	19,021 m³	194,393 m³	208,000 t
LR P4	82,032 m²	24,610 m³	321,495 m³	344,000 t
LR P5	70,233 m²	21,070 m³	237,383 m³	254,000 t
Total	926,386 m²	274,069 m³	6,034,579 m³	**6,457,000 t**

4.0 PFA Characterisation

4.1 Sample Scheduling

During the ground investigation completed in 2021, PFA samples were collected and stored in an off-site location. Further to recent consultation with NCC, samples from each exploratory hole location were identified and scheduled for a suite of chemical and asbestos laboratory analysis. The samples were selected from each location to provide both lateral and vertical delineation of the PFA. A non-targeted approach was undertaken given the absence of any visual or olfactory indications of contamination recorded during the intrusive works.

The PFA was scheduled for a suite of analysis that comprised:

- asbestos identification and quantification – 96 samples;
- metals[6] - 62 samples;
- poly-aromatic hydrocarbons (PAH)[7] – 62 samples; and
- semi-volatile organic compounds (SVOC) – 62 samples.

PFA samples were also selected for leachate analysis that comprised:

- metals[1] – 25 samples;
- poly-aromatic hydrocarbons (PAH)[2] – 25 samples; and
- semi-volatile organic compounds (SVOC) – 25 samples.

The samples were submitted to Element Materials Technology Ltd for analysis, a UKAS and MCERTS accredited laboratory. The laboratory certificates are provided in Appendix D.

4.2 Sample Analysis Results

The results of the laboratory analysis are summarised below.

4.2.1 PFA solid analysis

Asbestos

- 95 no. PFA samples – no asbestos detected (NAD); and
- 1no. PFA sample – BH8, 3m-4.5m depth; small fibre bundle <10mm, chrysotile asbestos <0.001% wt/wt.

Metals

- Concentrations of heavy metals were detected in the PFA (iron, magnesium, titanium, manganese, barium, strontium, vanadium, zinc, arsenic). A summary table

[6] Metals suite - antimony, arsenic, barium, boron, cadmium, chromium, cobalt, copper, iron, lead, magnesium, manganese, mercury, molybdenum, nickel, selenium, strontium, titanium, vanadium, zinc

[7] PAH suite - acenaphthene, acenaphthylene, anthracene, fluoranthene, fluorene, naphthalene, phenanthrene, pyrene, benz[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, benzo[ghi]perylene, benzo[a]pyrene, chrysene, dibenz[a,h]anthracene, and indeno[1,2,3-cd]pyrene

is provided in Appendix D. Note: these compounds were also detected in the groundwater monitoring at the Site.

Poly-aromatic Hydrocarbons (PAH)

- None of the 62 no. samples contained PAH compounds above the laboratory limit of detection (LOD).

Semi-Volatile Organic Compounds (SVOC)

- None of the 62 no. samples contained SVOC compounds above the laboratory limit of detection (LOD).

4.2.2 PFA leachate analysis

Metals

- Concentrations of heavy metals have been detected (magnesium, boron, strontium, titanium, arsenic, molybdenum). A summary table is provided in Appendix D.

Poly-aromatic Hydrocarbons (PAH)

- None of the 25 no. leachate samples contained PAH compounds above the laboratory limit of detection (LOD).

Semi-Volatile Organic Compounds (SVOC)

- None of the 25 no. leachate samples contained SVOC compounds above the laboratory limit of detection (LOD).

4.2.3 Conclusion

The laboratory analysis of the PFA has demonstrated its constituent components are in accordance with the concentrations of a typical PFA and consistent with those previously identified particularly in relation to the presence of heavy metals (iron, magnesium, titanium, manganese, barium, strontium, vanadium, zinc, arsenic). The analysis has confirmed the absence of any trace signature of organics (PAH, TPH, SVOC).

Leachate analysis of the PFA is comparable to the concentrations detected within the underlying groundwater and again show a heavy metal signature (magnesium, boron, strontium, titanium, arsenic, molybdenum). This is typical of a PFA whereby trace elements are mainly bound in the silica component of the ash and are therefore not readily available by leaching.

A small isolated fibre bundle <10mm in length of chrysotile (white) asbestos has been encountered at one location in BH08 at a depth of between 3m-4.5m located in the north-eastern corner of High Rise Phase 2 (HR P2). It is not immediately clear how this single instance of asbestos was found to be present in HR P2, as waste documentation does not indicate any asbestos disposal at the Site. Historical aerial photography indicates a well-engineered and controlled process of infilling.

The information provided by the laboratory indicates this asbestos cannot conclusively be attributed to any specific known asbestos-containing material (ACM). It cannot be described as ‘asbestos insulation’ since there are no contextual indicators. It is plausible

that the material could have originated from asbestos textile jointing material used as caulking for pipework at the Site.

See the historical mapping and aerial photography provided in Appendix B.

5.0 Operating Scheme

5.1 Overview

The Proposed Development comprises the extraction, processing, storage and transportation of PFA from the former ash disposal lagoons in order to produce a product that meets the 'end-of-waste' criteria required for its use in construction activities, particularly a cement replacement product. The resultant lagoon voids would be progressively restored using the in-situ sandstone lagoon embankments and stockpiled soil cover material. It is not proposed to import any material specifically for the purpose of filling and raising levels; however, some restoration material may need to be imported for engineering and/or habitat creation purposes, e.g. clay and/or soils. The import of material is not included within this Discovery Strategy.

Unless carefully controlled, sources of dust could be generated by the preparation, extraction, storage, primary processing and handling activities. The Proposed Development has therefore been designed with dust management at the centre of all operations. Dust management controls are detailed in a separate Dust Management and Monitoring Plan (DMMP) and Dust Impact Assessment which should be referred to for further detail.

The control and management of water is detailed within an Outline Water Environmental Management Plan (WEMP) and Drainage Management Plan (DMP).

These reports should be read in conjunction with this strategy.

5.1.1 Site areas

The Site can be characterised as three connected areas:

- Area A: Main Operational Site;
- Area B: Link Conveyor and Haul Road (outside of Main Operational Site); and
- Area C: Main Processing Site.

The above areas are shown in the Site Area Plan provided in Appendix A.

Area A – Main Operational Site (the former PFA lagoons)

This area is approximately 105.84 ha and comprises the former PFA disposal lagoons site raised with vegetated embankments around its perimeter. The vegetated embankments are man-made; constructed to contain the PFA as part of the former disposal lagoon land use. The embankments are constructed primarily from site-won sandstone and soils, and for the most part are around 6-8m, with the lowest around 2-3m high.

Figure C shows the significant sandstone embankments that contain the PFA and Figure D comprises a photograph of one of the embankments.

Area A is split between Low-Rise to the east (7.5 – 11 m AOD) and 'High-Rise' to the centre and west (17 – 19 m AOD). The High-Rise is where the larger embankments (around 6-8 m high) are found, bounding the entire area.

Figure C: Lagoon embankments plan

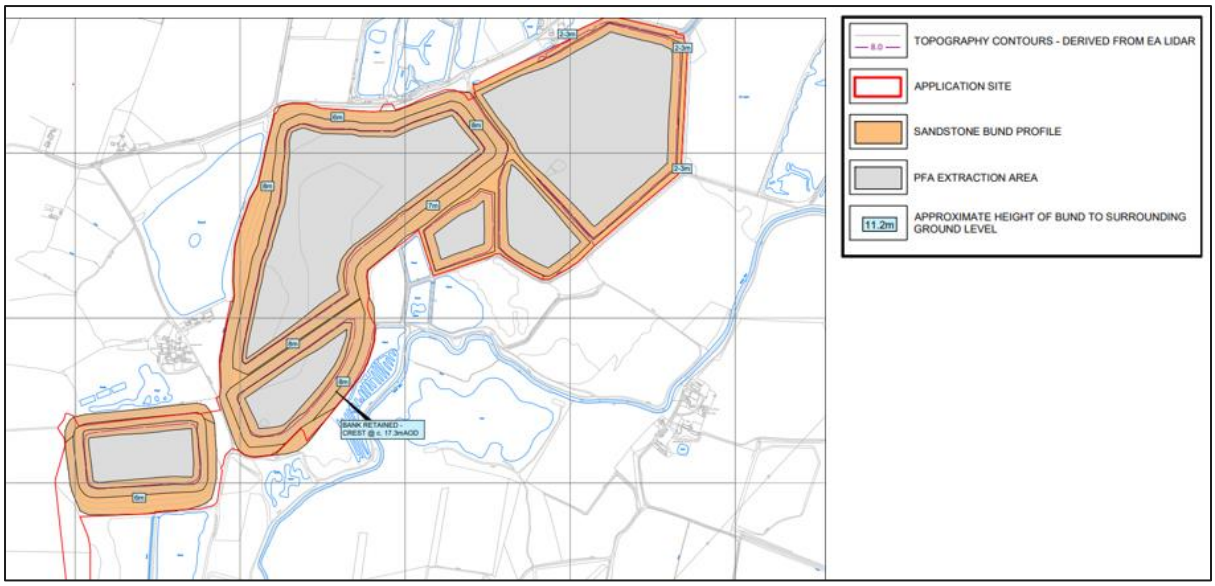


Figure D: Photograph of the northern lagoon embankment

Area B – Link Conveyor and Haul Road

This area is approximately 5.20 ha and includes a section of the conveyor and link road passing south from the Main Operational Site to the Main Processing Site, utilising farmland.

Area C –Main Processing Site

Area C comprises approximately 2.51 ha of land at the Bellmoor Industrial Estate, accessed from the A638 via a dedicated priority turn junction. It currently accommodates a number of industrial uses, including a stonemason and concrete batching plant, and is therefore in daily operational use. It was historically used as the plant site for the former Bellmoor Quarry.

5.1.2 Operating scheme

Extraction would commence after cover soils have been stripped and stockpiled, working from west to east through Area A, starting at 'High Rise Phase 1' (HR P1). The extraction process would commence by digging a cut into HR P1 and extracting at a lower level, using the in-situ lagoon embankments to provide screening and shielding from the wind. The embankments in each phase would only be removed, to be used in conjunction with stockpiled cover material to restore the void, when extraction has been completed.

PFA is extracted in Area A using a long arm excavator or crawler dozer (or similar), where it is placed in a temporary stockpile before being transported and loaded by a crawler dozer (or similar) into a hopper which funnels the PFA into a mobile screen (with shredder box), before being deposited into an enclosed conveyor for transport to Area A.

Oversize material (>6 mm) would be mechanically removed and deposited in a temporary stockpile adjacent to the mobile screen. Where feasible, the oversize material will be crushed and re-screened where suitable for use. Any unsuitable oversize that cannot be re-screened will be moved by a dozer to a temporary oversize stockpile in the extraction area for use in progressive restoration works or will be transferred off site for recovery or disposal at an appropriately permitted facility.

The scheme has been designed to limit open air handling of PFA. This includes using enclosed conveyor belts to transport PFA from the extraction face in Area A to the Main Processing Site in Area C. Once the PFA is fed into the conveyor hopper, the handling and processing from this point on is fully enclosed and effectively provides a cut-off for dust generating activities at the conveyor hopper in Area A.

The scheme has been designed so that extraction activities in Area A, including processing (shredding and screening), are concentrated in the smallest area possible at any given time, thereby ensuring a controlled method of extraction is employed.

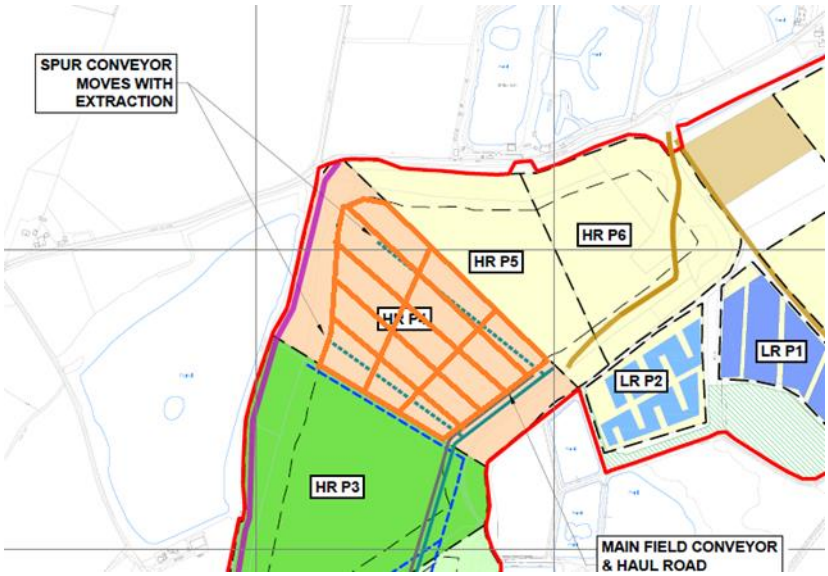
This includes:

- separating each extraction phase into small micro-phases – where extraction would be focussed, accounting for around 1% (1 ha) of Area A at any given time;
- the covered main conveyor repositioned and an adjustable covered spur conveyor used to take the reception hopper as close as possible to the extraction face;
- the reception hopper is able to move up and down the spur conveyor; and
- the screen and conveyor hopper are able to move with the extraction face – positioned within the extraction void at a lower level and behind the lagoon embankments.

There would only be a single spur with a moveable hopper, with both repositioned periodically as extraction progresses; with no requirement for multiple spurs. This facilitates short distances between the extraction face, screen and conveyor hopper; meaning operations at higher risk of generating dust are confined to a very small and manageable area, making them simpler to cover with bowsers, stationary water sprays/mists etc. when necessary. The areas outside of the micro-phases would either be undergoing restoration, covered/treated/compacted, or not yet worked (retained grazing).

Figure E illustrates an example of the working scheme example extraction micro-phases.

Figure E: Example Micro-Phases



5.1.3 Soil Stripping

The top layer of topsoil (approximately 300mm) would be removed using a 360 excavator (or dozer in shallower areas) to expose the surface of the PFA. It is not proposed to strip soils from each of the 11-extraction phase entirely in one go; rather, each phase will be split into a number of smaller micro-phases (Figure E) that will be stripped and then extracted from progressively.

This significantly minimises the area of soil and PFA exposed at any one time. The micro-phases shown in Figure E are approximately 1 ha each in area, this means that less than 1% of Area A would be undergoing stripping or active extraction at any given time.

Soil stripping would be limited to a small number of days in any given year. The requirement is therefore very periodic and limited. It is possible to strip around 3,500m^2 of soils per day on the basis that they average at around 300mm in thickness across Area A.

As such, an entire phase would be stripped in a minimum of 5 days (LR P2 – filter ponds), as shown in Table 5-1. The soil stripping in larger phases, such as HR P1, whilst requiring a greater number of days (12 days for HR P1), would be carried out over a three-year period; meaning only around 4 days per year. These days would be spread over the smaller micro-phases shown in the example in Figure E.

Table 5-1: Soil Stripping by Phase

Phase	PFA Tonnes	Years to work (@300k pa)	Size (ha)	Days to soil strip
HR P1	916,000 t	3.1	8.2	12
HR P2	583,000 t	1.9	7.5	11
HR P3	1,323,000 t	4.4	7.5	11
HR P4	1,109,000 t	3.7	7.5	11
HR P5	933,000 t	3.1	7.5	11
HR P6	584,000 t	1.9	7.5	11
LR P1 – Soakaway Ponds	87,000 t	0.3	4	6
LR P2 – Filter Ponds	116,000 t	0.4	3.5	5
LR P3	208,000 t	0.7	7	10
LR P4	344,000 t	1.1	7	10
LR P5	254,000 t	0.8	7	10

It follows that the number of days where soil stripping will be required in close proximity to sensitive receptors is even more limited. It will also be possible completely rule out carrying out stripping during adverse weather conditions, e.g. during particularly dry or windy periods, and to work with sensitive ecological receptors.

Soils stripped from each phase will be stored in a designated area within the phase, for later replacement, or stored in the longer-term soil store adjacent to LR P5 if necessary. The use of the longer-term soil store will be minimised and only used when absolutely necessary, in order to reduce the need for onsite vehicle movements to transport soils.

Taking the above into account, soil stripping is considered to have the potential to be a small dust emission source. However, fugitive emissions management will follow requirements as detailed within the Dust Management and Monitoring Plan (DMMP) and will include measures such as stripping small areas at a time, stockpile management controls, compacting of material and use of water fogging systems.

5.1.4 PFA Extraction

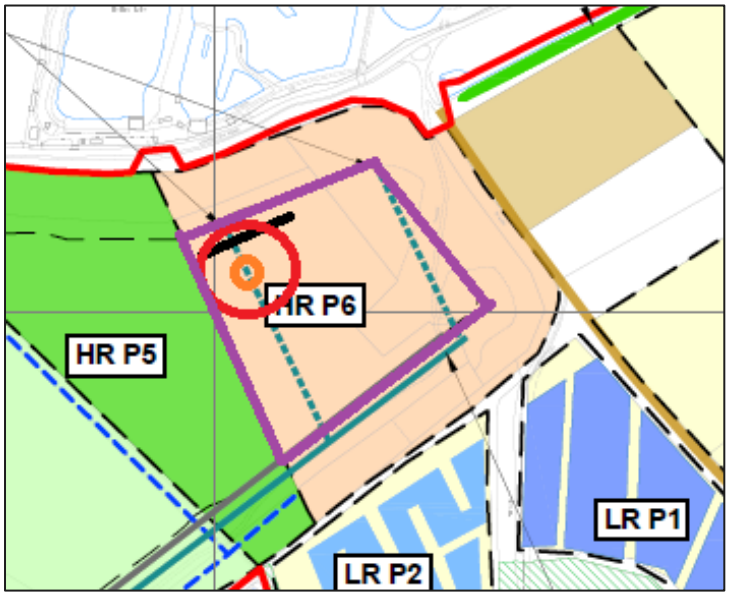
A long reach excavator or crawler dozer (or similar) would be used to pick up and/or push layers of PFA down into the cut for loading by front end loader into a temporary stockpile prior to loading into the pre-screening hopper.

5.1.5 PFA Handling, Pre-Screening and Transfer

Material would be loaded from the temporary stockpile into the primary screening equipment by front end loader and screened to <6mm using a mobile screening unit. The distance between the screening equipment and the working face would be very small (see example in Figure F). The material screened for further processing is transferred by an enclosed conveyor system to the Main Processing Site, or by covered vehicles in the case that any maintenance is being carried out on the conveyors. Therefore, the material is enclosed from the point at which the screen is loaded.

No screening will take place within 100m of the Site boundary.

Figure F: Screen and hopper (orange) placed close to extraction face (black)



5.1.6 Stockpiling

Stockpiling requirements are minimal, for the following reasons:

1. The excavation and pre-screening operations are designed to be "just in time" meaning there is no requirement for intermediate stockpiles in the phase extraction areas;
2. Only a small (max 3m high) temporary stockpile is needed for waste acceptance inspection prior to feeding into the pre-screening hopper;
3. The enclosed building and silos at the Main Processing Site have sufficient capacity to hold PFA for 3–5 days of production capacity and no long-term stockpiling is therefore required;
4. The final product is stored in silos and transferred pneumatically into vehicles for transport off-site; and
5. There will be some stockpiled materials of bunded soils and oversize material from the screening process, but these are not considered 'dusty' materials.

As described under 2 above, there would be a requirement for the short-term lay-down of PFA immediately following extraction in a temporary stockpile to allow for the relevant material inspections for Waste Acceptance to be carried out in accordance with the Environmental Permit. The temporary stockpile would be less than 3m high and once satisfied, would be transferred into the mobile pre-screen hopper.

5.1.7 Dust Control

The PFA that is to be extracted from the Site is saturated because it has been in the ground for many years. The PFA has an in-situ moisture content of 18% to 47%, or an average of 31% across the Site. Natural moisture content and rainfall are the most effective measures that will prevent/minimise emissions in the first instance. As such, PFA will have a very limited potential for dust generation when it is excavated and screened.

Notwithstanding the above, numerous management measures are proposed to ensure that the PFA that is to be moved and processed in the open air is kept moist and sufficiently managed. During operations, damping down with water is one of the main techniques used for dust suppression and there are a number of material characteristics of PFA that make this a very an effective technique.

PFA particles have a high degree of porosity and a large surface area, meaning they contain small pores and voids within their structure. This porosity contributes to the lightweight nature and readiness to absorb water which acts as a highly effective binding agent, suppressing the dust particles, making them heavier and preventing them from becoming airborne. By wetting the dust particles , they lose their ability to float in the air. Water atomisation is therefore highly effective for capturing very fine dust and a fogging system will be employed to prevent wind-blown fugitive dust emissions.

Fugitive emissions management will follow requirements as detailed within the Dust Management and Monitoring Plan (DMMP).

5.1.8 Material Processing – Main Building

Following pre-screening, the PFA is transported in covered conveyors to the Main Processing Site (located at Bellmoor Industrial Estate). This would involve further screening and drying of the material through a fixed plant. All of this activity will be carried out within a building and containerised drying modules. Processed material would be fed into a silo through pipes, therefore keeping the material in an enclosed system at all times.

5.1.9 Material (PFA) Transfer Off-Site

Road going HGV's would be loaded with final product via a silo, these will be fully enclosed powder tankers; or would be loaded with conditioned PFA into sheeted articulated trucks within the Main Processing Building. There would be less than 100 HGV movements per working day, inclusive of trips required for exportation of PFA, maintenance requirements and importation of materials.

6.0 Discovery Strategy

6.1 Purpose

The purpose of the watching brief is to:

- Identify visual/olfactory evidence of contamination and/or non-conforming material;
- Ensure that contaminated and/or non-conforming material is removed and dealt with appropriately;
- Ensure appropriate controls and mitigation measures are actioned;
- Ensure that health and safety risk mitigation measures are appropriate to the tasks being undertaken;
- Ensure that the requirements of the Environmental Permit pre-acceptance checks are undertaken; and
- Ensure that the extracted PFA is likely to conform with the EWC Code 10 01 02 authorised by the permit.

6.2 Acceptance Checks

In order to meet the requirements of the Environmental Permit, the watching brief would be implemented such that a 4-stage series of acceptability checks will be implemented by the Contractor:

- Point 1 – pre-acceptance checks at the excavation face by a Site Operative;
- Point 2 – pre-acceptance checks at the excavation face by the Machine/Mobile Operator;
- Point 3 – waste acceptance checks at the temporary stockpile by a Site Operative; and
- Point 4 – waste acceptance checks at the temporary stockpile by the Machine/Mobile Operator.

6.3 Methodology

As part of the acceptance checks, a watching brief would be required to be implemented which would follow a methodology. In summary, this is to comprise:

- Visual and olfactory acceptability checks undertaken at each of the 4-stage points identified;
- Where contaminated and/or non-conforming material is identified then it is important that a **STOP checkpoint** is implemented to allow for an assessment to be made in conjunction with the Site Manager;
- Where the material can be addressed through existing procedures, then this can be undertaken, however the Site Operator (LHL) is to be notified in writing within 24 hours;
- Where material cannot be addressed through existing procedures, the Site Operator (LHL) is to be notified immediately;
- The procedures can only be re-assessed and reviewed by a Competent Person identified/appointed by the Site Operator;

- Updates to the procedures / methods and upgrade to risk mitigation measures can only be undertaken once the Competent Person has reviewed and approved;
- Any changes to the Discovery Strategy are to be submitted to the Local Planning Authority (LPA) for review and approval in writing prior to implementation; and
- The working methodology, Discovery Strategy and any other relevant documents (Risk Assessments, Method Statements, Dust Management and Monitoring Plan etc) are then to be updated in a revised document and retained on site in hard copy by the Contractor/Site Operator and also electronically within a shared central file location.

An outline flow diagram of processing and management of the PFA is provided as Figure G.

6.4 Waste Types

There is no indication that other wastes are/should be present within the PFA, however types of contamination and/or non-conforming material that could potentially be encountered can be separated into two main waste streams.

1. General Non-conforming; and
2. Hydrocarbon/chemical.

Significant asbestos contamination of the PFA is not anticipated based on previous investigations and analysis which identified one instance of random 'trace'[8] chrysotile asbestos contamination from 96 samples analysed from 27 sampling locations across the site.

Additional ground investigation and testing will be undertaken as part of a further characterisation exercise before PFA excavation is commenced in each phase.

6.4.1 General Non-conforming

This is considered to comprise physical and out of specification components of waste that could be deposited within the PFA. This includes intermixed topsoil and PFA, or other materials such as waste drums, barrels, plastics, timber, wood, ash, concrete, brick, glass.

Whilst there is no current evidence that such materials will be encountered, should any of these physical materials be encountered it is likely that they will be identified at the excavation face by the excavator Machine Operator or Site Operative during visual checks 1 and 2.

Where possible, such items or areas will be excavated carefully so as not to release any potential residual liquids that could be present within containers or around buried items. An initial assessment will need to be made at the point of excavation to understand if the items can be segregated and moved to the non-conforming stockpile without spillage or release of any residual liquid.

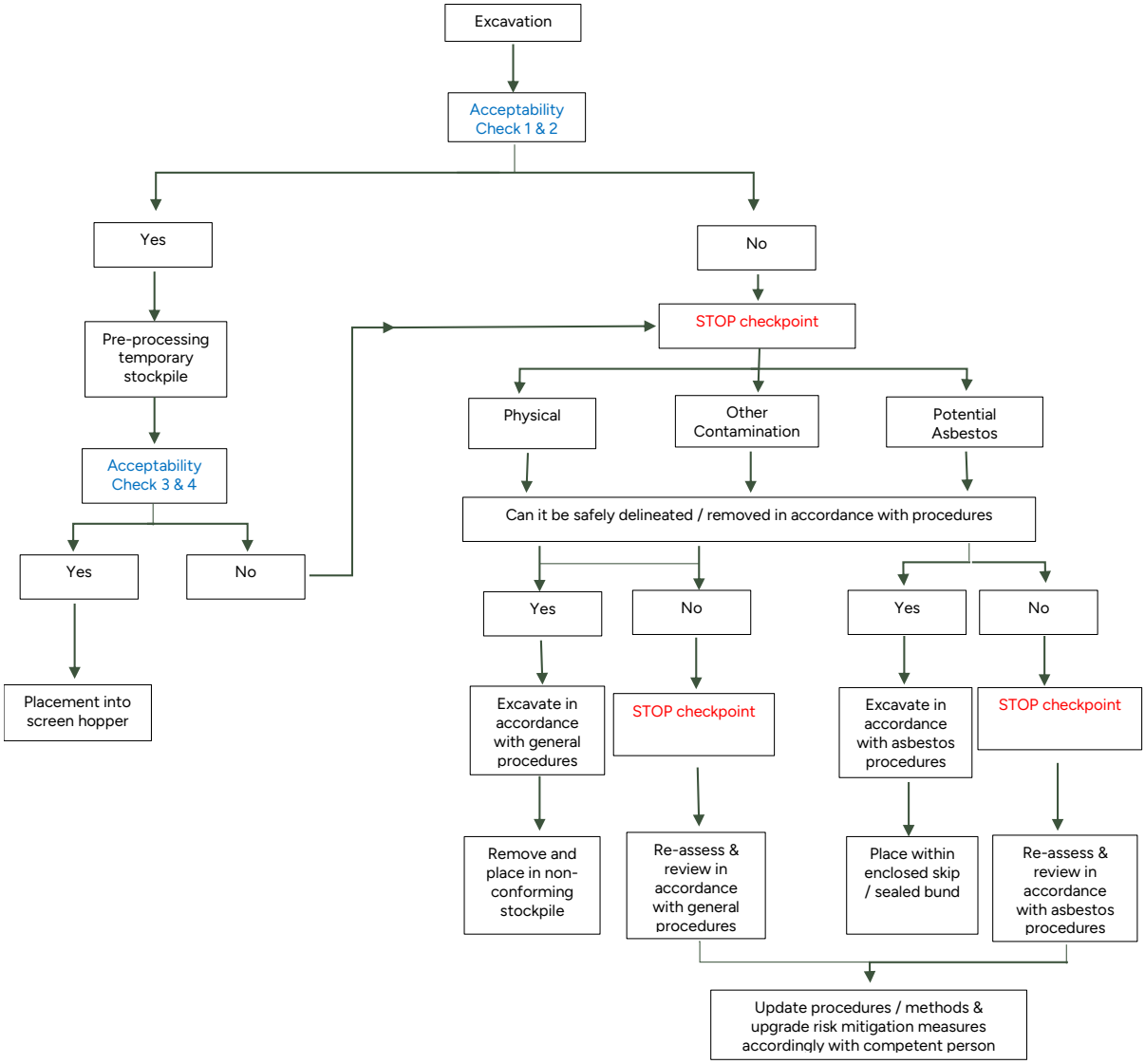
In the event that such objects can be removed, but where localised residual liquid contamination is present, plastic sheeting can temporarily be placed on the ground adjacent to the excavation for placement of the items. It should be ensured that no run-off occurs

[8] HSG 248 (2nd Edition) Asbestos: The Analysts Guide (May, 2021). It is the authoritative source of asbestos analytical procedures within Great Britain. The document provides a definition of 'trace' asbestos. A section on sampling and analysis of soils and made ground is also included.

from the objects and therefore a small bund may need to be placed around the outer edge of the sheeting using PFA. Once all the objects have been excavated, the temporary stockpile should be removed at the earliest opportunity and transferred directly to sheeted/enclosed vehicles for off-site disposal should it not be possible to move to the main non-conforming stockpile.

Where large volume areas of waste are buried such that is not possible to move and keep stored within the non-conforming stockpile then re-assessment of the material will need to be undertaken. A **STOP checkpoint** will need to be implemented until further review and re-assessment with the Contractor, Site Operator and Competent Person confirms the approach to be undertaken.

Figure G: Outline diagram of PFA processing and management options



Notes:

- Based on visual and olfactory observations
- STOP checkpoint: indicates point at which work must be temporarily stopped and re-assessed with appropriate approvals obtained where required
- Stockpiles to comprise of segregated like-for-like material. Waste is therefore to be separated and placed in specific designated waste materials
- Updates to the procedures / methods and upgrade to risk mitigation measures can only be undertaken once the Competent Person has reviewed and approved
- It is important that any changes to the Discovery Strategy are agreed and accepted by NCC in writing prior to implementation

6.4.2 Hydrocarbon / Chemical

It is possible that areas of hydrocarbon and/or other areas of chemical contamination could have impacted the PFA. This could also be associated with physical general non-conforming waste as summarised in Section 6.4.1. These areas of impact could comprise fuels, oils, solvents, paints, resins, pesticides and other chemical related waste material or liquids.

Hydrocarbon related impacts may be identified through visual identification where residual contamination can be clearly identified through staining or discolouration of the PFA. Where this is the case, excavation of the impacted area can be chased out and removed using visual observations. However, other chemical related impacts may not be as readily detectable from visual observations. As such, it will be important that olfactory indications of potential contamination impact are identified and removed once detected. Where there is any doubt regarding potential impacted PFA from odour detection, the material should be removed to the non-conforming quarantine area for further assessment by a Competent Person, as necessary.

An initial assessment would need to be made at the point of excavation to understand if the impacted area(s) can be segregated and moved to the non-conforming stockpile without spillage or release of any impacted PFA.

In the event that the PFA can be removed and it is a relatively small area, plastic sheeting can temporarily be placed on the ground adjacent to the excavation for placement of the material. It should be ensured that no run-off occurs. Once the impacted PFA has been excavated it would be moved to the non-conforming stockpile. Alternatively, it can be transferred directly to sheeted/enclosed vehicles for off-site disposal under Duty of Care procedures.

Where large volume areas of impacted PFA are encountered, such that is not possible to move and keep stored within the non-conforming stockpile, then re-assessment of the material would need to be undertaken. A **STOP checkpoint** would need to be implemented until further review and re-assessment with the Contractor, Site Operator and Competent Person confirms the approach to be undertaken.

6.4.3 Asbestos

From the historical evidence and the PFA investigation undertaken to date, there is no indication that any significant asbestos is present in any areas of the Site, as demonstrated by the preliminary PFA characterisation analysis.

A ‘trace’ occurrence of asbestos was encountered in one sample, this not meeting the definition of asbestos as regulated under regulation 2 of the Control of Asbestos Regulations 2012 (CAR 2012) due to the very small quantity identified. However, following a precautionary approach, an asbestos ‘watching brief’ will be implemented, the objective of which will be to identify any significant asbestos contamination that might be present and uncovered during the PFA excavation to be identified and managed fully in accordance with the requirements of the Control of Asbestos Regulations 2012 (CAR 2012), the accompanying Approved Code of Practice and Guidance as well as CAR-SOIL industry guidance.

All Site / Machine Operatives will be asbestos awareness trained (Cat A), as this would provide necessary basic information that would enable operatives to identify asbestos and stop work if they suspect asbestos could be present in the PFA.

If suspected asbestos containing material (ACM) is encountered during PFA extraction, a Competent Person (preferably Cat B trained) will confirm on a visual basis whether asbestos is likely to be present within the material encountered. The stance taken should

be that materials deemed likely to be ACMs are considered to contain asbestos if in doubt. The material will then be sampled and submitted to a UKAS accredited laboratory for asbestos identification analysis. This is consistent with the Control of Asbestos Regulations (CAR, 2012).

Should ACM be confirmed, it would be documented and recorded as one of two basic types as follows:

- Type 1 – asbestos contained within a firm matrix – this includes asbestos cement products, textured decorative coatings, asbestos paints and any item of bitumen, plastic, resin or rubber (e.g. vinyl floor tiles, electric cables, roofing felt).
- Type 2 – asbestos not contained within a firm matrix – for this project these are any asbestos containing materials not listed above, but particularly asbestos coating insulation (e.g. lagging/insultation materials), loose fibrous asbestos and asbestos insulating board (AIB), millboard, and asbestos textiles (e.g. blankets, rope, string).

In the event that asbestos is encountered, mitigation measures will be reviewed at that time and, if required, further levels of control will be implemented in accordance with CAR 2012.

Legal and Licensing Issues

On the basis of existing PFA characterisation data, the asbestos risk level to on-Site workers is currently assessed as being very low, if not entirely negligible. Any excavation and processing activities undertaken on material with 'trace' asbestos contamination (as the known level meets that definition) will fall outside of the scope of CAR 2012 entirely.

Nevertheless, the high existing natural moisture content of the PFA, combined with operational controls designed to mitigate fugitive dust emissions from PFA excavation and stockpiling activities will suppress any potential fugitive respirable asbestos emissions at source. Consequently, it is reasonably concluded based on current knowledge that the potential risk of exposure to off-Site receptors from such levels of asbestos contaminated PFA will also be negligible.

Accordingly, it is concluded that the Site will comply with its legal duties under CAR 2012 to entirely prevent exposure to asbestos (Reg. 11) and to prevent the spread of asbestos from the Site (Reg 16).

6.5 Watching Brief Site Record

It is important that the discovery of contamination and/or non-conforming material is recorded as the works progress. As such, a site record proforma is to be developed that details:

- Date / time information;
- Specific location on site (phase number, grid references);
- Visual and olfactory observations;
- Volumes of impacted material;
- Photographs;
- How the material was dealt with and if it was addressed through existing procedures;
- Whether a Competent Person was engaged and whom; and

- Whether the Discovery Strategy, procedures / methods, risk mitigation measures have been updated or upgraded.

6.6 Method Change Approval

Any changes to the Discovery Strategy are to be submitted to NCC for review and approval in writing prior to implementation.

The working methodology, Discovery Strategy and any other relevant documents (Risk Assessments, Method Statements, Dust Management and Monitoring Plan etc) are then to be updated in a revised document and retained on site in hard copy by the Contractor and also electronically within a shared central file location.

7.0 Storage and Processing

7.1 Introduction

As detailed in Section 5.0 there will be both vertical and lateral excavation into the PFA. The initial vertical extraction would reduce a section of the PFA down to a 'working level' from which the PFA would be extracted in a lateral direction.

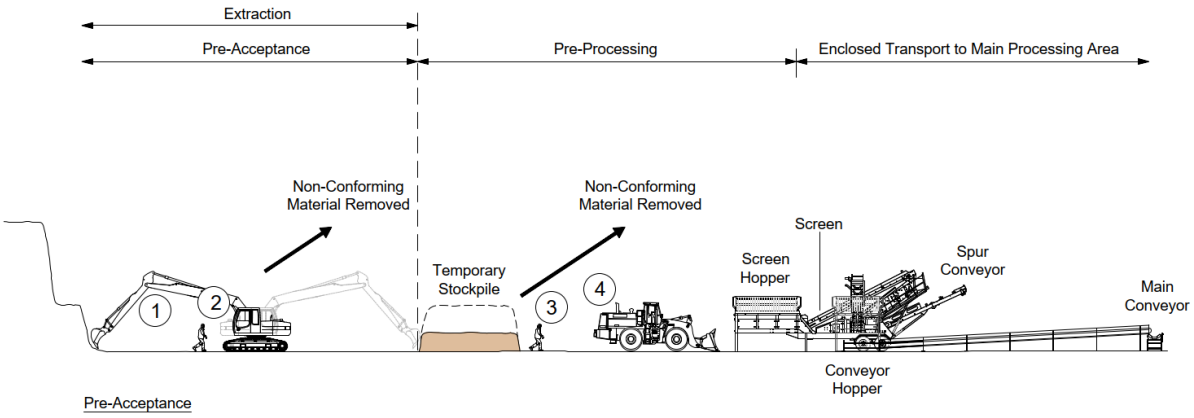
The PFA has undergone initial chemical characterisation and there would be further ground investigation undertaken prior to commencement to provide a further level of confidence to existing data. To date, there is no indication of hydrocarbon contamination being present at significant concentrations, or for the burial of other wastes. An isolated occurrence of 'trace' asbestos has been encountered however, and therefore the presence of asbestos or other localised areas of similar levels of contamination cannot be discounted, although based on current knowledge this is considered unlikely.

Given the absence of any identifiable or known sources of contamination within the PFA at the Site, a watching brief would be employed to identify material that is non-conforming with the waste authorised for acceptance in the Environmental Permit. As summarised in Section 1.5, the permit requires that a Waste Acceptance Procedure (WAP) is followed before the material can be accepted for pre-processing.

Before it is accepted for processing, the WAP also require the PFA to undergo pre-acceptance checks to confirm that it is suitable. The pre-acceptance checks include the further sampling and chemical characterisation of the material prior to excavation, followed by visual inspection of the material at the point of excavation before it is moved to a temporary stockpile prior to pre-screening.

Schematic diagrams of the process are provided as Figure H and Figure I.

Figure H: Schematic cross section of pre-acceptance and pre-processing activities



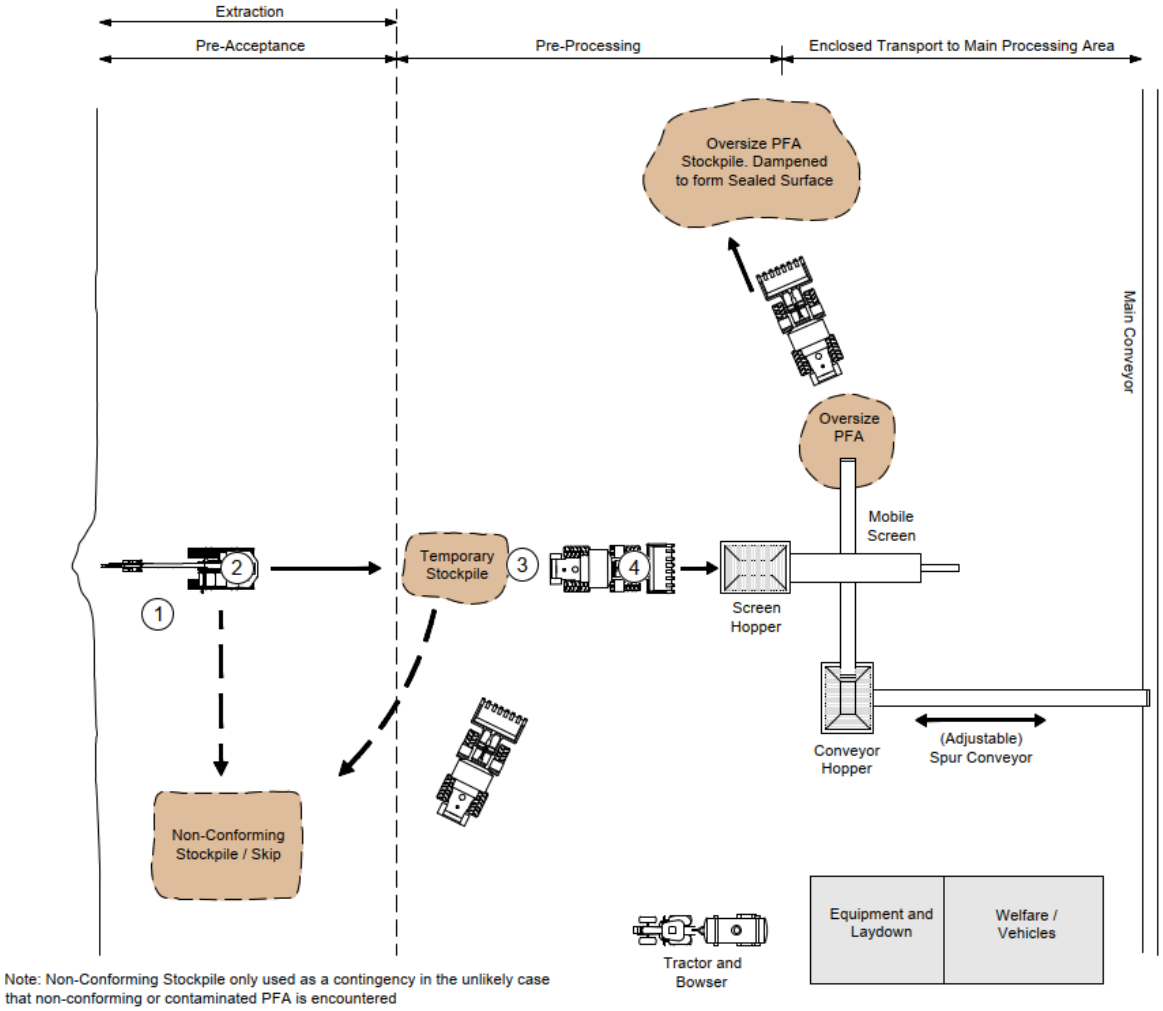
Pre-Acceptance

Check 1: Visual and olfactory checks of the working face for non-conforming material
Check 2: Visual check by the mobile plant operators for non-conforming material

Pre-Processing

Check 3: Visual and olfactory checks of the temporary stockpile for non-conforming material
Check 4: Visual checks by the mobile plant operators for non-conforming material

Figure I: Schematic plan of pre-acceptance and pre-processing activities



It should be noted that once the material is placed in the pre-processing area it becomes part of the regulated activity under the Environmental Permit. Prior to that point it does not fall under the permit, and it is at this point at which the pre-acceptance checks are to be undertaken. The following sections detail the activities which are provided in the WAP.

7.2 Waste Acceptance Procedures at the Entrance to the Pre-Processing Area

PFA would be extracted from the lagoon using a long reach excavator or front-end loader (or similar) and placed in a temporary stockpile adjacent to the working micro-phase area and pre-screening plant. The temporary stockpile is the point at which the waste is received and under the control of the Environmental Permit and is the only point at which PFA would be received for processing at the Site.

Upon placement of waste in the temporary stockpile the PFA will undergo Waste Acceptance checks as part of the Environmental permit requirements.

The objectives are to undertake:

- visual and olfactory inspection of waste;
- to communicate with the Site Manager as necessary regarding issues relating to individual loads of waste; and
- to implement quarantine and rejection procedures as necessary for non-conforming waste.

In addition, tasks would include:

- checking and completion of paperwork accompanying the waste;
- rejection of unacceptable waste; and
- an assessment of site processing capacity to avoid build of stockpiles.

7.2.1 Visual & Olfactory Inspection of Waste

Waste would be directed by a Site Operative (Cat A/B trained) to the temporary stockpile. The size of the temporary stockpile would be minimised in order to reduce the risk of dust arisings and will not exceed 3m in height.

The PFA would be visually inspected by a Site Operative and subjected to olfactory checks. The objective of this is to carry out a second inspection to detect the presence of non-conforming waste within the PFA, following the inspections carried out during extraction. The Site Operative would be trained to effectively identify and manage any non-conformance in the loads received in order to comply with the Duty of Care and permit conditions.

The visual inspection would generally be undertaken from the cab of the vehicle, however in the event of suspicion regarding the waste, the cab driver would exit the vehicle and undertake further inspection.

When the Site Operative has satisfied themselves as to the acceptability of the waste the PFA would be fed into the screen hopper.

In the event that unauthorised waste is observed or suspected it would be dealt with in accordance with the waste rejection procedures.

7.2.2 Communications with the Site Manager

The Site Operatives at the pre-processing stage would be in direct radio contact with the Site Manager. This would enable instructions to be delivered to Site Operatives undertaking the extraction regarding particular loads of waste and ensure appropriate precautions are taken during extraction.

7.2.3 Quarantine and Rejection Procedures

In the event that non-conforming waste is identified during the visual inspection at the operational pre-processing stage, quarantine and rejection procedures would be implemented.

7.2.4 Checking and Completion of Paperwork

The Site Operator would use a Waste Transfer Note (WTN) season ticket to cover the multiple transfers of waste from the extraction area to the adjacent pre-processing stage.

The season ticket would cover a period of one year and will confirm:

- current holder of the waste;
- the type of waste; and
- site where the transfers take place, given that the waste source and permit boundary are the same, this would be done per phase.

The Site Operator would keep a separate document that lists the details of each daily transfer known as a schedule.

The schedule would include the following information for each waste transfer:

- date; and
- quantity of waste transferred.

Records of the season ticket and schedule will be kept for 2 years after the last waste transfer.

The Site Operative would ensure that the details required for the schedule are recorded for each phase. Given the integrated nature of operations, waste quantities received are likely to be based on PFA treated at the main processing site.

7.2.5 Verification Sampling and Testing

A sampling and testing regime would also have been completed by further ground investigation as part of pre-acceptance requirements (the findings from which would need to be incorporated into this strategy) prior to any extraction taking place in the phase/micro-phase. As the PFA is transferred directly to the permitted activities, no further sampling and testing would be carried out before the PFA is processed.

The Site Operator would however carry out sampling and testing of the final PFA product following processing to verify that the processed PFA meets the necessary quality standards for BS EN 450-:2012 Fly ash for concrete (EN 450).

7.2.6 Assessment of Site Capacity

The Site Operative will check that the required storage areas and treatment processes on site have the physical capacity needed to handle the waste. Accepting waste where capacity is not available would be a breach of permit conditions.

7.3 Quarantine and Rejection Procedures

The objectives of the quarantine and rejection procedures are to ensure that any/all non-conforming waste is removed from any pre-processing area and that the team undertaking waste extraction are informed so that appropriate action can be taken to prevent recurrence.

Non-conforming waste would be identified by visual and olfactory means. Non-conforming waste would be identified by either the Site Operative overseeing the pre-processing stage, or by Site Operatives operating machine and/or mobile handling equipment.

Visual criteria used to assess potentially unsuitable loads would be the presence of material not specifically authorised by the permit, or discolouration and staining. Any odorous materials would be rejected as potentially contaminated.

7.3.1 Rejection at the Temporary Stockpile in Pre-Processing Areas

If unauthorised waste is observed by a Site Operative either during or after deposit at the temporary stockpile, it will be dealt with in the following manner:

- the waste would be removed to the quarantine area;
- the quarantine area would have impermeable surfacing with self-contained drainage (such as sheeting and bunds, or a skip);
- in all incidences of the identification of unauthorised waste, a record would be kept of the occurrence on a rejected waste form, and this information would be kept available for inspection by the EA; and
- a record would be kept of the number of skips or loads of unauthorised wastes removed from the pre-processing area, and date of removal.

In the event it is necessary to sample such waste to identify a suitable onward treatment facility, the necessary sampling would be carried out. The waste would be maintained in the quarantine area until such time as a suitable alternative facility has been identified.

8.0 Site Working Plan

The operational activities on the Site would be undertaken in accordance with this Discovery Strategy and other key documents which comprise the Dust Management and Monitoring Plan (DMMP), Dust Impact Assessment, Waste Acceptance Procedure (WAP), Water Environmental Management Plan (WEMP), Drainage Management Plan (DMP) and Construction Environment Management Plan (CEMP).

It is important that these documents are reviewed and implemented as part of the extraction and processing activities. The Contractor will take overall management and control of these requirements.

8.1 Roles and Responsibilities

In summary:

- It would be the responsibility of the Contractor to ensure that this Discovery Strategy (and watching brief) is followed, recording and tracking of information on site as the works progress and retaining records for Completion Reporting.
- The Contractor is to retain information detailing progress, recording contamination and/or non-conformance findings and how it has been dealt with. This should be supported by photographic evidence. The report should also include other information such as import/export of material, excavations completed, volumes etc.
- A Competent Person is to be identified/appointed by the Site Operator (LHL) to provide oversight during the works, assist where contamination is encountered, provide technical advice in dealing with the contamination and provide support for completion reporting.
- However, it would be the responsibility of the Contractor to identify contaminated and/or non-conforming material and when the Competent Person should be engaged for advice.
- The Contractor is to be responsible for overall Health & Safety at the site, including implementation of inductions, tool box talks, near miss and incident reporting, competency of site staff, welfare, working methods and control measures.

8.2 Site management

The Contractor is to ensure the following:

- The production of all Health & Safety and Method Statement documentation under CDM 2015, including the review and acceptance of subcontractor RAMS;
- The safe management of site operations through the use of barriered areas and clear signage indicating work areas;
- Provision of welfare facilities to allow for cleaning and washing; PPE and work clothing change areas; designated clean areas for eating;
- Following of good management working practices associated with excavation of material; stockpile control; dust and management;
- Daily briefing talks are to be provided to Site / Machine Operatives when undertaking the works to ensure that good process is followed and any contamination and/or non-conforming is identified and dealt with appropriately;
- Site / Machine Operatives to have undertaken asbestos awareness training (Cat A);

- Disposal of material under waste Duty of Care procedures;
- Housekeeping of the site area including management of general waste.

8.3 Health & Safety

The Contractor is responsible for the implementation of Health and Safety.

The Contractor would provide Health & Safety and Method Statement documentation under CDM 2015, including the review and acceptance of subcontractor RAMS Health and Safety Plan and risk assessments. These would cover the possibility of working in areas that could contain potentially hazardous materials, including metals, hydrocarbons, other chemicals and ACMs.

Asbestos

The works are to be undertaken in general accordance with the Control of Asbestos Regulations (CAR) 2012, CIRIA C733 guidance document 'Asbestos in soil and made ground: a guide to understanding and managing the risks' (2014), and the Joint Industry Working Group (JIWG) industry guidance 'Interpretation for Managing and Working with Asbestos in Soil and Construction and Demolition Materials' (2016) (CAR-SOIL).

Asbestos mitigation measures are based upon the findings of the PFA characterisation data obtained to date. A single isolated occurrence of 'trace' chrysotile asbestos has been encountered. The works therefore do not require any specific mitigation measures to be implemented. However, a CAR-SOIL risk assessment using its decision support tool spreadsheet is to be completed prior to extraction in each of the proposed phase areas to confirm licensing status. This is particularly important to be completed following the findings of the further proposed ground investigation and prior to extraction in each phase.

It would be the responsibility of the Contractor to ensure that Site / Machine Operatives are asbestos awareness trained (Cat A/B), as this would provide necessary basic information that would enable operatives to identify asbestos and stop if they suspect asbestos could be present in the PFA.

It would be the responsibility of the Contractor to review the status of the works should asbestos be encountered and the status of the works under CAR 2012. If required, the Contractor will engage with a Competent Person where such a change in status may be identified. It would be the responsibility of the Contractor to ensure that all works that are deemed to fall under CAR 2012 are planned and executed in full compliance with its legal duties.

8.4 Contingency measures

In the unlikely event that unexpected large volumes of contaminated and/or non-conforming material is identified that cannot be addressed through procedures outlined in this Discovery Strategy a **STOP checkpoint** is to be implemented and further review is to be undertaken by the Contractor, Site Operator (Lound Hive Ltd) and Competent Person.

Allowance is to be made for increasing capacity of stockpiling areas in the event that varying types of contaminated and/or non-conforming PFA material is encountered.

Upgrading of health and safety risk mitigation measures are to be identified and understood in the event of encountering different types of contamination (hydrocarbons, chemicals, asbestos) and that necessary competencies are already in place to deal with such occurrences.

8.5 Temporary Stockpiling

A temporary stockpile would be placed on the ground within the pre-processing area of the Site. The stockpile would be placed directly on material anticipated to comprise basal PFA which has not been excavated and left in-situ as a working platform. It is not anticipated that the PFA placed at this location would be impacted by physical non-conforming objects or heavily impacted hydrocarbon/chemical PFA as it is anticipated that this would be identified and segregated by checks 1 & 2 at the face of the excavation as part of pre-acceptance procedures.

As the stockpile would be a "just in time" temporary feature prior to its further checks 3 & 4, the stockpile would not develop into a large volume prior to its placement within the screen hopper. The stockpile would be no more than 3m in height in area at any one time.

There would also be a temporary PFA oversize stockpile which would contain PFA which cannot pass through the mobile screen (>6mm). The oversize stockpile would be of a maximum 150m^2 and 3m high at any one time within a designated location (near the working area).

No sheeting or bunding would therefore be required. However, dust management controls would be implemented in accordance with requirements as detailed in the DMMP.

8.6 Non-conforming / Quarantine Stockpile Management

The non-conforming / quarantine stockpile would be placed in a designated area within the phase boundary. The material placed within this area would be segregated into like-for-like stockpiles, kept separated and not mixed. Depending on the volume and nature of material discovered either one bunded area can be prepared, or a series of smaller bunded areas in the same location.

Fugitive emissions management will follow requirements as detailed within the Dust Management and Monitoring Plan (DMMP) and will include measures such as compacting of material and use of water fogging systems. The bunded areas are to comprise basal plastic sheeting to form a sealed surface to prevent penetration into the underlying surface. Sheets are to be lapped by a minimum of 300mm and sealed (e.g water resistant tape) to prevent leakage. The area is to be bunded and PFA can be used to create the bunds, however plastic sheets are to be fully lapped over bund crests to ensure capture of run-off (rainwater/leachate) from the stockpiled/quarantined material. Photographs are to record its construction.

It would be the Contractors responsibility to ensure the on-going integrity of the bunded areas and also to monitor for the presence of surface water run-off from the stockpiled/quarantined material. Where run-off is accumulating then the Contractor would need to address the contaminated water that is being collected, either through dewatering and holding within an on-site tank for disposal, or removal by a vacuum tanker off-site.

Stockpiles are to have a designated sign with a stockpile identifier number/code indicating the nature of material present.

A dedicated, sealed, lockable container or skip for asbestos waste is also to be located in this area.

8.7 Laboratory Analysis

All chemical laboratory analysis is to be undertaken by UKAS and MCERTS laboratory.

8.8 Duty of Care

Waste disposal of any material off-site is to follow waste Duty of Care procedures.

Contaminated / non-conforming waste for off-site disposal would be transferred to sheeted wagons and transported by a licensed waste carrier to a suitably licensed landfill facility in accordance with Duty of Care provisions of the Environmental Protection Act 1990. In the case of ACM, the waste is to be kept in securely labelled containment bags and within a dedicated, sealed, lockable container or skip. All loads leaving the site would be accompanied with relevant waste transfer documentation (including a consignment note).

The Contractor would confirm the waste material's landfill waste disposal category. Records of disposal including waste transfer notes are to be retained for inclusion in the Completion Report, including address of the waste receiver and associated registration and licensing. All chemical and WAC testing certificates are to be retained.

8.9 Contractor Competency

The Contractor is to demonstrate competency to undertake the management of site activities which would include implementation of the Discovery Strategy. This is to include experience, training and knowledge of staff when dealing with potentially contaminated and/or non-conforming material.

It would be necessary for the Contractor to demonstrate understanding of the requirements under CAR 2012 (and CAR-SOIL) to implement safe systems of work and the licensing and notifiable status of the works, should it be required.

8.10 Site Records

The Contractor is to ensure that records are retained on site that document the works undertaken. This could comprise:

- Watching Brief Site Records;
- Site photograph records;
- Volumes of material excavation;
- Phasing and sequencing of excavation (drawings showing sequential extraction);
- Location and layout of site activities;
- Engineering drawings;
- Programme;
- Identification of contaminated and/or non-conforming material;
- Volumes of material disposed off-site;
- Waste transfer documentation;
- Changes to the working methodology;
- Competent Person written approvals;
- Stockpile management details;
- Health and safety management information including tool box talks.

9.0 Completion Reporting

A series of separate Completion Reports would be prepared for each phase once works have been completed in that area.

The purpose of the Completion Report is to summarise the extraction works that have been undertaken, to confirm if any contaminated and/or non-conforming material has been encountered and how it has been dealt with. Or alternatively, stating whether no contamination and/or non-conforming material has been encountered.

The Completion Report is to include:

- Details of the works undertaken including dates, areas, depth and volume of materials removed from excavation areas;
- Details of any visual / olfactory evidence of contamination and the measures taken to manage the impacted PFA (including potential ACMs);
- Watching Brief Site Records;
- Location of stockpile areas and management/control methods employed;
- Evidence of the quantities of material removed from site including full waste disposal records and classification (including volumes, chemical testing);
- Confirmation of haulage subcontractor and disposal facilities;
- Non-conforming / quarantine stockpile area bund construction details and run-off/leachate water collection and disposal (including volumes, chemical testing);
- Asbestos management information;
- A photographic record of the works;
- A scaled drawing, detailing the phasing and sequencing of excavation;
- Final as-built drawings of the extracted phase area;
- Copies of laboratory analysis certificates;
- Records of environmental monitoring including dust controls implemented and roadsweeping/washer (if required);
- Documentation demonstrating written approvals for updating or change of methodology by appropriate Competent Person.

Where changes to the method or strategy have been implemented, it must be clearly demonstrated that this has been approved by a Competent Person. In addition to this, it will be required to provide written confirmation that this has been reviewed and approved by the Local Planning Authority (LPA).

Where no contaminated or non-conforming material has been encountered, a written statement must be provided by the Contractor or Competent Person confirming the brief was implemented and that no contamination and/or non-conforming material was encountered during the excavation works in that phase area.

Appendix A Site Drawings

PFA Discovery Strategy

Retford Circular Economy Project (RCEP)

Lound Hive Ltd

SLR Project No.: 416.11943.00001

20 December 2023

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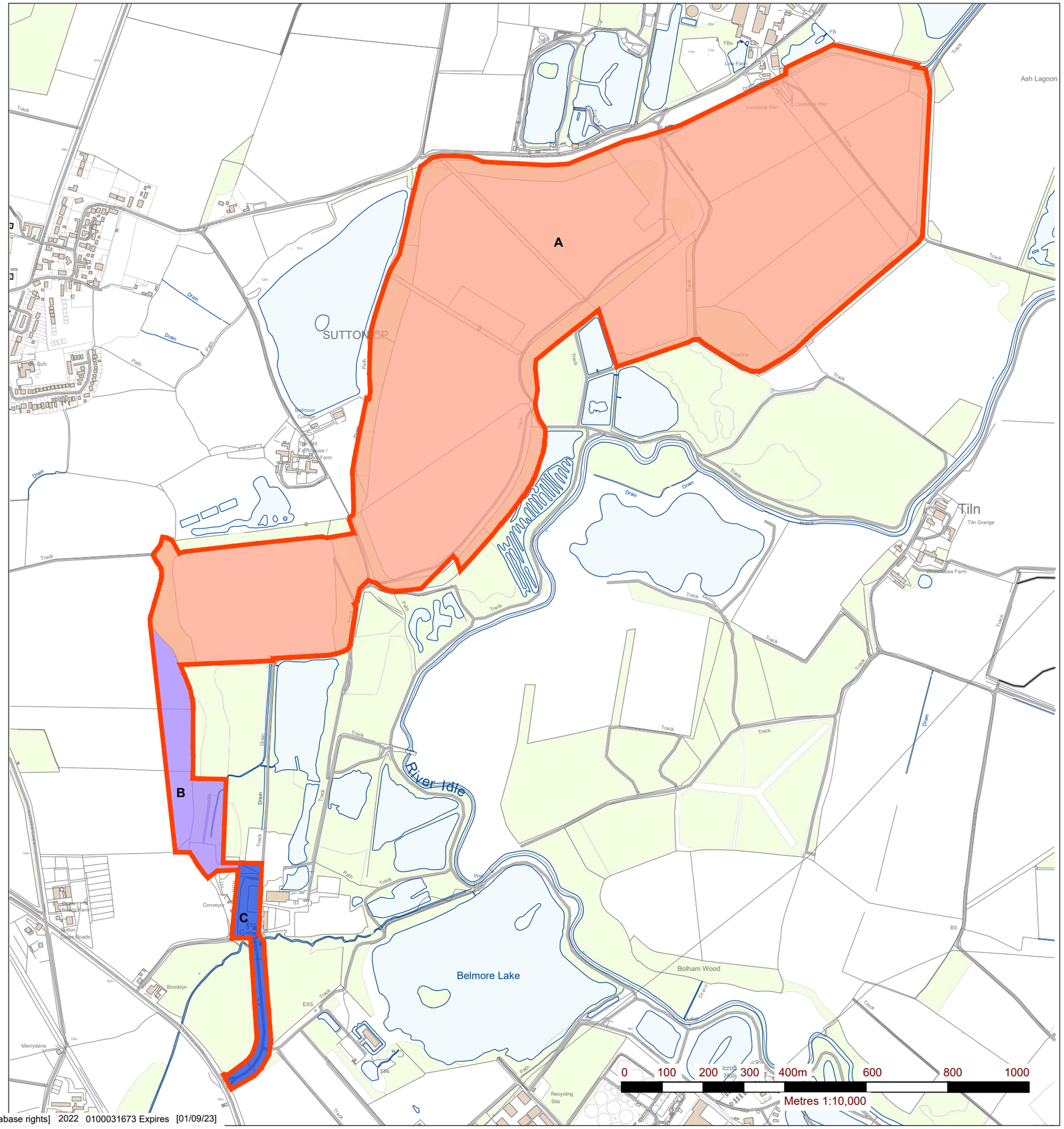

LEGEND

- SITE BOUNDARY
- A — MAIN OPERATIONAL SITE (105.81 HA)
- B — CONVEYOR AND LINK ROAD (5.23 HA)
- C — TEMPORARY OPTIMISATION SITE / MAIN PROCESSING SITE (2.51 HA)

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RETFORD CIRCULAR ECONOMY PROJECT

PHASE ONE LAND QUALITY ASSESSMENT

SITE AREA PLAN

DRAWING 03

Scale: 1:10,000 @ A3

Date: JANUARY 2023

416.V11943.00001.19.003.0_SITE_AREA_PLAN.dwg

Notes:

Legend:

2021 Borehole Locations

Application Site

Rev	Amendments	Date	By	Chk	Auth

SLR

www.slrconsulting.com

Client: Lound Hive Ltd

Project: Retford Circular Economy Project

Drawing Title: 2021 Borehole Locations

Scale	SLR Project No.
1:9,500 @ A4	416.11943.00001

Designed	Drawn	Checked	Authorised
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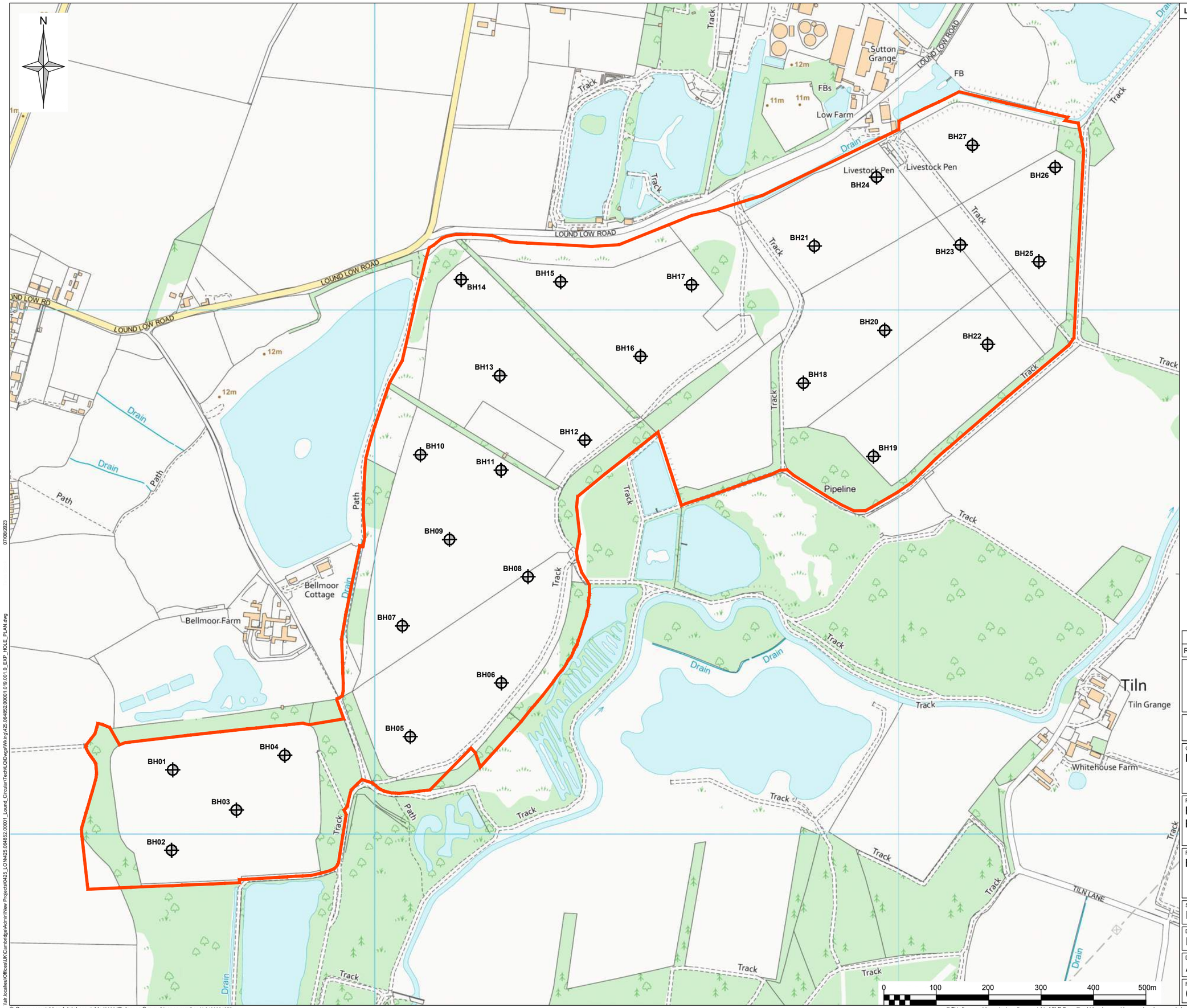
Date: DEC 2023	Date: DEC 2023	Date: DEC 2023	Date: DEC 2023

Drawing Number	Rev.
01	0



Legend:

- APPROXIMATE SITE BOUNDARY
- BOREHOLE LOCATION

Rev	Amendments	Date	By	Chk	Auth

SLR

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Client
LOUND HIVE LTD

Project
RETFORD CIRCULAR ECONOMY PROJECT
PFA CONTAMINANT TESTING

Figure Title
EXPLORATORY HOLE PLAN

Scale	SLR Project No.
NTS @ A3	425.064852.00001

Designed	Drawn	Checked	Authorised
ML	TKS	ML	
Date	Date	Date	Date
AUG 2023	AUG 2023	AUG 2023	

Figure Number **01** Rev. **0**

07/08/2023

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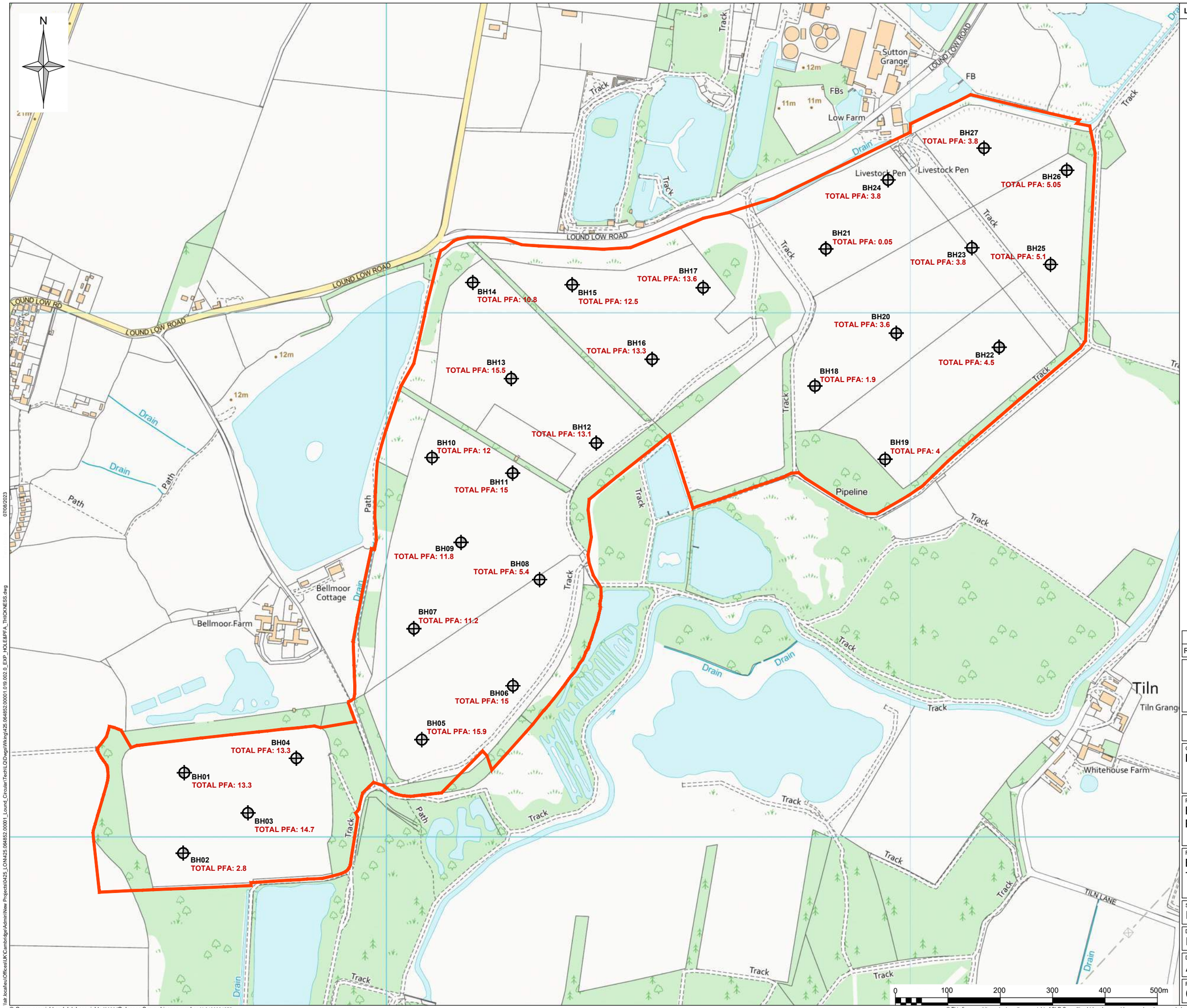

Legend:

- APPROXIMATE SITE BOUNDARY
- BOREHOLE LOCATION
- 13.3 — TOTAL PFA THICKNESSES

Rev	Amendments	Date	By	Chk	Auth

SLR

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Client
LOUND HIVE LTD

Project
RETFORD CIRCULAR ECONOMY PROJECT
PFA CONTAMINANT TESTING

Figure Title
EXPLORATORY HOLE PLAN WITH PFA THICKENESSES

Scale		SLR Project No.
NTS	@ A3	425.064852.00001

Designed	Drawn	Checked	Authorised
ML	TKS	ML	
Date	Date	Date	Date
AUG 2023	AUG 2023	AUG 2023	

Figure Number **02** Rev. **0**

07/08/2023

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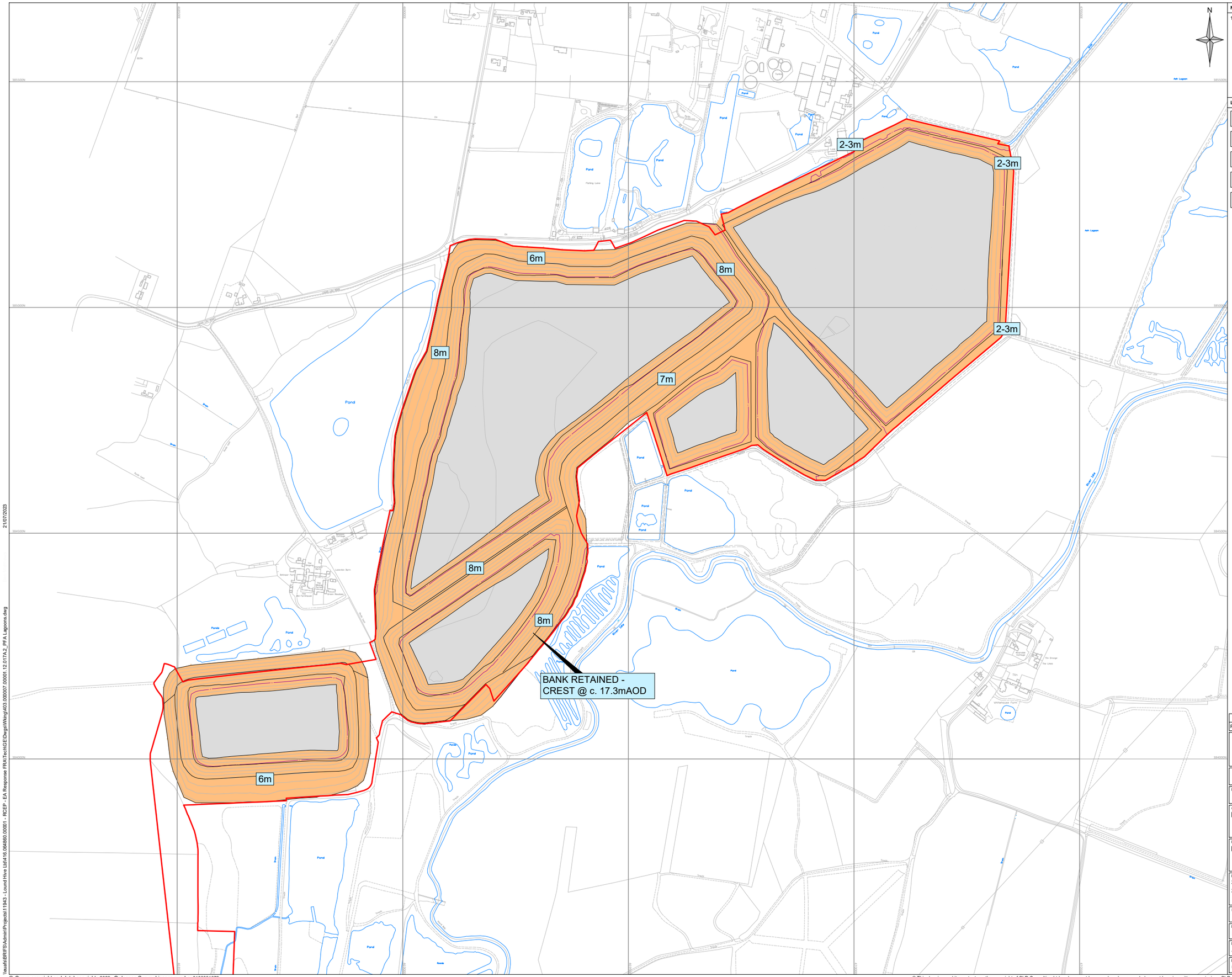

Notes:

1.

Legend:

- TOPOGRAPHY CONTOURS - DERIVED FROM EA LIDAR (8.0)
- APPLICATION SITE
- SANDSTONE BUND PROFILE
- PFA EXTRACTION AREA
- 11.2m — APPROXIMATE HEIGHT OF BUND TO SURROUNDING GROUND LEVEL

Rev	Amendments	Date	By	Chk	Auth

SLR

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Drawing Status & Suitability Code:

Client: HIVE AGGREGATES LTD

Project: RETFORD CIRCULAR ECONOMY PROJECT

Drawing Title: SITE PLAN
SANDSTONE BUND PROFILES

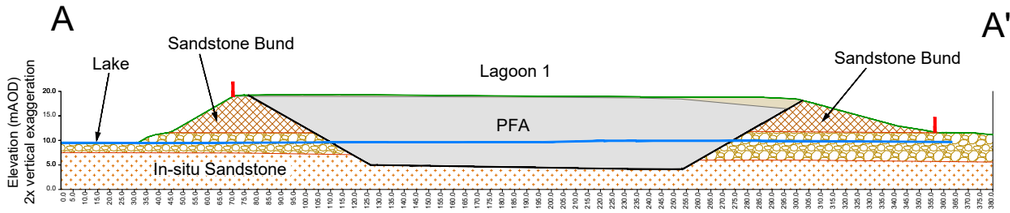
Scale	SLR Project No.
1:7,500 @ A3	416.064377.00001

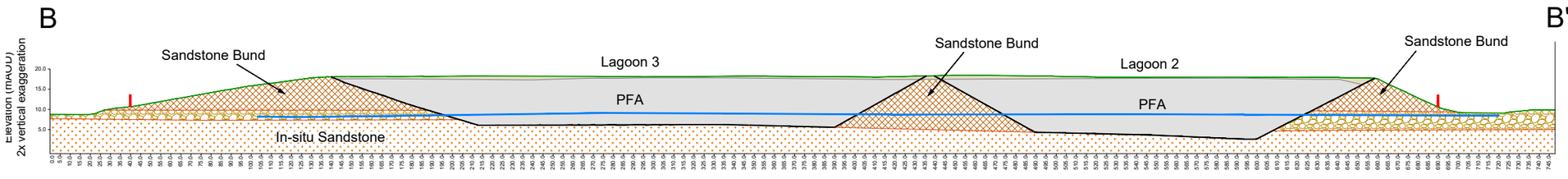
Designed	Drawn	Checked	Authorised
BM	BM	SH	SH
Date: JULY 23	Date: JULY 23	Date: JULY 23	Date: JULY 23

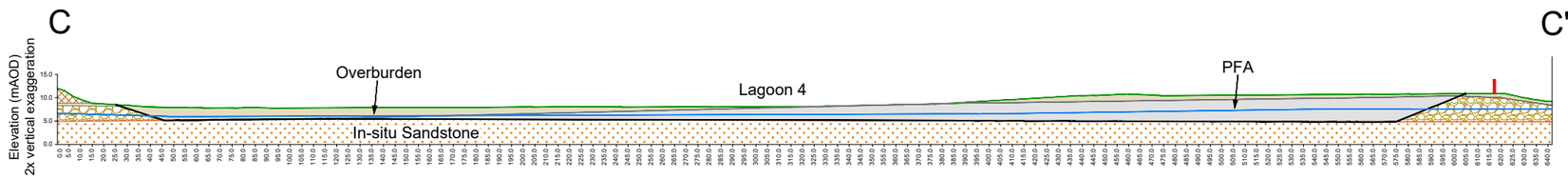
Drawing Number: **017A** Rev.

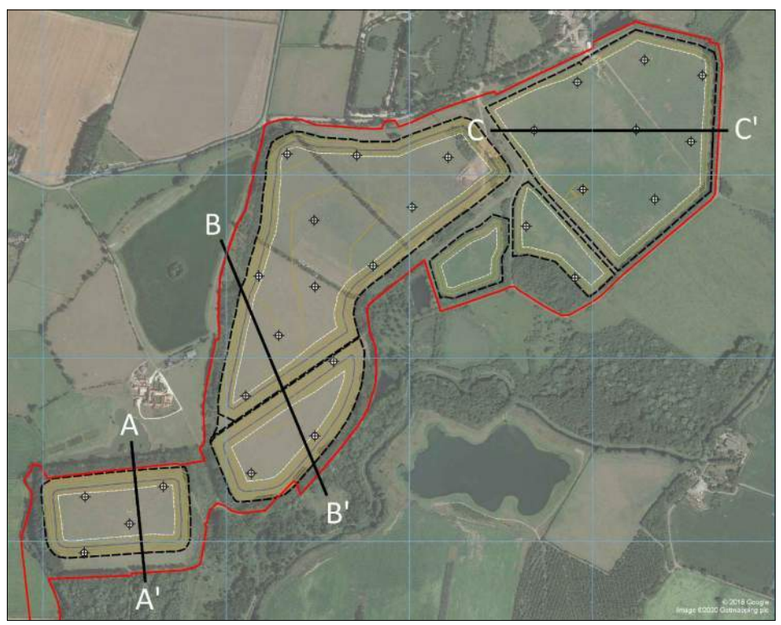
21/07/2023

\\eait\BRIFS\Admin\Projects\11943 - Lound Hive Ltd\416.064860.00001 - RCEP - EA Response FRA\Tech\GE\Dwgs\Working\403.00007.00001.12.017A2_PFA Lagoons.dwg









N

LEGEND

- SITE BOUNDARY
- TOPOGRAPHY
- GROUNDWATER
- LIMIT OF PFA
- PFA
- OVERBURDEN
- SAND & GRAVEL
- SANDSTONE
- SANDSTONE BUND

Revision	By	Chk'd By	Date	Comments

LOUND HIVE LTD

3RD FLOOR
THE BREW HOUSE
JACOB STREET
BRISTOL, BS2 0EQ

T: 01179 064280
www.slrconsulting.com

Site
LAND AT SUTTON-CUM-LOUND

Project
PFA RESOURCES ASSESSMENT

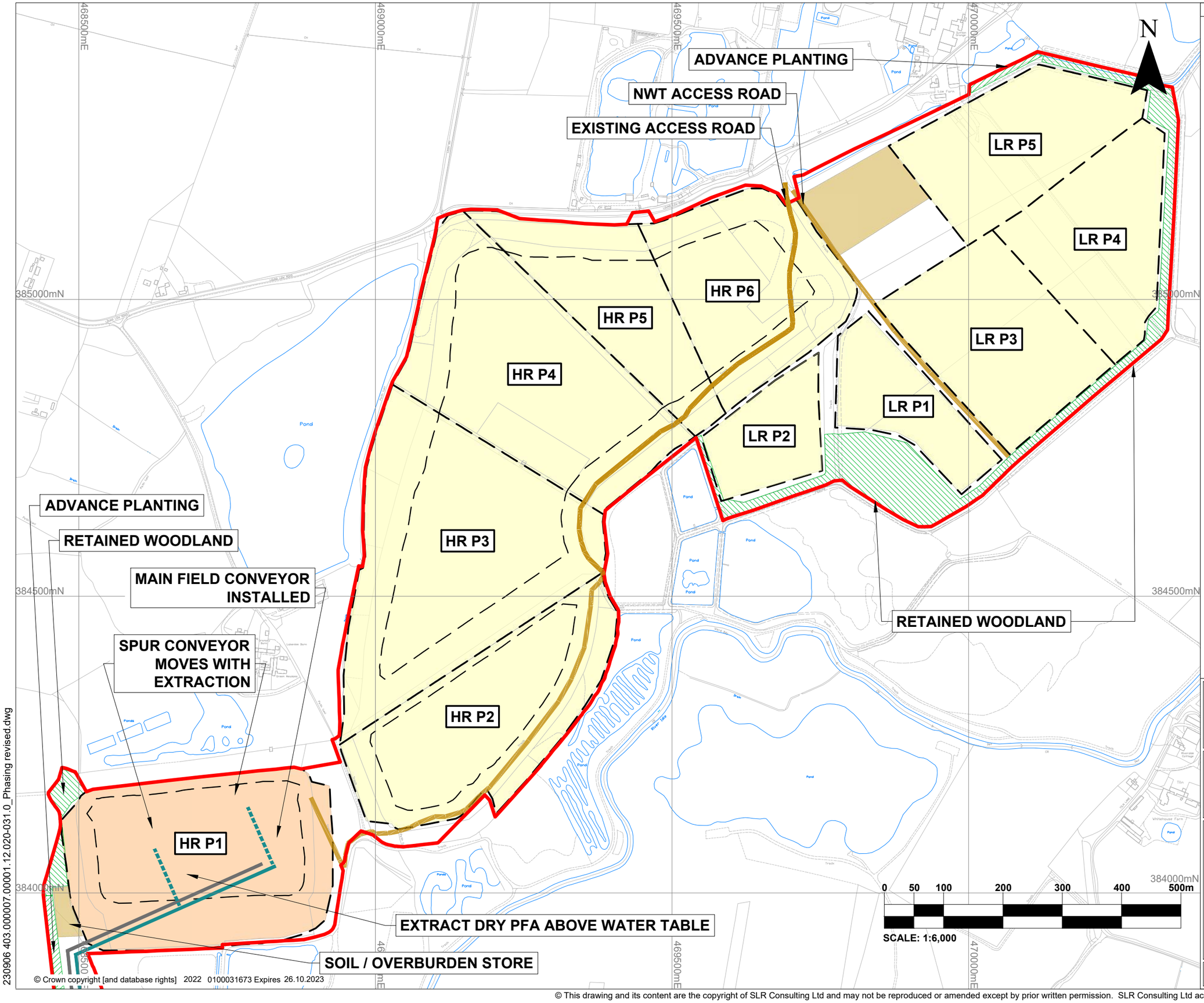
Drawing Title
LND-21-RR-03
CROSS SECTIONS

Scale	Date
1:400 @ A3	16/09/2021

Drawing Number	Revision
LND-21-RR-03	**0**

FINAL

SECTION 1 LAGOON 1 N-S.dwg



LEGEND

- SITE BOUNDARY
- PHASE BOUNDARY
- EXISTING GROUND
- PROPOSED EXCAVATION PHASE
- FILTER PONDS (INDICATIVE)
- SOAKAWAY (INDICATIVE)
- SOIL / OVERBURDEN STORAGE AREA
- ADVANCE PLANTING
- RETAINED WOODLAND
- FIELD CONVEYOR & HAUL ROAD
- REINSTATED DRAINAGE DITCH
- EXISTING ACCESS ROAD

HIVE AGGREGATES

SLR
3RD FLOOR
THE BREW HOUSE
JACOB STREET
BRISTOL, BS2 0EQ

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www.slrconsulting.com

RETFORD CIRCULAR ECONOMY PROJECT

PHASED EXCAVATION & INFILLING

STAGE 1
SITE ESTABLISHMENT & HR PHASE 1 EXCAVATION

020

Scale	Date
1:6000 @ A3	SEPT 2023

230906 403.000007.00001.12.020-031.0_Phasing revised.dwg

Appendix B Historical Drawings & Aerial Photos

PFA Discovery Strategy

Retford Circular Economy Project (RCEP)

Lound Hive Ltd

SLR Project No.: 416.11943.00001

20 December 2023

Aerial Photos

Lound 1971

Lound 1979

Lound 1992

KEY:

- LAGOONS FILLED WITH PFA & RESTORED TO AGRICULTURE
- LAGOONS FILLED WITH PFA – RESTORATION TO AGRICULTURE IN PROGRESS
- LAGOONS CONSTRUCTED – FILLING WITH PFA IN PROGRESS
- LAGOONS CONSTRUCTED – AWAITING FILLING WITH PFA

CHAIN BRIDGE LANE

PROPOSED SILT PIT FOR THERMAL DP

LAGOON C11/2B

LAGOON C11/3B

LAGOON C11/1A

LAGOON C11/2A

LAGOON C11/3A

SETTLING LAGOONS

LAGOON C5

LAGOON C4/1

LAGOON C11/1B

LAGOON C1/3

EXISTING ASH PIPE LINE

LAGOON C1/1

RIVER IDLE

BELLMOOR FARM

LAGOON C2

LAGOON C3

SETTLING LAGOONS

RIVER IDLE

SITE PLAN NUMBER	SOP/369
LICENCE REFERENCE	1/93/369/68SE
DATE	7-12-98

COTTAM POWER STATION

SUTTON-CUM-LOUND
ASH DISPOSAL SITE

LAYOUT OF LAGOONS

LAGOONS FILLING WITH PFA

COMPLETED FILL AREAS OF FILLING LAGOONS

FILLED AND RESTORED LAGOONS

FILLED LAGOONS AWAITING RESTORATION

FILLING NOT STARTED

FORMED BUT NOT FINISHED

RESTORED AND RETURNED TO AGRICULTURAL BELLMOOR FARM USE.

CHAIN BRIDGE LANE

LAGOON C11/2B

LAGOON C11/3B

LAGOON C11/1A

LAGOON C11/2A

LAGOON C11/3A

SETTLING LAGOONS

LAGOON C5

LAGOON C11/1B

LAGOON C4

LAGOON C1/3

EXISTING ASH PIPELINE

LAGOON C1/1

LAGOON C3

LAGOON C2

SETTLING LAGOONS

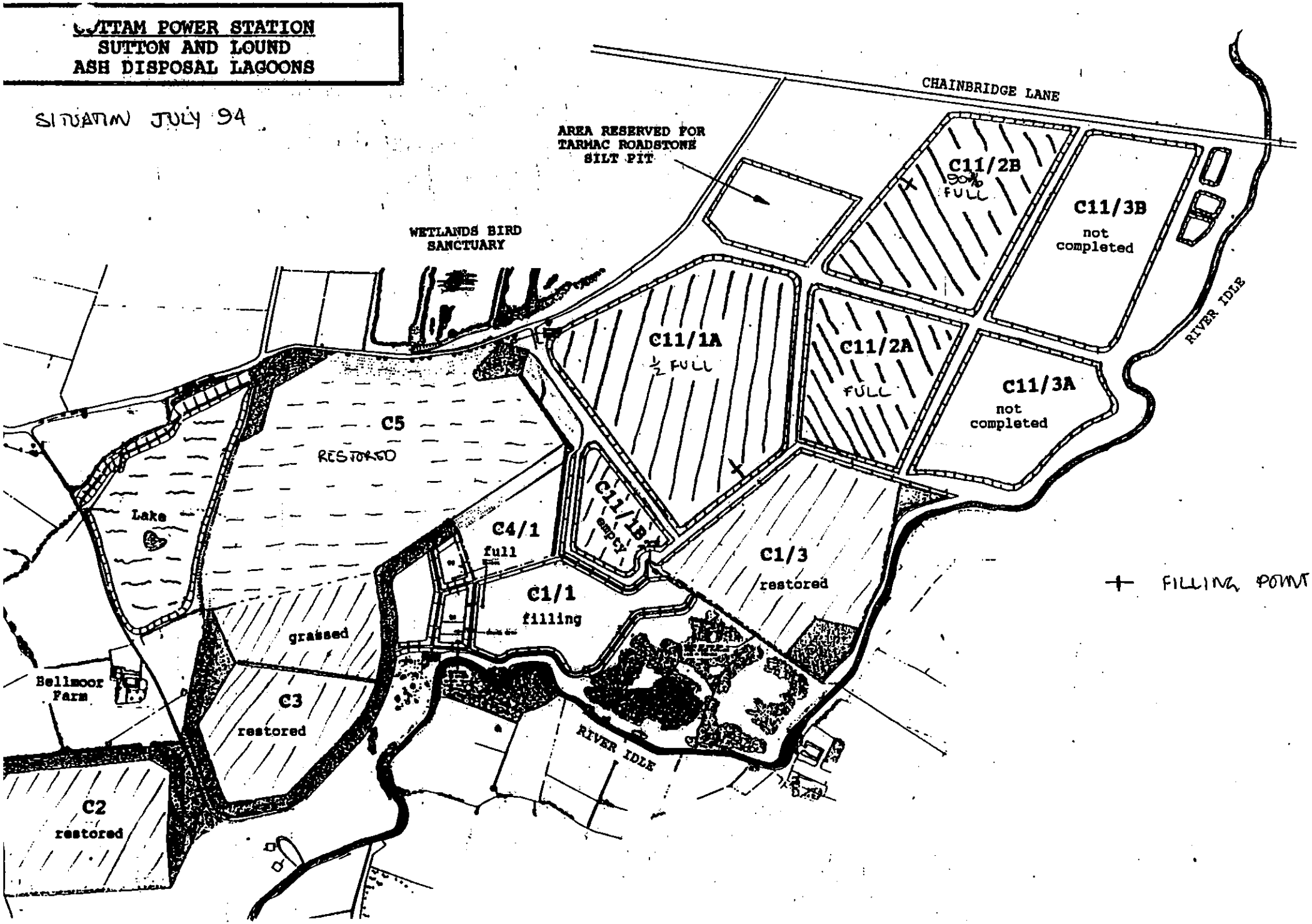
RIVER IDLE

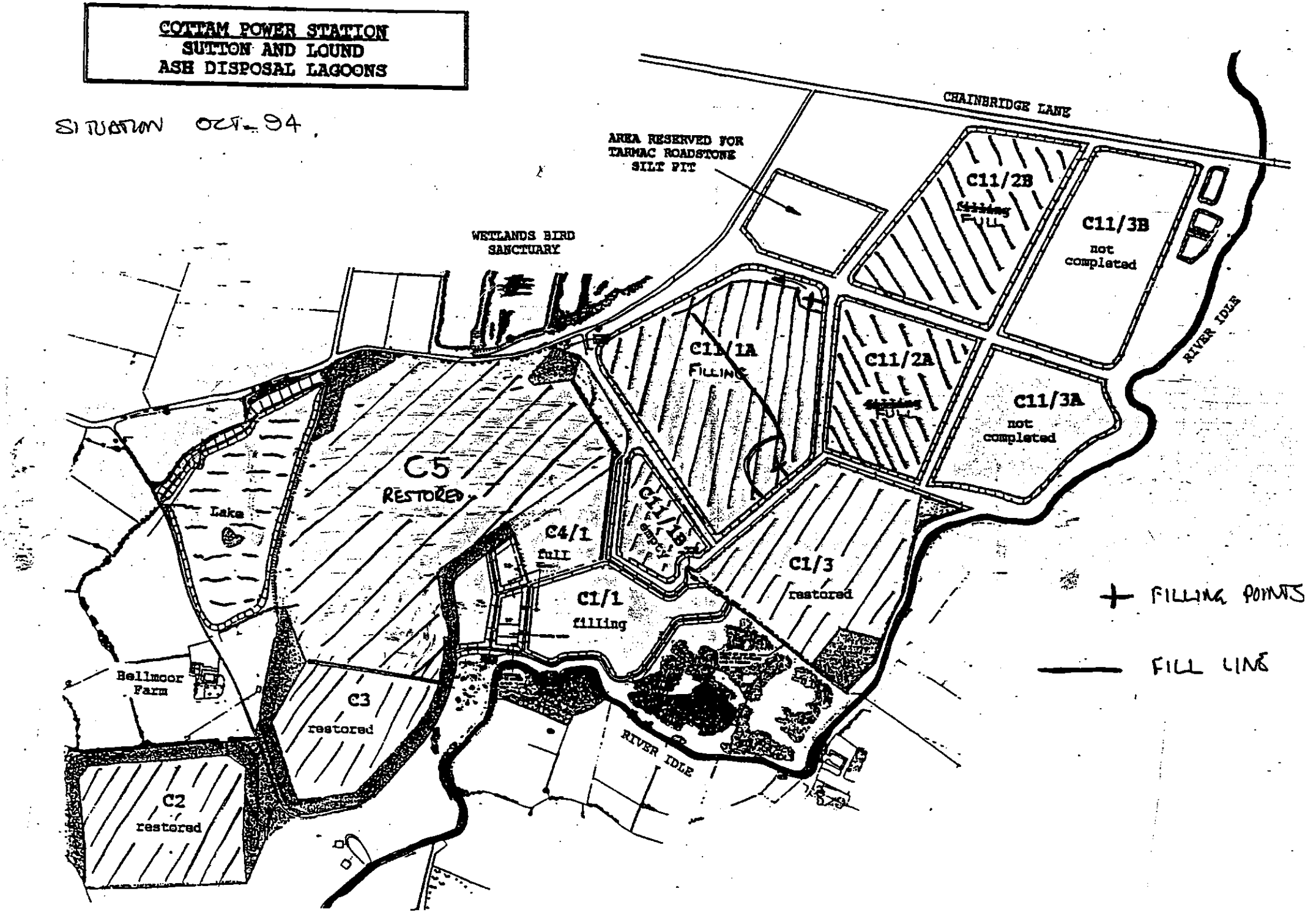
NOTTINGHAMSHIRE COUNTY COUNCIL
13 JUN 1994
AUTHORISED WASTE REGULATION

SITE PLAN NUMBER SLP/369

LICENCE REFERENCE 1/93/369/68SE

DATE 7.12.93

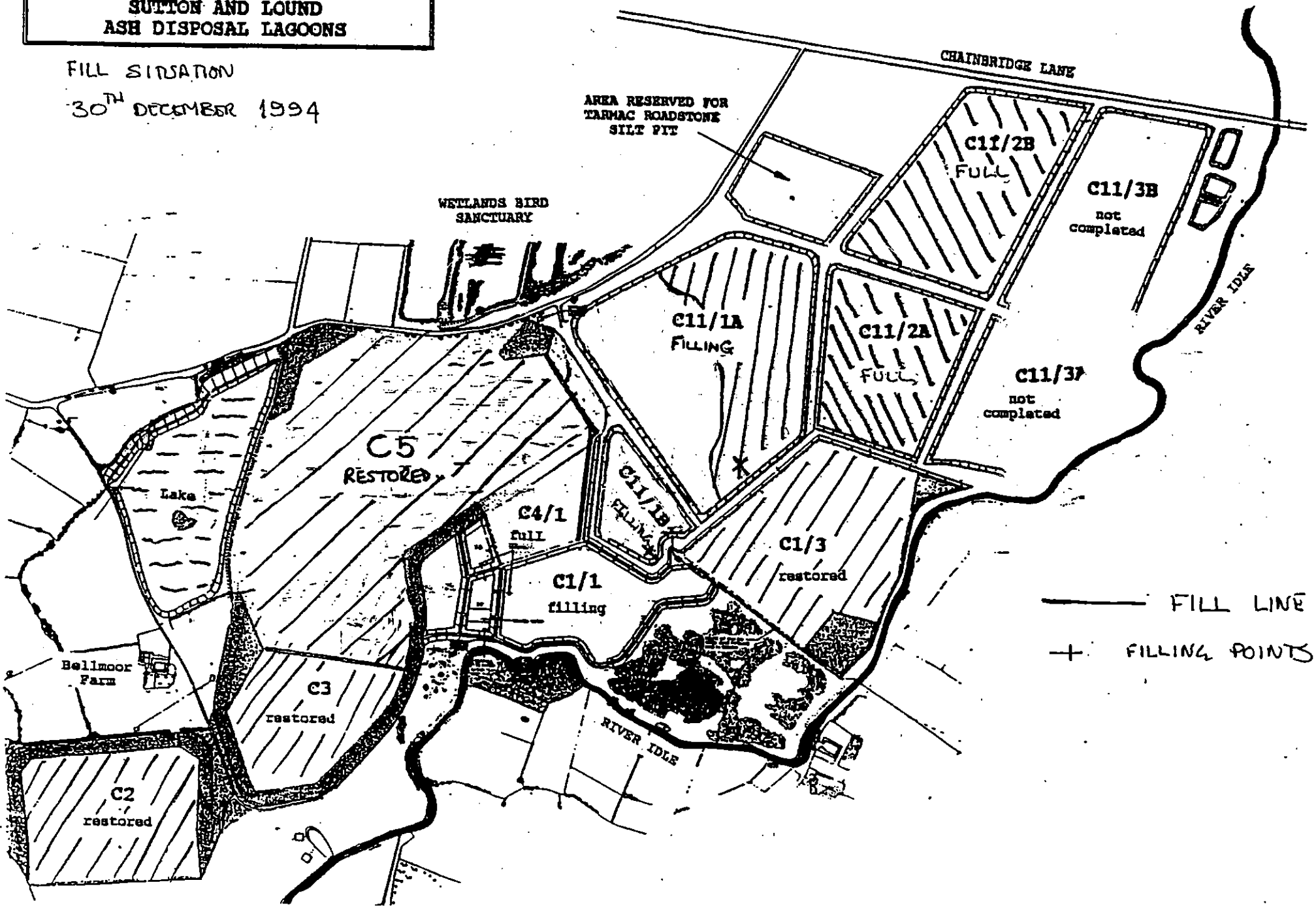

TTAM POWER STATION
SUTTON AND LOUND
ASH DISPOSAL LAGOONS
SITUATION JULY 94
CHAINBRIDGE LANE
AREA RESERVED FOR TARMAC ROADSTONE SILT PIT
WETLANDS BIRD SANCTUARY
C11/2B
90% FULL
C11/3B
not completed
RIVER IDLE
C11/1A
½ FULL
C11/2A
FULL
C11/3A
not completed
C5
RESTORED
Lake
C4/1
full
C11/1B
empty
C1/3
restored
C1/1
filling
grassed
Bellmoor Farm
C3
restored
RIVER IDLE
C2
restored
+ FILLING POINT


COTTAM POWER STATION
SUTTON AND LOUND
ASH DISPOSAL LAGOONS
SITUATION OCT. 94.
CHAINBRIDGE LANE
AREA RESERVED FOR TARMAC ROADSTONE SILT PIT
WETLANDS BIRD SANCTUARY
C11/2B
FULL
C11/3B
not completed
RIVER IDLE
C11/1A
FILLING
C11/2A
FULL
C11/3A
not completed
C5
RESTORED
Lake
C11/1B
empty
C4/1
full
C1/3
restored
C1/1
filling
Bellmoor Farm
C3
restored
C2
restored
RIVER IDLE
+ FILLING POINTS
FILL LINE

COTTAM POWER STATION
SUTTON AND LOUND
ASH DISPOSAL LAGOONS

FILL SITUATION

30TH DECEMBER 1994



Appendix C PFA Thickness & Groundwater Summary Tables

PFA Discovery Strategy

Retford Circular Economy Project (RCEP)

Lound Hive Ltd

SLR Project No.: 416.11943.00001

20 December 2023

PFA Elevations and Thicknesses

Borehole ID	Elevation (mAOD)	Base of overburden		Base of PFA		Thickness of PFA
		mbgl	mAOD	mbgl	mAOD	
BH/21/01	19.37	0.2	19.17	13.5	5.87	**13.3**
BH/21/02	18.76	0.1	18.66	2.9	15.86	**2.8***
BH/21/03	18.91	0.1	18.81	14.8	4.11	**14.7**
BH/21/04	18.91	0.1	18.81	13.5	5.41	**13.4**
BH/21/05	17.96	0.2	17.76	16.1	1.86	**15.9**
BH/21/06	17.85	0.1	17.75	15.1	2.75	**15.0**
BH/21/07	18.17	0.5	17.67	11.7	6.47	**11.2**
BH/21/08	17.33	0.3	17.03	5.7	11.63	**5.4***
BH/21/09	18.13	0.2	17.93	12	6.13	**11.8**
BH/21/10	18.09	0.2	17.89	12.2	5.89	**12.0**
BH/21/11	18.13	0.3	17.83	15.3	2.83	**15.0**
BH/21/12	18.23	0.3	17.93	13.4	4.83	**13.1**
BH/21/13	18.54	0.4	18.14	15.9	2.64	**15.5**
BH/21/14	18.05	0.4	17.65	11.2	6.85	**10.8***
BH/21/15	18.18	0.6	17.58	13.1	5.08	**12.5**
BH/21/16	18.03	0.2	17.83	13.5	4.53	**13.3**
BH/21/17	18.41	0.5	17.91	14.1	4.31	**13.6**
BH/21/18	8.57	0.8	7.77	2.7	5.87	**1.9**
BH/21/19	9.10	0.4	8.70	4.4	4.70	**4.0**
BH/21/20	9.98	0.3	9.68	3.9	6.08	**3.6**
BH/21/21	7.93	2.4	5.53	2.45	5.48	**0.05**
BH/21/22	9.88	0.2	9.68	4.7	5.18	**4.5**
BH/21/23	9.17	0.3	8.87	4.1	5.07	**3.8**
BH/21/24	9.70	0.3	9.40	4.1	5.60	**3.8**
BH/21/25	10.55	0.7	9.85	5.8	4.75	**5.1**
BH/21/26	10.81	0.5	10.31	5.55	5.26	**5.1**
BH/21/27	10.54	0.7	9.84	5.3	5.24	**4.6**

Groundwater Monitoring

Borehole ID	Collar Level	Dipped Level	Groundwater Level
	mAOD	m	mAOD
BH/21/03	19.34	9.43	9.91
BH/21/11	18.58	10.52	8.06
BH/21/23	9.58	3.05	6.53

Borehole ID	Inferred Groundwater Level (m AOD)	Borehole ID	Inferred Groundwater Level (m AOD)
BH/21/01	11.87	BH/21/15	9.68
BH/21/02	Not encountered	BH/21/16	8.03
BH/21/04	8.91	BH/21/17	9.41
BH/21/05	7.96	BH/21/18	6.07
BH/21/06	8.85	BH/21/19	5.10
BH/21/07	8.67	BH/21/20	6.98
BH/21/08	Not encountered	BH/21/21	4.93
BH/21/09	9.13	BH/21/22	6.88
BH/21/10	8.09	BH/21/24	6.80
BH/21/12	9.23	BH/21/25	7.55
BH/21/13	8.34	BH/21/26	7.81
BH/21/14	10.55	BH/21/27	7.54

Appendix D PFA Laboratory Analysis Data

PFA Discovery Strategy

Retford Circular Economy Project (RCEP)

Lound Hive Ltd

SLR Project No.: 416.11943.00001

20 December 2023

PFA Solid Analysis Summary Table

PFA Solid Analysis		
Metal	**Minimum (mg/kg)**	**Maximum (mg/kg)**
Antimony	2	10
Arsenic	11.7	232.9
Barium	94	980
Boron	1.2	119.1
Cadmium	<0.1	1.4
Chromium	58.2	120.4
Cobalt	4.9	29.2
Copper	31	155
Iron	18900	112000
Lead	14	117
Magnesium	2054	8797
Manganese	137	1149
Mercury	<0.1	0.7
Molybdenum	4.9	12.8
Nickel	37.1	101.2
Selenium	2	10
Strontium	62	457
Titanium	376	1385
Vanadium	22	280
Zinc	36	239

PFA Leachate Analysis Summary Table

PFA Leachate Analysis		
Metal	**Minimum (mg/l)**	**Maximum (mg/l)**
Antimony	<0.002	0.03
Arsenic	0.016	0.635
Barium	0.022	0.118
Boron	0.035	2.589
Cadmium	<0.0005	<0.0005
Chromium	<0.0015	0.054
Cobalt	<0.002	<0.002
Copper	<0.007	0.007
Iron	<0.02	0.04
Lead	<0.005	<0.005
Magnesium	<0.1	6.6
Manganese	<0.002	<0.002
Mercury	<0.001	<0.001
Molybdenum	0.003	0.252
Nickel	<0.002	0.002
Selenium	0.012	0.083
Strontium	0.034	0.548
Titanium	0.034	0.617
Vanadium	<0.005	<0.005
Zinc	<0.005	<0.005

Element Materials Technology
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Zone 3
Deeside Industrial Park
Deeside
CH5 2UA

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W: www.element.com

SLR Consulting Ltd
97 Tottenham Court Rd
London
United Kingdom
W1T 4TP

Attention :	Matt Logan
Date :	21st July, 2023
Your reference :	425.064852.00001
Our reference :	Test Report 23/10769 Batch 1
Location :	Retford Circular Economy Project (RCEP)
Date samples received :	3rd July, 2023
Status :	Final report
Issue :	1

One hundred and forty six samples were received for analysis on 3rd July, 2023 of which ninety six were scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.
All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:

Paul Boden BSc
Senior Project Manager

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	13-15	22-24	31-33	37-39	49-51	55-57	58-60	70-72	76-78	LOD/LOR	Units	Method No.
Sample ID	BH1 T1	BH1 T5	BH1 T8	BH2 T2	BH3 T1	BH3 T5	BH3 T9	BH4 T1	BH4 T5	BH4 T7			
Depth	0.20-1.50	6.00-7.00	10.50-11.40	1.50-2.90	0.10-1.50	6.00-6.70	12.00-13.50	0.30-1.50	6.00-7.50	9.00-10.50			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clay	Clayey Silt	Clayey Silt	Clay	Clayey Silt	Clayey Silt			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
Antimony	6	6	6	7	7	6	9	6	8	7	<1	mg/kg	TM30/PM15
Arsenic #M	85.3	88.3	80.3	139.6	98.6	89.2	163.5	98.2	158.9	140.8	<0.5	mg/kg	TM30/PM15
Barium #M	467	451	353	466	453	388	387	434	452	465	<1	mg/kg	TM30/PM15
Cadmium #M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Chromium #M	88.6	102.6	108.6	87.1	90.0	90.9	103.9	89.5	117.2	92.4	<0.5	mg/kg	TM30/PM15
Cobalt #M	22.6	23.2	22.9	22.7	23.0	21.8	24.4	21.3	26.0	20.6	<0.5	mg/kg	TM30/PM15
Copper #M	84	86	88	110	88	96	119	88	112	85	<1	mg/kg	TM30/PM15
Iron	60840AB	66130AB	77880AB	34380	63120AB	62140AB	44920	50430AB	53120AB	43610	<20	mg/kg	TM30/PM15
Lead #M	28	30	27	57	35	25	64	35	54	45	<5	mg/kg	TM30/PM15
Magnesium	5127	4653	4819	3912	5461	4473	4305	4784	4440	3902	<25	mg/kg	TM30/PM15
Manganese #M	615	543	693	260	654	544	327	488	385	344	<1	mg/kg	TM30/PM15
Mercury #M	0.2	0.1	0.3	0.5	0.2	0.4	0.3	0.3	0.3	0.3	<0.1	mg/kg	TM30/PM15
Molybdenum #M	5.0	8.4	8.6	5.0	5.2	8.7	8.8	5.4	7.9	6.4	<0.1	mg/kg	TM30/PM15
Nickel #M	74.1	79.1	81.5	71.0	76.1	76.8	83.2	69.4	85.2	69.2	<0.7	mg/kg	TM30/PM15
Selenium #M	2	2	2	4	3	4	3	2	2	3	<1	mg/kg	TM30/PM15
Strontium	96	99	94	130	110	95	123	101	141	103	<5	mg/kg	TM30/PM15
Titanium	785	770	840	789	779	807	869	784	885	735	<5	mg/kg	TM30/PM15
Vanadium	124	127	140	159	133	130	174	130	165	133	<1	mg/kg	TM30/PM15
Water Soluble Boron #M	4.9	16.7	11.7	4.1	11.9	16.5	9.8	7.0	8.2	31.0	<0.1	mg/kg	TM74/PM32
Zinc #M	53	51	52	79	62	43	87	60	79	65	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Acenaphthene #M	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #M	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Fluoranthene #M	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	mg/kg	TM4/PM8
Chrysene #M	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #M	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	97	89	90	77	98	87	93	97	78	98	<0	%	TM4/PM8
Natural Moisture Content	14.9	21.0	34.7	36.9	22.8	30.4	34.4	19.0	36.3	35.1	<0.1	%	PM4/PM0

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	1-3	13-15	22-24	31-33	37-39	49-51	55-57	58-60	70-72	76-78			
Sample ID	BH1 T1	BH1 T5	BH1 T8	BH2 T2	BH3 T1	BH3 T5	BH3 T9	BH4 T1	BH4 T5	BH4 T7			
Depth	0.20-1.50	6.00-7.00	10.50-11.40	1.50-2.90	0.10-1.50	6.00-6.70	12.00-13.50	0.30-1.50	6.00-7.50	9.00-10.50	Please see attached notes for all abbreviations and acronyms		
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clay	Clayey Silt	Clayey Silt	Clay	Clayey Silt	Clayey Silt			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	LOD/LOR	Units	Method No.
Sample Type	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clay	Clayey Silt	Clayey Silt	Clay	Clayey Silt	Clayey Silt		None	PM13/PM0
Sample Colour	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown		None	PM13/PM0
Other Items	none	water	water	none	stones	none	water	none	water	water		None	PM13/PM0

Element Materials Technology

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	79-81	85-87	97-99	100-102	112-114	124-126	127-129	139-141	145-147	151-153	LOD/LOR	Units	Method No.
Sample ID	BH5 T3	BH5 T5	BH5 T9	BH6 T1	BH6 T6	BH6 T10	BH7 T1	BH7 T5	BH7 T7	BH8 T1			
Depth	3.00-4.50	6.00-7.50	12.00-15.00	0.10-1.50	7.50-9.00	13.50-15.00	0.50-1.50	6.00-7.50	9.00-10.50	0.30-1.50			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clayey Silt	Clayey Silt	Clay	Clay	Clay	Clay	Clayey Silt	Clay	Clay	Clayey Silt			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
Antimony	7	8	8	8	8	7	8	9	8	8	<1	mg/kg	TM30/PM15
Arsenic #M	91.2	139.0	158.2	119.2	170.5	136.9	115.8	155.2	149.4	101.2	<0.5	mg/kg	TM30/PM15
Barium #M	811	510	478	980	507	475	662	754	745	694	<1	mg/kg	TM30/PM15
Cadmium #M	<0.1	<0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Chromium #M	91.8	89.9	111.1	106.8	103.4	93.6	86.8	99.0	92.8	94.9	<0.5	mg/kg	TM30/PM15
Cobalt #M	26.5	23.5	25.0	29.2	25.7	23.3	22.9	26.8	26.5	27.1	<0.5	mg/kg	TM30/PM15
Copper #M	104	114	124	155	115	116	113	133	113	126	<1	mg/kg	TM30/PM15
Iron	43690	42910	40860	49570$_{AB}$	43800	36990	46030	43060	44240	46730$_{AB}$	<20	mg/kg	TM30/PM15
Lead #M	74	58	62	95	60	60	54	75	58	78	<5	mg/kg	TM30/PM15
Magnesium	6147	4317	4401	6341	4299	4224	4311	4468	4455	6330	<25	mg/kg	TM30/PM15
Manganese #M	655	288	285	1149	332	284	338	279	310	980	<1	mg/kg	TM30/PM15
Mercury #M	0.1	0.4	0.3	0.3	0.6	0.4	0.4	0.4	0.4	0.4	<0.1	mg/kg	TM30/PM15
Molybdenum #M	7.1	6.3	9.1	8.1	7.4	7.9	6.3	6.9	6.9	7.2	<0.1	mg/kg	TM30/PM15
Nickel #M	88.6	75.1	80.2	101.2	79.1	74.3	74.2	88.6	81.6	89.0	<0.7	mg/kg	TM30/PM15
Selenium #M	4	4	4	4	4	3	4	4	5	4	<1	mg/kg	TM30/PM15
Strontium	186	141	147	237	145	139	135	207	219	172	<5	mg/kg	TM30/PM15
Titanium	1098	821	903	1385	854	870	838	1000	1085	1053	<5	mg/kg	TM30/PM15
Vanadium	166	159	187	280$_{AB}$	173	168	152	225	196	160	<1	mg/kg	TM30/PM15
Water Soluble Boron #M	80.3$_{AB}$	12.7	17.9	119.1$_{AB}$	9.2	8.8	30.0	22.1	23.1	42.5	<0.1	mg/kg	TM74/PM32
Zinc #M	155	73	91	239	84	88	75	110	90	160	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Acenaphthene #M	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #M	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Fluoranthene #M	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	mg/kg	TM4/PM8
Chrysene #M	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #M	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	98	86	86	99	94	95	98	95	93	97	<0	%	TM4/PM8
Natural Moisture Content	<0.1	0.4	36.3	32.2	40.6	37.1	38.5	70.6	48.4	28.2	<0.1	%	PM4/PM0

Please see attached notes for all abbreviations and acronyms

All solid results are expressed on a dry weight basis unless stated otherwise.

Element Materials Technology

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	79-81	85-87	97-99	100-102	112-114	124-126	127-129	139-141	145-147	151-153	LOD/LOR	Units	Method No.
Sample ID	BH5 T3	BH5 T5	BH5 T9	BH6 T1	BH6 T6	BH6 T10	BH7 T1	BH7 T5	BH7 T7	BH8 T1			
Depth	3.00-4.50	6.00-7.50	12.00-15.00	0.10-1.50	7.50-9.00	13.50-15.00	0.50-1.50	6.00-7.50	9.00-10.50	0.30-1.50			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clayey Silt	Clayey Silt	Clay	Clay	Clay	Clay	Clayey Silt	Clay	Clay	Clayey Silt			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
Sample Type	Clayey Silt	Clayey Silt	Clay	Clay	Clay	Clay	Clayey Silt	Clay	Clay	Clayey Silt		None	PM13/PM0
Sample Colour	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Dark Brown	Medium Brown		None	PM13/PM0
Other Items	none	none	water	stones	water	water	none	water	stones, liquid	stones		None	PM13/PM0

Please see attached notes for all abbreviations and acronyms

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	160-162	163-165	172-174	178-180	181-183	184-186	187-189	190-192	202-204	208-210	LOD/LOR	Units	Method No.
Sample ID	BH8 T4	BH9 T1	BH9 T5	BH9 T8	BH10 T5	BH10 T6	BH10 T9	BH11 T3	BH11 T7	BH11 T9			
Depth	4.50-5.60	0.20-1.50	6.00-7.50	10.50-12.00	4.30-6.00	6.00-7.50	10.50-12.00	3.00-4.00	7.50-9.00	10.50-12.00			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clay	Clay	Clayey Silt	Clayey Silt	Clayey Silt	Clay			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
Antimony	7	7	8	9	8	9	9	8	7	8	<1	mg/kg	TM30/PM15
Arsenic #M	128.7	139.0	163.0	141.9	125.0	141.3	155.4	162.0	110.4	183.9	<0.5	mg/kg	TM30/PM15
Barium #M	648	663	692	753	706	729	688	784	690	489	<1	mg/kg	TM30/PM15
Cadmium #M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Chromium #M	89.8	83.9	97.4	101.2	96.1	101.5	103.5	97.3	91.9	104.0	<0.5	mg/kg	TM30/PM15
Cobalt #M	22.1	21.3	23.0	28.1	24.6	23.4	24.4	23.3	20.8	23.2	<0.5	mg/kg	TM30/PM15
Copper #M	107	115	122	126	133	148	124	124	101	111	<1	mg/kg	TM30/PM15
Iron	39250	47490$_{AB}$	45530	45890	48570	41430	43200	50290$_{AB}$	47610	46470	<20	mg/kg	TM30/PM15
Lead #M	53	68	65	69	62	86	80	69	52	64	<5	mg/kg	TM30/PM15
Magnesium	4172	3803	4161	4848	4116	4437	4752	4001	4002	4459	<25	mg/kg	TM30/PM15
Manganese #M	256	294	265	318	281	224	278	273	360	326	<1	mg/kg	TM30/PM15
Mercury #M	0.7	0.5	0.7	0.5	0.5	0.3	0.4	0.4	0.4	0.5	<0.1	mg/kg	TM30/PM15
Molybdenum #M	5.2	5.5	6.8	7.5	6.9	7.8	7.2	6.8	7.6	7.9	<0.1	mg/kg	TM30/PM15
Nickel #M	69.1	72.3	74.9	84.2	77.5	77.6	79.4	75.8	68.1	73.3	<0.7	mg/kg	TM30/PM15
Selenium #M	5	4	5	5	4	3	5	6	5	5	<1	mg/kg	TM30/PM15
Strontium	146	129	171	230	151	169	169	146	142	155	<5	mg/kg	TM30/PM15
Titanium	815	789	950	1140	918	1000	940	828	828	813	<5	mg/kg	TM30/PM15
Vanadium	160	152	176	207	173	194	190	170	141	163	<1	mg/kg	TM30/PM15
Water Soluble Boron #M	13.9	8.4	15.1	42.1	22.5	8.3	10.2	16.2	48.1	7.1	<0.1	mg/kg	TM74/PM32
Zinc #M	70	91	82	99	79	102	97	88	71	95	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Acenaphthene #M	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #M	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Fluoranthene #M	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	mg/kg	TM4/PM8
Chrysene #M	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #M	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	87	95	91	96	91	95	92	92	91	88	<0	%	TM4/PM8
Natural Moisture Content	50.6	0.8	0.8	52.6	37.4	39.5	4.3	<0.1	53.5	36.5	<0.1	%	PM4/PM0

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	160-162	163-165	172-174	178-180	181-183	184-186	187-189	190-192	202-204	208-210	LOD/LOR	Units	Method No.
Sample ID	BH8 T4	BH9 T1	BH9 T5	BH9 T8	BH10 T5	BH10 T6	BH10 T9	BH11 T3	BH11 T7	BH11 T9			
Depth	4.50-5.60	0.20-1.50	6.00-7.50	10.50-12.00	4.30-6.00	6.00-7.50	10.50-12.00	3.00-4.00	7.50-9.00	10.50-12.00			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clay	Clay	Clayey Silt	Clayey Silt	Clayey Silt	Clay			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
Sample Type	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clay	Clay	Clayey Silt	Clayey Silt	Clayey Silt	Clay		None	PM13/PM0
Sample Colour	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Dark Brown		None	PM13/PM0
Other Items	water	stones	stones	water	none	none	none	none	water	stones, liquid		None	PM13/PM0

Please see attached notes for all abbreviations and acronyms

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	217-219	226-228	235-237	238-240	253-255	265-267	268-270	274-276	283-285	286-288	LOD/LOR	Units	Method No.
Sample ID	BH12 T1	BH12 T5	BH12 T8	BH13 T1	BH13 T7	BH13 T12	BH14 T1	BH14 T3	BH14 T6	BH15 T1			
Depth	0.30-1.50	6.90-9.00	12.00-13.40	0.40-1.50	7.50-9.00	14.60-15.80	0.40-1.50	3.00-4.50	9.80-11.20	0.60-1.30			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clayey Silt	Clay	Clay	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clay	Clayey Silt			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
Antimony	2	9	9	8	5	6	8	9	9	7	<1	mg/kg	TM30/PM15
Arsenic #M	11.7	151.3	184.5	116.4	68.3	101.3	121.8	161.3	142.2	105.5	<0.5	mg/kg	TM30/PM15
Barium #M	94	692	814	639	604	568	427	383	601	603	<1	mg/kg	TM30/PM15
Cadmium #M	1.4	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Chromium #M	79.3	112.8	120.4	91.3	75.6	84.7	71.8	86.0	95.2	88.5	<0.5	mg/kg	TM30/PM15
Cobalt #M	4.9	25.3	24.3	23.3	18.4	21.4	18.7	18.2	23.3	18.9	<0.5	mg/kg	TM30/PM15
Copper #M	31	130	129	119	76	93	99	114	127	103	<1	mg/kg	TM30/PM15
Iron	18900	44090	41100	69070$_{AB}$	60130$_{AB}$	49760	51670$_{AB}$	43210	37010	57610$_{AB}$	<20	mg/kg	TM30/PM15
Lead #M	63	96	74	37	24	40	38	49	78	32	<5	mg/kg	TM30/PM15
Magnesium	8797	4870	4327	3527	3512	3769	3318	3005	4963	3086	<25	mg/kg	TM30/PM15
Manganese #M	489	286	247	375	403	417	308	218	270	284	<1	mg/kg	TM30/PM15
Mercury #M	<0.1	0.5	0.5	0.3	0.3	0.6	0.2	0.4	0.2	<0.1	<0.1	mg/kg	TM30/PM15
Molybdenum #M	4.9	8.0	9.9	5.8	6.0	7.9	5.3	8.3	7.3	6.2	<0.1	mg/kg	TM30/PM15
Nickel #M	37.1	80.9	77.2	82.5	63.1	69.0	66.5	63.9	74.7	68.9	<0.7	mg/kg	TM30/PM15
Selenium #M	2	4	6	2	3	4	2	4	10	2	<1	mg/kg	TM30/PM15
Strontium	457	182	165	96	95	101	83	95	161	88	<5	mg/kg	TM30/PM15
Titanium	376	1009	900	691	626	659	608	663	882	656	<5	mg/kg	TM30/PM15
Vanadium	22	193	189	134	107	129	118	140	184	123	<1	mg/kg	TM30/PM15
Water Soluble Boron #M	8.4	18.5	17.2	2.6	25.2	14.2	22.2	1.2	3.0	13.4	<0.1	mg/kg	TM74/PM32
Zinc #M	121	96	89	69	40	60	55	62	104	54	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Acenaphthene #M	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #M	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Fluoranthene #M	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	mg/kg	TM4/PM8
Chrysene #M	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #M	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	95	92	95	96	91	86	97	88	78	94	<0	%	TM4/PM8
Natural Moisture Content	48.5	42.2	35.1	0.4	1.2	<0.1	28.3	32.4	35.1	17.3	<0.1	%	PM4/PM0

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	217-219	226-228	235-237	238-240	253-255	265-267	268-270	274-276	283-285	286-288	LOD/LOR	Units	Method No.
Sample ID	BH12 T1	BH12 T5	BH12 T8	BH13 T1	BH13 T7	BH13 T12	BH14 T1	BH14 T3	BH14 T6	BH15 T1			
Depth	0.30-1.50	6.90-9.00	12.00-13.40	0.40-1.50	7.50-9.00	14.60-15.80	0.40-1.50	3.00-4.50	9.80-11.20	0.60-1.30			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clayey Silt	Clay	Clay	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clay	Clayey Silt			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
Sample Type	Clayey Silt	Clay	Clay	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clay	Clayey Silt		None	PM13/PM0
Sample Colour	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown		None	PM13/PM0
Other Items	none	water	water	none	none	water	none	water	water	none		None	PM13/PM0

Please see attached notes for all abbreviations and acronyms

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	292-294	295-297	304-306	322-324	334-336	337-339	346-348	358-360	361-363	364-366	LOD/LOR	Units	Method No.
Sample ID	BH15 T4	BH15 T5	BH16 T1	BH16 T6	BH16 T10	BH17 T2	BH17 T5	BH17 T9	BH18 T1	BH18 T2			
Depth	4.50-6.00	6.00-7.60	0.60-1.50	7.50-9.00	13.50-14.80	1.50-4.00	7.50-9.00	13.50-14.10	0.80-1.50	1.50-2.70			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clay	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clayey Sand	Clay			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
Antimony	6	9	7	8	8	9	8	7	5	9	<1	mg/kg	TM30/PM15
Arsenic #M	125.1	175.9	134.9	156.4	137.4	153.5	144.8	122.3	95.1	192.9	<0.5	mg/kg	TM30/PM15
Barium #M	519	607	398	490	772	543	493	527	267	384	<1	mg/kg	TM30/PM15
Cadmium #M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Chromium #M	92.1	90.7	73.8	94.9	94.6	91.6	86.2	90.7	72.4	92.4	<0.5	mg/kg	TM30/PM15
Cobalt #M	18.0	21.6	17.7	24.1	23.6	21.3	24.0	23.4	11.8	19.9	<0.5	mg/kg	TM30/PM15
Copper #M	97	127	100	111	121	124	112	110	63	116	<1	mg/kg	TM30/PM15
Iron	45600	38760	43020	48070	45900	43900	45270	43580	34630	40620	<20	mg/kg	TM30/PM15
Lead #M	43	73	41	67	69	60	72	62	18	60	<5	mg/kg	TM30/PM15
Magnesium	3428	3819	3197	4214	4159	3959	4619	4155	2290	3046	<25	mg/kg	TM30/PM15
Manganese #M	276	236	236	333	285	253	357	311	190	229	<1	mg/kg	TM30/PM15
Mercury #M	0.4	0.2	0.4	0.5	0.3	0.3	0.6	0.4	0.2	0.5	<0.1	mg/kg	TM30/PM15
Molybdenum #M	7.2	7.5	6.3	6.7	8.7	8.4	6.2	8.1	5.4	8.1	<0.1	mg/kg	TM30/PM15
Nickel #M	60.7	72.0	59.5	75.6	78.1	70.4	73.1	74.9	40.9	68.9	<0.7	mg/kg	TM30/PM15
Selenium #M	4	6	4	4	5	6	6	4	3	4	<1	mg/kg	TM30/PM15
Strontium	108	149	92	162	158	138	157	137	62	111	<5	mg/kg	TM30/PM15
Titanium	697	824	620	862	853	810	879	835	470	667	<5	mg/kg	TM30/PM15
Vanadium	141	176	130	162	173	164	171	159	73	147	<1	mg/kg	TM30/PM15
Water Soluble Boron #M	14.1	10.0	4.8	12.2	11.8	7.9	18.8	22.7	1.4	3.7	<0.1	mg/kg	TM74/PM32
Zinc #M	65	101	63	93	83	85	108	76	39	86	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Acenaphthene #M	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #M	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Fluoranthene #M	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	mg/kg	TM4/PM8
Chrysene #M	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #M	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	88	92	96	82	91	91	81	91	90	90	<0	%	TM4/PM8
Natural Moisture Content	31.4	37.0	41.1	38.1	35.0	0.4	<0.1	35.3	51.6	38.1	<0.1	%	PM4/PM0

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	292-294	295-297	304-306	322-324	334-336	337-339	346-348	358-360	361-363	364-366	LOD/LOR	Units	Method No.
Sample ID	BH15 T4	BH15 T5	BH16 T1	BH16 T6	BH16 T10	BH17 T2	BH17 T5	BH17 T9	BH18 T1	BH18 T2			
Depth	4.50-6.00	6.00-7.60	0.60-1.50	7.50-9.00	13.50-14.80	1.50-4.00	7.50-9.00	13.50-14.10	0.80-1.50	1.50-2.70			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clay	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clayey Sand	Clay			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
Sample Type	Clay	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clayey Sand	Clay		None	PM13/PM0
Sample Colour	Dark Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Dark Brown	Medium Brown		None	PM13/PM0
Other Items	stones	water	none	water	stones	none	stones	water	stones	water		None	PM13/PM0

Please see attached notes for all abbreviations and acronyms

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	370-372	373-375	376-378	379-381	385-387	391-393	400-402	403-405	412-414	415-417	LOD/LOR	Units	Method No.
Sample ID	BH19 T2	BH20 T1	BH20 T2	BH22 T1	BH22 T3	BH23 T2	BH24 T2	BH25 T1	BH25 T4	BH26 T1			
Depth	2.00-4.00	0.30-1.50	1.50-3.00	0.20-1.50	3.00-4.50	1.50-3.00	2.00-4.10	0.70-1.50	4.50-5.80	0.50-1.50			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clayey Silt	Clayey Silt	Clay	Clayey Silt	Clayey Silt	Clay			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
Antimony	7	5	7	8	9	8	8	6	8	7	<1	mg/kg	TM30/PM15
Arsenic #M	164.0	74.2	136.8	133.1	196.7	168.5	177.1	90.3	162.9	132.2	<0.5	mg/kg	TM30/PM15
Barium #M	387	383	476	393	604	395	453	383	562	375	<1	mg/kg	TM30/PM15
Cadmium #M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM30/PM15
Chromium #M	58.2	69.9	90.5	84.7	104.9	89.0	92.3	85.0	89.9	78.7	<0.5	mg/kg	TM30/PM15
Cobalt #M	17.1	14.9	23.6	22.1	27.3	19.8	25.7	21.8	21.4	20.9	<0.5	mg/kg	TM30/PM15
Copper #M	100	68	111	100	143	114	134	94	111	102	<1	mg/kg	TM30/PM15
Iron	39490	57520AB	63140AB	50690AB	42630	39660	46410	66460AB	44590	41120	<20	mg/kg	TM30/PM15
Lead #M	50	14	45	48	112	70	80	37	64	58	<5	mg/kg	TM30/PM15
Magnesium	2809	3082	3658	3768	3286	2640	2539	2957	2887	2054	<25	mg/kg	TM30/PM15
Manganese #M	235	455	488	359	169	155	181	380	197	137	<1	mg/kg	TM30/PM15
Mercury #M	0.3	0.2	0.3	<0.1	<0.1	<0.1	0.1	<0.1	0.3	0.1	<0.1	mg/kg	TM30/PM15
Molybdenum #M	5.7	5.2	7.2	5.7	9.7	10.6	12.8	6.5	7.4	8.4	<0.1	mg/kg	TM30/PM15
Nickel #M	60.3	55.5	84.8	76.3	93.4	67.5	88.8	78.6	77.6	70.7	<0.7	mg/kg	TM30/PM15
Selenium #M	4	2	4	3	6	5	6	2	6	3	<1	mg/kg	TM30/PM15
Strontium	100	63	116	96	182	123	173	98	136	126	<5	mg/kg	TM30/PM15
Titanium	593	517	777	628	891	629	747	643	743	585	<5	mg/kg	TM30/PM15
Vanadium	130	75	135	125	207	148	169	115	161	138	<1	mg/kg	TM30/PM15
Water Soluble Boron #M	12.6	4.7	18.5	7.9	7.6	16.4	9.9	1.5	9.3	2.0	<0.1	mg/kg	TM74/PM32
Zinc #M	68	36	89	92	127	74	100	54	89	69	<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Acenaphthene #M	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Fluorene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Phenanthrene #M	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Fluoranthene #M	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	mg/kg	TM4/PM8
Chrysene #M	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #M	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #M	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	89	93	100	108	92	93	81	94	94	103	<0	%	TM4/PM8
Natural Moisture Content	34.8	25.5	36.4	39.7	12.2	35.0	26.5	23.7	33.9	33.2	<0.1	%	PM4/PM0

Please see attached notes for all abbreviations and acronyms

Element Materials Technology

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	370-372	373-375	376-378	379-381	385-387	391-393	400-402	403-405	412-414	415-417	LOD/LOR	Units	Method No.
Sample ID	BH19 T2	BH20 T1	BH20 T2	BH22 T1	BH22 T3	BH23 T2	BH24 T2	BH25 T1	BH25 T4	BH26 T1			
Depth	2.00-4.00	0.30-1.50	1.50-3.00	0.20-1.50	3.00-4.50	1.50-3.00	2.00-4.10	0.70-1.50	4.50-5.80	0.50-1.50			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clayey Silt	Clayey Silt	Clay	Clayey Silt	Clayey Silt	Clay			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
Sample Type	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clayey Silt	Clayey Silt	Clay	Clayey Silt	Clayey Silt	Clay		None	PM13/PM0
Sample Colour	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown	Medium Brown		None	PM13/PM0
Other Items	water	none	water	water	none	water	none	none	water	none		None	PM13/PM0

Please see attached notes for all abbreviations and acronyms

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	424-426	427-429									LOD/LOR	Units	Method No.
Sample ID	BH26 T4	BH27 T1											
Depth	4.50-5.50	0.70-1.50											
COC No / misc													
Containers	V J T	V J T											
Sample Date	<>	<>											
Sample Type	Clay	Clayey Silt											
Batch Number	1	1											
Date of Receipt	03/07/2023	03/07/2023											
Antimony	10	6									<1	mg/kg	TM30/PM15
Arsenic #M	232.9	69.9									<0.5	mg/kg	TM30/PM15
Barium #M	744	548									<1	mg/kg	TM30/PM15
Cadmium #M	<0.1	<0.1									<0.1	mg/kg	TM30/PM15
Chromium #M	106.1	91.3									<0.5	mg/kg	TM30/PM15
Cobalt #M	26.2	27.7									<0.5	mg/kg	TM30/PM15
Copper #M	155	106									<1	mg/kg	TM30/PM15
Iron	41980	112000 AB									<20	mg/kg	TM30/PM15
Lead #M	117	21									<5	mg/kg	TM30/PM15
Magnesium	3653	2495									<25	mg/kg	TM30/PM15
Manganese #M	168	355									<1	mg/kg	TM30/PM15
Mercury #M	0.2	0.2									<0.1	mg/kg	TM30/PM15
Molybdenum #M	10.4	5.6									<0.1	mg/kg	TM30/PM15
Nickel #M	90.4	101.0									<0.7	mg/kg	TM30/PM15
Selenium #M	6	3									<1	mg/kg	TM30/PM15
Strontium	189	81									<5	mg/kg	TM30/PM15
Titanium	946	634									<5	mg/kg	TM30/PM15
Vanadium	228	105									<1	mg/kg	TM30/PM15
Water Soluble Boron #M	9.8	2.8									<0.1	mg/kg	TM74/PM32
Zinc #M	127	49									<5	mg/kg	TM30/PM15
PAH MS													
Naphthalene #M	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Acenaphthylene	<0.03	<0.03									<0.03	mg/kg	TM4/PM8
Acenaphthene #M	<0.05	<0.05									<0.05	mg/kg	TM4/PM8
Fluorene #M	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Phenanthrene #M	<0.03	<0.03									<0.03	mg/kg	TM4/PM8
Anthracene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Fluoranthene #M	<0.03	<0.03									<0.03	mg/kg	TM4/PM8
Pyrene #	<0.03	<0.03									<0.03	mg/kg	TM4/PM8
Benzo(a)anthracene #	<0.06	<0.06									<0.06	mg/kg	TM4/PM8
Chrysene #M	<0.02	<0.02									<0.02	mg/kg	TM4/PM8
Benzo(bk)fluoranthene #M	<0.07	<0.07									<0.07	mg/kg	TM4/PM8
Benzo(a)pyrene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Indeno(123cd)pyrene #M	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Dibenzo(ah)anthracene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
Benzo(ghi)perylene #	<0.04	<0.04									<0.04	mg/kg	TM4/PM8
PAH 16 Total	<0.6	<0.6									<0.6	mg/kg	TM4/PM8
Benzo(b)fluoranthene	<0.05	<0.05									<0.05	mg/kg	TM4/PM8
Benzo(k)fluoranthene	<0.02	<0.02									<0.02	mg/kg	TM4/PM8
PAH Surrogate % Recovery	98	101									<0	%	TM4/PM8
Natural Moisture Content	31.9	10.5									<0.1	%	PM4/PM0

Please see attached notes for all abbreviations and acronyms

Please include all sections of this report if it is reproduced
All solid results are expressed on a dry weight basis unless stated otherwise.

Element Materials Technology

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : Solid

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	424-426	427-429											
Sample ID	BH26 T4	BH27 T1											
Depth	4.50-5.50	0.70-1.50											
COC No / misc													
Containers	V J T	V J T											
Sample Date	<>	<>											
Sample Type	Clay	Clayey Silt											
Batch Number	1	1											
Date of Receipt	03/07/2023	03/07/2023											

Please see attached notes for all abbreviations and acronyms

											LOD/LOR	Units	Method No.
Sample Type	Clay	Clayey Silt										None	PM13/PM0
Sample Colour	Medium Brown	Medium Brown										None	PM13/PM0
Other Items	water	none										None	PM13/PM0

Please include all sections of this report if it is reproduced
All solid results are expressed on a dry weight basis unless stated otherwise.

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : CEN 10:1 1 Batch

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	13-15	49-51	70-72	85-87	112-114	139-141	151-153	172-174	181-183	202-204	LOD/LOR	Units	Method No.
Sample ID	BH1 T5	BH3 T5	BH4 T5	BH5 T5	BH6 T6	BH7 T5	BH8 T1	BH9 T5	BH10 T5	BH11 T7			
Depth	6.00-7.00	6.00-6.70	6.00-7.50	6.00-7.50	7.50-9.00	6.00-7.50	0.30-1.50	6.00-7.50	4.30-6.00	7.50-9.00			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clay	Clayey Silt	Clayey Silt	Clay	Clayey Silt			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
Dissolved Antimony #	0.013	0.016	0.017	0.030	0.024	0.029	0.019	0.022	0.028	0.016	<0.002	mg/l	TM30/PM17
Dissolved Arsenic #	0.0619	0.0593	0.0809	0.0313	0.0631	0.0893	0.0494	0.0503	0.1325	0.0532	<0.0025	mg/l	TM30/PM17
Dissolved Barium #	0.064	0.054	0.050	0.066	0.079	0.088	0.068	0.118	0.054	0.072	<0.003	mg/l	TM30/PM17
Dissolved Boron #	0.580	0.801	0.737	0.714	0.739	1.558	2.589	1.106	0.956	0.956	<0.012	mg/l	TM30/PM17
Dissolved Cadmium #	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM30/PM17
Dissolved Chromium #	0.0025	0.0040	0.0140	0.0083	0.0159	0.0198	0.0535	0.0143	0.0358	0.0156	<0.0015	mg/l	TM30/PM17
Dissolved Cobalt #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	mg/l	TM30/PM17
Dissolved Copper #	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	mg/l	TM30/PM17
Dissolved Iron #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/l	TM30/PM17
Dissolved Lead #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	mg/l	TM30/PM17
Dissolved Magnesium #	0.2	0.3	0.9	0.2	1.0	0.6	2.1	0.2	0.5	0.4	<0.1	mg/l	TM30/PM14
Dissolved Manganese #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	mg/l	TM30/PM17
Dissolved Mercury #	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM30/PM17
Dissolved Molybdenum #	0.037	0.049	0.038	0.019	0.055	0.059	0.078	0.031	0.064	0.107	<0.002	mg/l	TM30/PM17
Dissolved Nickel #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	mg/l	TM30/PM17
Dissolved Selenium #	0.017	0.031	0.016	0.027	0.028	0.065	0.024	0.058	0.054	0.049	<0.003	mg/l	TM30/PM17
Dissolved Strontium	132	176	167	131	117	348	238	262	210	254	<5	ug/l	TM30/PM14
Dissolved Strontium	0.132	0.176	0.167	0.131	0.117	0.348	0.238	0.262	0.210	0.254	<0.005	mg/l	TM30/PM17
Dissolved Titanium	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/l	TM30/PM14
Dissolved Titanium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	mg/l	TM30/PM17
Dissolved Vanadium #	0.1005	0.0814	0.1116	0.0794	0.1916	0.2815	0.1038	0.1099	0.1914	0.1137	<0.0015	mg/l	TM30/PM17
Dissolved Zinc #	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	mg/l	TM30/PM17
PAH MS													
Naphthalene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	mg/l	TM4/PM30
Acenaphthylene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Acenaphthene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Fluorene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Phenanthrene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Anthracene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Fluoranthene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Pyrene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Benzo(a)anthracene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Chrysene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Benzo(bk)fluoranthene	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	mg/l	TM4/PM30
Benzo(a)pyrene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Indeno(123cd)pyrene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Dibenzo(ah)anthracene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Benzo(ghi)perylene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
PAH 16 Total	<0.000173	<0.000173	<0.000173	<0.000173	<0.000173	<0.000173	<0.000173	<0.000173	<0.000173	<0.000173	<0.000173	mg/l	TM4/PM30
Benzo(b)fluoranthene	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	mg/l	TM4/PM30
Benzo(k)fluoranthene	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	mg/l	TM4/PM30
PAH Surrogate % Recovery	95	87	71	75	86	89	96	91	85	88	<0	%	TM4/PM30

Please see attached notes for all abbreviations and acronyms

All solid results are expressed on a dry weight basis unless stated otherwise.

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : CEN 10:1 1 Batch

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	13-15	49-51	70-72	85-87	112-114	139-141	151-153	172-174	181-183	202-204	LOD/LOR	Units	Method No.
Sample ID	BH1 T5	BH3 T5	BH4 T5	BH5 T5	BH6 T6	BH7 T5	BH8 T1	BH9 T5	BH10 T5	BH11 T7			
Depth	6.00-7.00	6.00-6.70	6.00-7.50	6.00-7.50	7.50-9.00	6.00-7.50	0.30-1.50	6.00-7.50	4.30-6.00	7.50-9.00			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clay	Clayey Silt	Clayey Silt	Clay	Clayey Silt			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
Mass of raw test portion	0.1237	-	-	-	-	-	0.1137	0.0903	-	-		kg	NONE/PM17
Mass of dried test portion	0.09	-	-	-	-	-	0.09	0.09	-	-		kg	NONE/PM17

Please see attached notes for all abbreviations and acronyms

All solid results are expressed on a dry weight basis unless stated otherwise.

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : CEN 10:1 1 Batch

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	226-228	253-255	274-276	295-297	322-324	346-348	364-366	367-369	373-375	379-381	LOD/LOR	Units	Method No.
Sample ID	BH12 T5	BH13 T7	BH14 T3	BH15 T5	BH16 T6	BH17 T5	BH18 T2	BH19 T1	BH20 T1	BH22 T1			
Depth	6.90-9.00	7.50-9.00	3.00-4.50	6.00-7.60	7.50-9.00	7.50-9.00	1.50-2.70	0.40-2.00	0.30-1.50	0.20-1.50			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clay	Clayey Silt	Clay	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Soil	Clayey Silt	Clay			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
Dissolved Antimony #	0.030	0.005	0.014	0.010	0.018	0.020	0.016	0.005	0.010	0.012	<0.002	mg/l	TM30/PM17
Dissolved Arsenic #	0.0469	0.0544	0.1118	0.1254	0.0687	0.0157	0.6354	0.2277	0.1939	0.1953	<0.0025	mg/l	TM30/PM17
Dissolved Barium #	0.090	0.039	0.067	0.077	0.069	0.068	0.058	0.057	0.050	0.072	<0.003	mg/l	TM30/PM17
Dissolved Boron #	1.341	0.223	1.164	0.716	0.636	0.855	0.143	0.516	0.346	0.427	<0.012	mg/l	TM30/PM17
Dissolved Cadmium #	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM30/PM17
Dissolved Chromium #	0.0120	0.0235	0.0118	0.0162	0.0145	0.0064	0.0164	0.0052	0.0049	0.0046	<0.0015	mg/l	TM30/PM17
Dissolved Cobalt #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	mg/l	TM30/PM17
Dissolved Copper #	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	<0.007	mg/l	TM30/PM17
Dissolved Iron #	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	mg/l	TM30/PM17
Dissolved Lead #	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	mg/l	TM30/PM17
Dissolved Magnesium #	0.7	<0.1	4.0	1.8	1.0	0.3	4.6	2.0	6.4	5.1	<0.1	mg/l	TM30/PM14
Dissolved Manganese #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	mg/l	TM30/PM17
Dissolved Mercury #	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM30/PM17
Dissolved Molybdenum #	0.050	0.085	0.055	0.051	0.066	0.031	0.022	0.020	0.022	0.016	<0.002	mg/l	TM30/PM17
Dissolved Nickel #	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	mg/l	TM30/PM17
Dissolved Selenium #	0.039	0.065	0.029	0.013	0.034	0.027	0.043	0.031	0.031	0.044	<0.003	mg/l	TM30/PM17
Dissolved Strontium	293	217	272	271	377	305	95	86	79	104	<5	ug/l	TM30/PM14
Dissolved Strontium	0.293	0.217	0.272	0.271	0.377	0.305	0.095	0.086	0.079	0.104	<0.005	mg/l	TM30/PM17
Dissolved Titanium	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	ug/l	TM30/PM14
Dissolved Titanium	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	mg/l	TM30/PM17
Dissolved Vanadium #	0.2035	0.0703	0.0563	0.1244	0.0987	0.0720	0.2128	0.1059	0.0596	0.1012	<0.0015	mg/l	TM30/PM17
Dissolved Zinc #	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	mg/l	TM30/PM17
PAH MS													
Naphthalene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	NDP	<0.0001	<0.0001	<0.0001	mg/l	TM4/PM30
Acenaphthylene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	NDP	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Acenaphthene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	NDP	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Fluorene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	NDP	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Phenanthrene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	NDP	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Anthracene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	NDP	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Fluoranthene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	NDP	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Pyrene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	NDP	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Benzo(a)anthracene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	NDP	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Chrysene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	NDP	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Benzo(bk)fluoranthene	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	NDP	<0.000008	<0.000008	<0.000008	mg/l	TM4/PM30
Benzo(a)pyrene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	NDP	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Indeno(123cd)pyrene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	NDP	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Dibenzo(ah)anthracene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	NDP	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
Benzo(ghi)perylene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005	NDP	<0.000005	<0.000005	<0.000005	mg/l	TM4/PM30
PAH 16 Total	<0.000173	<0.000173	<0.000173	<0.000173	<0.000173	<0.000173	<0.000173	NDP	<0.000173	<0.000173	<0.000173	mg/l	TM4/PM30
Benzo(b)fluoranthene	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	NDP	<0.000008	<0.000008	<0.000008	mg/l	TM4/PM30
Benzo(k)fluoranthene	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008	NDP	<0.000008	<0.000008	<0.000008	mg/l	TM4/PM30
PAH Surrogate % Recovery	96	92	93	91	89	95	82	NDP	97	84	<0	%	TM4/PM30

Please see attached notes for all abbreviations and acronyms

All solid results are expressed on a dry weight basis unless stated otherwise.

Element Materials Technology

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : CEN 10:1 1 Batch

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	226-228	253-255	274-276	295-297	322-324	346-348	364-366	367-369	373-375	379-381	LOD/LOR	Units	Method No.
Sample ID	BH12 T5	BH13 T7	BH14 T3	BH15 T5	BH16 T6	BH17 T5	BH18 T2	BH19 T1	BH20 T1	BH22 T1			
Depth	6.90-9.00	7.50-9.00	3.00-4.50	6.00-7.60	7.50-9.00	7.50-9.00	1.50-2.70	0.40-2.00	0.30-1.50	0.20-1.50			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clay	Clayey Silt	Clay	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Soil	Clayey Silt	Clay			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
Mass of raw test portion	-	0.0905	-	-	0.126	-	-	NDP	-	-		kg	NONE/PM17
Mass of dried test portion	-	0.09	-	-	0.09	-	-	NDP	-	-		kg	NONE/PM17

Please see attached notes for all abbreviations and acronyms

Please include all sections of this report if it is reproduced
All solid results are expressed on a dry weight basis unless stated otherwise.

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : CEN 10:1 1 Batch

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	391-393	400-402	403-405	415-417	427-429							
Sample ID	BH23 T2	BH24 T2	BH25 T1	BH26 T1	BH27 T1							
Depth	1.50-3.00	2.00-4.10	0.70-1.50	0.50-1.50	0.70-1.50							
COC No / misc												
Containers	V J T	V J T	V J T	V J T	V J T							
Sample Date	<>	<>	<>	<>	<>							
Sample Type	Clayey Silt	Clay	Clayey Silt	Clay	Clayey Silt							
Batch Number	1	1	1	1	1							
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023							

Please see attached notes for all abbreviations and acronyms

											LOD/LOR	Units	Method No.
Dissolved Antimony #	0.009	0.016	0.005	0.007	<0.002						<0.002	mg/l	TM30/PM17
Dissolved Arsenic #	0.0916	0.0585	0.2148	0.1776	0.2314						<0.0025	mg/l	TM30/PM17
Dissolved Barium #	0.064	0.069	0.041	0.086	0.022						<0.003	mg/l	TM30/PM17
Dissolved Boron #	1.504	0.687	0.035	0.076	0.053						<0.012	mg/l	TM30/PM17
Dissolved Cadmium #	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						<0.0005	mg/l	TM30/PM17
Dissolved Chromium #	0.0037	0.0035	0.0035	0.0138	<0.0015						<0.0015	mg/l	TM30/PM17
Dissolved Cobalt #	<0.002	<0.002	<0.002	<0.002	<0.002						<0.002	mg/l	TM30/PM17
Dissolved Copper #	<0.007	<0.007	<0.007	<0.007	0.007						<0.007	mg/l	TM30/PM17
Dissolved Iron #	<0.02	<0.02	0.02	<0.02	0.04						<0.02	mg/l	TM30/PM17
Dissolved Lead #	<0.005	<0.005	<0.005	<0.005	<0.005						<0.005	mg/l	TM30/PM17
Dissolved Magnesium #	6.6	0.6	1.3	1.6	1.4						<0.1	mg/l	TM30/PM14
Dissolved Manganese #	<0.002	<0.002	<0.002	<0.002	<0.002						<0.002	mg/l	TM30/PM17
Dissolved Mercury #	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM30/PM17
Dissolved Molybdenum #	0.041	0.252	0.006	0.020	0.003						<0.002	mg/l	TM30/PM17
Dissolved Nickel #	<0.002	<0.002	<0.002	<0.002	<0.002						<0.002	mg/l	TM30/PM17
Dissolved Selenium #	0.014	0.043	0.016	0.083	0.012						<0.003	mg/l	TM30/PM17
Dissolved Strontium	548	-	54	164	34						<5	ug/l	TM30/PM14
Dissolved Strontium	0.548	0.617	0.054	0.164	0.034						<0.005	mg/l	TM30/PM17
Dissolved Titanium	<5	-	<5	<5	<5						<5	ug/l	TM30/PM14
Dissolved Titanium	<0.005	<0.005	<0.005	<0.005	<0.005						<0.005	mg/l	TM30/PM17
Dissolved Vanadium #	0.0450	0.0972	0.0776	0.0849	0.0658						<0.0015	mg/l	TM30/PM17
Dissolved Zinc #	<0.003	<0.003	<0.003	<0.003	<0.003						<0.003	mg/l	TM30/PM17
PAH MS													
Naphthalene	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001						<0.0001	mg/l	TM4/PM30
Acenaphthylene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005						<0.000005	mg/l	TM4/PM30
Acenaphthene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005						<0.000005	mg/l	TM4/PM30
Fluorene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005						<0.000005	mg/l	TM4/PM30
Phenanthrene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005						<0.000005	mg/l	TM4/PM30
Anthracene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005						<0.000005	mg/l	TM4/PM30
Fluoranthene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005						<0.000005	mg/l	TM4/PM30
Pyrene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005						<0.000005	mg/l	TM4/PM30
Benzo(a)anthracene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005						<0.000005	mg/l	TM4/PM30
Chrysene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005						<0.000005	mg/l	TM4/PM30
Benzo(bk)fluoranthene	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008						<0.000008	mg/l	TM4/PM30
Benzo(a)pyrene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005						<0.000005	mg/l	TM4/PM30
Indeno(123cd)pyrene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005						<0.000005	mg/l	TM4/PM30
Dibenzo(ah)anthracene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005						<0.000005	mg/l	TM4/PM30
Benzo(ghi)perylene	<0.000005	<0.000005	<0.000005	<0.000005	<0.000005						<0.000005	mg/l	TM4/PM30
PAH 16 Total	<0.000173	<0.000173	<0.000173	<0.000173	<0.000173						<0.000173	mg/l	TM4/PM30
Benzo(b)fluoranthene	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008						<0.000008	mg/l	TM4/PM30
Benzo(k)fluoranthene	<0.000008	<0.000008	<0.000008	<0.000008	<0.000008						<0.000008	mg/l	TM4/PM30
PAH Surrogate % Recovery	96	90	72	89	94						<0	%	TM4/PM30

Element Materials Technology

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

Report : CEN 10:1 1 Batch

Solids: V=60g VOC jar, J=250g glass jar, T=plastic tub

EMT Sample No.	391-393	400-402	403-405	415-417	427-429								
Sample ID	BH23 T2	BH24 T2	BH25 T1	BH26 T1	BH27 T1								
Depth	1.50-3.00	2.00-4.10	0.70-1.50	0.50-1.50	0.70-1.50								
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T								
Sample Date	<>	<>	<>	<>	<>								
Sample Type	Clayey Silt	Clay	Clayey Silt	Clay	Clayey Silt								
Batch Number	1	1	1	1	1								
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023								

Please see attached notes for all abbreviations and acronyms

											LOD/LOR	Units	Method No.
Mass of raw test portion	-	0.1141	-	0.1147	0.0989							kg	NONE/PM17
Mass of dried test portion	-	0.09	-	0.09	0.09							kg	NONE/PM17

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

SVOC Report : **Solid**

EMT Sample No.	1-3	13-15	22-24	31-33	37-39	49-51	55-57	58-60	70-72	76-78			
Sample ID	BH1 T1	BH1 T5	BH1 T8	BH2 T2	BH3 T1	BH3 T5	BH3 T9	BH4 T1	BH4 T5	BH4 T7			
Depth	0.20-1.50	6.00-7.00	10.50-11.40	1.50-2.90	0.10-1.50	6.00-6.70	12.00-13.50	0.30-1.50	6.00-7.50	9.00-10.50	Please see attached notes for all abbreviations and acronyms		
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clay	Clayey Silt	Clayey Silt	Clay	Clayey Silt	Clayey Silt			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	LOD/LOR	Units	Method No.
SVOC MS													
Phenols													
2-Chlorophenol #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Methylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Nitrophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4-Dichlorophenol #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4-Dimethylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4,5-Trichlorophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4,6-Trichlorophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Chloro-3-methylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Methylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Nitrophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Pentachlorophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Phenol #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
PAHs													
2-Chloronaphthalene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Methylnaphthalene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Phthalates													
Bis(2-ethylhexyl) phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Butylbenzyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Di-n-butyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Di-n-Octyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Diethyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Dimethyl phthalate #M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Other SVOCs													
1,2-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
1,2,4-Trichlorobenzene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
1,3-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
1,4-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Nitroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4-Dinitrotoluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,6-Dinitrotoluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
3-Nitroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Bromophenylphenylether #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Chloroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Chlorophenylphenylether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Nitroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Azobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Bis(2-chloroethoxy)methane	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Bis(2-chloroethyl)ether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Carbazole	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Dibenzofuran #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachlorobutadiene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachlorocyclopentadiene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachloroethane	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Isophorone #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
N-nitrosodi-n-propylamine #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Nitrobenzene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Surrogate Recovery 2-Fluorobiphenyl	119	116	119	99	106	108	118	116	113	125	<0	%	TM16/PM8
Surrogate Recovery p-Terphenyl-d14	116	26 SV	33 SV	48 SV	88 SV	15 SV	44 SV	107	103	62 SV	<0	%	TM16/PM8

Please include all sections of this report if it is reproduced
All solid results are expressed on a dry weight basis unless stated otherwise.

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

SVOC Report : **Solid**

EMT Sample No.	79-81	85-87	97-99	100-102	112-114	124-126	127-129	139-141	145-147	151-153			
Sample ID	BH5 T3	BH5 T5	BH5 T9	BH6 T1	BH6 T6	BH6 T10	BH7 T1	BH7 T5	BH7 T7	BH8 T1			
Depth	3.00-4.50	6.00-7.50	12.00-15.00	0.10-1.50	7.50-9.00	13.50-15.00	0.50-1.50	6.00-7.50	9.00-10.50	0.30-1.50	Please see attached notes for all abbreviations and acronyms		
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clayey Silt	Clayey Silt	Clay	Clay	Clay	Clay	Clayey Silt	Clay	Clay	Clayey Silt			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	LOD/LOR	Units	Method No.
SVOC MS													
Phenols													
2-Chlorophenol #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Methylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Nitrophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4-Dichlorophenol #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4-Dimethylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4,5-Trichlorophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4,6-Trichlorophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Chloro-3-methylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Methylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Nitrophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Pentachlorophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Phenol #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
PAHs													
2-Chloronaphthalene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Methylnaphthalene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Phthalates													
Bis(2-ethylhexyl) phthalate	0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Butylbenzyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Di-n-butyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Di-n-Octyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Diethyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Dimethyl phthalate #M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Other SVOCs													
1,2-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
1,2,4-Trichlorobenzene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
1,3-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
1,4-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Nitroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4-Dinitrotoluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,6-Dinitrotoluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
3-Nitroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Bromophenylphenylether #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01+	<0.01	<0.01	<0.01+	<0.01	mg/kg	TM16/PM8
4-Chloroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Chlorophenylphenylether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Nitroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Azobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Bis(2-chloroethoxy)methane	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Bis(2-chloroethyl)ether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Carbazole	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Dibenzofuran #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachlorobutadiene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachlorocyclopentadiene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachloroethane	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Isophorone #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
N-nitrosodi-n-propylamine #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Nitrobenzene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Surrogate Recovery 2-Fluorobiphenyl	122	114	115	121	122	124	116	117	116	116	<0	%	TM16/PM8
Surrogate Recovery p-Terphenyl-d14	56SV	5SV	40SV	106	86	120	77	97	83	96	<0	%	TM16/PM8

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

SVOC Report : **Solid**

EMT Sample No.	160-162	163-165	172-174	178-180	181-183	184-186	187-189	190-192	202-204	208-210	LOD/LOR	Units	Method No.
Sample ID	BH8 T4	BH9 T1	BH9 T5	BH9 T8	BH10 T5	BH10 T6	BH10 T9	BH11 T3	BH11 T7	BH11 T9			
Depth	4.50-5.60	0.20-1.50	6.00-7.50	10.50-12.00	4.30-6.00	6.00-7.50	10.50-12.00	3.00-4.00	7.50-9.00	10.50-12.00			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clay	Clay	Clayey Silt	Clayey Silt	Clayey Silt	Clay			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
SVOC MS													
Phenols													
2-Chlorophenol #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Methylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Nitrophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4-Dichlorophenol #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4-Dimethylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4,5-Trichlorophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4,6-Trichlorophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Chloro-3-methylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Methylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Nitrophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Pentachlorophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Phenol #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
PAHs													
2-Chloronaphthalene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Methylnaphthalene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Phthalates													
Bis(2-ethylhexyl) phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Butylbenzyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Di-n-butyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Di-n-Octyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Diethyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Dimethyl phthalate #M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Other SVOCs													
1,2-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
1,2,4-Trichlorobenzene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
1,3-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
1,4-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Nitroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4-Dinitrotoluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,6-Dinitrotoluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
3-Nitroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Bromophenylphenylether #M	<0.01+	<0.01+	<0.01+	<0.01+	<0.01+	<0.01+	<0.01+	<0.01+	<0.01+	<0.01+	<0.01	mg/kg	TM16/PM8
4-Chloroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Chlorophenylphenylether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Nitroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Azobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Bis(2-chloroethoxy)methane	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Bis(2-chloroethyl)ether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Carbazole	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Dibenzofuran #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachlorobutadiene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachlorocyclopentadiene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachloroethane	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Isophorone #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
N-nitrosodi-n-propylamine #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Nitrobenzene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Surrogate Recovery 2-Fluorobiphenyl	109	118	113	117	102	115	123	108	112	108	<0	%	TM16/PM8
Surrogate Recovery p-Terphenyl-d14	33SV	72	22SV	78	45SV	77	50SV	24SV	74	91	<0	%	TM16/PM8

Please see attached notes for all abbreviations and acronyms

All solid results are expressed on a dry weight basis unless stated otherwise.

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

SVOC Report : **Solid**

EMT Sample No.	217-219	226-228	235-237	238-240	253-255	265-267	268-270	274-276	283-285	286-288			
Sample ID	BH12 T1	BH12 T5	BH12 T8	BH13 T1	BH13 T7	BH13 T12	BH14 T1	BH14 T3	BH14 T6	BH15 T1			
Depth	0.30-1.50	6.90-9.00	12.00-13.40	0.40-1.50	7.50-9.00	14.60-15.80	0.40-1.50	3.00-4.50	9.80-11.20	0.60-1.30	Please see attached notes for all abbreviations and acronyms		
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clayey Silt	Clay	Clay	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clay	Clayey Silt			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	LOD/LOR	Units	Method No.
SVOC MS													
Phenols													
2-Chlorophenol #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Methylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Nitrophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4-Dichlorophenol #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4-Dimethylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4,5-Trichlorophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4,6-Trichlorophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Chloro-3-methylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Methylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Nitrophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Pentachlorophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Phenol #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
PAHs													
2-Chloronaphthalene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Methylnaphthalene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Phthalates													
Bis(2-ethylhexyl) phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Butylbenzyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Di-n-butyl phthalate	0.2	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	0.1	0.1	<0.1	mg/kg	TM16/PM8
Di-n-Octyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Diethyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Dimethyl phthalate #M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Other SVOCs													
1,2-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
1,2,4-Trichlorobenzene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
1,3-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
1,4-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Nitroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4-Dinitrotoluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,6-Dinitrotoluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
3-Nitroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Bromophenylphenylether #M	<0.01	<0.01+	<0.01+	<0.01+	<0.01+	<0.01	<0.01+	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Chloroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Chlorophenylphenylether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Nitroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Azobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Bis(2-chloroethoxy)methane	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Bis(2-chloroethyl)ether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Carbazole	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Dibenzofuran #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachlorobutadiene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachlorocyclopentadiene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachloroethane	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Isophorone #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
N-nitrosodi-n-propylamine #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Nitrobenzene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Surrogate Recovery 2-Fluorobiphenyl	119	107	110	113	113	113	119	111	116	117	<0	%	TM16/PM8
Surrogate Recovery p-Terphenyl-d14	118	66SV	85	91	33SV	13SV	103	90	117	121	<0	%	TM16/PM8

Please include all sections of this report if it is reproduced
All solid results are expressed on a dry weight basis unless stated otherwise.

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

SVOC Report : **Solid**

EMT Sample No.	292-294	295-297	304-306	322-324	334-336	337-339	346-348	358-360	361-363	364-366	LOD/LOR	Units	Method No.
Sample ID	BH15 T4	BH15 T5	BH16 T1	BH16 T6	BH16 T10	BH17 T2	BH17 T5	BH17 T9	BH18 T1	BH18 T2			
Depth	4.50-6.00	6.00-7.60	0.60-1.50	7.50-9.00	13.50-14.80	1.50-4.00	7.50-9.00	13.50-14.10	0.80-1.50	1.50-2.70			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clay	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clayey Sand	Clay			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
SVOC MS													
Phenols													
2-Chlorophenol #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Methylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Nitrophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4-Dichlorophenol #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4-Dimethylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4,5-Trichlorophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4,6-Trichlorophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Chloro-3-methylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Methylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Nitrophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Pentachlorophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Phenol #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
PAHs													
2-Chloronaphthalene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Methylnaphthalene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Phthalates													
Bis(2-ethylhexyl) phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Butylbenzyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Di-n-butyl phthalate	<0.1	<0.1	<0.1	<0.1	0.2	0.1	0.1	0.2	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Di-n-Octyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Diethyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Dimethyl phthalate #M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Other SVOCs													
1,2-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
1,2,4-Trichlorobenzene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
1,3-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
1,4-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Nitroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4-Dinitrotoluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,6-Dinitrotoluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
3-Nitroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Bromophenylphenylether #M	<0.01	<0.01	<0.01+	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Chloroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Chlorophenylphenylether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Nitroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Azobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Bis(2-chloroethoxy)methane	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Bis(2-chloroethyl)ether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Carbazole	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Dibenzofuran #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachlorobutadiene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachlorocyclopentadiene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachloroethane	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Isophorone #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
N-nitrosodi-n-propylamine #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Nitrobenzene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Surrogate Recovery 2-Fluorobiphenyl	118	104	122	120	117	120	110	113	117	103	<0	%	TM16/PM8
Surrogate Recovery p-Terphenyl-d14	82	104	100	106	96	31 SV	8 SV	108	116	86	<0	%	TM16/PM8

Please see attached notes for all abbreviations and acronyms

All solid results are expressed on a dry weight basis unless stated otherwise.

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

SVOC Report : **Solid**

EMT Sample No.	370-372	373-375	376-378	379-381	385-387	391-393	400-402	403-405	412-414	415-417	LOD/LOR	Units	Method No.
Sample ID	BH19 T2	BH20 T1	BH20 T2	BH22 T1	BH22 T3	BH23 T2	BH24 T2	BH25 T1	BH25 T4	BH26 T1			
Depth	2.00-4.00	0.30-1.50	1.50-3.00	0.20-1.50	3.00-4.50	1.50-3.00	2.00-4.10	0.70-1.50	4.50-5.80	0.50-1.50			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clayey Silt	Clayey Silt	Clay	Clayey Silt	Clayey Silt	Clay			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
SVOC MS													
Phenols													
2-Chlorophenol #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Methylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Nitrophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4-Dichlorophenol #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4-Dimethylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4,5-Trichlorophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4,6-Trichlorophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Chloro-3-methylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Methylphenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Nitrophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Pentachlorophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Phenol #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
PAHs													
2-Chloronaphthalene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Methylnaphthalene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Phthalates													
Bis(2-ethylhexyl) phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Butylbenzyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Di-n-butyl phthalate	0.1	0.2	<0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Di-n-Octyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Diethyl phthalate	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Dimethyl phthalate #M	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	mg/kg	TM16/PM8
Other SVOCs													
1,2-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
1,2,4-Trichlorobenzene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
1,3-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
1,4-Dichlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2-Nitroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,4-Dinitrotoluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
2,6-Dinitrotoluene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
3-Nitroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Bromophenylphenylether #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Chloroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Chlorophenylphenylether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
4-Nitroaniline	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Azobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Bis(2-chloroethoxy)methane	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Bis(2-chloroethyl)ether	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Carbazole	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Dibenzofuran #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachlorobenzene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachlorobutadiene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachlorocyclopentadiene	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Hexachloroethane	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Isophorone #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
N-nitrosodi-n-propylamine #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Nitrobenzene #M	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/kg	TM16/PM8
Surrogate Recovery 2-Fluorobiphenyl	115	120	103	125	112	116	107	110	108	116	<0	%	TM16/PM8
Surrogate Recovery p-Terphenyl-d14	112	121	91	122	82	108	99	107	84	112	<0	%	TM16/PM8

Please see attached notes for all abbreviations and acronyms

Please include all sections of this report if it is reproduced
All solid results are expressed on a dry weight basis unless stated otherwise.

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

SVOC Report : **Solid**

EMT Sample No.	424-426	427-429											
Sample ID	BH26 T4	BH27 T1											
Depth	4.50-5.50	0.70-1.50											
COC No / misc													
Containers	V J T	V J T											
Sample Date	<>	<>											
Sample Type	Clay	Clayey Silt											
Batch Number	1	1											
Date of Receipt	03/07/2023	03/07/2023											
SVOC MS													
Phenols													
2-Chlorophenol #M	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
2-Methylphenol	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
2-Nitrophenol	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
2,4-Dichlorophenol #M	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
2,4-Dimethylphenol	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
2,4,5-Trichlorophenol	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
2,4,6-Trichlorophenol	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
4-Chloro-3-methylphenol	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
4-Methylphenol	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
4-Nitrophenol	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
Pentachlorophenol	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
Phenol #M	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
PAHs													
2-Chloronaphthalene #M	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
2-Methylnaphthalene #M	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
Phthalates													
Bis(2-ethylhexyl) phthalate	<0.1	<0.1										<0.1	mg/kg	TM16/PM8
Butylbenzyl phthalate	<0.1	<0.1										<0.1	mg/kg	TM16/PM8
Di-n-butyl phthalate	<0.1	<0.1										<0.1	mg/kg	TM16/PM8
Di-n-Octyl phthalate	<0.1	<0.1										<0.1	mg/kg	TM16/PM8
Diethyl phthalate	<0.1	<0.1										<0.1	mg/kg	TM16/PM8
Dimethyl phthalate #M	<0.1	<0.1										<0.1	mg/kg	TM16/PM8
Other SVOCs													
1,2-Dichlorobenzene	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
1,2,4-Trichlorobenzene #M	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
1,3-Dichlorobenzene	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
1,4-Dichlorobenzene	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
2-Nitroaniline	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
2,4-Dinitrotoluene	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
2,6-Dinitrotoluene	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
3-Nitroaniline	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
4-Bromophenylphenylether #M	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
4-Chloroaniline	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
4-Chlorophenylphenylether	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
4-Nitroaniline	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
Azobenzene	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
Bis(2-chloroethoxy)methane	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
Bis(2-chloroethyl)ether	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
Carbazole	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
Dibenzofuran #M	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
Hexachlorobenzene	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
Hexachlorobutadiene #M	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
Hexachlorocyclopentadiene	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
Hexachloroethane	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
Isophorone #M	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
N-nitrosodi-n-propylamine #M	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
Nitrobenzene #M	<0.01	<0.01										<0.01	mg/kg	TM16/PM8
Surrogate Recovery 2-Fluorobiphenyl	113	118										<0	%	TM16/PM8
Surrogate Recovery p-Terphenyl-d14	101	108										<0	%	TM16/PM8

Please see attached notes for all abbreviations and acronyms

Please include all sections of this report if it is reproduced
All solid results are expressed on a dry weight basis unless stated otherwise.

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

SVOC Report : **CEN 10:1 1 Batch**

EMT Sample No.	13-15	49-51	70-72	85-87	112-114	139-141	151-153	172-174	181-183	202-204	LOD/LOR	Units	Method No.
Sample ID	BH1 T5	BH3 T5	BH4 T5	BH5 T5	BH6 T6	BH7 T5	BH8 T1	BH9 T5	BH10 T5	BH11 T7			
Depth	6.00-7.00	6.00-6.70	6.00-7.50	6.00-7.50	7.50-9.00	6.00-7.50	0.30-1.50	6.00-7.50	4.30-6.00	7.50-9.00			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clayey Silt	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Clay	Clayey Silt	Clayey Silt	Clay	Clayey Silt			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
SVOC MS													
Phenols													
2-Chlorophenol	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
2-Methylphenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010$_{AA}$	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
2-Nitrophenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010$_{AA}$	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
2,4-Dichlorophenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010$_{AA}$	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
2,4-Dimethylphenol	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
2,4,5-Trichlorophenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010$_{AA}$	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
2,4,6-Trichlorophenol	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
4-Chloro-3-methylphenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010$_{AA}$	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
4-Methylphenol	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
4-Nitrophenol	<0.01	<0.01	<0.01	<0.01	<0.02$_{AA}$	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	mg/l	TM16/PM30
Pentachlorophenol	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Phenol	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
PAHs													
2-Chloronaphthalene	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
2-Methylnaphthalene	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Phthalates													
Bis(2-ethylhexyl) phthalate	<0.005	<0.005	<0.005	<0.005	<0.010$_{AA}$	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	mg/l	TM16/PM30
Butylbenzyl phthalate	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Di-n-butyl phthalate	<0.0015	<0.0015	<0.0015	<0.0015	<0.0030$_{AA}$	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	mg/l	TM16/PM30
Di-n-Octyl phthalate	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Diethyl phthalate	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Dimethyl phthalate	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Other SVOCs													
1,2-Dichlorobenzene	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
1,2,4-Trichlorobenzene	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
1,3-Dichlorobenzene	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
1,4-Dichlorobenzene	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
2-Nitroaniline	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
2,4-Dinitrotoluene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010$_{AA}$	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
2,6-Dinitrotoluene	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
3-Nitroaniline	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
4-Bromophenylphenylether	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
4-Chloroaniline	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
4-Chlorophenylphenylether	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
4-Nitroaniline	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010$_{AA}$	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
Azobenzene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010$_{AA}$	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
Bis(2-chloroethoxy)methane	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010$_{AA}$	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
Bis(2-chloroethyl)ether	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Carbazole	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010$_{AA}$	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
Dibenzofuran	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010$_{AA}$	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
Hexachlorobenzene	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Hexachlorobutadiene	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Hexachlorocyclopentadiene	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Hexachloroethane	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Isophorone	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010$_{AA}$	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
N-nitrosodi-n-propylamine	<0.0005	<0.0005	<0.0005	<0.0005	<0.0010$_{AA}$	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
Nitrobenzene	<0.001	<0.001	<0.001	<0.001	<0.002$_{AA}$	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Surrogate Recovery 2-Fluorobiphenyl	146^{SV}	145^{SV}	134^{SV}	137^{SV}	131$^{SV}_{AA}$	130	107	124	141^{SV}	137^{SV}	<0	%	TM16/PM30
Surrogate Recovery p-Terphenyl-d14	158^{SV}	159^{SV}	151^{SV}	146^{SV}	144$^{SV}_{AA}$	142^{SV}	118	148^{SV}	155^{SV}	152^{SV}	<0	%	TM16/PM30

Please see attached notes for all abbreviations and acronyms

All solid results are expressed on a dry weight basis unless stated otherwise.

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

SVOC Report : **CEN 10:1 1 Batch**

EMT Sample No.	226-228	253-255	274-276	295-297	322-324	346-348	364-366	367-369	373-375	379-381	LOD/LOR	Units	Method No.
Sample ID	BH12 T5	BH13 T7	BH14 T3	BH15 T5	BH16 T6	BH17 T5	BH18 T2	BH19 T1	BH20 T1	BH22 T1			
Depth	6.90-9.00	7.50-9.00	3.00-4.50	6.00-7.60	7.50-9.00	7.50-9.00	1.50-2.70	0.40-2.00	0.30-1.50	0.20-1.50			
COC No / misc													
Containers	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T	V J T			
Sample Date	<>	<>	<>	<>	<>	<>	<>	<>	<>	<>			
Sample Type	Clay	Clayey Silt	Clay	Clayey Silt	Clayey Silt	Clayey Silt	Clay	Soil	Clayey Silt	Clay			
Batch Number	1	1	1	1	1	1	1	1	1	1			
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023			
SVOC MS													
Phenols													
2-Chlorophenol	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
2-Methylphenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NDP	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
2-Nitrophenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NDP	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
2,4-Dichlorophenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NDP	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
2,4-Dimethylphenol	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
2,4,5-Trichlorophenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NDP	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
2,4,6-Trichlorophenol	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
4-Chloro-3-methylphenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NDP	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
4-Methylphenol	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
4-Nitrophenol	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	NDP	<0.01	<0.01	<0.01	mg/l	TM16/PM30
Pentachlorophenol	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Phenol	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
PAHs													
2-Chloronaphthalene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
2-Methylnaphthalene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Phthalates													
Bis(2-ethylhexyl) phthalate	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	NDP	<0.005	<0.005	<0.005	mg/l	TM16/PM30
Butylbenzyl phthalate	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Di-n-butyl phthalate	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015	NDP	<0.0015	<0.0015	<0.0015	mg/l	TM16/PM30
Di-n-Octyl phthalate	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Diethyl phthalate	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Dimethyl phthalate	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Other SVOCs													
1,2-Dichlorobenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
1,2,4-Trichlorobenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
1,3-Dichlorobenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
1,4-Dichlorobenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
2-Nitroaniline	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
2,4-Dinitrotoluene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NDP	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
2,6-Dinitrotoluene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
3-Nitroaniline	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
4-Bromophenylphenylether	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
4-Chloroaniline	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
4-Chlorophenylphenylether	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
4-Nitroaniline	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NDP	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
Azobenzene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NDP	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
Bis(2-chloroethoxy)methane	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NDP	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
Bis(2-chloroethyl)ether	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Carbazole	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NDP	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
Dibenzofuran	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NDP	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
Hexachlorobenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Hexachlorobutadiene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Hexachlorocyclopentadiene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Hexachloroethane	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Isophorone	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NDP	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
N-nitrosodi-n-propylamine	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	NDP	<0.0005	<0.0005	<0.0005	mg/l	TM16/PM30
Nitrobenzene	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	NDP	<0.001	<0.001	<0.001	mg/l	TM16/PM30
Surrogate Recovery 2-Fluorobiphenyl	115	123	108	101	183[SV]	105	115	NDP	124	128	<0	%	TM16/PM30
Surrogate Recovery p-Terphenyl-d14	118	133[SV]	117	107	204[SV]	111	117	NDP	130	131[SV]	<0	%	TM16/PM30

Please see attached notes for all abbreviations and acronyms

All solid results are expressed on a dry weight basis unless stated otherwise.

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan
EMT Job No: 23/10769

SVOC Report : **CEN 10:1 1 Batch**

EMT Sample No.	391-393	400-402	403-405	415-417	427-429							
Sample ID	BH23 T2	BH24 T2	BH25 T1	BH26 T1	BH27 T1							
Depth	1.50-3.00	2.00-4.10	0.70-1.50	0.50-1.50	0.70-1.50							
COC No / misc												
Containers	V J T	V J T	V J T	V J T	V J T							
Sample Date	<>	<>	<>	<>	<>							
Sample Type	Clayey Silt	Clay	Clayey Silt	Clay	Clayey Silt							
Batch Number	1	1	1	1	1							
Date of Receipt	03/07/2023	03/07/2023	03/07/2023	03/07/2023	03/07/2023							

Please see attached notes for all abbreviations and acronyms

											LOD/LOR	Units	Method No.
SVOC MS													
Phenols													
2-Chlorophenol	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
2-Methylphenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						<0.0005	mg/l	TM16/PM30
2-Nitrophenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						<0.0005	mg/l	TM16/PM30
2,4-Dichlorophenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						<0.0005	mg/l	TM16/PM30
2,4-Dimethylphenol	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
2,4,5-Trichlorophenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						<0.0005	mg/l	TM16/PM30
2,4,6-Trichlorophenol	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
4-Chloro-3-methylphenol	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						<0.0005	mg/l	TM16/PM30
4-Methylphenol	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
4-Nitrophenol	<0.01	<0.01	<0.01	<0.01	<0.01						<0.01	mg/l	TM16/PM30
Pentachlorophenol	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
Phenol	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
PAHs													
2-Chloronaphthalene	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
2-Methylnaphthalene	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
Phthalates													
Bis(2-ethylhexyl) phthalate	<0.005	<0.005	<0.005	<0.005	<0.005						<0.005	mg/l	TM16/PM30
Butylbenzyl phthalate	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
Di-n-butyl phthalate	<0.0015	<0.0015	<0.0015	<0.0015	<0.0015						<0.0015	mg/l	TM16/PM30
Di-n-Octyl phthalate	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
Diethyl phthalate	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
Dimethyl phthalate	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
Other SVOCs													
1,2-Dichlorobenzene	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
1,2,4-Trichlorobenzene	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
1,3-Dichlorobenzene	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
1,4-Dichlorobenzene	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
2-Nitroaniline	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
2,4-Dinitrotoluene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						<0.0005	mg/l	TM16/PM30
2,6-Dinitrotoluene	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
3-Nitroaniline	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
4-Bromophenylphenylether	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
4-Chloroaniline	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
4-Chlorophenylphenylether	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
4-Nitroaniline	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						<0.0005	mg/l	TM16/PM30
Azobenzene	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						<0.0005	mg/l	TM16/PM30
Bis(2-chloroethoxy)methane	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						<0.0005	mg/l	TM16/PM30
Bis(2-chloroethyl)ether	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
Carbazole	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						<0.0005	mg/l	TM16/PM30
Dibenzofuran	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						<0.0005	mg/l	TM16/PM30
Hexachlorobenzene	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
Hexachlorobutadiene	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
Hexachlorocyclopentadiene	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
Hexachloroethane	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
Isophorone	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						<0.0005	mg/l	TM16/PM30
N-nitrosodi-n-propylamine	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005						<0.0005	mg/l	TM16/PM30
Nitrobenzene	<0.001	<0.001	<0.001	<0.001	<0.001						<0.001	mg/l	TM16/PM30
Surrogate Recovery 2-Fluorobiphenyl	105	133[SV]	132[SV]	112	133[SV]						<0	%	TM16/PM30
Surrogate Recovery p-Terphenyl-d14	113	141[SV]	144[SV]	129	155[SV]						<0	%	TM16/PM30

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan

Note:

Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Asbestos sub-samples are retained for not less than 6 months from the date of analysis unless specifically requested.

The LOQ of the Asbestos Quantification is 0.001% dry fibre of dry mass of sample.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/10769	1	BH1 T1	0.20-1.50	1	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH1 T3	3.00-4.50	7	Simon Postlewhite	17/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	17/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH1 T5	6.00-7.00	13	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH1 T7	9.00-10.50	19	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH1 T8	10.50-11.40	22	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH2 T1	0.10-1.50	28	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH2 T2	1.50-2.90	31	Matthew Turner	13/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	13/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	13/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	13/07/2023	**Asbestos Type**	NAD
23/10769	1	BH3 T1	0.10-1.50	37	Simon Postlewhite	14/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	14/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos Type**	NAD

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/10769	1	BH3 T3	2.40-4.50	43	Matthew Turner	13/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	13/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	13/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	13/07/2023	**Asbestos Type**	NAD
23/10769	1	BH3 T5	6.00-6.70	49	Matthew Turner	13/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	13/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	13/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	13/07/2023	**Asbestos Type**	NAD
23/10769	1	BH3 T9	12.00-13.50	55	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil/Stone
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH4 T1	0.30-1.50	58	Simon Postlewhite	14/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	14/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH4 T3	3.00-4.50	64	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil/Stone
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH4 T5	6.00-7.50	70	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH4 T7	9.00-10.50	76	Simon Postlewhite	14/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	14/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH5 T3	3.00-4.50	79	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil/Stone
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH5 T5	6.00-7.50	85	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH5 T7	9.00-10.50	91	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH5 T9	12.00-15.00	97	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/10769	1	BH5 T9	12.00-15.00	97	Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH6 T1	0.10-1.50	100	Simon Postlewhite	14/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	14/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH6 T3	3.00-4.50	106	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH6 T6	7.50-9.00	112	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH6 T7	9.00-10.50	115	Simon Postlewhite	17/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	17/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH6 T9	12.00-13.50	121	Matthew Turner	13/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	13/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	13/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	13/07/2023	**Asbestos Type**	NAD
23/10769	1	BH6 T10	13.50-15.00	124	Simon Postlewhite	14/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	14/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH7 T1	0.50-1.50	127	Simon Postlewhite	14/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	14/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH7 T3	2.60-4.50	133	Matthew Turner	13/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	13/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	13/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	13/07/2023	**Asbestos Type**	NAD
23/10769	1	BH7 T5	6.00-7.50	139	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soill
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH7 T7	9.00-10.50	145	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/10769	1	BH7 T8	10.50-11.30	148	Matthew Turner	13/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	13/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	13/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	13/07/2023	**Asbestos Type**	NAD
23/10769	1	BH8 T1	0.30-1.50	151	Anthony Carman	13/07/2023	**General Description (Bulk Analysis)**	Grey Soil
					Anthony Carman	13/07/2023	**Asbestos Fibres**	NAD
					Anthony Carman	13/07/2023	**Asbestos ACM**	NAD
					Anthony Carman	13/07/2023	**Asbestos Type**	NAD
23/10769	1	BH8 T3	3.00-4.50	157	Anthony Carman	13/07/2023	**General Description (Bulk Analysis)**	Grey Soil
					Anthony Carman	13/07/2023	**Asbestos Fibres**	Fibre Bundles
					Anthony Carman	13/07/2023	**Asbestos ACM**	NAD
					Anthony Carman	13/07/2023	**Asbestos Type**	Chrysotile
23/10769	1	BH8 T4	4.50-5.60	160	Simon Postlewhite	14/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	14/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH9 T1	0.20-1.50	163	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil/Stone
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH9 T3	3.00-4.50	166	Emily Anderton	13/07/2023	**General Description (Bulk Analysis)**	Fine sandy, brown soil
					Emily Anderton	13/07/2023	**Asbestos Fibres**	NAD
					Emily Anderton	13/07/2023	**Asbestos ACM**	NAD
					Emily Anderton	13/07/2023	**Asbestos Type**	NAD
23/10769	1	BH9 T5	6.00-7.50	172	Matthew Turner	13/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	13/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	13/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	13/07/2023	**Asbestos Type**	NAD
23/10769	1	BH9 T6	7.50-9.00	175	Matthew Turner	13/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	13/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	13/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	13/07/2023	**Asbestos Type**	NAD
23/10769	1	BH9 T8	10.50-12.00	178	Simon Postlewhite	14/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	14/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH10 T5	4.30-6.00	181	Simon Postlewhite	14/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	14/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH10 T6	6.00-7.50	184	Simon Postlewhite	17/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	17/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos ACM**	NAD

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23/10769	1	BH10 T6	6.00-7.50	184	Simon Postlewhite	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH10 T9	10.50-12.00	187	Matthew Turner	13/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	13/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	13/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	13/07/2023	**Asbestos Type**	NAD
23/10769	1	BH11 T3	3.00-4.00	190	Matthew Turner	13/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	13/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	13/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	13/07/2023	**Asbestos Type**	NAD
23/10769	1	BH11 T5	6.00-6.70	196	Matthew Turner	13/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	13/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	13/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	13/07/2023	**Asbestos Type**	NAD
23/10769	1	BH11 T7	7.50-9.00	202	Emily Anderton	13/07/2023	**General Description (Bulk Analysis)**	Fine sandy brown soil
					Emily Anderton	13/07/2023	**Asbestos Fibres**	NAD
					Emily Anderton	13/07/2023	**Asbestos ACM**	NAD
					Emily Anderton	13/07/2023	**Asbestos Type**	NAD
23/10769	1	BH11 T9	10.50-12.00	208	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH11 T11	13.50-15.00	214	Matthew Turner	13/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	13/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	13/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	13/07/2023	**Asbestos Type**	NAD
23/10769	1	BH12 T1	0.30-1.50	217	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH12 T3	3.00-4.50	220	Simon Postlewhite	17/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	17/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH12 T5	6.90-9.00	226	Matthew Turner	13/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	13/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	13/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	13/07/2023	**Asbestos Type**	NAD
23/10769	1	BH12 T7	10.50-12.00	232	Simon Postlewhite	14/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	14/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	14/07/2023	**Asbestos Type**	NAD

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23/10769	1	BH12 T8	12.00-13.40	235	Catherine Coles	17/07/2023	**General Description (Bulk Analysis)**	brown dusty soil
					Catherine Coles	17/07/2023	**Asbestos Fibres**	NAD
					Catherine Coles	17/07/2023	**Asbestos ACM**	NAD
					Catherine Coles	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH13 T1	0.40-1.50	238	Bart Kuznicki	17/07/2023	**General Description (Bulk Analysis)**	Brown Sand
					Bart Kuznicki	17/07/2023	**Asbestos Fibres**	NAD
					Bart Kuznicki	17/07/2023	**Asbestos ACM**	NAD
					Bart Kuznicki	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH13 T3	3.00-4.50	241	Simon Postlewhite	17/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	17/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH13 T5	6.00-6.60	247	Simon Postlewhite	17/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	17/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH13 T7	7.50-9.00	253	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH13 T9	10.50-12.00	259	Bart Kuznicki	17/07/2023	**General Description (Bulk Analysis)**	Brown Sand
					Bart Kuznicki	17/07/2023	**Asbestos Fibres**	NAD
					Bart Kuznicki	17/07/2023	**Asbestos ACM**	NAD
					Bart Kuznicki	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH13 T12	14.60-15.80	265	Simon Postlewhite	17/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	17/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH14 T1	0.40-1.50	268	Bart Kuznicki	17/07/2023	**General Description (Bulk Analysis)**	Brown Sandn
					Bart Kuznicki	17/07/2023	**Asbestos Fibres**	NAD
					Bart Kuznicki	17/07/2023	**Asbestos ACM**	NAD
					Bart Kuznicki	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH14 T3	3.00-4.50	274	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH14 T5	6.00-7.50	280	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil/Stone
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH14 T6	9.80-11.20	283	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD

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23/10769	1	BH14 T6	9.80-11.20	283	Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH15 T1	0.60-1.30	286	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil/Stone
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH15 T4	4.50-6.00	292	Simon Postlewhite	17/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	17/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH15 T5	6.00-7.60	295	Catherine Coles	17/07/2023	**General Description (Bulk Analysis)**	brown dusty soil
					Catherine Coles	17/07/2023	**Asbestos Fibres**	NAD
					Catherine Coles	17/07/2023	**Asbestos ACM**	NAD
					Catherine Coles	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH15 T8	10.50-12.00	301	Matthew Turner	13/07/2023	**General Description (Bulk Analysis)**	Brown soil/Stone
					Matthew Turner	13/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	13/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	13/07/2023	**Asbestos Type**	NAD
23/10769	1	BH16 T1	0.60-1.50	304	Simon Postlewhite	17/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	17/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH16 T3	3.00-4.50	310	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil/Stone
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH16 T4	4.50-6.00	316	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soi
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH16 T6	7.50-9.00	322	Anthony Carman	17/07/2023	**General Description (Bulk Analysis)**	Brown Soil
					Anthony Carman	17/07/2023	**Asbestos Fibres**	NAD
					Anthony Carman	17/07/2023	**Asbestos ACM**	NAD
					Anthony Carman	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH16 T8	9.90-12.00	328	Anthony Carman	17/07/2023	**General Description (Bulk Analysis)**	Brown Soil
					Anthony Carman	17/07/2023	**Asbestos Fibres**	NAD
					Anthony Carman	17/07/2023	**Asbestos ACM**	NAD
					Anthony Carman	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH16 T10	13.50-14.80	334	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD

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23/10769	1	BH17 T2	1.50-4.00	337	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH17 T3	4.00-6.00	340	Simon Postlewhite	17/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	17/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH17 T5	7.50-9.00	346	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH17 T7	10.90-11.60	352	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH17 T9	13.50-14.10	358	Simon Postlewhite	17/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	17/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH18 T1	0.80-1.50	361	Simon Postlewhite	17/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	17/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH18 T2	1.50-2.70	364	Catherine Coles	17/07/2023	**General Description (Bulk Analysis)**	brown dusty soil
					Catherine Coles	17/07/2023	**Asbestos Fibres**	NAD
					Catherine Coles	17/07/2023	**Asbestos ACM**	NAD
					Catherine Coles	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH19 T1	0.40-2.00	367	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH19 T2	2.00-4.00	370	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH20 T1	0.30-1.50	373	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH20 T2	1.50-3.00	376	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD

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23/10769	1	BH20 T2	1.50-3.00	376	Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH22 T1	0.20-1.50	379	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH22 T3	3.00-4.50	385	Simon Postlewhite	17/07/2023	**General Description (Bulk Analysis)**	Brown soil/stones
					Simon Postlewhite	17/07/2023	**Asbestos Fibres**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos ACM**	NAD
					Simon Postlewhite	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH23 T2	1.50-3.00	391	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH23 T3	3.00-4.10	394	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brow soil
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH24 T1	0.30-2.00	397	Matthew Turner	13/07/2023	**General Description (Bulk Analysis)**	Brown soil/Stone
					Matthew Turner	13/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	13/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	13/07/2023	**Asbestos Type**	NAD
23/10769	1	BH24 T2	2.00-4.10	400	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH25 T1	0.70-1.50	403	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH25 T3	3.00-4.50	409	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH25 T4	4.50-5.80	412	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH26 T1	0.50-1.50	415	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD

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23/10769	1	BH26 T2	1.50-3.00	418	Matthew Turner	17/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	17/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	17/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH26 T4	4.50-5.50	424	Matthew Turner	14/07/2023	**General Description (Bulk Analysis)**	Brown soil/Stone
					Matthew Turner	14/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	14/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	14/07/2023	**Asbestos Type**	NAD
23/10769	1	BH27 T1	0.70-1.50	427	Anthony Carman	17/07/2023	**General Description (Bulk Analysis)**	Brown Soil
					Anthony Carman	17/07/2023	**Asbestos Fibres**	NAD
					Anthony Carman	17/07/2023	**Asbestos ACM**	NAD
					Anthony Carman	17/07/2023	**Asbestos Type**	NAD
23/10769	1	BH27 T3	3.00-4.50	433	Matthew Turner	13/07/2023	**General Description (Bulk Analysis)**	Brown soil
					Matthew Turner	13/07/2023	**Asbestos Fibres**	NAD
					Matthew Turner	13/07/2023	**Asbestos ACM**	NAD
					Matthew Turner	13/07/2023	**Asbestos Type**	NAD

Client Name: SLR Consulting Ltd

Reference: 425.064852.00001

Location: Retford Circular Economy Project (RCEP)

Contact: Matt Logan

Matrix : CEN 10:1 1 Batch

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Method No.	NDP Reason
23/10769	1	BH19 T1	0.40-2.00	367-369	NONE/PM17	Insufficient sample for test
23/10769	1	BH19 T1	0.40-2.00	367-369	TM4/PM30	Insufficient sample for test
23/10769	1	BH19 T1	0.40-2.00	367-369	TM16/PM30	Insufficient sample for test

Client Name: SLR Consulting Ltd

Matrix : Solid

Reference: 425.064852.00001

Location: Retford Circular Economy Project (RCEP)

Contact: Matt Logan

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
23/10769	1	BH1 T1	0.20-1.50	1-3	All analyses	No sampling date given
23/10769	1	BH1 T5	6.00-7.00	13-15	All analyses	No sampling date given
23/10769	1	BH1 T8	10.50-11.40	22-24	All analyses	No sampling date given
23/10769	1	BH2 T2	1.50-2.90	31-33	All analyses	No sampling date given
23/10769	1	BH3 T1	0.10-1.50	37-39	All analyses	No sampling date given
23/10769	1	BH3 T5	6.00-6.70	49-51	All analyses	No sampling date given
23/10769	1	BH3 T9	12.00-13.50	55-57	All analyses	No sampling date given
23/10769	1	BH4 T1	0.30-1.50	58-60	All analyses	No sampling date given
23/10769	1	BH4 T5	6.00-7.50	70-72	All analyses	No sampling date given
23/10769	1	BH4 T7	9.00-10.50	76-78	All analyses	No sampling date given
23/10769	1	BH5 T3	3.00-4.50	79-81	All analyses	No sampling date given
23/10769	1	BH5 T5	6.00-7.50	85-87	All analyses	No sampling date given
23/10769	1	BH5 T9	12.00-15.00	97-99	All analyses	No sampling date given
23/10769	1	BH6 T1	0.10-1.50	100-102	All analyses	No sampling date given
23/10769	1	BH6 T6	7.50-9.00	112-114	All analyses	No sampling date given
23/10769	1	BH6 T10	13.50-15.00	124-126	All analyses	No sampling date given
23/10769	1	BH7 T1	0.50-1.50	127-129	All analyses	No sampling date given
23/10769	1	BH7 T5	6.00-7.50	139-141	All analyses	No sampling date given
23/10769	1	BH7 T7	9.00-10.50	145-147	All analyses	No sampling date given
23/10769	1	BH8 T1	0.30-1.50	151-153	All analyses	No sampling date given
23/10769	1	BH8 T4	4.50-5.60	160-162	All analyses	No sampling date given
23/10769	1	BH9 T1	0.20-1.50	163-165	All analyses	No sampling date given
23/10769	1	BH9 T5	6.00-7.50	172-174	All analyses	No sampling date given

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.

Only analyses which are accredited are recorded as deviating if set criteria are not met.

Client Name: SLR Consulting Ltd

Matrix : Solid

Reference: 425.064852.00001

Location: Retford Circular Economy Project (RCEP)

Contact: Matt Logan

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
23/10769	1	BH9 T8	10.50-12.00	178-180	All analyses	No sampling date given
23/10769	1	BH10 T5	4.30-6.00	181-183	All analyses	No sampling date given
23/10769	1	BH10 T6	6.00-7.50	184-186	All analyses	No sampling date given
23/10769	1	BH10 T9	10.50-12.00	187-189	All analyses	No sampling date given
23/10769	1	BH11 T3	3.00-4.00	190-192	All analyses	No sampling date given
23/10769	1	BH11 T7	7.50-9.00	202-204	All analyses	No sampling date given
23/10769	1	BH11 T9	10.50-12.00	208-210	All analyses	No sampling date given
23/10769	1	BH12 T1	0.30-1.50	217-219	All analyses	No sampling date given
23/10769	1	BH12 T5	6.90-9.00	226-228	All analyses	No sampling date given
23/10769	1	BH12 T8	12.00-13.40	235-237	All analyses	No sampling date given
23/10769	1	BH13 T1	0.40-1.50	238-240	All analyses	No sampling date given
23/10769	1	BH13 T7	7.50-9.00	253-255	All analyses	No sampling date given
23/10769	1	BH13 T12	14.60-15.80	265-267	All analyses	No sampling date given
23/10769	1	BH14 T1	0.40-1.50	268-270	All analyses	No sampling date given
23/10769	1	BH14 T3	3.00-4.50	274-276	All analyses	No sampling date given
23/10769	1	BH14 T6	9.80-11.20	283-285	All analyses	No sampling date given
23/10769	1	BH15 T1	0.60-1.30	286-288	All analyses	No sampling date given
23/10769	1	BH15 T4	4.50-6.00	292-294	All analyses	No sampling date given
23/10769	1	BH15 T5	6.00-7.60	295-297	All analyses	No sampling date given
23/10769	1	BH16 T1	0.60-1.50	304-306	All analyses	No sampling date given
23/10769	1	BH16 T6	7.50-9.00	322-324	All analyses	No sampling date given
23/10769	1	BH16 T10	13.50-14.80	334-336	All analyses	No sampling date given
23/10769	1	BH17 T2	1.50-4.00	337-339	All analyses	No sampling date given

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.

Only analyses which are accredited are recorded as deviating if set criteria are not met.

Client Name: SLR Consulting Ltd

Matrix : Solid

Reference: 425.064852.00001

Location: Retford Circular Economy Project (RCEP)

Contact: Matt Logan

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
23/10769	1	BH17 T5	7.50-9.00	346-348	All analyses	No sampling date given
23/10769	1	BH17 T9	13.50-14.10	358-360	All analyses	No sampling date given
23/10769	1	BH18 T1	0.80-1.50	361-363	All analyses	No sampling date given
23/10769	1	BH18 T2	1.50-2.70	364-366	All analyses	No sampling date given
23/10769	1	BH19 T2	2.00-4.00	370-372	All analyses	No sampling date given
23/10769	1	BH20 T1	0.30-1.50	373-375	All analyses	No sampling date given
23/10769	1	BH20 T2	1.50-3.00	376-378	All analyses	No sampling date given
23/10769	1	BH22 T1	0.20-1.50	379-381	All analyses	No sampling date given
23/10769	1	BH22 T3	3.00-4.50	385-387	All analyses	No sampling date given
23/10769	1	BH23 T2	1.50-3.00	391-393	All analyses	No sampling date given
23/10769	1	BH24 T2	2.00-4.10	400-402	All analyses	No sampling date given
23/10769	1	BH25 T1	0.70-1.50	403-405	All analyses	No sampling date given
23/10769	1	BH25 T4	4.50-5.80	412-414	All analyses	No sampling date given
23/10769	1	BH26 T1	0.50-1.50	415-417	All analyses	No sampling date given
23/10769	1	BH26 T4	4.50-5.50	424-426	All analyses	No sampling date given
23/10769	1	BH27 T1	0.70-1.50	427-429	All analyses	No sampling date given

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.

Only analyses which are accredited are recorded as deviating if set criteria are not met.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/10769

SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 37°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overesitimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a requirement of our Accreditation Body for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.
Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.
Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above quantitative calibration range. The result should be considered the minimum value and is indicative only. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range
AA	x2 Dilution
AB	x5 Dilution

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +).
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry.

EMT Job No: 23/10769

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.	PM0	No preparation is required.			AR	
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.			AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes		AR	Yes
TM4	Modified USEPA 8270D v5:2014 method for the solvent extraction and determination of PAHs by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes	Yes	AR	Yes
PM13	A visual examination of the solid sample is carried out to ascertain sample make up, colour and any other inclusions. This is not a geotechnical description.	PM0	No preparation is required.			AR	No
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM30	Water samples are extracted with solvent using a magnetic stirrer to create a vortex.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.			AR	Yes
TM16	Modified USEPA 8270D v5:2014. Quantitative determination of Semi-Volatile Organic compounds (SVOCs) by GC-MS.	PM8	End over end extraction of solid samples for organic analysis. The solvent mix varies depending on analysis required.	Yes	Yes	AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM14	Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for Dissolved metals, and remain unfiltered for Total metals then acidified			AR	Yes

EMT Job No: 23/10769

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM14	Preparation of waters and leachates for metals by ICP OES/ICP MS. Samples are filtered for Dissolved metals, and remain unfiltered for Total metals then acidified	Yes		AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.			AD	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM15	Acid digestion of dried and ground solid samples using Aqua Regia refluxed at 112.5 °C. Samples containing asbestos are not dried and ground.	Yes	Yes	AD	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM17	Modified method BS EN12457-2:2002 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.			AR	Yes
TM30	Determination of Trace Metals by ICP-OES (Inductively Coupled Plasma – Optical Emission Spectrometry): WATERS by Modified USEPA Method 200.7, Rev. 4.4, 1994; Modified EPA Method 6010B, Rev.2, Dec 1996; Modified BS EN ISO 11885:2009: SOILS by Modified USEP 6010B, Rev.2, Dec.1996; Modified EPA Method 3050B, Rev.2, Dec.1996	PM17	Modified method BS EN12457-2:2002 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.	Yes		AR	Yes
TM65	Asbestos Bulk Identification method based on HSG 248 Second edition (2021)	PM42	Modified SCA Blue Book V.12 draft 2017 and WM3 1st Edition v1.1:2018. Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	
TM74	Analysis of water soluble boron (20:1 extract) by ICP-OES.	PM32	Hot water soluble boron is extracted from dried and ground samples using a 20:1 ratio.	Yes	Yes	AD	Yes
NONE	No Method Code	PM17	Modified method BS EN12457-2:2002 As received solid samples are leached with water in a 10:1 water to soil ratio for 24 hours, the moisture content of the sample is included in the ratio.				
NONE	No Method Code	PM4	Gravimetric measurement of Natural Moisture Content and % Moisture Content at either 35°C or 105°C. Calculation based on ISO 11465:1993(E) and BS1377-2:1990.			AR	

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97 Tottenham Court Rd
London
United Kingdom
W1T 4TP

Attention :	Matt Logan
Date :	31st July, 2023
Your reference :	425.064852.00001
Our reference :	Test Report 23/10769 Batch 1 Schedule C
Location :	Retford Circular Economy Project (RCEP)
Date samples received :	3rd July, 2023
Status :	Final Report
Issue :	1

One hundred and forty six samples were received for analysis on 3rd July, 2023 of which one was scheduled for analysis. Please find attached our Test Report which should be read with notes at the end of the report and should include all sections if reproduced. Interpretations and opinions are outside the scope of any accreditation, and all results relate only to samples supplied.
All analysis is carried out on as received samples and reported on a dry weight basis unless stated otherwise. Results are not surrogate corrected.

Authorised By:

Paul Boden BSc
Senior Project Manager

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan

Note:

Asbestos Screen analysis is carried out in accordance with our documented in-house methods PM042 and TM065 and HSG 248 by Stereo and Polarised Light Microscopy using Dispersion Staining Techniques and is covered by our UKAS accreditation. Detailed Gravimetric Quantification and PCOM Fibre Analysis is carried out in accordance with our documented in-house methods PM042 and TM131 and HSG 248 using Stereo and Polarised Light Microscopy and Phase Contrast Optical Microscopy (PCOM). Asbestos sub-samples are retained for not less than 6 months from the date of analysis unless specifically requested.

The LOQ of the Asbestos Quantification is 0.001% dry fibre of dry mass of sample.

Where the sample is not taken by a Element Materials Technology consultant, Element Materials Technology cannot be responsible for inaccurate or unrepresentative sampling.

Where trace asbestos is reported the amount of asbestos will be <0.1%.

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analyst Name	Date Of Analysis	Analysis	Result
23/10769	1	BH8 T3	3.00-4.50	157	Matthew Turner	31/07/2023	**Total ACM Gravimetric Quantification (% Asb)**	<0.001 (mass %)
					Matthew Turner	31/07/2023	**Total Detailed Gravimetric Quantification (% Asb)**	<0.001 (mass %)
					Matthew Turner	31/07/2023	**Total Gravimetric Quantification (ACM + Detailed) (% Asb)**	<0.001 (mass %)

Client Name: SLR Consulting Ltd
Reference: 425.064852.00001
Location: Retford Circular Economy Project (RCEP)
Contact: Matt Logan

EMT Job No.	Batch	Sample ID	Depth	EMT Sample No.	Analysis	Reason
No deviating sample report results for job 23/10769						

Please note that only samples that are deviating are mentioned in this report. If no samples are listed it is because none were deviating.
Only analyses which are accredited are recorded as deviating if set criteria are not met.

NOTES TO ACCOMPANY ALL SCHEDULES AND REPORTS

EMT Job No.: 23/10769

SOILS and ASH

Please note we are only MCERTS accredited (UK soils only) for sand, loam and clay and any other matrix is outside our scope of accreditation.

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation has been performed on clay, sand and loam, only samples that are predominantly these matrices, or combinations of them will be within our MCERTS scope. If samples are not one of a combination of the above matrices they will not be marked as MCERTS accredited.

It is assumed that you have taken representative samples on site and require analysis on a representative subsample. Stones will generally be included unless we are requested to remove them.

All samples will be discarded one month after the date of reporting, unless we are instructed to the contrary. Asbestos samples are retained for 6 months.

If you have not already done so, please send us a purchase order if this is required by your company.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

All analysis is reported on a dry weight basis unless stated otherwise. Limits of detection for analyses carried out on as received samples are not moisture content corrected. Results are not surrogate corrected. Samples are dried at 35°C ±5°C unless otherwise stated. Moisture content for CEN Leachate tests are dried at 105°C ±5°C. Ash samples are dried at 37°C ±5°C.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

Where a CEN 10:1 ZERO Headspace VOC test has been carried out, a 10:1 ratio of water to wet (as received) soil has been used.

% Asbestos in Asbestos Containing Materials (ACMs) is determined by reference to HSG 264 The Survey Guide - Appendix 2 : ACMs in buildings listed in order of ease of fibre release.

Sufficient amount of sample must be received to carry out the testing specified. Where an insufficient amount of sample has been received the testing may not meet the requirements of our accredited methods, as such accreditation may be removed.

Negative Neutralization Potential (NP) values are obtained when the volume of NaOH (0.1N) titrated (pH 8.3) is greater than the volume of HCl (1N) to reduce the pH of the sample to 2.0 - 2.5. Any negative NP values are corrected to 0.

The calculation of Pyrite content assumes that all oxidisable sulphides present in the sample are pyrite. This may not be the case. The calculation may be an overesitimate when other sulphides such as Barite (Barium Sulphate) are present.

WATERS

Please note we are not a UK Drinking Water Inspectorate (DWI) Approved Laboratory .

ISO17025 accreditation applies to surface water and groundwater and usually one other matrix which is analysis specific, any other liquids are outside our scope of accreditation.

As surface waters require different sample preparation to groundwaters the laboratory must be informed of the water type when submitting samples.

Where Mineral Oil or Fats, Oils and Grease is quoted, this refers to Total Aliphatics C10-C40.

STACK EMISSIONS

Where an MCERTS report has been requested, you will be notified within 48 hours of any samples that have been identified as being outside our MCERTS scope. As validation for Dioxins and Furans and Dioxin like PCBs has been performed on XAD-2 Resin, only samples which use this resin will be within our MCERTS scope.

Where appropriate please make sure that our detection limits are suitable for your needs, if they are not, please notify us immediately.

DEVIATING SAMPLES

All samples should be submitted to the laboratory in suitable containers with sufficient ice packs to sustain an appropriate temperature for the requested analysis. The temperature of sample receipt is recorded on the confirmation schedules in order that the client can make an informed decision as to whether testing should still be undertaken.

SURROGATES

Surrogate compounds are added during the preparation process to monitor recovery of analytes. However low recovery in soils is often due to peat, clay or other organic rich matrices. For waters this can be due to oxidants, surfactants, organic rich sediments or remediation fluids. Acceptable limits for most organic methods are 70 - 130% and for VOCs are 50 - 150%. When surrogate recoveries are outside the performance criteria but the associated AQC passes this is assumed to be due to matrix effect. Results are not surrogate corrected.

DILUTIONS

A dilution suffix indicates a dilution has been performed and the reported result takes this into account. No further calculation is required.

BLANKS

Where analytes have been found in the blank, the sample will be treated in accordance with our laboratory procedure for dealing with contaminated blanks.

NOTE

Data is only reported if the laboratory is confident that the data is a true reflection of the samples analysed. Data is only reported as accredited when all the requirements of our Quality System have been met. In certain circumstances where all the requirements of the Quality System have not been met, for instance if the associated AQC has failed, the reason is fully investigated and documented. The sample data is then evaluated alongside the other quality control checks performed during analysis to determine its suitability. Following this evaluation, provided the sample results have not been effected, the data is reported but accreditation is removed. It is a requirement of our Accreditation Body for data not reported as accredited to be considered indicative only, but this does not mean the data is not valid.
Where possible, and if requested, samples will be re-extracted and a revised report issued with accredited results. Please do not hesitate to contact the laboratory if further details are required of the circumstances which have led to the removal of accreditation.
Laboratory records are kept for a period of no less than 6 years.

REPORTS FROM THE SOUTH AFRICA LABORATORY

Any method number not prefixed with SA has been undertaken in our UK laboratory unless reported as subcontracted.

Measurement Uncertainty

Measurement uncertainty defines the range of values that could reasonably be attributed to the measured quantity. This range of values has not been included within the reported results. Uncertainty expressed as a percentage can be provided upon request.

Customer Provided Information

Sample ID and depth is information provided by the customer.

ABBREVIATIONS and ACRONYMS USED

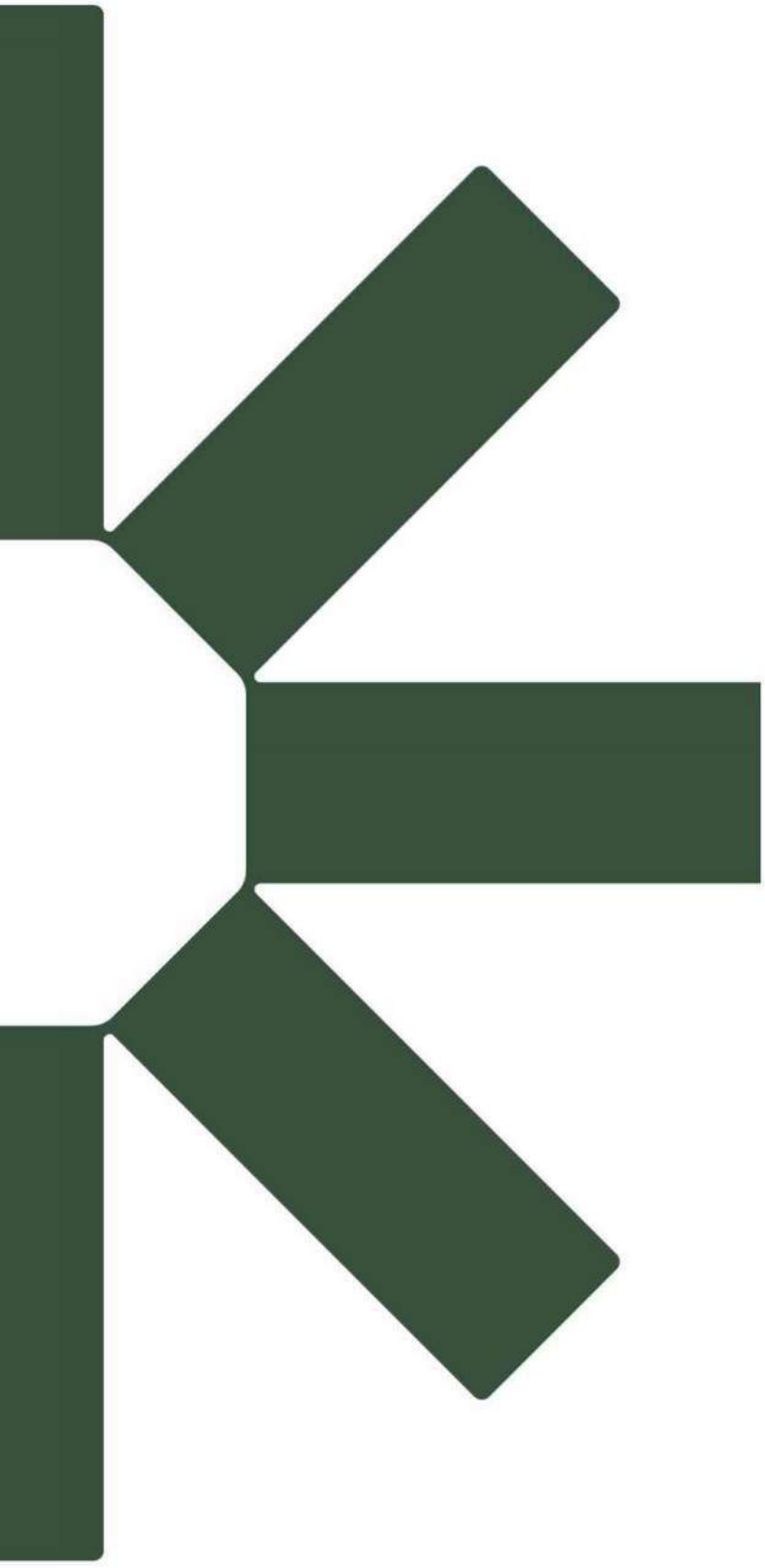
#	ISO17025 (UKAS Ref No. 4225) accredited - UK.
SA	ISO17025 (SANAS Ref No.T0729) accredited - South Africa
B	Indicates analyte found in associated method blank.
DR	Dilution required.
M	MCERTS accredited.
NA	Not applicable
NAD	No Asbestos Detected.
ND	None Detected (usually refers to VOC and/SVOC TICs).
NDP	No Determination Possible
SS	Calibrated against a single substance
SV	Surrogate recovery outside performance criteria. This may be due to a matrix effect.
W	Results expressed on as received basis.
+	AQC failure, accreditation has been removed from this result, if appropriate, see 'Note' on previous page.
>>	Results above quantitative calibration range. The result should be considered the minimum value and is indicative only. The actual result could be significantly higher.
*	Analysis subcontracted to an Element Materials Technology approved laboratory.
AD	Samples are dried at 35°C ±5°C
CO	Suspected carry over
LOD/LOR	Limit of Detection (Limit of Reporting) in line with ISO 17025 and MCERTS
ME	Matrix Effect
NFD	No Fibres Detected
BS	AQC Sample
LB	Blank Sample
N	Client Sample
TB	Trip Blank Sample
OC	Outside Calibration Range

HWOL ACRONYMS AND OPERATORS USED

HS	Headspace Analysis.
EH	Extractable Hydrocarbons - i.e. everything extracted by the solvent.
CU	Clean-up - e.g. by florisil, silica gel.
1D	GC - Single coil gas chromatography.
Total	Aliphatics & Aromatics.
AL	Aliphatics only.
AR	Aromatics only.
2D	GC-GC - Double coil gas chromatography.
#1	EH_Total but with humics mathematically subtracted
#2	EU_Total but with fatty acids mathematically subtracted
_	Operator - underscore to separate acronyms (exception for +).
+	Operator to indicate cumulative e.g. EH+HS_Total or EH_CU+HS_Total
MS	Mass Spectrometry.

EMT Job No: 23/10769

Test Method No.	Description	Prep Method No. (if appropriate)	Description	ISO 17025 (UKAS/SANAS)	MCERTS (UK soils only)	Analysis done on As Received (AR) or Dried (AD)	Reported on dry weight basis
TM131	Quantification of Asbestos Fibres and ACM based on HSG 248 Second edition:2021, HSG 264 Second edition:2012, HSE Contract Research Report No.83/1996, MDHS 87:1998, WM3 1st Edition v1.1:2018	PM42	Modified SCA Blue Book V.12 draft 2017 and WM3 1st Edition v1.1:2018. Solid samples undergo a thorough visual inspection for asbestos fibres prior to asbestos identification using TM065.	Yes		AR	Yes



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